



Friends of Congaree Swamp News

www.friendsofcongarree.org

Spring 2017

Save the date

Botany hike

On **Sunday, June 11**, our botany hike will take us to Little Buckhead on the opposite side of 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 flora. We will spend most of our time along a ridge that traverses a transmission line easement, then eases into woods before re-emerging onto the easement. This will provide the opportunity to study an interesting variety of field, floodplain and open wetlands habitats.

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

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Boundary expansion would preserve valuable sites

Friends of Congaree Swamp has provided comments supporting Congaree National Park's notice to acquire a 100.77-acre parcel located on the north bank of Bates Old River adjacent to U.S. 601 (see map).

The site has greater interest than its modest size might suggest. From a resource management perspective, purchase of the property would ensure an extensive vegetative buffer on both banks of Bates Old River, the largest oxbow lake in the park, and protect the view from U.S. 601.

The park currently controls management of Bates Old River west/southwest of the centerline of the lake. With acquisition of this property, the park would own property on both banks of Bates Old River for its entire extent with the exception of the portion of Bates Old River within the S.C. Department of Transportation's easement along U.S. 601.

Though surface water management is not yet resolved, we envision management of the surface waters of Bates Old River similar to current



management practices, and acquisition of the tract may facilitate integrated resource management of Bates Old River.

A 2004 archaeological inventory of the U.S. 601 corridor identified two different sites of historical and archaeological interest lying entirely or partly within the tract.

One site includes a prehistoric Woodland period (1000 BCE-1000 CE)

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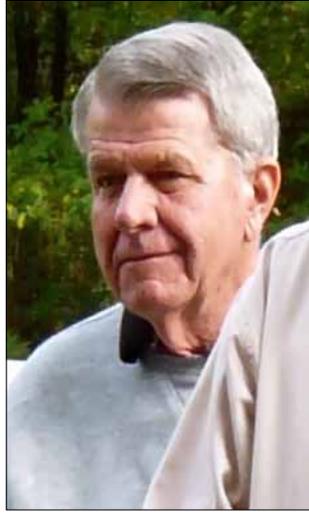


President's Corner

Dr. John Grego

Bob Render

I was very sorry to learn of the death of Bob Render, who served as a Friends of Congaree Swamp Board member from 2000 to 2007. Bob was an absolutely stalwart and reliable volunteer, helping every year with our annual meeting and activities like the Carolina Garden plantings at the Longleaf Campground and our trail-clearings. We recognized Bob for his service during our annual meeting in 2007.



Bob Render

Bob volunteered not just for Friends of Congaree Swamp, but for Congaree National Park itself, where he volunteered for maintenance (which he confessed could be a little too much hard work and heat) and interpretation. He served on the board of Family Shelter, volunteered for the Greek Festival, and volunteered at Riverbanks Zoo, where his favorite activity was running the carousel. Bob's dedication to serving the community for so long and in so many ways was rare.

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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

I would like to thank Congaree National Park employee John Torrence, and Friends members Brusi Alexander and Virginia Winn for attending Bob's funeral service.

Christmas Bird Count update

Stop the presses! Shortly after publishing our Christmas Bird Count results in our Winter 2017 newsletter, park neighbors at Two Rivers Farm shared their astonishing field observations from the managed wetlands on the property.

With their report, our final count was 99 species, and we added some great waterfowl observations to our count—Gadwall, American Wigeon, American Black Duck, Mallard, Blue-winged Teal, Northern Shoveler, Northern Pintail, Green-winged Teal, Redhead, and Ring-necked Duck. Greater-white fronted Goose was observed for the first time on the count. When I asked for details, I received a unique confirmatory photo of the harvested goose several weeks after the count.

We had the highest count in the country for Wood Duck and Ring-necked Duck and the second-highest totals for Winter Wren and Northern (Yellow-shafted) Flicker.



Photo by Carol Kososki

John Cely prepares to explore a hole in the Stump Gut Cypress during a recent outing in Congaree National Park.

Columbia loses environmental crusader

Dr. Dan Tufford and his wife Cindy moved recently to Washington state and Columbia has lost an environmental crusader.

We should not let them go without remembering Dan's pivotal, but largely unknown, role in the fight against Columbia Venture's planned development of 4,500 acres of Richland County floodplain.

When the Federal Emergency Management Agency (FEMA) first posted public notice in August 1999 of its revised flood maps that placed much of the Richland County floodplain out of the floodway and hence more vulnerable to development, an umbrella group of environmental organizations planned an appeal.

On the day of the December 1999 deadline, Dan, as president of Columbia Audubon, was the easiest organization head to track down and he signed on behalf of everyone else. That initial appeal was contested, but Dan became part of a nucleus of activists, including Blan Holman of the Southern Environment Law Center, and Angela Viney, executive director of South Carolina Wildlife Federation, who were involved in every appeal, motion, hearing, proposal, point and counterpoint to follow over the next few years.

Dan's most important contribution came following the



Dan Tufford

appeal resolution in September 2000 that placed much of the Richland County floodplain in floodway, a stunning reversal of the initial FEMA proposal. After that appeal resolution, all parties involved in the appeal had the opportunity to submit comments.

An engineering firm hired by Columbia Venture submitted models and analyses that they claimed provided a more accurate depiction of floodway flow, and used the models to argue that almost the entire floodplain behind the agricultural dikes stored rather than conveyed floodwaters and hence could be placed outside the floodway. This model was used as leverage in a public campaign and lobbying blitz to restore a set of maps more favorable to floodplain development and create a sense of inevitability around the development.

Lacking the software to duplicate the model, Dan knew he could query the model output and unmask it. For

instance, the consultants defined effective flow as flow greater than one foot per second, but only in the downstream direction. Dan generated maps of the flow greater than one foot per second in *any* direction, and also studied thresholds lower than one foot per second, which was an arbitrary threshold selected by the consultants.

These maps showed much larger areas of effective flow landward of the agricultural dikes. Dan also generated maps of flood depths, which showed water as deep as 15 feet in the floodplain behind the levees. Hurricane Katrina was still a few years away, but the models showed Katrina-like depths behind the levee with substantive flow as well!

Backed up by a U.S. Geological Survey critique, Dan's technical work, using results from the consultant's own models, was just what the opposition needed through the spring and summer of 2001 to counter analyses challenging FEMA's flood maps. FEMA issued a letter of final determination in August 2001 that confirmed its earlier finding that much of Richland County's floodplain should be designated floodway.

This final floodway determination was challenged by Columbia Venture in court, and Dan, the South Carolina Wildlife Federation and the

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Coal tar sediment removal plan in limbo

Since we first reported on SCANA's remediation plan for coal tar-contaminated sediment in the Congaree River south of the Gervais Street bridge in our Fall 2013 newsletter, there have been some changes.

At the time, SCANA, one of whose antecedents operated the former coal gas plant that was the source of the 1,200-foot long, 300-foot wide, and two-foot deep plume of sediment, proposed removing the sediment by constructing a series of three coffer dams that would dewater the sediments, which would then be removed.

The underlying bedrock would then be thoroughly cleaned of material. Support for this plan was strong, though grave doubts about bank erosion on the Cayce/West Columbia side of the river were raised by US Army Corps of Engineers and others.

Little was shared with stakeholders in the past couple years until it was learned late last year that the S.C. Department of Health and Environmental Control and the U.S. Army Corps of Engineers were considering a vastly different plan that would remove none of the sediment and would cap only 30 percent of the sediment plume. This plan was actually listed as an early alternative to removal, but set aside.

To understand what transpired, Friends of Congaree

Swamp reviewed DHEC records from 2014 to 2016. Our review was simultaneous with a review of the entire history of the project by Congaree Riverkeeper and Southern Environmental Law Center.

Alternatives to removal. By February 2015, SCANA was considering partial removal focusing on the worst part of the plume, under a Modified Removal Action.

SCANA is facing a persistent problem and should consider stronger action.

It likely considered this option since less extensive coffer dams and sand bags could be used, which would ameliorate erosion problems. Concerns about erosion were all too real—studies conducted during this timeframe showed that the original cofferdams could raise water levels as much as six feet when the river rose as high as the coffer dam.

DHEC gave initial approval to the plan in March 2015 and the Corps was asked to consider the plan in April 2015. This plan was apparently placed on a backburner while SCANA's contractors pursued a Field Demonstration Project to remediate civil war ordinance on the project site.

Civil war ordinance and the field demonstration project. Archaeological

reports in DHEC's records shed much light on the extent of Confederate ordinance so memorably dumped into the Congaree River by Union forces after the capture of Columbia in February 1865. Over two days, the Union Army disposed of more than one million Confederate munitions, ranging from cartridges to powder to shot and shells to artillery field pieces and guns.

Some of this material was immediately salvaged and newspapers over the years would contain accounts of fishers or boaters finding shells or cannonballs, which would lead to more formal removal efforts, with systemic efforts in particular in 1930, the late 1970s, and early 1980s. There is still ordinance out there, and its presence is an obvious obstacle to sediment removal.

As a field demonstration project under a nationwide permit, contractors proposed identifying all magnetic signatures of potential ordinance within a small portion of the project area that was readily accessible from the Senate Street landing and easy to dewater with "Big Bags" of sand.

Unfortunately, this project started only days before the 2015 flood and a one-week project turned into a

Coal tar

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multi-month affair. More than 70 potential objects were targeted, and none dated from the civil war.

Almost all of them were modern trash, with the larger items including a manhole cover, a hot water heater and a brake rotor. The site may not be representative since this is an area that would have been readily explored over the previous decades.

SCANA's experience with flooding on this project may have rattled it. Its experience certainly seems to have been a factor in choosing a less aggressive remediation project. The October 2015 flood's deposition of a new layer of additional sediment over the contaminated sediment may have been a contributing factor for a less aggressive approach as well, since this would complicate removal of the contaminated sediments.

A new plan and a remediation project. Sometime before August 2016, SCANA and DHEC seem to have set aside the plan to remove a portion of the tar-like material.

In August 2016, SCANA wrote to the Corps of Engineers of its intent to apply for a project permit. The only portion of the plume that would be capped would be the portion that was to be removed under the Modified Removal Action.

More importantly, the remediation would be made under a nationwide

permit, which has a much lower level of review than a National Environmental Policy Act (NEPA) permit.

The proposed application, while having some strong elements, has serious shortcomings. It lacks any delineation or comparison of alternatives, and leaves too many unanswered questions about the limited scope of the project, the disposition of the uncapped sediments, and the effectiveness of the articulated concrete block technology that would be used to cap the sediment plume.

The S.C. Department of Natural Resources commented on the permit in November 2016. It felt the project was not eligible for a nationwide permit and raised questions about sediment control, scouring along the edge of the concrete mat, recreational safety, riverbank protection, compensatory mitigation and the stability of the mat.

Congaree Riverkeeper and Southern Environmental Law Center followed in December 2016 with a strong legal argument for a NEPA permit rather than a nationwide permit.

Since that time, Congaree Riverkeeper has been in conversation with DHEC to widen the scope of its review. A reasonable outcome would be initiation of a NEPA review, likely with an Environmental Assessment rather than a more rigorous Environmental Impact Statement. This approach would provide real opportunities for public input

and input from additional resource agencies.

Groundwater at the coal gas plant site. Part of our Freedom of Information Act request included a review of groundwater monitoring of coal gas products and by-products at the original site of the coal gas plant and a SCANA substation that was not the site of coal gas production, but nonetheless showed evidence of soil contamination.

The coal gas plant, now a vacant lot, was at the southwest corner of Huger and Hampton Street, while the substation to its west is still in place.

Starting in 2009, SCANA removed more than 100,000 tons of contaminated soil from the sites and attempted other remediation methods. It then set up groundwater monitoring wells on site and sampled groundwater every nine months.

At both sites, monitoring shows that pollutants benzene and naphthalene are present in the groundwater. The remediation has greatly reduced the amount of benzene, though readings are still above screening levels at multiple groundwater wells. While remediation also reduced the concentration of naphthalene, readings are still quite high at several wells and have persisted.

At present, an increased pace of monitoring or additional remediation has not been discussed, though it is clear that SCANA is facing a persistent problem here and should consider stronger action.

Expansion

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campsite and an historic site including foundations of brick and mortar.

Artifacts collected at the site suggest continuous occupation dating from the mid-18th century to mid-20th century. The site is considered eligible for nomination for the National Register for Historic Places.

The tract would also include the northern approach to McCords Ferry, which was established as a private ferry in 1757 and authorized as a public ferry in 1766.

McCords Ferry played

an important role in early Richland County transportation history in general and the Revolutionary War specifically. There is a surprising amount of historical and cultural context available for interpretation in such a modest tract.

An unimproved access road and boat landing to Bates Old River lies adjacent to the tract. Friends of Congaree Swamp and Congaree Riverkeeper have advocated for improvement of the landing using Water Recreation Resource funds from the S.C. Department of Natural Resources, and we continue to make progress toward this goal. DNR indicates

that any improvement would modestly encroach on the tract to avoid mitigation wetlands to the west of the access road. Assuming that the park shares an interest in improving access to Bates Old River, it would be easier for the project to move forward if the property is owned by the park.

There are strong arguments to be made for acquisition of this property. Given the willingness of the current landowners to work with the park, we strongly encourage the U.S. Department of Interior to move forward with the minor boundary expansion with the goal of acquiring the new tract.

Save the date

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an abundance of butterflies, dragonflies and other insects and we should have the opportunity to see wading birds and an alligator or two in the long slough we will be following.

This hike will be mostly off-trail or on old hunt club access roads. Participants should be in moderate physical shape with a tolerance for sunshine and warm temperatures. 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 friendsofcongaresswamp@gmail.com.

Butterfly count

The summer North American Butterfly Association Butterfly Count will be held **Saturday, June 17**, from 9 a.m. to 4:30 p.m.

Dr. David Shelley, Congaree National Park education coordinator, and Carolina Butterfly Society members Marty and David Kastner are 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.

Meet at 9 a.m. at the Harry Hampton Visitor Center. All



Question Mark

ages and experience levels are welcome and may come for all or just part of the day. Long pants and closed-toe shoes are appropriate. Butterflies like the sun, so bring sun protection and plenty of water. Bug spray, water, snacks, and a sack lunch

are also recommended.

Close-focus 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 please contact David Shelley at david_shelley@nps.gov or (803) 647-3966.

Group declares park a ‘wetland treasure’

Editor’s note: The following is a reprint of a letter to The State submitted by William Connor, assistant director of Clemson University’s Baruch Institute in Georgetown.

Wetlands play an important role in both the ecology and economy of South Carolina. These hardworking ecosystems serve as sanctuaries for people and wildlife, provide natural flood control and filter runoff, which helps keep our rivers, lakes and drinking water clean.

Each year, the Carolina Wetlands Association designates a handful of “Wetland Treasures,” and this year we have chosen Congaree National Park. The park features the largest, oldest bottomland forest remaining in the Southern United States. This dynamic floodplain ecosystem is sustained by

flows from the Congaree River, which forms the park’s southern border, and Cedar Creek, which flows through the park. Rare species documented at Congaree include the Rafinesque bigeared bat, southeastern myotis bat, bald eagle, wood stork, swallow-tailed kite and spotted turtle. At least 16 species of rare plants are found in the park, including the largest extant population of the Carolina bogmint. And it’s less than an hour from Columbia.

The best way to keep our wetland treasures is to make sure they are well-loved.

Clemson University’s Baruch Institute of Coastal Ecology and the Carolina Wetlands Association are working with the region-wide Wetland Forest Initiative — a group of scientists, environmental

advocates, forestry professionals, landowners and communities dedicated to conserving, restoring and improving wetland forests across the South. Our goal is to figure out how to keep wetland forests as forests, where they can continue to clean our water and air, cool our region and prevent dangerous floods.

The best way to keep our wetland treasures is to make sure they are well-loved. This year, take an adventure to Congaree. Touch a tree older than your great-great-grandfather. Take a free, guided canoe tour to learn about Congaree. Even though Carolina Wetlands Association’s tour of Congaree is full, the National Park Service staff do tours on a regular basis; you can register up to a month in advance.

Tufford

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Riverland Park Neighborhood Association served as defendant-intervenors in the subsequent court battles.

There were many twists and turns to come, but Dan really stemmed the tide in 2001. The entire environmental community owes Dan a debt of gratitude for his outstanding and largely unknown work to protect the Congaree floodplain.

We wish Dan and Cindy well in their new home in Washington.



Black-throated Blue Warbler

Jerry Griggs led a group of participants on the Robin Carter Dawn Chorus Walk on May 7 at Congaree National Park. After a breakfast prepared by Friends of Congaree Swamp, separate groups of birders spread throughout the park to continue recording bird species as part of the Spring North American Migration Count. With a bit more coverage than usual, we observed 17 warbler species, along with some other interesting migrants and residents. A total of 75 species were seen on the day.



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Yes, I want to support conservation of Congaree Swamp for future generations. Enclosed is my tax-deductible contribution of \$ _____. (Please make checks payable to Friends of Congaree Swamp.)

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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!

Friends of Congaree Swamp, P.O. Box 7746, Columbia, SC 29202-7746
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