



Duke Forest

Annual Gathering

November 8, 2018

Agenda

- Introductions
- Presentations
 - *Duke Forest's Year in Review*
 - *Biodiversity & Citizen Science*
- Clarence Korstian Award
- Closing Remarks



Eastern Tiger Swallowtail, *Papilio glaucus*



Office of the Duke Forest Team

(pictured from left to right)

Joy-Lynn Rhoton: Management Intern

Beverly Burgess: Administrative Assistant

Blake Tedder: Communications & Engagement
Coordinator

Sara DiBacco Childs: Director

Jenna Schreiber: Assistant Director

Tom Craven: Supervisor

Craig Hughes: Maintenance Technician

This small staff has made a disproportionately large contribution to furthering Duke University's mission by effectively building collaborative relationships, creating a positive team environment, helping academic units meet their goals, and putting team goals first.



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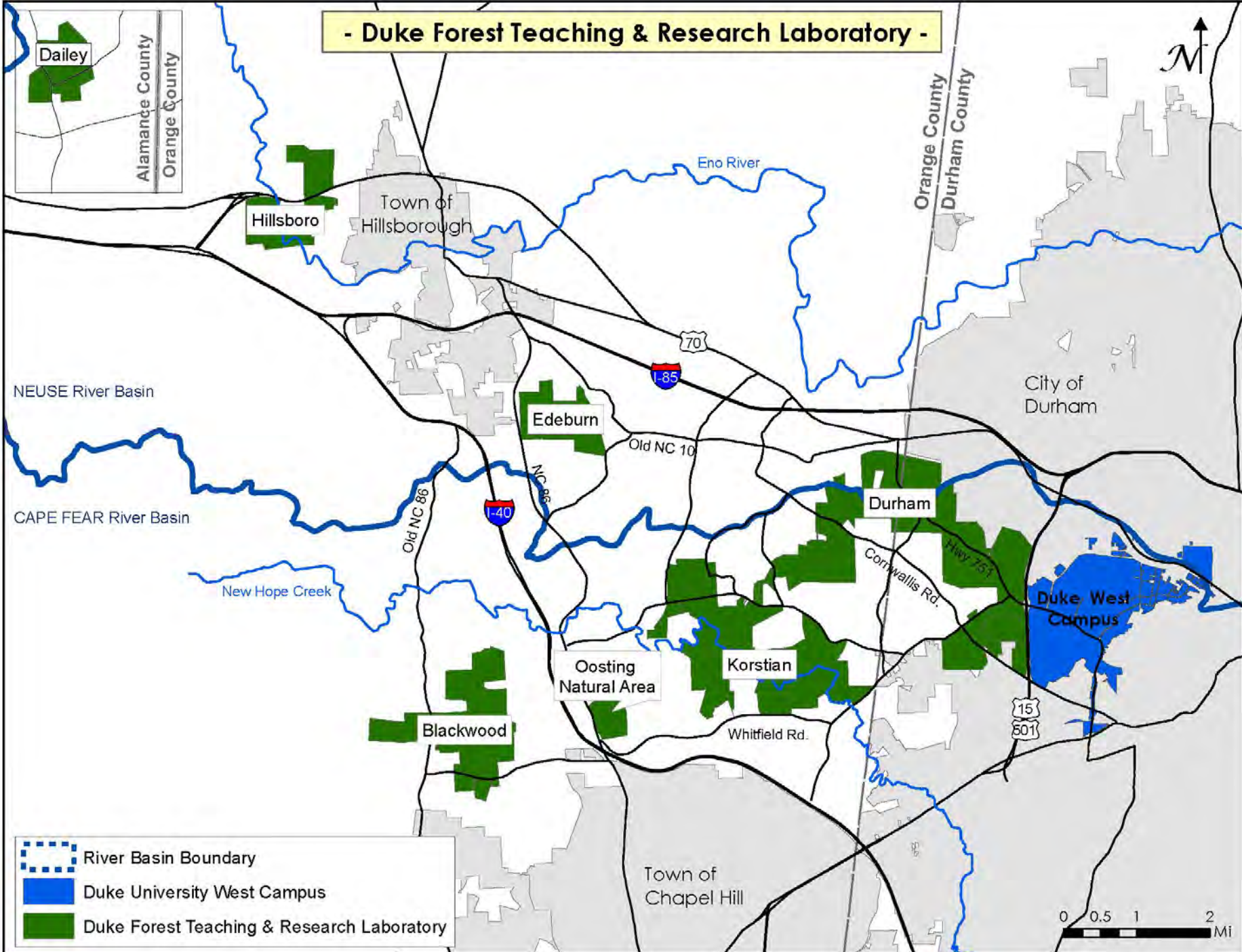
Tom Craven: Supervisor




Craig Hughes: Maintenance Technician



2018 Nominees:
Duke University &
Duke Health
Blue Ribbon
Teamwork Awards

- Duke Forest Teaching & Research Laboratory -



-  River Basin Boundary
-  Duke University West Campus
-  Duke Forest Teaching & Research Laboratory

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Duke Forest **MISSION**



- Facilitate research that addresses fundamental and applied questions across a variety of disciplines
- Aid in the instruction of all students in their pursuit of knowledge, especially regarding the stewardship of our natural resources

Duke Forest **MANAGEMENT**

- Promoting the teaching and research mission
- Sustainably managing resources for timber, water quality, and wildlife
- Protecting rare species, unique ecosystems, historic features
- Providing education and outreach opportunities
- Offering recreational and aesthetic amenities



Duke Forest STRATEGY



- Stewardship for Long-term Sustainability
 - Stewarding the natural, financial, and human resources
- Research and Teaching
 - Contributing to scientific knowledge and interpretation
- Community Engagement
 - Engaging communities to connect with and better understand our natural world

Duke Forest

Year in Review

2017 - 2018



Coral Honeysuckle (*Lonicera sempervirens*)

Duke Forest **RESEARCH**

- 47 projects
- 33 researchers
- 15 institutions
- \$1 million



PI: Jeff Glass

Duke Engineering Professor

- In collaboration with RTI International, Glass and his team are developing a miniature mass spectrometer that could be widely deployed to measure natural gas emissions associated with energy production.
- Using a field site in Blackwood to execute a series of testing protocols for the device.



Duke Forest **TEACHING**

- 31 activities
- 24 educators
- 96 visits
- 870 students



Theory and Practice of Sustainability

Dr. Charlotte Clark, Nicholas School
Tavey Capps, Duke Sustainability Director
Duke Forest Staff

- An undergraduate course that is the foundation of Duke's sustainability certificate
- Duke Forest as client and guest lecturer
- The team produced the work necessary to launch our citizen science program.





Environmental Science Summer Program, Dr. Nicki Cagle

STEM education and college preparation at the Nicholas School of the Environment. Partners with Durham Public Schools to select talented and under-served high school students in the Triangle from diverse cultural and socio-economic backgrounds to participate in a 2-week intensive environmental science program.

Duke Forest MANAGEMENT

Stand Improvements

Hardwood control
Invasive control
Mowing
Prescribed burning

267 acres

205
14
14
20

Planting

35 acres



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Prescribed Burning and Planting Shortleaf Pine

In the Hillsboro Division, the North Carolina Forest Service helped us conduct a site preparation burn in order to plant Shortleaf Pine seedlings. Shortleaf Pine is an important species across the southeast and efforts are underway to restore it across its native range.

Duke Forest MANAGEMENT

Road & Trail Maintenance

Road grading & repair

78 miles

7

Road mowing

51

Trail blazing

9

Trail hazard mitigation

2

Trail trimming

9

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Duke Forest ENGAGEMENT & OUTREACH

- 27 activities
- 702 people
- 44 hours





Duke Forest **VOLUNTEERS**

- 2 events
- 13 people
- 8 hours

Duke Forest

Project Updates



Eastern Box Turtle, *Terrapene carolina*

Duke Forest Five-Year Strategic Plan:

Stewardship for Long-Term Sustainability

Steward the natural, financial, and human resources of the Duke Forest to ensure its long-term sustainability as a major University asset for research, teaching, and community outreach.

- Diversify revenue sources
- Conserve and restore resources
- Maintain stable land base



Mushroom

- Duke Development Strategic Initiative
- New approach to wildlife management
- Continued work on landscape connectivity project
- Interactions and communications to prevent additional fragmentation

Duke Forest Five-Year Strategic Plan:

Research and Teaching

Stimulate contributions to scientific knowledge and interpretation through use of the forest in research and teaching, especially at the frontiers of our understanding and appreciation of the natural world.

- Promote across new disciplines, technologies, and audiences
- Develop capacity to centralize sharing and access to historic and current data



Trout Lily, *Erythronium umbilicatum*

- Bass Connections
- Drones
- Engineering Design
- Duke MAT program
- Duke Archives
- Duke Digital Repository

Duke Forest Five-Year Strategic Plan: Community Engagement

Engage with the University and public communities to expand the forest's role as a stage for academic exploration and to share vital insights about the interaction between humans and the environment, putting that knowledge in the service of society.

- Bolster staff capacity
- Connect communities with science



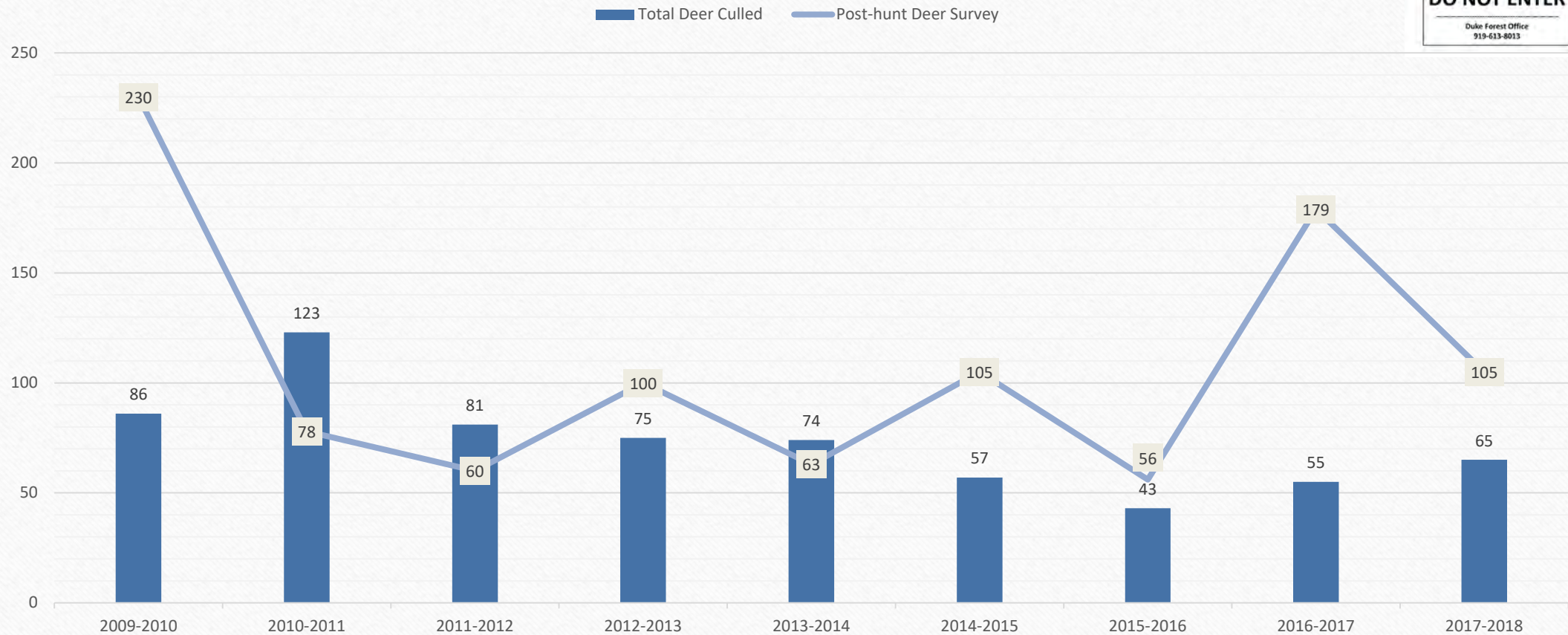
Mushroom

- Blake!
- Citizen science
- Good Leashes/Good Neighbors

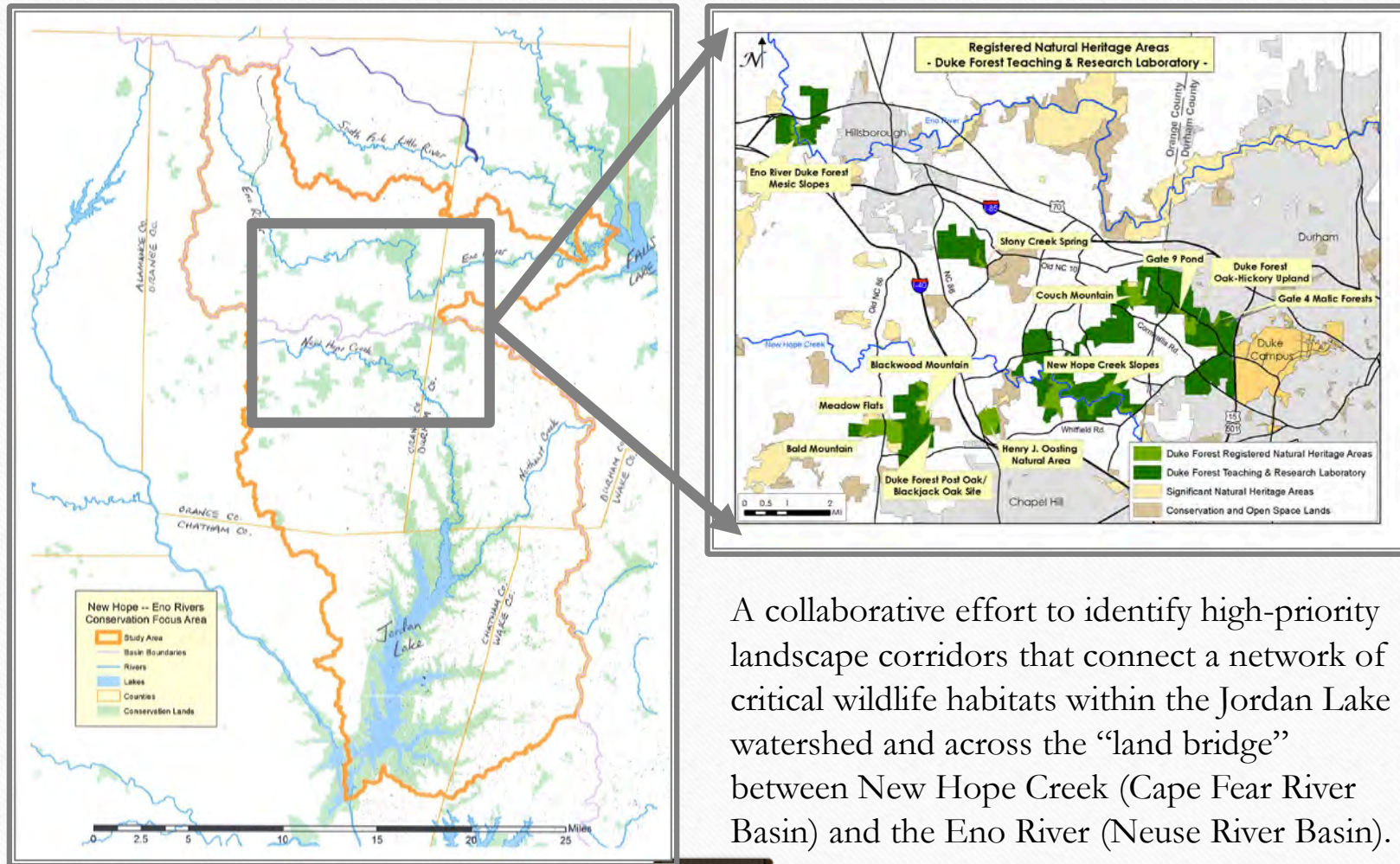


Deer Management Program

Harvest and Spotlight Data

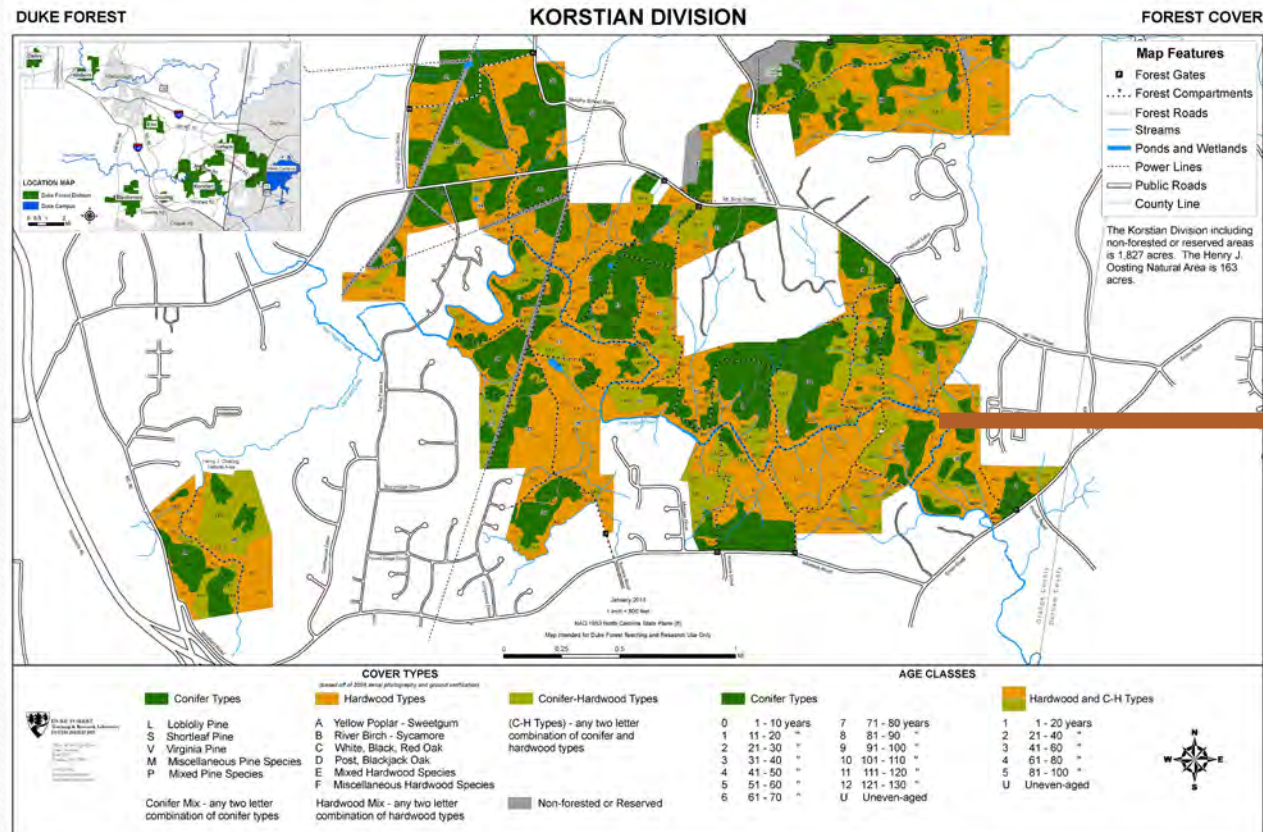


Landscape Conservation



A collaborative effort to identify high-priority landscape corridors that connect a network of critical wildlife habitats within the Jordan Lake watershed and across the “land bridge” between New Hope Creek (Cape Fear River Basin) and the Eno River (Neuse River Basin).

Cover Type and Inventory



Duke Forest UPCOMING EVENTS

- Research Tour
 - Friday, November 30th *OR*
 - Friday, December 14th
- Citizen Science Orientations
 - Jan/Feb 2019
- Pine Cone Pacer 5K (10th)
 - Saturday, April 13, 2019



QUESTIONS?

Subscribe to our newsletter:

dukeforest.duke.edu/newsletter

Check out our vision and priorities:

bit.ly/dfstrategicplan

Dive into a multimedia experience:

bit.ly/df-duke-story

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Biodiversity & Citizen Science

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