

Florascope

The Newsletter of the
A. C. Moore Herbarium



Biodiversity Collections Management Software "Specify" is here!

Our first database system was retired in February 2008 and replaced with "Specify" Biodiversity Collections Management Software. The Specify Software Project has enjoyed National Science Foundation funding since 1987 and offers continuous support in addition to a very user friendly environment and greater stability. Perhaps the most exciting feature of the new database is its ability to provide a web based search feature for public access. Yes, now botanists



with a computer and an internet connection anywhere in the world can

search the A. C. Moore Herbarium's holdings to obtain county occurrence information. As of early autumn 2008, over 55,000 specimens have been databased. The great majority of these are specimens of plants from South Carolina. Soon, we will be adding digital images of specimens to this same search feature, and expanding our input parameters to include specimens from other parts of the United States and the world. Of course nothing can compare to seeing the actual specimen in person. Users of the web based search may also download their query results in a spreadsheet. Search results will also link to the updated South Carolina Plant Atlas. A direct link to our on-line search capabilities is provided on the front page of our web site, www.herbarium.org. Try it out!

The Ravenel Collection: Still Restoring a Botanical Treasure

Our restoration work within the Henry W. Ravenel Collection of Converse College continues. Nearly a third of 6,512 specimens have

been fully repaired, and we are now able to formally loan these specimens to botanists at other herbaria for annotation. As an example, we have attracted the interest of Dr. Steven Clemants at the Brooklyn Botanical Garden's Herbarium who is now studying all of Ravenel's material in the genus *Juncus*.

Irene Stevens continues to tackle some of the toughest "repair" jobs with the specimens, including recently, all the oaks (*Quercus*), and everything in the old *Saxifrage* family. Steve Spratt, a PhD researcher in USC's English Department, has been working on specimens in the aster family. Our collections manager, Chanda Cooper, has had her hands in all of this, of course.



Juncus is the genus of rushes.

Of special interest in the Ravenel collection has been a recent project by Dee Griffith. Her independent study project this spring and summer has involved an investigation of Ravenel's collections from Texas during April 1869. Dee has been able to arrange all of the Texas material together, and document its collection along with Ravenel's personal journal. This activity allows us to refine our understanding of where exactly Ravenel went on his journey and why.

This past spring, botanists at Harvard University very graciously sent us a gift of 20 specimens of Ravenel plants that had ended up in their Herbarium. Most of these specimens were collected by Ravenel himself, and then sent to his colleague George Engelmann, who was associated with the early Missouri Botanical Garden, in St. Louis. Engelmann sent these specimens to Asa Gray at Harvard...and of course, Ravenel had already sent specimens of the same collections to Gray. The gift from Harvard will be maintained in our main collection of *Juncus*, cross-linked to their duplicates in the Converse College collection.



Henry W. Ravenel, graduate of South Carolina College in 1832, was one of the premier botanists of the American South.

Collaborative Projects

SCDNR Heritage Trust Program

The A. C. Moore Herbarium's longstanding relationship with the Department of Natural Resources Heritage Trust Program continues to be profitable as survey efforts for rare and endangered plant species produce specimens from remote locations in South Carolina. Currently Heritage staff members are working in partnership with the US Forest Service to monitor existing populations and locate new sites of the Federally Endangered "Smooth Coneflower" (*Echinacea laevigata*) in the mountains of Pickens and Oconee Counties.



In partnership with the SC DNR, the Herbarium is tracking the endangered "Smooth Coneflower" (*Echinacea laevigata*).

As these survey efforts often involve treacherous terrain and seldom explored areas there is good chance that their efforts will produce some other noteworthy finds.

Other efforts include an update to the list of State Tracked plant species. Tracked species are assigned a variety of ranks at the State and Global level and may be legally protected. In conjunction with this update, informa-

tion on currently tracked species has been shared with the A. C. Moore Herbarium for inclusion in the collections database. Soon this information will be made available in the web based search.

SC Exotic Pest Plant Council

Everybody's heard of Japanese honeysuckle and kudzu. But did you know that our state is threatened with new weeds, such as silver lacevine, tropical soda apple, and cogon grass? It's hard to say why exactly so many weeds seem to be making their new homes in our state; reasonable explanations include effects of climate change, but also increased human disturbance on the landscape. Cooperation with the South Carolina Exotic Pest Plant Council has resulted in the inclusion of non-native, invasive plant species information in the Herbarium database. Invasive plant species are ranked relative to the threat they pose to native plants and plant communities. Additionally, State and Federal Noxious Weed information has been included. All this information can be found in the web based search.



Other states have formal and similar "early-warning" systems for weeds set up in their various state agencies. If you live outside South Car-

Hellos...

Herrick Brown assumed the duties of Assistant Curator of the Herbarium in December 2007. After four years of working at the Smithsonian Institution's National Museum of Natural History as a database development specialist, Herrick has returned to his Alma Mater where he received both his BS and MS in Biology. In his new position, he now serves as the official liaison between the Herbarium and the Heritage Trust Program of the South Carolina Department of Natural Resources (SCDNR). Fully funded through SCDNR, Herrick's responsibilities include processing all of the pressed plant specimens entering the Herbarium through Heritage Trust investigations. Additionally, he has made major strides in the develop-

ment of the A. C. Moore Herbarium Collections Database which included the safe migration of approximately 35,000 records from our old system to the new one.

Chanda Cooper came back to us—at least for the summer! We're so glad that she was able to work again as our Collections Manager, but now she's back to working on her graduate degree fulltime.

Andrew Holland is our new Database Manager. Hailing originally from England, Andrew is a Finance Major in the USC Moore School of Business. Since January 2008 he has taken

over data entry for the A. C. Moore Herbarium Collections Database and fostered a smooth segue from our old system to *Specify* by juggling the needs of both our Assistant Curator and our Collections Manager. He also serves in reminding us of the proper pronunciation of the Queen's English.



Herrick Brown, assistant curator of the USC Herbarium, holding a giant amaranth.

olina, please investigate the resources available in your state. In many cases, the first reports of new and potentially dangerous weeds are made by private landowners or gardeners.

Education Outreach

Spring Flora. The “Spring Flora” class (BIOL 527) continues to be regularly filled. The Herbarium is able to support this class by providing fresh and pressed plant materials for study. Additionally, an indoor field trip to the herbarium is a regular part of this course. Our “real” field trips, of course are outside...and this



Spring Flora students proudly displaying their class flag pose for a class picture; kneeling in front: the field trip host, Austin Jenkins.

past April we had an exciting time at Clemson’s Sandhill Experimental Station, shown around the premises by Austin Jenkins.

Nature-Based Inquiry. The Herbarium was a vital part of a week-long teaching institute at the Longleaf Environmental Learning Center in Georgetown in June. The institute, a part of the Nature-Based Inquiry project of USC’s College of Education and School of the Environment (SOE), was designed to improve teacher efficacy and student performance in the sciences. A. C. Moore collections manager, Chanda Cooper, was an instructor for the course and helped teachers learn to identify plants, prepare herbarium specimens, and become excited about botany—skills they will employ in their classrooms to spark children’s interest in science and nature. The Herbarium provided plant identification services and expert advice for the program.

Science and Engineering Day Camp. In July, Herbarium staff welcomed high-school students from the USC Science and Engineering Day Camp to tour our facility; to learn how to collect, prepare, and curate botanical collections; and to explore the plant life of the University campus. Dee Griffith, Herrick Brown and Chanda Cooper provided plenty of serious botanical instruction and led the students on a plant walk around campus, highlighting biodiversity and teaching students to identify plants by their features. In the high tradition of USC’s legendary Flora courses, the walk concluded with a good-na-

Ron Hughes was a student in the Spring Flora class in 2008. He has taken on an independent study project through the Herbarium. Since May, he has been studying all the plant life on both sides of the “three rivers” of Columbia: the Congaree, Saluda, and Broad, and will complete his inventory by graduation in May



Andrew Holland managing the Herbarium database.

2009. To date, there has been no historic study of this river complex; we anticipate some interesting results, and some interesting specimens!

...and Goodbyes

After completing two exciting floristic inventories conducted in partnership with South Carolina State Parks, **Jeff Brannon** and **Will Cely** presented their findings at the annual meeting of the Association of South-eastern Biologists (ASB) in April 2008 in Spartanburg. Although it’s been great having them around the Herbarium, they both graduated in May. We hope to see them around!

Chanda Cooper is leaving us... again! She’s back in graduate school for her final year but will keep coming back to the Herbarium for visits, we hope.

Steve Spratt, too, will be going back to work on his PhD project, on the east side of campus. It’s been good having him with us, working steadily on the Ravenel sheets. We’ve also enjoyed having some interaction with students such as Steve who is in the College of Arts and Sciences, but in a different department.



Never without his trusty plant press, Ron Hughes studies the Saluda River vegetation.

tured field quiz (everyone did well!), giving these students an authentic University experience.

Congaree National Park Naturefest. The Herbarium was also represented during public field activities this year. Congaree National Park held its “NatureFest” in April: Sue Carstensen, Undergraduate Biology Lab Coordinator for USC, and John Nelson led a field trip along the boardwalk near the visitor’s center. “Dr. John” also helped lead a spring wildflower walk in the Congaree Swamp, an annual offering by the “Friends of the Congaree Swamp.” The Herbarium was represented at the March ’08 meeting of the Richland County Master Gardeners, as well as the March ’08 Master Gardeners’ Symposium in Florence, SC.

Endowment Update

The W. T. Batson Endowment for the A. C. Moore Herbarium and Garden, managed by the USC Educational Foundation, contains, as of September 16, 2008, \$132,582.65 with \$5,084.94 of that in a spendable account. This has proven to be an important funding source, providing salaries for student help. In the last year, we have used Endowment funds for a number of student helpers (see elsewhere in this newsletter). This is an important way of augmenting student incomes at a time when tuition and book costs both continue to rise. Our much-valued student assistants over the past year included Jeff Brannon, now graduated, and Chanda Cooper, who was able to work in the Herbarium during Summer 2008. Andy Holland continues as our database input specialist. These

three students have been paid directly from the Endowment.

This year, the Endowment has also made possible the purchase of an additional stand-alone personal computer dedicated to in-house data management functions. Through the Endowment, we also acquired an external server to handle both our rapidly growing web presence, as well as the increased amount of activity within our on-line search features.

Endowment funds were used to support field work for John Nelson in the summer of 2007, who traveled to Arkansas and Oklahoma for study of an unusual “hedge-nettle” (the genus *Stachys*, in the mint family) in the Ozarks. As a result of this travel, a taxonomic study was completed which has resulted in the description of a new species, the “Ozark hedge-nettle.” This new species description will be coming out at the end of 2008 in the *Journal of the Botanical Research Institute of Texas*. Publication costs in this journal are also being covered by the Endowment.

Finally, Endowment funds were used to supply Jeff Brannon and Will Cely each with a cash award of \$250 for outstanding presentations, splitting the second annual A. C. Moore Research Presentation Award. This award is designed to encourage undergraduate botanical projects at USC, and presentation of results at the annual Association of Southeastern Biologists.

Dr. Batson, after whom our Endowment is named, remains the “Father of Botany” in South Carolina. Former students and current colleagues will want to celebrate Dr. B’s 97th birthday, on May 7, 2009.

We very much appreciate the generosity of our past contributors. All donations are tax-deductible, and if desired, can be made through USC’s Family Fund. Donations in the form of a check should be made out to “The USC Educational Foundation,” with a note reading “For Batson Herbarium Endowment.”



Dr. Wade T. Batson



Ozark hedge-nettle, newly described from the Interior Highlands of Arkansas and Oklahoma.

Mystery Plants!!!

Our plant identification service has gotten steadily busier. By the time of the publication of this newsletter, we will have made nearly 300 individual plant identifications, all free of charge. Our requests come from backyard gardeners, professional foresters, private consultants, state agencies, and Extension agents. This is one of USC's most widely-used public outreach offerings.

Unknown plants can always be brought to the herbarium (Room 208 Coker Life Sciences, USC, on Sumter Street) for identification. Alternatively, plants may be mailed to us. Representative parts, including flowers and fruits, if possible, should be placed in a plastic bag, along with a slightly wet paper towel. Poke a few small holes in the baggy, and mail it in an envelope or box. Or, images of plants may be sent in. Email images to Plantman (plantman@herbarium.org) or to John Nelson (nelson@sc.edu), in case Plantman is unavailable.

We are able to advertise our plant identification service in a number of ways. The "Mystery Plant" column runs regularly in a number of

newspapers. Each column features an essay on an unusual plant, along with a picture, and the public is invited to figure out what the plant is before reading the answer. If your local newspaper is not carrying our "Mystery Plant" column, you might want to ask them to contact us about running it (803-777-8196).

Another exciting way in which we have been able to spread the word about our services has been through the popular interactive TV show *Making it Grow*, co-sponsored by South Carolina ETV and Clemson University. The herbarium has been featured throughout South Carolina, and portions of North Carolina and Georgia, on Tuesday nights, since January 2008. All of the segments are available for viewing, archived at the *Making it Grow* website: www.mig.org. We thank the staff and personnel of *Making it Grow* for graciously including us in their program!



Plantman Appears!

On May 31, Columbia's first annual Rocky Shoals Spider Lily Festival was held at Riverfront Park. It was a HOT day! Personnel from the Herbarium were on hand to tell visitors all about our operations, and how botanists in an herbarium may work with other professionals in preserving rare or threatened species, such as the Rocky Shoals Spider lily (*Hymenocallis coronaria*).

Plantman suddenly appeared! He mingled with the crowd, bringing the good news of botany, and explaining all his various and exciting recent activities. Plantman's chief goal as a superhero is to help people identify plants, and of course, that's what we do too, here at the Herbarium, working as Plantman's helpers. Be on the lookout for Plantman!



Plantman took time out of his busy schedule and made a surprise visit.

Support Your Local Herbarium!

An anonymous donor has made it possible for us to purchase a number of Herbarium bumper stickers, 7½" X 3¼", reading "Support your local HERBARIUM!" If you would like one of these, please send a stamped, self-addressed letter-sized envelope to us, and you will soon be supporting our work graphically!

You may be receiving this newsletter as a result of using the Herbarium's plant identification service. We would like to remind you that our identification service is provided FREE OF CHARGE to the public. We will continue to provide this service indefinitely. Currently there is no limit to the number of requests that can be

made from an individual. Our position is that a state-funded resource such as ours should be available, whenever possible, as a public resource. We hope that you will agree that this is grounds for some celebration, during these times of rising costs and a trying economy. Even if the economy is not doing so well, we want to continue being your "full-service" Herbarium!

(In the case that you have used our services and have not made a donation to our Endowment, please consider doing so. If you would prefer not to be on our mailing list, please let us know.)



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