The Crosby Arboretum

Mississippi State University Extension Service

Quarterly News Journal

Winter 2016-17

31.1

BARK RASH LICHEN

When I walk the forests, I'm drawn to a group of living organism of which I have little knowledge - lichens. I know their forms, that they are composed of a fungus and an alga, a bit about their reproduction, and that they are often encountered in surprising locations. I've seen them in our forests, in the Arctic tundra, on rocks in Antarctica, hanging from trees in New Zealand, in the Amazon, and in many other places. But I almost never know what they are or aspects of their individual natural history.

While attending a memorial gathering for the late and great Jackeen Kelleher Churchill, one of the principal founders of the Louisiana Nature Center, I was talking to Dr. Ronald French as he stood holding a walking stick cut from his nearby Mississippi farm in Poplarville. The stick was from a trunk of an American holly, *Ilex opaca*, and adorned with whitish, yellowish, and red splotches. On examination, I realized that once again I knew these patterns were lichens, but I had no idea what species they were. I photographed the red ones. Ron said he noticed long ago the obvious multicolored patterns of American holly trunks, and finds them quite attractive. When I got home, I sat down with my 795 page, ten-pound lichen tome (*Lichens of North America*, by Irwin Brodo, Sylvia Duran Sharnoff, and Stephen Sharnoff, Yale University Press).

I spent the first hour familiarizing myself with terminology specific to ascomycete fungi, members of the Phylum Ascomycota, the primary *mycobiont* (the fungus half of the relationship; the photosynthetic portion, the alga or cyanobacterium, is called the *photobiont*). After an hour of turning pages (Did it really take that long for me to turn 613 pages? No, but as any good naturalist, I got side-tracked many



Powdered Script Lichen, Diplolabia afzelii, growing on an American holly. Note specialized bun-shaped lirellae, where spores are produced.



Bark Rash Lichen, with its characteristic crimson coloration and the raised perithecial warts.

times), I found the red lichen - the Bark Rash Lichen, *Pyrenula cruenta*, a richly colored, blood-red crimson with very dark bumps (perithecial warts). It is a crustose lichen, meaning its thallus is closely adhered to the surface of its host. It prefers trees with "green" bark (such as hollies and beeches), meaning bark with chlorophyll in or near its surface cells. There is no evidence that the lichen derives nutrition from the tree's bark, but it is tempting to suspect they do.

The description of Bark Rash Lichens says they are crimson over the entire thallus or in patches on the thallus, and if growing in the shade, crimson around the perithecia. For an amateur, if one looks at the photo (Photo 742, Brodo et al.), which is all crimson, and then reads the description, there is nothing to suggest that the thallus may be vanilla or yellowish. However, the keen observations of the good Dr. French informed me that they tend to be bright crimson in the winter and less so, fading to orange, in summer. This can be seen by the blending of these colors on a uniformly textured shiny smooth thallus. This is further complicated by the presence elsewhere on Dr. French's walking stick of similarly colored yellowish-beige thalli that contain small, thin, white bun-shaped structures called lirellae instead of the perithecial warts. We are familiar with this lichen, known as Powdered Script Lichen, Diplolabia (=Graphis) afzelii, which we see on almost every wax myrtle we examine in Jean Lafitte National Park's Barataria Unit. It always amazes me how a natural history adventure can begin in the most unexpected of social situations.

By Robert A. Thomas, Ph.D, Loyola Distinguished Scholar Chair in Environmental Communication, Professor and Director, Loyola University Center for Environmental Communication, New Orleans, LA. For more of Bob's natural history writing and Nature Notes, see http://loyno.edu/lucec/natural-history-writings.



The Crosby Arboretum Mississippi State University

A regional arboretum representing the native flora of the Pearl River Drainage Basin in Mississippi and Louisiana.

Picayune, Mississippi, USA



Please join us in welcoming part-time Curator **Jennifer Buchanan** (**Ficken**) to The Crosby Arboretum staff!

Director's Notebook:

The huckleberries have a scarlet glow, and the bald cypress trees along the Piney Woods Pond are sporting a familiar shade of rust. We are celebrating the transition into winter, and having made it successfully through a busy fall, with Bugfest, the Fall Plant Sale, and Piney Woods Heritage Festival. This year, we have reached the highest membership numbers in ten years! With a fifteen percent increase in members, we now have almost 440 members, as Office Associate **Sherri Lowe** continues her successful recruiting campaign for visitors to join as members.

Kim Johnson has continued to increase the selections in our Gift Shop, offering visitors and the local community a unique shopping experience. Grounds Manager **Terry Johnson** has worked hard this year to complete many projects, including the bridges and a new deck in the Swamp Forest Educational Exhibit. Finally, we are excited to report that **Jennifer Buchanan** has joined our staff!

This fall, MSU professors **Bob Brzuszek** and **Tim Shauwecker** led students from the landscape architecture and landscape contracting and management programs in the construction of the Quaking Bog Educational Exhibit in the South Savanna, with site work performed by talented site contractor **Daniel Broome.** A "floating" bridge and walkway are at the center of this exhibit. The project was funded by a Foundation grant through the **Five Star and Urban Waters Restoration Program** and Southern Company, the parent company of Mississippi Power. We are looking forward to what 2017 has in store for us!

Curator's Corner: Jennifer Buchanan

Hi! For those of you who are long-time members of the Arboretum, you know the curator's position has been open for quite a while. I am happy to tell you I have been hired temporarily to serve part time in this position, and will be working along with the director and other staff members to promote the educational mission of the arboretum. My chief role will be to help coordinate the larger events such as the Piney Woods Heritage Festival, Forge Day, Strawberries and Cream Festival and the native plant sales; but, I will also be helping out with other programs whenever I can.

I recently retired from the Mississippi Department of Marine Resources (DMR) where I had worked for over 30 years as a coastal ecologist. Most recently I served as the Education Coordinator (EC) for the DMR's Grand Bay National Estuarine Research Reserve. In my role as the EC, I planned and helped coordinate several large environmental education events, such as the *Celebrate the Gulf Marine Education Festival* that is held annually on the coast in Pass Christian. Additionally, I helped write and served as an editor on the popular "Field Guide to the Selected Plants of the Grand Bay National Estuarine Research and Vicinity" and designed a companion poster to accompany it.

I am a past president of the Mississippi Environmental Education Alliance and a Certified Interpretive Guide who has spent a considerable amount of time leading tours through pine savanna and estuarine habitats. My biologist husband, Michael, and I live in Long Beach, Miss. and have two grown daughters. Although I have lived on the coast for many years, I have strong ties to Picayune. My family and I moved here when I was in ninth grade. I attended both junior high and high school here, and graduated from Pearl River Junior/Community College. I also hold both an undergraduate and a graduate degree in Biology from the University of Southern Mississippi: but, I now look forward to being associated with Mississippi State University. Because my mother, sister and one of my brothers still live here in town, I often return here to visit.

When we are not working, my husband and I enjoy birding, botanizing, kayaking, hiking and exploring new places. I have a personal goal to travel to each of the 50 states, and I only have two more to go! Please feel free to stop by my office at the visitor center to say hello if you get a chance to come to the arboretum. I look forward to meeting you and hearing about any potential program/event ideas you have. Hope to see you soon!



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Picayune, Mississippi, USA

PLANT PROFILE: Sphagnum or Peat Moss (Sphagnum sp.)





Jennifer points to sphagnum moss growing in the South Pitcher Plant Bog. It is found throughout the Arboretum.

This low-growing, true moss is often most noticeable in the wetter, more acidic areas of the Arboretum's pine savanna/pitcher plant bog. Looking like a lush green carpet, this keystone species (a plant or animal that many of the other species within the ecosystem depend on to survive) forms highly absorbent, thick vegetative mats consisting of thousands of these specialized small plants. Over time, as many of the Sphagnum plants die and begin to decompose, new ones become established on top of them, maintaining and expanding the mat. Because each plant (both dead and alive) in the mat can hold between 16 and 26 times its own dry weight in water in special empty cells found in their stem leaves, the mat acts as a giant sponge, absorbing and storing large amounts of water. This water is then available for other species of the bog, especially carnivorous plants, to use during times of drought. Sphagnum also has a unique ability to maintain the acid soil conditions that it requires. This acidity combined with the lack of oxygen in the wetland soils leads to a very slow rate of decay within the bog.

Sphagnum has been used as a purposeful plant by humans for thousands of years. The living portion of the Sphagnum bog is often referred to as Sphagnum moss, while the dead layers are referred to Sphagnum peat moss. Sphagnum moss has been used in the past, especially during World War 1, in bandages because it inhibits the growth of bacteria. Sphagnum peat moss was also used by our early American Indians as diaper materials for their babies. However, the most familiar modern use of peat moss is for gardening. Sandy soils are often conditioned with the peat moss so that they will hold water longer, and nursery growers and home gardeners often use it for a variety of uses in their potted plants.

Recently concerns have been raised about the harvesting of peat moss. If done improperly, the damage to these unique habitats can be irreversible. However, Canada, where most of all the *Sphagnum* peat moss used in the US comes from, has developed best management practices for its harvest and restoration. If you must use *Sphagnum* for your gardening projects, please choose a product that was sustainably harvested, or, better yet, choose one of the newer products that are being developed such as coir or PittMoss (made from recycled newspaper) as a substitute for *Sphagnum*.

(Reference: http://www.inaturalist.org/taxa/54704 Sphagnum Mosses)

Jennifer Buchanan

CROSBY COLOR

By Melissa Morris



The Crosby Arboretum hosts an array of colors From tall, green longleaf pines to short, showy azaleas All competing for the light.

Tall, green longleaf pines grow up to the sky Then the fires come and burn the open forest Allowing the short, showy orchids to blossom, The lilies to intrigue,

The *Liatris* and goldenrod to flash purple and gold, The sunflowers to radiate,

The pitcher plants to catch their insect meal To compensate for their soil's lack of nitrogen. And the hollies and magnolias to be used To decorate Pinecote Pavilion.

Rugged, rustic, wooden centerpiece of the Crosby Arboretum, In holiday cheer.

Melissa is a sophomore at Troy University, Alabama, majoring in multimedia journalism, with a minor in English. Her poems have been published in Troy University's literary journal, The Rubicon, published by the Department of English.

Crosby Arboretum Memberships Make GREAT HOLIDAY GIFTS!



Crosby Arboretum memberships include special admission privileges and discounts at nearly 300 other public gardens through the **American Horticultural Society's Reciprocal Admissions Program**. Call Sherri Lowe at 601-799-2311 to order, or for more information.



Grounds manager Terry Johnson and volunteer Tom Heim constructed a handsome cypress deck this fall at the intersection of the Slough Trail and Swamp Forest Trail.



MSU landscape architecture students, Professors Bob Brzuszek and Tim Shauwecker, Crosby Arboretum volunteers, Terry Johnson, and site contractor Daniel Broome were busy in fall constructing the Quaking Bog Exhibit, a Five Star Restoration Grant project.

The News Journal is a quarterly publication of The Crosby Arboretum, Mississippi State University Extension Service. Journal subscriptions may be obtained with membership at the Arboretum. Printed on recycled paper with $\geq 30\%$ postconsumer waste recycled fiber. Journal may be received electronically if desired.

Please address correspondence to:

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Membership Application

All contributions are tax deductible to the extent allowed. For more information call: (601) 799-2311 or print form online.

 Student (ser	nd copy of student i.d.)	\$	15.00
 Individual			30.00
 Family			40.00
 Donor			100.00
 Patron			250.00
 Benefactor		1	,000.00
 Business			
	Sweetgum		100.00
	Sassafras	:	250.00
	Live Oak		500.00
	Bigleaf Magnolia	1,	000.00

Name			
Address		 	
City		 	

Renewing? Memberships are for one year.



Crosby Arboretum

Mississippi State University Extension Service

P.O. Box 1639 Picayune, MS 39466-1639

Celebrating the 30th Anniversary of the Dedication of the Interpretative Center

Supplement to the 2016-17 WINTER Crosby Arboretum Quarterly News Journal, Vol. 31.1

Dedication of The Crosby Arboretum: Sunday, November 23, 1986

The Crosby Arboretum is founded and dedicated to the memory of L.O. Crosby, Jr. This dedication reflects his lifelong interest and concern for natural resources, especially the forest resources of south Mississippi.



Guests at the Arboretum dedication ceremony on the Cypress Head overlook across from the Pinecote Pavilion (left). Master of Ceremonies and founder L.O. Crosby III (Osmond), with Lynn Crosby Gammill, President of The Crosby Arboretum Foundation, presenting a tribute to their father, L.O. Crosby, Jr., in whose memory the Arboretum was established (right).

On Sunday afternoon, November 23, 1986, over 250 guests gathered at Pinecote to participate in the dedication of The Crosby Arboretum. The ceremony culminated seven years of planning, of which the last two and one-half years have been spent designing and developing the Interpretive Center's initial visitor facilities and habitat displays. Master of Ceremonies was founder **L.O. Crosby III**, who opened the program. The significance of the occasion was summarized in beautiful prayers offered by **Dr. Raymon Leake**, pastor of the First Baptist Church of Picayune, and **Bishop Joseph Howze** of the Catholic Diocese of Biloxi.

Keynote speaker **Dr. Henry Marc Cathey,** Director of the United States National Arboretum, Washington, D.C., was introduced by U.S. Senator Thad Cochran from Mississippi. Dr. Cathey spoke of arboreta as places that serve our need-to-know. As living museums that preserve knowledge and satisfy our curiosity, they also nourish our yearning for places of beauty. Dr. Cathey stressed that The Crosby Arboretum is one of 34 arboreta in the United States where the public can study the response of plants to the diversity of solar radiation, soils, rainfall, topography, and temperatures that occur on the North American continent. Dr. Cathey emphasized the educational strength of arboreta by articulating the diverse ingredients required to guarantee success: "botany to understand the plant processes, horticulture to grow the plant, art to design the landscapes, and public affairs to present the concepts." Dr. Cathey concluded by saying, "I believe more than ever before that *green* is the color of *hope*, and in the *green* of our plants is the *hope* for our survival."

Lynn Crosby Gammill, President of The Crosby Arboretum Foundation, presented a tribute to her father, **L.O. Crosby**, **Jr**., in whose memory the Arboretum was established. Mrs. Gammill expressed her thoughts by saying, "L.O. Crosby, Jr., would have been pleased to be here today. His best friends are here, family, children, and grandchildren – people from all walks of life coming together in harmony to enjoy nature and celebrate our natural heritage...this is almost a perfect peace."

Gail Criss, a history teacher in the Picayune Public Schools, recognized students William A. Bligh, Jr., and Marti Brasher as winners of an essay contest. Prior to the dedication, students were asked to envision and write of the changes that might occur within the coastal region during the next thirty years. Director Edward Blake, Jr. presented the Arboretum's first Volunteer Award to Registrar Katherine Moak Furr, for whom the award is named. The full text of this presentation is published in the Director's Notebook. Trustee Ruth Ellen Calhoun, Chairman of the Nominating Committee, recognized Dr. William Giles, Dr. George Switzer, and Fay Jones as the first Fellows of the Arboretum. This honor is given to those who, by the excellence of their endeavors, have given outstanding service to the Arboretum. Superintendent Christopher Wells

turned everyone's attention to volunteers **Dr. James Puckett** and **Judy Kiddlestad** as they planted a Mockernut Hickory, *Carya tomentosa* Nutt. This tree is one of over 100 species of indigenous woody plants being introduced as the habitat displays are further developed.

Ethel Green Banta, Chairman of the Arboretum's Advisory Board, unveiled a stainless steel time capsule to be buried at the Arboretum and opened on November 23, 2016. She accepted documents to be placed in the capsule which describe the writers' thoughts of what the Arboretum will be like in thirty years. Adding documents to the capsule were Clyde Dease, Jr., NASA; Alain de Jamblinne, President of the Private Forestry Association of Belgium; Dr. William Giles, President Emeritus of Mississippi State University; Dr. Tang Chen-Zi, Director of the South China Botanical Garden; Honorable William Winter, former Governor of Mississippi; and Fay Jones, architect of the Pavilion. Filling the rafters of Pinecote with song were members of the Pilgrim Bound Church Choir of Picayune, who sang "Down by the Riverside." Members of the University of Mississippi Chamber Orchestra, directed by Fred Meyer, performed selections from Mozart, Handel, and Pachelbel. As the day ended, participants journeyed through the Piney Woods Lake exhibit and conversed beneath the shelter of Pinecote while dancer Lief Anderson and guitarist Dr. William Ferris entertained. It was an inspiring ending to a dramatic afternoon. (Text source: Crosby Arboretum Winter 1987 Quarterly News Journal, Volume 5.1, "Arboretum Dedication: Distinguished Guests Honor Seven-Year Effort")





Leif Anderson, writer, dancer, artist, and daughter of Walter Inglis Anderson, performs an interpretive dance on the overlook across from the Pinecote Pavilion (left). Ethel Green Banta places documents inside the time capsule (right).

TIME CAPSULE DOCUMENTS included correspondence from Mississippi writer Eudora Welty, who was not able to attend the dedication. Advisory Board member Jean Chisholm Lindsey wrote in her letter that by 2016, she hoped the Arboretum would be "a flourishing center for students and visitors of all ages, where even the youngest visitor can learn and appreciate more of how life began – and history continues – in this unique environment." A letter by Dr. William Giles, President Emeritus of Mississippi State University, expressed his hope that "the influence of the Arboretum will have stimulated an awareness and appreciation for native plants in Mississippi". MSU Forestry professor Dr. George Switzer predicted "an increased understanding of the regional role of the plant resources here". Clyde Dease, Jr. projected that, "the South, and particularly Mississippi, would finally be recognized as an area having much to be offered in the way of education, research, and plant studies". Dr. Bill Cibula observed that there was "much yet to be learned about the complex interrelationships of the plants, fungi, and animals found in the natural areas of the region". He saw the Arboretum as "a place where the layperson could learn about these complexities" and led many programs here to this end.

Former Mississippi Governor William F. Winter wrote of the importance for making visionary plans for the future, such as the establishment of The Crosby Arboretum. He said, "I can see in my mind's eye an area filled with the planned and cared for beauty of the lush and verdant plants and trees that this area of South Mississippi grows so well naturally, but that have too often been abused in their native state. This will be an area that the growing population of the region will come to regard as a model of preservation. It will be a center of botanical study and exploration as well as a haven for visitors." Advisory Board member Ben M. Stevens, Jr. wrote in his letter that in the year 2016, the Arboretum would be "a beautiful place that would draw visitors for relaxation, meditation, and to simply commune with nature; a place for education and research where we may better know and develop our natural surroundings; and would attract visitors from far and wide, affording them an opportunity to enjoy the natural beauty of our native flowers, plants, and trees."

It can truthfully be said that the hopes expressed in these 1986 writings have indeed become a reality thirty years later. A copy of the time capsule letters is available in the Crosby Arboretum archives for those who would like to read further.

Crosby Arboretum Program Schedule

December 2016 - January 2017

December 2016

WINTER GALLERY EXHIBIT: PAINTINGS BY JEANIE LATIOLAIS



Opening Event Saturday, December 10 1:00 to 3:00 p.m.

This winter's gallery exhibit will feature Pearl River Paintings by Poplarville artist Jeanie Alexander Latiolais. Jeanie is a lifelong artist and lover of art who believes every person has an artist lurking within. Free admission. Exhibit will be on display through February.

THIS EVENT IS CONCURRENT WITH OUR

HOLIDAY OPEN HOUSE

Saturday, December 10 1:00 to 3:00 p.m.



Take a deep breath during the busy holiday season and recharge at the Crosby Arboretum's annual open house celebration! Join us for good cheer and light refreshments, and browse the gift shop and the crafts and artwork of local artisans. Free admission.

January 2017

PINE NEEDLE BASKET WORKSHOP

Saturday, January 14 10:00 a.m. - Noon

Join Judy Breland, Stone County Extension Agent, for this adult workshop to learn the art of pine needle basketmaking. Participants can complete a small basket by the end of the workshop, and will learn the methods for continuing with future projects. Wear old clothes. All materials will be provided. Admission is \$5 for members and \$7 for non-members. Register by January 13.

PREPARING YOUR GARDEN FOR SPRING

Saturday, January 21 10:00 a.m. to 11:00 a.m.

Winter is normally a quiet time in the garden, but it won't be long before spring arrives and you'll be caught up in the frenzy of seed-sowing, growing, and nurturing your garden as it comes to life! Getting your garden in order early will help make the spring a little less hectic. Topics will include selecting your garden site, maintenance, seed starting, testing and amending the soil, and the planting calendar. Non-members \$5. Please register by January 20.



FORGE DAY: BLACKSMITHING & METALWORKING **DEMONSTRATIONS**

SATURDAY January 28 10 a.m. to 2 p.m.

Join us for this exciting day of demonstrations by area metalworkers and craftsmen. Learn the techniques and tips to get started in metalworking and try your hand at the forge (Must complete a waiver form prior to participating.) Browse items by craftsmen for purchase. Knife sharpening will be available. Members attend free; non-members \$5, and \$2 for non-members' children.

Crosby Arboretum Program Schedule

February 2017

February 2017

WINTER BOTANY FIELD WALK

Saturday, February 4 10:00 a.m. to Noon

Enjoy this introduction to winter botany on your walk through the Arboretum's exhibits with MSU Extension Forestry specialist **Dr. Glenn Hughes**. Learn how to identify tree and shrub specimens in the winter by characteristics of their twigs, buds, and bark. Nonmembers, \$5. Please register by February 3.

CHILDREN'S WORKSHOP: PEANUT BUTTER PINECONE FEEDERS FOR WILDLIFE

Saturday, February 4 1:00 to 2:00 p.m.

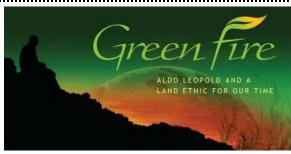
Birds and other wildlife often need extra food in the winter for fuel and warmth. Children will enjoy making tasty delights such as peanut butter pinecone feeders and mixing up "bird butter" to attract birds and other wildlife to your backyard. All materials provided. Cost: members \$3; non-members \$5. Call to register by February 3.

ARBORETUM ARBOR DAY NATIVE PLANT SALE



Saturday, February 18 10:00 a.m. to 3:00 p.m. (Members Admitted at 9 a.m.)

Grab a cart and choose from a great selection of native trees and shrubs at our Arbor Day Native Plant Sale. Knowledgeable volunteers will be on hand to assist with plant questions and offer advice on plant selection for your site. **Free Admission.** Use Service Entrance.



A CELEBRATION OF ALDO LEOPOLD Saturday, February 25

Aldo Leopold was a conservationist, forester, philosopher, educator, writer, and outdoor enthusiast. His book, *A Sand County Almanac*, is one of the most respected books about the environment ever published, and he has come to be regarded by many as the most influential conservation thinker of the twentieth century.

These two programs will be led by MSU Extension Forestry Specialist **Dr. Glenn Hughes** and Coastal Ecology Specialist **Dr. Eric Sparks**. Each program, fee is \$5 for non-members. Members free. Register by February 24.

READINGS FROM SAND COUNTY ALMANAC 9:30 a.m. to Noon

Selections from Aldo Leopold's *Sand County Almanac*. Books are available for purchase for \$6. Participation is encouraged, but not required. Limit 30 persons. Weather permitting, outdoor activities may take place.

"GREEN FIRE" FILM AND DISCUSSION 1:00 to 3:00 p.m.

View the documentary film, "Green Fire: Aldo Leopold and a Land Ethic for Our Time". After the film, there will be a discussion of the film from the perspective of "Aldo". The afternoon program will include short, selected readings and a "special guest."

Program Reservations: Call the office at (601) 799-2311. **Physical Address:** 370 Ridge Road, Picayune, MS 39466 **Hours of Operation:** Wednesday - Sunday, 9 am to 5 pm

www.crosbyarboretum.msstate.edu

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