

The Crosby Arboretum

Mississippi State University Extension Service

Quarterly News Journal

Fall 2010

24.4

PLANTS: WHY YOU CAN'T LIVE WITHOUT THEM

Roli Books, 2010, Authors: B.C. Wolverton and Kozaburo Takenaka

Plants and their microbes create the dynamic, living atmosphere that makes life on earth possible. Plants also play an important role in balancing the earth's ecosystems. They act as the earth's 'lungs' by giving off oxygen and taking in carbon dioxide and serve as the earth's 'kidneys' by filtering toxic chemicals and other impurities from water. We have understood these functions for many years. Yet, we continue to learn new and exciting uses for plants to enhance our health and well-being.

In today's society, most people spend up to 90 percent of their time indoors in energy-efficient buildings. We seal our buildings to reduce energy costs, an important consideration in today's harsh economy. However, we also find ourselves trapped with a multitude of synthetic chemicals that are off-gassed from most building components and furnishings. Many of these chemicals are harmful to human health or even known carcinogens. Additionally, asthma, especially among children, has increased at an alarming rate. Yet, the building industry has been unable to resolve the indoor air quality (IAQ) issue. In fact, the EPA now ranks indoor air pollution among the top five threats to human health.

In the early 1980s while employed at NASA's Stennis Space Center, we began to explore survival methods for long-term space habitation. This led us to discover the ability of interior plants to improve IAQ. Announcement of these findings created much interest among scientists as well as the general public. Many scientists around the world continue to build upon the original research. As a result, it is now common practice to place plants indoors for the purpose of improving IAQ.

We continue to gain a deeper understanding of other important ways in which plants affect our lives. Just being in close proximity to plants can ease stress, relax and speed healing of the body. Americans are afforded many avenues in which to stay close to nature through forests, parks, nature preserves, arboretums, public and



Dr. Bill Wolverton will present a program based on his new book at The Crosby Arboretum on October 23.

private gardens, municipal green spaces and both natural and designed landscapes. Gardening is the number one leisure activity in the U.S. The most obvious benefits are the production of fresh fruits and vegetables or the sheer pleasure of viewing beautiful flowering and foliage plants and the wildlife gardens can attract. Plants, for the food they provide, are essential to us humans. Pesticide-free fresh fruits and vegetables are key components to a healthy lifestyle.

Plants have always been a source of medicine. The World Health Organization estimates that up to 80 percent of the world's population relies mainly on plant-based medicines for primary healthcare. However, in the U.S. prescribed medicines are primarily synthetic formulas. Herbal medicines generally take longer to produce beneficial results, but usually exhibit far fewer side effects. Most of the earth's plant diversity is found in the rainforests. As the rainforests disappear due to human encroachment, we may never know whether species held medicinal properties. Herbs, spices and other plants can aid in the prevention or healing of diseases, whether ingested or used in the practice of aromatherapy.

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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

Plants: Why You Can't Live Without Them

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Plants are also a vital component in the preservation of our fresh water supplies. By filtering impurities from water or wastewater, they prevent pollutants from reaching our rivers, streams and lakes. Plants and microbes play a critical role in maintaining the ecosystems that make our planet inhabitable.

These are only some of the many ways plants sustain us, prove beneficial to our health, give us visual pleasures and provide the very oxygen we breathe. It is exciting to learn of the varied ways in which plants not only make our existence possible but why you can't live without them.

– **B.C. "Bill" Wolverton, Ph.D.**
Wolverton Environmental Services, Inc.

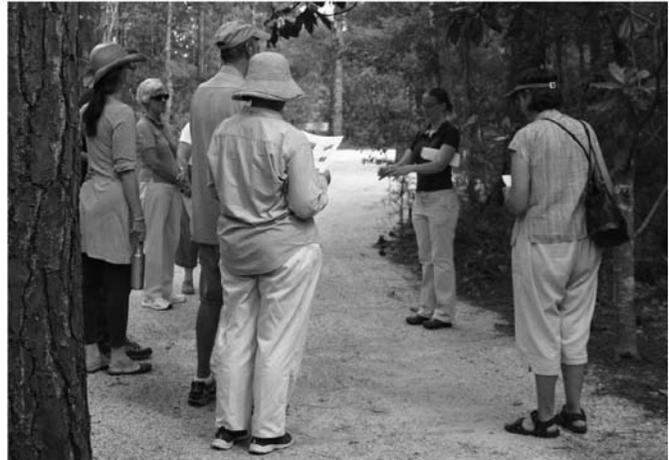


Katya Brannon, Katie Olive, and Elizabeth Olive proudly display their artwork created with Master Naturalist Mary Cordray in June's Summer Nature Camp.

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Janine Conklin conducted a June field walk that explored the uses of native plants in the landscape, part of the Arboretum's Summer Nature Series.

CONKLIN MOVES ON FROM ARBORETUM

Arboretum Director Janine R. Conklin, Ph.D., has left the Arboretum much better than she found it, having returned to Pennsylvania in July where she is settling into her new surroundings close to family. Janine brought a set of fresh eyes to The Crosby Arboretum, and constantly found ways to make the site more user-friendly and to meet visitor needs. Meticulous and creative, she conducted a research survey to determine the types of programs, activities and events that the public would be most interested in attending at the Arboretum. This research served to guide the program development for this past season's Summer Nature Series. Janine also conducted a children's nature art contest, made much-needed website improvements, redesigned the Arboretum brochure, developed numerous informational posters, including a site map which now appears on the front kiosk, and she was also the president of the Mississippi Native Plant Society. One of her greatest achievements is the securing of a grant through the Mississippi Arts Commission and the National Endowment for the Arts for a series of six musical performances to be held this fall, and in the spring of 2011. Janine will be missed in the community, as well as at the Arboretum.



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Picayune, Mississippi, USA



ART CONTEST WINNERS CHOSEN

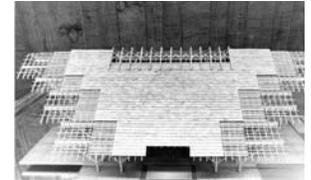
The winners of the **Crosby Arboretum Children's Art Contest** have been selected. For this June contest, children entered drawings and paintings of their favorite insect, plant, wild animal or nature scene. The winning art, and that of 18 other participants', has been displayed on the west side of the Arrival Journey kiosk. **Lucy Herron** received 1st prize for her wolf portrait, **Caleb Boston** was awarded 2nd prize for his drawing of forest animals, and 3rd prize goes to **Hannah Fritz** for her turtle painting. The artwork will remain on the kiosk display through the month of September. Thanks to all of the children who entered the contest, all of the artwork was fabulous! Art not displayed on the kiosk may be picked up in the office.

SUMMER TEACHER INTERNS DESIGN EDUCATOR BOXES

Thanks to the **Internship for Educators** program with Pearl River Community College and Hancock School District, The Crosby Arboretum benefited this summer from the skills of two talented Hancock County School District interns. Teachers **Tabitha Rumbaugh** and **Jean Cuevas** contributed a total of 160 hours helping to develop a series of teacher educator boxes for classroom use, planned for release this fall. The topics are Animal Tracks and Scat, Trees, Insects, and Nature Discovery. Teachers on our educator list will receive a notice when the boxes are ready for check-out. If you would like to join our email list for updates on items and programs of interest to teachers and homeschool educators, please contact Pat Drackett at drackett@ext.msstate.edu.



Dr. Gregory Bohach (center), new vice president for the MSU Division of Agriculture, Forestry and Veterinary Medicine became acquainted with the Arboretum's mission and plans for the new Education Building at the June board meeting. He is pictured here with Sadik Artunc, MSU Landscape Architecture Department head and Crosby Arboretum Foundation Board member, and board president Ruth Cook.



ARBORETUM PHOTO ARCHIVES

The conversion of the Arboretum's extensive collection of slides and photographs into digital form is underway. Arboretum Volunteer and Master Gardener **Tammy Mokray** has been working on this project for the past several months, thanks to a scanner donated for the project by board president **Ruth Cook**. Pictured: Fay Jones on-site in 1985, with Pinecote Pavilion model.



Tabitha Rumbaugh (left), and Jean Cuevas (right), display items included in the Animal Tracks and Scat educator box that they worked on over the summer. Photos courtesy of Jeremy Pittari, The Picayune Item.

UPDATE: GUM POND EXHIBIT

Site construction is planned to begin this fall for the new Gum Pond Exhibit, made possible by a grant from the National Fish and Wildlife Foundation's Five Star Restoration Program. On August 7, 2010, a preconstruction meeting was held at the Arboretum to discuss the excavation of this new exhibit area. Members of The Crosby Arboretum Foundation Board attended this meeting along with the Arboretum's former director and landscape architect, **Ed Blake, Jr.**, who is consulting on the project. Former Crosby Arboretum curator **Bob Brzuszek**, MSU Department of Landscape Architecture, site contractor **Daniel Broome** of Hattiesburg, and Crosby Arboretum staff members. Following the meeting, time was spent clearly delineating the pond perimeter and identifying the clumps of existing gum trees that will be left to form the hummocks within the pond. Excavation is scheduled for September and October, when the project area is anticipated to be at its driest. For those who were not able to attend the March presentation by Bob's graduate students who presented the results of their design charette, we are pleased to announce that these display boards are now available for viewing in the Visitors' Center.



Bob Brzuszek, Ed Blake, Jr., and Daniel Broome walk the Gum Pond Exhibit at a preconstruction meeting in August, in preparation for the upcoming site excavation.

PLANTS WITH FALL INTEREST

BALDUINA	<i>Balduina uniflora</i>
FALSE LIATRIS	<i>Carphephorus pseudoliatris</i>
DEER'S TONGUE	<i>Carphephorus odoratissimus</i>
TICKSEED	<i>Coreopsis</i> spp.
PERSIMMON	<i>Diospyros virginiana</i>
PIPEWORT	<i>Eriocaulon decangulare</i>
ERYNGO	<i>Eryngium integrifolium</i>
SWAMP SUNFLOWER	<i>Helianthus heterophyllus</i>
SHORT MILKWORT	<i>Polygala ramosa</i>

For photographs of these and other Arboretum plants, see our plant data base at www.crosbyarboretum.msstate.edu.

Membership Application

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

_____	Student (send student i.d.)	\$ 15.00
_____	Individual	30.00
_____	Family	40.00
_____	Donor	100.00
_____	Patron	250.00*
_____	Benefactor	1,000.00
_____	Business	
_____	Sweetgum	100.00
_____	Sassafras	250.00
_____	Live Oak	500.00
_____	Bigleaf Magnolia	1,000.00

Name _____

Address _____

City _____

State _____ Zip _____

Renewing? Memberships are for one year.

The Crosby Arboretum
Mississippi State University
P.O. Box 1639
Picayune, MS 39466-1639
(601) 799-2311

Crosby Arboretum Program Schedule

September - October 2010

CROSBY ARBORETUM 2010-2011 MUSIC SERIES

The Crosby Arboretum is pleased to announce an upcoming six-part music series of bluegrass, country, blues, and jazz performers, to be held in the beautiful outdoor setting of Pinecote Pavilion. The series is funded in part by the Mississippi Arts Commission, a state agency, and the National Endowment for the Arts, a federal agency. One band will perform each month in the fall of 2010 and the spring of 2011, and each concert will be tied to a special event or related educational program. Members price is \$5 per performance, and \$3 for members' children; \$10 for non-members, and \$6 for non-members' children. Season tickets are available (see flyer insert to this *News Journal*), with a member ticket price of \$25, and \$15 for members' children; non-members, adult ticket price is \$50, and non-members' children \$30.

FALL 2010 PERFORMANCES:

- Sept. 11** 1:00 p.m. **Jesse Robinson & Band**, blues & jazz music
- Oct. 9** 1:00 p.m. **Latongya Garner & Band**, jazz, blues, & soul music (During Fall Plant Sale)
- Nov. 13** 1:00 p.m. **Hazel & the Delta Ramblers**, bluegrass music (During the Piney Woods Heritage Festival)

AQUATIC WILD TEACHERS' WORKSHOP

**Saturday, September 4
9:00 a.m. to 3:00 p.m.**

Join us for a workshop emphasizing aquatic wildlife and aquatic ecosystems, conducted by **Crystie Baker**, Mississippi Museum of Natural Science Educational Outreach Biologist. Prepare for a "working lunch" (bring a brown bag lunch). Participants will receive a Project WILD Aquatic book. Open to both teachers and homeschool educators, registration is \$15 and CEU's are available. To sign up, call the Arboretum office at 601-799-2311 or contact Patricia Drackett at drackett@ext.msstate.edu.

THE HISTORY OF BLUES AND JAZZ

Saturday, September 11

10:00 to 11:00 a.m.

Join **Mik Davis**, Hattiesburg music aficionado, for an informative overview of the birth of jazz and blues in the South, from early blues pioneers that grew the style from African-American spiritual music and work songs, to the eclectic New Orleans music mix that became known as jazz, Members free; non-members \$5. Register by September 10.

BUGFEST

(Family Event)

Friday, Sept. 17, 10:00 a.m. to 10:00 p.m.

Saturday, Sept. 18, 10:00 a.m. to 5:00 p.m.

Bring the family for a two-day extravaganza of buggy events! Friday from 10 a.m. to 2 p.m., the Arboretum is open to insect collecting for pre-registered school groups, and from 2 to 6 p.m. for collecting on your own. An insect i.d. and mounting station will be open both days on Pinecote Pavilion. At 6 to 8 p.m. Friday, children will enjoy crafts and games at the Buggy Midway! At dusk, night collecting activities will begin, using lighted sheets to draw insects. **Bring a flashlight or headlamp!** Saturday morning at 10 a.m. to noon, enjoy collecting, Midway activities, and a demonstration by **Zack Lemann**, the **New Orleans Insectarium's "bug chef."** At 1 and 2 p.m. the Insectarium's **BUGMOBILE** will present. Adults \$5, children \$2, except Friday school groups (no charge for chaperons).

INTRODUCTION TO BIRD WATCHING

Saturday, September 25 (Kids/Adults)

10:00 to 11:00 a.m.

Ever wonder why birding is fast-becoming the most popular sport in America? It's not just sitting and watching birds, it's also about exploring the variety of habitats in which they are found! **Susan Epps**, avid birder and writer, will give an overview of the fun aspects of birding, including feeding and identification tips. Learn about our resident birds and migrants visiting this fall, books, equipment, materials, and other birding resources. Suited to ages 7 and up. Members free; non-members \$5. Register by September 24.

VOLUNTEER MEETINGS

Regular volunteer meetings will resume **Saturday, September 4 at 9:00 a.m.**, and are held on the first Saturday of each month. Many exciting volunteer opportunities are available at the Crosby Arboretum! Contact Volunteer Coordinator **Robin Veerkamp**, (601)799-2311, Ext. 104.

Crosby Arboretum Program Schedule

October - November 2010

GOING BATTY!

(Kids)

**Saturday, October 2
10:00 to 11:00 a.m.**

Play a game of Bat and Moth, create a Batty Bat Book, and munch on a Bat Snack as you discover the role of bats in South Mississippi with Master Naturalist **Mary Cordray**. Children must be accompanied by a parent or guardian. All materials provided. Members' children \$2; non-members' children \$4. Register by October 1.

FALL PLANT SALE:

**Saturday/Sunday, October 9 & 10
10:00 a.m. to 3:00 p.m.**

Members Admitted at 9:00 a.m. Saturday

Grab a cart and choose from a variety of wonderful native trees and shrubs for your home landscape, and come early for the best selection of many hard-to-find plants. We'll help you select the right plant for the right place on your property. **Free admission.** Arboretum greenhouse.

PLANTS: WHY YOU CAN'T LIVE WITHOUT THEM

(Adults)

**Saturday, October 23
10:00 to 11:00 a.m.**

Come explore all the ways why you can't live without plants! Retired NASA scientist **Dr. Bill Wolverton** of Wolverton Environmental Services, Inc. will guide you through the many ways plants contribute to human health and well-being: providing us with fresh air, filtering our water; producing food, essential nutrients and medicines, and giving us visual pleasure. His new book will be available at the program. Free to members and \$5 for non-members. Register by October 22.

Reservations: Call the Arboretum office at (601) 799-2311, to confirm all events and to make program reservations, as seating is limited. Programs are subject to change.

Physical Address: 370 Ridge Road, Picayune, MS 39466

Mailing Address: P.O. Box 1639, Picayune, MS 39466

E-mail Contact: drackett@ext.msstate.edu

Hours of Operation: Wednesday-Sunday, 9:00 a.m.-5:00 p.m.

2010 Admission Fees: Adults, \$5; Seniors (over 55), \$4; Children under 12, \$2; Members, free admission to grounds and programs.

Webpage: www.crosbyarboretum.msstate.edu. Lists programs and events, volunteer opportunities, Arboretum and Natural Area information, and news updates.

FALL FIELD WALK

(Family)

**Saturday, October 23
1:00 to 2:00 p.m.**

Walk the Arboretum paths with Senior Curator **Pat Drackett**. Learn to identify plants along the way, as well as their stories, and discover some great plants for use in the home landscape. Free to members and \$5 for non-members. Register by October 22.

ANIMAL TRACKING

(Kids)

**Saturday, October 30
1:00 to 2:00 p.m.**

Learn to read animal tracks, and how to use a track identifier key with an outreach educator from the **U.S. Fish and Wildlife's Southeast Louisiana Refuges Complex**. Identify wildlife tracks from a "story sheet" and interpret clues that animals have left behind. Members' children free; non-members' children \$2. Register by October 29.

GO CAMO!

(Kids)

**Saturday, November 6
10:00 to 11:00 a.m.**

Disguise yourself as a camouflaged insect and join in a camouflage hunt! Learn how camouflage aids animals in finding food and avoiding predators in this workshop led by Master Naturalist **Mary Cordray**. Children to be accompanied by a parent or guardian. All materials will be provided. Members' children \$2; non-members' children \$4. Please register by November 5.

PINEY WOODS HERITAGE FESTIVAL

**Friday, Nov. 12, 10 a.m.-2 p.m. (Schools)
Saturday, Nov. 13**

10:00 a.m. to 4:00 p.m. (Family)

Celebrate the early days of the Piney Woods in this seventh annual festival with exhibits and demonstrations of traditional skills such as blacksmithing, quilting, spinning, basket-making, and more. Friday open to preregistered school groups, \$2 per child; free to teachers/chaperones, and bus drivers. Saturday admission adults \$5, children \$2.

ENDANGERED WILDLIFE

(Adult/Family)

**Saturday, November 20
1:00 a.m. to 2:00 a.m.**

The U.S. Fish and Wildlife Service administers the Endangered Species Act. Join an Education Outreach Specialist with the **U.S. Fish and Wildlife's Southeast Louisiana Refuges Complex**, to explore regional as well as internationally endangered species, and what the U.S. Fish and Wildlife Service is doing to improve their populations and habitats. Members free, non-members. Register by November 19.