

The Crosby Arboretum

Mississippi State University Extension Service

Quarterly News Journal

Fall 2016

30.4

THE NATIVE HOLLIES OF MISSISSIPPI

Although many individuals might think of hollies (*Ilex* spp.) as “northern” plants by associating them with Christmas and other winter holiday decorations, the estimated 400 species in the holly family are distributed in southeastern North America, south through South America, over the whole continent of Africa, across southern Europe and much of southern Asia, to northern Australia. Of these, at least 10 species are native to Mississippi. Our hollies are shrubs, such as gallberry (*Ilex glabra*) and yaupon (*I. vomitoria*), to sizable trees, such as American holly (*I. opaca*). Habitats of our native hollies range from swamp and hardwood forests in creek and river floodplains, to bogs, bay swamps, and pitcher plant savannas, to upland mixed pine-hardwood forests and even sandhills.

Leaves of hollies, although evergreen in species such as American holly and gallberry, are often deciduous, as in possum-haw (*Ilex decidua*) and winterberry (*I. verticillata*). Leaf arrangement is alternate along the twigs, and leaves are subtended by minute black stipules that appear as black dots near the leaf bases early in the year. The latter is a good field characteristic to separate native hollies from the multitude of other similar evergreen shrubs in our region. Bee-pollinated flowers are inconspicuous and typically present on separate “male” and “female” bushes. Female flowers have a button-like stigma (where pollen is received after bees transfer it). If you want bushes bearing the brightly-colored fruits, which can be red as in American holly, or black as in gallberry (also known as inkberry), you must plant female bushes and have male bushes nearby!



Large gallberry holly, *Ilex coriacea* (L), and Yaupon holly, *Ilex vomitoria* (R) at the Crosby Arboretum.



American holly, *Ilex opaca*, near the Visitor Center deck.

The bright colors of the several-pitted drupes (not berries!) attract vertebrate animals for dispersal. Therefore, hollies are important to wildlife, especially songbirds. Gamebirds such as Wild Turkey and Northern Bobwhite also consume the fruits, and White-tailed Deer browse both yaupon and gallberry.

Hollies have a variety of uses. Yaupon (with a number of cultivars ranging from dwarf to tree-like) and gallberry are frequently grown as evergreen hedges in our region. Bees visit the flowers of gallberry to make honey by the same name that is popular in parts of the Deep South. I like to pour it over a sliced grapefruit! As the Latin name suggests, yaupon (*Ilex vomitoria*) has been used to expel poisons, a practice that is not recommended today because yaupon itself is a source of toxins. Leaves of the famous maté (*I. paraguensis*), native to South America, are used to prepare one of the most physically and mentally stimulating teas in the world! Mate is rich in caffeine, theophylline (also in black tea of the South), and theobromine (also in chocolate!), all of which are alkaloids. The durable, white wood of tree-sized hollies is prized for carving and inlay. Decorative holly is commercially traded around the time of Christmas. Among my favorite holiday decorations incorporating native hollies are winterberry (*I. verticillata*) or deciduous holly (*I. decidua*) with either eastern red cedar (*Juniperus virginiana*) or eastern hemlock (*Tsuga Canadensis*) on a fireplace mantle. Of course, the evergreen leaves and bright red fruits of American holly (*I. opaca*) are nice, too!



Michael Wayne Morris, Ph.D., Associate Professor of Biology, Troy University, Troy, AL. Dr. Morris was employed at the Crosby Arboretum in the summer of 1986 through Dr. Sidney McDaniel, MSU Professor of Botany, while working on his M.S. at MSU.



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

Director's Notebook:

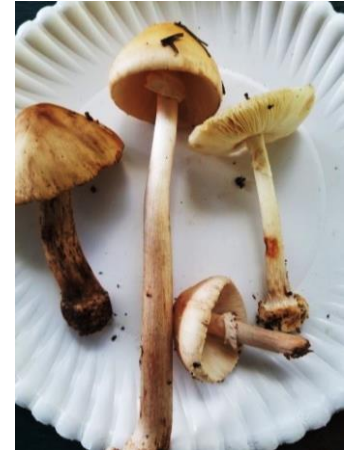
As each summer approaches, I find myself repeating that we're looking forward to a chance for a deep breath. With the end of the past summer, I've now accepted that this season's pace is still busy, just not as intensely busy as we will soon be experiencing with fall programs and events. Although our two-day Bugfest, the big fall plant sale, and the 14th annual Piney Woods Heritage Festival will be here before we can blink, my consolation is knowing that getting through each new season would not be possible without the support and talents of our dedicated staff. The continuous recruiting by office associate **Sherri Lowe** has resulted in our membership numbers now being the highest since I began in 2007. With an August total of 387 members, we have already surpassed last year's member totals! A quarterly "Volunteer Gazette" was created **Kim Johnson** to document the activities of Crosby Arboretum's fifty or so active participants in the volunteer program. Her newsletter has received rave reviews and will also serve as a detailed record for the archives of each season's projects. Our front ticket booth is open more frequently as a result of Kim and Sherri's efforts. During programs and busy periods, staff and volunteers now greet our attendees and visitors. As for building and grounds manager **Terry Johnson**, he continues to fix everything in need effortlessly with lightning-quick speed, and tackles both routine tasks and a never-ending list of new projects with equal enthusiasm. Finally, you will notice two new recycle bins on the Visitor Center deck for aluminum soda cans and (clear) plastic bottles, thanks to volunteer **Dee Schulte**.

- Patricia Drackett, Director

The Crosby Arboretum, MSU Extension Service



In June, Director Pat Drackett attended the annual conference of the American Public Gardens Association in Miami, FL, accepting the 2016 Garden Excellence Award for the Crosby Arboretum, a prestigious national award given yearly to only one public garden.



AUGUST MUSHROOM WALK

By Dr. Juan Luis Mata, University of South Alabama

On Saturday, August 20, **Dr. Juan Mata** led the annual Mushroom Walk at the Crosby Arboretum. Mata gave a brief introduction to the Kingdom Fungi and how to collect mushrooms, and then participants ventured on their own to collect in the Woodland Exhibit, bringing mushrooms back to be assorted and identified. At the end, Mata expanded concepts on those mushrooms displayed. At least 30 different macrofungi were collected, but some could not be identified with certainty. The group's finds included these species:

Boletes (fleshy, pored mushrooms)

- Boletus "bicolor"
- Boletus rubropunctus
- Boletus sp
- Leccinum rugosiceps
- Phylloporus rhodoxanthus
- Strobilomyces floccopus
- Suillus decipiens
- Tylopilus plumbeoviolaceus

Amanitas (ring on stipe and sac on base)

- Amanita amero-rubescens
- Amanita mutabilis

Polypore mushrooms

- Ganoderma lucidum
- Laetiporus cincinants
- Phaeolous schweinitzii
- Trametes cubensis
- Trametes "conchifer"

Other gilled mushrooms

- Cantharellus lateritius
- Cantharellus "texensis"
- Entoloma "bloxami"
- Entoloma "strictius"
- Entoloma quadratum
- Gymnopus ioccephalus
- Gymnopus subnudus
- Gymnopus biformis
- Gymnopus luxurians
- Gymnopus pseudoluxurians
- Lactarius "camphoratus"
- Russula "crustosa"

Puffballs and other odd mushrooms

- Hydnellum spongiosipes
- Pisolithus tinctorius
- Ramaria sp
- Tremellodendron sp



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Picayune, Mississippi, USA



During July's Aquatic Plant Sale, New Orleans "Bug Lady" **Linda Auld** released Gulf Fritillary, Monarch, and Great Southern White butterflies, along with a very hungry Monarch caterpillar, to explore our newly renovated pollinator garden!



Water cowbane is abundant in the Arboretum's South Bog.

HOLLY SPECIES IN MISSISSIPPI

Michael Wayne Morris, Ph.D.

Carolina holly (*Ilex ambigua*); some populations with larger leaves are recognized by some experts as a separate species, mountain holly (*Ilex montana*)

Sarvis holly (*Ilex amelanchier*)

Dahoon holly (*Ilex cassine*)

Large Gallberry (*Ilex coriacea*)

Possum-haw, or deciduous holly (*Ilex decidua*);

some populations with fruits borne on long stalks (1-2 cm long) are recognized by some experts as a separate species, *Ilex longipes*

Gallberry, or inkberry (*Ilex glabra*)

Myrtle-leaved holly (*Ilex myrtifolia*)

American holly (*Ilex opaca*)

Winterberry holly (*Ilex verticillata*)

Yaupon holly (*Ilex vomitoria*)



Ilex decidua is found in the Crosby Arboretum exhibits.

PLANT PROFILE: COWBANE

Lately, when walking down the boardwalk in the South Bog, one is immersed in a humming sea of insect life. The reason is the bumper crop of cowbane (*Oxypolis filiformis*), or "water dropwort". Cowbane looks a lot like non-native Queen Anne's lace, but grows in much wetter areas, such as coastal roadside ditches. Both plants are in the carrot family, and have wide, white, flat-faced umbels which are actually clusters of many tiny flowers. Pollinating insects are attracted to cowbane's umbels, which provide them a wide area to land and sip nectar. Eastern black swallowtail butterflies lay their eggs on the cowbane, which is one of its host plants. When the eggs hatch, the tiny caterpillars will begin to consume the leaves and stems, and once matured, the caterpillars will form a chrysalis. In a few weeks, new butterflies will emerge to find a nearby treat - purple *Liatrix* spikes offering a nectar "meal". Come enjoy the many species of butterflies dancing in the *Liatrix* patch this fall!



In mid-August, **Buddy Broadway** (L) and **Jac Coleman** (R) kindly provided maintenance for our bee hive donated last year by D. L. Wesley of Foxworth, MS, and even harvested some honey!

SOUTH BOG: QUAKING BOG EXHIBIT

The completion deadline for the Quaking Bog Educational Exhibit has been extended to November 30, due to the uncommonly wet weather we have been experiencing this year. A floating bridge designed to pass over the exhibit area was constructed this spring by Mississippi State University students in **Dr. Tim Schauwecker's** Construction Cost Estimating class (LA 4724) and is awaiting installation when the project site becomes accessible. Landscape architecture professor **Bob Brzuszek** is also assisting with this project. The Quaking Bog Educational Exhibit is being made possible through a **Five Star and Urban Waters Restoration Grant** from the **National Fish and Wildlife Foundation**, in partnership with **Southern Company**, of which **Mississippi Power** is a subsidiary. It will be the first constructed quaking bog wetland education exhibit in the United States.



Above: The footprint of the old boardwalk in the South Bog was filled with clusters of yellow pitcher plants and parrot pitcher plants, dug from the Quaking Bog project area (on the other side of the pathway). Arboretum volunteers who assisted grounds manager **Terry Johnson** with the plant rescue project included **Dee Schultz, Mary Donahue, Chris Schneidau, Judy Schwartz, Carla Lizana** and son **Eddie**.



The News Journal is a quarterly publication of The Crosby Arboretum, Mississippi State University Extension Service. Journal subscription is included with an annual membership to the Arboretum. Printed on recycled paper with $\geq 30\%$ postconsumer waste recycled fiber.

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 P.O. Box 1639, Picayune, MS 39466

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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 (send copy of student ID)	\$ 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

State Zip Phone

Renewing? Memberships are for one year.



The Crosby Arboretum
Mississippi State University
 P.O. Box 1639
 Picayune, MS 39466-1639

Crosby Arboretum Program Schedule

September – October 2016

September 2016

LIFE CYCLE OF THE MONARCH BUTTERFLY

Saturday, September 3

1:00 to 2:00 p.m.

Children and adults will delight to observe the fascinating process as a monarch caterpillar forms a chrysalis, transforms, and begins life as a butterfly in this mesmerizing slide and video presentation. Nature photographer and butterfly enthusiast **Gregory Nordstrom** and wife **Becky** raise monarch butterflies and enjoy sharing their passion. Free to members; non-members \$5; non-member children \$2. Register by September 2.

Fall Gallery Exhibit Opening: GREGORY NORDSTROM



Saturday, Sept. 3, 2:00 to 3:00 p.m.

(Following 1:00 p.m. butterfly program)

Opening event free to the public. Light refreshments will be served. Exhibit runs through November 30.

BUGFEST!



Friday, September 16, 9 a.m. to 10 p.m.

Saturday, September 17, 10 a.m. to 3 p.m.

Enjoy a two-day event focused entirely on insects! Explore the world of entomology with insect collecting, identification, and more. Friday 10 a.m. to 2 p.m. is open to local schools and homeschool groups. (Students \$2; no charge for teachers or chaperones). Friday, 6 to 8 p.m. the Buggy Midway will offer entomology-based craft activities. Night insect collecting begins at dusk. Bring a flashlight or headlamp! The Midway is open Saturday 10 a.m. to noon. **The New Orleans Audubon Institute's Bugmobile** will present from 1:00 to 2:30 p.m. on Saturday afternoon. Friday evening and Saturday admission, \$5 for adults, \$2 for children, admission is free for Arboretum members. This event is coordinated by Extension Entomologist **Dr. John Guyton**, along with professors and students from the MSU Biochemistry, Molecular Biology, Entomology and Plant Pathology Department, including MSU research apiculturist **Dr. Jeff Harris**, who will provide a beekeeping presentation.

SUSTAINABLE LANDSCAPING: PRACTICES & PRINCIPLES

Saturday, September 24

11 a.m. to Noon

Learn wise maintenance and landscaping practices to conserve resources and energy and create eco-friendly home landscapes through reducing maintenance needs. Benefit local wildlife and strengthen biodiversity by incorporating native plant species, discover new methods for reducing stormwater impacts and conserving water, recycle yard waste, and learn how to work with your existing soil in this program with Pearl River County Extension Agent **Dr. Eddie Smith**. Program is free to members; cost for non-members is \$5. Register by September 23.

October 2016

A DAY EXPLORING BOTANY!

With Heather Sullivan & Dr. Wayne Morris
Saturday, October 1

THE BOTANIST'S TOOL KIT

9:00 to 10:00 a.m.

This program is for those who are interested in increasing their botanical knowledge base. Join state botanist **Heather Sullivan**, Mississippi Dept. of Wildlife Fisheries & Parks, and biology professor **Dr. Wayne Morris**, Troy University, for a discussion on how to use a plant key, basic botanical terminology, their favorite field guides, and other useful resources and references.

FIELD WALK: CROSBY ARBORETUM

10:30 a.m. to Noon

Heather and Wayne will lead a fun and informative walk in the native plant communities found within the Arboretum's educational exhibits, including tips and tricks for plant identification, and highlighting cultural and landscape uses.

FIELD WALK: HILLSIDE BOG NATURAL AREA

1:30 p.m. to 4:00 p.m.

Join Heather and Wayne for another exciting field adventure to the Crosby Arboretum's Hillside Bog natural area, a highly diverse 70 acre habitat in northern Hancock County 8 miles east of the Arboretum. Meet at the Visitor Parking Area to carpool to the site. Prepare for off-trail trek and potential underbrush. Bring water and snacks, and dress appropriately.

All programs free to members and \$5 for non-members.

Crosby Arboretum Program Schedule

October – November 2016

October 2016 *(continued)*

Fall Native Plant Sale!

Friday/Saturday, October 14 & 15

10 a.m. to 3 p.m. (Members Admitted at 9 a.m.)



Grab a cart and choose from a great selection of native trees, shrubs, and perennials at our Fall Plant Sale. Knowledgeable staff and volunteers will be on hand to assist with plant questions and offer advice on plant selection for your site. **Free Admission.** Sale held in Greenhouse area; use Service Road entrance.

YOGA ON PINECOTE PAVILION

Saturday, October 22

10:00 to 11 a.m.

Join certified yoga instructor, **James Sones**, in the beautiful natural setting of Pinecote Pavilion for a gentle yoga class followed by a short meditation sitting. Class size limited to 16. Yoga mats will be provided, but you may bring your own. Please arrive at least 10 minutes early. Members free, \$5 non-members. Register by October 21.

PAINTED PUMPKINS

Saturday, October 29

1:00 to 2 p.m.

Design a painted pumpkin to add to your fall décor! Children will use acrylic paint and a variety of props to personalize their pumpkin in this program led by Director **Pat Drackett**. One pumpkin will be provided per person. Members' children, \$5, cost for non-members' children, \$6. Register by October 28.

November 2016

FIELD WALK: NATIVE TREES & SHRUBS

Saturday, November 12

10:00 to 11:30 a.m.

Enjoy a fall field walk around the Arboretum grounds to learn about our native shrubs and trees, tips to identify them, their role in history and culture, and ways to use them in your home landscape with Pearl River County Extension Agent **Dr. Eddie Smith** and Arboretum Director **Pat Drackett**. Free to members and \$5 for non-members. Register by November 11.

CAST STONE LEAF ORNAMENTS

Saturday, November 12

1:00 to 2:30 p.m.

Create beautiful botanical ornaments, using leaves and a “cast stone” mixture of white Portland cement, sand, and water, in this fun and educational workshop with Director **Pat Drackett**. When the basic technique is mastered, you can use it to tackle larger projects, such as stepping stones, wall plaques, and bird baths. Open to adults, and children age 12 and up (must be accompanied by adult). Members, \$6; non-members \$7. Register by November 11.

14TH ANNUAL PINEY WOODS HERITAGE FESTIVAL



FRIDAY, Nov. 18, 10 to 2 p.m. (Schools)

SATURDAY, Nov. 19, 10 to 3 p.m. (Public)

Celebrate the early days of the Piney Woods! Enjoy exhibits and demonstrations of traditional skills such as blacksmithing, quilting, spinning, basket-making, and more. Friday is open to preregistered school groups (\$2 per child), free to teachers/chaperones. Saturday features a variety of live music performances. Saturday admission, adults \$5, children \$2. Arboretum members attend free.

Reservations: Call the Arboretum office at (601) 799-2311 for questions, and to make program reservations.

Physical Address: 370 Ridge Road, Picayune, MS 39466
(Note: GPS directions to the Arboretum are often inaccurate; please see our website for detailed directions.)

Hours of Operation: Wednesday - Sunday, 9 am to 5 pm

www.crosbyarboretum.msstate.edu

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