



PROMOTING, PRESERVING, AND PROTECTING MISSISSIPPI'S NATURAL LANDSCAPE AND ITS INHABITANTS



MISSISSIPPI  
Museum of  
Natural  
Science

FOUNDATION

MISSISSIPPI MUSEUM OF NATURAL SCIENCE FOUNDATION ANNUAL REPORT 2010-2011



## AT A GLANCE

# 130,472

visitors hosted at Museum

# 48,606

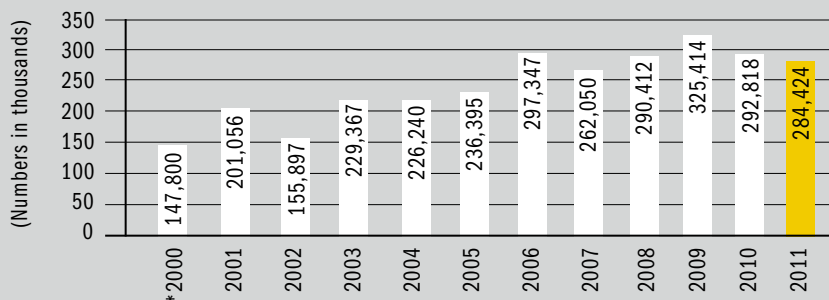
people used object kits, information, and materials

# + 105,346

Mississippians served in statewide outreach

# = 284,424

people served through Museum services



\*Records for the Museum at our LeFleur's Bluff State Park location began in Spring of 2000.

As we head into 2012 the Mississippi Museum of Natural Science has a lot to be thankful for. Because of our generous sponsors and despite the poor economic climate, we have been able to bring in popular new exhibits to help educate and entertain Mississippians and visitors alike. With the assistance of federal funds and bonds issued by the Mississippi Legislature, we were able to complete a new 19,000 square foot building annex for research which will house our wet lab and the million specimens we maintain on site. The new state of the art genetics lab will help scientists complete their research. Moving the specimens out of our main building will allow expansion of our collections.



More than 130,000 visitors experienced three exciting special exhibits, *Megalodon: Largest Shark that Ever Lived*, *Amazing Butterflies*, and *Frogs! Beyond Green*.

The latter two exhibits are a first for the Museum; both featured live creatures that needed daily hands-on care.

Our education staff has been busy with Growing Up WILD, Project WET and Project WILD teacher workshops. We have been designated as a national demonstration site for a new initiative to teach young children about nature and to encourage outdoor play. It's a truly exciting concept that should unfold on the Museum grounds over the next two years.

During the year, the staff had several notable accomplishments, including the group effort to complete a rigorous self-study for the American Association of Museums. The work paid off and the Museum has been re-accredited by the American Association of Museums. This means we meet the National Standards and Best Practices for U.S. Museums. We have shown ourselves to be a good steward of our resources held in the public trust and are committed to a philosophy of continual institutional growth. The staff had worked for over a year on the accreditation process and it reinforces our commitment to promote understanding and appreciation of Mississippi's biological diversity through collections, research, scientific databases, education, and exhibits; and to inspire the people of our state to respect the environment and to preserve natural Mississippi.

Our staff continues to perform above and beyond all expectations. They are a treasure.

Our volunteers can always be counted on to fill in wherever needed. They greet visitors, prepare botanical specimens, catalogue, teach, dive, reconstruct skeletons, cook hamburgers, conduct day camps and feed frogs. We would be lost without them.

The Museum continues to strive to not only be a serious scientific research facility and educational center but a fun place to visit. The Foundation exists to further these goals. Thank you for being a part of it. Please come by soon and visit.

Christine Zachow  
MMNS FOUNDATION PRESIDENT

Libby Hartfield  
MMNS DIRECTOR

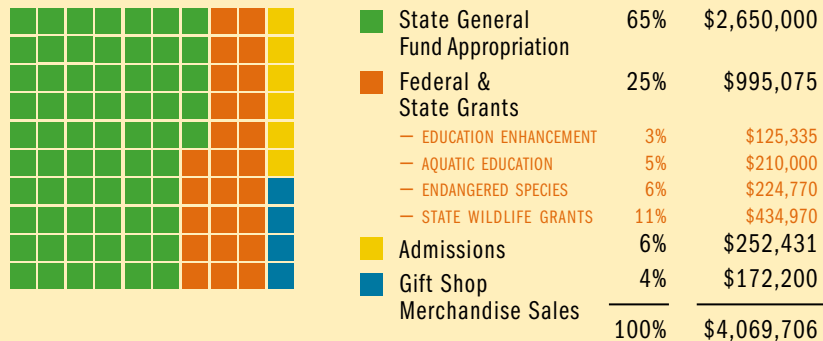
# MUSEUM FUNDING AND EXPENDITURES

The charts below illustrate the Museum's state and federal funding, revenue from admissions and gift shop sales, and operating expenditures.

**In addition to the data reported on the charts below, the Museum received and expended building funds of \$847,725 from NOAA for the expansion of the Museum's laboratories and collections area.**

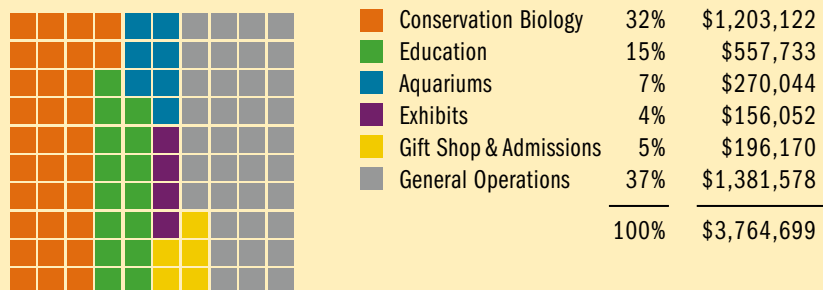
## FUNDING BY SOURCE

July 1, 2010 - June 30, 2011



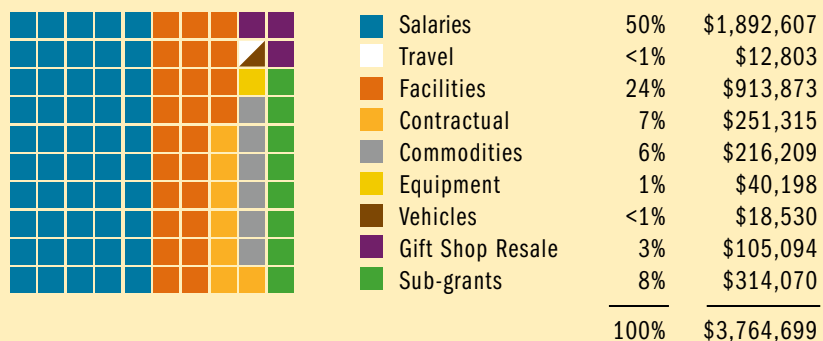
## EXPENDITURES BY SECTIONS

July 1, 2010 - June 30, 2011



## EXPENDITURES BY BUDGET CATEGORIES

July 1, 2010 - June 30, 2011



The mission of the Mississippi Museum of Natural Science is to promote understanding and appreciation of Mississippi's biological diversity through collections, research, scientific databases, education, and exhibits and to inspire the people of our state to respect the environment and to preserve natural Mississippi.

The Mississippi Museum of Natural Science Foundation is a not-for-profit 501(c)(3) organization dedicated exclusively to improving the Mississippi Museum of Natural Science (MMNS). This goal is primarily accomplished by providing and encouraging funding for the Museum from a variety of public and private sources. Private funding may come in many forms, including tax-deductible dollar donations, as well as the energy and expertise donated by laypeople and professionals.



Museum supporters at *Amazing Butterflies* exhibit opening

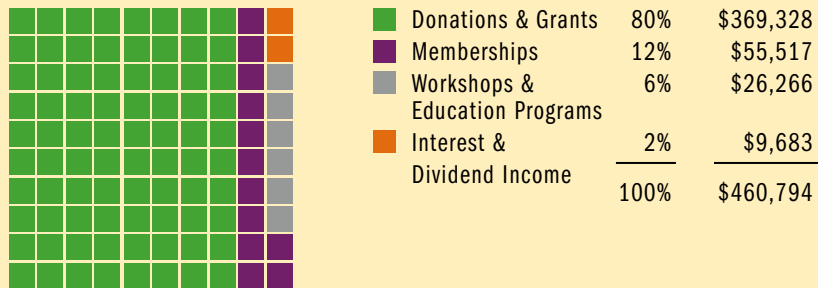
Without the Foundation and its dedicated leaders, volunteers and membership, the Mississippi Museum of Natural Science as we know it today would not be possible. Whether through inspiring financial support for the Museum's extraordinary exhibits, recruiting manpower for the Museum's activities and research projects, or accomplishing any number of other fundraising and volunteer functions, the symbiosis between the Museum and the Foundation represents the strongest of natural relationships.



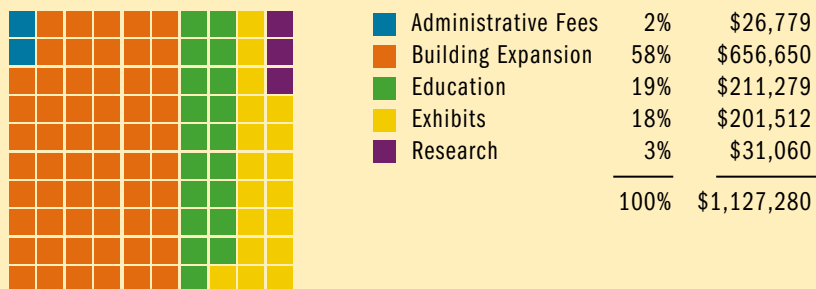
## FOUNDATION REVENUE AND EXPENDITURES

These charts illustrate the private donations and grants received by the MMNS Foundation and the expenditures made with the funds.

### MMNS FOUNDATION REVENUE January - December, 2010



### MMNS FOUNDATION EXPENDITURES January - December, 2010



## FOUNDATION LEADERSHIP

These dedicated volunteer leaders give the Museum their time and expert advice in the areas of site development, planning, exhibits, education and fundraising.

### OFFICERS

Chris Zachow  
PRESIDENT  
Alex Alston, Jr.  
VICE PRESIDENT  
Janice Larson  
SECRETARY/TREASURER

### BOARD OF DIRECTORS

George Allen	Sean Wesley Ellis	Avery Rollins
Alex Alston, Jr.	Dick Hall	Ollye Brown Shirley
Paul Benton	Libby Hartfield	Sheila Smith
Betsy Creekmore	Matt Holleman III	Phillip Street
Opal Dakin	Janice Larson	Chris Zachow
Marianne Dempsey	Ashley Parker	
Halla Jo Ellis	Alice Perry	



## STEADFAST SUPPORTERS

Steadfast supporters are donors who have contributed to the Foundation with years of funding through a variety of projects and interests.

### ACCOMPLISHMENTS FOR FY 2010-2011

- ▣ **\$460,794** donations this year to all projects
- ▣ **\$4,140,838** total donations to date over **10** years

#### \$100,000 - \$200,000

Abe Rotwein Family  
The Chisholm Foundation  
Regions Bank  
Deposit Guaranty/AmSouth Foundation  
Ergon

Bryant Mather  
Mississippi Museum  
of Natural Science Foundation  
U.S. Fish and Wildlife Service  
The Bower Foundation

#### \$50,000 - \$100,000

BellSouth  
Magalen O. Bryant & Tara  
Wildlife Management  
Community Foundation  
of Greater Jackson  
Chevron  
Entergy  
Environmental Protection Agency  
Friede Goldman  
Gannett Foundation/*The Clarion-Ledger*  
Institute of Museum and Library Services

Gertrude C. Ford Foundation  
Phil Hardin Foundation  
Mr. & Mrs. Dudley Hughes  
Irby Companies  
Richard McRae, Jr., Family  
Mississippi Chemical Corporation  
Mississippi Farm Bureau Federation  
National Fish and Wildlife Foundation/  
Shell Marine Habitat Program  
Dr. & Mrs. Steve Zachow

#### \$25,000 - \$50,000

Blue Cross & Blue Shield of Mississippi  
Bureau of Land Management  
Delta and Pine Land Company  
Feild Cooperative Association, Inc.  
Foundation for the Mid South  
Georgia-Pacific Corporation  
International Paper Foundation  
Jackson Convention & Visitors Bureau  
Merrill Lynch  
MS Department of Environmental Quality  
Mississippi Power Company  
Mississippi Valley Gas Company  
Molpus Woodlands Group

Paul T. Benton  
Plum Creek Foundation  
Pruet Companies  
Rock River Foundation  
Sanderson Farms  
Trustmark National Bank  
U.S. Department of Transportation  
U.S. Forest Service  
Mr. & Mrs. William J. Van Devender  
The Walker Foundation  
Dr. & Mrs. Julian Wiener  
Weyerhaeuser Company Foundation  
Yazoo Mississippi Delta Levee Board

#### \$10,000 - \$25,000

The Armstrong Foundation  
AT&T  
BancorpSouth Foundation  
Betsy & Wade Creekmore  
Cellular South Foundation  
Howard Industries, Inc.  
Institute of Museum and Library Services  
Mississippi Arts Commission  
Mississippi Forestry Association

Mississippi Forestry Foundation  
National Geographic  
Society Education Foundation  
Nissan of North America, Inc.  
Soterra LLC  
Sprint PCS/US Unwired  
St. Dominic Health Services  
The Straddlefork Foundation  
Wild Turkey Federation



## EXHIBIT SPONSORS

Exhibit sponsors are donors who have given money to enable our Museum to host special exhibits. It takes funding and commitment to secure traveling exhibits that will relate to our educational mission and attract public attention. Museum staff work diligently for months in advance to prepare for, install, and promote visiting exhibits. This year's lineup included the contract coordination and display of three nationally acclaimed exhibits.

### SPECIAL EXHIBITS/VISITORS FOR FY 2010-2011

- MEGALODON: LARGEST SHARK THAT EVER LIVED  
**67,498** visitors, July 1, 2010 - January 9, 2011  
**85,574** total visitors  
 exhibit duration June 4, 2010 - January 9, 2011
- AMAZING BUTTERFLIES  
**38,977** visitors, February 4, 2011 - May 8, 2011
- FROGS! BEYOND GREEN  
**10,017** visitors, June 6, 2011 - June 30, 2011  
 exhibit duration June 6, 2011 - January 9, 2012



### MEGALODON: LARGEST SHARK THAT EVER LIVED

MMNS Foundation  
 Gertrude C. Ford Foundation  
 Institute of Museum and Library Services  
*The Clarion-Ledger*  
 Walker Foundation  
 Anonymous

Nissan  
 Regions Bank  
 Dr. & Mrs. Steve Zachow  
 MS Power Company  
 Mr. & Mrs. Dudley Hughes

### AMAZING BUTTERFLIES



Institute of Museum & Library Services  
 Anonymous  
*The Clarion-Ledger*  
 Paul Benton  
 The Chisholm Foundation  
 Jackson Convention & Visitors Bureau  
 Sanderson Farms  
 Trustmark Bank  
 Chris & Steve Zachow  
 Feild Corporation  
 Emme Wells  
 Jennie McIntosh  
 Ollye B. Shirley

### FROGS! BEYOND GREEN



Institute of Museum & Library Services  
 Gertrude C. Ford Foundation  
 Janet and Luther Ott Charitable Fund  
 of the Community Foundation of  
 Greater Jackson  
 The Walker Foundation  
 Nissan  
 Regions Bank  
 Chris & Steve Zachow



## GENEROUS GIFTS

Donations and gifts to the Museum come in all shapes, sizes, and purposes. It is gifts like these that make very special collections, undertakings and commemorations possible.



Dr. Ted Alexander (Lower Pearl River Foundation) providing support for Outreach Education

### EDUCATION OUTREACH INITIATIVES SPONSORS

Entergy  
 Institution of Higher Learning  
 Lower Pearl River Valley Foundation  
 Phil Hardin Foundation  
 Rock River Foundation  
 The Bower Foundation  
 Yazoo Mississippi Delta Levee Board

### MAKE A SPLASH SPONSOR

MS Department of Environmental Quality  
 BOY SCOUT AND  
 GIRL SCOUT PROGRAMS  
 AmSouth Foundation/Regions Bank

### PHOTOGRAPHIC SERVICES

James Patterson (JP)



Peyton Dougherty, Katie Walker, Gloria Walker, Libby Hartfield, Chris Zachow at Frogs! Beyond Green exhibit opening

## FOUNDATION MEMBERSHIP

MMNS Foundation membership is more than 1,600 strong and provides vital energy and resources for Museum activities.

MEMBERSHIP NUMBERS FOR FY 2010-2011

▣ **460** new members welcomed ▣ **1,697** total members

### LIFE MEMBERS

Jan A. Allinder  
 Alex Alston, Jr.  
 John E. Ashcraft, Jr.  
 Sam Beibers  
 Katie Briggs  
 Polly Briggs  
 Magalen O. Bryant  
 Kevin Caldwell  
 Mr. & Mrs. Bill Cook  
 Dr. Opal H. Dakin  
 Marianne & Jack Dempsey  
 Theo Dinkins  
 Halla Jo Ellis  
 Sean Wesley Ellis  
 Billie M. Ellison  
 Sylvia Ann Finman  
 Mr. & Mrs. Wesley Goings  
 Mr. & Mrs. Chris Hall  
 Mr. & Mrs. Richard Harding  
 Emily Hartfield  
 Paul & Libby Hartfield  
 Matthew Holleman, III  
 Michael & Janice LeBlanc  
 William L. Lee  
 Jennie McIntosh  
 Mr. & Mrs. David McMillin  
 John Palmer  
 Jackie & Avery Rollins  
 Dr. Suzanne Rotwein  
 Rosalie Rotwein  
 Alice Scruggs  
 Dr. James E. Stary  
 Carol Taff  
 Richard Vavrick  
 Ellan Vavrick  
 Robert M. &  
 Janet M. Whitehead  
 William Roberts Wilson, Jr.  
 Dr. & Mrs. Steve Zachow

### SUSTAINING MEMBERS

(\$1,000 OR MORE)  
 Betsy & Wade Creekmore  
 Hiram &  
 Elizabeth Creekmore  
 Mr. & Mrs.  
 Christopher Gedemer  
 Renee Lichtenhan  
 Mississippi Power  
 Foundation, Inc.  
 MS Power Company  
 Foundation  
 Mr. & Mrs. David Patterson  
 Lottie Smith  
 Lance & Beth Stevens  
 The Ohrstrom Foundation  
 Karen Whitworth

### PATRON MEMBERS

(\$500 OR MORE)  
 Joseph N. Goodell  
 Charlotte Icardi  
 Hap & Hilda Owen  
 Michelle P. Pharr  
 Dr. Ollye B. Shirley  
 William B. Stripling Jr.  
 Beth Taylor  
 Gloria Walker  
 Adair Williams

### DONOR MEMBERS

(\$250 OR MORE)  
 Frederick & Marian Anklam  
 Steven & Erin Chevalier  
 Sidney & Holt Crews  
 Louisa Dixon  
 James P. Grissom  
 Mr. & Mrs. Chris Hall  
 Dick Hall  
 Mr. & Mrs. Alan Lange  
 Dr. Timothy McCowan &  
 Dr. Nancye McCowan  
 Sidney & Gloria Montgomery  
 Don & Becky Potts  
 Stacy Ross  
 Dan & Kristi Smith  
 Granville & Sue Allen Tate  
 Mr. & Mrs. Chris Travis  
 David & Susan Watkins  
 Kathryn L. Wiener

### FRIEND MEMBERS

(\$100 OR MORE)  
 Ruth & Murphy Adkins  
 George A. Allen  
 Mrs. W. W. Aydelott  
 Gerald & Elizabeth Barber  
 Craig & April Blackwell  
 Liz Brandon  
 Mr. & Mrs.  
 Charles Brasfeld Jr.  
 Mr. & Mrs. Ramon Callahan  
 Mr. & Mrs. Buford Clark  
 Elaine Crystal  
 Kane & Betty Ditto  
 Dr. Edgar Draper  
 Edie Dunn  
 Terry Dwyer  
 Jane & Ed Emling  
 Larry & Rhea Estes  
 Dees R. Faucett  
 Sara Fore  
 John & Ann Fournet  
 Donna R. Godwin  
 Mr. & Mrs. Jack Harding  
 Clyde & Barbara Hare

### FRIEND MEMBERS

(\$100 OR MORE) CONTINUED  
 Alice Harper  
 Homa Hill  
 LoRose Hunter  
 Mrs. Norman A. Johnson Jr.  
 Joan M. Kaye  
 Ernest A. Klatt Jr.  
 Penny Kochtitzky  
 Peter & Carolee Kuchirka  
 Dr. & Mrs. T. W. Lewis III  
 Jerry L. Litton  
 Mary G. Lockhart  
 Mr. C.B. Carroll &  
 Ms. Jeanne Lockett  
 Mr. & Mrs. Chester O. Martin  
 Verneda Mason  
 John Maxey  
 Mr. & Mrs. Glade McInnis  
 Don & Mary Mitchell  
 David & Jill Morgan  
 Jeanette Morgan  
 Maurice Murray  
 Bill Osborne  
 Ashley & Wheeler Parker  
 Chat H. Phillips II  
 Tom & Ruth Pullen  
 Joy Rhoads  
 John L. Rings  
 Mr. & Mrs.  
 E. Barney Robinson III  
 Dr. Lewis F. Rogers  
 Mr. & Mrs. Russell Rooks  
 Arthur Salomon  
 Mike Schmidt  
 Ray & Dardanella Shenefelt  
 Rickey & Ruth Shields  
 Mr. & Mrs. Jim Sledge  
 Margie L. Smith  
 Dr. & Mrs. J. George Smith  
 Kristie & Steven Speights  
 Mr. & Mrs. James E. Starnes  
 Ed Swiatlo  
 Stephen L. Thomas  
 Dr. Aaron Trubman  
 Marilyn & George Vockroth  
 Mildred & Stennis Wells  
 Charles & Sandra West  
 Don & Patsy West  
 Dr. & Mrs.  
 Christopher Wiggs  
 Beth & Fred Wilson  
 Dr. & Mrs. Frank Wiygul Jr.  
 Dr. & Mrs. John D. Wofford  
 Steve Zary

## VOLUNTEER SERVICES

Volunteers are an essential part of the Museum's workforce.

Volunteering at the Museum is an opportunity for teens, college students, professionals, and retirees to interact, share, learn, teach, and serve in a stimulating environment.

The Museum's volunteer program provides many enrichment opportunities on-site through training led by our own education and research staff, as well as guest speakers. Museum-sponsored travel to natural areas around Mississippi gives volunteers first-hand awareness of the species and habitats we continually work to preserve and protect.

Exploring the Museum trail system emphasizes a deeper awareness of the relationship between our indoor exhibits and the natural environment of Lefleur's Bluff State Park. Through the "Hike and Learn" seasonal weekly staff-guided hikes, volunteers are gaining understanding of the Museum's work as a whole.

The rich variety of the volunteers' own natural science knowledge and past experience creates a dynamic atmosphere of on-going learning within the



Volunteer Clyde Hare mans the touch tank

volunteer program. That knowledge, energy and enthusiasm is delivered directly to our visitors. The Museum's 158 current active adult and youth volunteers daily inspire visitors to appreciate, respect, and preserve natural Mississippi.

VOLUNTEER SERVICE FOR FY 2010-2011

- ▣ more than **8,467** hours of service – a dollar value of **\$180,347**
- ▣ more than **158** active volunteers on our rolls ranging in age from **13 - 80**
- ▣ **Outdoor Projects:**  
 Eagle Scouts completed projects enhancing habitat on Museum grounds and improving the water conservation-themed outdoor maze; trail repairs and improvements, introduced species removal, gardening, and trash pick-up
- ▣ **Museum Services:**  
 Including greeting visitors, assistance in gift shop, exhibits interpretation and maintenance, informal programs, assistance with events, research, collections, library services and special projects, general office functions, and aquarium diving for public fish feeding and cleaning.
- ▣ **17** volunteers have each devoted more than **1,000** hours (see list below). **2** volunteers, Joy Rushing and John Davis, have each devoted more than **3,000** hours.

### MORE THAN 1000 HOURS OF VOLUNTEER SERVICE

Martha Boone Cooper  
 John D. Davis  
 Judith T. Davis  
 Marianne L. Dempsey  
 Halla Jo Ellis  
 Billie Ellison

Gladys Gurman  
 Jean Headrick  
 Roseanne Horn  
 Peter Kuchirka  
 Jim Leonard  
 Mary Bea McArdle

Mike McNeese  
 Lou F. Moore  
 Joy Rushing  
 Michael A. Stegall  
 John Suedel



JP

PERMANENT EXHIBITS · SPECIAL TEMPORARY EXHIBITS · NATURE TRAILS · AQUARIUMS · THE SWAMP



2011 Photo Contest  
Second Place Wildlife Category Winner  
Bill Lushbaugh  
"Two-headed Snake"

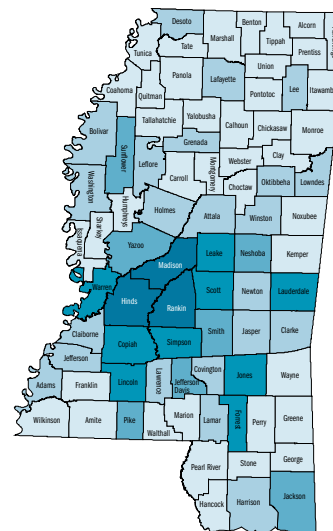
NATIVE PLANT GARDEN · OPEN-AIR AMPHITHEATER · LIFE SIZE DISPLAYS · OUTDOOR MAZE · FOSSILS



Offering something for everyone, the Mississippi Museum of Natural Science hosted within its doors 130,472 visitors from all 82 Mississippi counties, all 50 states, and 40 foreign countries this year.

With more than 30,000 square feet of display space, 100,000 gallons of aquatic attractions, and over two miles of flora and fauna-filled walking trails, these masterpieces of science, education, and entertainment are enough to keep people coming back to the Museum all year and every year.

- ▣ **130,472** visitors hosted at the Museum
- ▣ Best Museum for Kids Award—*Jackson's Parents & Kids Magazine 2011 Family Favorite*
- ▣ Best Museum—*Jackson Free Press Best of Jackson 2011*
- ▣ Recognized as an AAA Southern Travel Treasure
- ▣ Best Attraction for Kids—*Mississippi Magazine*
- ▣ Angel Rohnke, Education Coordinator, named Mississippi Science Teachers Association's Outstanding Informal Educator
- ▣ Joan Elder, Preschool Coordinator, named Mississippi's Project WILD Facilitator of the Year
- ▣ Reached **20,000** listeners per week through *Creature Comforts*, a call-in radio show about Mississippi's critters on MPB Thursdays at 9:00am with Museum Director Libby Hartfield and guests



#### NUMBER OF MUSEUM VISITORS

- 1 - 250
- 251 - 500
- 501 - 1,000
- 1,001 - 5,000
- 5,001 - 62,202

Out-of-State Visitors:  
8,262 from 49 states  
342 from 40 foreign countries



## PERMANENT AND CHANGING EXHIBITS

Much of the Museum's public appeal comes from its collection of carefully crafted permanent exhibits within the Museum walls and throughout its grounds at LeFleur's Bluff State Park. These installations give the Museum's educational mission substance and give the public something they can see, hear, touch and explore.



### AQUARIUM HIGHLIGHTS FOR FY 2010-2011

- Aquarium staff maintained more than **300** different species of aquatic animals and managed the live butterfly exhibit in the Terrarium
- Staff and volunteers performed more than **150** SCUBA diver fish feedings and visitor touch tank live animal demonstrations
- Renovated, re-plumbed and restocked the Mississippi Sound Aquarium
- Changed aquascaping and collected fish statewide for **6** Museum aquariums
- Conducted **10** "behind the scenes" aquarium tours for college and veterinary classes
- Aquarium staff participated in "Make a Splash" activities
- More than **485** visitors learned about Mississippi snakes on Snake Day 2010
- **150** participants enjoyed Got FISH? seminars
- More than **600** Katfishin' Kids enjoyed an educational event and fishing rodeo
- Assisted Tunica River Park during spring flooding event and trained new aquarium personnel; Worked with various federal and state aquariums, agencies, and fish hatcheries
- Trained **8** new Museum volunteer divers
- Assisted in Museum events by organizing divers and setting-up touch tank
- Mentored **4** local shadow students interested in Marine Biology and **3** college interns who worked in the aquariums weekly

### EXHIBIT HIGHLIGHTS FOR FY 2010-2011

- Designed new Museum fence line signage for the entrance to the park and contracted the fabrication and installation
- Completed major extensive cleaning of the following exhibits: Turtles, Snakes, Trees, Extinct Species, Endangered Species, Wildlife Management, Deer Octagon, Waterfowl Octagon, all suspended specimens, and all potted artificial plants
- Redesigned Invasive Species Exhibit: rearranged specimens, added new specimens, and added natural coloration to specimens
- Refurbished all laminate around the dioramas and aquariums
- Exhibit staff served on the following committees for the advancement of the Museum: Technology Initiative, Accreditation, and Natural Playground
- Began planning for new permanent exhibits and for the installation of new bear, alligator and alligator gar specimens
- The Museum hosted and installed the following special exhibits:
  - *Megalodon: Largest Shark that Ever Lived* from the Florida Museum of Natural History
  - *Amazing Butterflies* from Minotaur Mazes
  - *Frogs! Beyond Green* from the Audubon Nature Institute
  - *Back to Nature Annual Photography Contest*, produced by Museum staff
  - *A Look Back*, Original Paintings from Mississippi's Past Waterfowl Stamps, produced by Museum staff



2011 Photo Contest Best of Show Winner – Heather Day "Bee on Golden Rod"

### TRAIL HIGHLIGHTS FOR FY 2010-2011

- The Boy Scouts of the Andrew Jackson Area Council continue to solve trail problems with their Eagle Scout projects and have completed the following Eagle projects in FY 2011.
  - Jimmy Swenson: retaining wall on lower blue trail beside swamp
  - Angus Harper: edged and filled-in rubber chips in the The A-MAZE-ING Water Journey maze





## SPECIAL EXHIBITS

Thanks to our generous sponsors, the Museum is able to share special traveling exhibits three times a year for entertainment and educational purposes.

### MEGALODON: LARGEST SHARK THAT EVER LIVED

(67,498 visitors, July 1, 2010 – January 9, 2011)

(85,574 total visitors, exhibit duration June 4, 2010 – January 9, 2011)



*Megalodon: Largest Shark that Ever Lived* cruised into Jackson on June 5, 2010. The 60-foot, 2-million-year-old Megalodon looms life-size in this mega-exhibit of modern and fossil sharks, recently named a “AAA Southern Travel Treasure”!

Megalodon, the biggest prehistoric shark of all time, cruised all the world’s oceans more than two million years ago. This traveling exhibit highlights the evolution, biology and misconceptions of Megalodon. Related to the modern great white and mako sharks, Megalodon was a dominant marine predator for 15 million years before vanishing 2 million years ago. *Megalodon* was produced by the Florida Museum of Natural History with support from the National Science Foundation.

- AAA Southern Travel Treasure Award (for the *Megalodon: Largest Shark that Ever Lived* exhibit)–The American Automobile Association

### AMAZING BUTTERFLIES

(38,977 visitors, February 4, 2011 – May 8, 2011)



*Amazing Butterflies* transformed visitors into caterpillars as they journeyed through one of the planet’s most amazing life cycles. This exhibit featured a giant indoor maze, caterpillar tunnel and live butterflies. Nearly 40,000 visitors experienced the challenges of being a caterpillar as it morphs into a beautiful butterfly through a hands-on human maze of larger-than-life leaves, grass and trees. Along the way, they discovered the ways caterpillars move, what they eat and how other creatures help them achieve their transformation. This exhibit provided a fun, interactive experience for families to learn about this amazing relationship. *Amazing Butterflies* was created by the Natural History Museum in London in collaboration with Minotaur Mazes.

### FROGS! BEYOND GREEN

(10,017 visitors, June 6, 2011 – June 30, 2011)

(exhibit duration June 6, 2011 – January 9, 2012)

In this exhibit, the Mississippi Museum of Natural Science is offering visitors a rare opportunity to see 25 different species of live frogs and toads from all around the world. Visitors get an up-close look at frogs and toads housed in replications of their natural habitats from Asia, Australia, and South America. This exhibit offers visitors the chance to view frog life from around and on a tree, in a pond, and at night in three different parts of the world. Interactive stations incorporate the impact that frogs have had on our popular culture and mythology. Listen to frogs “talk,” learn life cycle lingo, and meet famous frogs from the past to the present. From the tiny poison dart frogs (also known as the “jewels of the Amazon”), to the giant Surinam toad, visitors are invited to come discover how “toadally” important, interesting, and fun this interactive exploration of all things frog can be! *FROGS! Beyond Green* was created by the Audubon Nature Institute.





HANDS-ON PROGRAMS · RESOURCES · TEACHER WORKSHOPS · LECTURES · OUTREACH · ANNUAL EVENTS



FIELD TRIPS · PRESCHOOL ROOM · KIDS CLUB · CREATURE FEATURES · SCOUT PROGRAM · EDUCATION



The Mississippi Museum of Natural Science creates hands-on programs and activities every year—all centered on the Museum’s mission and the Mississippi Department of Education Frameworks. The demand for conservation education and outdoor educational experiences is increasing. School systems’ curriculums are focusing on hands-on, inquiry-based learning in the classroom. The Museum offers valuable educational programs for school children grades K-12.

The Museum’s fourteen person education staff is comprised of coordinators, naturalists, and outreach educators. The staff draws on their diverse backgrounds to educate teachers, students, and the general public about natural Mississippi and its inhabitants. In addition, the Museum draws upon staff researchers and the scientific community at large to inspire visitors through lectures, panels, and literature.

The Museum designs and distributes many educational resources, including printed materials, videos and object kits for loan and online activities.

Educational programs at the Museum and in statewide outreach come in many forms:

- Age-appropriate, curriculum-coordinated, hands-on programs (Museum campus & statewide outreach programs)
- Instructional resources: printed materials, videos, object kits, and web-based activities
- Teacher workshops: Project WILD, Project WET, Growing Up WILD and Preschool Teacher Workshops
- Answers to information requests and technical guidance
- Professional contributions to scientific publications
- Lectures



## MUSEUM PROGRAMS

Visiting groups to the Museum can choose from a number of activities, depending on their objectives and time schedules.

Every year the Museum provides age-appropriate, curriculum coordinated, hands-on programs in many subject areas for grades K through 12.

Teachers can choose from these topics: mammals, birds, reptiles, endangered species, fish, invertebrates, plants or fossils. The Museum also offers an in-depth, hands-on wetlands program in which students become wetland researchers and learn to appreciate the importance of wetlands. We also offer fun and learning for preschoolers. Our Preschool Discovery Room was filled all year long with children ages 3 through pre-kindergarten 5 and their caregivers for age-appropriate hands-on learning.

Our summer program showcases Camp WILD, an annual summer camp adventure that puts kids in the middle of nature for an amazing week of educational experiences. Camp WILD's theme this year was "Swamp Explorers!"



Junior Naturalist Camp 2011

This summer also included the Junior Naturalist Camp designed to allow aspiring naturalists to learn what it is like to scientifically study nature. This ecology based camp focused on swamps this year. Campers learned identification, collection, and population sampling of swamp critters. The camp concluded with an overnight in the Museum.

Our Preschool summer camp theme was "ANT" (a study of Alligators, Nocturnal Animals, and Tiny Animals).

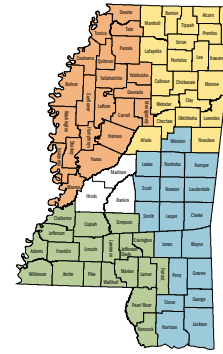
### STUDENT PROGRAMS AT MMNS FOR FY 2010-2011

- 7 Camp WILD summer sessions with **139** in attendance
- 2 Stewpot Kids summer camp sessions with **55** in attendance
- Junior Naturalist Camp program with **33** in attendance
- **279** preschool group classes with **3,932** in attendance
- **12** preschool summer camp sessions with **122** kids and caregivers in attendance
- **10th** Annual Make a Splash water awareness day
- **706** in-house, hands-on programs with **38,987** participants (including preschool group classes)



## STATEWIDE OUTREACH PROGRAMS

Through a wide range of specially designed programs, projects, and events, the outreach educators bring the Museum's unique hands-on approach to learning to schoolchildren and adults statewide. Over the last nine years, our outreach naturalists conducted 7,611 programs with 360,060 participants. We now provide outreach to all 82 counties of the state of Mississippi. However, we currently do not have a full time outreach naturalist in the Northwest counties region.



□ Central Mississippi Counties access Museum programming directly

### OUTREACH EDUCATION MISSISSIPPI COUNTIES

■ Northeast counties	<b>230</b> classes ( <b>23,874</b> students)
■ Northwest counties	<b>15</b> classes ( <b>275</b> students)
■ Southeast counties	<b>262</b> classes ( <b>19,666</b> students)
■ Southwest counties	<b>174</b> classes ( <b>11,774</b> students)

### EDUCATION OUTREACH FOR FY 2010-2011

- **681** interactive classroom programs taught statewide
- **55,589** students and adults served by Outreach Naturalists statewide
- **48,606** people used object kits, information, materials, and technical guidance



Participants at the annual Pascagoula River Nature Festival in Gautier observe Museum specimens



Outreach Naturalist Joe McGee holds a mist-netted Henslow's Sparrow (Photo by Matthew Brooks)



Students observe a Gray Rat Snake up close and personal at Pass Christian Public Library on the Mississippi coast

## TEACHER WORKSHOPS

The Museum maximizes its staff expertise and extends its influence by providing workshops all over the state that prepare teachers to fulfill state curriculum requirements in their own classrooms. Over the last six years the Museum has held approximately 197 workshops with 3,527 educator participants which reached over 98,756 students statewide.

Project WILD is an interdisciplinary conservation and environmental education program. It provides materials to educators of grades K-12 through practical, interactive 6-hour workshops. The program capitalizes on kids' natural interests in wildlife,



Joan Elder and Angel Rohnke

providing hands-on activities that enhance all subject and skill areas.

Project WET is an interdisciplinary, international water science education program for formal and non-formal K-12 educators. Its mission is to teach water stewardship through effective education. The *Project WET Curriculum and Activity Guide* is a collection of fun, hands-on water-related activities. The Project focuses on diverse topics from the water cycle to conservation and management strategies.

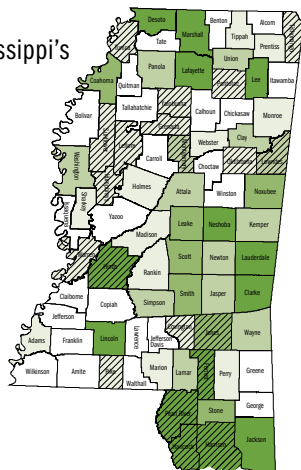
The Mississippi Museum of Natural Science is Mississippi's primary sponsor for Growing Up WILD, a national early childhood education and training program for educators and caregivers of children ages 3-7. Growing up WILD builds on kids' sense of wonder, inviting them to explore their world while developing positive impressions about nature and lifelong social and academic skills.

### TEACHER SERVICES AT MMNS FOR FY 2010-2011

- **44** six-hour teacher workshops for Project WILD & Project WET (organized and conducted for **769** participants)
- **18** preschool teacher workshops for **350** participants; including the new Growing Up WILD workshop program
- **19** Boy Scout & Girl Scout programs and workshops with over **454** attendees
- **1** Back-to-School Night teacher resource event
- Joan Elder, MMNS Preschool Coordinator, named Mississippi's Project WILD Facilitator of the Year
- Angel Rohnke, Education Coordinator, received the Mississippi Science Teachers Association Outstanding Informal Educator Award

### NUMBER OF OUTREACH PROGRAM PARTICIPANTS AND TEACHER WORKSHOPS

- |             |                     |
|-------------|---------------------|
| □ 0         | ■ 501 - 1,000       |
| ■ 1 - 200   | ■ 1,001 - 13,896    |
| ■ 201 - 500 | ▨ Teacher Workshops |



## COMMUNITY AND STATEWIDE EVENTS

### COMMUNITY EVENTS

The Museum hosts a number of ongoing and annual events that present unique opportunities for learning. Adult programming with dynamic lectures, live animal demonstrations, and creative activities adds spice to a family-focused menu of educational topics, including fishing, fossil collecting, and bird watching.

### COMMUNITY ACTIVITIES AT MMNS FY 2010-2011

- **10** Naturalist Lectures presented by experts including our annual Snake Day event with **933** participants
- **8** Fun Fridays for families
- **150** interactive Fish Feedings
- **11th** annual NatureFEST!—a celebration of all things natural
- **8th** annual Fossil Road Show
- **11th** annual Got Fish?—fishing seminars with the experts
- **26th** annual Snake Day—hands-on reptile showcase
- International Migratory Bird Day celebration
- **2** Christmas Programs with **275** participants

### STATEWIDE EVENTS

The Museum provides an array of educational and entertainment opportunities to the broader community through lectures and live animal demonstrations. It also holds a variety of popular annual events designed to bring special audiences together to enjoy activities centered around specific topics, such as fishing, fossil collecting, bird watching, and family fun.

For instance, this fiscal year, through partnerships with the Mississippi Wildlife Federation and Wal-Mart, Katfishin' Kids provided kids with the chance to get their feet wet in learning the skills of fishing and engaged more than 600 children!

### STATEWIDE COMMUNITY OUTREACH FY 2010-2011

- Educational materials: provided to Mississippi Department of Wildlife, Fisheries & Parks (MDWFP) Conservation Officers for programs
- Participated in: 4-H Clubs, Audubon groups, Bass Pro Extravaganza, Boy Scouts & Girls Scouts, Boys and Girls Clubs, Celebrate the Gulf, Conservation Carnivals, Deer & Wildlife Festival at Woodville, Ecology Camp, Endangered Species Days, Envirothon, Farm Safety Days, Festival at Lauren Rogers Museum of Art, FUMC Fall Festival, Garden Clubs, Grenada Family Fun Day, Leake County Conservation Carnival, Libraries, Mississippi Wildlife Extravaganza, MS Science Teachers Association Annual Conference, Natchez Trace Wildlife Festival, National Hunting and Fishing Day at Enid Lake, Newton Wildlife Festival, Oktibbeha Garden Expo, Conservation Field Days, Outdoorama on the Rez, Pascagoula River Nature Festival, Pioneer Wildlife at Historic Jefferson College, Retirement homes, Science fairs around the state, Secchi Day at Pickwick Lake, Strawberry Plains Hummingbird Festival, Universities: Blue Mountain College, Jackson State University, Meridian Community College, Mississippi College, Mississippi Valley State University, University of Mississippi, University of Southern Mississippi, Waterfest, Wildlife Society, Winterville Mounds Native American Days, YMCA.
- **620** Katfishin' Kids received hands-on instruction from professional anglers with baiting hooks and fishing for stocked catfish
- **2** issues of Natural Newline newsletter published



## NATURALIST LECTURE SERIES

The lectures are on the first Tuesday of each month in the Museum's Rotwein Theater from 12NOON-1PM except for December and January.

### NATURALIST LECTURE SERIES FOR FY 2010-2011

- **July 6, 2010**  
*Modern & Fossil Sharks—Was Megalodon in Mississippi?*  
Speaker: George Phillips, Museum Paleontology Curator, Mississippi Museum of Natural Science, Jackson
- **August 3, 2010**  
*Sharks Past and Present: From Megalodon to Megamouth*  
Speaker: Dr. Eric Hoffmayer, Shark Biologist, Gulf Coast Research Lab, USM, Ocean Springs
- **September 7, 2010**  
*How to Enjoy the Outdoors While Avoiding Mosquitoes, Ticks, Chiggers, and Other Pests*  
Speaker: Dr. Jerome Goddard, Medical Entomologist
- **October 5, 2010**  
*Seagrass and Submerged Aquatics of the Mississippi Coast: Changes in the Coastal Environment and Research Needs*  
Speaker: Hyun Jung "J" Cho, PhD., Associate Professor of Biology, Jackson State University
- **November 2, 2010**  
*Ecology of Kaxil Kiuc Biocultural Reserve: The Yucatan Peninsula*  
Speaker: Dr. Markus Tellkamp, Yucatan Research
- **February 1, 2011**  
*Aldo Leopold in Mississippi*  
Speaker: Wiley Prewitt, Environmental historian
- **March 1, 2011**  
*Butterflies, Caterpillars, and Plant Taxonomy*  
Speaker: Dr. Richard Brown, Professor of Entomology & Director, Mississippi Entomological Museum, Mississippi State University
- **April 5, 2011**  
*Responsive Oil Spill Outreach Based in Science*  
Speaker: Dr. Jessica Kastler, Marine Education Center, Gulf Coast Research Laboratory, USM, Ocean Springs
- **May 3, 2011**  
*Restoring Mississippi Delta Habitats: How Green Infrastructure Can Provide Both Water Quality and Wildlife Habitat Improvements*  
Speaker: Andy Peck, Ph.D. Freshwater Ecologist, Nature Conservancy of Mississippi & Entergy Foundation Fellow, Jackson
- **June 7, 2011**  
*De-mystifying Mississippi Snakes at Snake Day: Live displays of Mississippi venomous and non-venomous snakes*  
Speaker: Bryan Fedrick, Herpetologist, Mississippi Department of Wildlife, Fisheries & Parks



Copperhead Snake



Black Skimmer (Photo by Bill Stripling)



Monarch Butterfly Larva in gardens





NATURAL HERITAGE PROGRAM · BIOLOGICAL COLLECTIONS · RESEARCH · AMPHIBIANS · REPTILES



BIRDS · FISHES · PALEONTOLOGY · FRESHWATER INVERTEBRATES · MAMMALS · INSECTS · PLANTS



# seek — study

The Museum's Conservation and Biodiversity Section consists of three broad and overlapping programs: Natural Heritage, Biological Collections, and Research. The team of fifteen is made up of coordinators, biologists and technicians. Their primary mission is to facilitate conservation by studying, documenting and monitoring Mississippi species and ecosystems. Staff also participate in planning and management to promote statewide conservation.

Among the Conservation and Biodiversity Section's many accomplishments are the partnerships that it has formed with others. Over the past year the team has worked side by side with individuals, organizations and other state and federal agencies, providing information, insight and support for conservation efforts. In FY 2010-2011, they handled more than 7,670 requests for information about non-game species and their habitats and management.





## NATURAL HERITAGE PROGRAM

The Natural Heritage Program manages a comprehensive database of Mississippi species, communities, systems and natural areas of conservation concern. A primary objective is ensuring that the database is scientifically current and accurate. Information contained within the database is readily available to resource managers and land developers, and provides guidance for species conservation and wise use of land and water resources.



The Scenic Streams Program encourages landowners to voluntarily protect special habitats and streamside areas either through non-binding conservation agreements or long-term conservation easements. State and Federal income tax incentives exist for landowners who protect these areas through the creation of conservation easements.

### NATURAL HERITAGE HIGHLIGHTS FOR FY 2010-2011

- **1,363** elements (rare species and biological communities) tracked
- **110** new records relating to elements added
- **559** environmental project reviews performed
- Maintained over **29,888** species occurrences in Natural Heritage Database



Eastern Redbed blooming in the gardens



## BIOLOGICAL COLLECTIONS

Since their beginning in 1935, our Biological Collections have grown to contain more than 1,069,000 specimens, representing the largest single reference for Mississippi vertebrate animals, freshwater mussels, crayfish, and fossils. In addition, the MMNS curates collections of plants, insects, and DNA specimens. These irreplaceable specimens document the species diversity, distribution, ecology, conservation status and heritage of Mississippi. They are an essential source of information for use by resource managers, biologists and educators.

### COLLECTIONS HIGHLIGHTS FOR FY 2010-2011

- **498** new collections added through staff efforts or donations
- **35,637** new specimens cataloged
- **1,069,000** specimens curated
- **51** loans to other museums or educational institutions



Biologist Sean McGregor processing fish



Dr. Matt Roberts examining fish

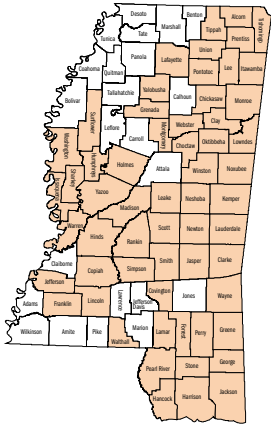


Museum Collections



## RESEARCH AND MONITORING

MMNS research seeks to protect Mississippi's history and heritage by contributing to the knowledge of Mississippi's species and biological communities. Much of the research at MMNS focuses on surveys for occurrence, abundance, and distribution of non-game species. MMNS paleontological research provides the background that increases our understanding of current and future patterns of species and biological communities. Information from these research activities provides the foundation for understanding and appreciating the biodiversity of Mississippi. In addition, MMNS researchers conduct ecological monitoring, and other research to provide information essential for conservation and protection of some of our state's rarest species.



### RESEARCH HIGHLIGHTS FOR FY 2010-2011

- More than **\$1,024,094** in federal funds awarded for research projects
- Collaboration with University of Southern Mississippi (USM), University of Mississippi (UM) and The Nature Conservancy (TNC)

### COUNTIES WHERE RESEARCH WAS CONDUCTED IN THIS FY

□ No research    ■ Research conducted

## PLANNING AND MANAGEMENT

Conservation staff participated in a variety of planning and management activities to address conservation of rare or declining species in Mississippi including the listed activities below.

### PLANNING AND MANAGEMENT ACTIVITIES FOR FY 2010-2011

- Commercial turtle farm permitting in Mississippi
- USFWS planning meetings for Mitchell's Satyr distribution and habitat in MS
- NRDA conference calls regarding the BP Oil Spill summer 2010
- Inter-agency Mitigation Bank Review Team
- Inter-agency MDOT Highway Projects Review Team
- MS Prescribed Fire Council
- Southeast Partners for Amphibian and Reptile Conservation
- Southern Pine Desired Forest Condition meetings
- Mississippi Wildlife Federation board meetings
- Mississippi Chapter of The Wildlife Society
- Mississippi Native Plant Society
- Conservation Legacy Technical Advisory Committee
- BEAR Group of MS
- Diamondback Terrapin NRDA Group
- MS Animal Working Group
- Pascagoula River WMA Task Group
- Pascagoula River Basin Alliance
- Sandhill Crane Working Group
- Mississippi Comprehensive Wildlife Conservation Strategy Revision Team
- Gulf Sturgeon Working Group
- Yazoo Darter Working Group

## COMPLETED AND ON-GOING PROJECTS

Research and monitoring activities carried out or administered by Museum staff generally target plants, plant communities, and non-game wildlife within Mississippi. This includes living and extinct species not traditionally managed as sport game or fish, and comprises the vast majority of the fauna and flora of the state.



### COMPLETED AND ON-GOING PROJECTS FOR FY 2010-2011

- Oldfield Mouse Surveys
- Frecklebelly Madtom Surveys
- MS Diamondback Terrapin Nesting Surveys
- Southern Redbelly Dace Surveys
- Coastal Seagrass Surveys
- Pearl Darter Survey and Genetics
- Piebald Madtom Survey
- Post-Katrina Gulf Sturgeon Feeding and Movement
- Yazoo Darter Survey and Genetics
- Saltmarsh Topminnow Life History
- Fish and mussel interactions in the Tennessee-Tombigbee Waterway
- Isotope ecology of Late Pleistocene vertebrate herbivores
- Systematics and distribution of Late Cretaceous sea urchins
- Distribution and ecology of Late Pleistocene freshwater turtles in Mississippi
- Documenting the distribution of fossiliferous sedimentary facies and their species diversity in Late Cretaceous deposits of northeast Mississippi (with Miss. Mineral Resources Inst.)
- Bald Eagle Nest Monitoring
- Piping Plover Surveys and Habitat Use Research
- Non-breeding Coastal Shorebird Surveys
- Breeding Bird Surveys
- Nightjar Surveys
- Christmas Bird Counts
- Oiled bird rescue efforts (associated with the Deepwater Horizon Oil Spill)
- Habitat and distribution of the crayfish genus *Hobbseus* in Mississippi
- Guide to the Freshwater Mussels of Mississippi
- Growth, longevity, and changes in density of five populations of *Graptemys oculifera* in the Pearl River
- Monitoring bat populations for White Nose Syndrome; Cave, culvert, bridge and mist net surveys
- Mississippi Amphibian Monitoring Program frog calling surveys
- Breeding Bird Surveys
- Longleaf restoration on Mars Wildlife Management Area
- Sandhill Crane census on Sandhill Crane NWR
- Mammal trapping for Pascagoula River Bioquest
- Ward Bayou WMA Gopher tortoise survey



## TECHNICAL REPORTS, PRESENTATIONS, AND PUBLICATIONS

Museum staff contribute to a variety of scholarly journals and other publications. Museum Technical Reports are cataloged and housed in the Museum Library.

### TECHNICAL REPORTS FOR FY 2010-2011

- Roberts, M.E., R.L. Jones, S. Peyton, P.A. Sanderson, A. Francois, and J. Copley. 2011. Assessment of Pearl River Fish Losses Incurred by the State of Mississippi Attributed to an Exceedance of Maximum Permit Limit for Biological Oxygen Demand by the Temple Inland Paper Mill Facility. MMNS Technical Report No. 174.
- Roberts, M.E., B.R. Kreiser, and W.T. Slack. 2011. Preliminary Analysis of the Population Genetics and Viability of the Pearl Darter (*Percina aurora*). MMNS Technical Report No. 170.
- Surette, S.B., H. Sullivan, and S. Peyton. 2011. Surveys for Mitchell Satyr (*Neonympha mitchellii mitchellii*) and Its Habitats in Northeast Mississippi-Final Report. MMNS Technical Report No. 168.
- Surette, S.B. 2010. Data and Specimen Collection and Management Necessary for Additional Planning, Implementation and Monitoring of Mississippi's Comprehensive Wildlife Conservation Strategy-Final Report. MMNS Technical Report No. 165.
- Surette, S.B. 2010. Planning for Implementation of the Mississippi Comprehensive Wildlife Conservation Strategy. MMNS Technical Report No. 167.



Spotted Salamanders

### PRESENTATIONS FOR FY 2010-2011

- Mann, T. Mississippi's Sandhills-Archipelagoes of Hope for For a Pinelands Biota Marooned in a Sea of Threats. Annual Meeting of the MS Native Plant Society. 2011.
- Mann, T., B. P. Stark, L. McInnis, and D. L. Mann. Minimizing Mortality of Spotted Salamanders Crossing the Natchez Trace During Breeding Migration—Southeastern PARC Meeting. February 2011.
- Mann, T., D. L. Mann, and M. L. Thomas. The Potential Importance of Rock Outcrops to Webster's Salamander Recruitment in Mississippi. Southeastern PARC Meeting. February 2011.
- Mann, D., T. Mann, M. L. Thomas, M. B. Jourdan, and K. L. Foss. The Distribution of Webster's Salamander, *Plethodon websteri* in Mississippi in Relation to Local Geology. Ecological Society of America Annual Meeting. August 2011.
- Roberts, M.E., D.S. Millican, M.T. Calloway, G. Turnage, K. Strongin, R. Altig, C.P. Brooks, W.T. Slack, and C.M. Taylor. Tombigbee River Fishes Before and After the Tennessee-Tombigbee Waterway. Poster presented at the Annual Meeting of the Mississippi Chapter of the American Fisheries Society. February 2011.
- Roberts, M.E., D.S. Millican, M.T. Calloway, G. Turnage, K. Strongin, R. Altig, C.P. Brooks, W.T. Slack, and C.M. Taylor. Tombigbee River Fishes Before and After the Tennessee-Tombigbee Waterway. Paper presented at the Annual Meeting of the Southeastern Fishes Council. November 2010.
- Shelton, K. Monitoring bat use in MS caves: Implications for White Nose Syndrome presentation at MS Bat Working Group Winter Meeting. January 2011.
- Shelton, K. Frogs of South MS presentation, Pascagoula River Audubon Center volunteer group. March 2011.
- Shelton, K. Frogs of South MS presentation, Library Lecture Series, Lucedale MS. April 1, 2011.
- Shelton, K. MS Response to the Deep Water Horizon oil spill and its impact on Wildlife presentation at Tennessee Ornithological Society annual meeting. April 2011.

### PUBLICATIONS FOR FY 2010-2011

- Strongin, K., M.E. Roberts, and C.M. Taylor. 2011. Silverside diets and potential competition in the Tennessee-Tombigbee Waterway: The invasive *Menidia audens* versus the native *Labidesthes sicculus*. *American Midland Naturalist* 166:224-233.
- Vega, F. J., D. Clements, T. Nyborg, J. F. Ventura, and G. E. Phillips. 2011. Size variation in the portunoid crab *Ophthalmoplax* from the Maastrichtian of the Americas: Systematic differences of intraspecific variation? *Geological Society of America, Abstracts with Programs* 43(2): 90A.
- Leopold, A. 2010. Report on a Game Survey of Mississippi. Submitted to the Game Restoration Committee, Sporting Arms and Ammunition Manufacturers' Institute, 1929. Edited by M. Stevens, digitized and reprinted from the original carbon copy typescript. Mississippi Museum of Natural Science, Mississippi Department of Wildlife, Fisheries & Parks, Jackson, MS.
- Phillips, G. E. 2011b. The Upper Cretaceous Tombigbee Sand at the bentonite mines near Aberdeen, Mississippi. *Geological Society of America, Abstracts with Programs* 43(2): 13-14A.
- Phillips, G. E. 2011a. Origin of decapod remains (crab, lobsters, etc.) occurring in the "nodular layer" of the Upper Cretaceous Coon Creek beds at Blue Springs, Mississippi. *Memphis Archaeological & Geological Society, Rockhound News* 57(2): 1-6.
- Starnes, J. E., G. E. Phillips, K. Clark, and J. Banks. 2011. Excavation of an isolated basilosaurid skull from the basal Yazoo Formation of Yazoo County, Mississippi. *Journal of the Mississippi Academy of Sciences* 56(1): 68A.
- Phillips, G. E., P. D. Taylor, and F. K. McKinney. 2011. Maastrichtian (Upper Cretaceous) marine bryozoa from Mississippi. *Journal of the Mississippi Academy of Sciences* 56(1): 65A.
- Surette, S. 2011. Museum Collections. Documenting Mississippi's Wildlife and Habitats. *Mississippi Outdoors*. Vol. 74(1).
- Surette, S. 2011. Mississippi's Box Turtles: Slow and Steady. *Mississippi Outdoors*. Vol. 74(4).
- Selman, W., and R.L. Jones. In press. *Graptemys flavimaculata* Cagle, 1954 – Yellow-blotched Sawback, Yellow-blotched Map Turtle. In: Rhodin, A.G.J., Pritchard, P.C.H., van Dijk, P.P., Samure, R.A., Buhlmann, K.A., and Iverson, J.B. (Eds.) *Conservation Biology of Freshwater Turtles and Tortoises: A Compilation Project of the IUCN/SSC Tortoise and Freshwater Turtle Specialist Group*. Chelonian Research Monographs No. 5.
- Shelton, K. 2011. Bats! Mississippi Bat Working Groups' Annual Mist Net Event. *Mississippi Wildlife*. Volume 24. Jackson, MS.
- Jones, J. C., K. Edwards, J. Fogarty, and K. Shelton. Bird Communities of Beaver Wetlands and Forested Riparian Slopes Along 1<sup>st</sup> and 2<sup>nd</sup> Order Streams. *Proc. Ann. Conf. S.E. Assoc. Fish & Wildlife Agencies*. In Press.
- Jones, J. C., D. Jones, C. Smith, N. Stukey, K. Edwards, J. Fogarty, K. Shelton, N. Hodges and E. O'Donnell. Mound Densities of Red Imported Fire Ants (*Solenopsis invicta*) associated with Gopher Tortoise (*Gopherus polyphemus*) Burrows on Private and Public Forest Lands in Mississippi. *Proc. Ann. Conf. S.E. Assoc. Fish & Wildlife Agencies*. In Press.
- Jones, R. L. 2011. Mississippi Mud Bugs. *Mississippi Outdoors*. Vol. 74(2).

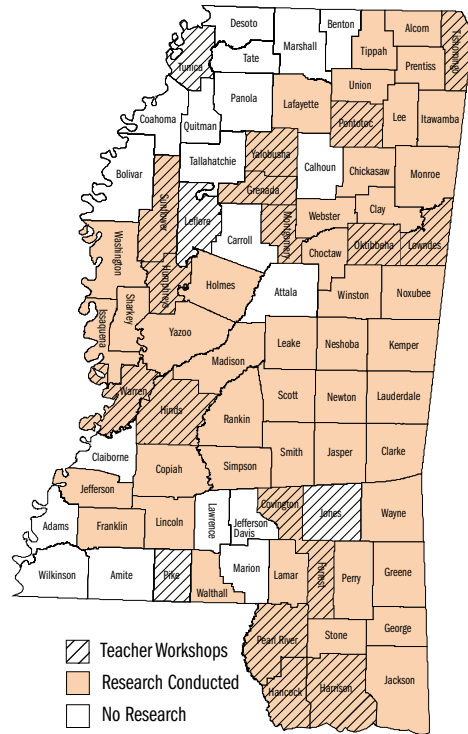


Biologist Aaron Francois collecting fish

# GOING BY THE NUMBERS

COUNTY	VISITORS	OUTREACH
Adams	272	12
Alcorn	45	0
Amite	215	0
Attala	408	310
Benton	6	0
Bolivar	385	0
Calhoun	139	0
Carroll	114	0
Chickasaw	74	0
Choctaw	187	0
Claiborne	491	0
Clarke	287	2,066
Clay	51	235
Coahoma	150	528
Copiah	1,311	0
Covington	390	0
Desoto	255	1566
Forrest	1,949	4,261
Franklin	68	0
George	69	0
Greene	169	0
Grenada	423	91
Hancock	135	1,424
Harrison	422	1,807
Hinds	62,202	4,024
Holmes	262	65
Humphreys	72	22
Issaquena	1	0
Itawamba	60	0
Jackson	556	1,065
Jasper	252	300
Jefferson	294	0
Jefferson Davis	696	0
Jones	1,046	755
Kemper	92	432
Lafayette	282	1536
Lamar	444	449
Lauderdale	1,342	1,162
Lawrence	283	0
Leake	1,137	1,000
Lee	401	2246
Leflore	388	89
Lincoln	1,186	3,254
Lowndes	297	354
Madison	13,701	126
Marion	202	150
Marshall	20	13,896
Monroe	230	98
Montgomery	90	240
Neshoba	781	2,425
Newton	480	305
Noxubee	72	868
Oktibbeha	454	136
Panola	102	452
Pearl River	196	1,037

MAP OF MISSISSIPPI COUNTIES



Teacher Workshops  
 Research Conducted  
 No Research

Perry	130	52
Pike	832	159
Pontotoc	38	91
Prentiss	46	91
Quitman	4	0
Rankin	13,918	180
Scott	1,012	526
Sharkey	70	102
Simpson	1,278	300
Smith	513	525
Stone	114	514
Sunflower	536	54
Tallahatchie	26	0
Tate	51	0
Tippah	27	160
Tishomingo	20	190
Tunica	4	33
Union	77	475
Walthall	114	0
Warren	2,186	74
Washington	466	294
Wayne	96	279
Webster	124	4
Wilkinson	15	0
Winston	448	0
Yalobusha	72	12
Yazoo	973	0

# DEPARTMENT OF WILDLIFE, FISHERIES & PARKS

Sam Polles, Ph.D.  
EXECUTIVE DIRECTOR

Robert Cook  
DEPUTY DIRECTOR

Larry Castle  
DIRECTOR OF  
TECHNICAL PROGRAMS

## COMMISSIONERS

Charles Rigdon  
CHAIRMAN

Jerry Munro  
VICE-CHAIRMAN

William "Billy"  
Deviney

Bryan Jones

John C Stanley IV



## MUSEUM STAFF

### DIRECTORS

Libby Hartford  
MUSEUM DIRECTOR

Charles Knight  
ASSISTANT MUSEUM DIRECTOR

### ADMINISTRATION AND SUPPORT

Cindy Bearden  
GIFT SHOP ASSISTANT

Harold Garner  
FACILITIES MAINTENANCE  
MANAGER

Charles Jeffcoat  
CUSTODIAN

Mary Jenkins  
SPECIAL PROJECTS OFFICER

Rebecca Jones  
GIFT SHOP MANAGER/SPECIAL  
EVENTS

Fran Noone  
RECEPTIONIST

Ann Peden  
VOLUNTEER SERVICES

Tracy Reid  
GIFT SHOP ASSISTANT

Mary Stevens  
LIBRARIAN

### AQUARIUMS

Karen Dierolf  
AQUATIC BIOLOGIST

John Hardy  
AQUARIST

James Hill  
AQUARIUM ASSISTANT

Mike Stegall  
AQUARIST

### EDUCATION

Angel Rohnke  
EDUCATION COORDINATOR

Mary Alston  
PRESCHOOL EDUCATOR

Crystie Baker  
OUTREACH NATURALIST

Joan Elder  
PRESCHOOL EDUCATOR

Jonathan Harris  
NATURALIST

Yolanda Hawkins  
RESERVATIONIST

Joseph M. McGee  
OUTREACH NATURALIST

Isabel Mills  
PRESCHOOL EDUCATOR

Nicole Phillips  
NATURALIST

Andrea Schuhmann  
OUTREACH NATURALIST

Megan Sewall  
SPECIAL PROJECTS COORDINATOR

Corey Wright  
NATURALIST

### EXHIBIT MANAGEMENT

Norton McKeigney  
EXHIBITS SUPERVISOR

Ray Terry  
EXHIBITS SUPERVISOR

### NATURAL HERITAGE PROGRAM

Sherry Surette, Ph.D.  
NATURAL HERITAGE PROGRAM  
COORDINATOR

Joelle Carney  
DATABASE MANAGER

Adrienne Clark  
DATABASE TECHNICIAN

Aaron Francois  
DATABASE TECHNICIAN

Tom Mann  
ZOOLOGIST

Andy Sanderson  
ECOLOGIST

Heather Sullivan  
BOTANIST

### RESEARCH AND COLLECTIONS

Jeremy Copley  
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