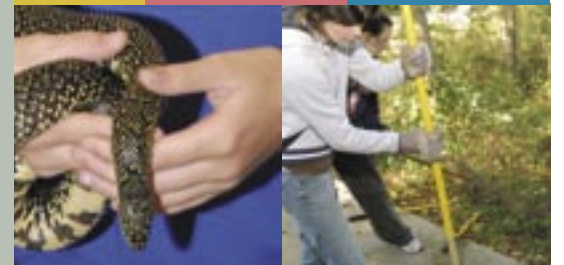


The mission of the Mississippi Museum of Natural Science is to promote understanding and appreciation of Mississippi's biological diversity through collections, research, scientific databases, education, & to inspire

and exhibits; the people of

MISSISSIPPI MUSEUM OF NATURAL SCIENCE FOUNDATION

Annual Report 2005-2006



our state to
environment

respect the
& to preserve

natural Mississippi. The Mississippi Museum of Natural Science Foundation was established in 1974 to support the mission of the Museum through fundraising and volunteer efforts.



For more than seventy years, the Mississippi Museum of Natural Science has served the state by studying, preserving, and enhancing Mississippi's biodiversity. During all these years, the Museum has made a lasting impression on the lives of many people through exhibits, educational programming, and conservation projects. That tradition has continued this past fiscal year as more than 140,000 visitors have been inspired by what they learned in the Museum about the natural world. As public interest in the environment grows, the value of the Museum increases as a place people can turn to for the information they need to make informed decisions about the stewardship of Mississippi's abundant natural resources.

Members and other supporters are familiar with our breathtaking aquariums, entertaining and enlightening exhibits, and innovative educational programs. They may not be aware of our extensive scientific collections and priceless data bases. Over the past two years, the MMNS Foundation has funded some of the most fantastic special exhibits that our state has ever hosted. Visitors poured through our doors to see *A T. rex Named Sue*, and *What Came After the Dinosaurs: Prehistoric Mammals*. The fun continued with *Lost In The Amazon*, and *The World of Giant Insects*.

We were recognized for our efforts when the Mississippi Travel Association named the Museum "Mississippi's Travel Attraction of the Year" and the city of Jackson Convention and Visitor's Bureau bestowed us with a SUMITT Award as "Attraction of the Year."

As all Mississippians worked to recover from the devastation of Katrina, we secured grants to establish outreach education programs in the Pascagoula River basin and in Hancock and Pearl River Counties.

The MMNS Foundation is also playing a leading role in the Museum's most ambitious current project. Plans are underway to expand the research wing of the Museum and to add a larger special exhibits hall. The Foundation has already received \$740,000 in federal funding for planning and site preparation. The architectural plans are already underway. The Mississippi Legislature has appropriated \$1 million toward the project this year and additional funds are being sought. We still have a long way to go in accomplishing this goal to expand the Museum's usefulness to the people of Mississippi.

All of these endeavors would not have been possible without the generous financial support of our donors and members. Gifts and grants to the MMNS Foundation totaled more than \$1 million. Our many volunteers have contributed more than seven thousand hours of service this year.

We are both very grateful for the many loyal supporters who have embraced the Museum's mission and are striving alongside our diligent staff and dedicated volunteers to bring Mississippians the finest natural science museum possible.

Christine Zachow
MISSISSIPPI MUSEUM OF NATURAL
SCIENCE FOUNDATION PRESIDENT

Libby Hartfield
MISSISSIPPI MUSEUM OF NATURAL
SCIENCE DIRECTOR

FRONT COVER: 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 was established in 1974 to support the mission of the Museum through fundraising and volunteer efforts.

PHOTOGRAPHY:
James Patterson
MMNS Staff
Stephen Kirkpatrick
Kokoro

Symbiosis at Its Best

Since the 1930s, the Mississippi Museum of Natural Science has stood at the forefront of efforts to develop and promote understanding of the State's natural environment and biological diversity. Through diligent research and collection by our conservation-biology team, informed programming by our education and outreach group, innovative displays by our exhibits and aquarium staff, and dependable support by our general operations personnel, the Museum has distinguished itself in the scientific and museum communities, while building an international reputation as a resource and a destination. In FY 2006, the Museum

served a total of 297,347 people. 141,340 of these were visitors, coming from all 82 Mississippi counties, all 50 states, and more than 40 foreign countries. The Museum and its staff of nearly fifty professionals have a proud history and exciting future, and many of their efforts are enhanced through the support and network

of concerned citizens working through the Mississippi Museum of Natural Science Foundation, a non-profit organization. This truly symbiotic relationship of Museum and Foundation has produced yet another year of notable achievements. We proudly present our 2005-2006 annual report of activities and accomplishments for the Museum.



CONSERVATION BIOLOGY

The Museum's Conservation Biology Section is comprised of three broad, overlapping programs: Natural Heritage, Biological Collections, & Non-Game Research. Collectively, these programs are staffed by 18 biologists and technicians whose primary mission is to facilitate conservation by documenting, studying, and monitoring our state's native biodiversity.

ACCOMPLISHMENTS AND ACTIVITIES:

- Provided technical assistance to numerous agencies, organizations, and individuals, responding to more than 3,678 requests for information about animals, plants, fossils, and land management in Mississippi.
- Presented information at 87 scientific meetings, conservation events, and other public forums.
- Took the lead role in completion of Mississippi's Comprehensive Wildlife Conservation Strategy.

Comprehensive Wildlife Conservation Strategy

Despite often working with shoestring budgets, state agencies have fared well in the conservation of some species. But success stories account for only about 14% of all wildlife species; the other 86% have drawn little notice. As a result, species extinctions have actually

accelerated. In Mississippi, 80 species have already been listed as endangered and once common species show sustained population decreases. Clearly, a new approach is needed.

In 2002, as part of the largest conservation effort this nation has ever attempted, Congress requested that each state and territory develop a Comprehensive Wildlife Conservation Strategy that identified species at risk and mapped out actions to address population declines. Taking the lead role, the Museum's Conservation Biology Section collaborated with more than 175 representatives of natural resources agencies, conservation organizations, agriculture and forest products industries, and educators to develop a proactive, non-regulatory, habitat-based strategy

designed to conserve rare species and keep common species common.

Mississippi's strategy includes a list of 297 animal species of greatest conservation need developed from the Museum's heritage program database and information provided by regional biologists. Natural communities and habitats were described and ranked according to the number of priority species they support. Major threats to species and their habitats were also identified and possible conservation actions

needed to abate these threats were recommended.

Thanks to our many partners, we are pleased to announce that Mississippi's strategy was approved by the U.S. Fish and Wildlife Service in FY 2006. If you would like to learn more about the CWCS, it is available on the Mississippi Department of Wildlife, Fisheries and Parks website, www.mdwfp.com/cwcs.

Biological Collections Program

Originating in 1935, our Biological Collections currently contain more than 800,000 specimens, representing the largest single reference for Mississippi vertebrate animals, freshwater mussels, plants, and fossils. Specimens have been collected in an ongoing effort to document species diversity, geographic

distribution, ecology, and conservation status. These specimens and their related data are an irreplaceable and an essential source of information available to resource managers, biologists, and educators.

ACCOMPLISHMENTS AND ACTIVITIES:

- Accessioned/registered more than 382 new plant, animal, and fossil collections.
- Cataloged more than 61,660 new individual scientific specimens.
- Curated more than 800,000 individual specimens.
- Made 56 loans or transfers of specimens or tissue samples at the request of outside agencies and institutions throughout the U.S.
- Fish collection made available online and received 3,042 inquiries for related information.

Natural Heritage Program

The Natural Heritage Program manages a comprehensive database on Mississippi's species, communities, systems, and natural areas of conservation concern. Information on the distribution, biology, and status of these elements is acquired and used to guide conservation action and facilitate wise management of Mississippi's land and water resources. A primary objective is ensuring that the database is scientifically credible, current, accurate, and readily available for use by resource managers and land developers.

ACCOMPLISHMENTS AND ACTIVITIES:

- Installed new database system and transferred information into the new format.
- Maintained more than 9,000 rare species and natural area occurrence records.
- Provided comments to more than 400 environmental review requests.
- Performed field surveys to verify status of non-recent plant and animal species occurrence records resulting in verification of 732 older records and addition of 360 new records.
- Coordinated effort for Red Creek to be designated as Mississippi's 8th state Scenic Stream and East Fork of Tombigbee River in Itawamba County to become eligible for nomination under the state Scenic Streams Stewardship Program.
- Program zoologist received an award from the Gopher Tortoise Council for securing funding on behalf of The Nature Conservancy to protect endangered gopher tortoises on land adjoining the Willie Brown Nature Preserve.
- Welcomed a new Natural Heritage Program coordinator who has initiated comprehensive strategic and operational planning for the overall program.

Non-Game Research Program

The research program includes studies of animals, plants, and fossils with an emphasis on species not traditionally managed as sport game or fish. These species comprise the vast majority of the flora and fauna of Mississippi and together form a significant portion of the natural communities of the state. Much of our research is applied toward monitoring and protecting our state's rarest species which are often viewed as "indicators" of environmental health.

ACCOMPLISHMENTS AND ACTIVITIES:

- Administered more than \$538,000 in federal funds to perform conservation research throughout the state.
- Performed numerous rare plant community inventories resulting in documentation of 172 new



rare species populations and 3 species previously unknown from the state.

- Inventoried mussels and fishes from 127 localities primarily in the Yazoo and Pascagoula River drainages.
- Coordinated a study to document key habitat and assess population size, viability, and genetic structure of the Alabama shad within the Pascagoula drainage and region.
- Documented occurrence and assessed movement and habitat of Nile tilapia associated with thermal refugia within the lower Pascagoula system.
- Studied inter- and intraspecific relationships within the subgenus Cottogaster using molecular phylogenetics and phylogeography for potential application to recovery of the imperiled pearl darter.

Assessed genetic identity, meristic and morphometric data of topminnows to better understand distribution and population status within the state and region.

- Administered a study of the diversity and structure of fish assemblages within the Tombigbee River System prior to and since construction of the Tennessee-Tombigbee Waterway.
- Coordinated research to determine the number, survivorship, and frequency of breeding of adults and recruitment rate for metamorphs of Mississippi gopher frogs. Developed a protocol for moving metamorphs or tadpoles to other suitable ponds so that additional breeding populations may be established.
- Administered a study to determine the biological characteristics and routes of transmission of a disease causing organism responsible for the deaths of endangered Mississippi gopher frog tadpoles.
- Administered a study to determine factors responsible for low hatching success of gopher tortoise eggs in south Mississippi.
- Administered survey for occurrence of the mimic glass lizard and collected additional natural history information about the black pine snake in Mississippi.
- Administered research to establish baseline sex hormone levels of the yellow-blotched sawback to verify endocrine disturbance potentially related to chemical pollutants in the Pascagoula River watershed.
- Participated in establishment of the East Gulf Coastal Plain (EGCP) joint venture, a partnership for coordinating landscape level bird conservation activities throughout much of Mississippi and several neighboring state.
- Coordinated non-game bird research and planning activities related to state and regional conservation, monitoring, and management priorities.

- Administered a project to monitor and provide baseline inventory data of Least Tern and Black Skimmer nest colonies on the Mississippi Coast.
- Collected and analyzed Mississippi black bear distribution, movement, and population data. Worked with other agencies, organizations, and individuals to coordinate statewide bear management activities.
- Conducted statewide field surveys for bats and worked extensively with partners to share information and facilitate bat conservation activities.
- Performed statewide small mammal surveys with an emphasis on the Mississippi Delta region.
- Continued studies of Mississippi fossils with emphasis on Pleistocene ("Ice Age") turtles and Eocene whales.

- Coordinated and conducted excavation of fossil whale near Quitman, Mississippi. Participating agencies/institutions included were the Mississippi Office of Geology, Museum of the Ozarks, and Wright State University.
- Coordinated with Oktibbeha County Heritage Museum to improve public knowledge regarding the fossil resources and paleontologic history of the Starkville, MS area.

Black Bear Research

Museum biologist Brad Young's radiotelemetry data combined with his collection of bear sightings has shed new light on Mississippi bear ecology and renewed hope of increasing our state's endangered black bear population. Perhaps the most exciting result of Brad's work was the discovery of bear cubs born to females entering Mississippi from adjoining states.

Two females that crossed into Mississippi from Louisiana have given birth to litters of cubs since their arrival. The two litters, one of three cubs and another of five, represent the first documented bear cubs born in the state in 30 years. Brad marked the cubs with PIT tags (identifying microchips inserted under

the skin) and fitted the mothers with new radio-collars for tracking.

Another female swam the Mississippi River from Arkansas to Washington County and has made the Yazoo National Wildlife Refuge her new home. Trail camera photographs revealed that she already had a small cub in tow when she crossed into the state.

It is hoped that even more cubs may be on the way since a female



The GPS Bear Collar records latitude and longitude coordinates on a daily basis.

from Louisiana in the southwest corner of the state and another from Arkansas residing in the lower Delta region are expected to produce litters in 2007.

Brad also recently took a significant step toward better understanding Mississippi bear ecology by beginning the use of Global Positioning System (GPS) radio-collars. These state-of-the-art GPS collars not only emit a beacon for aerial tracking but also store latitude and longitude coordinates on a daily basis. So far, Brad has placed GPS collars on one female and two males. The collars will provide a wealth of information about bear movements and habitat preferences in the south Delta.

Publications and Technical Reports:

Bressler, D.W., J.B. Stribling, M.J. Paul, and M.B. Hicks. 2006. Stressor tolerance values for benthic macroinvertebrates in Mississippi. *Hydrobiologia*, 573(1):155-172.

Heise, R.J., W.T. Slack, S.T. Ross and M.A. Dugo. 2005. Gulf sturgeon summer habitat use and fall migration in the Pascagoula River, Mississippi, USA. *Journal of Applied Ichthyology* 21(2005):461-468.

Jones, R.L. 2006. Reproduction and nesting of the endangered ringed map turtle, *Graptemys oculifera*, in Mississippi. *Chelonian Conservation and Biology* 5. In press.

Jones, R.L., W.T. Slack, and P.D. Hartfield. 2005. The freshwater mussels (Mollusca: Bivalvia: Unionidae) of Mississippi. *Southeastern Naturalist* 4:77-92.

Knight, C.L. and E. Barber (Coordinators). 2006. Mississippi's comprehensive wildlife conservation strategy. Museum Technical Report, No. 117. Mississippi Department of Wildlife, Fisheries and Parks, Museum of Natural Science, Jackson, MS. 417 p.

Kreiser, B.R., W.T. Slack and M.A. Dugo. 2006. A molecular assessment of the *Fundulus notatus* species group within Mississippi. Museum Technical Report, No. 119. Mississippi Department of Wildlife, Fisheries and Parks, Museum of Natural Science, Jackson, MS. 48 p.

Mann, T. 2006. Mississippi state report to the Gopher Tortoise Council; The Tortoise Burrow, Volume 26(1):5-7.

Mann, T. 2005. Mississippi state report to the Gopher Tortoise Council. The Tortoise Burrow, Volume 25 (1):3-5.

Mann, T. 2005. Gainesville Herpetological Society and Gopher Tortoise Council donates \$1000 to The Nature Conservancy of Mississippi, The Tortoise Burrow 25(1):6.

Mann, T. and D. Epperson. 2005. Aliens consuming locals in Mississippi—fire ants and the *Gopherus polyphemus* recruit-ment deficit. *Proceedings of the 28th Annual Gopher Tortoise Council Management Meeting*.

Peterson, M. S., W. T. Slack, G. L. Waggy, J. Finley, C. M. Woodley and M. L. Partyka. 2006. Foraging in non-native environments: comparison of Nile tilapia and three co-occurring native centrarchids in invaded coastal Mississippi watersheds. *Environmental Biology of Fishes* 76:283-301.

Peterson, M. S., W. T. Slack and C. M. Woodley. 2005. The occurrence of nonindigenous Nile Tilapia, *Oreochromis niloticus* (Linnaeus) in coastal Mississippi: ties to aquaculture and thermal effluent. *Wetlands* 25(1):112-121.

Sherman, A.R. and C.O. Martin. 2006. Rediscovery of the Gray Bat in Northeastern Mississippi. *Southwestern Naturalist* 51 (3): 418-420.

Sherman, A.R. and H. Sullivan. 2006. Verification of element occurrence records (EOR) of the Mississippi Natural Heritage Program database. Final report, USFWS 2002 State Wildlife Grants Program. Mississippi Museum of Natural Science, Jackson, MS. 10p.

Sisson, M. A. 2005. Mississippi Gopher Frog reproduction and relocation. Museum Technical Report, No. 116. Mississippi Department of Wildlife, Fisheries and Parks, Museum of Natural Science, Jackson, MS.

Slack, W. T., M. A. Dugo, B. R. Kreiser, P. Mickle, J. S. Peyton, and R. L. Jones. 2005. A survey of the upper Pascagoula drainage for the pearl darter, *Percina aurora* Suttkus and Thompson. Museum Technical Report, No. 109. Mississippi Department of Wildlife, Fisheries and Parks, Museum of Natural Science, Jackson, MS. 18 p.

Whitehurst, A. 2005. Natural Resources Initiatives for North Mississippi. Mississippi Outdoors, July-August 2005.

Whitehurst, A. 2006. Land management along rivers and streams. In: Fish and Wildlife Management: A handbook for Mississippi Landowners. Mississippi State Extension Service (in review).

Whittington, K., M.B. Hicks, J. Thomas and J. Kurtz. 2006. An evaluation of EPA's stressor identification methodology for assessing biological impairment in the Bogue Homo River, Mississippi. EPA Case Study Guidance Document for Causal Analysis (in print).

Winstead, N.A. and S.L. King. 2006. Least Bittern distribution among structurally different vegetation types in managed wetlands of northwest Tennessee, USA. *Wetlands* 26(2):619-623.

Winstead, N.A. and S.L. King. 2006. Least Bittern nesting sites at Reelfoot Lake, Tennessee. *Southeastern Naturalist* 5(2):317-320.

Winstead, N.A. and S.L. King. 2005. A Pied-billed Grebe nest and Common Moorhen brood platform near Reelfoot Lake, Tennessee. *The Migrant* 76(3):85-88.

Young, B.W. 2006. The return of Teddy's bear. Mississippi Outdoors, January-February 2006:18-23.

Young, B.W. 2005. Black bears in Mississippi, an update. Mississippi State Extension Service. July 2005. 3p.

Young, B.W. 2005. Black bears in Mississippi: past and present. *North American Bear Foundation* 3(2):14-15.

Young, B.W. 2005. The black bear in Mississippi. *The Habitat* 22(1):6-7.

Young, B.W. 2005. Survey of Mississippi black bear populations. Final report, USFWS 2002 State Wildlife Grants Program, Mississippi Museum of Natural Science, Jackson, MS. 6p.

EXHIBITS & AQUARIUMS

A museum's permanent exhibits are its backbone. They announce the museum's mission and give substance to its public message. At the same time, changing displays and special temporary exhibits are its lifeblood—providing inspiration and relevance for educational programming and compelling visitors to return again and again.

Our committed exhibit and aquarium management team collaborates with other biologists, naturalists, and custodial personnel to maintain over 30,000 square feet of permanent exhibits, 100,000-gallons of aquarium network, and 2.5 miles of walking trails. We are pleased to offer a glimpse of this exciting year at the Mississippi Museum of Natural Science in permanent, changing, and special exhibits.

ACCOMPLISHMENTS AND ACTIVITIES:

- Installed new permanent Basilosaurus exhibit.
- Developed and coordinated Museum collections and

Measuring 62 feet in length, "Basil" has been a tremendous hit with visitors as he swims through the air above the other fossil displays.

After a cast of Basilosaurus cetoides was requested by Japan's National Science Museum, the skeleton was reconstructed through the combined efforts of MMNS, the University of Mississippi Biological Sciences Learning Center, and the Louisiana State University Museum of Natural Science. "Basil" casts are now on display at only three sites in the world: the National Science Museum in Tokyo, the Alabama Museum of Natural History, and the Mississippi Museum of Natural Science.

Native Plant Garden & Native Prairie Garden

Since the establishment of the Museum at its current location in 2001, the landscape has been slowly maturing into a spectacular natural showplace for native Mississippi flora. Fortunately, the grounds were

Museum Aquariums

The aquariums continue to be one of the most popular attractions of the Museum. The aquarium staff—which consists of one coordinator, two aquatic biologists, and one aquarist—has the monumental task of caring for the hundreds of live creatures on display. In addition to the 100,000 gallons of aquarium habitat readily visible to the public, holding tanks and other equipment are in use behind the scenes, allowing the staff to keep their aquatic guests healthy and content.

Thanks to the MMNS Foundation, a new heat exchanger was installed in the 16,300 gallon Mississippi Sound aquarium. This provides more oxygen in the water and results in healthier, more active fish to enlighten our guests. Several interesting new residents in the Mississippi Sound

A T. rex Named Sue

Jackson experienced one gigantic summer in 2005 as A T. rex Named Sue opened at the Museum. More than 55,300 visitors experienced the excitement of this nationally acclaimed interactive exhibit featuring a life-sized replica of the most widely recognized dinosaur in the world.

Sue was remarkable because of her size, completeness, and quality of preservation. The exhibit used those qualities to show us how T. rex was monstrous yet mortal. Through interactive techniques, the exhibit provided a visceral experience with visual, tactile, audible, and aromatic activities accompanied by written explanations. The 3,500 square foot Tyrannosaurus rex exhibition came to us from The Field Museum of Chicago.

Lost in the Amazon

In the spring of 2006, more than 53,800 visitors enjoyed a photographic exhibit by wildlife photographer and Madison resident Stephen Kirkpatrick. The 40 color photographs on display were taken from Kirkpatrick's award-winning coffee table book, *Romancing the Rain*, which was shot over nine years in the remote jungles of the Peruvian Amazon. Featured subjects included brilliant tropical birds, colorful poison dart frogs, venomous snakes, playful monkeys, exotic mammals, vibrant jungle flowers, breathtaking rain-forest landscapes, and panoramic shots of the mighty Amazon River.

The World of Giant Insects

The summer of 2006 found the Museum crawling with giant, robotic bugs—and swarming with more than 45,000 bug-loving visitors. These hugely magnified insects allowed visitors to observe closely some of

EDUCATION & OUTREACH

The Museum's twelve-person Education team consists of an Education Coordinator, Naturalists, Outreach Naturalists, coordinators for Special Projects and Preschool activities, a Preschool Educator and an Education Assistant. These team members draw from their diverse backgrounds in education and research as they share the Museum's resources with visitors and through outreach efforts. The Education team distributes instructional materials to schools statewide and present hands-on, interactive educational programs and teacher training workshops. The team also contributes professionally to museum publications and fills thousands of requests for literature and information.

Education Programs

The Museum is a living classroom, offering a variety of programs to schoolchildren from classification to food



facilities to enhance four major traveling exhibitions, which collectively welcomed 184,000 visitors.

- Conducted more than 150 interactive fish feeding sessions.
- Installed a new heat exchanger in the Mississippi Sound aquarium.
- Installed interpretive signage for the Native Plant Collection and Prairie Garden Plot.

Basilosaurus Exhibit

With financial support from the MMNS Foundation and the National Science Museum of Japan, a 35-million year old prehistoric whale was added to our permanent exhibits during FY 06. Unearthed in Scott County in 2002, the 35-million year old Basilosaurus fossil is now on display in the Museum's lower lobby.

relatively unscathed by the strong winds of Hurricane Katrina. Fallen trees created some new forest gaps and caused temporary trail closures for clearing and boardwalk repairs by staff and volunteers. Other than clearing debris from walking trails, our policy is to leave fallen trees in place, allowing them to return their nutrients to the forest as they decay.

Many of our visitors enjoy the miles of well-marked walking trails that descend eastward toward the Pearl River and the more cultivated trails near the building. This year, the fully handicap-accessible trail through the Native Plant Garden and the Prairie Garden Plot got new signage describing seasonal blooming plants of the area and directing visitors along paths that circulate from the parking area on the southwest side of the Museum to the Museum entrance.

include Tribletail, Amber Jack, and Hardtails. An unusual golden-colored Spotted Gar was added to the Reservoir aquarium and is attracting a fascinated audience. Volunteer divers performed every weekend of the year, becoming an important part of our public programming.

Special Exhibits

Thanks to an unprecedented level of support from sponsors and the innovative and thoughtful enhancements by MMNS exhibit staff, four distinguished special exhibits pushed Museum attendance to record highs.

Going by the Numbers

297,347 TOTAL VISITORS
141,340 VISITORS
156,007 OUTREACH

JUNE 2005 - SEPTEMBER 2006 SPECIAL ATTRACTIONS

more than 45,000 visitors

GIANT INSECTS

more than 53,800 visitors

LOST IN THE AMAZON

almost 20,000 visitors

AFTER THE DINOSAURS

more than 55,300 visitors

A T. REX NAMED SUE



After the Dinosaurs: Prehistoric Mammals

Almost 20,000 visitors came face to face with

a group of stomping, roaring, animated creatures in the fall of 2005. Eight extinct animals came alive for visitors, including a Hippopotamus-like Baluchitherium, a saber-toothed cat family of four, a Woolly Mammoth, plus five other robotic creatures from this tumultuous time in Earth's past. In addition, educational pro-gramming encouraged aspiring paleontologists to "bone-up" on prehistoric facts.

These giants were manufactured in Los Angeles by Kokoro Dinosaurs using the latest in robotic technology to give each creature its own unique sequence of movement and sound.

the behaviors and adaptations that have helped these creatures thrive. Insects included a 19-foot long praying mantis intimidating its prey, a 13-foot locust spreading its wings, a 21-foot giant walking stick, a 15-foot swallowtail butterfly caterpillar, and two rhinoceros beetles—each the size of a Volkswagen Beetle—in fierce battle. Three of the giant insect heads had mouthpieces that visitors could operate with the push of a button, revealing how an 80 times-magnified dragonfly chews; how a bee, 200 times life size, sucks nectar; and how a mosquito, 600 times its real size, pierces its victims skin to draw sustenance.

chains to fossils. Museum programs include hands-on activities, observation of live and mounted specimens, and video presentations. Hands-on presentations are correlated to the state science curriculum objectives and are both content and grade appropriate.

Program topics available during a Museum visit include birds, reptiles, fish, amphibians, plants, mammals, invertebrates, fossils and rocks. Emphasis areas include classification, ecology, symbiosis, food chains/webs, adaptations, habitats, Mississippi Endangered Species, and aquatic ecosystems.

ACCOMPLISHMENTS AND ACTIVITIES:

- In collaboration with the Conservation Biology and Aquariums divisions, presented more than 749 in-house programs to 41,729 Museum visitors—many of them students—representing 64 Mississippi counties.

Preschool Facilities & Programs

The Museum's hands-on preschool Discovery Room is a tiny space with big ideas, designed especially for children ages 3 through pre-kindergarten 5. Here children can climb a tree, play with puppets, visit animal habitats, and listen to captivating stories under the guidance of experienced and inspirational preschool education staff. Seasonal programming provides natural world enlightenment for little ones and their caregivers in group classes by reservation.

ACCOMPLISHMENTS AND ACTIVITIES:

- Conducted 233 "Time for Twos" sessions for ages 2 and under.
- Conducted 127 "Story Time" sessions for ages 3 to 5.
- Hosted 2 sessions of Preschool Summer Camp.
- Provided 168 group classes with seasonal programming.
- Served a total of 32,145 children and caregivers in FY 06.

Community Enrichment

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

ACCOMPLISHMENTS AND ACTIVITIES:

- Hosted 10 "First Tuesday" Lectures featuring scholars and celebrated naturalists.
- Conducted more than 150 interactive fish feeding sessions for general visitation audiences.
- Presented more than 50 Saturday "Creature Features" from the MMNS collection.
- Planned and conducted 8 "Family Fun Fridays."
- Partnered with the Mississippi Wildlife Federation and Wal-Mart to host "Katfishin' Kids" with more than 600 participants.
- Partnered with Buffalo Peak to plan and organize "National Trails Day" events.
- Hosted the following Museum events: "Got Fish!," "NatureFest," "Make a Splash," "International Migratory Bird Day," "Fossil Road Show," "Slither Crawl & Fly," "Nature Made Christmas," & "Christmas for the Birds."
- Provided materials and information to Mississippi Department of Wildlife, Fisheries and Parks Conservation Officers for use in their programs.
- Reached another 6,393 citizens through appearances at 107 community programs, including events

such as conferences, club meetings, and science fairs.

- Sponsored the Junior Duck Stamp Art Competition, exhibition, and reception.
- Provided quality, hands-on, programming for students from preschool through college.

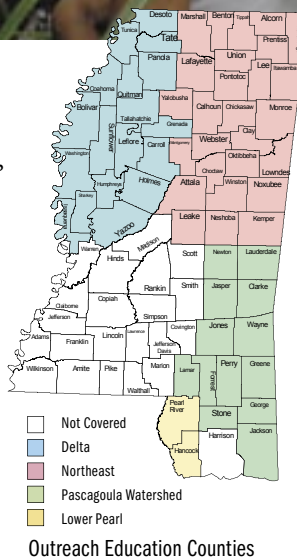
Outreach Education

Our four Outreach Naturalists bring special programs to schoolchildren statewide—in essence, bringing the Museum to them. In FY 06, they presented classroom programs to more than 32,000 schoolchildren, reached an additional 30,000 people through Museum presentations at community events, and provided learning materials, educational kits, or other outreach services to almost 70,000.



ACCOMPLISHMENTS AND ACTIVITIES:

- Presented 973 interactive classroom programs to 32,518 students in northeast, northwest, and southeast Mississippi counties.
- Made 217 presentations across the Delta region of a program entitled "Bears, Bugs, and Gators: Here the Wild Things Are: Mississippi's Wild and Endangered Animals," with more than 6,530 students attending.



- Made 399 presentations in northeast Mississippi of a program entitled "Gators, Taters, and Turtles? Wild Endangered Mississippi," reaching 14,987 students.
- Made 357 presentations in the Pascagoula Watershed region of a program entitled "Mississippi's Endangered Species: From Kites Above to Tortoises Below," attended by 11,001 students.
- Developed a new program for the Lower Pearl River Valley region called "Honey Island Swamp: Getting to Know the 'Wild Things' of the Lower Pearl River Valley."



Teacher Resources and Programs

Teacher resources coordinated by our education team include teacher workshops conducted by Museum staff and volunteers, videos and object kits for loan, web-based activities, and merchandise recommendations for the Museum store.

One of our landmark teacher resources is Project WILD—an interdisciplinary conservation and environmental educational program emphasizing wildlife. The program is designed for educators of kindergarten through twelfth grade. Project WILD educational materials are provided to educators through practical, interactive 6-hour workshops. The program capitalizes on the natural interest that children and adults have in wildlife by providing hands-on activities that enhance all subject and skill areas.

Project WET's educational materials are also provided to educators through 6-hour workshops. The "Project WET Curriculum and Activity Guide," for kindergarten through twelfth grades, is a collection of innovative, water-related activities that are hands-on, easy to use, and fun! Providing a thorough water education program, the guide also addresses the chemical and physical properties of water, quantity and quality issues, aquatic wildlife, ecosystems, and management strategies.

ACCOMPLISHMENTS AND ACTIVITIES:

- Planned and conducted 3 Project WILD Teacher Workshops attended by 37 educators from across the state.
- Planned and conducted 5 Project WET Teacher Workshops attended by 99 educators from eight Mississippi counties.
- Conducted a Back-to-School Night for Teachers to gather resources from MMNS as well as other agencies and organizations.

- Planned and conducted two workshops for Mississippi preschool teachers.
- Loaned 62 object kits to teachers statewide.
- Provided information, resources, videos and object kits to classrooms and the public statewide, answering more than 7,700 requests.
- Began development of an online Kids Club at www.ms-naturalscience.org.
- Responded to 2,713 requests from educators for technical assistance.

GENERAL OPERATIONS

The Museum's administrative and operational support staffs are responsible for activities ranging from the regular maintenance of Museum facilities and grounds to the enrollment of new members, from running the gift shop and providing security to processing payments and time sheets. The staff manages not only our 73,500-square foot Museum complex, but also the entire 300-acre campus with its gardens, outdoor classrooms, and 2.5 miles of walking trails.

Each year a growing number of travelers take time to visit, drawn by word-of-mouth, by enthusiastic travel articles, by our advertising, and by our website. In the past fiscal year, the Museum welcomed through its doors more than 141,340 visitors, coming from all 82 Mississippi counties, all 50 states, and more than 40 foreign countries. Plus, the Museum coordinated outreach to 156,007 individuals and institutions. To serve so many so well, and to attract such attention nationally and internationally, would not be possible without the fundamental, day-to-day work of the Museum's dedicated staff.

ACCOMPLISHMENTS AND ACTIVITIES:

- Participated on the Governor's Task Force on Nature Tourism.
- Published 3 issues of the *Natural Newline*.
- Recognized by the Mississippi Tourism Association as "Mississippi's Travel Attraction of the Year," for the sixth year in a row.
- Bestowed a SUMITT Award by Jackson Mississippi Convention and Visitor's Bureau as "Attraction of the Year."
- Named "Best Museum" by *The Jackson Free Press* "The 2006 Best of Jackson Reader's Poll."
- Awarded *Mississippi Magazine's* "2006 Best Museum."
- Honored by *Parents & Kids Magazine* as "Family Favorite—Best Museum for Kids."

Research Library

The Museum's research library, started with a donation of materials from Miss Fannye A. Cook in 1965, now houses a collection of more than 17,000 volumes concerning Mississippi's natural history. The library is open to the public and also serves as a support facility for the various programs and research efforts of the Museum.

ACCOMPLISHMENTS AND ACTIVITIES:

- Answered approximately 3,400 reference inquiries made by visitors to the library, by phone call, and by interlibrary loan request.
- Bound more than 150 journal volumes for the permanent collection.

FOUNDATION & SUPPORT

The MMNS Foundation is a not-for-profit 501(c)(3) organization, dedicated exclusively to the betterment of the Mississippi Museum of Natural Science. Working hand-in-hand with the Mississippi Department of Wildlife, Fisheries and Parks, the MMNS Foundation supports all the programs and activities of the Museum by generating and receiving tax deductible donations as well as providing the volunteers that are vital to the Museum's operation.

The Foundation is involved primarily in funding permanent and special temporary exhibits. During the past two years, private funds have also been raised to support outreach education programming when state funds have not be available. The Foundation has even played a small role in research and collections projects such as the ongoing work to document Black Bear in the state.

Steadfast Members & Supporters

Membership in the MMNS Foundation is now more than 1,000-strong. These private individuals, families, and corporations who make tax-deductible donations through the Foundation receive many unique benefits of membership—but it is the Museum and the public who truly benefit from their generosity.

Volunteers

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.

Through commitment of time and talents, volunteers have made invaluable contributions to the Museum and its mission. In FY 06, our volunteers contributed more than 7,445 hours, providing services with a dollar value of \$119,521.

Volunteers completed outdoor projects such as removing introduced species, repairing trails, building fences, gardening, and removing trash. They also greeted visitors, assisted with exhibits and events and in the gift shop, led informal programs, assisted with research, went diving in the aquariums, and helped with special projects as well as general office functions.

Several volunteers have served over 1,000 hours over the past 20 years. This year, we want to recognize Joy Rushing and Lou F. Moore for their time and hard work!



The Dragonfly Shoppe

Tucked just inside the lobby of the Museum is the Dragonfly Shoppe—a unique store with nature-related gifts for adults and children. Each month, the Dragonfly Shoppe offers a thoughtful selection of gift items that coordinate with current exhibitions and educational programming. Featuring items from jewelry to books to butterfly houses, the Dragonfly Shoppe has something for everyone.





Special Thanks to Our 2005-2006 Donors

STEADFAST SUPPORTERS

\$100,000 - \$200,000

Abe Rotwein Family
The Chisholm Foundation
Deposit Guaranty / AmSouth Foundation
Ergon
Bryant Mather
Mississippi Museum of Natural Science Foundation
U.S. Fish and Wildlife Service
Community Foundation of Greater Jackson

\$50,000 - \$100,000

Bell South
Magalen O. Bryant and Tara Wildlife Management
Chevron
Entergy
Environmental Protection Agency
Friede Goldman
Gannett Foundation / The Clarion Ledger
Gertrude C. Ford Foundation
Phil Hardin Foundation
Mr. & Mrs. Dudley Hughes
Iby 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
Bureau of Land Management
Delta and Pine Land Company
Georgia Pacific Corporation
International Paper Foundation
Merrill Lynch
Mississippi Power Company
Mississippi Valley Gas Company

Molpus Woodlands Group

Plum Creek Foundation
Pruet Companies
Trustmark National Bank
U.S. Department of Transportation
U.S. Forest Service
Mr. & Mrs. William J. Van Devender
Walker Foundation
Dr. & Mrs. Julian Wiener
Weyerhaeuser Company
Foundation
Yazoo Mississippi Levee Board

\$10,000 - \$25,000

The Armstrong Foundation
BancorpSouth Foundation
Feild Cooperative Association
Howard Industries, Inc.
Jackson Convention & Visitors Bureau
Mississippi Arts Commission
Mississippi Forestry Association
Mississippi Forestry Foundation
National Geographic Society
Education Foundation
Soterra LLC
Sprint PC / US Unwired
The Straddlefork Foundation
Wild Turkey Federation
Nissan

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
Opal H. Dakin
Marianne & Jack Dempsey
Theo Dinkns
Halla Jo Ellis
Billie M. Ellison
Sylvia Ann Finman

Mr. & Mrs. Wesley Goings
Mr. & Mrs. Chris Hall
Mr. & Mrs. Richard Harding
Paul Hartfield
Emily Hartfield
Matthew Holleman, III
Michael & Janice LeBlanc
William L. Lee
Jennie McIntosh
Mr. & Mrs. David McMillin
John Palmer
Jackie & Avery Rollins
Suzanne Rotwein
Rosalie Rotwein
James E. Stary
Carol & Cavett Taff
Richard Vavrick
Ellan Vavrick
Robert & Janice Whitehead
William Roberts Wilson, Jr.
Dr. & Mrs. Steve Zachow

SUSTAINING MEMBERS

\$1,000 OR MORE

Magalen O. Bryant
Hiram & Elizabeth Creekmore
Deborah Dawkins
Mississippi Power Company
Foundation
Melissa & David Patterson
Margie L. Smith
Scott & Joy Steele
Beth & Lance Stevens

PATRON MEMBERS

\$500 OR MORE

Betsy Creekmore
Dick Hall
Charlotte & Steve Icardi
Olybe B. Shirley
Neil & Karen Whitworth

DONOR MEMBERS

\$250 OR MORE
Frederick & Marian Anklam
Mr. & Mrs. Ramon L. Callahan

Mr. & Mrs. Chris Hall
Thomas & Courtney Hewitt
Stuart M. Irby
Hap & Hilda Owen
Catchings & Lottie Smith
Dan Smith & Kristi Sather-Smith
Kathryn Wiener
Douglas & Mary Wolfe

FRIEND MEMBERS

\$100 OR MORE

Ruth & Murphy Adkins
George Allen
Cassie & Sheldon Alston
Mrs. W. W. Aydelott
Gerald & Elizabeth Barber
Lisa & Walter Boone
David Bower
LeAnne & Allen Brewer
Jayne Buttross
Gail & Joe Buzhardt
Steven & Eric Chevalier
Mr. & Mrs. Buford Clark
Kane & Betsy Ditto
Louisa Dixon & Jerry Johnson
Edgar Draper
Terry Dwyer & Marcy Petrini
Sean Wesley Ellis
Gerald & Joyce Ellis
Jane & Ed Emling
Larry & Rhea Estes
Dees R. Faucett
John & Ann Fournet
Mr. & Mrs. B. E. Gandy
Nola Gibson
Mr. & Mrs. Jack Harding
Mrs. Norman A. Johnson, Jr.
Joan Marie Kaye
Catherine Klipple
Penny Kochtitzky
Patsy Langford
Dr. & Mrs. T. W. Little, III
Jeanne Luckett
Chester O. Martin
Verneda Mason
John & Melody Maxey
Glade & Emily McInnis
Mr. & Mrs. Sidney Montgomery
Jeanette Morgan

Mr. & Mrs. Maurice A. Murray
John Nabors
C. H. Phillips II
George Robson, Jr.
Jay & Denise Schimmel
Don & Joyce Sparks
Bill & Joanna Storey
Ed Swiatlo
Granville Tate, Jr.
Harriet & Aaron Trubman
Craig & Dena Vincent
Mr. & Mrs. Fred G. Wilson
Dr. & Mrs. Frank Wiygul
Steve Zary

EXHIBIT SPONSORS

THE WORLD OF GIANT INSECTS

Janet & Luther Ott Charitable Fund of the Community
Foundation of Greater Jackson
Gertrude C. Ford Foundation
Merrill Lynch
Trustmark Bank

LOST IN THE AMAZON

Waste Management of Mississippi, Inc.
Sanderson Farms, Inc.
Trustmark Bank
Mr. & Mrs. Robert Gaston
Patagonia, Inc.

WHAT CAME AFTER THE DINOSAURS

Feild Cooperative Association

A T. REX NAMED SUE

Gertrude C. Ford Foundation
Merrill Lynch
Nissan North America, Inc.
Janet & Luther Ott Charitable Fund of the Community
Foundation of Greater Jackson
Dudley J. Hughes
Mr. & Mrs. Alex A. Alston, Jr.
Trustmark Bank
St. Dominic Hospital

Beth & Lance Stevens
Jackson Convention & Visitors Bureau
Mississippi Museum of Natural Science Foundation
Brunini, Grantham, Grower & Hewes, PLLC
Mr. & Mrs. John G. Corlew
Deviney Construction Company, Inc.
W. Glynn Griffing
Earle F. Jones
Liston / Lancaster PLLC
The Clay Firm
Newt P. Harrison
Jones, Funderburg & Sessums, PLLC
Mr. & Mrs. Richard T. Phillips
Dr. Robert Smith
Statstreet Group, LLC

FOSSIL WHALE EXHIBIT

Ernest A. Klatt, Jr.

EDUCATION OUTREACH SPONSORS

Paul Benton
Entergy Charitable Foundation
The King's Daughters and Sons
Circle Number Two
Walker Foundation

PALEONTOLOGY SUPPORTERS

James R. Bain
Richard & Suzanne Chandler
Ernest Klatt
North Carolina Fossil Club
Judith Stiles

OTHER CONTRIBUTORS

Frederick & Marian Anklam
Association of Christian Schools International

Betsy Creekmore
Halla Jo Ellis
Burke H. Fisher
Dick Hall
Mississippi Wildlife Federation
Jere Nash & Holly Wagner

VOLUNTEERS SERVING OVER 1000 HOURS

Martha Boone Cooper
Marianne L. Dempsey
Gladys Gurman
Jean Headrick
Mary Bea McArdie
Mike McNeese
Michael A. Stegall
Halla Jo Ellis
John D. Davis
Billie Ellison
John Suedel
Judith T. Davis
Joy Rushing
Lou F. Moore

MEMORIALS

In memory of Mr. Trey Crook by John & Sheila McCullough
In memory of Mrs. Renee Smith by Libby & Paul Hartfield
by Lee & Richard Harding
In memory of Mrs. Val Reynolds by Libby & Paul Hartfield
by Jack & Nola Herring
In memory of Dr. Fred Brown by The Mississippi Science Teacher's Association

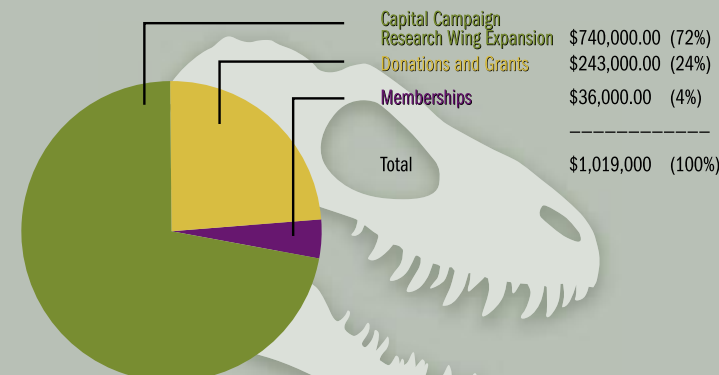
Foundation Revenue & Expenditures

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

The Mississippi Museum of Natural Science Foundation is a 501(c)(3) not for profit organization with the sole purpose of benefiting the projects and activities of the Mississippi Museum of Natural Science, a bureau of the Mississippi Department of Wildlife, Fisheries, and Parks.

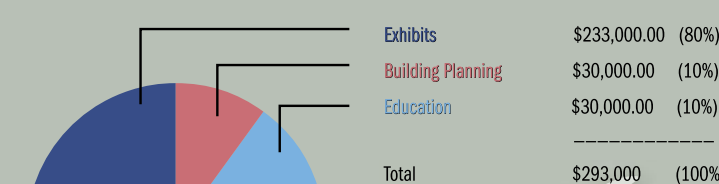
MMNS FOUNDATION REVENUE

January - December, 2005



MMNS FOUNDATION EXPENDITURES

January - December, 2005

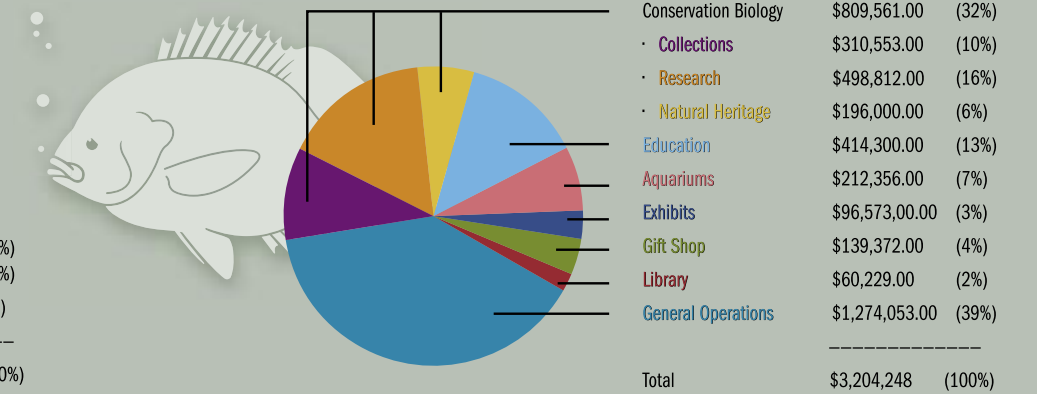


Museum Funding & Expenditures

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

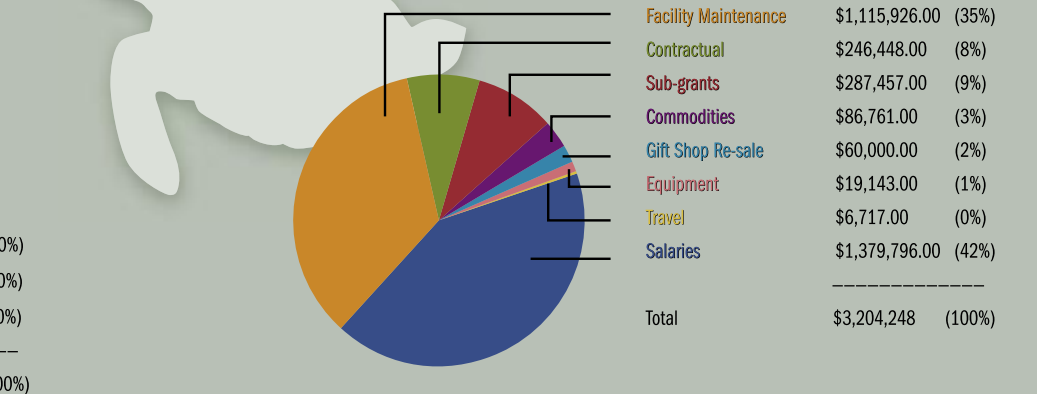
EXPENDITURES BY SERVICES

July 1, 2005 - June 30, 2006



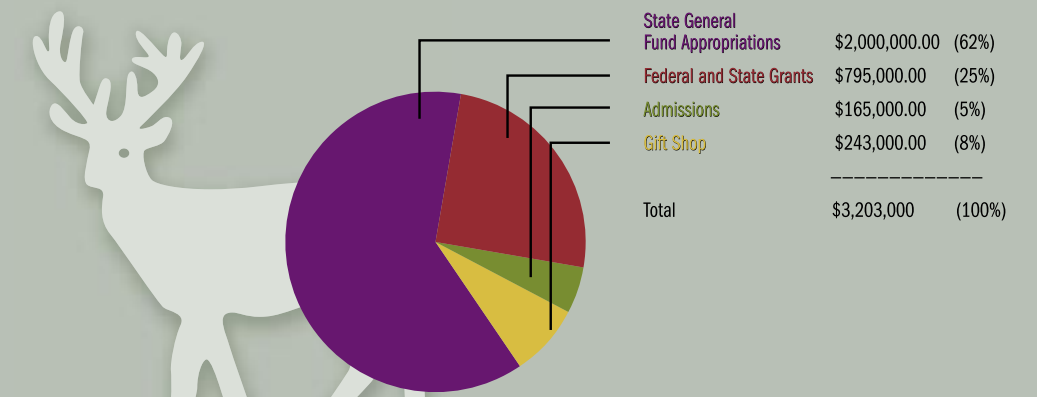
EXPENDITURES BY CATEGORY

July 1, 2005 - June 30, 2006



FUNDING BY SOURCE

July 1, 2005 - June 30, 2006





MISSISSIPPI
Museum of
Natural
Science

2148 RIVERSIDE DRIVE
JACKSON, MS 39202-1353

DEPARTMENT OF WILDLIFE, FISHERIES, AND PARKS

Preserving Natural Mississippi

NON-PROFIT ORG.

U.S. POSTAGE

PAID

JACKSON, MISS.

PERMIT NO. 932

MUSEUM OF NATURAL SCIENCE FOUNDATION

OFFICERS

Chris Zachow, President
Alex Alston, Vice President
Janice Larson, Secretary/Treasurer

BOARD OF DIRECTORS

George Allen
Alex Alston, Jr.
Kevin Caldwell
Betsy Creekmore
Opal Dakin
Deborah Dawkins
Marianne Dempsey
Theo Dinkins III
Halla Jo Ellis
Sean Wesley Ellis
Frank Gallina
Dick Hall
Dick Harding
Libby Hartfield
Matt Holleman III
Janice Larson
Jennie McIntosh
John Rings
Avery Rollins
Rosalie Rotwein
Ollye Brown Shirley
Catchings B. Smith
Sheila Smith
Scott Steele
Chris Zachow

MISSISSIPPI MUSEUM OF NATURAL SCIENCE STAFF

DIRECTOR

Libby Hartfield, Museum Director

ADMINISTRATION

Mary Jenkins,
Administration Coordinator
Connie Gore, Gift Shop Manager
Mary Stevens, Librarian
Harold Garner, Facilities
Maintenance Manager
Brandy Jenkins,
Administrative Assistant
Clarence White,
Administrative Assistant
Shirley Hall, Custodial Supervisor
Charles Jeffcoat, Custodian

AQUARIUMS

Terry Majure, Aquarium Coordinator
Karen Dierolf, Aquatic Biologist
Stephanie Hawes Monistere,
Aquatic Biologist
Mike Stegall, Aquarist

EDUCATION

Georgia Spencer, Education Coordinator
John DeFillipo, Outreach Naturalist
Joan Elder, Preschool Coordinator

Megan Ellis, Outreach Naturalist
Rebecca Gruneberg,
Special Projects Coordinator
Yolanda Hawkins, Education Assistant
Isabel Kelly, Preschool Educator
Joseph M. McGee, Outreach Naturalist
Angel Rohnke, Naturalist
Nicole Smith, Naturalist
Sarah Wheelless, Outreach Naturalist
Corey Wright, Naturalist

EXHIBIT MANAGEMENT

Norton McKeigney, Exhibits Supervisor
Ray Terry, Exhibits Supervisor

RESEARCH

Charles Knight, Research Coordinator
Melanie Howarter,
Biological Data Manager
Adrienne Clark, Database Technician
Mark Dugo, Ichthyologist
Bryan Fedrick, Laboratory Assistant
Matthew B. Hicks, Natural Heritage
Program Coordinator
R.L. Jones, Ph.D., Herpetologist
Tom Mann, Biologist
Meredith Montgomery,
Laboratory Technician
Scott Peyton, Collections Manager
George Phillips, Paleontology Curator
Richard Rummel, Wildlife Specialist

Alison McCartney, Field Biologist/
Database Specialist
Todd Slack, Ph.D., Ichthyologist
Heather Sullivan, Botanist
Ian Thompson, Research Assistant
LaToya Turner, Laboratory Assistant
Andrew Whitehurst, Scenic Streams/
Natural Areas Coordinator
Nicholas Winstead, Ornithologist
Brad Young, Black Bear Biologist

MISSISSIPPI DEPARTMENT OF WILDLIFE, FISHERIES AND PARKS

Sam Polles, Ph.D.,
Executive Director
Al Tuck, Deputy Director
Robert Cook, Executive Officer

COMMISSIONERS

William C. Deviney, Jr., Chairman
John C. Stanley IV, Vice Chairman
James Huff
Bryan Jones
Jerry Munro

The Museum served a total of 297,347 people during FY 2006. 141,340 of these were visitors, coming from all 82 Mississippi counties, all 50 states, and more than 40 foreign countries.

The Museum was recognized as:

Mississippi's Travel
Attraction of the Year

Mississippi Tourism Association

Best Museum

Jackson Free Press

Best Museum

Mississippi Magazine

Family Favorite—Best
Museum for Kids

Parents & Kids Magazine

Attraction of the Year

Jackson Convention & Visitors Bureau's SUMMIT Award