



# Mississippi Native Plants and Environmental Education



Newsletter of The Mississippi Native Plant Society and the Mississippi Environmental Education Alliance

Volume 27 Number 2

Summers in Mississippi are hot enough to rot frogs and justify skinny dipping!

Summer 2009

The **Mississippi Native Plant Society**, is a non-profit organization established in 1980 to promote the preservation of native plants and their habitats in through conservation, education, and utilization.

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The **Mississippi Environmental Education Alliance** promotes EE, supports the work of environmental educators and encourages the adoption of earth-friendly lifestyles leading to the sustainability of natural resources.

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## **Mississippi Department of Transportation is Getting Greener!**

On Thursday, May 14, Marc Pastorek and MNPS President Gail Barton met with David Thompson, MDOT's Roadside Development Manager. The purpose of the meeting was to discuss methods that might be used to enhance and preserve native roadside vegetation.

Thompson said that MDOT is working on a research grant with Dr. Victor Maddox of Mississippi State University. Dr. Maddox is using GPS instruments to locate stands of invasive exotic weeds like cogongrass. These data will allow for more accurate and effective application of herbicide. It should also reduce chemical use and save money.

MDOT is considering altering some mowing practices that may encourage indigenous stands of roadside wildflowers. **Thompson would like MNPS members to document roadside sites that have desirable wildflower stands which can be located and possibly preserved.**

Members who would like to assist in this effort should collect the following information for each site: highway number; location (ideally a mile marker or possibly distance from a nearby landmark); and a description of the plant materials at the site and date observed in flower (approximations are fine). Send this information to Gail Barton at either 5201 West Gate Hills Drive, Meridian, MS 39307 or by email to lgbarton@gmail.com. Gail will compile the information and send it to David Thompson.

## **Gulf Coast Bog Habitats by Fred Nations**

There are two "prime times" to see coastal pitcher plant bogs. One is April-May, when the *Sarracenias*, *Droseras*, and several orchid species are in flower. The other special time in our bogs is late September to early October, when the fall composites will be glorious. In late September we should have some spectacular photo-op's, and most of us will add several new species to our plant "life lists."

Gulf Coast pitcher plant bogs are among the most diverse vascular plant communities in North America. During our visit to the Grand Bay Reserve on September 26 - 27 we will explore some of this diversity as we examine these special habitats. By the end of our trip we should know the special characteristics of these fascinating and increasingly rare places.

## **MEEA Members HOLD THE DAY Thursday November 5, 2009**

We are considering a day long No Child Left Inside planning day. If you are interested in being involved contact either John Stark at starkjohn@sbcglobal.net or Dr. John Guyton, jguyton@cfr.msstate.edu. We plan to make substantial progress on several fronts on this day including assembling elements of Mississippi's EE curriculum and elements of our State EE Literacy plan. There are many potential partners and they are invited to join us as well.

## **MNPS Nominations**

Another year has passed and it is time to nominate a new slate of officers. Bob Brzuszek has graciously agreed to serve as nominations chair. Please send him your nominations for President, Vice President, Secretary/Treasurer, Newsletter Editor and Northern and Southern Field Trip Chairs. Elections will be held at the meeting. His email is RBrzuszek@lalc.msstate.edu

**MNPS Conference Note** – This conference is an excellent opportunity to see the Grand Bay National Estuarine Research Reserve, the *Sarracenias*, enjoy good fellowship and tour the Pascagoula River with fellow native plant enthusiasts! Give Gail a call and she will keep notes on who needs a ride and who has an open seat. MEEA Members are welcome to join us!

## ***Field Trips and Other Events***

**IMPORTANT You Will Not Want to Miss this Year's - Strawberry Plains Audubon Center Hummingbird Migration Celebration September 11 - 13, 2009** *Bringing Nature Home* author Doug Tallamy (University of Delaware) and *Songbird Journeys* author Miyoko Chu (Cornell University) are both on the agenda with a full slate of outstanding people!

**September 18 - 18 BugFest at the MSU Crosby Arboretum** in Picayune. Call Pat Drackett for more info 601-799-2311

**Watch** the EEinMississippi, <http://bigcypressoutdoorclub.wikispaces.com>, [www.clintonnaturecenter.org](http://www.clintonnaturecenter.org), <http://www.crosbyarboretum.msstate.edu/calendars> for additional field trips and other events.

### **Special places!!!**

A couple months ago I was standing on the flanks of the planet's tallest mountain. The Nepalese people know it as *Chomolunga*, The Goddess Mother of the World. Most of us know it as *Everest* and the mighty mountain towers 29,035 feet above sea level. The first glimpse of the mountain was an emotional moment for me. I had anticipated seeing it for months. It did not disappoint. You'd think being the tallest mountain in the world that it would be in constant view. Not so. The reason: there are about half a dozen other 8,000+ meter peaks that often get in the way! To see Everest, one must be at high altitude, which in my case meant 12,400 feet.

Our 19-day trekking adventure in Nepal was an amazing trip and I long to return some day. However, without a doubt, it was the toughest thing I've ever done. As our group successfully trekked toward Everest Base Camp (17,200'), the air got thinner and the temperature got cooler. The high elevation was physically-challenging, but the effort was offset by visually-stimulating views.

While I was away, our spring Naturalist Staff arrived at Crow's Neck. I knew I'd be gone when they got here, so I sent them a letter before I left welcoming them to our Neck of the Woods and apologizing, in advance, for my absence. I wrote them, "Even though I'll be in the far-flung reaches of the world, I will be thinking of you. Crow's Neck is never far from my thoughts, no matter where I am. It's a place as unique as Everest." I wonder if they thought I was/am nuts comparing a little ol' environmental learning center in the northeast Mississippi woods to the world's tallest mountain?! My point was/is: one of a kind places are, well, one of a kind. Period. Uniqueness means sole, single, exclusive.

I feel so fortunate to have grown up with an outdoor ethic. For most of my life I have understood and appreciated the uniqueness of nature. However, it is increasingly noticeable that today's kids are becoming more and more disconnected with the out-of-doors, due, in part, because they don't find pleasure in playing outside. Nature does not hold their attention and they are at a loss for how it all "works." With this lack of connection, what will happen to the special places in the world when this generation of kids becomes the decision-makers? Will we lose places like the Grand Canyon, national forests, Crow's Neck or the woods we once played in as kids?

As environmental educators we can mentor kids in the out-of-doors. We can teach kids about the special places and how to take care of them, so they are preserved and protected and passed on to future generations. So, Colleagues, kids need us. Let's get outside with them every chance we get. The special places of the world are depending on us! **Cynthia Harrell** The executive director of Crow's Neck Environmental Education Center since 2002, member ANCA Board of Directors and president of the Mississippi Environmental Education Alliance.

### **Greetings MNPS,**

John told me if I missed the deadline it would be late! I am just back from the Cullowhee conference and totally revived and looking forward to our meeting. We have been waiting on several key pieces to fall in place and they have. I am pleased to announce the ever popular Fred Nations will be leading a bog tour and anything else we need him to do! His enthusiasm comes through in the article *Gulf Coast Bog Habitats* on the front page. Dr. Richard Brown, professor of entomology and director of the MSU Entomology Museum, will be speaking about coastal insect-plant interactions. Dr. Brown is an internationally known entomologist and has led collecting expeditions in Chile, Venezuela, New Caledonia and the Fiji Islands. And if he brings his harmonicas and accordion a great time will be had by all! We are also hoping to have a display on the cactus moth. The cactus moth is devastating prickly pear and has made it from south Florida to Louisiana. Dr. Mac Alford is one of the best field trip leaders I have ever accompanied into Mississippi's outdoors. His knowledge is simply amazing. In fact, I am very excited about this year's entire meeting!

Now, something **very important**. We will be meeting at the Grand Bay NERR which is at the bottom of Mississippi and next to Alabama and we will spend the night in Ocean Springs at the USM Gulf Coast Research Lab. Rooms at GCRL are \$20/person/night. They are arranged in suites that share a bathroom. We will probably have a girls suite, a boys suite and an emancipated couples suite! **Reservations are important**. Please call me and let me know you are coming and need a room. **We also need to plan for meals so please let me know if you will be attending!** A couple may find a local motel equally accommodating. However, we are planning a bonfire on the beach near the GCRL and will caravan to the Pascagoula Sunday morning. See you in the NERR!

**Again, Please let us know if you plan to attend since we need to plan for food (there are no restaurants near the NERR), make reservations at the GCRL and reserve seats on the Pascagoula River trip. If we know ahead of time we can arrange for a second boat.** Now, if you are anxious to get to the NERR Friday afternoon and evening, the Grand Bay NERR will host a Buggy Night Out and you are invited to participate. We will help you book a room at the GCRL if you wish. We will try to help you find a ride or rider if you wish - just let me know. I am looking forward to seeing you in the bog! Gail Barton, MNPS President

**MNPS Conference Note** – The Grand Bay Reserve is one of the most biologically productive estuarine ecosystems in the Gulf of Mexico region, supporting several rare or endangered plant and animal species, numerous important marine fishery resources, diverse habitat types and archaeological site.

## ***Fern Gardens of Trolls by Steve Leonard, Wiggins, MS***

Most readers of this newsletter will recall the childhood story "Three Goats Gruff" and that onerous creature—the troll—that lived under the bridge. Some of us may recall, in a great show of bravado, stomping across a wooden bridge to see if we could rouse a troll from whatever trolls might be doing in their secretive lairs. What is less well known is that trolls are consummate lovers of plants.

Creep under almost any bridge across a stream in south Mississippi and you will find several species of ferns and fern allies in a near-perfect habitat. The soil is moist, often free of robust and aggressive plant competitors, cool in summer, and mostly shaded from the oppressive glare of the sun. Rip-rap, sometimes brought in to stabilize the soil approaches to the stream and to minimize occasional overbank scouring from floods, is frequently dolomitic (lime) rocks and this addition provides modest buffering to acidic substrates.

The great harlot of these habitats is Kunth's Marsh fern (*Thelypteris kunthii*)-- a fuzzy, pale yellowish-green plant that makes a handsome addition to any garden but is frost sensitive. Likewise, the Japanese climbing fern (*Lygodium japonicum*), with a known history as a problematic invasive finds excellent growing conditions in the better lit edges. Cinnamon fern (*Osmunda cinnamomea*), Royal fern (*Osmunda regalis* var. *spectabilis*) the two chain ferns (Virginia c.f. (*Woodwardia virginica*), Netted c.f. (*Woodwardia areolata*), Southern lady fern (*Athyrium felix-femina* var. *asplenioides*) and, surprisingly, Bracken fern (*Pteridium aquilinum*) are also frequent. Ebony spleenwort (*Asplenium platyneuron*) is usually present here and there though often overlooked.

Where the soil is mostly bare, one may see the tiny Meadow spike-moss (*Selaginella apoda*) or its rarer cousin Louisiana spike-moss (*Selaginella ludoviciana*). Less commonly encountered are Scouring rush (*Equisetum hyemale* ssp. *affine*), Spider brake (*Pteris multifida*), and Japanese false spleenwort (*Diplazium petersenii*). The latter is locally abundant in Stone and George Counties in Mississippi as well as western Mobile County, Alabama.

Another plant novelty in flowing water or on muddy banks is the endangered Louisiana quillwort (*Isoetes louisianensis*) first discovered in Mississippi in 1996 and now known to occur in ten southern Mississippi counties (also two parishes in Louisiana and 2 counties in Alabama). Not yet confirmed by me from beneath bridges are the tiny Adder's-tongues (*Ophioglossum petiolatum*, *O. crotalophoroides*, and *O. nudicaule*). However, of the same plant family Ophioglossaceae, one may find Southern grapefern (*Botrychium biternatum*) or Dissected grapefern (*Botrychium dissectum*). Open, dry, sunny habitats are better sites to look for Alabama grapefern (*Botrychium jenmanii*) and Winter grapefern (*Botrychium lunarioides*).

Botanizing in troll territory always carries the possibility of a surprising discovery. Nevertheless, investigation of bridge sites does not go without some risks. In summer, one must always be on the lookout for a lazy old cottonmouth curled up on flotsam lodged on logs or bushes. Wasps tend to favor the sheltered overpass, and swallows that found narrow ledges of the concrete supports to be suitable nesting sites will swoop and dive around you. However, no danger is quite as acute as the flying deer and/or dog carcasses that seem to prefer small streams as final resting places.

I recommend that you do not investigate these habitats alone. Although I have known a few botanists who looked like homeless derelicts and others who were probably closer to that condition than they were willing to admit, save yourself the trouble of being picked up by the authorities because they won't believe you. On the other hand, if times get worse, keep your favorite troll garden as your last-resort, simple-life residence. Who knows---you may be sharing it with Paris Hilton!

## ***2009 Mississippi Native Plant Society Annual Meeting Tentative Agenda***

Grand Bay National Estuarine Research Reserve, Moss Point, MS Saturday & Sunday, September 26 & 27

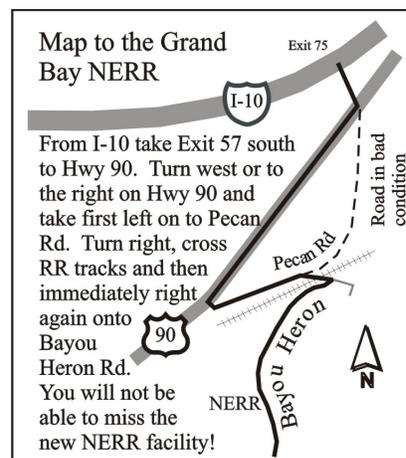
### ***Tentative Agenda***

#### **Saturday, September 26**

- 8:00 – 9:30 Bog Walk with Fred Nations
- 9:30 – 10:30 Registration & Refreshments
- 10:30-11:00 Welcome and Introduction to Grand Bay
- 11:00 – 12:00 Gulf Coastal Bog Habitats – Fred Nation
- 12:00 – 1:30 Lunch, Networking, Explore Grand Bay
- 1:30 – 2:00 Business Meeting
- 2:00 – 3:00 Special Plants of the East Gulf Coastal Plain - Mac Alford
- 3:00 – 3:15 Refreshments
- 3:15 – 5:15 Field Trip Pascagoula River Wildlife Management Area - Mac Alford and Wayne Morris
- 5:15 – 6:30 Dinner
- 6:30 – 7:30 Insect / Plant Connections – Richard Brown
- 7:30 – until Bonfire on Beach in Ocean Springs, Networking

#### **Sunday, September 27**

- 9:00 – noon Pontoon Boat Trip on the Pascagoula River



### **MNPS Conference Note – *The Legend of the Singing River***

Anola, a Biloxi princess was in love with Altama, chief of the Peaceful Pascagoula Tribe and fled with him. The enraged chief of the aggressive Biloxi Tribe waged war on the Pascagoula.

Outnumbered and in danger of capture or death the Pascagoula held

hands and walked into the Pascagoula river singing. The river has preserved the occasion in a song that is reported to sound like bees.

### ***The MNPEE Naturalist Page Birds in the Classroom and Beyond by Terri Jacobson, USFS***

**Why study birds?** Wild birds are everywhere! Birds live on all continents, fly over our oceans, and inhabit ecosystems from the arctic to deserts and tropical rainforests. Some people even keep birds as pets or raise birds for food. There are over 10,000 different kinds of birds in the world. Birds are perfect to study for all students of all ages. With birds as your focus, you can teach basic life science concepts of adaptation, behavior, classification, ecology, and much more.

“Birds and humans share many behaviors. Birds sing, court, defend their homes, and feed their young. Like some humans, most birds fly south in autumn to balmy climates. But birds differ from humans, too. Most birds’ senses of sight, hearing, orientation, and coordination far exceed those of humans. Birds rely on instinct more so than humans. While humans generally ponder a new situation before acting, birds usually act in a predictable manner whenever they see or hear a given stimulus, such as a mate or a predator. Instinctive behaviors include finding mates, courtship, locating food, avoiding predators, rearing young, and migration.” -- Bird Life, a Golden Guide; St. Martin’s Press, 1991.

Birds are a part of our history. They are living dinosaurs! Birds such as the Dodo and Auk, both now extinct, sustained both sailors and explorers on their long dangerous journeys. Many native cultures honored birds, using their feathers for decorations, in trading or to signify power. Birds and bird feathers were used in religious or pagan celebrations. Birds and their feathers were and still are portrayed in pottery, jewelry, fabrics and clothing and in all other forms of art. Birds are found in advertising or marketing (“wise as an owl”) in cartoons and comics (“Woody the Woodpecker”) and even some of our funnier jokes are based on birds (who hasn’t heard a joke about the chicken crossing the road?). And don’t forget the famous question that many still ponder over – “Which came first, the chicken or the egg?” Birds are used as symbols. Did you know that Benjamin Franklin nominated the wild turkey as our Nation’s symbol but that the American bald eagle was selected instead? All fifty states have a state bird. Mississippi has two state birds: the woodduck is our state waterfowl and the mocking bird is our state songbird. We even have one seasonal holiday centered on a bird as the main feast.

Birds are a part of the web of life and they provide services that are important to people and the health of our planet. Birds eat insect pests, pollinate our flowers, help plants to grow by dropping seeds here and there as they fly about, and some birds even recycle nutrients by feeding on dead animals as vultures do. World bird populations act as bio-indicators to the health of our planet. Think about the lessons we learned about the pesticide DDT from Rachel Carson’s book, *Silent Spring*.

Some people keep track of all the birds that they see on a trip or in their backyard. The keeping of a list of all birds ever seen during a lifetime is called a life list. But bird watching or birding can be more than just identifying the name of a bird. Watching birds outside, learning to appreciate their beauty may lead to a lifetime hobby of feeding birds. Or an interest in birds can lead to new friendships and social activities when one joins a birding club or goes on a bird field trip. Or perhaps, if one is lucky enough, they will travel the world over in a quest to see all the different birds. Watching birds could lead to learning new skills such as photography, painting, nature journaling, wood working or gardening. One can learn carpentry skills by building bird houses and bird feeders. One can learn about native plants and plant a garden or plan an entire landscape for birds and other wildlife. One man starting as a boy drew pictures of birds and made observations of their colors and markings and mannerisms. He then combined all his colored sketches and notes into a book. In his book, he pointed out notable field marks such as the black cap of the chickadee or the red crest of the cardinal as an aid to identification. This method and his book are now famous to all who study nature – the Roger Tory Peterson Field Guides.

Watching birds and learning to identify them leads to more observant students in class. In addition, the study of birds can lead to service-learning projects while encouraging conservation stewardship. After learning to identify birds, you and your students could become citizen scientists and collect data on birds and their habitats. There are many annual bird counts to check out such as the “Christmas Bird Count” in December and “The Great Backyard Bird Count” in February. Or, your class could participate in citizen science projects such as “Urban Birds” and “Feeder Watch” or become bird sleuths with the Cornell Lab of Ornithology. And, don’t forget - for a fun way to share what your students have learned about birds, plan a bird festival using your Project Flying Wild guide.

Next time I will talk about the importance of the Duck Stamp and how you can contribute to bird conservation.

Welcome to the world of birds! Don’t hesitate to contact the Jackson or other Audubon Societies or U.S Fish and Wildlife Service (USFWS) to learn more about birds. *Written as an introduction for a teacher workshop on birds by Terri Jacobson, past president of Jackson Audubon Society and a current USFWS wildlife biologist.* Contact: [terri\\_jacobson@fws.gov](mailto:terri_jacobson@fws.gov)

### ***Water Conservation for People, the Environment, and for Animals: Jane Goodall’s Powerful, Dire, and Optimistic Call for Individual Action by Hilary Shughart, President NMNPS***

**“No man is an island.” John Donne (1572-1631)**

The large crowd was still rapt, as world renowned primatologist Jane Goodall delivered a message of hope and a call to action for water conservation. The chilly rain dampened no enthusiasm at the Memphis zoo this first Saturday of spring as Jane demonstrated the empowering result of shaking a hand at the noisy airplane overhead while uttering a loud “hoot, hoot, hoot” she proclaimed; and it works! The plane leaves on cue! But this is not to distract from the importance of grooming as bonding enduring family relationships.

The tone was serious when she described habitat loss and fragmentation. And marveling at our green trees even on such a gray rainy day, Jane reminds us that there are children growing up without greenspace. Don’t take anything for granted is the mantra for responding to climate change.

You have clean water coming from your tap; you have a full aquifer, you have this great Mississippi river - don’t take it for

granted. Each person does make a difference. Think about how much water is saved if you turn it off while you are brushing your teeth. Multiply that by a million, a billion, and you can see that it really does make a difference. Your choices are important, you do make a difference.

Jane Goodall's Roots and Shoots grassroots groups inspire youth to engage in projects for people, for the environment and for animals. Likewise, home, municipal and campus landscape practices are shifting to projects such as rain gardens and bioswales (landscape elements designed to remove silt and pollution from surface runoff water) as tools for managing stormwater runoff from roads and rooftops.

Stormwater is diverted and native plants tolerant of the seasonal flooding of our winter and spring rains help maintain water quantity and water quality. The workhorse plants that help capture and filter stormwater also create wildlife habitat, as well as an engaging invitation for people to stop and watch the butterflies.

For more information on sustainable landscape practices, see the Mississippi Extension Service publications on Sustainable Landscaping, especially: Protecting water quality for drainage areas, ponds, and stream channels at <http://msucares.com/lawn/landscape/sustainable/runoff.html>

Jean Giono's famous eponymous Man Who Planted Trees found that with trees came water and birds and people and life; no wonder the original title in 1954 was: "The Man Who Planted Trees and Grew Happiness!" So let us heed the call to action, and be mindful of how our individual choices impact water quality and quantity.

### ***Sustainable Landscape Showcases Native Plants to Save Stormwater by Hilary Shughart***

Earth Week celebrations are launching with Water Conservation Day, and Campus Bioswales and Rain Gardens as the single most important role-modeling for impact on community water quality, quantity, conservation, and the national food supply. These are easy, cheap, and green/sustainable garden practices using native plants to capture stormwater and reduce runoff in an easy-to-emulate concept ripe for your home recipe.

The important lesson to be learned is that stormwater from our community has a negative impact on the Gulf of Mexico hypoxic zones. The water from lawns, roads and rooftops carries sediment, nutrients, and biocides to our creeks and rivers and on to the Gulf, where our national food supply is threatened by up-stream pollution.

The goal of this collaborative community conservation initiative is to showcase for homeowners and businesses a way to use plants to capture stormwater as close to the source as possible.

Native plants help the soil absorb at least thirty percent more stormwater than lawns, and they cost on average \$150 per acre per year to maintain, as opposed to a whopping \$1,000 for lawns (EPA).

Fortunately, it is not so dire a situation in which no mouse can bell the proverbial cat – rather, anyone with a downspout can begin waterwise gardening with an itty-bitsy rain garden, a square yard, a handful of native iris, a clump of horsetail - the palette is vast and varied, with evergreen and a rainbow of colors, forms and textures suited to any style.

These are the plants which already grew when Columbus sailed the ocean blue. They are also the plants needed by local and migratory wildlife, and they are available at local and area nurseries and nature centers including Strawberry Plains Audubon Center, Holly Springs, Clinton Community Nature Center and the Crosby Arboretum.

Kudos and thanks to Jeff McManus, Director, University Landscaping Services, Bob Mercier, Landscape Architect, Katrina Hourin, assistant city planner, the Mississippi Native Plant Society, the Lafayette County and Oxford Public Library, the Oxford Garden Club, and the Natural Resources Initiative of North Mississippi (nrims.org) for helping to maximize site potential and showing our community how native plants save water, save money, save gas and mowing.

So here's hoping everyone will consider a rain barrel or cistern to Stow the Flow, and/or a rain garden or bioswale /vegetative swale to Slow the Flow, and, importantly, stay in-the-know.

### ***The Plant Conservation Alliance (PCA) by Hilary Shughart, Audubon Naturalist and NMNPS Pres.***

The PCA is a consortium of ten federal government member agencies and over 260 non-federal cooperators representing various disciplines within the conservation field: biologists, botanists, habitat preservationists, horticulturists, resources management consultants, soil scientists, special interest clubs, non-profit organizations, concerned citizens, nature lovers, and gardeners. PCA members and cooperators work collectively to solve the problems of native plant extinction and native habitat restoration, ensuring the preservation of our ecosystem.

A Memorandum of Understanding on conserving native plants has been made between the Bureau of Land Management, Department of Defense, Federal Highway Administration, U.S. Geological Survey, National Park Service, Office of Surface Mining Reclamation and Enforcement, United States Department of Agriculture (USDA) Agricultural Research Service, USDA Forest Service, USDA Natural Resources Conservation Service, and the U.S. Fish and Wildlife Service.

Their vision is: **"For the enduring benefit of the Nation, its ecosystems, and its people; to conserve and protect our native plant heritage by ensuring that, to the greatest extent feasible, native plant species and communities are maintained, enhanced, restored, or established on public lands, and that such activities are promoted on private lands."**

Paraphrased and or copied from the PCA website, <http://www.nps.gov/plants/faq.htm#npci>.

**MNPS Conference Note** – The Pascagoula, or Singing River, is the longest undammed river system in the lower 48 states.

### ***The Noxubee Native Garden by Marion Sansing and Bob Brzuszek***

Noxubee National Wildlife Refuge spans across 48,000 acres in Noxubee, Oktibbeha and Winston counties, with easy access from the towns of Columbus, Macon, Starkville and Louisville. A two-acre native garden, installed by the Friends of the Refuge, enriches the Refuge's visitor center at Bluff Lake.

In 2005, one of the Friends' ideas and projects was to install a native garden in front of the recently completed \$1.2 million Refuge Visitor Center, in cooperation with Bob Brzuszek, then president of MNPS and professor of Landscape Architecture at MSU and his design class.

Brzuszek's landscape architecture design class conducted a site inventory and analysis of the garden site, and developed a number of thematic ideas for the garden. The development of entries, walkways, seating areas, and learning stations were considered. A requirement of the project was to designate and locate, on the garden site, appropriate native plant communities that correspond with the area's elevation and soil moisture changes. Upland pine, oak-hickory, and cypress-tupelo plant communities were selected to organize the garden. From the student projects, the Friends group selected plants that best represented their vision of the garden. A planting plan was drawn up to match the representative plant communities and a plant list was generated for each of the community types. Area nurseries were contacted to see which plants from the list were available for purchase. Plants included native azaleas, wax myrtle, yaupon hollies, bald cypress, fringe tree, red buckeye, American holly, arrowwood viburnum, and a host of wildflowers and ferns.

When you visit the Refuge, take time to walk through Noxubee Native Garden and see what 700 hours of work by dedicated volunteers has accomplished. The plants were chosen by commercial availability and matched to the planting sites. With funding from the Refuge and the Friends, the garden now has 40 varieties of native plants, identified with botanical markers. Paving the walkways and creating a brochure is still in the works. This is not a manicured botanical garden, it is mostly left to its own devices. It has received a thick mulch layer twice and sometimes unwanted plants will get pulled. Several native volunteer species have been encouraged and labeled.

The garden has become a landmark, an education site and an attraction. It shows visitors to the Refuge the beauty and diversity of our native plants and how they can be used in a garden-like setting.

Friends of Noxubee Refuge is an independent, nonprofit 501(c)3 organization dedicated to conserving natural resources through volunteer work and fund raising. They are part of a network of 250 friends groups who support our 548 National Wildlife Refuges. For questions call the Refuge at (662) 323-5548.

### ***The Japanese Beetle, an Economic Stimulus Package by John Guyton MSU Wildlife and Fisheries***

There may be a lighter side to the grave situation with the Japanese beetle (*Popillia japonica*), the larvae of which were accidentally imported to New Jersey in 1916 on the roots of Asian iris. Once they emerged they made haste in escaping New Jersey leaving naked Asians (trees and shrubs) in their wake. Now finally, they have the potential to make a much needed contribution to the economy!

The Japanese beetle is polyphagous (feeds on many) with Asian ornamentals which is where I found some irony concerning its economic contributions that include: bolstering the profits of the ornamental industry as they sell replacement plants, more fertilizer and insecticides and business for lawn care companies as they desperately try to maintain rootless lawns, laughing all the way to the bank. This little economic stimulus package is riding the landscape of Asian ornamentals by eating the foliage down to the veins and their larvae simply find the roots of large well manicured yards the nursery du jour. And, to add insult to injury they behave like the ancient raucous Greeks, dining on exotic foods *while* mating and inviting all of their raunchiest friends to the orgy with pheromone invitations!

For those who have figured out the *native landscape* counter measure, there are five huge benefits. The profits for the nature centers that sell native plants is a welcomed source of income for nature centers that have been extolling the virtues of natives for a very long time - the natives belong here. Bird watchers will enjoy a healthier avian population dining on the abundant insect population that is enjoying the newly planted natives. And, the smaller lawns, made so to reduce the Japanese beetle nursery size, that require less manicuring, will free up funds for more wholesome family entertainment. And they have an unexpected environmental benefit - less mowing and less carbon loading of the atmosphere! Think this should qualify for tradable carbon credits?

For the less astute, who will not figure it out and who will just replace their Asian ornamentals with more Asian ornamentals there is still an economic stimulus. They will make repeated contributions to the economy as they continually replace their Asian ornamentals, have their lawns regularly resod while keeping their lawn care companies in business!

So, native enthusiast, take advantage of the Japanese Beetle Economic Stimulus Package to replace those Asian ornamentals with native plants. You will be helping nature centers, making nature healthier for insects, birds and other animals while shrinking your lawn size considerably thus reducing your carbon dioxide emissions. And when the Asian ornamentals have all been eaten the Japanese beetle banquet is over and with your new found wealth you can purchase a family membership at the gym or new binoculars!

**Conference Note** – The Grand Bay NERR has produced to field guides each participant will receive including Selected Plants of Coastal MS and AL and Birds of the GB NERR.

**Pascagoula River Field Trippers** – To get in the best frame of mind for the Pascagoula trip read Ross Hutchins *Island of Adventure*. You will receive John and Peggy Guyton's checklist of the plants and animals Hutchins mentioned with his quotes.

## Chunky River Canoe Trip Report by Gail Barton

On May 9, 2009 a small group of MNPS members and friends assembled at the Highway 80 bridge near Boyette's Fish Camp in Chunky. We put our canoes and kayaks into the Chunky River at about 9:30 and floated about 7 miles to Stuckey Bridge where we ended our trip at about 5:30. During the day we made numerous stops. Some of the plants on the following list were seen from the water and others were found on short hikes that we made along the banks. We had a beautiful day. The water was a little muddy from recent rains but was moving along nicely. Those in attendance included: Lucas Majure, Mariela Pajuelo, Terry Majure, JoVonn Hill, Rebecca Brantley, Jennifer Heffner, Lamar Heffner, Peter Loos and Gail Barton. This is possibly the best staffed MNPS trip ever with 2 botanists, an entomologist and a nurse. The only disappointment of the day was that JoVonn did not find the rare tiger beetle he was seeking. Lucas Majure's "Short List of Plants Seen" follows. Some of the plants that were in bloom are marked with \*.

<i>Acer barbatum</i> (Southern sugar maple)	<i>Ditrysinia fruticosa</i> (gulf Sebastian bush)	<i>Pinus glabra</i> (spruce pine)
<i>Acer rubrum</i> (red maple)	<i>Eubotrys racemosa</i> (coastal fetterbush)	<i>Planera aquatica</i> (planer tree)
<i>Alnus serrulata</i> (hazel alder)	<i>Fagus grandifolia</i> (American beech)	<i>Platanus occidentalis</i> (sycamore)
<i>Alternanthera philoxeroides</i> (alligator weed)*	<i>Hexastylis arifolia</i> (wild ginger)	<i>Podophyllum peltatum</i> (mayapple)
<i>Amorpha fruticosa</i> (indigo bush)	<i>Hydrangea arborea</i> (smooth hydrangea)	<i>Podostemon certophyllum</i> (riverweed)
<i>Arisaema dracontium</i> (green dragon)*	<i>Hydrangea quercifolia</i> (oakleaf hydrangea)*	<i>Polystichum acrostichoides</i> (Christmas fern)
<i>Arisaema triphyllum</i> (Jack in the Pulpit)*	<i>Illicium floridanum</i> (anise)	<i>Prenanthes altissima</i> (rattlesnake root)
<i>Aristolochia tomentosa</i> (pipe vine)	<i>Itea virginica</i> (water willow)*	<i>Ptelea trifoliata</i> (wafer ash)*
<i>Asimina parviflora</i> (small flowered pawpaw)	<i>Kalmia latifolia</i> (Mountain laurel)*	<i>Quercus alba</i> (white oak)
<i>Asimina triloba</i> (pawpaw)	<i>Ligustrum sinense</i> (Chinese privet)*	<i>Quercus austrina</i> (bluff oak)
<i>Athyrium filix-femina</i> (Southern Lady fern)	<i>Lonicera japonica</i> (Japanese honeysuckle)*	<i>Quercus hemisphaerica</i> (laurel oak)
<i>Betula nigra</i> (river birch)	<i>Magnolia acuminata</i> (cucumber magnolia)	<i>Quercus incana</i> (bluejack oak)
<i>Bignonia capreolata</i> (cross vine)	<i>Magnolia grandiflora</i> (southern magnolia)*	<i>Quercus margarettiae</i> (sand post oak)
<i>Boehmeria cylindrica</i> (false nettle)	<i>Melia azadirach</i> (Chinaberry)	<i>Robinia pseudoacacia</i> (black locust)
<i>Brachyelytrum erectum</i> (bearded shorthusk grass)	<i>Lindera benzoin</i> (spicebush)	<i>Saururus cernuus</i> (Lizard's tail)*
<i>Campsis radicans</i> (trumpet creeper)	<i>Liquidambar styraciflua</i> (sweetgum)	<i>Schisandra glabra</i> (Bay starvine)
<i>Carex abscondita</i> (thicket sedge)	<i>Liriodendron tulipifera</i> (tulip tree)*	<i>Sesbania punicea</i> (scarlet wisteria tree)
<i>Carex crebriflora</i> (coastal plain sedge)	<i>Maianthemum racemosum</i> (false Solomon's seal)	<i>Smilax rotundifolia</i> (round leaf greenbriar)
<i>Carex digitalis</i> (slender woodland sedge)	<i>Nyssa aquatica</i> (water tupelo)	<i>Taxodium distichum</i> (cypress)
<i>Carex floridana</i> (Florida sedge)	<i>Osmanthus americanus</i> (wild olive)	<i>Toxicodendron radicans</i> (poison ivy)
<i>Carex intumescens</i> (greater bladder sedge)	<i>Osmundastrum cinnamomeum</i> (cinnamon fern)	<i>Triadica sebifera</i> (Chinese tallow)
<i>Carex picta</i> (painted sedge)	<i>Osmunda regalis</i> (Royal fern)	<i>Ulmus alata</i> (winged elm)
<i>Carpinus caroliniana</i> (ironwood)	<i>Ostrya virginiana</i> (hop hornbeam)	<i>Ulmus rubra</i> (slippery elm)
<i>Carya glabra</i> (pignut hickory)	<i>Panax quinquefolius</i> (Ginseng)	<i>Uvularia grandiflora</i> (large flowered bellwort)
<i>Clematis glaucophylla</i> (white leaf leather flower)*	<i>Persea palustris</i> (redbay)	<i>Vaccinium arboreum</i> (tree huckleberry)*
<i>Decumaria barbara</i> (hydrangea vine)*	<i>Parthenocissus quinquefolia</i> (Virginia creeper)	<i>Vaccinium elliotii</i> (Elliott's blueberry)
<i>Dioclea multiflora</i> (Boykin's cluster pea)		<i>Vaccinium stamineum</i> (deer berry)
		<i>Vitis rotundifolia</i> (muscadine grape)
		<i>Wisteria frutescens</i> (American wisteria)*
		<i>Yucca filamentosa</i> (Adam's needle yucca)

## MEEA - Call for Papers for November 2009 Conference

### Theme: Fall Into Learning With Nature

Topics appropriate for 2009 conference: nature, art and nature, or any environmental education-related topic. Abstracts should be single-spaced, contain 200-400 words. Presentations are limited to 55 minutes however a limited number of 110 minute sessions are possible. All sessions should include time for questions. Include the name, title, affiliation, mailing address, phone number, email of each author. Submit the abstract to conference co-chair Terri Jacobson at [terri\\_jacobson@fws.gov](mailto:terri_jacobson@fws.gov) by August 15, 2009. Authors will be notified regarding acceptance. Authors agree to present their paper and pay the registration fee should their abstract be accepted



## Erratum

Even your editors can miss a deadline, or two! In our haste to make the last newsletter deadline we ran an article Shane Mahoney had been invited to coauthor. Unfortunately, my friend and colleague Shane Mahoney was off on world travels and did not receive my email in time. Please note, his name should be attached to mine as coauthor of *The Most Successful Conservation Program in the History of the World*. We had discussed this article over a year prior and when I finally finished it and was awaiting his final edits the deadline forced me to hunt or load shells. Shane made one editorial suggestion that is very important to note: *the Seven Sisters, Pillars of the North American Wildlife Conservation Model* was originally published by Shane Mahoney in the *Bugle*, the magazine of the Rocky Mountain Elk Foundation. The *Seven Sisters* was his brilliant conception.

**MS Native Plant Society Membership Application or Renewal Form**

The organization devoted to the study and appreciation of wildflowers, grasses, shrubs and trees native to the state of Mississippi. **Join Today!**  
New member? \_\_\_ Please provide the information below.  
Renewing? \_\_\_ Please indicate any changes.

\_\_\_\_\_ Individual or Family: \$10.00    Name \_\_\_\_\_  
\_\_\_\_\_ Student: \$7.50                    County \_\_\_\_\_  
\_\_\_\_\_ Sustaining: \$15.00                Address \_\_\_\_\_  
\_\_\_\_\_ Contributing: \$35.00              Telephone \_\_\_\_\_  
\_\_\_\_\_ Life: \$125.00                        email \_\_\_\_\_

Please return this form with check to: MNPS, Inc., C/O Dr. Debora Mann, 114 Auburn Drive, Clinton, MS 39056-6002

**Mississippi Environmental Education Alliance Membership Application**

The state alliance devoted to environmental education and the affiliate of the North American Association for Environmental Education. **Join Today!**

**Name:** \_\_\_\_\_ New \_\_\_ Renewal \_\_\_

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- |  |   |                                 |
|--|---|---------------------------------|
| <b>Membership Category</b>                           | <b>Committee Interests:</b>                 | with your check or money order, |
| <input type="checkbox"/> Individual (\$10.00)        | <input type="checkbox"/> Strategic Planning | to MEEA, C/O Angel Rohnke,      |
| <input type="checkbox"/> Student (\$5.00)            | <input type="checkbox"/> Nomination         | MS Museum of Natural Science,   |
| <input type="checkbox"/> Family (\$25.00)            | <input type="checkbox"/> Conference         | 4391 South Frontage Rd.,        |
| <input type="checkbox"/> Institution/Business (\$50) | <input type="checkbox"/> Awards             | Columbus, MS 39701              |
| <input type="checkbox"/> Life (\$150.00)             | <input type="checkbox"/> Communications     |                                 |
| <input type="checkbox"/> Patron (\$150 - \$1,000+)   | <input type="checkbox"/> MEEA Board         |                                 |
|  | Return this application,                    |                                 |

***MS Native Plant Society Chapters***

**Coastal Plains MNPS** Meets every 4<sup>th</sup> Monday in Gulfport. Contact president, Edie Dreher at 228-864-2775 or mail to 100 24<sup>th</sup> St., Gulfport, MS 39507.

**Starkville MNPS** Contact Bob Brzuszek at rbrzuszek@lalc.msstate.edu or phone 662-325-7896.

**Northeast MNPS** Contact Margaret Gratz at 662-844-5640 or gratz@redmagnet.com

**North MNPS** Contact Hilary Shughart at 662-816-3459 or shughart@watervalley.net

***Join MNPS, MEEA or Both!***

**The Mississippi Environmental Education Alliance** conducts an annual fall conference and occasional workshops. For information on upcoming activities and who is doing environmental education, check the EEinMississippi website or contact Interim President Cynthia Harrell.

**MNP&EE** is the quarterly newsletter of the Mississippi Native Plant Society and the Mississippi Environmental Education Alliance.

**Deadlines for Articles**

Winter (Dec - Feb) - November 15

Spring (March - May) - February 15

Summer (June - August) - May 15

Fall (Sept - Nov) - August 15

Mark your Calendars! The MNPS annual meeting will be at the Grand Bay NERR, Moss Point, Sept 26 & 27, 2009 and the MEEA conference will be at the Eagle Ridge Conference Center, Raymond, MS, Nov. 6 & 7, 2009

*The MISSISSIPPI NATIVE PLANT SOCIETY*  
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Box 150307  
Jackson, MS 39210  
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