



Friends of Congaree Swamp News

Rain fails to dampen Dawn Chorus

About 20 birders joined Dr. Jerry Griggs to dodge thunderstorms for the annual Robin Carter Dawn Chorus Walk on May 1.

Donna Slyce, who has led the walk since 2008, was unable to join us due to health problems.

Fellow experts on the hike included park ranger Patrick Hair and Columbia Audubon president Dr. Caroline Eastman.

Highlights included pre-dawn Chuck-Will's Widow, Black-throated Blue Warbler, Ovenbird, close looks at a Prothonotary Warbler and a decidedly non-avian armadillo.

The weather was cooperative until 15 minutes before the return for breakfast, when a serious downpour interrupted both the walk and breakfast preparations. A special thanks to Sharon Kelly and Rhonda Grego for help with set-up,

as well as long-time dawn chorus volunteer Virginia Winn, who showed up for moral support despite an injured shoulder.

During breakfast Scott Teodorski, the park's chief interpretive officer, shared the schedule for the May 20-21 BioBlitz and encouraged volunteers for the park's many events on those days.

There is usually a good find back at the picnic shelter itself, and this year was no exception, as we heard the characteristic squeak of a Rose-breasted Grosbeak during clean-up. Some participants birded throughout the day



Searching the trees to match birds with songs

as part of the Spring North American Migration Count at the park, a count originated by former park staffer Kathleen O'Grady, who is now working at Big Thicket National

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Save the date

Butterfly count

The summer North American Butterfly Association Butterfly Count will be held **Saturday, June 11**, from 9 a.m. to 4:30 p.m.

Congaree National Park staff members David Shelley and Frank Henning and Carolina Butterfly Society members Marty and David Kastner are

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President's Corner

Dr. John Grego

Feral hog project

Recall from our Fall 2015 newsletter that Friends of Congaree Swamp contributed \$10,000 toward the park's three-year interagency agreement with U.S. Department of Agriculture to hire a feral hog management specialist; more simply, a wildlife specialist.

The wildlife specialist, Jake Beechler, has been filing monthly reports on his efforts since November. Obviously, he has struggled to deal with persistent flooding but he has placed traps along the periphery of the park,

with greatest success at Garrick Road and the Western Boundary. The eastern end of the park experienced too much flooding in the winter for efforts there to be successful.

In his reports, Beechler suggested a system of trapping sites along the river, which could be a singularly productive strategy.

The park was able to launch this project in part due to large carry-forward in last year's budget from unfilled positions. With staff positions filled, the park has less funding than in previous years. Efforts to secure funding to

support the interagency agreement have been unsuccessful to date.

Friends of Congaree Swamp will again make a substantial contribution to funding, and has contacted the National Park Foundation for additional support. We also applied to the Blue Sky Funders Forum for support. As part of the park centennial, the forum has asked groups supporting

parks to submit a proposal representing a high-priority project. We recently submitted the proposal with support from the park and hope to hear good news soon. In the meantime, both the park and Friends will continue to seek opportunities to continue this essential project.

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Yellow dots indicate feral hog trapping sites

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Friends of Congaree Swamp advocates for Congaree National Park and its unique environment.

Dr. John Grego, President

Sharon H. Kelly, Editor

Friends comments on natural gas pipeline

The comment period on the Federal Energy Regulatory Commission's environmental assessment for the natural gas pipeline from DAK Americas in Calhoun County to International Paper in Eastover ended recently.

Background on the project is available in the Summer 2015 and Winter 2016 newsletters at www.friendsofcongarree.org.

Filings on the FERC website indicate that the last private entities to intervene, Beckham Swamp LLC and Saint Matthew Baptist Church, had withdrawn.

Friends of Congaree Swamp expressed concern that trenchless pipeline installation methods would no longer be used for all stream crossings, though they would be used for wetlands. The most egregious case seemed to be the crossing of Ray Branch, a tributary of Toms Creek, a stream with a substantive floodplain that would be crossed by the open-cut approach.

Some open-cut methods can potentially "entrain" fish (the polite word for accidental fish killing) and excavated materials were to be allowed within 10 feet of wetlands, which seemed too close.

We also noted Cedar Creek was omitted from the

environmental assessment's discussion of sensitive water bodies, even though it is the only Outstanding National Resource Waters in South Carolina.

The assessment discussed numerous vegetation communities of special concern. Noting that these communities were often

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associated with stream wetlands, they recommended that horizontal directional drilling be used in these areas.

We were happy to see this approach, but suggested that floodplains of small streams, rather than wetlands alone, may more properly delineate vegetation communities of special concern, and we recommended trenchless methods for these floodplains.

The S.C. Department of Natural Resources continued its energetic intervention, commenting on a variety of concerns related to geology, surface water crossings, wetlands resources, sensitive fish species, recreational

fisheries, commercial fisheries and other issues.

Its letter discussed some troubling language in the environmental assessment that talked about alternatives to horizontal directional drilling for the Congaree River crossing should horizontal directional drilling not prove practical.

This is the first we had heard that anything other than horizontal directional drilling would be used for the Congaree River and that section of the environmental assessment certainly caught our attention as well.

The U.S. Environmental Protection Agency shared a short letter indicating that the permit sought—a Section 404 Nationwide permit designed for projects with minimal impact—may be inappropriate for a project of this scope, which includes numerous stream crossings and both temporary and permanent wetlands impacts. The EPA instead recommended a Section 404 Individual permit, which would require a higher level of review for wetlands impacts.

Dominion itself posted only a perfunctory response. We await the Federal Energy Regulation Commission's reply to comments on the environmental assessment.

Friends urges more water quality sampling

Friends of Congaree Swamp recently reviewed the wastewater discharge permit for Wateree River Correctional Institute, a large S.C. Department of Corrections prison farm on the Sumter County side of the Wateree River.

Located upstream from Congaree National Park, the 5,700-acre farm lies largely in the Wateree River floodplain with miles of river frontage.

The NPDES (National Pollution Discharge Elimination System) permit seemed an excellent opportunity to review the 7Q10 for the Wateree River, which was set at 934 cubic feet per second.

This measure—the 10th percentile of the lowest weekly average on the Wateree River each year—is used as a minimum flow standard that can then be leveraged to request lower concentrations of pollutants from wastewater discharge.

The 7Q10 was last calculated in 2009, which meant that it did not include information from recent drought years. Our effort to argue for a lower standard was all for nought, however.

Though analysis of historical records showed the proposed value of 934 cubic feet per

second seemed too high, the S.C. Department of Health and Environmental Control pointed out that on regulated rivers, the minimum flow negotiated under a Federal

Wateree River Correctional Institute and noted both a recent record of water quality violations, and a long, troubling history of bacterial water quality problems.

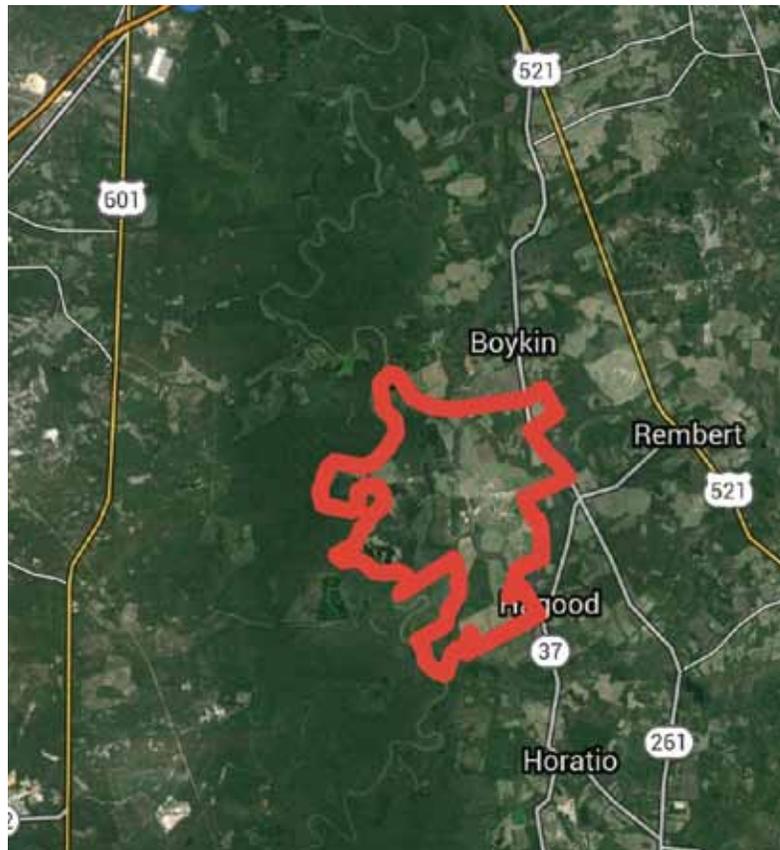
The regulatory standard for bacterial water quality was previously measured as the number of fecal coliform colonies in 100 milliliters of water—not to exceed 200 colonies.

Some of the more extreme examples in Environmental Protection Agency records included daily fecal coliform counts of 19100/100 milliliters in June 2015, 18200 in April 2014, 10000 in June 2012, 2800 in June 2011, 1440

in June 2010, 6000 in March 2008, 1200 in December 2007, and 1880 in June 2007.

Given this history, we strongly recommended that bacterial water quality be sampled weekly rather than biweekly as proposed in the permit.

We are happy to report that DHEC will now measure bacterial water quality for the plant on a weekly basis.



Prison farm boundaries marked in red

Energy Regulatory Commission license should be used instead.

That is a reasonable approach, provided that DHEC consistently enforces the minimum flow standard, which actually seemed to be the case through the drought years of 2014 and early 2015.

Friends of Congaree Swamp reviewed several years' compliance history for the

Grant could fund Bates Ferry Trail extension

Recreational Equipment Inc., commonly known as REI, recently invited Friends of Congaree Swamp to apply for a 2016 grant as part of its 2016 National Park Service Centennial activities.

Our first thoughts were of feral hog management activities, but given REI's interests, our thoughts soon turned to possible trail projects in the U.S. 601 corridor.

Park staff had expressed interest in adding a partial loop trail for the Bates Ferry Trail ever since the trail was first proposed.

In addition to extending the trails, improvements would be added at the current terminus of the trail at Bates Ferry Landing on the Congaree River. Those improvements

include a kiosk, a picnic area and replacement of the existing bridge over the upper mouth of the Bates Old River channel where decking was completely destroyed by floods in 2013.

John Cely suggested a route that crossed the old river channel at a reconstructed bridge, followed the river bank upstream, then cut inland to circle the head of Indian Field Gut and eventually return to Bates Ferry Trail while passing the General Greene Bald Cypress.

The loop route would be on ground that is lower than the existing Bates Ferry Trail, so visitors may not be able to walk the entire loop when water levels on the Congaree River are high.

Friends of Congaree Swamp submitted a \$10,000 proposal that would be used to fix the bridge, purchase gravel and supplies, and install a picnic table and an interpretive wayside. All construction can be handled by park staff.

Other opportunities include improvements to culverts on the old trail to Sampson Island and trail improvements on the newly acquired tract, best known as the Johnston-Phillips tract, but Beidler West may be a better term.

We have not yet heard back from REI, but it has already been in contact with the park about a visit incorporating camping and service work, so we are quite optimistic.

Geology hike unearths ancient history

A February geology hike along Congaree Bluffs in Calhoun County led to interesting discoveries about the history of the area.

Dr. David Shelley of Congaree National Park and Ralph Willoughby from the S.C. Geological Survey first discussed the geology of the area at the Congaree Bluffs Heritage Preserve overlook. The most recent deposits at the bluff are around 40 million years old, with later sediments having eroded away. From there, we hiked downstream to Sam and Kam Arant's property for spectacular views from the high

bluffs along the Congaree River.

Sam Arant brought us to a recent slump for a good look at some of the bluffs' formations. The Lang Syne formation was the most evident—here it formed a layer over 12 meters thick dating from 55 to 60 million years ago.

We also had decent views of the older Sawdust Landing formation (60-65 million years) and the Pee Dee formation (from the late Cretaceous period—the end of the age of the dinosaurs).

We then traveled to U.S. 601 for a little roadside geology.

Some years ago, Willoughby and Shelley had stumbled



The Lang Syne formation

across evidence of an exposed river channel that apparently flowed south to the Santee. Further evidence of the river channel was found across the highway at the big borrow pit used to construct U.S. 601, which also had more evidence of the Lang Syne formation.

Save the date

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organizing the annual event.

Participants will spend the day conducting field observations, counting butterflies along the trail system and within various habitats of the park. The count will last until about 4 p.m., weather permitting. Come for all or just part of the day.

We will meet at 9 a.m. at the Harry Hampton Visitor Center.

All ages and experience levels are welcome. Appropriate clothing is required, including long pants and closed-toed shoes that attach to the feet. Sun protection,



American Lady

bug spray, water, snacks, and a sack lunch are recommended.

Binoculars are recommended as well, but not required. A limited supply of binoculars will be available for use during this program, and these may be reserved ahead of time at the front desk. This program is free, but space is limited. Advance reservations are requested.

For more information contact David Shelley, education coordinator of

the Old-Growth Bottomland Forest Research and Education Center, at david_shelley@nps.gov or (803) 647-3966.

Fathers' Day botany hike

On **Sunday, June 19**, Friends will organize a Father's Day botany hike at Little Buckhead along the U.S. 601 causeway on the eastern end of the park. The hike, from 8:30 a.m. until noon, is in appreciation of the park's summer vegetation and all the flora-loving fathers out there.

We'll spend some of the time along the transmission line easement inspecting the abundance of vegetation in that area. We will also duck into the woods to escape the sun and inspect river levee vegetation along Bates Old River.

Prof. John Nelson, chief curator of the University of South Carolina's A.C. Moore Herbarium, will lead the botany tour. The area also has an abundance of butterflies, dragonflies and other insects.

This hike will be mostly off-trail or on old hunt club trails. Participants should be in moderate physical shape. Bring water and insect repellent; long pants are recommended.

Jogging shoes or light hiking boots are appropriate. We will meet at the parking lot for the Bates Ferry Trail off U.S. 601.

To register, contact John Grego, (803) 331-3366 or friendsofcongareeswamp@gmail.com.

Grego

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QT Luong

Quan-Tuan Luong, who has photographed 58 of America's national parks, including Congaree, is including Friends of Congaree Swamp in his new book's list of groups that support national parks. The book is entitled "Treasured Lands: A Photographic Odyssey through America's National Parks."

Luong appeared in Ken

Burns' documentary "The National Parks: America's Best Idea." His charming, self-effacing demeanor made as strong an impression as his sumptuous large-format photographs.

Photographs from that work, including some of Congaree, can be found at his website, www.terrageria.com.

John Cely served as his tour guide for his second visit to the park in 2007, which resulted in some beautiful images of Cedar Creek in particular.

Dawn Chorus

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Preserve in Southeast Texas.

We ended the day with 71 species, a reasonable total that was affected by the arrival of mid-day thunderstorms that prevented visits to a couple favorite areas for migrant warblers and thrushes.

Species Count

Wood Duck 3
Wild Turkey 1
Anhinga 9
Great Blue Heron 3
Green Heron 2
Black Vulture 4
Turkey Vulture 11
Osprey 2
Mississippi Kite 8
Cooper's Hawk 1
Red-shouldered Hawk 7
Killdeer 3
Solitary Sandpiper 4
Lesser Yellowlegs 1
Mourning Dove 10
Yellow-billed Cuckoo 12
Chuck-will's-widow 1
Barred Owl 7
Chimney Swift 12
Ruby-throated Hummingbird 7

Red-headed Woodpecker 3
Red-bellied Woodpecker 13
Downy Woodpecker 6
Hairy Woodpecker 1
Pileated Woodpecker 19
Acadian Flycatcher 22
Eastern Wood-pewee 8
Great Crested Flycatcher 10
Eastern Phoebe 1
Eastern Kingbird 1
White-eyed Vireo 20
Blue-headed Vireo 1
Yellow-throated Vireo 5
Red-eyed Vireo 26
American Crow 9
Blue Jay 7
Fish Crow 6
Purple Martin 6
Barn Swallow 6
Cliff Swallow 57
Northern Rough-winged Swallow 2
Carolina Chickadee 19
Tufted Titmouse 17
White-breasted Nuthatch 5
Carolina Wren 17
Blue-gray Gnatcatcher 25
Wood Thrush 9
Gray Catbird 10
Northern Parula 32
Black-throated Blue Warbler 8
Yellow-throated Warbler 11
Pine Warbler 5
Black-and-white Warbler 2
American Redstart 5
Prothonotary Warbler 6



Pine Warbler

Swainson's Warbler 2
Ovenbird 2
Common Yellowthroat 12
Hooded Warbler 4
Eastern Towhee 2
Chipping Sparrow 3
White-throated Sparrow 1
Savannah Sparrow 2
Summer Tanager 20
Northern Cardinal 34
Rose-breasted Grosbeak 1
Blue Grosbeak 1
Indigo Bunting 18
Common Grackle 17
Brown-headed Cowbird 5
American Goldfinch 2

Total count 634

Area streams listed for water quality issues

Several area streams appear on the list of impaired waters in South Carolina.

The so-called 303(d) list, named after the section of the Clean Water Act that mandates it, is issued every two years by the S.C. Department of Health and Environmental Control

Cedar Creek in Congaree National Park made the list in 2014 when two different sampling sites—the South Cedar Creek Landing and near Weston Lake—were classified as impaired for recreational uses due to problems with bacterial water quality.

The source of the pollution is unknown, but could be due to feral hog activity in the park, failing water treatment plants upstream, or non-point source pollution such as septic systems.

Some sampling locations in and around the park appear to be perennial offenders. The Congaree River itself has been listed for either metals (copper and mercury) or bacterial water quality problems upstream at Columbia and downstream near U.S. 601. Tributary streams such as Buckhead Creek in Calhoun County and Reeder Point

Branch have bacterial and other organic water quality problems.

Tom's Creek is on the list for several water quality problems. Sampling locations just upstream of the park have tested high for biochemical oxygen demand, pH, and bacteria.

In 2009, USC researchers identified septic systems along Congaree Church Road and a horse farm as likely contributors to the Tom's Creek problems. Tributary streams—Ray's Branch and McKenzie Creek—contribute Tom's Creek water quality issues as well.



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Please keep your information current to receive special notices about field trips, events, scheduling changes and acknowledgements in addition to a quarterly newsletter.

*For a contribution of \$35 or more, you may choose one:

- Baseball cap maroon _____ tan _____
- Tan visor _____
- Bandana with map of Congaree National Park gold _____ blue _____ red _____

**For a contribution of \$100 or more you will receive a copy of "The Natural History of Congaree Swamp."

In addition, I would like to donate \$ _____ as a gift.

Thank you for supporting Friends of Congaree Swamp!

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