

Museum Quarterly

LSU Museum of Natural Science

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Letter from the Director...

The holiday season is upon us and we have much for which to be thankful! We'd like to invite you to our annual Holiday Party on Saturday, December 6th from 7 p.m. – 10:30 p.m. in the exhibits gallery of Foster Hall. If you're in the neighborhood we'd love to see you there, so mark your calendars. We'll have food, beverages, and live music by local bluesman Wil Jackson and his band. Bring your kids.

Lots of great stuff is happening at the Museum. Our new mammalogy curator **Jake Esselstyn** is on fire. He just landed a prestigious GoLife grant from the National Science Foundation, and, thanks to the generosity of Dr. Jim Patton, there now exists an endowed MNS mammalogy research fund named the "Alfred L. Gardner and **Mark S. Hafner** Mammalogy Fund" in honor of two great MNS mammalogists. I was also very pleased to see the publication of an outstanding new book on Louisiana fishes that was co-written by MNS curators **Prosanta Chakrabarty** and **Sophie Warny**, with graduate student **Valerie Derouen**. It is targeted for kids, so get your copy today. You can find more information about it in the newsletter on page 22.

Last but not least, I'm used to bragging about the Museum's prestigious extramural grants, important new publications, priceless research collections, and talented graduate students, but I now get to brag about breaking a world record. A little over a year ago MNS PhD students **Mike Harvey** and **Glenn Seeholzer** came to me with an idea – that they form a team to travel down to Peru and attempt to break the world birding Big Day record. Their goals were to break the record, generate awareness in the birding community about the Museum, and raise funding for graduate student research. The team, composed of **Mike, Glenn, Museum Research As-**

sociate Dan Lane, and Peruvian colleague Fernando Angulo conducted the event in Peru last month and broke the world record with **354** species. You can read a short synopsis of the day beginning on page 2 of the newsletter, but I want to thank all of you out there who supported them. Through your donations we've raised over \$10,000 for graduate student research. If you'd like to donate please go to lsubigday.org. You can find pictures and videos from the day on the Facebook page at facebook.com/LSUBigDay



Robb Brumfield

World Record Big Day!



At midnight, at the inception of 24 incredibly intense hours of birding, we were standing outside the Puerto Pumas hotel in Pomacochas, Peru waiting for a tiny brown bird called a Baron's Spinetail to call. We were unable to rouse it, perhaps not surprisingly given the hour. So began our Peru Big Day and 400 kms later, we arrived at a new world Big Day record of 354 species!

We raced down to the lake below town, where calling Plumbeous Rails became the first bird of the day. After hearing a few more water birds and spotting some sleepy Mitred Parakeets, we wound our way from the dry valley around Pomacochas up into the humid mountains of Abra Patricia. Moonlight formed a ring in a thin veil of high clouds overhead.

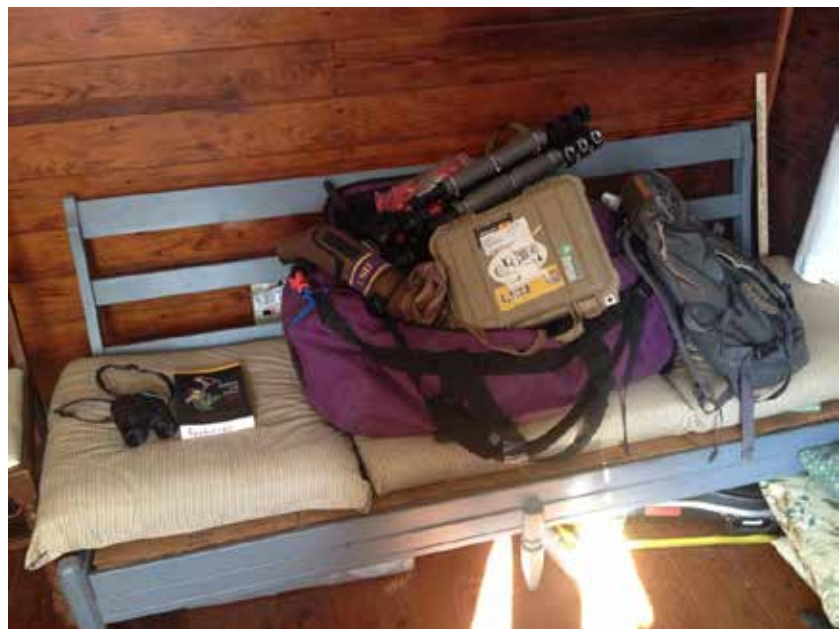
At Abra Patricia, we checked off night birds one-by-one – the bizarre Long-whiskered Owlet, the elegantly plumed Lyre-tailed Nightjar, and other species of the high-elevation cloud forests. At dawn we were at the Owlet Lodge, where we listened

to dawn-singing Trilling Tapaculos and Chestnut Antpittas while watching the hummingbirds making their first visits to the lodge's feeders. Before the sun was even up, we were jogging down the road from Abra Patricia, picking up birds calling in the valley below and sorting through mixed-species flocks. Dan adeptly picked out *Tangara* tanagers by their flight calls as they moved between trees, and Glenn spotted a Variable Hawk flying over a distant peak, an unusual bird here away from its typical grassland habitat. Royal Sunangel, Cinnamon-breasted Tody-Tyrant, and Bar-winged Wood-Wren were cooperative in the stunted forest around Alto Nieva, and we were feeling pretty good with our total of 91 species as we dropped out of the high elevations around the pass and into subtropical forest sloping down toward the Mayo Valley.

We began to exchange fearful murmurs, however, as the high clouds of the early morning began to dissipate with the rising sun. We managed to find the "mega-flock", a huge mixed-species flock in the upper subtropical zone. This single flock

added thirty-three species to our list! After that, however, the forest started to become quiet except for the increasing din of insect noise, and our backs started to drip with sweat as the heat became more intense. This was not good news for birding. We eked out a few more species in the subtropical zone, but arrived at the white sand forest of Aguas Verdes just before 11 am to find it completely dead. We missed almost every single target species here, excepting a distant Zimmer's Antbird and some hummingbirds at the feeders. We did a quick tally and estimated we had about 190 species, but if this sun and heat continued through the afternoon in the Mayo Valley, we wouldn't have a shot at the record. There was talk of calling off the big day.

These thoughts quickly dissipated after we refueled with bread, cheese, and Gatorade, however, and clouds began to roll in as we raced across the floor of the Mayo Valley. With the cooling shade from the



clouds, activity was high when we arrived in the rice country surrounding Rioja. The open habitats here facilitated very fast and efficient birding, and we quickly racked up species, including the retiring Pale-eyed Blackbird, Black-billed Seed-Finch and localized Wedge-tailed Grass-Finch. The shorebird fields that we had scouted intensively in the week prior produced as well, with Stilt Sandpipers and Wilson's Phalaropes among other northern migrant species. We found Masked Ducks in their preferred pool, but we were now nearly 20 minutes behind schedule and knew we would have to sacrifice time somewhere.

The last stage of the day involved searching a series of sites with more forested habitats. At Waqanki Lodge we racked up some hummingbirds at the feeders and then raced up into the forest. We found Black-and-white Tody-Flycatcher, an uncommon species we had failed to locate during scouting, and resisted the urge to spend time trying to get good looks or photos. We refound a Cerulean Warbler found during scouting, but decided not to go further into the forest for Fiery-



Page 2: The LSU Tigrisomas team composed of Fernando Angulo, Dan Lane, Mike Harvey, and Glenn Seeholzer.

Page 3: Basic equipment (above) and 24 intense hours of birding in Peruvian forests. Dan Lane (left) observes a canopy flock.

throated Fruiteater and Spot-winged Antbird, which saved us ten minutes or so. We made a long, rough drive to a forest-fringed oxbow lake. We added some species from the near shore, but flooding from the recent rains prevented us from hiking a trail into the forest. This certainly cost us some species, but put us back on schedule time-wise for our visit to Morro de Calzada.

We knew we were close to the ABA big day record of Parker and Robinson when we arrived at the cliff-ringed peak of Morro de Calzada. Their record was 331 species, and a rough tally had us somewhere around 310. We also knew we could get at least ten additional night birds after dark. The last 45 minutes of daylight became critical. We raced down the roads, nearly got our vehicle stuck in wet sand, and sprinted up two trails into forest and scrub. We ticked off species as quickly as possible, trying to get the whole team on each (we were near our limit, per ABA rules, of 5% of species that may be missed by one or more team members). Dusk arrived quickly, birds became silent, and we tallied our additions. 335 species! We had beaten the Parker and Robinson record!

We knew, however, that another record existed, although it is not recognized by the ABA. In 1986, Terry Stevenson, John Fanshawe, and Andy Roberts had set a big day record in Kenya of 342 species. We thought we could beat that, too. We spotted Barn Owl and Blackish Nightjar around the cliffs of Morro de Calzada, and then tracked down a

few more nightjars and owls and also found a few species we had accidentally left off the list. We got skunked by Ocellated Crake and Band-bellied Owl, but found both Stygian and Striped owls. At 9:30 pm, we finished the day with a trip to a slot canyon where Oilbirds nest. Struggling to keep our eyes open, we counted the peculiar Oilbird as our 354th and final species.

We received a lot of help to make this event happen. We want to thank LSU's Dawn Jenkins (College of Science), Michele Spielman, Tara Kistler, Frank Bourgeois (Office of Communications and Media Relations), Emi Gilbert, Stacy Halphen (LSU Foundation), and Tammie Jackson (MNS) for helping us get the word out at LSU, Dr. Gregg Gorton for writing a beautiful story on the LSU ornithology program that appeared in the July/August 2014 issue of *Birding Magazine*, and to Ted Floyd and Nate Swick (American Birding Association) for providing publishing forums at the ABA. Thanks to our corporate sponsors who helped fund the endeavor, including Conservation International Perú (Percy Summers & Luis Espinel), PromPerú (Maria Acosta & Edson Nuñez), the Tabasco Corporation, Manu Birding Expeditions (Barry Walker), and Eagle Optics. Logistical support in Peru was provided by Cajamarca Travel (Miguel Angel Arellano Briceño & Miguel Angel Arellano Jr.), Fundo Alto Nieva, Peru (Ciro Alegria & Carlos Calle), Bosque de Protección Alto Mayo / SERNANP (Ivonne Paico & Gustavo Montoya). And a big thank you to all of you for supporting graduate student research at the **MNS**.



Matthew McGraw joins the Anthropology Division



I joined the museum staff as a Curatorial Assistant for the Anthropology Division of the **Museum** this semester after working as an archaeologist for the LSU Rural Life Museum (RLM) over the past two years on the Chatsworth Plantation (16EBR192) archaeological project. The site included a sugar mill and nine slave/tenant cabins. This project was designed to fulfill the requirements for Section 106 of the National Historic Preservation Act of 1966, which compels companies receiving federal permits or funds to mitigate the impact of construction on archaeological sites. Today the land which was once Chatsworth Plantation is home to the new L'Auberge casino here in Baton Rouge, who provided funding for the project. The sugar mill at Chatsworth Plantation is the subject of my Master's thesis, under guidance by **Drs. Rebecca Saunders and Rob Mann**.

Chatsworth Plantation was a sugar plantation in East Baton Rouge Parish from the 1840s until the plantation went bankrupt and was sold at a Sheriff's sale in 1928. The sugar mill was a two-story, brick steam-powered industrial site which stood in stark contrast with the surrounding agrarian landscape. At the mill, sugar cane cut in the fields was transformed into raw sugar and molasses which was then shipped to refineries in New Orleans to be processed into white table sugar. At its peak prior to the Civil War, over 1,300 sugar mills were in operation in Louisiana. Of these, only six, including Chatsworth Plantation, have been the subject of large-scale excavations.

Excavation at the Chatsworth Plantation sugar mill took place from October 2012 to May 2013.

Mechanical excavation with a trackhoe allowed a small team of six archaeologists, all LSU graduates, to excavate approximately 85% of the 4,000m² site. Almost 200 distinct architectural features and over 7,000 artifacts were discovered during the excavation. The majority of the artifacts recovered were associated with the sugar machinery (e.g., pipes, bolts, coal, chains etc.); however we also found many personal artifacts such as an eyeglass lens, medicine bottles, and liquor bottles.

My position at the Museum provides me with the opportunity to pursue additional research into this site, I hope to spotlight the often nameless workers who labored around the clock in the sugar mill during harvest season and who are generally left out of the historical record. It's important that archaeologists studying our industrial heritage not get lost in the nuts and bolts of the machinery, but also examine how new technology impacts the people using it. When complete, this research will shed light on an important part of Louisiana's history which has not been explicitly covered in current academic literature.



Top: Matt McGraw (left) and Julia Kublani (right) clear off a cistern base in the Chatsworth Plantation sugar mill
Right: Artifacts from the sugar mill drying in the sun after they were washed

LSU scientists lead research on bird speciation in the Neotropics



In a study that sheds light on the origin of bird species in the biologically rich rainforests of South America, MNS Director **Robb Brumfield**, Brumfield lab postdocs **Brian Tilston Smith** (now a Curator at the AMNH), **Elizabeth Derryberry** (now a Professor at Tulane University), and **John McCormack** (now a Curator and Professor at Occidental College), PhD students **Andrés Cuervo** (now a postdoc at Tulane University) and **Mike Harvey**, MNS undergraduates **Samantha Fields** and **Jesse Prejean**, former MNS PhD **Alex Aleixo** (now a Curator at the Goeldi Museum in Brazil), new LSU assistant professor **Brant Faircloth**, and an international team of researchers funded by the National Science Foundation, or NSF, published a paper in *Nature* challenging the view that speciation – the process by which new species are formed – is directly linked to

geological and climatic changes to the landscape.

The researchers, whose findings were published Sept. 10 in the online version of *Nature* (the print version will appear in the November 20th issue), found that the geographic isolation of populations within a single species is more often due to movements of birds across physical barriers, such as mountains and rivers, that occur long after the geological origin of those barriers. Their conclusions not only cast a new light on how the initial step of speciation occurred in tropical birds, but also provide a generalizable explanation for how speciation may be initiated in other regions and in other organisms.

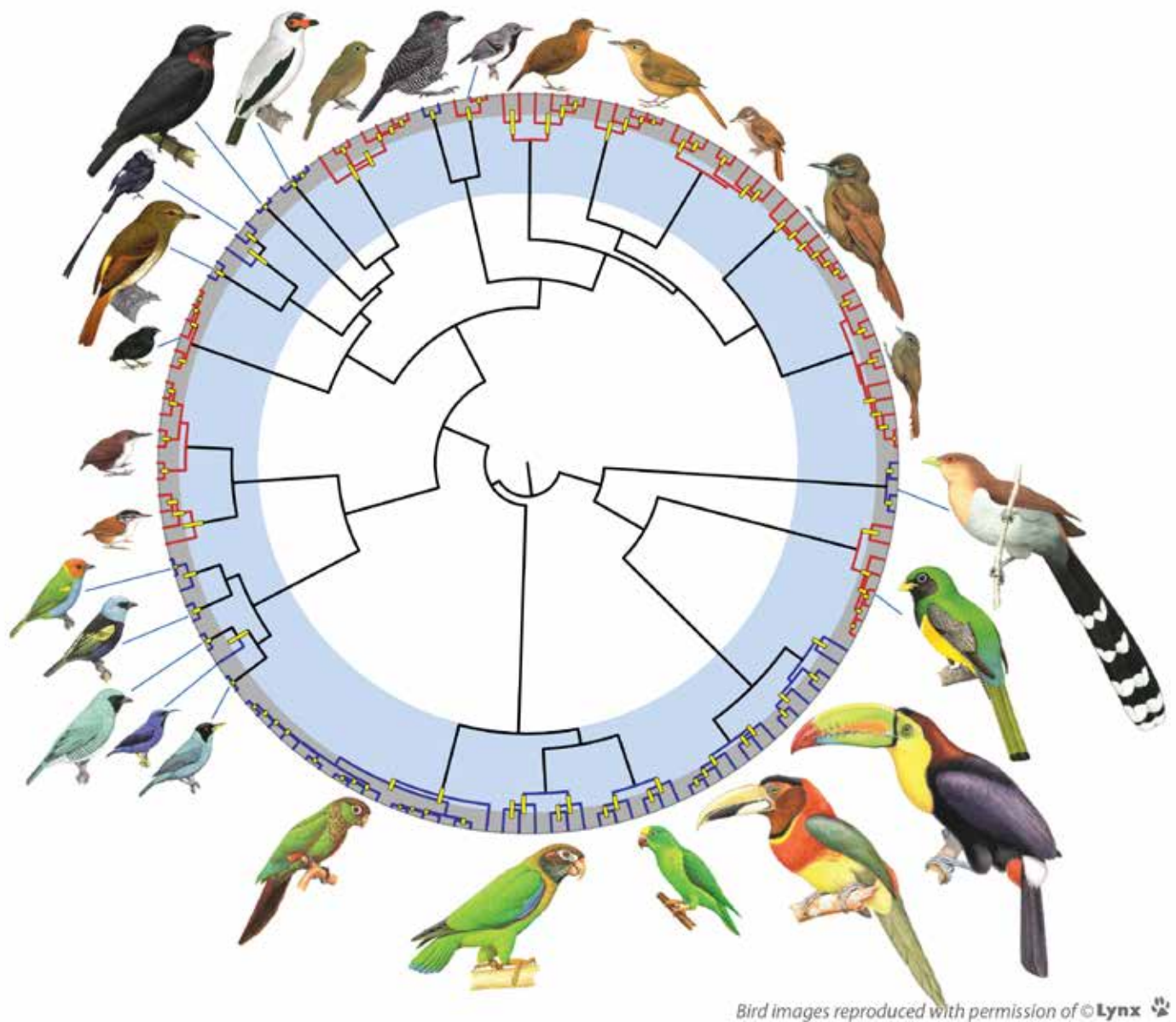
To examine the timing of speciation, the sci-

Above: Macaws flying over the rainforest canopy at dawn. The study found that bird lineages that inhabit the forest canopy, such as these macaws, accumulate fewer species over evolutionary time than do bird lineages that inhabit the forest understory. Image courtesy of Mike Hankey.

entists compared genetic patterns among a diverse array of bird lineages that occur in the Neotropics, one of the six major zoogeographical regions of the world extending from Mexico south to the southern most tip of South America known to have more species of birds than anywhere else in the world. Each lineage contained populations situated on the opposite side of large dispersal barriers and, with genetic data, they were able to estimate the time that the populations became isolated from one another. They found

that most speciation occurred long after the origin of the Andes and the Amazonian river system.

“By using detailed sampling of many bird lineages, we were able to get a clearer and larger picture of when and how species formed within those lineages. The extraordinary diversity of birds in South America is usually attributed to big changes in the landscape over geological time, but our study suggests that prolonged periods of landscape



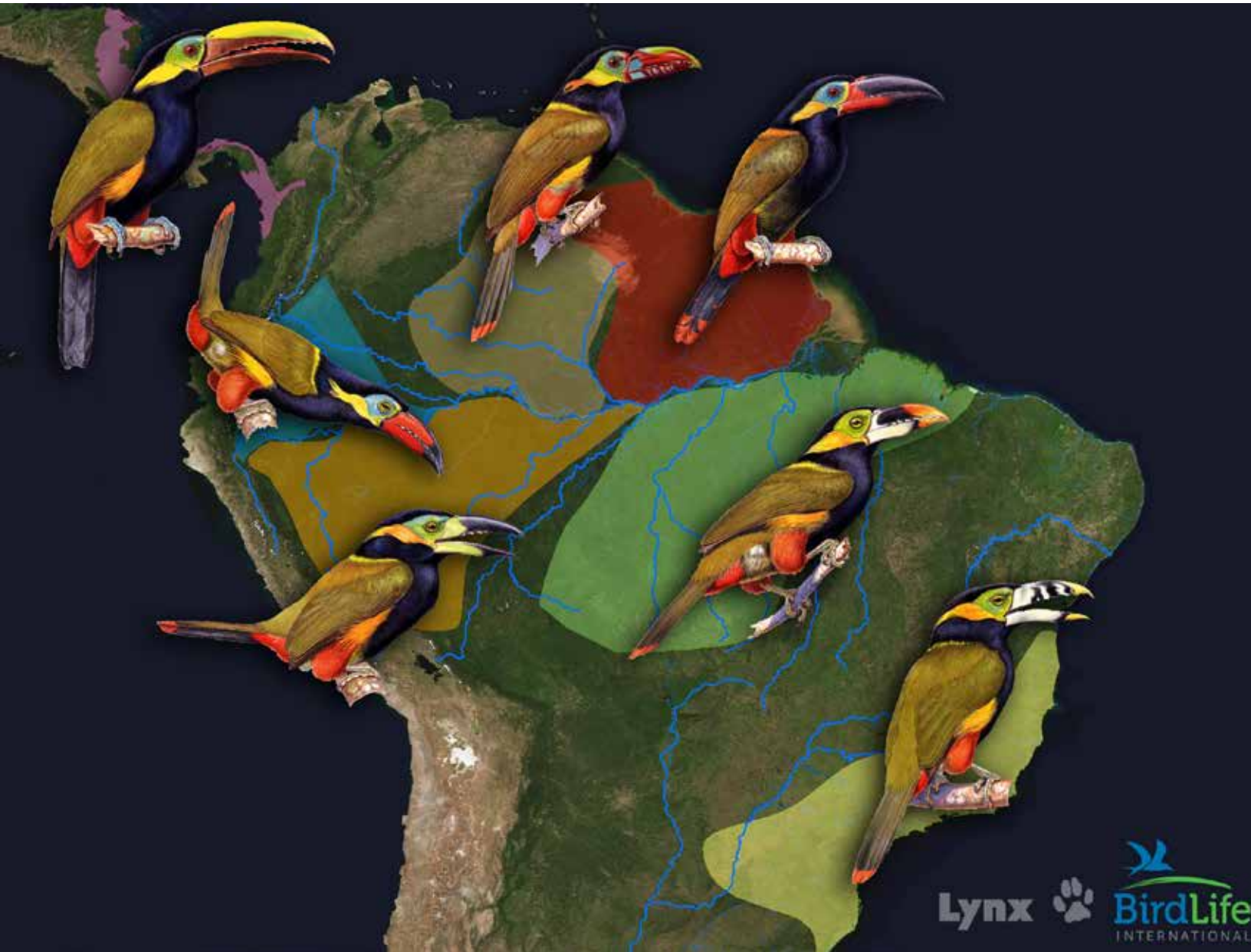
Above: Gene tree composed of 27 lineages of Neotropical birds. An exemplar taxon for each lineage is illustrated. Bars correspond to the 95% highest posterior density (HPD) for divergence times of each species. The Quaternary (2.6 Ma – present) shaded in gray and the Neogene (23 – 2.6 Ma) shaded in light blue. Mean stem ages for 25 of the lineages occurred within the Neogene and two within the Quaternary. Outgroups for each lineage are not included in the depicted phylogeny.

stability are more important,” said Brumfield. “Our results also suggest that human alterations of the landscape can effectively kill the speciation process. If the path to disperse from point A to point B is erased, then there is no way for the initial step of speciation to occur.”

“It is probably only in birds that the genetic sampling is sufficiently dense to examine

how interactions between the landscape and birds influence the speciation process,” he added.

“The thousands of samples used in this study represent the culmination of more than 30 years of field expeditions led by generations of LSU students and scientists, plus similar work done by ornithologists at other research institutions.”



The geographic distributions of species in this lineage of rain forest toucanets (*Selenidera*) are delineated by rivers, mountains, and non-forest habitats. Bird images courtesy Lynx Edicions (Handbook of the Birds of the World), Barcelona.



LSU Scientist Assists in Discovery of Carnivorous Water Rat in Indonesia

By Billy Gomila, LSU Media Relations

Jacob Esselstyn, curator of mammals at LSU’s **Museum of Natural Science**, was part of a research team that discovered a carnivorous water rat in central Indonesia. The species was previously known only to local people in the western highlands of Sulawesi Island, and has been used as a talisman by area residents to protect homes from fire.

Published in the zoological taxonomy journal *Zootaxa*, the discovery of the new genus and species of mammal, *Waiomys mamasae*, documents the first known water rat from Sulawesi and the wider Southeast Asian region. Other semi-aquatic rats are known from New Guinea, Australia, Africa and South America. The authors indicated that, like other semi-aquatic rats, the new species feeds on aquatic insects attached to stream bottoms.

The scientists used DNA sequences to demonstrate that the new species is not a close relative of any other water rat species, including those of New Guinea and Australia. This indicates that the morphological features the Sulawesi water rat shares with other water rat species are the result of convergent evolution – meaning that these distantly related animals have been living in similar environments and independently evolved similar adaptations.

“The Sulawesi water rat and the water rats of New Guinea are no more closely related to each other than either is to the house mouse or the lab rat, but they live in similar

environments, which may explain their convergent morphologies,” said Esselstyn.

The local people know the animal as “balau wai,” or water rat in their language, Mamasa Toraja. The scientific name, “*Waiomys mamasae*” meaning “water rat of Mamasa,” recognizes their prior knowledge as well as their contribution to the scientific discovery of this species.

“The forests near Mamasa are some of the most intact on Sulawesi,” said Anang Achmadi, a scientist at Museum Zoologicum Bogoriense in Indonesia and co-author of the study. “Their excellent condition is a testament to the Mamasan people, who limit clearing of forests to the base of the mountain.”

In the 19th century, Alfred Wallace, co-discoverer of natural selection, described Sulawesi as an “anomalous island” because the animals he found there were so unusual. “Sulawesi’s ancient history of geographic isolation, along with its many high mountains help explain why it is home to so many strange animals,” said Esselstyn.

He added, “It’s a real thrill to follow in the footsteps of early naturalists and to still be discovering so many new animals. But the fact that the people of Mamasa knew of *Waiomys* and keep them as talismans suggests the research community has a lot of work to do before tropical biodiversity will be well documented.”



LSUMNS attends Step Outside Day

By Donna L. Dittmann, Steven W. Cardiff, and Robb T. Brumfield

(life) mounts, study skins, skeletal preparation, and alcoholic preparations. Museum preparator, Donna L. Dittmann, demonstrated bird preparation and prepared six bird study skins during the day, explaining to participants how data are collected, including showing how tissue and stomach samples are removed and saved.

With rain initially in the forecast, we wondered whether that would impact participation, however over 500 participants visited this year's event. Step Outside Day was exceptionally fortunate with regard to weather, which turned out to be pleasant and dry, missing rain events the evening before and later Saturday afternoon into Sunday. The constant breeze felt wonderful but made it a little difficult blowing around the specimens!

The Neotropical Bird Tour (this year hosted by the Baton Rouge Audubon Society) was conducted the morning of Step Outside Day as a means to introduce participants to bird watching, and the many bird species found in the Atchafalaya Basin, including of course Neotropical migrants. Donna Dittmann and Steve Cardiff have assisted with this event from its inception. If interested in next year's Step Outside Day information is posted on the Louisiana Depart-

LSUMNS participated in this year's "Step Outside Day" on Saturday, May 10, 2014. This one-day event is an outdoor education program organized by the Louisiana Department of Wildlife and Fisheries, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service. This year celebrated Step Outside Day's 10th anniversary – however it was the first year for LSUMNS as a participant and sponsor. Located at the Sherburne Wildlife Management Area Headquarters on Whiskey Bay Road, the headquarters are about 2 ¼ miles south of Highway 190 exit at Krotz Springs. The event's activities began at 9 AM and concluded just before 3 PM. The event is geared for the entire family and is free - including hotdogs, jambalaya, and non-alcoholic beverages. This event brings participants to the Atchafalaya Basin to learn hands-on a variety of outdoor activities, such as fishing, archery, boating, target and trap shooting, trapping techniques, turkey and duck calling, as well as ATV and water safety. Tents are set-up so that sponsors can provide a variety of educational material, such as highlighting Louisiana wildlife, including Louisiana black bears and alligators. There were several booths for participants to visit, and this year also included one hosted by LSUMNS. The LSUMNS tables were manned by Director Robb T. Brumfield, Steven W. Cardiff, Ichthyology graduate student Valerie Derouen, and Mammalogy Section post-doc Tom Giarla. The museum crew brought an assortment of different museum preparations to discuss, including taxidermy



Above: Donna L. Dittmann handling the ornithology specimens.
Bottom: Tom Giarla handling the mammalogy samples.

Can't wait to get back to Kuwait: Fishes from the Arabian Gulf

Prosanta Chakrabarty and Bill Ludt



From June 13th to the 22nd my PhD student, Bill Ludt, and I travelled to Kuwait to collect fishes for the LSU MNS ichthyology collection. (This was the 3rd trip that Bill and I have now made to Asia in the last two years.) Over my career I've made collections from much of the Indo-West Pacific but am lacking some critical Middle East collections. The Middle East is underrepresented in most fish collections worldwide and because many of the species from the region are poorly known there is a potential that some of them are new to science. When Dr. Jim Bishop invited us to go to Kuwait last year I knew it would be an opportunity we shouldn't pass up.

Jim Bishop is familiar to many people in the LSU community; he is an alumnus and a great sponsor of art and research at Louisiana State University. Jim has a wonderful enthusiasm about the work being done at the museum, and he has provided many specimens to our collections in the past. He is also one of the most cultured, kind, and energetic individuals I have ever met. Bill and I were lucky enough to stay with Jim and his wonderful wife Virginia at their home in Kuwait City. We frankly could not have figured our way out of the local airport without them, let alone find the fishes we were targeting. Kuwait is an interesting country with a rich and ancient history that was transformed by the unimaginable wealth that came about through

the oil industry. All throughout the places we visited you can see this dichotomy between an ancient desert civilization and a transitioning modern society. The temperature was rarely below 100 degrees even at night, and frequently much higher - this was the desert after all, but the roadways were green with introduced shrubbery that was irrigated with desalinated seawater. Locals wore traditional Islamic garbs (abbeys for women, dishdashas for men) but there were also many expats from India, Syria and the West. It wasn't always clear when we were seeing the real Kuwait or just the veneer around it.

Our first days were spent going through the many collections Jim had already obtained for us. Through his work at KISR (Kuwait Institute for Scientific Research) he was able to arrange for specimens of notable material to be held for our visit. These specimens were collected by boat trawls in and around the Arabian Gulf (what we call the Persian Gulf) over the past few years. By the end of the first day we had already gone through hundreds of samples that were a very good representation of Kuwait's ichthyofauna. Jim had meticulous notes for these materials and much of it was preserved in alcohol (rather than fixed in formalin) so we were able to take DNA samples as well. The majority of the materials that we brought back to LSU are these collections from KISR. We also made



favorite fish to anesthetize. These fishes, which spend most of their time out of the water, are incredibly cute, with big bulgy eyes at the top of their heads and an expressive “face” that makes them look like muppets. They live in muddy areas and keep water trapped in their gills while they scurry about the surface building territories and escape routes. The mud they live in is hard to traverse and the larger individuals were in waist deep mud that made it impossible for us to catch them. We stuck mostly to the shoreline trying to catch smaller individuals. Even these small ones are amazingly adept at getting away. We saw hundreds of these mudskippers and ended up catching only about ten. We were covered in mud by the end of the day and the incredible heat made the conditions rather harsh but ‘mudskipping’ is always great fun.

All in all we brought back close to 80 species from Kuwait and the Arabian Gulf and roughly 300 new tissue samples and close to 500 specimens. We also built an important relationship with the folks at KISR. Jim invited me to give a presentation there and my talk, “What We Learned from the 2010 Gulf of Mexico Oil Spill: and other projects from Louisiana State University” was well received. We have also started some collaborative projects with researchers at KISR. We are trying to arrange making a short course in ichthyology that Bill and I would teach sometime in the spring at KISR, and hopefully we will try to sample from other parts of the Middle East as well. In fact this article is hopefully just the first of many newsletter articles we will produce from these trips to the birthplace of civilization.

substantial collections from the local fish markets, which included material from Iran, Saudi Arabia and Iraq. The local fishmongers sold an amazing variety of species on a daily basis. Although the exact localities of this material will remain unknown it was nice to get additional material from around region. We also did some collecting of samples from the oceans ourselves going out at low tide to collect blennies, gobies and toadfishes from the sandy intertidal zone.

We were also able to catch a few mudskippers on one of our last collecting days; these fishes are among my favorite animals to catch, and my least



Page 11: Bill Ludt, Jim Bishop and Prosanta Chakrabarty in Kuwait City

Above: Bill Ludt playing the guitarfish

Bottom: (left) A venomous stonefish and (right) a mudskipper; not doing so bad as a fish out of water.



GRAND ISLE MIGRATORY BIRD CELEBRATION

By Donna L. Dittmann, Steven W. Cardiff, and Robb T. Brumfield

LSU Museum of Natural Science personnel once again interacted with the birding public at the 2014 Grand Isle Migratory Bird Celebration. This year's festival took place Friday 11 April-Sunday 13 April, a week earlier than usual in order to avoid Easter weekend. As in the past, LSUMNS Collections Managers Donna L. Dittmann and Steven W. Cardiff assisted with birdwatching field trips. This year, Donna and Steve led birding trips Friday and Saturday through the island's unique maritime forest. These 2-3 hr walking tours were so popular (25-45 participants per tour) that Donna and Steve would have been somewhat overwhelmed had it not been for several other excellent leaders coming to their assistance: David Muth (National Wildlife Federation), Richard Martin (The Nature Conservancy), Dennis Demcheck (U.S. Geological Survey), and Louisiana Bird Records Committee members Curtis Sorrells and Phillip Wallace. When not on trips, Donna and Steve continued to wear their red "celebration vests" between organized trips to identify them as field trip leaders so that they were available and identifiable to anyone who had questions or needed help identifying birds. Par-

ticipants on tours ranged from young to old and from birding beginners to seasoned veterans – all excited to see colorful spring songbird migrants that put down to rest or refuel in the island's woods and wooded yards. Between field trips on Saturday, Steve found a Lesser Nighthawk, a rare visitor to SE Louisiana, that many other birders were able to see through the afternoon.

New this year, LSUMNS Director Robb T. Brumfield hosted a LSUMNS table at the Grand Isle Multiplex on Saturday. Robb brought an assortment of bird taxidermy mounts and research specimens to show and discuss as a means to introduce visitors to LSUMNS and its mission. Robb, as well as Donna and Steve, were able to interact with celebration participants, as well as other state organizations also assisting with the event, such as The Nature Conservancy, Louisiana Audubon/National Audubon Society, Barataria-Terrebonne National Estuary Program, Louisiana Department of Wildlife and Fisheries, Louisiana Master Naturalists, and Grand Isle Tourist Commission and Grand Isle Port Commission.

Above: Adult male tanagers, such as this Summer Tanager always elicits *ohs* and *ahs* from visitors, because the color of the male is vibrant. Tanagers prefer to feed on the numerous fruiting mulberries found on the island.



A few memories from Grand Isle:

1- Steve Cardiff takes the lead for the bird walk on Saturday afternoon. The sizable group was spread up and down the street on the way to the woods. Additional leaders were spread among the participants to help spot birds and talk about the importance of the area to migrants.



2- A rare find on the island, there are only a few previous spring occurrences of Lesser Nighthawk from Grand Isle. Quite a few celebration participants mentioned that this was a “new” species for them to see.



3- Robb Brumfield takes a break from talking with visitors about LSUMNS’s projects, and poses with sons Caleb (left) and Luke (right) at the LSUMNS table. Photo by Tiffanie Brumfield.



The 2014 LSU Museum Fishing Trip Retreat

Great fun was had once again at our annual museum fishing retreat. We had a record number of folks, 33 adults, and 7 kids, all who fit snugly into our rented beach house on Grand Isle named, “Sol et Terre” (who knew you could mix French and Spanish to make such a terrible English pun). The trip was organized once again by the wonderful Curator Emeritus Dr. Mark Hafner. We can’t mention everything that happened but here are some highlights...

(1) Fishing!

This was a fishing trip after all. Dominating the catch and the fishing stories were the White Trout *Cynoscion arenarius* and Redfish *Sciaenops ocellatus* both members of the drum and croaker family Sciaenidae that dominates Louisiana waters. (Read more about them in our new book, see pg 22). White Trout (not a trout) is the smaller cousin of the much sought after Speckled Trout which get to a much larger size and is apparently slight more delicious. Director Robb Brumfield alone caught no less than 100 of these tasty beasts, however, Dr. Chris Austin notably captured what we believe to be the world record size individual, eclipsing the record previously held by Dr. Brant Faircloth who captured one about a foot-long earlier that morning. All on board eventually ended up catching some large Redfish as well. The champion in this category ended up being Dr. Jake Esselstyn’s 22lb beast, which despite Dr. Prosanta Chakrabarty’s arguments, was both longer and heavier than his (but just barely).





(2) Beach seining

Graduate student Bill Ludt brought along a nice 30ft beach seine that was used to great effect several times to collect non-delicious but interesting fishes. Some of these will end up in the fish collection at LSU. Despite the ornithology students mistaking the seine for a mist-net, all who participated had fun either pulling the seine or observing the catch. Small pompano, kingfish, pipefish, squid and other critters were collected to great cheering, mostly by the children at the retreat.



(3) Football

We all gathered around to watch the LSU vs. Florida football game, a game between two disappointing unranked teams that was a thriller to the last moment. The crowd was split between optimists and pessimists with Drs. Hafner and Sheldon leading each side. Dr. Sheldon began discussing the good-old days back when he was a young man, and then started using long-forgotten New Jersey slang like “jabroni” and “mamaluke,” terms that likely haven’t been used since Frank Valli broke up with the Four Seasons. Luckily LSU was victorious and all were happy.



Overall a goodtime was had by all, many thanks to those who cooked and cleaned (special thanks especially to Darcey Hafner and Dolly Esselstyn). Despite a persistent rumor that daylight savings time would give us an extra hour on the last day all was clear by midday Sunday. We can’t wait until next year!





Geology Exhibit Revitalizes HR Museum Hall

By Bethany Martinez

Just a few months ago, taking a stroll through the old portion of Howe-Russell Kniffen Museum Hall felt a bit like turning the pages of a 1970's Gumbo (see inset below), and though many geologists focus their study on the history of the earth, they are also concerned with present and the future. Museum Curator and Associate Professor of Palynology Sophie Warny worried that the outdated displays did not reflect the new and exciting research the Department of Geology & Geophysics has been up to in recent years.

"I see parents and students taking the LSU tour, College deans having their meetings here, bankers taking their summer classes in our auditorium, and the way it was before was not reflective of the current work we do or its quality," Warny said. "So we wanted the hallway to reflect the fact that we are a top tier research institution and ensure that the first impression of the public and undergraduate students is not a bunch of mismatched furniture and panels from 30 years ago."

In 2012 Warny and Associate Professor of Geology & Geophysics Philip Bart began planning a new display outside room 130, one of the most highly-trafficked areas in the building, that could bring geology to life in the eyes of the students passing through. With help from Southwest Museum Services, who designed and built the exhibit, and support from Vincent Guillory and Charlyn

O'Neil in LSU's Facility Services Office, the exhibit was completed in time for a summer 2014 debut.

Panels mounted on the walls explain various topics covered in introductory Geology classes-many conveniently taught in 130- in hopes of attracting new students to the department. Standing next to a panel full of color, Warny explained that they were designed especially with students in mind.

"This one is 'Minerals in Your Life.' So these minerals are in things that we use, like toothpaste or the coloring of M&Ms or the material for your cell phone. So all the minerals we have on this graphic are actually used in your daily life. We tried to keep everything very global," Warny said.

The exhibit, which includes samples and photographs from Geology faculty and staff, also hones in on Louisiana-specific topics like coastline retreat and the oil and gas industry. With Louisiana leading the na-





tion in these fields, Bart explained that Geology should be more present on the radar of LSU students.

“So many people really don’t know about geology. I grew up here in New Orleans, and I had no clue as a kid about geology and the job opportunities that existed—the kind of exciting science that you could do here in the state,” Bart said.

Warny and Bart applied for a Traditional Enhancement Grant through the Louisiana Board of Regents to fund the exhibit. Their project was the top-rated entry, giving them the assurance that it would be funded.



“The displays did not only allow us to offer a much needed new way to showcase our research, the Board of Regents is also helping raise awareness on ways to improve the economy in Louisiana. We hope the exhibit showcases geology as a job and career path to students,” Warny said. “We tried to showcase Louisiana and the impact a career in geoscience can have on Louisiana citizens. It’s a good job to get if you want to live here.”



But the exhibit is meant to do more than just recruit; in what Bart calls Geo-news Alley, magnetic poster-board panels make it simple for students to both show off their work and practice their presentations skills.

“Our students who are giving poster presentations at an upcoming conference can come out here, post it up and practice and take some questions from their fellow students or the faculty,” Bart said. “We wanted to have a place where we could showcase student work and encourage the students to be proactive about what they’re doing and sharing their research with their department. That’s an important part of training as a scientist, being able to present your work.”



The grant also allowed the department to make other additions to the area. New furniture sits outside classrooms for students to relax or study on. In front of the panels, new display cases exhibit fossils and finds from LSU explorations. Across from the magnetic presentation boards, a new geological map and TV for department news and updates invite student interest.

“We really want to show students and visitors that geology is all around them and that in Louisiana, this is an exciting and rewarding career path” Warny said.

MNS NEWS & UPDATES

Thesis Award:

Ms. Trahan has been selected as a recipient of an Honors College Outstanding Thesis Award for her work entitled “Latitudinal Geographical Variation in Sexual Dimorphism in a Tropical Montane Bird (Furnariidae: *Pseudocolaptes boissonneautii*).” Recipients of thesis awards were recognized at the Honors College Senior Recognition ceremony on Thursday, May 15, at 1:00 p.m.

Dr. Chakrabarty and Dr. Warny’s tenure:

Big news for two Museum of Natural Science curators. In August ichthyology curator Dr. Prosanta Chakrabarty and palynology & education curator Dr. Sophie Warny were promoted from Assistant Professor to Associate Professor with tenure. Tenure is a major milestone in an academic career typically awarded after five grueling years as an Assistant Professor. The tenured faculty members from the Department of Biological Science and Department of Geology and Geophysics, respectively, agreed that Drs. Chakrabarty and Warny have made important contributions in the areas of research, teaching, curation, and scientific and community service and recommended promotion with tenure. Both Dr. Chakrabarty and Warny have very active laboratories and high profile national and international reputations. Both curators have extensive international field research with samples that have been a great addition to the Museum of Natural Science collections.

Dr. Austin’s promotion to Full Professor:

Since tenure, Curator of Herpetology Chris Austin has continued to run a productive lab that publishes great research, lands extramural funding, and grows the herpetology collection through international field expeditions. Dr. Austin also does a fantastic job teaching courses to LSU undergraduates in Evolution and Herpetology. In recognition of his continued successes as an LSU professor and curator, Dr. Austin was promoted to Full Professor, effective August 2014.

Service Awards:

Lorene Smith 15 year service award and Suyin Ting 20 year service awards are in your mailbox for you to hand deliver to them.

Dr. Schiebout’s recovery:

Curator Judith Schiebout had major surgery to amputate her lower left leg at the Mayo Clinic on July 30, 2014. She is recovering nicely and, as of October 25th, is back home in Baton Rouge. We wish her well in her recovery!

MORE MNS OUTREACH MEMORIES

LSU FALL FEST:

The MNS had a booth at this year's LSU Fall Fest. Thanks to Vivien Chua and Valerie Derouen for organizing and helping out!



USFWS Wild Things:

Senator Mary Landrieu stopped by our booth and graduate student Valerie Derouen shared a croaker while Tom Giarla showed her mammal specimens from the MNS collections.

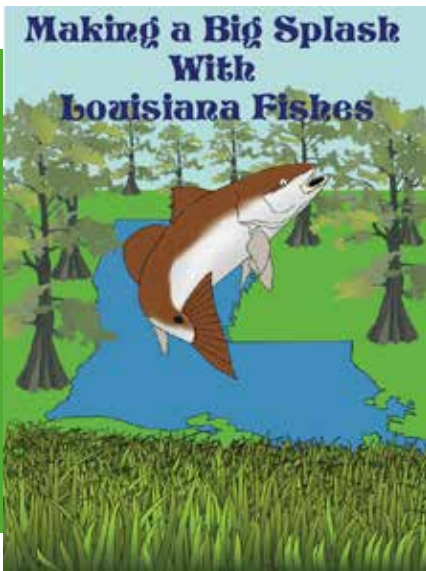


OCEAN COMMOTION 2014: Modern and fossils sea monsters

The MNS had a booth at this year's Ocean Commotion again! Thanks to Bill Ludt, Valerie Derouen, Manon Bart, Carolyn Coulter and Sophie Warny for organizing the MNS display and helping out!

Teachers and students were thrilled with all of the cool things they saw. 1,883 k-8 students from 31 school attended this year.

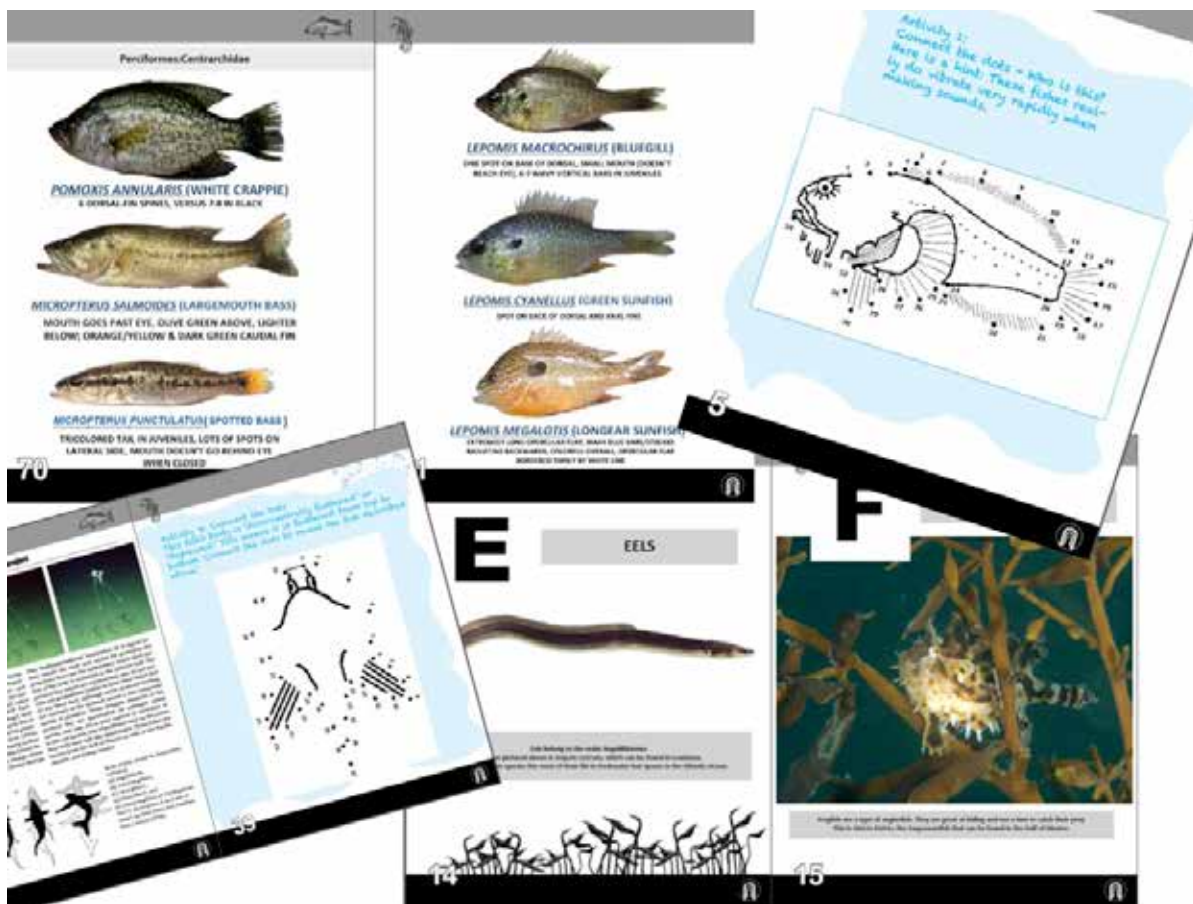




New book available at the MNS

“a true guide to Louisiana fishes”

A new book targeting students young and old has been published by the Museum of Natural Science. The book, “Making a Big Splash With Louisiana Fishes,” was written by **Curators Prosanta Chakrabarty and Sophie Warny with graduate student Valerie Derouen**. The book is a complement to a recently created fish exhibit at the MNS in Foster Hall, and includes nearly 100 pages of text, activities, stories, and a field guide to common fishes of Louisiana. It is available for free, at [<http://sites01.lsu.edu/wp/mnspapers/>]. It is also available for purchase (at cost) printed in color and bound for \$20 by check written out to “LSU Foundation” with “Occasional Papers” written in the memo field. Checks can be sent to “LSU Museum of Natural Science, 119 Foster Hall, Baton Rouge, LA 70803.” Additional donations can be added to the check but please add “Ichthyology fund” in the memo field and the dollar amount going to each. To request a hard bound copy please email prosanta@lsu.edu





Making a Big Splash... ...with Louisiana Fishes

New exhibit NOW OPEN!
Thank you to the LA BoR and for your support!

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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. 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 article.

Email your material to swarny@lsu.edu or mail to:

The LSU Museum of Natural Science
Education Office
119 Foster Hall
Baton Rouge, LA 70803

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