



Mississippi Native Plants and Environmental Education



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

Volume 26 Number 4

One kind word can warm three winter months – Japanese proverb

Winter 08/09

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

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The **Mississippi Environmental Education Alliance** promotes environmental education, 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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Your Editors' Christmas Wish

During our decade in Kentucky, each Christmas Peggy and I would take our girls exploring in the TVA's Land Between the Lakes looking for that just-right Christmas tree - that after returning home the girls always declared another Charlie Brown tree! Each Christmas the TVA issued certificates to harvest one cedar tree. This helped the TVA eliminate "weedy" trees and gave us a half-day quality time in the woods! We would wait as long as possible to harvest our tree so it did not get too dry before Christmas day. Of course, we like the idea of using a live tree and then planting it after Christmas, but as a university professor with teenage girls, money was always in short supply. Besides, who would fight the crowds when you can have a half day in the woods with your children and a free tree.

*Then one blustery dry day we discovered a way to more rapidly and efficiently hydrate our tree that really worked. We bored a 1 inch hole into the bottom of the trunk before mounting it to our stand. Yes, this made it a little trickier to mount, but it proved worth the trouble! This works because it is easier for water to reach the xylem when it can reach it from the inside, through the bark on the outside and bottom! We wish you a Merry Christmas, a Happy New Year and a **Green Tree!***

– Peggy and John Guyton



Sidney McDaniel Recognized with Lifetime Achievement Award

Before his retirement, Dr. Sidney McDaniel was Director of Research and a Professor of Botany at Mississippi State University. He also founded the Institute for Botanical Exploration and established the organization's field station in Iquitos, Peru in 1972. He is a pre-eminent botanist, a taxonomist knowledgeable about all plant families, who specializes in the Upper Amazon River Basin. He has collected and identified more plants for medicinal research than any other single individual or institution in the United States, more than 10,000 for the United States Department of Agriculture for research by the National Institutes of Health. He authored the definitive guide, *Guia de la Flora de Iquitos*, on the plant families of the Upper Amazon Basin. Sidney was one of the founders of Whole World Botanicals, a company dedicated to distribution of organic wildcrafted herbs in partnership with South American native peoples who have been using these effective natural remedies for centuries.



Closer to home, Dr. McDaniel, assisted in selecting the series of natural areas for the Crosby Arboretum that represent floristically different ecosystems found in the Pearl River drainage basin. He not only founded the Mississippi Native Plant Society, his taxonomy students include both the president and vice president of the MNPS, and such is the nature of his enduring influence. In honor of exceptional achievements in the study and preservation of Mississippi's native plants the LIFETIME ACHIEVEMENT AWARD was presented to Dr. Sidney McDaniel by the Mississippi Native Plant Society.

MNPS AND MEEA Presidents' Letters

Dear MNPS Members,

I really enjoyed our October meeting at the Noxubee National Wildlife Refuge. It was the first time in quite a while that we have attempted to have a meeting at a natural area rather than a civic center, library or auditorium. Since we were in the "sticks" rather than near a population center, our attendance was down from the last two meetings. We had over 90 attendees when we met in Jackson and in Oxford. The sign-in sheet for our Noxubee NWR meeting contained 62 names. Of those, an incredible 19 were new members. Welcome to our new members! There is even an article on rivercane from new member, Diana Neal, in this edition.

We had a high quality meeting and the quantity of attendees was not so bad for a busy Saturday in October. For me, the high point of the meeting was exploring the Refuge and its facilities. I felt relaxed and rejuvenated after my floral design workshop on the deck. The speakers were inspiring and I was honored to present the Lifetime Achievement Award to my mentor, Dr. Sidney McDaniel. I loved tramping through the woods with JoVonn to hug a Bur Oak, touch a nutmeg hickory and ramble around a prairie remnant. Most of all, I enjoyed visiting with all the participants. Our MNPS meetings sometimes remind me of a big family reunion – except that we are bonded by the green sap that runs through our veins rather than sharing common blood.

And now for the next round of projects – Dr. John Guyton is planning our next meeting in Fall 2009 at The Grand Bay National Estuarine Research Reserve (GBNERR) located in extreme southeastern Mississippi in Jackson County near Moss Point. Go online and check out their website at <http://www.grandbaynerr.org/>

Speaking of websites – the MNPS Board has been discussing the creation of our new website. Marc Pastorek is still agreeing to set things up. So we should be online sometime next year.

MNPS hopes to sponsor the first ever canoeing field trip. On Saturday, May 9, Lucas Majure will lead an expedition along the Chunky River where we are likely to see mountain laurel, native wisteria and Virginia sweetspire in bloom. This will be an easy float which normally takes about 2 -3 hours. Mark your calendars. More details about all these events will be revealed in the spring newsletter.

I am grateful to those who helped plan, prepare and execute our recent meeting. I'm grateful as well to everyone who came out on a Saturday and drove down those red dirt roads to the Refuge. I solicit your feedback and hope that you enjoyed the day as much as I did. – Sincerely, Gail

Dear MEEA,

To say that 2008 has been a year of change would not fully articulate the prospect of our future. The changes that we are witnessing today will transform and transcend our organization and state environmental efforts. I am inspired by the will of the American people to vote for leaders that truly say they care about the environment. Only time will tell if the "Green Revolution" is at hand. In the mean time I believe MEEA has an important role in educating and inspiring our citizens in this time of action.

Over the past two years I have sought to nurture, grow and sustain our organization. During this time I have witnessed a very active board, teachers become more involved and new ideas flourish within MEEA. It has been a great pleasure to lead our organization to a sustainable future but a time of transition for me has come as well. I have accepted a Lead Educator position with the Dallas Museum of Nature and Science and I anticipate the new knowledge and opportunities that await me. As I leave the state I reflect upon the important work and ideas left undone. But I am confident and pleased to see Cynthia Harrell assume the role as our president; with her strong and steady leadership MEEA will continue to thrive. Her outstanding and inspiring work with Crow's Neck and vital support of MEEA is a testament to my belief. I encourage you to support Cynthia and become more involved and interactive with our future.

Our work is not finished... I will not slip away quietly and forget my environmental foundation here in Mississippi. My future, our future depends on our past environmental efforts. Our goal in protecting and educating about environmental issues not only crosses a multitude of public and private organizations, it also crosses county, state and continental boundaries. The knowledge we learn beyond the confines of our self imposed borders must be shared and expressed with others. My hope of positive stewardship of the Earth may have begun here, but I will continue to share what I learn in the future. Thank you again for this opportunity and for all your efforts, ideas and talents that have made MEEA stronger. May the Spirit and peace of Nature continue to bless you and yours this holiday season. – Sincerely, John DeFillipo, MEEA President

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

Editors note: Even before John announced his impending departure from Mississippi he received several noteworthy nominations as MEEA's Outstanding Educator of the Year - and he has certainly risen to the occasion and has earned the distinction. John began his presidency with the theme: A Natural Succession, Nurture, Growth and Sustain. And, true to his theme he is leaving MEEA in the very capable hands of Cynthia Harrell. Join us in welcoming Cynthia to the helm.

Bringing Back the Rivercane! By Diana M. Neal, Research Associate Rivercane Project

Mississippi State University (MSU) and the Mississippi Band of Choctaw Indians (MBCI) are working on a rivercane (*Arundinaria gigantea*) restoration project on MBCI tribal lands, along the upper Pearl River Basin. The MBCI relationship to rivercane reaches well beyond its value as a riparian buffer (enhancing water quality, stabilizing streambanks, and providing habitat for wildlife). Rivercane was traditionally used for more than 2000 items, from scoops to coffins. Artisans have woven, for more than a thousand years, an astonishing array of baskets and mats from rivercane for scores of uses. Although, resources are limited, artisans work daily to create integrally double-woven baskets for a market of collectors.



Rivercane is the only bamboo species native to the United States and occurs throughout the southeast. Canebrakes (dense stands of rivercane) used to cover extensive areas of southeastern North America, prior to European settlement (Campbell 1985, Platt and Brantley 1997), but was almost eliminated by agriculture, overgrazing by domestic stock and the demise of Native Americans and their traditional burning patterns (Platt and Brantley 1997). Although canebrakes represent one of the most rare communities of the southeastern United States, they have received little attention (Brantley and Platt 2001), and land stewards lack information on their structure, composition (flora and fauna) distribution and function (Cirtain et. al. 2004).

Hence, the MBCI/MSU rivercane restoration project is focusing on improving the mitigation of wetlands using canebrakes, enhancing propagation methods, maximizing genetic diversity and genetic drift, defining protocols for canebrake restoration in riparian habitats, and developing adequate measures for monitoring and assessing wetland health by addressing ecological, cultural and economic factors (plant materials available for Native American artisans). If you would like more information about this project please check our website <http://www.rivercane.msstate.edu/> or contact Dr. Rachel Jolley at Rjolley@biology.msstate.edu.

Photo credits: Choctaw baskets made of rivercane (Photo courtesy of Dr. Brian Baldwin).

Eastern Redcedar - It's not just for Christmas by Gail Barton

My memories of Mississippi Christmases always contain a locally collected cedar tree draped with sparkling tinsel and icicles. Likewise, the smell I associate with Christmas is the pungent resinous aroma of cedar boughs. Like most families in the Starkville area, as Christmas approached, we would go to the woods along a roadside, railroad right-of-way or to a relative's farm to find and cut the perfect cedar tree. Since soils in the area are circum-neutral (close to pH 7.0) with limestone beneath, there were always plenty of cedars to choose from.

I later learned that the eastern redcedar (*Juniperus virginiana*) is member of the Cypress Family sometimes known as red juniper or pencil cedar. It is actually a juniper and not a true cedar at all. The only true cedar that those of us in the Deep South are likely to see is the occasional Deodara Cedar, a landscape tree that hails from the Himalayan Mountains.

Eastern redcedar is a sun-loving pioneer species. It is the most widely distributed conifer of tree size in the Eastern United States. It emerges early in the succession of disturbed sites. It is dropped into abandoned fields and fence rows as a seed gifted by one of the many species of birds that relish the blue berry-like fruit.

If you look closely at cedar trees, you will notice that the young juvenile plants have needle-like spiky leaves while older adult leaves are more compact and scaly. Sometimes both leaf forms can be found on the same tree with the juvenile leaves being present on the oldest wood that was formed when the tree was young.

You may also notice that there is much diversity in form and leaf color within a stand of trees. I have seen columnar, weeping, pyramidal and rounded trees within a short distance of one another with foliage ranging from green to yellow-green and blue-green. The bark is one of eastern redcedar's most attractive features. It is red and peeling in shaggy strips. Trunks are usually irregular in shape and fluted rather than being round.

Since eastern redcedar is dioecious, only the pistillate (female) trees can bear the blue berry-like cones. In late winter, staminate (male) trees produce pollen bearing conelets that turn a conspicuous golden color before releasing their pollen. The pistillate or ovulate conelets on a separate tree become receptive and open to receive the pollen at about the same time. If the pistillate conelet is fertilized, an embryo forms and the berry-like cone changes from greenish white to blue.

In the final stages, the scales on the "berry" become more visible and the fruit begins to look more like the cone that it really is. Each cone or fruit contains one to four (occasionally more) rounded or angled brownish seeds. To propagate the seed, collect the "berries" as they reach maturity, separate the seed from the pulp and plant them outdoors where they will be exposed to cold weather. In the wild, the pulp is removed as it passes through the digestive system of the birds that eat the fruit. In 1805 Thomas Jefferson deduced that the pulp needed to be removed before seedlings could sprout. He wrote the following in a letter to one of his gardening colleagues, Madame de Tesse. "I presume some method is known and practiced with you to make the seeds [of Juniper] come up. I

have never known but one person succeed with them here. He crammed them down the throats of his poultry confined in the hen-yard and then sowed their dung, which has been completely effectual.” If a flock of hens is not available, the pulp can be loosened by gently rolling over it with a rolling pin or scraping it against a screen. It can then be washed to remove the pulp before planting. In areas where eastern redcedar is prevalent, it has become part of the history and folklore. It has been used to make fence posts due to the durability of its wood. The red wood is also used to make hope chests and other furniture because its aromatic oils are said to repel moths. Cedar heartwood was once used extensively in making pencils. Native Americans in Louisiana are said to have used the durable wood as trail markers. As a result, Baton Rouge was literally named “Red Stick”.

The powdered leaves have been used as folk remedies for warts and other skin disorders. The fruit, twigs and leaves have been boiled and inhaled as a remedy for bronchitis and asthma. Cedar boughs are said to have been used in purification rituals performed in Native American sweat lodges. Modern scientists extract the poisonous anti-tumor compound podophyllotoxin from the leaves and twigs and use it to treat cancer.

In most areas of our state, eastern redcedar occurs in small isolated stands. It is found in much larger numbers in the thin rocky soil around limestone outcrops. It is likely that those who attended the recent MNPS Annual Meeting in Brooksville, Mississippi passed large stands of cedars. The soil exposed beneath them was probably peppered with chalky white chunks of limestone. In cedar glades, this native narrowleaf evergreen is commonly associated with blackjack oak (*Quercus marilandica*), winged elm (*Ulmus alata*), fragrant sumac (*Rhus aromatica*), Carolina buckthorn (*Rhamnus caroliniana*), rusty blackhaw (*Viburnum rufidulum*), and Alabama supplejack (*Berchemia scandens*). Little bluestem (*Andropogon scoparius*), big bluestem (*A. gerardi*), yellow Indiangrass (*Sorghastrum nutans*), switchgrass (*Panicum virgatum*), dropseed (*Sporobolus* spp.), and numerous composites and legumes are common herbaceous plants. If allowed to grow unchecked in some prairie remnants, eastern redcedar can shade out the desirable prairie forbs and grasses. The problem can be remedied with a controlled burn that will thin out the cedars.

The versatile cedar is also valued for its ability to provide, cover, food and nesting sites to many species of wildlife. The tree gives the lovely cedar waxwing its common name and is also said to be of benefit to wild turkeys, quail, mockingbirds, cardinals, robins, bluebirds, mourning doves, brown thrashers and many other bird species. It provides habitat to vertebrates like deer, rabbit, fox and raccoon as well.

In the landscape, it is a durable and long lived tree useful for screening, windbreaks and winter color. It can also supply fragrant Christmas greenery and serve as a lovely night-time accent if you have a few strings of lights to spare.

2009 MNPS Conference at the Grand Bay National Estuarine Research Reserve

The National Estuarine Research Reserve System is a network of areas designated by NOAA as unique habitats and protected for long-term research and education. This program is a partnership between NOAA and the coastal states and protects more than one million acres of estuarine land and water that provide essential habitat for wildlife; offer educational opportunities for students, teachers and the public; and serve as living laboratories for scientists.

The 18,400 acre Grand Bay NERR, designated in 1999, is one of the most biologically productive estuarine ecosystems along the Gulf of Mexico and supports several rare or endangered plant and animal species, numerous important marine fishery resources, diverse habitat types and archaeological sites. The reserve encompasses coastal bay, saltwater marshes, maritime pine forest, pine savanna and pitcher plant bogs. It supports extensive and productive oyster reefs and seagrass habitats. It also serves as nursery area for many of the Gulf of Mexico's important recreational and commercial marine species such as shrimp, blue crab, speckled trout and red fish.

The discussions with the GBNERR have just begun and it could turn into a unforgettable meeting! Some options to think about include: learning about the restoration and protection of estuarine and coastal habitats, touring fire-adapted and managed woodlands and pitcher plant bogs, observing invasive species, seeing the flora on shell middens, and learning about the Coastal Marshlands Protection Act. The NERR has a pontoon boat for a field trip to the shell middens and there is a tour guide service on the Pascagoula River, the longest free flowing river in the lower 48, and they know the way to the island Ross Hutchins wrote about in his book, *Island of Adventure*. The Reserve staff have recently revised and expanded, with the help of the Weeks Bay Reserve in Alabama, their excellent book *Selected Plants of Coastal Mississippi and Alabama* and it will be on their website soon. Printed copies of the book are free and soon they will have a notice on their website as to where you can pick one up.

We will reserve a block of rooms at the Gulf Coast Research Lab. There are so many options, including a 2 day meeting, planned field trips opportunities for members on the way down and back such as stops at the Crosby Arboretum, Camp Shelby, etc. Many of the Katrina-killed trees in Biloxi have been carved into incredible sculptures, so you will want to bring your camera and ride down Hwy 90. Things to consider: Biloxi schooner excursions, possible a trawling trip to Horn Island, visiting Walter Anderson's compound and or museum, the Lynn Meadows Discovery Center, music and storytelling around a bonfire on the beach, etc... Contact John Guyton if you would like to help plan. So, go ahead and find a copy of Hutchins *Island of Adventure* and request *Selected Plants of Coastal Mississippi and Alabama* and start dreaming about the '09 meeting! We could rent a van or two for the trip down and share the costs...

Eat Kangaroo and Slow Global Warming by Dr. John Guyton, MSU Wildlife and Fisheries

The Australian Wildlife Service reported that increasing the kangaroo population from 30 to 70 million could produce as much meat as 7 million cattle and 30 million sheep! This would cut their greenhouse gases by 3%. Cattle and sheep methane production constitutes 11% of Australia's greenhouse gas emissions.

When I arrived in Australia, to present a few research papers, I was asked by my host family what I would like to eat during my visit. When I replied something Australian, she replied that they did not have an Australian cuisine. She went on to say, "We have French, Greek, Italian, Mexican, American, Indian and Thai, but no Australian. What would you consider Australian?" When I suggested kangaroo or those witchetty grubs the Aboriginal People eat she totally ignored the later and suggested she did not know if kangaroo was edible. I assured her it must be and a trip to the local butcher revealed an incredible selection!

That evening we prepared a fire of fallen branches from a (Tasmanian) blue gum eucalyptus (*Eucalyptus globulus*) to barbecue over. The blue gum leaves are of interest because the juvenile are opposite and the adult alternate! Secondary branches also grow from the base of juvenile leaves. The blue gum eucalyptus is highly flammable due to its deciduous bark and flammable oils so the fire caught quickly. I learned the very tall tree is also called a fever tree because of its medicinal properties. The eucalyptus oil has strong antibacterial properties, acts as an expectorant (loosens phlegm) and reduce inflammation and fevers. Eucalyptus has a history of use in remedies to treat coughs and colds and is found in cough syrups, lozenges and rubs. The fresh leaves are reported to soothe sore throats and treat bronchitis when consumed as a tea, used to gargle or rolled and smoked.

I knew kangaroo had been an Aborigine food and I was looking forward to sampling it! We slid a heavy sheet of steel on top of the brick barbecue pit and anxiously waited for it to heat. We immediately noticed a difference when we threw the first steaks on the steel - they hit and stuck fast! I suspected the high protein but the *very low* fat (2%) surprised me. We scraped the meat off and buttered the slab before resuming cooking. I have since learned kangaroo meat is thought to have a high concentration of conjugated linoleic acid with a variety of health benefits including antioxidant and anti-cancer properties and it is thought to reduce body fat! And, I am happy to report it did not taste like chicken; it tasted like aged beef. We purchased enough to cook in a variety of ways: burgers, spaghetti, sliced thin on sandwiches, in a meatloaf, etc.

Kangaroo meat had recently been legalized for human consumption in Australia and as our host family discovered was growing in demand by Australians. I wondered if the indigenous people were amused with the newcomers historical reluctance to eat kangaroo. The Ecological Society of Australia, the Australian Wildlife Management Society and the Australian Mammal Society have recently published position statements in favor of kangaroo harvesting suggesting that the use of native animals, in agricultural production, may offer considerable ecological advantage for the fragile rangeland over cattle and sheep. In the United States wildlife conservation made great strides when deer were labeled as common property and the sale and interstate transportation for sale of venison was prohibited.

The Aborigine's witchetty grub - the large, white, wood-eating larvae of several moths - evaded me. The name is associated with the larva of the cossid moth (*Endoxyla leucomochla*) that feeds on the roots of the Witchetty bush (*Acacia kempeana*). I am not sure which came first, the witchetty grub or bush...

Witchetty evidently refers to edible larvae of other insects that are used for food including ghost moths (*Hepialidae*), and longhorn beetles (*Cerambycidae*). These important desert foods are eaten raw, roasted or cooked in hot coals. Raw they are said to have an almond taste and cooked their skin taste like, what else - roasted chicken with a light yellow "fried egg" inner. In my limited experience eating raw darkling beetle larvae, they, too, may have an almond-like flavor...

Before we leave the desert I should mention a couple more noteworthy facts about the witchetty bush. In addition to its edible gum and seeds it has some interesting adaptations. Petioles, stalks that connect the leaves to stems, typically have the vascular structure of a stem. However in some plants, the petioles represent plant adaptations to their environment and have taken on leaf functions. Pitcher plant pitchers are highly modified leaves that digest insects to provide the plant with nitrogen. In the case of the witchetty bush their petioles have become wide, flattened and chlorophyll-rich while the true leaves have been reduced, or become vestigial, likely to reduce water loss through evaporation in the desert. The name given to these modified petioles is phyllodes.

I admit skipping part of the conference to have a little walkabout in the outback. When I returned, on the last day, an Aboriginal Ph.D. who was attending the conference asked, in his soft mystic dialect, if I had found everything in Australia I had hoped to find. When I replied no, I had been unable to find witchetty grubs, he smiled and in a combination of musing yet chiding commented, "If you had stayed at the conference we would have met earlier and I could have had some shipped in for you!"

So, I am all for taking the Aborigine lead in saving the planet by eating kangaroo cooked over blue gum eucalyptus with a side of witchetty grubs and witchetty seed. And maybe I will have a little witchetty gum to freshen my breath after dinner.

Nature's First Aid Kit or the Green Pharmacopeia Part 3 by Dr. John Guyton

(continued from last newsletter)

Insect stings – Buckhorn chewed and applied, jewelweed crushed and applied, juice from kudzu flowers, poultice of jewelweed (*Impatiens biflora*) or witch hazel leaves (*Hamamelis virginiana*); Hyssop (*Hyssopus officinalis*) poultice or compress; garlic chives (*Allium tuberosum*) leaves and bulbs.

Insomnia – Chamomile tea, dry lavender (*Lavendula officinalis*) blossoms can be stuffed in pillows; catnip (*Nepeta cataria*).

Intestinal parasites – Chives (*Allium schoenoprasum*) used to treat, purge and stimulate digestion.

Laxative – Buckhorn seeds are the active ingredient in Metamucil™; pawpaw fruit (*Asimina triloba*) but remember the seeds are toxic; curled dock (*Rumex crispus*) Chamomile (*Chamaemelum nobile*).

Memory Aid – Memories can easily be connected with smells and retrieved with them also. Smelling mint, lemon or orange while preparing for a test then rub it on your hand before taking the test and smell it during the test. See if you can use multiple smells to trigger different concepts you have studied.

Menopause - Black cohosh is useful for reducing hot flashes.

Menstruation – Bee Balm (*Monarda didyma*) tea from the aromatic leaves useful in regulating.

Muscle relaxant – Kava kava (*Piper methysticum*) leaf tea used as pain reliever.

Nausea – Chamomile tea; beech bark tea; common mallow (*Malva sylvestris*) tea made from the seeds and mixed with wine relieved nausea; chew mint leaves or nibble on ginger root to relieve nausea.

Pain Killers – Willow bark, boneset tea; the opium poppy (*Papaver somniferum*) sap contains a potent pain killer morphine the use of which dates to at least 4000 years ago (seeds and capsules found in archaeological remains of Swiss lake-dwellers).

PMS – The seed oil of the evening primrose (*Oenothera biennis*) may help.

Poison Ivy or other itches – Poultice of jewelweed (*Impatiens biflora*) or witch hazel leaves (*Hamamelis virginiana*).

Respiratory problems – A tea made with creosote bush (*Larrea divaricata*) or wormwood leaves.

Rheumatism – Teaberry or American wintergreen (*Gaultheria procumbens*) contains methyl salicylate, a tea made from the fermented leaves and twigs can be used to relieve muscular pain and rheumatic conditions; hyssop (*Hyssopus officinalis*) bath herb, crushed mint leaves; capsaicin in a poultice.

Sedative – Chamomile or mint tea, a tea made with passionflower leaves; hyssop (*Hyssopus officinalis*) leaf tea is a mild sedative as is catnip (*Nepeta cataria*); wild black cherry root bark tea; wild lettuce; kava kava (*Piper methysticum*) leaf tea; yellow lady's slipper (*Cypripedium calceolus*) dried root used for insomnia and as sedative.

Shock – Deeply inhaling the aroma of crushed Oregon myrtle (*Umbellularia californica*) leaves is breathtaking and may be useful for stimulating a reaction and getting someone's immediate attention.

Sinus problems – Early settlers steamed bee balm (*Monarda didyma*) and inhaled fumes to clear; nodding onion (*Allium cernuum*) poultice on the chest for the treatment of respiratory ailments.

Skin sores or inflammations – Wild pansy (*Viola* spp.) plants ground up and applied to skin; slippery elm (*Ulmus fulva*) dried inner-bark ground and applied to inflammations.

Sore Throat – Mullein leaf smoke and tea, a gargle made from hyssop (*Hyssopus officinalis*) leaves; elm bark tea.

Splinters - Buckhorn is an astringent so a chewed leaf applied to the entry wound will tighten the muscles and often even pooch the end of a splinter out so that it can be removed with tweezers.

Stomachache – Mint tea can be used to sooth stomachaches and could be used to counteract the harshness of aspirin, for example in willow bark; boiled rose leaves and fruit; boneset tea; sassafras (*Sassafras albidum*) root bark tea.

Stress or Anxiety – Lavender (*Lavendula officinalis*) relaxing in bath water and dry blossoms can be stuffed in pillows; apothecary's rose (*Rosa gallica officinalis*) tea.

Sunburn – Aloe vera, plantain and common mullein (*Verbascum thapsus*) leaves applied to skin; boiled sweet flag (*Acorus calamus*) root applied to burn.

Toothache – Prickly ash (*Zanthoxylum americanum*) pound the root and leaves into a wet mash and apply to the gums to deaden nerves and reduce inflammation; toothache grass (*Ctenium aromaticum*); chew the inner bark of Black Walnut (*Juglans nigra*); Sweet flag (*Acorus calamus*) root chewed for toothache.

Urinary tract disorders – Cranberries; horseradish (*Armoracia rusticana*) roots used to treat urinary tract infections.

Miscellaneous Medical Supplies

Bandages – moss.

Tourniquet – bindweed (*Convolvulus arvensis*).

Stimulate blood flow in extremities – mullein leaves.

Disposable diaper – bag of sphagnum or other soft mosses.

Needle and Thread – agave tip with fiber attached

Pins – Osage-orange or honey locust.

Warm Compress - chopped horseradish with water for warm sensation.

Every plant enthusiast should have experience with at least one medicinal plant. About a year ago Peg and I introduced a USDA Wildlife Services trapper, who assisted with our Wildlife and Fisheries Inter-generational Summer camp, to buckhorn or plantain (*Plantago lanceolata*) and this summer, at camp, he thanked us. He went on to say how useful it is since he does always not have time to go back to the truck for the first aid kit! If you have a weed or plant you use medicinally, we would like to hear from you. If you are interested in trying plantain also let us know.

North MS Field Trips – Contact Robin Whitfield 662-230-0368

November 23, Sunday Old Cove – 1:00 – 4:00 near Eupora, MS This is a steep off-trail hike on Weyerhaeuser land in rural Webster County. The forest is a mature hardwood forest growing in and around a natural ravine featuring many native plants unusual to this part of our state. The big leaf magnolias are a dominant understory tree.

December 21, Sunday (winter solstice) Nature Trail – Malmaison Wildlife Management Area, once part of Greenwood Leflore's plantation. – 1:00 – 3:00 between Grenada and Greenwood. This is an easy hike on a two mile trail that winds through a mature hardwood forest carved out by a small clear stream. An interesting mix of trees and understory plants in a historical area.

South MS Field Trips

November 22, 2008 Saturday Hillside Bog 12:30 - 4:30 Contact Pat Drackett, Senior Curator at Crosby, 601 -799-2311

January 10, 2009 Celebrate the New Year on Saturday, rain or shine, on the first MNPS Field Trip of 2009. Contact **Marc Pastorek at 504-296-8162** to sign up, get directions, etc. Meet at 9:00 at Marc's house in Henleyfield (near Carriere). Bring a sack lunch. First stop will be **Lipkin Hill on the Pearl River** just down the road to see a huge stand of bigleaf magnolia (*Magnolia macrophylla*) and wild camellia (*Stewartia malecodendron*) on a bluff overlooking a cypress swamp. We will picnic beside a creek under mountain laurel, American beech and native azalea. Now, on to **Mill Creek Natural Area**, a MSU Crosby Arboretum property. Pat Drackett, Crosby's Senior Curator, described Mill Creek as the smallest, but one of the most interesting, Arboretum areas featuring a mature beech-magnolia woodland and five species of Magnolia. We are likely to see alternate-leaf dogwood (known only on two other sites in Mississippi) and a large grove of wild camellia. Also expect swampbay, spruce pine and yellow-poplar. The trip should conclude around 1:30 at the Mill Creek and since the Crosby Arboretum is open until 5:00 Pat suggest you touring it as well!

Cabin Fever? Consider Heather Sullivan's Suggestions for Field Trips to Avoid Hunters

Red Hills Trail in DeSoto National Forest, (Whiskey Creek Trail is home of one of the old *Magnolia grandifolia* champions and *Epidendron* orchids!), Paul B. Johnson State Park trails, Little Florida on the Tuxachanie Trail in DeSoto National Forest, Clark Creek Natural Area, Roosevelt State Park trails, Clarkco State Park trails, Owens Creek waterfall trail on the Natchez Trace Parkway.

New Southeastern Flora Site

John Gwaltney, of *Forestry Suppliers*, developed this incredible site, <http://www.southeasternflora.com/>. Check it out!!!!

The Oxford Public Library Gardens “Where discovery begins...” by Hilary Shughart

Flood and Drought-Tolerant Plants for the Rain Garden:

River oats (*Chasmanthium latifolium*), the sound and movement for the gardens.

Mistflower/ wild ageratum (*Eupatorium coelestinum*), purple all summer long!

Copper iris (*Iris fulva*), the evergreen “spiky” of the rain garden.

Smooth beard's tongue (*Penstemon digitalis*), with “roundy” evergreen rosettes.

Cardinal flower (*Lobelia cardinalis*), the “frilly” of the Rain Garden.

Soft rush (*Juncus effusus*), one of two most widespread native plants, and most cultivated rush.

Cattail (*Typha latifolia*), iconic as a saguaro cactus and a practical biofilter, trapping nitrates.

Spider lily (*Hymenocallis occidentalis*), a striking white basket blossom.

Spiderwort (*Tradescantia virginiana*), aka railbed plant - likes sun or shade, a true “tough plant”.

Beautyberry (*Callicarpa americana*), great gaudy magenta berries in fall. Insect-repelling leaves.

Ten plants doing well in the library meadow garden alongside the dry creek bed:

Butterfly weed (*Asclepias tuberosa*), host plant for monarch butterflies. Roadside beauty!

Butterfly weed (*Asclepias spp.*), a variety of milkweed plants is a good idea.

Blanket flower (*Gaillardia "Goblin"*), began to bloom in February and persisted through summer!

New England aster: Fall nectaring for migrating monarchs; bloomed through December!

Coneflower (*Echinacea*), purple all summer long, and fall buffet favorite for finches.

Black-eyed Susan (*Rudbeckia*), the other most widespread and easily recognized native plant.

Carolina phlox (*Phlox caroliniana*), stunning bright pink summer color, at least two feet tall!

Yellow wild indigo (*Baptisia sphaerocarpa*) for a splash of yellow near the coneflowers.

Beebalm (*Monarda didima*), prefers consistently moist soil, as by the window.

Blue sedge (*Carex glauca*) - sedges are great at the edges! Combines nicely with butterfly weed.



Something to Think about While Smooching Under the Mistletoe

Mistletoe can cause drought stress. However you may notice more mistletoe in a dying tree than the tree's own foliage and in effect this mistletoe may keep the branches alive. The lighter colored “wood” on the small vase pictured is actually mistletoe haustoria and the darker wood is water oak. There is no evidence of a break or weakness at their interface, the dark line. – Guyton, MNPS Ed. Chair

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 _____ Renewal Name _____
_____ Student: \$7.50 County _____
_____ Individual or Family: \$10.00 Address _____
_____ Sustaining: \$15.00 _____
_____ 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

Coastal Plains Chapter MNPS Meets every 4th Monday at various locations near Gulfport. For more information contact president, Edie Dreher at 228-864-2775 or mail to 100 24th St., Gulfport, MS 39507.

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

North East MNPS Chapter contact Margaret Gratz at 662-844-5640 or gratz@redmagnet.com

North MNPS and Big Cypress Outdoor Club Contact Hilary Shughart at 662-816-3459 or shughart@watervalley.net

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 _____

School or Organization: _____

Address: _____ **City:** _____ **State:** _____ **Zip:** _____

Phone:(day) _____ **(evening)** _____

e-mail: _____ **Fax:** _____

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

Join MNPS, MEEA or Both!

The Mississippi Environmental Education Alliance conducts an annual conference and occasional workshops. They are preparing to assist colleges of education meet the new EE standards required for NCATE accreditation. For information on upcoming activities watch the newsletter, contact President John DeFillipo or check the calendar on ecinMississippi.org

Consider giving MEEA and/or MNPS memberships for Christmas this year. The respective organization will send you a card to forward to the recipient.

MISSISSIPPI NATIVE PLANT SOCIETY
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