

# MUSEUM QUARTERLY

**LSU**

Museum of Natural Science



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Gray Tree Frog (*Hyla versicolor*) | Alabama  
Photo by LSUMNS graduate student Jackson Roberts



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## Letter from the Director...



### Consolidation into Foster Hall

One of the long-standing goals of the Museum of Natural Science (MNS) is to have all of its collections and staff housed in a renovated Foster Hall. When the MNS first moved from Audubon Hall to Foster Hall, George Lowery was promised the entirety of the building. That didn't happen. In what Peter Soderbergh\* described as a 'pincer move', the MNS ended up occupying about half of the building, with an unwritten promise to Lowery that the occupation of the Art Department in the remaining space would be temporary. That was in 1950.

This summer, 68 years later, we will be taking a few steps towards consolidation of the MNS in Foster Hall. For the last couple years, we have been involved in the planning and designing phase of renovating the basement space formerly occupied by Art. Like many buildings on campus, Foster Hall has an abundance of deferred maintenance issues and so this project has not been trivial. However, we can now see the light at the end of the tunnel. The space should be fully renovated and inhabited later this year by the fish collection (currently in the Gym Armory across campus) and the herpetology collection (currently busting at the seams in another Foster Hall space, and also in Hatcher Hall across campus). Thanks to an NSF grant to Curators Chakrabarty and Austin, the renovated space will be outfitted with new compactor shelves and stainless-steel storage tanks.

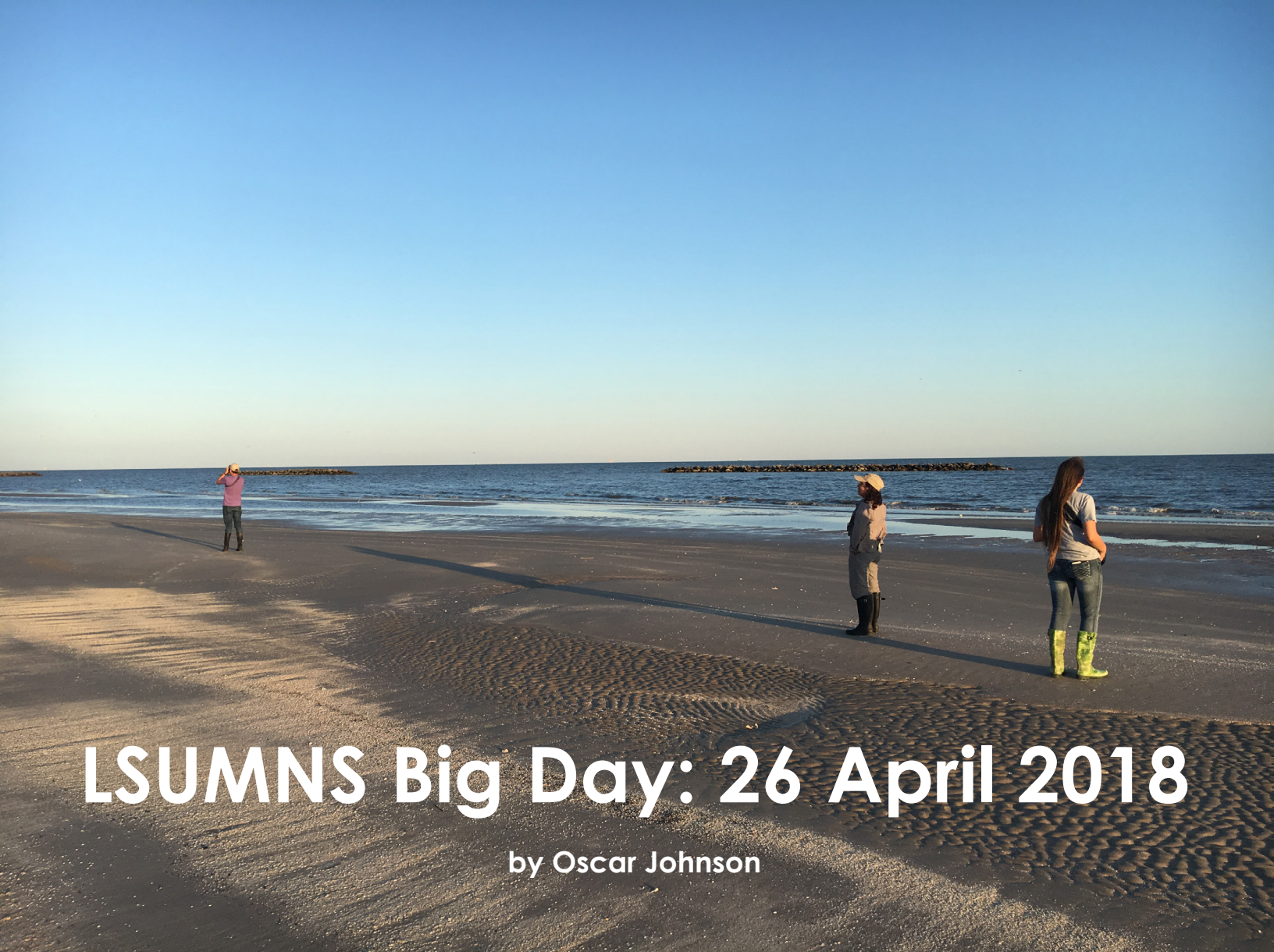
As luck would have it, we (Brumfield, Sheldon, and Esselstyn) received a grant contemporaneously from the Louisiana Board of Regents to grow and upgrade the Collection of Genetic Resources (CGR). The liquid nitrogen component of the CGR will be housed in the renovated space. It'll also be growing from six to eight liquid nitrogen vapor tanks, allowing us to archive the entirety of the frozen mammal tissue collection and the rest of the frozen bird tissue collection. We'll also be installing both a large outdoor liquid nitrogen storage tank that will feed the indoor freezers, and a new alarm system.

Finally, in two rooms vacated by the Art Department on the first floor of Foster Hall, part of the Archaeology and Ethnography collections will be moving over from the Gym Armory. Our hope is to move the rest of that collection in the near future (i.e. the next few years). Fingers are crossed.

Much work remains, but I think Lowery would be pleased.

-Robb

\*Soderbergh, P. A. 1986. Windows on the World: Public exhibits in the Museum of Natural Science at Louisiana State University. Museum of Natural Science (pdf available upon request).



# LSUMNS Big Day: 26 April 2018

by Oscar Johnson

I found myself in a very familiar situation. A clear night in late April and a group of LSU Museum of Natural Science students and myself were standing underneath the nest of an **American Robin**, waiting for the stroke of midnight. Every year, students at the museum take part in a Big Day, where a team tries to see how many species we can find in a 24-hour period in the state of Louisiana. We do the event as a fundraiser for graduate student research, where donors can pledge a flat rate or a dollar amount per bird species seen on the Big Day.

This year's Big Day team consisted of three graduate students: myself, **Glaucia Del-Rio**, and **Matt Brady**. This year, we were also joined by undergraduate and ace birder **Marky Mutchler**. As in years past, the students at the museum spent much of the previous week looking for birds along our planned route, especially for those species that can be difficult to find. The Big Day

is timed to coincide with the peak of spring migration, when the bird diversity in Louisiana is at its highest. Not only are birds migrating through to points farther north, but the locally breeding species are singing on territories, and a few of the over-wintering species have yet to leave. Although late April is the best time to do a Big Day, the exact day that we choose is dependent on the local weather conditions, so as in years past, we did not choose the date until just two days prior. A weather front was expected to arrive from the north, and with it north winds that would hopefully stop any migrating birds in their tracks, giving us a chance to see more species of migratory birds.

The route taken on a Big Day is of utmost importance, with an anticipated arrival and departure time at each stop along the route that we have fine-tuned to maximize our chances of seeing the necessary species, while also allowing sufficient time to drive





L to R - Marky Mutchler, Matt Brady, and Oscar Johnson searching for birds. Photo by Glaucia Del Rio.

between all of the planned stops throughout the day. The route that we chose was first established by former graduate students Mike Harvey, Ryan Terrill, and Glenn Seeholzer in 2014. Since they first tried the route we have refined the stops every year, and I had high hopes that between the new stops and the good weather forecast, we might have a chance at beating the previous Louisiana Big Day record of 221 species.

As the clock struck midnight, we briefly shone a spotlight on the sleeping robins and ran back to our car for a fast-paced, exhausting, and exhilarating 24 hours of birding. The first hour of the night we spent driving around Baton Rouge looking for night birds, racking up a **Great Horned Owl** in LSUMNS Research Associate Dan Lane's back yard, a pair of **Wood Ducks**, and a locally rare **Greater White-fronted Goose**, among others. For first time since I've done this route, there were no **Rock Pigeons** at their regular roost under the I-10 freeway. No matter, we were on to the next stop! Marky's sharp ears picked out the flight calls of migrating songbirds overhead, adding another three species. A quick stop at Whiskey Bay turned up both **Eastern Screech** and **Barred owls**. From here we continued west to the rice country near Welsh, where we were unable to find a **Barn Owl** at our regular spot, our second miss of the day. The forecasted weather front arrived as we were leaving the rice country for the hour and a half drive to our dawn spot in the longleaf pine woodlands in Kisatchie National Forest, giving us high hopes for seeing migrants.

Dawn arrived clear and, by Louisiana standards,

chilly at 55 degrees Fahrenheit, but the breeding species were all there and we quickly added the pine woods specialties **Red-cockaded Woodpecker**, **Brown-headed Nuthatch**, and **Bachman's Sparrow**. Our next stop was the day-use area at Kincaid Reservoir, which we had initially planned as a quick stop to look for **Yellow-throated Warbler**, **Bald Eagle**, and **Red-headed Woodpecker**. Although we found all three of those targets, we quickly realized that the pre-dawn front had dropped an incredible number of migrants out of the sky, and the woods around the lake were teeming with warblers, orioles, tanagers and grosbeaks. Another key to a successful Big Day is flexibility, so although it put us behind schedule, we made the decision to spend extra time here. We ended up seeing 62 species, including 14 warblers such as the snazzy **Blackburnian**, **Blue-winged**, **Yellow**, **Chestnut-sided**, and **Black-throated Green**. The migrants soon started to depart, flying north over the lake in small flocks, so we too continued on our way.

Our route continued south back towards the rice country with stops for **Louisiana Waterthrush**, **Cave Swallow**, **Swainson's Warbler**, and **Painted Bunting**. Our 100th species of the day came at 8:30 AM in the town of Woodworth, a **European Starling**. A stop in the town of Oberlin produced a surprise **Swallow-tailed Kite**, but not our target for this site, which was House Finch. Not long after, however, Matt's sharp eyes picked out some **Houses Finches** in a Super 8 parking lot along the highway. You never know where your birds will turn up.



Willet. Photo by Oscar Johnson.





Magnolia Warbler. Photo by Oscar Johnson.

Our scouting in the rice country had failed to find any muddy fields with shorebirds due to changes in rice cultivation practices, so our time here was spent looking for herons, ducks, and grassland species. In addition to the usual fun birds, such as **Crested Caracara**, **Scissor-tailed Flycatcher**, and **Fulvous Whistling-Duck**, we scored two good finds: **Brewer's Blackbird** and **Franklin's Gull**. Continuing on toward Cameron Prairie NWR for freshwater marsh species, we quickly spotted both **Purple** and **Common gallinules**, both **American** and **Least bitterns**, and **King Rail** before continuing on towards the coast.

Upon reaching the Gulf of Mexico, we quickly added many coastal species and a few migrants, boosting our total to 184 species as we drove west checking multiple coastal migrant traps. At one of the salt marshes near the beach we finally found a mudflat that was loaded with shorebirds, quickly adding most of the species that we had been unable to find in the rice country. The coastal woodlots were swarming with migrant songbirds, and we continued to add species at a steady pace. Riding the ferry across Sabine Pass, Matt spotted a **Reddish Egret** flying overhead, an uncommon coastal bird.

Making our way east along the coast, we stopped for some shore birds along the side of the highway at Holly Beach, scoring #199 (**Snowy Plover**) and #200 (**Piping Plover**)! Just a little farther east was our penultimate planned stop, Peveto Woods sanctuary, where we were overwhelmed by the sheer number of migratory songbirds. Every step we took flushed a flock of thrushes, grosbeaks, orioles, and warblers. We added

just one species here, **Golden-winged Warbler**, before we had to tear ourselves away and continue on our way. Just as we were leaving we found a pair of **Rock Pigeons**, new for the day. Who thought it would be possible to see over 200 species of birds in Louisiana before seeing a Rock Pigeon?

Lighthouse Woods, a small isolated patch of woods in the far southeast corner of the state, was to be our last stop of the day. This is a fantastic site, but is adjacent to a massive liquefied natural gas facility, so security is tight. Upon arriving at the entrance, disaster struck, literally. We were informed that there had been a fire at the natural gas facility and the entire area was under mandatory evacuation. In past Big Days, we have added as many as ten new species at this site. The disappointment didn't last long, however, as we continued on to Sabine Pass, where we have added some shorebird species in the past. We found the area crawling with migrants, but few shorebirds, and added **House Wren** in some roadside shrubs. We decided to spend our last hour of daylight enjoying the migrant spectacle back at Peveto Woods, where perhaps we could pick out one or two new species. Sure enough, a **Swamp Sparrow** was to be our last bird of the day, #204. We ended the day watching the sun set over the Gulf of Mexico, as terns and pelicans dove on schools of fish, reliving in our minds a day teeming with the marvel of bird migration.



**Above:** L to R - Oscar Johnson, Matt Brady, Marky Mutchler in Kitsatchie National Forest. Photo by Glaucia Del-Rio.

**Title Photo:** Big Day Team. L to R - Matt Brady, Glaucia Del-Rio, Marky Mutchler. Photo by Oscar Johnson.





# 13th Annual Eagle Expo

by Donna L. Dittmann & Steven W. Cardiff

The 13th Annual Eagle Expo was held Friday-Saturday 23-24 February 2018 in Morgan City, Louisiana. Organized by the Cajun Coast Visitors and Convention Bureau and co-sponsored by LSUMNS, LUMCON, BTNEP, and numerous other entities, this annual event features field trips, socials, and an educational breakfast seminar series on the Saturday morning.

Eagle Expo is situated in the heart of Louisiana's prime Bald Eagle breeding habitat, with the highest densities of nesting pairs in the state. It is hard to venture into this area from late fall into spring and not see numbers of Bald Eagles. Eagle Expo provides a great opportunity for participants to explore area waterways to see and photograph Bald Eagles and a wide variety of other birds and wildlife.

LSUMNS collection managers **Donna Dittmann** and **Steve Cardiff** again assisted as guides on boat tours. On Friday afternoon, Donna and Steve assisted LUMCON Captains Ross, Nick, and Mark departing out of Bayou Black Marina and exploring the nearby

Intracoastal Waterway and Turtle Bayou. The two boats stay in close contact as they loop through Avoca Canal complex. Participants get to visit freshwater marsh, lakes, edges of cypress swamp, and manmade canals lined with willow/tallow. During this trip we tallied 73 Bald Eagles, about 60 adults and 11 immatures. We located two nests close to the channels, one with two large chicks and one with an incubating adult. Other huge eagle nests were visible on tall trees in the distance. The trip also encountered three Great Horned Owls – another favorite of the participants and a specialty of this tour route.

On Saturday morning, Donna assisted Captain John Burke on the Atchafalaya

This adult Bald Eagle approaches the Atchafalaya Basin tour boat. The boat trips offer great views of these birds. Photo by Donna L. Dittmann.







**Left:** LUMCON boat on Turtle Bayou with Donna (purple raincoat) searching the vegetation along the canal for birds. Photo by Steven W. Cardiff.  
**Middle:** The Atchafalaya Basin tour, guided by Donna and Capt. John, departs for the Flat Lake area near Morgan City. Photo by Steven W. Cardiff.  
**Right:** Steve's (back right in camo vest) boat on the Friday afternoon Turtle Bayou trip stops for photo op of a Bald Eagle. Photo Donna L. Dittmann.

Basin trip departing from Joe C. Russo Boat Launch at Morgan City and exploring the Intracoastal Waterway and the Flat Lake area. It was a pretty day partly cloudy but increasingly windy which made it difficult to hear any land birds. We counted 19 Bald Eagles, including a nest with two large eaglets. An adult Lesser Black-backed Gull along the river was an added bonus.

Both Donna and Steve (assisted by Rob Dobbs) were back on the water in the afternoon, again with two LUMCON boats captained by Ross and Mark. Our route was similar to Friday afternoon but there was much higher disturbance by recreational fishing boat traffic due to a bass tournament. In addition to 34 Bald Eagles and seven Great Horned Owls, highlights included late day movements of Tree Swallows (estimated 1400) and Yellow-rumped Warblers (estimated 920) moving above the spoil banks. We also spotted at least four alligators, twenty nutrias, and a raccoon.

EBird lists are here:

<https://ebird.org/view/checklist/S43206461>

<http://ebird.org/ebird/view/checklist/S34461349>

<https://ebird.org/view/checklist/S43237629>

In addition to helping lead tours, Steve assisted the Cajun Coast Visitors & Convention Bureau by recruiting and coordinating with other field trip leaders.

If interested in attending this event next year, contact the Cajun Coast Visitors and Convention Bureau at 985-380-8224, visit online at [www.cajuncoast.com/eagleexpo](http://www.cajuncoast.com/eagleexpo) or email [info@cajuncoast.com](mailto:info@cajuncoast.com).



**Left:** Eagle Expo participants are always excited to see other wildlife, such as this American alligator seen from the LUMCON vessels during the Saturday afternoon Turtle Bayou tour. Photo by Donna L. Dittmann.

**Above:** Another large bird of prey regularly seen along the Turtle Bayou boat tour route is the Great Horned Owl—usually challenging to pick out among the branches, but this was a particularly cooperative individual “T’d-up” at the edge of the bayou.

**Title Photo:** A Bald Eagle sits majestically in the top of a Spanish-moss-clad bald cypress along a canal on Friday afternoon’s Turtle Bayou trip.





# Spring 2018 Herpetology BioBlitz

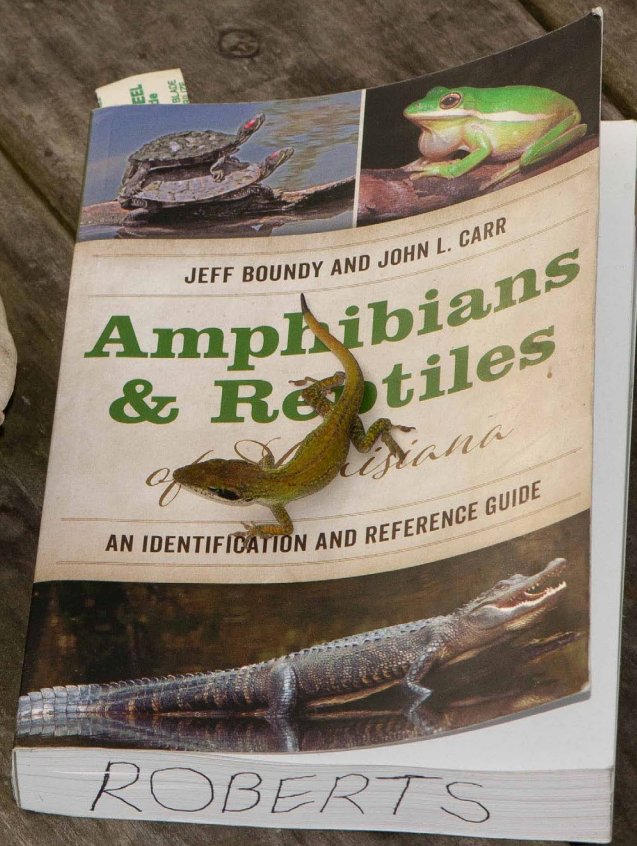
by Seth Parker

Though the following tale does not involve arduous mountain journeys or endless permitting processes, it will serve as a reminder of the importance behind local collecting, despite the glories that may be reached sampling internationally. If collecting and describing new species across the globe is the bread and butter of the museum, then surely local collecting is the faded, chipped yet still sturdy plate upon which our toast rests. As a collections manager, I'm rarely able to participate in the actual collecting of specimens in the field. However brief, to be physically hunting vouchers for the museum is a privilege, and gives a feeling of contributing to something far greater than my own endeavors.

Often it can be easy to forget that the **LSUMNS** is not the only natural history collection in Louisiana. With that in mind, we sought to forge a connection with the herpetology lab at Southeastern Louisiana

University. What better way than to host our own BioBlitz? This would culminate into a weekend where we would rage terror upon the swamps to find as many species as possible, but more importantly to learn from each other's collective field experience and create an avenue for collaboration between our herpetology collections. Along for the ride were a handful of SELU graduate students and Dr. Jen Lamb, and LSUMNS graduate students **Genevieve Mount**, **Zach Rodriguez** and **Jackson Roberts**. We took off from LSU armed with snake hooks and turtle traps for the Sherburne Wildlife Management Area, conveniently nestled adjacent to the Atchafalaya National Wildlife Refuge in Saint Martin and Iberville Parishes. Weeks before, Jackson and I had gone on a scouting mission to lay out some aluminum roofing sheets, known simply in the herp world as tin. The idea is that the tin would draw solar heat throughout the day, attracting reptiles to the warmth and enabling us to sample more species with ease. The proximity





Male green anole (*Anolis carolinensis*) perched on new Herps of Louisiana book, adjacent to slider shell (*Trachemys scripta*). Photo by Jackson Roberts.

tin sheets and turtle traps did not end up fruitful in our expedition.

to the Atchafalaya River meant that we were sure to stumble upon a cornucopia of geographically important specimens that were vacant from the tissue and voucher collection at the LSUMNS.

As any good herpetologist knows, waiting until after dark brings out the premium species. With evening coming on, we ventured on the nature trail road and surveyed the flooded cypress on either side amid a chorus of peeps and clicks by tree frogs in the canopy and banjo-twangs from the bronze frogs in the

The blitz began with the setting of the hoop-net turtle traps. The first casualty of the trip would not be a roadside herp, but rather Jackson's cell phone during the setting of the deep end of the turtle trap. Not a bag of rice within miles. While Jackson and I set the trap, the students of SELU were already proving their field worthiness by finding a common snapping turtle (*Chelydra serpentina*) and a plain-bellied watersnake (*Nerodia erythrogaster*). Once the other hoop nets were deployed with their bait of raw chicken livers, we set out to check tin sheets and place small minnow traps in the flooded timber near Big Alabama bayou. After a few hours of trekking through cypress swamp and bottomland hardwood, we discovered the usual suspects were present; alligators, brown skinks, 5-lined skinks, snapping turtles, red-eared sliders, narrow-mouth toads, cricket frogs, gray tree frogs, ring-neck snakes, copperheads and cottonmouths. Disappointingly, the



Photo of LSUMZ 99024, the first recorded hybridization between a green tree frog and gray tree frog (*Hyla chrysoscelis x cinerea*) captured in Sherburne WMA. Photo by Seth Parker.





**Top Left:** Southern ringneck snake (*Diadophis punctatus*) showing the ventral side. **Top Middle:** Close-up of the defensive “cotton mouth” display of adult water moccasin (*Agkistrodon piscivorus*). **Top Right:** Common snapping turtle (*Chelydra serpentina*). This juvenile was found on the road, and was released into the adjacent bayou. **Bottom Left:** Adult female marbled salamander (*Ambystoma opacum*). **Bottom Middle:** Juvenile Copperhead (*Agkistrodon contortrix*) shown with yellow tail tip. **Bottom Right:** Garter snake (*Thamnophis sirtalis*) that was captured on a log sitting next to an adult copperhead (not pictured). Photos by Jackson Roberts.

swamp. We managed to locate among them the second noted putative hybridization between a gray tree frog and green tree frog (*Hyla chrysoscelis x cinerea*). The only other specimen was captured in Sherburne WMA just a few years back (see bottom right photo on previous page). Not to be outshone, the copperheads (*Agkistrodon contortrix*) showed up in force, most of which being juveniles which beautifully display a yellow tail tip as a lure to attract prey. Before the night was through, we had also collected a southern leopard frog (*Lithobates sphenoccephala*), various tree frogs (*Hyla squirella*, *H. chrysoscelis*, *H. cinerea*, *Pseudacris crucifer*) and a fowler’s toad (*Anaxyrus fowleri*).

We camped at the shooting range campground, an area most suitable for relaxation and slumber. Nobody needs an alarm clock when a barrage of .40 caliber lead wakes you at 6 am. The following day turned up a few more species, with some salamanders including a large three-toed amphiuma (*Amphiuma tridactylum*) which was attracted to the dry dog food we set in a minnow trap. The other surprise was a female marbled salamander (*Ambystoma opacum*), one of the more charismatic herps though sadly one that often ends up in the diet of wild hogs, which had already bulldozed the area. I must admit the most noteworthy sighting

came from Zach Rodriguez, who upon spotting a large garter snake (*Thamnophis sirtalis*) basking on top of a downed log, immediately withdrew his capturing hand once he noticed the even larger copperhead lying directly beneath on the ground. From a distance, Zach shouted “*Thamnophis* and copperhead” while somehow all my brain registered was “I was bit by a copperhead.” LSU runningbacks could take notes from my high-knee sprint through the underbrush to reach my unharmed colleague.

In addition to that garter snake, we ended up with 28 specimens overall, with most representing new vouchers and tissues for the parishes. Not a log unturned, a seepage undredged, or the bark of a dead pine tree was attached in our wake. With luck, this will become an annual tradition between our two museums, with the goal of including more southern museums in the future to assist in sampling the unique herpetological species in Louisiana.

**Title Photo:** Graduate students from Southeastern Louisiana University holding a western ribbon snake (*Thamnophis proximus*). Also pictured in rear of photo LSUMNS collections manager Seth Parker and LSUMNS graduate student Jackson Roberts (not pictured ZBR, GM, Jen Lamb). Photo by Dr. Jen Lamb





# New Mammal Discoveries lead to New National Park in Indonesia

by Dr. Jake Esselstyn

Museum researchers venture into many habitats, near and far, to improve our understanding of ecological and evolutionary processes. Our biodiversity inventories, and the voucher specimens we collect, are also critical resources for conservation management and planning. For example, the International Union for the Conservation of Nature uses museum specimen records to determine where species are found and whether they need protection. However, over 15% of known mammal species are considered Data Deficient meaning that we can't assess their status because of a lack of information about where they are found or how abundant they are. Species we have not found yet also obviously don't garner protection efforts. Clearly, we must accelerate our biodiversity inventories because we cannot conserve what we do not know!

Sometimes our sampling efforts take us to areas with relatively well known faunas such as Arkansas and Louisiana. At other times, we explore localities that have never been surveyed before. My own research

interests have led me to focus on the small mammals of SE Asia. The species that live on the islands of the Philippines, Malaysia, and Indonesia are fascinating, but their diversity remains poorly documented in many respects. At most of the sites we survey in the region, we discover new species of small mammals.

However, of all the places I've done fieldwork, Mt. Gandang Dewata (peak at 3304 m elevation) on Sulawesi Island, in central Indonesia really stands out as extraordinary. The small mammal diversity is amazing, with at least six species of shrews and about 25 species of rodents on just this one mountain. (By comparison, the entire state of Louisiana has three shrews and 18 rodents.) An incredible proportion of Gandang Dewata's fauna was unknown to science when we first worked there, and much of it remains undescribed to this day. Back in 2012, my colleagues at the Indonesian Institute of Sciences and Museums Victoria and I described a new mouse (*Paucidentomys vermidax*) from Mt. Gandang Dewata. This discovery was remarkable





government noticed the attention.

Finally, in 2016, we described another new genus and species of mouse (*Gracilimus radix*) from Gandang Dewata. *Gracilimus* is interesting because it is an omnivore whose closest relatives are other mice endemic to Sulawesi that feed exclusively on worms and arthropods. Our investigation suggests that carnivory often evolves from an omnivorous ancestor in rodents, but that *Gracilimus* represents a rare reversal of this trend. These types of discoveries help inform our understanding of how evolutionary processes have generated modern diversity.

Following these discoveries, the Indonesian Institute of Sciences organized a broader biodiversity inventory of Mt. Gandang Dewata. In addition to mammals, they surveyed other terrestrial vertebrates, plants, and arthropods. Their findings, combined with our collaborative mammal work then were used in support of declaring Mt. Gandang Dewata a new national park. That process has now been completed, and part of the mountain is protected. This is important because many species on Sulawesi have very small geographic ranges and are endemic to just one part of the island. Gandang Dewata National Park now protects the flora and fauna of a unique part of the island and I am proud that our discoveries of new species of small mammals helped draw attention to this need. Although this development is exciting, it is important to note that the highest elevations (>2600 m) on the mountain have still never been surveyed, and additional new species likely await discovery there.

While Gandang Dewata National Park is a rewarding result of our work, a frustrating bottleneck in the process of describing new species is the lack of trained taxonomists. We are most limited by not having enough people to describe new species! Thankfully, the Alfred L Gardner and Mark S Hafner Mammalogy Fund is accelerating our efforts to train new students in this field as well as to conduct surveys in remote tropical forests. Please consider making a donation if you enjoy these stories of discovery. Like our page on Facebook and follow @LSU\_MNS on Twitter to be the first to hear exciting announcements in the coming months!

**Above:** Dr. Jake Esselstyn with collaborators from the Indonesian Institute of Sciences and our guides at our camp at 2400 m elevation on Mt. Gandang Dewata.

**Title Photo:** *Paucidentomys* (left) and *Waiomys* (right), two mice that helped draw attention to the need to preserve Mt. Gandang Dewata's forests, now a national park. Photo credits Kevin Rowe.

because *Paucidentomys* is the only rodent (among > 2,400 species) with incisors that cannot gnaw and no molars. This is surprising because rodents are famous for their ability to gnaw and the diversity and unique functional nature of their molars. These characters are what led to the extraordinary evolutionary and ecological success of rodents. Yet *Paucidentomys* has neither trait. This discovery drew a lot of media attention.

A year later, we described another new mouse (*Bunomys torajae*) from Mt. Gandang Dewata that is part of an endemic radiation of *Bunomys* on Sulawesi. These are generalist mice, and among the most common small mammals at most sites on the island, yet their diversity is still not well documented. While this discovery did not garner much media attention, land managers and conservation biologists in Indonesia did take note.

Then in 2014, we reported the discovery of *Waiomys mamasae*, an amphibious rat that feeds on aquatic insects in the mountain streams of Mt. Gandang Dewata. While semi-aquatic rats are known from Australia, Africa, and South America, this was the first such species discovered in Asia. In our study, we demonstrated that *Waiomys*' aquatic adaptations evolved independently of all the other amphibious rats that are spread around the planet. Again, the media widely publicized the discovery and the Indonesian





# Excavations at Mound B of the LSU Mounds Site (16EBR6)

by Dr. Rebecca Saunders & Dr. Brooks Ellwood

Over the 2018 Spring Break (March 24 – 31), **Dr. Rebecca Saunders** (Department of Geography and Anthropology and Museum of Natural Science) and **Dr. Brooks Ellwood** (Department of Geology and Geophysics) conducted excavations on LSU Mound site Mound B. Students from both departments volunteered their precious break time; a number of professional archaeologists also dropped by.

Like the excavations on Mound A in 2012 (by Dr. Robbie Mann and Saunders), one of the goals of the excavation was to determine what was responsible for the cycles in the magnetic susceptibility readings that Dr. Ellwood obtained from sediment samples recovered from a core taken in 2009. A 1-x-2-m unit was placed on the top of Mound B, located so that it intercepted the 2009 core. The researchers were successful in associating an area of organically enriched sediment and a small area of oxidized clay with high returns.

The researchers also hoped to recover some suitable organic materials for radiocarbon (RC) dating of Mound B, which has never been dated. Mound A,

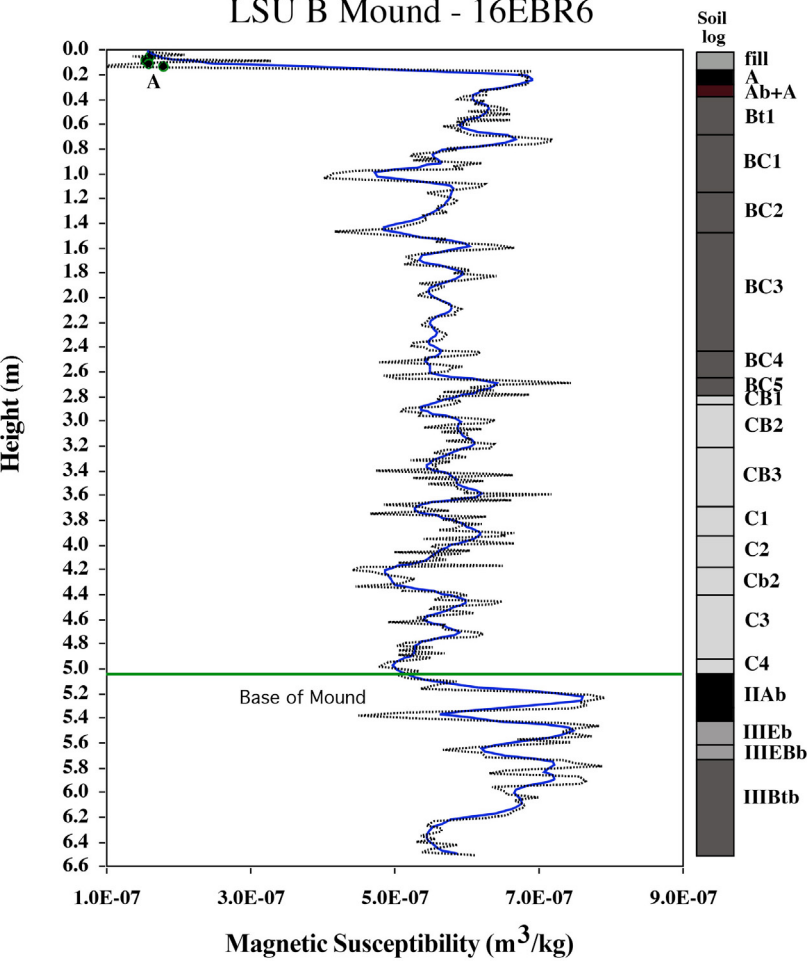
however, has four RC dates. Three were obtained during research conducted on the mounds during the mid-1980s. These dates suggested the LSU Mounds could be over 5000 years old—a result that was very controversial at the time. (Most researchers thought the mounds could be no earlier than ca. 2000 years old.) Charcoal taken from the 2009 core not only substantiated a very early date, but, with a better sample and more sophisticated dating techniques, the radiocarbon result pushed the date for Mound A to over 6000 years old!

Unlike Mound A, which was built of river silt and mud, Mound B was built of loess, a very fine-grained, wind-blown clay/silt mix that covers much of the higher ground around Baton Rouge. Situated, undisturbed, in Mound B for some 6000 years, the loess has become VERY compact, and extremely hard. Thus, while the earlier Mound A excavations reached 1.8 meters below surface, by the end of the 2018 Spring Break, weary

**Title Photo:** Most of the crew, L-R: Front row, Irene Martí, Molly Jones, Eli Cruzado, Jacob Warner; Second row, Dwayne Hinton, Ryan Dees, Sally McMillian, Rebecca Saunders, Ashlee Taylor, Sophie Reck, Michel Pujazón; Back row, Brooks Ellwood, Jacob Mendoza, Michelle Hanks.



# LSU B Mound - 16EBR6



**Top Left:** Magnetic susceptibility and core log data from the sediment core recovered from Mound B in 2009. The low values at the top of the core represent LSU fill material. Most of the core, above the base of the mound shows simple cyclicity, now being analyzed. Below the base of the mound, the loess on which the mound was built shows unusual values that are currently being evaluated.

**Bottom Left:** Dr. Robbie Mann, now at St. Cloud State, MN, examines a sediment core from Mound B pulled in 2009.

**Above:** Feature 1 identified in the Mound B excavation unit. Note core, filled with clean sand, on left side of feature.

excavators had only reached between 0.8 and 1.0 m below surface in Mound B. Not one single artifact was recovered. One 'feature' (a circumscribed area that has been altered by human activity) was encountered; it contained a good deal of charcoal. A sample of that has been sent for RC dating; however, by the end of the excavation, it appeared that the feature might be a modern disturbance. If the feature is contemporaneous with the mound, it may be the remains of a large post

set into the mound to a depth of about 1 m. Charcoal was also found in light colored sediment below Feature 1. This will also be RC dated, and the result will help the researchers interpret the upcoming Feature 1 date.

Many thanks to all our volunteers—this was pretty tough duty. Thanks also to Facility Services for their help and pine bales, and Strategic Communications for their photographic advice and interest.



# The Making of CENEX

by Nicki Button

After many years in the making, the renovation of the Center for Excellence in Palynology (CENEX) at Louisiana State University (LSU) is complete! This means that a collection of approximately 25,000 rare palynological reprints and books, the SHELL biostratigraphic collection of dinoflagellate cysts, about 10,000 pollen slides, microscope facility and lab are now accessible to palynologists worldwide, whether students want to come study here or researchers would like to come for a sabbatical or other forms of collaboration.

Many palynologists are responsible for the creation of CENEX. David Pocknall, a retired palynologist from HESS, summarized it perfectly when he stated: “So good to see the Center finally reach its stated goal. When I look back starting with my involvement in the early nineties the words that come

to mind are struggles, perseverance, and dedication to reach the lofty goals originally laid out by Ken Piel and Harry Leffingwell who first had the vision to create such a training center in the U.S. Timing could not have been worse for the establishment of CENEX and struggling funding attempts were constantly derailed by successive downturns in the oil and gas business. Funding CENEX was always a challenge. But perseverance paid off thanks in part by the generous individual donation from the estate of Paul Wesendunk. John Wrenn, the first AASP professor and first CENEX director, was a dedicated steward of the center. He would have been proud to see where

Below and right: CENEX pollen and dinoflagellate collections







**Left:** More than one hundred boxes of rare books and reprints had accumulated over the years.

**Below:** Thanks to the chair funds, the CENEX library has been created and thousands of palynological papers are now being sorted.

CENEX is today, thanks in large part to **Sophie Warny** for her continued belief in CENEX and palynology.“

Emeritus LSU Professor George Hart and Texas A&M University Professor Vaughn Bryant recalled that once AASP put forward the idea of such a center in the late eighties, a number of universities decided to apply to host this center. The main competitors in the final lap were Pennsylvania State University [Al Traverse], Texas A&M University [Vaughn Bryant] and LSU [George Hart]. LSU was selected to host the center in Baton Rouge, and it was officially established by the American Association of Stratigraphic Palynologists (AASP) and LSU in 1993.

James M. Coleman, former Executive Vice Chancellor of LSU, wrote at the time of the inauguration: “A Center for Excellence in Palynology such as envisioned by the American Association of Stratigraphic Palynologists should greatly influence the future development of palynological studies on national and international scales. It is especially significant that AASP should choose LSU’s School of Geoscience as the location for its Center for Excellence. LSU has played, and will continue to play, a major role in hydrocarbon development, and placing the Center at LSU simply enhances the School’s contributions in the field of energy exploration. Selection of LSU as the site of the Center provides a wonderful opportunity for the University and for the field of palynology.”

After the creation of CENEX, AASP pledged to endow a chair. After more than a decade of raising funds, AASP completed the \$600,000 contribution, thanks in part to a donation of approximately \$120,000 from the estate of Paul Wesendunk, a retired Chevron palynologist. The Louisiana Board of Regents provided a matching contribution of \$400,000 by 2009.

From 2008 to 2016, Sophie Warny was the







The new CENEX processing facility is equipped with a new hood. The main focus was the safety of students.

interim director of CENEX. In Fall 2016, she was appointed as the first AASP Chair. Since that time, she has worked tirelessly to expand and update CENEX, to create an accessible research center for these rare palynological collections and to provide a state-of-the-art research environment for the graduate students trained at CENEX. Warny also used her startup funds to renovate the student's research space and purchase new research microscopes. Not only did the first renovation provide great equipment for the students to successfully complete their research, the center also provided unique opportunities for assistantships. In collaboration with the LSU Museum of Natural Science where Warny is a curator, a graduate student is funded as a curator assistant (CA) for CENEX to assist with the daily managing, organization and digitization of the large collection of samples and rare books or reprints. Since her start at CENEX, Warny has directed 18 graduate students' theses and dissertations on various Cretaceous to Cenozoic sections. Her research focuses on the use of palynomorphs to reconstruct past climate or conduct classic biostratigraphic studies. The CENEX graduate students (<https://sites01.lsu.edu/faculty/swarny/palynology-students/>) have all been instrumental in building the center via their publications and hard work. Shannon Ferguson, one of the longest-serving CAs, was a major help with the organization of the collections until her graduation in Summer 2017. Another former student, Marie Thomas, enabled the funding of the StrataBugs licence through industry-support. Former students are employed in the oil and gas industry (HESS, BP, DEVON, CHEVRON, BHP Billiton Petroleum, and EOG) in the United States and in Europe but also with the U.S. Department of Homeland Security (as forensic palynologist),

environmental companies, International Ocean Drilling Program (IODP), or as instructors. Warny has raised \$1,801,000 in funding while at LSU to support the CENEX research program.

Various sponsors and mentors (John Anderson, Rosie Askin, Vaughn Bryant, Paul Cornick, Thomas Demchuk, David Pocknall, or Iain Prince, just to cite a few) also have helped build the research program by either donating their time and expertise or material (sediment cores) for the graduate student research or by hiring CENEX students as biostratigraphers.

Warny hopes she is fulfilling the mission of the center and is thankful for the years of dedication by so many to make the center what it is today. She is grateful for all the initial work done by her predecessor, John Wrenn, who started the center.

Martin Head, a Professor at Brock University in Canada recalled that John was instrumental in changing the name of the center from "The Center of Excellence in Palynology" to "The Center for Excellence in Palynology" as Wrenn felt that the center had not yet earned this boast. It is sad that Wrenn was not to live long enough to see CENEX really blossom.

The center also facilitates collaborations amongst researchers around the world and within LSU. Recently, Warny began a collaboration with **Laura Lagomarsino**, a new assistant professor of Biological Sciences and the new Director of the Shirley C. Tucker Herbarium. The collaboration involves combining the Museum of Natural Science's bird collection, the CENEX pollen collection and the Herbarium collection





The new CENEX visitor office designed to host collaborators and industry partners.

to help foster international collaboration. The large collection of pollen and dinoflagellate samples will allow researchers to compare their discoveries for accurate identification. The library collection also houses books and articles that may be inaccessible as most species descriptions were written in the 1900's, before online publishing. For instance, Catherine Smith visited the center for the Spring 2016 semester as a graduate student from the University of South Florida to learn about Antarctic palynology. That collaboration resulted in a paper that made the cover of the journal *Nature* in December 2017. The use of historical reprints at CENEX, mostly unavailable elsewhere, were able to support Smith's research findings.

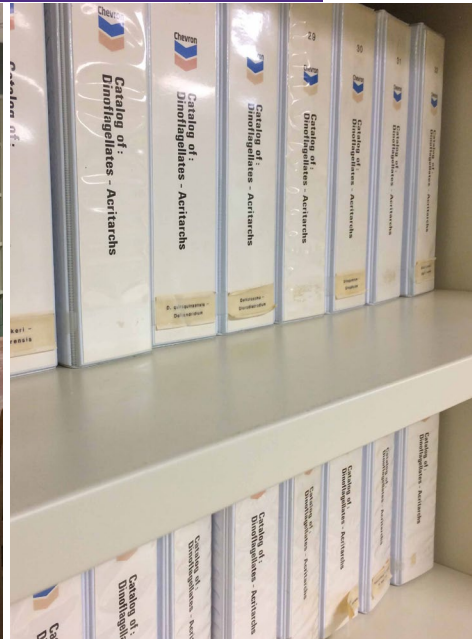
This rare collection of palynological materials is accessible now with many thanks to the donations to AASP and the LSU Foundation, along with the matching donation from the Louisiana Board of Regents to support an endowed chair at CENEX in the LSU Department of Geology and Geophysics.

Looking ahead to 2020, CENEX will host the AASP annual research conference. The conference will be a joint venture of three LSU labs (Warny, Kam-Biu Liu and Sibel Bargu Ates). It will be a nice opportunity to showcase the renovation to the hundreds of AASP members and share the beautiful State of Louisiana with palynologists from around the world. AASP members will be invited on field trips aimed at discovering the unique Louisiana ecosystems, such as the marsh and swamp environments.

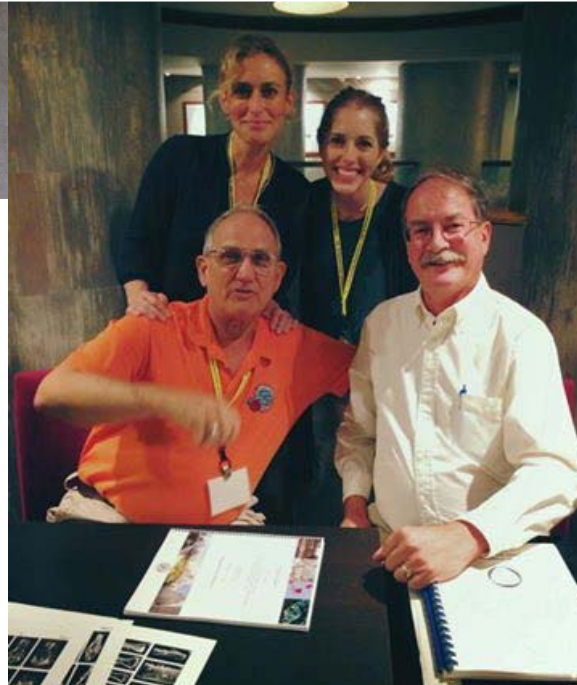
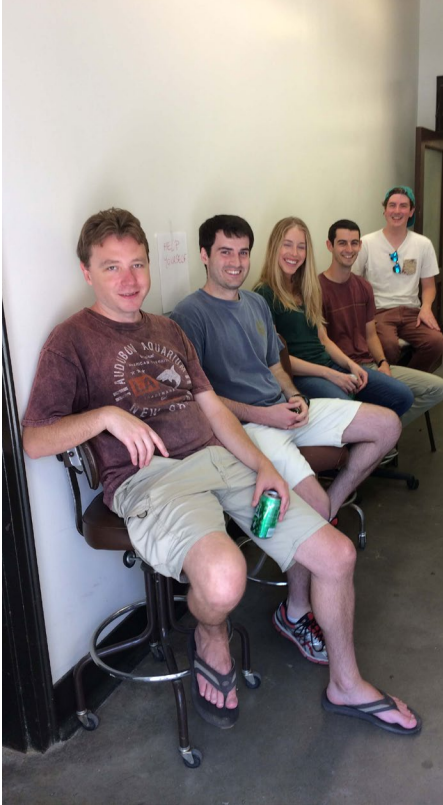
to understand the co-evolution between birds and the plants that provide their nutrition.

Visitors are welcome at CENEX! A dedicated visitor's workspace was created as part of the renovation

The new CENEX taxonomic room, with holdings of various species catalogues.





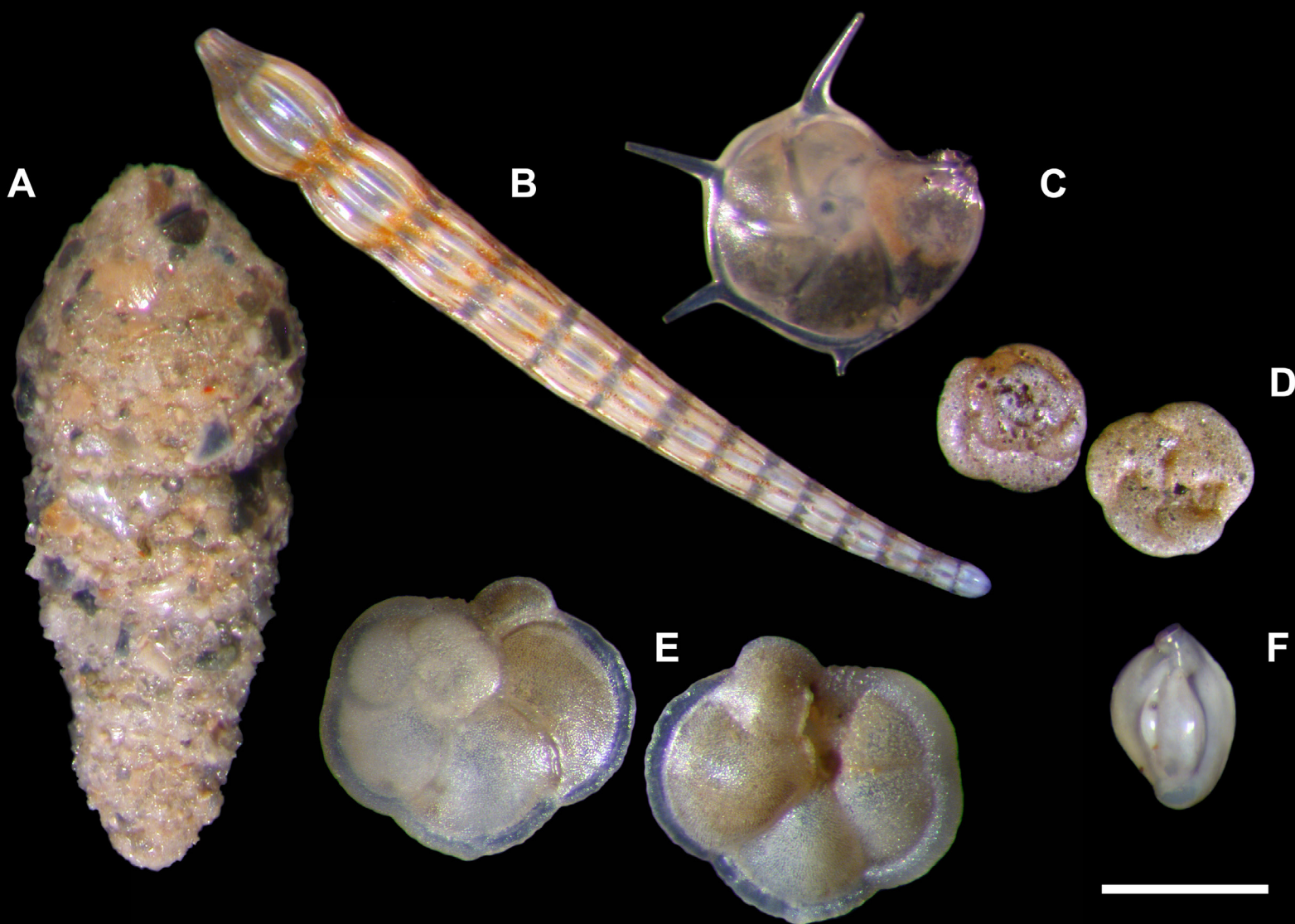


**LSU thanks AASP-TPS and all the CENEX founders, supporters, faculty members and students over the years, a few of which are pictured here!**



**Learn More**  
**[www.palynology.org/cenex](http://www.palynology.org/cenex)**





# News from the Section of Fossil Protists & Invertebrates

by Lorene Smith

A new book on American fossils by geologist Dr. Albert Dickas includes illustrations of foraminifera from the H.V. Howe Type Collection of Microfossils. The sites discussed in the book (101 American Fossil Sites You've Gotta See, Mountain Press Publishing Company) cover all fifty states. The LSUMNS specimens represent some of the fossils that can be found in sediment collected from shallow waters along the Louisiana coast.

Retired Adjunct Curator of Microfossils Dr. Barun K. Sen Gupta selected the specimens for their variety of shape and construction. The foraminifera, photographed by collections manager Lorene Smith, are from the Holocene and Pleistocene.

**Title Photo:** Digital photomicrographs of Howe Collection foraminifera used in the Dickas book. **A.** *Li-ebusella soldanii* (HVH 13137); **B.** *Dentalina albatrossi* (HVH 13134); **C.** *Lenticulina calcar* (HVH 13136); **D.** *Tiphotrocha comprimata* (LSUGDM 332); **E.** *Globorotalia menardii* (HVH 13135); **F.** *Quinqueloculina lamarckiana* (HVH 13138). Scale bar = 0.5 mm. Photos by L. Smith.





# LSU Girls Night at the Museum Inspires Girls to Chase Science

by Nicki Button

On Friday, March 9, the exhibit halls and research areas of the MNS were filled with more than 30 fourth, fifth, and sixth grade girls for LSU's first ever Girls Night at the Museum. The night began with tours of the museum collections and chats with women scientists, and culminated with exciting hands-on activities and demonstrations.

I invite you to experience the excitement of Girls Night at the Museum with our guest bloggers and Girls Night participants Izzy, Cidney, Heaven, Halie, Kelly, Tobi, Eluan, Heather, and Kennedy. These future innovators had a lot to say about their evening at LSU and why it is important for girls to chase science. Enjoy!

**Izzy Shanklin is a student at the LSU Laboratory School and potential inventor. Her unique ideas for “bubble technology” could spark a new trend in baggage transportation.**

**College of Science:** Can you tell us about one of your inventions?

**Izzy:** My idea is a floating bubble that you can tie to a leash and put your stuff in, like school books. Eventually it could be paired with your watch and it would always know where you are and lockers would not be needed. The bubbles could also keep your food fresh. There could be so many uses for the bubble!

**College of Science:** What do you love most about science?

**Izzy:** I like engineering, building, and the history of the science.

**College of Science:** Why do you think it's important for girls to be scientists or engineers?

**Izzy:** I think it's important because we are smart and have a lot of good ideas.

**Cidney Collins is a student at Westdale Heights Academic Magnet School and loves life science! She has a special interest in taking care of our home,**





Izzy and her mom commemorate the night at the Girls Night at the Museum photo booth. Say Science!

**Heaven:** Because when you are a scientist, you get to do a lot of things like [predict] weather and build things.

**College of Science:** What is one of your favorite sciences?

**Heaven:** Weather [meteorology]

**Kelly Fan is a student at the Baton Rouge Center for Visual and Performing Art and loves biology and animals!**

**College of Science:** What was your favorite part of the night?

**Kelly:** Doing rotations and learning about science - Extracting DNA.

**College of Science:** Why do you think it's important for girls to be scientists?

**Kelly:** Girls are the future.

**Earth.**

**College of Science:** What was your favorite part of the night?

**Cidney:** We got to make specimens. I made a pigacorn - a pig that's a unicorn.

**College of Science:** Do you have advice for girls that want to be scientists?

**Cidney:** If girls want to be scientists, they can try really hard. Don't let anyone tell you that you can't do it. You can!

**Heaven Edwards is a student at Forest Heights Academy of Excellence and hopes to change the world by inventing a vaccine that prevents cancer!**

**College of Science:** What was your favorite part of the night?

**Heaven:** When we got to make animals out of the clay. I made a fish because it's my favorite animal.

**College of Science:** Why do you think it's important for girls to be scientists?



Here's Kelly with her specimen. Cute panda!



**Heather Sreiy is a student at Westdale Heights Academic Magnet and sees how beneficial and life-saving science can be!**

**College of Science:** What do you love most about science?

**Heather:** It's just interesting honestly! I mostly like animal science.

**College of Science:** Do you know what you want to be when you grow up?

**Heather:** An author or an architect. I have a love for reading.

**College of Science:** What was your favorite part of the night?

**Heather:** There's a lot of stuff! Maybe it's the ice cream. I just love ice cream.

**College of Science:** Why do you think it's important for girls to be scientists?

**Heather:** It's important for girls to be scientists because it brings confidence to people. We find and invent new things.

**Tobi Famuyide is a student at Parkview Baptist School with a spirit of adventure and a knack for problem solving.**

**College of Science:** What do you love most about science?

**Tobi:** It's really interesting. You get to discover new things and do different experiments.

**College of Science:** If you could travel anywhere in the world, where would it be and why?

**Tobi:** Antarctica because it's a weird place, super cold, and rarely anybody goes there.

**College of Science:** What was your favorite part of the night?

**Tobi:** Probably the chemistry. They made ice cream out



Here's Tobi with her good friend Halie. They are all smiles at the Girls Night at the Museum photo booth.

of the liquid nitrogen. It's also really cool how the flower freezes once it goes into the nitrogen.

**College of Science:** Why do you think it's important for girls to be scientists?

**Tobi:** So we can show other people that girls can actually do things too and it's not only boys who are really smart.

**Halie Fogleman is a student at Parkview Baptist School and may have a bright future in science communication. She wants to learn about the types of experiments that scientists conduct and how they communicate their results!**

**College of Science:** What was your favorite part of the night?

**Halie:** Seeing all the animals [specimens at the LSU Museum of Natural Science].

**College of Science:** How do you participate in science communication?

**Halie:** I do experiments with my teacher and share with other students.





**Top Row:** LSUMNS Outreach Coordinator Valerie Derouen takes the girls on a behind the scenes tour of the museum's research collections. **Bottom Row:** The girls participating in the Chem Demo and LSU Herbarium (with Dr. Laura Lagomarsino) science stations.

**College of Science:** Why do you think it's important for girls to be scientists?

**Halie:** Because they can learn many new things.

**Eluan Clark is a student at Baker Middle School and believes that learning more science can improve the world!**

**College of Science:** What was your favorite part of the night?

**Eluan:** My favorite part of the night was when we went through the different stations and did the [liquid] nitrogen activity. We made ice cream. We also got a rose and put [liquid] nitrogen on it. It became hard, and we had to crack it."

**College of Science:** What do you want to be when you grow up?

**Eluan:** Mechanical engineer

**College of Science:** Why do you think it's important for girls to be scientists or engineers?



**Eluan:** Because most people think that being a scientist is a boy's job and I think that girls can do whatever boys can do.

**Kennedy Rose Pointer** is a student at Episcopal School and she hopes to change the world one smile at a time as a successful orthodontist.

**College of Science:** What do you love most about science?

**Kennedy:** You get to experiment and test new things out that you didn't know before.

**College of Science:** Why do you think it's important for girls to be scientists?

**Kennedy:** "So things can be equal. Not just boys can be scientists."

The girls spent part of the evening chatting it up with women scientists like Dr. Tiffany Stewart from LSU's Pennington Biomedical Research Center, Dr. Revati Kumar in the Department of Chemistry, Dr. Sophie Warny from the Department of Geology & Geophysics and curator in the LSU Museum of Natural Science, and Katie Nugent an undergraduate student in the Department of Physics & Astronomy. They shared their passion for science, talked about their research experiences, and answered questions about their journey as women in science. They also offered lots of great advice to help the girls feed their science curiosities.

**Tiffany:** Stay with your passion. Don't let anybody deter you. Build your confidence up and go for it because the world needs more women scientists.

**Revati:** Pursue all branches of science at this age - math, physics, chemistry, everything. And then decide later on what you really want to do. Try to get all your tools in right now.

**Katie:** If you don't know what you want to do right now, it's no big deal. I switched majors in college. You have to do what you really love. Now, sometimes you may have to work really hard at it, but it's worth it in the end because you love it so much.



The girls snacked and chatted with Dr. Sophie Warny, curator at the LSUMNS, associate professor in the Department of Geology & Geophysics, and AASP professor in the Center for Excellence in Palynology and physics undergraduate Katie Nugent.

**Sophie:** Take the hardest science and math classes that you can take in high school to be well-prepared. Then your first year in college will be the best and easiest.

Even though the event was for the girls, our LSU scientists still learned a thing or two.

**Tiffany:** I think it's just phenomenal to meet women doing wonderful science [outside of my expertise] to get that multidimensional perspective on how the scientists need to work together to achieve great things.

**Revati:** For me, it was great to learn what Tiffany is doing. To explore a different aspect of science that I didn't know about. Also, interacting with girls at that age group. I haven't interacted with them since when I was a girl. Maybe we can inspire these girls to come and be scientists...to be our colleagues one day.

**Tiffany:** We tried to talk about how all science is important, so any area of science that the girls want to go into is so awesome. What inspired me the most is that girls this age are already identifying their passion and interest in science and pursuing it. I am confident that we have whole next generation of girls that are going to be scientists. I'm so excited about that!

**Katie:** I learned tonight that actually there are a lot of girls out there that are interested in STEM. These kids



are learning so much and they're putting themselves out there. It's really great that they're doing that!

**Parents were not excluded from the Girls Night at the Museum fun. They received a crash course in "Coaching your Daughter in STEM," which included a panel discussion with LSU women scientists, museum tour, and hands-on science demonstrations. The session was led by Dr. Zakiya Wilson-Kennedy, assistant dean for diversity and inclusion in the LSU College of Science, who left the parents with some key tips to help support their daughters' interest in science.**

1. Allow your daughter to be fearless in exploring her interest and give her space to investigate. This investigative nature allows her critical thinking skills and confidence in exploration to grow.
2. Get your girls involved in as many science activities as possible. Here are a few to consider:

LSU Night at the Museum of Natural Science  
Astronomy Night at the Highland Road Observatory  
Museum Special Saturdays  
XCITE: Xploration Camp Inspiring Tomorrow's Engineers  
Ocean Commotion  
Super Science Saturday (check website for 2018 date)  
LSU Porcelli Lectures hosted by the LSU Department of Mathematics  
Science Saturdays at LIGO

3. Encourage deeper learning through the asking of questions. You do not need to be a scientist or mathematician to guide your daughter through STEM. All you have to do is encourage your daughter to ask questions and support her as she seeks the answers to her own questions.

4. Get you daughter involved in organizations like Girl Scouts, which encourages girls to explore science, technology, engineering, and math, and they incentivize their exploration with cool STEM badges. 4H also offers outreach activities to help cultivate STEM thinking.

5. Many STEM activities are promoted on social media, so get your girls connected and help them engage

with scientists involved in activities that interest them. Following the LSU College of Science social media pages and subscribing to The Pursuit blog is a great start!

6. Remind your daughter that her interests are valid and do not need to be justified or explained, and help her to develop relationships that feed her science curiosity.

**Girls Night at the Museum was planned by a group of women passionate about giving girls access to science and math experiences. Thank you to all of the volunteers who joined with us to offer a memorable and inspiring night for young girls interested in STEM. Thank you to the parents for bringing your girls to LSU and for supporting them as they explore the possibilities that await those who chase science.**

**Girls Night at the Museum was sponsored by the LSU College of Science, the Museum of Natural Science, and the College of Science Office of Diversity & Inclusion. The event was also supported by LSU distinguished alumna Latoya Bullard Franklin and the C-STEM organization, Shell, and LSU Auxiliary Services.**

**Thank you!**



Girls Night at the Museum planning committee and volunteers!



# OUTREACH ROUNDUP

## 6TH GRADE DAYS



We took part in “6th Grade Day” at LSU on Jan. 30, Feb. 6, and Feb. 8. 6th graders from all over Baton Rouge came to learn about what LSU has to offer. We were part of the STEM, Education, & Humanities Experience

located in the LSU PMAC. We had specimens from our mammal, fish, and amphibian & reptile collections. Thanks to **Larry Bird, Clare Brown, and Matt Brady** for helping out.

## LEEC SYMPOSIUM



On February 23 & 24th, we attended the Louisiana Environmental Education Symposium at the Baton Rouge Marriott. Our table displayed what the museum has to offer environmental educators such as field trips to the

LSUMNS, school visits, and activities.

## ROCKIN’ AT THE SWAMP



On March 10th, we participated in Rockin’ at the Swamp at Bluebonnet Swamp in Baton Rouge, LA. We did an activity where visitor got to search for their own fossils in Louisiana river gravels. We found things like

crinoids, bryozoans, and brachiopods. Thanks to **Amani Dotson** for

## BREC BIOBLITZ



On April 21, we took part in the Biodiversity Fair during BREC’s BioBlitz in Greenwood Community Park. We brought specimens from our collections that you can find around Baton Rouge. Thanks to **Ryan Burner**

and **Mark Swanson** for helping out.

## LOS Winter Meeting



The Louisiana Ornithological Society’s Annual Winter Meeting took place 26-28 January 2018. The winter meeting venue rotates around the state and this year it was based in Alexandria, LA. Participating at the event were LSUMNS Collections Managers **Steven W. Cardiff**, LOS President and **Donna L. Dittmann**, LOS News Editor. The weather was uncooperative. It rained heavily and steadily for much of Saturday but did not deter attendees who managed to enjoy area birding looking for local specialties, such as Sandhill Crane (photo by Donna L. Dittmann) and various pineywoods species. A total of 111 species were observed on Saturday field trips (not bad given the weather). In addition to field trips offered during LOS Meetings, LOS is initiating a new field trip series.

For more information see: [http://losbird.org/news/1803\\_244\\_news.pdf](http://losbird.org/news/1803_244_news.pdf).



# SPECIAL SATURDAYS



## The Asian Monsoon

Dr. Peter Clift from the LSU Department of Geology & Geophysics, led a Special Saturdays about the Asian Monsoon. He spoke about what a monsoon is, how they form in predictable patterns, and how deviating from that pattern leads to droughts and crop failure. We did a short activity demonstrating how clouds and rain are connected using shaving cream and food coloring, and then participants created dioramas depicting a landscape during the rainy season versus the dry season. Thanks to **Larry Bird**, **Ryan Burner**, **Diego Elias**, and **Alex Haynes** for helping out.

## Amazing Reptiles

LSUMNS Curator **Dr. Christopher Austin** showed participants how unique and diverse reptiles from around the world can be. They made hanger mobiles that covered characteristics of reptiles, the different types of reptiles, and their favorite reptile adaptations. They also crafted color changing chameleons out of paper plates. The participants got to view reptile specimens from our collections up close and even pet a live ball python! Thanks to **Vivien Chua**, **Larry Bird**, **Jackson Roberts**, and **Robb Brumfield** for helping out.

## Nemos & Dorys

LSUMNS graduate student **Bill Ludt** led a Special Saturdays all about coral reefs. He covered things like what is a coral reef, where are they found, why are they important, what types of fish live on reefs, and what is threatening them. We had reef fish from our collections on display and participants did fish related crafts. Thanks to **Jessie Salter** and **Link Morgan** for helping out.

## Dynamic DNA

LSUMNS graduate student **Rafael Marcondes** led our last Special Saturdays of the school year. He spoke to participants about DNA - What is it? What things have DNA? and How big is it?. Participants then did an activity where they had to find things in the museum that have DNA and things that don't, and later did a strawberry DNA extraction. To wrap everything up, participants made DNA keychains. Thanks to **Anna Hiller**, **Diego Elias**, and **Vivien Chua** for helping out.

*Keep an eye out for our 2018-2019 schedule that will be posted in August!*



# NIGHT AT THE MUSEUM



## Fish

On February 8th, we hosted our 4th Night at the Museum of the semester with 61 in attendance. LSUMNS Graduate Student, **Diego Elias**, spoke to guests about the different mating systems of fishes. Graduate student **Bill Ludt** presented a table that displayed fish that can live a little while out of the water like lungfish, mudskippers, and butterflyfish. Postdoctoral fellow **Fernando Alda** presented a table on the new species that were described by LSUMNS Curator of Fishes, **Dr. Prosanta Chakrabarty**. Undergraduate **Link Morgan** presented a table on the different ways we can study the internal morphology of fishes including clearing and staining. We also had a “Guess how many fish are in the Jar” game where guests guessed to win an LSU College of Science tote. Later, graduate student **Pam Hart** gave behind the scenes tours of the fish range. Special thanks



## Amphibians & Reptiles

On April 5th, we hosted our last Night at the Museum of the school year with 31 in attendance. LSUMNS Curator of Amphibians & Reptiles, **Dr. Chris Austin**, spoke to guests about frog adaptations such as paternal parental care, body size, and extreme weather tolerance. We had tables displaying specimens of frogs, local turtles, and the reptile tree of life manned by graduate students **Genevieve Mount**, **Jackson Roberts**, **Zach Rodriguez**, and recent LSUMNS alum, **Dr. Cathy Newman**. Later, Dr. Austin gave behind the scenes tours of the amphibian & reptile collection. Special thanks to **Roi Rogers** for helping with photos.

*Keep an eye out for our 2018-2019 schedule that will be posted in August!*

For more information on outreach events and museum tours, contact **Valerie Derouen** [vderou1@lsu.edu](mailto:vderou1@lsu.edu).

More photos from all of our outreach events can be found on our Facebook page.



# MNS NEWS & UPDATES

## Hiller Awarded Grants & Fellowship

Congratulations to LSUMNS ornithology graduate student **Anna Hiller** who was recently awarded three grants!

NSF Graduate Research Fellowship Program - \$34,000 stipend + \$12,000 cost-of-education allowance for 3 years. Grand total: \$138,000.

*“Testing the influence of gene flow in montane speciation.”*

American Society of Naturalists (ASN) Student Research Award - \$2000 towards her dissertation research on *Diglossa* flowerpiercers.

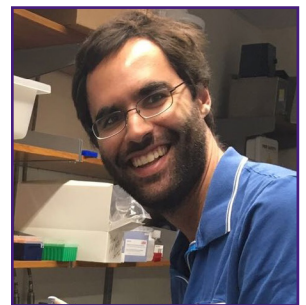
*“Are mountains really higher in the tropics?”*

Society for the Study of Evolution (SSE) R.C. Lewontin Early Award - \$2500 towards her research on flowerpiercers.



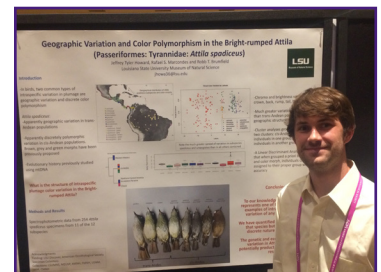
## Marcondes Receives Travel Awards

Congratulations to LSUMNS ornithology graduate student **Rafael Marcondes** who received travel awards from the American Ornithological Society (AOS, \$400), the Society for the Study of Evolution (SSE, \$500), and the Society of Systematic Biologists (SSB, \$500) to present his research entitled *“Fifty shades of Brown: Evolution of plumage brightness in a large clade of Neotropical passerines”* at the AOS and Evolution conferences this year.



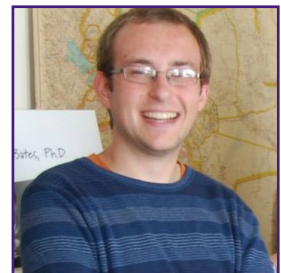
## Howard Receives Travel Award

Congratulations to LSUMNS ornithology undergraduate student **Tyler Howard** who received travel support from LSU Discover (\$1000) and AOS (\$400) to attend the 2018 AOS meeting. He presented his research on *“Geographic Variation and Color Polymorphism in the Bright-rumped Attila (Passeriformes: Tyrannidae: Attila spadiceus).”*



## Swanson Receives Travel Awards

Congratulations to LSUMNS mammalogy graduate student **Mark Swanson** who received travel grants from the Society for the Study of Evolution (\$500) and the Society of Systematic Biologists (\$500) to attend the Joint Congress on Evolutionary Biology in Montpellier this August. He will present *“Variation in phylogenetic signal of microbial communities along the gastrointestinal tract of wild rodents.”*



## Del-Rio Awarded Chapman Grant

Congratulations to LSUMNS ornithology graduate student **Glaucia Del-Rio** who was awarded a Chapman Grant from the American Museum of Natural History worth \$2000. This highly competitive grant supports ornithological research anywhere in the world.





## Brown Elected to SSB Council

Congratulations to LSUMNS faculty associate **Dr. Jeremy Brown** who was elected to join the Council of the Society of Systematic Biologists (SSB) beginning next year (2019). He'll join LSUMNS Director **Dr. Robb Brumfield** and LSU Herbarium Director **Dr. Laura Lagomarsino**, whose terms on the SSB Council started this year.



## Turner Receives Grant & ASIH Award

Congratulations to LSUMNS ichthyology graduate student **A.J. Turner** who was awarded the Theodore Roosevelt Memorial Grant for \$2035 from the American Museum of Natural History to support his research on Poeciliid fishes.



He was also awarded the Edward C. Raney Award worth \$800 from the American Society of Ichthyologists and Herpetologists (ASIH).

## New Museum Outreach Award

Congratulations to LSUMNS grad students **Vivien Chua** and **Zach Rodriguez** who are the first recipients of the Museum Outreach Award. This award is given to a grad student who has shown outstanding service to museum outreach and education.



## Giving Form to Support the 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. 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 [vderou1@lsu.edu](mailto:vderou1@lsu.edu)

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