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2018	Title <b>2016 Spring Wild Turkey Gobbling Counts</b>	5/26/2016

**Abstract:** The number of male wild turkeys heard gobbling along 14 roadside trend routes during 30 March to 19 April, 2016 was 0.54 gobblers heard per stop (GI), 19% less than the 0.66 heard in 2015. The 5-yr moving average shows a general increase from 1987-2006, followed by a general decrease since the 2006 peak. The 2015 statewide gobbling index of 0.54 was less than the 5 yr-mean of 0.71 ( $P < 0.05$ ) and was the lowest GI since 1994.

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Gobbler counts are conducted annually during late March to April to determine the relative population trends of wild turkeys in the areas surveyed. In 2016, 14 roadside trend routes were surveyed in portions of 19 counties. Roadside gobbler trend routes were conducted in conjunction with roadside trend routes for drumming male ruffed grouse. Each route has 15 predetermined listening stops along 10-20 miles of rural roadways. Routes are conducted at least twice, in opposite directions, and the highest gobbler count per stop is used for determining the Gobbling Index (GI). The average number of gobblers heard on the 14 routes in 2016 ranged from 0.27 to 1.00 gobblers heard per stop (**Table 1**). The statewide GI of 0.54 gobblers heard per stop was 19% less than the 0.66 GI in 2015.

While roadside routes are not accurate indicators of annual trends in wild turkey populations, they provide some long-term ( $\geq 5$  yrs) trends and information to compare areas relative to each other (**Table 2**). Weather conditions during the survey period can contribute to the variability of annual trends. Annual variations may also reflect the proportion of vocal 2-year-old gobblers in the population rather than actual population trends over the long term. The substantial increase in the 2006 gobbling index is a prime example of where the record high summer brood production in 2004 (Backs 2006) became quite evident with a large cohort of very vocal 2-yr-old gobblers (**Figure 1**). The long-term trend, based on a 5-yr moving average, shows a general increase from 1987-2006, followed by a general decrease since the 2006 peak, likely reflecting a similar 10-yr general downswing in the summer brood production (Backs, 2016). The 2016 gobbling index of 0.54 was less from the 5 yr-mean of 0.71 ( $P < 0.05$ ), and it was the lowest GI since 1994.

#### Literature Cited

- Backs, S. E. 2006. Wild turkey brood production – Summer 2005. Wildlife Management and Research Note No. 910. Indiana Division of Fish and Wildlife, Indianapolis. 5pp.
- Backs, S. E. 2016. Wild turkey brood production – Summer 2015. Wildlife Management and Research Note No. 2017. Indiana Division of Fish and Wildlife, Indianapolis. 5pp.

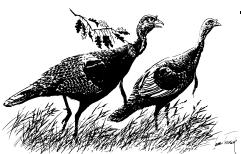


Table 1. Wild turkeys heard on roadside counts in Indiana between 30 March to 19 April 2016.

County/Area	No. of Routes/ Stops	No. of Repetitions (for/rev)	Total Turkeys Heard	Total Seen	Highest Number Heard/Rt.	Turkeys Heard <sup>1/</sup> Per Stop	
						2015	2016
<u>Traditional Routes</u>							
Jackson, Brown, Monroe (Hickory Ridge, USFS-HNF)	1/15	2	6	0	3	0.27	0.20
Owen-Putnam	1/15	2	10	8	7	0.27	0.47
Perry (Oriole-St.Croix-USFS-HNF)	1/15	2	13	0	7	0.40	0.47
Washington (Jackson-Washington SF)	1/15	2	9	0	6	0.67	0.40
Lawrence & Orange (Lost River - E, USFS-HNF)	1/15	2	8	0	6	0.53	0.40
Martin & Orange (Lost River - W, USFS)	1/15	2	24	0	15	1.00	1.00
Morgan-Monroe (M-M SF)	1/15	2	13	1	7	0.40	0.47
Greene	1/15	3	16	0	9	0.60	0.60
Orange (Lick Fork, USFS HNF)	1/15	2	25	10	13	0.80	0.87
Jefferson	1/15	2	11	2	6	1.00	0.40
					SubMean	0.59	0.53
<u>New Routes <sup>2/</sup></u>							
Marshall-Starke	1/15	2	16	1	10	1.07	0.67
Parke	1/15	2	9	1	8	0.53	0.53
Lagrange/Steuben Co (Pigeon River FWA)	1/15	2	16	0	12	1.00	0.80
Brown (Yellowwood SF)	1/15	2	8	0	4	0.73	0.27
					SubMean	0.83	0.57
					Grand Mean	0.66	0.54

<sup>1/</sup> Gobbling Index (gobblers heard per stop) calculated using route with highest count.

<sup>2/</sup> Routes re-established in 2012 to expand statewide coverage.

Table 2. Wild turkey roadside gobbling counts during April in Indiana from 1987 to 2016.

Year	Gobblers Heard Per Stop *														ROW MEAN	SE
	HICKORY	OWPUT	PERRY	WASH	LR-EAST	LR-WEST	MORGAN	GREENE	LICKFK	JEFFERSON	MARSTRK	PARKE	LAGSTEU	BROWN		
1987	1.10	0.07	0.00	0.20	0.53	NR	0.27	0.00	0.00	1.00	-	-	-	-	<b>0.35</b>	<b>0.144</b>
1988	0.73	0.13	0.13	0.00	0.47	NR	0.20	0.07	0.00	1.13	-	-	-	-	<b>0.32</b>	<b>0.129</b>
1989	1.13	0.00	0.21	0.00	0.87	NR	0.20	0.00	0.47	0.73	-	-	-	-	<b>0.40</b>	<b>0.141</b>
1990	0.80	0.13	0.20	0.00	1.00	1.27	0.27	0.07	0.73	0.53	-	-	-	-	<b>0.50</b>	<b>0.137</b>
1991	0.33	0.20	0.40	0.00	0.87	0.53	0.33	0.07	0.87	1.07	-	-	-	-	<b>0.47</b>	<b>0.115</b>
1992	0.73	0.07	0.20	0.00	0.80	1.87	0.00	0.07	0.67	0.53	-	-	-	-	<b>0.49</b>	<b>0.183</b>
1993	0.47	0.00	0.47	0.00	0.27	0.53	0.07	0.20	0.47	1.20	-	-	-	-	<b>0.37</b>	<b>0.113</b>
1994	0.53	0.13	0.47	0.00	0.73	0.27	0.13	0.27	0.80	0.80	-	-	-	-	<b>0.41</b>	<b>0.094</b>
1995	0.67	0.00	0.80	0.00	0.93	0.73	0.00	0.13	0.80	1.53	-	-	-	-	<b>0.56</b>	<b>0.162</b>
1996	1.13	0.33	0.80	0.07	0.60	1.47	0.27	0.13	0.53	0.80	-	-	-	-	<b>0.61</b>	<b>0.142</b>
1997	0.67	0.20	0.87	0.07	0.73	0.47	0.47	0.00	0.60	0.93	-	-	-	-	<b>0.50</b>	<b>0.102</b>
1998	1.40	0.27	0.47	0.40	0.60	0.53	0.33	0.67	0.27	0.80	-	-	-	-	<b>0.57</b>	<b>0.107</b>
1999	0.80	0.60	0.47	0.27	1.27	0.53	0.67	0.40	0.87	1.20	-	-	-	-	<b>0.71</b>	<b>0.104</b>
2000	0.60	0.20	0.53	0.67	1.27	0.47	0.27	0.67	1.20	1.33	-	-	-	-	<b>0.72</b>	<b>0.129</b>
2001	0.73	0.53	0.60	0.60	0.67	0.73	0.33	0.33	0.93	1.73	-	-	-	-	<b>0.72</b>	<b>0.126</b>
2002	0.33	0.60	0.53	0.80	1.27	0.93	0.53	0.20	1.13	1.33	-	-	-	-	<b>0.77</b>	<b>0.124</b>
2003	0.53	0.20	0.60	1.47	1.07	0.67	0.80	0.60	1.00	2.13	-	-	-	-	<b>0.91</b>	<b>0.175</b>
2004	0.80	0.20	1.07	1.33	0.87	0.73	1.33	0.60	1.00	1.87	-	-	-	-	<b>0.98</b>	<b>0.145</b>
2005	0.93	0.27	0.87	1.20	1.07	1.47	0.33	0.60	0.80	1.47	-	-	-	-	<b>0.90</b>	<b>0.133</b>
2006	2.67	0.60	0.93	0.73	1.60	2.27	0.53	1.53	1.47	2.20	-	-	-	-	<b>1.45</b>	<b>0.238</b>
2007	1.07	0.20	1.00	0.80	0.60	1.07	0.73	0.27	0.73	1.53	-	-	-	-	<b>0.80</b>	<b>0.125</b>
2008	2.33	0.33	0.67	0.40	0.53	0.67	0.67	0.07	0.67	1.20	-	-	-	-	<b>0.75</b>	<b>0.199</b>
2009	2.13	0.33	0.60	0.27	0.53	1.20	0.80	0.20	1.20	0.60	-	-	-	-	<b>0.79</b>	<b>0.186</b>
2010	0.80	0.67	0.53	0.47	0.40	0.93	0.73	0.20	1.27	1.07	-	-	-	-	<b>0.71</b>	<b>0.125</b>
2011	1.20	0.33	0.53	0.67	0.53	1.33	0.80	0.07	0.87	1.07	-	-	-	-	<b>0.74</b>	<b>0.125</b>
2012	1.60	0.47	0.60	0.60	0.93	0.67	0.93	0.60	0.87	1.33	0.73	1.27	1.40	0.60	<b>0.90</b>	<b>0.093</b>
2013	0.40	0.47	0.73	0.53	0.47	1.00	0.53	0.60	0.67	1.47	0.67	1.13	0.93	0.67	<b>0.73</b>	<b>0.077</b>
2014	0.47	0.53	0.67	0.87	0.53	1.07	0.73	0.27	0.40	1.33	1.53	1.07	0.73	0.47	<b>0.76</b>	<b>0.095</b>
2015	0.27	0.27	0.4	0.67	0.53	1.00	0.40	0.60	0.80	1.00	1.07	0.53	1.00	0.73	<b>0.66</b>	<b>0.072</b>
<b>Previous 5 Yr Mean</b>	<b>0.79</b>	<b>0.41</b>	<b>0.59</b>	<b>0.67</b>	<b>0.60</b>	<b>1.01</b>	<b>0.68</b>	<b>0.43</b>	<b>0.72</b>	<b>1.24</b>	-	-	-	-	<b>0.71</b>	<b>0.080</b>
2016	0.20	0.47	0.47	0.40	0.40	1.00	0.47	0.60	0.87	0.40	0.67	0.53	0.80	0.27	<b>0.54</b>	<b>0.058</b>

\*

= Gobbling Index (mean gobblers heard per stop) calculated using route with highest count.

HICKORY = Hickory Ridge (USFS), Lawrence and Jackson Counties

LICKFK = Lick Fork Creek Area, USFS, in Orange County.

OWPUT = General area of Owen-Putnam St. Forest

JEFFERSON = Jefferson County

PERRY = northern portion of Perry Co.(USFS)

LR-WEST = Lost River Unit - West, USFS, Orange and Martin Counties.

WASH = general area of Jackson-Washington St. Forest in Washington County

MARSTRK = Marshall-Starke counties.

LR-EAST = Lost River Unit - East, USFS, Lawrence and Orange Counties.

PARKE = Parke County.

MORGMON = general area of Morgan-Monore St. Forest in Morgan county.

LAGSTEU = Lagrange-Steuben counties (Pigeon River Fish & Wildlife Area.

GREENE = eastern Greene County

BROWN = Yellowwood State Forest in Brown County.

**YEAR MEAN** = Arithmetic average value for all routes for a respective year (row).

**█** = "new" routes re-established in 2012; data will be incorporated into statewide GI in 2016 (5 yrs)

**SE** = standard error of annual (row) mean

**5 Yr Mean** = mean for 5 years previous to survey year (2011-2015)and does not include values for routes initiated in 2012; MARSTRK, PARKE, LAGSTEU, OR BROWN.

**Figure 1. Roadside Gobbling Indices**

