

Duke Forest

Annual Gathering

November 13, 2014

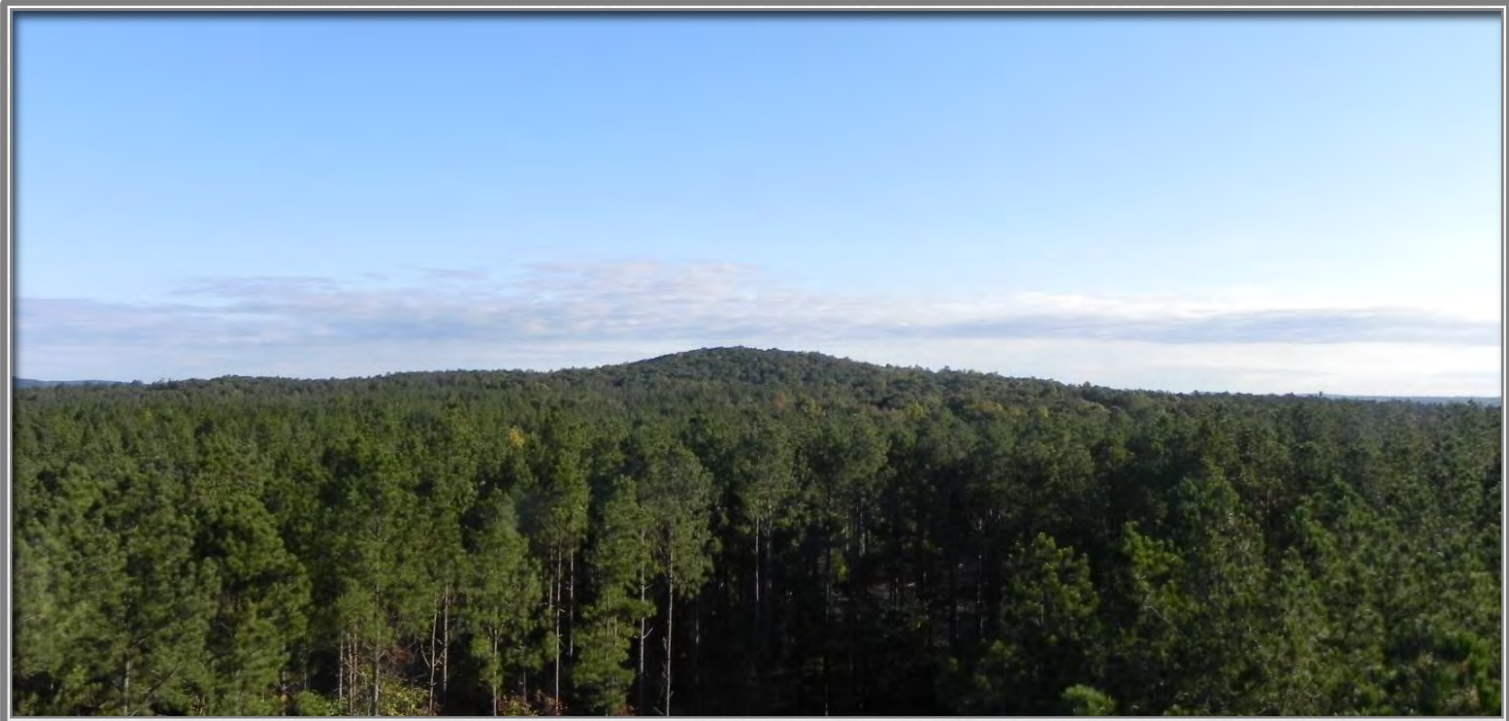
Agenda

- Introductions
- Presentations
 - Duke Forest: *Year in Review*
 - Least Wanted: *Invasive Species*
- Recognition of Judd
- Closing Remarks



Spring Beauty, *Claytonia virginica*

Duke Forest **MISSION**



- Facilitate research that addresses fundamental and applied questions concerning forested and aquatic ecosystems
- Aid in the instruction of students so that they will be informed citizens and effective stewards of our natural resources

Duke Forest **MANAGEMENT**

Priorities:

- 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



The mark of
responsible forestry



Duke Forest

Year in Review

2013 - 2014



Violet Wood Sorrel, *Oxalis violacea*

Duke Forest RESEARCH

- 84 (64, 79, 63) projects
- 68 (48, 58, 52) researchers
- 23 (15, 17, 20) institutions
- 4 (3.8, 5.4, 5.0) million





PI: Daniel Johnson, Duke University

Hydraulic Segmentation in Trees: Understanding how water is differentially conducted through tree trunks, branches, and roots - across tree species - and its implications for drought tolerance.



PI: Brian McGlynn, Duke University

Stony Creek Catchment Hydrology: Linking watershed form to hydrological, ecological, and biogeochemical functions with a focus on ephemeral streams and their impacts on downstream water bodies.

Duke Forest **TEACHING**

- 23 (23, 22, 30) activities
- 19 (18, 13, 19) educators
- 157 (118, 110, 79) visits
- 534 (608, 1244, 926) students





ED: Judd Edeburn, Duke University

Forest Practicum - Graduate students from the Nicholas School of the Environment



ED: Jose Stape, NC State University
Silviculture – Undergraduate/Grad students from NCSU

Duke Forest OPERATIONS

Activity	FY 13-14 (ac)	FY 12-13 (ac)	FY 11-12 (ac)
Pre-commercial Thinning	64	47	0
Commercial Thinning	118	27	9
Regeneration & Intermediate Harvests	185	117	85
Seed tree	44	44	0
Seed tree removal	9	33	69
Selection	41	20	16
Clearcut	69	20	0
Salvage	22*	0	0
Herbicide	89	61	98
Stand Improvement & Release	61	41	75
Invasive control	27	20	23
Maintenance	1	0	0
Prescribed Burning	22	3	24
Planting	0	0	18
Other Cultural	54	5	53
Manual invasive removal	26	5	35
Stand improvement/remediation	28*	0	18
TOTALS	532	260	287

Duke Forest **OPERATIONS**

Road Maintenance – 63 mi

Mowing	37 mi
Side-mount mowing	18 mi
Grading, regular	6 mi
Grading, logging repair	2 mi



Ice Storm Damage

- ~ 187 acres “disturbed” or damaged by the ice storms
- ~ 22 acres of salvage harvesting
- ~ 28 acres of site remediation



Korstian Division – Thinning Operation

Knuckle-boom loader and De-limber



Duke Forest **EDUCATION & OUTREACH**

- 24 (18, 21,37) activities
- 531 (501, 461,802) people
- 61 (43, 43, 81) hours



Duke Forest **VOLUNTEERS**

- 9 (15, 9, 10) events
- 69 (179, 100, 114) people
- 37 (47, 23, 30) hours

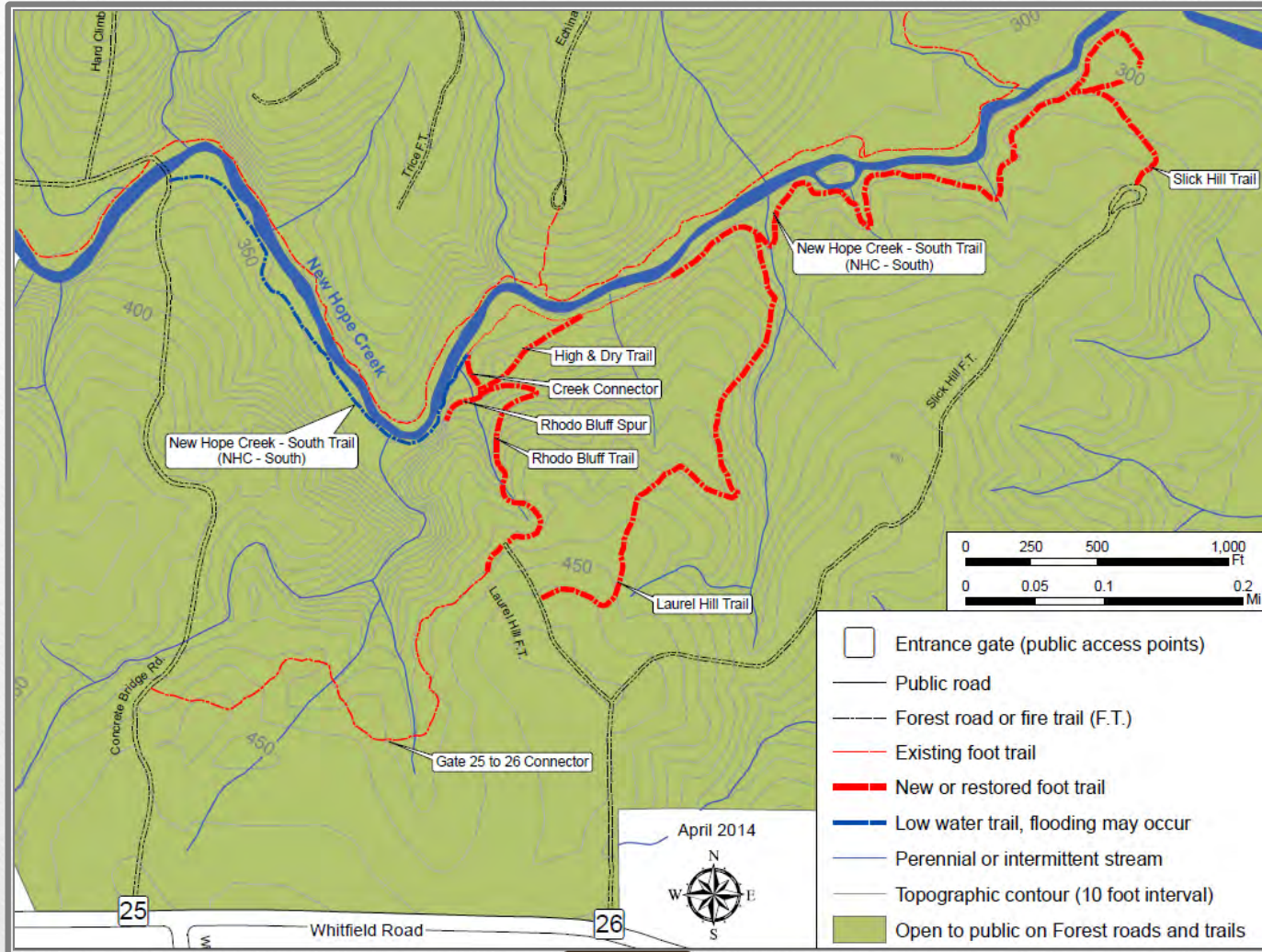
Duke Forest

Project Updates

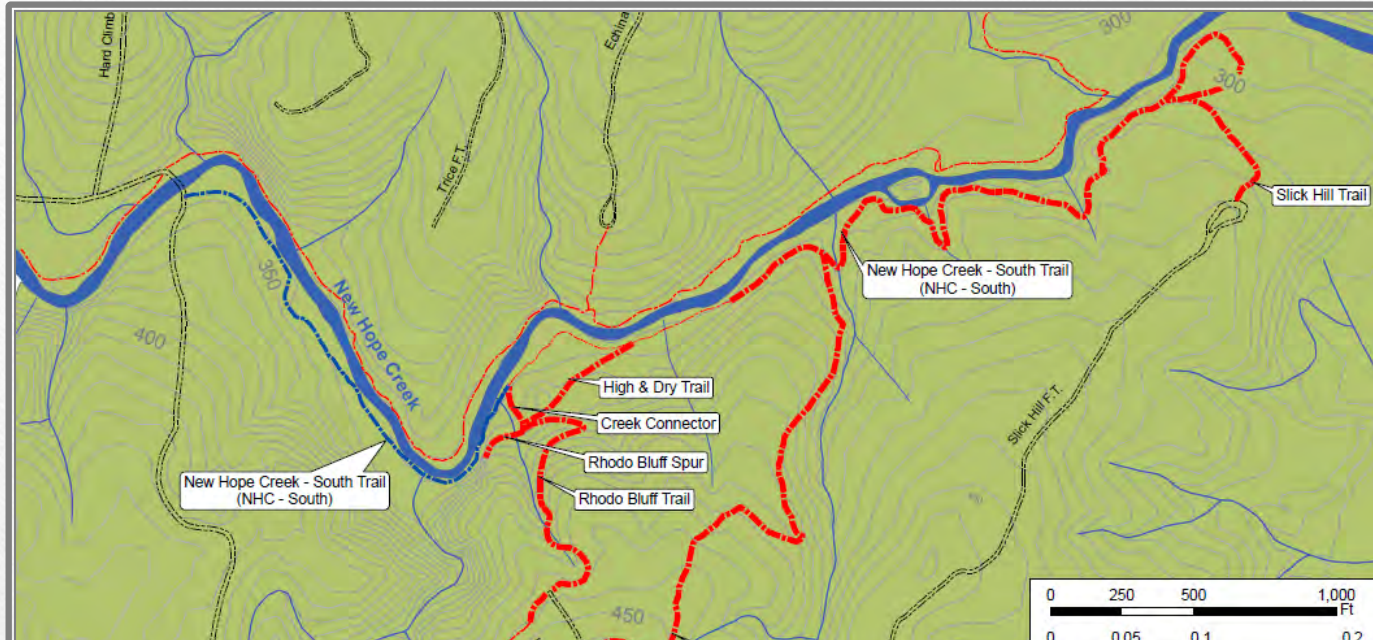


Sundrops, *Oenothera fruticosa*

Korstian Trail Project

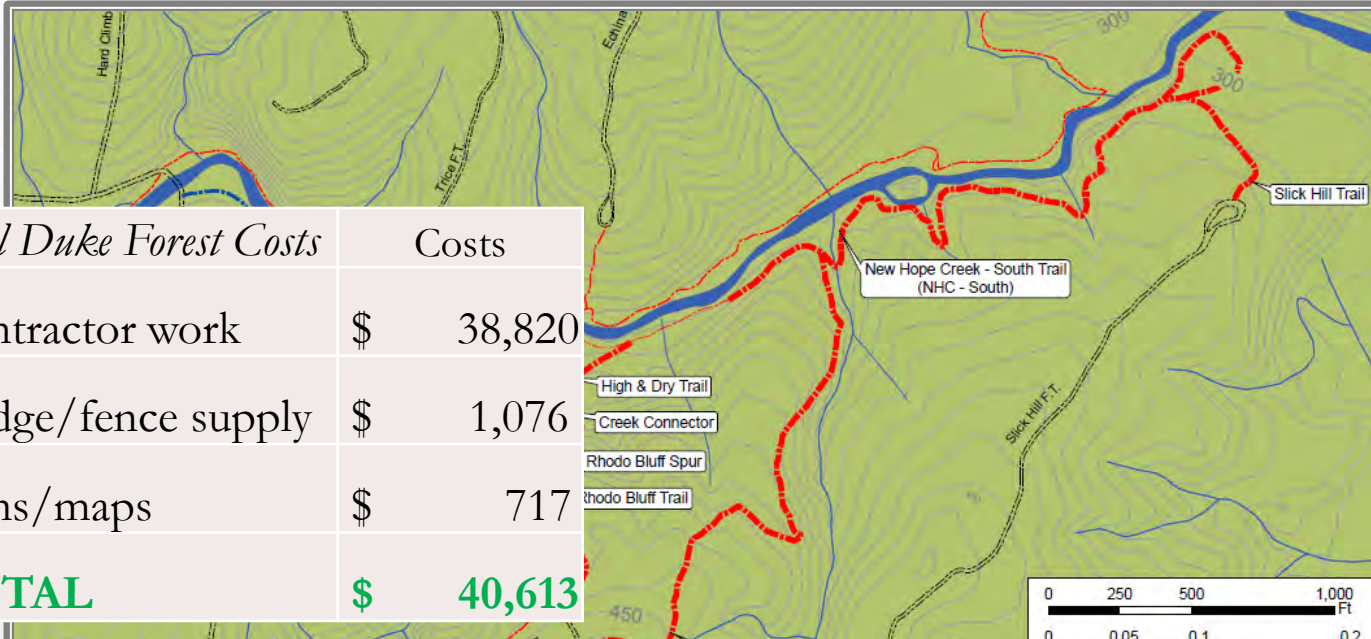


Korstian Trail Project



<i>Trail Work Details</i>	Closed	Rehab	New	Total (ft)	Total (mi)
Phase I	1,817	-	2,070	3,887	0.74
Phase II	2,234	1,229	3,713	7,176	1.36
TOTAL	4,051	1,229	5,783	11,063	2.10

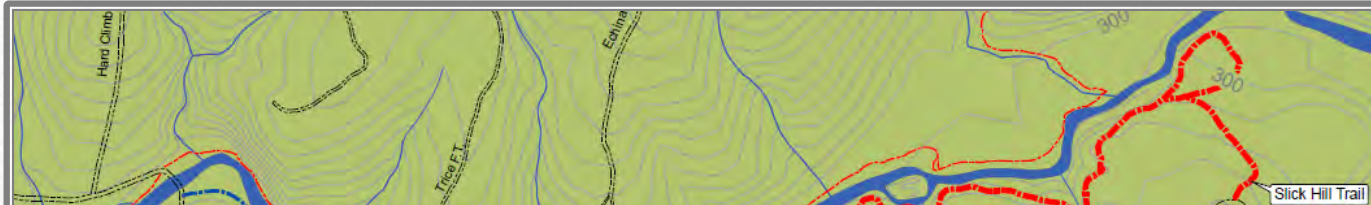
Korstian Trail Project



<i>Total Duke Forest Costs</i>	Costs
Contractor work	\$ 38,820
Bridge/fence supply	\$ 1,076
Signs/maps	\$ 717
TOTAL	\$ 40,613

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<i>Total Duke Forest Costs</i>	Costs	<i>Volunteer Support</i>	People	Hours	Person-hours
Contractor work	\$ 38,820	Phase I	145	39.5	538
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TOTAL	\$ 40,613	TOTAL	179	63	827

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Korstian Trail Project **EROSION CONTROL**



THE
PROBLEM
AREA

← Jan 2012

Feb 2014 →



NCSSM Mini-term Project
Feb 24 – 27, 2014

End of Day 1



End of Day 2



End of Day 3



End of Day 4 - FINAL



Deer Management



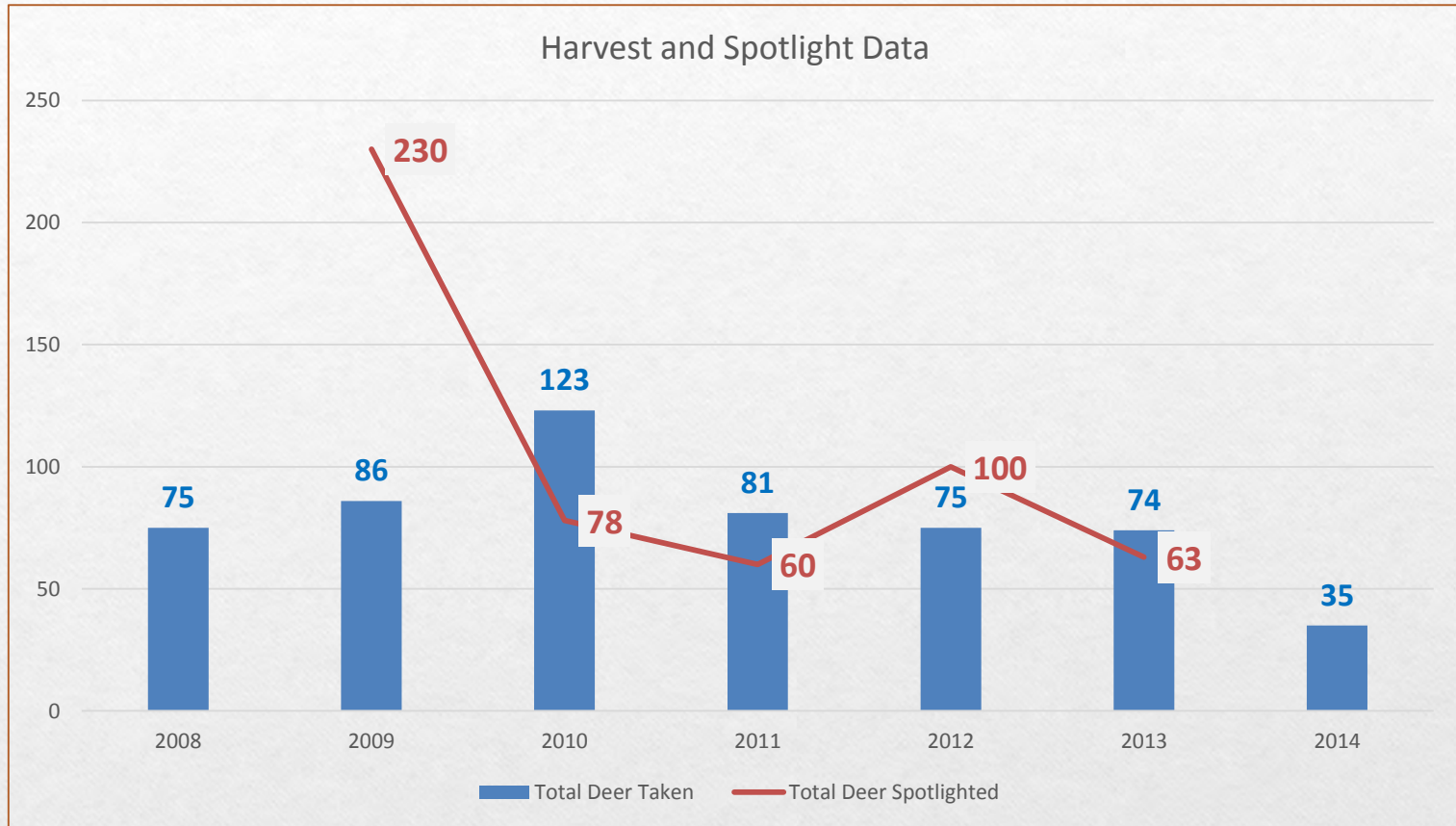
**CLOSED
TO THE
PUBLIC**

**MONDAY through FRIDAY
SEP 29 – DEC 19, 2014**

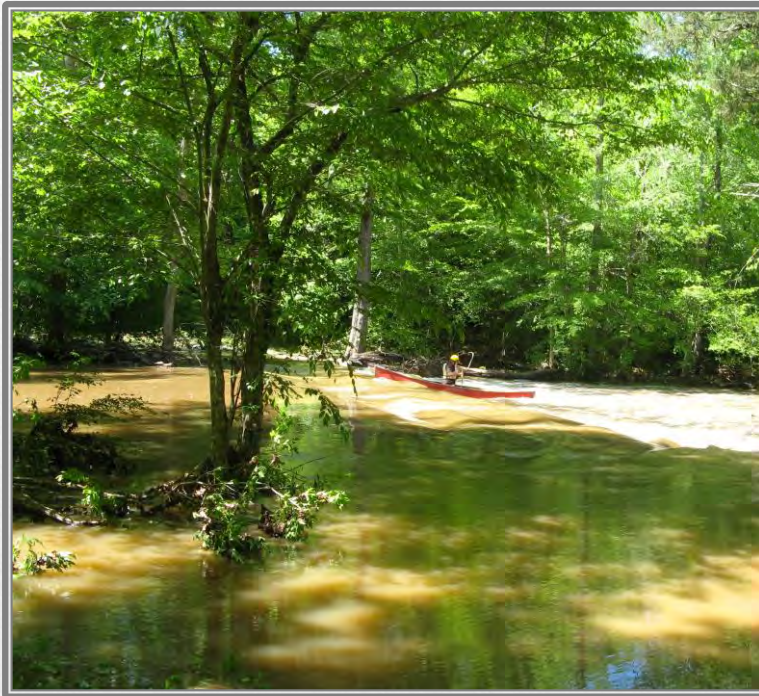
**For the Deer Herd
Reduction Program**

**Duke Forest Office
919-613-8013**

Deer Management



Recreation Study



Survey Responses

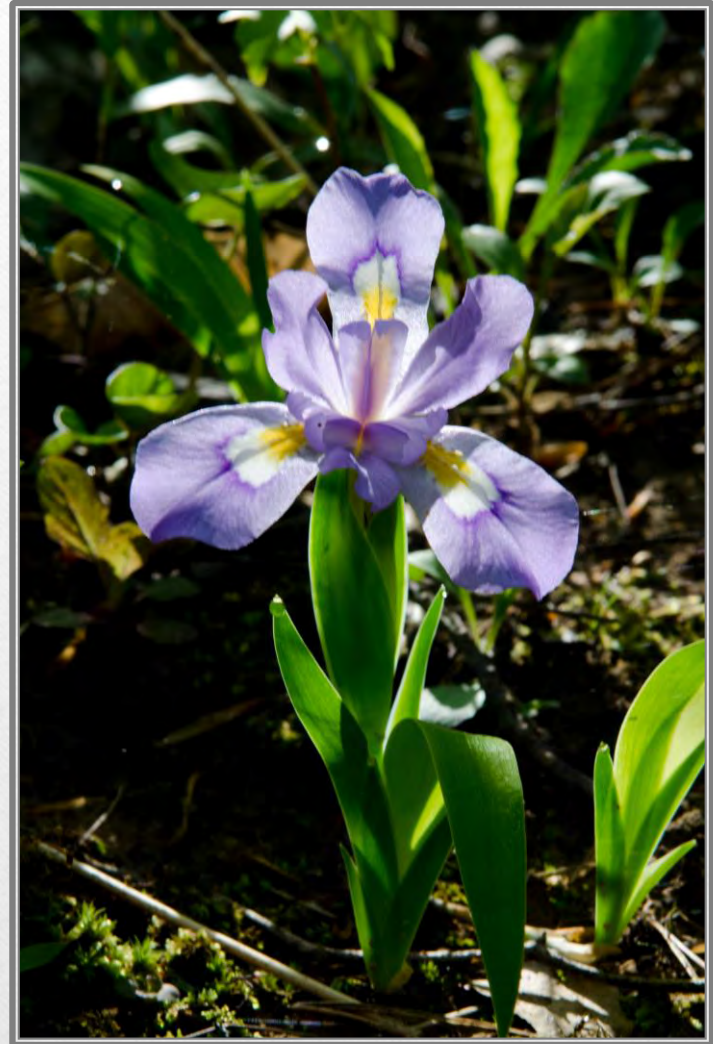
244 total respondents

- Walk, run, walk dog
- Dog waste bags, unleashed dogs
- Durham and Chapel Hill residents
- Not affiliated with Duke
- Unaware of citations...



Duke Forest

Upcoming Events



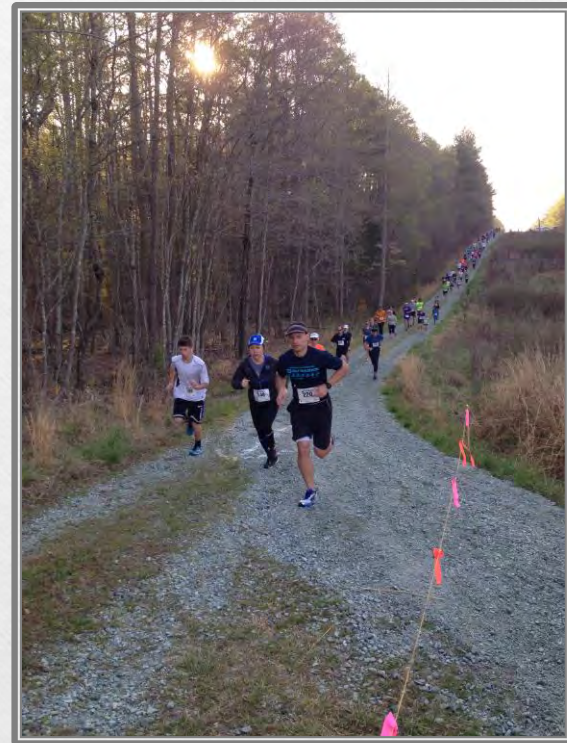
Dwarf Crested Iris, *Iris cristata*

Special Events

- Research Tour
 - Friday, December 12, 2014
- 6th Annual Pine Cone Pacer 5K
 - Saturday, April 18, 2015

*For details and to register, go to our website or call
613-8013*

*Check the website frequently for additional events or
sign up for our Event Listserv*





www.dukeforest.duke.edu
www.facebook.com/dukeforest
dukeforestproject.wordpress.com