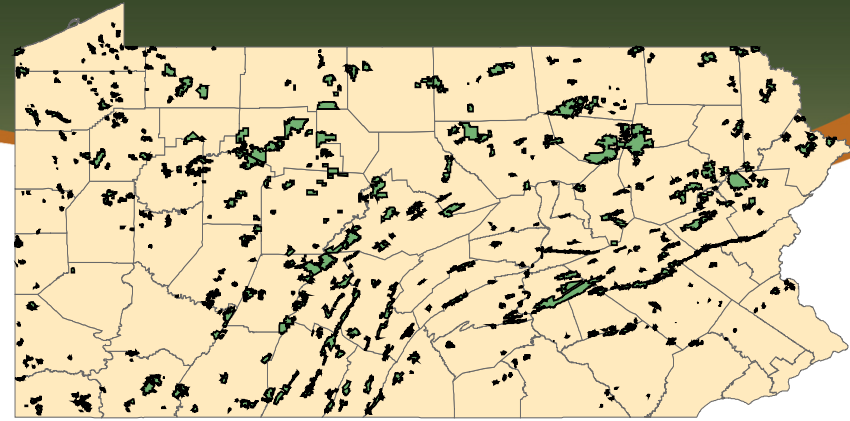




Landscape Scale Habitat Management



**Benjamin C. Jones, Habitat Division Chief
Pennsylvania Game Commission**



The Landscape

- 1.5 million acres on over 330 tracts
- ...create and maintain public hunting, special preserves or other wildlife management uses.
- Mandate to manage for wildlife conservation and hunting opportunity
- Forest sustainability, commercial timber, recreation



The Landscape

- 2.1 M acres State Forest; 450,000 State Parks; 500,000 Natl Forest; etc.
- Ecosystem management, timber, wildlife conservation, recreation, clean water, native flora and fauna etc...

Habitat

...the resources and conditions in an area that produce *occupancy*, including *survival* and *reproduction* by an animal.



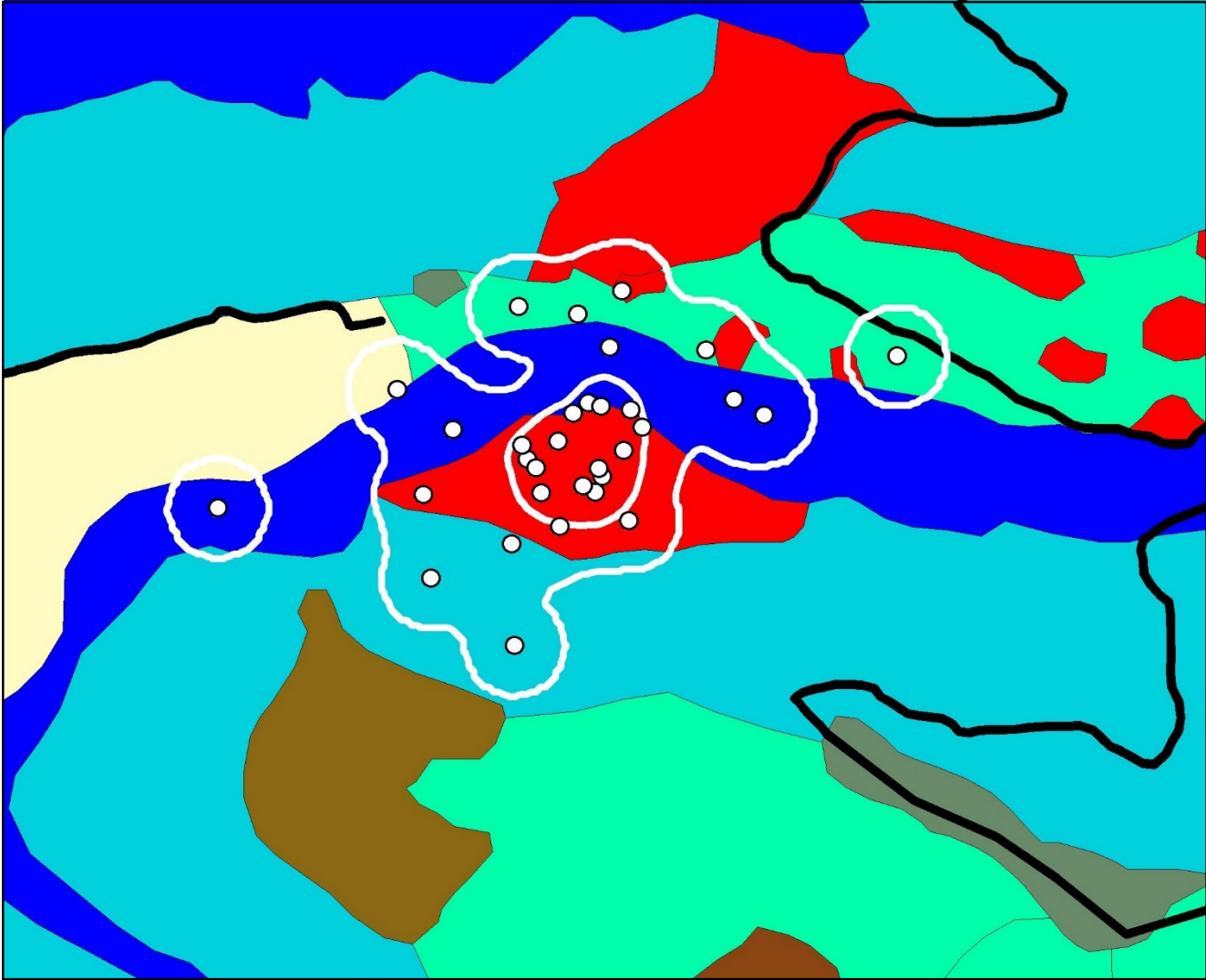
Home Range



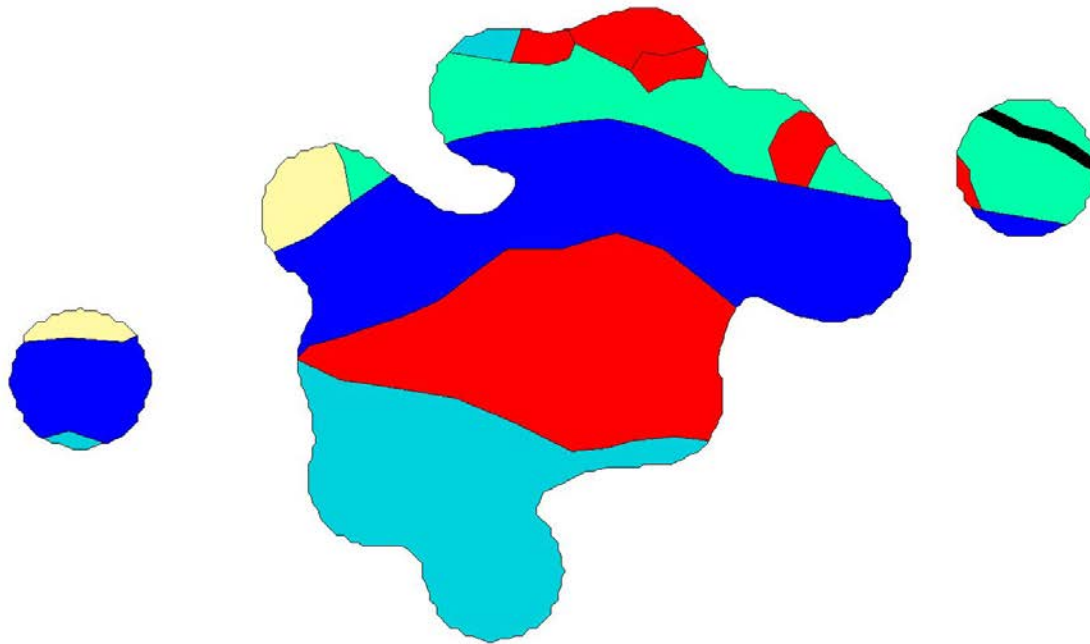


Hours later, when they finally came to, Hal and Ruby groggily returned to their yard work—unknowingly wearing the radio collars and ear tags of alien biologists.

Home Range



Home Range



Habitat – Age



0 – 5 years



years



125+

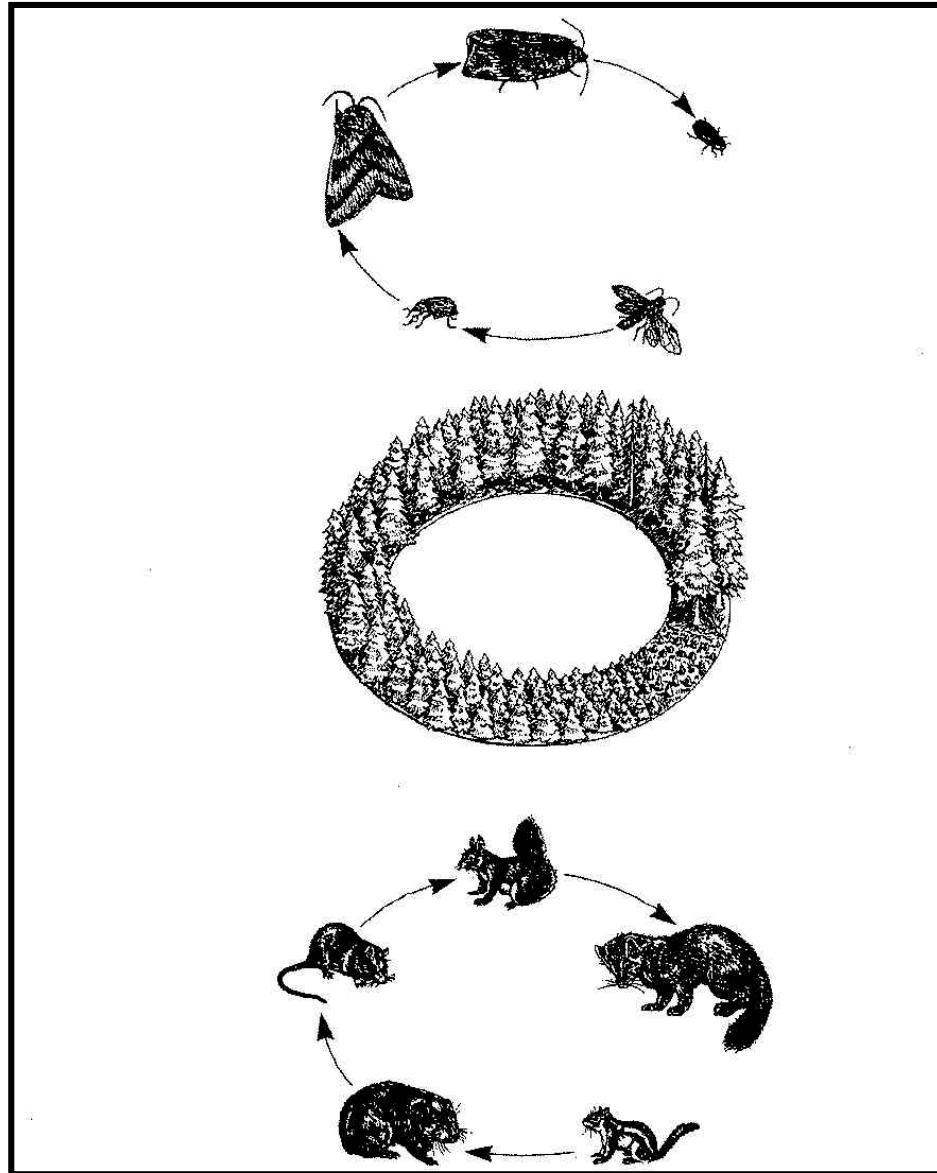


21 – 39 years

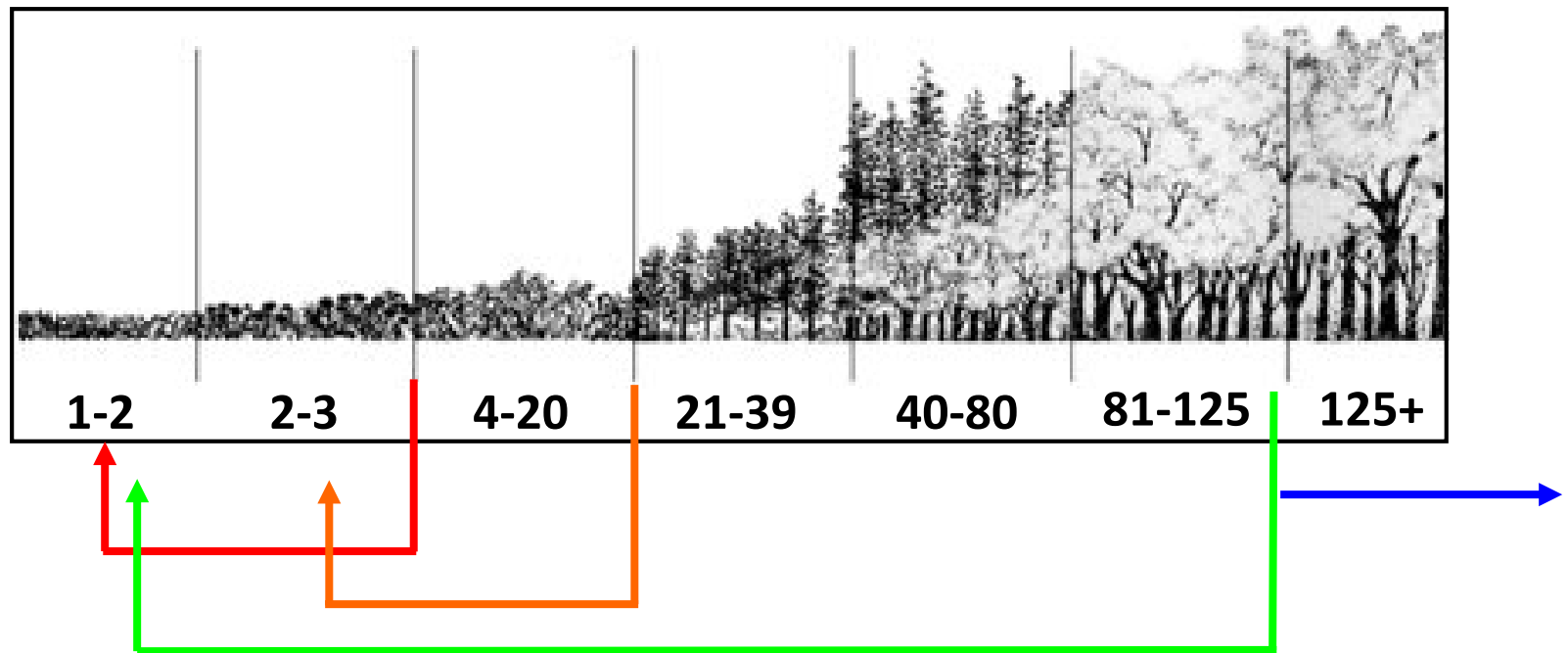


40 – 80 years

Habitat – Succession

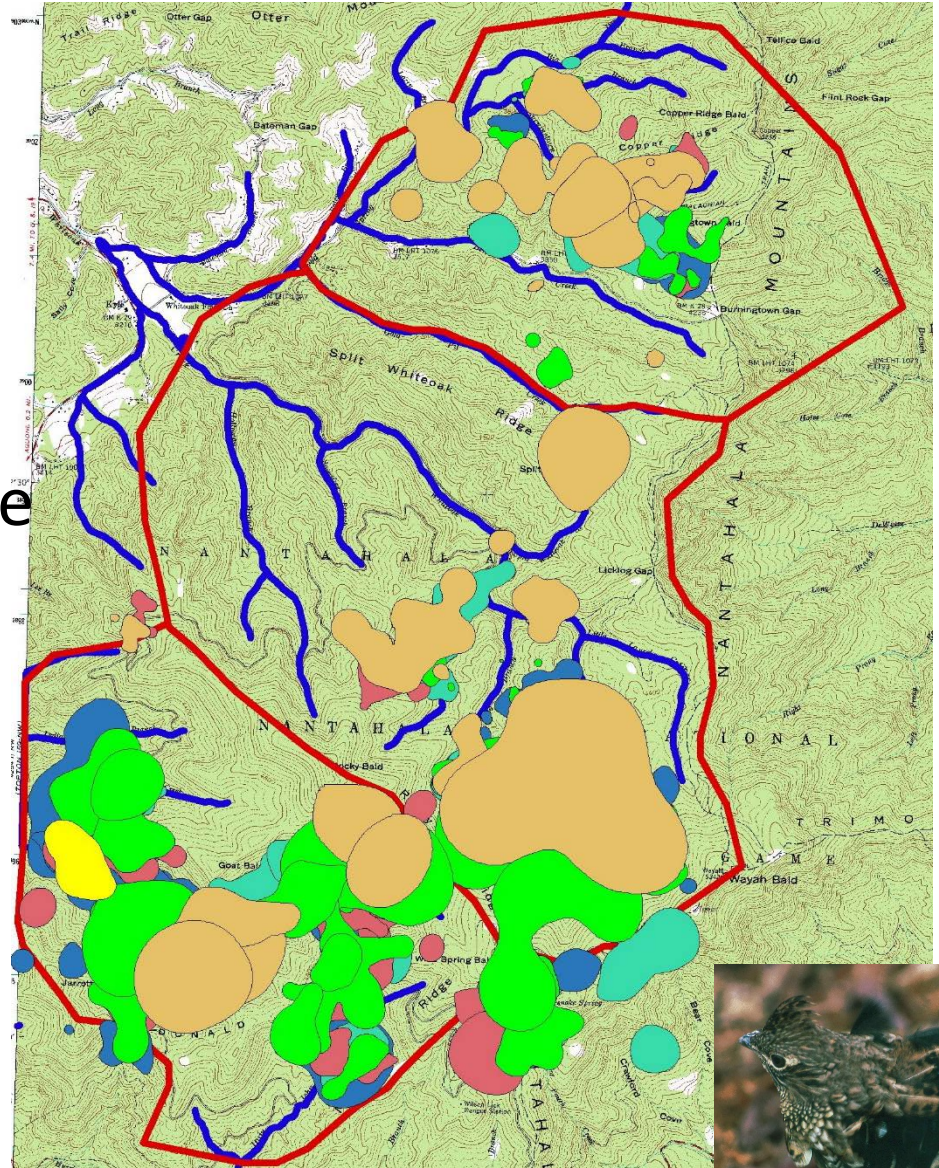


Management – Succession

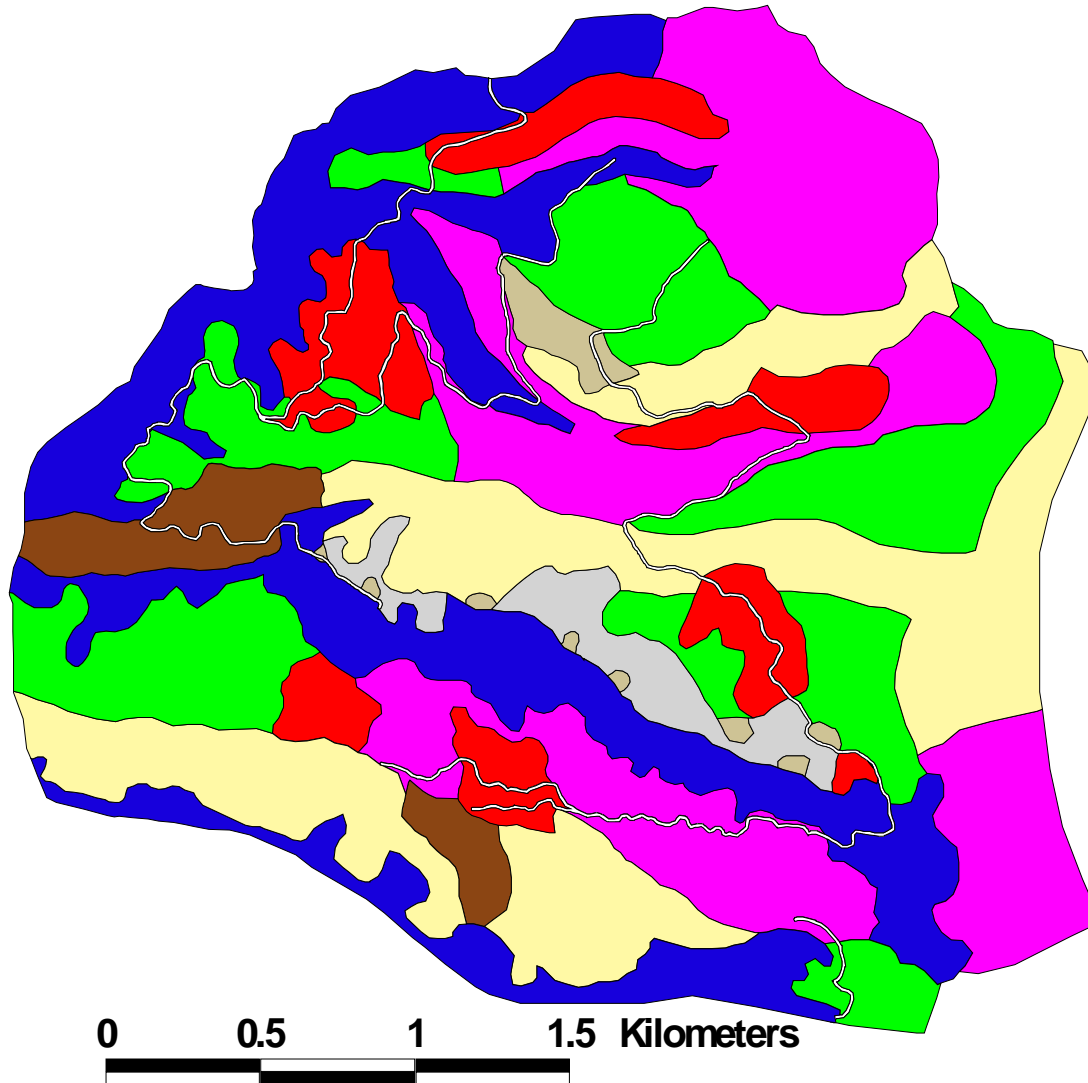


Interspersion of Habitats

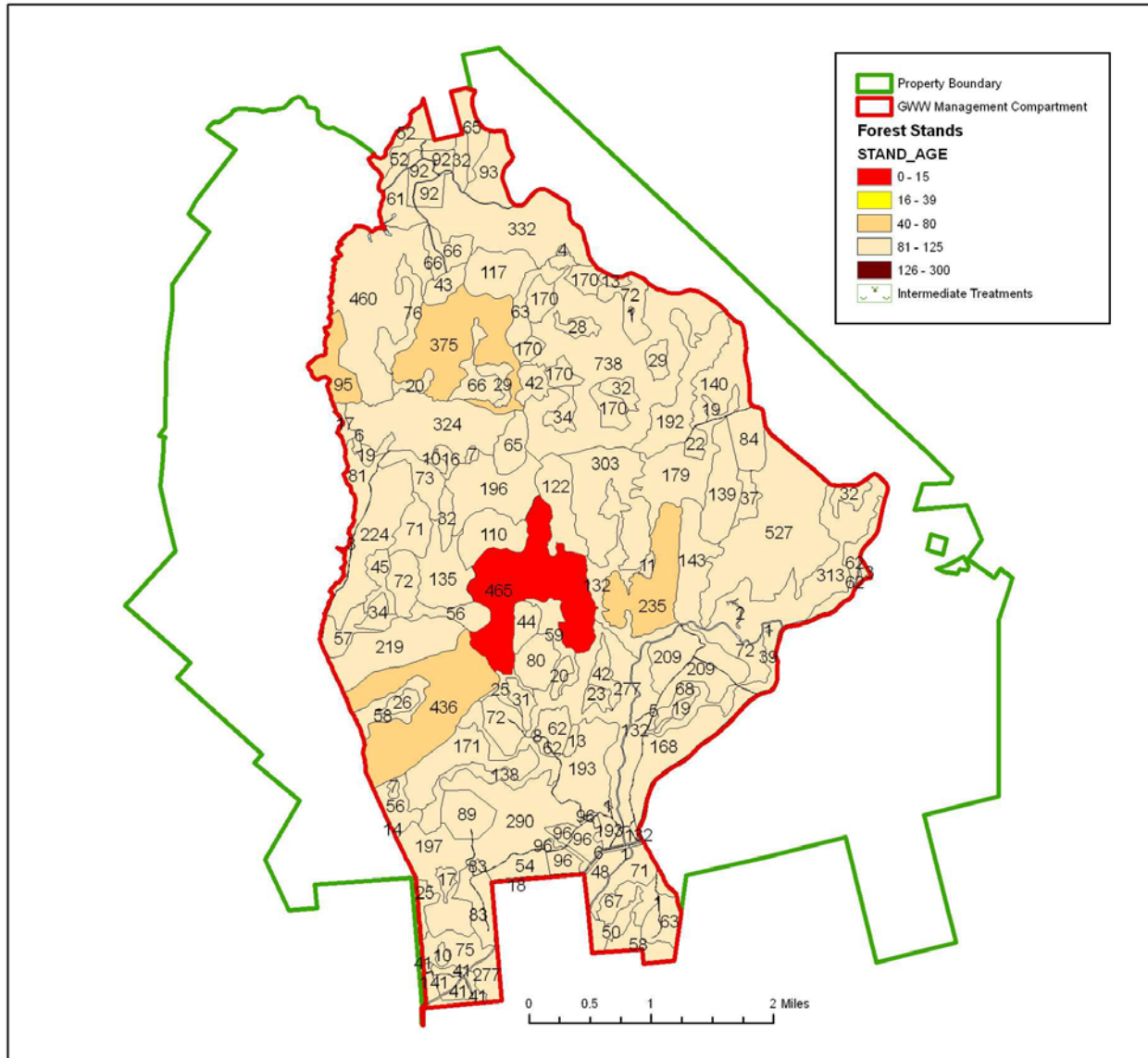
- Ruffed grouse habitat and homerange in fall/winter.
- Measured habitat characteristics on 3 separate watersheds

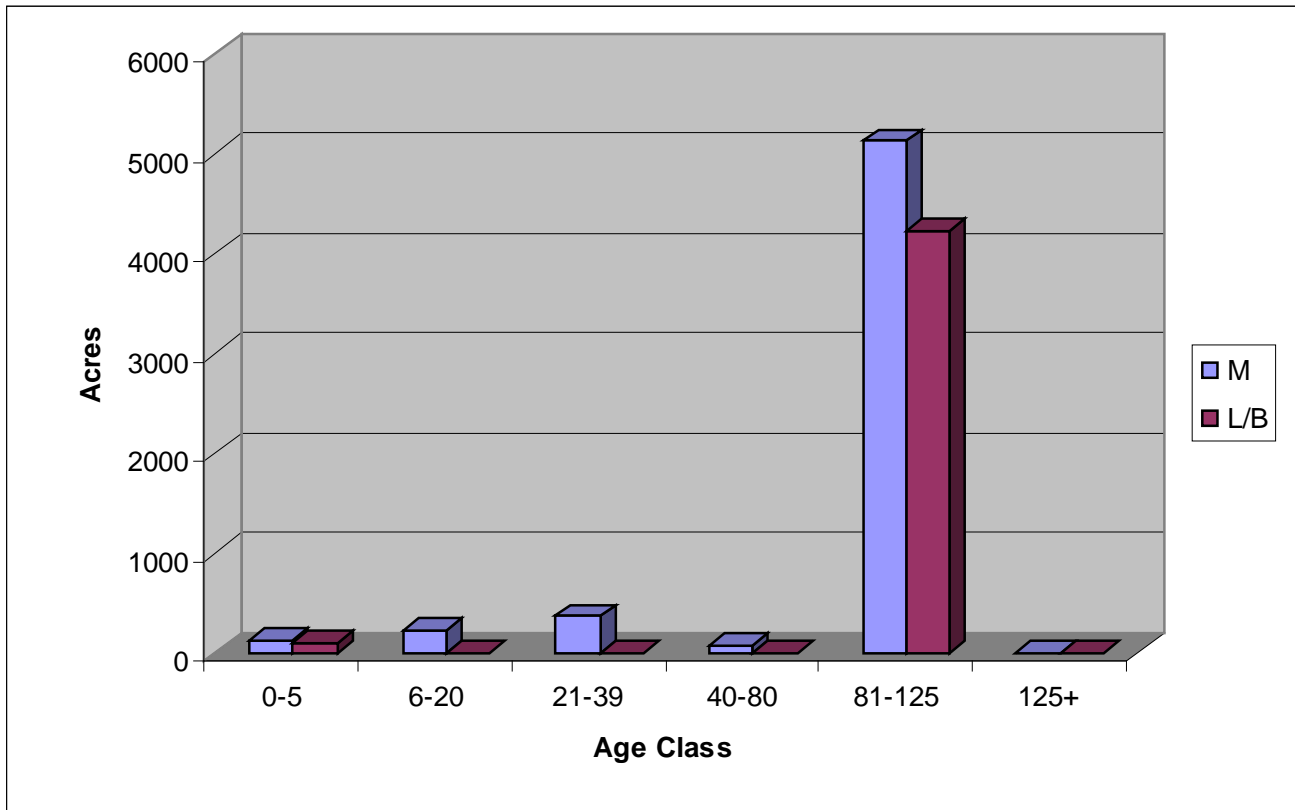


Interspersioning Habitats



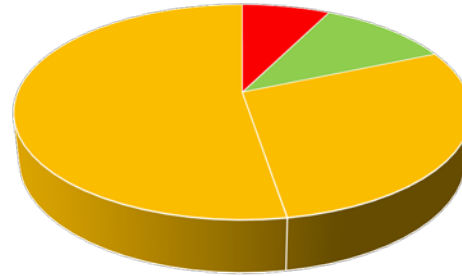
Time Scale





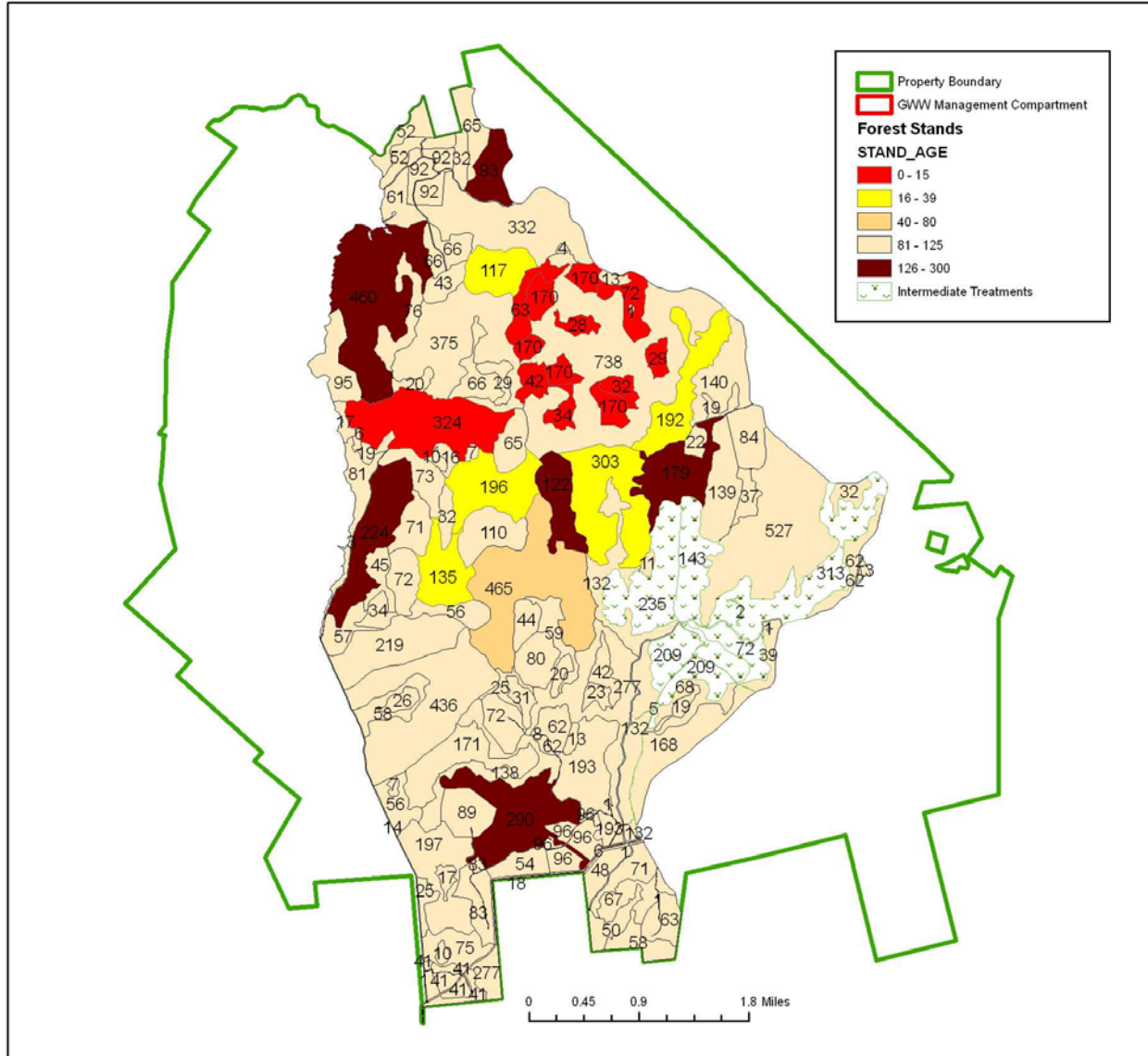


Statewide Age Classes



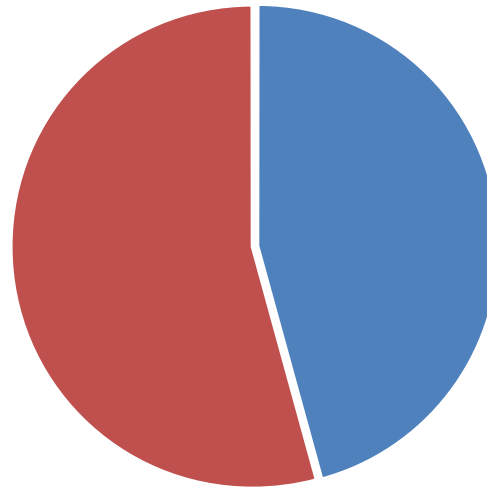
- 0 - 20 Years
- 21 - 39 Years
- 40 - 80 Years
- 81 - 125 Years

Time Scale





State Game Land Forest Types



■ N. Hdwd ■ Oak



United States Department of Agriculture

The Fire–Oak Literature of Eastern North America: Synthesis and Guidelines

Patrick H. Brose
Daniel C. Dey
Thomas A. Waldrop



Forest Service

Northern Research Station

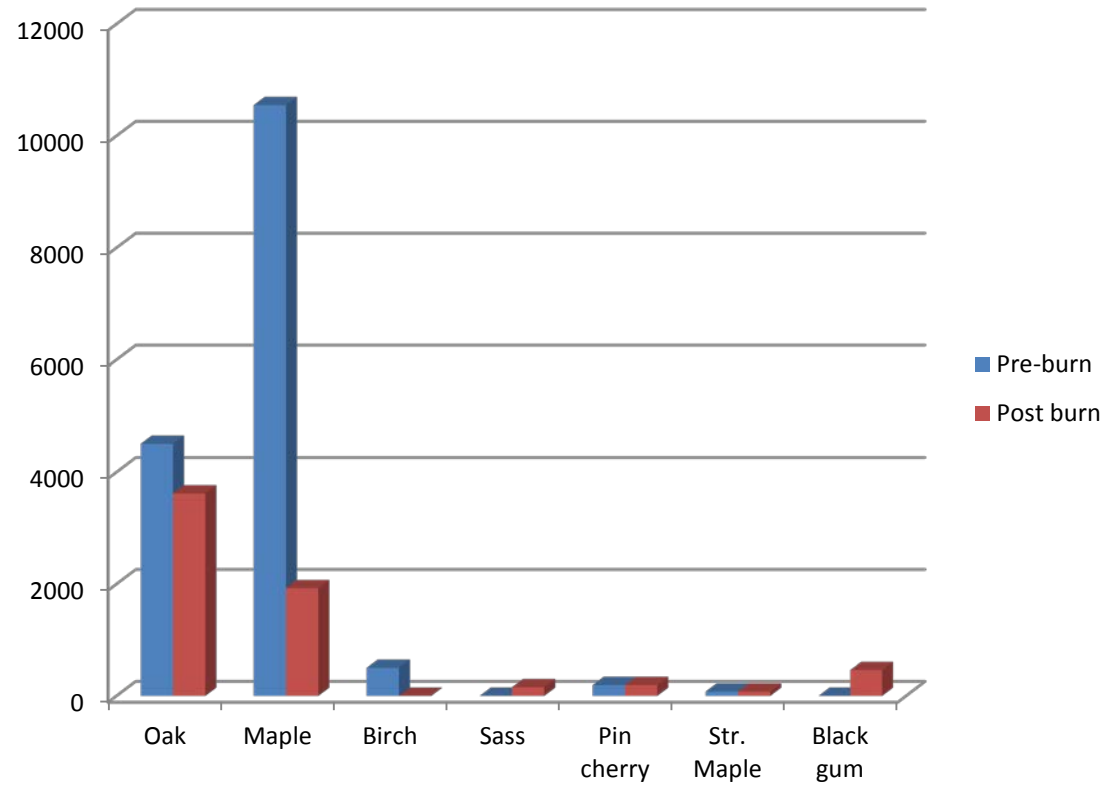
General Technical Report NRS-135

July 2014



Oak habitats







United States Department of Agriculture

The Fire–Oak Literature of Eastern North America: Synthesis and Guidelines

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July 2014



Figure 58.—Oak savannas are characterized by widely-spaced trees and a diverse herbaceous community of forbs and grasses. In eastern North America, oak savannas only occupy a small fraction of their historic range. Photo by Daniel Dey, U.S. Forest Service.





Reconstructing historical fire regimes across Pennsylvania

Investigators:

University of Missouri

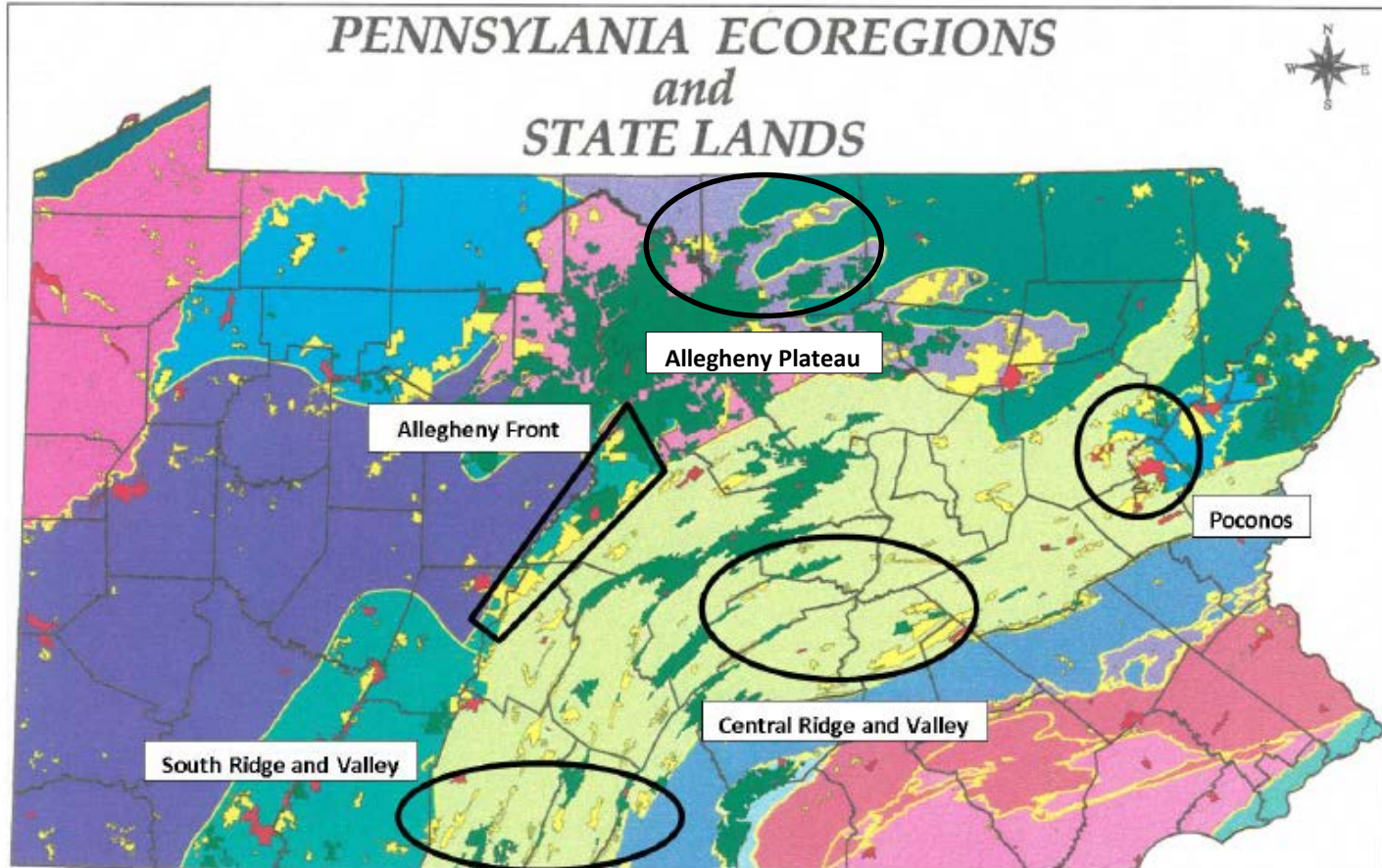
Michael C. Stambaugh, Joseph M. Marschall, Richard P. Guyette

Cooperators:

Pennsylvania Game Commission, Benjamin Jones

U.S. Forest Service, Patrick H. Brose, Daniel C. Dey



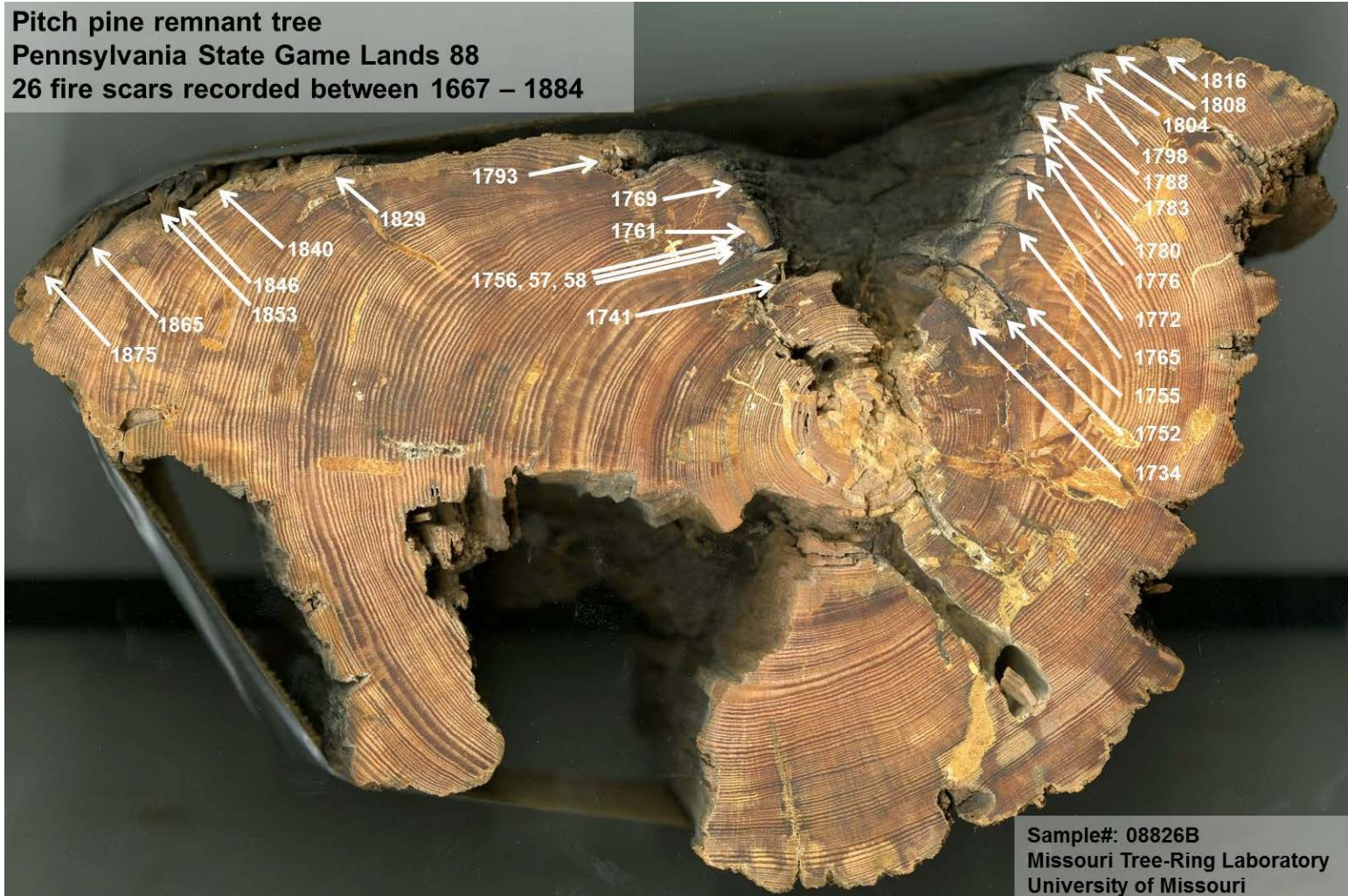








Pitch pine remnant tree
Pennsylvania State Game Lands 88
26 fire scars recorded between 1667 – 1884



Sample#: 08826B
Missouri Tree-Ring Laboratory
University of Missouri





PENNSYLVANIA'S WILDLIFE ACTION PLAN



VERSION 1.0a

In fulfillment of requirements of the
Wildlife Conservation & Restoration Program and
State Wildlife Grants Program.

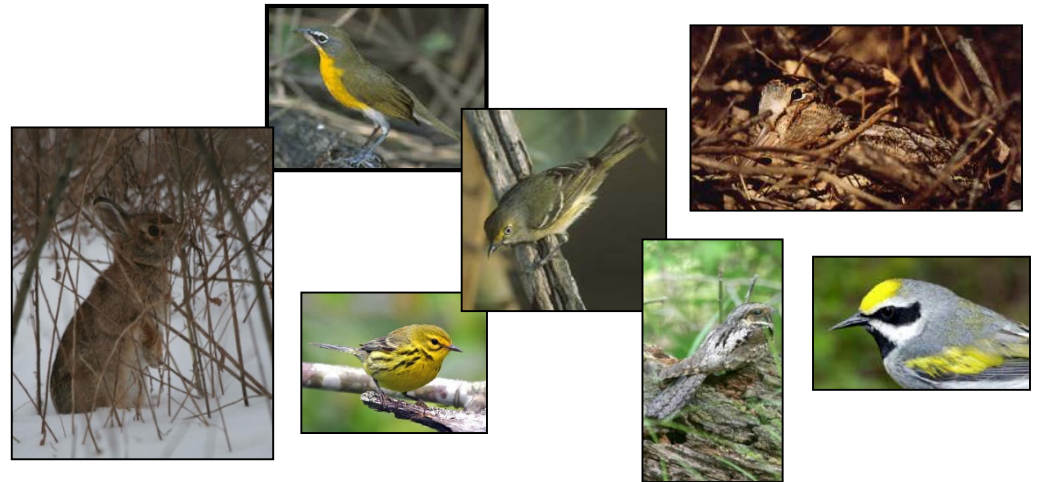
Compiled and Edited by
*The Pennsylvania Game Commission and
Pennsylvania Fish and Boat Commission*



September 2005
Updated May 2008



“Sensitive birds and mammals”

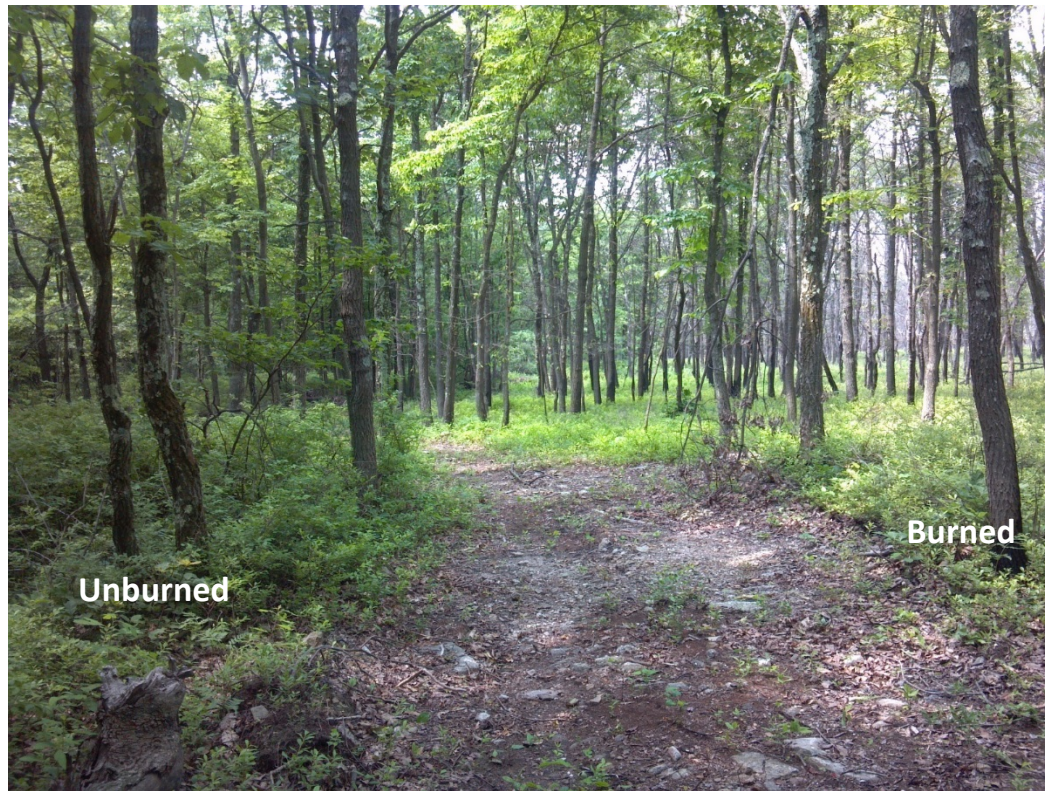


Cited fire exclusion as a
“major threat” to key
habitats





Sunlight





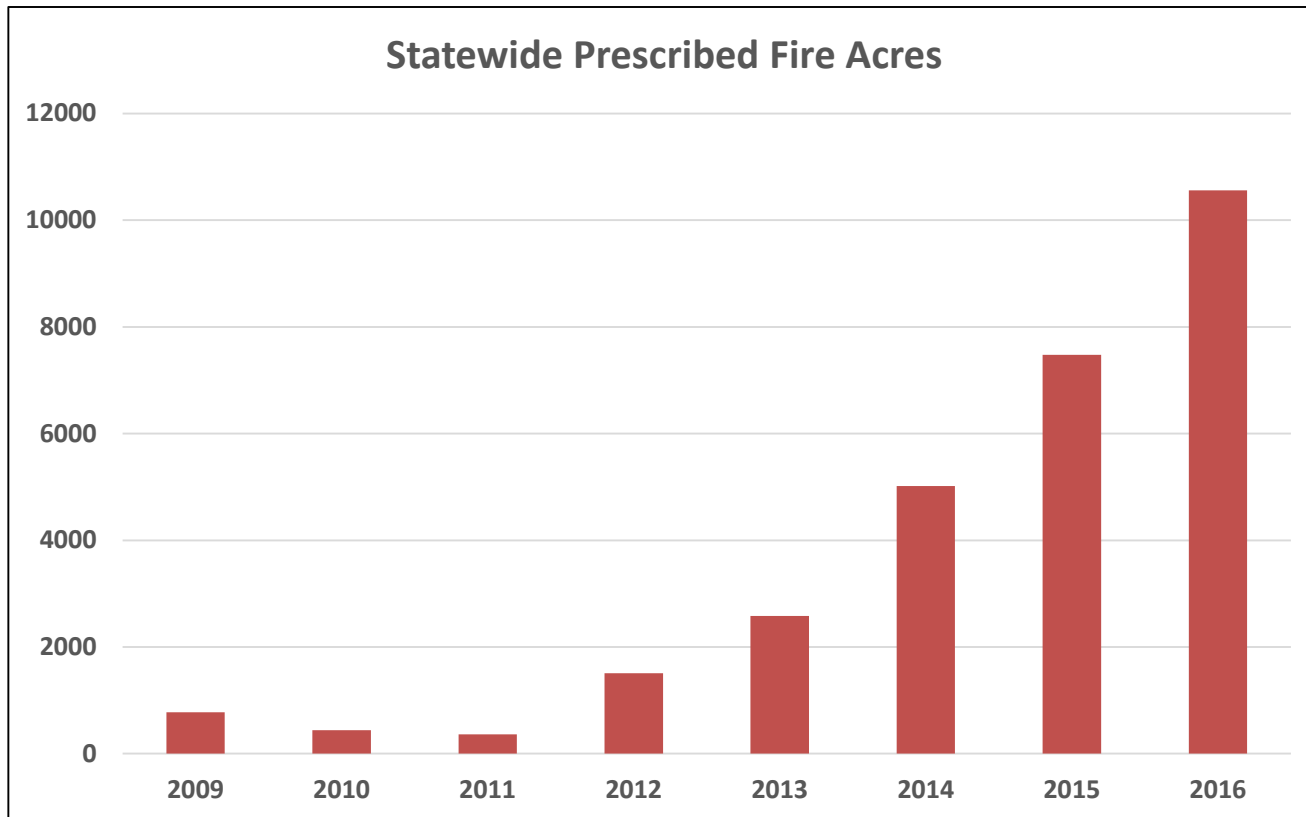
Pre-Burn, closed canopy, red maple with a few oak, decadent blueberry and scrub oak.



Post-Burn one growing season, canopy (mostly maple) mortality, scruboak sprouting, blueberry production exponential.

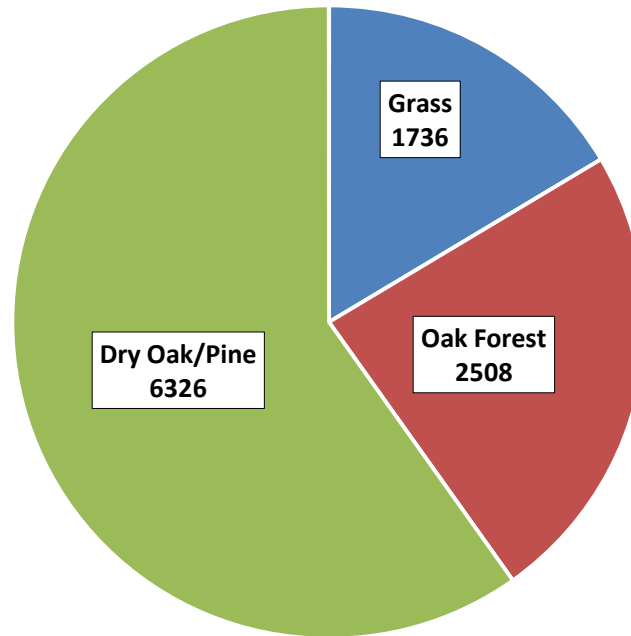


PA Game Commission Prescribed Burning since 2009





2016 Prescribed Fire Acres By Management Goal





Monitoring

- CFI style permanent veg plots
- Improved mobile veg plots
- SILVAH plots
- Photo monitoring
- Canopy monitoring
- Wildlife monitoring





