

Field Notes

NEWSLETTER OF THE FRIENDS OF PLANT CONSERVATION

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Fall in the Uwharries

Friends Annual Meeting October 23-25

Select — Protect — Connect



Crystal Cockman, our Treasurer and Associate Director of the Central Carolina Land Trust, has planned an extraordinary event for our Annual Gathering.

Born and raised in Moore County (just east of the Uwharries), and with a love of plants, the environment, and conservation, Crystal knew just what she wanted us to know about the Uwharries, and who to call to put it together.

For those who can take off Thursday afternoon, Crystal will guide a canoe/kayak trip at Narrows Lake (Badin) to see what is left of the fall blooms of endangered Yadkin River goldenrod—a plant you will see no where else on earth. On the way you will pass by scenic rock outcrops, a waterfall, and Badin Dam in addition to being treated to fall on the water, and with luck, a sunset over the lake.



www.bringfido.com

Friday at the NC Zoo will feature a variety of speakers knowledgeable about the history, geology, and flora of the Uwharrries, and what makes the area special.

In the afternoon we will visit Harvest Field. If lucky, a few Helianthus schweinitzii may still be in bloom, but most will have gone to seed. We will learn about oak-shortleaf pine savannah restoration, associated fauna and flora. Our visit will conclude with a BBQ & Veggie picnic at Pisgah Covered Bridge.



Saturday morning presents an opportunity to visit Boon Chesson's longleaf pine forest.

You should already have in your hands the Annual Meeting information, program agenda, and registration details. If you have misplaced the materials, they are included at the end of this newsletter, and available online at www.ncplantfriends.org

Board of Directors

Paul Hosier, President hosier@uncw.edu

Katherine Schlosser, Vice President kathyschlosser@triad.rr.com

Camille B. Collins, Secretary camillerose22@gmail.com

Crystal Cockman, Treasurer Crystal@landtrustcnc.org

Andy Wood, Education, Program awood@coastalplaincg.org

Bob Shepherd shepb@bellsouth.net

C. Bruce Williams cbw.3@earthlink.net

Gary Wein hitrust@earthlink.net

Ola M. Lewis
Ola.M.Lewis@nccourts.org

Advisors & Staff

Rob Evans, PCP Coordinator Rob.Evans@ncagr.gov

Lesley Starke, Research Specialist Lesley.Starke@ncagr.gov

Nancy Stewart
Info. Processing Tech., Ginseng Coor.
Nancy.Stewart@ncagr.gov

David Welch, PCP Administrator David.Welch@ncagr.gov

Vernon Cox, Director NCDA&CS,Plant Industry Division Vernon.Cox@ncagr.gov

Phil Wilson, Plant Pest Admin. Phil.Wilson@ncagr.gov

News from the Board

Shortia Project Update



With funding for the purchase of the Shortia tract in place, negotiations continue. We remain confident that I the Shortia tract will be saved. We will keep you advised.

Meanwhile, contributions to the Land Acquisition and Management fund are welcome. Once is site is secured, there will be some immediate management needs

Crystal Has Been Busy....



In addition to planning our Annual Gathering, Crystal has implemented our first foray into product development. At the Gathering, we will be offering Friends coffee mugs for purchase (price to be determined, but they will be reasonable!).

Be sure to look for them, and if you cannot attend the Gathering, contact us and we will mail you one or more—shipping cost shouldn't be too much, and once the mugs arrive, we can let you know the total.

Select — Protect — Connect

Annual Meeting October 23—25, 2014

A Bonus, arranged by board member Andy Wood:

With your registration, you will be eligible for a pass to the Zoo. Just let us know to order one for you and any family members you bring along.



Contributions toward the acquisition and management of the Shortia project, and management of all other NCPCP Preserves since the last newsletter.

Unrestricted Fund

Leonard & Joyce Tufts
Ann Prince
Saluda Community Land Trust
Judy & Jack Dewar
Jep Whitlock (Lumber River Native Plants)
Tom Baugh
David Welch
Thomas Hancock
Paul Hosier
Gary Wein
Dale Suiter
Howard Singletary

Jesse's Fund (Land Stewardship)

Haydee Dominguez
Tara Mann
Kathy Schlosser
Robert & Ruth Stolting (Eastwood)
Hawthorn Garden Club (Marian McSwain)
James Coke (Shortia)
Equinox Environmental Consulting & Design
(Shortia)
Charlie Williams (Shortia)
Catherine Bollinger
Marie Poteat (Jesse's Fund and Shortia Fund)

Thank You!

If your name does not appear above, and should, please contact me right away: kathyschlosser@triad.rr.com

Troxler announces funding for hemlock restoration

CEDAR MOUNTAIN – Agriculture Commissioner Steve Troxler announced the allocation of seed funding for a new effort to restore North Carolina's hemlock trees to long-term health

Hemlocks across Western North Carolina are being decimated by the hemlock woolly adelgid, an insect that sucks the sap of young twigs, which leads to tree death. Dead hemlocks can negatively affect nesting songbirds, trout populations, plant nurseries and landscapers, homeowners and tourism.

The N.C. Department of Agriculture and Consumer Services will use \$100,000 from the state's legal settlement with the Tennessee Valley Authority to start the Hemlock Restoration Initiative. Troxler made the announcement at a meeting of the General Assembly's Agriculture and Forestry Awareness Study Commission at DuPont State Recreational Forest.

"We can and must do more to restore hemlocks on public and private lands as soon as possible," Troxler said. "Our goal is to ensure that, by 2025, Eastern and Carolina hemlocks in North Carolina can resist the adelgid and survive to maturity." Troxler said many people, groups and agencies already are working on promising approaches to return hemlocks to long-term health. These include the search for naturally resistant trees, testing of predator beetles that eat adelgids, and efforts to bring in resistance from similar tree species. "We are focused on speeding up the most promising ideas, not reinventing the wheel," he said.

The department has selected WNC Communities as its primary partner to implement the project. The Asheville-based non-profit organization has experience in grants management, project development and using partnerships to achieve goals that benefit the region. "WNC Communities can bring together the right mix of researchers, funding organizations and others to make sure we use the best efforts to return hemlocks to long-term health," Troxler said.

The program will include efforts to convene researchers to share solutions, provide funding to advance the most promising approaches, and attract additional resources to expand these efforts in the future.

As past president of the National Association of State Departments of Agriculture, Troxler also will be working with his colleagues in other states to bring more resources to the table. "Hemlocks can be found in 25 states, and state boundaries are meaningless to the adelgid," he said. "We need to work across state lines to bring together the best people and resources to solve this problem."

STEWARDS

The Methodist University Ecology Class would like to thank David Welch and Rob Evans for giving us a tour of the Pondberry Bay Preserve on Tuesday, April 8.

The class learned about the NC Plant Conservation Program, its efforts to acquire and manage preserves throughout the state, the importance of preserving habitat to insure rare species survival and recovery and the critical role volunteer organizations such as the Friends of Plant Conservation serve in the statewide effort to save plants.

We additionally had the opportunity to ask David and Rob about their educational and professional background and how they came to work for the NC Plant Conservation Program. Both men shared their excitement about program victories and were candid concerning frustrations they encounter trying to meet the goals and objectives associated with plant conservation in North Carolina.

Several Methodist University students expressed an interest in volunteering for upcoming preserve workdays. We hope to build upon this introduction and provide the NC Plant Conservation Program with volunteers as well as introduce students to field professionals and future job opportunities.

You can check-us out at https://www.facebook.com/pages/Methodist-University-Ecology-Club/729359087093163







MORE ON BOGS VS FENS...

Fen

- Peat-forming wetlands
- Water source: primarily fromother than precipitation (inflowing steams, groundwater)
- Less acidic than bogs
- Higher nutrient levels than bogs
- Support more diverse plant community than bogs
- Sometimes covered by grasses, sedges, rushes, wildflowers

Bog

- Spongy peat deposits, floor of sphagnum moss
- Most water from precipitation rather than runoff, groundwater, streams.
- Acidic water
- Low in nutrient levels plant communities adapted to waterlogged, acidic, low nutrient conditions
- Prevent downstream flooding by absorbing precipitation.

Pocosin

- Evergreen tree & shrub cover (red bay, sweet bay, titi, fetterbush, zenobia, carnivorous)
- Mostly no standing water (spring & summer), but a shallow water table (saturated soil)
- Precipitation provides most of the water
- Acid soil, nutrient poor mix of peat and sand w/charcoal from old fires
- Fire adapted every 10 30 years increases plant diversity
- Provide habitat for black bears and other wildlife
- Threats: timber harvesting, peat mining, and phosphate mining join agriculture as the biggest threats to the remaining undisturbed pocosins

Photos from Cedar Mountain Bog, which is most likely a fen:



Understory that had encroached on the area was removed, and a restoration burn conducted. The result—the area is returning to its former glory.

We were greeted by a wall of eastern turkeybeard, *Xerophyllum asphodeloides*

Rob Evans and stewards Jean Woods and Joe Hamrick search for *Sarracenia*.



ON CLOSING A PRESERVE...







Due to the fragile nature of this bog, it is closed to visitors.

Access is by permit only.

Walking compresses the peat floor of the bog and prevents the growth and development of the native flora.

Please help protect our native ecosystems by allowing this site to recover.

Contact the NC Plant Conservation Program in the NC Dept of Agriculture and Consumer Services with questions regarding visitation, permits, and field trips to this site at: 919-707-3755

http://www.ncagr.gov/plantindustry/plant/plantconserve/

On the discovery this past Spring of the recovery of *Arethusa bulbosa* at Cedar Mountain Bog, there was a flurry of activity and visits to the site, many without proper access permits. One of the unfortunate results was that one of the three stems of the plant was broken, likely in the excitement of getting photos. Another observed problem is the trampling of the peat due to repeated walking, and the many broken stems of what is presumed to have been white fringeless orchid.

A bog is a fragile place, and most of us know not to enter without 1) an access permit, and 2) some means of avoiding all possible trampling. The effects of trampling are long-lasting:

Recreational use of peatlands is a cause of disturbance. Due to the soft surface and low growing plants peatlands are likely to be much more sensitive to moderate disturbance than many other areas (Charman 2002). A study of systematic trampling for 10 minutes, repeated three times a year for three years almost destroyed the cover of *Sphagnum recurvum* and *Sphagnum fuscum*, and had dramatic changes to the soil fauna (Borcard & Matthey 1995). The construction of boardwalks on heavily used trails is recommended, and the closure and restoration of infrequently used trails is advisable.¹

This and other available information led the NC Plant Conservation Program to close Cedar Mountain Bog to

further visits without permission (requiring a specific, justifiable reason) until the extent of damage can be determined, and plans put in place to protect the site from further damage while allowing continued restoration work and scientific study.

Even more disheartening was the disappearance of the single seed pod from the remaining bloom of *Arethusa bulbosa*, which had



given us hope of an expanding population. That hope has been presumably stolen (the plant was caged against damage or herbivory).

¹Cobbaert, Danielle, M.Sc., Ph. D. *Candidate Biophysical Inventory and Evaluation of the Lulu Island Bog Fill article available:*

http://www.geog.ubc.ca/richmond/city/ bogrestoration.html An intrepid group of 20 visitors were greeted with a big display of bright yellow Pondberry stems blooming under threatening cloudy skies at the March 16 open day on the preserve. The group joining Rob Evans and stewards Dale Batchelor and John L. Thomas for the afternoon included an artist, botanists, historians, a graduate student doing Master's research on the site, descendants of the Holmes and

White families who had owned the property in the past, and a group of interested local citizens from the Roseboro-Salemburg area.

The predicted downpours never arrived, and we were able to spend over 3 hours in a number of different areas of the preserve. Rob walked us through the Pondberry bay where it appears the effects of recent burns have been quite beneficial, eliminating much of the Loblolly cover and allowing the Pond Cypress a much better environment. The Pondberry plants are thriving after the burns. The group was very interested in Rob's discussion of the management goals and processes being applied in the different areas of the preserve. A.J. Bullard stayed busy quizzing grad student Kip Callahan, who seemed to be sweating a little more than the rest of us on the chilly day.

Leaving the Pondberry bay we drove a short distance to a stream head pocosin for a close look at a stand of Atlantic White Cedar growing in a dense thicket of evergreens including *Ilex coriacea*. From there our focus shifted from botany to history as we drove across the preserve on the old stage road and visited the ruins of the Holmes plantation on the edge of Little Coharie Creek.

Sampson County historian Joel Rose and members of the Holmes family gave us a lot of fascinating specific information as we visited the small cemetery. Next Rob took us to a nearby site he had discovered only the previous week, where the remains of brick foundations are visible at the spot where the old stage road meets the creek.

We believe it very likely that these are the ruins of the



home of Governor Holmes. Also with us was Matthew Brown of Raleigh, a civil war historian for the state, who gave us a fact-filled and humorous account of the accomplishments of Governor Holmes and of his son Theophilus, who grew up on the plantation and later became the senior commanding officer from North Carolina in the civil war. We all enjoyed exploring the old home site and conjecturing about the exact location of the bridge, which

was crossed by thousands of Sherman's troops during their occupation of the area.

Leaving the plantation site we paid a visit to the millpond across the stage road from the home. The history of this pond is unclear, but the size of the Cyrilla trees around the perimeter indicates that the pond has been there for quite a while. From the pond we finished the afternoon with a drive back on the old stage road through some areas where the restoration to longleaf savanna is more mature, and we were able to show our visitors some good examples of what we are trying to achieve.

We were quite pleased with the number and variety of participants in this open day, and with the diversity of the program that was presented. While our primary focus is of course the preservation of the plants, it is still very useful to study the history of the site where our restoration work is taking place.

