LSU | Museum of Natural Science

newsletter

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Climbing cave angel (Cryptotora thamicola). Rendering by Daniel Geldof

WE BUILD TEAMS THAT WIN IN LOUISIANA FOR THE WORLD

Letter from the Director

Dear Museum Friends, Family and Alumni,

As the spring semester comes to a close, this newsletter will give you a window to all the great accomplishments of our curators, staff, and students. We have a great newsletter edition filled with expedition reports, research reports, new grants, highlights from the Big Day, building renovations, book donations and international natural history museum visits. One of the most exciting things we do at the MNS is to fledge PhD students into their exciting careers in biodiversity science. Five outstanding graduate students are defending this semester (see pages 35-37) and we are very proud of them. Your philanthropic contributions to the Museum allow us to send out collecting expeditions to the far reaches of our planet training the next generation of museum scientists in biodiversity research. These discoveries move humanity forward in better understanding tangled web of life on earth. The Museum's invaluable collections attract outstanding graduate and undergraduate students to our program; our collections are truly a gift to future generations.

Foster Hall, built in 1924 and the home of the Museum since 1955, just turned 100 years old. For those of you lucky enough to have visited Foster Hall recently, you will have seen some major improvements to our collection and research space. Last year, with support from the College of Science, we developed an architectural program for Foster Hall. This program will allow us to modernize our collection and research areas in several phases allowing us to better leverage much-needed space for collections and people.

My second 3-year term as director is up 30 June. My first term started in 2019 and was engulfed by the covid pandemic. I'm proud to say the museum curators, staff and students rallied to keep the genomics lab open, albeit at reduced personnel capacity, and keep science going. The last six years have been a watershed moment for the Museum with two new curators hired, and four new collection managers hired. We also managed to make the joint fish/herp collections manager permanent. We have expanded our footprint to include all of Foster Hall for space critical for collections, research, and people. The architectural program we commissioned last year, the first one in twenty years, has been helpful and necessary to get movement on Foster Hall renovations. The last few years have been excellent in terms of fund raising for the Museum with over $1 million in direct donations and gift agreements exceeding $2 million. These current and future funds help support our graduate students and the research mission of the Museum.

Dr. Prosanta Chakrabarty, curator of fishes, will take over as director on 1 July. He will be a great director and I'm happy he is willing to serve as we need strong leadership. It has been a pleasure to serve as director for the last 6 years, I thank you all for your support and encouragement. Thank you all for your past and future support of the Museum. Geaux Tigers!

Museum of Natural Science Director and Curators

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Curator of Amphibians & Reptiles

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Roy Paul Daniels Professor
Curator of Genetic Resources

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Edwin K. Hunter Chair
Professor & Curator of Fishes

Jacob A. Esselstyn
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Curator of Mammals

Nicholas A. Mason
Assistant Professor
Curator of Birds

Gregory Thom
Associate Professor
Curator of Genetic Resources

Sophie Warny
AASP Professor
Curator of Palynology
Director of Education

Mammalogy Fieldtrip

by Dr. Toni Androski

In late October, the Mammalogy class traveled to LSU AgCenter's Lee Memorial Forest, two hours northeast of Baton Rouge in Washington Parish. Professor Jake Esselstyn, teaching assistant and PhD student Spenser Babb-Biernacki, PhD student Darwin Morales-Martínez, post-baccalaureate scholar Ellie Bollich and I guided mammalogy students on three nights of trapping. Students learned to set traps for small mammals in dry pine forest, hardwood forest along stream bottoms, and disturbed habitat around man-made features such as buildings and woodpiles. Although trap success was modest, we captured enough animals for each student to try their hand at the specimen preparation process, from collecting tissues to skinning.

We collected ten animals in total, with representatives from six species. As an added bonus for our hosts at Lee Memorial Forest, most of the rodents were captured in and around the wood shop near the bunkhouse (although we failed to capture an allegedly cat-sized eastern woodrat [*Neotoma floridana*] that was sighted in the wood shop).

Fig. 1: The Mammalogy crew (and mammal specimens) on the steps of Lee Memorial Forest's lodge.

Fig. 2: A Sherman trap set next to a parasitic plant (beech-drops, *Epifagus virginiana*).

Fig. 3: Mammalogy students preparing their first specimens with guidance from TA Spenser Babb-Biernacki and post-bac Ellie Bollich.

Our species tally increased substantially on the last day of the trip, with two mammals salvaged: a white-tailed deer (*Odocoileus virginianus*), salvaged from Lee Memorial Forest with permission from Louisiana Department of Wildlife and Fisheries, and a roadkill gray fox (*Urocyon cinereoargenteus*) picked up en route to Baton Rouge.

Darwin, who is studying shrew metabolics for his dissertation, spent many hours hard at work digging pitfall traps in the forest. These simple traps consist of a bucket buried in the ground up to its rim. Strategically placed along a log or embankment, shrews fall into the buckets as they scurry through the leaf litter in search of food – no bait required. Because Darwin is taking metabolic readings from live shrews, he had to check his traps frequently, staying up much of the night to ensure that no shrews perished on his watch. In the end, Darwin captured a single North American least shrew (*Cryptotis parva*) by hand, which he spotted by the light of his headlamp while checking his pitfall traps. This shrew's respiration was measured in Darwin's metabolic chamber, providing valuable data for his dissertation.

Each mammal collected by the Mammalogy class provides an important snapshot of conditions at LSU's Lee Memorial Forest, where management goals have shifted from solely silvicultural to include longleaf pine forest restoration. LSU mammalogists have visited Lee Memorial Forest periodically since it was gifted to the university in 1926, but the most consistent sampling effort has occurred in recent years, with Mammalogy class trips each fall from 2017-2019 and 2021-2024. These trips provide an invaluable first taste of field work for students, from navigating traplines to handling and identifying mammals to processing specimens that will be cared for in the LSU Mammalogy collection for many years to come.

Save LSU's Treasures: LSU Campus Mounds Receive a National Grant

by Dr. Irene Martí Gil

The LSU Campus Mounds Committee had much to celebrate this Spring Semester, as their "LSU Campus Mounds Preservation Project" received significant funding. The project was awarded a Save America's Treasures grant from the National Park Service with matching funds from LSU, totaling $441,742. This funding will support the conservation of the LSU Campus Mounds, two ancient and nationally significant archaeological landmarks that hold exceptional importance for research, education, and cultural understanding.

Dating back at least 6,000 years, the LSU Campus Mounds are among the oldest human-made structures in North America. They were built during the Middle Archaic period by the Native American communities of Louisiana during the very early start of a most well-documented and extensive mound-building tradition in Louisiana. These two monumental dome-shaped mounds (Mounds A and B) were strategically placed to overlook the Mississippi River floodplain. Given the fact that no villages or human burials have been found near the LSU Campus Mounds, archaeologists have concluded that the mounds served as hubs for trade, socialization, and ritual activities. Indigenous Tribes and students today recognize the mounds as sacred and have advocated for their protection, influencing preservation efforts.

Over the centuries, the physical integrity of the mounds has been compromised by both natural forces and human activity, including recreational use since the establishment of LSU's campus (see fig.2). In 1985, LSU began to protect the mounds, installing low brick walls, sidewalks, and landscaping to prevent motorized vehicles from accessing the area. The mounds were added to the National Register of

Fig. 1: The LSU Campus Mounds before the fence was put in place in 2021.

Fig. 2: Picture of Baton Rouge locals sitting on the LSU Campus Mounds in 1918.

Historic Places in 1999 due to their age, rarity, and research potential. In 2021, a six-foot chain-link fence was installed around the mounds, curbing recreational use and marking the site as sacred. The fence ensures that the mounds remain protected, and state law prohibits excavation or damage to the site without a permit.

In collaboration with Tribal representatives and archaeologists, the LSU Campus Mounds Committee has developed a comprehensive preservation plan to address ongoing preservation challenges, including halting erosion, repairing existing damage, and restoring vegetation. A key aspect of the project is to unify the site by removing the sidewalks that separate the mounds and restoring the area between them, in recognition of its sacred significance to Native American communities.

This preservation project, expected to take two years for completion, not only protects an invaluable piece of the nation's cultural heritage but also reaffirms LSU's commitment to honoring and preserving resources that hold deep meaning for Tribes and the broader community. In fact, the LSUMNS Anthropology Division is intimately committed to this purpose. We have organized four

Fig. 3: Archaeologists coring the LSU Campus Mounds in 1985.

Figs. 4-6: Archaeologists coring the LSU Campus Mounds in December 2024.

outreach events between October and April in which we have used archaeological methodologies to sift the soil that was removed from the immediate surroundings of the Mounds when the streetlights were installed. These events had a twofold purpose: to obtain archaeological data from the mounds, and to educate the public about scientific techniques and Louisiana history. Additionally, two more scientific interventions have taken place in the last few months. In December of 2024, the National Park Service, a group of international researchers, LA State Archeologists, and Chitimacha experts were studying the LSU Campus Mounds to determine their accurate ages, understand their construction techniques and episodes, and recreate the environment before and throughout occupations until today.

The funding from the Save America's Treasures grant will help LSU continue its efforts to stabilize and protect these important mounds. Meanwhile, the Committee and the LSU Museum of Natural Science-Division of Archaeology are developing educational resources that widely benefit Native American Tribes for whom the site is sacred, the hundreds of thousands of students, visitors, and sports fans who experience the site annually, and the dozens of researchers studying the origins of mound-building traditions in North America.

X-ray Fluorescence Analyses at the LSUMNS

by Melissa Salazar

New technologies can unlock novel applications of museum specimens to study the natural world. For example, museum scientists in the early 1900s could have never anticipated that we would sequence DNA from the specimens they collected. Specimens carry signatures of the environment from where and when they were collected, and an ongoing mission of the LSUMNS is to leverage emerging technologies to characterize ecological change over space and time. Last semester, the Mason Lab at LSUMNS used X-ray Fluorescence (XRF) to quantify heavy metal pollutants in bird specimens as part of an ongoing collaboration with Dr. Shane DuBay and Dr. Jordan Brown of the University of Texas at Arlington (UTA) and Dr. Aaron Specht of Purdue University. The XRF instrument uses emission patterns from X-rays to characterize the chemical composition of a given subject. It has seen widespread use in geology and soil sciences, but limited applications involving scientific collections. This method offers many advantages over traditional methods to quantify heavy metals in museum specimens: the hand-held device is portable and provides real-time readings of chemical composition. Most importantly, it's non-destructive! Just aim the instrument at the tarsus of a study skin and within minutes you have a measurement of lead, arsenic, mercury, and other metal contaminants. Scientists at the LSUMNS are eager to use XRF to study heavy metal contamination in bird specimens.

Melissa Salazar is studying ecotoxicology at the LSUMNS as a post-baccalaureate scholar in the Mason Lab through the Louisiana Graduate Network in Applied Evolution (LAGNiAppE) program. Melissa used the XRF to assess heavy metal contamination in King and Clapper

Fig. 1: Melissa Salazar working in the lab.

Rails across a salinity gradient in coastal Louisiana. This project leverages the hundreds of specimens that LSUMNS ornithologists have collected over multiple decades, including those collected by James Maley for his dissertation on rails. The project is primarily focused on testing whether there is a chance in metal contamination across a salinity gradient, but the museum has also specimens available from as far back as the 1930s to the present day. This temporal series will allow Melissa to ask if heavy metal loads have changed over time as well! Using the XRF, Melissa measured heavy metal contamination in hundreds of specimens in just a few weeks.

Amanda Harvey, a first-year PhD student in the Mason Lab, also used the XRF to collect preliminary data to conduct a temporal analysis of heavy metal contaminants in the Mississippi Delta. Focusing on Red-winged Blackbirds from East Baton Rouge and Iberville Parish, Amanda will test whether trends in heavy metal concentration in historical and modern specimens parallel the timeline of industrialization in Louisiana's Cancer Alley: an 85-mile stretch of the Mississippi River home to over 200 petrochemical plants and refineries. Together, these two ecotoxicology projects represent a new area of research for the Mason Lab and the LSUMNS. Although these projects are focused on birds, similar methods could be used to quantify heavy metals in other specimens that have skeletons, like mammals, fish, and herps!

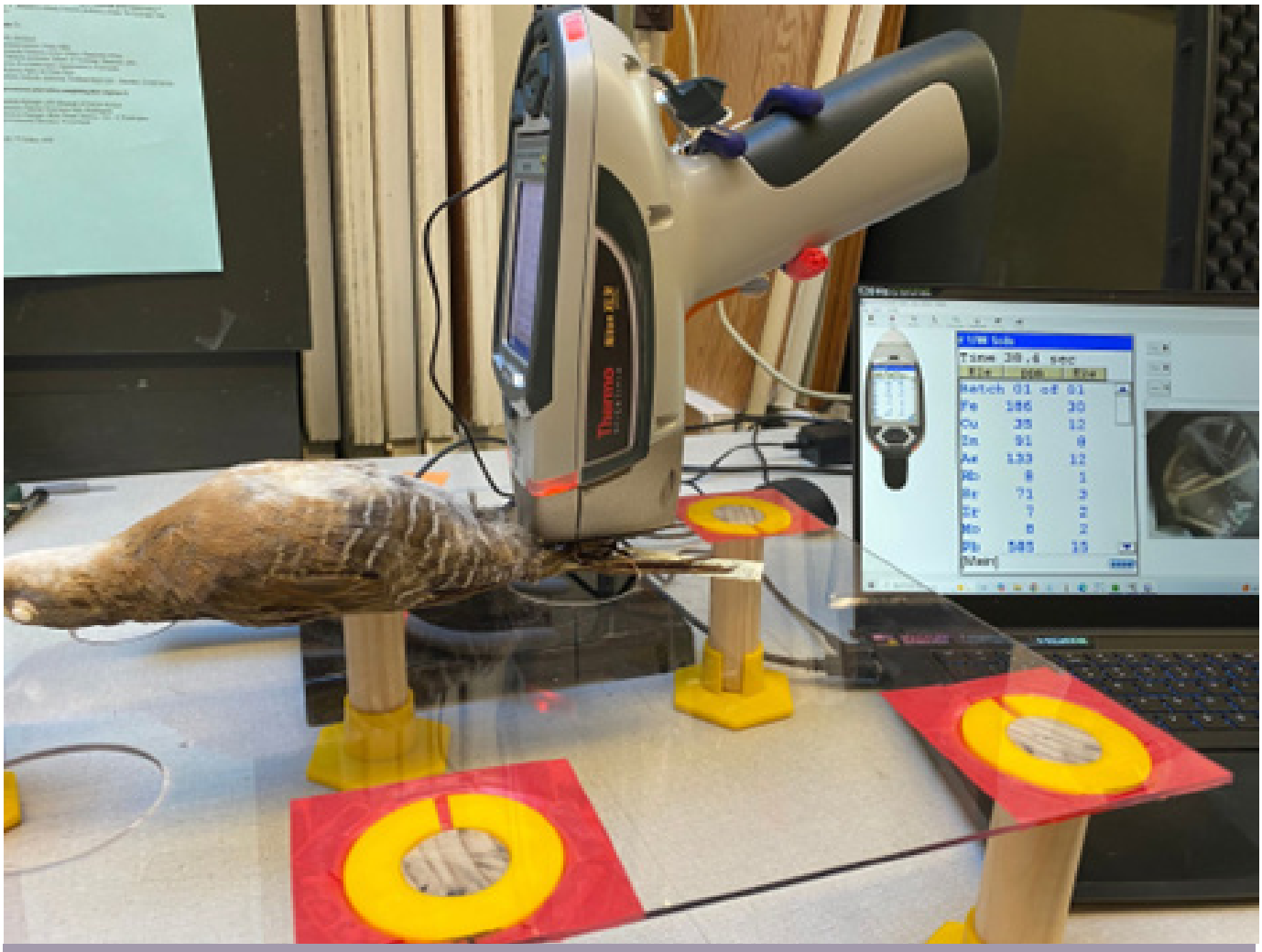

Fig. 2: *Rallus crepitans* being actively scanned by the XRF.

Examining North American Fish in the Most Unlikely of Places

by Dan Sinopoli

We landed at 9 AM local time after a fourteen-hour overnight flight over the Atlantic Ocean—the excitement and general inability to fall asleep on planes left me exhausted. I had just landed in Paris, France, with my wife, on our way to visit the world famous Muséum Nationale d'Histoire Naturelle (hereafter MNHN) to examine their specimens of ancient North American fishes.

For my dissertation I study the taxonomy of gar and bowfin, two groups of fish incredibly old. They are so old they often regarded as living fossils for how similar the modern species look compared to their ancient relatives that were dodging dinosaurs and surviving mass extinctions. With their long, slender heads and bodies, and hard scales, gars in particular possess a dinosaurian appearance. The first time I had ever seen 6.5-foot-long individual while field sampling with U.S. Fish and Wildlife Service, I certainly had a not dissimilar feeling to when Alan Grant sees his first dinosaur in the film Jurassic Park. For their perceived competition with more popular sport-fishes, gar and bowfin were the victims of intense apathy by the common angler and fishery manager alike. In fact, there was a law passed in Illinois in the early 1900s that made it illegal, under penalty of fine, to release a gar back into the water after catching one (Caldwell, 1913). It has only been in the last 20 to 30 years that attitudes have changed, with these fish now recognized as vital parts of their ecosystems, as well as hard-fighting fishes that are now fun to target by anglers. The taxonomy of these fishes, for all intents and purposes, is a mess. The seven gar species and two bowfin species we recognize today were redescribed dozens of times, with the number of recognized bowfin species being as high as 12 before they were lumped into a single species at the turn of the 19th century (Jordan & Evermann, 1896). However, the idea of multiple bowfin species wasn't entirely baseless. Recent molecular studies (one of which I was a part of) found evidence that there were in fact two bowfin species (Brownstein et. al., 2022; Wright et al., 2022). Now at LSU it is my goal to evaluate the same project with gars.

The Longnose Gar is the most egregious offender when it comes to the inflated number of species that some ichthyologists recognize. Since its description by Linnaeus at the 'dawn of taxonomy' in 1756, there have been an additional 31 species that have since been lumped back in with the one true Longnose Gar (we refer to these names as junior synonyms). Half of the 31 junior synonyms came from just one publication in 1870 titled *Histoire Naturelle de Poissons* (Natural History of Fishes), by Auguste Duméril at the MNHN who described 15 species of 'Longnose Gar' while also recognizing two other previously described species as valid. None of these species held up to later scientific scrutiny, being synonymized with the one true Longnose Gar not long after (Jordan & Evermann, 1896). But, with new research techniques and some promising preliminary results already in-hand, some of these species and the specimens they represent may become valid once again. In order to perform our due diligence, these specimens must be examined so they can be compared to modern specimens. The museum specimens themselves undertook an immense journey to make it back to the MNHN intact. These specimens had to endure transcontinental transport overland to one of a few large ports, either New York, New Orleans, or Charleston, and then remain intact throughout a transatlantic voyage back to Europe. You might find it odd that these fish were being taken away from their home continent to be researched, but there was a reason. To put not too fine a point on it, home-grown ichthyological 'talent' had not yet developed during the

middle 19th century. The Smithsonian Institute had only recently been founded, and the flawed 'Father of North American Ichthyology' David Starr Jordan had not yet been born. Much of the species-describing of North American fishes was being performed by European ichthyologists in England, France, and Germany. Most of the time these men were not leading field expeditions, so much as they were receiving museum specimens from traveling naturalists. Since nearly all of the specimens I had come to Paris to see were collected prior to the now-common practice of fluid preservation, they were instead dried, stuffed, and mounted like so many trophy fish.

After landing and grabbing our bags, we eventually figured out how to buy metro tickets to get out of Charles de Gaulle International Airport and make our way to the 5th Arrondissement, where the Museum, as well as our hotel only a block away, were situated. I had brought my wife Madison with me for her photography skills and as an extra set of hands, which were needed. I had undergone solo museum collection trips before and they were difficult, to say the least. Trying to manipulate and hold specimens with one hand, while trying to take a steady photograph with the other was cumbersome and slow. To try the same on centuries-old dry specimens with fragile fins would've been much worse. We would be in Paris for five days, and having Madison there would ensure that the best possible photos were taken and allow me to dictate measurements and counts to her on my laptop, making the most of our limited time at the MNHN. While we waited for our hotel room to be ready, we went across the street to a boulangerie that would be our favorite spot to grab a quick meal for cheap. After we got settled into our hotel, we quickly walked down the avenue towards the Museum noticing that our hotel was on the intersection of Rue Linné, Rue Cuvier, and Rue Lacépède (all taxonomists that worked on gar and bowfin). This entire area of the city seemed to celebrate the famous zoologists and botanists that worked at the MNHN with other nearby streets named after Geoffrey-Saint Hillarie, Buffon, Jussieu, and Daubenton. The MNHN is not just one museum but an entire complex, made up of three museums (Geology, Paleontology, Gallery of Evolution), library, botanical gardens and the second oldest public zoo in the world in this one area (with multiple other satellite facilities under the MNHN umbrella).

Fig. 1: Exterior of the Muséum Nationale d'Histoire Naturelle.

We met up with a collection technician who brought us down into the basement levels of the museum, where I was given a security badge so that I could allow myself into the collection without an escort. We received a short tour of the upper two basement levels (out of five) where we were shown a fish that I thought I would have needed persuasion to see, a coelacanth! While gar have been my favorite fish to study, coelacanths are my all-time favorite for their rarity, their mystery, and their antiquity. Due to their endangered status, less than 200 individuals are housed in museums across the world. Museums are now discouraged from paying local Comorian fishermen from harvesting more because we know these fish take decades to mature along with an estimated three-to-five year gestation period for their live young (the longest of any vertebrate!). After casually knocking off one of my bucket list items of seeing a coelacanth, we were taken to our work area in the imaging lab. In addition to letting me examine the specimens, the MNHN agreed to to CT-scan the specimens that were small enough to fit in their scanner. The adoption of CT-scanning by taxonomists has opened up a whole new line of inquiry for researching taxonomic questions. Being able to take any whole specimens and get detailed 3D imagery of their skeletal anatomy, without having to make additional alterations to them, has now made any specimen in any museum collection twice as valuable. Now that we readily have the ability to describe internal and external anatomy off of fewer specimens, it has become commonplace that many new taxonomic descriptions include CT-scans as part of their species diagnoses. We have been taking advantage of this here too at LSU with the CT-scanner at our Shared Instrument Facility. One of my lab mates, Dan Geldof, assisted in the post-processing of the scans I was given. We were blown away to see that even the stomach contents of one of the MNHN specimens had shown up in the scan, and it was a specimen collected in 1851!

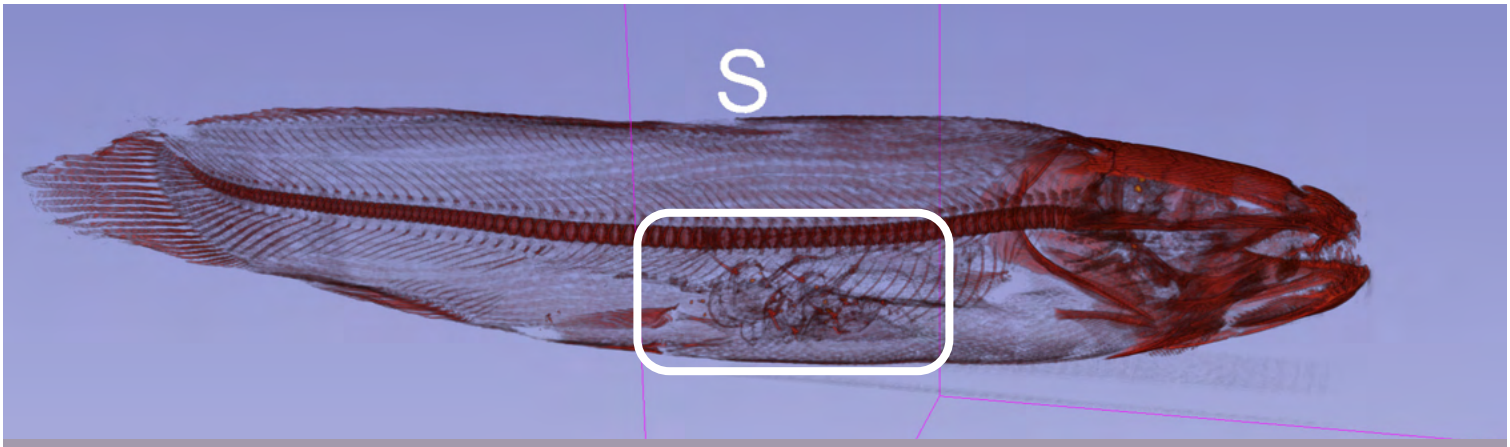

Fig. 2: 3D scan of a bowfin from the MNHN, skeletons of stomach contents circled in white.

On the shelves outside in the hallway were the many dry-mounted fish I requested to see, along with more fluid-preserved fish in the classic cylindrical-shaped jars sealed with wax. For their age, the dry gar specimens held up quite nicely with their bony heads and hard scales, except the discoloration, they appeared to be in relatively good condition. The bowfin…not so much, their softer scales and more flexible skin caused them to dry out more over time, and there were several that were obviously under-stuffed by the original preparators as the specimens were way too skinny for what a bowfin should look like.

In total we examined, measured, counted, and photographed 55 bowfin and gar specimens, taking us only 3.5 days out of the five days I expected we'd need. Having Madison there to record data and keep me on track certainly made our time at the MNHN fruitful. Nearly all of the specimens we examined were the type specimens for junior synonyms (species names no longer valid), though I did get to see the holotype for a Louisiana icon, the Alligator Gar. This was the largest and oldest specimen I examined, a nearly six-foot long fish collected sometime between 1793 and 1803 from an unknown locality. Given the size and collection date of this specimen, it is very well possible that this holotype was born before the establishment of the Paris Museum itself in 1793.

Fig. 3: The dry gar and bowfin specimens that were brought out and set aside for our visit.

Fig. 4: Dan Sinopoli with the holotype specimen of Alligator Gar (*Atractosteus spatula*).

After we spent most of our days working, we walked around the city in the afternoon into the evening, visiting monuments and trying some of the best food we'd ever had in our lives. We were lucky enough to get tickets to visit the Notre Dame Cathedral on its re-opening weekend! During this re-opening weekend the cathedral was open from 7 AM to 11 PM for the tens of thousands of people expected to visit. In addition to the restored white gothic interior and restored sculptures, there was a new piece: a monument to the firefighters who put out the blaze that crippled the Notre Dame Cathedral in 2019 as well as to the hundreds of artisan craftspeople that labored to restore each and every part of the cathedral.

We also visited two of the incredible museums in the MNHN complex, the Grande Gallery of Evolution and the Hall of Paleontology and Comparative Anatomy, with the latter being my favorite of the two. The Grande Gallery of Evolution featured multiple floors of taxidermized animals with the centerpiece being the March of African Mammals: a cavalcade of animals all marching in unison like something out of a Disney movie.

The Hall of Paleontology and Comparative Anatomy was, in a word, stunning. Hundreds of brilliant white skeletons were arranged around the center of the ground floor, with more in glass cases around the periphery. Hundreds of skulls belonging to any animal you could think of lined the

Fig. 5: The first (top left) and second floors (top right) of the Gallery of Paleontology and Comparative Anatomy, along with a closeup of a dry coelacanth (bottom middle).

walls. To my surprise, there was a second coelacanth (!) in one of the glass cases. I did not get long to admire the first coelacanth we saw in the basement of the MNHN, so I spent a long time staring at this one. Some notable skeletons were from the extinct dodo, thylacine, and Stellar's Sea Cow along with the famed 'Rhinoceros of Versailles,' an Indian Rhinoceros that spent twenty-two years living at the Menagerie of the Royal Palace in Versailles before it was destroyed during the French Revolution. This floor was not just restricted to skeletal anatomy, many of the cabinets highlighted comparative anatomy of eyes, brains, hearts, and lungs.

The second floor was even more incredible, devoted entirely to extinct life. Never had I ever seen so much Earth's history in one place, with animal representation from the Devonian to the Pleistocene. Again, there were way too many species to list here but staple dinosaurs were present: *T. rex, Triceratops, Iguanodon, Diplodocus, Compsognathus, Gallimimus*. There were also the giant charismatic megafauna that lived after them and overlapped with humans: mammoths, saber-toothed cats, rhinos, giant ground sloths, giant elk, cave lions, cave bears, among many others. I could have spent all day in this museum, but we had plans for the rest of our day.

By the time we left Paris, our step counters on our phones told us we had walked around 60 miles. We ate at our favorite boulangerie across from our hotel one last time and dragged our luggage through the metro station to get back to the airport. The trip back home to Baton Rouge was mostly uneventful, besides a few close calls making it to our gates. Despite the length of this article, this was the abridged version of our trip.

I extend a sincere thanks to all of the MNHN staff and faculty for facilitating our trip, and this trip would not have been possible without funding from the Jack Van Lopik Scholarship through Louisiana Sea Grant. I never expected when I started my dissertation that I'd get to travel to Paris to study North American fish, and I'm extremely thankful for this once-in-a-lifetime experience. This work also benefited from the data produced by the e-COL+ project (https://ecolplus.fr/), e-COL+ Valorisation des données naturalistes received financial support from the French government under the management of the National Research Agency (Agence Nationale de la Recherche) as part of the Investments for the Future Program, reference ANR-21-ESRE-0053.

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From Peru to LSU: A Year-Long Bird Specimen Export

by Dr. Andre Moncrieff

After more than one year of working on export permits, Sebastián Pérez (Collections Manager of birds at the LSUMNS) and I conducted an export to the USA on November 1, 2024, of bird specimens collected in the Cordillera Azul of Peru. This export involved 484 study skins, 18 fluid specimens, and various tissue samples for all of the 1,061 specimens collected by our team of researchers back in June and July 2023. The other half of the study skins from the expedition, as well as copies of all the tissue samples, are curated by our collaborators at the Centro de Ornitología y Biodiversidad (CORBIDI) in Lima, Peru. Thankfully, everything went smoothly during the various export and import inspections, and all the material arrived safely at the LSU Museum of Natural Science! It's hard to describe the relief and satisfaction of bringing specimens for definitive curation here at the LSUMNS, where these specimens will be available for numerous research projects.

On November 4, nearly all the museum ornithologists—including undergrads, grad students, and curators—helped to carefully unpack the study skins from the specimen trunks and organize them in the quarantine cabinets at the museum. This unpacking event was a fun way for us to reminisce about our 2023 fieldwork, share our coolest findings with other LSUMNS ornithologists, and soak in the huge diversity of birds from this expedition. We also took lots of photographs to capture the excitement of the unpacking event in action!

Fig. 1: Ornithologists contemplating the recently unpacked specimens.

Fig. 2: The scpecimens had been dutifully tagged in the field and carefully wrapped in cotton to be transported.

Fig. 3: Sebastián Pérez, our ornithology Collections Manager, can be seen here placing specimens from the Cordillera Azul onto the incoming trays in the quarantine room. Among the specimens are the Vermilion Tanager (*Calochaetes coccineus*), Versicolored Barbet (*Eubucco versicolor*), and Peruvian Racket-tail (*Ocreatus peruanus*). See if you can spot them!

A Book Donation from Lionel "Skip" Landry

by David Boyd

On 9 January 2025, more than 70 books, pamphlets, and other literature on herpetology arrived in six boxes at Foster Hall. The collection, curated over decades, was a donation from the late Lionel "Skip" Landry, who passed away in San Antonio, Texas on 4 November 2024 at the age of 73.

A native of New Orleans, Skip held a lifelong fascination with nature and particularly with reptiles. He studied biology at the University of Texas in San Antonio and earned a Master's in Zoology with a focus on reptiles. As a Louisiana State University student, between 1977 and 1983, Landry deposited 128 preserved snake and other reptile and amphibian specimens in the herpetology collection of the Museum of Natural Science. Pamela Landry, Skip's wife, meticulously cataloged and packaged his book collection and coordinated the donation in accordance with his will. She said that Skip always recalled his time at LSU with great fondness and that he wanted his library to benefit future generations of students at the institution.

Landry's specimen legacy at LSUMNS consists of 121 snakes, three lizards, three frogs, and one waterdog (salamander, not canine). His fieldwork spanned Louisiana and Texas, and he made substantial collections in southern Mexico, primarily in and around the state of Oaxaca. From there, he brought back two especially rare species: Hallberg's Cloud Forest Snake (*Cryophis hallbergi,* four specimens) and Uribe's Cat-Eyed Snake (*Leptodeira*

Fig. 1: Skip and Pamela Landry.

Fig. 2: Specimens of Hallberg's Cloud Forest Snake, *Cryophis hallbergi,* collected by Skip Landry between 1977 and 1980 and deposited at LSUMNS.

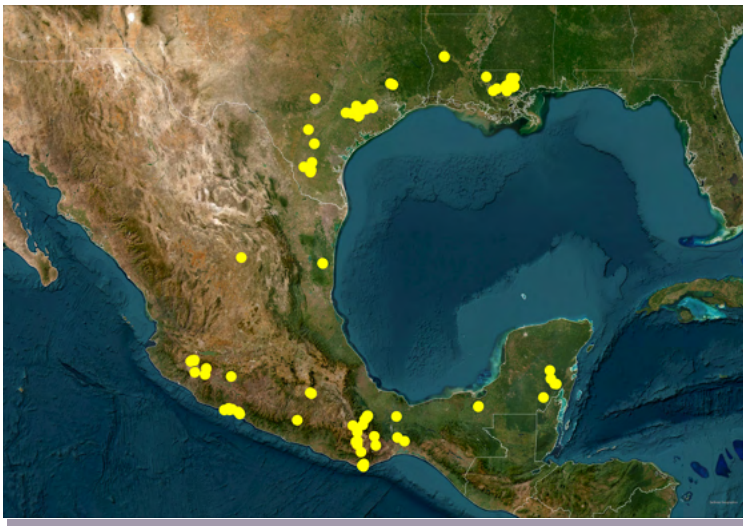


Fig. 3: Landry collected specimens from 91 locations in Louisiana, Texas, and Mexico.

uribei, one specimen). These remain the only specimens of their respective species in the collection and among few ever collected by scientists and deposited in museums, according to GBIF (doi.org/10.15468/dl.fzpwtp).

Skip's predilection for collecting serpents is reflected in his donated library: 27 of the works are specifically focused on snakes. His gift to the museum includes textbooks, field guides (many now out-of-print), species checklists, reprints of difficult-to-find society papers, and even a manual published by the U.S. Navy Bureau of Medicine on *Poisonous Snakes of the World*. Most are beautifully illustrated with color photographs or watercolor plates. The publications date back to a 1943 treatise on *The Fauna of British India, Ceylon and Burma: Reptilia and Amphibia* (Smith) with subjects spanning the globe from South Asia to Africa (*A Fieldguide to the Amphibians and Reptiles of Madagascar*, Glaw & Vences, 1992) and Central America (*The Snakes of Honduras,* Wilson & Meyer, 1982). Of regional interest are *The Reptiles & Amphibians of Alabama* (Mount, 1975) and *A Field Guide to Texas Snakes* (Tennant, 1985), among others. The library includes studies by LSUMNS alumni such as a *Checklist and Key to the Amphibians and Reptiles of Louisiana* by Edmund D Keiser, Jr. and Larry David Wilson, 1979 and *A Check-list of West Indian Amphibians and Reptiles* by Albert Schwartz and Richard Thomas, 1975—all but Schwartz students of Douglas Rossman. Also received were Landry's original field notes detailing his specimen collections.

Although some of the works have received revisions or successors since their publication, none are obsolete: even the oldest texts provide invaluable insight into the progression of herpetological understanding over the past century, and the museum faculty and students who share Skip's passion for reptiles and amphibians will put them to good use. Thank you to Tammie Jackson for coordinating the process with LSU Office of Sponsored Program Accounting and most of all to Pamela Landry for her time and effort in organizing this generous gift.

Fig. 4: More than 70 books and pamphlets on herpetological topics were included in the donation—along with Skip's original field notes.

The Lost Shrew: Rediscovering the Eastern Cordillera Small-Footed Shrew, *Cryptotis brachyonyx*

La Musaraña Perdida: Redescubriendo la Musaraña de Patas Cortas de la Cordillera Oriental, *Cryptotis brachyonyx*

by Darwin M. Morales-Martínez

Lost species are those that have not been seen in over a decade, leaving their existence shrouded in mystery. One such species is the Eastern Cordillera small-footed shrew *(Cryptotis brachyonyx),* an endemic mammal of Colombia that was long presumed extinct or extremely rare. The last confirmed record was taken several decades ago, but in July 2024, the Esselstyn Lab at the MNS and the Ramírez-Chaves' Lab at the Universidad de Caldas (fig.1) went in search of this mysterious species.

Fig. 1: Field expedition teams, from left to right. Top: Alexandra Cardona, Yorelys Mancilla, Andrés Tamayo, Héctor Ramírez, José Jaime Henao, and Alison Guerrero. Bottom: Darwin Morales, Jaime Rodríguez, Alexandra Marín, Héctor Ramírez and David Morales / Equipos de investigación de campo, de izquierda a derecha. Arriba: Alexandra Cardona, Yorelys Mancilla, Andrés Tamayo, Héctor Ramírez, José Jaime Henao y Alison Guerrero. Abajo: Darwin Morales, Jaime Rodríguez, Alexandra Marín, Héctor Ramírez y David Morales.

Fig. 2: A forest remnant at "La Selva," the type locality of *Cryptotis brachyonyx* / Un remanente de bosque en "La Selva", la localidad tipo de *Cryptotis brachyonyx*.

Fig. 3: San Juan de Río Seco landscape, the second locality of *Cryptotis brachyonyx* / Paisaje de San Juan de Río Seco, la segunda localidad de *Cryptotis brachyonyx*.

The story of this elusive shrew is unusual. It was described in 2003 based on four specimens from three localities near Colombia's capital, Bogotá. The type locality, "La Selva" (fig.2) in Fusagasugá municipality, is located approximately 30 km from Bogotá, with specimens collected in 1895. A second locality in San Juan de Río Seco (fig.3), situated 55 km from the capital, yielded specimens in 1925. The third recorded locality, listed vaguely as "Bogotá plains," remains untraceable. Since its description, no additional records or ecological data have been documented and its existence is nearly mythical.

Due to the limited number of records and the lack of biological information, the International Union for Conservation of Nature (IUCN) classified *Cryptotis brachyonyx* as Data Deficient. Two factors heightened concerns about its status. First, all known localities were relatively close to Bogotá, where deforestation and habitat fragmentation have decimated natural ecosystems. Today, only small, isolated forest fragments remain, suggesting that the species faces significant environmental pressures. Second, despite Bogotá being home to Colombia's largest universities and relatively well-studied ecosystems, no new records of the species had been found. This led to the troubling question: was the species extinct, extremely rare, or just incredibly difficult to detect?

Our first sampling site, San Juan de Río Seco, is situated on the western slopes of the Eastern Cordillera, within the Magdalena River basin, which spans an altitude of 100 to 2,000 meters. The area has a remarkable ecological diversity, including dry lowland forests (unlikely habitat for the species) and patches of sub-Andean and Andean forests. We focused our efforts on "San Nicolás," an area with well-preserved sub-Andean forests at 1,400-1,700 meters in altitude. San Nicolás also hosts a community-led conservation project, which facilitated collaboration with local residents and offered the opportunity to explain our research objectives.

Capturing shrews is notoriously difficult, as conventional small mammal traps, such as Sherman and snap traps, have low success rates. To maximize our chances, we employed an intensive trapping strategy combining traditional traps with multiple lines of both large and small pitfall traps (fig. 4). Despite deploying over 300 traps per night for seven days, we failed to capture any shrews, though we recorded a high diversity of rodents and marsupials.

The second phase of our expedition took us to "La Selva," the species' type locality. Here, we partnered with "Parque Verde y Agua," a well-preserved natural reserve featuring an extensive Andean Forest at 2,111 meters in altitude. The lush, humid forest, often shrouded in clouds, provided ideal conditions for shrews. Using the same intensive trapping methodology, we made a remarkable discovery: in just five days of sampling, we captured over 30 individuals of *Cryptotis brachyonyx*! (fig.5) This indicated a seemingly healthy population, but several concerns emerged.

Fig. 4: Pitfall arrangement used to capture *Cryptotis brachyonyx* at "La Selva" / Arreglo de las trampas de caída usadas para capturar *Cryptotis brachyonyx* en "La Selva".

Fig. 5: Individual of *Cryptotis brachyonyx* captured at "La Selva" / Individuo de *Cryptotis brachyonyx* capturado en "La Selva".

The rediscovery of *Cryptotis brachyonyx* brought to light several pressing conservation concerns. One of the primary threats is habitat fragmentation, as the forest patches where the species was found are relatively small and isolated, surrounded by landscapes heavily altered by human activity. Another alarming finding was that 98% of the captured individuals exhibited severe subcutaneous tapeworm infections, which could pose a significant threat to their health and long-term survival. Additionally, we confirmed the species' presence in only one locality, just 8 km from Fusagasugá, with no formal conservation plan in place to ensure its protection.

To safeguard this rediscovered species, we are planning further expeditions to survey additional potential habitats near Bogotá. Our goals include expanding knowledge of the species' distribution, assessing parasite prevalence across different populations, and developing conservation strategies in collaboration with local environmental authorities. Protecting *Cryptotis brachyonyx* requires urgent action to ensure this lost shrew remains a part of Colombia's rich biodiversity for generations to come.

We are grateful to the Mohamad bin Zayad Species Conservation Fund and the Alfred L. Gardner and Mark S. Hafner Mammalogy Fund for funding this research. If you'd like to support this project and similar research, please consider making a contribution to the Gardner and Hafner Fund at https://www.lsu.edu/mns/research-and-collections/collections/mammalogy.php.

Las especies perdidas son aquellas que no se han visto en más de una década, lo que envuelve su existencia en el misterio. Una de estas especies es la musaraña de patas cortas de la Cordillera Oriental (*Cryptotis brachyonyx*), un mamífero endémico de Colombia que durante mucho tiempo se creyó extinto o extremadamente raro. El último registro confirmado se obtuvo hace varias décadas, pero en julio de 2024 el Laboratorio Esselstyn del MNS y el Laboratorio Ramírez-Chaves de la Universidad de Caldas (fig. 1) salieron en busca de esta enigmática especie.

La historia de esta esquiva musaraña es inusual. Fue descrita en 2003 a partir de cuatro especímenes recolectados en tres localidades cercanas a Bogotá, la capital de Colombia. La localidad tipo, "La Selva" (fig. 2), en el municipio de Fusagasugá, se encuentra aproximadamente a 30 km de Bogotá y los especímenes fueron recolectados en 1895. Una segunda localidad en San Juan de Río Seco (fig. 3), situada a 55 km de la capital, aportó especímenes en 1925. La tercera localidad registrada, identificada vagamente como "Llanuras de Bogotá", sigue siendo indetectable. Desde su descripción, no se habían documentado nuevos registros ni datos ecológicos adicionales, convirtiendo su existencia en casi un mito.

Debido al número limitado de registros y a la falta de información biológica, la Union for Conservation of Nature (IUCN) clasificó a *Cryptotis brachyonyx* como "Datos Insuficientes". Dos factores aumentaron nuestra preocupación sobre su estado de conservación. En primer lugar, todas las localidades conocidas se encontraban relativamente cerca de Bogotá, donde la deforestación y la fragmentación del hábitat han diezmado los ecosistemas naturales. Actualmente, solo quedan pequeños fragmentos aislados de bosque, lo que sugiere que la especie enfrenta importantes presiones ambientales. En segundo lugar, a pesar de que Bogotá alberga las principales universidades de Colombia y sus ecosistemas cercanos han sido relativamente bien estudiados, no se habían encontrado nuevos registros de la especie. Esto plantea una inquietante pregunta: ¿está verdaderamente extinta, es extremadamente rara o simplemente increíblemente difícil de detectar?

Nuestro primer sitio de muestreo, San Juan de Río Seco, se encuentra en la vertiente occidental de la Cordillera Oriental, dentro de la cuenca del río Magdalena, que se extiende entre los 100 y los 2.000 metros de altitud. El área posee una notable diversidad ecológica, que incluye bosques secos de tierras bajas (hábitat improbable para la especie) y parches de bosques subandinos y andinos. Centramos nuestros esfuerzos en "San Nicolás", una zona con bosques subandinos bien conservados a una altitud de 1.400-1.700 metros. San Nicolás también alberga un proyecto de conservación comunitario, lo que facilitó la colaboración con los residentes locales y nos brindó la oportunidad de explicar los objetivos de nuestra investigación.

Capturar musarañas es complicado, ya que las trampas convencionales para pequeños mamíferos, como las tipo Sherman y las de golpe, tienen bajas tasas de éxito. Para maximizar nuestras posibilidades, empleamos una estrategia intensiva de captura, combinando trampas tradicionales con múltiples líneas de trampas de caída, tanto grandes como pequeñas (fig. 4). A pesar de colocar más de 300 trampas por noche durante siete días, no logramos capturar ninguna musaraña, aunque registramos una gran diversidad de roedores y marsupiales.

La segunda fase de nuestra expedición nos llevó a "La Selva", la localidad tipo de la especie. Allí colaboramos con "Parque Verde y Agua", una reserva natural bien conservada con un extenso bosque andino a 2.111 metros de altitud. Este frondoso y húmedo bosque, a menudo envuelto en nubes, ofrecía condiciones ideales para las musarañas. Utilizando la misma metodología intensiva de captura, logramos un hallazgo extraordinario: en tan solo cinco días de muestreo, ¡capturamos más de 30 individuos de *Cryptotis brachyonyx*! (fig.5) Esto indicaba una población aparentemente saludable, pero también reveló varias preocupaciones.

Nuestro redescubrimiento de *Cryptotis brachyonyx* puso de manifiesto diversas amenazas para su conservación. Una de las principales es la fragmentación del hábitat, ya que las áreas de bosque donde se encontró la especie son relativamente pequeñas y están aisladas, rodeadas de paisajes altamente modificados por la actividad humana. Otro hallazgo alarmante fue que el 98 % de los individuos capturados presentaban infecciones subcutáneas graves causadas por tenias, lo que podría representar una amenaza significativa para su salud y supervivencia a largo plazo. Además, solo confirmamos la presencia de la especie en una única localidad, a tan solo 8 km de Fusagasugá, y actualmente no existe un plan de conservación formal para garantizar su protección.

Para salvaguardar esta especie redescubierta, estamos planificando nuevas expediciones para estudiar hábitats potenciales adicionales cerca de Bogotá. Nuestros objetivos incluyen ampliar el conocimiento sobre la distribución de la especie, evaluar la prevalencia de parásitos en diferentes poblaciones y desarrollar estrategias de conservación en colaboración con las autoridades ambientales locales. La protección de *Cryptotis brachyonyx* requiere medidas urgentes para garantizar que esta musaraña siga formando parte de la rica biodiversidad colombiana para las generaciones futuras.

Agradecemos al Fondo para la Conservación de Especies Mohamad bin Zayad y al Fondo de Mastozoología Alfred L. Gardner y Mark S. Hafner por financiar esta investigación. Si desea apoyar este proyecto y otras investigaciones similares, considere realizar una contribución al Fondo Gardner y Hafner en https://www.lsu.edu/mns/research-and-collections/collections/mammalogy.php.

Expedition to the Peruvian Pelagic Zone

by David Vander Pluym

The world's oceans offer feeding grounds to millions of birds, many of which spend nearly their entire lives at sea, only returning to land to breed. The Humboldt Current runs north toward the equator off western South America where it creates regions of nutrient-rich upwelling that are well known for concentrating these seabirds, with large numbers of birds breeding on offshore islands. While seabirds are not a monophyletic group but rather an ecomorph (species that share similar ecologies, such as spending most of their lives at sea), one order, the Procellariiformes, represents some of the most enigmatic birds on the planet. Due to the difficulties of studying these birds at sea, combined with difficulties in identification, taxonomic uncertainty, and cryptic speciation, we still know very little about these oceanic birds. For decades, LSU Ornithologists have discussed taking a boat offshore of Peru but that had yet to come to fruition.

Fig. 1: Buller's Albatross (*Thalassarche bulleri*) was one of the main highlights of our pelagic.

During the successful 2023 expedition to the Cordillera Azul this talk started anew, and we were determined to keep the momentum rolling. During the intervening year, Dr. Andre Moncrieff and I would often discuss the idea of collecting pelagic birds and when there was a need to return to Peru for the Cordillera Azul export of specimens, we were determined to make it happen.

We were able to put it together with the help of collaborators in Peru and local tour guide Gustavo Bautista, who was able to arrange a boat for our use. We arrived in Lima, Peru, on 23 October, 2024 and quickly took care of the export as well as preparations for the pelagic itself. We soon moved to Pucusana, where we would be able to go out on the boat on 27-28 October. On our first day we learned a lot about collecting at sea, which on a rolling vessel can be incredibly difficult. On our second day we were able to put into good use the lessons we had learned.

This mini expedition was quite a success. In total we collected 26 individuals of 8 species including a nice series of the first modern specimens for LSU of Elliot's Storm Petrel (*Oceanites gracilis*). We also added tissues of four species that were new for the LSU tissue collection. The other four species we collected were also the first tissues for the LSU collection for Peru and included our first non-zoo tissues of Inca Tern (*Larosterna inca*). Our hope is this will be the first of a series of pelagic trips off Peru, varying locations and time of year.

Fig. 2: This was a collaborative trip between Centro de Ornitología y Biodiversidad (CORBIDI) and LSU. Participants (from left to right) included Gustavo Bautista (local birding guide, and our logistic manager), Cristhian Felix (CORBIDI), Andre Moncrieff (LSU), Sebastian Perez Pena (LSU), Eryn Woernley (LSU), Yolanda Yarasca (National Agrarian University La Molina), and Emil Bautista (CORBIDI).

An Inside Look: X-Ray Microscopy at LSU Museum of Natural Science

by Daniel Geldof

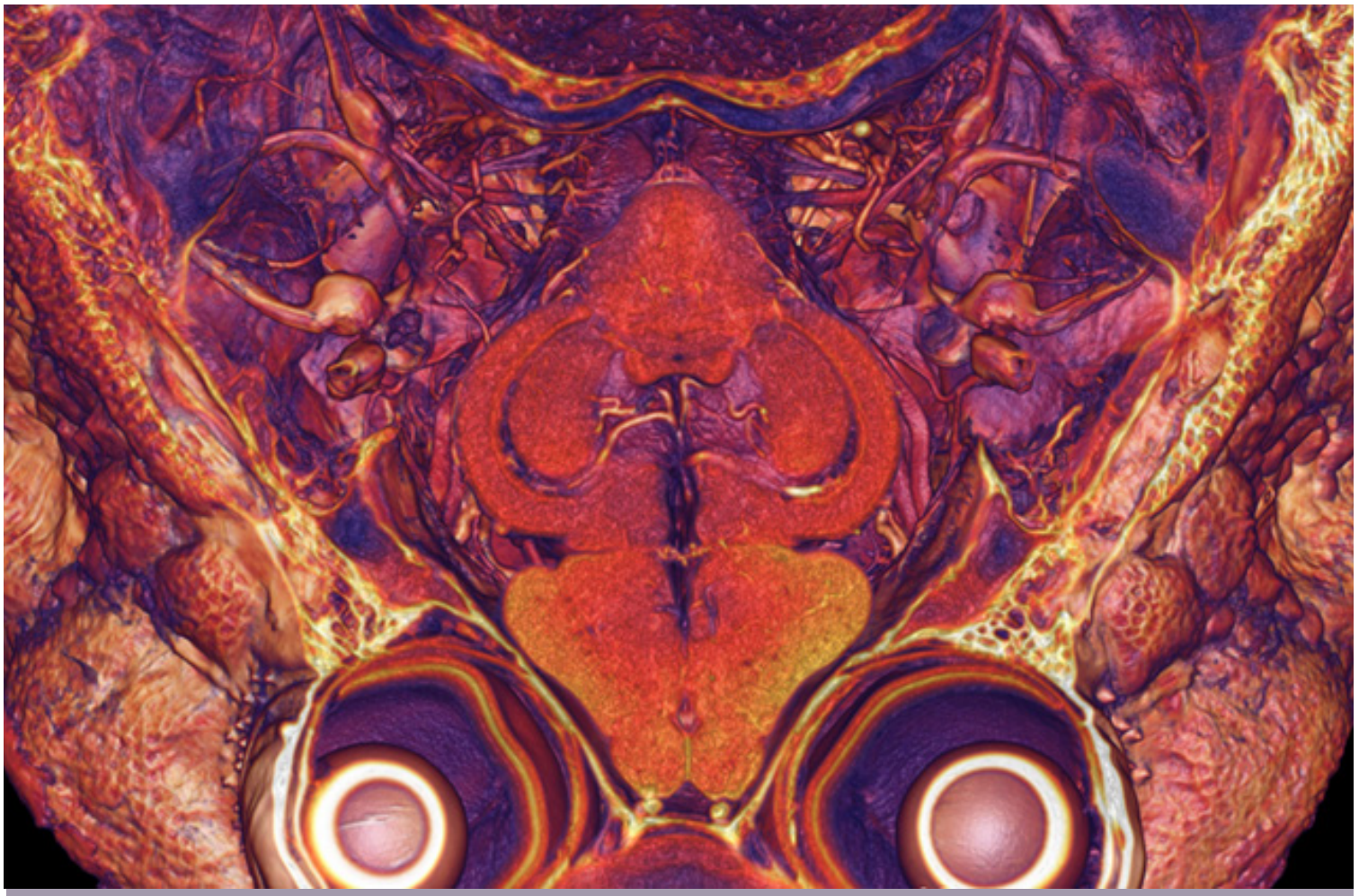


Fig. 1: *Bothragonus swanii* cranial cavity. Brain, semicircular canals, brainstem, spinal cord, peripheral nerves, and supporting vasculature are all visible.

There is perhaps no object more closely associated with the profession of science than the microscope. "What does this tiny thing look like up-close?" isn't merely a scientific question—it's a basic human curiosity. The first true microscopes are approaching 400 years old, but humans remain engrossed in all things small. For centuries, we contented ourselves with optical lenses—experiencing the world of the tiny through visible light alone. To look inside creatures, we perfected the practice of histology: embedding our subjects in wax and slicing them into unimaginably thin sections for staining and mounting to a microscope slide. Histology and optical microscopy remain bastions of science and medicine.

However, these methods have limits. Many structures cannot be seen through visible light alone. Histology can reveal cellular-level details in a specimen, but it also requires mincing our subject into unrecognizable slices. For museum specimens, this is often unacceptable. Even when we can sacrifice our charges, insights into the small come at the cost of the large. It's extremely difficult to retain any sense of morphology or context when a creature has been reduced to a stack of glass slides.

Enter our newest tool: A ThermoFisher Heliscan MKII X-ray microscope (XRM). Weighing 5000 pounds and costing approximately 1.5 million dollars, this is the latest arrival at LSU's Shared Instrumentation Facility (SIF). Though primarily purchased for the materials science, geology, and engineering departments, we've wasted no time commandeering it for use with LSUMNS biological specimens.

X-ray microscopes essentially use the same technology as medical CT scanners. The machine takes thousands of X-ray projections, which are digitally assembled into a 3-dimensional reconstruction of an object—internal anatomy included. Typical medical CT scanners achieve spatial resolutions of 0.5mm (500µm). The Heliscan can resolve features almost 1000 times smaller—nondestructively imaging tiny creatures in exquisite detail.

Fig. 2: Histology section (Transverse) from the head of a fish, *Bothragonus swanii*. This fish has been sliced into microns-thick sections and stained.

Fig. 3: LSU's ThermoFisher HeliScan MKII X-ray microscope.

Being a fish person myself, the first creatures to reach the XRM were naturally fishes. The majority of included images come from the HeliScan's first major project—digital reconstructions of my personal study organism, the Rockhead Poacher (*Bothragonus swanii*). I've segmented out this tiny fish's central nervous system, semicircular canals (i.e. ears), and supporting vasculature. While fishy projects pioneered LSUMNS XRM usage, mammals, reptiles, and birds are all now trickling into the scanning pipeline.

The HeliScan yields data as scientifically useful as it is spellbindingly gorgeous. Please enjoy the images below—a small showcase of what to expect from the XRM for years to come.

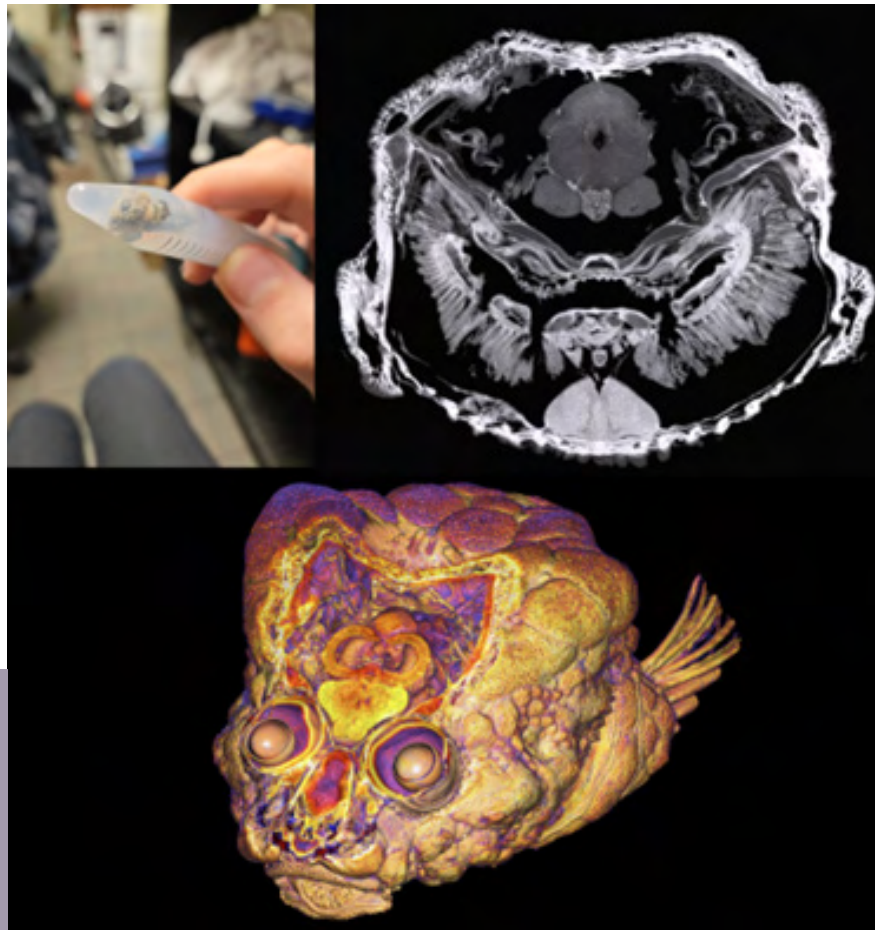


Fig. 4: Top row: A fish (*Bothragonus swanii*) being scanned; a single slice of the resultant scan. Bottom: 3D reconstruction of ~5000 slices (head cropped to show brain).

Fig. 5: *Bothragonus swanii*, "digital craniotomy" to expose brain, peripheral nerves, supporting vasculature, and semicircular canals.

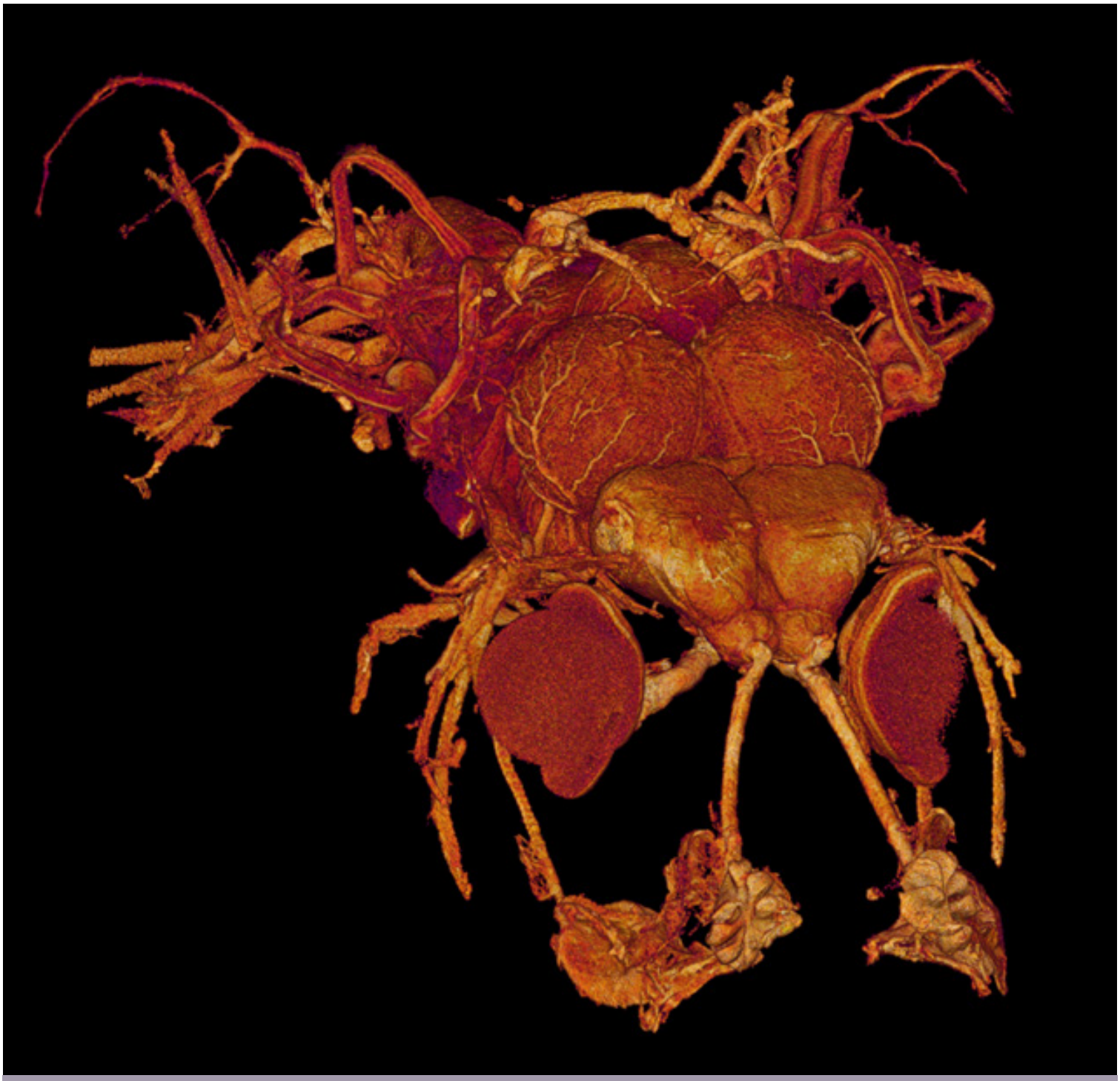


Fig. 6: Fully segmented sensory systems from *B. swanii*.

Fig. 7: *Aspidomorphus* sp., a New Guinean Elapid. Skeletal scan.

Dr. Nick Mason Wins Prestigious CAREER Award to Advance Ornithological Research and Student Mentorship

by Dr. Irene Martí Gil

Dr. Nick Mason, Assistant Professor and Curator of Birds at Louisiana State University's Museum of Natural Science (LSUMNS), has been awarded the highly competitive National Science Foundation (NSF) CAREER Award. This prestigious grant, totaling over one million dollars over five years, will support Mason's groundbreaking research on high-elevation bird species in the Andes while fostering opportunities for undergraduate students in biodiversity science.

For Mason, the award represents a unique opportunity to integrate his three primary responsibilities—research, teaching, and curation—into a cohesive and impactful project. "I enjoy each of these aspects individually," Mason said, "but the idea of combining them in a way that helps advance all of them simultaneously was both challenging and rewarding."

Unraveling the Mysteries of High-Andean Birds

Mason's research will focus on the birds that inhabit *Polylepis* forests, the highest-elevation forests in the world, scattered across the rugged Andes Mountains. These ecosystems are naturally fragmented, surrounded by puna and paramo grasslands, making them an ideal setting for studying how bird populations remain connected or isolated over time.

By sequencing the genomes of over 500 individual birds from various *Polylepis*-associated species, Mason's team will investigate how differences in population connectivity relate to ecological factors. Additionally, they will analyze physical characteristics such as morphology, plumage, and song to determine rates of evolutionary change and uncover hidden biodiversity within these species.

This research will expand upon LSUMNS's already impressive collection of South American bird specimens, which has historically focused on lowland and mid-elevation regions. Mason sees this project as an opportunity to further cement the museum's reputation as a leader in Neotropical ornithology.

Investing in the Next Generation of Scientists

Beyond the scientific discoveries, the CAREER Award will also support a new initiative spearheaded by Mason—the Museum Undergraduate Science and Exploration Opportunities (MUSEOs) program. This program will provide long-term research and curatorial opportunities for LSU undergraduates, ensuring that students can gain hands-on experience throughout their academic careers, not just in their final years.

"MUSEOs will establish a community of near-peer mentors where junior students can interact with more senior students and learn from them while also contributing to Neotropical ornithology," Mason explained.

The grant will fund student research opportunities and field expeditions to underexplored regions in Peru and Bolivia, including Arequipa, Tacna, and Potosí. These expeditions will give students firsthand experience in biodiversity research, preparing them for careers in science.

A Personal and Professional Milestone

For Mason, receiving the CAREER Award is not just a professional achievement—it's a deeply personal milestone. As a graduate student, he admired LSUMNS from afar, never imagining he would one day lead groundbreaking research there.

"Joining LSUMNS as the curator of birds was a dream come true," he reflected. "I often think that if I were to time travel back to when I started grad school in 2009 and tell myself where I ended up today, my past self wouldn't believe it—but here we are!"

The award also validates years of dedication to museum-based research and international collaboration. Mason's research team includes ornithologists from Peru, Bolivia, Denmark, and other South American countries, reinforcing the global nature of biodiversity science.

"Science is a collaborative endeavor," he said. "The opportunity to carry out this research with a team of international scientists united by a common interest is so exciting."

Looking Ahead

With the funding secured, Mason's next major goal is bringing his vision to life. That includes successfully executing the research plan, mentoring his graduate students through the completion of their PhDs, and expanding LSU's ornithology and biodiversity research footprint. He also has his sights set on launching new projects closer to home in Louisiana and the Gulf Coast, including potential research into ecotoxicology—a new field for him but one of growing importance in environmental science.

Ultimately, Mason hopes this work will leave a lasting impact—not just on ornithological research, but also on the students and colleagues he mentors along the way.

"This award enables our lab group and the LSUMNS to continue our dedication to museum-based ornithology in the Neotropics," Mason said. "But more importantly, it strengthens our capacity to provide meaningful research experiences to students. This is about more than just science—it's about building a legacy of discovery and mentorship for future generations."

Dr. Nick Mason pictured here in a glacial valley outside Huaráz, Peru, during the Congreso Peruano de Ornitología in the summer of 2023. Dr. Mason's CAREER Award will enable LSU scientists to study the ecology and evolutionary biology of forests and grasslands occur in high-elevation habitats in the Andes of Peru and Bolivia.

MNS NEWS

Directorship

As the end of June approaches, the Museum prepares for leadership transition. Dr. Chris Austin's second 3-year term concludes on June 30, marking the end of a transformative six-year tenure. During this period, the Museum witnessed substantial growth, including the hiring of two new curators and four collection managers, as well as the permanent appointment of a joint fish/herpetology collections manager. The institution also expanded its physical footprint to encompass all of Foster Hall, providing much-needed space for collections, research, and staff. An architectural program commissioned last year—the first in two decades—has been instrumental in initiating renovations for Foster Hall. Fundraising efforts have been notably successful, with over $1 million in direct donations and gift agreements exceeding $2 million. These funds are earmarked to support graduate students and further the Museum's research mission.

Looking ahead, Dr. Prosanta Chakrabarty is set to assume the role of director on 1 July. The outgoing director expressed confidence in Prosanta's leadership, stating, "He will be a great director, and I'm happy he is willing to serve as we need strong leadership." Reflecting on the past six years, the departing director conveyed gratitude, saying, "It has been a pleasure to serve as director for the last six years. I thank you all for your support and encouragement."

Fellowships, Appointments, Grants, and Awards

Prosanta Chakrabarty, PhD

Prosanta was elected National Fellow of the Explorer's Club, an American-based international multidisciplinary professional society with the goal of promoting scientific exploration and field study. He joined the Board of Directors of the AIBS (American Institute of Biological Sciences), a non-profit focused on education for the public understanding of science. He was also named a 2025-2026 Phi Beta Kappa Visiting Scholar! As part of this prestigious program, he will visit campuses across the country, engaging with students and faculty through lectures and discussions on evolution, natural history, and science communication. Congratulations!

Jake Esselstyn, PhD

Jake was named George H. Lowery Professor! This is an honorific title that provides his lab endowment funds that will be used for various projects. In his own words: "It's a great honor to hold the Lowery Professorship. George Lowery, Jr. founded the MNS and he was an amazing natural historian. He must have been a great teacher too, as he had many successful students. These are big shoes I'm trying to fill." Congratulations!

Nicholas Mason, PhD

Nick received the NSF CAREER Award, which is the organization's most prestigious award offered in support of early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization. To know more about this award, the full story in this Newsletter or check out our website: https://www.lsu.edu/mns/news-and-publications/news/mason_award.php

Andre Moncrieff, PhD

Andre received a $8,800 grant from the Mohamed bin Zayed Species Conservation Fund to support his groundbreaking research on the critically endangered Sira Curassow (*Pauxi koepckeae*).This project involves fieldwork and community engagement to study this rare bird species found only in the secluded mountains of central Peru. This is framed in Andre's ongoing research on the bird communities in the remote outlying ridges of the Andes. Congratulations!

Diego Cueva

Diego received the Frank M. Chapman Memorial Fund of the American Museum of Natural History-Research Grant. He will use this grant to partially cover the whole genome resequencing of Manakins (*Manacus*) genomes. He will use these genomes to study color evolution in a hybrid zone between White-bearded Manakin and Golden-collared Manakin. Congratulations!

Juliana Damasceno

Juliana was named a NatGeo Explorer by the National Geographic Society! Juliana is exploring if antbirds in the Amazon use their sense of smell to track army ant nests—an insight that could deepen our understanding of bird behavior and ecology. These clever birds have evolved to follow swarming army ants closely, snatching up insects that flee the ants' path—only to end up right in the birds' beaks. Juliana also received the Frank M. Chapman Memorial Fund of the American Museum of Natural History-Research Grant to purchase new mist nets for her upcoming expedition, during which she will collect data for her two projects: "Olfactory Adaptations Underlying Bivouac-Checking Behavior in Antbirds" and "Interspecific Limits, Diversification, and Biogeographic History in a Genus of Obligatory Ant-Following Birds". Congratulations!

Luca Micheli

Luca received the Frank M. Chapman Memorial Fund of the American Museum of Natural History-Research Grant. He will use this grant to generate whole genome sequence data from the wedge-billed woodcreeper (*Glyphorynchus spirurus*), an Amazonian understory bird species whose distribution encompasses Amazonian interfluvia that suffered from past river rearrangement events. These dramatic landscape changes are known to create cycles of isolation and secondary contact for bird populations. The goal with this data is to investigate their genetic diversity at the population level, as well as to evaluate the reliability of phylogenetic signal from populations across river margins. Congratulations!

Sheila Rodríguez Machado

Sheila received the Outstanding Student Award by the LSU Museum of Natural Science. This is an incredible achievement and a testament to her hard work, dedication, and passion for her research. Congratulations!

Dan Sinopoli

Dan received $10K from the Dr. Jack and Annagreta Hojhdal Van Lopik Superior Graduate Student Research Scholarship-Louisiana SeaGrant. His project uses molecular and geometric morphometric techniques to re-examine the five synonyms of spotted gar described across its distribution to determine if any synonyms are valid species and should be split from true spotted gar. Congratulations!

PhD Defenses

Anna Hiller

Anna defended her Doctoral Dissertation in February. In her Dissertation, she explores the processes driving the high species richness and phenotypic diversity of birds in montane regions, focusing on flowerpiercers in the genus *Diglossa*, a group of nectar-feeding tanagers. She presents the first high-quality reference genome for *Diglossa brunneiventris* and uses it to map reads and explore the group's evolutionary history. Using genome-wide data in the form of UCEs, she reconstructs the phylogeny of *Diglossa*, which has remained unresolved due to a lack of genomic resources, and explores the effects of sample type on relationships. She then uses RADseq to examine gene flow within the *D. carbonaria* complex and genome-resequencing to investigate hybridization between *D. humeralis* and *D. brunneiventris* in northern Peru, identifying loci that contribute to species boundaries. Her research sheds light on how gene flow and divergence shape speciation in tropical montane regions, providing insights into avian speciation in the high Andes and Neotropical mountains.

Anna in her expedition to Bolivia.

Heru checking the coordinates in the field.

Heru Handika

Heru defended his Doctoral Dissertation in April. In his Dissertation, titled "In Situ Diversification of Insular Rodents: From Efficient Software to Integrative Empirical Approaches," Heru combines the development of efficient software with integrative morphological and genomic approaches to understand how a large, topographically complex island, such as Sulawesi, generates species diversity. Using Rust, Flutter, and a continuous integration/continuous delivery (CI/CD) software development approach, he creates high-performance and memory-efficient genomic software that scales from mobile devices and personal computers to high-performance computing clusters. He integrates the morphological study of external and skull features and ultra-conserved elements (UCEs) to determine the species boundaries within the largest group of native rodents in Sulawesi, Indonesia, called the *Bunomys* division. He also investigates whether Sulawesi's recognized areas of endemism, mountain isolation, or a combination of various factors promote the diversification of the *Bunomys* division. His software development approach lays a foundation for scalable genomic software to advance genomic research and aid in teaching genomics where access to computing resources is lacking. His empirical study provides insight into the generality of mountain isolation as barriers of dispersal, and hence diversity generators, for a large, topographically complex tropical island, with future application for conservation management.

Sheila enjoys watersports in her free time.

Sheila Rodríguez Machado

Sheila defended her Doctoral Dissertation in May. Her research investigates the evolutionary forces influencing the diversification of the live-bearing fish family Poeciliidae (guppies, mollies, and platys). She presents the first phylogenetic hypotheses for poeciliids using genome-scale data from ultra-conserved elements (UCEs), and shows how incomplete lineage sorting and reticulate evolution–likely driven by rapid and consecutive speciation events–played a significant role shaping the remarkable diversity of this group of Neotropical fishes. She then focuses on the geologically complex Greater Antilles, identifying areas of endemism based on the distribution and genetic structure of freshwater fishes, a biogeographic mystery for over thirty years. Her findings confirm that these islands do not form single biogeographic units, instead they represent natural groups of multiple nested smaller regions.

To continue uncovering fine-scale evolutionary processes, she explores the evolutionary history of Girardinus, a poeciliid genus endemic to Cuba. Using UCEs and single-nucleotide polymorphism, she presents a robust phylogenetic hypothesis explaining the multiple in-situ speciation events underwent by these fishes after colonization, and the contribution of introgression in present-day diversification patterns. Overall, her research provides new insights into the evolutionary mechanisms driving fish diversification in the Neotropics, highlighting the interplay between historical biogeography and genomic processes in shaping biodiversity.

Eamon Corbett

Eamon defended his Doctoral Dissertation in May. His research centers on the evolution and genetic basis of eye color variation in birds, with a specific focus on grackles (*Quiscalus*). As part of this work, he published a comprehensive review paper on the pigments, genes, and evolutionary factors that affect eye color across birds. Next, he used markers sampled from across the genome to study the relationships among all thirteen subspecies of Boat-tailed, Great-tailed, and Slender-billed Grackles. This project revealed new phylogeographic patterns within the group, and showed that eye color is not correlated with genome-wide genetic differentiation. Finally, Eamon worked to pinpoint portions of the genome underlying within-species eye color variation in Boat-tailed Grackles. Using specimens and photographs collected during his fieldwork in Louisiana, Mississippi, and Alabama, this study identified candidate loci correlated with eye coloration. This project is the first time the genetics of eye color variation has been investigated in a wild bird species.

Eamon bird-watching in the Bayou.

MA Defense

Ryan Klutts

Ryan defended his Master's Thesis in April. His research traces the hybridization of the Glossy Ibis (*Plegadis falcinellus*), a species native to the Old World, and the White-faced Ibis (*P. chihi*), a native western species with a breeding range that extends through Louisiana. Range expansion of both species resulted in the creation of a hybrid zone in southern Louisiana, providing an opportunity to investigate the roles of reproductive barriers in the early phases of secondary contact. In collaboration with other researchers, Ryan established baseline data on population frequencies of White-faced Ibis, Glossy Ibis, and their hybrids at three rookeries in south Louisiana and found that White-faced Ibis were most common (65.5%), followed by hybrids (25.6%) and Glossy Ibis (8.9%). His study of mate choice within mixed species rookeries demonstrated that premating reproductive barriers are either absent or weak between White-faced and Glossy Ibis. Additionally, through the use of GPS backpack tracking, he was able to characterize the annual movements of individuals from each of the surveyed rookeries.

New LAGNIAppE Scholar

Brett Kincade

Brett Kincade is a post-baccalaureate scholar in the LAGNiAppE Program. He earned a Bachelor of Science in Biological Sciences and a Master of Arts in Teaching from the University of New Orleans. After teaching high school biology, Brett transitioned to a research-focused career. His work centers on the phylogenetics, phylogeography, and taxonomy of birds, with current projects involving the population genetics of Geospizopsis tanagers and the genomic phylogeny of the hoatzin. Brett's broader interests include exploring how genetic and environmental factors drive speciation and shape biodiversity. Outside the lab, he volunteers at a local bird banding station and enjoys birding with his wife, Belinda, as well as reading fantasy and sci-fi novels while relaxing at home with his cats and dog.

Visiting Postdoc & PhD Student

Ashish Jha

He is an Engineer turned Ornithologist. After studying Biotechnology, he pursued a PhD in Ornithology. His doctoral research was focused on the biogeographic history, population connectivity, habitat suitability model, and natural history of southern India endemic and globally threatened species Yellow-throated Bulbul (*Pycnonotus xantholaemus*). After his PhD, Ashish joined Kerala Agricultural University (Kerala, India) and then became a postdoctoral fellow at IISER Mohali (Punjab, India). He joined Wildlife Institute of India (Uttarakhand, India) in August 2023. In 2024, He obtained a Fulbright scholarship to work at the LSU Museum of Natural Science for nine months. He is using the bird collections to test core-periphery hypothesis in an assemblage of Nearctic birds.

Veronika Chalupová

Veronika is a second-year PhD student at Masaryk University in Brno, Czech Republic. She is investigating the diversity and evolutionary history of African shrews. As part of her two-month internship in Jake Esselstyn's lab, she is learning to bioinformatically process genomic data to unravel the phylogenetic relationships of small African mammals.

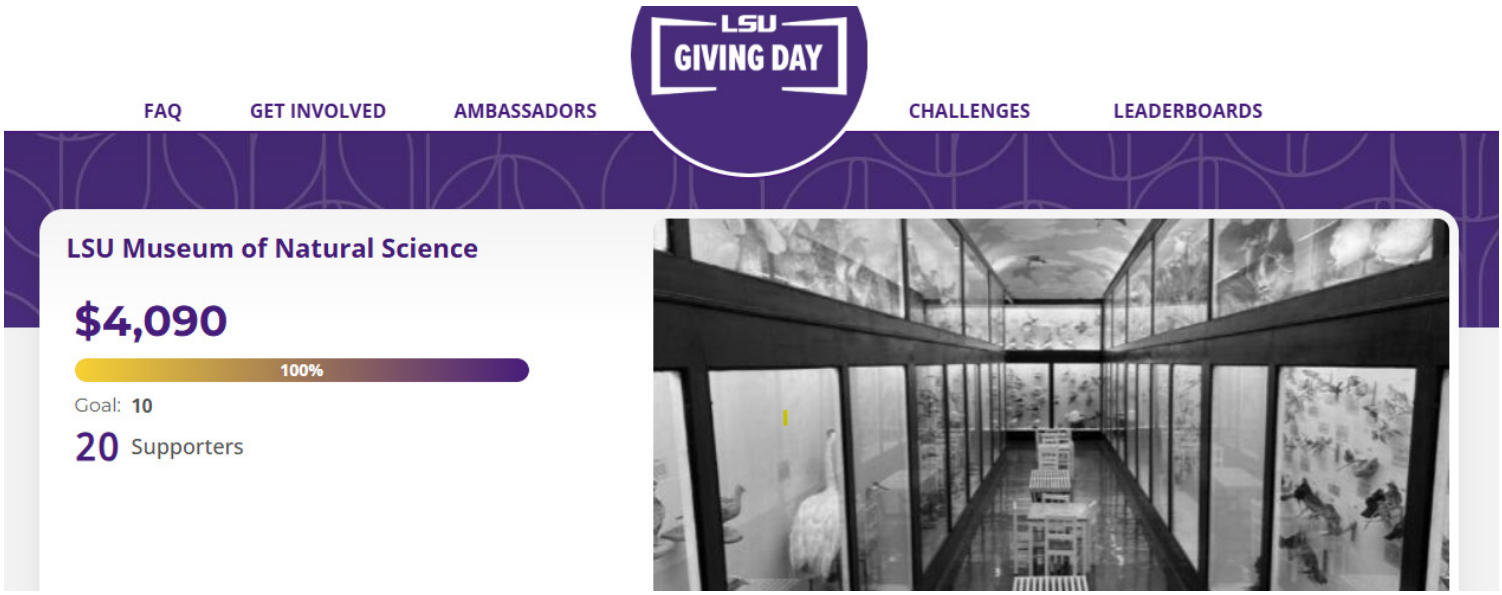
Farewell

Andre Moncrieff

Dr. Andre Moncrieff, former LSUMNS PhD student and postdoc for the past two years, signed an offer letter for the position of curator of birds at the Sam Noble Museum and assistant professor at the University of Oklahoma His wife, Natalia, also signed her offer letter to be the collection manager of birds at the Sam Noble Museum. They are both thrilled to be pursuing their career interests together and looking forward to building the collections-based ornithology program at OU.

Andre said: “It's hard to believe that it's been more than 10 years since I arrived at the LSU museum! It's been wonderful to be part of the museum community here and I will miss you all! Thank you for being great friends, colleagues, and mentors over all these years.”

Giving Day 2025



Giving Day 2025, celebrated on March 19th, was an incredible milestone for LSU, and the LSU Museum of Natural Science is thrilled to share the results of this record-breaking day. Across the university, LSU raised an astounding $8,423,534 from a total of 2,834 donors, making it one of the most successful Giving Days in LSU’s history.

The College of Science also had an impressive showing, with 174 donors contributing a remarkable $589,997.01. Their support will undoubtedly advance research, foster innovation, and support the next generation of scientific leaders.

Thanks to the unwavering support of our generous donors, the Museum raised an outstanding $4,090 from 20 contributors — doubling our expectations! Your contributions are more than just numbers; they are a testament to your belief in our mission to inspire discovery, preserve biodiversity, and educate future generations of scientists. With your support, we will continue to lead groundbreaking research, expand our world-renowned collections, and offer enriching educational experiences for students and the community.

On behalf of the entire team at the LSU Museum of Natural Science, thank you for your generosity and support. Your belief in our work has made a lasting impact, and we look forward to sharing our continued progress with you.

For more information about Giving Day and how your contributions make a difference, visit LSU Giving Day.

ornithology

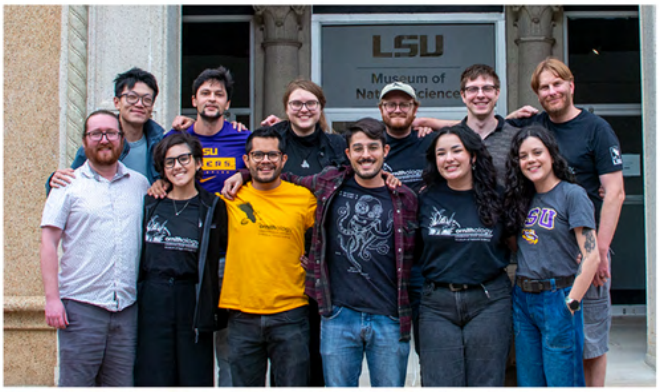
LOUISIANA STATE UNIVERSITY MUSEUM OF NATURAL SCIENCE

April 16, 2025

Dear friends and colleagues,

Spring is an exciting time at the Louisiana State University Museum of Natural Science (LSUMNS); with it comes migratory birds and our annual Big Day Fundraiser!

The ornithology program at LSUMNS is renowned for its contributions to the study of birds, both locally and particularly in the Neotropics. Our program draws students from around the world who seek to explore biodiversity and advance scientific knowledge. Thanks to your generous support, over the past year we've been able to conduct impactful field expeditions and participate in international conferences, cementing LSUMNS as a hub for ornithological excellence.



Back (L to R): Zhiyuan "Jerry" Su, Gustavo Martins, Samantha Rutledge, Quinn McCallum, Ryan Klutts, and David Vander Pluym. **Front (L to R):** Eamon Corbett, Juliana Damasceno, Diego Cueva, Luca Micheli, Amanda Harvey, and Sara Velásquez. Not pictured Anna Hiller.

Our ornithology division currently has thirteen graduate students, and your donations allow us to conduct fieldwork both locally and internationally, attend national and international scientific meetings, engage in workshops on different topics related to bird biology and evolution, and share our findings with the wider scientific community by submitting our papers to be published in prestigious peer-reviewed scientific journals.

Last year, we welcomed four new graduate students to our program: **Amanda Harvey** in Dr. Mason's Lab, **Gustavo Martins** in Dr. Thom's Lab, **Zhiyuan "Jerry" Su** and **Sara Velásquez** in Dr. Brumfield's Lab.

2024 was filled with exciting research and exploration which your donations helped to support. **Diego Cueva** studied hybrid zones between White-bearded Manakins (*Manacus manacus*) and Golden-collared Manakins (*M. vitellinus*) in the departments of Magdalena, Córdoba, and Antioquia, as well as in Huila, Colombia. **Ryan Klutts** investigated hybridization between Glossy Ibis (*Plegadis falcinellus*) and White-faced Ibis (*P. chihi*) in coastal Louisiana, and **David Vander Pluym** collected pelagic samples off the coast of Peru. In addition to fieldwork, many of our students presented their research at major conferences: **Ryan Klutts** showcased a poster at the Pacific Seabirds & Waterbirds Conference in San José, Costa Rica. **Quinn McCallum**, **Samantha Rutledge**, and **Eamon Corbett** presented at the Evolution Meeting in Montreal, Canada. **Amanda Harvey** and **Samantha Rutledge** presented at the American Ornithological Society annual meeting in Estes Park, Colorado. **David Vander Pluym** also published his dissertation's first chapter on Altitudinal Migration. **Eamon Corbett** led a paper about aberrant eye coloration in Red-bellied Woodpeckers (*Melanerpes carolinus*).

The graduate program at the LSUMNS is widely regarded as one of the premier programs for bird study, and your donations directly contribute to our success. As always, we are grateful for and inspired by your support.

Ornithology!
The LSUMNS Ornithology Graduate Students

Ryan Klutts Amanda Harvey

Jerry Su Luca Tristano Micheli Samantha Rutledge Quinn McCallum

Sara Velásquez Juliana Damasceno Diego Cueva

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Donate Online or via Mail

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Checks should be made out to the **LSU Foundation** with the **"Ornithology Student Support Fund"** on the memo line.

Statewide LSUMNS Big Day 2025

During the 2024 Big Day Fundraiser, our team recorded 185 bird species across Louisiana in 24 hours under American Birding Association Big Day rules. This year, we will try to break our statewide record, which stands at 221 species. The results of this year's LSUMNS Big Day will be posted online via the museum's website (www.lsu.edu/mns/) and X (x.com/LSU_MNS). We will also send around a follow-up email reporting on our sightings for those wishing to donate on a per-species basis.

Ryan Klutts holding a *Plegadis* nestling at Millers Lake, Louisiana, USA, during fieldwork

L to R: Diego Cueva, Socorro Sierra, from Alexander von Humboldt Biological Resources Research Institute, and Isa Navarro from Sociedad Ornitológica de Córdoba, on expedition to the Natural Reserve Campo Alegre, Los Cordobas, Córdoba, Colombia

L to R: Amanda Harvey, Samantha Rutledge, curator Nick Mason, and Brett Kincade, a post-baccelaureate scholar in the Mason Lab, at American Ornithological Society (AOS) meeting in Estes Park, Colorado, USA.

T-Shirts Are Back!

This year we will once again be selling LSUMNS Big Day T-shirts through our partners at **Red Stick Sports**. Our 2025 shirts, designed by current **Mason Lab** student **Quinn McCallum**, feature the Magnificent Frigatebird (*Fregata magnificens*), an iconic bird of the Gulf of Mexico. We're also making the 2024 shirt available once again, featuring an Ibis and Grackle design. Each design is available in multiple color options of the 4.5-ounce, 100% cotton "Fan Favorite T" by Port and Company. We are pleased to make these shirts available to our community at a low price, but due to LSU fundraising policy, **we don't actually see any income from these**. Shirts are available for only a limited window, so order your shirt today, and please don't forget to also donate!

Foster Hall Renovations

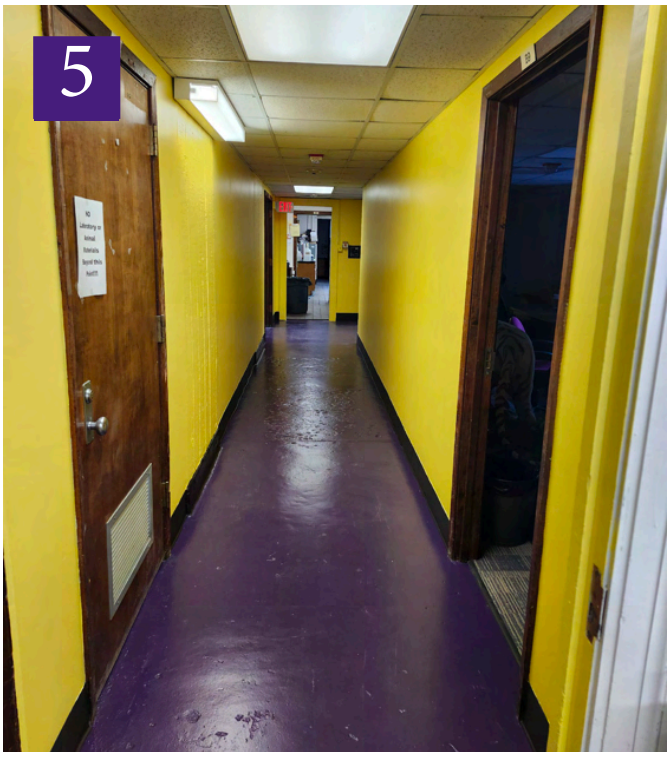
BASEMENT FLOOR RENOVATIONS

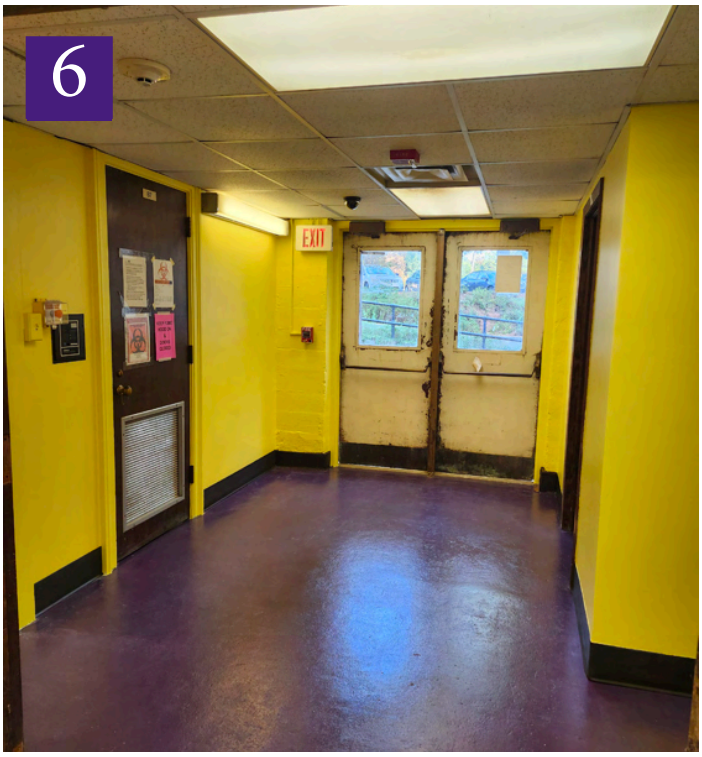
In October 2024, renovations to part of the molecular lab spaces and offices in the basement of Foster Hall were complete. These included the replacment of the old, crumbling green tiles with new "purpleicious" floors and carpeted offices. These spaces are used for research, teaching, and outreach and these upgrades will benefit them greatly.

Figs. 1-4: Collages featuring the before-and-after of the basement after replacing the old flooring.

BASEMENT LABS RESTYLING

In December 2024, the molecular lab underwent a fresh aesthetic update with the walls painted a vibrant gold to align with LSU-themed décor. This color choice not only complements the school's iconic purple and gold color scheme but also adds a dynamic and energetic atmosphere to the lab. The gold walls reflect both a sense of pride for LSU and a bright, inspiring environment for researchers and students working within the space. The update was part of a larger effort to create a cohesive and motivating atmosphere that ties the lab's function with the spirit of the university.





Figs. 5-7: The molecular lab refurbishing project finished.

NEW OFFICE DOOR

The LSU Museum of Natural Science main office recently received a new door, enhancing both the functionality and appearance of the space. This update not only improves access and security but also contributes to the overall aesthetic of the museum, aligning with its professional and welcoming atmosphere. The new door is a small yet significant upgrade that enhances the office's efficiency while maintaining the museum's commitment to excellence.

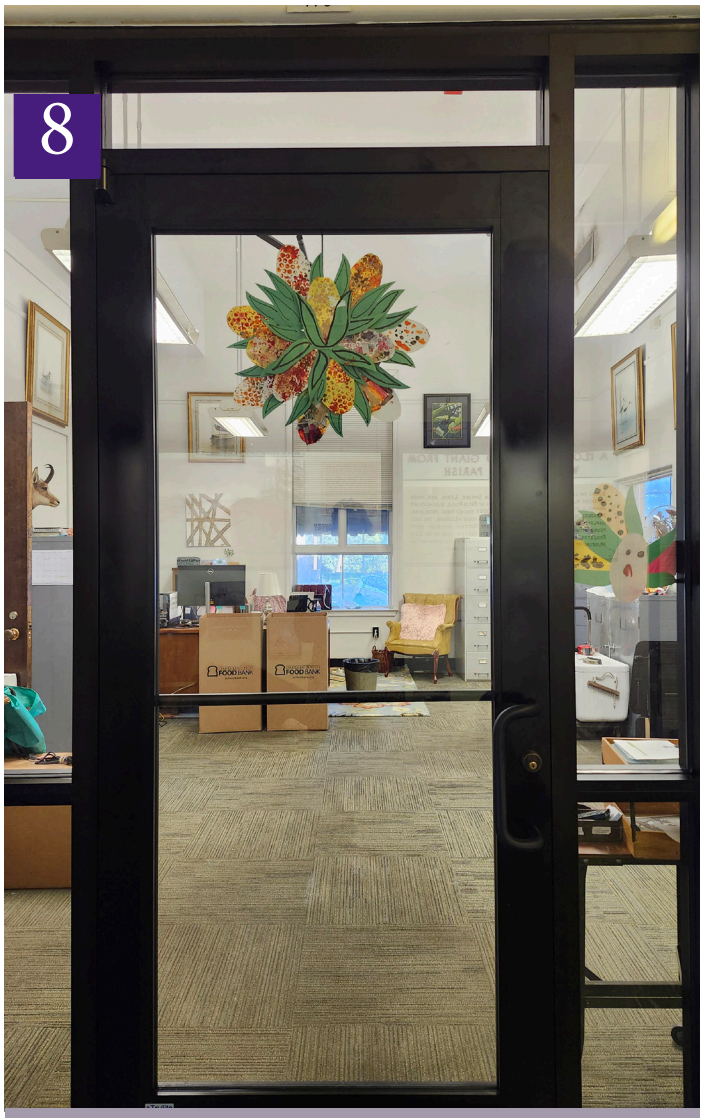


Fig. 8: Office 119 has now a new door.

FACADE MAKEOVER!

In December, Foster Hall's facade was powerwashed to remove dirt, grime, and weathered buildup, ensuring the building looks its best to our visitors, students, curators, and staff members!

Figs. 9-10: The LSUMNS west facade being powerwashed.

2024-2025 LSUMNS PUBLICATIONS

Herpetology

Aniruddha Datta-Roy, A., Brandley, M.C., Chaitanya, K.R., **Austin, C.C.**, Bauer, A.M., Harris, D.J., Carranza, S. & Kanishka, D.B. (2024). The contemporary distribution of scincine lizards does not reflect their biogeographic origin. *Journal of Biogeography*. https://doi.org/10.1111/jbi.15061

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Travers, S.L., **Hutter, C.R., Austin, C.C.,** Donnellan, S.C, Buehler, M.D., Ellison, C.E., & **Ruane, S.** (2024). VenomCap: An exon-capture probe set for the targeted sequencing of snake venom genes. *Molecular Ecology Resources*. DOI: 10.1111/1755-0998.14020

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Bishop, J. M., Nithyanandan, M., **Turner, A. J.,** Morgan, L., & **Chakrabarty, P.** (2024). New records of seahorses (Teleostei: Syngnathidae: *Hippocampus*) from Kuwait in the Arabian (Persian) Gulf. *Zoology in the Middle East,* 1–9. https://doi.org/10.1080/09397140.2024.2333077

Chakrabarty, P., Sheehy, A.J., Clute, X., Cruz, S.B., & **Ballengée, B.** (2024). Ten years later: an update on the status of collections of endemic Gulf of Mexico fishes put at risk by the 2010 Oil Spill. *Biodiversity Data Journal 12*: e113399. https://doi.org/10.3897/BDJ.12.e113399

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Adams, A.L., Achmadi, S.S., Mursyid, A., **Handika, H.**, Rizaldi, M., Nurdin, T.J.P, **Esselstyn, J.A.**, Perkins, S.L., Rowe, K.M.C, & Rowe, K.C. (2025). Wildlife disease surveillance from village to peak: Trypanosome infections of mammals on Sulawesi revealed higher prevalence in intact montane forests. *Therya* 16:125–141.

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Occasional Papers

Sheldon, F. H., Irham, M., Kho, D.G.S., Meijaard, E., Shakya, S.B., Prawiradilaga, D.M., & van Balen, S. (2025) "History, Annotated Gazetteer, and Bibliography of Ornithology in Kalimantan, Indonesian Borneo," *Occasional Papers of the Museum of Natural Science, Louisiana State University*: Iss. 94 , Article 1. DOI: 10.31390/opmns.094 Available at: https://repository.lsu.edu/opmns/vol1/iss94/1

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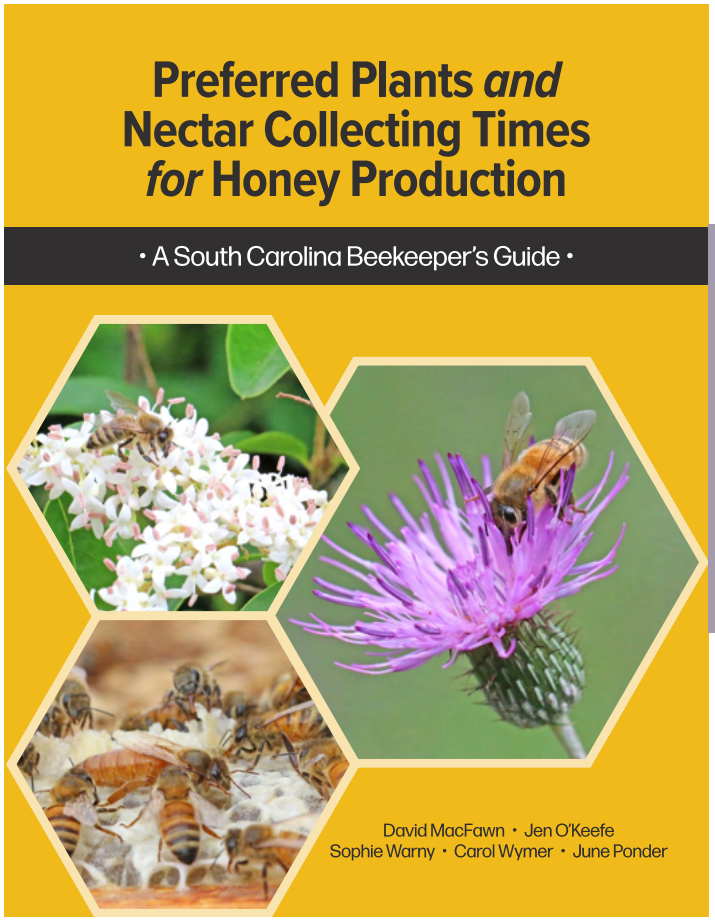
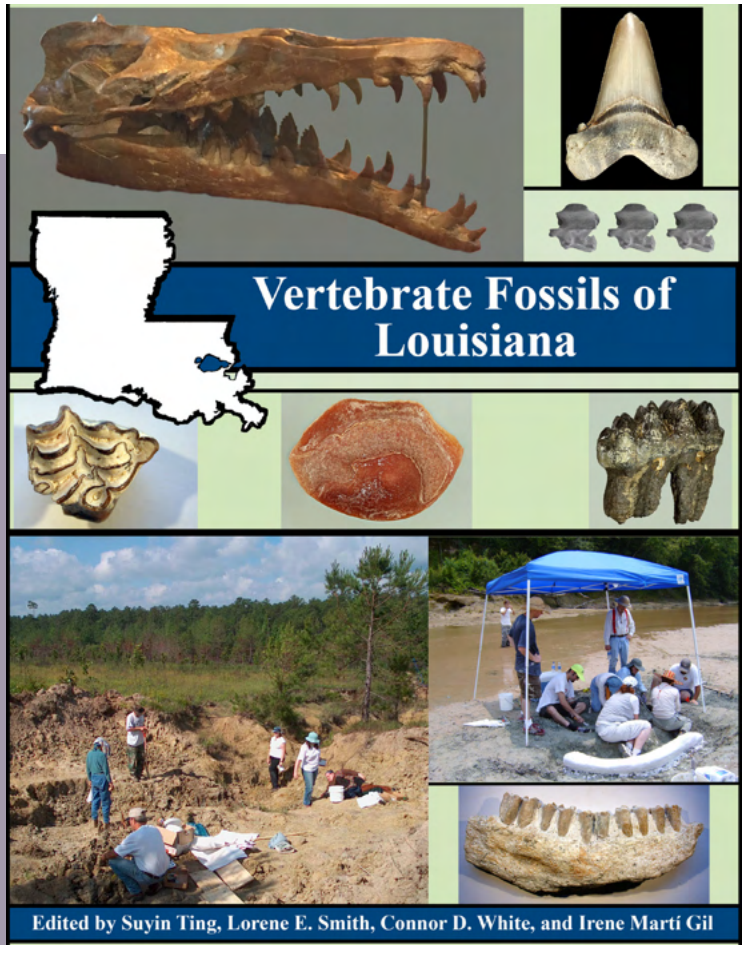
UPCOMING PUBLICATIONS



Sophie Warny is the co-author of this book. *Preferred Plants and Nectar Collecting Times for Honey Production* is a comprehensive and insightful guide for both novice and experienced beekeepers. The authors, with their combined expertise in beekeeping, botany, palynology, and environmental science, offer a detailed examination of plant species beneficial for honey production. It will be for sale this summer by Clemson University Press, with all proceeds going towards bee conservation efforts.



Suyin Ting, Lorene Smith, Connor White, and Irene Martí Gil are the co-editors of this publication. ***Vertebrate Fossils of Louisiana*** offers a comprehensive overview of the state's rich fossil record, shedding light on the ancient ecosystems that once thrived in the region. Through a series of expertly curated chapters, the book explores the diverse array of vertebrate fossils discovered across Louisiana, ranging from prehistoric marine reptiles and giant mammals to ancient fish and amphibians.

Contributions from leading paleontologists and researchers provide detailed analyses of fossil specimens, offering insights into their ecological significance and evolutionary context. The volume also highlights the importance of Louisiana's unique geological formations in preserving these remarkable remains. With an emphasis on recent discoveries and advances in fossil research, Vertebrate Fossils of Louisiana serves as an essential resource for scholars, students, and enthusiasts interested in the region's paleontological heritage.

OUTREACH UPDATES

TOUR FOR ARCHITECTURE STUDENTS

On September 26th, Dr. Nick Mason gave a lecture about bird nesting and bird-friendly and sustainable architectural design in Dr. Fabio Ribiero's class "Facades for Biodiverse Urban Ecosystems." The lecture was followed with a tour of the ornithology collections led by Dr. Mason himself, Dr. Diego Ocampo, and Quinn McCallum.

Quinn showing the students some specimens from the collection.

LSU KICKOFF

The LSU Museum of Natural Science collaborated with the LSU Office of Admissions to offer the LSUMNS as one of the landmarks featured in the campus-wide university tour called Kickoff LSU. Kickoff LSU is an open house event for all high school seniors and juniors, as well as their parents and guardians, and a great opportunity to explore our beautiful campus and state-of-the-art facilities, learn about our amazing range of academic choices, and meet world-renowned professors. The Museum opened its doors for the registered guests (a total of 3,000 participants) on October 5 and 14, and November 16 and 25.

Kickoff LSU flyer in front of Mike I exhibit at the LSU Museum of Natural Science.

BELIEVE IN GIRLS -GIRL SCOUT'S BIG EVENT

On October 12th, nearly 2,000 Girl Scouts from across southeast Louisiana (from all over our 23-parish region and beyond) participated in this event held at Nicholls State University. This was the perfect opportunity to inspire future scientist and natural world lovers!

A girl scout and her brother fascinated with the outreach collections brought to the B.I.G Event.

ARKAEOLOGYFEST

Oktoberfest? Nuh-uh! At the LSUMNS, we celebrate the Arkaeologyfest! October is Archaeology Month and the LSUMNS Anthropology Division prepared a temporary exhibit about Louisiana archaeology and cultures at the Museum foyer.

Temporary exhibit about Louisiana archaeology in the Museum's entry hall.

ARCHAEOLOGY DAY

On October 21st, the LSUMNS Anthropology Division attended the Alpha La-Lambda Alpha World Archaeology Day. We chated about archaeology, explored different cultures, and shared research opportunities with the students of the Department of Geography and Anthropology.

Alex Belanger discussing lithic technology with an undergraduate student in Archaeology.

THRIVE ACADEMY TOUR

On October 15th, 24 students of the Thrive Academy in Baton Rouge visited the Museum and toured the labs. David Boyd and George Lambert gave them a tour of the herpetology and ichthyology collections!

A group of students inspecting the reptile collection.

PALEOCOLOGY CLASS

On October 23th, a group of students from Dr. Juliet Brophy's "Australopithecine Paleoecology and Taphonomy" class attended Dr. Irene Martí Gil's lecture on Zooarchaeology and examined our extensive archaeological collection of animal bones in the Anthropology Lab.

Archaeology students analyzing morphological traits of different species.

HALLOWEEN ART AND NATURE FESTIVAL

On October 26th, we participated in the Halloween Art and Nature Festival, organized by the Atelier de la Nature. We spent a wonderful day in the Cajun prairie in Arnaudville (LA) teaching kids and adults about scary-looking species! We also distributed free copies of Dr. Chakrabarty's book "Se jeter à l 'eau avec les poissons de la Louisiane." Thank you Aurore and Dr. Brandon Ballengée for hosting!

LSUMNS ambassadors at the Atelier the la Nature.

Dan Sinopoli showing off the pancake fish, by which he and his wife Madison were inspired to build Dan's costume.

NIGHT AT THE MUSEUM: SPOOKY CRITTERS

On October 28th, the LSUMNS prepared a very spooky Night at the Museum to uncover the secrets of the most terrifying, spine-chilling, hair-raising animals of all: bats, snakes, ravens, owls, rats...Kids and parents learned about all sorts of frightening herps, fish, mammals, and birds! There was a spooky coloring station in the Bird Hall and a Halloween reading nook by the Louisiana in the Past exhibit. Pikachu, Leaf Pile, and Butterfly got the awards to the best Halloween costume and goody-bags with LSU College of Science merch (thank you for your support)!

ARCHAEOLOGY DAY AT THE LSU CAMPUS MOUNDS - FALL AND SPRING EDITIONS

On October 30th, 2024, February 11th and 12th, and April 23th 2025, we hosted this event in collaboration with the LA Division of Archaeology and the LSU Geography and Anthropology Department. We spent the day screening soil from the LSU Campus Mounds and learning about scientific archaeological methods from professional archaeologists. More archaeology events to come soon! Stay tuned!

Professional and amateur archaeologists participating in the event by the LSU Campus Mounds.

OCEAN COMMOTION

On November 1st, Dr. Prosanta Chakrabarty's and Dr. Sophie Warny's Labs represented the LSU Museum of Natural Science at the 2024 Ocean Commotion event. Hundreds of elementary and middle schoolers enjoyed a day of marine-related exhibits at LSU's Pete Maravich Assembly Center.

Undergrad Maddie Hamlin engaging with students at he Ocean Commotion event.

MASTER NATURALIST WORKSHOPS - FALL AND SPRING EDITIONS

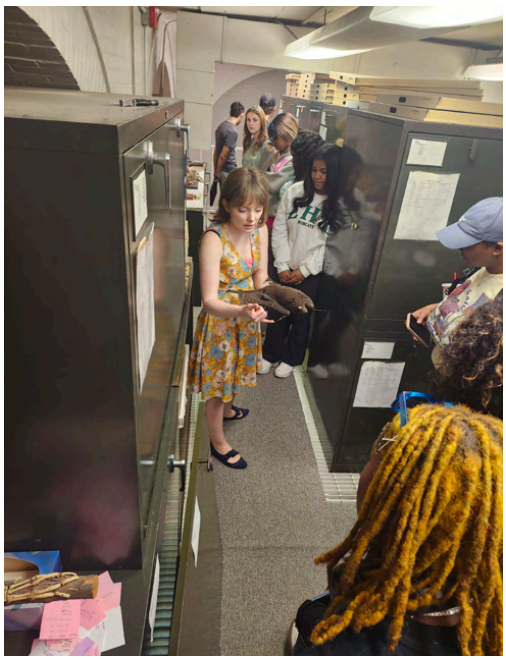
On November 2nd, 2024, and February 22nd, 2025, the Louisiana Master Naturalists of Greater Baton Rouge held their biannual workshops at the Museum. In this event, Master Naturalist candidates were able to learn from experts, connect with like-minded individuals, and earn their Master Naturalist certification. In our first Fall Semester Workshop, we had Dr. Andre Moncrieff, PhD candidates Dan Sinopoli and Alex Belanger, and PhD student Luca Micheli sharing their knowledge and experience about the natural and cultural worlds. In the Spring edition, Dr. Diego Ocampo, Dr. Toni Androski, and Dan Sinopoli collaborated giving tours of the bird, mammal, and fish collections, respectively.

Ms. Janie Braud, Master Naturalist organizer, showing candidates the exhibit of Mike I.

EDCi 1001

On Novemeber 11th, Sam Rutledge and Spenser Babb-Biernacki gave a lecture about their research projects for the EDCI 1001 "Introduction to College Study"class. After the talk, they led tours around the exhibit area and bird and mammal collections.

Sam and Spenser showing specimens from their collections of expertise.



MY FRENCH BOOK FESTIVAL

On November 14th, we particiapted in third My French Book Fest with Dr. Chakrabarty's "Se jeter à l 'eau avec les poissons de la Louisiane"! With the goal of discovering the world of children's literature in French, this was an event organized by the Consulate General of France in Louisiana, Villa Albertine, and Alliance Française of New Orleans and held at the West Baton Rouge Museum in Port Allen.

Children visiting the LSUMNS booth at My French Book Fest in Port Allen.

REACH Special Education Program

On November 19th, The LSUMNS Division of Anthropology was honored to share their passion for archaeology and Native American history with the REACH Special Education Program students at the St. Thomas More School, in Baton Rouge.

Alex Belanger giving a lesson on Archaeology at St. Tomas More School.

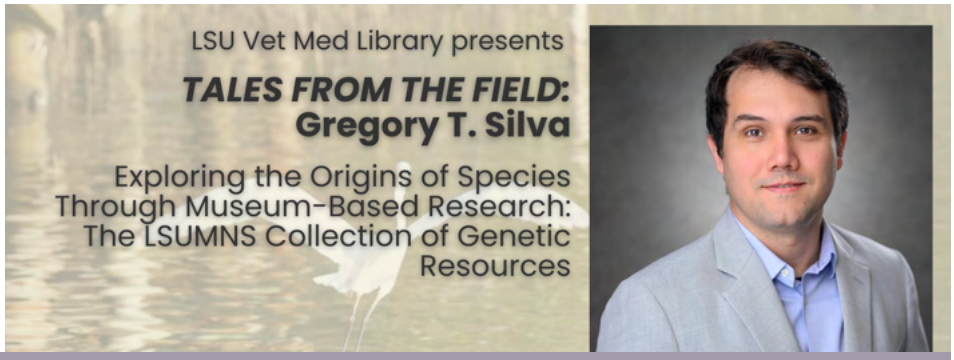
NIGHT AT THE MUSEUM: THANKSGIVING, A CULTURAL FEAST

On November 21st, we hosted our "Thanksgiving: A Cultural Feast" event. Our volunteers Hannah Johnson and Emily Fisher, both Grad Students at the LSU Geography and Anthropology Department, prepared a beautiful workshop on the history and the cultural traditions associated with Thanksgiving and explored how other cultures in the world celebrate harvest feasts. Then, we painted some corn cobs and made a wreath that we displayed in the Museum.

The craft after the talk consisted of finger-painting corns on the cob to create a wreath that decorated the LSUMNS door (see picture in page 43).

TALES FROM THE FIELD

On December 5th, our Genetic Resources Curator, Dr. Greg Thom, was the featured speaker at the LSU Vet Med Library "Tales from the Field." He highlighted the Museum's collections for being one of the world's oldest and largest collections of frozen tissues and tissue extracts of wild vertebrates.



Flyer for Dr. Thom's talk, designed by the VetMed Library

VETMET OPEN HOUSE

On February 1st, we participated in the VetMed Open House event! Over 5,000 attendees joined in the excitement! A huge thank you to LSU Vet Med for the invite – it was fantastic sharing our passion for science and the natural world with everyone. Big thanks to Ryan Klutts and Jerry Su for being the perfect Museum ambassadors!

Ryan Klutts showing some specimens to VetMed Open House participants.

The LSUMNS welcoming the first group of sixth graders.

SIXTH GRADE DAY

Sixth Grade Day is a program of the Capital Area Promise, launched as a collaborative effort among LSU, Southern University, Baton Rouge Community College and EBRP School System. The Capital Area Promise was established to create more pathways to college and careers, and jumpstart conversations with students and families around college readiness.

On February 11, March 6, and March 11, over 2,000 sixth graders from Baton Rouge and surrounding areas visited the Museum and conducted the Touring Tigers activities, which included short tours, scavenger hunts in the exhibit area, and an animal trivia. Big thanks to our volunteers: Dr. Prosanta Chakrabarty, Dr. Toni Androski, David Boyd, Caitlin Randall, Alex Belanger, and Ellie Bollich!

LSU CERAMICS TOUR

Ceramics Professor Mikey Walsh's students visited the Anthropology Lab to learn more about the use of pottery throughout human history. Since their first project was a coil built replica, the Anthropology division took out a selection of various forms from several cultures to discuss topics such as different manufacturing and baking techniques, designs, and the material properties of clay, and raise inspiration through the collections' prehistorical, historical, and ethnographic artifacts.

Ceramics students learning about pottery throughout time.

KIDS' DAY AT THE MUSEUM

On February 15th, we had an amazing time at the Kids' Day at the Museum! Students in grades 4-6 explored science like never before! Our LAGNiAppE students Ellie Bollich and Caitlin Randall led the Museum's hands-on activity: they built specimens and labelled them in true scientific fashion! Alex Belanger, PhD Candidate in Anthropology, offered a workshop on Native American pottery at our Archaeology station. PhD Candidate Dan Sinopoli (Chakrabarty Lab), and PhD students Quinn McCallum (Mason Lab) and Sara Velasquez (Brumfield Lab) gave behind-the-scenes tours of the birds, fishes, and herps collections. Participants also had the chance to chat with LSU's top scientists, like our Curators Dr. Nick Mason and Dr. Prosanta Chakrabarty!

Ellie Bollich with some of the participants at the Kids' Day at the Museum LSUMNS station.

BRFLAIM SCHOOL LECTURE

Our talented PhD student Zhiyuan "Jerry" Su (Brumfield Lab) gave an amazing presentation on DNA resources and ornithology to the Mandarin Immersion students at B.R.FLAIM school! His insights into genetics and bird studies sparked a lot of curiosity and excitement among the students.

Jerry with the Mandarin Immersion students at the BRFLAIM School.

ZOOMU COLLABORATION

On February 20th, the Audubon Zoo staff members visited the Museum as part of the ZooMu project. ZooMu is a groundbreaking initiative that links living collections in zoos with preserved biological collections in museums to enhance research in biological sciences. By fostering partnerships and sharing resources, ZooMu creates new opportunities for scientific discovery and conservation efforts.

On April 1st, the LSUMNS reciprocated the visit and spent a fantastic day at the Audubon Zoo, continuing to build connections and explore collaborative opportunities.

We're thrilled to have been included in this amazing community, helping to strengthen the bond between nature, education, and research, and celebrating the power of collaboration between zoos and natural history museums. Stay tuned for more exciting ZooMu collabs! For more information about ZooMu, visit their website: https://zoomunetwork.org.

Left: Audubon Zoo staff members visiting the bird collection. Right: LSUMNS members visit the Audubon Zoo.

SCHOLAR SATURDAY

On February 22nd, PhD Student Amanda Harvey (Mason Lab) represented the LSUMNS at the Scholar Saturdays event! Scholar Saturdays are monthly workshops where specialists talk to eighth-grade students about paths to college and potential careers and discuss research opportunities with undergrads. The students loved learning about museum specimens and ornithology in general during this Scholar Saturday! Thank you, Amanda, for sharing your knowledge and inspiring the next generation of scientists!

Amanda Harvey with Scholar Saturdays participants.

NIGHT AT THE MUSEUM: MARDI GRAS

On February 24th, we hosted a Mardi Gras-themed Night at the Museum. It was a delightful celebration of Louisiana's vibrant culture, offering a perfect blend of fun and education for children and families. Led by LSU Geography and Anthropology PhD student Hannah Johnson and LSU Lagniappe Post-Bac Ellie Bollich, the event brought the traditions of Mardi Gras to life through engaging storytelling and interactive learning. Kids eagerly crafted their own colorful masks, immersing themselves in the festive spirit while exploring the history of parades in New Orleans and the Courir du Mardi Gras in the Cajun country. The volunteers created a welcoming and exciting atmosphere, making the evening both memorable and enriching.

Our Special Saturday participants expressed their creativity by making beautiful Mardi Gras masks.

MARCH MAMMAL MADNESS

During the month of March, and thanks to Mammal Collections Manager Dr. Toni Androski, the LSUMNS promoted the March Mammal Madness (MMM)! The MMM is a fun tournament that pits different mammals against one another. The perfect mash-up of storytelling and science, each match accompanied by play-by-plays, summaries, and videos. It was not only fun, but it provided an opportunity to learn more about some of Earth's incredible mammals (and a few other creatures as well). Printed brackets were available at the entrance to LSUMNS' exhibit space.

The March Mammal Madness set-up in the Exhibit area.

Dave and George during the event.

ENVIRONMENTORS

On March 19th, David Boyd and PhD student George Lambert participted in the event EnvironMentors, in which LSU student mentors volunteer two or more hours each week to work individually with the high school students on a year-long scientific research project. One of the participating high school students did her project on local snakes and how to tell the difference between venomous and non-venomous species. She assessed audience knowledge before and after her presentation to gauge its effectiveness. The LSUMNS showcased some example specimens after the presentation but before the final assessment to help give it more of an impact. It was a hit thanks to George's and Dave's infectious enthusiasm for serpents!

LSU FOUNDATION TOUR

On March 25th, Dr. Chris Austin received the newly hired members of the LSU Foundation at the Museum. He gave a tour of the exhibit area and the behind-the-scences, which was followed up by an inspiring discussion on fundraising opportunities. We are very grateful to the LSU Foundation as it supports the LSUMNS by providing fundraising, financial management, and donor relations services.

Chris Austin giving a tour in the Herpetology collection.

AGADVENTURES

On March 28th, the LSUMNS took part in the AgAdventures event held in Plaquemine, LA, which is an educational program designed to introduce young students to the world of agriculture and natural sciences. Organized by the Iberville Parish 4-H and Agricultural Education/FFA Programs, the event provided an interactive and engaging experience for approximately 900 students from grades 1 through 4 in the Iberville Parish School District. Throughout the event, students had the opportunity to explore various aspects of agriculture, including farming, livestock care, and environmental conservation, while also learning about Louisiana's rich biodiversity. The LSUMNS contributed to this initiative by showcasing specimens and engaging young learners in hands-on activities that emphasized the importance of wildlife and natural history in the state. By participating in AgAdventures, the LSUMNS helped foster curiosity and appreciation for the natural world, inspiring the next generation to take an interest in science, conservation, and agriculture.

Three local eight-graders volunteered to help with outreach! They did a great job!

BREC'S BIOBLITZ

BREC's Bioblitz defied the bad weather on April 29th and participated in the 2025 BREC's Bioblitz at the Bayou Manchac Park! Organized by BREC's Conservation Department, the event brought together scientists, naturalists, and volunteers to explore and record biodiversity. The results were astounding 624 observations of 268 species! The data collected aids BREC in developing natural resource management plans and fosters public appreciation for local ecosystems.

The covered area where the science fair took place due to the bad weather.

2024-2025 SPECIAL SATURDAYS

Our most popular educational program is back! Special Saturdays is a free, STEM program that introduces children ages 5-10 to the amazing world of natural science. One Saturday a month we focus on a specific topic and invite presenters from within the LSU community to give 20-minute talks on their specialty. These talks are accompanied by fun hands-on activities.

This year, our program is themed around our collections. The objective is to approach our core disciplines (mammalogy, ornithology, ichthyology, herpetology, paleontology, archaeology/anthropology, genetic resources, palynology, and science education) and the research conducted at the Museum. You can see our schedule on our website, at https://www.lsu.edu/mns/education/special-saturdays.php, where you can also register.

Special Saturday Program 2024-2025:

Discover our Collections

FALL 2024

Ichthyology (fishes)
September 14, 2024
Special Guest: Sheila Rodriguez- Machado

Palynology (pollen)
October 19, 2024
Special Guests: Danielle Noto and Sarah Bancroft

Genetic resources (DNA)
November 16, 2024
Special Guest: Andre Moncrieff, PhD

Herpetology (herps)
December 7, 2024
Special Guest: George Lambert

SPRING 2025

Ornithology (birds)
January 25, 2025
Special Guest: David Vander Pluym

Paleontology (fossils)
February 8, 2025
Special Guest: Gavin Blanchard

Archaeology (human culture)
March 22, 2025
Special Guest: Alex Belanger

Mammalogy (mammals)
April 26th, 2025
Special Guest: Austin Chipps

Science education
May 17, 2025
Special Guest: Irene Martí Gil, PhD

2024-2025 SPECIAL SATURDAYS RECAP

ICHTHYOLOGY SPECIAL SATURDAY-SEPTEMBER 14

Sheila Rodríguez Machado gave us a chance to explore the fascinating science of ichthyology! From learning about the incredible diversity of fish species to discovering their unique adaptations, young minds were captivated by the wonders of aquatic life. Thank you to Sheila and everyone who joined us for a fun-filled day of hands-on learning and fishy fun!

PALYNOLOGY SPECIAL SATURDAY-OCTOBER 19

We had a BLAST learning about palynology today in our Special Saturday! After a very insightful lesson on geology and palynology, we got to look some pollinators (sunbirds, hummingbirds, and bats) under the microscope! We also built palynospooky bats! Big thank you to Sarah Bancroft for her time and knowledge.

GENETIC RESOURCES SPECIAL SATURDAY-NOVEMBER 16

We had Dr. Andre Moncrieff teaching us what DNA is and how we use it here at the Museum! We learned about genetics, the interrelation between genes and the environment, and we saw how MC1R gene differences make birds of the same species look very different! We followed with a fun craft: a DNA bracelet with our traits represented by different color beads!

HERPETOLOGY RESOURCES SPECIAL SATURDAY-DECEMBER 7

We had so much fun learning about herps! George Lambert told us everything we need to know about the venomous snakes of Louisiana, and we got to see (and feel!) some of them. After gathering inspiration by looking at real specimens, we crafted our own!

ORNITHOLOGY SPECIAL SATURDAY-JANUARY 25TH

We had a fantastic time at the Special Saturday event on Ornithology! PhD Candidate David Vander Pluym gave a fascinating presentation on the amazing world of birds. We learned about their incredible diversity, unique adaptations, and the important role they play in our ecosystems. David also shared his passion for ornithology and inspired the next generation of bird enthusiasts.

Following the presentation, we got creative! Participants of all ages enjoyed building and decorating their very own bird feeders.

PALEONTOLOGY SPECIAL SATURDAY-FEBRUARY 8TH

We had an amazing time diving into the world of Paleontology! Gavin Blanchard shared his expert knowledge, taking us on a journey through time and showing us incredible casts of fossils! Then, we rolled up our sleeves for a hands-on STEM activity where we created our own dough to make molds of animals! We definitely got our hands dirty, and it was SO much fun!

ARCHAEOLOGY-MARCH 22TH

We had a wonderful time at our Archaeology-Themed Special Saturday! Participants explored Louisiana's rich prehistory and history, examined fascinating archaeological materials, and got hands-on experience by creating pots using the coiling technique, just like Indigenous communities once did.

MAMMALOGY-APRIL 26TH

PhD candidate Austin Chips gave an engaging talk about the amazing world of mammals. Guests of all ages explored the diversity of mammals, learned about local Louisiana species, and discovered how mammalogists study these incredible animals in the wild and the lab. With wonderful help from Dr. Toni Androski, our Mammalogy Collections Manager, we shared special specimens from our museum collections and everyone got creative with a fun craft — making their very own paper possums! It was a great way to bring science and art together for kids (and adults!) of all ages.It was an incredible day filled with fascinating conversations, hands-on activities, and up-close encounters with some amazing mammal specimens.

SPRING 2025 MUSEUM SEMINAR SERIES

Our PhD student Luca Micheli (Thom Lab) is our Spring Semester Museum Seminar Series coordinator. The Museum Seminar Series is a weekly research talk at the LSU Museum of Natural Science given by invited speakers and LSU personnel that revolves around topics of natural history, ecology, or evolutionary biology. Seminars are open to the public and take place on Fridays at 3:30pm in the museum exhibits area, unless otherwise noted.

Date	Details
January 17	**No seminar** - First week of classes
January 24	**Dr. Chris Austin,** LSU Museum of Natural Science Papua New Guinea Expedition #16 to Mount Obree 2024: Botany, Entomology, Mammalogy, Ornithology, and a bit of Herpetology
January 31	**Dr. Ashish Ja,** LSU Museum of Natural Science Sojourns across the Deccan Inselbergs to museum cabinets
February 7	**Dr. Hector Douglas,** Grambling State University Mixed Signals: chemistry and color in a complex marine environment
February 14	**Dr. Phil Stouffer,** LSU - Department of Renewable Natural Resources The pervasive impacts of climate change on Amazonian rainforest birds
February 21	**Dr. Scott Egan**, Rice University Exploring biodiversity and its origins in a local multitrophic system
February 28	**No seminar** - Mardi Gras
March 7	**Dr. Cristopher Beachy,** Southeastern Louisiana University Life cycle evolution in the Amphibia: More than just tadpoles
March 14	**David Vander Pluym/ Darwin Morales Martínez**, LSU Museum of Natural Science Travelogue: Peruvian Pelagic/Sampling high-Andean small mammals in Colombia. Rediscovering highly endemic forms.
March 21	**Dr. Laura Frost,** University of South Alabama Understanding the relative contributions of fragmentation and hybridization on Pleistocene diversification in North American pondweeds
March 28	**Dr. Lázaro Guevara,** Universidad Nacional Autónoma de México Following in the footsteps of Nelson and Goldman: 130 years after their expeditions to the highest volcanoes in Mexico
April 4	**No seminar** - Spring Break
April 11	**Dr. Kristin Brzeski,** Michigan Technological University Gulf Coast Canids: Uncovering history, species resilience, and pioneering conservation efforts
April 18	**No seminar** - Good Friday
April 25	**Dr. Kaiya Provost,** Adelphi University TBD
May 2	**Dr. Santiago Claramunt,** University of New Orleans Macroevolutionary perspectives on the macroecology of birds

MEDIA APPEARANCES

PROMOTING THE LSU MUSEUM OF NATURAL SCIENCE WORLDWIDE

Heart of Louisiana

The LSU Museum of Natural Science and specifically the Bird Collection made a stellar appearance on WVUe Fox 8's Heart of Louisiana. Dave McNamara, the journalist behind this article, showcased the museum's role as a key resource for studying wildlife and biodiversity in a clear and engaging narrative, highlighting both the museum's rich history and its vital research, particularly on Louisiana's bird species. He interviewed our Curator of Birds, Dr. Nick Mason, who did an excellent job capturing the significance of LSU's collection and skillfully balanced scientific insight with accessible storytelling. To read the full article and watch the interview, click this link: https://heartoflouisiana.com/lsu-museum-of-natural-science/

Fig. 1: Nick Mason for Heart of Louisiana. Credits: Photo by Dave McNamara, extracted from the article.

Fig. 3: Jake Esselstyn for Tiger Tv.

InRegister

Dr. Nick Mason sat down with journalist Breanna Pizzolato for InRegister for an insightful interview about the LSU Museum of Natural Science. In the conversation, he shared his passion for preserving the natural world, the museum's incredible collections, and the fascinating work done at the LSUMNS to understand and protect wildlife.

Read the article here: https://www.inregister.com/featured/for-the-birds-lsu-museum-of-natural-science

Fig. 2: Nick Mason for InRegiter. Credits: Photo by Sean Gasser, extracted from the article

Tiger TV

Dr. Jake Esselstyn, Mammalogy Curator at the LSU Museum of Natural Science, was recently interviewed by Tiger TV. In this interview, Dr. Esselstyn discussed the museum's important role in wildlife research, conservation, and preservation. Watch the full story here: https://youtu.be/LeBFbXwcOYO?si=lPc1WXzDb3Hlis39

MIKE THE TIGER SPOTLIGHT

The Advocate

Robin Miller plunged into the legacy of LSU's iconic tiger mascots in the article LSU's Mike VII roams his habitat, but where are the Mikes who reigned before him? She gave a special spotlight to Mike I, who proudly presides over the LSU Museum of Natural Science exhibit area. Mike the Tiger has become one of the museum's most beloved attractions, captivating visitors of all ages. Read the article here: https://www.theadvocate.com/curious_louisiana/mike-the-tiger-lsu/article_dbb0f854-84d8-11ef-bc68-0be4dba4f462.html

LSU CAMPUS MOUNDS

WBRZ, The Advocate, and WAFB

Dr. Sibel Bargu Ates, Chair of the LSU Campus Mounds Committee, and Dr. Irene Martí Gil, LSU Campus Mounds Committee member and LSUMNS Anthropology Collections Manager gave three back-to-back interviews to several media outlets about the grant recently obtained to re-sacralize the mounds area. You can read The Advocate's article here: https://www.theadvocate.com/baton_rouge/news/lsu-mounds-preservation-takes-off/article_ad24b462-d519-11ef-8892-0f99826b6f8d.html

Fig. 4: Dennis Mitchell, Sibel Bargu Ates, and Irene Martí Gil. Credits: Photo by Javier Gallegos, extracted from the article.

NAGPRA REPATRIATIONS

The Advocate

Haley Miller covered one of the many repatriation intent notices that the LSUMNS Anthropology Division published in 2024. Contrary to what the article states, the Museum did speak to the reporter and released the following statement:

"The LSU Museum of Natural Science Division of Anthropology is committed to complying with the Native American Graves Protection and Repatriation Act and the revised regulations made effective in 2024. Our goal is to make the Native American collection available for repatriation in a timely, transparent, and respectful manner while prioritizing consultation, collaboration, and engagement of affiliated communities. Any details regarding the process of repatriation will remain confidential between the parties in deference to the affiliated communities and the relationship of mutual trust and respect we seek to build and cherish."

Link:https://www.theadvocate.com/baton_rouge/news/lsu-museum-will-return-native-american-human-remains-andobjects/article_8a1792d2-a83c-11ef-bdd1-c70cda8937f6.html

EXPERT'S OPINION

WRITTEN PRESS: CNN and THE NEW YORK TIMES

Dr. Prosanta Chakrabarty gave press interviews in 2024 for the CNN's article "Swallowed eels escape via predator fish's gills" (https://www.cnn.com/2024/09/13/science/japanese-eel-escape-fish-stomach/index.html, September 13, 2024) and the New York Times' article "A Mouse That Swims and Dozens More Species Are Discovered in a Peruvian Jungle" (nytimes.com/2024/12/20/science/peru-alto-mayo-species-discovered.html, Dec. 20, 2024).

RADIO APPEARANCES: NATIONAL CENTER FOR SCIENCE EDUCATION

Dr. Prosanta Chakrabarty gave a potcast about Evolution, called "Random Samples," for the National Center for Science Education, of which he is a Board member. You can access the interview here: ttps://www.youtube.com/watch?v=GldDGYScrno. In addition, he gave another interview for CBC Radio's 'Quirks and Quarks' with Bob McDonald, in which he discussed his experience surveying deep dea fish in the Gulf after the Deepwater Horizon oil spill, the largest in history. You can listen to the interview here: https://www.cbc.ca/listen/live-radio/1-51-quirks-and-quarks/clip/16059318-the-gulf-oil-spill-may-ecological-impacts-havent.

Listen to more episodes of
Quirks and Quarks >

On Demand

Quirks and Quarks with Bob McDonald

The Gulf oil spill may have had ecological impacts we haven't seen yet 9 mins

April 26, 2024

Fourteen years ago an explosion destroyed the Deepwater Horizon oil rig and kicked off the largest oil spill in history. While commercial fisheries have largely recovered from the disaster, there are signs that rarer and more vulnerable species might have been devastated. Prosanta Chakrabarty from Louisiana State University surveyed deep sea fish catalogued in museum collections around the world and found that out of 78 endemic species found only in the Gulf, 29 of them haven't been spotted in the years since the spill. The research was published in the Biodiversity Data Journal.

OpEd: SCIENCE EDUCATION

The Advocate

Dr. Prosanta Chakrabarty published an OpEd with The Advocate in November 26th titled "Putting religion in schools harms science education." You can access it here: https://www.theadvocate.com/baton_rouge/opinion/letters-ten-commandments-louisiana/article_ecbd2014-49ab-558b-ab6e-99d1764e3793.html?fbclid=IwY2xjawG63k5leHRuA2FlbQIxMAABHRkMW_kU1hDfYvYWULAqBH28Snj7r95vJqzqJLT9wlqAAGf4fAeignoS9g_aem_ankJrGqTZsfUZg6BJRjhww

SOCIAL EVENTS

TAILGATING

On September 28, Museum members and associates, family, and friends (and furry babies) showed up to the first LSUMNS tailgate EVER! We also got to celebrate our PhD candidate Dan Sinopoli's (Chakrabarty Lab) 27th birthday!

MUSEUM RETREAT

We spent the weekend of November 8-10 in Grand Island for our annual fishing retreat. Although the weather was not in our favor, we got to fish, bird from the porch and surrounding areas, kayak, and cook delicious food for the group. Thank you to Dr. Mark Hafner por putting together this event one more year!

Top, left: Overboard camp where we all stayed.
Bottom, left: Quinn McCallum fishing from the pier.
Right: Dr. Robb Brumfield and Luca Michelli caught a baby shark!

NATURALLY TALENTED

The Naturally Talented program is an initiative designed to celebrate the intersection of science, art, and the humanities. It provides a platform for individuals to express their creativity while fostering a deeper appreciation for the natural world. Through this program, artists, writers, and creators have the opportunity to showcase their talents in various forms, including visual arts, poetry, and other artistic expressions inspired by nature and scientific discovery. Key components of the Naturally Talented program include the Poet's Corner, a dedicated space for poetry and creative writing that reflects the beauty and complexity of the natural world; the Naturally Talented Award, an upcoming recognition that will celebrate outstanding contributions to the integration of science and the arts; artistic outreach, in which selected artworks are featured in our biannual newsletter, on our website, across social media platforms, and even in physical displays in our entry hall, providing broad exposure for participating artists.

The Naturally Talented program is a celebration of creativity and curiosity, encouraging people to explore the natural world through artistic expression. Whether you're a seasoned artist or just beginning your creative journey, we invite you to join us in highlighting the beauty of science through art. If you want to participate in the nest issue's Naturally Talented series, please submit your artwork or a picture of it to Irene at imart23@lsu.edu.

All artistic disciplines (literary and visual arts, including, but not restricted to, ceramics, conceptual art, digital art, drawing, painting, photography, and sculpture) are welcome.

POETRY

2025	2050
Teaching evolution	**Evolution evolves**
Famous Scopes Trial	CRISPR everywhere
100 years in the past	My children, my food, my cat
Have we evolved yet?	"All natural," all!

Jennifer Sills asked young scientists to write a pair of haiku: the first one had to describe academia in 2025, and the second, describe the author's predictions for 2050.
These are the haikus written by Dr. Prosanta Chakrabarty and published in *Science* 387(6729). DOI: 10.1126/science.adv2383

DRAWING

Pen and ink drawing of a Bali myna (*Leucopsar rothschildi*), by Sam Rutledge. She sketched this during the 2nd year of her PhD, putting the finishing touches on it during the annual museum retreat in Grand Isle in 2022. Sam is currently working on a project to draw all the species within the avian family *Sturnidae*.

SUPPORT THE MUSEUM

The LSU Museum of Natural Science is a premier institution dedicated to advancing scientific knowledge of our planet's biodiversity and fostering a deeper understanding of our natural world. Guided by values of excellence, collaboration, innovation, and sustainability, the LSUMNS has become a global leader in natural history research and education. Over the past year, our curators and students have conducted research in Brazil, Colombia, Costa Rica, Equatorial Guinea, Galapagos, Indonesia, Mexico, Peru, Thailand, and the USA. While some of these field expeditions were supported by Federal grants, important gifts from Museum supporters like you helped develop critical scientific research and conservation efforts around the world and achieve success in these essential field expeditions. In addition, our world-class collections, including the third-largest university-based bird collection and the world's largest collection of genetic resources, are not only used for ground-breaking research but public education and community engagement. The LSUMNS serves our immediate and distant communities through free exhibits and valuable educational resources and programs available to everyone.

We believe in the power of education and exploration, and we hope you will join us in this important endeavor. Your donations will help us with the following priorities:

1. ACADEMIC EXCELLENCE: The Museum of Natural Science is more than just a collection of fascinating specimens; it is a vital center for academic excellence and groundbreaking research. We have some of the best national and international students who need financial support to fund international expeditions and laboratory work on biodiversity. Funding and training the next generation of scientists is something of great need, and your support will help in this essential endeavor.

2. CUTTING-EDGE RESEARCH: In today's rapidly evolving world, access to cutting-edge technology is crucial for scientific advancement. The LSUMNS strives to remain at the forefront of discovery, and this requires continuous investment in state-of-the-art equipment. To keep providing critical insights into the history of our planet and inform conservation efforts that protect our environment for future generations, your support will be invested in technology allowing world-class research in fields such as anthropology, herpetology, ichthyology, mammalogy, ornithology, and palynology.

3. MUSEUM RENOVATION: Foster Hall, the home of the Museum since 1955, just turned 100 years old. We are currently working on major improvements to our collection and research to ensure its long-term sustainability and continued success. Your support will directly fund critical infrastructure upgrades, warranting that the Museum of Natural Science can continue to serve as a vital hub for scientific discovery, education, and community engagement for years to come.

LSU | Museum of Natural Science

DONATE TO THE LSUMNS

Contribution Information:

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Give to Museum of Natural Science through giveLSU.org

If you would like to include items in the next issue of Museum Newsletter, 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 imart23@lsu.edu

Editing by Irene Marti Gil (imart23@lsu.edu)