

Creating a Honey Corridor: Challenges of Coal Country Beeworks

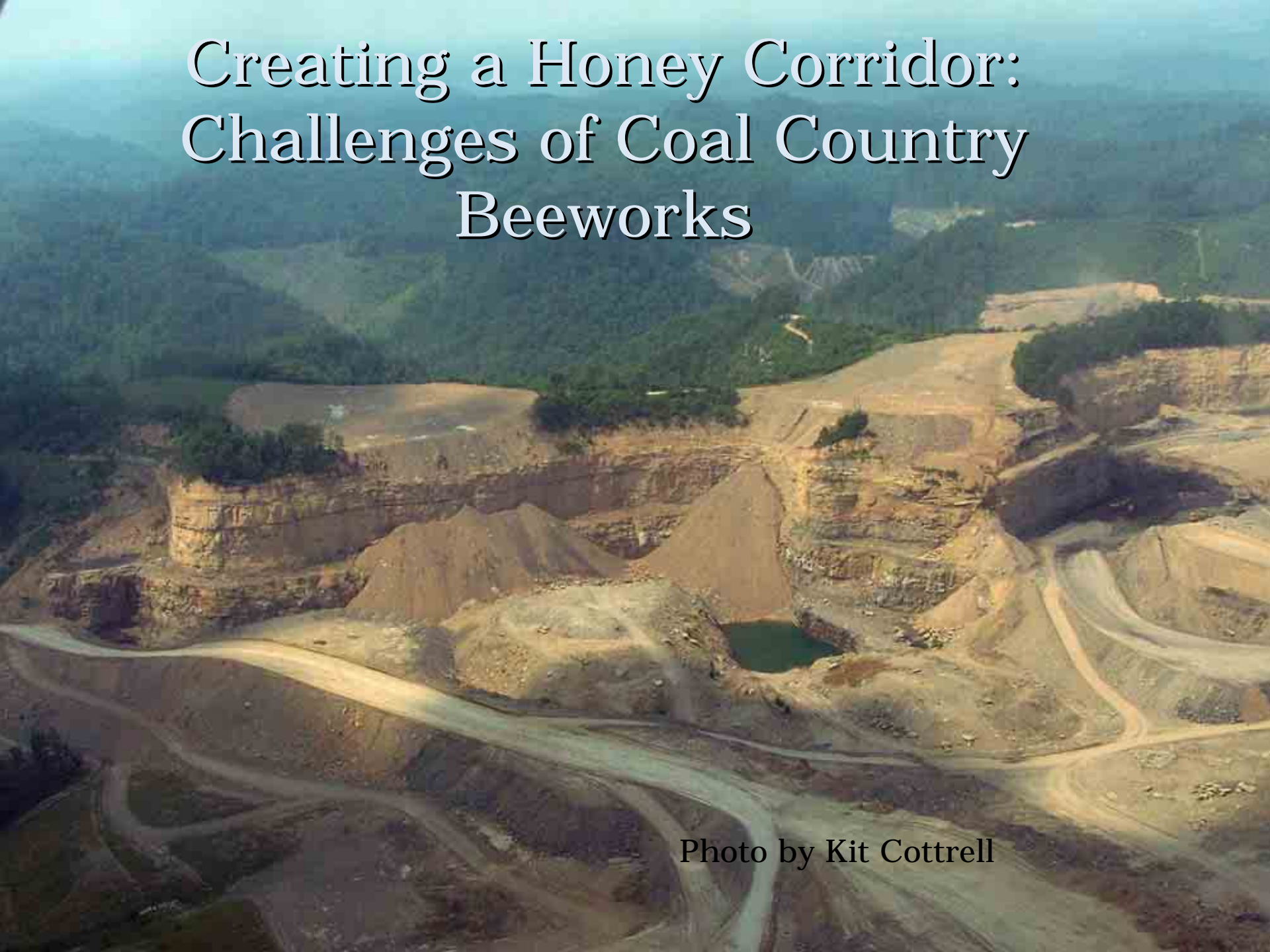
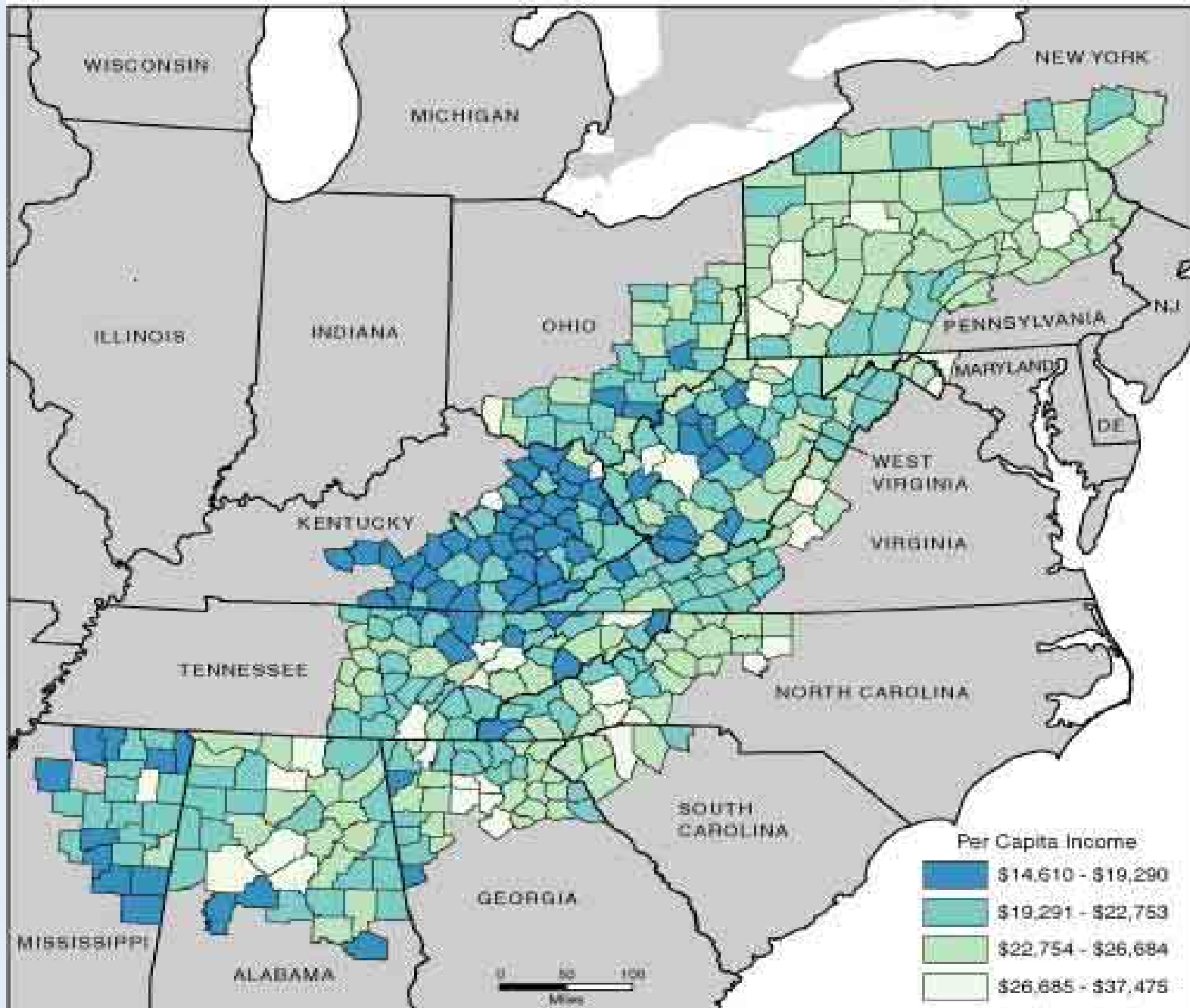


Photo by Kit Cottrell



Map Created: October 2006.
 Data Source: U.S. Bureau of Economic Analysis, REIS, 2003.
 Data Classification Scheme: Natural Breaks.

U.S. average = \$31,472
 Appalachian average = \$26,014

Deforestation

- 134 acres of forest land disappears every day in KY
- Combination of residential, transportation, industrial use
- Reforestation can address pollen-nectar “deserts” and “bloom gaps” and also reinvigorate forest-based beekeeping

Forest-Based Beekeeping since 300 A.D.



Reclamation and Beekeepers

- 1973-76 Madisonville Community College, KY, Tennessee Valley Authority
- 1997-present. Appalachian Regional Reforestation Initiative [ARRI]
- 2008-2010: CCBeeworks and International Coal Group, James River Coal, and Pine Branch Coal

U.S. Surface Mining Control Reclamation Act 1977

- SMCRA addressed flooding and landslides
- Mining: “temporary” use of land
- Reclamation emphasizes approximate original contour (AOC) and compaction
- 1977-1995 Reclamation is commercial development, NOT forests

Surface Mine Techniques

- Thin-layered coal seams. Less expensive than underground mining
- Includes auger mining, block and cut, grid layering, bench-cutting, etc.
- Technology outpaces federal legislation
- Current efforts to shape legislation: Appalachian Regional Reforestation Initiative (federal); Pollinator Habitat bill (KY) and Highway Right of Way bill (KY)



UK RESEARCH SITE

CELLS 7,8&9

COMPACTED

YEAR PLANTED 1996

KENTUCKY

Appalachian Regional Reforestation Initiative

ARRI guides:

1. Loose soil
2. High value trees
3. Slopes under 20 degrees
4. Four-feet of topsoil



Photo of American chestnut: courtesy of ECU Chris Radcliffe

Coal Country Beeworks

- Three-season bloom: redbuds, tulip poplars, black locusts, basswoods, sourwoods, wildflowers
- 5000 sourwoods in 2008 and 2009, modifying approach in 2010 to move bees to existing sourwoods
- Partnered with KY Dept. of Fish and Wildlife to plant 3.15 pounds of flower seed per acre, totaling \$33,500.00, and planted 398 acres combined on three surface mine sites in eastern KY in 2009-2010.
- Security (fencing)
- Education and extension on site and in communities

Oxydendrum Arboretum: Sourwood Trees





- Blooms in July
- Bloom Lasts until Oct.
- Honey is more profitable than other varieties
- Appalachian native

Photo: www.secludedgarden.com

















PLEASE DO NOT DISTURB
"Cool Country Bee Boxes"
ICG
Bee Research Project
Please respect



New Challenges

- Political administrative changes
- EPA regulations may impact the extent of surface mining in Appalachia, but less so in the rest of the U.S.
- Funding
- Campus Criteria established



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A large, dark brown rectangular sign with white text is mounted on a stone wall. The sign reads "EASTERN KENTUCKY UNIVERSITY" in large, serif capital letters, with "FOUNDED 1874/1906" in smaller capital letters below it. The sign is flanked by trees with vibrant autumn foliage in shades of orange, red, and yellow. In the background, a tall, dark green evergreen tree stands against a bright, overcast sky. The foreground consists of a green lawn with a small, dark rectangular patch.

EASTERN KENTUCKY
UNIVERSITY

FOUNDED 1874/1906



tammy.horn@eku.edu
www.tammyhorn.com

