

Museum Quarterly

LSU Museum of Natural Science

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Museum of Natural Science Curators and Directors

Frederick H. Sheldon
*Director, George H. Lowery,
Jr., Professor, and
Curator of Genetic
Resources*

Christopher C. Austin
*Curator of
Herpetology*

**Robb T.
Brumfield**
*Curator of
Genetic Resources*

**J. Michael
Fitzsimons**
Curator of Fishes

Mark S. Hafner
*Alumni Professor and
Curator of
Mammals*

James V. Remsen
*John Stauffer McIlhenny
Professor and
Curator of Birds*

Rebecca Saunders
*Curator of
Archaeology*

**Judith A.
Schiebout**
*Curator of
Vertebrate
Paleontology*

Sophie Bart Warny
*Director of
Education*



Letter from the Director...

DISCOVERING NEW SPECIES

On December 28, 2006, the editors of the *Baton Rouge Advocate* wrote:

“It’s good to be reminded that even as the world grows smaller, there are still earthly frontiers as dense with mystery as a tropical rain forest. It was in such a rain forest that **Chris Austin**, assistant curator of herpetology at **LSU’s Museum of Natural Science**, recently discovered a new species of lizard while conducting field research in Borneo....The world’s rain forests, and their wealth of species, are under siege, shrinking dramatically each day because of development. As the habitat declines, species of many plants and animals could be lost, and as the world becomes less ecologically diverse, it becomes less healthy. To know what could be lost, it’s first vital to find out what we have in the rain forests and other wilderness areas. Research such as that done by **Austin** is a necessary part of that effort. Such research requires investment in faculty, equipment, and field travel....LSU needs strong financial support from the state and private supporters in order to advance groundbreaking research such as **Austin’s**.”

Hear, Hear! I would also add for the record that not only has **Chris** discovered a new species of lizard in Borneo, he and his students have found several in New Guinea and Vanuatu as well. Ornithologists at the **Museum** have also discovered new birds, 24 to be precise, including 8 in the last 10 years. Although spectacular, these discoveries are only the tip of our research iceberg. At least once or twice a year, we discover hitherto unrecognized species through molecular-genetic analyses of animal populations. For example, postdoctoral researcher **Fasheng Zou** recently discovered that the Gray-breasted Fulvetta, a common bird in the mountains of southern China, is in fact made up of at least four distinct species. Mammal curator **Mark Hafner** and his research group recently described two cryptic species of pocket gophers from Mexico based on chromosomal and molecular-genetic data. Grad student **Ben Marks** similarly discovered a new bulbul species by comparing populations of the Red-tailed Bristlebill across central Africa. And the list goes on. These discoveries have huge ramifications for wildlife conservation planning. We can’t save species from extinction if we don’t know they exist.

Fred Sheldon

EVOLUTION OF THE WINGED

Researchers leading efforts to establish the evolutionary history of birds



Dr. Fred Sheldon and Ph.D. student Ben Marks look at birds in the LSU bird collection. Photo by Kevin Duffy.

Adapted from an article by J.T. Lane in LSU Research, a magazine published by the LSU Office of Research and Economic Development.

In an effort to build a framework for understanding bird evolution, ecology, and behavior, LSU ornithologist **Fred Sheldon** is participating in a \$2 million study that will map out the evolutionary relationships of the major groups of birds. The study is part of a larger inquiry launched by the National Science Foundation known as the “Assembling the Tree of Life” program, which aims to construct the evolutionary history, or phylogeny, for the more than 1.7 million described species of life.

“If you want to understand how organisms are related, there is only one way to do that,” says **Sheldon**, director of the **LSU Museum of**

Natural Science and the George H. Lowery, Jr., Professor of Natural Sciences. “You’ve got to build a tree.”

He and his colleagues are doing just that. With collaborators at the Field Museum in Chicago, the Smithsonian National Museum of Natural History, Wayne State University, and the University of Florida, researchers at the **LSU Museum of Natural Science** are piecing together large amounts of DNA sequence data for all major avian lineages to construct an actual tree of bird evolutionary history—much like people do with family genealogies. In total, there are about 30,000 base pairs of DNA of 300 species of birds being used to construct the basic branches in the avian tree of life.

Using advance laboratory techniques such as Polymerase Chain Reaction (PCR), researchers can obtain DNA from tiny samples of tissue and determine the sequence of the DNA.

Sequences from various bird species are compared to determine similarities and differences, which, in turn, determine where on the evolutionary history tree a particular species will fall.

Because genes carry a history of the species with them, **Sheldon** and his team can determine not only how groups, such as ducks and chicken-like birds are related to one another, but also derive insight into many evolutionary questions, such as how and why ostriches became flightless or why warblers migrate each winter to South America. They will continue the process of analyzing bird genetic data until the avian tree is complete.

LSU Museum of Natural Science Facts

- The Museum has more than 176,000 specimens of bird species from around the world.
- With nearly 70,000 specimens, the Museum has the world’s largest tissue collection of non-human vertebrates.
- The Museum has the largest compilation of data cards on the distribution and status of Louisiana bird species. Since the late 1940s, the Museum has collected more than 50,000 cards on bird sightings in the state.

HERPETOLOGY NEWS

New Species of Mite Discovered on a Lizard!

During fieldwork in the remote Admiralty Archipelago located 300 km north of New Guinea, **Chris Austin**, Assistant Curator of Reptiles and Amphibians, discovered a new species of reptile mite. Very little is known about the biology and natural history of this mite genus *Ophiomegistus*. The adults are blood-feeding parasites that live partially lodged under the scales of their hosts, which can be skinks or snakes. The mites are able to detach themselves and roam the body of the skink often drinking from the eye of the host lizard. Immatures from the entire genus *Ophiomegistus* are unknown and presumably live off the host possibly in the soil, before finding a suitable host. Biogeographically, the genus is restricted to the Australasian region. This research was published in the January 2007 issue of *Zootaxa* with Chris' collaborator Hans Klompen from Ohio State University.

Student Fieldwork

Christopher (CJ) Hayden spent a large part of the winter break in Indonesia exploring opportunities to conduct fieldwork in remote areas of Indonesian New Guinea. **CJ** is interested in getting a Fulbright Scholarship to aid in his PhD research.

Student Graduations

Undergraduate **Jesse Grismer** and Master's student **Jamie Oaks** are slated to graduate in May 2007. **Jesse** will be going on to graduate school focusing his talents on a herpetological Masters project. **Jamie** will be continuing his graduate education choosing to pursue his PhD at the University of Kansas under the direction of Dr. Rafe Brown and Dr. Linda Trueb.

International Herpetological Educational Outreach

As part of local outreach education and conservation efforts in New Guinea, **Chris Austin** designed a natural history poster of common Papua New Guinea reptiles. Fifty copies of this prototype poster were produced and **Chris** and **CJ** handed these out free to schools during their three months of fieldwork in 2006 (see photo). Next year three tri-lingual posters will be produced detailing the lizards, snakes, and frogs of Papua New Guinea. The target audience for these posters will be children 5-16 years of age. The educational goal of the posters is to broaden appreciation of local fauna and promote conservation efforts within PNG. Such conservation education of local people is essential for instilling a sense of stewardship and pride in their local flora and fauna, a fundamental mindset needed for successful conservation planning. The project is funded in part by the National Science Foundation and will produce 1,000 copies of each poster for free distribution to primary schools throughout Papua New Guinea.



CJ Hayden making new friends in Paupa New Guinea.



Chris Austin giving a herpetological education and conservation poster to the headmistress of the local school in Utai Village on the north coast of Papua New Guinea.

DETAILS ON THE NEW LIZARD SPECIES...

by Ashley Berthelot



Chris Austin, Assistant Curator of Herpetology at **LSU's Museum of Natural Science (LSUMNS)**, and Adjunct Professor in LSU's department of Biological Sciences, recently discovered a new species of lizard while conducting field research in Borneo.

Austin, along with colleague Indraneil Das from the Institute of Biodiversity and Environmental Conservation at the Universiti Malaysia Sarawak, will publish their findings and photos of the new species in the prestigious *Journal of Herpetology*. The article, which will reveal the scientific name of the new species, is slated for publication in March 2007.

"We actually found four specimens at once," said Austin. "One of the best

Chris Austin, along with colleague Indraneil Das from the Institute of Biodiversity and Environmental Conservation at the Universiti Malaysia Sarawak, will publish their findings and photos of the new species in the prestigious *Journal of Herpetology*.

methods for finding lizards in the rainforest is to look under logs. We found two individuals of the new species under one log and two more under another." With more than 15 years of fieldwork experience behind him, Austin knew immediately that he had found a new species. After collecting the lizards, he and Das began the difficult work of proving what they already knew: "Determining that a species is new to science is a long and laborious process," said Austin.

"Natural history museums and their invaluable collections are critical in that they allow scientists to examine known biodiversity in order to determine a species is new." He and Das examined specimens from a slew of museums around the world to compare with their new specimens.

Natural history collections, such as the more than 95,000 specimens in the LSUMNS reptile and amphibian collection, are important because taxonomy – the science of describing, naming, and classifying organisms – has implications for basic and applied fields of science. "We can't conserve what we don't know we have. It is imperative that we know what species exist in order to preserve them for future generations," said Austin.

He used the cutting-edge molecular genetics lab at the LSUMNS to decipher the genetic code of the lizards. "We sequenced the DNA of this new species and several other closely related species to help our diagnosis," he said. "Using DNA to help describe new species is becoming one of the most important tools for scientists to use in documenting and describing biodiversity." The global decline of biodiversity has become a major public issue recently, and the use of modern molecular methods is proving to be fundamental in gaining a better understanding of the situation.

The new species is distinguishable from its closest cousin, a type of skink found in the southern Philippines, in several distinct ways:



Austin taking notes in Borneo.



The Borneo horizon

- different color patterns;
- its structure and shape, or morphology;
- differences in scale count, which is one of the basic ways scientists distinguish between species of reptiles;
- and significant genetic variations.

These traits combined to confirm the original hypothesis that the lizard was, in fact, an entirely new species.

Austin spent the entire summer of 2006 in New Guinea, his geographical area of expertise, conducting fieldwork with graduate students. He is currently working on research funded by the National Science Foundation to understand why New Guinea, called a mega-diverse region, has such a high level of biodiversity.

“While we were there, we collected what we think is a new species of snake, a new species of lizard and probably two or three new species of frogs,” he said. “But the process of certifying a new species takes so long that it will be a while before we’re certain.”

Austin has been at LSU since 2003, coming from post-doctoral positions in Australia and Japan.

“What attracted me to the university the most was LSUMNS and its international reputation for excellence,” he said. Access to the LSUMNS genetics lab makes that aspect of identifying a new species much easier, giving Austin and his graduate students at-home resources that many other researchers have to travel to reach.

The story was featured on more than 30 Web sites from the U.S. to as far away as India. It was picked up and distributed by several newsfeeds, including Google and Netscape.

After being released through the science news source, *Eurekalert!*, it generated 560 hits in less than a month. It also appeared on a user content-driven Web site, Digg, where it generated 370 hits in the same period of time.

HERPETOLOGY STUDENT ON ANIMAL PLANET



I am associated with the museum in that I do research in herpetology in the lab of **Dr. Chris Austin**. I came to LSU in the fall of 2004 and have been lucky enough to be around some of the brightest minds in biological research today at the Museum at LSU.

Spending time with the grad students, professors, curators, and attending the weekly seminars at the Museum has done a tremendous amount to further my interests in science and natural history and improve the kind of research I do.

In 2003, my father, Lee Grismer, along with Tim Youmans, Perry Wood, Tom Szuts, and I filmed an episode for Animal Planet called "Reptile Kings" which documented our research in a remote archipelago called the Seribuat Archipelago, an area about 38 km off the coast of Peninsular Malaysia.

In the summer of 2001, we discovered a new species of pitviper that turned out to be endemic to the island of Pulau Tioman. The show described our attempt to collect more specimens to help answer some questions concerning the biogeography of the herpetofauna of the area. By using DNA samples, it was discovered that the Tioman population of pitvipers is more closely related to populations of pitvipers in Sumatra and Borneo, located hundreds of kilometers away rather than on peninsular Malaysia, which is only 38 km away. This, along with other studies that we have done with other scientists, have shown that this archipelago was part of a continuous mountain chain that connected Borneo and Sumatra 20,000 years ago.

Jesse Grismer



VOLUNTEERS OF LSUMNS

W. H. "Bill" Lee

W. H. "Bill" Lee has collected Louisiana fossils for decades, while helping Dr. Brad McPherson of Centenary College in his research. These fossils, mainly from the Pleistocene (Ice Ages) have been donated to the **Museum of Natural Science**. Mr. Lee continues to collect and donate Pleistocene fossils from the Tunica Hills area and frequently helps with field work at the new Miocene site, TunicaHills/Kerry Site (approximately five million years old).

Kathleen McDonald

Kathleen McDonald, mother of Kerry Dicharry, discoverer of the TunicaHills/Kerry site, has helped with field and lab work on the site. She assisted **Dr. Suyin Ting** prepare of the big mastodon tusks from the site and helps in sorting screened residue under the microscope to recover small fossils. Her contacts among LSU artists helped discover material that is strong, but light, to make supporting casts for the prepared tusks.

Cathy Lamb

Cathy Lamb, daughter of long-term Vertebrate Paleontology volunteer Ruth Hubert, helping with research on the Miocene animals from both major Louisiana sites. She has helped in fieldwork at the TunicaHills/Kerry Site and in sorting under the microscope of screened material from sediments from Fort Polk Miocene sites (approximately 13.5 million years old).



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Dr. Ray Wilhite

Dr. Ray Wilhite, Instructor at the LSU Vet School, is a vertebrate paleontologist whose specialty is dinosaurs. He has assisted in collecting both Pleistocene and Miocene mammals, and has prepared some of the larger mammals from the TunicaHills/Kerry Site, such as the pelvis and limbs of the large extinct rhinoceros *Teleoceras*.

Dr. Jeff Boundy

Dr. Jeff Boundy is a Research Associate of the Museum involved heavily in collection and curation of the expanding reptile and amphibian collection. Jeff is a herpetologist with the Louisiana Department of Wildlife and Fisheries and volunteers at the **LSUMNS**. He is active in the management and conservation of the herpetofauna of Louisiana. This year **Jeff** published two scientific papers: J. Boundy and C. Kennedy. 2006. Status of the alligator snapping turtle (*Macrolemys temminckii*) in southeastern Louisiana, with comments on comparative surveys and exploitation. *Chelonian Conserv. Biol.* 5:3-9; and W. Meshaka, S. Marshall, J. Boundy and A. Williams. 2006. Status and geographic expansion of the Mediterranean Gecko, *Hemidactylus turcicus*, in Louisiana: implications for the southeastern United States.

ORNITHOLOGICAL PRESENTATIONS

by Museum ornithologists at the North American Ornithological Conference in Veracruz, Mexico, 3-7 October 2006

Remsen, J. V., and J. A. McGuire. Biogeography, phylogeny, and patterns of plumage evolution in the Trochilidae of the Caribbean.

Brumfield, R. T., and S. V. Edwards. Reconstructing the *Manacus* (Aves: Pipridae) species tree from five incompletely sorted nuclear gene trees.

Burney, C. W., and R. T. Brumfield. Diversification of lowland Neotropical birds in northwest South America.

***Chevron, Z., and R. T. Brumfield.** The role of elevational gradients in the genetic population structure of the Rufous-collared Sparrow (*Zonotrichia capensis*).

***Carling, M. D. and R. T. Brumfield.** Combining phylogenetic and population genetic analyses to test species divergence hypotheses in *Passerina* buntings.

Claramunt, S. High morphological diversity in Furnariidae: a quantitative evaluation.

Faust, K., G. R. Graves, and R. T. Brumfield. Genetic characterization of a hybrid zone between Red-billed and Black-billed Streamertail hummingbirds in Jamaica.

Haines C. L., H. C. Lim, R. G. Moyle and F. H. Sheldon. Dynamics of montane bird populations in Sabah, Borneo.

Lim, H. C., R. G. Moyle, and F. H. Sheldon. Species status of two forest kingfishers, *Ceyx erithacus* and *C. rufidorsa*, in South East Asia

***Marks, B.** Phylogeography of the Red-tailed Bristlebill (*Bleda syndactyla*).

Styring, A. R., P. Hosner, and F. H. Sheldon. Bird use of industrial and agricultural forests in Borneo.

*Received recognition as outstanding student presentations by the conference.

MUSEUM PERSONNEL HONORED WITH LICE NAMES

Jason Weckstein (former **Museum** student) recently described six new species of lice that parasitize birds. Four of these he named after past and present **LSU Museum** students.

The honored people are:

Brian O'Shea --current ornithology student

Thomas Valqui--current ornithology student

Rob Faucett--former ornithology student

Kazuya Naoki--former ornithology student

BIRD STUDENT AWARDED FELLOWSHIP



Andres M. Cuervo was recently awarded the *Huel D. Perkins Diversity Fellowship*. This fellowship is granted by the LSU Graduate School to a Ph.D. student in any program in the university. The fellowship is for four years and also includes tuition exemption. With this fellowship, Andres will be able to focus on his research, which will allow him to do extended fieldwork in South America for his dissertation.



Andres is from Colombia and completed his bachelors at Universidad de Antioquia in Medellín, Colombia. He then went to the University of Puerto Rico for his Master's degree and studied morphological changes in birds as a consequence of forest fragmentation. Andres came to the museum as a doctoral student in **Dr. Robb Brumfield's** lab last Fall (2006). In general, he is interested in the evolution, systematics, and natural history of South American birds, especially those of the Chocó region and the tropical mountains (Andes, Santa Marta).

OCEAN COMMOTION 2006



The Louisiana Sea Grant Program hosted Ocean Commotion 2006 at the LSU Pete Maravich Assembly Center on Thursday, November 2, 2006. The PMAC was transformed into an educational heaven filled with exhibitors ready to tell kids all about the Louisiana coast.



LSU researchers and private and public organizations provided exhibits. Exhibit viewing was divided into two time slots, each two hours in length, with one time slot reserved for K-4 students and the other reserved for 5-8 students. Once again, the primary purpose of these exhibits was to give students the chance to learn about and touch the aquatic animals, plants and minerals- upon which Louisiana's citizens are dependent.

The **Museum of Natural Science** hosted an exhibit on the teeth and diet of past and present sea creatures. The children got to examine jaws and teeth of fossilized and modern sea mammals. The fossilized skeletons displayed included the skull and vertebrae of *Basilosaurus*, an Eocene whale species discovered near Montgomery Landing along the Red River, Louisiana, now part of **Dr. Judith Schiebout's** vertebrate paleontology collection. The modern skeletons included a dolphin skull, a modern whale vertebra and stingray teeth to allow morphological comparison. Modern samples are from **Dr. Mark Hafner's** mammal collection and **Dr. Fitzimons's** fish collection. The students gathered around the table to hear Museum Education Director **Dr. Sophie Warny** and assistant **Rebecca Tedford** identify the fossils and discuss details of their habitat, and their environmental significance.

Ocean Commotion was once again a great opportunity for the **Museum** to display its collections to children of the greater Baton Rouge community. Ocean Commotion seeks to provide students with an educational opportunity and provide LSU researchers with a forum to display their research. The **Museum of Natural Science** has participated in this event since the original Ocean Commotion was held in 1998.

Each year Ocean Commotion brings about 3,400 area students and teachers to LSU to learn about our coast and sea from about 60 exhibitors.



Graduate student M. Williams sharing the story of the *Allosaurus* (L). Children learning about teeth (2nd and 3rd). Dr. Sophie Warny (4th) and students (5th) Loren Price, Walter Bridges, Rebecca Tedford and Michael Williams at various centers.

Jay Grymes guest speaker at Special Saturday



LSU professor Jay Grymes was the guest speaker at our Special Saturday that taught children and their parents about severe weather in Louisiana. Grymes is also a well known weatherman for local news station WAFB.

Jay Grymes spoke about hurricanes, thunderstorms and global warming. The attentive audience of both children and parents had many questions for Grymes.

Many of the children wanted to know about the dangers of thunderstorms.

Grymes said that a lighting bolt is about 5000 degrees farenheit and that when people get hit by lighting and live to tell about it, they have not been hit by the bolt itself.

“Kids, go inside when you hear thunder because lightning causes thunder,” he said.

He said that Florida is the number one hurricane state due to its long coastline.

“How can Katrina hurt itself?” asked one young girl.

Grymes explained to her that once a hurricane leaves the ocean, it loses a lot of power. “Katrina was only a category 3 hurricane and could have been a whole lot stronger”, said Grymes.

Parents, on the other hand, had questions about wind shear, insurance after hurricanes and structure of storms.

Grymes said programs like Special Saturday are great because young students get to talk to people who work with science for a living.

“It is really beneficial. The more exposure they get from people in the field the more sensitive they are to things,” Grymes said. “I got as much out of it as they did.”

The next two Special Saturdays, on October 28 and November 18 were on “Rocks and the Stratigraphic Record” and “Tree Identification.”



ICHTHYOLOGY NEWS

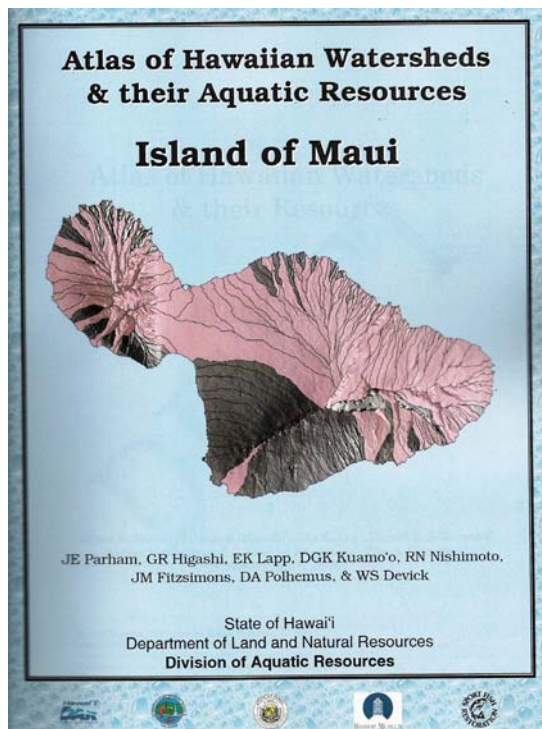


Dr. Lori Benson and Mark McRae

CONGRATULATIONS!

Two days after Thanksgiving, former Museum student **Dr. Lori Benson** and current student **Mark McRae** were married on the beach in Tampa, Florida. **Dr. Benson** is Assistant Professor in Biological Sciences at the University of Tampa. The couple had a “working honeymoon” on the Island of Hawai’i where they completed a three-year study on the restoration of streams in scenic Waipi’o Valley. **Benson** and **McRae** are co-principal investigators with curator **Mike Fitzsimons** on a grant that allowed them to collaborate with researchers from the Bishop Museum, University of Hawai’i, Hawai’i Division of Aquatic Resources, and Kanu ‘o ka ‘Āina Public Charter School for students of Hawaiian ancestry.

Fitzsimons is among the authors of a five-volume *Atlas of Hawaiian Watersheds and Their Aquatic Resources* completed in November 2006. The Atlas was created by the Hawai’i Division of Aquatic Resources and Bishop Museum to combine survey and research information from a relational database (MS Access) with spatial data from a geographic information system (ArcGIS) for access to tabular and map-based results for the State’s main watersheds. The Atlas presents each watershed’s physical information, streams and reaches, sampling effort, species observed, stream status, watershed threats, and references to research on the aquatic fauna. The Atlas contains 440 watersheds from the five main Hawaiian Islands and is compiled from 12,283 surveys and over 130 research papers on stream animals and plants. The Atlas provides insight into important factors affecting habitat and distribution of aquatic animals and improves decision making regarding management and protection of streams and estuaries among the different watersheds. The Atlas’ design allows easy updating of information to allow new survey data and information from basic research to be rapidly included in future web and print versions. **Dr. Jim Parham**, a former graduate student in the Museum, was the leader in developing the database with Glenn Higashi and Darrell Kuamo’o of the Hawai’i Division of Aquatic Resources. The Atlas, also designed by **Parham**, represents a “single pass” through the enormous database whose content, usefulness, flexibility, and heuristic value are likely unparalleled.



Atlas of Hawaiian Watersheds and Their Aquatic Resources

LSUMNS HOSTS VISITORS TO VP LAB



*Looking at Louisiana Miocene fossils:
(l to r) Wang, Li, Qiu, Ting*

On December 1-3 2006, the vertebrate paleontology lab hosted three vertebrate paleontologists interested in the **Museum's** Louisiana Miocene collections.

Dr. Zhuding Qui is an expert on Miocene rodents and Senior Professor and Director Emeritus of the Institute of Vertebrate Paleontology and Paleoanthropology (IVPP) in Beijing, China.

Mr. Li Qiang is a Ph.D. student in IVPP.

Dr. Xiaoming Wang is an expert on ancient canids and is Associate Curator, Department of Vertebrate Paleontology, Natural History Museum of Los Angeles and Associate Curator in IVPP. Dr. Wang presented a lecture on "Late Cenozoic Mammals and the Uplift of the Tibetan Plateau"

for the December 1 **LSU Museum of Natural Science Seminar**. Dr. Wang identified a borophagine canid from a single tooth in the Museum's collections, adding an additional animal to the Fort Polk Miocene Systematic Paleontology list. Borophagine canids are often called "bear dogs." This is our largest carnivore yet from the Fort Polk Miocene.

Dr. Ting hosted our visitors on a trip to New Orleans and a drive to see some of the Atchafalaya swamp. She and **Dr. Schiebout** took them to Boutin's for cajun music and seafood, and to Mr. Gatti's with students for pizza.



The visitors were interested in fossils such as this 5 million year old mastodon tusk from the Tunica Hills. The tusk is being prepared for transport.



Visiting the V.P. Acid Lab: Ting (l), Xiaoming Wang (r)



Pizza with students at Mr. Gatti's



Virtual Museum: Science, Technology, and Language Partnership

A new partnership between the French Education Project, the Museum of Natural Science, and the College of Basic Sciences to support the teaching of science in standard K-8 programs, and immersion programs

Mark your calendars for these teacher-development workshops!

Friday, March 9th, 2:30-4:00
Birds and tracks

Friday, April 20th, 2:30-4:00
Life in the bayou

Friday, May 11th, 2:30-4:00
Hunting for fossils

The STLP SELECT GROUP at Louisiana State University is composed of:

Dr. Denise Egéa-Kuehne
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Dr. Sophie Warny
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Mr. Arnaud Sgambato
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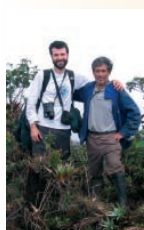
Mr. Bernard Dubernet
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from the Louisiana Board of Regents



MICHAEL SEYMOUR'S JOURNEY

Michael Seymour's relationship with the **Museum** has spanned more than a decade. He was first introduced to the **Museum** while enrolled in an LSU leisure class, which was taught by **Steve Cardiff** and **Donna Dittmann**. With their guidance, **Michael** examined the stomach contents of seven Neotropical raptor species for his high school science fair; the project won first place at both Scotlandville Magnet High School (Baton Rouge, LA) and at the regional science fair and second place at state. Developing the project into an oral presentation, Michael presented the work at the Louisiana Junior Science and Humanities Symposium and gained valuable experience that would benefit him for years to come. It was also during that time that he learned the value of collection and preparation of bird specimens.

After high school graduation in 1997, Michael began his undergraduate studies at LSU. LSU initially erroneously assigned him a student worker job at the Vet School, which Michael immediately declined. Fortunately, the **Museum** still had space for another student!

As a student worker, his job duties ranged from preparing bird study skins and cataloging specimens to organizing the card catalog of bird records. The **Museum** became like a second home and the faculty, staff, and students like a second family. Michael is tremendously grateful for the time he was able to spend at the **Museum** and credits his current success with the skills and knowledge that he gained while a student worker. He still makes trips to the **Museum** on a regular basis as his fond memories of the place rarely stray far from his mind.

After graduation in 2001, he worked as an independent contractor for The Nature Conservancy of Louisiana. **Michael** built a database of witness trees (the trees used to mark section corners in Township/Ranges/Sections) by interpreting surveyors' field notes and maps from the 1800's. After his one year hiatus from academia, **Michael** started graduate school in 2002 in the LSU Department of Entomology.

His switch to entomology proved to be shocking for some, but his project proposal showed he had not lost his passion for birds. Under the guidance of Dr. Hooper-Bùi (his major professor), **Dr. Remsen**, and Dr. Sanders, Michael studied the effect of an exotic, invasive, pest ant on the nesting success of our native Northern Bobwhite. He found through captive studies that birds nesting in areas where red imported fire ants occur are significantly more likely to suffer nest loss. Active bobwhite nests were buried by the ants even before incubation could begin. In other cases, the ants were found chewing through eggshells, the only record of this behavior in this species. The project warns that any stage of nesting may be affected by the ant and goes against current dogma that red imported fire ants do not breach eggshells. Michael will graduate with a Master of Science in spring 2007.

Since his enrollment as a graduate student, **Michael** has worked as a research associate for the Red Imported Fire Ant Physiology and Ecology Laboratory, even meeting his wife through colleagues in the lab! He is currently the lab manager and oversees most projects, which range from excavation of Texas Leafcutting Ant colonies to studies of competition between ant species. He is particularly proud of a new project led by recent graduate Lee Womack who rediscovered dozens of new colonies of the Comanche Harvester Ant, a species once believed extirpated from Louisiana. After graduation, **Michael** will continue in his current position at the lab, while pursuing professional bird jobs elsewhere as well.

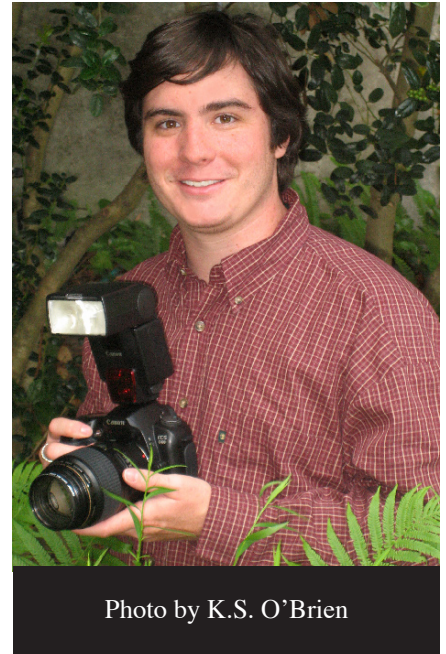


Photo by K.S. O'Brien

HOLIDAY SOCIAL 2006



On Saturday, December 9, the Museum of Natural Science faculty, staff, students and friends gathered to celebrate the holidays with a festive social gathering. The annual Holiday Party is a great way for the **Museum** family to interact in a relaxed, social environment.

In accordance with Museum tradition, the annual “**Outstanding Graduate Student**” was honored. This year’s awardee was **Zac Cheviron**, here pictured with **Dr. Sheldon** (top left corner) and with his wife, Christy (bottom left corner). Zac is one of the most productive graduate students in the Museum, and he never hesitates to volunteer his time to render various services to the Museum.

The Museum has another tradition. Each year guests bring a book to donate to a worthy cause. This year books were donated to the Headstart program at the FEMA park in North Baton Rouge. We at the Museum would like to thank the guests of the party for their generosity in helping us with this cause. The FEMA park looks forward to incorporating the new books into one of their many programs.



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 Museum of Natural Science
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If you would like to include items in the next issue of *Museum Quarterly* please send information, articles and photographs to the Museum Education Office c/o Walter Bridges, public relations intern. Articles about research, study or any other items of interest are encouraged. Information may be submitted as completed articles with jpeg pictures in attachments, or in list form to be put into an article. Email your material to mused@lsu.edu or mail to:

The LSU Museum of Natural Science
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 119 Foster Hall
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