

MISSISSIPPI
Museum of
Natural
Science

RAINFOREST



MMNS • Vol. 30 • No. 1

COME PLAY IN THE RAIN(FOREST)!

**RAINFOREST
ADVENTURE**
Jan 26 – May 12, 2013



CLIMB A 9' KAPOK TREE • GET COZY WITH A GORILLA • IDENTIFY ENDANGERED SPECIES • BUILD A MODEL INSECT

Rainforest Adventure is a multisensory expedition to the tropical rainforests of the world. The exhibit highlights the challenges facing these unique ecological wonders. Visitors are introduced to scientists and the ways they study rainforests. Using costumes and props, children role-play as research assistants on a series of problem-solving adventures.

Topics include: tropical rainforests around the world, conservation, scientists, animals, plants and global connections. Featuring over 40 interactive components, two computer games, a distance learning kiosk and plenty of expedition props - vests, flashlights, binoculars and more! After exploring the exhibit, shop for unique rainforest related gifts in the Museum's Dragonfly Shoppe.

Rainforest Adventure was created by **Stepping Stones** Museum for Children and is sponsored locally by the Mississippi Department of Wildlife, Fisheries, and Parks, Mississippi Museum of Natural Science Foundation, Sanderson Farms, The Walker Foundation, Paul T. Benton, The Chisholm Foundation, Feild Cooperative Association, Inc., Trustmark Bank, Chris and Steve Zachow, Brunini, Grantham, Grower and Hewes, and other generous sponsors.



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EDUCATION COORDINATOR

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ORNITHOLOGIST



ASSOCIATION OF
SCIENCE-TECHNOLOGY
CENTERS



Dear Members,

There are several good reasons for you to plan a trip to the Museum of Natural Science this winter or spring. The new temporary exhibit RAINFOREST ADVENTURE will be open January 26 through May 12th and is certainly an experience you will want to share with the children in your life. But there are also reasons to visit that could be important to your health and well being! We are all reading more and more about the role exercise plays in a healthy lifestyle and there is evidence that exercise in a natural setting can be even more beneficial than in-door exercise. If you take the time to enjoy a beautiful walk in the woods you get the health advantage of walking and the calming effects of a serene moment in nature that may lower stress levels and make you a happier person for the rest of the day.

There are more than two miles of beautiful nature trails for you to enjoy right here behind the Museum, complete with maps and trail signage to make the experience educational for family members of all ages. A family membership gives you the chance to visit the Museum all year and to walk the nature trails as often as you would like.

If you're looking for a fun way to encourage yourself to get outdoors this winter and meet some interesting new friends, consider volunteering here at the Museum of Natural Science. Your walk can be part of a wonderful day that improves your health and helps your community! Volunteers work with museum education staff, research scientists and in the gift shop to help visiting school groups and families have a more educational experience in the Museum.

So please come to see the RAINFOREST ADVENTURE and wear your walking shoes. I hope to see you on the trails.

Libby Hartfield

Libby Hartfield
MUSEUM DIRECTOR

MISSION STATEMENT:

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.



NATURE FEST

SATURDAY, APRIL 6
AT THE MUSEUM



Spend the day in the middle of nature!

NatureFEST! 2013 is a festival, a nature outing, and a fascinating Museum trip all wrapped into one exciting day. From live reptile and birds of prey demonstrations to watching divers feed the fish in our giant aquariums, NatureFEST! offers something for everyone. Young budding scientists can interact with our expert

biologists and researchers, and take a behind the scenes tour. Outdoor enthusiasts can enjoy a stroll through the Museum's native plant garden, or inhale the sweet aromas of spring on a guided tour of our nature trails. In the mood for a water adventure? Hop in a canoe and paddle down the Pearl River with John Rusky of the Quapaw Canoe Company.

Visitors can also explore our new *Rainforest Adventure* exhibit, browse the native plant sale, and much more!

NatureFEST! takes place Saturday, April 6, from 10 a.m. to 5 p.m. at the Museum. Remember to check msnaturalscience.org and [Facebook.com/msnaturalscience](https://www.facebook.com/msnaturalscience) for updates on NatureFEST! activities.



QUICK CALENDAR

Rainforest Adventure

JANUARY 26 - MAY 12, 2013

Got Fish?

SATURDAY, JANUARY 26

9 a.m. - 12:30 p.m.

Fishy Friday!

FRIDAY, FEBRUARY 1

10 a.m. - 12 p.m.

Arbor Day Adventures

FRIDAY, FEBRUARY 8

10 a.m. - 12 p.m.

Giant National Geographic Traveling Map of North America

FEBRUARY 11 - 15

FEBRUARY 18 - 23

9 a.m. - 12 p.m.

Fossil Road Show

SATURDAY, MARCH 2

10 a.m. - 3 p.m.

NatureFEST!

SATURDAY, APRIL 6

10 a.m. - 5 p.m.

International Migratory Bird Day

SATURDAY, MAY 4

10 a.m. - 3 p.m.

Katfishin Kids at Turcotte Lab

SATURDAY, JUNE 1

7 - 10:30 a.m.

Snake Day

TUESDAY, JUNE 4

10 a.m. - 3 p.m.

Junior Naturalist Summer Camp

JUNE 3-7

WILD about Summer Camp

JUNE 10-13 (ENTERING K-1)

JUNE 17-20 (ENTERING 2-3)

JUNE 24-27 (ENTERING 4-5)

Announcements

WILD About Summer Camp!

New friends, crafts, games, and outdoor investigations will make this summer fun and exciting! **Camp WILD**, our half-day camp for 5 year old Kindergarten through 5th grade, will focus on the ecosystems of Mississippi and **Jr. Naturalist Camp**, our ecology based camp for 6th-9th grade, will focus on the identification, collection, and conservation of our native species. The Museum's summer camp program was named a *Parents & Kids Magazine 2012 Family Favorite*.

Mississippi Museum of Natural Science Foundation family member registration begins February 1st and non-member registration begins March 1st. Please visit msnaturalscience.org and click on the Bulletin Board for registration forms and additional information on camp dates and fees, beginning **February 1st**.



SUMMER CAMP ACTIVITIES

Entries Sought for "Fifth Annual Back to Nature Photography Contest"

The Museum is accepting entries from February 2, 2013 to February 1, 2014 for the Fifth Annual Back to Nature Photography Contest. The contest is designed to encourage Museum visitors to venture out and capture the natural beauty of the wildlife and habitats seen on the grounds of the Mississippi Museum of Natural Science and along the trails of Lefleur's Bluff State Park. For details, visit msnaturalscience.org and click on the Bulletin Board or call 601-576-6000 for official guidelines and entry form. Winners of the Fourth Annual Back to Nature Photography Contest will be announced in a future issue of the Newline and on our website.



"DINNER" BY MARTHA GRAY, 2ND PLACE WILDLIFE ADULT WINNER
(3RD ANNUAL BACK TO NATURE PHOTOGRAPHY CONTEST)

Award Winners

Joan Elder, Preschool Coordinator, was awarded the 2013 *Helen Harley Award* by the Mississippi Early Childhood Association, an affiliate of the Southern Early Childhood Association. Joan also recently received the 2012 *Mississippi Science Teachers Association Outstanding Informal Educator award* and the 2011 *Mississippi Project WILD Facilitator of the Year award*. Joan's enthusiasm and knowledge of wildlife and early childhood education encourages all Mississippians to explore the outdoors with excitement and curiosity.

John Defazio, Jr. was recently named the 2012 *Mississippi Project WILD Outstanding Facilitator of the Year*. John has served as a Project WILD facilitator for 22 years. John currently serves as a wildlife biologist with the Natural Resources Conservation Service. He has had a strong interest in environmental education and has provided numerous programs throughout the years to various groups.



VERITY MATHIS, PH.D., RESEARCH AND COLLECTIONS COORDINATOR

New Staff

Verity Mathis is the Museum's new Research and Collections Coordinator. Verity received a dual B.S. in wildlife sciences and zoology at North Carolina State University and an M.S. in wildlife sciences at New Mexico State University. She is currently completing her Ph. D. in Biological Sciences from Louisiana State University, where she was a graduate student in the LSU Museum of Natural Science and worked on the evolutionary dynamics of pocket gophers. Her research interests include the conservation, evolution, and ecology of mammals.

Debora Waz is the Museum's Outreach Conservation Educator covering northeast Mississippi. Debora grew up in Connecticut and attended Drew University in New Jersey where she received her B.S. in Biology. Debora has worked in the Environmental Education field since 2005. Debora is an avid outdoorsman who enjoys sharing her love for the outdoors with kids of all ages. Debora currently resides in Tishomingo County.



DEBORA WAZ, OUTREACH CONSERVATION EDUCATOR

Upcoming Special Events

Got Fish?

Whether you're a beginner or a seasoned angler, don't miss "Got Fish?". A panel of experts, hosted by *Mississippi Outdoors* TV show co-host Randy Newell, will answer your questions on fish. There will be two seminars: bass fishing from 9:00 to 10:30 a.m. and crappie fishing from 10:45 a.m. to 12:30 p.m. Plus, don't miss our interactive fish feedings with divers!

Fossil Road Show

Bring your fossil discoveries and get expert opinions about their ages and identities from our panel of experts. In addition to the Museum fossil collection, there will be collector displays, institutional exhibitors, and a special guest speaker. Activities include a molding/casting exercise, "fossil dig," and a scavenger hunt. So, go through your "rock boxes" and challenge our staff with your prehistoric oddities!

International Migratory Bird Day

Migrate to the Museum's grounds and nature trails - favorite stopovers for birds that fly between their North American breeding grounds and their Central and South America wintering grounds - for this year's International Migratory Bird Day. The 2013 theme is "Life Cycle of a Migratory Bird." We'll gather at the Museum for bird watching, nature hikes, and to learn more about all aspects of a migratory bird's life, from nesting and migration to breeding and raising young. So wing on over!

Katfishin' Kids

Fun fishing at Turcotte Lab off Hwy 43 at Ross Barnett Reservoir, for ages 15 and under, accompanied by adults. Equipment, bait and lunch are FREE. Bring the kids and join us for a fun-filled day where children can learn the basics of fishing. We'll teach them how to tie a knot, select the correct lure, bait hooks and cast. In addition, they will learn what a fish is and become familiar with its habitat. We'll stock the pond with catfish and let them try their hand at fishing. Each child participating will receive a FREE t-shirt and goodie bag while supplies last.

Snake Day

Bryan Fedrick, Herpetologist (MS Army National Guard and Museum Field Associate), will help you spot the differences between Mississippi's venomous and non-venomous snakes, separating myth from accurate information about native snakes' value in the ecosystem. Catch one of Fedrick's interactive discussions from 10 a.m. to 11 a.m. and 12 p.m. to 1 p.m. Live snakes will be exhibited from 10 a.m. to 3 p.m., with experts on-hand to answer your questions.



INVESTIGATING FOSSILS AT FOSSIL ROAD SHOW



HAVING FUN AT KATFISHIN' KIDS



TOUCHING A SNAKE AT SNAKE DAY

ONGOING EVENTS

MPB RADIO SHOW

Listen to Museum director Libby Hartfield and local veterinarian Dr. Troy Majure every Thursday morning at 9AM as they take call-in questions from listeners about all of Mississippi's critters—big or small, furry or scaled, wild or domestic. Join the live fun with a call to the team at 877-672-7464.

FISH FEEDING

Meet some of our most fascinating aquarium inhabitants, every Tuesday and Friday at 10AM, and Sunday at 2PM.

CREATURE FEATURES

Scheduled or spontaneous, these informal programs feature live or mounted animals. Scheduled every Saturday at 10 a.m. and 2 p.m., Creature Features make learning fun!

LECTURE SERIES

Natural science lectures are offered on the first Tuesday of the month from 12 noon to 1 p.m. (except Dec. and Jan.). FREE to Museum Foundation members or regular admission visitors.

BIRD WALKS

On the first Saturday of the month from 8 a.m. to 10 a.m. (except Dec. and Jan.), join experienced birders and Jackson Audubon Society members at LeFleur's Bluff State Park Campground. Park Fee: \$3. Call 601.956.7444 for details.

FOR TEACHERS

WET AND WILD CEU CREDITS

The Museum offers six teacher workshops sponsored by Project WILD and Project WET, with CEU credits available.

WORKSHOPS

FEB 2 - Project WET
MAR 11 - Project WET
MAR 12 - Wild About STEM
MAR 13 - Family Nature Detectives
MAR 14-15 - Hunter Education
MAR 15 - Scout Merit Badge Workshop
JUL 22-26 - Topics TBD

CONTACT

To schedule a workshop or field trip, reserve a resource kit, download classroom materials, or help meet your classroom needs, contact Angel Rohnke at angel.rohnke@mmns.state.ms.us or Megan Fedrick at smegaroni@yahoo.com or call 601-576-6000.

JAN 25 • FRI • 6-8PM • PREMIERE PARTY

Rainforest Adventure Premiere Party

For Members Only



JAN 26-MAY 12, 2013 • SPECIAL EXHIBIT

Rainforest Adventure Exhibit Opens

Come play in the rain(forest)! *Rainforest Adventure* is a multisensory expedition to the tropical rainforests of the world.

JAN 26 • SAT • 9AM-12:30PM • EVENT

Got Fish?

A panel of experts will answer your questions on fish.

FEB 1 • FRI

Summer Camp Registration Opens for Members

See page 3 for more details.

FEB 1 • FRI

Photography Contest Deadline

4th Annual Back to Nature Photography Contest deadline for submissions.

FEB 1 • FRI • 10AM-12NOON • EVENT

Fishy Friday!

Come Fishy Friday for fabulous fish facts and fun and fantastic fishy crafts.

FEB 2, 2013-FEB 1, 2014 • CONTEST

5th Annual Back to Nature Photography Contest Opens

See page 3 for more details.

FEB 2 • SAT • 9AM-3PM • WORKSHOP

Project WET Teacher Workshop

For details, contact Megan Fedrick.

FEB 5 • TUE • 12NOON-1PM • LECTURE

Even Frogs Get the Flu: Virus Infections of Cold-blooded Vertebrates

SPEAKER: Victor Gregory Chincharr, Ph.D; Professor, Department of Virology University of MS Medical Center, Jackson
Iridoviruses encompass three genera of large, DNA viruses that infect amphibians, fish, and reptiles. Members of one genus (Ranavirus) were initially viewed as relatively non-pathogenic. However, recent study indicates that ranaviruses are responsible for the majority of amphibian die-offs in the U.S. Scientists are attempting to determine viral gene function and its role in disease and the ecological and commercial impact of ranavirus infections.

FEB 8 • FRI • 10AM-12NOON

Arbor Day Adventures

Take an exciting journey from the urban forest to the rainforest. Legacy tree planting honoring Mississippi conservation pioneers, tree give-away, hands-on activities and games for kids, forestry and conservation exhibits, Smokey Bear, Woodsy Owl, Wood Magic, live animal demonstrations, watch the aquarium divers feed the fish. All activities are subject to change.

FEB 16 • SAT • 10AM-4PM

Parents & Kids Camp/Education Connection

Get Your Camp On! Mississippi Style! Determine which camps and summer programs are best for your child at this one-stop shop for parents.



FEB 11-15; 18-23

Giant National Geographic Traveling Map of North America

This map brings geography home in a big way for students. On this 26' x 35' map, students traverse the continent from Alaska's Aleutian Islands to the Panama Canal and from Iceland to Baja.

MAR 1 • FRI

Summer Camp Registration Opens for Non-members

See page 3 for more details.

MAR 2 • SAT • 10AM-3PM • EVENT

Fossil Road Show

Fossil experts will help visitors identify their fossils and determine more about their own fossil collections.

MAR 5 • TUE • 12NOON-1PM • LECTURE

Resident and Neotropical Migrant Bird Communities of the Orinoco River Basin, South America: Ecology and Conservation

SPEAKER: Dr. Francisco Vilella; Professor, Professor, Conservation Biology Assistant Leader, MS Cooperative Fish & Wildlife Research Mississippi State University
Dr. Vilella will share the results of an extensive study on waterbirds of the Venezuelan Llanos and regions of special conservation concern. This vast expanse of wetlands, along with poor soils for agriculture and low human population

density, combine to make the Llanos one of the most significant waterbird habitats in the world.

MAR 11-15 · 9AM-3PM · WORKSHOPS

Teacher Workshops

For details, contact Angel Rohnke or Megan Fedrick.

MAR 31 · SUN · HOLIDAY

Museum Closed



APR 2 · TUE · 12NOON-1PM · LECTURE

Adventures of an Ethnobotanist in the American South: The Herbal Remedies

SPEAKER: Edward M. Croom, Jr., Ph.D.; Adjunct Associate Professor of Pharmacognosy, School of Pharmacy University of MS
Ethnobotanical field research has documented the use of wild plants and herbal remedies from the garden for self-treatment in America. The proper collection and preparation of plants that are documented as deadly poisons will be discussed and emphasizes the need for detailed knowledge for the safe and effective use of plants for health.

APR 6 · SAT · 10AM-5PM · EVENT

NatureFEST!

Features snakes, fish, behind-the-scenes look at research, guided nature walks, and other outdoor activities.

MAY 4 · SAT · 10AM-3PM · EVENT

International Migratory Bird Day

Gather for bird watching, nature hikes, and lots of hands-on activities. Join in the fun and help support migratory bird conservation.

MAY 7 · TUE · 12NOON-1PM · LECTURE

Using Alabama's Rocks to Help Fill in Some Missing Chapters of Mississippi's Geological History

SPEAKER: Dr. Jim Lacefield; Retired adjunct professor of biology and Earth sciences, University of North Alabama, Florence
The land of Mississippi has been shaped by major geological events over the past half-billion years, but evidence about some of these transformative events now lies buried far beneath the surface of the land. Alabama's rocks contain surprising

details that can provide clues about several of these missing chapters of Mississippi's geological history.

MAY 12 · SUN · SPECIAL EXHIBIT

Rainforest Adventure Exhibit Closes

MAY 27 · MON · HOLIDAY

Museum Closed

JUN 1 · SAT · 7-10:30AM · EVENT

Katfishin' Kids at Turcotte Lab

Fun fishing at Turcotte Lab off Hwy 43 at Ross Barnett Reservoir, for ages 15 and under, accompanied by adults. Equipment and refreshments are FREE.

JUN 4 · TUE · 10-11AM & 12NOON-1PM · LECTURE

Snake Day

SPEAKER: Bryan Fedrick; Herpetologist

Learn the value of our native snakes and how to distinguish venomous species from non-venomous ones. Live snakes will be exhibited from 10 a.m. to 3 p.m.

JUN 3-7 · SUMMER CAMP

Junior Naturalist Summer Camp

Jr. Naturalist Camp (for the older kids), gives kids a chance to participate in indoor/outdoor activities that focus on the ecosystems of Mississippi. Campers learn about identification, collection, and conservation of our indigenous species. For details, contact Megan Fedrick.

JUN 7, 14, 21 & 28 · 10AM-12NOON

Fun Fridays

Interactive, hands-on programs—an adult must accompany children.

JUN 10-13 (ENTERING K-1) · **JUN 17-20** (ENTERING 2-3) · **JUN 24-27** (ENTERING 4-5) · SUMMER CAMP

WILD about Summer Camp

Camp WILD (for the younger campers) is a place where kids explore the outdoors, make new friends, and delve into nature. For details, contact Nicole Smith.

JUL 4 · THU · HOLIDAY

Museum Closed

JUL 5, 12, 19 & 26 · 10AM-12NOON

Fun Fridays

Interactive, hands-on programs—an adult must accompany children.

JUL 22-26 · 9AM-3PM · WORKSHOPS

Teacher Workshops

For details, contact Angel Rohnke or Megan Fedrick.

Note: Dates are subject to change.
See msnaturalscience.org for more details on events.

FOR PRESCHOOLERS

The Museum's hands-on **PRESCHOOL ROOM** is designed specifically for pre-kindergartners, ages 3-5.

VISITOR ACCESS

PRESCHOOL CHILDREN

MON-FRI 1 - 4 p.m.

SAT 9:30 a.m. - 12 p.m. & 1 - 4 p.m.

SUN 1 - 4 p.m.

TIME FOR TWOS (ages 2 & under)

2nd TUE 9:30 a.m. - 12 p.m.

STORY TIME (ages 3 to 5)

WED 1:15, 2:15, & 3:15 p.m. (AUG-MAY)

TUE & THU 10:15 & 11:15 a.m. (JUN & JUL)

NOT OFFERED ON SECOND TUESDAYS

(THE PRESCHOOL ROOM IS OPEN WHEN A STAFF MEMBER OR A VOLUNTEER IS AVAILABLE. THE SCHEDULE IS SUBJECT TO CHANGE.)

RESERVED GROUP ACCESS

FEBRUARY CLASS

"Wondrous Water!"

(LEARNING ABOUT THE IMPORTANCE OF WATER CAN BE FUN!)

Children will understand the importance of water to them personally. They will appreciate the huge part water plays in their lives. They will have a bit of fun with water!

MARCH, APRIL, MAY CLASSES

"Where Do You Live?"

(ANIMALS LIVE IN AN AMAZING VARIETY OF PLACES)

Children will appreciate the variety of animal habitats available. They will connect familiar animals with specific habitats.

JUNE-AUGUST CLASSES

"Watch Me Bend My Legs!
See My Body Sections!"

(A STUDY OF INSECTS, CRABS, AND SPIDERS)

Children will note three special groups of animals that lack bones, have bodies composed of sections and have legs that bend - arthropods. They will be able to describe them.

In AUG-MAY, class times are 9 a.m., 9:45 a.m., & 10:30 a.m., MON-FRI.

In JUN & JUL, class times are the same, but classes are offered only on WED & FRI.

Call Joan Elder, Preschool Coordinator, for reservations (601-576-6031).

PRESCHOOL SUMMER CAMPS

(ages 2's & 3-5's)

CAMP SESSION I - JUNE 3, 10 & 17

CAMP SESSION II - JUNE 24 AND JULY 1 & 8

Topic: "BIG"

bears, insects and animals that start with the letter "G"



TEEN VOLUNTEER FOUND AN AMMONITE FRAGMENT



FOSSIL COLLECTING IN STARKVILLE, MS

Cheers For Volunteers!

Volunteers Play A Key Role

In November 2012, teens with 25 hours of service or more were able to participate in a fossil collecting trip to Starkville, MS, with MMNS paleontologist, George Phillips. We collected at three sites, moving progressively “back in time” as we moved from site to site. Our teens showed tenacity and diligence in searching each site very carefully and were rewarded with some interesting finds. Sydney Stanard spotted an ammonite fragment and Austin Yarbrough found a carrier shell, as well as a nautiloid cephalopod mollusk; all fossils dating to the Cretaceous period. Paleontology lab volunteer Joy Rushing assisted on the trip.

Volunteers have already prepared some plants for our native plant sale this spring. Waiting out winter at the greenhouse, we have pots of strawberry bush, coral honeysuckle, palmetto, and a variety of native grasses, to name a few. More potting and plant division will be done this winter and early spring, so we can share these great native plants with others!

Our rainforest adventures begin with volunteer training for the new exhibit on January 25. We will miss observing the interactions between kids and dinosaurs, but we will all enjoy spending winter time in the tropical rainforest. The exhibit offers many interactive components, including scientific tools such as hand lenses and microscopes, the chance to climb into the forest canopy via chair lift, and viewfinders to search for endangered animals in a large mural.

February 18, adult volunteers will be able to participate in the Great Backyard Bird Count, for the first time as a group here at the Museum. Staff will assist in identifications so it should be a fun and educational morning.

Congratulations and thank you to volunteers who have reached new milestones of service! Over 100 hours, Anna Hudson; 200 hours, Mary Wakefield; 300 hours, Don West; 400 hours, Yvonne Rogers, Brooke Nash; 500 hours, Betty Anne Hays, John Haliburton, Ashley Williams; 600 hours, Barbara Hare, Mary Stevens; 900 hours, Bill Hays.



Baby Turtles!

Baby Turtles Donated to Museum Aquarium

Who doesn't love baby animals? Even animals that aren't traditionally thought of as cuddly are adorable when they are babies, such as the new baby turtles in the “Baby Turtles” exhibit at the Museum. Through a generous donation by the John Overby Turtle Farm in Yazoo City the museum is now the home of 35 baby turtles. Five different native Mississippi species were donated including: stink pot, razor back musk, soft shell, southern painted, red eared slider, common map, and river cooter. Each of these turtles was no larger than an inch across when donated.

However, raising turtles is not for everyone. It takes special care to raise baby turtles. They need basking areas where they can get completely out of the water, special lights which give off heat and uvB rays, vitamins and other supplements, clean water, and a varied diet. Turtles are also rather long lived. While estimates vary widely the general consensus for the life expectancy of a red eared slider is anywhere from 20 to 70 years with an average of 30 years. A box turtle may live over 100 years, and a common musk turtle may live to be 50-60 years old. For comparison a dog may live to 20 years old and a cat to 25. So before deciding to have a baby turtle as a pet at home, please consider that this would be a long term and demanding commitment. If you simply want to enjoy looking at adorable baby turtles then come see them at the Museum and ooh and aah to your heart's content!

How Low Will It Go?

Collecting Ice Age Fossils on the Mississippi River

This year the Mississippi River experienced historically low water flow. The Mighty Mississippi hasn't been this low since 1988, although it was even lower for an extended period in the late 1930s. Every time the water level drops on the Mississippi River (Figure 1, left frame), interesting objects appear on the sand and gravel deposits lying within its wide channel. Among these curiosities are the bones of large extinct mammals from the Great Ice Age (Pleistocene Epoch), which lasted from about two million to 10,000 years ago, when essentially all of Canada was buried under glacial ice, in places up to 1.5 miles thick!

During those wet years in the midcontinent, when the Mississippi River is swollen with water (Figure 1, right frame), the river moves powerfully down its channel to the Gulf, scouring away ancient sediments within its channel, sediments laid down hundreds, thousands, and even millions of years ago by other rivers and continental seas. Some of these deposits contain fossils, and some of the fossil-bearing deposits date to the latter part of the Great Ice Age.

Some 45 species of Ice Age animals have been documented from the many bones and teeth found on the sand and gravel bars of the Mississippi River. As the sand and gravel are very hard on delicate bones, like those of small animals, typically only the bones from large animals are observed on the sand bars. Although many of the species represented by the bones from the sand bars are extinct, like the stag moose (Figure 2) and great short-faced bear, most are still living, like the white-tailed deer and alligator.

Not all of us took a geology class in college, so some of us incorrectly envision Mississippi as being frozen in the grip of a continental glacier during the Great Ice Age. Actually, Mississippi was quite free from any ice formations during this time (Figure 3), experiencing primarily lower summer temperatures. Nevertheless, glaciers covered nearly all of Canada during the Pleistocene Epoch, the ice over 1.5 miles thick in places.

People have been collecting fossils on the sand bars of the Mississippi River for many years (Figure 4), and thousands if not tens of thousands of bones have been collected, mostly recreationally by collectors. The Mississippi Museum of Natural Science, however, attempts to keep an inventory of what is being found, and occasionally a collector will donate something of scientific importance.

So, the next time you're boating up and down the Mississippi River, contemplating the history buried along its length, think of the mammoths, herds of native horses, giant bison, and lions that once roamed its banks and drank from its water, water derived from glaciers melting 1,000 miles to the north.



FIGURE 4. LOOKING FOR FOSSILS ON THE RIVER. MUSEUM VOLUNTEER PETER KUCHIRKA, PALEONTOLOGY CURATOR GEORGE PHILLIPS, AND ROSEDALE MAYOR CARY ESTES COMB THE ROCKY PARTS OF THE GIANT SAND BAR NEAR ROSEDALE FOR FOSSILS. PHOTO BY JAMES STARNES, MISS. OFFICE OF GEOLOGY.



FIGURE 1. FLUCTUATING WATER ON THE MISSISSIPPI RIVER. WHEN WATER LEVELS IN THE RIVER FALL (LEFT FRAME), LARGE DEPOSITS OF SEDIMENT CALLED SAND BARS LIE EXPOSED. COMPOSED MOSTLY OF SAND, BUT IN PLACES OF GRAVEL, SOME OF THESE SEDIMENTARY DEPOSITS CAN BE UP TO TWO MILES LONG AND NEARLY A MILE WIDE IN THE DRIEST YEARS, LIKE THIS SAND BAR NEAR ROSEDALE. WATER LEVEL INCREASES DURING THE LATE WINTER AND SPRING (RIGHT FRAME), WHICH FLUSHES OUT FOSSILS TO BE FOUND DURING THE NEXT LOW WATER. IMAGE FROM GOOGLE EARTH.



FIGURE 2. THE ICE AGE STAG MOOSE. IN SO FAR AS WE CURRENTLY KNOW, THIS WAS THE LARGEST DEER THAT EVER LIVED IN MISSISSIPPI. ITS BONES ARE NOT COMMON ON THE RIVER, BUT A FRAGMENT OF ONE ITS ANTLERS WAS RECENTLY DONATED BY MUSEUM MEMBER LEE HARDING. IMAGE FROM WIKIMEDIA COMMONS.



FIGURE 3. MISSISSIPPI (IN GREEN) DURING THE GREAT ICE AGE. NOTE THAT THE CONTINENTAL GLACIERS DID NOT EXTEND INTO THE SOUTHERN PART OF THE UNITED STATES.

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