

## "There are two things that interest me: the relation of people to each other, and the relation of people to land." — Aldo Leopold

"No matter how intently one studies the hundred little dramas of the woods and meadows, one can never learn all the salient facts about any one of them." — Aldo Leopold

## 2017 Indiana White-tailed Deer Report

Overview

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## Federal Aid in Wildlife Restoration Program

This program supports state fish and wildlife agencies to conserve, protect, and enhance fish, wildlife, their habitats, and the hunting, sport fishing and recreational boating opportunities they provide. This program was initiated in 1937 as the Federal Aid in Wildlife Act and created a system where by taxes are paid on firearms, ammunition and archery equipment by the public who hunts. Today this excise tax generates over a hundred million dollars each year that are dedicated to state wildlife restoration and management projects across the United States.

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## **OVERVIEW**

The 2017 Indiana White-tailed Deer Report is a comprehensive report of the state's deer herd including the deer hunting season results, use of depredation permits, deer-vehicle collision reports, disease monitoring efforts, and survey results.

Indiana Department of Natural Resources (IDNR) reviewed the 5-year Deer Management plan in early 2017. Indiana's deer management strategy was changed from the goal of general deer reduction to a strategically-targeted plan to balance ecological, recreational, and economic needs of the citizens of Indiana. More details about the review process, evaluation of the success of the previous plan, and the goals of the new 5-year management plan are included in this Indiana White-tailed Deer Report.

The 2017 deer hunting season was composed of four state-wide seasons: Youth (Sept. 23-24), Archery (Oct. 1 to Jan. 7), Firearms (Nov. 18 to Dec. 3), and Muzzle-loader (Dec. 9-24). Licensed youth age 17 or younger were eligible to participate in a youth-only season if accompanied by an adult at least 18 years old. Youth could take multiple deer (one antlered deer and the number

of bonus antlerless deer per county quota) during this special season for the fifth consecutive year. In addition to the four statewide seasons, a Special Antlerless Firearms season was available from Dec. 26 to Jan 7 in 51 counties, with additional date restrictions for counties with "A" designated quotas.

The statewide archery bag limit was two deer. Hunters could take one deer per license for a total of either two antlerless or one antlered and one antlerless deer. A hunter could take only one antlered deer during all statewide seasons combined (Archery, Firearms, Muzzleloader, and Youth seasons). Hunters were allowed to use crossbows throughout the entire archery season for the sixth year when in possession of a crossbow license. Any deer taken with a crossbow counted towards the hunter's archery bag limit of two deer.

Hunters could harvest additional deer beyond the statewide bag limits in designated Deer Reduction Zones. Beginning with an antlerless deer, hunters were allowed to harvest up to ten additional deer under the Deer Reduction Zone bag limit, for a total of either ten antlerless or one antlered ("earn-a-buck") and nine antlerless deer. Harvest of these additional deer required the possession of a Deer Reduction Zone license for each deer harvested. An antlered deer harvested under the Deer Reduction Zone license did not count toward a hunter's statewide bag limit of one antlered deer. However, deer harvested in designated Deer Reduction Zones with other license types (e.g. archery, bonus antlerless, and license bundle) counted toward statewide bag limits. The Deer Reduction Zone season opened September 15, two weeks prior to the beginning of Archery season and continued through January 31.

The bag limit during Firearms season was one antlered deer. The bag limit for Muzzleloader season was one deer of either sex (antlered deer were only allowed for hunters who had yet to satisfy their one antlered bag limit across all statewide seasons). A single firearms license was required to hunt with any combination of shotgun, muzzleloader, rifle, or handgun during Firearms season. For the second year in a row, hunters could use high-powered rifles as an equipment option during Firearms season. A muzzleloader license (separate from the firearms license) was required to hunt during Muzzleloader season.

Most resident deer licenses could be purchased for \$24, and nonresident licenses for \$150. A deer license bundle was available for purchase at \$65 for residents and \$295 for nonresidents. The deer license bundle, which is valid in all deer seasons except in the Deer Reduction Zone season, allowed hunters the opportunity to take up to three deer while attempting to satisfy statewide bag limits for Archery, Firearms, Muzzleloader, and Special Antlerless Firearm seasons. The three deer could be either two antlerless and one antlered, or three antlerless deer. Resident landowners and lessees who owned and worked Indiana farmland were exempt from possessing deer licenses when hunting on that land. Hunters were required to register all harvested deer through the online CheckIN Game system within 48 hours of the kill.

There were multiple reserve draw hunts open to hunters with a valid deer hunting license. The reserve draw locations change annually and included the following partial list of locations in 2017: Muscatatuck and Big Oaks National Wildlife Refuges and Camp Atterbury Joint Maneuver Training Center. For a complete list of reserve draw deer hunts, please visit the IDNR website at http://www.IN.gov/dnr/fishwild/5834.htm.

Deer control permits were issued to Indiana residents experiencing an economic loss of \$500 or more as a result of property damage caused by deer or where there was an identified disease risk to humans or domestic livestock. Each deer control permit specified the number of deer a landowner was authorized to take under the permit. Permits were only valid on the permit holder's property, and the permit holder was allowed to designate assistants to remove deer in place of himself. Control permits for deer are typically only issued outside of the deer hunting season.

Vehicle collisions involving deer that resulted in property damage of \$750 or more or injury to any person were reported to the Indiana State Police and Indiana Department of Transportation by local and state law enforcement agencies. Information collected included location of collision (e.g., county, coordinates, intersection, etc.) and

road type (e.g., county road, state road, interstate, etc.). The number of deer-vehicle collisions and the number of deer taken with depredation permits are factors that influence the bonus antlerless quotas set for the hunting season. Numerous deer-vehicle collisions and abundant damage due to deer in a county may indicate too many deer. Thus, the bonus antlerless quotas may be adjusted to minimize the impacts deer have on roadways and properties.

Surveys of hunters, landowners, and the public are tools IDNR uses to manage the state's deer herd. Previous to 2017, paper surveys were mailed to a subset of Indiana hunters and landowners every 3 or 4 years asking questions about harvest, deer damage, and opinions of the size and management of deer in Indiana. In 2017, a new online survey was developed for hunters to complete immediately after checking in their deer. This survey gathered specific information about the deer that was harvested (sex, age, approximate size, etc.) and the hunting experience associated with that deer (number of does or bucks seen and happiness with the hunt). Indiana DNR is currently developing additional electronic surveys that will allow more hunters, landowners, and the public to voice their opinions about deer management in Indiana.

Indiana DNR continually monitors disease threats to the state's deer herd. Epizootic hemorrhagic disease (EHD), chronic wasting disease (CWD), and bovine tuberculosis (bTB) are of most concern. No cases of EHD or CWD were confirmed in Indiana in 2017. However, several suspected cases off EHD were reported. As a result of one wild white-tailed deer testing positive for bovine tuberculosis in 2016, intensified bovine tuberculosis surveillance efforts continued during the 2017 hunting season in a localized area in southern Fayette and northwestern Franklin counties. A total of 533 samples were collected from deer harvested in the surveillance zone, and all tested negative for bovine tuberculosis.

# CHANGES TO INDIANA DEER MANAGEMENT

## Indiana Deer Management Goals: 2017-2022

In May 2017, the Indiana DNR, Division of Fish and Wildlife (DFW) hosted a meeting for representatives of Indiana white-tailed deer stakeholder groups that have an interest in statewide deer management. The purpose of the meeting was to review the previous five-year deer management goal adopted in 2012 and, if needed, discuss a new management goal for the next five years. Invited stakeholder groups represented farmland owners, forest owners, wildlife and other natural resources, state parks, cities and municipalities, Indiana hunters, and the hunting industry. Stakeholder groups with representatives in attendance were Indiana Farm Bureau, Indiana Bowhunters Association, Indiana Deer Hunters Association, Indiana Sportsmen's Roundtable, Indiana Whitetail Deer Herd Management Group, Indiana Forest and Woodland Owner's Association, Indiana Parks and Recreation Association, Indiana Wildlife Federation, The Nature Conservancy, and Purdue Cooperative Extension. The Department of Natural Resource was represented by both IDNR Law Enforcement and DFW biologists and administrators.

DFW Director, Mark Reiter, began with a description of the previous 5-year deer management goal, which was to "focus deer herd reduction in a strategically-targeted manner to more adequately balance ecological, recreational, and economic needs of the citizens of Indiana." At the time of the 2012 stakeholder review, increasing deer-related crop damage and deer-vehicle collisions had created an environment that could potentially threaten IDNR's statutory ability to manage Indiana's deer herd. The plan included extended and additional hunting seasons, increased harvest limits, promotion of venison donation programs, increased hunter access, additional equipment types, and the creation of the license bundle. Metrics to evaluate the effectiveness of resulting changes on the deer population were included with the intent of reviewing the 5-year management goal in 2017. Metrics that would indicate reductions had been successful included:

- 1) An annual harvest that is at least 60% antlerless in each county
  - 2) A reduction in county antlerless quotas over time
- 3) Responses from landowner and deer hunter surveys that indicate a reduction in the deer population
  - 4) A reduction in deer-vehicle collision (DVC) rates

At the stakeholder meeting, DFW Deer Research Biologist, Dr. Joe Caudell, discussed the effectiveness of this deer management plan on the previous 5-year management goal using the metrics determined in 2012. If the objectives of the plan were met, data analyses would demonstrate a 60% doe harvest was achieved for each county, results of surveys would show that landowners expressed interest in increased deer populations and deer hunters were increasingly dissatisfied with deer management, reports of deer-vehicle collisions (DVC) would be reduced, and bonus antlerless quotas would be lowered in many counties over the course of the 5-year period. Other measures such as the number of deer taken by individual hunters, trends in deer damage complaints, satisfaction with the late antlerless season, and harvest per unit effort were also analyzed and considered as measures of success.

## Maintaining an annual deer harvest sex ratio of 60:40 F:M

To reduce the deer herd at the county level, a target doe harvest of at least 60% was established for each county. A decrease in the percent of female-to-male (F:M) deer harvest (i.e., less than 60% after a period of greater than 60%) was considered to be an indicator of a reduction in the doe population, which would lead to a decline in the overall deer population. High county bonus antlerless quotas and the Special Antlerless Firearms season were tools to provide opportunities to increase doe harvest in the county. Over time, as doe numbers decreased from increased harvest, the female harvest ratio should subsequently decrease. This was measured by monitoring the F:M harvest ratio for each county (see

the County Deer Data section for more than 10 years of percent antlerless harvest data for each county). However, the results were inconclusive, primarily because deer populations in counties or groups of counties did not necessarily respond to a 60:40 F:M harvest ratio in the same fashion. A county with excellent deer habitat, a large deer herd, or an excessively high doe:buck ratio (i.e., skewed toward many does per buck) could sustain greater than a 60% doe harvest for a long period of time

if the total number of deer harvested did not increase proportionally at the same time. Other counties, such as those in northwestern Indiana, might never reach the goal of a 60% doe harvest but would still experience a decline in the deer population. If this measure were to be used in the future, harvest ratios would need to be developed for each county, or for groups of counties, that have similar habitat types, deer usage patterns, and hunting pressure.

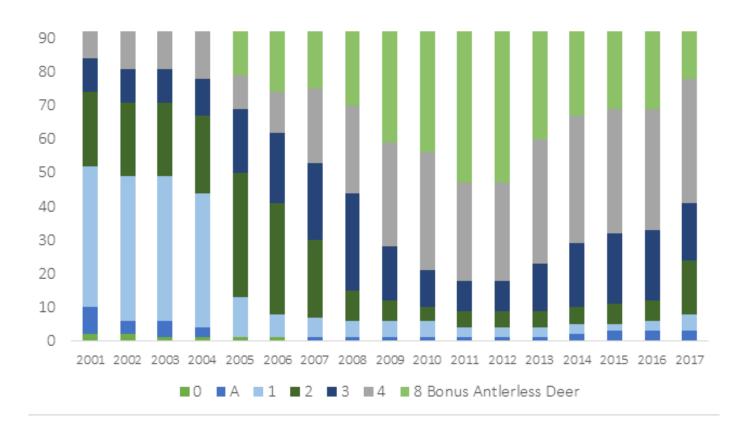


Figure 1. Number of counties by bonus antlerless quotas in Indiana, 2001 - 2017.

#### Reductions in county antlerless quotas

Similarly, if the strategies to reduce the deer population were successful, then managers should subsequently need to reduce the number of counties with a bonus antlerless quota of 8. During the 5-year period, there was a significant reduction in the number of does that could be harvested in each county. The number of counties with an antlerless quota of 8 dropped from a high of 45 counties in 2011 and 2012 to 23 counties in 2016 (Figure 1). The 2017 meeting to determine county bonus antlerless quotas was held soon after the stakeholder meeting, during which the number of counties with a quota of 8 was further decreased to 14 counties, a reduction of 31 counties from when the goal was established.

The bonus antlerless quotas are adjusted based on several factors, such as changes in the number of DVCs, hunter and landowner attitudes, public comments, and deer harvest. Therefore, decreases in bonus antlerless quotas represent a response variable to the other metrics examined rather than an independent measure of declining deer populations. An important confounding factor in this interpretation was, that in most cases, these quotas far exceeded the number of deer desired and harvested by hunters. Although only a small number of hunters would desire to take more deer, only about 1% of hunters statewide took more than four deer with the vast majority taking only one (72%) or two (19%) deer. Harvest per hunter is reported later in this Report and by county in the County Deer Data section.

## Monitoring landowner and deer hunter survey responses

Part of measuring the effectiveness of the 2012-2017 deer management goal was to survey hunters and farming landowners on topics for which responses serve as indices of the deer population. A combination of four factors were examined simultaneously: 1) farming landowner satisfaction with the apparent deer population size, 2) hunter satisfaction with deer management, 3) hunter belief in the direction of the size of the deer population, and 4) number of DVCs. Based on these factors, an increasing desire by farming landowners to see more deer, a decline in hunter satisfaction, an increasing belief by hunters that deer populations were smaller, and a

decreasing number of deer-vehicle collisions might be indicative of a small or decreasing deer population. When the 5-year goal was evaluated in 2017, damage reported by landowners and the number of landowners desiring to see less deer declined from 2012 in many counties. At the same time, there was greater hunter dissatisfaction with statewide deer management and an increase in hunter opinion that there were less deer. Specific survey results are presented in the Sociological Survey Results section along with possible reasons why such contradictory results may occur. Each individual measure used for this analysis is in the County Deer Data section by county.

Additional factors were also considered and measured in surveys such as opinions and use of a new hunting license and equipment type that were initiated as part of the 2012-2017 management goal (i.e., bundle license and the use of crossbows), awareness and use of deer donation programs, and the use of the Late Antlerless Firearm season. IDNR also looked at changes in harvest by individual hunters. The results of many of these surveys and measurements can be found throughout the 2017-2018 Indiana White-tailed Deer Report. County level data for various measures are published in the County Deer Data section.

#### A reduction in deer-vehicle collision rates

Deer-vehicle collision records are maintained by the Indiana Department of Transportation (INDOT) and reported by local police and sheriff departments and the Indiana State Police. Although inconsistencies exist in data collection and in factors that affect the frequency of collisions with deer, DVCs are an independent measure that may be an indicator, in part, of trends in deer populations. Collisions are examined on a county basis and are standardized by the number of miles driven in a given county, which can affect this metric if the number of miles changes substantially, such as when a new interstate section opens. Additional research is needed to determine if changes in DVCs align with other deer population indices. Although DVCs declined after highs in 2007 and 2009, the apparent decline during 2012-2017 was not statistically significant (Figure 2).

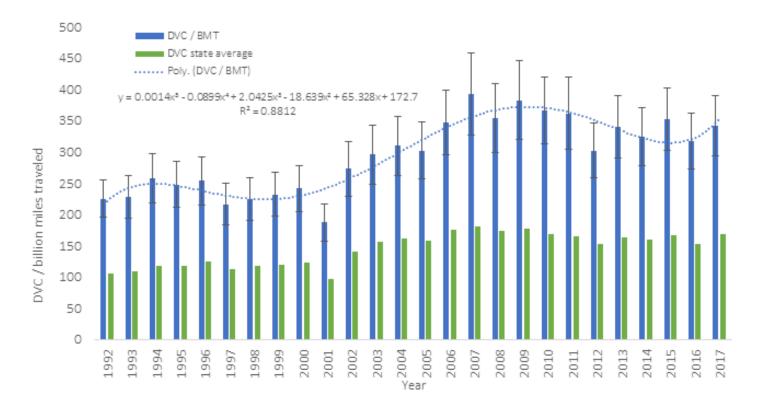


Figure 2. Deer-vehicle collisions (DVCs) and DVCs per billion miles traveled (DVC/bmt) averaged by county in Indiana, 1992 - 2017.

#### **Evaluation Summary**

When all metrics were considered, it appeared the deer population had been reduced in many counties, but the magnitude of the decline was uncertain. In some counties, there appeared to be only a minor reduction to the population or none at all. When more measures and response variables were selected, confounding factors emerged that made definitive analysis of the data and determining the size of the deer herd problematic.

## 2017-2022 Deer Management Goal

As a result of these analyses, IDNR recommended a new 5-year management goal to "focus deer herd management in a strategically-targeted manner to more adequately balance ecological, recreational, and economic needs of the citizens of Indiana." This would allow IDNR the ability to examine each county or similar areas

independently to determine the desired direction of the deer herd size.

With this goal in mind, IDNR will seek to develop indices that are more sensitive to change in the deer population, obtain data on the opinions of more groups that have an interest in deer management, and develop an objective model to set harvest quotas. Specifically, IDNR will work to better incorporate the desires of all Indiana residents by expanding surveys beyond farming landowners and hunters. All stakeholders present in May 2017 agreed to the adoption of this plan.

Since the conclusion of this meeting, IDNR began working with faculty at Purdue University to identify deer population indices that could be applied on larger scales throughout Indiana to better monitor trends in deer populations in a cost-effective manner. These indices must also provide an accurate representation of the population for the given cost. In addition to measuring the biological

aspects of the deer population, the comprehensive research effort will also examine sociological factors, such as if/how stakeholder opinions change relative to known deer density and ecological factors such as habitat quality response to density. The goal of this collaboration is to develop an integrated model that will incorporate the biological, ecological, and sociological factors to improve Indiana's deer management program.

As part of the newly adopted 5-year (2017-2022) plan, IDNR will meet with representatives from stakeholder groups and citizens in 2022 to review the effectiveness of the current deer management plan and to make recommendations for changes, if needed.

## **Deer Management Survey**

The Deer Research Program has developed an on-line survey capability using Qualtrics, a company that provides survey tools to researchers worldwide, which will allow the IDNR to survey all hunters with internet access on a frequent basis. Indiana DNR has been incorporating opinions of hunters and landowners into management decisions since the early 1990s. However, in past years only a random selection of hunters and landowners could be surveyed because of the high cost and logistics of conducting paper surveys. Many hunters complained they had never received a survey and felt their opinion was not being heard. With this new capability, hunters with an account with IDNR can provide input on a regular basis. Hunters who purchase licenses will receive an invitation to complete surveys in their email. However, hunters who use a landowner exemption or have a lifetime license should make a special effort to create an on-line account with the IDNR to ensure they receive surveys that will be sent out. A selection of the statewide results of the 2018 Deer Management Survey are presented in the Sociological Survey Results section, and county-level details are found in the County Deer Data section when appropriate.

Any Indiana residents or hunters hunting on various exemptions who would like to receive a survey should visit the Indiana Fish and Wildlife Online Services page at https://secure.IN.gov/apps/dnr/portal/#/home and ensure their contact information is correct, including email address, or open an account if one does not already exist.

As a result of these analyses, IDNR recommended a new 5-year management goal to "focus deer herd management in a strategically-targeted manner to more adequately balance ecological, recreational, and economic needs of the citizens of Indiana."

### **After Hunt Survey**

A new survey, the After Hunt Survey, was tested during the 2017-2018 hunting season to collect both biological data about deer and sociological data about deer hunters. Hunters fill out the survey immediately after harvesting and checking in their deer. Hunters provide information about the number of deer observed, how many deer were observed but not shot, and their opinion about the number and quality of deer observed. Hunters provide specific information about their deer including the location where it was harvested, age, lactation, and antler characteristics, as well as opinion data about the hunting experience. The goal is to have 50-100 hunters fill out this survey for each county (depending upon the level of harvest in that county) to ensure that data is representative for each county. There is no maximum number of hunters who can participate in each county. More hunters participating in the survey will ensure the data collected for the county is representative of the deer population. For counties that achieve the minimum number of survey responses, results will be reported each year on a county-by-county basis.

The After Hunt Survey data is valuable because important biological data on the deer harvest was lost when Indiana moved to the electronic CheckIN Game system. While the CheckIN Game system has made checking in Indiana's deer more convenient, it has made collecting biological data more difficult. To recapture the data that used to be collected by biologists at physical check stations, IDNR is looking to Indiana's hunters to assist in collecting this information. This partnership between IDNR and Indiana's hunters will be beneficial because it will provide IDNR with large amounts of data to more accurately manage the deer herd, and it will help hunters better understand the deer herd where they hunt.

## 2017-2018 DEER HUNTING SEASON

## **Error in Reporting**

The on-line check in system, CheckIN Game, was initiated in 2012 as an option for hunters and was made the primary game checking system in 2015. Hunters who check in their game on-line occasionally make errors in reporting their harvest. Errors include checking in deer with the wrong sex indicated, incorrect licenses, or multiple entries of the same deer. Indiana DNR is constantly working throughout the deer season to correct these errors so that harvest numbers are as accurate as possible. In many cases, this involves contacting hunters by telephone or email to determine what type of error has been made before a correction can be issued. For this reason, the data in this document should be considered to have a certain amount of reporting error. Hunters or others who use this data should expect that the numbers

reported in future Indiana White-tailed Deer Reports may change slightly based on corrections of errors. This is also true for the Deer Counter on the IDNR Deer webpage (Deer.dnr.IN.gov). Some hunters have observed the reported total harvest decreasing as the corrections to the data were made and have contacted the IDNR to inquire as to why this was happening. Harvest totals for the 2017 deer hunting season are current as of March 8, 2018.

Two error rates were calculated for this issue: an unreconciled error rate and a total error rate which includes both reconciled errors and unreconciled errors (Table 1). Typically, the numbers reported in this document will only fluctuate by the unreconciled error rate as the reconciled errors have already been voided and are not included in the data. However, occasionally a statistic might have been calculated without removing the voided transactions. Because error rates are relatively low, they have no effect on management decisions.

Table 1. Error rates of hunter reported deer harvests for the 2015, 2016, and 2017 hunting seasons.

	2015-2016	2016-2017	2017-2018
% total error	0.95%	0.73%	1.44%
% unreconciled error	0.30%	0.38%	0.48%

## Harvest by Season

Harvest summary reports prior to 2016 did not include harvest numbers from Indiana State Park Reduction Hunts because those deer were checked in at the properties and reported separately by the Division of State Parks and Reservoirs. Now that the deer check-in process is online for all hunters and hunts, deer harvested during State Park Reduction Hunts are included in the check-in database and can be reported with the statewide totals.

Shed bucks are checked in as antlerless deer in the CheckIN Game system and do not count against a hunter's buck limit. However, for the purpose of analyzing the harvest data, antlered bucks and shed bucks are grouped as antlered deer while does and button bucks are grouped as antlerless deer, unless specified.

A total of 113,595 harvested deer were reported in Indiana during the 2017 season (Figures 3 and 4). This harvest was 5% lower than the 119,477 deer taken during the 2016 season. The antlered deer harvest of 45,095 was 12% lower than the 51,533 reported in 2016. The antlerless harvest of 68,500 was consistent (0.8% higher) with the 67,944 harvested in 2016. In 2017, the reported harvest for total deer ranks 16th all-time, while the total antlerless deer harvest ranks as the 14th highest all-time in Indiana history. The antlered harvest ranks 21st highest since reporting began in 1951. Approximately 3.77 million deer have been reported harvested during the past 65 deer hunting seasons in Indiana.

Only 3,191 (3%) deer were checked in via phone. The phone call-in system cost users \$3 per reported deer.

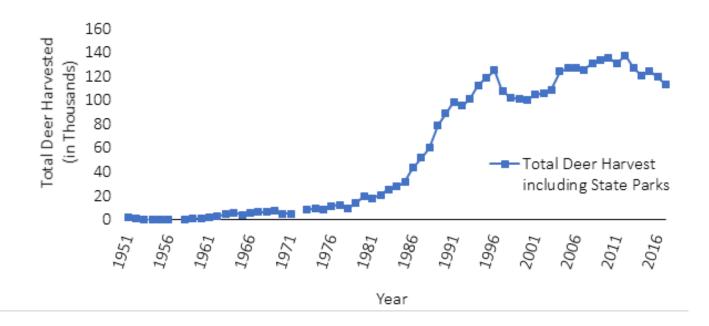


Figure 3. The total number of deer harvested in each Indiana deer season 1951-2017. Totals include deer harvested in State Park Reduction Hunts 1993-2017. Reporting error rates:  $\pm 1.44\%$  (2017),  $\pm 0.73\%$  (2016), and  $\pm 0.95\%$  (2015).

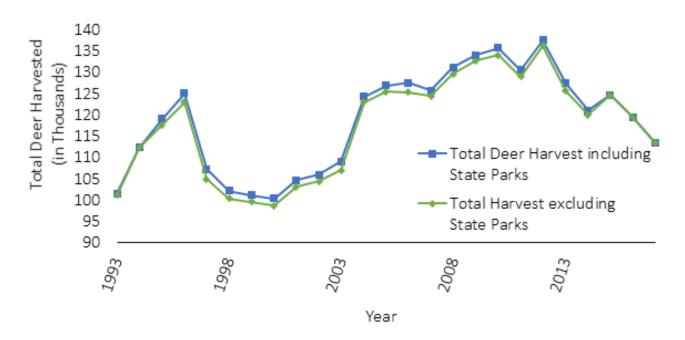


Figure 4. A comparison of the total number of deer harvested in each Indiana deer season including and excluding deer harvested during State Park Reduction Hunts 1993-2017. Reporting error rates: ±1.44% (2017), ±0.73% (2016), and ±0.95% (2015).

#### Youth

The hunting season began with the Deer Reduction Zone on September 15 followed by a youth-only weekend (Sept. 23-24). The number of deer harvested with archery equipment during the Deer Reduction Zone season were incorporated into the Archery season totals, while deer harvested with firearms during the Deer Reduction Zone season were incorporated into the Firearms season totals. The Youth season was created in 2006 and allowed youth 15 years and younger to harvest one antlerless deer. It was changed in 2009 to include all youth 17 years and younger. This was the eighth year youth could harvest an antlered deer and the sixth year they could harvest more than one deer during the Youth season. A total of 1,463 deer were reportedly harvested in 2017 during this season, a decrease of 7% from the 1,580 deer harvested in 2016. This season resulted in 1% of the total harvest (Table 2). Antlered bucks made up 32% of the harvest, while 10% was composed of button bucks (Figure 5).

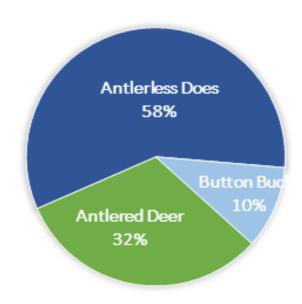


Figure 5. 2017 Youth season harvest composition. Reporting error rate  $\pm 1.44\%$ .

Table 2. Number of deer harvested per season during the 2017 Indiana deer hunting season. Values in parentheses represent percent of total harvest for each season. Values may not total 100 due to rounding. Reporting error rate  $\pm 1.44\%$ .

Season (Dates)	Number of deer harvested (% of total harvest)					
	Antlered <sup>#</sup>	Antlerless##				
Youth Deer*(23 – 24 Sept)	465 (0.4%)	998 (0.9%)	1,463 (1%)			
Archery* (1 Oct – 7 Jan)	12,842 (11%)	18,900 (17%)	31,742 (28%)			
Firearms* (18 Nov - 3 Dec)	29,373 (26%)	37,865 (33%)	67,238 (59%)			
Muzzleloader (9 – 24 Dec)	2,383 (2%)	6,487 (6%)	8,870 (4%)			
Special Antlerless Firearms**	32 (0.03%)	4,250 (4%)	4,282 (8%)			
(26 Dec – 7 Jan)						
Totals	45,095 (40%)	68,500 (60%)	113,595			
*Includes Deer Reduction Zone harvest	**In 51 counties	#Includes shed buck harvest				

##Includes button buck harvest

There were 31,742 deer harvested during Archery season, which represented 28% of the overall harvest and was 13% more than the 28,178 deer harvested in 2016 (Table 2). Antlerless deer (n=18,900) made up 60% of the total Archery season harvest (Figure 6).

**Archery** 

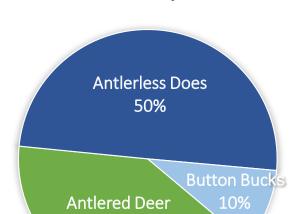
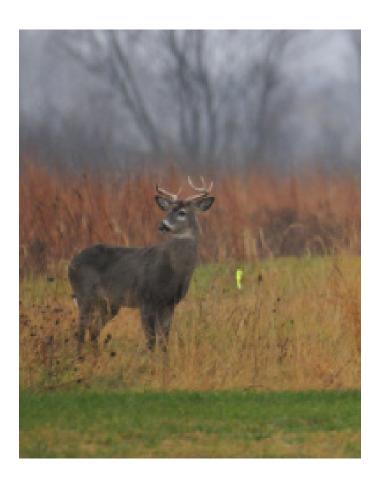


Figure 6. 2017 Archery season harvest composition. Reporting error rate ±1.44%.

40%

The Firearms season harvest (including the firearms harvest from the Deer Reduction Zone season) decreased by 13% from the 77,527 deer harvested in 2016 and represented 60% of the total harvest (Table 2). The antlerless harvest of 37.865 deer was 4% less than the 2016 antlerless harvest of 39,394. The antlered harvest of 29,373 was 23% less than the number of antlered deer harvested in 2016 (38,133). The percentage of the antlered harvest exceeded the antlerless harvest on only the first two days of the season. The antlerless deer harvest outnumbered antlered deer during the other 14 days of the season (Table 3). Opening weekend contributed 18% of the statewide total harvest for all 2017 seasons which is 44% less than in 2016. Poor weather conditions on opening day resulted in 71% fewer deer harvested than on opening day in 2016 (n=25,231). However, the number of deer harvested on the first Sunday was comparable to 2016 (n=12,733). Antlerless deer accounted for 56% (45% were does) of the total Firearms season harvest. (Figure 7).



#### **Firearms**

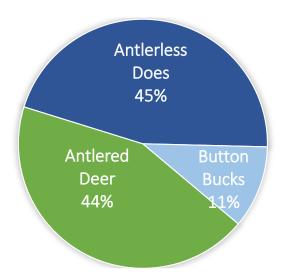


Figure 7. 2017 Firearm season harvest composition. Reporting error rate ±1.44%.

Table 3. Number of deer harvested on each day of the 2017 Indiana Firearms season (includes deer taken by bow, crossbow, shotgun, handgun, rifle, and muzzleloader). Values may not total 100 due to rounding. Reporting error rate ±1.44%.

Date	Day	Ant	Antlered Antlerless Total		Total		
		n	Daily %	n	Daily %	n	Total %
18 November	Sat	4,347	59.3%	2,979	40.7%	7,326	11.0%
19 November	Sun	6,881	54.1%	5,828	45.9%	12,709	19.2%
20 November	Mon	2,499	46.0%	2,928	54.0%	5,427	8.2%
21 November	Tue	1,716	47.8%	1,877	52.2%	3,593	5.4%
22 November	Wed	1,952	44.3%	2,453	55.7%	4,405	6.6%
23 November	Thu	2,086	42.7%	2,794	57.3%	4,880	7.4%
24 November	Fri	2,129	38.6%	3,383	61.4%	5,512	8.3%
25 November	Sat	1,847	37.9%	3,020	62.1%	4,867	7.3%
26 November	Sun	1,425	35.5%	2,589	64.5%	4,014	6.1%
27 November	Mon	441	31.4%	962	68.6%	1,403	2.1%
28 November	Tue	332	33.9%	647	66.1%	979	1.5%
29 November	Wed	356	35.5%	647	64.5%	1,003	1.5%
30 November	Thu	296	33.2%	595	66.8%	891	1.3%
1 December	Fri	468	29.4%	1,122	70.6%	1,590	2.4%
2 December	Sat	1,181	29.3%	2,852	70.7%	4,033	6.1%
3 December	Sun	1,049	28.5%	2,631	71.5%	3,680	5.5%
Total		29,005		37,307		66,312	58% of total 2017 harvest (113,595)

At 8,870 deer, the Muzzleloader season harvest accounted for 8% of the total 2017 harvest, an 11% increase from the Muzzleloader season harvest of 2016 (n=7,990). In 2017 the proportion of antlered versus antlerless deer remained the same as 2016. As in years past, a large percentage of the deer harvested during the Muzzleloader season were antlerless (73%, Figure 8)

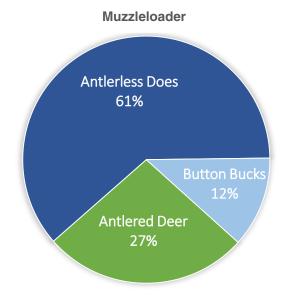
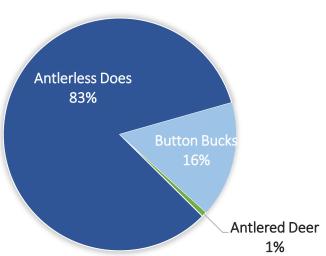


Figure 8. 2017 Muzzleloader season harvest composition. Reporting error rate  $\pm 1.44\%$ .

#### Special antlerless



The Special Antlerless Firearms season was available for the sixth year in counties with a bonus antlerless county designation of four or more. A total of 51 counties met this criterion in 2017; nine counties were removed from the season while one county was added to the season. Fifty-nine counties participated in 2016. The reported harvest during this season was 4,282, with 99% of the harvest reported as does (Figure 9). Just under 1% of the antlerless harvest was reported as adult males who had already shed their antlers.

Figure 9. 2017 Special Antlerless Firearms season harvest composition. Reporting error rate ±1.44%.

## **Harvest by County**

The number of deer harvested in individual counties ranged from 77 in Tipton County to 3,058 in Harrison County (Table 4). Harvest exceeded 1,000 deer in 51 counties and 2,000 deer in 13 counties. Harrison County was the only county with a harvest greater than 3,000 deer. The antlered buck harvest exceeded 1,000 in 2 counties (Harrison and Washington; down from 10 counties in 2016), while the antlerless harvest exceeded 1,000 deer in 29 counties compared with 26 the previous year. Antlerless deer accounted for at least 50% of the total harvest in 90 of the state's 92 counties in 2017. The 10 counties with the highest harvests were, in descending order, Harrison, Lawrence, Washington, Franklin, Greene, Dearborn, Crawford, Nobel, Steuben, and Switzerland. The 10 counties with the lowest harvests, beginning with the lowest, were Tipton, Benton, Hancock, Clinton, Howard, Blackford, Boone, Rush, Hamilton, and Wells.



Table 4. Deer harvest by county during the 2017 Indiana Deer Hunting Season. Reporting error rate  $\pm 1.44\%$ .

County	Antlered	Antlerless	Total	County	Antlered	Antlerless	Total
Adams	209	310	519	Lawrence	981	1,584	2,565
Allen	638	957	1,595	Madison	187	307	494
Bartholomew	416	571	987	Marion	139	310	449
Benton	60	27	87	Marshall	656	954	1,610
Blackford	141	194	335	Martin	687	1,089	1,776
Boone	170	201	371	Miami	421	560	981
Brown	503	952	1,455	Monroe	618	1,058	1,676
Carroll	301	389	690	Montgomery	350	511	861
Cass	425	550	975	Morgan	500	718	1,218
Clark	714	1,103	1,817	Newton	323	425	748
Clay	488	708	1,196	Noble	846	1,393	2,239
Clinton	143	172	315	Ohio	324	409	733
Crawford	887	1,354	2,241	Orange	854	1,273	2,127
Daviess	403	554	957	Owen	742	1,060	1,802
Dearborn	866	1,435	2,301	Parke	883	1,271	2,154
Decatur	291	431	722	Perry	765	1,227	1,992
Dekalb	737	1,014	1,751	Pike	635	794	1,429
Delaware	281	477	758	Porter	424	821	1,245
Dubois	667	1,085	1,752	Posey	502	587	1,089
Elkhart	450	782	1,232	Pulaski	639	1,083	1,722
Fayette	328	575	903	Putnam	740	1,034	1,774
Floyd	305	496	801	Randolph	250	350	600
Fountain	436	612	1,048	Ripley	739	1,211	1,950
Franklin	924	1,577	2,501	Rush	162	217	379
Fulton	485	709	1,194	Scott	358	581	939
Gibson	514	741	1,255	Shelby	200	245	445
Grant	252	478	730	Spencer	522	725	1,247
Greene	965	1,518	2,483	St Joseph	413	755	1,168
Hamilton	151	260	411	Starke	496	883	1,379
Hancock	125	161	286	Steuben	950	1,288	2,238
Harrison	1,193	1,865	3,058	Sullivan	778	1,054	1,832
Hendricks	237	327	564	Switzerland	814	1,368	2,182
Henry	206	279	485	Tippecanoe	320	436	756
Howard	133	201	334	Tipton	48	29	77
Huntington	345	452	797	Union	227	392	619
Jackson	700	1,084	1,784	Vanderburgh	228	551	779
Jasper	466	690	1,156	Vermillion	488	601	1,089
Jay Jefferson	338 824	518 1,214	856 2,038	Vigo Wabash	677 482	921	1,598
	718	1,214	1,941	Warren	375	433	808
Jennings Johnson	229	390	619	Warrick	574	686	1,260
Knox	391	516	907	Washington	1,006	1,532	2,538
Kosciusko	752	1,218	1,970	Wayne	420	639	1,059
Lagrange	655	1,129	1,784	Wells	198	229	427
Lake	409	781	1,190	White	321	557	878
LaPorte	594	1,007	1,601	Whitley	368	451	819
Lai Vite	334	1,007	1,001	vviiitiey	300	401	019

## Harvest per Hunter

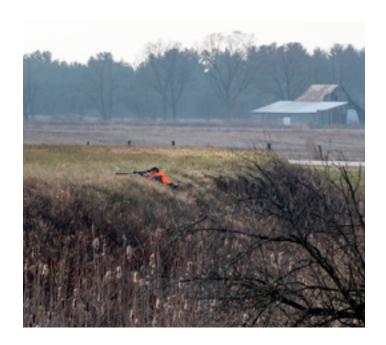
The majority of hunters (70%, n=55,886) in Indiana harvested one deer during the 2017 deer season (Table 5). Only 1.1% (n=891) of hunters statewide harvested more than four deer in 2017, which is approximately the same percentage (1.0%, n=852) that harvested more than four deer in 2016.

Table 5. Number of deer harvested by individual hunters during the 2016 and 2017 Indiana deer seasons. Reporting error rates:  $\pm 1.44\%$  (2017) and  $\pm 0.73\%$  (2016).

Number of Deer	2016	5	20:	17
		Percentage		Percentage
1	61,745	72.39%	55,886	70.47%
2	16,597	19.46%	16,322	20.58%
3	4,784	5.61%	4,903	6.18%
4	1,314	1.54%	1,299	1.64%
5	494	0.58%	519	0.65%
6	198	0.23%	193	0.24%
7	82	0.10%	88	0.11%
8	41	0.05%	53	0.07%
9	17	0.02%	23	0.03%
10	11	0.01%	10	0.01%
11	6	0.01%	3	0.00%
12	1	0.00%	1	0.00%
13	1	0.00%	1	0.00%
14	0	0.00%	0	0.00%
15	1	0.00%	1	0.00%

## Harvest by Equipment Type

Six types of equipment were legal for hunting deer during 2017 (Figure 10): archery (traditional and compound bows), crossbows, shotguns, muzzleloaders, handguns, and rifles. Harvest decreased from 2016 for handgun (-35%), muzzleloader (-8%), and shotgun (-31%) (Table 6). Bow harvest was consistent with 2016 (0.3% increase), while rifle harvest increased by 2%. Crossbow harvest saw the largest increase of 31% compared to 2016. The reason for this increase in unknown but may indicate an increase in popularity. This was the sixth year that crossbows were allowed throughout the Archery season without restriction.



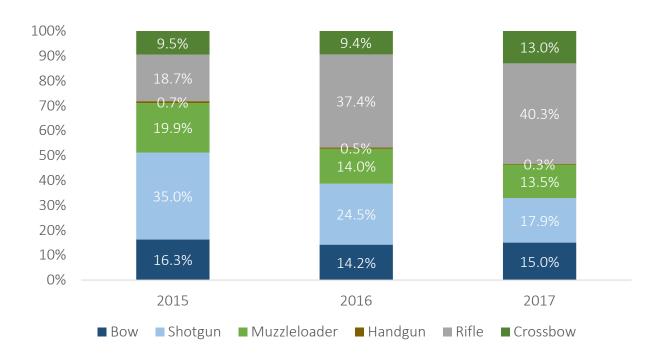


Figure 10. Percent harvest by equipment type 2015 – 2017. Reporting error rates:  $\pm 1.44\%$  (2017),  $\pm 0.73\%$  (2016), and  $\pm 0.95\%$  (2015)

Table 6. Number of deer harvested by type of legal hunting equipment across seasons. Values within this table do not exactly equal those tallied by season (Table 2) due to the fact that multiple equipment types can be used during the Firearms season Approximate percent of total harvest shown in parentheses. Reporting error rates:  $\pm 1.44\%$  (2017),  $\pm 0.73\%$  (2016), and  $\pm 0.95\%$  (2015).

Equipment	Number of deer harvested (% of total harvest)							
	2012				2016±		% Difference 2016 vs 2017	
Bow	27,580 (20%)	24,288 (19%)	22,375 (19%)	20,320 (16%)	17,014 (14%)	17,070 (15%)	0	
Shotgun	51,815 (38%)	46,458 (37%)	41,947 (35%)	43,612 (35%)	29,227 (24%)	20,304 (18%)	-32	
Muzzleloader	29,488 (22%)	24,935 (20%)	23,657 (20%)	24,770 (20%)	16,689 (14%)	15,325 (13%)	-8	
Handgun	1,086 (1%)	937 (1%)	844 (1%)	917 (.7%)	604 (.5%)	392 (.3%)	-35	
Rifle	17,827 (13%)	18,846 (15%)	19,527 (16%)	23,306 (19%)	44,673 (37%)	45,730 (40%)	2	
Crossbow	8,452 (6%)	10,171 (8%)	11,723 (10%)	11,844 (9%)	11,270 (9%)	14,774 (13%)	31	
Total	136,248	125,635	120,073	124,769	119,477	113,595	-5	

<sup>±</sup>Totals include State Park Reduction Hunts

### Harvest Age and Sex Structure

The age and sex structure of the 2017 deer harvest was 40% adult males, 50% adult females, and 10% male fawns (button bucks) (Table 7). Antlerless deer (does and button bucks) represent the highest proportion of the total deer harvest at 60% but dropping from an all-time high of 66% in 2012. During the opening weekend of Firearms season, IDNR biologists have traditionally manned check stations throughout the state to collect age-structure data and tissue samples for disease testing. Prior to the 2012 deer season, all deer had to be brought to a check station; therefore, age data collected during the opening weekend of Firearms season provided an unbiased method for determining the age

structure of the harvest. All hunters had to check in deer online during the 2017 season; therefore, age estimates of adult deer, such as the proportion of yearling bucks in the harvest, became unreliable. Evaluation of the online check-in data for the opening weekend of Firearms season historically showed that hunters were more likely to report antlered bucks at check stations than online but were more likely to report button bucks online than at check stations, thus biasing estimates toward an older age structure than the actual harvest. Therefore, age class estimates of adult deer are unavailable until a valid, scientific method for correcting this bias is obtained.

Table 7. Sex and age structure of the Indiana deer harvest 1987-2017, as determined from check stations and online registration. Number in parentheses is the percent of the total harvest for that age/sex class per year. Values may not total 100 due to rounding. Reporting error rates:  $\pm 1.44\%$  (2017),  $\pm 0.73\%$  (2016), and  $\pm 0.95\%$  (2015).

Year	Ad	dults	Fa	wns	Total
	Males (%)				
1987	29,530 (57)	11,139 (21)	6,164 (12)	4,945 (10)	51,778
1988	34,358 (57)	13,170 (22)	7,050 (12)	5,656 (10)	60,234
1989	40,503 (51)	19,464 (24)	10,737 (14)	8,614 (11)	79,318
1990	43,080 (48)	23,680 (27)	12,373 (14)	9,630 (11)	88,763
1991	41,593 (42)	31,211 (32)	14,626 (15)	11,253 (11)	98,683
1992	43,508 (46)	25,387 (27)	14,262 (15)	12,157 (13)*	95,314
1993	44,424 (44)	27,704 (27)	14,751 (15)	14,335 (14)*	101,214
1994	50,812 (45)	32,466 (29)	15,487 (14)	13,651 (12)*	112,416
1995	47,098 (40)	40,946 (35)	16,398 (14)	13,287 (11)*	117,729
1996	47,315 (38)	39,913 (32)	17,307 (14)	18,551 (15)*	123,086
1997	42,537 (41)	35,163 (34)	14,039 (13)	13,198 (12)*	104,937
1998	44,955 (45)	30,711 (31)	12,257 (12)	12,538 (12)*	100,461
1999	46,371 (46)	30,474 (31)	11,645 (12)	11,129 (11)*	99,618
2000	44,621 (45)	31,986 (32)	11,072 (11)	11,046 (11)*	98,725
2001	48,357 (47)	31,806 (31)	11,230 (11)	11,770 (11)*	103,163
2002	47,177 (45)	35,357 (34)	11,291 (11)	10,603 (10)*	104,428
2003	49,533 (46)	36,303 (34)	10,262 (10)	10,887 (10)*	106,986
2004	54,743 (44)	41,749 (34)	12,501 (10)	14,065 (11)*	123,058
2005	52,488 (42)	44,286 (35)	13,030 (10)	15,722 (13)*	125,526
2006	49,097 (39)	45,257 (36)	13,688 (11)	17,339 (14)*	125,381
2007	49,375 (40)	44,514 (36)	13,313 (11)	17,225 (14)*	124,427
2008	50,845 (39)	46,666 (36)	13,083 (11)	19,154 (15)*	129,748
2009	52,878 (40)	48,222 (36)	13,040 (10)	18,291 (14)*	132,431
2010	53,007 (40)	49,911 (37)	13,367 (10)	17,719 (13)*	134,004
2011	50,717 (39)	45,931 (36)	13,058 (10)	19,312 (15)*	129,018
2012	45,936# (34)	54,983 (40)	15,911 (12)	19,418 (14)*	136,248
2013	46,240# (37)	46,229 (37)	14,100 (11)	19,066 (15)*	125,635
2014	45,686# (38)	46,760 (39)	12,694 (11)	14,933 (12)*	120,073
2015±	51,176# (41)	60,828 (49)	12,765 (10)	€	124,769
2016±	51,783# (43)	55,921 (47)	11,773 (10)	€	119,477
2017±	45,095# (40)	56,334 (50)	12,166 (10)	€	113,595

<sup>\*</sup> Number of adult and fawn females is projected from the % fawns of all females aged at the biological check stations (not from the ratio of fawn does to fawn bucks in the total deer harvest).

<sup>#</sup> Includes shed antlered bucks

<sup>±</sup> Includes State Park Reduction Hunts

<sup>€</sup> Due to the lack of biological check stations and the implementation of 100% online check in of all harvested deer in 2015, female fawn numbers are not available.

#### **Public Lands Harvest**

A total of 6,626 deer were harvested on 122 public lands in Indiana during the 2017-2018 season which resulted in 6% of the total deer harvest. Public lands included state fish and wildlife areas, state nature preserves, state parks, state forests, national wildlife refuges, national forests, conservation areas, and military lands (Tables 8, 9, 10, and 11). Just over 20% of the deer harvested on public lands were taken from across 24 Fish and Wildlife Area (FWA) properties. Pigeon River FWA had the largest harvest of 211 deer. The proportion of antlered deer harvested on FWAs (50%) was 25% higher than the proportion of antlered deer in the total statewide harvest (40%) most likely because bonus antlerless licenses or fulfilling a county bonus antlerless

quota with a bundle license is not permitted on FWA properties (excluding some Healthy River Initiative, HRI, properties). The Hoosier National Forest accounted for 14.4% of the public lands harvest while Big Oaks National Wildlife Refuge accounted for 6.3%. Together, state park (17%) and state forest (16%) lands contributed to 33% of the public lands harvest.

The percent of antlered (43%) and antlerless (57%) deer harvested on public lands was similar to the composition of the total harvest (40% antlered, 60% antlerless). Button bucks accounted for 20% of the antlerless harvest on public lands.



Table 8. Deer harvested during the 2017-2018 deer hunting season on public lands managed by Indiana DNR Division of Fish and Wildlife. Reporting error rate  $\pm 1.44\%$ .

Property	Antlered	Button Buck	Antlerless	Total	Property	Antlered	Button Buck	Antlerless	Total
FISH &WILDLIFE AREA	682	145	528	1,355	WILDLIFE CONSERVATION AREA	37	12	40	89
Atterbury	18	4	21	43	Aukiki	1	0	2	3
Blue Grass	3	1	5	9	Cedar Swamp	9	3	6	18
Chinook	4	1	6	11	Durham Lake	3	1	6	10
Crosley	19	5	19	43	Eagle Lake	0	1	0	1
Deer Creek	12	1	16	29	Fish Lake	4	0	2	6
Fairbanks Landing	59	5	23	87	Galena	1	0	1	2
Glendale	25	14	27	66	Little Pigeon Crk	4	0	5	9
Goose Pond	8	3	7	18	Lost Hill	1	0	0	1
Hillenbrand	17	2	8	27	Mallard Roost	2	1	3	6
Hovey Lake	23	3	19	45	Manitou Islands	1	0	1	2
J.E. Roush	33	6	29	68	Marsh Lake	5	1	3	9
Jasper-Pulaski	56	10	48	114	Maxincukee	0	0	2	2
Kankakee	12	0	8	20	Menominee	2	3	8	13
Kankakee Sands (TNC)	6	1	6	13	Tern Bar Slough	0	1	1	2
Kingsbury	47	9	46	102	Turkey Creek	1	0	0	1
Lasalle	28	9	26	63	Turkey Foot	1	1	0	2
Pigeon River	87	32	92	211	Whirledge	2	0	0	2
Splinter Ridge	21	2	4	27	WILDLIFE MANAGEMENT AREA	15	5	5	25
Sugar Ridge	36	3	10	49	Modoc	2	0	0	2
Tri-County	24	5	22	51	Randolph County	4	2	0	6
Wabashiki	22	4	8	34	Westerkamp	1	0	0	1
Wilbur Wright	7	2	7	16	White River Bend	8	3	5	16
Willow Slough	59	11	46	116	GAMEBIRD AREA	16	3	8	27
Winamac	56	12	25	93	Cartmell	1	0	1	2
CONSERVATION AREA	51	12	62	125	Falwell	1	0	0	1
Austin Bottoms	27	5	44	76	Hufford Trust	5	2	1	8
Sugar Creek	12	4	7	23	Metro-60	1	0	0	1
Wabash River	12	3	11	26	Pointer Ridge	0	0	1	1
GAMEBIRD HABITAT AREA	1	0	1	2	Prudential	0	0	1	1
Reynolds Creek	1	0	1	2	Vinegar Hill	1	0	0	1
					White County One	1	0	0	1
					Willow Island	6	1	4	11

Table 9. Deer harvested during the 2017-2018 deer hunting season on public lands managed by Indiana DNR Division of State Parks and Reservoirs. Deer harvested in state parks were taken during special state park draw hunts. Reporting error rate  $\pm 1.44\%$ .

Property	Antlered	Button Buck	Antlerless	Total
STATE PARKS	411	147	537	1,095
Brown County	6	2	6	14
Chain O'Lakes	32	11	55	98
Charlestown	37	8	36	81
Clifty Falls	15	5	12	32
Fort Harrison	20	11	17	48
Harmonie	34	6	40	80
Lincoln	22	5	33	60
McCormick's Creek	15	8	20	43
Mounds	1	0	0	1
Ouabache	9	6	22	37
Pokagon	5	7	13	25
Potato Creek	37	21	65	123
Shades	44	8	62	114
Shakamak	6	4	19	29
Spring Mill	10	2	15	27
Tippecanoe River	41	17	38	96
Turkey Run	0	0	1	1
Versailles	57	17	51	125
Whitewater Memorial	20	9	32	61
NATURAL AREA	6	1	6	13
Cave River Valley	6	1	6	13
STATE RECREATION AREAS	44	14	37	95
Deam Lake	6	1	4	11
Interlake	20	3	9	32
Lieber (Cagles Mill Lake)	11	7	16	34
Raccoon Lake	3	2	5	10
Starve Hollow	4	1	1	6
Trine	0	0	2	2
STATE RESERVOIRS	281	118	340	739
Brookville Lake	64	41	104	209
Hardy Lake	5	4	13	22
Mississinewa Lake	67	28	49	144
Monroe Lake	24	14	51	89
Patoka Lake	95	26	104	225
Salamonie Lake	26	5	19	50

Table 10. Deer harvested during the 2017-2018 deer hunting season on public lands managed by Indiana DNR Division of Forestry and the Division of Nature Preserves. Reporting error rate  $\pm 1.44\%$ .

Property	Antlered	Button Buck	Antlerless	Total
STATE FORESTS	423	122	501	1,046
Clark	45	10	45	100
Ferdinand	14	3	14	31
Frances Slocum	5	0	3	8
Greene-Sullivan	33	5	42	80
Harrison-Crawford	101	21	115	237
Jackson-Washington	37	12	37	86
Martin	29	14	38	81
Morgan-Monroe	76	27	90	193
Owen-Putnam	19	6	19	44
Pike	14	1	11	26
Salamonie River	3	1	9	13
Selmier	2	0	5	7
Yellowwood	45	22	73	140
NATURE PRESERVES	29	5	42	76
Beaver Lake	4	0	3	7
Conrad Savanna	2	0	1	3
Judy Burton	2	0	1	3
Norco	10	1	18	29
Olin Lake	1	1	5	7
Round Lake Wetland	1	0	0	1
Section Six Southern Flatwoods	4	3	7	14
Stoutsburg Savanna	1	0	2	3
Twin Swamps	2	0	1	3
Wabash Lowlands	2	0	4	6

Table 11. Deer harvested during the 2017-2018 deer hunting season on public lands managed by federal agencies. Special draw hunts were held on the military lands and national wildlife refuge properties. Reporting error rate ±1.44%.

Property	Antlered	Button Buck	Antlerless	Total
MILITARY LANDS	205	36	229	470
Camp Atterbury	87	21	123	231
Crane	118	15	106	239
NATIONAL FOREST	390	110	453	953
Hoosier	390	110	453	953
NATIONAL WILDLIFE REFUGE	263	43	210	516
Big Oaks	218	31	166	415
Muscatatuck	28	5	23	56
Patoka River	17	7	21	45

#### **Deer Reduction Zones Harvest**

Indiana Deer Reduction Zones (DRZs) are designated to target areas within the state that have high deer populations coupled with high human density where the cultural carrying capacity has been exceeded due to concerns over local ecology, deer-vehicle collisions, or the amount of damage to personal property. DRZs aim to reduce deer-human conflict in these areas rather than to eliminate the deer population.

Hunters may harvest up to ten deer in the DRZs, ten antlerless deer or nine antlerless deer and one antlered deer after first harvesting an antlerless deer (earna-buck). For the 2017 season, DRZs were added in Delaware, Elkhart, Kosciusko, LaPorte, Morgan, and St. Joseph counties. An interactive map of the 2017 DRZs along with information and a video about how DRZs are determined can be found online at wildlife.IN.gov/8534. htm.

Approximately 3,072 deer were harvested in DRZs in 2017 (Table 12). These deer were harvested within a DRZ county using a valid license type for DRZs (DRZ license, lifetime license, youth license, or landowner or military exemptions) and were marked that they applied to the "zone bag limit" in the CheckIN Game system. Deer harvested on any other license type within the boundaries of a DRZ counted toward the statewide bag limit.

In 2017, antlerless deer made up 83% of the DRZ harvest. The percentage of the statewide antlerless harvest that was taken in a DRZ increased by 24% in 2017 (3.7%) compared to 2016 (3.0%). A total of 511 antlered deer were taken in DRZs in 2017 which accounted for 1% of the statewide antlered harvest. Deer taken within a DRZ accounted for between 3% and 58% of each DRZ county's total harvest (Table 13).

Table 12. The number of antlered and antlerless deer harvested within a Deer Reduction Zone (DRZ), defined as deer harvested within a DRZ county using a valid license type (DRZ license, lifetime license, youth license, or landowner or military exemptions) and indicated as "zone bag limit" in the CheckIN Game system, 2015-2017. Also, percent of the statewide total harvest, statewide antlered harvest, and statewide antlerless harvest that were DRZ deer. Reporting error rates: ±1.44% (2017), ±0.73% (2016), and ±0.95% (2015).

County	2015			2016			2017			
	Antlered	Antlerless	Total	Antlered	Antlerless	Total	Antlered	Antlerless	Total	
Allen	74	341	415	75	343	418	99	359	458	
Boone	10	46	56	9	33	42	5	28	33	
Delaware	NA	NA	NA	NA	NA	NA	5	25	30	
Elkhart	NA	NA	NA	NA	NA	NA	10	29	39	
Hamilton	36	163	199	33	139	172	29	112	141	
Hendricks	23	61	84	18	41	59	17	49	66	
Johnson	4	31	35	4	13	17	3	32	35	
Kosciusko	NA	NA	NA	NA	NA	NA	12	76	88	
Lake	107	466	573	93	435	528	87	473	560	
LaPorte	NA	NA	NA	NA	NA	NA	19	161	180	
Marion	53	248	301	37	202	239	45	217	262	
Morgan	NA	NA	NA	NA	NA	NA	9	63	72	
Porter	109	550	659	106	523	629	83	491	574	
St. Joseph	NA	NA	NA	NA	NA	NA	6	62	68	
Tippecanoe	11	45	56	6	15	21	12	46	58	
Vanderburgh	88	354	442	75	288	363	70	338	408	
Total	515	2,305	2,820	456	2,032	2,488	511	2,561	3,072	
Percent of Statewide Harvest Totals	1	3.1	2.3	0.9	3	2.1	1.1	3.7	2.7	

Table 13. Percent of each Deer Reduction Zone county's deer harvest that was counted as deer harvested in the DRZ, 2017-2018.

County	DRZ Harvest	Total County Harvest	% DRZ
Allen	458	1,595	28.7
Boone	33	371	8.9
Delaware	30	758	4
Elkhart	39	1,232	3.2
Hamilton	141	411	34.3
Hendricks	66	564	11.7
Johnson	35	619	5.7
Kosciusko	88	1,970	4.5
Lake	560	1,190	47.1
Laporte	180	1,601	11.2
Marion	262	449	58.4
Morgan	72	1,218	5.9
Porter	574	1,245	46.1
St. Joseph	68	1,168	5.8
Tippecanoe	58	756	7.7
Vanderburgh	408	779	52.4

## **Harvest by License Status**

Licensed resident hunters (lifetime, resident, landowner, and youth license holders) took 95% of the total deer harvested in 2017, while licensed nonresidents represented 5% of the total harvest (Table 14). Hunters who purchased regular annual deer hunting licenses (resident plus non-resident) took 59% of the total deer harvest; other individuals using discounted licenses or exemptions (i.e., lifetime license holders, youth license holders, landowners/tenants, and active-duty military personnel) took 41% of the total harvest. Landowners and lessees who hunted on their own land without a license and military personnel on official leave status accounted for around 12% of the total deer harvest. Of the deer harvested by license-exempt hunters, nearly 99% were taken by landowners/tenants while only 1% was taken by military personnel on leave.



Table 14. Number of deer harvested by license type during the 2017 deer hunting season. Reporting error rate ±1.44%.

License Type	Deer Harvested	Percent of Harvest
Deer Bundle	44,482	39.2
Lifetime License	22,990	20.2
Landowner Exemption	13,900	12.2
Youth Hunt/Trap	10,316	9.1
Deer Firearm	8,151	7.2
Bonus Antlerless	4,814	4.2
Deer Archery	3,222	2.8
Deer Crossbow	1,795	1.6
Deer Reduction Zone	1,708	1.5
Deer Muzzleloader	778	0.7
Early State Park Reduction	729	0.6
Deer Military/Refuge	362	0.3
Late State Park Reduction	223	0.2
Military Exempt - IC 14-22-11-11	125	0.1

#### **Deer License Sales**

The number of deer licenses sold in 2017 decreased by 4% from 2016 (Table 15). The number of privileges (number of deer legally allowed to be harvested) was 3% less than in 2016. Each deer license bundle included three deer privileges.

Table 15. Deer license sales in Indiana by type, 2012-2017\*.

License type						2017
Resident Deer License Bundle	56,606	59,546	62,092	65,604	69,018	67,755
Resident Archery/Crossbow/Reduction Zone	33,428	32,667	31,108	29,258	24,752	25,016
Resident Firearm	57,092	52,173	47,158	43,991	40,573	37,254
Resident Muzzleloader	7,883	6,450	6,641	6,088	4,668	4,376
Resident Military/Refuge	1,413	1,116	1,352	1,277	1,342	1,355
Resident Bonus Antlerless	32,403	27,993	24,241	21,088	18,062	16,187
Nonresident	10,717	10,626	10,937	11,035	11,386	11,672
Youth	39,389	41,158	39,292	33,666	32,967	30,474
Total Licenses (Excluding Youth)	199,542	190,571	183,529	178,341	169,801	163,615
Total Privileges (Excluding Youth)**	316,858	314,877	313,235	315,389	314,283	305,591

<sup>\*</sup>Total numbers subject to change slightly via refunds or voids

<sup>\*\*</sup> Includes additional privileges from nonresident bundle licenses

### **Bonus Antlerless Licenses and Quotas**

In addition to standard seasonal bag limits, hunters could purchase bonus antlerless licenses to take additional antlerless deer in any county. County bag limits (quotas) ranged from A to 8. These licenses were valid for one antlerless deer, and licensed deer hunters could purchase an unlimited number of Bonus Antlerless licenses as long as the county quotas were observed. These licenses could be used during any deer hunting season, using equipment legal for that season, except

the Deer Reduction Zone season. Bonus Antlerless licenses could only be used to take one antlerless deer in "A"-designated counties November 30 through January 7. Quotas in 33 counties decreased from 2016, while quotas in Greene and Rush counties increased (Table 16). The number of Bonus Antlerless deer harvested in each county can be found in the County Deer Data section.

Table 16. Indiana County Bonus Antlerless Quotas 2015-2017.

County	Bonus	Antlerless Qu	ıota	County	Bonus Antlerless Quota		
	2015	2016			2015		2017
Adams	2	2	2	Lawrence	8	8	8
Allen	4	4	3	Madison	4	4	3
Bartholomew	8	8	4	Marion	8	8	8
Benton	А	А	А	Marshall	3	3	2
Blackford	1	1	1	Martin	4	4	4
Boone	4	4	4	Miami	3	3	2
Brown	4	4	4	Monroe	8	8	8
Carroll	3	3	2	Montgomery	4	4	4
Cass	3	3	2	Morgan	4	4	3
Clark	8	8	4	Newton	3	3	2
Clay	4	4	4	Noble	4	4	3
Clinton	2	2	2	Ohio	8	4	4
Crawford	8	8	8	Orange	4	4	4
Daviess	2	1	1	Owen	4	4	4
Dearborn	4	4	4	Parke	8	8	8
Decatur	3	3	3	Perry	3	4	4
Dekalb	4	4	3	Pike	3	3	2
Delaware	4	4	4	Porter	4	8	4
Dubois	4	4	3	Posey	3	2	1
Elkhart	4	4	4	Pulaski	8	8	4
Fayette	4	4	4	Putnam	4	4	4
Floyd	8	8	8	Randolph	2	2	2
Fountain	8	8	4	Ripley	8	8	8
Franklin	8	8	8	Rush	1	1	2

Fulton	4	4	3	St. Joseph	4	4	4
Gibson	4	3	3	Scott	4	4	4
Grant	4	4	4	Shelby	3	3	3
Greene	3	3	4	Spencer	4	4	3
Hamilton	4	4	4	Starke	8	8	4
Hancock	3	3	3	Steuben	3	3	2
Harrison	8	8	8	Sullivan	3	3	3
Hendricks	8	8	8	Switzerland	4	4	4
Henry	4	4	4	Tippecanoe	4	3	3
Howard	3	3	2	Tipton	А	А	А
Huntington	3	3	2	Union	3	3	3
Jackson	4	4	4	Vanderburgh	8	8	4
Jasper	8	8	4	Vermillion	4	4	4
Jay	2	2	1	Vigo	8	8	4
Jefferson	8	8	8	Wabash	3	3	2
Jennings	8	8	8	Warren	4	4	3
Johnson	8	8	8	Warrick	3	3	2
Knox	4	4	4	Washington	8	8	8
Kosciusko	4	4	4	Wayne	3	3	3
Lagrange	3	3	2	Wells	А	Α	А
Lake	4	4	4	White	4	4	4
LaPorte	4	4	4	Whitley	2	2	1



# EFFECTS OF HIGH-POWERED RIFLE LAW

The Indiana State Legislature passed House Enrolled Act 1231 in early 2016 that allowed additional rifle options for deer hunting on private land only. The new rifle options required a barrel length of at least 16 inches, cartridge case length of at least 1.16 inches, and cartridges that fired bullets with a diameter of .243 inches or .308 inches only. Previous rifle restrictions still applied for deer hunting on public land. The new law also approved the use of handguns that fire the 10mm Automatic or 40 Smith & Wesson cartridges for deer hunting where firearms are legal to use. House Enrolled Act 1231 requires Indiana DNR to analyze the effects the law change has on the deer population, harvest numbers, and public safety.

In 2017, Indiana Legislature passed House Enrolled Act 1415 that amended the size of rifle cartridges legal for deer hunting on private lands. New legal rifle cartridges must have the following characteristics: case length of at least 1.16 inches and have a maximum case length of 3 inches, and must fire a bullet with a diameter that is .243 inches (same as 6mm) or larger.

Of 2016 hunters that used equipment types other than a rifle in 2015, 8,399 of them used a rifle to harvest at least one deer in 2016. Specifically by equipment type, more than 20% of the hunters that used a bow, crossbow, handgun, or muzzleloader in 2015 used a rifle in 2016 either in place of or in combination with non-rifle equipment (see 2016 Indiana White-tailed Deer Summary; deer.dnr.IN.gov).

In 2015, the number of hunters that harvested at least one deer using a rifle was 17,918 (Figure 11). That number increased by 92% in 2016 (n=34,347) and by an additional 2% in 2017 (n=35,025). Approximately 3,000 hunters in 2016 and just under 2,400 hunters in 2017 purchased a license for the first time and harvested at least one deer using a rifle. Hunters took 105% more antlered bucks with a rifle in 2016 than in 2015 but 8% fewer in 2017 than in 2016 (Figure 11). The shed buck, button buck, and doe harvests using a rifle in 2016 increased from 2015 by 49%, 76%, and 83%, respectively, but only button buck (13%) and doe (12%) harvests using a rifle increased in 2017.

In 2016, the total number of antlered deer harvested across all equipment types was only 1% higher than 2015. Additionally, the 2016 total harvest was 4% lower than 2015 indicating a shift in equipment type used to harvest deer rather than the number of deer harvested. Harvests using muzzleloaders, shotguns, and handguns saw the largest declines in both 2016 and 2017 (Figure 12).

IDNR, IDNR Law Enforcement, and Indiana Hunter Education keep a close eye on hunting related incidents. During the 2016 and 2017 deer hunting seasons, there were no confirmed reports of injury or damage to property as a result of high-powered rifles.

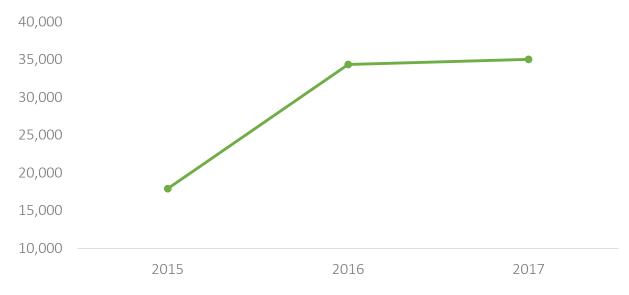


Figure 11. Number of hunters that used a rifle to harvest at least one deer during the hunting season, 2015-2017. Reporting error rates:  $\pm 1.44\%$  (2017),  $\pm 0.73\%$  (2016), and  $\pm 0.95\%$  (2015).

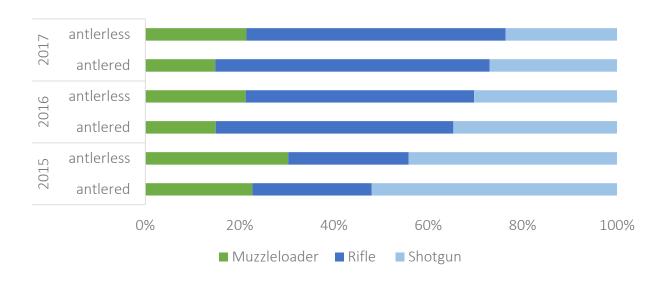


Figure 12. Proportions of antlered and antlerless deer harvested using a muzzleloader, rifle, and shotgun during the 2015, 2016, and 2017 deer hunting seasons. Reporting error rates:  $\pm 1.44\%$  (2017),  $\pm 0.73\%$  (2016), and  $\pm 0.95\%$  (2015).

## **HUNTER SUCCESS AND HUNTERS AFIELD**

#### Introduction

The number of Indiana deer hunting licenses sold each year can be used as an index of the number of licensed hunters afield during the hunting season, but that number does not include all hunters attempting to harvest a deer in a given year. A portion of Indiana hunters have a lifetime license which requires no annual purchase. These hunters are not tracked in yearly license sales data, and a hunter with a lifetime license is not necessarily still an active hunter. Indiana also allows for license exemptions for landowners and active military members who are not tracked in the license sales data. Lifetime license holders accounted for 16% of hunters that checked in a deer in 2016 and 18% in 2017. Fourteen percent of hunters that checked in a deer were landowners or military exempt in both 2016 and 2017. Estimating the total number of hunters afield sheds light on how many hunters are utilizing the resource and how they are using it (i.e. license or exemption type). To do this, a formula for estimating the total number of hunters afield each year was developed using the success rate of hunters who purchased a license and checked in a deer using the Customer ID number associated with that license.

#### **Methods**

For the 2015, 2016, and 2017 hunting seasons, harvest data was used to determine the number of non-youth hunters who checked-in a deer and who 1) purchased a license (excluding youth licenses), 2) are lifetime license holders, 3) are landowners, or 4) are active military members. Hunters who purchased a license were only counted if the same CID number was used to check in a deer that was used to purchase the license. For example, a hunter may purchase a license under a new CID number but check-in a deer under a previous CID number. In this case, the hunter was not counted in this calculation. The total number of non-youth hunters who purchased a license in each year was gathered from the license sales database. Then, the success rate of those hunters who purchased a license was calculated using the formula:

Non-youth hunters who purchased a license and checked-in a deer (excluding landowners, lifetime licenses holders, and military exempt hunters) using the same CID number as the license

Non-youth hunters who purchased a deer hunting license

Using the success rate of non-youth hunters who purchased a license, the number of hunters afield was calculated using the formula:

Hunters afield =  $(HCD_{LP}/SR) + (HCD_{LQ}/SR) + (HCD_{ME}/SR) + (HCD_{ME}/SR) + (HCD_{ME}/SR)$ 

Where,

HCD<sub>LP</sub> = Adult hunters who purchased a license (excludes youth)

HCD<sub>II</sub> = Hunters who checked-in a deer and are lifetime license holders

HCD<sub>10</sub> = Hunters who checked-in a deer and are landowners

HCD<sub>ME</sub> = Hunters who checked-in a deer and are military exempt

HCD<sub>v</sub> = Youth hunters who checked-in a deer and purchased a youth license

#### Results

The total number of hunters afield were estimated for the 2015-2016, 2016-2017, and 2017-2018 deer hunting seasons. In 2015, 137,170 non-youth hunters purchased a deer hunting license, and 45,239 of those hunters harvested a deer using the same CID as the license for a success rate of 32.98% (Table 17). An estimated 238,810 total hunters were afield in 2015-2016. In 2016, 135,792 non-youth hunters purchased a deer hunting license,

and 46,876 of those hunters harvested a deer using the same CID as the license for a success rate of 34.52%. An estimated 228,798 hunters were afield in 2016-2017. In 2017, 131,039 non-youth hunters purchased a deer hunting license, and 45,637 of those hunters harvested a deer using the same CID as the license for a success rate of 34.83%. An estimated total of 226,379 hunters were afield during the 2017-2018 season.

Table 17. The number of hunters who checked-in a deer per license category. Reporting error rates:  $\pm 1.44\%$  (2017),  $\pm 0.73\%$  (2016), and  $\pm 0.95\%$  (2015).

Type of Hunter	Number of successful hunters					
	2015-2016	2016-2017				
$HCD_LP$	45,239	46,876	45,637			
HCD <sub>LL</sub>	14,492	13,270	14,169			
HCD <sub>LO</sub>	12,484	11,548	10,627			
HCD <sub>ME</sub>	95	85	97			
HCD <sub>Y</sub>	6,452	7,207	8,311			

#### **Discussion**

The hunters afield calculation provides a valuable estimate of the number of hunters attempting to harvest deer in a given year, but it has limitations that need to be refined as better data are collected. The entire calculation is based on the success rate of only non-youth hunters who purchased a license and assumes that everyone who purchased a license took advantage of the hunting opportunity. However, the success rate of hunters who purchase an annual license may not be the same for other hunters. For example, lifetime license holders may have more hunting experience which may result in better success than a new license holder. Similarly, landowners may have higher success rates hunting on their own property if they have spent time tracking their deer and preparing for the hunt compared to license holders hunting on someone else's property for the first time. Alternatively, they may have a lower success rate if their property is small, overhunted, or poor quality deer habitat. Differences in success rates may also exist between adult hunters and youth hunters that are factors of age, strength, and experience. Other factors that influence success rate, such as where and when a hunter hunts, weather patterns, skill, etc., are also not considered in this calculation.

Estimations for the total number of hunters is necessary because the total number of landowner hunters, lifetime license holders, and military exempt hunters is unknown as they are not currently tracked in the license system. Further refining the understanding of the total number of hunters afield is only possible if these hunters are counted in some way. Future hunter surveys may help overcome these shortcomings by directly asking all hunters for details of their hunt (e.g. when, where, how long, individual harvest, license or exemption type, etc.) regardless of whether or not they harvested a deer.

There are several practical applications for estimating hunters afield, most notably understanding the change in hunter numbers. It is well known that the number of hunters actively participating in hunting is declining each year, and estimating the number of hunters afield using a standardized method of calculation provides a repeatable index for hunter trends in Indiana. As Indiana DNR puts forth efforts to recruit new hunters, retain current hunters, and reactivate hunters who have stopped hunting, having an estimate of the number of hunters actually participating in the hunting season will aid in evaluation of the success of these programs.

#### **DEER CONTROL PERMITS**

Deer control permits are issued when individuals, business, and/or agencies experience problems with deer. Permits are used to reduce conflict with landowners and alleviate property damage from deer in localized areas. They are not used as a form of population control, as demonstrated by the low take when compared with the number of deer harvested during the hunting season (Table 18). An exception to this is Marion County where very few deer were harvested by hunters because of access and a comparatively large number of deer were harvested on control permits. Typical problems experienced in Indiana include browsing damage to crops, orchards, nurseries, vineyards, and plants used for landscaping. Permits are issued when landowners can demonstrate damage in excess of \$500. Permits may also be issued to address disease concerns, as was recently needed in parts of Franklin and Fayette counties to address issues with bovine tuberculosis, to protect endangered species, as was done in Porter County, or for the safety of the public.

A total of 301 deer control permits were issued statewide, with an average of 13.4 deer authorized per permit and an average of 6.4 deer taken per permit (Table 18). Reported damage at the time of the application ranged from \$100 to \$63,760. Average percent of soybean crops reported as damaged was 24.0% (n=244; Cl95 = 27.4%, 20.5%). Average percent of corn crops reported as damaged was 20.7% (n=164; Cl95 = 24.6%, 16.9%).

A total of 1,862 deer were taken statewide on deer control permits, representing 1.6% of the cumulative deer, which is the aggregate number of hunter-harvested deer and the number of deer taken on control permits in 2017. Most of the deer taken on control permits were does and button bucks (n=1,636), which represented 2.4% of the total number of does harvested by hunters and taken on permits in 2017. A much smaller number of bucks (n=222) were taken on control permits, which represented 0.5% of the total number of bucks harvested by hunters and taken on permits in 2017. The majority of deer (61%) taken on control permits were either consumed or donated for human consumption.

Table 18. Deer control permits issued by county including the average number of deer authorized to be taken and the number of deer actually taken per permit. Cumulative Deer is the number of hunter-harvested deer + the number of deer taken on control permits.

County	Number Permits Issued	Number of Deer Taken	Average Deer Taken / Permit	% of Cumulative Deer	County	Number Permits Issued	Number of Deer Taken	Average Deer Taken / Permit	% of Cumulative Deer
Adams	0			0	Lawrence	5	11	2.2	0.4
Allen	1	0	0	0	Madison	2	2	1	0.4
Bartholomew	4	10	2.5	1	Marion	3	174	58	27.9
Benton	1	1	1	1.1	Marshall	9	41	4.6	2.5
Blackford	0			0	Martin	0			0
Boone	0			0	Miami	0			0
Brown	7	98	14	6.3	Monroe	6	81	13.5	4.6
Carroll	0			0	Montgomery	2	16	8	1.8
Cass	2	0	0	0	Morgan	1	1	1	0.1
Clark	5	45	9	2.4	Newton	0			0
Clay	1	0	0	0	Noble	6	19	3.2	0.8
Clinton	0			0	Ohio	6	44	7.3	5.7
Crawford	2	1	0.5	0	Orange	3	33	11	1.5
Daviess	1	7	7	0.7	Owen	4	24	6	1.3

County	Number Permits Issued	Number of Deer Taken	Average Deer Taken / Permit	% of Cumulative Deer	County	Number Permits Issued	Number of Deer Taken	Average Deer Taken / Permit	% of Cumulative Deer
Dearborn	14	69	5.3	2.9	Parke	3	6	2	0.3
Decatur	1	3	3	0.4	Perry	10	118	10.7	5.6
DeKalb	3	28	9.3	1.6	Pike	4	19	4.8	1.3
Delaware	2	1	0.5	0.1	Porter	6	91	15.2	6.8
Dubois	1	10	10	0.6	Posey	5	36	7.2	3.2
Elkhart	1	1	0.5	0.1	Pulaski	5	10	2	0.6
Fayette	4	10	3.3	1.1	Putnam	0			0
Floyd	2	13	6.5	1.6	Randolph	0			0
Fountain	1	3	3	0.3	Ripley	8	30	3.8	1.5
Franklin	37	53	1.7	2.1	Rush	0			0
Fulton	4	26	6.5	2.1	St. Joseph	4	17	4.3	1.4
Gibson	1	0	0	0	Scott	3	14	4.7	1.5
Grant	0			0	Shelby	0			0
Greene	2	9	4.5	0.4	Spencer	8	23	3.3	1.8
Hamilton	1	3	3	0.7	Starke	4	6	2	0.4
Hancock	0			0	Steuben	3	14	4.7	0.6
Harrison	13	108	8.3	3.4	Sullivan	6	38	6.3	2
Hendricks	1	0	0	0	Switzerland	5	17	3.4	0.8
Henry	0			0	Tippecanoe	2	7	3.5	0.9
Howard	0			0	Tipton	2	3	3	3.8
Huntington	0			0	Union	0			0
Jackson	13	53	4.1	2.9	Vanderburgh	3	3	1	0.4
Jasper	3	4	1.31	0.3	Vermillion	4	28	7	2.5
Jay	0			0	Vigo	2	4	2	0.2
Jefferson	5	37	7.4	1.8	Wabash	1	4	4	0.4
Jennings	9	41	5.1	2.1	Warren	0			0
Johnson	2	8	4	1.3	Warrick	5	30	6	2.3
Knox	0			0	Washington	17	117	7.8	4.4
Kosciusko	0			0	Wayne	4	2	0.7	0.2
Lagrange	4	7	1.8	0.4	Wells	0			0
Lake	3	52	17.3	4.2	White	4	30	7.5	3.3
LaPorte	1	47	47	2.9	Whitley	2	1	0.5	0.1

Table 19. Number of reports based on crop damaged or other reason for deer control permits in 2017.

Crop or Reason for Permit	Number of Reports	Crop or Reason for Permit	Number of Reports
Alfalfa	15	Ornamentals	2
Apples	5	Other	2
Barley	1	Pasture	1
Christmas Trees	2	Pollinator Habitat	1
Clover	3	Popcorn	2
Corn	164	Proving Grounds	1
CRP	2	Reforestation	2
Disease	29	Rye	1
Endangered Species	3	Sorgum	1
Fruit	5	Soybean	244
Grapes	3	Sugar Beets	1
Нау	31	Timber Production	6
Landscaping	2	Truck crops	26
Nursery Production	6	Wheat	10
Oats	1	Wildflowers	2
Orchard	5	Woods	9

### **DEER-VEHICLE COLLISIONS**

Deer-vehicle collisions (DVCs) are analyzed by standardizing across years and counties using statistics on the Daily Vehicle Miles Traveled (DVMT) provided by the Indiana Department of Transportation. This adjustment (collisions per billion miles traveled) accounts for changes in traffic volume between counties to allow for an unbiased comparison between counties and years.

The total reported deer-vehicle collisions across the state increased from 14,021 collisions in 2016 to 15,414 in 2017, (Table 20). The number of deer-vehicle collisions per billion miles traveled in 2017 was 198, a slight increase from 182 collisions per billion miles traveled in 2016.

Counties with the highest number of deer-vehicle collisions per billion county miles traveled were Pulaski (1089), Ohio (1011), Orange (918), and Brown (846) (Figure 13). Two counties had 50 or fewer deer-vehicle collisions per billion county miles traveled: Marion (12) and Lake (42). Deer-vehicle collisions per billion miles traveled decreased in 26 counties and increased in 66 counties compared to 2016 (Figure 14). Thirty-six counties showed a greater than 15% increase in deer-vehicle collisions per billion miles traveled while seven coun-

ties showed a greater than 15% decrease compared to 2016. Cass, Clinton, Jefferson, and Orange counties had increases in the number of deer-vehicle collisions per billion miles traveled greater than 50%.

Most deer-vehicle collisions in 2017 occurred on state roads (37%), county roads (28%), and US routes (16%) (Table 21). Nearly 45% of deer-vehicle collisions in 2017 occurred between October and December (Figure 15). The economic cost of deer-vehicle collisions in 2017 was over \$66 million based on the average estimated cost per collision (Table 22).

Deer-vehicle collision hotspots for 2012 to 2017 data were analyzed on a one square mile grid across the state using ArcGIS mapping software (Figures 16, 17, and 18). Hotspots were identified as areas where the rate of deer-vehicle collisions was statistically higher than what would be expected if the collisions occurred completely at random. Deer-vehicle collision hotspots were mapped with the number of deer harvested in each county per square mile of deer habitat and with the 2017 Deer Reduction Zone areas to show where significantly high numbers of deer-vehicle collisions occur in relation to hunting efforts.

Table 20. Number of deer-vehicle collisions in each Indiana county in 2016 and 2017.

County	Deer-vehicle Collisions		County	Deer-vehicle Collisions	
	2016	2017		2016	2017
Adams	81	107	Lawrence	155	192
Allen	401	455	Madison	117	160
Bartholomew	139	180	Marion	108	131
Benton	29	26	Marshall	297	311
Blackford	31	38	Martin	29	25
Boone	141	109	Miami	174	190
Brown	87	114	Monroe	140	191
Carroll	85	116	Montgomery	137	190
Cass	148	226	Morgan	154	160
Clark	229	237	Newton	75	93
Clay	134	106	Noble	320	330
Clinton	79	118	Ohio	45	50
Crawford	104	125	Orange	114	177
Daviess	34	43	Owen	89	105
Dearborn	271	287	Parke	145	154
Decatur	78	93	Perry	95	111
Dekalb	273	273	Pike	23	16
Delaware	161	188	Porter	323	349
Dubois	218	232	Posey	87	114
Elkhart	315	365	Pulaski	197	213
Fayette	51	47	Putnam	154	162
Floyd	143	158	Randolph	85	77
Fountain	103	88	Ripley	149	182
Franklin	74	97	Rush	45	62
Fulton	162	154	Scott	75	95
Gibson	150	135	Shelby	117	110
Grant	147	182	Spencer	144	140
Greene	301	295	St Joseph	144	140
Hamilton	176	205	Starke	174	173
Hancock	100	108	Steuben	374	430
Harrison	252	323	Sullivan	113	92
Hendricks	179	181	Switzerland	26	22
Henry	79	100	Tippecanoe	283	312
Howard	111	123	Tipton	37	42
Huntington	178	205	Union	9	6
Jackson	235	255	Vanderburgh	158	185
Jasper	196	207	Vermillion	61	70
Jay	145	128	Vigo	237	222
Jefferson	62	96	Wabash	190	177
Jennings	132	104	Warren	92	87
Johnson	100	132	Warrick	231	269
Knox	101	130	Washington	192	171
Kosciusko	405	418	Wayne	199	188
Lagrange	209	220	Wells	98	99
Lake	208	239	White	162	150
LaPorte	310	325	Whitley	158	205

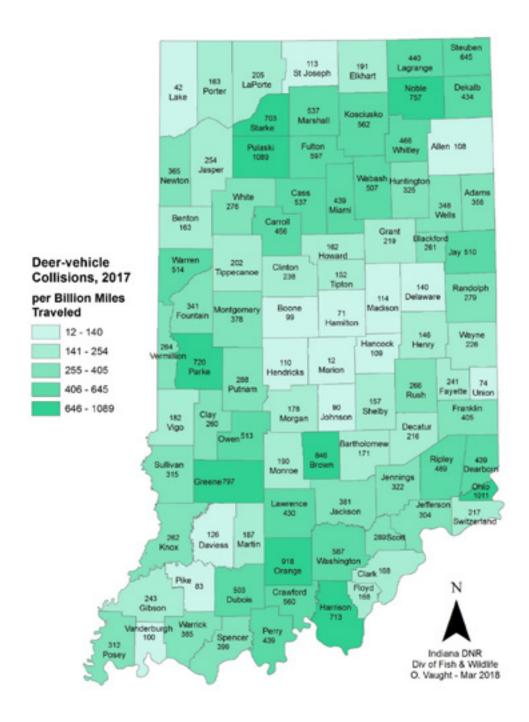


Figure 13. Deer-vehicle collisions per billion county miles traveled in Indiana in 2017.

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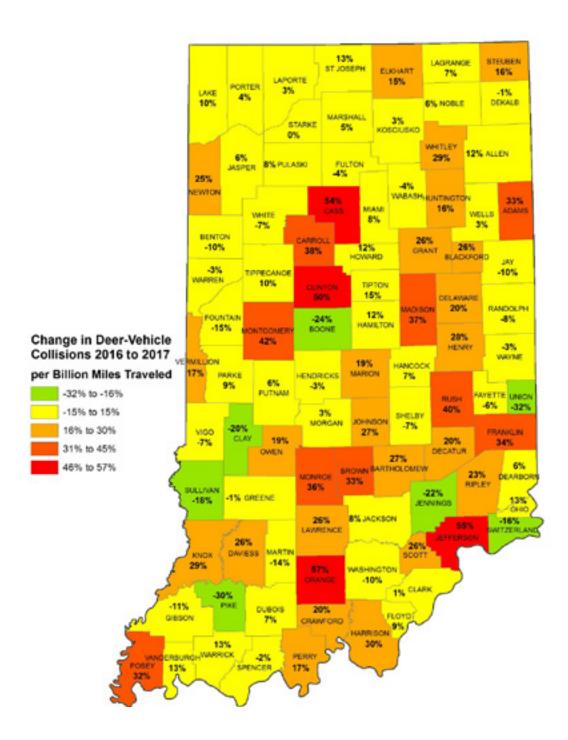


Figure 14. Percent change in deer-vehicle collisions per billion county miles traveled in Indiana from 2016 to 2017.

Table 21. Road type where deer-vehicle collisions occurred in Indiana in 2017.

Road Type	Number of Collisions	% of Total Collisions
County Road	4,262	28
Interstate	1,192	8
Local/City Road	1,708	11
State Road	5,719	37
Unknown	50	0.3
US Route	2,483	16
Total	15,414	

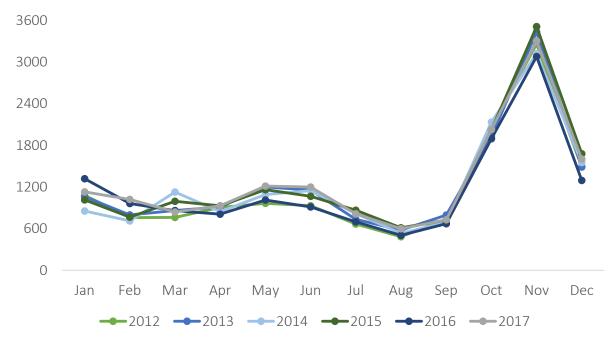


Figure 15. Number of deer-vehicle collisions in Indiana by month from 2012 to 2017.

Table 22. Reported economic loss due to deer-vehicle collisions in Indiana in 2017. The total number of collisions with an unknown cost estimate were evenly distributed among the damage estimate ranges based on the frequency of collisions for that range.

Damage Estimate Range	Number reported	Percent	Average Value of Damage	Average Damage Estimate
\$1,001 to \$2,500	5,746	37.30%	\$1,750	\$10,054,663.54
\$2,501 to \$5,000	6,181	40.10%	\$3,750	\$23,178,967.00
\$5,001 to \$10,000	2,931	19.00%	\$7,500	\$21,980,460.09
\$10,001 to \$25,000	510	3.30%	\$17,500	\$8,919,606.99
\$25,001 to \$50,000	31	0.20%	\$37,500	\$1,175,006.78
\$50,001 to \$100,000	11	0.10%	\$75,000	\$861,671.64
Over \$100,000	4	0.00%	\$100,000	\$417,780.19
Grand Total	15,414			\$66,588,156.22

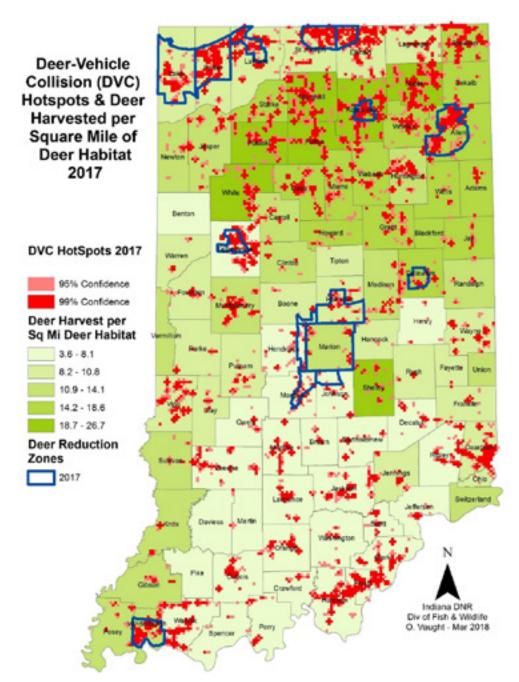


Figure 16. Deer-vehicle collision (DVC) hotspots and the number of deer harvested per square mile of deer habitat in each county in 2017. Hotspots indicate areas where DVCs are statically higher than what would be expected if DVCs occurred at random.

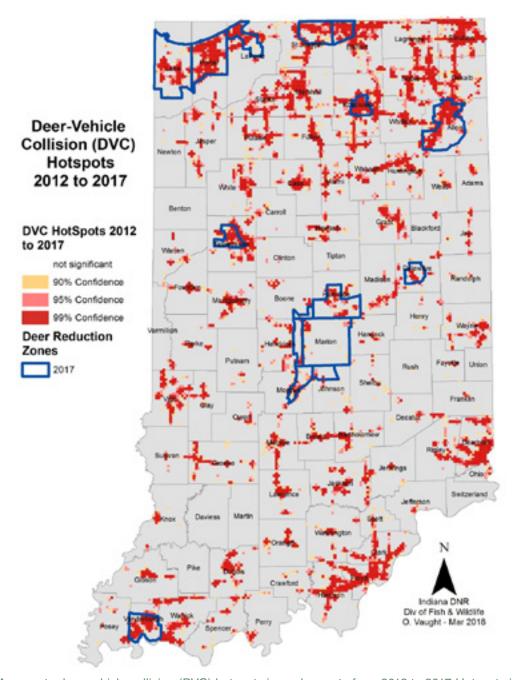


Figure 17. Aggregate deer-vehicle collision (DVC) hotspots in each county from 2012 to 2017. Hotspots indicate areas where DVCs are statically higher than what would be expected if DVCs occurred at random.

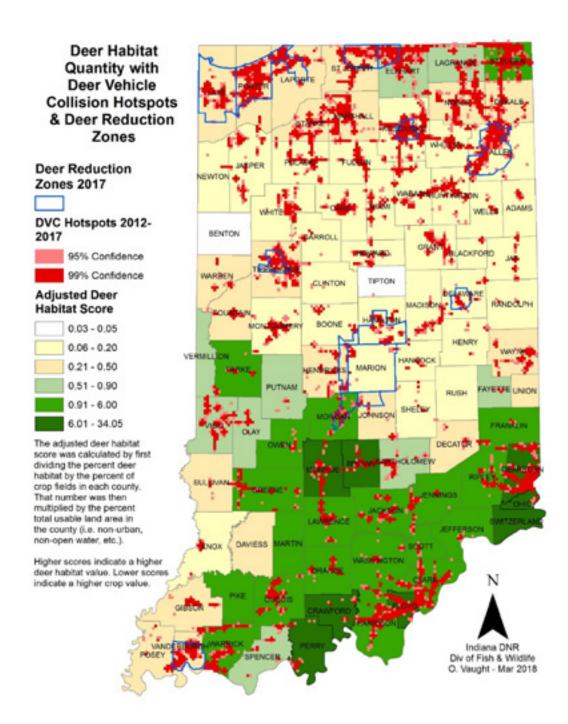


Figure 18. The adjusted deer habitat score for each Indiana county standardizes the amount of deer habitat and crop fields in that county relative to surrounding counties. Higher scores indicate a higher deer habitat value, and lower scores indicate a higher crop value. This map also shows significant deer-vehicle collision hotspots averaged from 2012 to 2017 and the 2017 Deer Reduction Zones.

### **EPIZOOTIC HEMORRHAGIC DISEASE**

Epizootic hemorrhagic disease (EHD) is caused by a viral disease and is spread to deer through biting midges. Often worse in drought years, outbreaks tend to occur in 5-10 year cycles. Although IDNR did receive sporadic reports of mortality in white-tailed deer from around the state in 2017, no cases of EHD were confirmed in Indiana. However, an EHD outbreak occurred in eastern Kentucky resulting in 4,581 suspected cases of EHD reported between July 19 and November 21, 2017 (EHD Status 2017). Localized mortality in deer from EHD can occur at any time, even if there is not a significant outbreak. The last major outbreak of EHD in Indiana occurred in 2012, with a less widespread, but significant outbreak the following year in 2013.

### Literature Cited

EHD Status 2017. Kentucky Department of Fish and Wildlife Resources. https://fw.ky.gov/Wildlife/Pages/ehd-status-2017.aspx

### **CHRONIC WASTING DISEASE**

Chronic wasting disease (CWD) is a neurodegenerative disease that affects members of the cervid family. Members of the family include white-tailed deer, mule deer (O. hemionus), elk (Cervis elaphus), moose (Alces alces), and reindeer (Rangifer tarandus). CWD is in a class of prion-caused diseases known as transmissible spongiform encephalopathies (TSE). Prions are misfolded proteins that cause lesions in the brains of infected animals. CWD is thought to be shed in the saliva, feces, and urine of infected deer and transmitted either by direct deer to deer contact or through contact with contaminated soil.

There is much ongoing research related to CWD, but there is no effective cure or vaccine, and it is always fatal to the infected cervid. It attacks the animal's brain and causes behavioral changes, excessive salivation, and loss of appetite. Chronic wasting disease leads to progressive loss of body condition and death. It has a long incubation period that averages from 18 to 24 months between infection and clinical signs. Infected animals

often appear healthy in the early stages of the disease. In advanced stages, however, they become emaciated, may lose fear of humans, stand with legs wide apart, and hold the head and ears low.

According to the USGS, CWD has been found in wild and captive cervids in over 20 US states and two provinces in Canada. It has also appeared in Norway, South Korea and recently Finland. CWD was first detected as a clinical syndrome in 1967 in captive mule deer at a Colorado research facility. In 1978, CWD was determined to be a spongiform encephalopathy and was found in captive deer and elk in Wyoming. Three years later, the disease was observed in free-ranging elk in Colorado. By 2002, it had been detected in nine states (Colorado, Illinois, Kansas, Minnesota, Montana, Oklahoma, South Dakota, Wisconsin and Wyoming) and two Canada provinces and geographic spread has continued since then (Chronic Wasting Disease: History).

CWD has been detected in white-tailed deer in 3 of Indiana's 4 neighboring states. CWD has been detected in captive deer in Ohio (What is Chronic Wasting Disease? (CWD)). Michigan has detected CWD in both wild and captive deer. In 2017, 57 new cases of CWD in wild white-tailed deer were reported in Michigan, 36 of which were harvested from a single county. CWD was first discovered in a wild deer in Michigan in 2015 and has since spread to five counties (Emerging Disease Issues: Chronic Wasting Disease). Illinois reported 75 new cases of CWD in wild deer during fiscal year 2017, including 2 new cases in Kankakee County approximately 25 miles west of the Illinois/Indiana state boundary (Chronic Wasting Disease). As a result, Indiana DNR increased CWD surveillance and testing of hunter harvested deer in the northwest corner of the state during opening weekend of firearms season (November 18 and 19, 2017). Targeted counties included Benton, Jasper, Lake, LaPorte, Newton, Porter, Pulaski, Starke, and White.

Each year, Indiana DNR collects tissue samples from hunter-harvested and road-killed deer for CWD testing. Samples are collected throughout the state as part of the statewide CWD surveillance program to monitor the presence of CWD in Indiana. Sick deer reported by citizens are also tested through the statewide CWD surveillance program. Because diseased prions accumulate in lymphoid and neural tissues, CWD is diagnosed by exami-

nation of brain or lymphoid tissue from a dead animal. In 2017, IDNR collected approximately 389 samples for CWD testing. Since surveillance began in 2002, more than 20,000 samples have been tested by the IDNR. All samples have tested negative for CWD. CWD testing is not required in Indiana at this time.

To date, there have been no cases of CWD infection documented in humans. However, recent studies suggest that some monkey species can become infected with CWD by eating CWD-infected meat. The Centers for Disease Control and Prevention recommends testing deer from areas where CWD is known to be present before eating the meat and to not eat the meat of an animal that tests positive for CWD.

### **Literature Cited**

Chronic Wasting Disease: History. United States
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Inspection Service. https://www.aphis.usda.gov/aphis/
ourfocus/animalhealth/animal-disease-information/
sa\_alternate\_livestock/sa\_cervid\_health/sa\_cwd/
ct\_history

Emerging Disease Issues: Chronic Wasting
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html Chronic Wasting Disease. Illinois Department
of Natural Resources. https://www.dnr.illinois.gov/
programs/CWD/Pages/default.aspx

What is Chronic Wasting Disease? (CWD). Ohio

Department of Natural Resources. https://wildlife.ohiodnr.gov/portals/wildlife/pdfs/CWD%20FAQ.pdf

### BOVINE TUBERCULOSIS SURVEILLANCE

Bovine tuberculosis (bTB) is a chronic disease caused by the bacterium *Mycobacterium bovis*. Indiana DNR and other state and federal partners test wild white-tailed deer for bovine tuberculosis because it was found in cattle in Franklin County in 2008, 2009, and 2016 and in Dearborn County in 2011. The disease was also detected in captive deer from a farm in Franklin County in 2009. Between 2009 and 2015, a total of 1,454 wild white-tailed deer were sampled in the bovine tuberculosis surveillance zone and none of these deer tested positive for the disease.

A new case of bovine tuberculosis was identified in cattle on another farm in Franklin County in May 2016. Wildlife was tested on the premises associated with this case and one wild white-tailed deer and one wild raccoon from the farm were also found to be positive for bovine tuberculosis. Because of this, bovine tuberculosis surveillance was significantly increased in hunter-harvested deer in Franklin, Dearborn, and Fayette counties. In 2016, 2,047 hunter-harvested deer and 23 deer collected after the hunting season (12 road killed and 11 on disease permits) were tested for bovine tuberculosis (Caudell and Vaught 2017).

In December 2016, another case of bovine tuberculosis was detected in a different cattle farm in Franklin County. As a result, surveillance in the 2017-2018 deer

hunting season was centered around this farm in Franklin and Fayette counties. During the 2017-2018 hunting season, incentives were modified to adapt to hunter concerns about negative impacts to the deer population. The incentive selected was a drawing for 10 authorizations to take a second buck during the 2018-2019 season. To be entered into the drawing, hunters had to harvest a deer from the bovine tuberculosis surveillance zone and submit it for testing. Only one second buck was awarded per drawn hunter. The number of entries into the drawing were based on the sex and age of the deer submitted and its proportional value in disease surveillance with bucks 2.5 years or older resulting in 10 entries, does 2.5 years or older resulting in 3 entries, bucks or does 1.5 years old resulting in 1 entry, and fawns resulting in 0 entries. Legally possessed road killed deer were also submitted for testing and entered into the drawing.

Just prior to the 2017-2018 hunting season, USDA-APHIS Wildlife Services collected 37 raccoons, 12 opossums, and 16 deer from or adjacent to the affected premises for testing. One wild raccoon from the December 2016 farm was found to be positive for bovine tuberculosis. As was the case with the positive deer and raccoon collected from the May 2016 farm, genetic analysis of the mycobacterial organism cultured from this raccoon strongly suggested that the infection was transmitted from cattle to the wildlife. During the hunting season, hunters brought in a total of 531 deer to the various check stations. From within the bovine tuberculosis surveillance zone, a total of 480 deer were collected consisting of 65 male and female fawns, 104 male and female yearlings, 141 females > 2 years old, and 169 males > 2 years old. Bovine tuberculosis was not detected in any of these deer samples.

### **Literature Cited**

Caudell, J. N., and O. D. L. Vaught. 2017. Indiana Whitetailed Deer Summary. Indiana Department of Natural Resources, Bloomington, Indiana.

### **SOCIOLOGICAL SURVEY RESULTS**

The Survey Results section will review the results of deer hunter surveys and landowner surveys conducted in previous years as well as the results from new surveys created in 2017. Results are reported below on a statewide basis. County level details can be found in the County Deer Data section.

### **Deer Hunter and Landowner Surveys**

Results from the 2008 deer hunter survey and the 2009 landowner survey were compared to the deer hunter and landowner surveys conducted beginning in 2012. These surveys were issued in order to assess the effectiveness of the deer management strategies that were implemented in 2012 to achieve the goal of targeted deer reduction. The strategies that were implemented to achieve this goal included:

- Revisions to the antlerless quota system to encourage additional deer to be harvested, especially in those areas with high levels of deer damage
- Changes to the hunting licenses to encourage additional deer to be harvested including the use of crossbows and the development of a license bundle
  - Revisions to the Urban Deer Zones
- Increased emphasis on hunter access to aid hunters in finding places to hunt
- Increased awareness and use of deer donation programs to encourage hunters to take additional deer
- Use of damage control and special purpose permits to allow the localized relief from deer damage

Hunter opinions of many of these strategies were both directly and indirectly measured by the questions in the deer hunter and landowner surveys.

## DEER HUNTER SURVEY - SATISFACTION WITH DEER MANAGEMENT IN INDIANA AND BELIEF IN DECLINING DEER POPULATIONS IN INDIANA, 2008-2016

### Introduction

The opinion of hunters is important to take into consideration when developing long-term management goals and for examining the effects of changing statewide management policies on hunter satisfaction. Hunters provide support to the IDNR by purchasing hunting licenses and hunting equipment as well as serving as partners in preventing deer populations from becoming so large that they cause extensive damage to habitat, crops, and personal safety.

Prior to 2012, the statewide management goal for Indiana's deer herd was to increase or maintain the deer herd as appropriate and increase harvest opportunity when warranted. In 2011, pressure from some stakeholders caused a significant shift in deer management to a generalized statewide policy of deer reduction by increasing harvest in most counties beginning in 2012 until 2016. To examine how satisfaction has changed over time, hunter satisfaction prior to 2011 (policy of increasing the deer herd) was compared to hunter satisfaction from 2012 to 2016 (policy of decreasing the deer herd) by asking hunters "How satisfied are you with deer management in the state of Indiana?"

### **Methods**

General satisfaction of deer hunters with deer management in Indiana was examined by county where respondents hunted using firearms in 2008, 2013, and 2016. In 2008, 18,946 surveys were mailed to a random selection of licensed and license exempt deer hunters in Indiana. A similar number of surveys were mailed in 2013 and 2016; however the actual number of surveys mailed could not be determined due to turn over in the deer program.

Hunters were asked "How satisfied are you with deer management in the state of Indiana?" Hunters responded on a 5-point Likert-type scale in 2013 and 2016 with the answers being "very satisfied, satisfied, unsatisfied, very unsatisfied, and no opinion." In 2008, hunters responded on a 6-point Likert-type scale with the only difference being the addition of "neither satisfied nor dissatisfied". For the 2008 data, the "no opinion" and "neither satisfied nor dissatisfied" answers were combined. To examine the difference in opinions toward deer management between the previous deer management strategy (2008) and the most recent 5-year plan, the responses from each county for 2013 and 2016 were averaged and the change in opinion from 2008 was graphed using the following formula for each of the 5 response categories:

Change in attitude from 2008 to Average of 2013 and 2016 =  $(X_{2013,2016} - X_{2008}) / X_{2008}$ 

Where:

 $X_{2013,2016}^-$  = response category for the average of 2013 and 2016 (% total)

 $X_{2008}$  = response category for 2008 (% total)

A weighted composite change in attitudes toward deer management was calculated using the following formula:

Composite Change Score =  $[(Very Satisfied Change \times 2) + (Satisfied Change)] - [(Very Unsatisfied Change \times 2) + (Unsatisfied Change)]$ 

Hunters were also asked "During the past 5-years, what trends have you seen in the deer population where you hunt most often?" Hunters responded on a 4-point Likert-type scale in all years with the answers being "more deer, no change, fewer deer, and don't know" in 2013 and 2016 and "more deer, the same number of deer, fewer deer, and don't know" in 2008. The second part of the question referred specifically to antiered deer with the responses being "more large antiered deer, no change in large antiered deer, fewer large antiered deer, and don't know" in 2013 and 2016 and "more large antiered deer, same number of large antiered deer, fewer large antiered deer, and don't know" in 2008. To examine the difference in belief in declining deer populations between the previous deer management strategy (2008), the overall change in belief of decreasing deer and bucks for each year was calculated using the following formula and the results are presented in the County Deer Data section:

Composite Score = (more deer (or bucks)) – (fewer deer (or bucks)).

### **Results and Discussion**

In 2008, 2013, and 2016, 5,800; 4,806; and 5,575 valid responses were obtained, respectively, regarding the question about statewide satisfaction with deer management. In 2008, when the number of mailed surveys was adjusted for undeliverable surveys, an adjusted response rate of 31% was calculated. A similar response rate was assumed for 2013 and 2016. Statewide, there was an overall positive response to deer management by hunters (Figure 19) with more respondents either satisfied or very satisfied with deer management in each year surveyed. However, since 2008 there has been an increase in the number of respondents who indicated they are unsatisfied or very unsatisfied with deer management and a decrease in the number of respondents who are neutral on the question. There has also been a general decline in respondents who are very satisfied with deer management, although less pronounced than the decrease of neutral hunters (Figure 19).

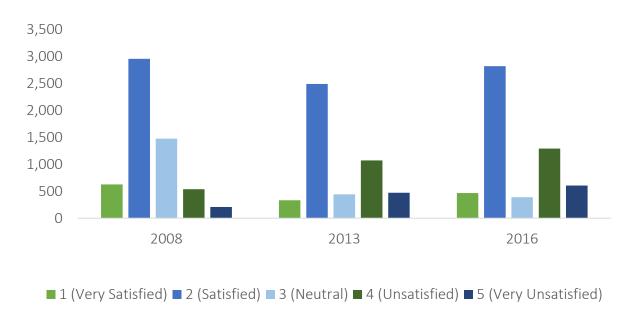


Figure 19. Deer hunter survey responses indicating statewide hunter satisfaction with deer management.

Statewide there was a general increase in dissatisfaction among hunters using firearms. Seventy-six counties had negative trends in satisfaction toward deer management while 16 counties had positive trends toward deer management. There were 76 negative composite change scores (median = -4.6) with the lowest composite change scores being in Gibson (-24.9), Steuben (-22.1), Fulton (-21.6), Whitley (-20.1), Cass (-19.3), Dubois (-19.1) and Jasper (-17.0) counties. Sixteen counties had positive composite change scores (median = 1.4) with Starke (5.1), Benton (3.5), and Hancock (3.1) having the greatest increase in gun hunter satisfaction. Statewide there was also a general trend toward declining satisfaction by archery hunters. Seventy-six counties had negative trends in satisfaction toward deer management while 17 counties had positive trends toward deer management. There were 75 negative composite change scores (median = -2.8) with the lowest composite change scores being in Steuben (-40.0), Nobel (-28.8), Huntington (-19.1), and Dubois (-16.7) counties. Sixteen counties had positive composite change scores (median = 0.3) with Parke (7.3), Floyd (3.0), and Crawford (1.4) having

the greatest increase in archery hunter satisfaction. Trends and data for each county are reported in the County Deer Data section.

In 2008, 2013, and 2016, 5,359; 4,904; and 5,664 valid responses were obtained, respectively, regarding the question about declining deer populations. Statewide, there was an evenly distributed response between the belief of more deer and bucks, same number of bucks, and fewer deer and bucks during the 5 years leading up to 2008 (Figure 20). However, there was a relatively large increase in the belief of a declining deer and buck population in 2013 and 2016 when compared with 2008 (Figure 21) and a relatively large decrease in the belief that deer populations where increasing. In general, the belief in a declining deer population was most pronounced in the northern counties with less of a belief in a decline in the more southern counties. The belief in a decline in large bucks was more uniformly distributed through the northern and southern counties. Trends and data for each county are reported in the County Deer Data section of this report.

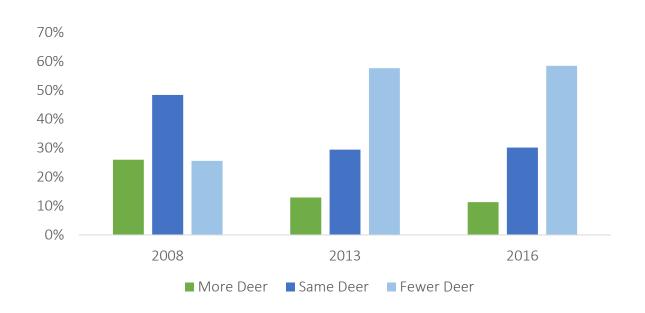


Figure 20. Deer hunter survey responses indicating statewide belief of hunters on the trend of the deer population in Indiana.

Hunters believe there are fewer deer in the population. It is important for managers to understand this does not assess the actual deer population but rather the belief in the trend. This data has not been compared against actual deer population sizes. To be able to use this as an indices of deer populations, hunter beliefs would have to be measured against known population sizes over time. When this data is used in conjunction with other indices (such as number of damage permits issued, deer vehicle collisions, or the Archer's Index), it could be used to indicate potential trends in populations and may be useful for identifying areas or counties where further investigation is warranted.

While the overall satisfaction of deer hunters with the deer management strategy in Indiana was positive, the

increasing trend in negativity toward deer management is important to note. Hunters were asked, "How satisfied are you with deer management in the state of Indiana?" More than 50% of hunters indicated they were satisfied with deer management in Indiana; however, the number actually satisfied with deer management in Indiana is likely lower. Because the question was written with a positive bias rather than being written in a neutral fashion, and because the word "satisfied" also appears in the answer choices, the responses are likely biased toward the satisfied category. Consequently, the >50% satisfaction score likely overestimates how satisfied hunters are with deer management in the state.

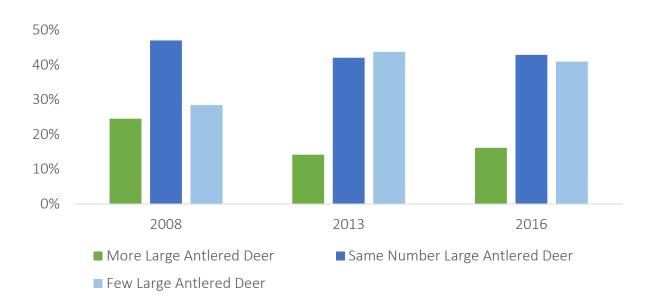


Figure 21. Deer hunter survey responses indicating statewide belief of hunters on the trend of the large antlered bucks in Indiana.

This question may also be misleading or difficult to interpret for hunters. Because hunters are likely to think about hunting where they hunt, rather than on a conceptual statewide basis, this question should be more targeted to where they hunt. For instance, future surveys may have additional questions stated as follows: "Thinking about where you hunt, please rate your opinion on deer management in your county" or "Thinking about the county where you hunt, please rate your opinion on deer management within your county." The current question should be retained for continuity of data analysis across years, but additional questions should be added to determine what hunters think of deer management in their area.

It is tempting for managers or hunters to use hunter satisfaction as an indices of deer populations. The underlying assumption for using this question as an indicator of deer numbers is that satisfaction with deer hunting is related to deer numbers. While deer numbers can influence satisfaction. Enck and Decker (1991) found that satisfaction was related to relaxation, visual evidence of deer, bagging deer, and the affiliation aspect of deer hunting. Dissatisfaction was related to poor hunting behavior by other hunters, not seeing visual evidence of deer, not harvesting deer, bad weather, and observing posted land. For satisfaction scores to potentially be used as an indices of deer population, they would need to be adjusted for extrinsic factors, such as weather. Follow up surveys or questions should also determine why hunters are either satisfied or dissatisfied and how much those factors not related to deer populations affect their experience.

Enck and Decker (1991) also found that hunters relied on multiple types and sources of information to develop their preseason expectations about the number of deer they would see during the hunting season, with the most important sources of information being personal reconnaissance or the personal experiences of friends. Today, this can likely be expanded to include social media friends, remote reconnaissance in the form of game cameras and individuals blogging about the deer population. They also obtain data about the upcoming hunt from IDNR. For 5 years, the deer management plan was

to strategically reduce the deer herd. Hunters who heard this message and believed it, likely entered the woods expecting to see fewer deer. Because perception is in part driven by what people believe and by what people remember, hunters' observations may have supported this view, leading to a decrease in satisfaction with deer management.

Because antlerless deer quotas are set at the county level, and because hunters often most identify with the county they hunt or live in, analysis of hunter satisfaction was attempted at the county level. However, this may be problematic because hunters were asked about statewide deer management, as opposed to asking about what they think of deer management in the county where they live and/or hunt. Hunters may be generally satisfied with deer management where they hunt, but may object to large scale deer management policies, such as the implementation of statewide deer reduction from 2012-2016. Future improvements to guestionnaires should make this distinction based on what information managers are interested in and be explicit in asking about deer populations or management at the county versus the state level.

As expected, hunters did not agree with a policy for a generalized deer reduction. It is unclear based on other statistics that deer populations have declined across the state. However, hunters are becoming more dissatisfied as time progresses, likely as more hunters know that the deer management policy is to reduce deer when most hunters are interested in seeing more deer. IDNR has moved away from a generalized policy of deer reduction and has refocused management efforts in a more targeted manner at the county level.

#### Literature Cited

Enck, J.W., and D. J. Decker. 1991. Hunters' Perspective on Satisfying and Dissatisfying Aspects of the Deer Hunting Experience in New York. Human Dimensions Research Unit Series No. 91-4. Department of Natural Resources, Cornell University, Ithaca, New York.

# LANDOWNER SURVEY — DESIRED DIRECTION OF DEER MANAGEMENT BY COUNTY AND AMOUNT OF DAMAGE CAUSED BY DEER

### Introduction

The goal of these questions was to assess the desired direction of the deer population for Indiana landowners who earn a significant amount of their income from farming and to evaluate the amount of deer related crop damage they experience. Because farming is a significant industry in Indiana and the majority of land in Indiana is in under production as farm land (Figure 22), the desires of farming landowners have to be considered as an important stakeholder group in deer management.

In areas with significant amounts of cropland, much of the deer habitat is represented by small strips or patches of woodlots, brush, grasslands, or wetlands surrounded by cropland. While these areas provide cover for deer, deer obtain much of their nutritional needs from foraging on various crops. In other areas, especially in the southern portion of the state, many farms are patches surrounded by deer habitat. These patches often receive deer damage from all sides. Both of these situations can

represent a significant amount of damage for some farmers; therefore, the opinions of this group of stakeholders must be considered in deer management. Because many farmers and their families also hunt, there is often internal conflict between wanting to see and hunt deer and limiting the amount of damage caused by deer.

Prior to 2012, the statewide management goal for Indiana's deer herd was an increasing or stabilized deer herd and harvest. In 2011, pressure from some stakeholders caused a significant shift in deer management to a generalized statewide deer reduction by increasing harvest in most counties beginning in 2012 until 2016. To examine how satisfaction has changed over time, landowner satisfaction prior to 2011 (policy of increasing the deer herd) was compared to landowner satisfaction from 2012 through 2016 (policy of decreasing the deer herd) by asking landowners "Please indicate which direction you would like the deer population to move in your county." In general, if the deer herd is declining, it is believed that landowners would eventually experience less damage, but they would also want to maintain a deer herd in the county that is huntable. Therefore, over time if landowners would not want an indefinitely declining deer herd they would respond that deer populations should be allowed to increase.



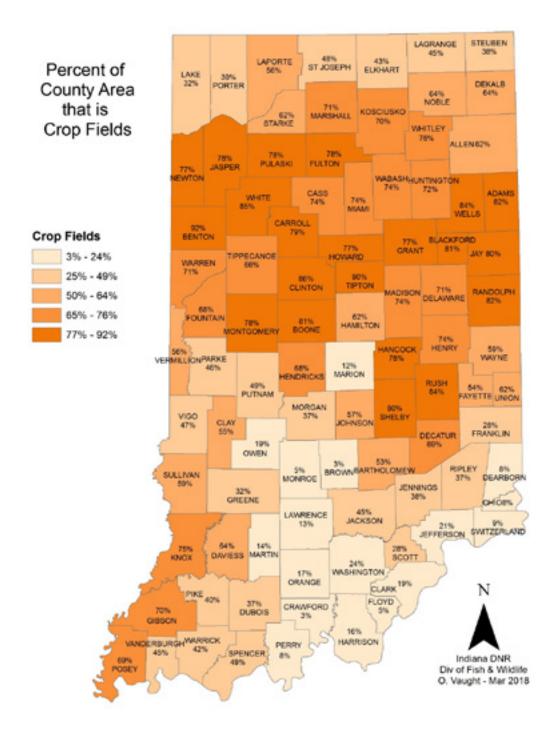


Figure 22. Percent crop fields per Indiana county based on a 2009 land use survey.

### **Methods**

The desired direction for the deer population in Indiana was examined by asking landowners who earned at least 50% of their income from farming in 2008, 2013, and 2016. Landowners were asked "Please indicate which direction you would like the deer population to move in your county." Landowners responded on a 6-point Likert-type scale in 2013 and 2016 with the answers being "substantially increase, slightly increase, keep at present levels, slightly decrease, substantially decrease, and no opinion." In 2008, landowners responded on a 5-point Likert-type scale with the only difference being the lack of a choice for "no opinion". Response rates were assumed to be similar to hunter surveys.

The amount of crop damage caused by deer and landowner opinions toward deer damage were examined through the Landowner Hunter Survey in 2008, 2013, and 2016. Landowners were asked to indicate the percent of all crop damage on their property caused by deer or

by other species including raccoons, squirrels, birds, and pigs. Landowners were also asked, "How do you feel about the amount of deer damage to your crops or woodlands over the past 12 months?" Response options were "Damage was negligible, damage was tolerable in exchange for having deer around, damage was unreasonable, and don't know."

#### **Results and Discussion**

In 2008, 2012, and 2016, 5,181; 4,858; and 3,909 total responses were obtained, respectively, from the Landowner Hunter Surveys. The number of valid responses for each question are in Table 23.

Statewide, there has been an upward trend in the number of landowners who desire to see an increase in the deer population since 2008 (Figure 23). However on average across all years, there are still more landowners who desire to see the deer population either remain the same (mean=38%), slightly decrease (21%), or substantially decrease (27%). Only 5% and 9% of landowners desire a substantial or slight increase, respectively. Trends for individual counties are reported in the County Deer Data section.

Table 23. Number of responses to the Landowner Hunter Survey received for each question related to deer damage in 2008, 2012, and 2016.

Question	2008	2012	2016
Desired Direction of Deer Population	4,612	4,814	3,608
Percent of Crop Damage	3,487	4,088	3,166
Opinion of Deer Damage	4,422	4,797	3,860

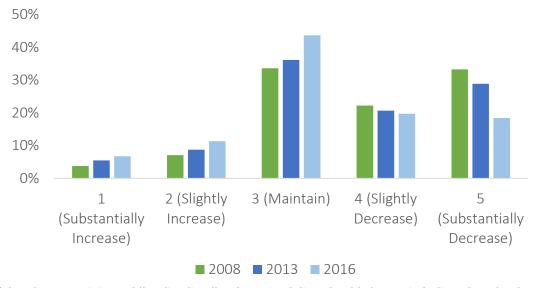


Figure 23. Landowner opinions of the direction the deer population should change in Indiana from landowner surveys in 2008, 2013, and 2016.

Statewide, the reported percentage of damage to crops caused by deer was the highest in 2012 at 53.6% (Figure 24). The percent of deer damage increased by 79.5% from 2008 to 2012 and decreased by 35.2% from 2012 to 2016 (Figure 24).

From 2008 to 2012, 90 counties saw an increase in the percentage of crop damage due to deer, and only Marion (-11.8%) and Perry (-7.7%) counties decreased. Of the counties that increased, 67 of them saw increases > 50% while 34 counties saw increases > 100%. Conversely, from 2012 to 2016, only eight counties saw an increase in the percentage of damage caused by deer while the other 84 counties saw a decrease. Fourteen counties had a decrease >50%.

Reported damage to crops caused by deer has decreased across the state, and landowner opinions toward deer damage have become less unreasonable since 2008 following an increase in deer damage and an unreasonable amount of damage in 2012. The decrease in landowners who believe that deer populations should be decreased is likely an indicator that deer populations have been reduced. It is impossible to determine the magnitude that this represents unless landowner opinion data is measured against known deer populations. However, when viewed in conjunction with other indicators, such as declining opinions of deer population, declining hunter opinion of deer management in Indiana, and declining deer vehicle collisions, an increase in landowner desire to increase the deer herd can serve as an indicator that changes to regulations should be considered for that county.

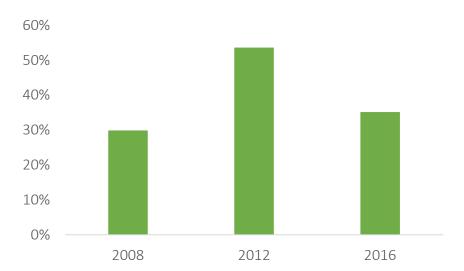


Figure 24. Average percent of damage to crops caused by deer statewide reported by landowners in 2008, 2012, and 2016.

In 2008, counties in southwest and central Indiana had greater percentages of negligible opinions toward the amount of damage caused by deer while counties in the north and southeast had greater percentages of unreasonable and tolerable opinions. More than 33% of responses were tolerable in 42 counties and negligible in 30 counties in 2008. In 2012, the percent of unreasonable and tolerable opinions increased across the state while the percent of "don't know" responses decreased. More than 33% of responses were tolerable in 71 counties. Negligible and unreasonable responses were > 33% in 21 and 20 counties respectively. The percent of unreasonable responses decreased statewide in 2016. Fifty-one counties had negligible responses > 33%, and 65 counties had tolerable responses > 33%.

### DEER HUNTER SURVEY – THE EFFECT OF CROSSBOWS ON HUNTING IN INDIANA

### Introduction

In 2012, the early and late archery seasons were combined into a single continuous season, and crossbows were allowed to be used throughout the archery season. Previously, crossbows were legal in the late archery season only. The goals of these questions were to determine the use of crossbows during archery season and hunter attitudes toward the use of crossbows as a result of the effect crossbows had on their hunting experience.

### **Methods**

The number of hunters that used a crossbow and the effect crossbows had on hunters' hunting experiences in Indiana were examined by surveying deer hunters in 2013 and 2016. At the beginning of the 2013 and 2016 surveys, hunters were generally asked to select the weapon type(s) they used during the previous hunting season. Then, hunters were asked two questions specific to crossbows. The first, "Did having crossbow availability early in the archery season directly affect your hunting experience during that time?" Response options were "yes, no, and I don't know." Hunters were asked a follow-up question, "If you answered 'yes' to the previous question, did you have a positive or negative experience regarding crossbows?" Response options were "positive, negative, and I don't know."

The percent of hunters that used crossbows both exclusively and with other equipment types was calculated, and the effects crossbows had on hunter experience for all hunters that responded were examined. Respondents were also divided into two groups: hunters that used a crossbow, and hunters that did not use a crossbow. Responses to the follow-up question were excluded for hunters that responded "no" to the first question but then answered the follow-up question. Both 2013 and 2016 were analyzed using the same method.

### **Results and Discussion**

In 2013 and 2016, 4,894 and 5,630 valid responses were obtained, respectively. Of all responding hunters, 21.1% and 29.3% used a crossbow either exclusively or with other equipment types in 2013 and 2016, respectively. A similar proportion of crossbow hunters reported using a crossbow exclusively in 2013 (8%) and 2016 (7%). In 2016, slightly fewer hunters used crossbows with archery and/or shotgun equipment, while more hunters used crossbows with rifles and/or muzzleloaders than in 2013.

More than 50% of the responses from all hunters surveyed indicated that crossbows did not affect their hunting experience in either year (Figure 25). Of hunters that indicated crossbows affected their hunting experience, 74.4% (2013) and 82.2% (2016) of them reported a positive effect (Figure 26). The percent change from 2013 to 2016 indicates more hunters are affected by crossbows but in a positive way.

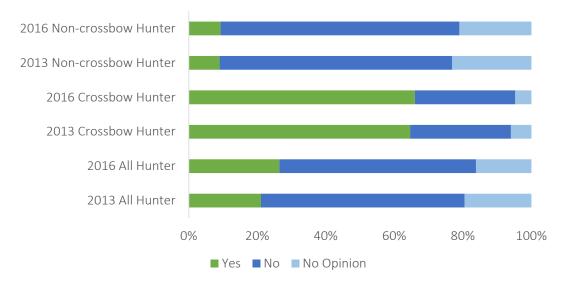


Figure 25. Percent of Indiana hunters who indicated if the inclusion of crossbows as hunting equipment have had any effect on their hunting.

In both years, responses from crossbow hunters and non-crossbow hunters were inversely related with more crossbow hunters indicating an effect and more non-crossbow hunters indicating no effect of crossbow use on their hunting experience. From 2013 to 2016, more crossbow and non-crossbow hunters reported being affected by crossbows.

As might be expected, over 90% of crossbow hunters felt the crossbow positively affected their hunting experience in 2013 and 2016. Non-crossbow hunter opinions were not as divided, with approximately 60% reporting a negative effect of crossbows in both years. However, positive opinions increased by 10% and negative opinions decreased by 5% for non-crossbow hunters from 2013 to 2016.

Deer Hunter Surveys were mailed after the 2012 and 2015 deer hunting seasons. Therefore, the 2013 survey reflected hunter opinions of the first year that crossbows were allowed throughout the archery season. In general, hunter opinions of the effect crossbows have on their hunting experience have remained steady but have slightly shifted toward a positive (less negative) opinion since crossbows became legal during the entire archery season in 2012.

Of all hunters surveyed, more hunters indicated crossbows affected their hunting experience, and more of those hunters felt it was a positive effect. Of 2016 crossbow hunters, more responses indicated a positive effect of crossbows than in 2013. Of 2016 non-crossbow hunters, more responses indicated both that crossbows did not affect their hunting experience, and of those that

said crossbows did affect their hunting experience, more indicated it was a positive response and fewer indicated a negative response compared to 2013.

The use of crossbows may prove especially useful in several ways. Crossbows have been especially useful in the introduction of new hunters to the sport. The Kentucky Department of Fish and Wildlife uses crossbows in its Hunter Legacy Program for deer hunting with college age students. Crossbows are especially effective because they are much easier to use than other archery equipment, and can be less intimidating than rifles or shotguns, especially for the novice hunter new to the sport. Crossbows have also shown their usefulness in hunting in sensitive situations, such as hunting in urban areas. IDNR's Community Hunting Access Program (CHAP), which helps gain access for hunters to urban areas for deer hunting, benefits from crossbows because of their level of accuracy for a given level of practice. Some hunters who used to enjoy the quiet of bow hunting, but can no longer use archery equipment because of age or injury, can continue to enjoy the sport.

In conclusion, hunters in general believe that the inclusion of crossbows as hunting equipment has had a positive effect on hunting. Non-crossbow hunters believe that is has caused them to be impacted in a negative fashion. Because of the increased access that crossbows can potentially provide in urban and suburban areas, and because crossbows are a type of equipment that encourages new hunters to take up the sport and helps retain existing hunters, the existing season on crossbows should be retained.

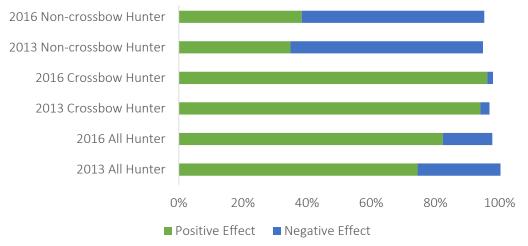


Figure 26. Type of effect on hunters who indicated that the inclusion of crossbows as hunting equipment had an effect on their hunting.

### DEER HUNTER SURVEY – SPECIAL ANTLERLESS FIREARMS SEASON

### Introduction

In 2012, the Special Antlerless Firearms (previously known as Late Antlerless) season was created to allow hunters another opportunity to harvest antlerless deer using firearms late in the season. The Special Antlerless Firearms season occurs only in counties where the county bonus antlerless quota is greater than three. The goal of this question was to determine hunter acceptance of and preference for this season.

### **Methods**

In 2013 and 2016, hunter attitude toward the Special Antlerless Firearms season was examined by county in which they hunted during the Archery season and Firearms season through the Deer Hunter Survey. Hunters were asked "Do you like or would you like the late antlerless season in the county where you hunt?" Response choices were "yes, no, and I don't know."

A few counties reported zero responses for either "yes" or "no" which resulted in a divide by zero error when calculating percent change. To avoid this, the number of

responses for each county was adjusted by evenly adding one to the number of each response category. This allowed for calculating the percent change in opinions. Hunter opinions were examined by county hunted during Archery and Firearms season and are reported by county in the County Deer Data section.

### **Results and Discussion**

In 2013 and 2016, 4,855 and 5,609 valid responses were obtained, respectively. More than 50% of hunters in 2013 and 2016 like or would like the Special Antlerless Firearms season (Figure 27). The percent of hunters that did not like the Special Antlerless Firearms season increased from 2013 to 2016.

Fifteen Archery season counties and 16 Firearms season counties had an increase in positive ("yes") responses from 2013 to 2016. For Archery season, the greatest increase in positive responses from 2013 to 2016 was in Benton County (63.6%). For Firearms season, Union County saw an increase of 50% in positive opinions from 2013 to 2016. From 2013 to 2016, the percent of positive responses decreased in 76 counties for Archery season while positive responses decreased in 74 counties for Firearms season. Positive opinions decreased by over 50% for both Archery and Firearms seasons in Sullivan County (52.4%, 52.8%) from 2013 to 2016.

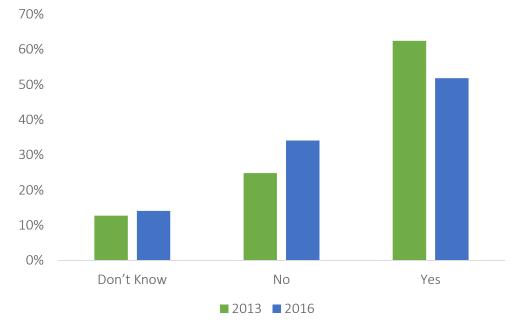


Figure 27. Hunter opinions toward the Special Antlerless Firearms season in the county in which they hunt. Hunters were asked, "Do you like or would you like the late antlerless season in the county where you hunt?"

In 34 Archery season counties, the percent of negative ("no") responses increased by more than 50%, of which eight counties had a greater than 100% increase in negative opinion. Similarly, the percent of negative responses in 30 Firearms season counties increased by more than 50%, of which 15 counties had a greater than 100% increase in negative opinion. Bartholomew (yes=158.6%, no=218.2%), Boone (414.3%, 214.8%), Fayette (208.8%, 456.5%), Monroe (122.8%, 179.4%), Orange (244.9%, 367.6%), Tipton (134.8%, 200.0%), and Warrick (193.8%, 211.5%) counties reported increases in negative opinions over 100% for both Archery and Firearms seasons. Negative opinions decreased in 19 counties for Archery season and 22 counties for Firearms season. Declines in negative opinions were less than 50% for both Archery and Firearms seasons.

Of the counties that had the Special Antlerless Firearms season in 2012 only (n=13), 85% saw a decrease in positive opinions and an increase in negative opinions from 2013 to 2016 for both Archery and Firearms seasons. Of the counties that had the Special Antlerless Firearms season in 2015 only (n=8), 88% saw a decrease in positive opinion for both Archery and Firearms

seasons. Six Archery counties and eight Firearms counties reported an increase in negative opinion for Archery and Firearms seasons. Of the counties without a Special Antlerless Firearms season in either year, Benton, Perry, Shelby, Union, and Wells counties reported an overall positive trend in opinion from 2013 to 2016 in both Archery and Firearms seasons. Data from individual counties are presented in the County Deer Data section.

Overall, hunter opinions toward the Special Antlerless Firearms season have become more negative since the season first opened in 2012. However, a few counties still have an increasingly positive attitude toward the season. The Special Antlerless Firearms Season was one of the strategies suggested to help reduce deer populations in the 2012 deer management plan. It is an effective tool in that it can be applied at the county level, and it can be limited by reducing the county bonus antlerless quota from a four to a three, giving it a significant amount of flexibility in its application. It can be applied as needed by IDNRto respond to rapidly increasing damage complaints, deer vehicle collisions, or other indicators of a rapidly increasing deer population.

### **Deer Management Survey**

The basis of fish and wildlife management in North America is the North American Model of Wildlife Management (Organ et al. 2012). Two tenants of this management model are that wildlife is held in the public trust for current and future generations and that sound science is the proper tool for managing wildlife. Because wildlife is managed for the public, wildlife management often includes sociological sciences to determine what the public desires as management goals as well as biological sciences that are used for managing populations.

For the past several decades, IDNR has incorporated the desires of hunters, landowners, and other stakeholders into deer management decisions. This is an integral part of wildlife management because wildlife is managed for the benefit of the citizens of the state and is not exclusively based on the relationship of deer to carrying capacity, habitat, or other biological and ecological factors. To obtain sociological data, surveys are used as a cost effective technique for obtaining large amounts of information.



### DEER MANAGEMENT SURVEY – A SELECTION OF 2018 RESULTS

### Introduction

Since the early 1990s, IDNR has conducted paper surveys of a random sample of hunters and of landowners who earn at least half their income from the land. In 2018, IDNR began conducting electronic surveys on deer management to receive input from any interested citizen in order to collect a large amount of information on a regular basis. The objective of these surveys is to determine the opinions toward deer management at the county and state levels, hunter opinions toward different management options, and general opinions toward specific topics such as chronic wasting disease (CWD). As of March 20, 2018, the 2018 Deer Management Survey is currently underway. However, a selection of statewide results are reported in this section and a select group of statistics relevant for management decisions by county are reported in the County Deer Data section. A complete report of 2018 data will be available in next year's Indiana Deer Report. Subsequent reports will describe the previous year's data.

### **Methods**

Email addresses were obtained from the IDNR electronic database for people who have a current electronic IDNR account for purchasing hunting and/or fishing licenses through the on-line sales system. Email addresses were obtained for hunters who checked in deer during the last three years and provided a valid email address. The two lists were combined and duplicate emails were removed. Unique survey links were emailed to each individual through the Qualtrics email system.

Respondents were asked questions on several general topics including individual demographics; hunting demographics; opinions about various deer management techniques; deer populations, deer management, and hunting in the county where respondents hunted most; deer populations and deer management in the county where respondents lived; and CWD knowledge and management. The CWD questions used were based

on a stakeholder survey conducted in Illinois (Miller et al. 2013) with questions altered to reflect differences in license structure in Indiana.

The data was analyzed using Stats iQ embedded in the Qualtrics survey website. Where appropriate, descriptive statistics, 95% confidence intervals (CI95), Chisquared, Cramer's V effect size, and one-way ANOVA analyses were used.

### Selected Results (as of 3-20-2018) and Discussion

On March 12, 2018, 266,783 surveys were initially emailed though the Qualtrics email system. As of March 20, 2018, 22,740 surveys were started and 12,350 surveys were finished for a completion rate of 53%. Of the surveys sent out, 4,265 surveys were returned as undeliverable, and 83 duplicate emails were found by the Qualtrics mailer. On March 20, 2018, 20,245 responses from selected questions were analyzed and used in providing guidance for the management decisions for the upcoming deer season.

Survey recipients were asked to indicate their county of residence. 756 respondents indicated they were non-residents. Of those, 636 (84%) indicated they were Indiana hunters, and 120 (15.9%) indicated they were neither an Indiana resident nor a hunter. Non-resident Indiana hunters (referred to as out-of-state hunters) were allowed to continue the survey while non-resident non-hunters exited the survey.

Indiana residents were asked if they considered themselves a hunter, even if they had not hunted recently. 16,778 (82.2%) respondents indicated they considered themselves hunters while 2,454 (12.8%) indicated they did not consider themselves to be a hunter (Figures 28 and 29). Of non-hunters, 2,246 (93%) chose to continue with the survey while 170 (7%) of non-hunters chose to exit the survey.

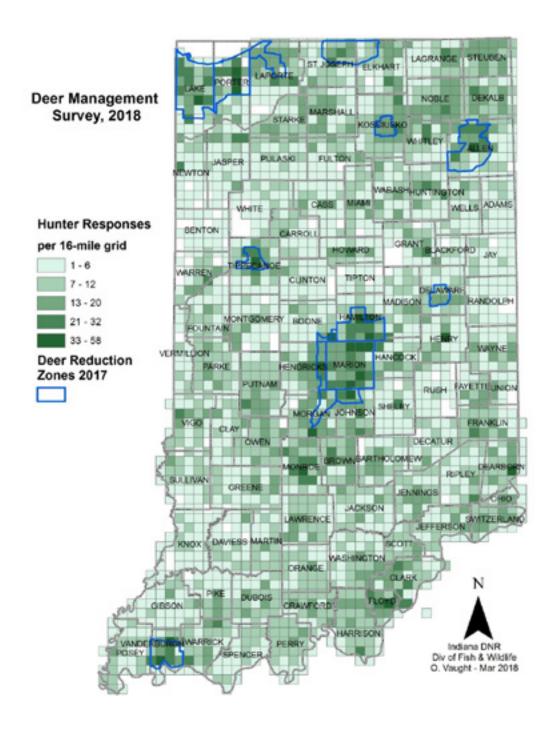


Figure 28. Number of hunter survey responses to the 2018 Deer Management Survey per 16-mile grid as of March 22, 2018.

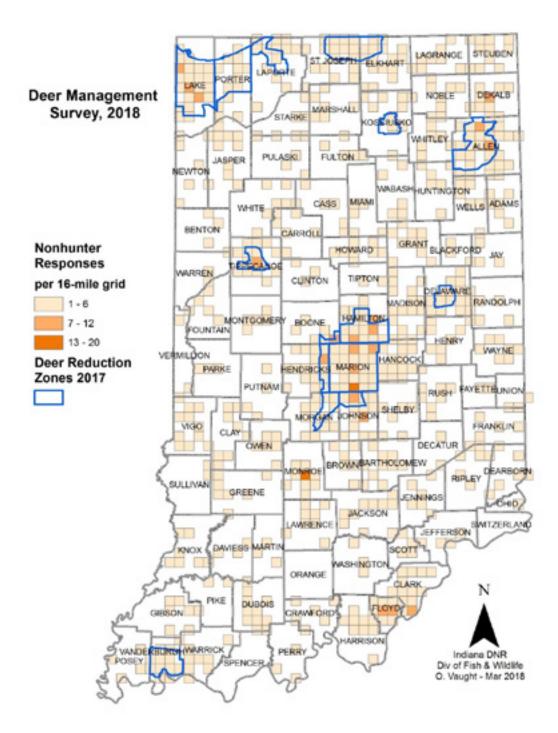


Figure 29. Number of non-hunter survey responses to the 2018 Deer Management Survey per 16-mile grid as of March 22, 2018.

Hunters were asked to indicate if they hunt in the county where they live. Out of 14,223 respondents, 36.4% indicated they usually hunt in the same county where they live, 28.4% live in one county but hunt in a different county, 22.6% mostly hunt in the county where they live but also hunt in other counties, and 12.6% occasionally hunt in the county where they live but primarily hunt in other counties. Hunters who hunted and lived in different counties were asked if they desired to give input into deer management and opinion questions for the county where they live in addition to the county where they hunt. 71.9% indicated they would like to provide input into the county where they live in addition to the county where they hunt while 28.1% opted to just provide input into the county where they primarily hunt.

Respondents were asked to rate how IDNR is doing managing deer on a scale of 0 (terrible) – 100 (excellent) statewide. The average rank from all respondents was 63.2 (n=13,019; SD=27.5; Cl95=62.7-63.6) with a median rank of 71. The average rank from non-hunters was

74.7 (n=1,271; SD 20.1; Cl95=73.6-75.84) with a median rank of 74.7 (Figure 30). The average rank from hunters was 62.7 (n=12,514; SD= 27.7; Cl95=62.2-63.2) with a median rank of 71 (Figure 30). County level results are available for each county in Table 8 in the County Deer Data section.

Respondents were asked to "describe the size of the deer population" where they live and/or hunt on a 5-point scale (1="Too Low", 3="About Right", 5="Too High"). Non-hunters who responded (n=2,039) indicated that the population was just about right (46.7%, n=953) while hunters believed the population was between about right (34.4%, n=1,978) and too low (36.0%, n=2,072). Hunters were also asked to rank the size of the deer population in the county where they hunt. Respondents (n=12,733) indicated that the deer population was low (41.3%, n=5,262) where they hunt (Figure 31). County level results are available in Table 5 in the County Deer Data section.

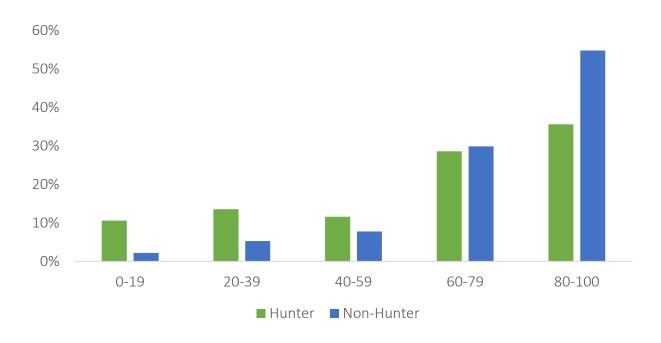


Figure 30. Responses of hunters and non-hunters when asked to rank how IDNR is doing managing deer on a statewide basis on a scale of 0 (terrible) to 100 (excellent).

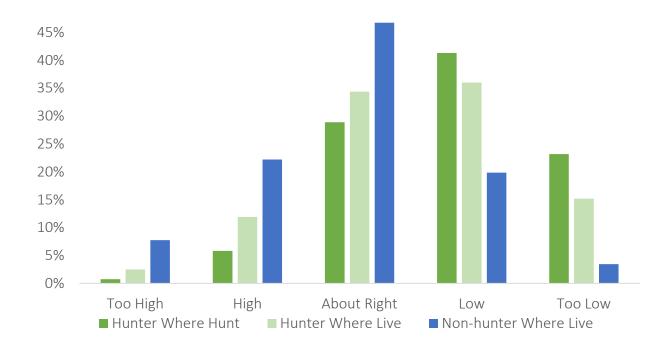


Figure 31. Opinion of deer population sizes in the county where hunters hunt and where they live (if different) and where non-hunters live.

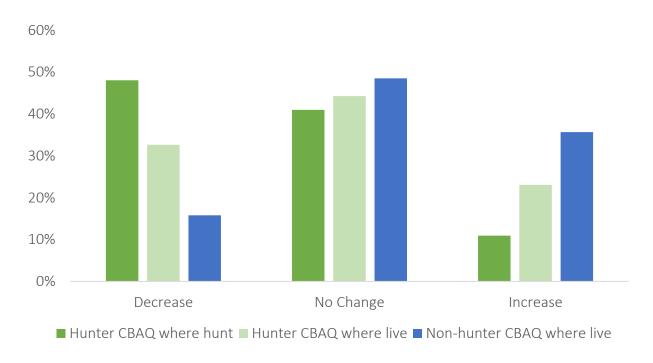


Figure 32. Hunter and non-hunter opinion of changes to the county bonus antlerless quotas (CBAQ) in the county where they live and opinions of hunters for changes to the CBAQ in the county where they hunt.

Hunters were asked to give their opinion on how the county bonus antlerless quotas (CBAQ) should change next year in the county where they hunt ("Increase, no change, or decrease"). Non-hunters were also asked this question but in a different way because non-hunters were less likely to be familiar with county bonus antlerless quotas. Instead, non-hunters were asked to give their opinion on the number of does that can currently be taken in the county where they live because the number of does that can be harvested is, in part, controlled by the county bonus antlerless quotas in that county. Hunters (n=12,539) indicated they would like to see a decrease or no change in the county where they hunt (48.1%=decrease, 41.0%=no change; Figure 32). Most hunters (n=5,688) and non-hunters (n=1,942) indicated they would like to see the CBAQ remain the same (44.3%=remain same for hunters, 48.5% remain same for non-hunters) in the county where they live (Figure 32). County level results are available in Table 6 in the County Deer Data section of this report.

Respondents were asked "How would you like to see the number of deer change in the next 5 years" in the county where they live and/or hunt on a scale of 1-7 (1= "Decrease considerably", 4= "No change", 7= "Increase considerably"). On average, hunters (n=5,760) would like to see a slight increase in the number of deer in the county where they live (27.6% = increase slightly, 19.2% = increase moderately, and 22.1% = no change; Figure 33). Non-hunters (n=2,046) indicated they would like to see the deer population remain the same where they live (36.1%=no change, 20.7%=increase slightly, 17.7%=decrease slightly). Hunters (n=12,580) who answered this same question about the county where they hunt indicated that they would like to see a slight to considerable increase in the deer population (26.8%=increase slightly, 28.8%=increase moderately, and 22.9%=increase considerably; Figure 33). County level results are available in Table 7 in the County Deer Data section of this report.

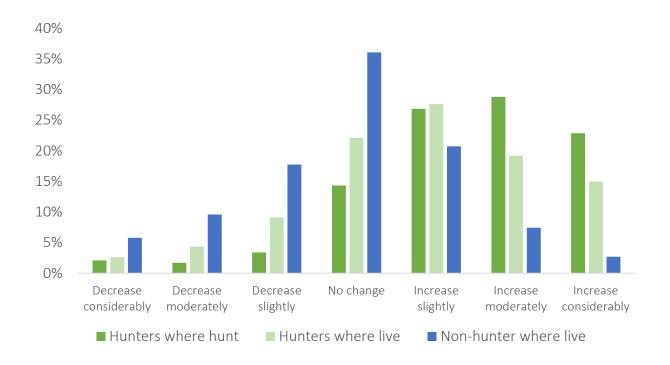


Figure 33. Hunter and non-hunter responses about how they would like the deer population to change in the next five years from the 2018 Deer Management Survey. Hunters were given the opportunity to respond to this question for the county where they live and for the county where they hunt.

Hunters were also asked on a 7-point scale their agreement (1= "strongly agree", 4= "neither agree nor disagree", 7= "strongly disagree") with the statement "Good deer management will result in deer populations that will increase every year." Of the hunters who responded (n=15,912), almost half of hunters (49.5%) agreed with this statement (10.4%=strongly agree, 21.0%=agree, 18.1%=somewhat agree) while only 29.6% disagreed with this statement (2.9%=strongly disagree, 11.8%=disagree, 14.9%=somewhat disagree). The remaining 20.8% neither agreed nor disagreed with this statement. When this question and the question that asked how hunters would like to see deer population increase over the next five years were compared with each other using a Chi-squared test, there was a subtle but statistically significant relationship between these two statement (n=11,273, p<0.0001, effect size=0.136).

Based on classic understanding of how K-selected species populations fluctuate, white-tailed deer populations should increase until they hit and exceed carrying capacity. Once this happens, deer populations will decrease, then increase, and continually fluctuate around the carrying capacity (McCullough 1979). The goal of wildlife managers who work with these K-selected species is to manage the population below the carrying capacity to reduce the severity of yearly fluctuations. Ideally, deer would be managed near the inflection point, which is approximately 50% of the carrying capacity. Near carrying capacity, deer populations have likely eaten the most preferred and nutritious food and are sustaining their numbers of poorer quality forage. At this point, the largest number of deer may be on the landscape, but body condition and antler size may suffer. By managing deer at a target near the inflection point, deer experience their greatest growth rate, but are not so populous that their body condition begins to suffer. The belief that with good management, deer populations will continually increase, may be leading to a desire for a deer herd that would actually be above a level for optimal size and harvest, and eventually above carrying capacity.

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### CITIZEN SCIENCE

Citizen science is the engagement of the public in data collection and analysis of natural resources. IDNR uses citizen scientists as an alternative way to collect data traditionally obtained by biologists in order to save time and resources, to collect a wider set of data from a broader scale, and to provide the public an opportunity to assist in managing resources. Currently, the Deer Research Program relies on citizen scientists for three projects: Snapshot Indiana, the Archer's Index, and the After Hunt Survey.

### SNAPSHOT INDIANA

### Introduction

Snapshot Indiana is a citizen-science trail camera project designed to collect data on a variety of wildlife species in Indiana. Remote-trigger or "trail" cameras can be a useful tool for IDNR wildlife managers because data can be collected with only a moderate amount of effort, and photos can allow for easier identification than other surveys. Photos can provide a variety of data, including whether a species is expanding into new counties, long-term population trends, activity patterns, or documentation of uncommon species such as badger. The Deer Research Program is working on analyzing this data as a measure of doe:buck ratios, fawn:doe ratios, and buck quality.

### **Methods**

Trail cameras were sent to volunteers who received training on how to set up and use cameras based on a set of criteria. Volunteers must have at least ten acres and cannot have bait or feeders for wildlife near where the camera is set. Cameras were set for at least 30

consecutive days during October and November. Biologists reviewed the photos and recorded the number of bucks, does, and fawns seen on each photograph. Photographs were then reviewed for duplicates in a short period of time (i.e., when individual deer continually walk in front of cameras), which were removed prior to analysis for fawn:doe ratios using a total count of all unique events. A minimum number of individuals (MNI) were calculated for each camera based on what appears to be unique individuals for each camera. The MNI value is likely more conservative than total counts for unique events. The analysis was conducted on statewide observations and groups of regional observations which were based on regions of similar quantity of deer habitat (Figure 34). 95% confidence intervals (CI95) were calculated for statewide and regional means.

### **Results and Discussion**

A total of 95 cameras were distributed in 2017. Approximately 75% of the analysis had been completed at the time of publication. Statewide, a fawn:doe ratio of 0.8:1 (Cl95 = 0.49) was observed based on the total counts for unique events and a ratio of 1:1 (Cl95 = 0.25) using the MNI method (Figure 39). Fawn:doe ratios are reported on a regional basis in Figures 40-45. There were not enough photos submitted to analyze data for the Northeastern Region consisting of Elkhart, Lagrange, and Steuben counties.

Currently, there are plans to expand the Snapshot Indiana data to new volunteers, state lands, and other underrepresented areas. Photographic data has the potential to serve as a method for developing long-term datasets for a variety of metrics, such as recruitment, buck quality, age ratios, and sex ratios. Individuals desiring to volunteer can sign up for the Snapshot Indiana program at https://www.IN.gov/dnr/fishwild/9625.htm.

### DEER SECTION OF THE ARCHER'S INDEX

### Introduction

Archery hunters play an important role in monitoring the abundance of furbearer and other wildlife species in Indiana. Since the early 1990s, Indiana archery hunters have voluntarily shared their wildlife observations with IDNR as a system of monitoring trends in statewide wildlife populations. This partnership between archery hunters and the IDNR has provided a consistent and inexpensive method for monitoring many wildlife species. The DFW Furbearer Program currently manages the Archer's Index and have shared their data on deer observations for analysis in the White-tailed Deer Report. The complete Archer's Index is available on a yearly basis and contains indices for a number of furbearer species. See previous Archer's Index reports by typing "Archer's Index" in the search box at www.wildlife.in.gov/3352. htm. Volunteers may sign up to participate in the Archer's Index by emailing dfw@dnr.in.gov; specify the desire to volunteer and provide a mailing address. Interested hunters may also call (812) 334-1137.

#### **Methods**

Prior to the archery hunting season, hunters who volunteered to participate in the survey were sent a standardized survey form and directions for recording wildlife observations. Hunters were asked to record the number of hours spent hunting each day, noting either morning or evening hunts, and the total number of each wildlife species observed daily.

Historically, the survey ended on the same day as the early archery season, typically in late November. However, regulation changes were implemented in 2012 that extended the Archery season into one continuous season that ended in early January. Since then, the Archer's Index has ended one day prior to the opening of Firearms season to ensure an unbiased and standard survey period. After the end of the survey period, participants returned their completed survey form to IDNR. Population indices were tabulated by dividing the total number of each wildlife species sighted by the total number of hours hunted. The index is represented as the number of observations per 1,000 hours of hunting, summarized for statewide totals. Observations per hour, fawn:doe ratios, and doe:buck ratios were calculated for five ecological regions based on deer habitat and proximity to similar counties (Figure 34). Confidence intervals (CI95) were calculated for observations per hour each year.



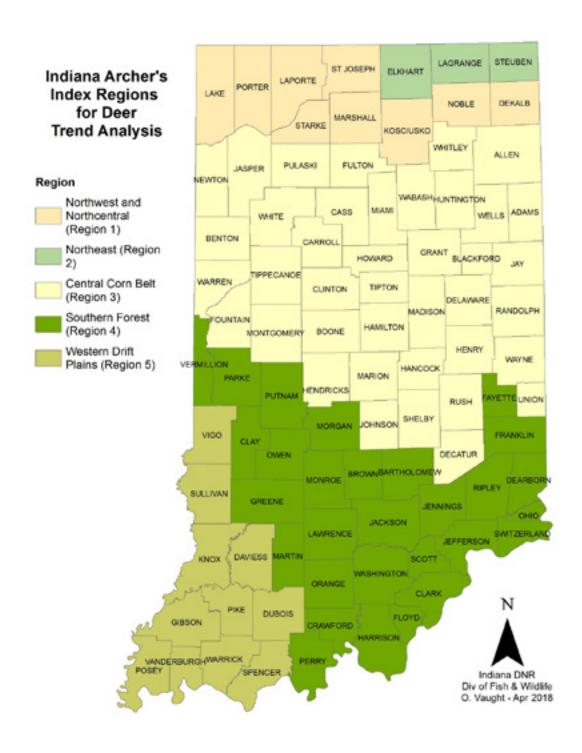


Figure 34. Defined ecological regions for analyzing deer trends in the Indiana Archer's Index survey.

### **Results and Discussion**

In 2017, 194 hunters covering 85 counties observed deer in the Archer's Index. Hunters observed a total of 8,853 deer in 10,133 hours during 2,902 observational periods ranging from one to five hours. Hunters observed an average of 0.82 deer per hour (n=2,817, SD=1.26, Cl95=0.05). Statewide, 771.3 deer per 1,000

hours of archery hunting were sighted in 2017 (Figure 35). Results from the habitat regions for deer sighted per hour are presented in Figures 36-41. A total of 27,911 does, 24,046 fawns, and 20,035 deer of an undetermined age and sex were observed.

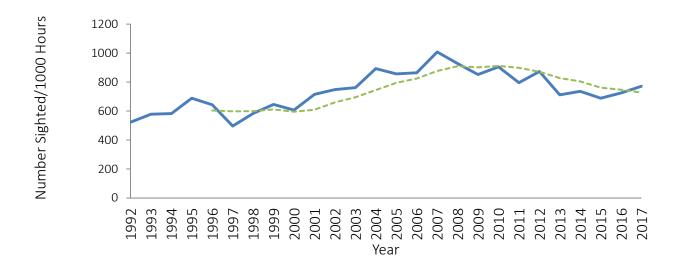


Figure 35. Number of deer sighted per 1,000 hours of archery hunting statewide since 1992 from the Archer's Index survey.

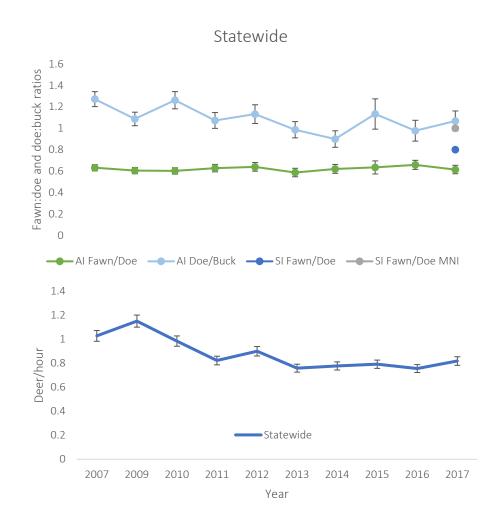


Figure 36. Fawns:doe and doe:buck ratios (upper graph) and number of deer sighted per hour (lower graph) of archery hunting statewide since 2007 from the Archer's Index (AI) and Snapshot Indiana (SI). Error bars are 95% confidence intervals.

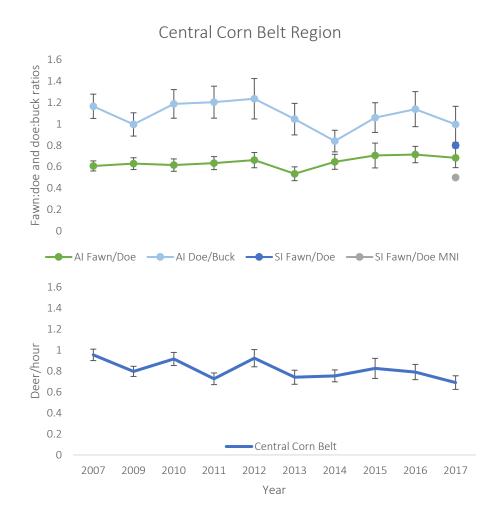


Figure 37. Fawns:doe and doe:buck ratios (upper graph) and number of deer sighted per hour (lower graph) of archery hunting in the Central Corn Belt region since 2007 from the Archer's Index (AI) and Snapshot Indiana (SI). Error bars are 95% confidence intervals.

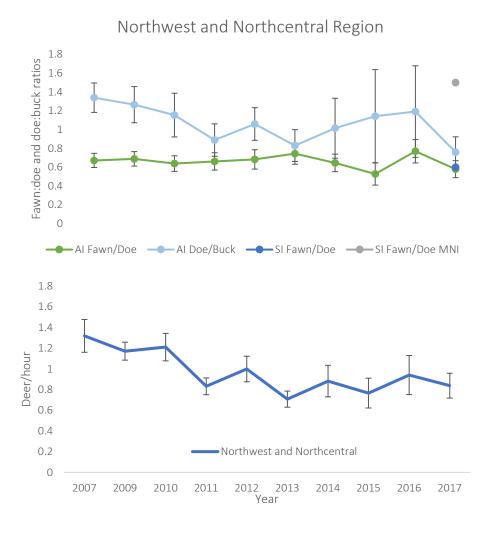


Figure 38. Fawns:doe and doe:buck ratios (upper graph) and number of deer sighted per hour (lower graph) of archery hunting in the Northwest and Northcentral region since 2007 from the Archer's Index (AI) and Snapshot Indiana (SI). Error bars are 95% confidence intervals.

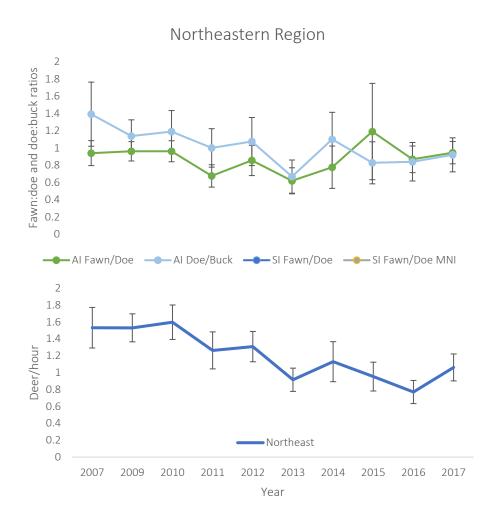


Figure 39. Fawns:doe and doe:buck ratios (upper graph) and number of deer sighted per hour (lower graph) of archery hunting in the Northeast region since 2007 from the Archer's Index (AI) and Snapshot Indiana (SI). Error bars are 95% confidence intervals.

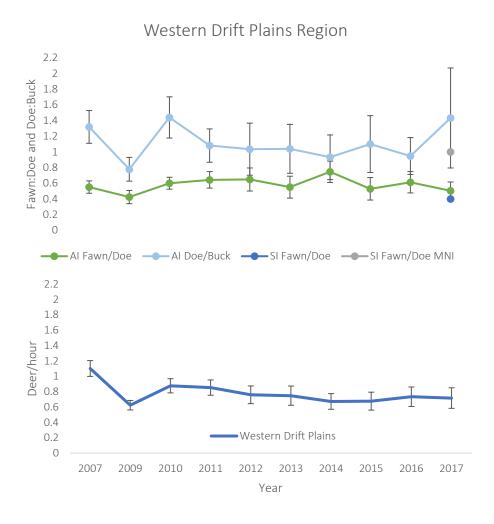


Figure 40. Fawns:doe and doe:buck ratios (upper graph) and number of deer sighted per hour (lower graph) of archery hunting in the Western Drift Plains region since 2007 from the Archer's Index (AI) and Snapshot Indiana (SI). Error bars are 95% confidence intervals.

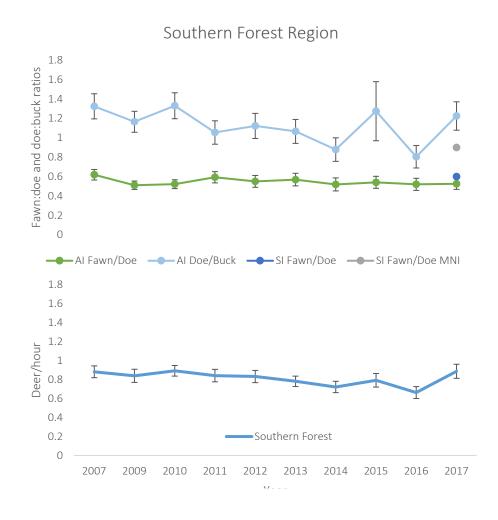


Figure 41. Fawns:doe and doe:buck ratios (upper graph) and number of deer sighted per hour (lower graph) of archery hunting in the Southern Forest region since 2007 from the Archer's Index (AI) and Snapshot Indiana (SI). Error bars are 95% confidence intervals.

The Archer's Index provides several measures or indices of the size, composition, and recruitment of the deer population and may be useful for monitoring trends in the deer population. However, because these values have not been measured against a known population, it is unclear how closely the values from these indices reflect true population values. One potential bias proposed by critics of citizen science observer indices is that fawn observations may be underrepresented because older fawns can look similar to young does, especially if the fawns are not traveling with their doe. Thus, fawn:doe ratios and recruitment data may become skewed. However, the period when the Archer's Index occurs (October to mid-November) is considered an ideal time because bias from fawns not traveling with their mother is minimized, fawns are likely at their smallest body size while routinely traveling with their mother, and loss of the parent is minimized prior to gun season. Furthermore, if the fawn:doe ratios are biased in favor of does because fawns are misidentified, then likewise the doe:buck ratio would also be skewed toward does. This does not appear to be the case for our data as doe:buck ratios appear to be between 1:1 and 2:1.

Fawn recruitment values can be used for several different purposes including modeling for allowable buck and/or doe harvest and as an indicator of potential problems with a deer herd, such a slow growth rates. Fawn recruitment is the number of fawns that are born and survive into the huntable population in the fall. This is lower than the number of fawns born, which is often twin or even triplet fawns in excellent habitat. Fawns die or are killed between birth and the hunting season due to predation, disease, exposure, abandonment, deervehicle collisions, and other reasons. Therefore, the recruitment rate is almost always lower than the birth rate. For example, the reproductive characteristics of does were recently studied in Illinois, and Green et al. (2017) found an average of 20.5% of fawns and 85.5% of adult does were bred. Average litter size was 1.9 + 0.54. In 2015. Illinois reported their statewide recruitment based on their fawn: doe ratio as 0.5:1 (QDMA 2016). So even though a large proportion of deer were bred resulting in a high rate of births, fawns experienced a high rate of mortality.

Initially, it may appear that fawn: doe ratios are low for many of the regions and statewide. However, Indiana

has similar fawn: doe ratios compared to nearby states according to the 2015 recruitment data reported to QDMA (2016): Ohio (0.78:1), Illinois, Michigan (0.47:1; QDMA 2015), or the Midwest average (0.81-1; QDMA 2016). Comparing states' rates can be problematic if the methodology used to calculate the fawn:doe ratios are different. For example, Ohio uses the ratio of fawns to does in the harvest. Wisconsin calculates their fawn: doe ratios on a regional basis using the total biologist observations of fawns and does (0.83:1 in 2015; QDMA 2016). Whereas in Indiana, IDNR uses archer observations that are calculated by the individual observation period in Indiana. Because of these differences, caution should be taken when directly comparing to other states without understanding how the difference in data collection might affect the results of the data.

Currently, Indiana has approximately a balanced prehunt sex ratio. Balanced doe:buck ratios are generally considered to be desirable because they increase the likelihood of all does being bred during the period when they are most receptive, a more condensed rut, and an earlier fawning season (Guynn and Hamilton 1986, Neuman et al. 2017).

Observations per hour is an index that can be used to examine long-term trends in the deer population. It is important to understand that this is an index of the population and does not represent population numbers or an expectation of hunters (i.e., if the average reported observation per hour is 1.1, hunters should not expect to see a deer every hour they are in the woods). While this method has not been tested as an indices for Indiana, the trend over the past 10 years apparently reflects the management strategy, with a decrease in observations that correspond with a general management goal of decreasing the deer population by increasing harvest of does. Observations per hour have leveled off since 2013 (Figure 39) with only minor fluctuations since then.

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### AFTER HUNT SURVEY

### Introduction

For many years, IDNR biologists examined deer at physical check stations where hunters came to record their harvest. Biologists typically recorded age, sex, and other biological information about the deer that was useful for managing the deer herd. In 2015, Indiana moved to a 100% on-line game check-in system to make the check-in process more convenient for hunters. In an effort to recapture this data, the Deer Research Program created the After Hunt Survey to allow successful hunters the opportunity to provide biological information about their deer. The goal of the After Hunt Survey is for hunters to self-report on enough deer so that both hunters and managers can better understand deer population biology, ecology, and demographics at the county level. The online survey was field tested during the 2017-2018 deer season, and reported here are the data that were collected during this testing phase. The sample size for most counties was not large enough to report survey results to the county level; therefore, only state level results are reported here as an example of the data collected.

#### **Methods**

The After Hunt Survey was administered using Qualtrics, an electronic survey system. When hunters completed the electronic check-in process for their deer, they were asked to participate in the survey. Questions were

asked about equipment used to harvest the deer, location of harvest, hours spent hunting for that deer, opinion of that particular hunt, and biological information for that deer. Stats iQ was used to conduct the analyses and summaries of the responses.

### **Results and Discussion**

A total of 1,938 hunters responded to the survey with at least one survey response from each county. County responses ranged from one to 51. To appropriately assess data at the county level, approximately 90-120 samples are needed from each county, depending upon the number of response categories for each question.

Hunters were asked to age their deer using tooth wear and replacement patterns. Hunters reported on the age of 644 does and 764 bucks (Figure 42); 244 does and 319 bucks were not aged. Eighty-five bucks were not aged because they were going to be mounted and the hunters did not want to damage the skin. There were not enough ages reported to summarize the age structure by county. To verify reported ages and develop an error rate for the aged deer, hunters were asked to submit a photo of the jaw. Photos of only 17 jaws were submitted. All were aged correctly, but not enough were submitted to develop an error rate for the ages. The age structure of the bucks correlated with the historic check station trends observed for harvested bucks.

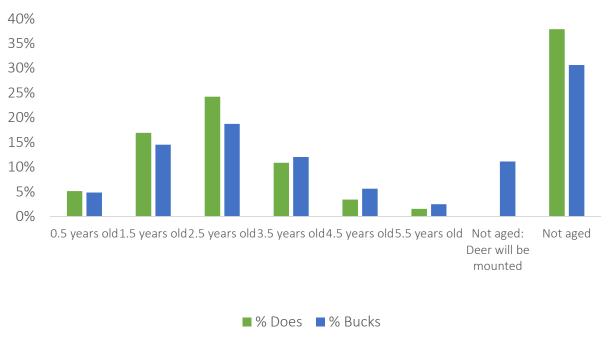


Figure 42. Ages of harvested deer reported by hunters in the 2017 After Hunt Survey.

Hunters (n=769) reported on the lactation of their does. From October 1, 2017 to January 6, 2018, 182 does > 2.5 years old were lactating, and 393 > 2.5 years old were not lactating (Figure 43). Very few does were reported on during the first ten weeks of the season (mean=20.3) and the last five weeks of the season (mean = 20.8). During firearms season, hunters reported lactation rates for an average of 92 does per week. In order to report lactation rate at the county or regional level, the

number of responses needs to increase considerably in future years. When used in conjunction with fawn:doe ratios, lactation rate can provide another point for estimating fawn recruitment. Estimating recruitment is especially useful for managers when setting harvest rates. Low fawn recruitment can indicate a need to reduce harvest quotas to account for fewer deer entering into next year's population.

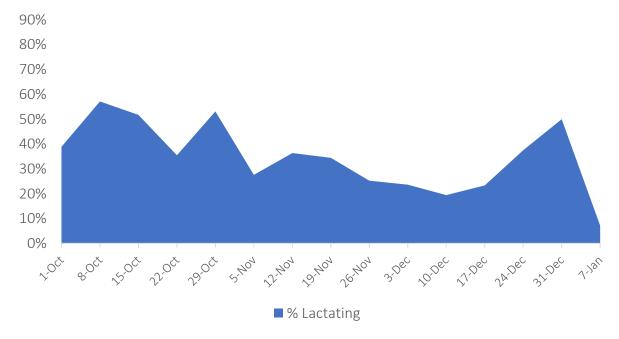


Figure 43. Percent of lactating does >2.5 years old harvested in the 2017-2018 deer hunting season.



Hunters were asked several opinion questions on a scale of 0 (poor) to 100 (excellent) related to their hunting experience. Results were grouped into equal bins so that results can be reported on a 5-point Likert scale ranging from "Very Poor" to "Very Good". Respondents were asked how they would rate their overall enjoyment of the hunt, how they felt about the number of does seen on the hunt, how they felt about the quality of bucks seen on the hunt, how they felt about the quality of bucks

on the hunt, and how they would rate how IDNR is doing managing deer in the county where they hunt. Responses from quality of bucks (n=1,788), quantity of bucks (n=1,803), and quantity of does (n=1,805) was bimodal (Figure 44). Responses about how IDNR was doing with managing deer in the county where they hunt (n=1,759) and how much they enjoyed their hunt (n=1,868) were skewed toward the right (Figure 45).

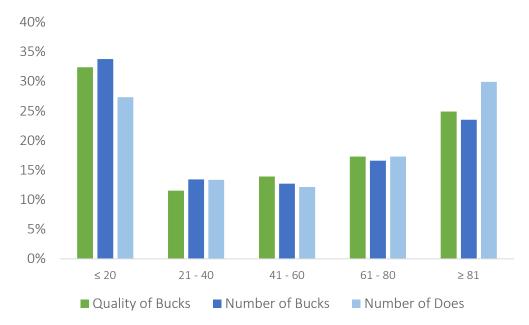


Figure 44. Hunter opinion about the quality of bucks, number of bucks, and number of does observed while hunting during the 2017-2018 season.

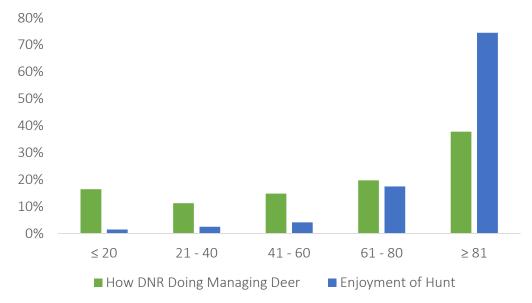


Figure 45. Hunter opinion about how IDNR is doing managing the deer in the county where they hunt and their enjoyment of the hunt. Scores range from 0 (poor) to 100 (excellent).

Hunters were asked to report on several characteristics of their harvested buck including if the rack was typical or non-typical, number of points, inside spread, and the circumference of the antler between the base and the first point. Hunters reported that 90% of the bucks that were harvested had a typical rack while the other 10% were reported as being non-typical. The total number of points on harvested bucks was approximately normally distributed with an average of 7.2 points (n=837, SD=3.04, Cl95+0.2) with a median number of eight points. The average inside spread of harvested bucks was 13.4 inches (n=706, SD=4.8, Cl95+0.3) with a median measurement of 14.1 inches. The average circumference of the main beam between the base and the first point was 2.3 inches (n=649, SD=1.3, Cl95+0.1) with a median measurement of 2.2 inches. While these various measurements can eventually be used to examine quality over time, a more useful measure might be the green Boone and Crockett score which is the gross score of deer soon after harvest. Boone and Crockett scores are often used by other states as a measure of comparative quality throughout the state. An approximate green score can easily be calculated by hunters with a small metal or cloth measuring tape. However, a large number of responses over time are necessary to draw any meaningful conclusions.

Hunters were also asked to report on the weights of their deer in this survey. Hunters (n=74) reported on either live weight or field dressed weight of their deer. All the weights were converted to live weights by multiplying field dressed weight by 1.33 (Figure 46). There were not enough survey responses for each age class of deer by county to include in the County Deer Data section. Deer weights can provide valuable information about the quality of deer and the relationship of deer recruitment to nutrition if the data is reported with a high enough frequency on a small scale (such as at the county or 16-mile grid level). Reporting of weights by hunters needs to be significantly higher for this statistic to be of value for management.

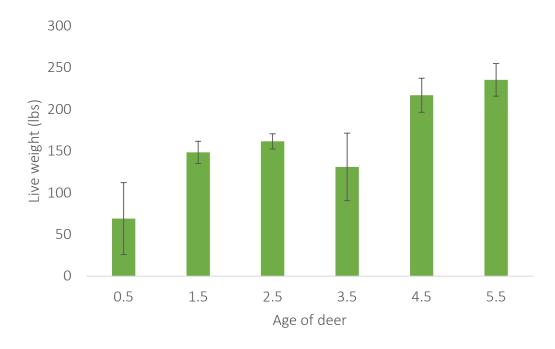


Figure 46. Live weight of deer by age class reported by hunters during the 2017-18 hunting season.

Hunters were asked to report on the number of hours hunted for bucks and does separately. They were also asked to report on the number of bucks and does seen while hunting during this time. Hunters reported that they hunted for an average of 28.8 hours (n=1,056, SD=43.1, Cl95+2.6) and a median of 16 hours before they shot their buck (Figure 47). During this time, hunters saw an average of 2.8 bucks (n=1,059, SD=5.8, Cl95+0.3) with a median of two bucks and an average of 5.2 does

(n=1,046, SD=8.7, Cl95+0.5) with a median of three does. Hunters reported that they hunted for an average of 21.2 hours (n=818, SD=38.3, Cl+2.6) and a median of ten hours before they shot their doe (Figure 47). During this time, hunters saw an average of 1.2 bucks (n=811, SD=2.5, Cl95+0.4) with a median of zero bucks and an average of 4.7 does (n=814, SD=6.5, Cl95+0.4) with a median of three does.

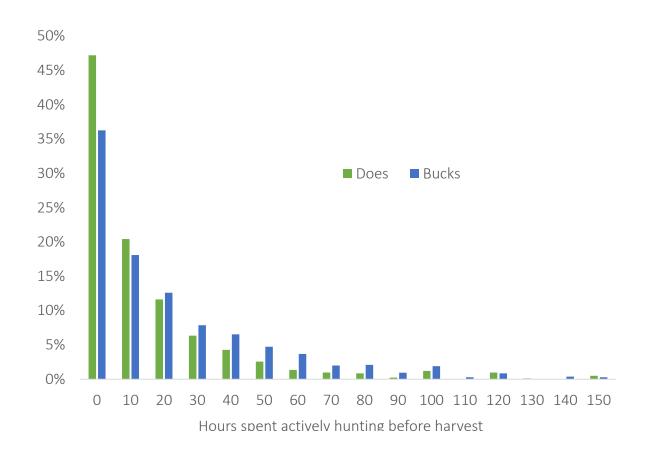


Figure 47. The number of hours hunters spent actively hunting before harvesting a buck or a doe during the 2017-18 deer hunting season. Maximum hours shown is 150 hours (approximately mean hours spent hunting a buck + 3SD). 1.3% of hunters who harvested a doe and 1.5% of hunters who harvested a buck reported requiring more than 150 hours of active hunting to harvest their deer.

Hunters (n=546) who saw more than one buck when hunting were asked why they waited to harvest the buck they harvested. Approximately 32% (n=175) of hunters were waiting for a buck with larger antlers, 32% (n=174) of hunters were waiting for an older buck, 25% (n=137) of hunters reported that the other bucks were out of the range of their equipment, 10% (n=57) were waiting for a specific buck, and 10% (n=54) reported that the location where the buck was standing would not have been a safe shot. The remaining 12% (n=66) reported that it was another reason than those listed. Hunters (n=617) who saw more than one does while hunting were asked why they waited to harvest the doe they harvested. Approximately 44% (n=274) of hunters reported that they were waiting for a bigger, older doe; 31% (n=190) of hunters reported that the other does were out of range; 15% (n=96) of hunters passed up on does that had fawns with them; 8% (n=50) of hunters reported that the location where the doe was standing would not have been a safe shot; 7% (n=44) reported that they did not want to disturb the buck that was with the doe: and 3% (n=17) reported they were looking for a smaller, younger doe. The remaining 16% (n=100) of hunters reported that there was another reason why they passed on does that was not listed.

The number of hours it took to harvest deer will eventually be used to calculate trends in harvest per effort, which can be used as an index for deer population size. These trends demonstrate there is a selective component in hunting, and any index should take into account these factors, especially when harvesting bucks where the hours spent hunting per harvest may be higher than required to harvest does. For this trend to be useful at the county level, a much higher level of reporting is required.

Another factor that is often thought to have an impact on the time required to harvest a deer is the type of equipment used. Conventional thinking is that hunters using a high powered rifle or other longer range equipment will have an advantage over other hunters using shorter range equipment, such as pistols, archery equipment, muzzleloaders, or shotguns. Of hunters who reported harvesting a buck (n=1,058) or a doe (n=814) in this survey, high-powered rifles were the most commonly used type of equipment to harvest both bucks (30.2%, n=320) and does (24.8%, n=202). A ranked ANOVA and Cohen's f effect size were used to examine the statistically and biologically relevant relationship, respectively,



between the type of equipment used by hunters to harvest both sexes of deer and the time required to harvest those deer. There was no statistically significant or biologically relevant relationship between the time required to harvest either a buck (p=0.325, f=0.090) or a doe (p=0.303, f=0.111) based on the type of equipment that was used. Other selective pressures may be more relevant than the equipment used when harvesting a deer, such as those reported above. Other factors may also account for this lack of difference, such as the additional skill required to harvest deer with short-range equipment versus longer range equipment. Therefore, it is likely unnecessary to have to account for differences in equipment effective range when calculating effort per harvest statistics.

### Conclusion

The After Hunt Survey shows potential for providing valuable biological data such as age, sex, and reproductive data. It may also serve as a mechanism for developing an index based on harvest per effort which may be related to population size, although this use of harvest per effort will need to be examined further. Reporting will need to significantly increase before it can be reliably used at the county or sub-county level. Advertising of this survey, such as in the hunt guide, media outlets, and social media will need to increase to ensure sufficient responses in order for this information to be used for management purposes.

### **COUNTY DEER DATA**

### **Understanding the County Deer Data**

The County Deer Data (CCD) is a tool used by IDNR-DFW wildlife biologists to monitor trends that are related to the deer population. Those trends are monitored over time to make decisions about harvest goals. This section discusses the data and how it is applied to make harvest decisions in each Indiana county.

### **Population Indices**

A generally accepted fact in wildlife management is that, except for in very limited situations, it is effectively impossible to directly measure wildlife populations on a large scale. So wildlife managers can never know exactly how many individuals of a species are present on the landscape. On a small scale, such as on someone's property that is managed for deer, the deer can be counted and an estimated population can be calculated. But on a broad scale, this can be nearly impossible. Thus biologists use measurable factors that are related to the trends in the population. These factors create a population index.

With an ideal population index, the index number would go up or down in a synchronous fashion with the deer population. A common index employed by wildlife managers to assess deer populations on their property is the spotlight count. Individuals drive around in a predetermine route and count the deer they see. The amount of area they can see while driving is determined and the visibility of the deer is also taken into consideration. The wildlife manager then conducts multiple routes over time, let's say five more times over the next two weeks to account for differences in movement by the deer. At the end, the wildlife manager would calculate how many deer were seen per square mile, then that number would be applied to the entire property. An important aspect is that the area sampled is representative of the property as a whole. So if a property is 70% upland and 30% wetland, then that same habitat in the same percentages should be covered in the spotlight count route. If not, other adjustments using math and statistics would be made to account for those differences. Once the manager has the count (let's say 30 deer per square mile), that does not mean there are exactly that many (30) deer per square mile on that property. That is just the index value.

The true usefulness of an index is only realized over time. Each year, the wildlife manager plans out his spotlight counts in the exact same fashion. Ideally, there are no differences from year to year. If there are, that has to be taken into account during the calculations. Over a 6 year period, the manager may count 30 deer/sq. mi., 32 deer/sq. mi., 35 deer/sq. mi., 27 deer/sq. mi., 36 deer/ sq. mi., and 34 deer/sq. mi. The trend is what is important, not the individual numbers. Remember, this is just an indicator of what the deer population is doing. In this case, there is a general increase in the deer population. If the manger is happy with this, he would maintain his management strategies until another indicator, such as the amount of fawning habitat or forage quality reaches a point where he would need to increase the harvest to decrease the deer population. Now because the spotlight counts may be expensive compared to a habitat survey, once the manager knows how the habitat survey is affected by a changing deer population, he may decide to only use the habitat survey as an indicator of the direction of the deer population.

Notice in the example, there was a sharp drop in the measured deer population during the fourth spotlight survey. This could be caused by a variety of reasons such as unseasonably hot or cold weather that significantly altered deer movements; there could have been a significant modification in the habitat, such as a 5-year burn; neighboring properties could have changed their management practices; or there could have been a significant mortality event caused by EHD or another disease. In this case, it would have been a mistake for the manager to try to catch that deer population and make a change to try to offset that decrease, especially if the manager did not know exactly why the change occurred. This is why the IDNR does not respond to sharp changes in the indices that are used to monitor the deer population, but rather wait and observe the trends over time. A sharp change in the deer harvest regulations based on any given year's data could result in wild changes in the deer population, whereas the general goal of managing a hunted species is to minimize these changes.

# Indices Used by IDNR to Monitor Deer Population Trends

The primary group of indices used by IDNR to monitor deer population trends is a combination of four indices: 1) various harvest metrics such as number of deer harvested per county and the ratio of males to females harvested, 2) trends in deer damage complaints, 3) trends in deer-vehicle collisions per billion miles traveled (DVC/bmt), and 4) trends in hunter and landowner attitudes. The data are examined for significant trends as the results change over time. One way that biologists do this is by looking at the Effect Size of the change from a 5-year average.

Effect size is a statistic that compares one statistic to another statistic measured in the same fashion. In this case, the current year's deer harvest and DVCs are compared with a 5-year average of the same value to determine how much the current year's data differs from the average. If the raw data is examined on its own, it can be difficult to determine if a change is significant or not. For example, in Allen County from 2016 to 2017, there was an increase in DVC/bmt by 54 collisions. Now the question is, "Is this a big or important increase in DVCs"? When the 2017 value is compared with the 5-year average (428 DVC/bmt) instead of just the previous year, the increase in DVCs is only 27. But is 27 DVCs a big increase? To determine that, the effect size statistics (which is in red in a column to the right of each year's data in Table 10 of the County Deer Data sheets) are calculated for each index. When 2017's data point is compared to the 5-year average (2012-2016), it is an increase of 0.19 standard deviations (SD). A standard deviation is a statistic that looks at a number of different magnitudes on the same scale. In Allen County, there was an increase of 0.19 SD. In Bartholomew County, the increase in DVCs was 0.07 SD (really no increase from the previous five years). In Boone County, there was a decrease in DVCs of -4.24 SD, which is huge, especially when compared to other counties. So, the effect size allows for comparison between counties without having to look at the raw data and then making a separate judgment each time. Right now, an increase or decrease of less than one SD is considered non-significant. Part of the research IDNR is conducting aims to determine the level of change that should be considered significant.

The effect size also allows for the comparison of different data types from different indices. For example, in the total harvest trend, there was a decrease in the harvest by -1.2 SD. This would be considered a significant decrease in the harvest over time. Looking at the trend in SDs, the harvest has been declining in Allen County for several years. A decline in harvest only means that fewer deer were harvested, and it does not explain why. However, the decline in harvest compared with the trend in DVCs, shows a general decline in DVCs as well. This might indicate an actual decline in the deer population in that county, which was the goal from 2012-2017. So in 2017, the bonus antlerless quota was changed from four to three as a response to this data. Now, trends must continue to be monitored to judge the response of changing the county quota.

Requests for deer damage permits have been included in the past as a metric for assessing damage caused by deer. However, because the individual number of permits requested by landowners is so low, typically less than 5-10 per county, this metric is only useful in general terms. IDNR is currently working to convert this number into cost of damage and/or acres damaged.

Another trend that is monitored that is linked to population size is satisfaction of hunters and landowners with the perceived size of the deer population. On a 3-year cycle, IDNR has been conducting surveys to assess hunters and farming landowners for a variety of factors, including satisfaction. Declining hunter satisfaction and increasing desires by landowners for more deer may be an indicator for a declining deer herd. Increasing satisfaction by hunters with deer management in the state and decreasing desires of landowners for more deer may be an indicator of an increasing herd. It is unclear how this index tracks with deer populations other than in a much generalized fashion because many factors influence hunter and landowner satisfaction. In both cases, an attitude score is calculated each time a survey is conducted, and the percent change is used to gauge the change over time. This is a crude metric because in the past, this was only measured every three years. Starting in 2018, this will be measured on a yearly basis using electronic surveys.

When each of these 4 indices are considered together, a general trend can form for what is occurring with the deer population. Again, this data is just used to monitor the generalized trend in the deer data. It is unclear what the actual population is but the trends provide relative insight. Currently, there is a research project underway with wildlife researchers at Purdue University to re-verify the relationship of the indices currently used with the deer population size and to identify new cost effective indices that could be used in addition to those currently employed.

# Indices Used by IDNR to Determine Desired Trends in Deer Populations

The various indices discussed that are used to monitor population trends are just the first step in setting harvest limits. The next step is to look at factors that affect what the desired direction of the deer population should be. In general, various human dimension surveys provide this input. In the County Deer Data section, most of this data is included on the first page of each county's section. IDNR looks at a combination of factors to assess what trends in the deer population Indiana's hunters and landowners desire including the desired management priorities, hunter satisfaction with deer management, landowner desire for the direction of the deer population, and satisfaction with various management practices, such as the Special Antlerless Firearm season. Other factors such as the presence of disease or deer reduction zones are also considered. These are then consider in the context of the deer management goal, which for 2017-2022 is to "focus deer herd management in a strategically-targeted manner to more adequately balance ecological, recreational, and economic needs of the citizens of Indiana."

### Putting it All Together to Form Management Recommendations for Each County

Once the data is collected and analyzed by the Deer Research Program, it is shared with various biologists, administrators, and the public. IDNR-DFW Private Lands Biologists who work in the various counties examine the data provided, in addition to data they may have collected throughout the year such as additional damage reports or comments from individuals living within those counties, and they make recommendations for the upcoming year's bonus antlerless harvest quota for their counties. DFW accepts comments and recommendations from IDNR Law Enforcement officers who are assigned to each county, as well as accepting comments directly from the general public. DFW Administrators from the various sections collect those comments and recommendations and make their own recommendations. The Deer Research Program also makes recommendations exclusively on the data collected throughout the year.

Once all the information and recommendations are gathered, a group of DFW Administrators, representatives from IDNR Law Enforcement and biologists from the Deer Research Program meet to discuss the data and recommendations provided by their respective sections. Once a recommendation for the upcoming year's bonus antlerless quota is agreed upon by the group, those recommendation are recorded and presented to the IDNR Director for approval.

### **Deer Habitat per County**

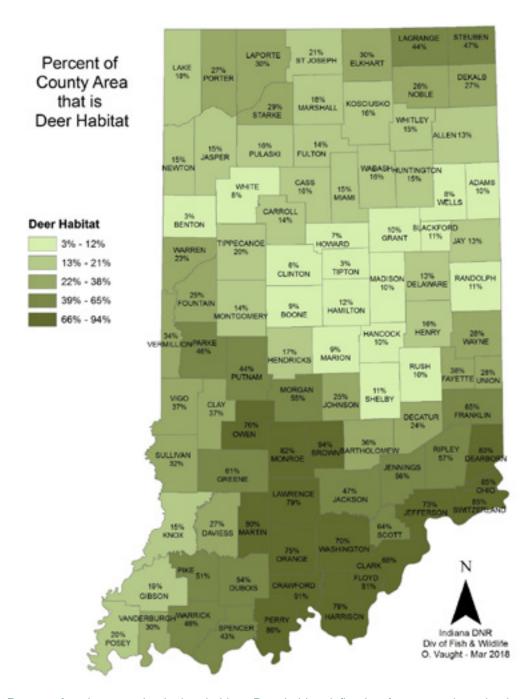


Figure 48. Percent of each county that is deer habitat. Deer habitat defined as forest, woody wetlands, and shrub/grass/pasture/hay from a 2009 land use survey.

# **COUNTY DEER DATA**

Version 8-24-2018

### **COUNTY DEER DATA: ADAMS**

Version: 8/23/2018

# County Statistics County number: 1 Total square miles: 340 Square miles of deer range (last calculated in 2009): 33 Deer habitat in county (%): 10

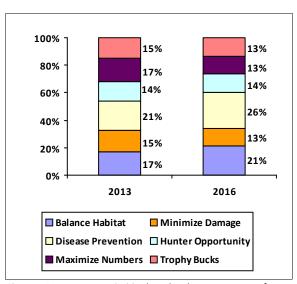


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

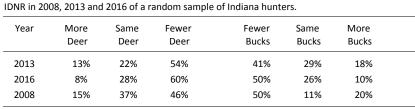


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	17%	5%	32%	26%	21%	
2013	10%	14%	45%	14%	17%	
2016	14%	18%	44%	16%	9%	

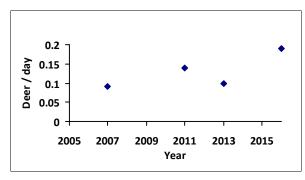


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	39	40.0%	40.0%
2016	33	30.3%	54.5%
-			

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	11%	24%	40%	16%	9%
-	2013	5%	26%	18%	42%	8%
	2016	9%	38%	13%	25%	16%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	6	Public	0%	17%	50%	33%	0%
2018	90	Hunter	0%	1%	13%	42%	43%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	100	65%	32%	3%
2018	Public	6	17%	67%	17%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	_
2018	70	Hunter	0%	3%	3%	3%	9%	37%	46%	_
2018	6	Public	17%	0%	0%	50%	17%	17%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	6	68	11.7
2018	Hunter	90	46	5.9

# **COUNTY DEER DATA: ADAMS**

Version: 8/23/2018

County Statistics								
County number:	1							
Total square miles:	340							
Square miles of deer range (last calculated in 2009):	33							
Deer habitat in county (%):	10							

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	467			243	224	0	0	188	238	37	3	1	0	0	0	0	0	0
2016	471			256	213	2	0	181	246	41	3	0	0	0	0	0	0	0
2017	439	29%	16%	231	207	1	0	166	237	35	1	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	561		256		4.84		305		54	1	1	83	281	
2006	561		221		4.18		340		61	2	0	86	289	
2007	510		185		3.49		325		64	2	0	87	291	
2008	519		207		3.91		312		60	2	1	63	210	
2009	538		250		4.72		288		54	2	0	87	291	
2010	562	1.02	223	-0.03	6.76		339	1.26	60	2	0	98	323	1.46
2011	488	-2.10	209	-0.35	6.33		279	-1.93	57	2	2	83	274	-0.17
2012	569	1.62	194	-0.87	5.88		375	2.65	66	2	1	73	241	-0.87
2013	517	-0.55	213	-0.17	6.45		304	-0.37	59	2	0	78	255	-0.28
2014	495	-1.20	199	-0.90	6.03		296	-0.53	60	2	1	89	291	0.45
2015	549	0.61	224	1.43	8.91		325	0.17	59	2	0	102	335	1.82
2016	554	0.87	220	1.03	6.67		334	0.49	60	2	0	81	268	-0.31
2017	527	-0.33	212	0.15	6.41		315	-0.38	60	2	0	107	356	2.13

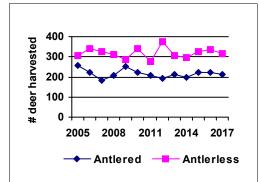


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

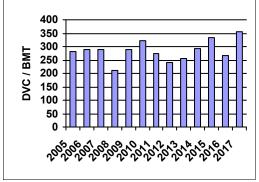


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	13	0.4:1 ± 0.3	
2015-2017			
		Fawn: Doe Ratio	
2007-2014	5	0.4:1 ± 0.4	
2015-2017			

### **COUNTY DEER DATA: ALLEN**

Version: 8/23/2018

# County Statistics County number: 2 Total square miles: 659 Square miles of deer range (last calculated in 2009): 86 Deer habitat in county (%): 13

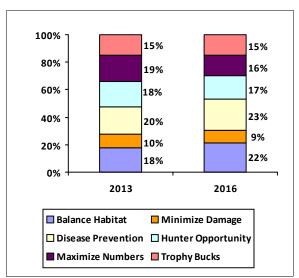


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2013 10% 19% 65% 47% 30% 10% 2016 12% 18% 65% 43% 27% 17%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

23%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	2%	12%	40%	24%	22%	
2013	5%	11%	46%	19%	19%	
2016	13%	16%	43%	16%	12%	

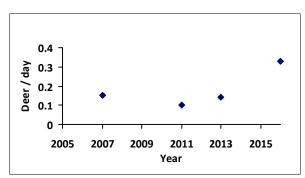


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

27%

40%

2008

Year	n	% Yes	% No
2013	61	58.1%	33.9%
2016	28	64.3%	32.1%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

22%

31%

22%

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	0%	51%	42%	7%	0%
2013	5%	52%	7%	18%	18%
2016	7%	56%	4%	11%	22%
2010	7 70	30%	4/0	11/0	22/0

Table 6. In the annual deer management survey,

Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are

Opinion Sample Decrease Same Increase

CBAQ

CBAQ

CBAQ

13%

35%

hunters were asked how the County Bonus

size

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	96	Public	7%	18%	47%	25%	3%
2018	482	Hunter	0%	4%	24%	40%	31%

2018	Hunter	488	47%	40%
2018	Public	92	13%	52%

repoted as CBAQ.

Type

Year

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	,
2018	209	Hunter	1%	2%	3%	7%	28%	29%	30%	_
2018	92	Public	4%	11%	12%	37%	23%	8%	3%	

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	83	78	4.5
2018	Hunter	494	60	2.4

# **COUNTY DEER DATA: ALLEN**

Version: 8/23/2018

County Statistics	
County number:	2
Total square miles:	659
Square miles of deer range (last calculated in 2009):	86
Deer habitat in county (%):	13

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1276			663	602	11	0	439	682	114	32	4	0	2	2	0	1	0
2016	1244			586	650	7	1	476	622	115	21	6	1	0	2	1	0	0
2017	1190	32%	8%	573	596	21	0	434	594	135	18	6	3	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1498		691		3.55	68	807		54	2	6	426	126	
2006	1589		645		3.31	74	944		59	3	3	450	129	
2007	1665		683		3.50	69	982		59	3	5	517	146	
2008	1721		725		3.72		996		58	4	4	531	148	
2009	1781		733		3.76		1048		59	4	2	547	151	
2010	1871	1.98	802	3.01	9.33		1069	1.25	57	8	6	490	132	-0.67
2011	1674	-0.48	684	-0.57	7.95		990	-0.35	59	8	5	489	129	-1.19
2012	1778	0.42	574	-3.12	6.67		1204	4.81	68	8	6	428	111	-3.03
2013	1667	-1.33	636	-0.81	7.40		1031	-0.35	62	4	5	420	107	-1.69
2014	1657	-1.14	643	-0.49	7.48		1014	-0.67	61	4	5	444	111	-0.90
2015	1681	-0.52	629	-0.46	7.32		1052	-0.11	63	4	2	447	109	-0.77
2016	1633	-1.19	675	1.06	7.85		958	-1.18	59	4	2	401	97	-1.87
2017	1616	-1.20	650	0.51	7.52		966	-0.93	60	3	1	455	108	0.19

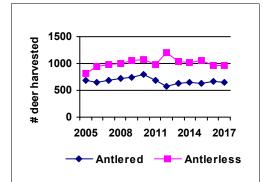


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

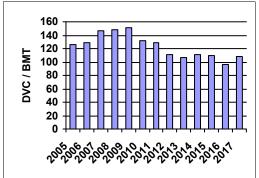


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	121	0.6:1 ± 0.1	
2015-2017	36	0.5:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	60	0.5:1 ± 0.1	
2015-2017	19	0.6:1 ± 0.3	
2015-2017	19	0.0.1 ± 0.5	

### **COUNTY DEER DATA: BARTHOLOMEW**

Version: 8/23/2018

# County Statistics County number: 3 Total square miles: 409 Square miles of deer range (last calculated in 2009): 147 Deer habitat in county (%): 36

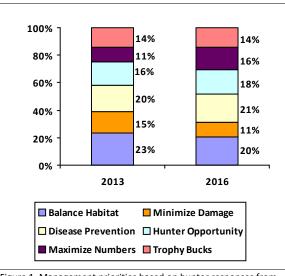


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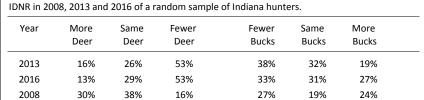


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	6%	39%	22%	33%	
2013	4%	9%	33%	16%	37%	
2016	3%	5%	30%	30%	32%	

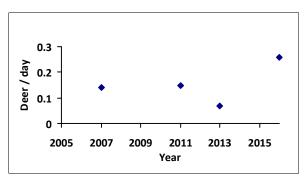


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	34	88.6%	5.7%
2016	33	66.7%	18.2%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Yea	r Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
200	8 6%	43%	43%	6%	3%
201	3 11%	51%	11%	20%	6%
201	6 9%	66%	6%	13%	6%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	20	Public	15%	25%	40%	15%	5%
2018	180	Hunter	1%	5%	33%	43%	18%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	123	Hunter	2%	4%	2%	15%	26%	30%	22%
2018	20	Public	10%	15%	15%	25%	10%	20%	5%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year		•	Decrease CBAQ		
2018	Hunter	205	42%	45%	13%
2018	Public	20	25%	40%	35%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	15	72	14.2
2018	Hunter	185	63	3.8

# **COUNTY DEER DATA: BARTHOLOMEW**

Version: 8/23/2018

County Statistics	
County number:	3
Total square miles:	409
Square miles of deer range (last calculated in 2009):	147
Deer habitat in county (%):	36

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	949			473	470	5	1	364	479	72	22	4	5	3	0	0	0	0
2016	804			386	416	2	0	315	378	77	22	10	1	0	1	0	0	0
2017	793	30%	11%	379	412	2	0	321	388	72	9	3	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	765		339		1.63		426		56	2	0	151	170	
2006	868		331		1.59	42	537		62	3	1	157	173	
2007	905		357		1.72	58	548		61	3	4	164	177	
2008	1011		391		1.88		620		61	4	7	192	205	
2009	1026		435		2.09		591		58	4	11	167	177	
2010	1145	2.14	373	0.06	2.54		517	-0.37	55	4	7	126	132	-3.43
2011	974	-0.16	374	-0.09	2.54		600	0.89	62	4	8	141	146	-1.02
2012	1231	2.49	388	0.07	2.64		843	6.40	68	4	7	175	179	0.40
2013	1217	1.30	443	2.01	3.01		774	1.14	64	4	5	156	159	-0.33
2014	1209	0.79	461	1.72	3.14		748	0.61	62	8	5	173	174	0.75
2015	1164	0.08	471	1.53	3.21		693	-0.03	60	8	9	201	198	2.10
2016	1070	-0.84	424	-0.08	2.88		646	-0.94	60	8	5	139	134	-1.86
2017	991	-2.86	420	-0.53	2.86		571	-2.25	58	4	4	180	171	0.07

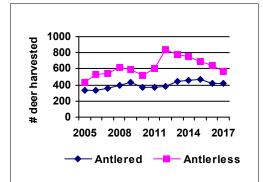


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

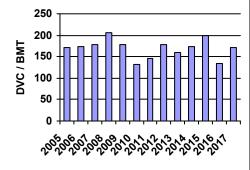


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	67	1.7:1 ± 0.5	
2015-2017	31	1.3:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	70	0.8:1 ± 0.2	
2015-2017	40	0.9:1 ± 0.2	

### **COUNTY DEER DATA: BENTON**

Version: 8/23/2018

#### **County Statistics** County number: 4 Total square miles: 406 Square miles of deer range (last 12 calculated in 2009): Deer habitat in county (%): 3

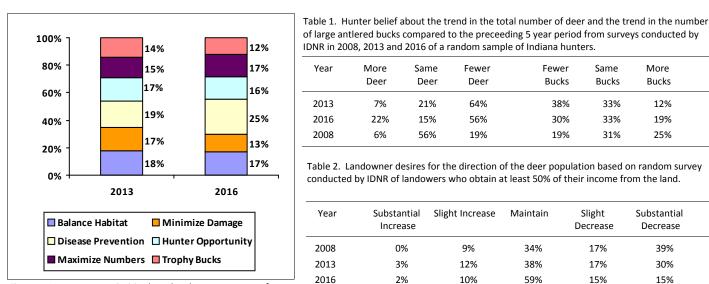


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. Year More Same Fewer Fewer Same More Deer Deer Deer **Bucks Bucks Bucks** 2013 7% 21% 64% 38% 33% 12% 2016 22% 15% 56% 30% 33% 19%

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

19%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	9%	34%	17%	39%	
2013	3%	12%	38%	17%	30%	
2016	2%	10%	59%	15%	15%	

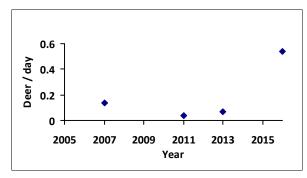


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

6%

56%

2008

n	% Yes	% No
8	44.4%	55.6%
14	42.9%	42.9%
	8	n Yes 8 44.4%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

19%

31%

25%

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	0%	20%	40%	30%	10%
	2013	13%	38%	0%	50%	0%
	2016	8%	69%	0%	23%	0%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low	
2018	9	Public	11%	33%	44%	11%	0%	
2018	37	Hunter	0%	3%	19%	41%	38%	

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	38	37%	45%	18%
2018	Public	9	33%	44%	22%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	17	Hunter	0%	0%	0%	6%	29%	29%	35%	_
2018	9	Public	11%	11%	22%	44%	11%	0%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	8	67	17.6
2018	Hunter	38	47	8.3

# **COUNTY DEER DATA: BENTON**

Version: 8/23/2018

<b>County Statistics</b>	
County number:	4
Total square miles:	406
Square miles of deer range (last calculated in 2009):	12
Deer habitat in county (%):	3

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	83			24	59	0	0	55	25	3	0	0	0	0	0	0	0	0
2016	102			23	79	0	0	74	25	3	0	0	0	0	0	0	0	0
2017	75	8%	16%	15	60	0	0	50	23	2	0	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	148		83		11.79		65		44	1	0	25	137	
2006	131		74		10.55		57		43	1	0	20	109	
2007	134		91		13.00		43		32	1	0	23	126	
2008	137		82		11.71		55		40	1	0	20	110	
2009	125		73		10.43		52		42	1	1	26	146	
2010	151	1.91	89	1.16	11.42		62	0.95	41	1	0	36	205	4.88
2011	144	0.86	90	0.99	7.50		54	0.02	38	2	0	30	173	0.87
2012	143	0.48	76	-1.19	6.33		67	2.05	47	2	0	36	214	1.64
2013	114	-2.67	59	-3.03	4.92		55	-0.48	48	2	0	26	156	-0.32
2014	88	-3.09	50	-2.14	4.17		38	-3.18	43	1	1	28	170	-0.29
2015	90	-1.43	59	-0.77	4.92		31	-2.20	34	Α	1	32	197	0.55
2016	110	-0.21	79	0.76	6.58		31	-1.25	28	Α	1	29	181	-0.05
2017	89	-0.90	61	-0.29	4.89		28	-1.03	31	Α	1	26	163	-0.90

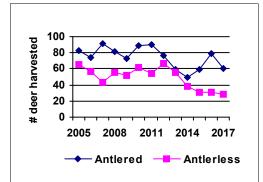


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

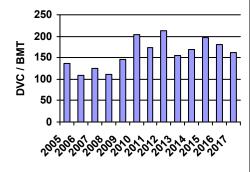


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio
2007-2014	1	
2015-2017		
		Fawn: Doe Ratio
2007-2014		
2015-2017		

### **COUNTY DEER DATA: BLACKFORD**

Version: 8/23/2018

# County Statistics County number: 5 Total square miles: 165 Square miles of deer range (last calculated in 2009): 18 Deer habitat in county (%): 11

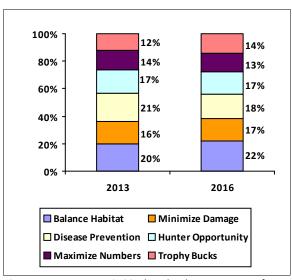


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

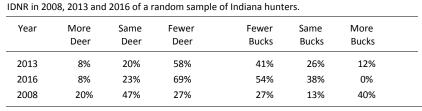


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	5%	5%	47%	26%	16%
2013	0%	19%	44%	15%	22%
2016	0%	9%	57%	35%	0%

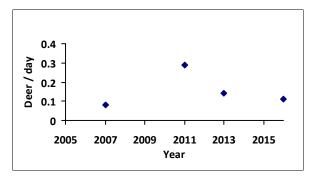


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	14	66.7%	30.0%
2016	14	50.0%	42.9%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied No Opinion		Unsatisfied	Very Unsatisfied
	2008	8%	69%	15%	8%	0%
_	2013	23%	31%	8%	31%	8%
	2016	31%	46%	0%	15%	8%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	1	Public	0%	0%	100%	0%	0%
2018	50	Hunter	2%	6%	30%	38%	24%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably		
2018	50	Hunter	0%	0%	6%	14%	28%	28%	24%	-	
2018	1	Public	0%	0%	0%	100%	0%	0%	0%		

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	62	35%	58%	6%
2018	Public	1	0%	100%	0%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	1	90	
2018	Hunter	42	59	8.6

# **COUNTY DEER DATA: BLACKFORD**

Version: 8/23/2018

County Statistics	
County number:	5
Total square miles:	165
Square miles of deer range (last calculated in 2009):	18
Deer habitat in county (%):	11

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	254			126	127	1	0	90	148	15	1	0	0	0	0	0	0	0
2016	284			137	145	2	0	113	149	20	2	0	0	0	0	0	0	0
2017	257	24%	13%	119	135	3	0	93	140	19	4	1	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	368		172		5.21		196		53	1	0	55	347	
2006	302		127		3.73		175		58	1	0	58	362	
2007	332		133		4.03		199		60	1	0	58	358	
2008	308		136		4.12		171		56	1	0	63	392	
2009	337		152		4.61		185		55	1	1	54	336	
2010	302	-1.05	137	-0.38	7.61		165	-1.62	55	1	0	54	338	-0.97
2011	334	1.04	142	0.54	7.89		192	0.95	57	1	1	46	291	-2.94
2012	300	-1.39	103	-4.97	5.72		197	1.01	66	1	1	45	290	-1.45
2013	263	-2.97	114	-1.08	6.33		149	-2.42	57	1	1	48	309	-0.49
2014	309	0.06	125	-0.23	6.94		184	0.32	60	1	0	50	322	0.40
2015	310	0.33	130	0.36	7.22		180	0.13	58	1	0	41	269	-1.96
2016	344	1.58	149	1.75	8.28		195	0.78	57	1	0	31	208	-4.40
2017	340	1.20	146	1.26	8.13		194	0.67	57	1	0	38	261	-0.42

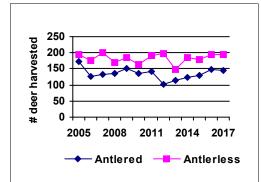


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

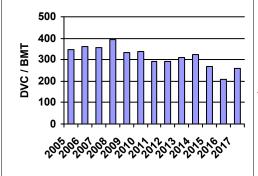


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	125	0.8:1 ± 0.3	
2015-2017	45	0.7:1 ± 0.2	
		Fawn: Doe Ratio	
2007-2014	100	0.7:1 ± 0.1	
2015-2017	39	0.6:1 ± 0.2	

### **COUNTY DEER DATA: BOONE**

Version: 8/23/2018

#### **County Statistics** County number: 6 Total square miles: 423 Square miles of deer range (last 37 calculated in 2009): Deer habitat in county (%): 9

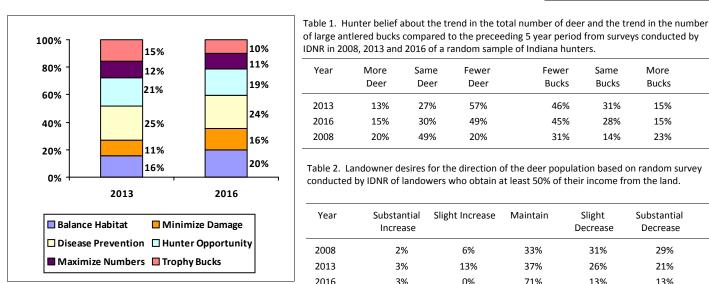


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2013 13% 27% 57% 46% 31% 15% 2016 15% 30% 49% 45% 28% 15% 2008 20% 49% 20% 31% 14% 23%

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	2%	6%	33%	31%	29%
2013	3%	13%	37%	26%	21%
2016	3%	0%	71%	13%	13%

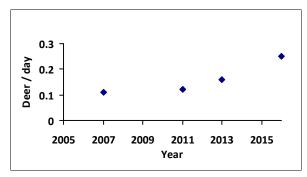


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	16	94.1%	5.9%
2016	27	63.0%	18.5%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
	2008	18%	45%	9%	18%	9%
•	2013	6%	75%	13%	6%	0%
	2016	8%	58%	8%	19%	8%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	28	Public	0%	7%	61%	29%	4%
2018	147	Hunter	1%	2%	34%	45%	18%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	170	36%	45%	19%
2018	Public	24	17%	54%	29%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	80	Hunter	3%	1%	8%	16%	26%	28%	19%	_
2018	24	Public	0%	4%	0%	50%	29%	17%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	18	84	8.2
2018	Hunter	160	62	4.2

# **COUNTY DEER DATA: BOONE**

Version: 8/23/2018

County Statistics	
County number:	6
Total square miles:	423
Square miles of deer range (last calculated in 2009):	37
Deer habitat in county (%):	9

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	338			183	154	1	0	116	179	38	5	0	0	0	0	0	0	0
2016	353			159	189	5	0	146	174	24	5	3	0	1	0	0	0	0
2017	288	30%	15%	120	166	2	0	130	124	28	4	1	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	313		150		5.00		163		52	2	0	87	93	
2006	360		178		5.92		183		51	2	0	144	150	
2007	404		207		6.90		197		49	2	0	141	143	
2008	419		201		6.70		218		52	3	2	132	132	
2009	421		204		6.80		217		52	3	0	137	134	
2010	431	1.03	212	1.00	5.73		219	1.00	51	4	0	162	156	1.16
2011	460	1.90	216	1.17	5.84		244	2.29	53	4	2	140	134	-0.91
2012	566	6.65	208	0.00	5.62		358	8.28	63	4	0	128	121	-1.89
2013	470	0.17	179	-4.85	4.84		291	0.66	62	4	1	127	121	-1.15
2014	457	-0.22	185	-1.29	5.00		272	0.10	60	4	0	129	121	-0.85
2015	426	-0.98	156	-2.62	4.22		270	-0.13	63	4	0	144	134	0.21
2016	454	-0.41	200	0.47	5.41		254	-0.77	56	4	0	141	130	0.53
2017	376	-1.84	173	-0.62	4.64		203	-2.11	54	4	0	109	99	-4.24

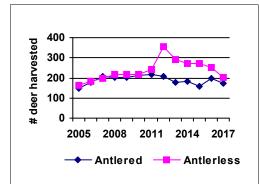


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

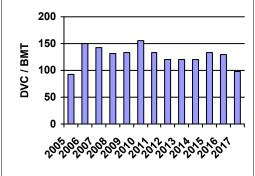


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	10	0.8:1 ± 0.5	
2015-2017			
		Fawn: Doe Ratio	
2007-2014	8	0.6:1 ± 0.4	
2015-2017	1		

### **COUNTY DEER DATA: BROWN**

Version: 8/23/2018

# County Statistics County number: 7 Total square miles: 316 Square miles of deer range (last calculated in 2009): 94

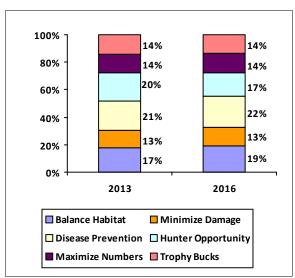


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

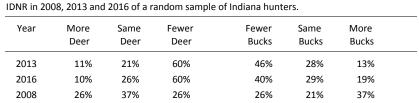


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	0%	20%	0%	80%	
2013	0%	0%	38%	31%	31%	
2016	0%	0%	33%	50%	17%	

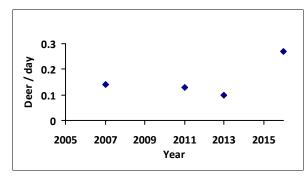


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	68	66.7%	17.4%
2016	59	52.5%	33.9%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	8%	51%	21%	13%	8%
2013	4%	62%	9%	18%	7%
2016	5%	53%	7%	26%	9%
-					

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	17	Public	24%	29%	29%	12%	6%
2018	78	Hunter	1%	5%	40%	33%	21%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	238	39%	51%	9%
2018	Public	17	18%	18%	65%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	215	Hunter	0%	2%	2%	16%	30%	27%	22%
2018	17	Public	6%	6%	47%	12%	18%	0%	12%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	14	68	12.0
2018	Hunter	82	63	5.9

# **COUNTY DEER DATA: BROWN**

Version: 8/23/2018

County Statistics	
County number:	7
Total square miles:	316
Square miles of deer range (last calculated in 2009):	300
Deer habitat in county (%):	94

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1376			710	666	0	0	493	716	127	32	7	1	0	0	0	0	0
2016	1207			614	590	3	0	460	605	111	26	5	0	0	0	0	0	0
2017	1091	35%	11%	592	496	2	1	359	561	134	25	12	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1787		759		2.46	37	1029		58	3	4	41	270	
2006	1614		626		2.03	57	988		61	3	26	75	488	
2007	1732		639		2.07	30	1093		63	3	22	106	687	
2008	1819		699		2.27		1120		62	3	14	105	690	
2009	1934		701		2.28		1233		64	4	16	123	817	
2010	1689	-0.75	642	-0.80	2.14		998	-1.00	61	4	17	76	513	-0.36
2011	1624	-1.08	616	-1.27	2.05		1008	-0.78	62	4	13	83	569	-0.51
2012	2007	2.05	621	-1.00	2.07		1386	3.09	69	4	20	111	773	0.99
2013	1948	0.83	677	0.51	2.26		1271	0.75	65	4	21	137	957	2.19
2014	1461	-2.21	495	-4.26	1.65		966	-1.25	66	4	6	97	685	-0.22
2015	1757	0.05	675	0.94	2.25		1082	-0.23	62	4	15	125	895	1.11
2016	1521	-1.05	600	-0.23	2.00		921	-1.24	61	4	9	87	636	-0.89
2017	1469	-1.10	506	-1.45	1.69		963	-0.82	66	4	7	114	846	0.41

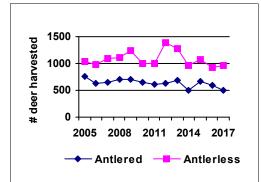


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

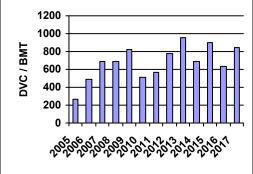


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	106	1.4:1 ± 0.3	
2015-2017	8	0.9:1 ± 0.5	
		Fawn: Doe Ratio	
2007-2014	101	0.6:1 ± 0.1	
2015-2017	14	$0.8:1 \pm 0.4$	

### **COUNTY DEER DATA: CARROLL**

Version: 8/23/2018

#### **County Statistics** County number: 8 Total square miles: 374 Square miles of deer range (last 53 calculated in 2009): Deer habitat in county (%): 14

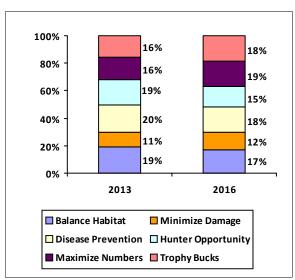


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2013 73%

54%

42%

26%

27%

31%

17%

12%

16%

40%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

78%

23%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	2%	26%	36%	36%	
2013	5%	5%	35%	18%	38%	
2016	10%	8%	27%	27%	29%	

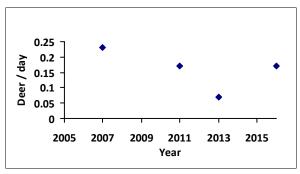


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

13%

6%

34%

2016

2008

11%

12%

37%

Year	n	% Yes	% No
2013	28	58.6%	27.6%
2016	60	50.0%	43.3%
-			

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	17%	53%	19%	8%	3%
-	2013	4%	43%	21%	29%	4%
	2016	3%	40%	3%	30%	23%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	12	Public	17%	33%	42%	0%	8%
2018	91	Hunter	1%	2%	25%	42%	30%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Type	size	CBAQ	CBAQ	CBAQ
2018	Hunter	140	40%	39%	21%
2018	Public	12	8%	33%	58%

Table 6. In the annual deer management survey,

Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are

Opinion Sample Decrease Same Increase

hunters were asked how the County Bonus

repoted as CBAQ.

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	100	Hunter	4%	2%	2%	16%	24%	33%	19%	_
2018	12	Public	17%	25%	8%	42%	8%	0%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	10	54	19.5
2018	Hunter	96	57	5.1

# **COUNTY DEER DATA: CARROLL**

Version: 8/23/2018

County Statistics	
County number:	8
Total square miles:	374
Square miles of deer range (last calculated in 2009):	53
Deer habitat in county (%):	14

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	649			322	327	0	0	240	331	67	8	3	0	0	0	0	0	0
2016	633			267	361	5	0	285	280	61	5	2	0	0	0	0	0	0
2017	556	31%	13%	256	299	1	0	239	249	64	4	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	843		341		7.58	46	502		60	2	3	111	414	
2006	887		340		7.55	46	547		62	2	3	129	477	
2007	832		338		7.50	45	494		59	2	2	159	585	
2008	931		432		9.60		500		54	2	3	146	543	
2009	947		412		9.16		535		56	3	1	140	521	
2010	959	1.39	399	0.58	7.53		560	1.86	58	3	2	133	503	-0.07
2011	915	0.07	353	-0.72	6.66		562	1.19	61	3	3	122	469	-1.39
2012	931	0.28	348	-0.97	6.57		583	1.64	63	3	3	85	333	-4.40
2013	771	-9.81	280	-2.95	5.28		491	-1.79	64	3	1	126	493	0.23
2014	870	-0.45	338	-0.39	6.38		532	-0.40	61	3	2	126	492	0.37
2015	828	-0.83	328	-0.37	6.19		500	-1.28	60	3	0	95	367	-1.29
2016	796	-1.03	371	1.42	7.00		425	-2.76	53	3	1	85	331	-1.32
2017	696	-2.26	304	-0.86	5.72		392	-1.97	56	2	0	116	456	0.64

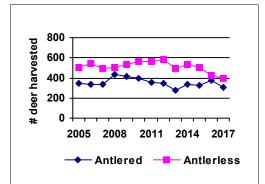


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

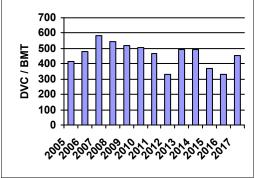


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	135	1:1 ± 0.2	
2015-2017	10	1.4:1 ± 0.9	
		Fawn: Doe Ratio	
2007-2014	117	$0.5:1 \pm 0.1$	
2007-2014 2015-2017	117 10	$0.5:1 \pm 0.1$ $0.6:1 \pm 0.3$	

### **COUNTY DEER DATA: CASS**

Version: 8/23/2018

#### **County Statistics** County number: 9 Total square miles: 415 Square miles of deer range (last 68 calculated in 2009): Deer habitat in county (%): 16

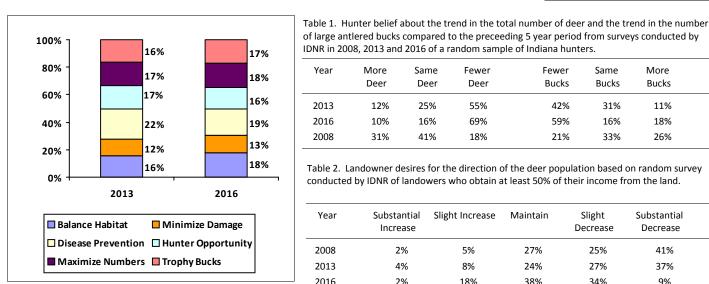


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

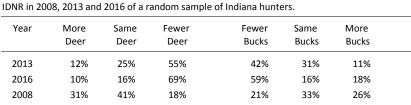


Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	2%	5%	27%	25%	41%	
2013	4%	8%	24%	27%	37%	
2016	2%	18%	38%	34%	9%	

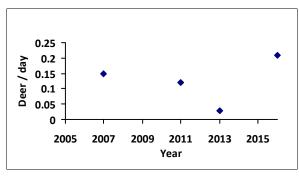


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	42	58.1%	20.9%
2016	50	40.0%	44.0%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	8%	63%	24%	2%	4%
	2013	2%	50%	12%	29%	7%
	2016	4%	44%	6%	30%	16%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low	
2018	9	Public	11%	44%	44%	0%	0%	
2018	93	Hunter	0%	1%	18%	52%	29%	

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	147	46%	40%	14%
2018	Public	9	11%	33%	56%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	127	Hunter	2%	2%	2%	9%	24%	31%	28%	_
2018	9	Public	0%	0%	67%	22%	11%	0%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	8	69	14.6
2018	Hunter	91	52	5.6

### **COUNTY DEER DATA: CASS**

<b>County Statistics</b>	
County number:	9
Total square miles:	415
Square miles of deer range (last calculated in 2009):	68
Deer habitat in county (%):	16

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	897			389	505	3	0	375	412	96	10	4	0	0	0	0	0	0
2016	864			350	511	3	0	382	372	92	15	2	1	0	0	0	0	0
2017	767	20%	10%	345	420	2	0	320	355	81	10	1	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1287		536		8.37		751		58	2	2	254	582	
2006	1376		569		8.89		807		59	2	0	299	677	
2007	1405		607		9.48		799		57	2	1	230	517	
2008	1511		626		9.78		886		59	3	3	235	530	
2009	1435		614		9.59	32	821		57	3	4	212	477	
2010	1413	0.12	588	-0.06	8.65		825	0.25	58	4	4	235	534	-0.29
2011	1349	-1.55	555	-2.03	8.16		794	-0.98	59	4	4	218	503	-0.58
2012	1395	-0.47	527	-2.56	7.75	41	868	1.17	62	4	4	202	473	-1.69
2013	1176	-4.10	448	-3.26	6.59		728	-2.96	62	4	3	202	472	-1.11
2014	1141	-2.04	498	-0.76	7.32		643	-3.18	56	3	3	204	477	-0.56
2015	1161	-1.05	511	-0.23	7.51		650	-1.38	56	3	1	171	402	-3.35
2016	1131	-0.96	518	0.26	7.62		613	-1.29	54	3	1	148	350	-3.06
2017	982	-1.99	427	-2.36	6.30		555	-1.41	57	2	2	226	537	1.80

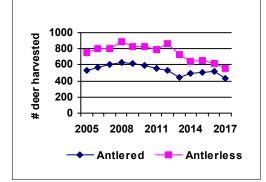


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

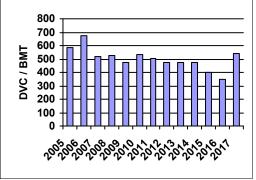


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	177	0.9:1 ± 0.2	
2015-2017	36	0.9:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	152	$0.8:1 \pm 0.1$	
2007-2014 2015-2017	152 29	$0.8:1 \pm 0.1$ $0.7:1 \pm 0.2$	

### **COUNTY DEER DATA: CLARK**

Version: 8/23/2018

### County Statistics County number: 10 Total square miles: 376 Square miles of deer range (last calculated in 2009): 255 Deer habitat in county (%): 68

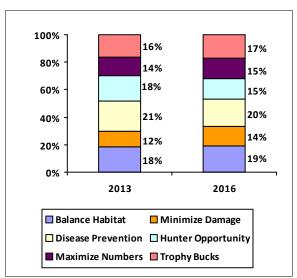


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

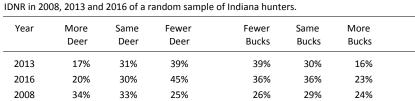


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	5%	5%	30%	23%	39%	
2013	10%	13%	31%	26%	21%	
2016	14%	14%	43%	29%	0%	

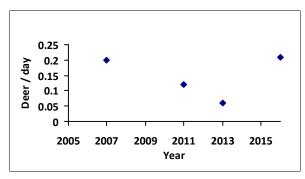


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	50	66.7%	29.4%
2016	39	71.8%	28.2%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	12%	57%	16%	14%	2%
-	2013	14%	46%	8%	24%	8%
	2016	11%	63%	5%	11%	11%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	36	Public	3%	31%	42%	19%	6%
2018	264	Hunter	0%	5%	33%	44%	17%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	182	Hunter	3%	1%	3%	18%	25%	32%	19%
2018	35	Public	3%	3%	37%	37%	9%	9%	3%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	294	40%	41%	18%
2018	Public	35	14%	51%	34%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	33	72	8.4
2018	Hunter	268	65	3.2
	2018	Year Type  2018 Public	Year Type size  2018 Public 33	Year Opinion Sample Mgmt Size Score  2018 Public 33 72

### **COUNTY DEER DATA: CLARK**

County Statistics	
County number:	10
Total square miles:	376
Square miles of deer range (last calculated in 2009):	255
Deer habitat in county (%):	68

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1392			649	740	3	0	554	580	195	36	8	13	3	3	0	0	0
2016	1369			548	811	10	0	575	575	166	30	14	4	4	1	0	0	0
2017	1294	32%	8%	590	695	9	0	497	564	177	42	11	2	1	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1970		825		3.56	47	1145		58	8	7	245	186	
2006	1996		787		3.39	35	1208		60	8	5	264	198	
2007	1662		671		2.89		991		60	8	8	251	187	
2008	1694		660		2.84		1034		61	8	13	248	183	
2009	1590		644		2.78		946		59	8	9	251	185	
2010	1675	-0.57	643	-0.90	2.52		1032	-0.30	62	8	9	239	175	-2.15
2011	1702	-0.14	651	-0.50	2.55		1051	0.09	62	8	12	248	186	-0.02
2012	1897	5.22	696	3.58	2.73		1201	4.48	63	8	16	239	178	-1.16
2013	1930	1.94	643	-0.72	2.52		1287	2.53	67	8	12	271	201	4.32
2014	1831	0.49	675	0.85	2.65		1156	0.38	63	8	5	240	178	-0.67
2015	1958	1.32	756	4.06	2.97		1202	0.53	61	8	10	243	178	-0.51
2016	1935	0.70	832	3.27	3.26		1103	-0.89	57	8	9	229	166	-1.88
2017	1843	-1.36	720	-0.01	2.83		1123	-0.98	61	4	5	237	168	-0.98

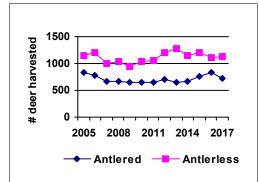


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

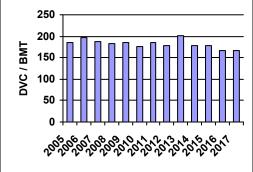


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	81	0.9:1 ± 0.3	
2015-2017	20	1.2:1 ± 0.7	
		Fawn: Doe Ratio	
2007-2014	75	0.6:1 ± 0.2	
2015-2017	28	0.3:1 ± 0.1	

### **COUNTY DEER DATA: CLAY**

Version: 8/23/2018

#### **County Statistics** County number: 11 Total square miles: 360 Square miles of deer range (last 134 calculated in 2009): Deer habitat in county (%): 37

28%

31%

19%

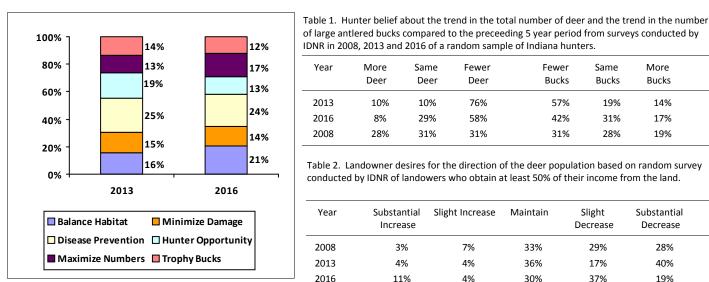


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

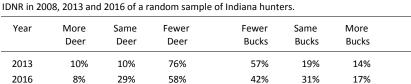


Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

31%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	3%	7%	33%	29%	28%
2013	4%	4%	36%	17%	40%
2016	11%	4%	30%	37%	19%

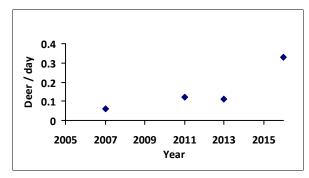


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

28%

31%

2008

Year	n	% Yes	% No
2013	31	71.9%	25.0%
2016	43	62.8%	27.9%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

_	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	19%	41%	25%	9%	6%
-	2013	10%	53%	7%	23%	7%
	2016	2%	54%	15%	17%	12%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	8	Public	0%	13%	38%	50%	0%
2018	99	Hunter	1%	9%	33%	38%	18%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

						` 0				
Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	129	Hunter	3%	1%	3%	22%	28%	24%	19%	_
2018	8	Public	0%	0%	13%	25%	25%	38%	0%	

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	161	41%	47%	12%
2018	Public	8	13%	50%	38%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	6	82	5.5
2018	Hunter	103	63	5.4

### **COUNTY DEER DATA: CLAY**

County Statistics	
County number:	11
Total square miles:	360
Square miles of deer range (last calculated in 2009):	134
Deer habitat in county (%):	37

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	916			428	486	2	0	383	407	102	21	3	0	0	0	0	0	0
2016	967			427	539	1	0	430	428	92	15	2	0	0	0	0	0	0
2017	910	32%	11%	424	484	2	0	382	382	120	18	8	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1396		574		2.98		822		59	8	2	119	272	
2006	1213		365		1.89	50	848		70	8	3	127	286	
2007	1129		478		2.48		651		58	4	1	128	285	
2008	1001		428		2.22		573		57	4	1	111	247	
2009	1043		489		2.53		554		53	4	1	116	256	
2010	1123	-0.21	474	0.09	3.54		649	-0.29	58	4	0	111	247	-1.27
2011	1104	0.03	505	1.13	3.77		599	-0.48	54	4	0	120	270	0.32
2012	1242	2.91	421	-1.87	3.14	47	821	4.91	66	8	1	111	255	-0.39
2013	1051	-0.56	420	-1.17	3.13		631	-0.08	60	4	2	142	334	8.23
2014	1051	-0.77	411	-1.29	3.07		640	-0.11	61	4	2	119	284	0.31
2015	1165	0.65	490	1.06	3.66		675	0.08	58	4	1	111	267	-0.31
2016	1206	1.02	543	2.11	4.05		663	-0.12	55	4	2	134	326	1.43
2017	1220	0.87	504	0.82	3.76		716	0.39	59	4	1	106	260	-0.94

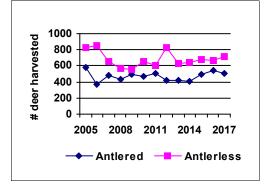


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

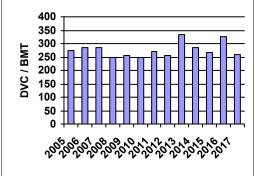


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio
2007-2014	58	1.1:1 ± 0.3
2015-2017	9	$0.1:1 \pm 0.1$
		Fawn: Doe Ratio
2007-2014 2015-2017	46	0.6:1 ± 0.1

#### **COUNTY DEER DATA: CLINTON**

Version: 8/23/2018

### County Statistics County number: 12 Total square miles: 403 Square miles of deer range (last calculated in 2009): 26 Deer habitat in county (%): 6

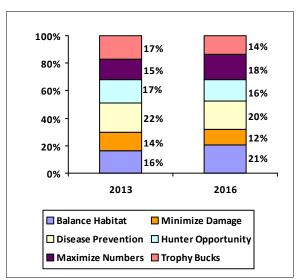


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

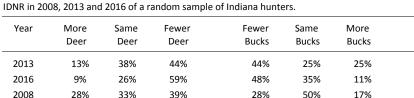


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	0%	5%	36%	29%	29%
2013	0%	7%	31%	22%	40%
2016	0%	10%	55%	23%	12%

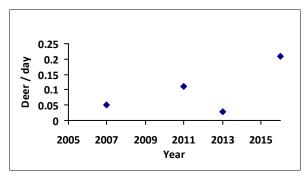


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	13	64.3%	42.9%
2016	32	46.9%	40.6%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied		
2008	5%	36%	50%	5%	5%		
2013	0%	69%	0%	31%	0%		
2016	0%	61%	6%	23%	10%		

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	14	Public	0%	14%	43%	43%	0%
2018	52	Hunter	0%	4%	19%	38%	38%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5
year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	56	Hunter	2%	2%	0%	9%	39%	23%	25%
2018	13	Public	0%	8%	38%	8%	31%	15%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	82	40%	46%	13%
2018	Public	13	15%	46%	38%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	14	74	8.9
2018	Hunter	62	60	7.5

### **COUNTY DEER DATA: CLINTON**

County Statistics	
County number:	12
Total square miles:	403
Square miles of deer range (last calculated in 2009):	26
Deer habitat in county (%):	6

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	283			132	150	1	0	125	133	24	1	0	0	0	0	0	0	0
2016	279			117	161	1	0	135	120	20	4	0	0	0	0	0	0	0
2017	256	30%	18%	114	141	1	0	108	124	24	0	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	322		176		8.81		146		45	1	0	129	251	
2006	334		136		6.79	35	198		59	2	0	126	241	
2007	361		174		8.69	67	187		52	2	0	129	243	
2008	349		158		7.90		192		55	2	0	101	191	
2009	344		162		8.10		182		53	2	1	135	254	
2010	359	1.15	166	0.30	6.38		193	0.59	54	2	0	119	225	-0.41
2011	364	1.31	164	0.34	6.31		200	1.58	55	2	1	106	202	-1.17
2012	383	3.25	151	-2.34	5.81		232	6.10	61	2	1	96	185	-1.42
2013	386	1.72	160	-0.03	6.15		226	1.37	59	2	0	93	180	-1.09
2014	339	-1.62	157	-0.62	6.04		182	-1.14	54	2	0	121	238	0.93
2015	336	-1.57	152	-1.28	5.85		184	-1.05	55	2	1	91	180	-1.04
2016	335	-1.13	163	1.14	6.27		172	-1.41	51	2	0	79	158	-1.58
2017	318	-1.44	144	-2.46	5.51		174	-0.91	55	2	0	118	238	1.70

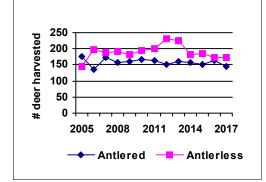


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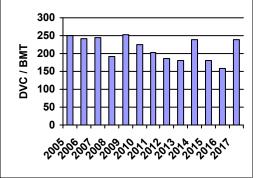


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	62	1:1 ± 0.4	
2015-2017	39	1.1:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	51	0.6:1 ± 0.2	
2015-2017	33	0.9:1 ± 0.8	

### **COUNTY DEER DATA: CRAWFORD**

Version: 8/23/2018

### County Statistics County number: 13 Total square miles: 309 Square miles of deer range (last calculated in 2009): 284 Deer habitat in county (%): 91

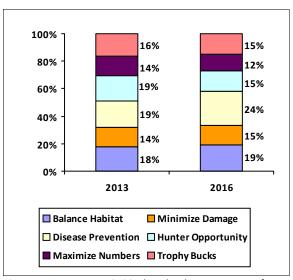


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

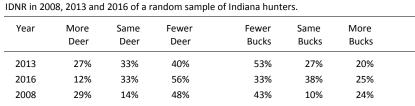


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease		
2008	0%	0%	29%	14%	57%		
2013	10%	20%	20%	30%	20%		
2016	0%	25%	38%	13%	25%		
	2008 2013	2008 0% 2013 10%	Increase  2008 0% 0% 2013 10% 20%	Increase       2008     0%     0%     29%       2013     10%     20%     20%	Increase         Decrease           2008         0%         0%         29%         14%           2013         10%         20%         20%         30%	Increase         Decrease         Decrease           2008         0%         0%         29%         14%         57%           2013         10%         20%         20%         30%         20%	

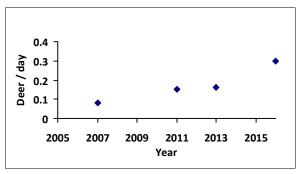


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	55	62.5%	25.0%
2016	84	51.2%	35.7%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	9%	42%	38%	9%	2%
2013	12%	52%	13%	15%	8%
2016	6%	55%	5%	22%	12%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	5	Public	0%	60%	20%	20%	0%
2018	57	Hunter	2%	11%	40%	35%	12%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ				
2018	Hunter	183	50%	42%	8%		
2018	Public	5	0%	60%	40%		

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	171	Hunter	2%	1%	4%	19%	26%	23%	25%	_
2018	5	Public	0%	20%	40%	20%	20%	0%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	5	65	18.3
2018	Hunter	56	67	7.5

### **COUNTY DEER DATA: CRAWFORD**

County Statistics	
County number:	13
Total square miles:	309
Square miles of deer range (last calculated in 2009):	284
Deer habitat in county (%):	91

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1700			769	927	4	0	673	746	196	57	16	10	2	0	0	0	0
2016	1514			663	846	5	0	640	666	146	39	16	4	2	0	1	0	0
2017	1574	42%	11%	692	877	5	0	613	684	202	47	19	7	1	0	1	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1635		688		2.36	46	947		58	2	0	84	383	
2006	1921		825		2.47	37	1097		57	2	1	120	540	
2007	1538		620		2.12	49	918		60	4	0	107	478	
2008	1767		720		2.47		1047		59	4	3	92	412	
2009	1819		775		2.65		1044		57	4	0	101	452	
2010	1732	-0.03	673	-0.67	2.37		1059	0.65	61	8	1	74	331	-2.01
2011	1925	1.20	771	0.60	2.71		1154	1.79	60	8	1	82	366	-0.99
2012	2175	2.95	769	0.87	2.71		1406	4.31	65	8	2	73	326	-1.35
2013	2342	2.57	864	2.75	3.04		1478	2.18	63	8	1	79	355	-0.42
2014	2171	0.68	751	-0.29	2.64		1420	0.95	65	8	4	75	337	-0.58
2015	2370	1.25	943	2.61	3.31		1427	0.67	60	8	2	118	529	11.07
2016	2035	-0.91	858	0.47	3.02		1177	-1.57	58	8	2	104	466	1.01
2017	2255	0.26	895	0.74	3.15		1360	-0.18	60	8	2	125	560	1.76

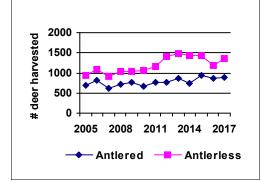


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

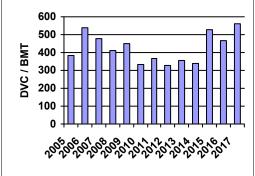


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	107	1:1 ± 0.3	
2015-2017	16	0.5:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	54	0.3:1 ± 0.1	
2015-2017	4	0.2:1 ± 0.2	

### **COUNTY DEER DATA: DAVIESS**

Version: 8/23/2018

#### **County Statistics** County number: 14 Total square miles: 436 Square miles of deer range (last 120 calculated in 2009): Deer habitat in county (%): 27

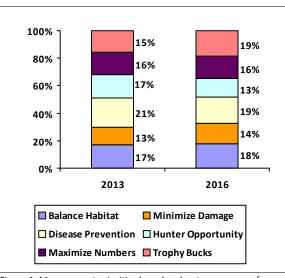


Figure 1. Management priorities based on hunter responses from **Deer Hunter Surveys** 

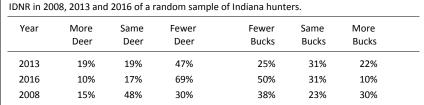


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
13%	3%	43%	27%	13%	
4%	11%	36%	14%	36%	
5%	5%	30%	35%	25%	
	13% 4%	13% 3% 4% 11%	Increase 13% 3% 43% 43% 44% 11% 36%	Increase         Decrease           13%         3%         43%         27%           4%         11%         36%         14%	Increase         Decrease         Decrease           13%         3%         43%         27%         13%           4%         11%         36%         14%         36%

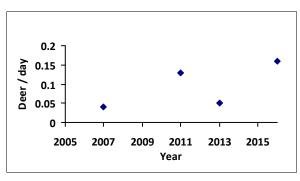


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	31	59.4%	28.1%
2016	36	44.4%	41.7%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

,	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2	2008	4%	48%	30%	19%	0%
2	2013	3%	50%	27%	10%	10%
2	2016	0%	69%	3%	17%	11%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	7	Public	0%	0%	71%	0%	29%
2018	117	Hunter	0%	3%	26%	46%	25%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5
year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	94	Hunter	7%	3%	3%	7%	23%	32%	23%
2018	7	Public	0%	0%	0%	57%	14%	14%	14%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year		•	Decrease CBAQ		
2018	Hunter	141	48%	35%	18%
2018	Public	7	29%	57%	14%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
٠	2018	Public	7	73	17.6
_	2018	Hunter	118	53	4.9

### **COUNTY DEER DATA: DAVIESS**

Version: 8/23/2018

- 4		
	<b>County Statistics</b>	
	County number:	14
	Total square miles:	436
	Square miles of deer range (last calculated in 2009):	120
	Deer habitat in county (%):	27

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	820			422	396	2	0	317	436	59	6	1	1	0	0	0	0	0
2016	770			342	425	2	1	354	384	29	3	0	0	0	0	0	0	0
2017	803	35%	12%	404	396	2	1	313	431	54	5	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1466		589		3.78		876		60	3	3	66	211	
2006	1485		518		3.32		967		65	4	6	36	112	
2007	1184		384		2.46	41	799		68	4	1	34	102	
2008	1161		434		2.78		727		63	4	3	22	67	
2009	1036		430		2.76		606		58	4	4	30	91	
2010	1077	-0.95	413	-0.71	3.44		663	-0.95	62	4	2	17	52	-1.16
2011	1112	-0.43	411	-0.50	3.43		701	-0.37	63	3	3	17	52	-1.29
2012	1169	0.91	416	0.08	3.47		753	0.75	64	3	3	31	97	1.05
2013	1083	-0.50	381	-3.80	3.18		702	0.21	65	3	3	47	144	3.43
2014	1060	-0.72	391	-1.07	3.26		669	-0.29	63	2	1	35	105	0.48
2015	973	-2.97	397	-0.35	3.31		576	-3.40	59	2	2	30	89	-0.02
2016	884	-2.71	433	2.35	3.61		451	-3.50	51	1	4	34	100	0.08
2017	964	-0.64	408	0.21	3.41		556	-0.62	58	1	1	43	126	0.89

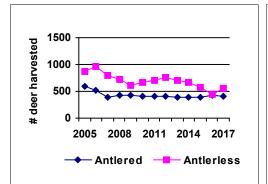


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

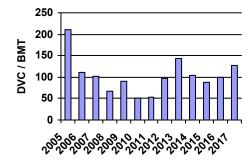


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	76	1.2:1 ± 0.3	
2015-2017	28	1:1 ± 0.5	
		Fawn: Doe Ratio	
2007-2014	61	0.4:1 ± 0.1	
2015-2017	12	0.3:1 ± 0.2	

#### **COUNTY DEER DATA: DEARBORN**

Version: 8/23/2018

#### **County Statistics** County number: 15 Total square miles: 307 Square miles of deer range (last 256 calculated in 2009): Deer habitat in county (%): 83

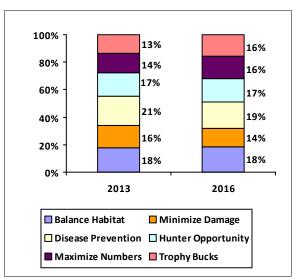


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

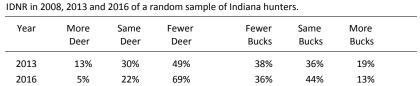


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

27%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	3%	22%	31%	44%	
2013	0%	6%	34%	19%	41%	
2016	17%	17%	0%	33%	33%	

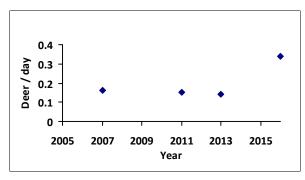


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

27%

38%

2008

Year	n	% Yes	% No
2013	54	60.0%	27.3%
2016	74	54.1%	36.5%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

31%

23%

26%

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	9%	47%	32%	9%	4%
-	2013	9%	47%	15%	28%	0%
	2016	3%	53%	14%	25%	6%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	20	Public	5%	30%	45%	20%	0%
2018	183	Hunter	2%	8%	30%	40%	20%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5
year period from 2018 to 2022 from annual deer management survey (began in 2018)

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	180	Hunter	3%	2%	4%	14%	26%	33%	18%
2018	20	Public	5%	15%	25%	30%	25%	0%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ				
2018	Hunter	213	44%	42%	15%		
2018	Public	20	10%	50%	40%		

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval			
2018	Public	17	78	7.1			
2018	Hunter	169	66	3.9			

### **COUNTY DEER DATA: DEARBORN**

Version: 8/23/2018

County Statistics	
County number:	15
Total square miles:	307
Square miles of deer range (last calculated in 2009):	256
Deer habitat in county (%):	83

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1933			868	1065	0	0	805	838	224	56	9	1	0	0	0	0	0
2016	1775			734	1007	34	0	797	743	173	48	13	1	0	0	0	0	0
2017	1663	33%	8%	805	851	7	0	636	728	213	66	16	4	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2792		966		3.91	44	1826		65	8	22	318	529	
2006	2670		846		3.33		1823		68	8	35	347	565	
2007	2840		943		3.82		1897		67	8	24	352	564	
2008	2567		851		3.45		1716		67	8	22	315	496	
2009	2981		1138		4.61		1843		62	8	30	308	481	
2010	2865	0.60	1016	0.57	3.97		1849	0.43	65	8	23	358	552	0.64
2011	2885	0.61	979	0.16	3.82	28	1906	1.20	66	8	17	310	470	-1.54
2012	3176	2.25	923	-0.59	3.61	34	2253	5.41	71	8	19	298	449	-1.50
2013	2225	-3.03	742	-2.23	2.90	21	1483	-2.13	67	8	16	316	478	-0.29
2014	2533	-0.82	886	-0.51	3.46		1647	-0.80	65	4	21	342	519	0.85
2015	2559	-0.49	1073	1.54	4.19		1486	-1.17	58	4	15	331	504	0.25
2016	2365	-0.85	1083	1.33	4.23		1282	-1.44	54	4	15	271	414	-2.51
2017	2319	-0.69	873	-0.48	3.41		1446	-0.50	62	4	14	287	439	-0.81

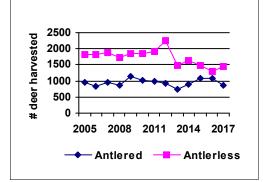


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

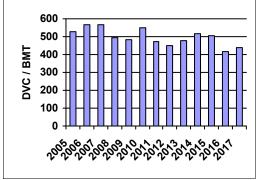


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	185	1.1:1 ± 0.2	
2015-2017	38	0.5:1 ± 0.2	
		Fawn: Doe Ratio	
2007-2014	131	$0.7:1 \pm 0.1$	
2007-2014 2015-2017	131 23	$0.7:1 \pm 0.1$ $0.4:1 \pm 0.2$	

### **COUNTY DEER DATA: DECATUR**

Version: 8/23/2018

## County Statistics County number: 16 Total square miles: 373 Square miles of deer range (last calculated in 2009): 24

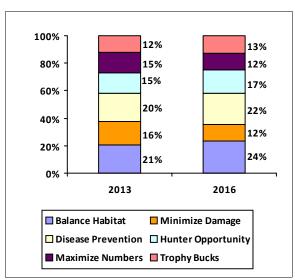


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Same More Year Fewer Fewer Deer Deer Deer **Bucks Bucks Bucks** 2013 19% 26% 45% 32% 39% 13% 2016 22% 27% 49% 33% 43% 18% 2008 39% 35% 23% 26% 35% 26%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	4%	8%	40%	21%	27%	
2013	0%	8%	41%	23%	28%	
2016	0%	24%	37%	29%	11%	

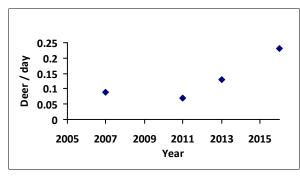


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No	Year
2013	35	55.6%	33.3%	2008
2016	56	51.8%	32.1%	2013

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	14%	38%	24%	21%	3%
	2013	0%	54%	9%	29%	9%
	2016	7%	65%	6%	17%	6%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	7	Public	0%	29%	29%	43%	0%
2018	91	Hunter	1%	5%	40%	35%	19%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year			Decrease CBAQ		
2018	Hunter	118	36%	47%	18%
2018	Public	7	29%	29%	43%

Table 6. In the annual deer management survey,

Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are

hunters were asked how the County Bonus

repoted as CBAQ.

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	93	Hunter	1%	1%	3%	15%	32%	26%	22%	_
2018	7	Public	0%	14%	14%	29%	43%	0%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	4	91	9.5
2018	Hunter	89	66	5.0

### **COUNTY DEER DATA: DECATUR**

County Statistics	
County number:	16
Total square miles:	373
Square miles of deer range (last calculated in 2009):	89
Deer habitat in county (%):	24

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	629			295	333	1	0	271	289	59	10	0	0	0	0	0	0	0
2016	617			278	336	3	0	273	272	62	10	0	0	0	0	0	0	0
2017	570	46%	18%	279	291	0	0	228	263	69	10	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	543		254		1.92	56	289		53	1	1	57	120	
2006	454		194		1.47	50	259		57	1	2	63	130	
2007	556		273		2.07	35	283		51	1	1	48	98	
2008	663		297		2.25		366		55	2	1	56	115	
2009	721		293		2.22		428		59	2	2	69	141	
2010	687	0.95	287	0.59	3.22		400	1.07	58	2	2	85	176	3.40
2011	727	1.01	282	0.31	3.17		445	1.33	61	3	1	100	212	2.71
2012	796	1.81	288	0.17	3.24	32	508	1.93	64	3	0	79	172	0.51
2013	790	1.41	324	6.00	3.64		466	0.69	59	3	1	82	184	0.55
2014	831	1.84	329	2.04	3.70		502	1.29	60	3	1	93	210	1.30
2015	772	0.10	337	1.55	3.80		435	-0.66	56	3	0	100	228	1.93
2016	768	-0.40	342	1.19	3.84		426	-1.37	55	3	1	78	180	-0.94
2017	730	-2.45	295	-1.36	3.31		435	-0.87	60	3	1	93	216	0.91

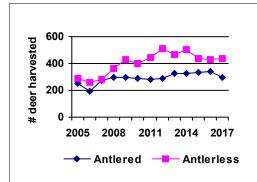


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

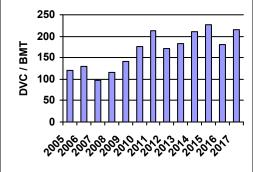


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio			
2007-2014	74	1:1 ± 0.3			
2015-2017	11	0.5:1 ± 0.4			
		Fawn: Doe Ratio			
2007-2014	69	0.5:1 ± 0.1			
2015-2017	5	0.6:1 ± 0.5			

### **COUNTY DEER DATA: DEKALB**

Version: 8/23/2018

# County Statistics County number: 17 Total square miles: 364 Square miles of deer range (last calculated in 2009): 97 Deer habitat in county (%): 27

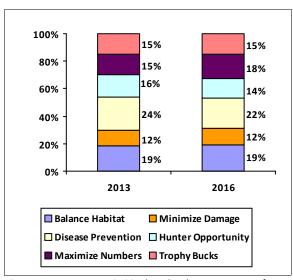


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

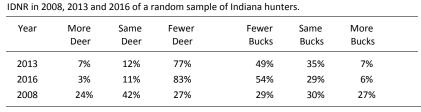


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	6%	6%	28%	28%	31%	
2013	10%	10%	34%	22%	24%	
2016	22%	20%	37%	11%	11%	

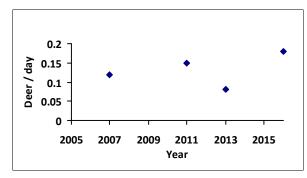


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	63	57.8%	35.9%
2016	72	31.9%	51.4%
-			

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	2%	52%	30%	12%	3%
	2013	8%	41%	3%	19%	29%
	2016	6%	27%	6%	41%	20%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type			Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	23	Public	0%	30%	30%	39%	0%
2018	176	Hunter	1%	2%	20%	45%	32%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type	Opinion Sample Type size					
2018	Hunter	270	59%	31%	10%		
2018	Public	21	29%	33%	38%		

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	211	Hunter	2%	2%	2%	9%	17%	33%	35%	_
2018	21	Public	5%	5%	29%	19%	33%	5%	5%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	19	67	9.6
2018	Hunter	179	50	4.0

### **COUNTY DEER DATA: DEKALB**

<b>County Statistics</b>	
County number:	17
Total square miles:	364
Square miles of deer range (last calculated in 2009):	97
Deer habitat in county (%):	27

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1517			695	815	7	0	597	727	164	24	5	0	0	0	0	0	0
2016	1461			649	809	3	0	581	678	155	32	14	1	0	0	0	0	0
2017	1347	35%	8%	616	727	3	1	541	627	152	25	2	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2115		885		6.41	66	1230		58	2	4	228	408	
2006	1950		748		5.42	73	1202		62	2	2	265	463	
2007	2216		873		6.32	50	1343		61	2	3	270	463	
2008	2437		934		6.77		1502		62	3	6	317	539	
2009	2455		953		6.91		1502		61	4	5	304	505	
2010	2461	1.05	923	0.55	9.52		1538	1.27	62	4	8	310	509	0.67
2011	2308	0.02	894	0.09	9.22		1414	-0.02	61	8	12	287	469	-0.81
2012	2419	0.40	747	-5.26	7.70		1672	2.66	69	8	9	288	472	-0.81
2013	2085	-5.29	769	-1.46	7.93		1316	-2.24	63	8	8	307	507	0.30
2014	1664	-4.31	658	-2.14	6.78		1006	-3.61	60	4	5	279	455	-1.85
2015	1976	-0.65	832	0.31	8.58		1144	-0.97	58	4	6	255	410	-3.00
2016	1960	-0.44	821	0.46	8.46		1139	-0.67	58	4	3	273	438	-0.69
2017	1762	-0.95	738	-0.39	7.59		1024	-0.90	58	3	3	273	434	-0.62

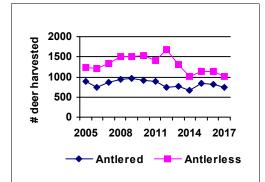


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

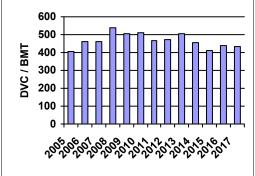


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	327	1.2:1 ± 0.2	
2015-2017	101	0.5:1 ± 0.2	
		Fawn: Doe Ratio	
2007-2014	261	0.6:1 ± 0.1	
2015-2017	55	$0.4:1 \pm 0.1$	

#### **COUNTY DEER DATA: DELAWARE**

Version: 8/23/2018

# County Statistics County number: 18 Total square miles: 396 Square miles of deer range (last calculated in 2009): 51 Deer habitat in county (%): 13

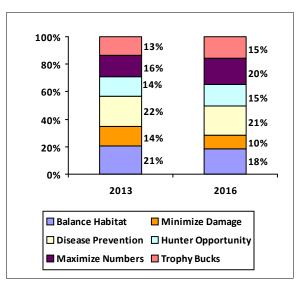


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2013 11% 11% 69% 46% 29% 14% 2016 12% 14% 68% 42% 40% 11%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

24%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	19%	39%	22%	20%	
2013	2%	6%	55%	32%	6%	
2016	11%	8%	58%	13%	11%	

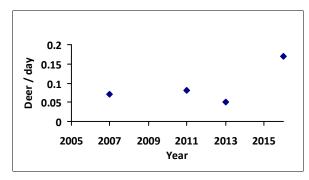


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

28%

32%

2008

Year	n	% Yes	% No
2013	29	60.0%	30.0%
2016	36	69.4%	30.6%
			-

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

28%

24%

20%

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	15%	50%	18%	18%	0%
	2013	14%	48%	3%	28%	7%
	2016	6%	49%	0%	43%	3%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low	
2018	21	Public	10%	14%	48%	29%	0%	
2018	158	Hunter	0%	4%	29%	40%	27%	

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	182	51%	36%	13%
2018	Public	20	10%	50%	40%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	109	Hunter	3%	1%	2%	9%	23%	34%	28%	_
2018	20	Public	10%	5%	20%	15%	35%	10%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	18	73	9.8
2018	Hunter	163	59	4.3

### **COUNTY DEER DATA: DELAWARE**

County Statistics	
County number:	18
Total square miles:	396
Square miles of deer range (last calculated in 2009):	51
Deer habitat in county (%):	13

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	615			311	304	0	0	237	306	58	10	4	0	0	0	0	0	0
2016	597			273	323	1	0	242	287	56	9	2	0	1	0	0	0	0
2017	561	33%	12%	283	275	3	0	194	284	63	14	5	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	709		280		4.66		429		61	3	1	171	111	
2006	709		260		4.31		449		63	3	1	236	149	
2007	727		309		5.15		418		58	3	0	227	142	
2008	756		316		5.27		439		58	4	0	194	123	
2009	841		309		5.15		532		63	4	2	202	129	
2010	817	1.24	319	1.02	6.25		498	0.98	61	4	4	198	128	-0.23
2011	745	-0.44	314	0.47	6.16		431	-0.78	58	4	5	197	129	-0.49
2012	747	-0.61	265	-10.92	5.20		482	0.38	65	4	5	188	125	-0.69
2013	707	-1.66	258	-2.08	5.06		449	-0.65	64	4	4	193	131	1.67
2014	694	-1.39	274	-0.65	5.37		420	-1.46	61	4	1	157	109	-9.63
2015	772	0.63	306	0.70	6.00		466	0.30	60	4	3	167	118	-0.68
2016	765	1.00	329	1.82	6.45		436	-0.54	57	4	2	161	117	-0.62
2017	765	0.80	284	-0.08	5.56		481	1.25	63	4	2	188	140	2.33

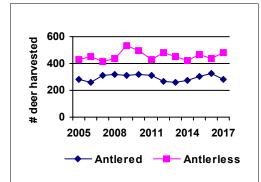


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

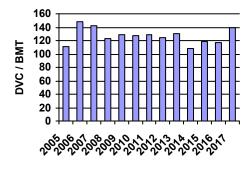


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	99	1.3:1 ± 0.3	
2015-2017	25	0.6:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	67	0.4:1 ± 0.1	
2015-2017	32	0.9:1 ± 0.2	

### **COUNTY DEER DATA: DUBOIS**

Version: 8/23/2018

## County Statistics County number: 19 Total square miles: 435 Square miles of deer range (last calculated in 2009): 236 Deer habitat in county (%): 54

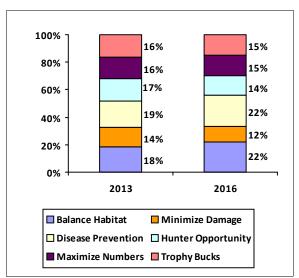


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

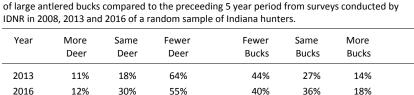


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

40%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	6%	12%	37%	24%	22%	
2013	7%	10%	39%	22%	23%	
2016	11%	10%	45%	14%	20%	

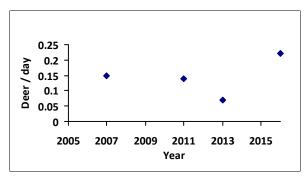


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

20%

29%

2008

Year	n	% Yes	% No
2013	64	61.5%	27.7%
2016	45	37.8%	46.7%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

36%

18%

23%

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	12%	62%	20%	5%	1%
	2013	8%	41%	8%	29%	14%
	2016	9%	50%	7%	27%	7%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	19	Public	5%	26%	63%	5%	0%
2018	206	Hunter	1%	7%	24%	41%	26%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	145	Hunter	3%	3%	3%	12%	32%	28%	17%
2018	19	Public	0%	21%	16%	42%	16%	5%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	215	53%	33%	14%
2018	Public	19	5%	53%	42%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	17	79	7.1
-	2018	Hunter	194	53	3.8

### **COUNTY DEER DATA: DUBOIS**

County Statistics	
County number:	19
Total square miles:	435
Square miles of deer range (last calculated in 2009):	236
Deer habitat in county (%):	54

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1526			736	789	1	0	574	721	179	38	14	0	0	0	0	0	0
2016	1392			679	709	4	0	528	643	172	34	13	2	0	0	0	0	0
2017	1326	26%	11%	664	657	5	0	468	666	161	27	4	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1879		668		2.29	48	1211		64	3	2	115	229	
2006	1917		682		2.33	53	1236		64	3	4	123	241	
2007	1599		543		1.86		1056		66	4	2	117	227	
2008	1763		643		2.20		1120		64	4	0	93	182	
2009	1863		683		2.34		1180		63	4	0	119	230	
2010	1782	-0.17	676	0.55	2.86		1106	-0.75	62	4	0	75	147	-3.25
2011	1871	0.71	698	0.89	2.96		1173	0.48	63	4	0	115	229	0.58
2012	1989	1.95	639	-0.15	2.71		1350	4.37	68	4	0	146	296	2.50
2013	1980	1.41	661	-0.26	2.80		1319	1.37	67	4	0	248	514	5.26
2014	1954	0.65	689	0.78	2.92		1265	0.38	65	4	0	266	564	2.01
2015	2040	1.42	795	5.23	3.37		1245	0.02	61	4	0	291	623	1.50
2016	1868	-1.59	717	0.34	3.04		1151	-1.74	62	4	0	218	470	0.15
2017	1767	-3.15	674	-0.43	2.86		1093	-2.26	62	3	1	232	503	0.08

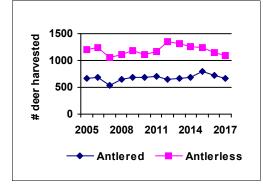


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

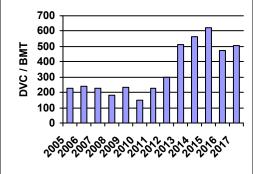


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

n	Doe: Buck Ratio	
91	0.7:1 ± 0.2	
13	2:1 ± 1.6	
	Fawn: Doe Ratio	
61	0.7:1 ± 0.2	
11	0.8:1 ± 0.5	
	91 13 61	91 0.7:1 ± 0.2 13 2:1 ± 1.6 Fawn: Doe Ratio 61 0.7:1 ± 0.2

#### **COUNTY DEER DATA: ELKHART**

Version: 8/23/2018

## County Statistics County number: 20 Total square miles: 467 Square miles of deer range (last calculated in 2009): 139 Deer habitat in county (%): 30

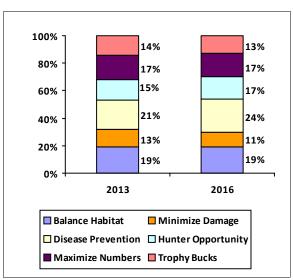


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

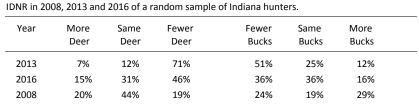


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	3%	3%	28%	25%	42%	
2013	3%	10%	28%	40%	20%	
2016	0%	6%	65%	15%	15%	

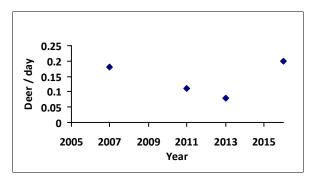


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	72	54.8%	31.5%
2016	38	60.5%	23.7%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	9%	61%	17%	9%	4%
	2013	1%	50%	13%	24%	13%
	2016	6%	56%	14%	17%	8%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	35	Public	6%	23%	49%	23%	0%
2018	224	Hunter	0%	6%	28%	42%	24%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	260	40%	50%	10%
2018	Public	33	24%	36%	39%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	148	Hunter	1%	2%	2%	14%	34%	30%	18%	_
2018	33	Public	6%	9%	18%	39%	21%	6%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	28	69	6.9
2018	Hunter	235	64	3.2

### **COUNTY DEER DATA: ELKHART**

<b>County Statistics</b>	
County number:	20
Total square miles:	467
Square miles of deer range (last calculated in 2009):	139
Deer habitat in county (%):	30

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1015			517	498	0	0	389	487	107	21	9	2	0	0	0	0	0
2016	1001			454	541	6	0	423	446	106	22	3	1	0	0	0	0	0
2017	924	39%	9%	481	436	7	0	322	469	105	16	7	4	0	1	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1343		542		4.71		802		60	2	1	352	187	
2006	1354		522		4.51	57	832		61	2	1	432	226	
2007	1359		561		4.88		799		59	2	3	446	231	
2008	1546		584		5.08		962		62	3	3	435	226	
2009	1549		546		4.75		1003		65	8	8	410	213	
2010	1623	1.80	577	1.13	4.15		1046	1.73	64	8	5	475	246	1.63
2011	1511	0.20	553	-0.20	3.98		958	0.27	63	8	9	398	211	-1.46
2012	1555	0.38	476	-5.51	3.42		1079	1.34	69	8	5	395	211	-1.01
2013	1346	-5.17	496	-1.19	3.57		850	-3.03	63	4	6	400	213	-0.52
2014	1312	-1.98	488	-0.99	3.51		824	-1.83	63	4	4	380	203	-1.02
2015	1308	-1.20	501	-0.38	3.60		807	-1.27	62	4	4	388	204	-0.76
2016	1294	-0.96	558	1.86	4.01		736	-1.47	57	4	1	315	165	-9.42
2017	1259	-0.95	458	-1.44	3.29		801	-0.45	64	4	1	365	191	-0.44

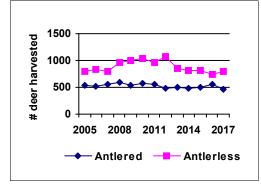


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

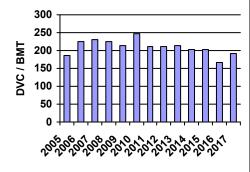


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	65	0.9:1 ± 0.3	
2015-2017	36	1.1:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	44	0.5:1 ± 0.1	
2015-2017	31	0.6:1 ± 0.2	

### **COUNTY DEER DATA: FAYETTE**

Version: 8/23/2018

## County Statistics County number: 21 Total square miles: 215 Square miles of deer range (last calculated in 2009): 83 Deer habitat in county (%): 38

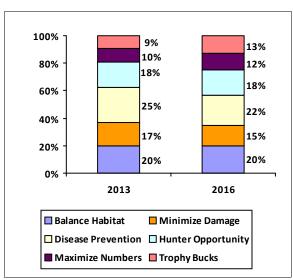


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

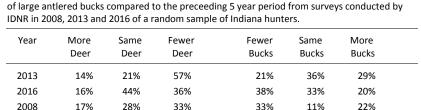


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	4%	8%	21%	17%	50%	
2013	0%	14%	25%	21%	39%	
2016	13%	0%	40%	27%	20%	

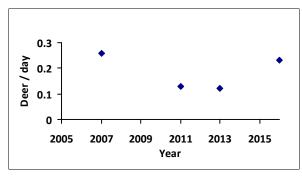


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	15	93.8%	6.3%
2016	46	60.9%	34.8%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	0%	47%	32%	5%	16%
2013	13%	60%	7%	7%	13%
2016	9%	42%	7%	33%	9%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	1	Public	100%	0%	0%	0%	0%
2018	63	Hunter	0%	8%	40%	33%	19%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	95	40%	48%	12%
2018	Public	1	0%	0%	100%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	81	Hunter	4%	2%	0%	23%	31%	25%	15%
2018	1	Public	100%	0%	0%	0%	0%	0%	0%

	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	1	8	
_	2018	Hunter	64	64	6.5

### **COUNTY DEER DATA: FAYETTE**

<b>County Statistics</b>	
County number:	21
Total square miles:	215
Square miles of deer range (last calculated in 2009):	83
Deer habitat in county (%):	38

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	797			354	440	3	0	312	360	100	17	7	1	0	0	0	0	0
2016	814			365	424	24	1	322	365	99	19	6	2	1	0	0	0	0
2017	659	38%	14%	332	326	1	0	232	311	90	21	4	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	628		298		3.27		331		53	2	1	65	276	
2006	656		270		2.97		386		59	2	2	81	341	
2007	646		299		3.29		347		54	2	2	77	323	
2008	712		287		3.15		425		60	3	3	78	331	
2009	860		359		3.95		501		58	3	1	55	235	
2010	855	1.63	344	1.23	4.14	37	511	1.66	60	4	1	73	318	0.37
2011	855	1.04	353	1.08	4.25	39	502	0.95	59	4	2	67	298	-0.27
2012	975	1.89	330	0.05	3.98	48	645	2.65	66	4	3	64	293	-0.21
2013	917	0.70	291	-1.52	3.51		626	1.37	68	4	1	69	319	0.65
2014	1052	3.01	387	1.90	4.66		665	1.50	63	4	2	48	228	-1.88
2015	1090	1.89	448	3.06	5.39		642	0.67	59	4	2	64	313	0.60
2016	1135	1.64	475	1.90	5.72		660	0.67	58	4	2	51	256	-0.96
2017	911	-1.40	331	-0.71	3.97		580	-4.36	64	4	4	47	241	-1.04

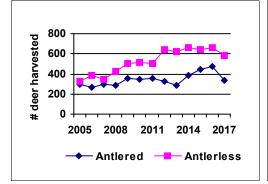


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

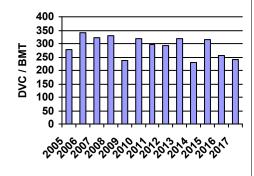


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	85	1.2:1 ± 0.4	
2015-2017	24	0.9:1 ± 0.6	
		Fawn: Doe Ratio	
2007-2014	66	0.4:1 ± 0.1	
2015-2017	20	$0.6:1 \pm 0.3$	

### **COUNTY DEER DATA: FLOYD**

Version: 8/23/2018

## County Statistics County number: 22 Total square miles: 148 Square miles of deer range (last calculated in 2009): 121 Deer habitat in county (%): 81

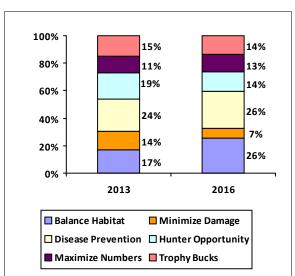


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Fewer Same More Year Deer Deer Deer **Bucks Bucks Bucks** 2013 23% 36% 41% 18% 45% 20%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Tab	lo 2 Lando	waar dasir	es for the di	raction of the door	nonulation h	acad on ran	dom survoy
20	08	18%	48%	23%	35%	22%	25%
20	16	20%	32%	42%	31%	32%	22%

conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	10%	10%	30%	30%	20%
2013	22%	11%	44%	0%	22%
2016	8%	8%	46%	15%	23%

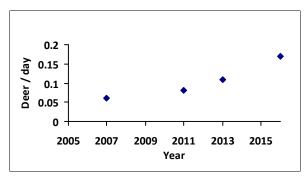


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	16	82.4%	17.6%
2016	22	77.3%	18.2%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	7%	41%	41%	10%	0%
	2013	13%	67%	0%	13%	7%
	2016	10%	76%	10%	5%	0%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	29	Public	10%	14%	69%	7%	0%
2018	211	Hunter	1%	9%	40%	38%	13%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	200	34%	48%	19%
2018	Public	28	14%	50%	36%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	71	Hunter	1%	1%	6%	11%	32%	35%	13%
2018	28	Public	7%	4%	14%	46%	29%	0%	0%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	23	76	7.7
2018	Hunter	216	70	3.2

### **COUNTY DEER DATA: FLOYD**

County Statistics	
County number:	22
Total square miles:	148
Square miles of deer range (last calculated in 2009):	121
Deer habitat in county (%):	81

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	613			285	323	5	0	244	273	75	19	2	0	0	0	0	0	0
2016	542			231	308	3	0	233	231	55	15	3	4	1	0	0	0	0
2017	593	51%	19%	290	302	1	0	223	272	80	13	2	1	1	1	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	561		218		1.91		343		61	8	2	150	183	
2006	504		207		1.82		297		59	8	5	126	151	
2007	506		241		2.11		265		52	8	6	131	154	
2008	621		244		2.14		377		61	8	6	122	143	
2009	571		251		2.20		320		56	8	0	116	134	
2010	587	0.70	249	0.90	2.06		338	0.41	58	8	1	119	134	-1.02
2011	712	3.00	288	2.78	2.38		424	2.48	60	8	2	113	124	-2.06
2012	724	1.65	250	-0.24	2.07		474	2.16	65	8	3	143	154	1.45
2013	778	1.90	292	1.99	2.41		486	1.58	62	8	2	128	137	-0.06
2014	821	1.62	287	0.96	2.37		534	1.64	65	8	1	144	156	1.78
2015	821	1.09	335	2.85	2.77		486	0.47	59	8	4	157	170	2.10
2016	738	-0.64	314	0.78	2.60		424	-1.45	57	8	4	143	154	0.30
2017	812	0.79	309	0.42	2.56		503	0.57	62	8	2	158	168	1.18

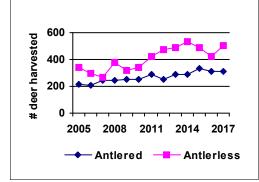


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

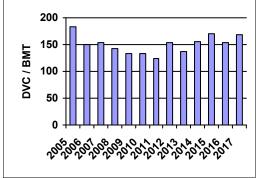


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	75	1.1:1 ± 0.3	
2015-2017	30	1.1:1 ± 0.5	
		Fawn: Doe Ratio	
2007-2014	66	0.7:1 ± 0.2	
2015-2017	25	$0.7:1 \pm 0.2$	

#### **COUNTY DEER DATA: FOUNTAIN**

Version: 8/23/2018

# County Statistics County number: 23 Total square miles: 397 Square miles of deer range (last calculated in 2009): 99 Deer habitat in county (%): 25

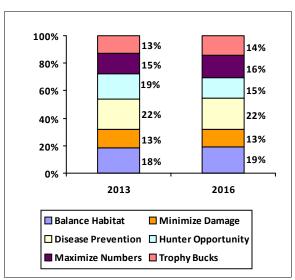


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2013 4% 22% 65% 48% 30% 9% 2016 0% 13% 76% 52% 22% 11%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

22%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	2%	0%	32%	16%	51%	
2013	8%	8%	31%	10%	42%	
2016	2%	13%	37%	17%	30%	

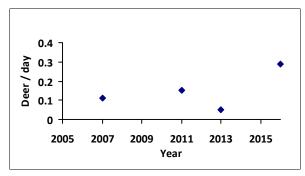


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

32%

39%

2008

Year	n	% Yes	% No
2013	41	59.5%	28.6%
2016	64	53.1%	39.1%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

22%

32%

17%

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	7%	59%	30%	4%	0%
	2013	12%	49%	7%	20%	12%
	2016	0%	53%	3%	27%	16%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	126	Hunter	3%	0%	5%	17%	27%	23%	25%
2018	3	Public	33%	33%	0%	0%	0%	0%	33%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	159	54%	33%	13%
2018	Public	3	67%	0%	33%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	3	54	23.4
2018	Hunter	89	55	5.5

### **COUNTY DEER DATA: FOUNTAIN**

County Statistics	
County number:	23
Total square miles:	397
Square miles of deer range (last calculated in 2009):	99
Deer habitat in county (%):	25

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	921			407	512	2	0	382	386	126	20	6	1	0	0	0	0	0
2016	923			340	580	3	0	451	344	106	14	5	2	1	0	0	0	0
2017	795	33%	12%	364	426	5	0	342	331	95	17	10	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1508		647		7.35		861		57	4	1	90	346	
2006	1452		526		5.97		927		64	8	0	85	323	
2007	1455		627		7.12		828		57	4	1	98	369	
2008	1442		552		6.27		890		62	8	4	72	270	
2009	1321		585		6.65		736		56	8	4	79	297	
2010	1612	2.55	659	1.42	6.66		953	1.44	59	8	1	74	280	-1.07
2011	1534	0.75	575	-0.27	5.81		959	1.06	63	8	2	54	205	-2.58
2012	1688	1.98	604	0.10	6.10		1084	2.26	64	8	5	47	180	-1.77
2013	1417	-0.71	498	-2.40	5.03		919	-0.04	65	8	8	106	414	3.30
2014	1278	-1.60	495	-1.54	5.00		783	-1.17	61	8	8	115	451	1.91
2015	1243	-1.62	518	-0.68	5.23		725	-1.99	58	8	3	115	448	1.17
2016	1220	-1.15	588	1.02	5.94		632	-1.83	52	8	3	103	400	0.44
2017	1054	-1.63	437	-2.01	4.41		617	-1.20	59	4	1	88	341	-0.33

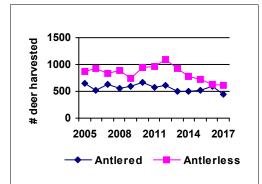


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

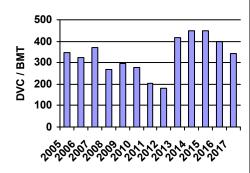


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio		
2007-2014	162	1.8:1 ± 0.3		
2015-2017	44	0.9:1 ± 0.5		
		Fawn: Doe Ratio		
2007-2014	151	0.5:1 ± 0.1		
2007-2014 2015-2017	151 31	$0.5:1 \pm 0.1$ $0.5:1 \pm 0.2$		

#### **COUNTY DEER DATA: FRANKLIN**

Version: 8/23/2018

### County Statistics County number: 24 Total square miles: 391 Square miles of deer range (last calculated in 2009): 256 Deer habitat in county (%): 65

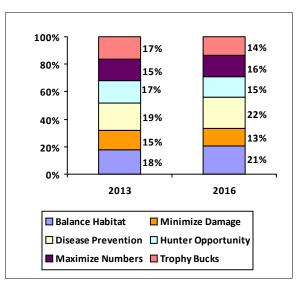


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Fewer Same More Year Deer Deer Deer **Bucks Bucks Bucks** 2013 24% 20% 51% 42% 31% 18% 2016 17% 19% 63% 33% 31% 25% 2008 27% 35% 31% 25% 23% 31%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	12%	5%	31%	19%	33%
2013	7%	7%	29%	19%	39%
2016	4%	15%	35%	27%	19%

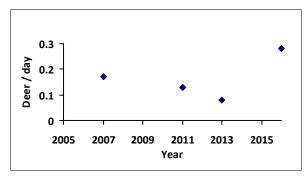


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No		
2013	70	60.6%	31.0%		
2016	101	59.4%	30.7%		

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	11%	53%	21%	9%	6%
	2013	4%	59%	6%	21%	10%
	2016	9%	64%	8%	16%	3%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	6	Public	0%	33%	50%	0%	17%
2018	118	Hunter	0%	5%	26%	42%	26%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	255	51%	42%	7%
2018	Public	6	17%	50%	33%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	236	Hunter	3%	1%	4%	17%	25%	30%	20%
2018	6	Public	0%	17%	17%	50%	0%	0%	17%

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	6	83	5.8
_	2018	Hunter	108	58	5.5

### **COUNTY DEER DATA: FRANKLIN**

County Statistics	
County number:	24
Total square miles:	391
Square miles of deer range (last calculated in 2009):	256
Deer habitat in county (%):	65

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success	95% CI	0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	2048			962	1080	6	0	774	920	248	64	31	4	5	1	0	1	0
2016	1889			772	1057	60	0	819	749	226	73	10	8	1	1	0	1	1
2017	1733	40%	9%	816	912	5	0	676	734	209	67	25	13	5	2	1	1	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2988		1030		3.74	48	1959		66	8	14	45	163	
2006	2767		945		3.43	47	1821		66	8	11	61	217	
2007	2950		1021		3.71	42	1929		65	8	15	73	256	
2008	2852		948		3.45		1905		67	8	17	70	248	
2009	3063		1096		3.99		1967		64	8	10	67	238	
2010	3054	1.12	1044	0.57	4.08	28	2010	1.61	66	8	4	76	275	1.35
2011	2876	-0.48	1008	-0.04	3.94	33	1868	-0.82	65	8	11	84	311	3.02
2012	3078	1.22	926	-1.81	3.62	33	2152	3.94	70	8	16	82	311	1.57
2013	2741	-2.20	877	-1.83	3.43	30	1864	-1.05	68	8	12	73	281	0.15
2014	2617	-2.32	872	-1.34	3.41		1745	-1.91	67	8	10	73	286	0.08
2015	2890	0.08	1098	1.97	4.29		1792	-0.87	62	8	10	71	283	-0.56
2016	2709	-0.76	1183	2.36	4.62		1526	-2.26	56	8	10	74	302	0.48
2017	2514	-1.62	926	-0.46	3.62		1588	-1.01	63	8	37	97	405	8.61

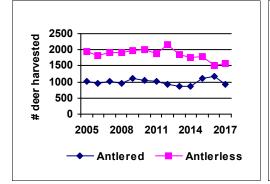


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

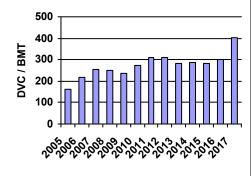


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	108	1.1:1 ± 0.3	
2015-2017	21	0.7:1 ± 0.5	
		Fawn: Doe Ratio	
2007-2014	75	$0.4:1 \pm 0.1$	
2015-2017	4	0.3:1 ± 0.3	
2013 2017	•	*****	

### **COUNTY DEER DATA: FULTON**

Version: 8/23/2018

# County Statistics County number: 25 Total square miles: 371 Square miles of deer range (last calculated in 2009): 51 Deer habitat in county (%): 14

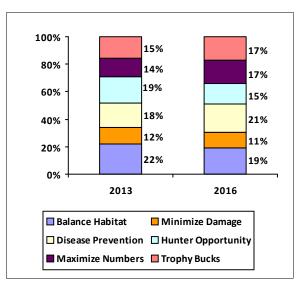


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

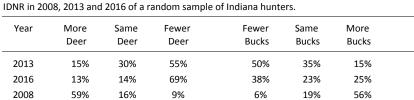


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	6%	10%	18%	27%	39%	
2013	0%	8%	23%	25%	45%	
2016	3%	14%	22%	25%	36%	

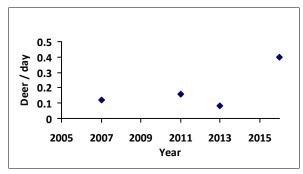


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	41	52.4%	40.5%
2016	74	52.7%	36.5%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	25%	53%	18%	4%	2%
-	2013	10%	48%	10%	20%	13%
	2016	4%	49%	4%	27%	16%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	13	Public	23%	23%	46%	0%	8%
2018	77	Hunter	3%	3%	14%	44%	36%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	168	58%	29%	14%
2018	Public	12	17%	33%	50%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	143	Hunter	1%	1%	6%	10%	20%	34%	27%
2018	12	Public	17%	8%	42%	25%	8%	0%	0%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	11	70	9.7
2018	Hunter	76	55	6.0

### **COUNTY DEER DATA: FULTON**

<b>County Statistics</b>	
County number:	25
Total square miles:	371
Square miles of deer range (last calculated in 2009):	51
Deer habitat in county (%):	14

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1121			496	623	2	0	449	515	124	22	10	1	0	0	0	0	0
2016	1135			504	629	2	0	464	496	131	36	6	2	0	0	0	0	0
2017	902	47%	14%	420	479	3	0	353	415	110	22	2	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1695		682		15.50	49	1013		60	2	0	169	635	
2006	1757		694		15.70	39	1063		61	2	0	191	712	
2007	2046		732		16.63	26	1314		64	4	0	177	656	
2008	2055		734		16.68		1321		64	4	3	195	726	
2009	2129		760		17.27		1369		64	8	6	197	739	
2010	2102	0.85	766	1.44	15.02		1336	0.73	64	8	5	195	734	0.89
2011	1828	-1.27	713	-0.85	13.98		1115	-1.34	61	8	5	201	760	1.38
2012	1893	-1.17	604	-6.28	11.84		1289	-0.02	68	8	3	173	658	-1.65
2013	1525	-3.57	537	-2.71	10.53		988	-2.99	65	8	5	172	652	-1.86
2014	1545	-1.43	560	-1.15	10.98		985	-1.44	64	4	1	153	582	-2.54
2015	1501	-1.14	630	-0.06	12.35		871	-1.65	58	4	1	159	608	-0.98
2016	1533	-0.67	639	0.44	12.53		894	-0.98	58	4	1	162	623	-0.42
2017	1204	-2.40	491	-2.33	9.64		713	-1.75	59	3	4	154	597	-0.87

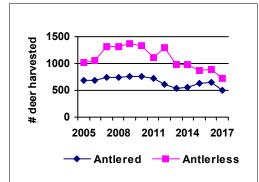


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

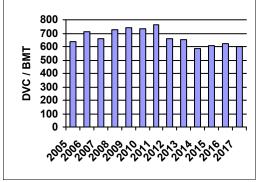


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	145	1.2:1 ± 0.2	
2015-2017	49	2.1:1 ± 0.5	
		Fawn: Doe Ratio	
2007-2014	146	0.7:1 ± 0.1	
2015-2017	60	0.7:1 ± 0.1	

### **COUNTY DEER DATA: GIBSON**

Version: 8/23/2018

# County Statistics County number: 26 Total square miles: 499 Square miles of deer range (last calculated in 2009): 96 Deer habitat in county (%): 19

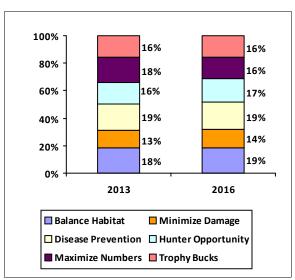


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

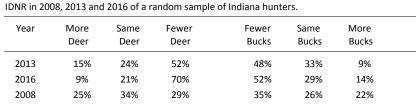


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	5%	8%	32%	21%	34%	
2013	1%	6%	42%	23%	28%	
2016	6%	10%	45%	18%	21%	

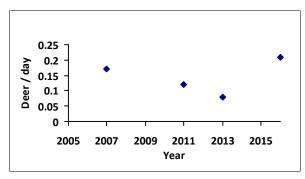


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No		
2013	54	63.6%	30.9%		
2016	56	62.5%	28.6%		

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	6%	57%	22%	13%	2%
	2013	2%	39%	7%	31%	20%
	2016	4%	52%	4%	22%	19%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	4	Public	0%	0%	75%	25%	0%
2018	109	Hunter	0%	4%	23%	50%	23%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	158	42%	42%	16%
2018	Public	4	25%	75%	0%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	121	Hunter	1%	1%	6%	11%	32%	30%	20%	_
2018	4	Public	0%	0%	0%	50%	25%	25%	0%	

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	4	82	16.1
_	2018	Hunter	106	60	5.3

### **COUNTY DEER DATA: GIBSON**

Version: 8/23/2018

<b>County Statistics</b>	
County number:	26
Total square miles:	499
Square miles of deer range (last calculated in 2009):	96
Deer habitat in county (%):	19

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	959			432	526	1	0	394	437	100	18	7	2	1	0	0	0	0
2016	937			370	565	2	0	436	389	93	18	1	0	0	0	0	0	0
2017	941	35%	12%	429	510	2	0	370	434	112	18	6	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1517		696		4.15		821		54	3	0	181	350	
2006	1423		632		3.76		791		56	4	0	210	400	
2007	1385		526		3.13		859		62	8	3	172	325	
2008	1588		628		3.74		959		60	8	2	160	302	
2009	1495		665		3.96		830		56	8	2	184	348	
2010	1564	1.03	636	0.10	6.63		928	1.18	59	8	3	193	367	0.61
2011	1450	-0.47	572	-0.86	5.96		878	0.07	61	8	5	166	317	-0.84
2012	1621	1.50	563	-0.76	5.86	54	1058	3.20	65	8	2	142	272	-2.31
2013	1475	-0.98	506	-2.44	5.27		969	0.44	66	8	4	168	316	-0.14
2014	1331	-2.71	509	-1.26	5.30		822	-1.26	62	4	2	166	309	-0.42
2015	1262	-2.03	529	-0.53	5.51		733	-2.20	58	4	2	148	273	-1.28
2016	1202	-1.63	570	1.12	5.94		632	-2.06	53	3	2	150	274	-1.00
2017	1262	-0.69	517	-0.62	5.40		745	-0.57	59	3	1	135	243	-2.11

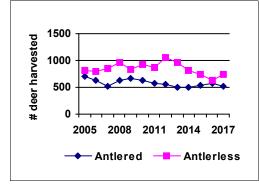


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

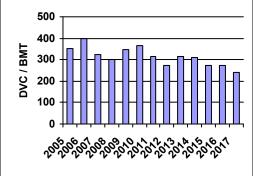


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	118	1:1 ± 0.3	
2015-2017			
		Fawn: Doe Ratio	
2007-2014	75	0.7:1 ± 0.1	
2015-2017			

### **COUNTY DEER DATA: GRANT**

Version: 8/23/2018

# County Statistics County number: 27 Total square miles: 415 Square miles of deer range (last calculated in 2009): 44 Deer habitat in county (%): 10

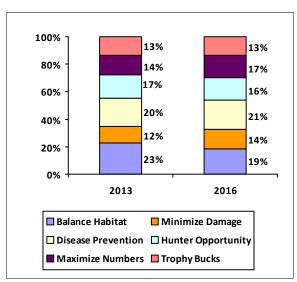


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2013	6%	23%	61%	45%	26%	16%	
2016	9%	21%	68%	39%	47%	9%	
2008	30%	42%	21%	21%	19%	37%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	6%	6%	40%	18%	30%
2013	14%	7%	48%	7%	25%
2016	8%	8%	46%	19%	19%

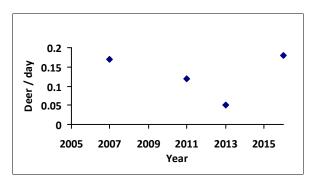


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	30	58.1%	32.3%
2016	40	57.5%	32.5%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	13%	58%	21%	8%	0%
	2013	0%	53%	7%	23%	17%
	2016	16%	45%	3%	21%	16%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low	
2018	15	Public	0%	7%	53%	27%	13%	
2018	129	Hunter	0%	5%	24%	40%	32%	

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	106	Hunter	2%	0%	0%	14%	26%	24%	34%
2018	14	Public	0%	0%	21%	50%	7%	7%	14%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	151	52%	36%	11%
2018	Public	14	36%	57%	7%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	14	70	11.9
2018	Hunter	125	57	5.1

## **COUNTY DEER DATA: GRANT**

<b>County Statistics</b>	
County number:	27
Total square miles:	415
Square miles of deer range (last calculated in 2009):	44
Deer habitat in county (%):	10

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	618			305	313	0	0	228	302	71	16	1	0	0	0	0	0	0
2016	622			319	303	0	0	220	313	69	17	3	0	0	0	0	0	0
2017	549	34%	10%	298	251	0	0	179	279	78	9	3	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	726		306		5.37		420		58	2	0	185	211	
2006	663		272		4.77		391		59	2	0	200	224	
2007	827		340		5.96		487		59	2	1	194	215	
2008	791		321		5.63		471		60	3	0	179	199	
2009	801		323		5.67		478		60	3	0	177	197	
2010	879	1.77	336	0.92	7.64		543	2.25	62	3	0	216	241	2.74
2011	822	0.37	352	1.24	8.00		470	-0.07	57	4	0	177	199	-0.92
2012	802	-0.64	275	-4.65	6.25		527	1.22	66	4	0	156	177	-1.78
2013	718	-2.85	281	-1.41	6.39		437	-1.76	61	4	0	157	180	-0.97
2014	807	0.04	303	-0.31	6.89		504	0.30	62	4	0	189	219	0.80
2015	809	0.06	314	0.14	7.14		495	-0.03	61	4	0	175	205	0.08
2016	817	0.61	304	-0.03	6.91		513	0.77	63	4	0	147	175	-1.20
2017	736	-1.33	251	-2.68	5.76		485	-0.29	66	4	0	182	219	1.44

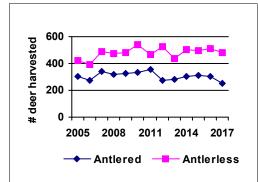


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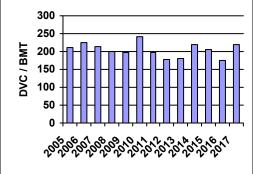


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Years	n	Doe: Buck Ratio			
2007-2014	90	1.3:1 ± 0.4			
2015-2017	27	0.9:1 ± 0.4			
		Fawn: Doe Ratio			
2007-2014	41	0.4:1 ± 0.1			
2015-2017	8	0.2:1 ± 0.1			

### **COUNTY DEER DATA: GREENE**

Version: 8/23/2018

## County Statistics County number: 28 Total square miles: 545 Square miles of deer range (last calculated in 2009): 336 Deer habitat in county (%): 61

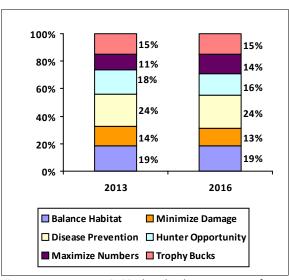


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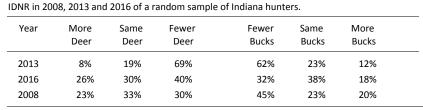


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	9%	11%	23%	13%	45%	
2013	2%	7%	38%	22%	31%	
2016	6%	24%	47%	18%	6%	

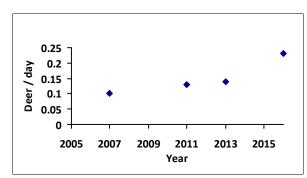


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No	
2013	62	66.7%	25.4%	
2016	57	63.2%	26.3%	
			-	

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	8%	49%	28%	13%	1%
	2013	7%	57%	8%	26%	2%
	2016	9%	52%	6%	26%	7%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	15	Public	20%	40%	20%	20%	0%
2018	136	Hunter	2%	13%	29%	42%	14%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	262	40%	45%	15%
2018	Public	15	7%	40%	53%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	227	Hunter	1%	2%	4%	19%	24%	30%	19%
2018	15	Public	13%	13%	33%	20%	13%	7%	0%

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	14	77	10.8
_	2018	Hunter	132	61	4.5

## **COUNTY DEER DATA: GREENE**

<b>County Statistics</b>	
County number:	28
Total square miles:	545
Square miles of deer range (last calculated in 2009):	336
Deer habitat in county (%):	61

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1796			809	987	0	0	776	823	173	24	0	0	0	0	0	0	0
2016	1824			774	1046	4	0	826	789	182	25	1	1	0	0	0	0	0
2017	1867	44%	10%	911	948	8	0	690	907	213	44	12	0	1	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2240		954		2.66	43	1285		57	3	4	232	554	
2006	2139		808		2.25	51	1331		62	3	7	231	548	
2007	1975		809		2.25	30	1165		59	3	6	229	541	
2008	2153		947		2.64		1206		56	3	4	200	477	
2009	2048		844		2.35		1204		59	4	6	230	552	
2010	2097	-0.14	821	-0.71	2.44		1275	0.54	61	4	4	227	555	0.64
2011	1974	-1.49	777	-1.18	2.31		1197	-0.59	61	4	6	257	643	3.32
2012	1979	-0.90	632	-3.21	1.88		1347	3.43	68	4	6	204	523	-0.51
2013	2234	2.39	928	1.08	2.76		1306	0.93	58	3	1	244	633	1.37
2014	2032	-0.32	818	0.16	2.43		1214	-0.80	60	3	1	242	641	1.11
2015	2204	1.31	977	1.70	2.90		1227	-0.65	56	3	4	265	706	1.92
2016	2291	1.65	1054	1.68	3.14		1237	-0.33	54	3	9	301	803	2.63
2017	2510	2.68	967	0.52	2.88		1543	4.81	61	4	2	295	797	1.32

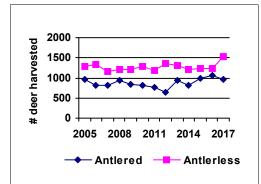


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

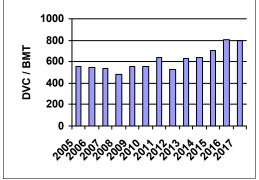


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	55	1.2:1 ± 0.5	
2015-2017	22	0.7:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	24	0.3:1 ± 0.1	
	47	004.04	
2015-2017	17	$0.9:1 \pm 0.4$	

### **COUNTY DEER DATA: HAMILTON**

Version: 8/23/2018

# County Statistics County number: 29 Total square miles: 403 Square miles of deer range (last calculated in 2009): 47 Deer habitat in county (%): 12

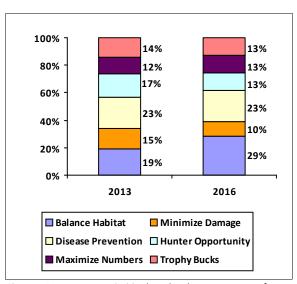


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

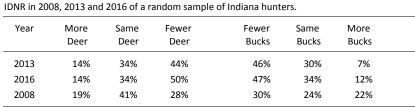


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	3%	6%	33%	33%	25%	
2013	2%	4%	42%	29%	23%	
2016	13%	10%	50%	17%	10%	

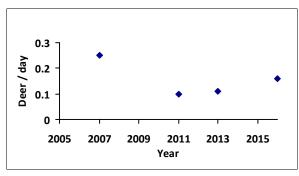


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No		
2013	19	65.0%	20.0%		
2016	14	64.3%	35.7%		

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

 Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	12%	59%	24%	0%	6%
2013	11%	47%	16%	26%	0%
2016	8%	67%	0%	8%	17%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	111	Public	2%	11%	49%	30%	9%
2018	389	Hunter	0%	5%	41%	36%	18%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	361	27%	50%	23%
2018	Public	108	19%	57%	24%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	73	Hunter	1%	0%	4%	19%	29%	25%	22%	_
2018	108	Public	2%	6%	8%	38%	38%	6%	2%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	97	78	3.8
2018	Hunter	415	67	2.4

## **COUNTY DEER DATA: HAMILTON**

Version: 8/23/2018

County Statistics	
County number:	29
Total square miles:	403
Square miles of deer range (last calculated in 2009):	47
Deer habitat in county (%):	12

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	386			211	172	3	0	108	225	37	14	1	0	1	0	0	0	0
2016	351			183	162	6	0	107	203	33	6	2	0	0	0	0	0	0
2017	302	29%	14%	156	141	5	0	91	170	34	6	1	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	419		176		3.68		242		58	2	3	173	93	
2006	430		180		3.75	60	250		58	2	3	203	105	
2007	465		212		4.41		253		54	2	3	256	127	
2008	500		227		4.73		273		55	3	1	251	121	
2009	539		228		4.75		311		58	3	5	222	105	
2010	476	0.11	210	0.22	4.47		266	0.01	56	4	7	254	115	0.35
2011	516	0.84	200	-0.58	4.26		316	1.86	61	4	6	220	99	-1.53
2012	610	3.70	180	-2.95	3.83		430	5.21	70	4	3	200	87	-2.31
2013	486	-0.82	162	-2.34	3.45		324	0.07	67	4	5	196	81	-1.83
2014	517	-0.16	182	-0.54	3.87		335	0.09	65	4	2	189	74	-1.68
2015	529	0.15	180	-0.36	3.83		349	0.25	66	4	1	196	74	-1.10
2016	469	-1.34	177	-0.28	3.77		292	-1.28	62	4	1	176	63	-1.87
2017	415	-1.96	152	-2.97	3.23		263	-1.61	63	4	1	205	71	-0.56

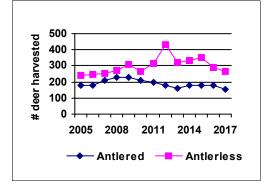


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

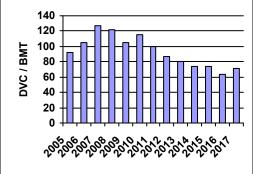


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	40	1:1 ± 0.4	
2015-2017	5	$0.2:1 \pm 0.4$	
		Fawn: Doe Ratio	
2007-2014 2015-2017	33	0.7:1 ± 0.2	

### **COUNTY DEER DATA: HANCOCK**

Version: 8/23/2018

# County Statistics County number: 30 Total square miles: 307 Square miles of deer range (last calculated in 2009): 30 Deer habitat in county (%): 10

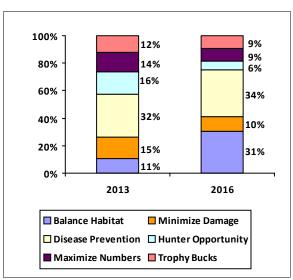


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2013	8%	46%	32%	43%	19%	24%	
2016	11%	32%	53%	34%	30%	21%	
2008	17%	40%	31%	33%	24%	19%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	7%	12%	36%	10%	36%
2013	2%	10%	24%	24%	39%
2016	5%	5%	41%	29%	20%

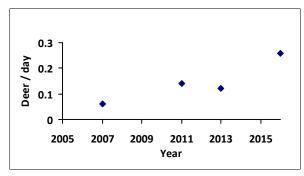


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	20	61.9%	14.3%
2016	12	58.3%	33.3%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

_						
	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	7%	43%	36%	7%	7%
	2013	20%	55%	10%	15%	0%
	2016	9%	64%	9%	18%	0%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	28	Public	0%	18%	57%	21%	4%
2018	167	Hunter	1%	4%	31%	47%	17%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	49	Hunter	2%	0%	2%	14%	27%	24%	31%
2018	26	Public	0%	8%	15%	46%	19%	12%	0%

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	169	34%	49%	17%
2018	Public	26	8%	65%	27%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	23	78	5.1
2018	Hunter	166	65	3.7

## **COUNTY DEER DATA: HANCOCK**

County Statistics	
County number:	30
Total square miles:	307
Square miles of deer range (last calculated in 2009):	30
Deer habitat in county (%):	10

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	267			132	135	0	0	114	126	23	3	1	0	0	0	0	0	0
2016	250			131	119	0	0	106	125	18	1	0	0	0	0	0	0	0
2017	239	34%	21%	115	123	1	0	100	118	20	1	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	316		114		3.80		202		64	2	0	103	109	
2006	295		106		3.54		189		64	2	0	133	140	
2007	292		115		3.84		177		60	2	0	125	130	
2008	278		121		4.03		158		57	3	1	117	123	
2009	281		118		3.93		163		58	3	4	99	104	
2010	267	-1.70	130	2.71	4.33		137	-2.25	51	3	1	109	113	-0.54
2011	286	0.31	112	-0.70	3.73		174	0.48	61	3	0	102	107	-1.05
2012	326	4.86	129	1.42	4.30		197	2.24	60	3	1	99	104	-1.09
2013	320	1.44	128	0.79	4.27		192	1.19	60	3	1	79	82	-3.52
2014	338	1.63	126	0.33	4.20		212	1.63	63	3	1	97	100	-0.19
2015	320	0.42	135	1.35	4.50		185	0.09	58	3	0	91	93	-0.66
2016	283	-1.81	119	-0.82	3.97		164	-1.98	58	3	1	100	101	0.41
2017	291	-1.28	129	0.28	4.37		162	-1.59	56	3	0	108	109	1.44

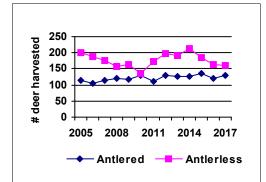


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

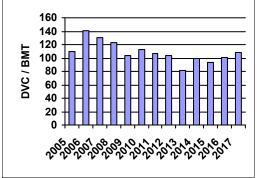


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	48	1.4:1 ± 0.4	
2015-2017	20	1.2:1 ± 0.5	
		Fawn: Doe Ratio	
2007-2014	47	0.7:1 ± 0.2	
2015-2017	22	0.5:1 ± 0.1	

### **COUNTY DEER DATA: HARRISON**

Version: 8/23/2018

#### **County Statistics** County number: 31 Total square miles: 486 Square miles of deer range (last 384 calculated in 2009): Deer habitat in county (%): 79

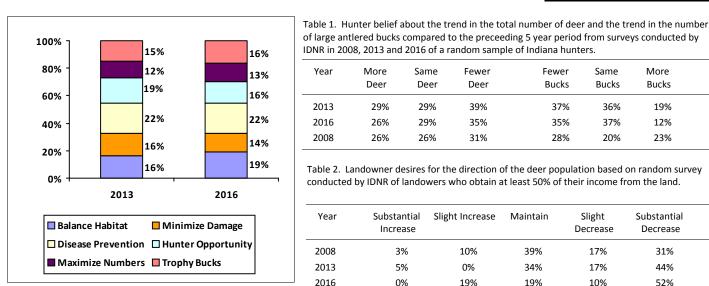


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

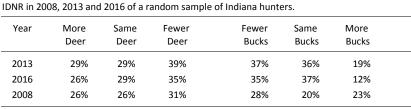


Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	3%	10%	39%	17%	31%
2013	5%	0%	34%	17%	44%
2016	0%	19%	19%	10%	52%

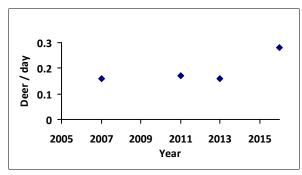


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	67	66.2%	19.1%
2016	78	69.2%	20.5%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203,

_	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	12%	60%	13%	8%	7%
-	2013	11%	56%	9%	11%	14%
	2016	13%	62%	9%	14%	3%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	14	Public	36%	14%	36%	14%	0%
2018	203	Hunter	0%	14%	41%	29%	16%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	309	40%	46%	14%
2018	Public	15	20%	40%	40%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	_
2018	256	Hunter	2%	2%	6%	26%	25%	25%	14%	
2018	15	Public	7%	33%	13%	20%	20%	7%	0%	

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
•	2018	Public	13	69	15.1
_	2018	Hunter	205	68	3.6

## **COUNTY DEER DATA: HARRISON**

<b>County Statistics</b>	
County number:	31
Total square miles:	486
Square miles of deer range (last calculated in 2009):	384
Deer habitat in county (%):	79

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	2236			955	1276	5	0	869	964	293	73	26	4	3	2	2	0	0
2016	2096			878	1215	3	0	859	885	261	59	22	7	2	0	1	0	0
2017	2113	43%	7%	931	1172	10	0	818	895	291	76	18	6	6	1	2	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2454		1007		2.49		1448		59	8	6	252	516	
2006	2650		977		2.40		1673		63	8	8	275	555	
2007	2350		899		2.23		1450		62	8	3	252	501	
2008	2701		973		2.41		1728		64	8	9	277	552	
2009	2776		1146		2.84		1630		59	8	7	236	468	
2010	2638	0.29	1017	0.18	2.65		1621	0.27	61	8	11	214	428	-2.49
2011	2680	0.35	1083	0.89	2.82	38	1597	-0.23	60	8	11	235	472	-0.52
2012	3093	2.83	1029	0.06	2.68		2064	4.59	67	8	5	253	512	0.60
2013	3454	3.69	1216	2.50	3.17	37	2238	2.62	65	8	15	279	576	1.90
2014	3055	0.37	1067	-0.37	2.78		1988	0.53	65	8	12	273	573	1.46
2015	3227	0.72	1296	2.69	3.38		1931	0.10	60	8	13	288	611	1.54
2016	2948	-0.54	1227	0.79	3.20		1721	-1.03	58	8	14	252	549	0.01
2017	3086	-0.36	1205	0.33	3.14		1881	-0.57	61	8	13	323	713	4.08

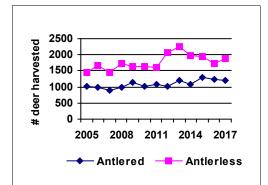


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

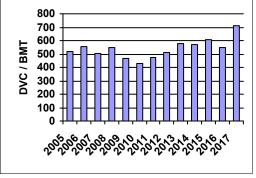


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	204	1.2:1 ± 0.2	
2015-2017	20	1.8:1 ± 0.9	
		Fawn: Doe Ratio	
2007-2014	115	0.5:1 ± 0.1	
2007-2014 2015-2017	115 14	0.5:1 ± 0.1 0.5:1 ± 0.2	

### **COUNTY DEER DATA: HENDRICKS**

Version: 8/23/2018

# County Statistics County number: 32 Total square miles: 409 Square miles of deer range (last calculated in 2009): 70 Deer habitat in county (%): 17

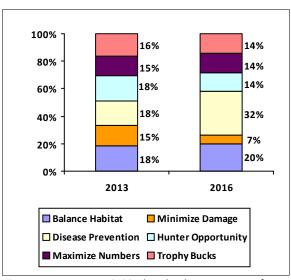


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

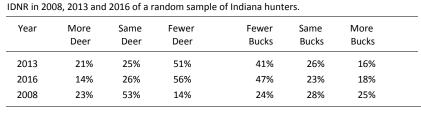


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	8%	0%	38%	23%	31%	
2013	8%	3%	40%	28%	23%	
2016	5%	24%	48%	14%	10%	

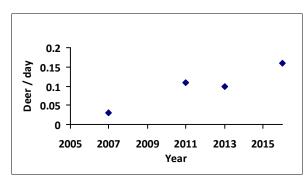


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	26	70.4%	25.9%
2016	12	58.3%	41.7%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	7%	69%	10%	7%	7%
	2013	4%	58%	15%	23%	0%
	2016	0%	45%	18%	9%	27%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	64	Public	2%	19%	53%	25%	2%
2018	312	Hunter	0%	5%	31%	47%	16%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	83	Hunter	4%	0%	6%	19%	30%	29%	12%
2018	61	Public	2%	5%	20%	46%	20%	7%	2%

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	312	35%	48%	17%
2018	Public	61	15%	51%	34%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	53	81	5.9
2018	Hunter	337	65	2.5

## **COUNTY DEER DATA: HENDRICKS**

Version: 8/23/2018

County Statistics	
County number:	32
Total square miles:	409
Square miles of deer range (last calculated in 2009):	70
Deer habitat in county (%):	17

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	485			243	236	5	1	177	252	44	10	2	0	0	0	0	0	0
2016	485			187	291	7	0	238	203	34	5	3	2	0	0	0	0	0
2017	425	28%	16%	194	225	6	0	162	210	44	7	2	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	533		303		3.65		230		43	3	0	200	192	
2006	528		228		2.74		300		57	8	1	218	206	
2007	588		278		3.35		310		53	8	0	231	215	
2008	650		292		3.52		358		55	8	0	192	174	
2009	627		306		3.69		321		51	8	0	202	178	
2010	627	0.77	292	0.33	4.17		335	0.67	53	8	3	181	149	-2.44
2011	619	0.31	284	0.16	4.06		335	0.45	54	8	3	221	179	-0.21
2012	762	6.23	292	0.15	4.18		470	7.63	62	8	1	221	169	-0.42
2013	639	-0.30	253	-5.06	3.61		386	0.36	60	8	0	198	146	-2.01
2014	643	-0.20	239	-2.35	3.41		404	0.56	63	8	1	206	145	-1.25
2015	627	-0.53	249	-0.94	3.55		378	-0.14	60	8	1	198	133	-1.61
2016	613	-0.76	306	1.84	4.37		307	-1.78	50	8	1	179	113	-2.13
2017	568	-1.48	237	-1.05	3.37		331	-0.99	58	8	1	181	110	-1.54

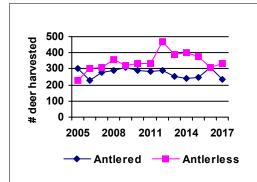


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

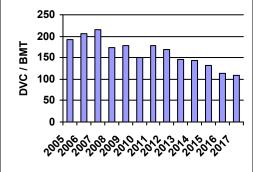


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	39	0.5:1 ± 0.3	
2015-2017	2	0.5:1 ± 1	
		Fawn: Doe Ratio	
2007-2014	38	Fawn: Doe Ratio 0.6:1 ± 0.2	

### **COUNTY DEER DATA: HENRY**

Version: 8/23/2018

# County Statistics County number: 33 Total square miles: 395 Square miles of deer range (last calculated in 2009): 64 Deer habitat in county (%): 16

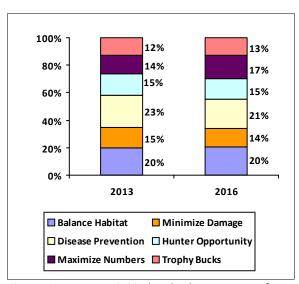


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

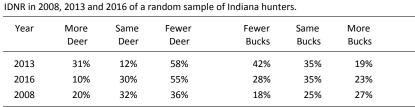


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	5%	12%	40%	12%	31%	
2013	5%	13%	46%	14%	21%	
2016	8%	13%	45%	16%	18%	

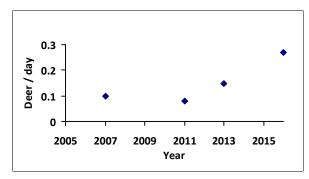


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	24	64.0%	24.0%
2016	31	61.3%	32.3%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	8%	47%	29%	8%	8%
	2013	0%	63%	4%	25%	8%
	2016	7%	50%	10%	10%	23%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	22	Public	0%	14%	59%	23%	5%
2018	126	Hunter	1%	5%	23%	44%	27%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Antlerless Quota	as (CBAQ	s) should c	hange v	vhile the
public were aske	ed how tl	he number	of does	5
allowed to be ha	arvested	should cha	nge. Bo	oth are
repoted as CBAC	<b>Q</b> .			
Opinion	Sample	Decrease	Same	Increase

Table 6. In the annual deer management survey,

hunters were asked how the County Bonus

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	176	48%	45%	7%
2018	Public	20	15%	70%	15%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	110	Hunter	3%	1%	4%	8%	19%	35%	30%	_
2018	20	Public	0%	10%	10%	30%	25%	25%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	16	83	8.1
2018	Hunter	126	56	5.4

## **COUNTY DEER DATA: HENRY**

<b>County Statistics</b>	
County number:	33
Total square miles:	395
Square miles of deer range (last calculated in 2009):	64
Deer habitat in county (%):	16

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	487			215	272	0	0	229	205	43	6	2	1	0	1	0	0	0
2016	472			223	248	1	0	196	221	46	7	1	0	1	0	0	0	0
2017	394	24%	13%	190	202	2	0	172	178	33	9	2	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	556		227		3.45		329		59	3	0	148	199	
2006	511		201		3.04	73	310		61	3	0	150	200	
2007	513		219		3.31	55	295		57	3	1	133	176	
2008	491		202		3.06		289		59	3	1	123	164	
2009	601		255		3.86		346		58	3	1	138	184	
2010	599	1.46	253	1.45	3.95		346	1.36	58	3	1	140	189	0.28
2011	576	0.62	246	0.76	3.84		330	0.47	57	3	1	113	155	-2.05
2012	585	0.57	223	-0.51	3.48		362	1.48	62	4	1	111	154	-1.38
2013	583	0.28	232	-0.17	3.63		351	0.59	60	4	1	110	155	-0.87
2014	595	0.58	254	0.88	3.97		341	-0.52	57	4	0	118	168	0.06
2015	601	1.44	273	2.31	4.27		328	-1.52	55	4	0	133	191	1.81
2016	594	0.60	252	0.33	3.94		342	-0.03	58	4	1	79	114	-3.12
2017	489	-13.74	207	-2.02	3.24		282	-4.97	58	4	0	100	146	-0.37

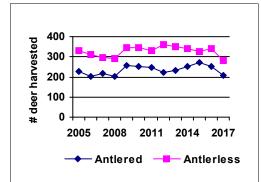


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

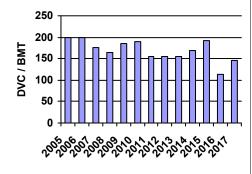


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio
2007-2014	27	1.4:1 ± 0.7
2015-2017	3	$0.7:1 \pm 0.7$
		Fawn: Doe Ratio
2007-2014 2015-2017	15	0.4:1 ± 0.2

### **COUNTY DEER DATA: HOWARD**

Version: 8/23/2018

## County Statistics County number: 34 Total square miles: 294 Square miles of deer range (last calculated in 2009): 21 Deer habitat in county (%): 7

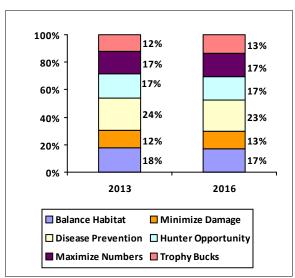


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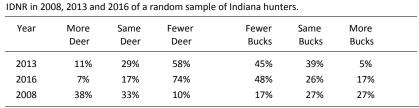


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Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	4%	4%	48%	16%	29%	
2013	2%	11%	43%	11%	33%	
2016	6%	4%	57%	19%	15%	

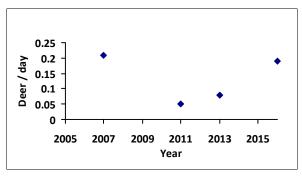


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	24	64.0%	40.0%
2016	27	33.3%	48.1%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	7%	67%	20%	7%	0%
	2013	8%	50%	4%	25%	13%
	2016	4%	38%	4%	38%	15%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	18	Public	0%	17%	50%	33%	0%
2018	128	Hunter	0%	1%	19%	44%	37%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	64	Hunter	3%	5%	0%	11%	20%	25%	36%
2018	18	Public	0%	6%	11%	39%	39%	6%	0%

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	141	50%	40%	10%
2018	Public	18	11%	44%	44%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	15	84	5.8
-	2018	Hunter	136	54	4.6

## **COUNTY DEER DATA: HOWARD**

<b>County Statistics</b>	
County number:	34
Total square miles:	294
Square miles of deer range (last calculated in 2009):	21
Deer habitat in county (%):	7

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	301			157	144	0	0	116	140	41	4	0	0	0	0	0	0	0
2016	292			140	152	0	0	122	142	23	5	0	0	0	0	0	0	0
2017	278	43%	19%	145	133	0	0	110	136	31	1	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	409		188		8.95		221		54	2	1	121	145	
2006	417		157		7.48		260		62	3	1	148	177	
2007	512		213		10.14		300		58	3	0	152	182	
2008	496		173		8.24		322		65	4	1	158	192	
2009	527		190		9.05		337		64	4	0	152	186	
2010	528	1.01	192	0.37	9.14		336	1.02	64	4	0	123	153	-1.29
2011	450	-1.00	161	-1.14	7.67		289	-0.68	64	8	1	121	154	-1.62
2012	506	0.10	172	-0.70	8.19		334	0.80	66	8	0	131	169	-0.22
2013	403	-3.09	125	-4.01	5.95		278	-2.25	69	8	1	120	155	-0.85
2014	377	-1.93	137	-1.14	5.95		240	-2.59	64	3	0	133	171	0.55
2015	378	-1.16	145	-0.46	6.30		233	-1.54	62	3	0	139	180	2.17
2016	355	-1.23	154	0.32	7.33		201	-1.81	57	3	0	111	145	-1.90
2017	338	-1.10	134	-0.71	6.37		204	-1.04	60	2	0	123	162	-0.17

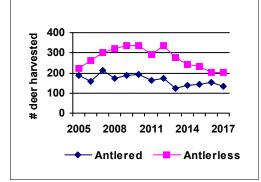


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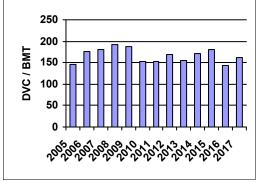


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	72	0.6:1 ± 0.2	
2015-2017	15	1:1 ± 0.6	
_		Fawn: Doe Ratio	
2007-2014	79	0.9:1 ± 0.2	
2015-2017	17	0.7:1 ± 0.3	

### **COUNTY DEER DATA: HUNTINGTON**

Version: 8/23/2018

# County Statistics County number: 35 Total square miles: 387 Square miles of deer range (last calculated in 2009): 58 Deer habitat in county (%): 15

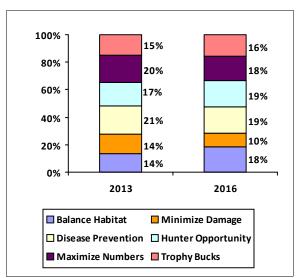


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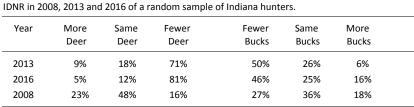


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Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	0%	14%	32%	23%	30%
2013	10%	10%	40%	27%	13%
2016	11%	17%	52%	17%	4%

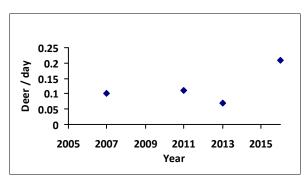


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	41	57.1%	31.0%
2016	59	39.0%	45.8%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	11%	49%	25%	16%	0%
•	2013	12%	41%	5%	29%	12%
	2016	12%	37%	5%	23%	23%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	12	Public	0%	17%	42%	25%	17%
2018	124	Hunter	1%	2%	14%	41%	42%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

_	Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
	2018	174	Hunter	2%	3%	1%	7%	17%	33%	37%	_
	2018	11	Public	0%	9%	9%	9%	36%	27%	9%	

Year	•		Decrease CBAQ		
2018	Hunter	211	61%	28%	11%
2018	Public	11	27%	45%	27%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	9	67	20.7
2018	Hunter	121	49	5.0

## **COUNTY DEER DATA: HUNTINGTON**

<b>County Statistics</b>	
County number:	35
Total square miles:	387
Square miles of deer range (last calculated in 2009):	58
Deer habitat in county (%):	15

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	722			333	388	1	0	300	351	64	6	1	0	0	0	0	0	0
2016	678			275	402	1	0	336	286	50	6	0	0	0	0	0	0	0
2017	641	34%	10%	303	333	4	1	266	302	69	4	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1149		466		4.39		683		59	3	5	241	393	
2006	1159		449		4.23		710		61	3	3	263	422	
2007	1218		479		4.52		739		61	3	4	270	428	
2008	1226		500		4.72		725		59	4	2	275	434	
2009	1232		488		4.60		744		60	4	2	236	368	
2010	1178	-0.47	506	1.50	8.72		672	-1.96	57	4	0	215	335	-2.66
2011	1155	-1.47	491	0.30	8.47		664	-1.86	57	8	1	233	364	-0.76
2012	1089	-3.36	395	-9.27	6.81		694	-0.39	64	8	2	222	343	-0.99
2013	885	-4.98	370	-2.31	6.38		515	-5.40	58	4	2	190	294	-1.94
2014	861	-1.83	361	-1.42	6.22		500	-1.84	58	3	5	200	312	-0.99
2015	891	-0.95	391	-0.49	6.74		500	-1.17	56	3	1	206	324	-0.22
2016	808	-1.24	404	0.05	6.97		404	-1.78	50	3	0	178	281	-1.70
2017	802	-0.98	346	-2.12	5.92		456	-0.63	57	2	0	205	325	0.57

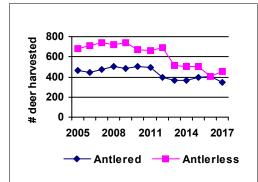


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

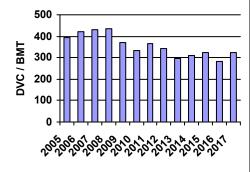


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	120	1:1 ± 0.3	
2015-2017	37	$0.7:1 \pm 0.4$	
		Fawn: Doe Ratio	
2007-2014	110	0.6:1 ± 0.1	
2015-2017	16	0.4:1 ± 0.2	

### **COUNTY DEER DATA: JACKSON**

Version: 8/23/2018

## County Statistics County number: 36 Total square miles: 513 Square miles of deer range (last calculated in 2009): 244 Deer habitat in county (%): 47

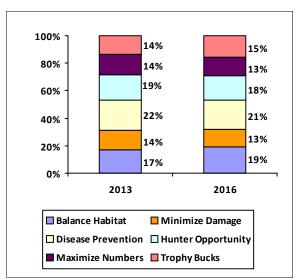


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year More Same Fewer Fewer Same More Deer Deer Bucks Bucks Bucks

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

	Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
	2013	12%	33%	53%	49%	37%	9%	
	2016	15%	27%	55%	44%	25%	18%	
	2008	24%	33%	35%	33%	29%	20%	
_								

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
6%	6%	32%	17%	38%	
5%	7%	24%	18%	46%	
4%	0%	33%	21%	42%	
	Increase 6% 5%	Increase 6% 6% 5% 7%	Increase 6% 32% 5% 7% 24%	Increase         Decrease           6%         6%         32%         17%           5%         7%         24%         18%	Increase         Decrease         Decrease           6%         6%         32%         17%         38%           5%         7%         24%         18%         46%

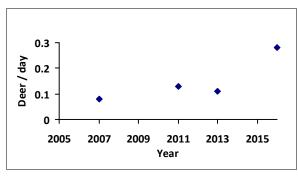


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	68	63.8%	27.5%
2016	58	65.5%	25.9%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

_	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
%	2008	4%	55%	29%	5%	8%
%	2013	4%	60%	10%	16%	9%
	2016	7%	54%	14%	19%	5%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	17	Public	12%	29%	53%	6%	0%
2018	139	Hunter	1%	4%	24%	50%	21%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Antlerless Quotas (CBAQs) should change while the												
public were asked how the number of does												
allowed to be harvested should change. Both are												
repoted as CBAQ.												
Opinion Sample Decrease Same Increase												

Table 6. In the annual deer management survey,

hunters were asked how the County Bonus

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	218	52%	39%	9%
2018	Public	16	0%	44%	56%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	171	Hunter	2%	1%	2%	13%	22%	39%	20%	
2018	16	Public	13%	19%	25%	25%	19%	0%	0%	

_	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	15	76	9.8
_	2018	Hunter	136	58	4.7

## **COUNTY DEER DATA: JACKSON**

Version: 8/23/2018

County Statistics	
County number:	36
Total square miles:	513
Square miles of deer range (last calculated in 2009):	244
Deer habitat in county (%):	47

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1596			701	893	2	0	645	708	185	44	12	2	0	0	0	0	0
2016	1339			603	734	2	0	554	593	154	28	10	0	0	0	0	0	0
2017	1319	33%	10%	624	690	5	0	503	599	178	28	10	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2171		805		2.51		1367		63	4	0	166	258	
2006	2047		744		2.30		1303		64	4	4	196	302	
2007	2132		733		2.28	46	1399		66	4	7	212	324	
2008	1988		798		2.49		1190		60	4	11	200	303	
2009	2023		805		2.51		1218		60	4	11	161	243	
2010	1882	-2.48	757	-0.56	3.10		1125	-1.88	60	4	9	174	262	-0.69
2011	1966	-0.53	761	-0.20	3.12		1205	-0.40	61	4	9	172	260	-0.81
2012	2159	1.77	713	-1.92	2.92	49	1445	2.13	67	4	10	203	307	0.86
2013	2263	2.56	820	1.44	3.36	44	1443	1.69	64	4	15	238	361	3.03
2014	1898	-1.05	715	-1.32	2.93		1183	-0.71	62	8	6	252	381	1.97
2015	2161	0.75	898	3.32	3.68		1263	-0.11	58	4	15	260	392	1.40
2016	1763	-2.15	742	-0.50	3.04		1021	-2.25	58	4	18	235	353	0.23
2017	1805	-1.17	707	-0.88	2.90		1098	-0.96	61	4	13	255	381	0.67

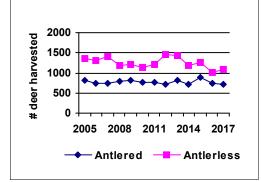


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

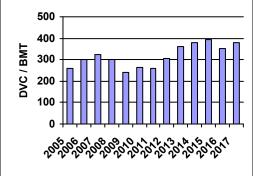


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

### **COUNTY DEER DATA: JASPER**

Version: 8/23/2018

# County Statistics County number: 37 Total square miles: 562 Square miles of deer range (last calculated in 2009): 82 Deer habitat in county (%): 15

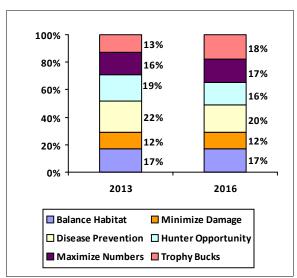


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year More Same Fewer Fewer Same More

Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2013	14%	29%	50%	39%	25%	21%	
2016	5%	18%	75%	58%	24%	9%	
2008	48%	26%	17%	29%	29%	38%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	· ·		Slight Decrease	Substantial Decrease
2008	4%	0%	30%	21%	46%
2013	7%	8%	38%	10%	37%
2016	6%	11%	49%	20%	14%

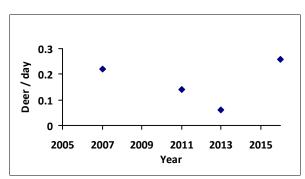


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	41	73.8%	26.2%
2016	57	54.4%	36.8%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	18%	49%	26%	2%	5%
·	2013	2%	54%	17%	15%	12%
	2016	0%	44%	9%	28%	19%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	16	Public	25%	13%	38%	25%	0%
2018	123	Hunter	1%	4%	22%	46%	27%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	166	Hunter	2%	3%	3%	11%	28%	23%	29%	_
2018	15	Public	13%	13%	7%	33%	27%	7%	0%	

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	219	55%	37%	7%
2018	Public	15	53%	13%	33%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval	
	2018	Public	14	65	12.6	
-	2018	Hunter	131	56	4.8	

## **COUNTY DEER DATA: JASPER**

<b>County Statistics</b>	
County number:	37
Total square miles:	562
Square miles of deer range (last calculated in 2009):	82
Deer habitat in county (%):	15

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	994			423	571	0	0	423	441	104	18	4	3	1	0	0	0	0
2016	976			447	526	3	0	401	433	106	21	8	6	1	0	0	0	0
2017	877	27%	9%	414	460	3	0	352	398	99	18	10	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1303		598		5.07	45	704		54	2	5	231	347	
2006	1442		632		5.36	54	810		56	3	7	278	398	
2007	1478		588		4.98	45	891		61	4	2	235	324	
2008	1631		645		5.47		986		60	4	2	297	396	
2009	1600		584		4.95		1016		64	8	2	281	364	
2010	1709	1.65	654	1.62	7.98	47	1055	1.36	62	8	3	229	290	-2.36
2011	1497	-0.68	588	-1.00	7.17		909	-0.43	61	8	1	236	296	-1.24
2012	1633	0.52	580	-0.91	7.07	50	1053	1.17	64	8	2	224	280	-1.19
2013	1411	-2.65	558	-1.44	6.80		853	-2.51	60	8	2	226	279	-0.89
2014	1357	-1.82	581	-0.33	7.09		776	-2.20	57	8	1	220	267	-1.00
2015	1311	-1.42	576	-0.45	7.03		735	-1.57	56	8	1	193	235	-4.19
2016	1308	-1.05	534	-3.78	6.51		774	-0.73	59	8	2	196	239	-1.38
2017	1161	-1.80	468	-4.88	5.70		693	-1.14	60	4	3	207	254	-0.27

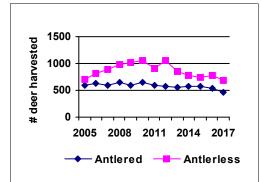


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

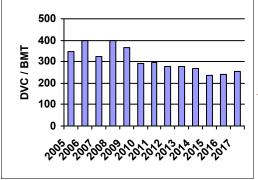


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	199	0.7:1 ± 0.1	
2015-2017	54	0.9:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	143	0.6:1 ± 0.1	
2015-2017	44	0.6:1 ± 0.2	

### **COUNTY DEER DATA: JAY**

Version: 8/23/2018

#### **County Statistics** County number: 38 Total square miles: 384 Square miles of deer range (last 48 calculated in 2009): Deer habitat in county (%): 13

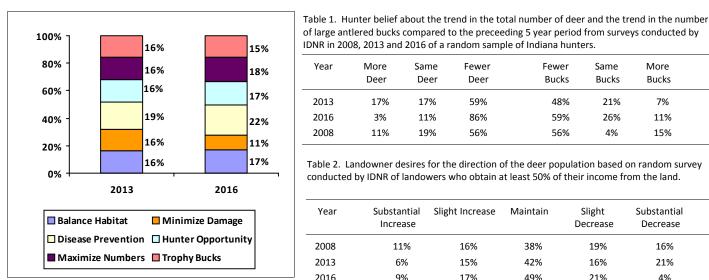


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2013 17% 17% 59% 48% 21% 7% 2016 3% 11% 86% 59% 26% 11% 2008 11% 19% 56% 56% 4% 15%

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	11%	16%	38%	19%	16%
2013	6%	15%	42%	16%	21%
2016	9%	17%	49%	21%	4%

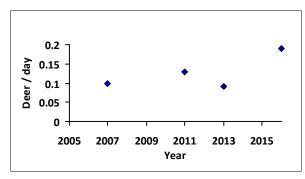


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	39	50.0%	47.5%
2016	74	24.3%	62.2%
-			

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	0%	50%	28%	17%	6%
	2013	3%	46%	5%	23%	23%
	2016	4%	38%	1%	36%	21%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	5	Public	40%	20%	40%	0%	0%
2018	65	Hunter	0%	2%	17%	38%	43%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	84	56%	30%	14%

5

Table 6. In the annual deer management survey,

Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are

hunters were asked how the County Bonus

repoted as CBAQ.

2018 Public

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

0%

40%

60%

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	74	Hunter	3%	0%	0%	4%	28%	27%	38%	_
2018	5	Public	40%	0%	20%	20%	20%	0%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	4	61	21.4
2018	Hunter	56	53	7.9

## **COUNTY DEER DATA: JAY**

<b>County Statistics</b>	
County number:	38
Total square miles:	384
Square miles of deer range (last calculated in 2009):	48
Deer habitat in county (%):	13

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	767			404	360	3	0	254	420	82	10	1	0	0	0	0	0	0
2016	761			405	356	0	0	269	389	95	7	1	0	0	0	0	0	0
2017	702	37%	16%	370	327	4	1	246	401	48	7	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1085		359		4.17		726		67	2	0	132	463	
2006	1022		332		3.86	59	691		68	2	0	123	427	
2007	973		300		3.49		673		69	2	0	125	431	
2008	906		302		3.51		604		67	2	0	125	436	
2009	1014		372		4.33		642		63	2	1	139	487	
2010	1051	0.77	373	1.24	7.77		678	0.23	65	2	0	111	394	-2.14
2011	920	-1.30	342	0.17	7.13		578	-2.28	63	2	1	133	481	1.38
2012	918	-0.89	300	-1.06	6.25		618	-0.39	67	2	1	125	461	0.39
2013	891	-1.07	306	-0.89	6.38		585	-1.02	66	2	1	136	504	1.38
2014	942	-0.24	317	-0.62	6.60		625	0.12	66	2	0	125	471	0.13
2015	984	0.64	370	1.41	7.70		614	-0.07	62	2	0	119	454	-0.20
2016	960	0.84	356	1.00	7.42		604	0.00	63	2	0	145	565	4.63
2017	870	-1.91	342	0.39	7.05		528	-5.23	61	1	0	128	510	0.41

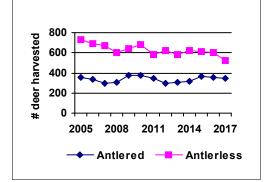


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

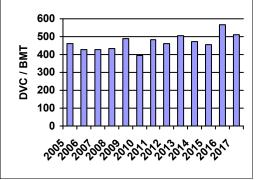


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	69	1.1:1 ± 0.3	
2015-2017	12	0.8:1 ± 0.6	
		Fawn: Doe Ratio	
2007-2014	58	0.6:1 ± 0.2	
2015-2017	12	0.9:1 ± 0.6	

### **COUNTY DEER DATA: JEFFERSON**

Version: 8/23/2018

## County Statistics County number: 39 Total square miles: 363 Square miles of deer range (last calculated in 2009): 266 Deer habitat in county (%): 73

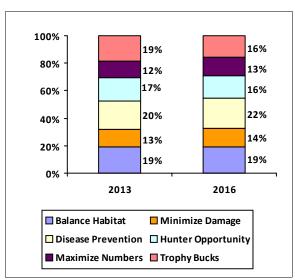


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

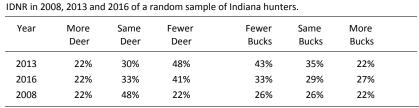


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	2%	9%	24%	26%	39%	
2013	11%	6%	31%	14%	37%	
2016	0%	0%	60%	0%	40%	

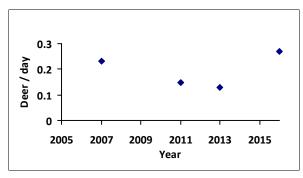


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	46	78.7%	12.8%
2016	70	65.7%	21.4%
-			

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	10%	41%	35%	13%	2%
2013	13%	53%	21%	6%	6%
2016	9%	59%	6%	22%	4%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low	
2018	7	Public	0%	43%	57%	0%	0%	
2018	93	Hunter	1%	9%	35%	34%	20%	

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year		•	Decrease CBAQ		
2018	Hunter	181	52%	38%	10%
2018	Public	7	14%	57%	29%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	165	Hunter	2%	2%	4%	13%	30%	35%	15%
2018	7	Public	0%	29%	0%	57%	14%	0%	0%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	6	71	10.1
2018	Hunter	90	63	5.1

## **COUNTY DEER DATA: JEFFERSON**

Version: 8/23/2018

County Statistics	
County number:	39
Total square miles:	363
Square miles of deer range (last calculated in 2009):	266
Deer habitat in county (%):	73

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1677			734	936	7	0	688	688	211	54	25	10	1	0	0	0	0
2016	1599			639	955	5	0	713	660	157	39	20	7	2	1	0	0	0
2017	1453	38%	10%	644	795	13	1	588	631	166	42	14	6	4	1	1	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2250		839		2.98	43	1411		63	8	5	37	120	
2006	2052		749		2.66	50	1303		63	8	7	38	122	
2007	1963		697		2.48	34	1266		64	8	3	50	159	
2008	2019		725		2.58		1294		64	8	1	49	155	
2009	2016		746		2.65		1270		63	8	1	56	176	
2010	2176	1.05	755	0.07	2.84		1282	-0.45	63	8	4	55	172	1.06
2011	2101	0.70	808	3.10	3.04		1293	0.64	62	8	8	58	182	1.18
2012	2191	1.62	735	-0.27	2.76		1456	13.62	66	8	9	61	192	2.06
2013	2295	2.34	727	-0.83	2.73		1568	3.23	68	8	7	83	261	6.26
2014	2255	0.95	825	2.22	3.10		1430	0.42	63	8	8	72	227	0.84
2015	2324	1.61	933	3.70	3.51		1391	-0.12	60	8	11	75	238	0.84
2016	2190	-0.48	970	1.97	3.65		1220	-2.08	56	8	12	62	196	-0.72
2017	2049	-3.34	829	-0.08	3.12		1220	-1.53	60	8	5	96	304	2.80

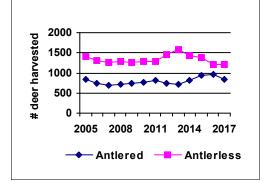


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

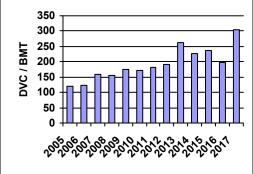


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	212	1.2:1 ± 0.2	
2015-2017	26	0.4:1 ± 0.2	
		Fawn: Doe Ratio	
2007-2014	157	0.6:1 ± 0.1	
2015-2017	26	$0.8:1 \pm 0.3$	

## **COUNTY DEER DATA: JENNINGS**

Version: 8/23/2018

#### **County Statistics** County number: 40 Total square miles: 378 Square miles of deer range (last 214 calculated in 2009): Deer habitat in county (%): 56

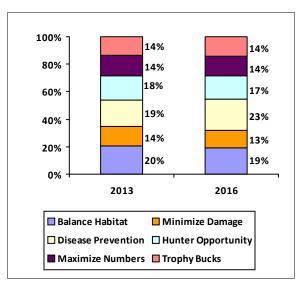


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2013	21%	29%	44%	26%	24%	35%	
2016	13%	36%	49%	28%	43%	23%	
2008	32%	32%	22%	22%	27%	24%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	11%	8%	32%	19%	30%
2013	7%	21%	31%	21%	19%
2016	4%	0%	69%	12%	15%

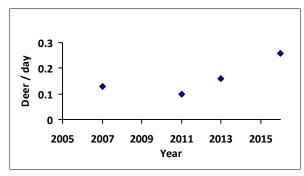


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	57	62.1%	22.4%
2016	47	59.6%	27.7%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203,

-	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
	2008	7%	54%	25%	12%	1%
	2013	7%	44%	12%	26%	11%
	2016	15%	50%	2%	20%	13%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	6	Public	0%	17%	83%	0%	0%
2018	120	Hunter	2%	8%	31%	44%	15%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5

	Table 8. In
	respondent
rt 5	managemei

repoted as CBAQ.

Year	•	•	Decrease CBAQ		
2018	Hunter	204	53%	37%	9%
2018	Public	6	50%	50%	0%

Table 6. In the annual deer management survey,

Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are

hunters were asked how the County Bonus

the deer management survey, ts were asked to rate how DNR's nt of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	_
2018	185	Hunter	2%	5%	7%	14%	26%	28%	18%	
2018	6	Public	0%	0%	50%	17%	17%	17%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	5	83	6.9
2018	Hunter	113	57	5.0

year period from 2018 to 2022 from annual deer management survey (began in 2018).

## **COUNTY DEER DATA: JENNINGS**

County Statistics	
County number:	40
Total square miles:	378
Square miles of deer range (last calculated in 2009):	214
Deer habitat in county (%):	56

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success	95% CI	0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1629			779	843	7	0	621	762	181	42	17	4	1	1	0	0	0
2016	1462			671	787	4	0	579	646	190	31	10	1	4	1	0	0	0
2017	1388	33%	9%	682	694	12	0	518	639	158	41	21	7	3	0	1	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1417		531		1.89	48	886		63	3	10	100	349	
2006	1574		576		2.05	40	998		63	3	6	71	244	
2007	1553		553		1.97	61	1000		64	3	9	59	200	
2008	1775		709		2.52	41	1066		60	4	11	66	221	
2009	1702		670		2.38	35	1032		61	4	10	63	211	
2010	1911	2.21	685	1.00	3.20		1123	1.87	61	4	4	68	228	-0.29
2011	1840	0.93	672	0.48	3.14		1168	2.38	63	8	7	67	224	0.21
2012	2151	2.87	632	-0.43	2.95	32	1519	6.49	71	8	7	39	128	-7.77
2013	2068	1.12	742	2.45	3.47		1326	0.74	64	8	11	53	170	-0.78
2014	2090	0.87	749	1.73	3.50		1341	0.56	64	8	7	55	173	-0.45
2015	2163	1.16	828	2.68	3.87		1335	0.25	62	8	10	67	208	0.57
2016	1990	-0.55	797	0.96	3.72		1193	-1.16	60	8	6	132	410	6.15
2017	1959	-1.91	724	-0.34	3.39		1235	-0.93	63	8	9	104	322	0.93

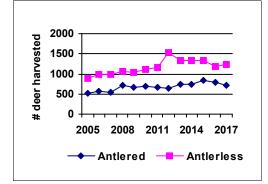


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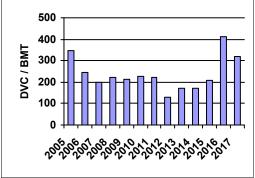


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	73	0.7:1 ± 0.2	
2015-2017	11	0.3:1 ± 0.2	
		Fawn: Doe Ratio	
2007-2014	67	0.4:1 ± 0.1	
2015-2017	4	$0.1:1 \pm 0.1$	

### **COUNTY DEER DATA: JOHNSON**

Version: 8/23/2018

#### **County Statistics** County number: 41 Total square miles: 321 Square miles of deer range (last 80 calculated in 2009): Deer habitat in county (%): 25

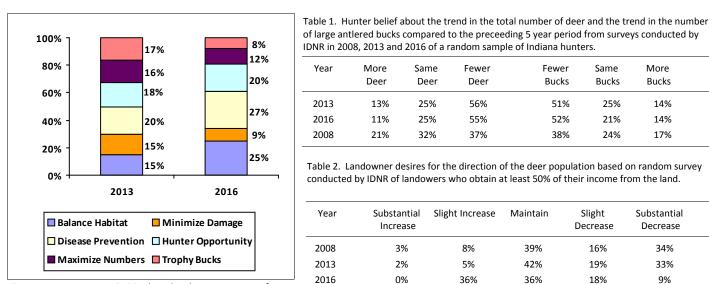


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2013 13% 25% 56% 51% 25% 14% 2016 11% 25% 55% 52% 21% 14% 2008 21% 32% 37% 38% 24% 17%

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	3%	8%	39%	16%	34%	
2013	2%	5%	42%	19%	33%	
2016	0%	36%	36%	18%	9%	

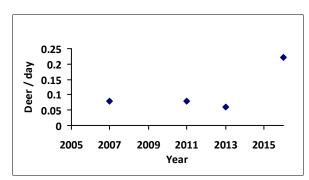


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	39	80.0%	10.0%
2016	19	78.9%	21.1%
			-

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	10%	44%	36%	10%	0%
	2013	8%	60%	10%	15%	8%
	2016	6%	67%	0%	22%	6%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low	
2018	37	Public	5%	14%	43%	38%	0%	
2018	306	Hunter	0%	6%	31%	45%	17%	

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	•		Decrease CBAQ		
2018	Hunter	295	33%	50%	17%
2018	Public	37	11%	62%	27%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	106	Hunter	2%	0%	0%	21%	29%	22%	26%
2018	37	Public	5%	3%	5%	46%	22%	19%	0%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	31	78	6.2
2018	Hunter	307	64	2.9

## **COUNTY DEER DATA: JOHNSON**

County Statistics	
County number:	41
Total square miles:	321
Square miles of deer range (last calculated in 2009):	80
Deer habitat in county (%):	25

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	544			275	264	5	0	216	270	40	13	4	1	0	0	0	0	0
2016	452			217	234	1	0	202	208	32	8	1	0	0	1	0	0	0
2017	483	20%	14%	256	225	2	0	183	236	44	16	2	2	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	506		248		2.36		258		51	4	1	123	122	
2006	514		187		1.77		327		64	8	0	133	127	
2007	484		186		1.77	48	298		62	8	4	135	125	
2008	529		205		1.95		324		61	8	1	137	123	
2009	550		220		2.10		330		60	8	2	133	118	
2010	634	4.74	213	0.15	2.66		330	0.74	61	8	1	104	88	-10.42
2011	629	1.53	245	2.80	3.06		384	4.60	61	8	2	130	108	-0.53
2012	642	1.18	218	0.19	2.73		424	2.90	66	8	3	126	101	-0.72
2013	594	-0.05	222	0.12	2.78		372	0.31	63	8	3	138	109	0.08
2014	587	-0.60	227	0.27	2.84		360	-0.20	61	8	4	132	100	-0.40
2015	637	0.79	266	3.33	3.32		371	-0.09	58	8	2	116	85	-1.90
2016	543	-2.94	236	0.02	2.95		307	-3.02	57	8	3	100	71	-3.11
2017	622	0.53	231	-0.15	2.88		391	0.58	63	8	2	132	90	-0.19

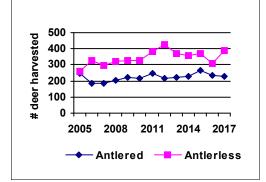


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

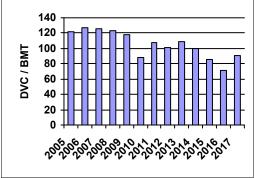


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	32	0.9:1 ± 0.4	
2015-2017	19	0.6:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	29	0.6:1 ± 0.3	
2015-2017	11	0.6:1 ± 0.3	

### **COUNTY DEER DATA: KNOX**

Version: 8/23/2018

#### **County Statistics** County number: 42 Total square miles: 524 Square miles of deer range (last 78 calculated in 2009): Deer habitat in county (%): 15

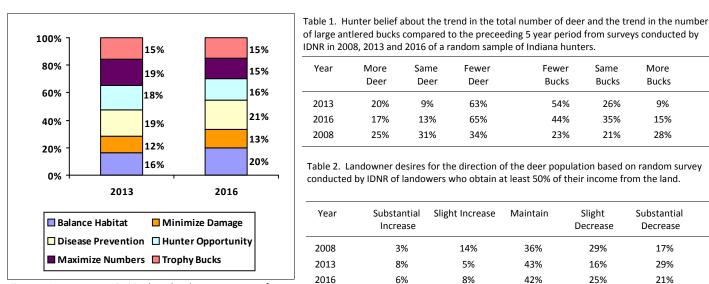


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2013 20% 9% 63% 54% 26% 9% 2016 17% 13% 65% 44% 35% 15% 2008 25% 31% 34% 23% 21% 28%

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	3%	14%	36%	29%	17%
2013	8%	5%	43%	16%	29%
2016	6%	8%	42%	25%	21%

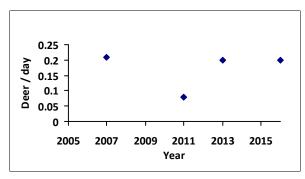


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	30	71.0%	16.1%
2016	40	50.0%	30.0%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
ó	2008	15%	52%	23%	8%	2%
ó	2013	10%	63%	13%	10%	3%
	2016	8%	54%	3%	21%	15%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	4	Public	0%	25%	25%	25%	25%
2018	108	Hunter	2%	6%	32%	41%	19%

•	U	al public abou I deer manage			change over t	the next 5
	 _	_	_			

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	97	Hunter	1%	0%	1%	16%	31%	27%	24%
2018	3	Public	0%	33%	33%	0%	33%	0%	0%

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	128	42%	47%	11%
2018	Public	3	0%	67%	33%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	3	87	18.2
2018	Hunter	102	61	5.5

## **COUNTY DEER DATA: KNOX**

County Statistics	
County number:	42
Total square miles:	524
Square miles of deer range (last calculated in 2009):	78
Deer habitat in county (%):	15

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	669			270	397	2	0	303	282	65	15	3	1	0	0	0	0	0
2016	685			254	426	5	0	337	275	59	13	1	0	0	0	0	0	0
2017	688	39%	12%	298	389	1	0	286	305	80	17	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	993		530		3.79		463		47	2	0	90	181	
2006	1011		465		3.32		546		54	3	1	100	200	
2007	818		391		2.80	77	426		52	3	2	124	246	
2008	936		459		3.28		478		51	3	0	108	216	
2009	882		447		3.19		435		49	4	0	125	250	
2010	850	-0.98	414	-0.90	5.31		436	-0.71	51	4	0	128	257	1.29
2011	746	-2.01	359	-2.43	4.60		387	-1.54	52	4	1	106	214	-0.80
2012	839	-0.10	372	-1.03	4.77		467	1.07	56	4	0	112	226	-0.53
2013	877	0.38	364	-1.04	4.67		513	2.04	58	4	0	106	213	-0.99
2014	777	-1.13	334	-1.50	4.28		443	-0.10	57	4	0	105	211	-1.00
2015	875	1.05	401	1.11	5.13		474	0.54	54	4	0	133	268	2.27
2016	872	0.83	436	2.90	5.59		436	-0.45	50	4	0	101	204	-0.96
2017	916	1.60	396	0.38	5.06		520	1.76	57	4	0	130	262	1.47

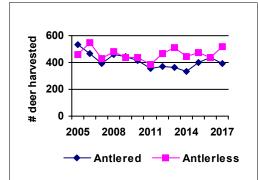


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

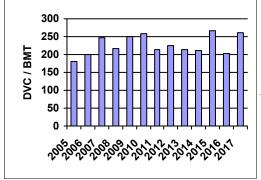


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	14	0.7:1 ± 0.4	
2015-2017	9	1:1 ± 0.7	
		Fawn: Doe Ratio	
2007-2014	13	0.6:1 ± 0.3	
2015-2017	5	0.4:1 ± 0.4	

### **COUNTY DEER DATA: KOSCIUSKO**

Version: 8/23/2018

# County Statistics County number: 43 Total square miles: 554 Square miles of deer range (last calculated in 2009): 89 Deer habitat in county (%): 16

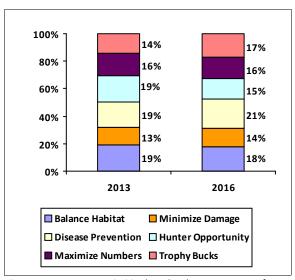


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

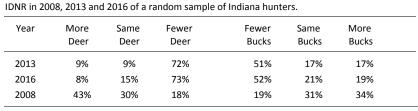


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	5%	5%	19%	23%	49%	
2013	6%	10%	21%	31%	33%	
2016	3%	7%	51%	8%	31%	

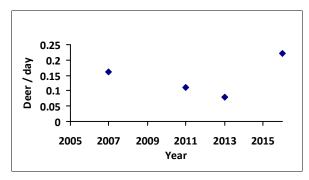


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	67	61.8%	33.8%
2016	65	52.3%	35.4%
			-

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	12%	59%	20%	6%	3%
	2013	3%	51%	7%	30%	9%
	2016	9%	53%	6%	22%	9%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	51	Public	6%	31%	43%	20%	0%
2018	240	Hunter	0%	3%	22%	40%	35%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	270	Hunter	4%	2%	2%	11%	24%	28%	30%
2018	49	Public	8%	8%	29%	27%	18%	4%	6%

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	363	58%	32%	10%
2018	Public	49	12%	49%	39%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	43	77	4.7
-	2018	Hunter	255	57	3.5

## **COUNTY DEER DATA: KOSCIUSKO**

County Statistics	
County number:	43
Total square miles:	554
Square miles of deer range (last calculated in 2009):	89
Deer habitat in county (%):	16

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1667			793	869	5	0	639	777	197	44	9	0	1	0	0	0	0
2016	1656			729	924	3	0	686	742	178	41	6	0	3	0	0	0	0
2017	1472	39%	7%	722	748	2	0	550	703	165	41	9	1	1	1	1	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2681		1172		7.97	51	1508		56	1	0	534	682	
2006	3083		1129		7.68	46	1954		63	2	3	616	777	
2007	3003		1108		7.54	42	1895		63	3	4	629	785	
2008	3362		1177		8.01	42	2185		65	3	6	590	745	
2009	3651		1214		8.26		2437		67	8	8	575	727	
2010	3578	1.15	1231	1.69	13.83		2347	1.01	66	8	2	505	645	-2.36
2011	3123	-0.74	1079	-1.76	12.12		2044	-0.50	65	8	12	476	616	-2.15
2012	2870	-1.69	890	-4.11	10.00	32	1980	-0.92	69	8	3	417	545	-2.24
2013	2277	-3.21	805	-2.23	9.04		1472	-3.74	65	4	6	455	597	-0.71
2014	2333	-1.36	898	-0.76	10.09		1435	-1.64	62	4	0	418	554	-1.07
2015	2224	-1.12	882	-0.57	9.91		1342	-1.31	60	4	3	427	571	-0.48
2016	2193	-0.92	938	0.27	10.54		1255	-1.21	57	4	1	405	546	-1.04
2017	1994	-1.38	759	-2.55	8.54		1235	-0.93	62	4	0	418	562	-0.03

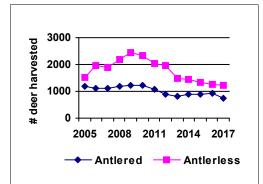


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

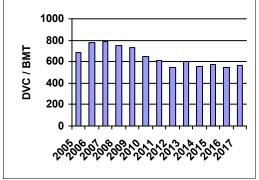


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

n	Doe: Buck Ratio	
265	1.2:1 ± 0.2	
68	1.1:1 ± 0.3	
	Fawn: Doe Ratio	
254	0.8:1 ± 0.1	
57	0.7:1 ± 0.1	
	265 68 254	265 1.2:1 ± 0.2 68 1.1:1 ± 0.3 Fawn: Doe Ratio 254 0.8:1 ± 0.1

### **COUNTY DEER DATA: LAGRANGE**

Version: 8/23/2018

# County Statistics County number: 44 Total square miles: 387 Square miles of deer range (last calculated in 2009): 173 Deer habitat in county (%): 44

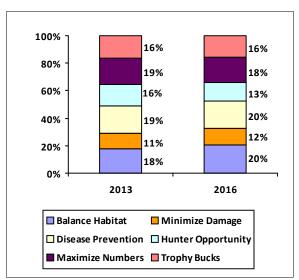


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

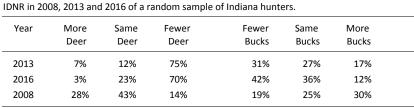


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	0%	11%	24%	27%	38%
2013	11%	18%	21%	29%	21%
2016	3%	17%	27%	20%	33%

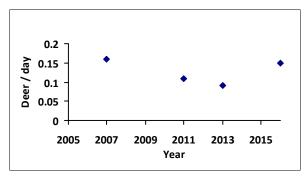


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	82	47.0%	38.6%
2016	55	43.6%	47.3%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	15%	55%	23%	7%	0%
	2013	6%	51%	10%	29%	5%
	2016	5%	45%	11%	30%	9%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	20	Public	15%	10%	40%	15%	20%
2018	103	Hunter	2%	2%	24%	47%	25%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5
year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	134	Hunter	1%	1%	2%	5%	31%	30%	28%
2018	19	Public	5%	11%	11%	32%	11%	21%	11%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	169	47%	38%	14%
2018	Public	19	11%	63%	26%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	16	67	13.1
2018	Hunter	106	60	5.3

## **COUNTY DEER DATA: LAGRANGE**

Version: 8/23/2018

County Statistics	
County number:	44
Total square miles:	387
Square miles of deer range (last calculated in 2009):	173
Deer habitat in county (%):	44

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1546			768	773	5	0	595	758	161	28	4	0	0	0	0	0	0
2016	1556			798	755	2	1	568	793	175	16	3	1	0	0	0	0	0
2017	1396	36%	9%	749	640	7	0	469	749	158	16	3	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2633		894		6.93	47	1739		66	3	1	222	388	
2006	2562		807		6.26	53	1755		68	3	2	224	387	
2007	2624		829		6.42	43	1796		68	3	3	210	361	
2008	2733		799		6.19	47	1935		71	4	6	222	387	
2009	2581		785		6.09		1796		70	8	4	242	423	
2010	2836	3.15	942	2.78	5.45	41	1894	1.16	67	8	4	246	437	2.18
2011	2523	-1.25	807	-0.40	4.66	50	1716	-1.57	68	8	3	209	378	-0.67
2012	2047	-4.90	617	-3.40	3.57	42	1430	-4.56	70	8	4	193	357	-1.26
2013	2017	-1.73	669	-1.05	3.87		1348	-2.03	67	4	3	204	383	-0.42
2014	1797	-1.69	646	-0.93	3.73		1151	-2.05	64	4	3	197	375	-0.62
2015	1963	-0.66	786	0.37	4.54		1177	-1.12	60	3	4	196	380	-0.22
2016	1970	-0.37	767	0.72	4.43		1203	-0.71	61	3	5	209	412	3.66
2017	1803	-1.61	660	-0.49	3.53		1143	-0.98	63	2	4	220	440	3.00

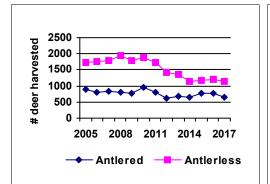


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

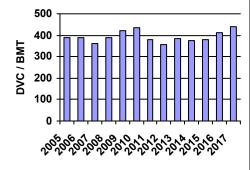


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	200	1.2:1 ± 0.2	
2015-2017	51	0.4:1 ± 0.2	
_		Fawn: Doe Ratio	
2007-2014	260	1.1:1 ± 0.1	
2015-2017	33	0.6:1 ± 0.2	
2007-2014	260	Fawn: Doe Ratio  1.1:1 ± 0.1	

### **COUNTY DEER DATA: LAKE**

Version: 8/23/2018

# County Statistics County number: 45 Total square miles: 624 Square miles of deer range (last calculated in 2009): 112 Deer habitat in county (%): 18

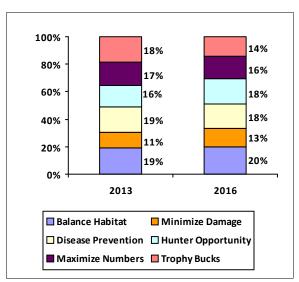


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2013 13% 19% 62% 52% 18% 10%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

61%

16%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	5%	8%	38%	28%	21%	
2013	7%	5%	39%	29%	20%	
2016	3%	9%	50%	18%	21%	

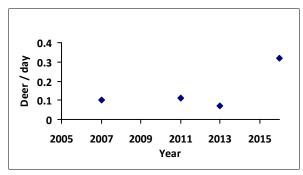


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

11%

30%

27%

33%

2016

2008

Year	n	% Yes	% No
2013	30	58.1%	35.5%
2016	26	50.0%	42.3%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

39%

23%

34%

17%

20%

27%

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	28%	45%	24%	0%	3%
	2013	3%	40%	7%	40%	10%
	2016	12%	48%	4%	24%	12%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low	
2018	125	Public	2%	17%	57%	21%	3%	
2018	335	Hunter	1%	5%	34%	44%	16%	

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	•		Decrease CBAQ		
2018	Hunter	377	32%	44%	24%
2018	Public	118	22%	53%	25%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	138	Hunter	4%	1%	5%	16%	35%	20%	19%	_
2018	118	Public	2%	8%	14%	36%	28%	5%	6%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	102	76	4.8
2018	Hunter	382	65	2.6

## **COUNTY DEER DATA: LAKE**

Version: 8/23/2018

County Statistics	
County number:	45
Total square miles:	624
Square miles of deer range (last calculated in 2009):	112
Deer habitat in county (%):	18

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	913			431	463	19	0	300	478	95	32	5	2	0	0	1	0	0
2016	838			440	370	28	0	222	499	88	20	7	2	0	0	0	0	0
2017	822	29%	9%	436	364	22	0	215	484	83	30	8	2	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1104		567		3.22	54	536		49	2	1	326	70	
2006	1150		569		3.23	50	582		51	3	4	303	65	
2007	1297		613		3.48		685		53	4	1	298	63	
2008	1188		555		3.15		633		53	4	3	308	64	
2009	1258		577		3.28		681		54	8	5	296	61	
2010	1257	0.73	555	-0.97	4.96		702	1.22	56	8	3	256	51	-3.79
2011	1057	-2.91	485	-3.74	4.33		572	-1.72	54	8	3	271	55	-1.11
2012	1308	1.02	434	-2.64	3.88		874	4.16	67	8	1	231	46	-2.43
2013	1288	0.76	432	-1.49	3.86		856	1.45	66	4	3	235	46	-1.32
2014	1196	-0.37	386	-1.64	3.45		810	0.57	68	4	2	228	44	-1.25
2015	1301	0.79	507	0.76	4.53		794	0.25	61	4	1	232	43	-1.01
2016	1199	-0.29	432	-0.35	3.86		767	-0.12	64	4	2	208	38	-1.92
2017	1208	-0.90	414	-0.56	2.40		794	-0.59	66	4	3	239	42	-0.49

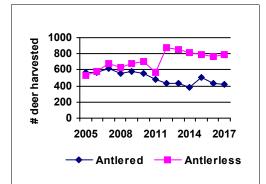


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

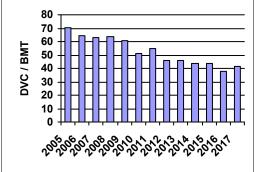


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	96	0.7:1 ± 0.2	
2015-2017	53	0.9:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	95	1:1 ± 0.2	
2015-2017	53	0.7:1 ± 0.2	

## **COUNTY DEER DATA: LAPORTE**

Version: 8/23/2018

# County Statistics County number: 46 Total square miles: 614 Square miles of deer range (last calculated in 2009): 187 Deer habitat in county (%): 30

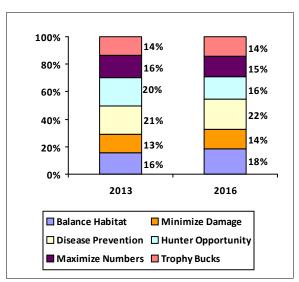


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

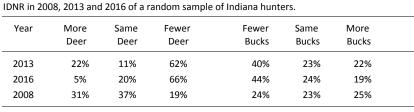


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	4%	2%	38%	24%	33%
2013	3%	12%	44%	23%	18%
2016	0%	8%	50%	23%	19%

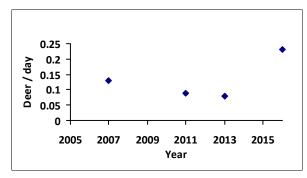


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	71	70.8%	23.6%
2016	61	59.0%	23.0%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

_	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
ó	2008	11%	59%	22%	7%	2%
ó	2013	7%	48%	10%	28%	7%
	2016	17%	44%	5%	27%	7%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	45	Public	9%	33%	42%	13%	2%
2018	202	Hunter	1%	7%	20%	42%	30%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	240	Hunter	2%	3%	3%	14%	23%	33%	23%
2018	43	Public	5%	19%	28%	26%	14%	9%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	314	42%	47%	11%
2018	Public	43	14%	42%	44%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval	
	2018	Public	38	78	6.2	
-	2018	Hunter	229	62	3.4	

## **COUNTY DEER DATA: LAPORTE**

County Statistics	
County number:	46
Total square miles:	614
Square miles of deer range (last calculated in 2009):	187
Deer habitat in county (%):	30

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1304			552	750	2	0	559	571	135	35	4	0	0	0	0	0	0
2016	1288			607	680	1	0	493	607	155	24	5	3	1	0	0	0	0
2017	1172	35%	8%	586	579	6	1	407	586	137	27	10	4	1	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2282		952		4.00	56	1331		58	4	11	174	119	
2006	2421		824		3.45	46	1597		66	8	8	131	88	
2007	2285		869		3.65	47	1416		62	8	9	182	121	
2008	2527		974		4.09	41	1553		61	8	11	147	97	
2009	2266		863		3.63		1403		62	8	15	214	142	
2010	2233	-1.08	859	-0.59	4.59		1374	-0.77	62	8	6	215	142	1.33
2011	1829	-4.18	792	-1.52	4.24		1037	-4.34	57	8	6	190	126	0.33
2012	1852	-1.49	619	-3.86	3.31		1233	-0.65	67	4	4	199	131	0.30
2013	1665	-1.60	633	-1.44	3.39		1032	-1.48	62	4	10	192	126	-0.08
2014	1665	-1.14	656	-0.81	3.51		1009	-1.16	61	4	1	249	163	3.71
2015	1716	-0.57	758	0.43	4.06		958	-1.12	56	4	0	305	197	3.90
2016	1712	-0.37	688	-0.05	3.68		1024	-0.28	60	4	1	310	198	1.60
2017	1624	-1.28	604	-1.21	5.40		1020	-0.30	63	4	1	325	205	1.22

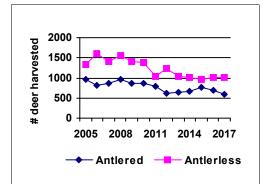


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

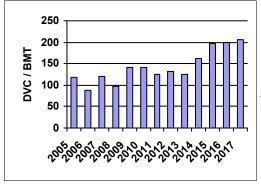


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	262	1:1 ± 0.2	
2015-2017	85	0.9:1 ± 0.4	
		Fawn: Doe Ratio	
		Tawn: Boc natio	
2007-2014	214	0.5:1 ± 0.1	
2007-2014 2015-2017	214 49		

## **COUNTY DEER DATA: LAWRENCE**

Version: 8/23/2018

# County Statistics County number: 47 Total square miles: 452 Square miles of deer range (last calculated in 2009): 362 Deer habitat in county (%): 79

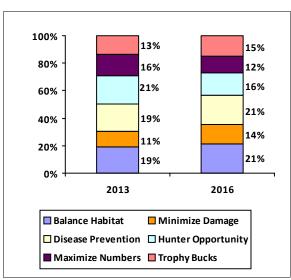


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2013 33% 5% 48% 29% 33% 14% 2016 18% 42% 40% 26% 30% 36% 2008 28% 17% 50% 39% 22% 20%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	11%	30%	25%	33%	
2013	5%	10%	24%	14%	48%	
2016	5%	24%	38%	14%	19%	

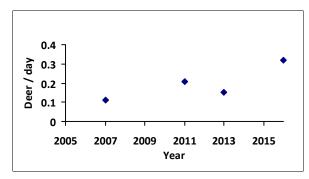


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	29	80.0%	13.3%
2016	66	68.2%	19.7%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied		
2008	8%	41%	26%	18%	8%		
2013	3%	55%	3%	31%	7%		
2016	11%	65%	8%	12%	5%		

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	12	Public	0%	42%	50%	8%	0%
2018	147	Hunter	0%	19%	46%	29%	7%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	245	31%	56%	13%
2018	Public	10	20%	20%	60%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	203	Hunter	1%	0%	6%	31%	32%	19%	11%	_
2018	10	Public	0%	10%	10%	40%	20%	10%	10%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	8	75	13.5
2018	Hunter	156	70	4.1

## **COUNTY DEER DATA: LAWRENCE**

1										
	County Statistics									
	County number:	47								
	Total square miles:	452								
	Square miles of deer range (last calculated in 2009):	362								
	Deer habitat in county (%):	79								

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1761			790	965	6	0	672	797	200	62	17	8	0	4	1	0	0
2016	1695			683	1006	6	0	733	713	172	43	24	8	0	1	0	0	1
2017	1761	53%	9%	790	962	9	0	681	752	228	55	28	10	2	3	1	1	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1654		750		2.01		904		55	2	0	65	136	
2006	1821		855		2.29		964		53	2	4	119	244	
2007	1919		764		2.05	40	1155		61	3	10	107	216	
2008	1905		779		2.09		1127		59	3	10	88	178	
2009	1991		850		2.28		1141		57	3	8	103	208	
2010	1855	-0.02	750	-1.00	2.07		1105	0.40	60	4	12	115	235	0.92
2011	1973	1.15	827	0.55	2.28		1146	0.62	58	4	5	112	231	0.58
2012	2225	5.43	792	-0.05	2.19	42	1433	15.29	64	4	12	146	305	4.00
2013	2394	2.84	882	2.09	2.44	38	1512	2.36	63	4	11	216	454	4.74
2014	2171	0.38	780	-0.79	2.15		1391	0.65	64	8	11	168	358	0.71
2015	2502	1.78	989	3.62	2.73		1513	1.08	60	8	6	200	434	1.26
2016	2357	0.51	1018	1.92	2.81		1339	-0.40	57	8	5	155	343	-0.15
2017	2585	1.92	989	0.88	2.73		1596	2.08	62	8	5	192	430	0.82

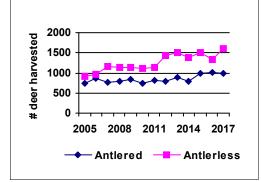


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

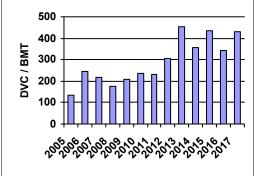


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	48	1.3:1 ± 0.7	
2015-2017	26	0.8:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	41	0.5:1 ± 0.2	
2015-2017	12	0.3:1 ± 0.2	

## **COUNTY DEER DATA: MADISON**

Version: 8/23/2018

# County Statistics County number: 48 Total square miles: 453 Square miles of deer range (last calculated in 2009): 45 Deer habitat in county (%): 10

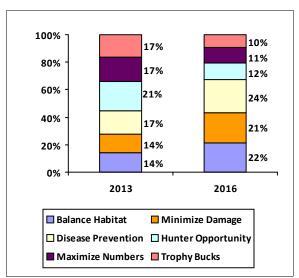


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

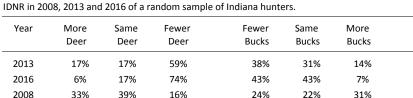


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	3%	11%	52%	19%	16%	
2013	5%	13%	56%	11%	15%	
2016	10%	5%	63%	14%	8%	

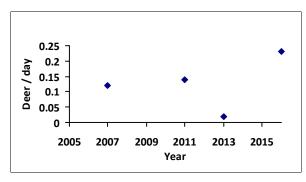


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	21	68.2%	36.4%
2016	16	62.5%	37.5%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	12%	64%	12%	6%	6%
	2013	9%	41%	5%	23%	23%
	2016	27%	40%	0%	27%	7%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	20	Public	5%	20%	50%	15%	10%
2018	193	Hunter	0%	4%	26%	46%	23%

Table 7. Opinion year period from 2		U	•				change over t	he next 5
Sample	Opinion	Decrease	Decrease	Decrease	No	Increase	Increase	Increase

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	86	Hunter	1%	0%	2%	13%	20%	37%	27%
2018	20	Public	0%	5%	25%	25%	20%	10%	10%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	210	48%	38%	15%
2018	Public	20	20%	60%	20%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	17	76	12.0
2018	Hunter	187	62	3.9

## **COUNTY DEER DATA: MADISON**

County Statistics	
County number:	48
Total square miles:	453
Square miles of deer range (last calculated in 2009):	45
Deer habitat in county (%):	10

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	422			223	199	0	0	156	213	45	8	0	0	0	0	0	0	0
2016	400			202	198	0	0	161	193	41	4	1	0	0	0	0	0	0
2017	405	17%	10%	219	185	1	0	149	212	37	7	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	549		222		4.27		327		60	4	3	161	111	
2006	549		199		3.83		350		63	4	0	184	126	
2007	634		264		5.08	82	370		58	4	0	163	111	
2008	613		231		4.44		382		62	8	5	210	145	
2009	658		223		4.29		435		66	8	6	207	144	
2010	640	0.79	240	0.52	5.33		400	0.67	63	8	2	156	108	-1.18
2011	577	-0.99	217	-0.61	4.82		360	-0.85	62	8	3	175	120	-0.35
2012	663	1.24	215	-1.09	4.78		448	1.99	68	4	3	144	100	-1.46
2013	547	-2.34	178	-4.56	3.96		369	-0.99	67	4	3	141	100	-1.14
2014	520	-1.86	210	-0.20	4.67		310	-2.37	60	4	4	163	116	0.08
2015	526	-1.04	199	-0.58	4.43		327	-0.99	62	4	2	142	101	-0.86
2016	489	-1.33	198	-0.36	4.40		291	-1.35	60	4	2	117	83	-2.41
2017	500	-0.73	189	-0.77	4.24		311	-0.61	62	3	2	160	114	1.22

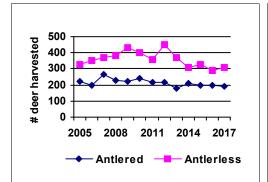


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

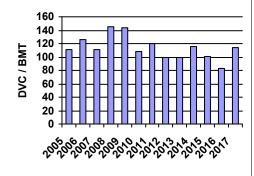


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio				
2007-2014	91	0.7:1 ± 0.3				
2015-2017	5	$0.3:1 \pm 0.6$	0.3:1 ± 0.6			
		Fawn: Doe Ratio				
2007-2014	65	0.6:1 ± 0.2				
2015-2017	5	0.4:1 ± 0.3				

## **COUNTY DEER DATA: MARION**

Version: 8/23/2018

# County Statistics County number: 49 Total square miles: 403 Square miles of deer range (last calculated in 2009): 35 Deer habitat in county (%): 9

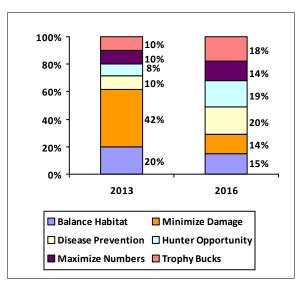


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2008 18% 38% 33% 33% 28% 19%

42%

39%

32%

32%

9%

15%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

44%

48%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	13%	63%	0%	25%	
2013	3%	17%	62%	17%	0%	
2016	4%	8%	75%	4%	8%	

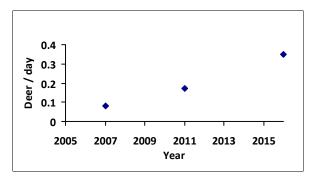


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

14%

8%

32%

36%

2013

2016

Year	n	% Yes	% No
2013	3	75.0%	25.0%
2016	6	100.0%	16.7%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	0%	67%	33%	0%	0%
	2013	0%	67%	0%	0%	33%
	2016	20%	80%	0%	0%	0%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	188	Public	5%	14%	57%	18%	6%
2018	539	Hunter	1%	7%	36%	42%	14%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	489	14%	55%	30%
2018	Public	170	12%	57%	31%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	29	Hunter	0%	0%	10%	41%	34%	7%	7%
2018	170	Public	4%	6%	13%	51%	16%	5%	4%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	142	75	3.6
2018	Hunter	611	66	2.0

## **COUNTY DEER DATA: MARION**

Version: 8/23/2018

County Statistics	
County number:	49
Total square miles:	403
Square miles of deer range (last calculated in 2009):	35
Deer habitat in county (%):	9

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	327			220	97	10	0	53	232	36	4	0	1	1	0	0	0	0
2016	313			182	127	4	0	71	211	24	6	1	0	0	0	0	0	0
2017	316	25%	49%	187	119	10	0	65	206	35	8	0	2	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	207		106		1.22		100		49	4	0	144	15	
2006	271		146		1.66		125		46	8	1	134	14	
2007	312		184		2.11		128		41	8	1	94	10	
2008	290		155		1.78		136		47	8	3	113	11	
2009	310		176		2.02		134		43	8	2	125	13	
2010	297	0.44	145	-0.28	4.14		152	1.91	51	8	2	117	12	-0.39
2011	329	1.97	152	-0.52	4.34		177	3.99	54	8	3	127	12	0.32
2012	452	9.59	103	-3.56	2.94		349	10.33	77	8	2	95	9	-2.07
2013	457	1.82	120	-0.98	3.43		337	1.62	74	8	0	119	11	-0.11
2014	434	0.82	113	-0.92	3.23		321	0.87	74	8	3	104	10	-1.20
2015	433	0.52	113	-0.65	3.23		320	0.56	74	8	2	114	10	-0.18
2016	416	-0.10	136	0.84	3.89		280	-0.30	67	8	3	108	10	-0.56
2017	453	0.89	139	1.80	3.96		314	-0.28	69	8	3	131	12	2.01

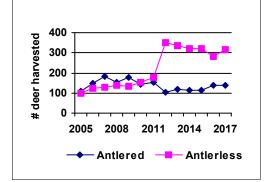


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

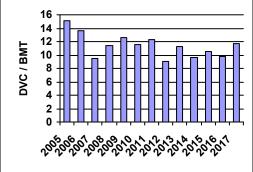


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	13	1:1 ± 0.9	
2015-2017	14	1:1 ± 0.7	
		Fawn: Doe Ratio	
	_		
2007-2014	3	$0.1:1 \pm 0.2$	
2007-2014 2015-2017	8	0.1:1 ± 0.2 0.6:1 ± 0.5	

## **COUNTY DEER DATA: MARSHALL**

Version: 8/23/2018

# County Statistics County number: 50 Total square miles: 449 Square miles of deer range (last calculated in 2009): 80 Deer habitat in county (%): 18

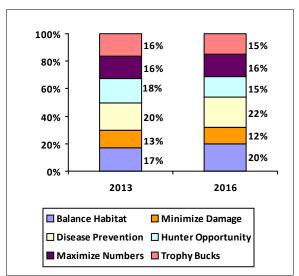


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

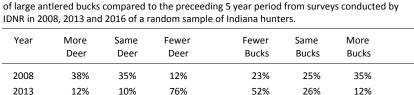


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

74%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	5%	3%	26%	14%	53%
2013	5%	8%	29%	21%	38%
2016	7%	8%	40%	23%	22%

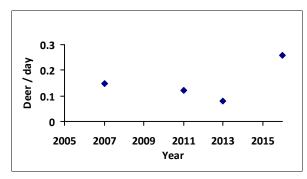


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

4%

18%

2016

Year	n	% Yes	% No
2013	72	56.2%	30.1%
2016	94	52.1%	35.1%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

40%

28%

17%

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	6%	55%	28%	9%	2%
	2013	10%	50%	4%	25%	11%
	2016	3%	49%	9%	31%	8%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	21	Public	10%	43%	38%	5%	5%
2018	151	Hunter	0%	5%	22%	36%	36%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	190	Hunter	3%	2%	6%	11%	26%	28%	25%
2018	21	Public	0%	19%	38%	19%	14%	10%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	238	45%	32%	22%
2018	Public	21	14%	43%	43%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval	
	2018	Public	16	75	9.2	
-	2018	Hunter	159	54	4.6	

## **COUNTY DEER DATA: MARSHALL**

County Statistics	
County number:	50
Total square miles:	449
Square miles of deer range (last calculated in 2009):	80
Deer habitat in county (%):	18

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1468			681	783	4	0	580	669	167	44	7	1	0	0	0	0	0
2016	1417			606	807	4	0	608	607	167	29	6	0	0	0	0	0	0
2017	1249	37%	9%	598	646	5	0	481	602	147	18	1	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2377		979		8.66	56	1398		59	2	13	398	603	
2006	2583		994		8.75	41	1589		62	3	15	466	708	
2007	2854		987		8.74	40	1867		65	4	20	532	815	
2008	3024		1100		9.73		1924		64	4	28	446	701	
2009	2937		1049		9.28		1888		64	8	33	422	677	
2010	2989	0.87	1027	0.10	12.84		1962	1.00	66	8	34	401	652	-0.64
2011	2502	-2.13	920	-2.44	11.50		1582	-1.78	63	8	34	369	609	-1.64
2012	2827	-0.16	838	-2.64	10.48		1989	0.96	70	8	13	327	546	-1.87
2013	2198	-3.11	728	-2.44	9.10		1470	-2.42	67	8	36	320	539	-1.60
2014	2040	-1.95	714	-1.49	8.93		1326	-1.91	65	4	12	285	485	-1.93
2015	1959	-1.37	796	-0.37	10.00		1163	-1.69	59	3	10	341	587	0.32
2016	1867	-1.22	817	0.21	10.21		1050	-1.46	56	3	12	297	514	-0.83
2017	1627	-1.44	664	-2.09	8.28		963	-1.19	59	2	9	311	537	0.08

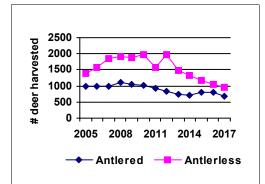


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

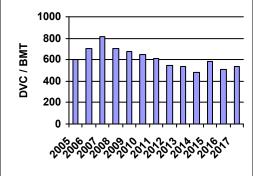


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	219	1.2:1 ± 0.2	
2015-2017	46	0.7:1 ± 0.2	
		Fawn: Doe Ratio	
2007-2014	196	1:1 ± 0.1	
2015-2017	47	$0.8:1 \pm 0.2$	

## **COUNTY DEER DATA: MARTIN**

Version: 8/23/2018

### **County Statistics** County number: 51 Total square miles: 309 Square miles of deer range (last 276 calculated in 2009): Deer habitat in county (%): 80

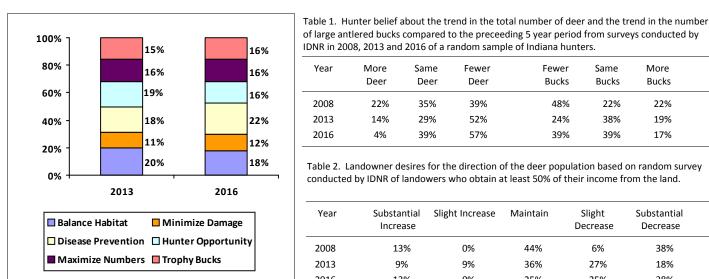


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

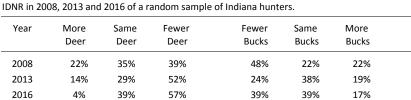


Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	13%	0%	44%	6%	38%	
2013	9%	9%	36%	27%	18%	
2016	13%	0%	25%	25%	38%	

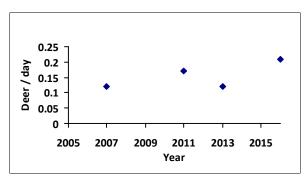


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	42	67.4%	18.6%
2016	72	55.6%	37.5%
			-

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	2%	58%	27%	12%	2%
-	2013	10%	45%	17%	21%	7%
	2016	4%	51%	1%	30%	13%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	4	Public	0%	50%	50%	0%	0%
2018	47	Hunter	2%	4%	43%	38%	13%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

manters were asked now the country bonds
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.
0.1.1

Table 6. In the annual deer management survey,

hunters were asked how the County Bonus

Year	Opinion Type	Opinion Sample Type size			Increase CBAQ		
2018	Hunter	142	45%	45%	10%		
2018	Public	4	0%	50%	50%		

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	140	Hunter	3%	1%	5%	18%	27%	26%	20%
2018	4	Public	0%	50%	0%	50%	0%	0%	0%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	3	67	6.9
2018	Hunter	40	61	8.6

## **COUNTY DEER DATA: MARTIN**

Version: 8/23/2018

County Statistics	
County number:	51
Total square miles:	309
Square miles of deer range (last calculated in 2009):	276
Deer habitat in county (%):	80

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1197			582	596	18	1	459	571	137	18	10	2	0	0	0	0	0
2016	1246			592	623	29	1	482	595	134	27	6	2	0	0	0	0	0
2017	1304	40%	14%	636	650	17	1	449	670	146	30	8	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1033		514		1.69	35	519		50	1	0	60	469	
2006	1834		516		1.69	43	778		60	2	1	69	535	
2007	1112		432		1.42	43	680		59	2	1	57	439	
2008	1111		440		1.44		671		60	2	1	46	351	
2009	1272		531		1.74		741		58	2	1	34	260	
2010	1630	1.10	517	0.65	1.87		723	0.46	56	3	3	39	298	-1.06
2011	1306	-0.26	525	0.80	1.90		781	1.41	60	3	2	39	297	-0.72
2012	1305	0.09	460	-0.60	1.67	36	845	2.78	65	3	3	30	228	-1.45
2013	1401	0.40	519	0.59	1.88		882	1.99	63	3	3	21	159	-2.78
2014	1547	1.12	611	3.50	2.21		936	2.09	61	3	0	12	90	-2.75
2015	1485	0.32	575	0.90	1.86		910	0.92	61	4	0	26	193	-0.23
2016	1673	2.46	696	2.74	2.52		977	1.76	58	4	1	29	216	0.29
2017	1785	2.16	690	1.31	2.50		1095	3.67	61	4	0	25	187	0.17

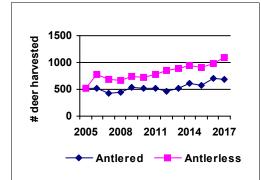


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

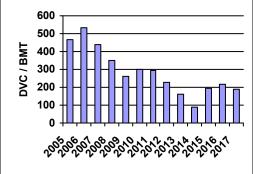


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	51	0.8:1 ± 0.3	
2015-2017	25	1.1:1 ± 0.5	
		Fawn: Doe Ratio	
2007-2014	29	0.3:1 ± 0.1	
2007-2014 2015-2017	29 14	0.3:1 ± 0.1 0.4:1 ± 0.2	

## **COUNTY DEER DATA: MIAMI**

Version: 8/23/2018

## **County Statistics** County number: 52 Total square miles: 377 Square miles of deer range (last 59 calculated in 2009): Deer habitat in county (%): 15

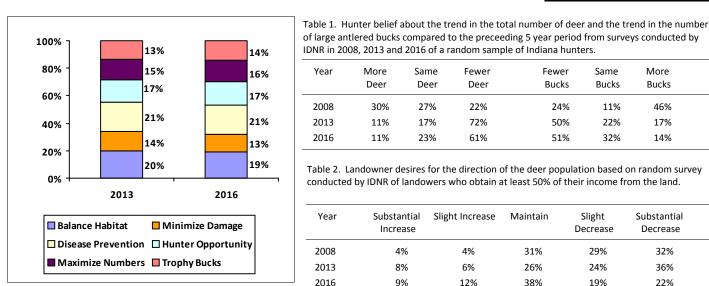


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

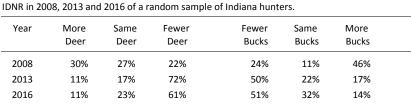


Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	4%	4%	31%	29%	32%	
2013	8%	6%	26%	24%	36%	
2016	9%	12%	38%	19%	22%	

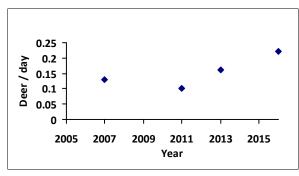


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	38	59.0%	30.8%
2016	59	47.5%	39.0%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	14%	46%	29%	9%	1%
	2013	5%	50%	11%	24%	11%
	2016	8%	54%	10%	22%	5%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	20	Public	5%	20%	40%	35%	0%
2018	101	Hunter	1%	6%	26%	36%	32%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

rable of in the annual acer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Table 6. In the annual deer management survey

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	156	46%	41%	13%
2018	Public	19	32%	42%	26%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	123	Hunter	2%	2%	2%	14%	25%	27%	28%	_
2018	19	Public	0%	16%	11%	42%	16%	16%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	17	67	10.7
2018	Hunter	105	65	4.9

## **COUNTY DEER DATA: MIAMI**

County Statistics	
County number:	52
Total square miles:	377
Square miles of deer range (last calculated in 2009):	59
Deer habitat in county (%):	15

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	944			435	508	1	0	396	428	105	13	2	0	0	0	0	0	0
2016	940			435	502	3	0	398	428	98	14	2	0	0	0	0	0	0
2017	801	25%	9%	386	412	2	1	328	390	79	4	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1145		544		7.25		601		52	1	0	213	532	
2006	1248		486		6.49		762		61	2	0	233	575	
2007	1434		655		8.73		779		54	2	0	224	547	
2008	1405		608		8.11		797		57	2	5	220	531	
2009	1511		580		7.73		931		62	4	6	247	596	
2010	1596	1.66	604	0.46	10.24	32	992	1.86	62	4	4	223	533	-0.80
2011	1461	0.17	578	-0.14	9.80	44	883	0.30	60	4	3	229	545	-0.41
2012	1600	1.58	521	-2.70	8.83	31	1079	2.26	67	4	4	166	395	-5.91
2013	1173	-4.02	431	-4.24	7.31		742	-1.82	63	4	2	196	465	-0.74
2014	1117	-2.00	469	-1.06	7.95		648	-2.20	58	3	1	139	330	-2.26
2015	1195	-0.84	513	-0.11	8.70		682	-1.06	57	3	0	164	389	-0.71
2016	1182	-0.61	511	0.15	8.66		671	-0.77	57	3	0	174	408	-0.20
2017	985	-1.37	421	-1.78	7.18		564	-1.12	57	2	0	190	439	0.88

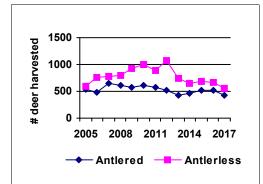


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

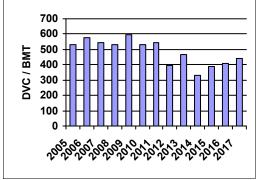


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	301	1.4:1 ± 0.2	
2015-2017	84	1.2:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	257	0.7:1 ± 0.1	
2015-2017	81	$0.7:1 \pm 0.2$	

## **COUNTY DEER DATA: MONROE**

Version: 8/23/2018

## County Statistics County number: 53 Total square miles: 411 Square miles of deer range (last calculated in 2009): 342 Deer habitat in county (%): 82

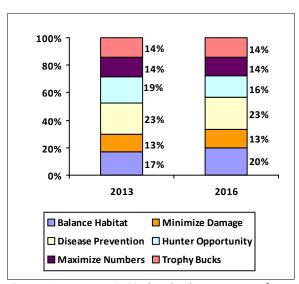


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

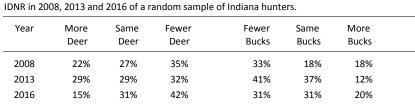


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	4%	30%	22%	43%	
2013	0%	10%	27%	27%	37%	
2016	8%	0%	38%	23%	31%	

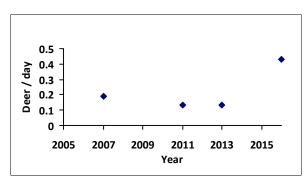


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

n	% Yes	% No		
56	84.2%	7.0%		
51	68.6%	19.6%		
	56	Yes 56 84.2%		

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	5%	63%	21%	5%	6%
2013	7%	66%	7%	14%	5%
2016	8%	61%	4%	25%	2%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	86	Public	26%	38%	30%	3%	2%
2018	199	Hunter	4%	11%	43%	31%	11%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	•	Opinion Sample D Type size					
2018	Hunter	319	26%	47%	27%		
2018	Public	81	2%	35%	63%		

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	221	Hunter	2%	2%	4%	26%	29%	27%	11%
2018	81	Public	22%	21%	21%	27%	6%	2%	0%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	69	62	6.8
2018	Hunter	228	69	3.0

year period from 2018 to 2022 from annual deer management survey (began in 2018).

## **COUNTY DEER DATA: MONROE**

Version: 8/23/2018

County Statistics	
County number:	53
Total square miles:	411
Square miles of deer range (last calculated in 2009):	342
Deer habitat in county (%):	82

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1300			598	701	1	0	539	590	129	31	5	4	0	1	1	0	0
2016	1261			590	668	3	0	498	614	109	29	7	2	2	0	0	0	0
2017	1213	36%	9%	598	612	3	0	457	551	145	41	10	4	2	2	1	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1272		570		1.64	46	702		55	3	1	79	81	
2006	1372		550		1.56	38	822		60	3	3	73	74	
2007	1256		562		1.62	38	694		55	3	9	91	91	
2008	1398		597		1.72		801		57	3	8	101	101	
2009	1480		592		1.71		888		60	4	6	120	120	
2010	1421	0.70	574	0.00	1.68		847	0.79	60	4	9	109	108	0.81
2011	1361	-0.29	523	-2.61	1.53		838	0.38	62	4	11	111	110	0.66
2012	1616	2.80	561	-0.29	1.64		1055	3.28	65	4	14	136	135	2.67
2013	1770	3.16	705	4.57	2.06		1065	1.80	60	4	15	136	135	1.52
2014	1465	-0.39	578	-0.19	1.69		887	-0.46	61	8	10	119	119	-0.23
2015	1699	1.04	713	1.81	2.10		986	0.42	58	8	5	138	137	1.24
2016	1643	0.36	678	0.71	1.98		965	-0.01	59	8	5	140	140	1.03
2017	1687	0.43	624	-0.32	1.83		1063	0.98	63	8	6	191	190	6.82

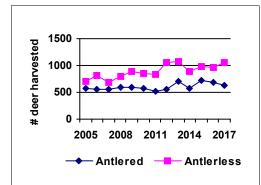


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

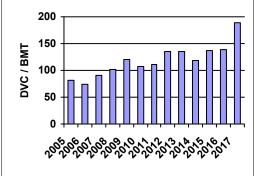


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	215	1:1 ± 0.2	
2015-2017	85	0.8:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	166	0.5:1 ± 0.1	
2015-2017	59	0.4:1 ± 0.1	

## **COUNTY DEER DATA: MONTGOMERY**

Version: 8/23/2018

# County Statistics County number: 54 Total square miles: 505 Square miles of deer range (last calculated in 2009): 72 Deer habitat in county (%): 14

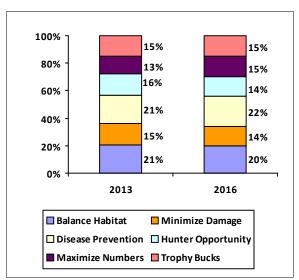


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

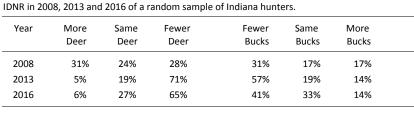


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	3%	3%	36%	21%	36%	
2013	4%	4%	36%	20%	37%	
2016	1%	7%	42%	25%	25%	

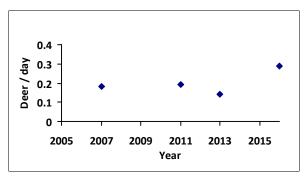


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	37	65.8%	31.6%
2016	49	67.3%	20.4%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
	2008	17%	57%	17%	4%	4%
_	2013	8%	68%	0%	16%	8%
	2016	12%	47%	8%	18%	14%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	9	Public	0%	0%	78%	11%	11%
2018	120	Hunter	0%	6%	21%	38%	35%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 7	Oninian of huntars	nd the general public	about how the dec	or nonulation chau	ld change over th	a nav+ E

2018 Public 9 11% 78% 11%

Table 8. In the deer management survey, respondents were asked to rate how DNR's

management of deer on a scale of 0 (poor) to 100

Table 6. In the annual deer management survey,

Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are

Opinion Sample Decrease Same Increase

CBAQ

59%

CBAQ

36%

CBAQ

5%

hunters were asked how the County Bonus

size

170

repoted as CBAQ.

Type

Hunter

(excellent).

Year

2018

2018 135 Hunter 2% 2% 4% 10% 24% 33%	Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
	2018	135	Hunter	2%	2%	4%	10%	24%	33%	25%	_
2018 9 Public 0% 0% 11% 44% 33% 11%	2018	9	Public	0%	0%	11%	44%	33%	11%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	9	77	13.4
2018	Hunter	111	53	5.1

## **COUNTY DEER DATA: MONTGOMERY**

County Statistics	
County number:	54
Total square miles:	505
Square miles of deer range (last calculated in 2009):	72
Deer habitat in county (%):	14

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	824			370	451	3	0	317	372	108	19	5	3	0	0	0	0	0
2016	782			330	450	2	0	342	330	92	10	8	0	0	0	0	0	0
2017	659	30%	10%	311	346	2	0	259	306	80	11	3	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1107		509		5.66		598		54	3	2	259	447	
2006	988		400		4.43	38	588		60	4	0	235	400	
2007	1110		464		5.16		646		58	4	4	223	376	
2008	823		325		3.61		498		61	4	3	243	414	
2009	842		335		3.72		507		60	4	1	222	377	
2010	1198	1.62	502	1.19	6.97		696	2.04	58	4	2	206	355	-1.62
2011	1204	1.29	515	1.41	7.15		689	1.18	57	4	1	217	379	-0.23
2012	1283	1.31	495	0.73	6.88	39	788	1.85	61	4	4	166	295	-4.03
2013	1120	0.23	425	-0.10	5.90		695	0.47	62	4	4	195	352	-0.28
2014	1151	0.13	458	0.05	6.36		693	0.18	60	4	5	175	324	-0.81
2015	1046	-2.35	418	-1.65	6.36		628	-1.98	60	4	2	163	309	-0.99
2016	1030	-1.47	456	-0.15	6.33		574	-2.18	56	4	2	137	266	-1.94
2017	873	-2.50	355	-3.11	4.91		518	-1.96	59	4	2	190	378	2.16

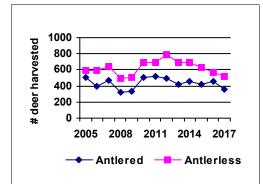


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

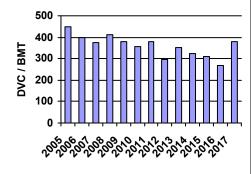


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	39	1:1 ± 0.4	
2015-2017	9	0.6:1 ± 0.5	
		Fawn: Doe Ratio	
2007-2014	36	1.2:1 ± 0.3	
2015-2017	19	1.9:1 ± 0.9	

## **COUNTY DEER DATA: MORGAN**

Version: 8/23/2018

## County Statistics County number: 55 Total square miles: 409 Square miles of deer range (last calculated in 2009): 228 Deer habitat in county (%): 55

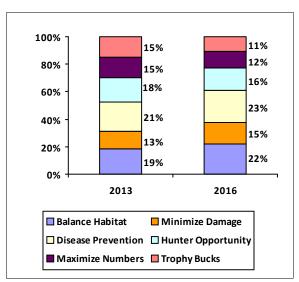


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

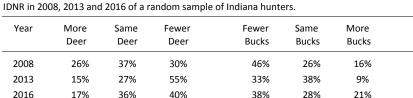


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	8%	31%	35%	25%	
2013	5%	16%	39%	16%	25%	
2016	14%	14%	43%	21%	7%	

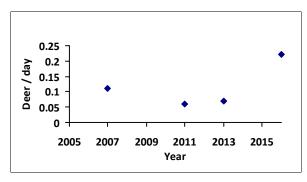


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	51	67.3%	25.0%
2016	33	69.7%	30.3%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	10%	51%	15%	18%	7%
	2013	6%	67%	4%	16%	8%
	2016	3%	63%	13%	13%	9%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	19	Public	0%	32%	63%	5%	0%
2018	249	Hunter	0%	6%	31%	41%	22%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	214	Hunter	1%	1%	4%	12%	35%	24%	23%
2018	19	Public	5%	5%	16%	53%	11%	5%	5%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	323	36%	44%	20%
2018	Public	19	16%	58%	26%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval	
	2018	Public	17	74	10.7	
-	2018	Hunter	240	63	3.4	

## **COUNTY DEER DATA: MORGAN**

County Statistics	
County number:	55
Total square miles:	409
Square miles of deer range (last calculated in 2009):	228
Deer habitat in county (%):	55

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1057			526	529	2	0	429	492	118	17	1	0	0	0	0	0	0
2016	1023			443	579	1	0	477	457	79	8	2	0	0	0	0	0	0
2017	970	26%	9%	475	490	5	0	376	483	99	11	1	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1193		564		2.06	64	628		53	4	1	131	166	
2006	1133		489		1.78	54	644		57	4	2	151	188	
2007	1220		465		1.70	49	755		62	4	1	142	174	
2008	1176		498		1.82		678		58	4	1	126	153	
2009	1292		533		1.95		759		59	4	4	180	216	
2010	1305	1.73	575	1.67	2.52		730	0.61	56	4	3	159	190	0.44
2011	1244	0.25	508	-0.09	2.23		736	0.45	59	8	5	152	181	-0.12
2012	1352	1.98	443	-1.77	1.94		909	5.48	67	8	4	152	181	-0.10
2013	1344	1.05	560	1.00	2.46		784	0.25	58	4	3	149	172	-0.51
2014	1086	-5.08	421	-1.98	1.85		665	-1.62	61	4	4	147	169	-1.14
2015	1316	0.46	536	0.51	2.40		780	0.17	59	4	3	180	203	3.00
2016	1228	-0.37	581	1.46	2.55		647	-1.44	53	4	2	155	174	-0.53
2017	1229	-0.32	504	-0.06	2.21		725	-0.30	59	3	1	160	178	-0.16

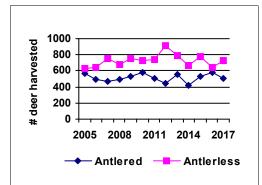


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

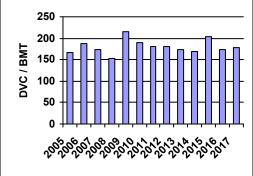


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	93	0.7:1 ± 0.3	
2015-2017	13	0.7:1 ± 0.6	
		Fawn: Doe Ratio	
2007-2014	81	0.6:1 ± 0.1	
2015-2017	19	0.6:1 ± 0.2	

## **COUNTY DEER DATA: NEWTON**

Version: 8/23/2018

# County Statistics County number: 56 Total square miles: 403 Square miles of deer range (last calculated in 2009): 63 Deer habitat in county (%): 15

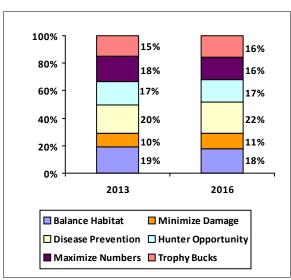


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 20	08, 2013 and	1 2016 of a r	andom sample	of Indiana hunt	ers.		
Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2008	38%	19%	19%	38%	19%	19%	
2013	10%	23%	60%	37%	33%	20%	

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

75%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	2%	0%	34%	20%	44%	
2013	4%	5%	29%	27%	35%	
2016	5%	20%	39%	15%	22%	

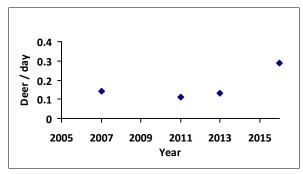


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

12%

10%

2016

Year	n	% Yes	% No
2013	47	58.3%	27.1%
2016	46	52.2%	39.1%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

52%

25%

13%

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	15%	52%	20%	11%	2%
2013	0%	49%	9%	28%	15%
2016	7%	41%	9%	30%	13%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	7	Public	0%	14%	43%	43%	0%
2018	52	Hunter	4%	6%	23%	44%	23%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	123	36%	41%	23%
2018	Public	5	20%	40%	40%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	103	Hunter	4%	2%	3%	12%	27%	26%	26%
2018	5	Public	0%	20%	0%	40%	40%	0%	0%

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	3	74	33.0
_	2018	Hunter	54	56	7.5

## **COUNTY DEER DATA: NEWTON**

County Statistics	
County number:	56
Total square miles:	403
Square miles of deer range (last calculated in 2009):	63
Deer habitat in county (%):	15

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	610			241	367	2	0	287	271	48	4	0	0	0	0	0	0	0
2016	591			233	356	2	0	292	247	45	7	0	0	0	0	0	0	0
2017	584	37%	15%	266	314	4	0	240	272	62	10	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1032		481		6.33	60	550		53	2	0	79	325	
2006	1043		453		5.90	39	591		56	2	0	102	411	
2007	1055		457		6.01	55	598		57	2	0	128	508	
2008	1158		543		7.14	53	615		53	3	3	97	381	
2009	996		437		5.75		559		56	4	10	127	498	
2010	1134	1.27	480	0.14	7.62	40	654	2.61	58	4	4	90	354	-0.91
2011	963	-1.70	413	-1.47	6.56		550	-1.54	57	4	4	83	327	-1.49
2012	965	-1.14	399	-1.35	6.33	67	566	-0.69	59	4	0	72	284	-1.54
2013	797	-2.59	340	-1.96	5.40		457	-2.98	57	4	0	91	357	-0.14
2014	765	-1.72	353	-1.18	5.60		412	-2.08	54	3	1	77	301	-0.78
2015	750	-1.17	371	-0.47	5.90		379	-1.56	51	3	0	90	350	0.80
2016	718	-1.21	362	-0.43	5.75		356	-1.41	50	3	0	75	293	-0.99
2017	757	-0.43	323	-1.89	5.17		434	0.00	57	2	0	93	365	1.41

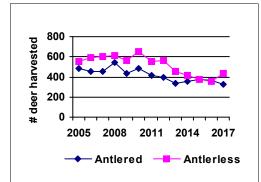


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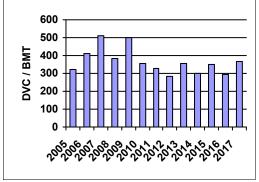


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	188	1.2:1 ± 0.2	
2015-2017	19	1.1:1 ± 0.7	
		Fawn: Doe Ratio	
2007-2014	163	0.5:1 ± 0.1	
2015-2017	23	0.6:1 ± 0.2	

## **COUNTY DEER DATA: NOBLE**

Version: 8/23/2018

# County Statistics County number: 57 Total square miles: 417 Square miles of deer range (last calculated in 2009): 109 Deer habitat in county (%): 26

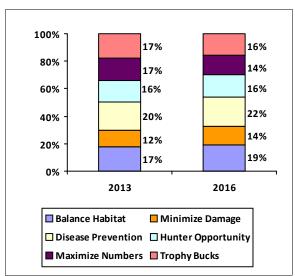


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year More Same Fewer Fewer Same More Deer Deer Bucks Bucks Bucks

26%

25%

26%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Table 2 La	ndownor d	osiros for th	a direction of t	ho door nonulatio	n hacad an	random sun	1011
2016	3%	21%	72%	39%	26%	16%	
2013	0%	1/%	79%	52%	21%	10%	

conducted by IDNR of landowers who obtain at least 50% of their income from the land.

23%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	4%	14%	35%	18%	30%	
2013	11%	12%	35%	26%	16%	
2016	13%	17%	40%	13%	15%	

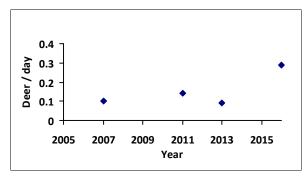


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

2008

15%

47%

Year	n	% Yes	% No
2013	93	38.3%	45.7%
2016	70	51.4%	41.4%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

_	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	12%	50%	29%	6%	4%
-	2013	3%	40%	5%	29%	23%
	2016	7%	33%	15%	34%	10%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	12	Public	0%	50%	50%	0%	0%
2018	212	Hunter	0%	2%	23%	44%	31%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

real period from 2016 to 2022 from almual deer management survey (began in 2016).												
Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably			
2018	278	Hunter	2%	1%	3%	8%	23%	33%	29%			
2018	11	Public	0%	18%	18%	36%	27%	0%	0%			

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	331	55%	34%	11%
2018	Public	11	0%	55%	45%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	11	78	9.7
2018	Hunter	212	56	3.7

## **COUNTY DEER DATA: NOBLE**

County Statistics	
County number:	57
Total square miles:	417
Square miles of deer range (last calculated in 2009):	109
Deer habitat in county (%):	26

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1944			974	968	2	0	698	938	239	46	16	7	0	0	0	0	0
2016	1974			896	1071	7	0	767	885	244	58	18	2	0	0	0	0	0
2017	1694	40%	8%	855	832	7	0	596	863	187	37	10	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2920		1062		6.36	56	1858		64	2	1	382	709	
2006	2740		989		5.92		1751		64	2	2	392	717	
2007	2792		972		5.82		1820		65	2	3	364	661	
2008	3230		1050		6.29		2180		67	3	7	324	601	
2009	3087		1066		6.38		2021		65	4	7	385	713	
2010	3323	1.81	1097	1.57	10.06		2226	1.73	67	4	14	346	655	-0.51
2011	3025	-0.04	989	-0.87	9.07		2036	0.17	67	8	7	313	609	-1.26
2012	2776	-1.54	807	-4.32	7.40		1969	-0.55	71	8	9	279	559	-1.97
2013	2634	-2.16	872	-1.12	8.00		1762	-2.94	67	4	7	309	634	0.11
2014	2537	-1.60	896	-0.56	8.22		1641	-2.18	65	4	5	313	660	0.45
2015	2624	-0.74	976	0.39	8.95		1648	-1.21	63	4	6	319	692	1.67
2016	2714	-0.03	1095	2.48	10.05		1619	-1.05	60	4	9	320	716	1.68
2017	2269	-4.24	864	-0.59	7.91		1405	-2.21	62	3	6	330	757	1.73

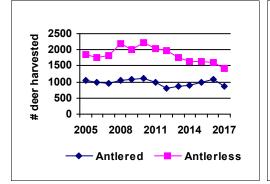


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

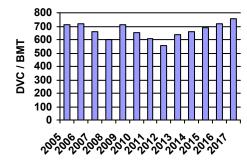


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	144	1.1:1 ± 0.5	
2015-2017	39	2.9:1 ± 2.1	
		Fawn: Doe Ratio	
2007-2014	104	0.6:1 ± 0.1	
2015-2017	32	0.7:1 ± 0.2	

## **COUNTY DEER DATA: OHIO**

Version: 8/23/2018

## **County Statistics** County number: 58 Total square miles: 87 Square miles of deer range (last 74 calculated in 2009): Deer habitat in county (%): 85

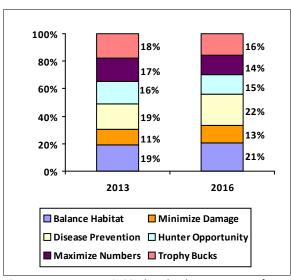


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2008	50%	21%	14%	21%	7%	50%	
2013	25%	0%	67%	75%	17%	0%	
2016	9%	15%	76%	62%	24%	9%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	8%	38%	31%	23%	
2013	9%	9%	36%	18%	27%	
2016	0%	0%	0%	0%	100%	

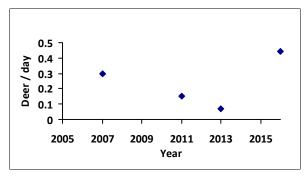


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	26	51.9%	33.3%
2016	50	52.0%	38.0%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

_	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	14%	43%	10%	24%	10%
-	2013	4%	54%	4%	38%	0%
	2016	16%	40%	0%	28%	16%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	1	Public	0%	100%	0%	0%	0%
2018	29	Hunter	0%	3%	28%	59%	10%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5

			22 from annual	•				change over t	ine next 5
Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	53	Hunter	0%	0%	2%	19%	43%	17%	19%
2018	1	Public	0%	0%	0%	0%	0%	100%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	62	39%	47%	15%
2018	Public	1	0%	0%	100%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval	
	2018	Public	1	57		
-	2018	Hunter	28	60	9.6	

## **COUNTY DEER DATA: OHIO**

County Statistics	
County number:	58
Total square miles:	87
Square miles of deer range (last calculated in 2009):	74
Deer habitat in county (%):	85

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	626			259	364	3	0	304	235	64	17	4	2	0	0	0	0	0
2016	629			239	387	3	0	299	246	75	7	2	0	0	0	0	0	0
2017	551	23%	17%	233	313	5	0	246	222	66	12	5	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1091		365		5.29		726		67	8	23	70	1220	
2006	968		300		4.32		668		69	8	28	73	1244	
2007	1062		348		5.04		715		67	8	13	117	1963	
2008	1018		310		4.49		708		70	8	11	74	1249	
2009	1114		424		6.14		690		62	8	6	90	1534	
2010	1150	1.70	387	0.76	5.23		763	2.69	66	8	9	73	1260	-0.57
2011	1129	0.91	396	0.81	5.35		733	0.68	65	8	11	74	1299	-0.48
2012	1187	1.72	364	-0.20	4.92		823	3.65	69	8	7	60	1082	-1.25
2013	906	-3.39	295	-1.90	3.99		611	-2.53	67	8	10	56	1030	-1.57
2014	821	-2.50	311	-1.28	4.20		510	-2.69	62	8	8	55	1038	-1.02
2015	810	-1.39	374	0.52	5.05		436	-2.00	54	8	9	60	1159	0.14
2016	818	-0.87	395	1.09	5.34		423	-1.26	52	4	11	45	892	-2.05
2017	742	-1.04	326	-0.51	4.40		416	-0.88	56	4	6	50	1011	-0.30

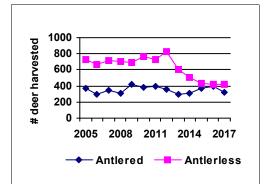


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

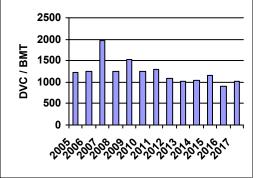


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	143	1.3:1 ± 0.3	
2015-2017	42	0.9:1 ± 0.2	
		Fawn: Doe Ratio	
2007-2014	90	$0.5:1 \pm 0.1$	
2007-2014 2015-2017	90 39	$0.5:1 \pm 0.1$ $0.6:1 \pm 0.2$	

## **COUNTY DEER DATA: ORANGE**

Version: 8/23/2018

## **County Statistics** County number: 59 Total square miles: 407 Square miles of deer range (last 310 calculated in 2009): Deer habitat in county (%): 75

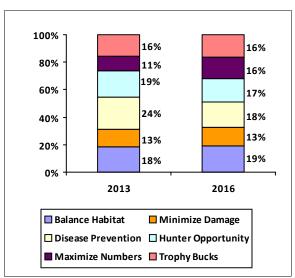


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2008	29%	25%	25%	33%	25%	13%	
2013	41%	47%	12%	24%	29%	29%	
2016	18%	35%	45%	39%	37%	16%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	3%	6%	14%	33%	44%
2013	0%	9%	35%	13%	43%
2016	7%	7%	20%	20%	47%

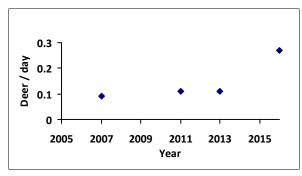


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	46	80.9%	8.5%
2016	98	49.0%	39.8%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
=	2008	9%	53%	21%	11%	6%
	2013	9%	70%	13%	6%	2%
	2016	13%	51%	3%	24%	9%

Table 6. In the annual deer management survey,

Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are

Opinion Sample Decrease Same Increase

CBAQ

34%

0%

CBAQ

52%

100%

CBAQ

14%

0%

hunters were asked how the County Bonus

size

158

2

repoted as CBAQ.

Type

Hunter

2018 Public

Year

2018

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	2	Public	0%	0%	100%	0%	0%
2018	63	Hunter	5%	6%	48%	35%	6%

deer management survey (began in 2018).

Table 8. In the deer management survey,
respondents were asked to rate how DNR's
management of deer on a scale of 0 (poor) to 100
(excellent).

	. 0	/ ( 0 -	,				
Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	2	Public	0%	0%	100%	0%	0%
2018	63	Hunter	5%	6%	48%	35%	6%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	150	Hunter	1%	3%	7%	24%	29%	23%	13%
2018	2	Public	0%	0%	50%	50%	0%	0%	0%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	2	84	7.8
2018	Hunter	55	65	6.6

## **COUNTY DEER DATA: ORANGE**

County Statistics	
County number:	59
Total square miles:	407
Square miles of deer range (last calculated in 2009):	310
Deer habitat in county (%):	75

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1723			728	992	3	0	717	765	180	47	13	1	0	0	0	0	0
2016	1630			690	928	12	0	680	719	186	37	5	3	0	0	0	0	0
2017	1583	38%	12%	734	844	5	0	626	716	189	34	14	3	1	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2105		794		2.45	45	1311		62	4	3	105	512	
2006	2276		867		2.51		1409		62	4	0	138	664	
2007	1861		734		2.27	42	1128		61	4	2	139	665	
2008	1934		770		2.38		1164		60	4	4	145	697	
2009	2062		865		2.67		1197		58	4	2	153	740	
2010	1954	-0.58	790	-0.27	2.55		1164	-0.67	60	4	5	131	643	-0.15
2011	1938	-0.49	797	-0.14	2.57		1141	-0.63	59	4	2	140	701	0.52
2012	2105	2.15	714	-1.61	2.30	24	1391	8.81	66	4	3	142	724	0.94
2013	2360	4.56	859	1.32	2.77		1501	2.83	64	4	2	155	789	2.36
2014	2157	0.43	837	0.52	2.70		1320	0.26	61	4	2	123	634	-1.60
2015	2320	1.26	1002	3.65	3.23		1318	0.10	57	4	1	151	774	1.20
2016	2189	0.08	957	1.09	3.09		1232	-0.78	56	4	2	114	587	-2.22
2017	2154	-0.66	866	-0.07	2.79		1288	-0.64	60	4	3	177	918	2.45

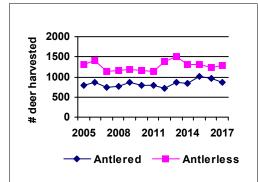


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

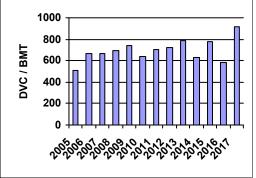


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	73	0.7:1 ± 0.2	
2015-2017	44	1.3:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	48	0.5:1 ± 0.1	
2007-2014 2015-2017	48 29	0.5:1 ± 0.1 0.3:1 ± 0.1	

## **COUNTY DEER DATA: OWEN**

Version: 8/23/2018

## County Statistics County number: 60 Total square miles: 387 Square miles of deer range (last calculated in 2009): 299 Deer habitat in county (%): 76

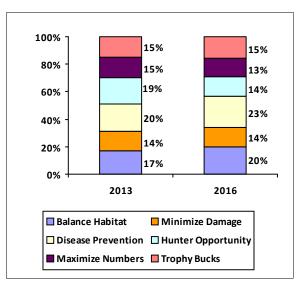


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2008 9% 57% 23% 26% 23% 31% 2013 16% 37% 47% 37% 37% 26% 2016 13% 35% 46% 33% 27% 23%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	7%	5%	35%	21%	33%	
2013	0%	12%	39%	18%	30%	
2016	5%	10%	50%	20%	15%	

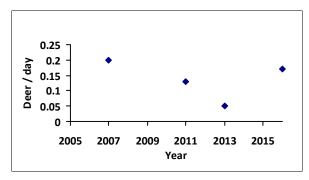


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	58	74.6%	13.6%
2016	74	59.5%	28.4%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	16%	42%	21%	16%	5%
2013	7%	60%	10%	17%	5%
2016	8%	60%	7%	15%	10%
2010	8%	00%	7%	15%	10%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	12	Public	0%	50%	42%	8%	0%
2018	56	Hunter	0%	9%	41%	34%	16%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	221	35%	52%	13%
2018	Public	12	17%	25%	58%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	203	Hunter	1%	1%	2%	19%	28%	35%	14%	_
2018	12	Public	0%	8%	42%	33%	8%	0%	8%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	11	79	12.8
2018	Hunter	59	65	7.2

## **COUNTY DEER DATA: OWEN**

County Statistics	
County number:	60
Total square miles:	387
Square miles of deer range (last calculated in 2009):	299
Deer habitat in county (%):	76

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1383			692	685	6	0	539	671	140	29	3	1	0	0	0	0	0
2016	1505			682	817	5	1	646	679	139	36	4	0	1	0	0	0	0
2017	1413	41%	13%	675	734	4	0	563	686	132	21	9	1	1	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1501		725		2.13	48	776		52	2	2	43	213	
2006	1360		607		1.79	37	753		55	2	3	81	398	
2007	1441		701		2.06	35	740		51	2	5	114	556	
2008	1684		734		2.16		950		56	3	3	101	492	
2009	1753		814		2.39		939		54	3	4	87	423	
2010	1669	0.73	716	0.00	2.39		953	1.17	57	4	3	85	414	-0.02
2011	1665	0.49	715	0.01	2.39	32	950	0.75	57	4	1	98	478	0.33
2012	1770	1.08	641	-2.10	2.14	69	1129	2.39	64	4	7	96	471	-0.03
2013	1712	0.08	768	0.71	2.57		944	-0.50	55	4	7	91	443	-0.35
2014	1534	-3.77	612	-1.83	2.05		922	-0.75	60	4	3	76	367	-2.77
2015	1717	0.54	686	-0.07	2.30		1031	0.61	60	4	4	107	517	1.81
2016	1917	2.65	836	2.47	2.80		1081	1.00	56	4	2	89	432	-0.41
2017	1811	0.59	747	0.42	2.50		1064	0.48	59	4	4	105	513	1.21

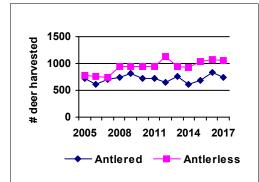


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

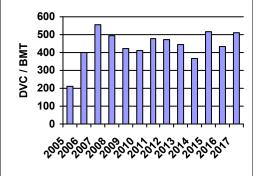


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	110	1:1 ± 0.2	
2015-2017	39	0.7:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	55	0.4:1 ± 0.1	
	47	0.2.4.4.0.2	
2015-2017	17	$0.3:1 \pm 0.2$	

## **COUNTY DEER DATA: PARKE**

Version: 8/23/2018

### **County Statistics** County number: 61 Total square miles: 450 Square miles of deer range (last 210 calculated in 2009): Deer habitat in county (%): 46

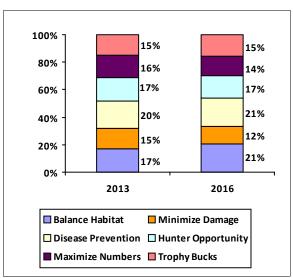


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

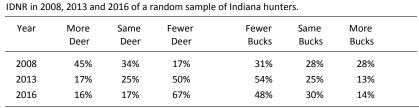


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
0%	12%	12%	31%	46%	
2%	5%	32%	17%	44%	
3%	11%	43%	17%	26%	
	Increase 0% 2%	Increase 0% 12% 2% 5%	Increase 0% 12% 12% 2% 5% 32%	Increase         Decrease           0%         12%         12%         31%           2%         5%         32%         17%	Increase         Decrease         Decrease           0%         12%         12%         31%         46%           2%         5%         32%         17%         44%

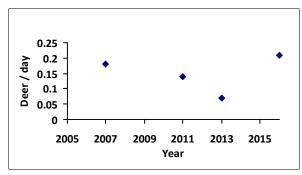


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	62	68.3%	19.0%
2016	102	52.9%	35.3%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	7%	50%	30%	9%	5%
	2013	16%	39%	11%	23%	11%
	2016	13%	47%	8%	22%	11%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	10	Public	40%	10%	50%	0%	0%
2018	69	Hunter	3%	10%	25%	33%	29%

•		U	al public about I deer manage			change over t	:he next 5
C	0-1-1	D	D	D	NI-	 	

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	218	Hunter	3%	3%	1%	14%	28%	32%	19%
2018	10	Public	0%	40%	40%	20%	0%	0%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	236	58%	35%	8%
2018	Public	10	0%	30%	70%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	8	79	7.7
-	2018	Hunter	62	58	7.2

## **COUNTY DEER DATA: PARKE**

County Statistics	
County number:	61
Total square miles:	450
Square miles of deer range (last calculated in 2009):	210
Deer habitat in county (%):	46

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1726			839	882	5	0	610	808	221	56	18	7	3	3	0	0	0
2016	1774			723	1047	4	0	765	734	215	35	18	3	2	1	1	0	0
2017	1541	34%	11%	664	872	4	1	656	635	172	46	17	7	5	3	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	3161		1198		3.80		1964		62	8	1	185	759	
2006	2905		925		2.93		1980		68	8	0	183	745	
2007	2698		1105		3.51		1594		59	4	5	218	884	
2008	2804		1036		3.29		1769		63	8	1	220	906	
2009	2881		1152		3.66		1729		60	8	2	217	901	
2010	2861	-0.17	1100	0.16	5.24		1761	-0.28	62	8	6	189	798	-0.51
2011	2561	-3.25	960	-1.18	4.57		1601	-1.20	63	8	10	210	902	0.77
2012	2895	1.01	941	-1.74	4.48		1954	3.04	67	8	9	169	739	-3.05
2013	2445	-2.57	907	-1.45	4.32		1538	-1.78	63	8	6	152	663	-2.42
2014	2378	-1.67	893	-1.11	4.25		1485	-1.44	62	8	5	141	619	-1.74
2015	2390	-1.00	869	-1.10	4.14		1521	-0.77	64	8	2	158	706	-0.34
2016	2438	-0.45	1061	4.02	5.05		1377	-1.27	56	8	3	145	663	-0.58
2017	2181	-1.51	886	-0.64	4.22		1295	-1.27	59	8	3	154	720	0.92

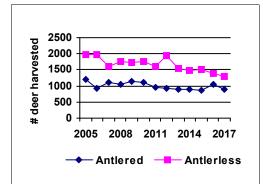


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

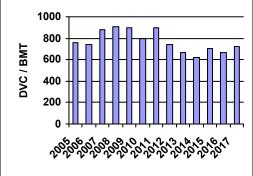


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	155	1.2:1 ± 0.3	
2015-2017	58	1.3:1 ± 0.5	
		Fawn: Doe Ratio	
2007-2014	101	0.4:1 ± 0.1	
2015-2017	40	0.5:1 ± 0.2	

## **COUNTY DEER DATA: PERRY**

Version: 8/23/2018

# County Statistics County number: 62 Total square miles: 386 Square miles of deer range (last calculated in 2009): 331 Deer habitat in county (%): 86

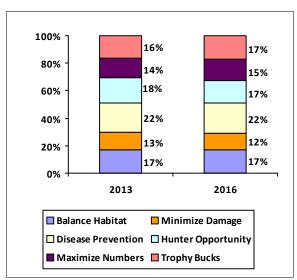


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year More Same Fewer Fewer Same More Deer Deer Bucks Bucks Bucks

45%

18%

21%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

2016	26%	24%	46%	28%	39%	24%

55%

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	5%	5%	38%	14%	38%
2013	6%	11%	39%	17%	28%
2016	24%	19%	10%	24%	24%

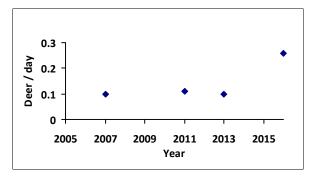


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

2008

18%

24%

Year	n	% Yes	% No
2013	72	61.6%	34.2%
2016	93	60.2%	29.0%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	15%	45%	30%	7%	4%
2013	4%	51%	13%	23%	10%
2016	9%	53%	11%	20%	8%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	5	Public	20%	0%	20%	40%	20%
2018	90	Hunter	2%	6%	32%	37%	23%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.										
Year	Opinion Type	Sample size	Decrease CBAQ							

Table 6. In the annual deer management survey,

Antlerless Quotas (CBAQs) should change while the

hunters were asked how the County Bonus

Year	•		CBAQ		
2018	Hunter	209	40%	50%	11%
2018	Public	5	20%	60%	20%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

	considerably	moderately	slightly	change	slightly	moderately	considerably	
2018 190 Hunter	0%	1%	4%	19%	28%	32%	16%	
2018 5 Public	0%	20%	0%	0%	60%	20%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	5	60	27.4
2018	Hunter	95	62	5.0

## **COUNTY DEER DATA: PERRY**

County Statistics	
County number:	62
Total square miles:	386
Square miles of deer range (last calculated in 2009):	331
Deer habitat in county (%):	86

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1510			638	870	2	0	670	648	161	26	2	3	0	0	0	0	0
2016	1462			610	850	1	1	665	611	158	21	5	2	0	0	0	0	0
2017	1486	33%	15%	725	757	4	0	557	696	178	45	10	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2099		898		2.53	54	1201		57	2	7	79	318	
2006	2297		1019		2.87	41	1278		56	2	11	120	477	
2007	1779		722		2.03		1057		59	4	16	94	370	
2008	1811		716		2.02		1095		60	4	6	91	356	
2009	1747		794		2.24		953		55	4	8	61	239	
2010	1545	-1.67	698	-1.02	2.11		847	-2.13	55	4	9	81	317	-0.41
2011	1772	-0.23	736	-0.40	2.22		1036	-0.06	58	4	10	90	352	0.01
2012	1679	-0.49	722	-0.31	2.18		957	-0.41	57	3	12	82	323	-0.07
2013	1883	1.65	790	1.55	2.39		1093	1.23	58	3	13	64	252	-1.39
2014	1805	0.64	773	0.59	2.34		1032	0.59	57	3	10	90	355	1.21
2015	1945	1.60	875	3.50	2.65		1070	0.81	55	3	8	108	427	2.58
2016	1875	0.57	857	1.29	2.59		1018	-0.38	54	4	5	95	376	0.53
2017	2011	1.71	773	-0.48	2.33		1238	3.90	62	4	10	111	439	1.41

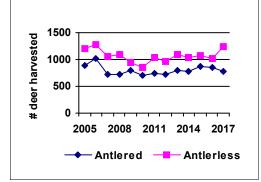


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

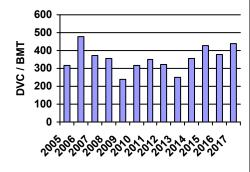


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	128	1.2:1 ± 0.3	
2015-2017	82	2.1:1 ± 1.3	
		Fawn: Doe Ratio	
2007-2014	130	0.6:1 ± 0.1	
2007-2014 2015-2017	130 77	0.6:1 ± 0.1 0.4:1 ± 0.1	

## **COUNTY DEER DATA: PIKE**

Version: 8/23/2018

## **County Statistics** County number: 63 Total square miles: 341 Square miles of deer range (last 176 calculated in 2009): Deer habitat in county (%):

51

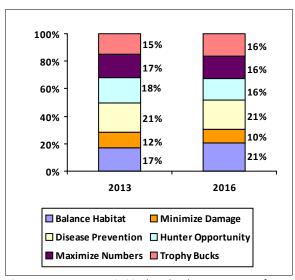
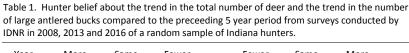


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.



Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2008	10%	48%	43%	29%	19%	24%	
2013	5%	14%	71%	76%	14%	10%	
2016	15%	21%	56%	35%	42%	8%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	11%	9%	34%	20%	25%
2013	10%	23%	23%	30%	13%
2016	12%	15%	52%	6%	15%

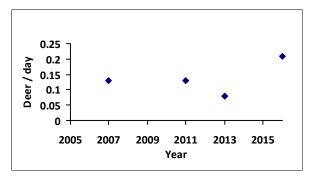


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

deer management survey (began in 2018).

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	49	64.0%	32.0%
2016	67	40.3%	46.3%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203,

_						
	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
· )	2008	10%	40%	29%	10%	11%
•	2013	12%	33%	4%	33%	18%
	2016	5%	42%	5%	24%	24%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	4	Public	0%	25%	50%	0%	25%
2018	59	Hunter	0%	0%	31%	41%	29%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	146	Hunter	1%	1%	1%	12%	28%	36%	21%
2018	3	Public	0%	0%	0%	67%	33%	0%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	156	49%	36%	15%
2018	Public	3	67%	0%	33%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	1	81	
2018	Hunter	61	58	7.2

## **COUNTY DEER DATA: PIKE**

Version: 8/23/2018

County Statistics	
County number:	63
Total square miles:	341
Square miles of deer range (last calculated in 2009):	176
Deer habitat in county (%):	51

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1214			527	686	1	0	524	557	113	18	2	0	0	0	0	0	0
2016	1176			514	660	2	0	516	513	136	10	1	0	0	0	0	0	0
2017	1128	36%	13%	503	616	8	1	458	556	104	10	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1954		795		3.55		1159		59	3	3	26	125	
2006	2049		790		3.52	30	1260		61	3	9	33	156	
2007	1334		474		2.11	43	860		64	4	3	24	113	
2008	1459		616		2.75		843		58	4	0	26	123	
2009	1489		660		2.95		829		56	4	0	19	92	
2010	1560	-0.30	685	0.13	3.89		875	-0.57	56	3	0	26	127	0.24
2011	1557	-0.08	695	0.43	3.95	53	862	-0.39	55	3	0	25	124	0.08
2012	1339	-1.52	548	-0.86	3.11	52	791	-3.50	59	3	2	23	116	0.02
2013	1419	-0.68	604	-0.61	3.43		815	-0.77	57	3	1	29	148	2.18
2014	1510	0.39	635	-0.06	3.61		875	1.18	58	3	2	31	159	1.86
2015	1532	0.57	688	0.90	3.91		844	0.01	55	3	0	45	232	5.44
2016	1483	0.13	664	0.49	3.77		819	-0.54	55	3	0	23	119	-0.80
2017	1442	-0.19	639	0.21	3.64		803	-0.81	56	2	4	16	83	-1.52

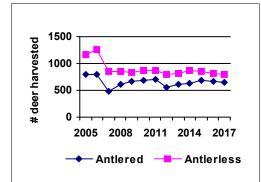


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

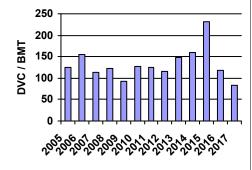


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	31	0.3:1 ± 0.2	
2015-2017	13	0.3:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	35	0.6:1 ± 0.2	
2015-2017	8	0.5:1 ± 0.3	

## **COUNTY DEER DATA: PORTER**

Version: 8/23/2018

## County Statistics County number: 64 Total square miles: 520 Square miles of deer range (last calculated in 2009): 143 Deer habitat in county (%): 27

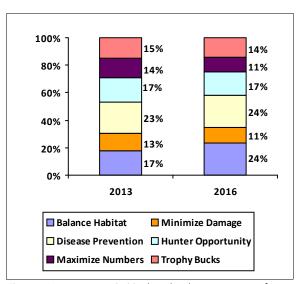


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

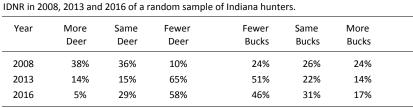


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	3%	12%	18%	27%	39%	
2013	4%	11%	33%	24%	28%	
2016	6%	8%	28%	39%	19%	

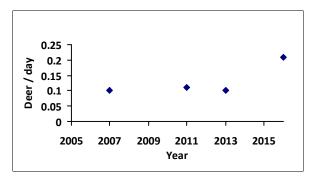


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	46	61.7%	27.7%
2016	33	63.6%	24.2%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	12%	56%	29%	4%	0%
	2013	6%	55%	6%	21%	11%
	2016	0%	59%	6%	25%	9%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	89	Public	9%	22%	47%	21%	0%
2018	269	Hunter	1%	7%	31%	41%	20%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

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Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	172	Hunter	2%	1%	5%	16%	32%	27%	16%
2018	81	Public	7%	11%	14%	35%	23%	7%	2%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	324	43%	43%	14%
2018	Public	81	14%	51%	36%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	71	73	5.7
2018	Hunter	295	60	3.2

## **COUNTY DEER DATA: PORTER**

County Statistics	
County number:	64
Total square miles:	520
Square miles of deer range (last calculated in 2009):	143
Deer habitat in county (%):	27

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	983			492	471	19	1	262	535	130	38	10	5	1	1	0	0	1
2016	976			513	451	11	1	268	531	119	37	12	6	2	1	0	0	0
2017	846	33%	9%	446	377	23	0	224	480	107	23	7	2	1	1	1	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1204		501		3.15	63	703		58	3	5	392	231	
2006	1214		518		3.26	48	697		57	3	5	420	245	
2007	1275		530		3.33		745		58	4	4	446	256	
2008	1391		581		3.65		810		58	4	5	454	256	
2009	1487		577		3.63		910		61	8	6	471	264	
2010	1566	2.07	563	0.60	3.94		1003	2.59	64	8	4	441	241	-0.78
2011	1332	-0.38	523	-1.08	3.66		809	-0.19	61	8	6	433	236	-1.73
2012	1642	1.98	443	-4.17	3.10		1199	3.39	73	8	4	348	186	-5.52
2013	1513	0.23	417	-2.09	2.92		1096	0.92	72	8	3	350	183	-1.75
2014	1348	-1.39	427	-1.09	2.99		921	-0.54	68	4	3	347	178	-1.23
2015	1509	0.21	518	0.67	3.63		991	-0.10	66	4	3	343	171	-1.09
2016	1453	-0.12	490	0.48	3.43		963	-0.27	66	8	4	323	156	-1.36
2017	1255	-2.23	427	-0.74	2.99		828	-1.83	66	4	6	349	163	-1.01

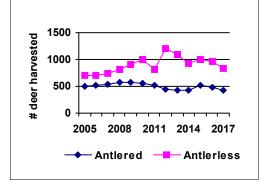


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

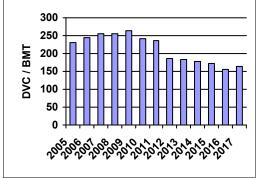


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio			
2007-2014	81	1:1 ± 0.3			
2015-2017	23	$0.6:1 \pm 0.3$			
		Fawn: Doe Ratio			
2007-2014	71	0.6:1 ± 0.2			
2015-2017	15	1:1 ± 0.5			

## **COUNTY DEER DATA: POSEY**

Version: 8/23/2018

# County Statistics County number: 65 Total square miles: 419 Square miles of deer range (last calculated in 2009): 84 Deer habitat in county (%): 20

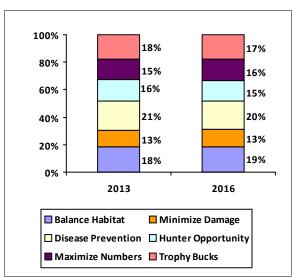


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2008 21% 40% 26% 36% 28% 15% 2013 10% 13% 75% 55% 28% 15%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

76%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	3%	7%	42%	16%	32%	
2013	6%	13%	40%	17%	25%	
2016	8%	16%	60%	8%	8%	

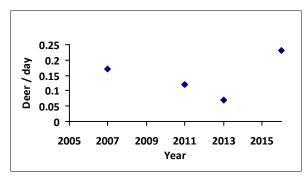


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

6%

17%

2016

Year	n	% Yes	% No
2013	39	67.5%	30.0%
2016	61	47.5%	37.7%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

63%

29%

6%

_	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
ó	2008	13%	31%	28%	22%	6%
ó	2013	3%	45%	8%	30%	15%
	2016	3%	27%	10%	38%	22%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	13	Public	0%	15%	54%	31%	0%
2018	129	Hunter	1%	1%	26%	43%	30%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	197	39%	44%	17%
2018	Public	12	17%	42%	42%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	161	Hunter	1%	2%	2%	12%	25%	29%	29%
2018	12	Public	0%	0%	17%	33%	25%	8%	17%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	11	75	18.8
2018	Hunter	127	51	4.5

## **COUNTY DEER DATA: POSEY**

County Statistics	
County number:	65
Total square miles:	419
Square miles of deer range (last calculated in 2009):	84
Deer habitat in county (%):	20

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	990			420	568	2	0	446	439	88	16	1	0	0	0	0	0	0
2016	926			374	551	1	0	427	406	85	6	2	0	0	0	0	0	0
2017	902	35%	8%	401	500	1	0	392	439	65	6	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1469		699		4.69	55	769		52	2	5	71	173	
2006	1526		673		4.52	47	852		56	2	12	75	182	
2007	1464		660		4.43	50	804		55	3	12	81	195	
2008	1580		648		4.35		932		59	3	10	92	225	
2009	1574		675		4.53		899		57	4	9	86	210	
2010	1517	-0.10	643	-1.46	7.65		874	0.34	58	4	5	80	198	0.04
2011	1424	-2.29	554	-7.31	6.60		870	-0.05	61	4	4	106	266	3.92
2012	1323	-2.78	525	-2.34	6.25	38	798	-1.66	60	4	6	86	220	0.06
2013	1271	-1.94	536	-1.12	6.38		735	-2.82	58	3	7	116	298	2.88
2014	1293	-1.01	581	-0.08	6.92		712	-1.83	55	3	9	133	348	2.62
2015	1187	-1.74	551	-0.36	6.56		636	-2.17	54	3	4	117	312	0.77
2016	1155	-1.68	554	0.22	6.60		601	-1.68	52	2	2	87	235	-1.10
2017	1098	-2.06	504	-2.14	6.02		594	-1.30	54	1	5	114	312	0.54

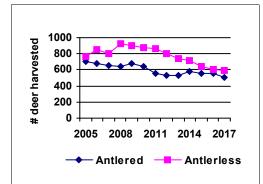


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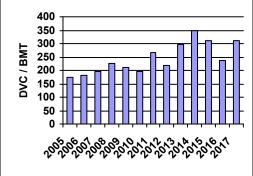


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	186	1.4:1 ± 0.3	
2015-2017	51	1.7:1 ± 1	
		Fawn: Doe Ratio	
2007-2014	163	0.6:1 ± 0.1	
2015-2017	26	$0.3:1 \pm 0.1$	

### **COUNTY DEER DATA: PULASKI**

Version: 8/23/2018

# County Statistics County number: 66 Total square miles: 435 Square miles of deer range (last calculated in 2009): 69 Deer habitat in county (%): 16

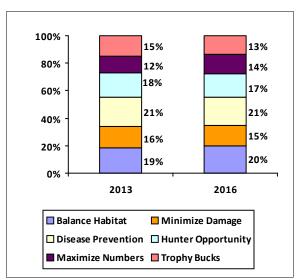


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2008 42% 35% 15% 23% 19% 42% 2013 20% 47% 33% 33% 53% 13%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

56%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	3%	1%	10%	10%	76%
2013	3%	3%	16%	24%	54%
2016	2%	10%	21%	24%	44%

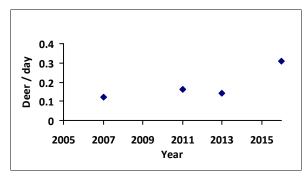


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

18%

20%

2016

Year	n	% Yes	% No
2013	52	69.8%	18.9%
2016	85	55.3%	31.8%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

38%

32%

20%

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	12%	56%	20%	10%	2%
	2013	6%	70%	6%	15%	4%
	2016	9%	58%	3%	22%	8%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	8	Public	25%	25%	13%	38%	0%
2018	63	Hunter	3%	13%	25%	46%	13%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	176	47%	43%	11%
2018	Public	7	29%	29%	43%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	163	Hunter	4%	2%	5%	18%	24%	30%	17%	_
2018	7	Public	14%	0%	43%	0%	43%	0%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	6	50	23.6
2018	Hunter	60	61	7.1

## **COUNTY DEER DATA: PULASKI**

<b>County Statistics</b>	
County number:	66
Total square miles:	435
Square miles of deer range (last calculated in 2009):	69
Deer habitat in county (%):	16

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1366			600	763	3	0	537	599	164	39	17	9	1	0	0	0	0
2016	1297			572	722	3	0	503	553	176	42	13	4	5	1	0	0	0
2017	1210	36%	12%	575	631	4	0	415	577	161	44	13	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1385		621		7.14	47	764		55	2	0	207	1053	
2006	1424		606		6.97	47	818		57	2	0	242	1225	
2007	1379		612		7.04	51	766		56	2	3	224	1131	
2008	1588		693		7.97	32	894		56	3	8	248	1256	
2009	1585		632		7.26	38	953		60	4	11	268	1371	
2010	1770	2.82	715	2.35	10.36	35	1055	2.61	60	4	4	228	1170	-0.30
2011	1721	1.11	675	0.47	9.78	31	1046	1.31	61	8	5	233	1201	-0.32
2012	1996	2.55	705	0.93	10.22	44	1291	2.92	65	8	7	220	1142	-0.90
2013	1776	0.26	641	-1.32	9.29	39	1135	0.58	64	8	10	205	1044	-2.03
2014	1711	-0.40	631	-1.15	9.14		1080	-0.13	63	8	5	204	1039	-1.23
2015	1832	0.32	732	1.57	10.60		1100	-0.21	60	8	5	187	951	-2.28
2016	1868	0.52	731	1.28	10.59		1137	0.07	61	8	7	197	1004	-0.73
2017	1745	-0.86	646	-0.86	9.30		1099	-0.60	63	4	5	213	1089	0.75

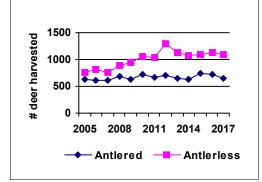


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

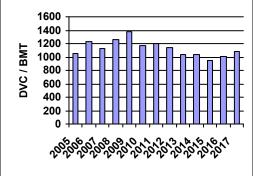


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	317	1.1:1 ± 0.2	
2015-2017	92	2.4:1 ± 0.4	
		Fawn: Doe Ratio	
		Tawn: Boc natio	
2007-2014	311	0.8:1 ± 0.1	
2007-2014 2015-2017	311 123		

### **COUNTY DEER DATA: PUTNAM**

Version: 8/23/2018

#### **County Statistics** County number: 67 Total square miles: 482 Square miles of deer range (last 214 calculated in 2009): Deer habitat in county (%): 44

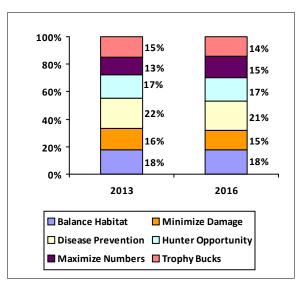


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

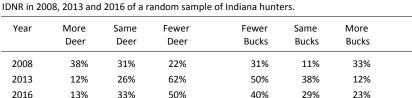


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	6%	14%	25%	20%	35%	
2013	2%	10%	37%	18%	33%	
2016	0%	17%	44%	29%	10%	

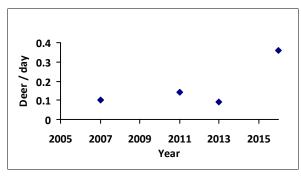


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	58	64.4%	20.3%
2016	65	67.7%	21.5%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	14%	54%	17%	11%	3%
-	2013	11%	54%	11%	18%	7%
	2016	6%	63%	11%	16%	5%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	17	Public	6%	24%	65%	0%	6%
2018	134	Hunter	1%	6%	26%	47%	20%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5
year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	249	Hunter	2%	1%	3%	14%	27%	28%	24%
2018	17	Public	18%	0%	29%	35%	18%	0%	0%

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	295	45%	44%	10%
2018	Public	17	18%	41%	41%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	13	74	11.9
2018	Hunter	135	62	4.4

## **COUNTY DEER DATA: PUTNAM**

County Statistics	
County number:	67
Total square miles:	482
Square miles of deer range (last calculated in 2009):	214
Deer habitat in county (%):	44

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1406			650	754	2	0	581	678	116	25	4	1	1	0	0	0	0
2016	1465			556	905	4	0	729	585	115	27	5	4	0	0	0	0	0
2017	1358	33%	9%	624	728	6	0	553	622	147	28	6	2	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2038		922		3.24		1115		55	3	3	25	41	
2006	1788		707		2.48		1081		60	4	3	96	157	
2007	1751		834		2.93		917		52	3	0	136	221	
2008	1828		791		2.78		1037		57	4	3	123	200	
2009	2059		926		3.25		1133		55	4	1	120	195	
2010	2240	2.40	979	1.54	4.57		1261	2.37	56	8	1	142	233	0.98
2011	2217	1.36	892	0.41	4.17		1325	1.89	60	8	1	108	179	-0.75
2012	1956	-0.28	647	-3.20	3.02		1309	1.06	67	8	1	80	134	-3.32
2013	1772	-1.65	787	-0.46	3.68		985	-1.84	56	4	1	75	128	-1.67
2014	1697	-1.82	759	-0.66	3.55		938	-1.85	55	4	4	67	116	-1.33
2015	1770	-0.83	761	-0.41	3.56		1009	-0.83	57	4	0	133	234	1.57
2016	1849	-0.16	923	1.76	4.31		926	-1.00	50	4	1	154	273	2.37
2017	1783	-0.26	743	-0.33	3.48		1040	0.04	58	4	0	162	288	1.56

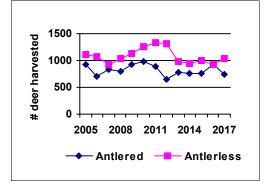


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

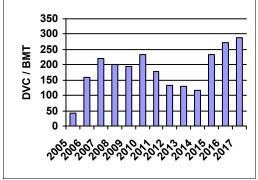


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	128	1.1:1 ± 0.2	
2015-2017	81	1.4:1 ± 0.2	
		Fawn: Doe Ratio	
2007-2014	77	0.4:1 ± 0.1	
2007-2014 2015-2017	77 84	0.4:1 ± 0.1 0.7:1 ± 0.1	

### **COUNTY DEER DATA: RANDOLPH**

Version: 8/23/2018

#### **County Statistics** County number: 68 Total square miles: 453 Square miles of deer range (last 49 calculated in 2009): Deer habitat in county (%): 11

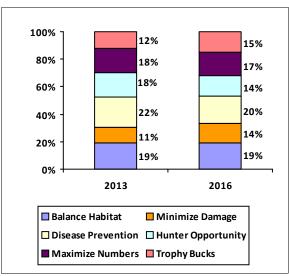


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Fewer Same More Year Deer Deer Deer **Bucks Bucks Bucks** 

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

2008	24%	24%	48%	24%	28%	36%	
2013	4%	26%	61%	35%	48%	13%	
2016	2%	13%	83%	56%	23%	19%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	0%	10%	51%	22%	16%
2013	5%	8%	43%	29%	15%
2016	10%	7%	44%	30%	9%

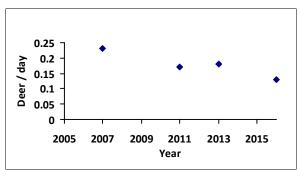


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	31	65.6%	28.1%
2016	40	55.0%	32.5%
-			

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	8%	64%	20%	0%	8%
	2013	10%	42%	19%	26%	3%
	2016	5%	49%	16%	24%	5%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	8	Public	0%	0%	13%	88%	0%
2018	66	Hunter	0%	8%	18%	41%	33%

year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	82	Hunter	1%	1%	6%	12%	17%	32%	30%
2018	7	Public	14%	0%	0%	14%	43%	29%	0%

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	101	45%	38%	18%
2018	Public	7	29%	43%	29%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	8	66	21.2
2018	Hunter	64	60	6.6

## **COUNTY DEER DATA: RANDOLPH**

<b>County Statistics</b>	
County number:	68
Total square miles:	453
Square miles of deer range (last calculated in 2009):	49
Deer habitat in county (%):	11

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	522			233	288	1	0	222	248	48	3	1	0	0	0	0	0	0
2016	543			228	313	1	1	241	251	47	3	1	0	0	0	0	0	0
2017	479	31%	15%	230	248	1	0	185	241	50	3	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	533		231		3.08		302		57	1	1	94	274	
2006	518		232		3.09		286		55	1	2	103	298	
2007	559		260		3.46		300		54	1	1	94	273	
2008	515		245		3.27		270		52	1	1	97	288	
2009	568		266		3.55		302		53	1	1	100	301	
2010	615	3.18	320	4.60	6.53		295	0.22	48	1	0	80	246	-3.03
2011	667	2.72	261	-0.10	5.33		406	8.88	61	2	0	57	180	-4.53
2012	640	0.95	263	-0.25	5.37		377	1.19	59	2	0	62	202	-1.16
2013	567	-0.56	240	-1.08	4.90		327	-0.05	58	2	0	71	236	-0.15
2014	596	-0.35	253	-0.57	5.16		343	0.03	58	2	0	86	292	1.27
2015	647	0.78	291	0.77	5.94		356	0.15	55	2	0	86	299	1.56
2016	676	1.29	319	3.06	6.51		357	-0.16	53	2	0	85	303	1.16
2017	606	-0.44	253	-0.64	5.21		353	0.05	58	2	0	77	279	0.29

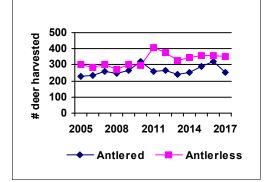


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

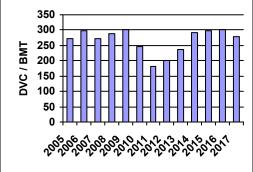


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	79	1.1:1 ± 0.3	
2015-2017	11	0.5:1 ± 0.6	
		Fawn: Doe Ratio	
2007-2014	45	0.4:1 ± 0.1	
2015-2017	13	0.4:1 ± 0.3	

### **COUNTY DEER DATA: RIPLEY**

Version: 8/23/2018

## County Statistics County number: 69 Total square miles: 448 Square miles of deer range (last calculated in 2009): 258 Deer habitat in county (%): 57

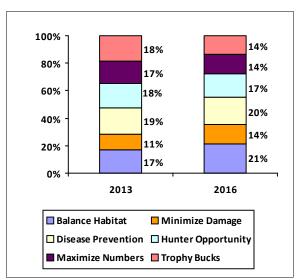


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2008	20%	54%	24%	32%	39%	15%	
2013	10%	17%	66%	44%	27%	17%	
2016	17%	19%	52%	33%	31%	20%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	5%	7%	36%	23%	29%	
2013	6%	8%	32%	23%	31%	
2016	14%	11%	43%	16%	16%	

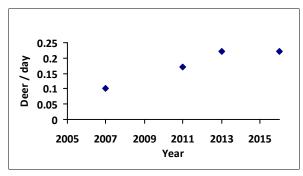


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	44	64.4%	33.3%
2016	60	58.3%	30.0%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

_	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
)	2008	9%	54%	20%	13%	4%
-	2013	2%	40%	11%	29%	18%
	2016	7%	58%	7%	13%	15%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low	
2018	8 126	Public Hunter	0% 0%	25% 6%	50% 31%	13% 41%	13% 22%	

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	134	Hunter	4%	1%	3%	12%	25%	30%	25%	_
2018	8	Public	0%	13%	25%	25%	25%	0%	13%	

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	186	52%	40%	8%
2018	Public	8	38%	25%	38%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	7	63	12.6
2018	Hunter	130	62	4.8

## **COUNTY DEER DATA: RIPLEY**

County Statistics	
County number:	69
Total square miles:	448
Square miles of deer range (last calculated in 2009):	258
Deer habitat in county (%):	57

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1579			763	809	7	0	603	720	185	49	15	6	1	0	0	0	0
2016	1468			648	814	6	0	609	645	152	42	15	5	0	0	0	0	0
2017	1437	25%	10%	701	732	4	0	547	659	172	38	13	5	3	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1438		568		1.86		870		61	3	5	128	346	
2006	1333		551		1.79		782		59	3	10	182	483	
2007	1445		539		1.76		906		63	3	6	158	413	
2008	1498		634		2.08		864		58	3	11	151	392	
2009	1671		670		2.20		1001		60	4	7	150	390	
2010	1876	3.22	653	1.07	2.53		982	1.23	59	4	5	156	408	0.05
2011	1662	0.46	651	0.69	2.52		1011	1.16	61	4	2	163	425	0.22
2012	1945	1.86	602	-0.53	2.33	24	1343	6.05	69	8	7	173	456	3.42
2013	1774	0.24	601	-1.59	2.33		1173	0.74	66	8	12	161	423	0.34
2014	1938	1.22	708	2.28	2.74		1230	0.83	63	8	10	167	446	1.03
2015	1997	1.31	749	2.40	2.90		1248	0.66	62	8	7	182	484	2.76
2016	1986	0.88	831	2.58	3.22		1155	-0.38	58	8	10	149	399	-1.93
2017	1961	0.37	744	0.46	2.89		1217	-0.17	62	8	8	182	489	1.45

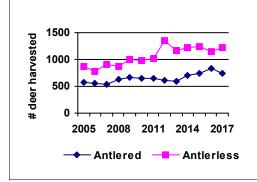


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

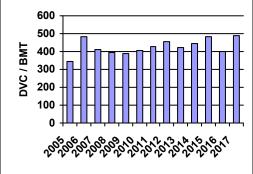


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	236	0.9:1 ± 0.2	
2015-2017	76	0.5:1 ± 0.2	
		Fawn: Doe Ratio	
2007-2014	155	0.6:1 ± 0.1	
		0.5.40.4	
2015-2017	59	$0.5:1 \pm 0.1$	

### **COUNTY DEER DATA: RUSH**

Version: 8/23/2018

## County Statistics County number: 70 Total square miles: 466 Square miles of deer range (last calculated in 2009): 42 Deer habitat in county (%): 10

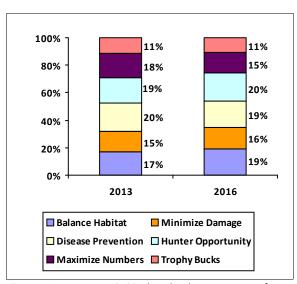


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Same More Year Fewer Deer Deer Deer **Bucks Bucks Bucks** 2008 31% 38% 14% 17% 38% 21% 2013 13% 38% 31% 38% 38% 6% 2016 27% 23% 48% 32% 27% 30%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	7%	7%	24%	29%	32%	
2013	7%	7%	30%	19%	37%	
2016	0%	4%	46%	25%	25%	

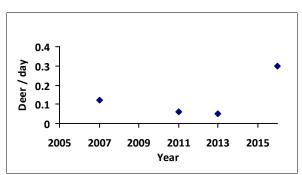


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	12	76.9%	23.1%
2016	19	68.4%	26.3%
			-

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	17%	52%	28%	0%	3%
	2013	17%	50%	0%	33%	0%
	2016	17%	50%	0%	33%	0%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	7	Public	0%	29%	57%	14%	0%
2018	51	Hunter	0%	6%	49%	29%	16%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Antlerless Quot	as (CBAQ	s) should c	hange v	while the
public were ask	ed how t	he number	of does	5
allowed to be h	arvested	should cha	nge. Bo	oth are
repoted as CBA	Q.			
Opinion	Sample	Decrease	Same	Increase

Table 6. In the annual deer management survey,

hunters were asked how the County Bonus

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	75	37%	44%	19%
2018	Public	7	0%	71%	29%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	45	Hunter	4%	0%	4%	20%	24%	27%	20%	_
2018	7	Public	0%	0%	14%	71%	14%	0%	0%	

	Oninion		DNR	95%
.,	Opinion Type		_	Confidence
Year	турс	size	Score	Interval
2040	B 1.11.	_	07	2.2
2018	Public	7	87	3.2
2018	Hunter	50	63	7.4

## **COUNTY DEER DATA: RUSH**

County Statistics	
County number:	70
Total square miles:	466
Square miles of deer range (last calculated in 2009):	42
Deer habitat in county (%):	10

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	333			158	175	0	0	139	178	16	0	0	0	0	0	0	0	0
2016	352			128	224	0	0	177	161	14	0	0	0	0	0	0	0	0
2017	308	21%	18%	148	159	1	0	123	154	29	2	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	387		169		2.73		218		56	1	0	65	262	
2006	293		145		2.35		147		50	1	0	76	305	
2007	341		145		2.34		196		57	1	1	55	219	
2008	312		160		2.58		151		48	1	1	37	149	
2009	343		165		2.66		178		52	1	0	58	233	
2010	382	1.31	183	2.33	4.36		199	0.71	52	1	1	49	199	-0.61
2011	363	0.85	172	0.78	4.10		191	0.69	53	1	0	39	160	-1.08
2012	339	-0.35	145	-1.42	3.45		194	0.57	57	1	0	54	225	0.89
2013	351	0.12	165	0.00	3.93		186	0.18	53	1	2	34	141	-1.37
2014	410	3.13	193	1.95	4.60		217	3.42	53	1	0	60	251	1.47
2015	385	0.57	176	0.24	4.19		209	0.97	54	1	0	50	209	0.32
2016	413	1.54	224	3.08	5.33		189	-0.80	46	1	1	45	190	-0.15
2017	385	0.16	164	-0.56	3.89		221	1.64	57	2	0	62	266	1.52

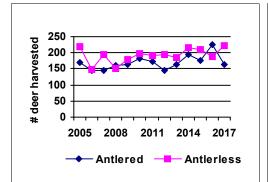


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

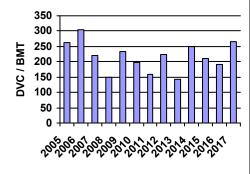


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	_
2007-2014	14	0.6:1 ± 0.5	
2015-2017	2	0.5:1 ± 1	
		Fawn: Doe Ratio	
2007-2014 2015-2017	11	0.7:1 ± 0.4	

## **COUNTY DEER DATA: ST.JOSEPH**

Version: 8/23/2018

# County Statistics County number: 71 Total square miles: 460 Square miles of deer range (last calculated in 2009): 96 Deer habitat in county (%): 21

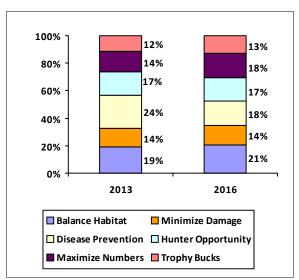


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

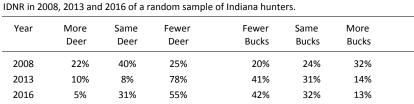


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	6%	44%	25%	25%	
2013	5%	10%	45%	18%	23%	
2016	14%	3%	50%	14%	19%	

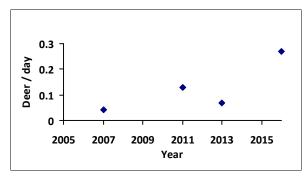


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	50	70.6%	31.4%
2016	45	53.3%	31.1%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	7%	59%	22%	7%	5%
	2013	6%	44%	4%	44%	2%
	2016	11%	36%	7%	38%	9%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	70	Public	6%	26%	39%	24%	6%
2018	166	Hunter	2%	9%	20%	39%	30%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	225	46%	40%	14%
2018	Public	68	24%	47%	29%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	133	Hunter	2%	2%	2%	16%	20%	34%	26%	_
2018	68	Public	4%	10%	18%	32%	18%	15%	3%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	53	75	5.6
2018	Hunter	188	60	3.7

## **COUNTY DEER DATA: ST.JOSEPH**

County Statistics	
County number:	71
Total square miles:	460
Square miles of deer range (last calculated in 2009):	96
Deer habitat in county (%):	21

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	914			437	472	5	0	366	421	101	18	5	3	0	0	0	0	0
2016	805			368	436	1	0	325	385	67	26	1	0	1	0	0	0	0
2017	862	36%	11%	453	405	4	0	292	435	101	20	13	0	1	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1192		540		3.65		652		55	2	3	284	123	
2006	1133		504		3.23		686		58	3	2	243	104	
2007	1259		520		3.51		739		58	3	2	310	132	
2008	1450		592		4.00		858		59	4	7	306	126	
2009	1593		579		3.91		1014		64	8	6	279	116	
2010	1589	1.38	612	1.73	6.38		977	1.27	61	8	3	285	115	-0.52
2011	1376	-0.14	527	-0.73	5.49		849	-0.04	62	8	12	249	101	-1.65
2012	1415	-0.27	484	-2.02	5.04		931	0.40	66	8	12	256	101	-1.38
2013	1234	-2.49	416	-2.73	4.33		818	-1.49	66	8	8	296	114	0.24
2014	1155	-1.88	402	-1.57	4.19		753	-1.98	65	4	3	283	107	-0.33
2015	1132	-1.32	456	-0.37	4.75		676	-2.12	61	4	1	349	124	2.45
2016	1045	-1.70	446	-0.22	4.65		599	-2.14	59	4	1	287	100	-0.97
2017	1176	-0.14	415	-0.79	4.34		761	0.04	65	4	4	331	113	0.36

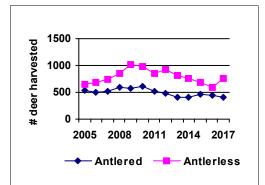


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

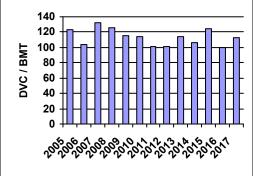


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	201	1.2:1 ± 0.3	
2015-2017	26	1:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	137	$0.5:1 \pm 0.1$	
2007-2014 2015-2017	137 38	$0.5:1 \pm 0.1$ $0.8:1 \pm 0.2$	

## **COUNTY DEER DATA: SCOTT**

Version: 8/23/2018

#### **County Statistics** County number: 72 Total square miles: 192 Square miles of deer range (last 124 calculated in 2009): Deer habitat in county (%): 64

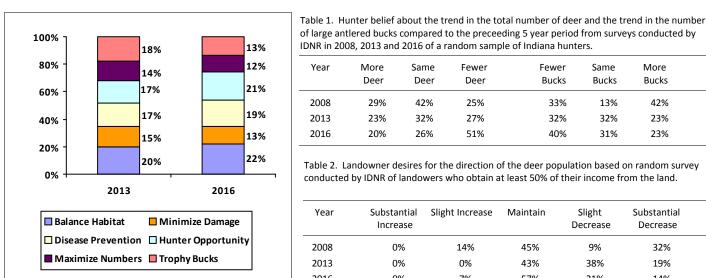


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

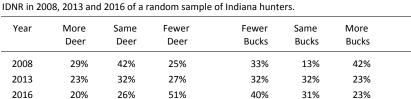


Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	0%	14%	45%	9%	32%
2013	0%	0%	43%	38%	19%
2016	0%	7%	57%	21%	14%

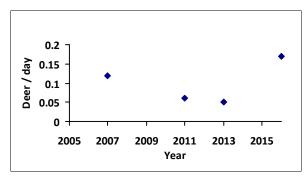


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	27	71.4%	21.4%
2016	29	58.6%	41.4%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	26%	42%	11%	11%	11%
	2013	0%	54%	11%	21%	14%
	2016	7%	57%	11%	18%	7%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	7	Public	29%	29%	43%	0%	0%
2018	63	Hunter	2%	5%	27%	44%	22%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	104	43%	46%	11%
2018	Public	7	14%	57%	29%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	90	Hunter	2%	1%	1%	16%	30%	31%	19%
2018	7	Public	29%	14%	14%	14%	29%	0%	0%

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	7	82	12.7
_	2018	Hunter	58	60	7.3

## **COUNTY DEER DATA: SCOTT**

<b>County Statistics</b>	
County number:	72
Total square miles:	192
Square miles of deer range (last calculated in 2009):	124
Deer habitat in county (%):	64

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	834			399	433	2	0	320	386	89	31	8	0	0	0	0	0	0
2016	728			337	390	1	0	281	347	84	15	1	0	0	0	0	0	0
2017	723	52%	18%	367	354	2	0	273	336	99	13	2	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1034		416		3.02		617		60	8	1	38	123	
2006	1094		392		2.84		702		64	8	2	26	83	
2007	842		339		2.46		505		60	8	6	26	82	
2008	987		378		2.74		609		62	8	3	20	63	
2009	948		373		2.70		575		61	8	3	31	95	
2010	980	-0.01	376	-0.13	3.03		604	0.03	62	8	3	33	99	0.44
2011	921	-0.54	360	-0.59	2.90		561	-0.53	61	8	3	42	126	2.99
2012	1073	2.34	345	-1.24	2.78	48	728	3.75	68	8	6	24	72	-0.89
2013	1160	3.10	435	4.95	3.51		725	1.66	63	4	5	60	187	3.90
2014	990	-0.27	348	-0.87	2.81		642	0.04	65	4	3	58	180	1.44
2015	1126	1.09	438	1.77	3.54		688	0.49	55	4	6	81	250	2.34
2016	956	-1.00	392	0.14	3.16		564	-1.51	52	4	4	75	230	1.00
2017	943	-1.36	358	-0.75	2.89		585	-1.23	62	4	3	95	289	1.53

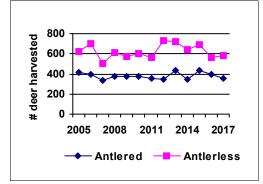


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

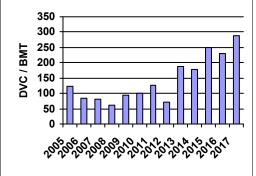


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio					
2007-2014	27	0.9:1 ± 0.4					
2015-2017	12	2:1 ± 1.2					
		Fawn: Doe Ratio					
2007-2014	47	0.8:1 ± 0.2					
2015-2017	19	0.4:1 ± 0.2					

### **COUNTY DEER DATA: SHELBY**

Version: 8/23/2018

#### **County Statistics** County number: 73 Total square miles: 413 Square miles of deer range (last 47 calculated in 2009): Deer habitat in county (%): 11

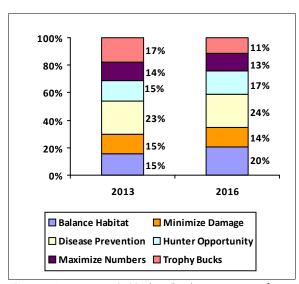


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

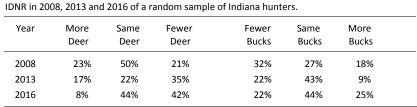


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease		
2008	2%	17%	51%	23%	6%		
2013	2%	10%	52%	26%	10%		
2016	0%	10%	52%	24%	14%		

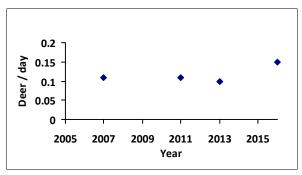


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	13	71.4%	28.6%
2016	14	71.4%	28.6%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

_						
	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
· )	2008	21%	37%	42%	0%	0%
-	2013	0%	50%	17%	33%	0%
	2016	7%	50%	21%	14%	7%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	7	Public	0%	43%	14%	29%	14%
2018	125	Hunter	0%	6%	35%	37%	22%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5
year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	62	Hunter	0%	2%	2%	19%	34%	31%	13%
2018	7	Public	0%	0%	14%	29%	43%	14%	0%

Year	Opinion Type		Decrease CBAQ				
2018	Hunter	125	39%	45%	16%		
2018	Public	7	43%	57%	0%		

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	4	83	16.7
-	2018	Hunter	121	62	4.6

## **COUNTY DEER DATA: SHELBY**

County Statistics	
County number:	73
Total square miles:	413
Square miles of deer range (last calculated in 2009):	47
Deer habitat in county (%):	11

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	365			162	202	1	0	163	158	37	7	0	0	0	0	0	0	0
2016	377			163	213	1	0	178	164	32	3	0	0	0	0	0	0	0
2017	362	27%	14%	164	196	2	0	160	164	34	3	1	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	325		141		1.86		183		56	2	0	77	118	
2006	345		151		1.99	82	194		56	2	0	91	137	
2007	378		177		2.33		201		53	2	0	92	136	
2008	378		160		2.11		218		58	3	0	86	126	
2009	343		143		1.88		200		58	3	0	78	113	
2010	385	1.33	165	0.71	3.51		220	1.65	57	3	0	76	111	-1.47
2011	396	1.49	168	0.66	3.57		228	1.83	58	3	0	87	126	0.15
2012	435	2.97	173	0.81	3.68		262	3.92	60	3	0	87	127	0.39
2013	451	1.92	183	1.84	3.89		268	1.86	59	3	0	77	112	-1.10
2014	490	2.06	191	1.67	4.06		299	2.20	61	3	0	88	127	1.16
2015	457	0.60	204	2.59	4.34		253	-0.07	57	3	0	101	146	2.95
2016	452	0.18	215	2.17	4.57		237	-0.97	57	3	1	117	168	3.37
2017	449	-0.40	200	0.41	4.29		249	-0.65	55	3	0	110	157	0.96

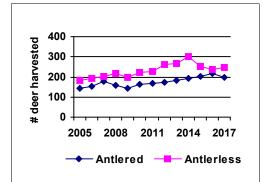


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

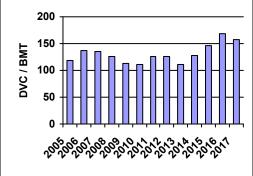


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	75	0.6:1 ± 0.2	
2015-2017	24	0.4:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	57	0.7:1 ± 0.2	
	40	0.6.1 + 0.4	
2015-2017	10	$0.6:1 \pm 0.4$	

### **COUNTY DEER DATA: SPENCER**

Version: 8/23/2018

## County Statistics County number: 74 Total square miles: 401 Square miles of deer range (last calculated in 2009): 173 Deer habitat in county (%): 43

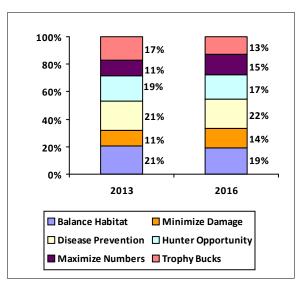


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

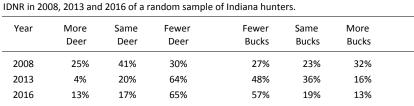


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	4%	6%	40%	12%	38%	
2013	7%	7%	37%	25%	25%	
2016	5%	20%	40%	25%	10%	

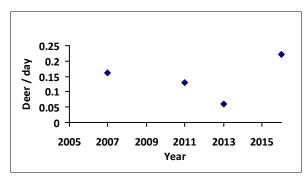


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	42	60.5%	27.9%
2016	58	60.3%	27.6%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	6%	44%	35%	15%	0%
	2013	10%	55%	7%	24%	5%
	2016	7%	41%	7%	34%	10%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	5	Public	20%	0%	60%	20%	0%
2018	77	Hunter	0%	1%	31%	42%	26%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 7 (	Oninian of huntars and the go	naral nublic about bour	the deer nonulation of	auld shanga ayar th	

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	135	49%	36%	15%
2018	Public	5	0%	60%	40%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	107	Hunter	2%	2%	1%	14%	27%	20%	35%
2018	5	Public	0%	20%	0%	60%	0%	0%	20%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	4	84	2.8
2018	Hunter	75	58	6.1

## **COUNTY DEER DATA: SPENCER**

Version: 8/23/2018

County Statistics	
County number:	74
Total square miles:	401
Square miles of deer range (last calculated in 2009):	173
Deer habitat in county (%):	43

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1065			487	577	1	0	447	494	100	19	4	1	0	0	0	0	0
2016	964			446	516	2	0	409	444	96	14	1	0	0	0	0	0	0
2017	957	29%	12%	439	514	4	0	395	422	121	17	1	0	1	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1612		669		3.20		943		58	2	5	161	439	
2006	1604		721		3.45		883		55	2	4	169	453	
2007	1251		521		2.49		729		58	3	6	186	490	
2008	1374		558		2.67		816		59	3	1	154	403	
2009	1366		644		3.08		722		53	3	2	147	382	
2010	1360	-0.51	634	0.14	3.66		726	-0.96	53	3	3	148	389	-1.06
2011	1298	-0.72	583	-0.42	3.37		715	-0.84	55	4	2	192	510	1.87
2012	1432	1.91	538	-0.97	3.11		894	3.64	62	4	3	160	431	-0.06
2013	1388	0.46	598	0.14	3.46		790	0.20	57	4	6	187	508	1.62
2014	1417	0.99	605	0.13	3.50		812	0.56	57	4	5	191	524	1.28
2015	1323	-1.06	572	-0.56	3.31		751	-0.50	60	4	4	211	587	1.93
2016	1202	-2.89	520	-2.24	3.01		682	-1.63	57	4	5	144	406	-1.91
2017	1253	-1.06	527	-1.07	3.04		726	-0.77	58	3	8	140	399	-1.26

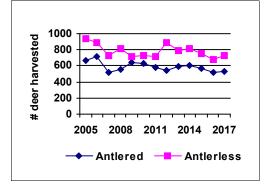


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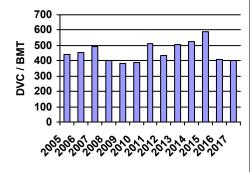


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	67	1.2:1 ± 0.3	
2015-2017	36	1.2:1 ± 0.5	
		Fawn: Doe Ratio	
2007-2014	82	0.5:1 ± 0.1	
2015-2017	21	$0.4:1 \pm 0.2$	

## **COUNTY DEER DATA: STARKE**

Version: 8/23/2018

# County Statistics County number: 75 Total square miles: 311 Square miles of deer range (last calculated in 2009): 91 Deer habitat in county (%): 29

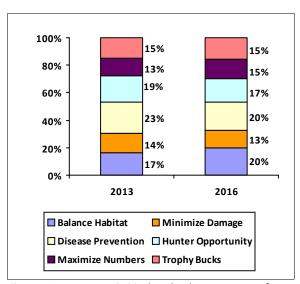


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Fewer Same More Year Deer Deer Deer **Bucks Bucks Bucks** 2008 23% 36% 27% 9% 27% 27% 2013 23% 8% 62% 46% 23% 15% 2016 16% 27% 57% 50% 25% 16%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	6%	3%	35%	17%	38%	
2013	8%	7%	39%	19%	27%	
2016	2%	16%	40%	16%	26%	

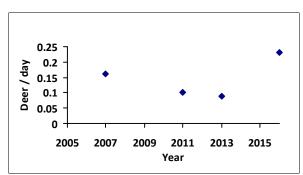


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	27	82.1%	21.4%
2016	72	69.4%	25.0%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	2%	63%	20%	15%	0%
	2013	7%	59%	4%	22%	7%
	2016	11%	52%	7%	21%	8%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	19	Public	11%	53%	21%	16%	0%
2018	75	Hunter	0%	4%	23%	37%	36%

•		U	l public about deer manage				change over t	he next 5
 Sample	Opinion	Decrease	Decrease	Decrease	No	Increase	Increase	Increase

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	150	Hunter	3%	1%	4%	9%	28%	29%	25%
2018	19	Public	5%	21%	32%	21%	16%	5%	0%

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	174	54%	34%	11%
2018	Public	19	16%	37%	47%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	18	65	13.1
2018	Hunter	78	58	6.4

## **COUNTY DEER DATA: STARKE**

County Statistics	
County number:	75
Total square miles:	311
Square miles of deer range (last calculated in 2009):	91
Deer habitat in county (%):	29

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1140			552	586	2	0	436	531	135	29	4	3	1	1	0	0	0
2016	1047			509	533	5	0	391	482	131	30	7	5	1	0	0	0	0
2017	1002	35%	13%	511	486	5	0	350	474	137	30	10	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1324		565		4.78	63	759		57	2	1	133	535	
2006	1361		587		4.97	41	774		57	2	2	206	820	
2007	1530		581		4.93	58	949		62	3	6	198	781	
2008	1726		700		5.93	36	1026		59	3	10	247	972	
2009	1698		639		5.42		1059		62	4	12	240	947	
2010	1746	1.18	668	0.97	7.34		1078	1.18	62	4	14	196	779	-0.18
2011	1717	0.64	636	0.02	6.99	40	1081	0.84	63	8	10	221	885	0.27
2012	1925	2.77	584	-1.39	6.42		1341	5.53	70	8	7	214	864	-0.09
2013	1641	-1.31	540	-2.45	5.93		1101	-0.13	67	8	8	205	823	-0.88
2014	1592	-1.43	541	-1.42	5.95		1051	-0.69	66	8	3	207	833	-0.42
2015	1522	-1.58	592	-0.03	6.51		930	-1.68	61	8	6	220	888	1.25
2016	1436	-1.57	549	-0.74	6.03		887	-1.43	62	8	6	174	703	-5.28
2017	1389	-1.26	499	-2.50	5.46		890	-0.96	64	4	4	173	703	-1.67

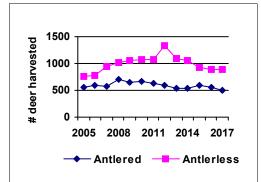


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

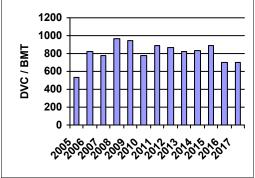


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	210	1.3:1 ± 0.2	
2015-2017	28	0.8:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	204	0.9:1 ± 0.1	
2015-2017	21	$0.5:1 \pm 0.2$	

### **COUNTY DEER DATA: STEUBEN**

Version: 8/23/2018

## County Statistics County number: 76 Total square miles: 322 Square miles of deer range (last calculated in 2009): 151 Deer habitat in county (%): 47

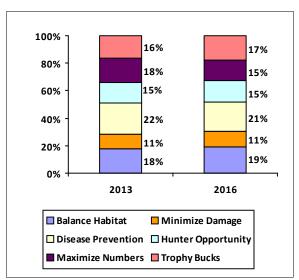


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

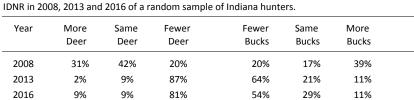


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	4%	11%	34%	14%	38%
2013	18%	18%	32%	16%	18%
2016	20%	17%	39%	11%	13%

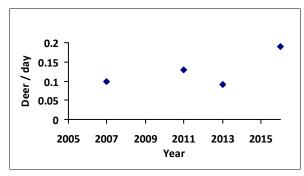


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	86	51.7%	37.9%
2016	103	39.8%	52.4%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	9%	56%	28%	5%	2%
	2013	6%	38%	5%	28%	24%
	2016	5%	50%	5%	24%	17%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	20	Public	40%	10%	30%	20%	0%
2018	133	Hunter	1%	2%	19%	49%	29%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	230	Hunter	0%	3%	3%	9%	26%	37%	22%	_
2018	20	Public	25%	15%	5%	25%	20%	10%	0%	

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	262	48%	39%	13%
2018	Public	20	0%	40%	60%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	18	67	9.9
2018	Hunter	133	53	4.6

## **COUNTY DEER DATA: STEUBEN**

<b>County Statistics</b>	
County number:	76
Total square miles:	322
Square miles of deer range (last calculated in 2009):	151
Deer habitat in county (%):	47

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1979			881	1095	3	0	817	906	220	32	4	0	0	0	0	0	0
2016	1875			785	1083	7	0	813	819	198	41	1	3	0	0	0	0	0
2017	1735	40%	9%	789	942	4	0	701	812	194	26	1	0	1	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	3429		1367		10.05	50	2062		60	2	6	519	758	
2006	3288		1187		8.72	46	2101		64	2	13	548	789	
2007	3754		1320		9.71		2434		65	3	11	547	779	
2008	3672		1214		8.93		2458		67	3	18	530	756	
2009	4102		1273		9.36		2829		69	8	11	499	708	
2010	3948	0.95	1389	1.57	9.20		2559	0.58	65	8	25	491	700	-1.88
2011	3532	-0.71	1227	-0.61	8.13		2305	-0.65	65	8	18	428	613	-3.29
2012	3076	-3.22	1005	-3.90	6.66		2071	-2.27	67	8	12	390	567	-2.26
2013	2652	-2.54	1006	-1.55	6.66		1646	-2.82	62	4	11	412	601	-0.88
2014	2498	-1.60	921	-1.52	6.10		1577	-1.55	63	4	10	401	589	-0.77
2015	2523	-1.02	1089	-0.11	7.21		1434	-1.42	57	3	8	384	569	-0.88
2016	2454	-0.91	1098	0.42	7.27		1356	-1.23	55	3	4	374	558	-1.50
2017	2265	-1.48	956	-0.94	6.35		1309	-1.11	58	2	3	430	645	3.84

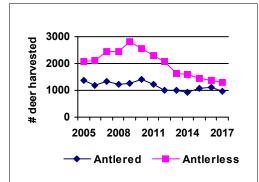


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

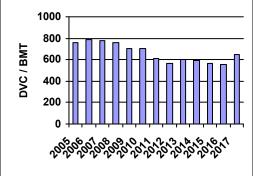


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	560	1.1:1 ± 0.1	
2015-2017	194	0.9:1 ± 0.2	
		Fawn: Doe Ratio	
2007-2014	479	0.8:1 ± 0.1	
2015-2017	224	1.2:1 ± 0.2	

### **COUNTY DEER DATA: SULLIVAN**

Version: 8/23/2018

## County Statistics County number: 77 Total square miles: 454 Square miles of deer range (last calculated in 2009): 143 Deer habitat in county (%): 32

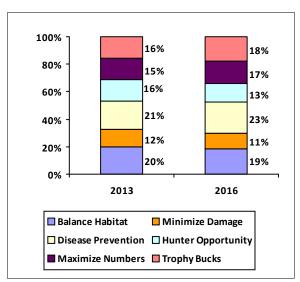


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Fewer Same More Year Deer Deer Deer **Bucks Bucks Bucks** 2008 31% 50% 9% 28% 44% 19% 2013 15% 15% 62% 46% 23% 19%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

60%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	4%	0%	29%	17%	50%	
2013	9%	7%	26%	22%	36%	
2016	17%	0%	42%	8%	33%	

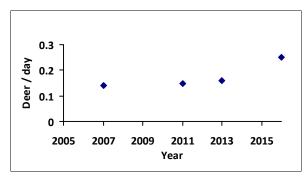


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

8%

28%

2016

Year	n	% Yes	% No
2013	51	71.2%	23.1%
2016	61	34.4%	37.7%
			-

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

40%

40%

10%

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	4%	68%	20%	4%	5%
	2013	6%	52%	8%	24%	10%
	2016	14%	46%	8%	25%	7%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Deer Population Population Too High High		Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	6	Public	33%	67%	0%	0%	0%
2018	87	Hunter	1%	17%	32%	37%	13%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ				
2018	Hunter	173	34%	42%	24%		
2018	Public	6	0%	33%	67%		

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	161	Hunter	1%	1%	4%	17%	39%	20%	17%
2018	6	Public	33%	0%	33%	33%	0%	0%	0%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	6	62	25.5
2018	Hunter	79	63	5.3

## **COUNTY DEER DATA: SULLIVAN**

County Statistics	
County number:	77
Total square miles:	454
Square miles of deer range (last calculated in 2009):	143
Deer habitat in county (%):	32

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1363			581	781	1	0	589	627	125	18	4	0	0	0	0	0	0
2016	1396			540	849	6	1	645	605	119	26	1	0	0	0	0	0	0
2017	1343	49%	12%	574	760	9	0	547	580	183	25	7	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1695		859		3.84	55	835		49	2	4	11	36	
2006	1497		670		2.99	38	828		55	2	4	34	108	
2007	1638		830		3.71	36	808		49	2	3	86	274	
2008	1648		745		3.33		904		55	3	6	64	205	
2009	1763		825		3.68		938		53	3	5	97	314	
2010	1859	2.16	832	0.60	5.82		1027	2.96	55	4	4	79	259	0.62
2011	1917	1.72	840	0.83	5.87		1077	1.99	56	4	4	86	286	0.68
2012	2065	2.41	748	-1.70	5.23	37	1317	3.47	64	4	7	78	261	-0.17
2013	1727	-0.78	702	-2.03	4.91		1025	-0.17	59	4	4	108	361	2.40
2014	1653	-1.59	690	-1.62	4.83		963	-0.79	58	4	2	109	367	1.66
2015	1716	-0.79	777	0.21	5.44		939	-1.04	55	3	4	96	325	0.34
2016	1789	-0.16	866	1.89	6.06		923	-0.93	52	3	6	113	386	1.42
2017	1841	0.32	779	0.32	5.43		1062	0.18	58	3	6	92	315	-0.50

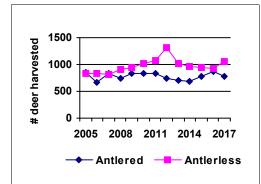


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

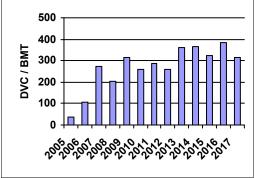


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014 2015-2017	91	1:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014 2015-2017	52	0.5:1 ± 0.1	

### **COUNTY DEER DATA: SWITZERLAND**

Version: 8/23/2018

## County Statistics County number: 78 Total square miles: 224 Square miles of deer range (last calculated in 2009): 191 Deer habitat in county (%): 85

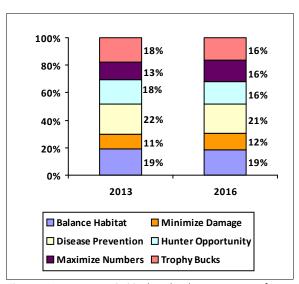


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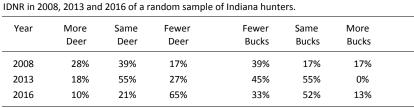


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	0%	4%	20%	32%	44%
2013	7%	7%	21%	29%	36%
2016	8%	8%	54%	0%	31%

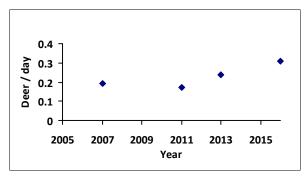


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

	Year	n	% Yes	% No
_	2013	50	72.5%	17.6%
	2016	123	55.3%	29.3%
-				

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	11%	49%	23%	14%	2%
	2013	10%	60%	8%	22%	0%
	2016	13%	56%	6%	22%	3%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	3	Public	100%	0%	0%	0%	0%
2018	51	Hunter	6%	16%	20%	43%	16%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

ble 7. Oniging of hunters and the general public shout how the deer population should shape quer the pout	_

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	166	53%	37%	10%
2018	Public	3	0%	0%	100%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	155	Hunter	3%	2%	2%	13%	31%	25%	25%	_
2018	3	Public	67%	33%	0%	0%	0%	0%	0%	

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
•	2018	Public	3	41	41.5
-	2018	Hunter	49	59	7.2

## **COUNTY DEER DATA: SWITZERLAND**

County Statistics	
County number:	78
Total square miles:	224
Square miles of deer range (last calculated in 2009):	191
Deer habitat in county (%):	85

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1959			908	1049	2	0	770	868	249	57	12	3	0	0	0	0	0
2016	1760			766	991	2	1	751	751	204	39	14	0	1	0	0	0	0
2017	1558	51%	15%	749	804	5	0	585	684	207	63	16	1	2	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	3136		1038		5.58	31	2098		67	8	22	29	311	
2006	2820		929		4.99	36	1892		67	8	19	41	427	
2007	3259		1027		5.52		2232		68	8	16	75	770	
2008	2955		917		4.93		2038		69	8	18	52	527	
2009	3221		1165		6.26		2056		64	8	13	73	736	
2010	3400	1.73	1204	1.88	6.30		2196	1.09	65	8	13	74	741	0.95
2011	3309	0.75	1148	0.75	6.01	18	2161	0.57	65	8	16	49	486	-1.01
2012	3506	1.66	1135	0.36	5.94		2371	2.73	68	8	14	41	408	-1.82
2013	3091	-0.89	931	-1.62	4.87		2160	-0.03	70	8	9	46	457	-0.81
2014	2719	-3.67	904	-1.99	4.73		1815	-3.26	67	8	6	22	219	-2.16
2015	2653	-1.77	1065	0.00	5.60		1588	-2.74	60	4	8	46	459	-0.02
2016	2336	-1.95	1005	-0.28	5.26		1331	-2.20	57	4	8	26	259	-1.36
2017	2198	-1.48	821	-1.97	4.31		1377	-1.13	63	4	5	22	217	-1.26

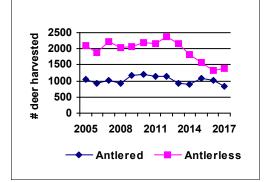


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

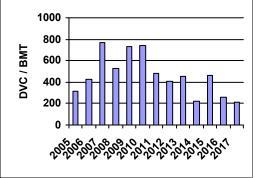


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	427	1:1 ± 0.1	
2015-2017	216	1.2:1 ± 0.2	
		Fawn: Doe Ratio	
2007-2014	400	0.8:1 ± 0.1	
2015-2017	138	$0.5:1 \pm 0.1$	

## **COUNTY DEER DATA: TIPPECANOE**

Version: 8/23/2018

## County Statistics County number: 79 Total square miles: 503 Square miles of deer range (last calculated in 2009): 103 Deer habitat in county (%): 20

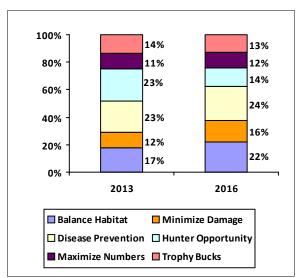


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

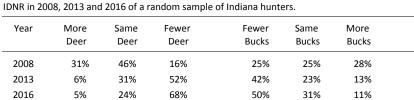


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	2%	2%	19%	33%	44%
2013	6%	1%	40%	22%	31%
2016	3%	13%	47%	22%	15%

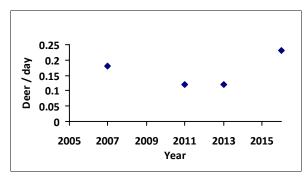


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	34	80.0%	11.4%
2016	44	59.1%	20.5%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	10%	45%	35%	6%	3%
	2013	9%	53%	9%	24%	6%
	2016	12%	58%	5%	21%	5%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	56	Public	5%	16%	55%	23%	0%
2018	247	Hunter	0%	7%	32%	40%	21%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

year pe	ear period from 2018 to 2022 from annual deer management Survey (began in 2016).												
Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably				
2018	150	Hunter	1%	2%	4%	17%	26%	27%	22%	_			
2018	54	Public	7%	7%	13%	39%	22%	11%	0%				

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	294	37%	41%	22%
2018	Public	54	17%	56%	28%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	43	75	5.6
2018	Hunter	262	63	3.0

## **COUNTY DEER DATA: TIPPECANOE**

County Statistics	
County number:	79
Total square miles:	503
Square miles of deer range (last calculated in 2009):	103
Deer habitat in county (%):	20

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	720			350	369	1	0	272	351	79	16	2	0	0	0	0	0	0
2016	722			289	429	2	2	336	320	58	6	2	0	0	0	0	0	0
2017	584	30%	9%	268	312	4	0	243	264	63	10	4	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1184		587		4.89	46	597		50	4	4	311	211	
2006	1232		556		4.63	53	676		55	4	0	369	246	
2007	1339		613		5.11	50	726		54	8	2	408	267	
2008	1167		521		4.34		646		55	8	0	411	268	
2009	1400		601		5.01		799		57	8	2	409	264	
2010	1377	1.11	622	1.24	6.04		755	0.86	55	8	2	389	251	-0.02
2011	1285	-0.18	600	0.41	5.83		685	-0.58	53	8	2	364	235	-2.35
2012	1458	1.56	474	-2.91	4.60		984	4.40	67	8	3	323	212	-3.24
2013	1277	-0.53	428	-2.15	4.16		849	0.57	66	8	3	354	235	-0.49
2014	1152	-2.68	427	-1.34	4.15		725	-0.80	63	4	9	313	207	-1.66
2015	912	-3.45	365	-1.54	3.55		547	-2.11	60	4	3	317	208	-1.08
2016	901	-1.56	439	-0.23	4.26		462	-1.78	51	3	3	283	184	-2.41
2017	761	-1.58	322	-2.66	3.11		439	-1.28	58	3	2	312	202	-0.39

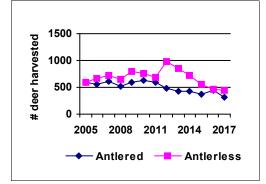


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

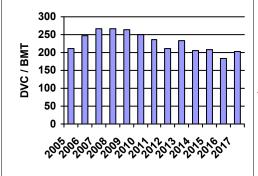


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	124	1.2:1 ± 0.3	
2015-2017	20	1.2:1 ± 0.5	
		Fawn: Doe Ratio	
2007-2014	74	0.4:1 ± 0.1	
2015-2017	9	0.3:1 ± 0.2	

## **COUNTY DEER DATA: TIPTON**

Version: 8/23/2018

## County Statistics County number: 80 Total square miles: 260 Square miles of deer range (last calculated in 2009): 9 Deer habitat in county (%): 3

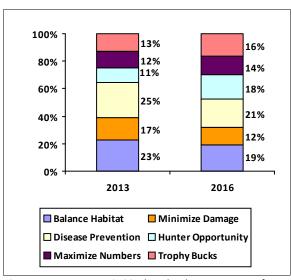


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

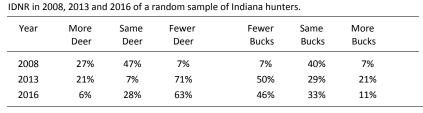


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	0%	34%	30%	36%	
2013	5%	7%	44%	16%	27%	
2016	3%	6%	55%	21%	15%	

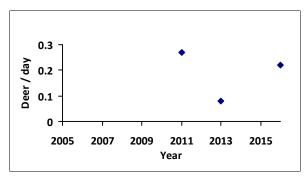


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	6	85.7%	14.3%
2016	21	52.4%	42.9%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	0%	50%	50%	0%	0%
-	2013	0%	83%	0%	17%	0%
	2016	0%	55%	0%	40%	5%

Table 6. In the annual deer management survey,

Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are

Opinion Sample Decrease Same Increase

CBAQ

CBAQ

CBAQ

37% 17%

hunters were asked how the County Bonus

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	6	Public	0%	0%	67%	33%	0%
2018	24	Hunter	0%	0%	21%	42%	38%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

2018	Hunter	43	21%	42
2018	Public	6	0%	83

size

repoted as CBAQ.

Type

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	
2018	22	Hunter	9%	0%	0%	9%	14%	32%	36%	_
2018	6	Public	0%	0%	0%	33%	50%	0%	17%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	6	80	10.1
2018	Hunter	30	54	10.6

## **COUNTY DEER DATA: TIPTON**

Version: 8/23/2018

<b>County Statistics</b>		
County number:	80	
Total square miles:	260	
Square miles of deer range (last calculated in 2009):	9	
Deer habitat in county (%):	3	

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success	0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	101		36	65	0	0	54	45	2	0	0	0	0	0	0	0	0
2016	99		70	0	0	0	56	41	2	0	0	0	0	0	0	0	0
2017	71		23	48	0	0	44	25	2	0	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	83		65		9.31		18		22	0	0	4	13	
2006	82		48		6.92		34		41	0	0	41	132	
2007	136		78		11.19		58		43	Α	0	61	195	
2008	130		68		9.71		62		48	Α	0	54	174	
2009	96		54		7.71		42		44	Α	0	59	190	
2010	125	0.75	73	0.87	8.11		52	0.51	42	Α	3	32	105	-0.47
2011	90	-1.02	43	-1.68	4.78		47	-0.22	52	Α	2	40	135	-0.63
2012	100	-0.74	54	-0.64	6.00		46	-0.77	46	Α	1	30	103	-1.47
2013	91	-0.95	54	-0.37	6.00		37	-1.66	41	Α	1	46	159	0.44
2014	120	1.37	71	1.42	7.89		49	0.75	41	Α	2	41	143	0.12
2015	114	0.54	65	0.47	7.22		49	0.50	43	Α	1	34	120	-0.38
2016	115	0.89	70	1.16	7.78		45	-0.12	39	Α	1	37	132	0.02
2017	77	-2.57	48	-1.77	5.53		29	-3.29	38	Α	2	42	152	0.97

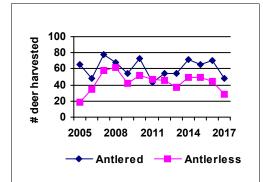


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

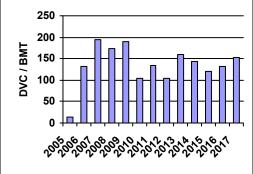


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	93	1:1 ± 0.2	
2015-2017	32	0.7:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	96	1:1 ± 0.2	
2015-2017	26	1:1 ± 0.4	

## **COUNTY DEER DATA: UNION**

Version: 8/23/2018

## County Statistics County number: 81 Total square miles: 163 Square miles of deer range (last calculated in 2009): 47 Deer habitat in county (%): 28

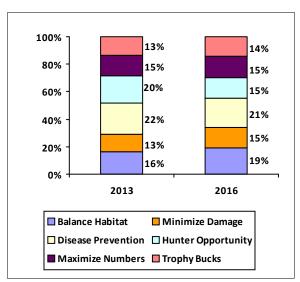


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year More Same Fewer Fewer Same More

Door Door Bucks Bucks Bucks Bucks

Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2008	13%	33%	47%	40%	13%	27%	
2013	10%	10%	80%	30%	40%	0%	
2016	16%	23%	58%	35%	39%	16%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	0%	0%	29%	38%	33%
2013	0%	10%	33%	19%	38%
2016	0%	15%	23%	31%	31%

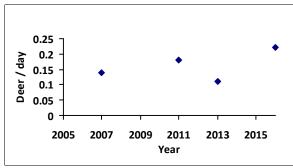


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	14	40.0%	53.3%
2016	35	60.0%	37.1%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	4%	54%	29%	11%	4%
	2013	7%	40%	7%	20%	27%
	2016	3%	56%	17%	19%	6%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	1	Public	0%	0%	0%	100%	0%
2018	35	Hunter	0%	14%	31%	34%	20%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5
year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	55	Hunter	2%	0%	5%	16%	31%	24%	22%
2018	1	Public	0%	0%	0%	0%	0%	100%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	61	38%	41%	21%
2018	Public	1	0%	100%	0%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	1	93	
-	2018	Hunter	31	59	10.0

# **COUNTY DEER DATA: UNION**

County Statistics	
County number:	81
Total square miles:	163
Square miles of deer range (last calculated in 2009):	47
Deer habitat in county (%):	28

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	485			216	268	1	0	200	228	48	9	0	0	0	0	0	0	0
2016	469			253	1	0	0	189	213	52	14	1	0	0	0	0	0	0
2017	473	20%	16%	247	225	1	0	165	238	58	10	2	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	526		262		3.85	43	264		50	2	0	45	515	
2006	485		190		2.79	38	296		61	2	0	49	557	
2007	551		212		3.12	44	339		62	2	1	68	767	
2008	521		226		3.32		295		57	2	0	66	747	
2009	572		242		3.56		330		58	2	3	37	420	
2010	644	3.44	248	0.78	5.28		396	3.03	61	3	0	41	466	-0.90
2011	593	0.64	233	0.40	4.96		360	0.70	61	3	0	42	478	-0.71
2012	527	-1.06	172	-4.29	3.66		355	0.29	67	3	1	18	209	-2.19
2013	514	-1.13	198	-0.86	4.21		316	-0.83	61	3	1	15	176	-1.50
2014	523	-0.90	196	-0.70	4.17		327	-0.79	63	3	0	17	202	-1.01
2015	621	1.08	270	1.98	5.74		351	0.01	57	3	0	21	251	-0.36
2016	618	1.30	256	1.10	5.45		362	1.05	59	3	0	9	109	-1.25
2017	629	1.27	232	0.32	4.93		397	2.78	63	3	0	6	74	-2.20

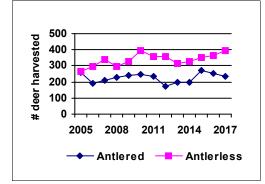


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

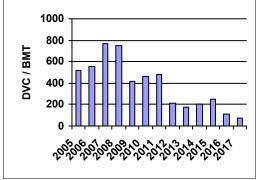


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	26	1:1 ± 0.4	
2015-2017			
		Fawn: Doe Ratio	
2007-2014	21	0.3:1 ± 0.1	
2015-2017	3	0.3:1 ± 0.2	

### **COUNTY DEER DATA: VANDERBURGH**

Version: 8/23/2018

# County Statistics County number: 82 Total square miles: 235 Square miles of deer range (last calculated in 2009): 70 Deer habitat in county (%): 30

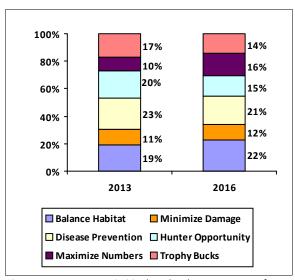


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

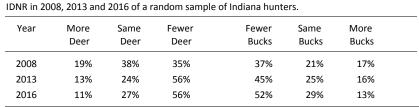


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	0%	7%	45%	24%	24%	
2013	9%	15%	43%	11%	23%	
2016	11%	9%	42%	13%	25%	

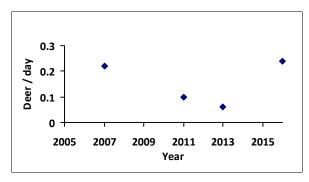


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	19	65.0%	20.0%
2016	20	55.0%	40.0%
-			

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	17%	44%	22%	11%	6%
	2013	0%	63%	0%	21%	16%
	2016	5%	55%	5%	25%	10%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	43	Public	14%	28%	47%	12%	0%
2018	234	Hunter	1%	6%	34%	41%	18%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	227	33%	44%	23%
2018	Public	41	15%	46%	39%

respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Table 8. In the deer management survey,

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	62	Hunter	0%	3%	3%	24%	24%	31%	15%
2018	41	Public	12%	10%	15%	39%	20%	5%	0%

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	37	73	6.7
_	2018	Hunter	236	61	3.4

year period from 2018 to 2022 from annual deer management survey (began in 2018).

# **COUNTY DEER DATA: VANDERBURGH**

County Statistics	
County number:	82
Total square miles:	235
Square miles of deer range (last calculated in 2009):	70
Deer habitat in county (%):	30

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	627			346	274	7	0	150	378	73	16	9	0	1	0	0	0	0
2016	555			309	237	9	0	148	324	58	19	5	1	0	0	0	0	0
2017	539	48%	20%	317	216	6	0	121	321	72	17	6	1	1	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	807		379		4.07		428		53	8	3	133	86	
2006	854		353		3.75		501		58	8	5	78	50	
2007	725		317		3.41		408		56	8	3	157	99	
2008	775		300		3.23		475		61	8	3	157	99	
2009	767		347		3.73		420		55	8	0	194	122	
2010	763	-0.47	322	-0.56	4.60		441	-0.13	58	8	1	197	121	1.11
2011	770	-0.14	340	0.55	4.86		430	-0.49	56	8	2	226	140	1.42
2012	966	10.27	255	-3.75	3.64		711	10.78	74	8	0	196	118	0.11
2013	957	1.68	279	-0.91	3.99		678	1.49	71	8	4	192	113	-0.48
2014	990	1.36	282	-0.67	4.03		708	1.18	72	8	4	196	114	-0.82
2015	901	0.10	289	-0.19	4.13		612	0.13	68	8	4	210	121	-0.04
2016	777	-1.58	258	-0.99	3.69		519	-0.93	67	8	4	158	88	-3.05
2017	782	-1.59	228	-2.94	3.25		554	-1.13	71	4	3	185	100	-0.84

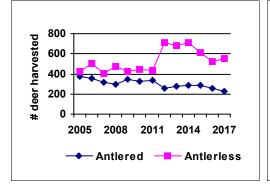


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

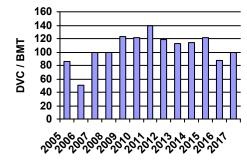


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	115	0.6:1 ± 0.2	
2015-2017	54	0.5:1 ± 0.3	
		Fawn: Doe Ratio	
2007-2014	56	0.6:1 ± 0.2	
2015-2017	19	0.7:1 ± 0.3	

### **COUNTY DEER DATA: VERMILLION**

Version: 8/23/2018

### **County Statistics** County number: 83 Total square miles: 259 Square miles of deer range (last 89 calculated in 2009): Deer habitat in county (%): 34

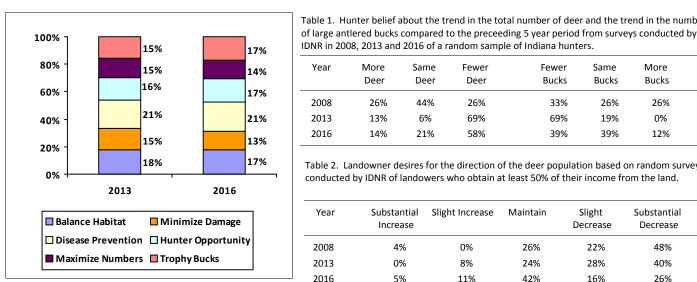


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

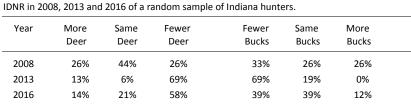


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	4%	0%	26%	22%	48%	
2013	0%	8%	24%	28%	40%	
2016	5%	11%	42%	16%	26%	

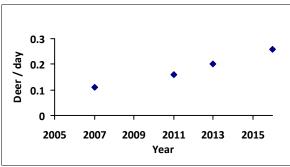


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	25	65.4%	26.9%
2016	69	62.3%	30.4%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	3 15%	52%	15%	15%	3%
2013	15%	46%	8%	23%	8%
2016	9%	57%	3%	28%	3%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	5	Public	0%	20%	60%	20%	0%
2018	55	Hunter	2%	7%	33%	42%	16%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	83	45%	43%	12%
2018	Public	5	0%	60%	40%

Table 8. In the deer management survey,

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

(excellent).
management of deer on a scale of 0 (poor) to 100
respondents were asked to rate now DNR's

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	_ ,
2018	70	Hunter	1%	1%	6%	17%	31%	24%	19%	_
2018	5	Public	0%	0%	40%	0%	40%	20%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	4	73	21.0
2018	Hunter	51	68	7.7

# **COUNTY DEER DATA: VERMILLION**

County Statistics	
County number:	83
Total square miles:	259
Square miles of deer range (last calculated in 2009):	89
Deer habitat in county (%):	34

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	772			276	493	3	0	342	309	86	28	6	1	0	0	0	0	0
2016	790			276	512	2	0	360	304	102	15	9	0	0	0	0	0	0
2017	776	46%	15%	292	480	4	0	331	328	92	13	11	0	1	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	931		419		3.62		511		55	3	2	61	209	
2006	957		396		3.42		561		59	4	0	81	276	
2007	1000		457		3.82		543		54	4	2	83	282	
2008	1125		508		4.38		617		55	8	1	86	294	
2009	1134		476		4.10		658		58	8	5	96	330	
2010	1175	1.54	503	1.16	5.65		656	1.32	56	8	3	59	204	-1.69
2011	1222	1.53	502	0.75	5.64		720	2.12	59	8	4	54	188	-1.95
2012	1265	1.62	458	-1.42	5.15		807	2.59	64	8	8	86	303	0.72
2013	988	-3.31	380	-5.08	4.27		608	-1.13	62	8	7	77	273	0.15
2014	943	-2.01	404	-1.18	4.54		539	-1.97	57	4	5	64	230	-0.48
2015	1093	-0.18	502	0.94	5.64		591	-0.73	54	4	1	73	266	0.55
2016	1105	0.02	519	1.25	5.83		586	-0.62	53	4	3	61	226	-0.58
2017	1092	0.11	490	0.62	5.49		602	-0.23	55	4	4	70	264	0.12

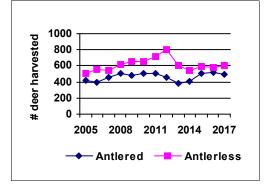


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

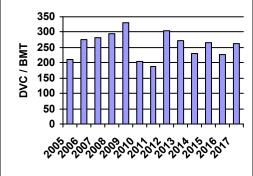


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	285	2:1 ± 0.2	
2015-2017	45	1.1:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	204	$0.5:1 \pm 0.1$	
2007-2014 2015-2017	204 32	$0.5:1 \pm 0.1$ $0.7:1 \pm 0.2$	

### **COUNTY DEER DATA: VIGO**

Version: 8/23/2018

# County Statistics County number: 84 Total square miles: 410 Square miles of deer range (last calculated in 2009): 154 Deer habitat in county (%): 37

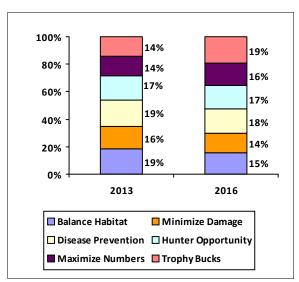


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year More Same Fewer Fewer Same More

Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2008	36%	30%	23%	28%	24%	28%	
2013	16%	40%	40%	40%	37%	14%	
2016	18%	33%	41%	38%	28%	13%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	3%	5%	49%	22%	22%
2013	7%	3%	37%	29%	24%
2016	0%	11%	22%	33%	33%

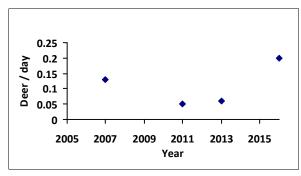


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

deer management survey (began in 2018).

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	45	76.1%	19.6%
2016	30	66.7%	23.3%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

 Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	25%	47%	23%	2%	4%
2013	0%	64%	9%	22%	4%
2016	7%	62%	10%	7%	14%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	27	Public	7%	26%	48%	19%	0%
2018	164	Hunter	1%	9%	38%	38%	15%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

repoted as CBAQ.										
Year			Decrease CBAQ							
2018	Hunter	195	33%	50%	17%					

Table 6. In the annual deer management survey,

Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are

hunters were asked how the County Bonus

26

2018 Public

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

15%

62%

23%

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	138	Hunter	2%	6%	4%	22%	25%	22%	20%
2018	26	Public	8%	8%	23%	38%	19%	0%	4%

-	Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
	2018	Public	23	74	9.2
-	2018	Hunter	172	66	3.7

# **COUNTY DEER DATA: VIGO**

County Statistics	
County number:	84
Total square miles:	410
Square miles of deer range (last calculated in 2009):	154
Deer habitat in county (%):	37

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1139			503	634	2	0	492	455	147	23	13	5	2	1	1	0	0
2016	1181			484	693	4	0	525	502	120	25	7	2	0	0	0	0	0
2017	1187	34%	10%	520	659	6	2	505	489	158	27	6	1	1	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1381		677		3.24		704		51	3	2	317	262	
2006	1406		602		2.88		804		57	4	2	295	241	
2007	1349		659		3.15		690		51	4	4	328	266	
2008	1462		640		3.06		821		56	8	1	277	224	
2009	1432		622		2.98		810		57	8	2	269	218	
2010	1459	1.21	609	-1.05	3.95		850	1.33	58	8	2	244	199	-2.01
2011	1507	1.84	625	-0.06	4.06		882	1.42	59	8	0	243	199	-1.22
2012	1609	2.87	603	-1.46	3.92		1006	2.68	63	8	1	205	168	-1.93
2013	1432	-0.89	617	-0.19	4.01		815	-0.74	57	8	6	215	177	-1.09
2014	1334	-2.07	602	-1.45	3.91		732	-1.76	55	8	3	219	181	-0.54
2015	1559	0.90	640	2.95	4.20		919	0.62	59	8	3	226	187	0.20
2016	1556	0.63	708	5.69	4.60		848	-0.22	54	8	1	237	196	1.16
2017	1612	1.01	686	1.18	4.46		926	0.60	57	4	2	222	182	0.05

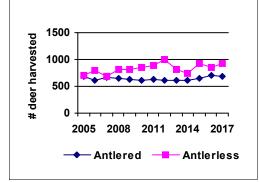


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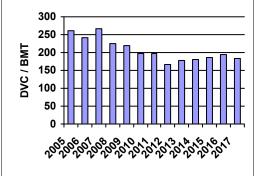


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	323	1.4:1 ± 0.2	
2015-2017	89	1.3:1 ± 0.4	
		Fawn: Doe Ratio	
		Tawn: Boc natio	
2007-2014	250	0.5:1 ± 0.1	
2007-2014 2015-2017	250 84		

### **COUNTY DEER DATA: WABASH**

Version: 8/23/2018

# County Statistics County number: 85 Total square miles: 422 Square miles of deer range (last calculated in 2009): 69 Deer habitat in county (%): 16

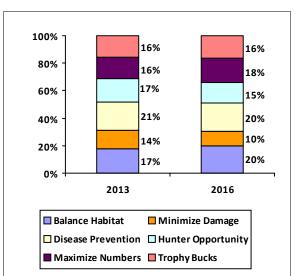


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

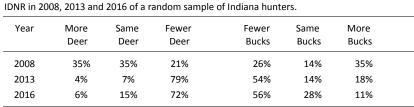


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	3%	8%	33%	31%	25%	
2013	8%	10%	32%	16%	34%	
2016	3%	9%	54%	17%	17%	

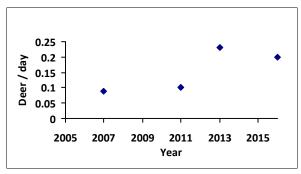


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	55	71.4%	21.4%
2016	71	36.6%	54.9%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

_						
	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	12%	57%	18%	9%	3%
, -	2013	9%	49%	7%	20%	15%
	2016	6%	34%	4%	29%	27%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	9	Public	0%	44%	44%	11%	0%
2018	113	Hunter	0%	4%	16%	43%	37%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	194	59%	30%	11%
2018	Public	8	13%	38%	50%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	_
2018	160	Hunter	4%	1%	4%	8%	23%	31%	30%	_
2018	8	Public	13%	25%	25%	25%	13%	0%	0%	

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	6	78	15.2
2018	Hunter	114	55	5.2

# **COUNTY DEER DATA: WABASH**

County Statistics	
County number:	85
Total square miles:	422
Square miles of deer range (last calculated in 2009):	69
Deer habitat in county (%):	16

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1050			457	589	4	0	442	502	89	15	2	0	0	0	0	0	0
2016	1019			401	616	2	0	502	432	72	11	2	0	0	0	0	0	0
2017	888	20%	8%	409	476	3	0	373	428	79	7	1	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1384		601		5.89		784		57	1	6	219	506	
2006	1362		624		6.11		738		54	1	1	226	515	
2007	1717		702		6.88		1016		59	2	3	242	546	
2008	1752		727		7.13		1025		59	2	8	269	615	
2009	1742		670		6.57		1072		62	3	6	256	588	
2010	1793	1.01	743	1.49	10.77		1050	0.80	59	3	5	245	574	0.42
2011	1798	0.71	701	0.17	10.16		1097	0.85	61	4	5	254	609	1.06
2012	1700	-1.76	533	-6.29	7.72		1167	3.44	69	4	4	192	475	-3.96
2013	1185	-14.22	454	-2.63	6.58		731	-6.46	62	3	3	213	542	-0.53
2014	1337	-1.18	550	-0.58	7.97		787	-1.40	59	3	3	223	586	0.54
2015	1329	-0.82	598	0.01	8.67		731	-1.21	55	3	5	208	563	0.11
2016	1237	-0.88	621	0.59	9.00		616	-1.35	50	3	1	190	530	-0.48
2017	1110	-1.23	484	-1.04	6.99		626	-0.86	56	2	1	177	507	-0.77

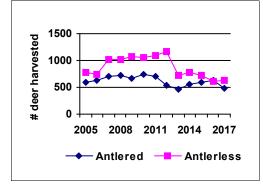


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

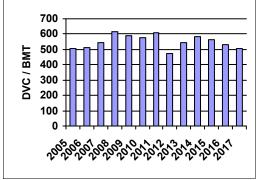


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	96	0.9:1 ± 0.2	
2015-2017	33	1.5:1 ± 0.8	
		Fawn: Doe Ratio	
2007-2014	111	0.7:1 ± 0.1	
2015-2017	25	0.4:1 ± 0.2	

### **COUNTY DEER DATA: WARREN**

Version: 8/23/2018

# County Statistics County number: 86 Total square miles: 366 Square miles of deer range (last calculated in 2009): 85 Deer habitat in county (%): 23

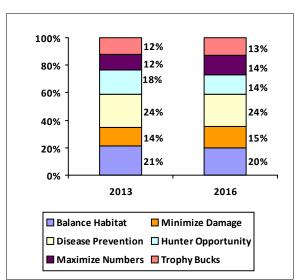


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

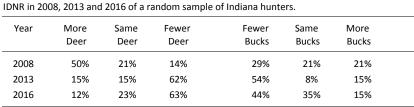


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	6%	6%	18%	21%	50%
2013	5%	7%	20%	29%	39%
2016	5%	5%	43%	29%	19%

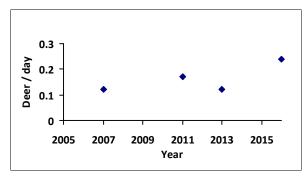


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	30	71.0%	19.4%
2016	73	61.6%	30.1%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	18%	44%	21%	18%	0%
	2013	10%	50%	10%	23%	7%
	2016	1%	60%	1%	24%	14%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	6	Public	33%	17%	33%	17%	0%
2018	51	Hunter	2%	4%	24%	43%	27%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	129	Hunter	2%	2%	4%	9%	26%	31%	26%
2018	6	Public	17%	33%	17%	0%	33%	0%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	141	43%	47%	11%
2018	Public	6	0%	50%	50%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	5	58	30.3
2018	Hunter	51	61	7.9

# **COUNTY DEER DATA: WARREN**

County Statistics	
County number:	86
Total square miles:	366
Square miles of deer range (last calculated in 2009):	85
Deer habitat in county (%):	23

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	830			381	448	1	0	324	382	93	28	3	0	0	0	0	0	0
2016	775			307	468	0	0	339	315	97	21	3	0	0	0	0	0	0
2017	627	28%	12%	254	371	2	0	284	260	76	7	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1056		411		2.48	51	645		61	4	0	96	530	
2006	1020		427		2.57	46	593		58	4	1	75	406	
2007	1106		477		2.87	39	630		57	4	2	73	390	
2008	1284		533		3.21		751		58	4	2	90	482	
2009	1212		463		2.79		749		62	8	2	101	540	
2010	1302	1.51	535	1.53	6.29		767	1.29	59	8	5	83	447	-0.33
2011	1271	0.72	515	0.60	6.06		756	0.72	59	8	6	90	493	0.66
2012	1500	3.33	493	-0.35	5.80		1007	4.88	67	8	6	112	622	2.72
2013	1251	-0.57	415	-3.07	4.88		836	0.27	67	8	3	113	620	1.52
2014	1060	-2.20	427	-1.22	5.02		633	-1.75	60	4	6	106	588	0.56
2015	1114	-1.04	450	-0.51	5.30		664	-0.99	60	4	1	96	541	-0.16
2016	1052	-1.09	472	0.28	5.55		580	-1.33	55	4	1	92	531	-0.74
2017	813	-2.03	376	-2.36	4.41		437	-1.75	54	3	0	87	514	-1.55

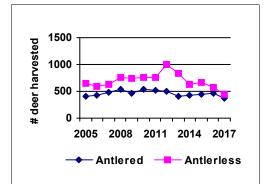


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

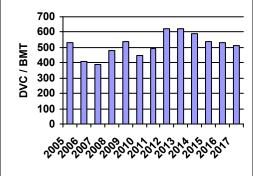


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Years	n	Doe: Buck Ratio			
2007-2014	58	1.6:1 ± 0.5			
2015-2017	27	$0.8:1 \pm 0.4$			
_		Fawn: Doe Ratio			
2007-2014	48	0.7:1 ± 0.2			
2015-2017	14	0.8:1 ± 0.6			
2015-2017	14	0.8:1 ± 0.6			

### **COUNTY DEER DATA: WARRICK**

Version: 8/23/2018

### **County Statistics** County number: 87 Total square miles: 390 Square miles of deer range (last 181 calculated in 2009): Deer habitat in county (%): 46

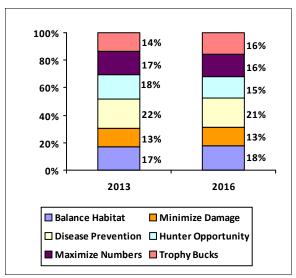


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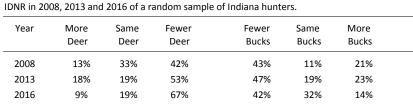


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Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	4%	11%	34%	15%	36%	
2013	9%	6%	46%	17%	23%	
2016	5%	24%	40%	17%	14%	
		***				

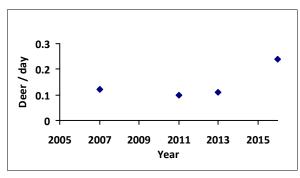


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No		
2013	71	68.1%	18.1%		
2016	48	33.3%	56.3%		

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
2008	6%	36%	27%	16%	16%
2013	7%	46%	4%	23%	19%
2016	13%	26%	11%	34%	17%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	17	Public	0%	47%	29%	24%	0%
2018	180	Hunter	0%	7%	27%	43%	23%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5
year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	161	Hunter	2%	2%	8%	7%	32%	27%	21%
2018	17	Public	0%	18%	29%	29%	18%	6%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	233	45%	36%	20%
2018	Public	17	29%	24%	47%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	15	73	10.7
2018	Hunter	170	60	3.9

# **COUNTY DEER DATA: WARRICK**

<b>County Statistics</b>	
County number:	87
Total square miles:	390
Square miles of deer range (last calculated in 2009):	181
Deer habitat in county (%):	46

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	1154			471	680	3	0	556	493	90	14	1	0	0	0	0	0	0
2016	1084			417	664	3	0	494	474	104	10	1	1	0	0	0	0	0
2017	1021	32%	10%	448	572	1	0	457	456	95	12	1	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1541		702		3.17		839		54	2	7	209	355	
2006	1627		745		3.33		882		54	2	7	251	421	
2007	1325		490		2.22		835		63	4	9	275	457	
2008	1526		666		3.01		860		56	4	9	253	415	
2009	1410		628		2.84		782		55	4	6	246	403	
2010	1468	-0.15	654	0.08	3.61		814	-0.69	55	4	7	257	414	0.11
2011	1355	-1.01	568	-0.74	3.14	47	787	-1.22	58	4	9	256	415	-0.35
2012	1689	3.32	628	0.37	3.47	36	1061	7.48	63	4	7	245	391	-1.43
2013	1538	0.38	721	2.44	3.98		817	-0.38	53	3	7	243	379	-2.66
2014	1451	-0.32	660	0.37	3.65		791	-0.52	55	3	6	241	374	-1.74
2015	1404	-0.78	686	0.72	3.80		718	-1.17	51	3	5	241	367	-1.42
2016	1391	-0.73	671	0.32	3.71		720	-0.87	52	3	6	231	342	-2.31
2017	1271	-1.82	579	-2.76	3.19		692	-0.92	54	2	5	269	385	0.81

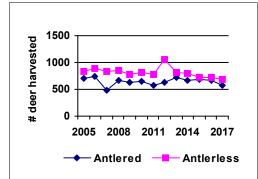


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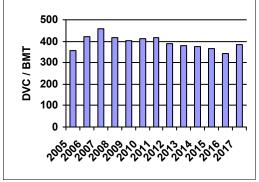


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	60	1:1 ± 0.3	
2015-2017	16	1:1 ± 0.9	
		Fawn: Doe Ratio	
2007-2014	58	0.7:1 ± 0.2	
2015-2017	2	$0.3:1 \pm 0.4$	

### **COUNTY DEER DATA: WASHINGTON**

Version: 8/23/2018

# County Statistics County number: 88 Total square miles: 513 Square miles of deer range (last calculated in 2009): 367 Deer habitat in county (%): 70

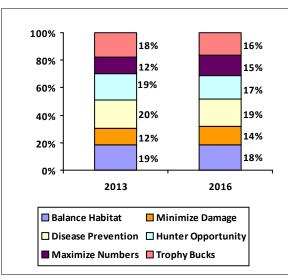


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

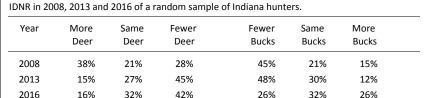


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	4%	4%	17%	23%	53%	
2013	12%	0%	22%	15%	51%	
2016	3%	3%	19%	32%	42%	

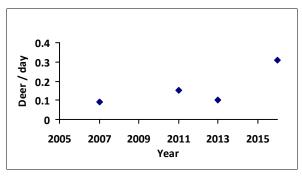


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	82	74.7%	18.1%
2016	106	61.3%	24.5%

11%

0%

11%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	13%	46%	35%	6%	0%
	2013	12%	53%	12%	17%	6%
	2016	18%	53%	3%	18%	8%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	9	Public	11%	33%	22%	33%	0%
2018	115	Hunter	1%	3%	23%	43%	29%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

year pe	/ear period from 2018 to 2022 from annual deer management survey (began in 2018).												
Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably				
2018	223	Hunter	2%	1%	2%	19%	28%	26%	22%				

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type		Decrease CBAQ		
2018	Hunter	246	50%	43%	7%
2018	Public	9	33%	22%	44%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	9	89	7.1
2018	Hunter	110	56	5.2

2018

**Public** 

# **COUNTY DEER DATA: WASHINGTON**

County Statistics	
County number:	88
Total square miles:	513
Square miles of deer range (last calculated in 2009):	367
Deer habitat in county (%):	70

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success	95% CI	0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	2028			926	1099	3	0	783	881	255	73	16	10	8	1	1	0	0
2016	1877			800	1074	2	1	798	763	230	56	19	7	2	2	0	0	0
2017	1800	35%	10%	801	993	5	1	742	737	228	60	17	9	5	0	2	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	2608		979		2.52		1629		62	8	17	209	692	
2006	2882		1054		2.70		1827		63	8	31	271	884	
2007	2414		925		2.38	18	1489		62	8	18	226	728	
2008	2517		911		2.35		1606		64	8	14	181	588	
2009	2626		1032		2.66		1594		61	8	18	206	671	
2010	2773	0.94	1051	1.12	2.86		1722	0.76	62	8	17	209	691	-0.20
2011	2605	-0.20	953	-0.59	2.60		1652	0.03	63	8	15	193	649	-0.58
2012	2894	2.30	958	-0.26	2.61		1936	3.79	67	8	18	169	574	-1.76
2013	3129	2.98	1085	1.78	2.96		2044	2.44	65	8	21	218	729	1.84
2014	2788	-0.08	988	-0.48	2.69		1800	0.05	65	8	11	195	653	-0.17
2015	2891	0.28	1108	1.73	3.02		1783	-0.30	62	8	20	185	626	-0.57
2016	2609	-1.33	1085	0.91	2.96		1524	-2.12	58	8	22	192	654	0.14
2017	2556	-1.62	1011	-0.50	2.76		1545	-1.39	60	8	17	171	587	-1.06

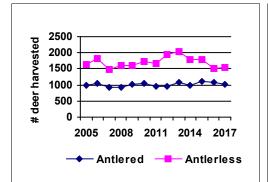


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

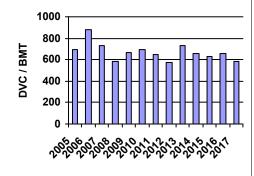


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	180	1.2:1 ± 0.2	
2015-2017	55	1:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	162	0.6:1 ± 0.1	
2015-2017	50	$0.7:1 \pm 0.2$	
2013 2017	30	0.7.1 ± 0.2	

### **COUNTY DEER DATA: WAYNE**

Version: 8/23/2018

# County Statistics County number: 89 Total square miles: 403 Square miles of deer range (last calculated in 2009): 116 Deer habitat in county (%): 28

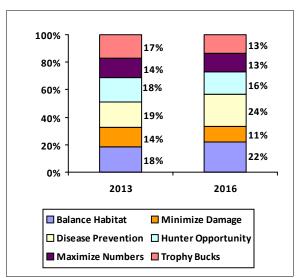


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antlered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters. More Same Fewer Fewer Same More Year Deer Deer Deer **Bucks Bucks Bucks** 2008 17% 39% 35% 39% 20% 11% 2013 33% 25% 33% 42% 25% 17%

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

56%

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	1%	4%	43%	19%	32%
2013	3%	15%	36%	24%	22%
2016	4%	9%	44%	24%	20%

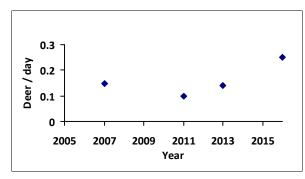


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

13%

25%

2016

Year	n	% Yes	% No		
2013	41	69.0%	14.3%		
2016	44	52.3%	29.5%		

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

35%

33%

21%

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	13%	40%	33%	8%	6%
	2013	10%	62%	14%	12%	2%
	2016	12%	63%	7%	9%	9%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low	
2018	20	Public	5%	35%	40%	15%	5%	
2018	115	Hunter	0%	10%	28%	44%	18%	

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Table 6. In the annual deer management survey,
hunters were asked how the County Bonus
Antlerless Quotas (CBAQs) should change while the
public were asked how the number of does
allowed to be harvested should change. Both are
repoted as CBAO.

Year	Opinion Type	•	Decrease CBAQ				
2018	Hunter	168	37%	40%	23%		
2018	Public	19	5%	32%	63%		

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	132	Hunter	3%	2%	4%	14%	36%	23%	18%
2018	19	Public	5%	5%	32%	26%	16%	5%	11%

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	18	74	12.7
2018	Hunter	125	64	4.5

# **COUNTY DEER DATA: WAYNE**

<b>County Statistics</b>	
County number:	89
Total square miles:	403
Square miles of deer range (last calculated in 2009):	116
Deer habitat in county (%):	28

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	914			422	490	1	1	380	444	82	6	2	0	0	0	0	0	0
2016	888			376	510	2	0	398	393	81	15	0	1	0	0	0	0	0
2017	804	41%	10%	386	416	2	0	295	389	110	10	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	951		453		3.24	33	498		52	2	1	200	172	
2006	943		436		3.11	39	507		54	3	1	218	187	
2007	991		437		3.12		554		56	3	4	233	201	
2008	901		385		2.75		516		57	3	3	199	177	
2009	1117		482		3.44		635		57	3	5	210	189	
2010	1143	1.96	508	1.97	4.38		635	1.65	56	4	2	225	210	2.21
2011	1121	0.96	482	0.68	4.16		639	1.11	57	4	3	223	216	1.86
2012	1132	0.74	432	-0.55	3.72		700	1.82	62	4	6	194	196	-0.19
2013	999	-0.82	366	-1.87	3.16		633	0.12	63	4	2	189	198	0.06
2014	1135	0.56	442	-0.21	3.81		693	1.54	61	3	3	211	230	2.59
2015	1129	0.38	495	0.90	4.30		634	-0.78	56	3	3	231	260	3.57
2016	1119	0.27	514	1.39	4.43		605	-1.63	54	3	3	199	232	0.45
2017	1084	-0.32	425	-0.43	3.68		659	0.14	61	3	4	188	226	0.09

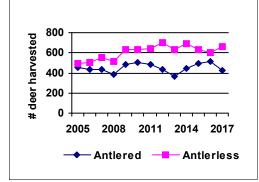


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

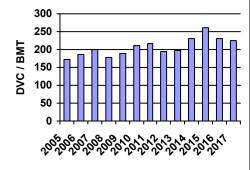


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Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	215	1.2:1 ± 0.2	
2015-2017	58	$0.8:1 \pm 0.3$	
		Fawn: Doe Ratio	
2007-2014	150	0.4:1 ± 0.1	
2015-2017	27	0.4:1 ± 0.2	

### **COUNTY DEER DATA: WELLS**

Version: 8/23/2018

# County Statistics County number: 90 Total square miles: 370 Square miles of deer range (last calculated in 2009): 29 Deer habitat in county (%): 8

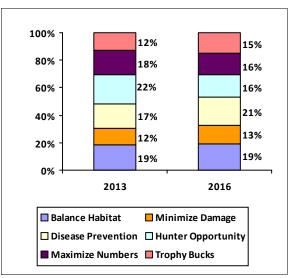


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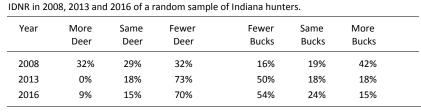


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antiered bucks compared to the preceding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
0%	10%	45%	22%	22%	
7%	8%	50%	13%	22%	
8%	12%	48%	13%	19%	
	Increase 0% 7%	0% 10% 7% 8%	Increase         45%           0%         10%         45%           7%         8%         50%	Increase         Decrease           0%         10%         45%         22%           7%         8%         50%         13%	Increase         Decrease         Decrease           0%         10%         45%         22%         22%           7%         8%         50%         13%         22%

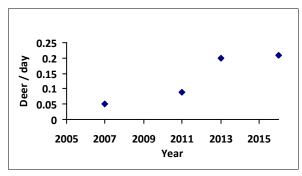


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	23	50.0%	37.5%
2016	42	50.0%	35.7%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

Year	Very Satisfied	Satisfied No Dpinion		Unsatisfied	Very Unsatisfied
2008	19%	35%	35%	12%	0%
2013	0%	52%	13%	26%	9%
2016	10%	37%	10%	29%	15%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	7	Public	0%	0%	43%	43%	14%
2018	100	Hunter	0%	2%	23%	40%	35%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5
year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	,
201	87	Hunter	2%	0%	2%	6%	29%	26%	34%	_
2018	3 7	Public	0%	0%	0%	29%	43%	29%	0%	

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	inion Sample De Type size (			
2018	Hunter	122	28%	44%	28%
2018	Public	7	29%	57%	14%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	6	78	28.2
2018	Hunter	105	52	5.6

# **COUNTY DEER DATA: WELLS**

<b>County Statistics</b>	
County number:	90
Total square miles:	370
Square miles of deer range (last calculated in 2009):	29
Deer habitat in county (%):	8

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	377			157	218	2	0	184	178	14	1	0	0	0	0	0	0	0
2016	396			159	236	1	0	202	175	18	1	0	0	0	0	0	0	0
2017	356	25%	11%	159	196	1	0	154	178	21	3	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	538		242		4.95		295		55	1	4	80	253	
2006	506		226		4.61		280		55	1	0	114	353	
2007	522		245		5.01		276		53	1	1	113	345	
2008	540		245		5.00		296		55	1	0	103	317	
2009	532		269		5.49		263		49	1	0	97	295	
2010	530	0.19	249	0.22	8.59		281	-0.08	53	1	0	115	355	1.03
2011	473	-4.04	225	-1.42	7.76		248	-2.64	52	1	0	96	301	-1.23
2012	439	-3.01	196	-3.24	6.76		243	-1.64	55	1	0	66	212	-4.21
2013	396	-2.40	178	-2.13	6.14		218	-2.16	55	1	0	87	283	-0.24
2014	398	-1.29	219	-0.12	7.55		179	-3.05	45	Α	2	115	382	1.82
2015	388	-1.05	211	-0.09	7.30		177	-1.50	46	Α	0	118	400	1.41
2016	452	0.92	238	1.70	8.21		214	0.03	47	Α	0	98	339	0.30
2017	448	1.16	200	-0.37	6.82		248	1.49	55	Α	0	99	348	0.32

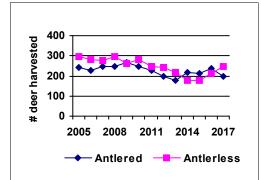


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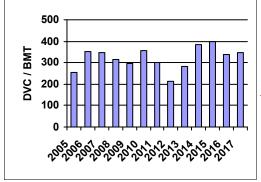


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio			
2007-2014	24	0.4:1 ± 0.3			
2015-2017	10	0.1:1 ± 0.2			
		Fawn: Doe Ratio			
2007-2014	14	0.3:1 ± 0.2			
2015-2017	13	1.3:1 ± 0.8			

### **COUNTY DEER DATA: WHITE**

Version: 8/23/2018

# County Statistics County number: 91 Total square miles: 507 Square miles of deer range (last calculated in 2009): 40 Deer habitat in county (%): 8

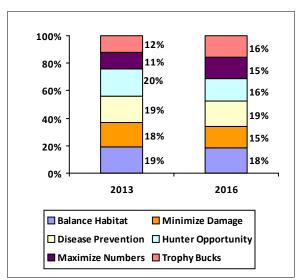


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

of large antiered bucks compared to the preceeding 5 year period from surveys conducted by IDNR in 2008, 2013 and 2016 of a random sample of Indiana hunters.

Year More Same Fewer Fewer Same More

Deer Deer Deer Bucks Bucks Bucks

Table 1. Hunter belief about the trend in the total number of deer and the trend in the number

Year	More Deer	Same Deer	Fewer Deer	Fewer Bucks	Same Bucks	More Bucks	
2008	53%	31%	13%	22%	25%	28%	
2013	4%	32%	64%	32%	20%	40%	
2016	16%	21%	57%	48%	27%	13%	

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease
2008	0%	0%	23%	30%	47%
2013	5%	2%	29%	20%	45%
2016	8%	15%	29%	25%	22%

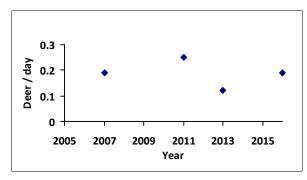


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	29	70.0%	26.7%
2016	60	53.3%	40.0%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	23%	43%	10%	20%	3%
	2013	0%	64%	4%	29%	4%
	2016	10%	53%	5%	20%	12%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low
2018	20	Public	10%	25%	40%	15%	10%
2018	71	Hunter	1%	8%	23%	42%	25%

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5 year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably
2018	96	Hunter	5%	4%	2%	8%	21%	29%	30%
2018	18	Public	11%	11%	22%	22%	17%	17%	0%

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	124	52%	34%	14%
2018	Public	18	22%	44%	33%

Table 8. In the deer management survey, respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	17	69	12.5
2018	Hunter	70	59	5.8

# **COUNTY DEER DATA: WHITE**

Version: 8/23/2018

County Statistics	
County number:	91
Total square miles:	507
Square miles of deer range (last calculated in 2009):	40
Deer habitat in county (%):	8

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	685			302	383	0	0	273	309	75	20	7	1	0	0	0	0	0
2016	705			311	393	1	0	277	339	68	18	2	1	0	0	0	0	0
2017	607	23%	12%	291	313	2	1	204	285	88	25	4	1	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	931		404		7.77		527		57	2	1	169	335	
2006	970		401		7.72		569		59	2	1	211	411	
2007	1038		450		8.64	50	589		57	3	1	205	395	
2008	1229		474		9.12		755		61	3	3	230	444	
2009	1221		491		9.44		730		60	4	0	196	373	
2010	1200	0.87	481	0.91	12.03	31	719	0.83	60	4	2	179	341	-1.25
2011	1233	0.85	465	0.16	11.63		768	1.10	62	8	5	190	362	-0.80
2012	1325	1.70	403	-4.37	10.08		922	2.93	70	8	6	165	314	-1.76
2013	956	-5.91	352	-3.19	8.80		604	-2.12	63	4	5	161	303	-1.31
2014	954	-1.69	363	-1.27	9.08		591	-1.37	62	4	2	178	330	-0.27
2015	935	-1.17	386	-0.46	9.70		549	-1.27	59	4	4	142	261	-2.97
2016	937	-0.78	396	0.05	9.90		541	-0.94	58	4	4	162	298	-0.43
2017	883	-0.81	321	-2.71	8.12		562	-0.50	64	4	4	150	276	-0.98

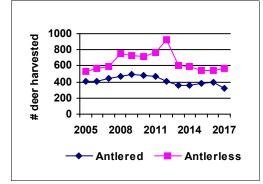


Figure 3. Graphical representation of antlered and antlerless harvest change over time from Table 10.

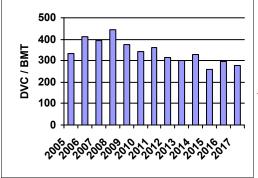


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	172	1.1:1 ± 0.2	
2015-2017	30	0.5:1 ± 0.3	
		Fawn: Doe Ratio	
	447	0.5.40.4	
2007-2014	117	$0.5:1 \pm 0.1$	
2007-2014	117	$0.5:1 \pm 0.1$ $1:1 \pm 0.4$	

### **COUNTY DEER DATA: WHITLEY**

Version: 8/23/2018

### **County Statistics** County number: 92 Total square miles: 339 Square miles of deer range (last 52 calculated in 2009): Deer habitat in county (%): 15

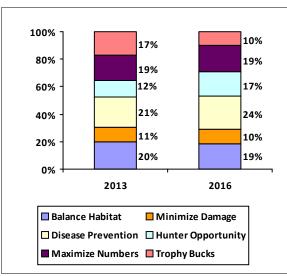


Figure 1. Management priorities based on hunter responses from Deer Hunter Surveys.

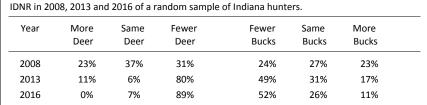


Table 1. Hunter belief about the trend in the total number of deer and the trend in the number of large antlered bucks compared to the preceeding 5 year period from surveys conducted by

Table 2. Landowner desires for the direction of the deer population based on random survey conducted by IDNR of landowers who obtain at least 50% of their income from the land.

Year	Substantial Increase	Slight Increase	Maintain	Slight Decrease	Substantial Decrease	
2008	5%	12%	43%	20%	20%	
2013	11%	8%	42%	19%	21%	
2016	16%	19%	47%	9%	9%	

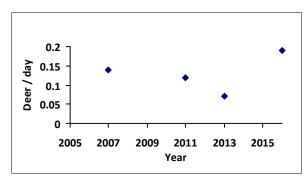


Figure 2. Firearm harvest/effort is the number of deer killed per hunter divided by the number of days hunted per hunter during firearm season based on data reported in deer hunter surveys.

deer management survey (began in 2018)

Table 3. Opinion of firearm hunters toward having a late antlerless firearm season.

Year	n	% Yes	% No
2013	39	47.5%	55.0%
2016	34	50.0%	41.2%

Table 4. Hunter satisfaction with deer management in Indiana from random hunter surveys conducted by IDNR in 2008, 203, and 2016.

_						
	Year	Very Satisfied	Satisfied	No Opinion	Unsatisfied	Very Unsatisfied
,	2008	8%	57%	22%	12%	2%
	2013	0%	33%	10%	33%	23%
	2016	6%	24%	9%	50%	12%

Table 5. Opinion of the general public and hunters about the current size of the deer population from annual

Year	Sample Size	Opinion Type	Deer Population Too High	Deer Population High	Deer Population About Right	Deer Population Low	Deer Population Too Low	
2018	13	Public	8%	15%	31%	46%	0%	
2018	151	Hunter	1%	3%	13%	46%	38%	

Table 7. Opinion of hunters and the general public about how the deer population should change over the next 5
year period from 2018 to 2022 from annual deer management survey (began in 2018).

Year	Sample Size	Opinion Type	Decrease considerably	Decrease moderately	Decrease slightly	No change	Increase slightly	Increase moderately	Increase considerably	=
2018	144	Hunter	3%	2%	2%	5%	22%	33%	33%	_
2018	11	Public	9%	0%	18%	18%	27%	27%	0%	

Table 6. In the annual deer management survey, hunters were asked how the County Bonus Antlerless Quotas (CBAQs) should change while the public were asked how the number of does allowed to be harvested should change. Both are repoted as CBAQ.

Year	Opinion Type	•	Decrease CBAQ		
2018	Hunter	204	53%	35%	12%
2018	Public	11	36%	36%	27%

Table 8. In the deer management survey. respondents were asked to rate how DNR's management of deer on a scale of 0 (poor) to 100 (excellent).

Year	Opinion Type	Sample size	DNR Mgmt Score	95% Confidence Interval
2018	Public	10	73	14.5
2018	Hunter	152	52	4.4

# **COUNTY DEER DATA: WHITLEY**

<b>County Statistics</b>	
County number:	92
Total square miles:	339
Square miles of deer range (last calculated in 2009):	52
Deer habitat in county (%):	15

Table 9. Estimated number of deer harvested per hunter. Estimated totals may not match up exactly with total number of antlered or antlerless harvested. Uncorrected hunter reported error rate ranges from 0.8 to 1.5%. Reporting errors are examined and investigated as they are located; therefore, subsequent reports may contain corrected total. Success rate estimated from Deer Management Survey for Number Harvested Deer / Number of Deer Desired (reported only; does not account for attempts that were not made).

Year	Total Hunters	Est. Success		0 Buck	1 Buck	2 Buck	3 Buck	0 Doe	1 Doe	2 Doe	3 Doe	4 Doe	5 Doe	6 Doe	7 Doe	8 Doe	9 Doe	10 Doe
2015	831			384	446	1	0	345	424	59	3	0	0	0	0	0	0	0
2016	861			389	471	1	0	367	411	76	6	1	0	0	0	0	0	0
2017	697	36%	10%	330	366	1	0	286	374	34	3	0	0	0	0	0	0	0

Table 10. Total harvest, antlered harvest per square mile of deer habiat, and antlerless harvest (error approximately 1%). Damage reports are permits issued by IDNR to landowners for deer damage. Deer vehicle collisions (DVC) and billion miles traveled (BMT) are repoted by the Indiana Department of Transportation. The trend in total harvest, antlered harvest, and trend in DVCs per BMT are in standard deviations (SD) and are equivelant to effect size. A change greater than 2 SD is considered both a large effect and statistically significant. Between 1 and 2 SD may be a large effect, but may not be statistically significant.

Year	Total Harvest	Trend Total Harvest in Std. Dev.	Antlered Harvest	Trend Antlered Harvest in Std. Dev.	Antlered Harvest sq mi habitat	% Yearling male of adults	Antlerless Harvest	Trend Antlerless Harvest in Std. Dev.	% Antlerless in Harvest	Bonus Antlerless Quota	Damage Reports	Total DVC	DVC/ BMT	Trend DVC/ BMT in Std. Dev.
2005	1436		589		5.03	62	847		59	2	3	133	295	
2006	1305		525		4.49	62	780		60	2	1	146	321	
2007	1308		535		4.57	49	773		59	2	1	131	286	
2008	1384		540		4.62		844		61	3	4	119	262	
2009	1331		531		4.54		800		60	3	9	156	344	
2010	1348	-0.09	554	0.39	10.65		794	-0.42	59	3	7	130	289	-0.39
2011	1279	-1.73	522	-1.36	10.04		757	-1.48	59	4	3	129	289	-0.35
2012	1164	-4.17	417	-10.08	8.02	49	747	-1.41	64	4	4	136	309	0.49
2013	967	-3.91	416	-1.77	8.00		551	-6.15	57	3	3	135	306	0.23
2014	995	-1.41	421	-1.01	8.10		574	-1.52	58	3	2	140	316	0.40
2015	999	-0.90	452	-0.21	8.70		547	-1.22	55	2	1	152	345	3.52
2016	1058	-0.17	478	0.72	9.19		580	-0.52	55	2	3	158	360	2.31
2017	834	-2.58	377	-2.18	7.29		457	-1.71	55	1	2	205	466	5.76

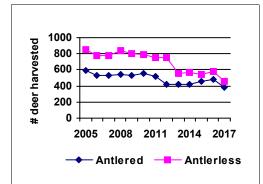


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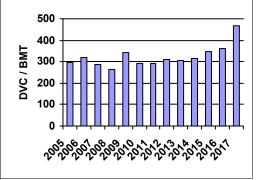


Figure 4. Graphical representation of change in deer vehicle collisions (DVC) per billioin miles traveled (BMT) from Table 10.

Table 11. Adult Doe:Adult Buck and Adult Doe:Fawn ratios from Archer's Index (Oct - Mid Nov.). Individual observations are means of each observers daily ratio with a 95% Confidence Interval (CI). Counties without results listed did not have sufficient data for analysis. Counties large CI's should also refer to the regional analysis for more accurate estimates.

Years	n	Doe: Buck Ratio	
2007-2014	85	1.6:1 ± 0.7	
2015-2017	52	1:1 ± 0.4	
		Fawn: Doe Ratio	
2007-2014	61	0.6:1 ± 0.1	
2015-2017	59	1:1 ± 0.2	

