



Friends of Congaree Swamp News

Save the date

Adopt-a-Trail Workday

This winter's Adopt-a-Trail Workday will be held **Sunday, Feb. 26**.

We will be clearing our adopted trails (Boardwalk, Sims Trail, Weston Lake Loop Trail, Oakridge Trail) and other trails of fallen limbs, switch cane, flotsam, and intruding branches.

Our winter work-day theme is Yellow-throated Warbler, and we will be listening for these early migrants on the trail.

We will meet at the Visitor Center at 9 a.m. and finish in the early afternoon. Work gloves, light hiking boots, water, and a snack are recommended.

If you have loppers, long-handled shears (good for switch cane) or bow saws, bring them along.

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Two new books highlight different aspects of the park

By John Cely

Back in the summer I got an email from Scott Teodorksi, chief of Interpretation at Congaree National Park, asking if I would be interested in doing a book about the park. Scott had received an inquiry from Arcadia Press about doing a Congaree book for them.

Since there are restrictions on park employees being involved in commercial works like this, Scott suggested my name as a potential author. Well, one thing led to another and I soon found myself signing a contract with Arcadia to do a Congaree book, with publication scheduled for the fall of 2017.

You might not have heard of Arcadia Press but you've probably seen their titles—in bookstores, drugstores, hardware stores, grocery stores and other retail outlets. They specialize in local pictorial histories of America. Close to home there was one done a few years ago on Forest Acres by Warner Montgomery and a more recent one on Lower Richland African-Americans by FCS board member Marie Adams and

her sister and cousin.

Most of Arcadia's books are in black and white but I explained to my kind editor that Congaree was a little different from their other books on national parks. I explained that most of Congaree's history is written in its environment—the trees, plants, wildlife, creeks, lakes, and other natural features—all subjects that shine best in color.

But I assumed a book with 160 color images was a deal breaker since the printing costs would be prohibitively expensive. I was quite surprised to find out that Arcadia's color titles are only a dollar more than their standard book price of \$21.99.

So *Congaree National Park* will be in Arcadia's Images of Modern America series, in color, right along with Biscayne Bay and the Blue Angels!

The staff at Congaree has bent over backwards to help. Scott has gone out of his way to show me their many digital files of park history and assist with finding various images.

I called Fran Rametta out of

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President's Corner

Dr. John Grego

Kemira update

In our Fall 2016 newsletter, we shared our comments on Kemira Inc.'s permit for discharge of industrial wastewater into the Wateree River. Kemira produces sodium chlorate, which is used to bleach paper.

At the time, we thanked the S.C. Department of Health and Environmental Control for including limits for mercury (a step we had requested in 2012), but encouraged the agency to consider steadily tightening limits on mercury to prevent bioaccumulation in sensitive species, such as mussels and shortnose sturgeon.

DHEC recently notified Friends of Congaree Swamp that a preliminary engineering report will now require the facility to identify how they will minimize the discharge of mercury to meet the new permit standards. The report should be filed within six months. We plan to review the report and share comments with DHEC.

REI update

Park staff visited its newest acquisition—currently called the Johnston-Phillips tract—off U.S. 601 in late January to finalize the new trail they will construct with the assistance of Friends of Congaree Swamp's \$5,000 grant received through REI.

The park plans a 0.6-mile loop from an improved parking area that will include an interpretive kiosk, similar to the trailhead design at Bates Ferry Trail just up the road. The loop will include canoe/

kayak access to Bates Old River. The channel of Bates Old River is relatively deep from this access to the Congaree River and would provide paddlers the opportunity to paddle 0.6 miles along this former river channel to the Congaree River. From there, paddlers can travel 1.4 miles downstream to S.C. Department of Natural Resources' Bates Landing, also located off U.S. 601.

Friends of Congaree Swamp and Congaree National Park recently signed a project Memorandum of Agreement and grant funds have been transferred to the park. We would like to thank attorney Howard Van Dine and REI staff for drafting the agreement. The park plans a workday in May with the participation of an excellent opportunity to share ideas for other recreational opportunities along the 601 corridor with REI.

S.C. Honors College Service Course

Students in my USC Honors College service course recently completed service projects for the fall semester and I would like to highlight a contribution close to my heart.

Two students contacted the Caroliniana Library to review Robin Carter's birding notebooks, recorded notebook entries from Congaree National Park, then manually uploaded these entries to eBird. Robin had uploaded his observations to eBird from 2006 to 2008, which means that a trove of records from 1987 to 2006 by Robin and his wife Caroline Eastman remained to be entered.

The students, Rachel Rizzo and Foster Ritchie, found that Robin's notes translated readily to eBird's data entry format, but were unfortunately able to enter only two additional years of data (2004 and 2005) because Robin's notebooks are still being catalogued.

To gain a sense of the importance of this work, I would encourage those familiar with eBird to choose a signature species, say Swainson's Warbler, and pull up all the records for the park—Robin and Caroline's observations from 2004 to 2006 now dominate the park's records during that time period.

Foster and Rachel indicated a willingness to pick up the project and I hope their schedules give them the opportunity to do so. Whether completed by Foster and Rachel or a future student team, this project will be a transformative contribution to the park's bird database.

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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

Bird count lower, but weather warmer

The Congaree Swamp Christmas Bird Count on December 18 featured some of the mildest weather we have ever encountered—even the early morning owling was shirt-sleeve weather!

The count itself was marked by a lower-than-average 86 species—perhaps birds were not as fond of the warm temperatures as the counters.

No new species were observed on the count, though we had high counts for several species, including Turkey Vulture (357), Eastern Bluebird (169), Sedge Wren (3), Chipping Sparrow (550), Baltimore Oriole (7) and Red-breasted Nuthatch (5).

The Turkey Vulture total was boosted by a spectacular kettle over Fort Motte observed by Cathy and Carl Miller and Dick Watkins. The Millers posted a couple wonderful photos of the kettle on eBird. We were also pleased that five

different parties observed Rusty Blackbird, a wetlands species of concerns whose numbers have been decreasing over the past few decades. It is always important to confirm their presence at the park in winter.



Barred Owl



Blue-headed Vireo



Fox Sparrow

It looks as though we will have top-five counts for several species:

Yellow-bellied Sapsucker, Barred Owl, Northern (Yellow-shafted Flicker), Pileated Woodpecker and Winter Wren—quite an accomplishment considering there are more than 2,000 count circles!

We thank Scott Teodorski, the park's chief of interpretation, who piloted the park's boat for our river party. It's rare that we can cover the river, and there are always a few species common along the Congaree that are difficult to find elsewhere.

Participants were Ron Ahle, Johnny Ball, Mary Bull, John Cely, Blaney Coskrey, Brad Dalton, Steve Dennis, Caroline Eastman, Hilda Flamholtz, Jon Flamholtz,

Dennis Forsythe, John Grego, Deynise Griggs, Jerry Griggs, Jay Keck, and George McCoy.

Also, Steve McInnis, Susan McInnis, Carl Miller, Cathy Miller, Julie Mobley, Kathleen O'Grady, Miriam Oudejans, Richard Sasnett, Dave Schuetrum, Warren Steckle, Alice Steinke, Scott Teodorski, Patricia Voelker, and Dick Watkins.

We would like to acknowledge the absence of a couple long-time participants: Donna Slyce, who passed away in June, and Dan and Cindy Tufford, who are moving to the Pacific Northwest.

Species Count

Pied-billed Grebe	3
Double-crested Cormorant	2
Anhinga	4
Great Blue Heron	12
Black Vulture	62
Turkey Vulture	357
Canada Goose	14
Wood Duck	119
Hooded Merganser	13
Northern Harrier	3
Sharp-shinned Hawk	3
Cooper's Hawk	2
Red-shouldered Hawk	22
Red-tailed Hawk	13
American Kestrel	19
Wild Turkey	18
Killdeer	5
Wilson's Snipe	1
American Woodcock	4
Ring-billed Gull	116
Rock Pigeon	30
Mourning Dove	124
Eastern Screech-Owl	2
Barred Owl	25
Great Horned Owl	5
Belted Kingfisher	5
Red-headed Woodpecker	59
Red-bellied Woodpecker	170
Yellow-bellied Sapsucker	73

See *Bird Count*, page 7

Landfill reports cite continuing problems

In the years since Richland County Council extended Northeast Landfill's contract, advocates have reviewed the landfill's annual reports and shared findings with county council and the S.C. Department of Health and Environmental Control.

Reports from 2015-2016 were recently reviewed and document continuing landfill problems. The reports include groundwater monitoring reports from May 2015, November 2015 and May 2016, a discussion of off-site delineation wells, monthly methane gas monitoring tests, and waste amounts and sources.

The landfill continues to accept waste well below its capacity. The landfill accepted 145,000 tons of waste in 2016 and 173,000 tons in 2015, which continues to be well below its permitted capacity of 529,600 tons. Most categories of waste were stable, though the landfill accepted 40,000 tons of contaminated soil from Sumter County in 2015.

Unfortunately, the amount of industrial process waste continues to increase, with 21,700 tons accepted in 2016 compared to 17,000 tons in each of the previous two years. Process waste can include solvents and lubricants that may contribute to the landfill's continuing problems with the presence of volatile organic compounds

at its monitoring wells.

Groundwater pollution continues at the site and has now been documented off-site. Volatile organic compounds were again found at several different well sites, while offsite pollution problems arose last year.

Most of the wells testing positive for volatile organic compound pollution are on the boundary of the property or off-site. Advocates noted the need for off-site testing in 2015, so it was a relief to see that DHEC required the installation of off-site delineation wells (T-6, T-7, T-8 and T-9 on the attached map).

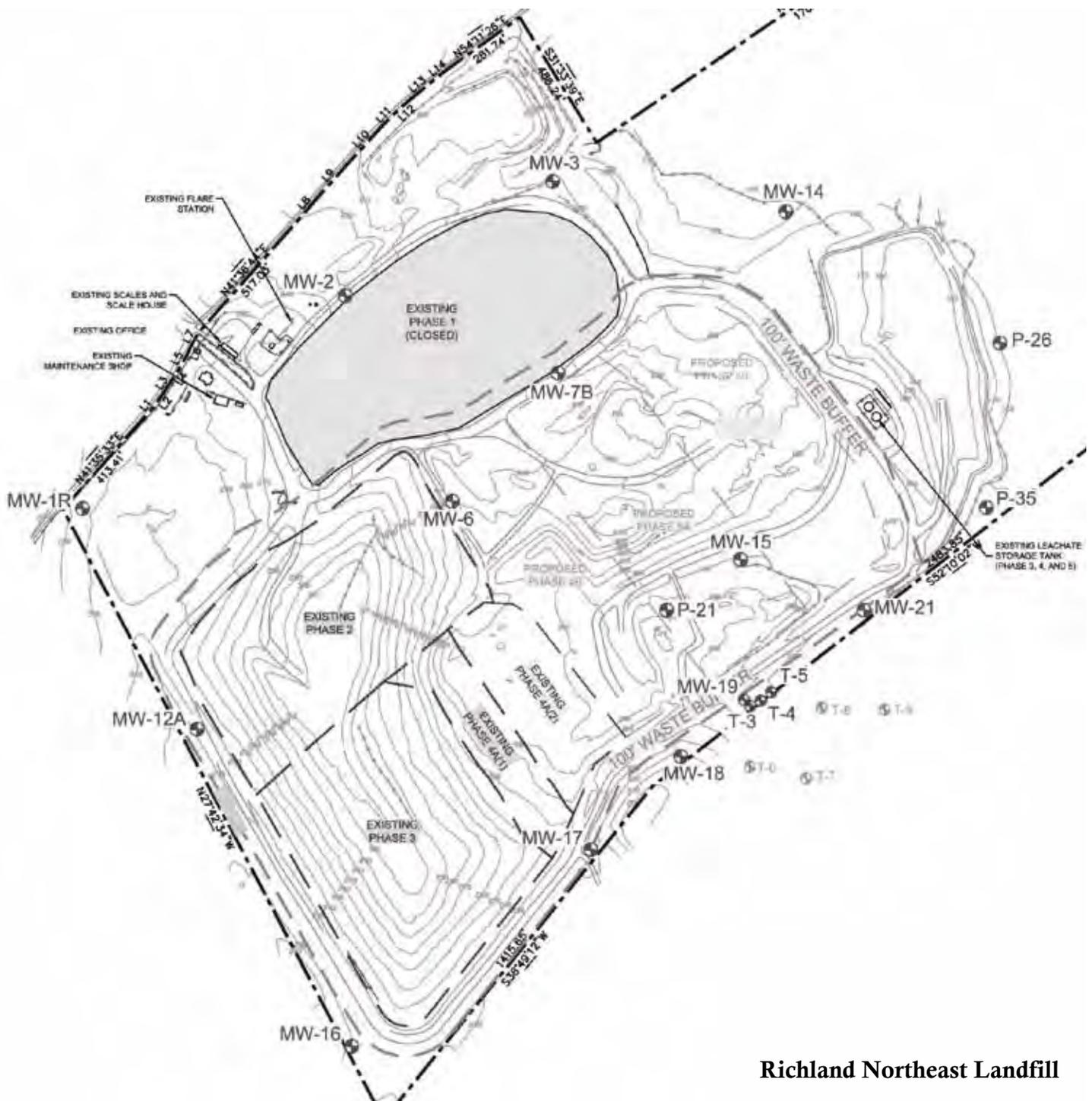
Unfortunately, three of these off-site wells tested above limits for volatile organic compounds after installation in 2015. DHEC initially asked Northeast Landfill to further delineate the off-site contamination based on readings above the groundwater protection standard from downgradient well T-7, but removed the request after T-7 did not test positive for a single reporting period, though the other downgradient well, T-9, continues to test positive, if not above the maximum contaminant level. An additional concern in this most recent monitoring period was well T-4 on the property boundary, which tested positive for several volatile organic compounds in the most recent reporting period.

There was continuing discussion about whether arsenic in MW-15 was from landfill gas (the source of much of the pollution onsite), or run-off from landfill waste. If the arsenic was from run-off, that would suggest the one or more cell liners are leaking. Northeast Landfill's consultants presented evidence that landfill gas was the pollution source, and DHEC agreed with the claim. Recent readings of arsenic at a different well, MW-18, above DHEC's standard were reported, but not discussed, in the 2016 annual environmental monitoring report.

The current landfill continues to generate explosive levels of landfill gasses at the site's boundary. The landfill has an extensive system of gas extraction wells that collect landfill gasses then flare them. The system expands as additional phases of the landfill are opened. Monitoring of explosive gasses along the boundary of the landfill showed the methane concentration in the landfill gasses can exceed the lower explosive limit of 5 percent methane by volume set by DHEC, particularly along the northwestern and western boundaries of the site.

The current gas extraction system seemed to be improving the problem, and DHEC has encouraging words for

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Richland Northeast Landfill

Landfill

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the system's effectiveness. However, recent readings continue to show systemic problems with some of these wells greatly exceeding the allowed lower explosive

limit, suggesting that the current system cannot meet DHEC's standards.

In the short term, it appears DHEC set aside too quickly its request for further delineation of the off-site pollution, given the persistence of groundwater pollution off-site

and at the site's boundary.

Additional wells should be added off-site to fully delineate volatile organic compound pollution. DHEC also should consider curtailing industrial process waste disposal at the site, a likely contributor to volatile organic contamination.

Bird count

continued from page 3

Downy Woodpecker 46
Hairy Woodpecker 6
Northern Flicker 199
Pileated Woodpecker 86
Eastern Phoebe 80
Loggerhead Shrike 10
White-eyed Vireo 4
Blue-headed Vireo 23
Blue Jay 80
American Crow 210
Carolina Chickadee 121
Tufted Titmouse 117
Red-breasted Nuthatch 5
White-breasted Nuthatch 23
Brown-headed Nuthatch 32
Brown Creeper 6
Carolina Wren 197
House Wren 11
Winter Wren 58
Sedge Wren 3
Golden-crowned Kinglet 112
Ruby-crowned Kinglet 276
Eastern Bluebird 169
Hermit Thrush 41
American Robin 1763
Gray Catbird 5
Northern Mockingbird 28

Brown Thrasher 2
European Starling 83
Cedar Waxwing 120
Orange-crowned Warbler 6
Yellow-rumped Warbler 56
Yellow-throated Warbler 1
Pine Warbler 50
Black-and-white Warbler 13
Common Yellowthroat 2
Eastern Towhee 72
Chipping Sparrow 550
Field Sparrow 3
Savannah Sparrow 8
Fox Sparrow 5
Song Sparrow 143
Swamp Sparrow 45
White-throated Sparrow 237
Dark-eyed Junco 5
Northern Cardinal 263
Red-winged Blackbird 4877
Eastern Meadowlark 21
Rusty Blackbird 84
Common Grackle 469
Brown-headed Cowbird 303
Baltimore Oriole 7
Purple Finch 1
House Finch 45
Pine Siskin 1
American Goldfinch 254
House Sparrow 1



American Woodcock



Hermit Thrush

Save the date

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Friends members and park staff will provide gear if you do not have any.

Contact John Grego at friendsofcongareeswamp@gmail.com or (803) 331-3366 if interested.

Dawn Chorus

The annual Robin Carter Dawn Chorus Walk will be held Sunday, May 7.

Robin Carter, who passed away in 2008, did more than anyone to promote birding at Congaree National Park. He started the Dawn Chorus Walk at Congaree National

Park in 2005 and we now celebrate the event with the rest of the world on International Dawn Chorus Day.

We will meet at the Visitor Center at 5:30 a.m. This will provide an opportunity to listen to the pre-dawn sounds of owls, nightjars, and migrating thrushes before the dawn chorus, which begins a half-hour before sunrise. We can reasonably expect to hear as many as 40 species of birds. Bird song experts will be on hand to help identify what you hear, or you can just listen and take in the experience.

Birds observed during the Dawn Chorus will be included

as part of the North American Spring Migration Count day at the park—stick around if you would like to help out!

The Dawn Chorus hike will be followed by a free breakfast at 7:30 a.m. organized and prepared by Friends members. The breakfast menu changes slightly from year to year, but will include shrimp and creamy grits, bacon/date and cherry/orange scones, biscuits, a breakfast strata, fresh fruit, juice and numerous thermoses of coffee.

Contact John Grego, friendsofcongareeswamp@gmail.com, or call (803) 331-3366.

Thoreau bicentennial events planned

The city of Columbia and Congaree National Park will join institutions across the nation in honoring the bicentennial of Henry David Thoreau's birth in 2017 with a variety of family friendly events.

The Deckle Edge Book Festival will be held in Columbia Feb. 24-26. Activities include a panel discussion featuring South Carolina naturalists and nature writers led by Rudy Mancke, and Michael Sims

will do a presentation on his book, *The Adventures of Henry Thoreau*. More information on the festival can be found at deckleedgesc.org.

A Thoreau Weekend at Congaree will take place at the park on Earth Day weekend, April 22-23. Thoreau Nature Walks will feature South Carolina naturalists and actors portraying Thoreau and his contemporaries. And the Columbia Music Ensemble will present "Thoreau's Music

at Congaree," a collection of mid-19th century American folk music during the weekend.

South Carolina Wildlife magazine is sponsoring a photography and essay

contest, "Finding My Own Walden Pond in South Carolina." Contest rules will be published in the magazine's March edition.



Thoreau

Books

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retirement to help with some of the "institutional memory," and had lunch with former superintendent Martha Bogle to go over some details and dates from her tenure, especially the terrific work of the Army and Air Force National Guard units.

I've also had lots of help from many fine photographers who have willingly shared their images of Congaree National Park.

The book has been fun putting together, with long walks down memory lane (which included more than a few "senior moments"). I'm excited about our beloved park getting "more press," honored that Arcadia Press wants to do a book about Congaree National Park and hope the National Park Service will be pleased.

I'm donating royalties from the book to Friends of Congaree Swamp, and dedicating it

to our own John Grego.

USC Press will publish Mark Kinzer's new book, *Nature's Return: An Environmental History of Congaree National Park*, later this year.

Kinzer is a long-time Congaree National Park enthusiast and an environmental protection specialist at the National Park Service's Southeast Regional Office.

He received Friends of Congaree Swamp's Order of the Cypress in 2011 in recognition of his research on the park's land use history, his work on the park's 2003 boundary expansion and his nominations of Congaree National Park as a Ramsar Wetlands of International Importance.

Nature's Return details how people have actively modified the floodplain environment of Congaree National Park over the course of centuries.

Synthesizing materials such as property and census records, studies of forest succession, tree-ring analyses, slave narratives, and historic news accounts, *Nature's Return* shows that past human impacts to lands inside the park are more extensive than once thought. From setting fire to canebrakes, to clearing farm fields and logging trees, inhabitants of the lower Congaree valley have manipulated the floodplain environment both to insure their survival and, in time, to make their fortunes.

At Congaree, the impacts of past farming, grazing, and logging, while far less extensive than in other river swamps across the Southeast, are still there to be seen by those who know where to look. These impacts, augmenting the natural disturbance regime of flooding and wind, have helped produce the forest that visitors to the park encounter today.



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Join Friends of Congaree Swamp today!

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.)

Individual \$15 Name(s) _____
 Family \$35 * Mailing address _____
 Advocate \$50 City _____ State _____ Zip _____
 Partner \$100 ** Phone _____ Email _____
 Benefactor \$500
 Patron \$1000
 Nonprofit \$50
 Corporate \$1000

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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