

The Crosby Arboretum

Mississippi State University Extension Service

Quarterly News Journal

Summer 2017

31.3

NATIVE PALMS OF MISSISSIPPI

Close to 3,000 species of palms are distributed in tropical to warm-temperate regions of the world, in habitats that include lowland rainforests, deserts, coastal swamps and marshes, and montane areas. Three palm species are native to Mississippi: needle palm (*Rhapidophyllum hystrix*), dwarf palmetto (*Sabal minor*), and saw palmetto (*Serenoa repens*). The latter two species are present in some of the natural areas of the Crosby Arboretum, and all three species are periodically available to purchase at the Arboretum's native plant sales. Cabbage palm (*Sabal palmetto*), state tree of both Florida and South Carolina, is often used in residential and commercial landscapes in coastal Mississippi, but this species is not native to our state.

All of our native palms have plicate (folded and appearing zigzag in cross-section) leaves with segments that radiate from the ends of long petioles (stalks), or from the ends of leaf midrib extensions (costapalmate, as in the genus *Sabal*). Along with lilies, palms are traditionally known as "monocot" flowering plants and produce flowers with three sepals (outermost floral appendages) and three petals each that are arranged in large inflorescences, or flower clusters. Fruits of our native species are typically single-seeded, and drupe-like (resembling the structure of a peach on a smaller scale). Our native palms have both horticultural and wildlife value.

Needle palm gets its name from many long sharp projections resembling giant "needles" among fibrous webs at the leaf bases. The leaves are shiny bluish-green on the upper surface and green with silver-colored scales on the lower surface. Leaves arise from a stem that when mature is about 1 m (3 ft) high and can extend overall plant height to about 2.5 m (8 ft). A single very established needle palm can have over 50 leaves on it and be several meters across. This species is generally uncommon to rare in all southeastern states in which it occurs, and the northwesternmost populations are in Rankin and Simpson Counties, Mississippi. Needle palm naturally occurs on bluffs, in rich ravines, and along streams and creeks with undulating floodplains not prone to standing water for long durations of time. Subsurface soils can be circumneutral to basic in pH due to



Needle palm (Rhapidophyllum hystrix). Image source: www.SoutheasternFlora.com.

being calcium-rich or derived from limestone. In southern Mississippi one of the best places to see needle palms in the wild is in rich hardwood forests along the Pascagoula River bluffs in Jackson County. This palm is known for its cold-hardiness and can be planted as an accent plant in gardens or in courtyards well north of its native range, such as in the Atlanta, Georgia area. Mississippi's most common and widespread palm is dwarf palmetto. In this species, the leaves are bluish-green and do not have silvery scales. In addition, the midrib from which the leaf segments arise is straight. Leaf stalks are smooth and without prickles, and sharp projections are absent at the leaf bases. Stems are most often about 1 m (3 ft) high at maturity. Leaves can make the plants appear to be about 2 m (6 ft) high, sometimes up to 3 m (10 ft). Favored natural habitats of dwarf palmetto over the southern two-thirds to three-fourths of the state are hardwood forests in floodplains, in ravines, and on adjacent bluffs, typically downslope from needle palm where the two species occur together. Dwarf palmetto is desirable as an accent plant in gardens and is used in both commercial and residential landscapes. Fruits are ingested by songbirds such as some wood warbler species and woodpeckers, as well as by mammals including raccoons, gray squirrels, and white-tailed deer.

Saw palmetto is easily recognized by the sharp prickles that make the leaf stalks appear like saws along their length; our other native palms do not have these. As in needle palm, the leaf segments arise and radiate directly from the ends of these leaf stalks, not from a midrib. Stems in saw palmetto are usually branched, horizontal, and just below or right at the soil surface in mostly fire-prone areas. The overall aspect is a thicket-forming shrub with green or yellowish-green leaves in our range. Saw palmetto is especially present in coastal Mississippi in well-drained longleaf pinelands, in maritime hammocks (as at the Gulf Islands National Seashore Headquarters in Jackson County), and in the drier areas of pitcher plant savannas. Black bears and white-tailed deer are known to eat the fruits, and saw palmetto is a good honey plant.



Saw palmetto (left, and center), and dwarf palmetto (right). Image source: www.SoutheasternFlora.com.

- Michael Wayne Morris, Ph.D., Professor of Biology, Troy University, Troy, AL.



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:

Close to thirty persons attended the Crosby Arboretum volunteer appreciation meeting on May 20, where **Paul and Jean MacInnis** were honored with the 2016 Volunteer(s) of the Year Award. At the meeting, the group learned that retired Navy Seabee **Scott Fabacher** has agreed to function as the “volunteer” Volunteer Coordinator, helping with project organization and implementation. Members **Chris Schneidau** and **Judy Schwartzer** kindly have given a much-needed coat of paint to the Pavilion benches, and regular maintenance this spring by **Mary Donahue, Phyllis Goodwin, Orbie and Keira Ellis, Amy Nichols**, and others, have kept the Pollinator Garden in spectacular shape!

Visitors have been enjoying the newly constructed “floating” bridge in the Quaking Bog Educational Exhibit, and **Terry Johnson** and grounds assistant **Darrell Hubert** have just completed the tie-in of the Slough Trail to the Swamp Forest Trail. We are excited to report that summer intern **Brady Dunaway** begins June 1. He will be developing the text and graphics for new interpretive signage in the Swamp Forest and Quaking Bog exhibits, and will help to install the signs. Brady will also be collecting Mississippi milkweed seed for garden trials, and propagating plants for the fall (October 21 & 22) native plant sale. Check out the new Facebook page, “Mississippi Milkweeds”, created to promote the exchange of information about Mississippi’s native milkweed (*Asclepias*) species. The pitcher plant bog is aglow with yellow and pink meadow beauties, and we are looking forward to summer. Come visit soon!

- *Patricia Drackett, Director
The Crosby Arboretum, MSU Extension Service*



On June 19, participants in a Stennis Space Center Naval Oceanographic Office (NAVO) community service work project led by AGI Brendan Meeker cleaned and painted the signs along the trails, built a new section of trail in the Swamp Forest, and installed plants into the Pollinator Garden.



During the Arboretum's annual Wildlife Day, this young visitor was mesmerized by a gopher tortoise.

CURATOR'S CORNER

This spring has been busy at the Arboretum. We started the quarter off with the dedication of the new **Pinecote Art Gallery**. The first artist to display his work in the new gallery was **Robert Smith** (www.photobiologist.com). Robert's outstanding nature photographs depict a variety of plants and animals found in and around coastal Mississippi. We extend our thanks to Robert for hosting a nature photography workshop and for recommending our summer exhibitor, **Alex North**, another talented artist specializing in nature photography, including some fantastic photos of coastal storms. His collection premieres on June 10, so be sure to stop by to admire them. The spring plant sale featured many native species, including close to a hundred milkweed plants hand-raised by two of our supporters, **Ed Longino** and **Doug Hunt**. The efforts of these two community conservationists really helped make our plant sale a big success! Strawberries and Cream Festival and Wildlife Day were hosted in April. On Wildlife Day, students and their teachers and family members were treated to a variety of exhibitors displaying native wildlife, both living and artifacts, and discovered real wildlife as they explored the “living exhibits” of the Arboretum. In addition to our spring events and programs, we hosted a booth at the **Celebrate the Gulf Marine Education Festival** and at the **Camp Salmen Nature Celebration**. Please remember that most of what we do here in the way of programming is highly dependent on the help we receive from our volunteers.

“No one is more cherished in this world that someone who lightens the burden of another. Thank you.” - Author Unknown

- *Jennifer Buchanan, Senior Curator
The Crosby Arboretum, MSU Extension Service*



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

PLANT PROFILE: MILKWORTS



Polygala nana (Left, image: Southeastern Flora), *Polygala lutea*, orange milkwort (Center, image: Pat Drackett), and *Polygala ramosa* (Right, image: Southeastern Flora).

About 20 species of milkworts, or candyroots, (*Polygala* spp.) occur in Mississippi out of the approximately 500 species in the genus and 1,000 species in this almost cosmopolitan family (Polygalaceae). Our native milkworts are present in a variety of natural habitats, depending on the species, especially in longleaf pinelands and associated fire-prone wetlands, including bogs and cypress ponds in southern Mississippi.

Roots: Although the practice of digging up these plants is not encouraged, *Polygala* spp. are immediately recognized by the oil of wintergreen fragrance of the roots (hence the common name “candyroot”). The chemical compound responsible for this aroma is methyl salicylate, which is also found in commercial wintergreen (*Gaultheria procumbens*), a low shrub related to blueberries and azaleas that is native to the Appalachian Mountains. Methyl salicylate has been used as a flavoring agent, and it also has anti-inflammatory properties. The other common name “milkwort” is attributed to the former thought that these plants would enhance cow milk production.

Flowers: Flowers are often arranged in spikes or racemes that can resemble the head-like flower clusters of clovers and other legumes (in arrangement). Sepals, especially the largest two (called “wings”), are usually the showiest parts of the flowers and come in a wide variety of colors. However, in flowers of many other plant species, sepals are the green appendages at the flower bases. Surprisingly, the three true petals are smaller than the conspicuous sepals. The ovary in the flower has two compartments and matures into a fruit type known as a capsule (a dry fruit that opens on its own to release the seeds).

Leaves: Leaves of milkworts are usually simple (one blade each) and smooth and in various arrangements, conspicuously basal in many species. Leaves are without stipules (appendages present at leaf bases in legumes, such as clovers, and other groups of plants).

Local *Polygala* Species at Crosby Arboretum: Different species have characteristic, bright, cheerful, flower colors that range from white to purple (*P. cruciata*, or drumheads), orange (*P. lutea*, also known as orange milkwort, and by some as “bog cheetoos”), and lemon-yellow to greenish (*P. cymosa*, or tall pinebarren milkwort, often in shallow cypress ponds; *P. ramosa*, or short pinebarren milkwort, with branched flower clusters appearing flat-topped and of moist longleaf pinelands and bogs; *P. nana*, or dwarf milkwort, with unbranched flower clusters resembling heads of clovers and occurring in a variety of both well-drained and poorly-drained habitats).

- Michael Wayne Morris, Ph.D., Professor of Biology,
Troy University, Alabama



BRADY DUNAWAY:

MSU Summer Intern is being funded through 2016 annual appeal to Crosby Arboretum Members

My name is **Brady Scott Dunaway**. I am about to enter my senior year at **Mississippi State University**, but home is Smithdale, MS. My major is Environmental Science in Agricultural Systems, a relatively new major in the department of Plant and Soil Sciences. I am also a student worker in the department of Entomology and Plant Pathology. I propagate plants of the Black Belt Prairie for restoration projects, using locally collected seeds. I am an avid gardener with a passion for regional natives and local heirlooms, and always adding to my insect and pressed plant collections. With family land as my laboratory, I am always trying to educate myself on how to manage one’s landscape to benefit native biodiversity. I am a very amateur bird-watcher, but getting better all the time. I would like to consider myself a naturalist, with a greater fascination in ecology than any one area of natural science. My love of nature, and guidance from folks I knew at the University and family who graduated from MSU helped me choose my major. I would like to pursue a Master’s degree at MSU, and hope to enter a career in environmental consultation and habitat restoration. I believe this internship will be a wonderful way to gain experience working with native ecosystems and their conservation and preservation.

CONGRATULATIONS!

Volunteers of the Year 2016 Paul & Jean MacInnis



*Please join us in congratulating long-time volunteers **Paul and Jean MacInnis** who received the 2016 **Katherine M. Furr Volunteer(s) of the Year Award**. Paul and Jean are well known from Arboretum events, as they are often the first persons a visitor encounters. Paul helps Terry Johnson park arriving cars, and Jean greets and orients event participants. Paul and Jean volunteer their time for events such as Piney Woods Heritage Festival, the Strawberries and Cream Festival, Wildlife Day, and plant sales. Thank you, Paul and Jean, for your generous gift of time through your many years of service!*

THE BEES ARE BACK! *Efforts by local beekeepers have reestablished Arboretum hives*

After losing the two bee colonies originally donated by **D.L. Wesley** to a hive beetle infestation last year, we are pleased to announce that “the bees are back” and being supported. Arboretum volunteer **Jac Coleman** (Coleman’s Glory Bee Honey) recently installed new beehive colonies into the south and north Savanna Exhibit. Three colonies were donated by Jac, commercial beekeeper **Darrell Strauss** (Bauer Honey) and local beekeeper **Mike Holmes** (Queen Ally Honey). **Peasie Lilly** of Cale’s Farm Supply has graciously donated the equipment and supplies needed to maintain the new colonies. Thank you, Jac and **Buddy Broadway** for providing maintenance for the two former hives. Jac also manually extracted the honey, which was sold in the gift shop, and cleaned the hives after the beetle infestation.

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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



MISSISSIPPI STATE UNIVERSITY™
EXTENSION

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

Name _____

Address _____

City _____

State _____ Zip _____ Phone _____

Renewing? Memberships are for one year.

Crosby Arboretum Program Schedule

June 2017

June 2017

SHARING NATURE TEACHERS' WORKSHOP

Saturday, June 3

9:00 a.m. to 3:00 p.m.

Sharing Nature is a worldwide movement dedicated to helping children and adults deepen their relationship with nature, using creative, life-changing nature activities and Flow Learning™, a revolutionary teaching system that fosters empathy and makes ecological principles come alive. This hands-on interdisciplinary K-12 workshop for teachers and homeschool educators will be taught by Mississippi Museum of Natural Science Outreach Educator **Sabrina Cummings**. All materials provided. Bring a brown bag lunch. The workshop and CEU's (.6) are FREE to educators.

NATURE PHOTOGRAPHY WALK

Saturday, June 10

9:30 to 11:00 a.m.

Bring your camera for this walk with celebrated Gulfport photographer **Alex North**. Begin indoors with a brief introduction to tips and techniques, and then move outdoors to practice some of the techniques covered. Alex's engineering background allows him to understand and predict how a scene will unfold, where to best position himself for a shot, and how his camera will react to various lighting conditions. But he points out that "regardless of what you think you know, be prepared for the surprise - it will be the difference maker in a photo." Members free, non-members \$7. Register by June 9.



Jac Coleman added a branch of greenery at each entrance of the three newly-installed bee hives to signal the bees that they were in a new location.

SUMMER GALLERY EXHIBIT OPENING



PHOTOGRAPHY by Alex North

Opening event: **Saturday, June 10**

11:00 a.m. – Noon

Gulfport photographer **Alex North's** "Birds and Water" exhibit showcases coastal birdlife and Mississippi's dynamic, unique Gulf Coast landscapes. In his book, "Mississippi Coast Blessings", the collection of striking photographs is accompanied by commentaries putting the viewer in the picture by understanding the inspiration for a shot, learning about unusual weather conditions, or hearing his thoughts on a photo's aesthetics, or why that scene spoke to him. Experiencing Alex's photos will be an encouragement to spend more time out in nature, looking for similar peak moments to experience. Visit www.naturallynorth.net to see more of his work. The opening event is free to the public. Light refreshments to be served. Exhibit will be on display through August 31.

BEEKEEPING FOR BEGINNERS

Thursday, June 29

9:30 to 11:30 a.m.

Bees and gardens go hand in hand. These pollinating insects offer the benefit of increasing your yield of flowers, fruit, and seed. **Dr. Jeff Harris**, Extension professor and research apiculturist, Mississippi State University, will provide an introduction to what you need to know to get started with beekeeping. To be covered: basic bee biology, how to choose the correct equipment and personal protective gear, common mistakes and valuable tips, how to grow your first colony of bees, and how to manage them throughout the year. Program free to members; \$5 for non-members. Register by June 28.

Crosby Arboretum Program Schedule

July – August 2017

July 2017

CHILDREN'S WORKSHOP: INSECTS

Friday, July 7

10:00 a.m. to Noon

Children will enjoy this fun and educational entomology event led by Hancock County Extension Agent **Christian Stephenson**. After a brief overview of insects, including why they are important to our environment, the children will go on an insect collecting expedition around the Arboretum grounds. Members' children free; non-members' children \$2. Children must be accompanied by parent/guardian (no charge for adults). Register by July 6.

ALL ABOUT HUMMINGBIRDS

Saturday, July 22

10:00 to 11:00 a.m.

Long-time hummingbird bander **James Bell** will reveal how you can fill your yard with hummingbirds! Learn what is going on in the hummingbird's life, how they feed, why they fight so much, and simple tips and tricks to attract them, giving you a chance to enjoy the beauty of one of nature's most dazzling creations. Suited to ages 8 and up. Members free, non-member adults \$5, and non-members' children \$2. Register by July 21.



Bringing Nature to Life in Your Writing with Mary Beth Magee

Saturday, July 29

10:00 a.m. to Noon

When writers use nature as part of the story, they add a deeper dimension of heart and meaning to the work. Yet, nature is more than listing the flora and fauna around the scene. Whether you write poetry, fiction or nonfiction, you'll find many opportunities to incorporate the beauty and drama of nature into your work. Bring nature (and your writing) to life with a few simple techniques.

Author and trainer **Mary Beth Magee** shares tips and exercises to help you find your voice in nature. You'll perk up your writing and perhaps find a whole new topic to cover when you attend this workshop! Members free, non-member adults \$7. Register by July 28.



The April "ferns and flowers" field walk with botanist Heather Sullivan, Mississippi Department of Wildlife, Fisheries, & Parks, was well attended!

August 2017

SUMMER NATIVE PLANT FIELD WALK

Saturday, August 19

9:00 – 10:30 a.m.

Join Arboretum director **Pat Drackett** on an early morning field walk to explore what is currently blooming in the Savanna Exhibit and pitcher plant bog. Plants of interest will be discussed along the journey, highlighting how you can use them in the home landscape and their value to wildlife. Bring your camera, and dress for walking. Members free; non-members \$5. Register by August 18.

SUSTAINABLE LANDSCAPING: PRACTICES & PRINCIPLES

Saturday, August 19

11 a.m. to Noon

Learn wise maintenance and landscaping practices to conserve resources and energy and create eco-friendly home landscapes by reducing maintenance needs. Benefit local wildlife and strengthen biodiversity by using native plants, learn new methods for reducing stormwater impacts and how to conserve water, recycle yard waste, and how you can work with your existing soil in this program with Pearl River County Extension Agent **Dr. Eddie Smith**. Program is free to members; non-members \$5. Register by August 18.

Program fees include the cost of admission for non-members. **Reservations:** Call the Arboretum office at (601) 799-2311 for questions, and to make program reservations. **Physical Address:** 370 Ridge Road, Picayune, MS 39466 **Hours of Operation:** Wednesday-Sunday, 9:00 a.m.-5:00