

QUARTERLY NEWSLETTER

LSU

Museum of
Natural Science



February 2019
Volume 37 Issue 1

White-necked Jacobin (*Florisuga mellivora*) | San Martín, Peru
Photo by LSUMNS graduate student Anna Hiller

Museum of Natural Science Director and Curators

Robb T. Brumfield

Director, Roy Paul Daniels Professor and Curator of Genetic Resources

Frederick H. Sheldon

George H. Lowery, Jr., Professor and Curator of Genetic Resources

Christopher C. Austin

Curator of Amphibians & Reptiles

Prosanta Chakrabarty

Curator of Fishes

Jacob A. Esselstyn

Curator of Mammals

Rebecca Saunders

Curator of Anthropology

Sophie Warny

AASP Associate Professor
Curator of Palynology & Director of Education

Letter from the Director...



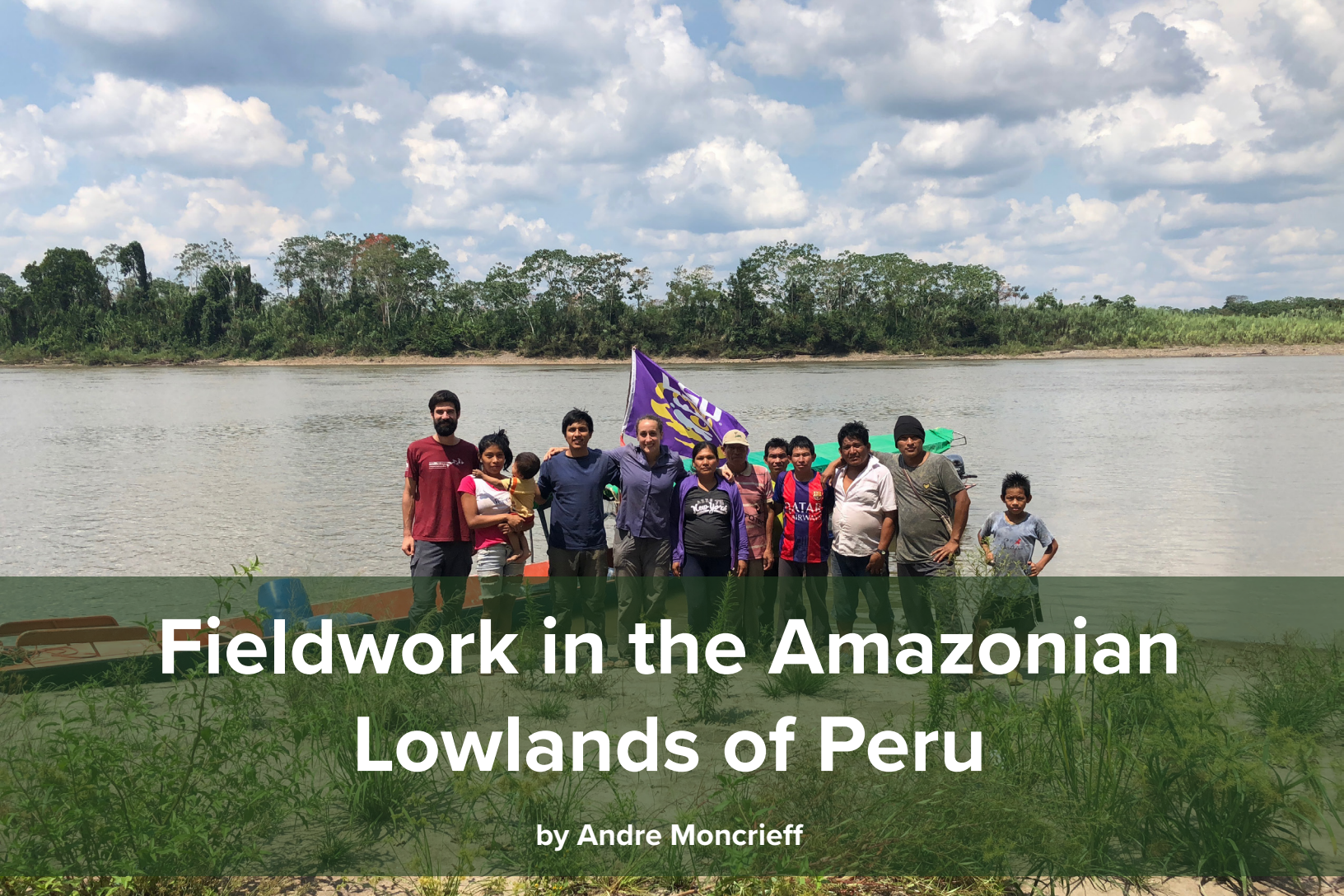
I find it interesting how the lens of time has a way of oversimplifying historical events. Such is the case of the nutria (*Myocastor coypus*). I was taught and had always taken as gospel that Ned McIlhenny (1872-1949) was the sole person responsible for introducing nutria to Louisiana, when he intentionally released a hoard of them from his captive breeding pens on Avery Island. In those days the fur trade was booming and lucrative, and so introducing nutria was deemed a good idea by many in Louisiana. However, as detailed in Theodore Manno's book "Swamp Rat", it turns out there were multiple contemporaneous nutria farms in Louisiana, some of which were a much more likely source of the introduction that led to their successful establishment in Louisiana.

I mention Ned McIlhenny because one of his nephews, John Stauffer McIlhenny (1909-1997), shared Ned's intense love of natural history. John's generous support was instrumental in building the Museum's ornithology program, especially its expeditions to South America, but another lasting contribution is an eponymous endowed professorship established at the Museum. Dr. Remsen's recent retirement opened up that professorship, and I am pleased to report that our Curator of Reptiles & Amphibians, Dr. Christopher Austin, was recently named the John S. McIlhenny Distinguished Professorship in Natural Science.

Dr. Austin is well known for his field program in New Guinea, where one of the new species he discovered is the world's tiniest known vertebrate, a microhylid frog (*Paedophryne amanuensis*). Dr. Austin has distinguished himself by raising over \$1.5 million dollars in research money to the Museum, by publishing over 70 papers, and by mentoring and training postdocs, graduate students and undergraduate students. Importantly, the Museum's Collection of Reptiles & Amphibians has grown prolifically under Dr. Austin's stewardship, and is about to move into renovated space in the basement of Foster Hall. I think Mr. McIlhenny would be pleased.



Photo by Christopher C. Austin



Fieldwork in the Amazonian Lowlands of Peru

by Andre Moncrieff

This past fall I had the opportunity to work in Peru for over three months—much of that time in the field studying the species-rich avifauna of the Amazonian lowlands. During this fieldwork, which took place from August 16 to October 2, I was joined by two other ornithologists: fellow LSU grad student **Anna Hiller** and Peruvian collaborator Cristhian Felix.

I was particularly excited about this trip, because the main goal was to resolve a mystery regarding the color variation in my study species, the Blue-crowned Manakin. Previous fieldwork by LSU students in 2011 had found that male **Blue-crowned Manakins** north of the city of Atalaya (Ucayali Department) had black plumage, whereas males from about 110 miles to the south had a dark green plumage. Now, it's not an unusual thing for a species to have different races or subspecies that inhabit different habitats or are isolated geographically from one another. The strange thing about the manakins is that there is continuous lowland forest between the very different looking forms with no apparent barriers to gene flow. Thus, we were determined to figure out

what the transition between forms looked like to begin the process of explaining it.

The launching point for the expedition was Atalaya, which lies at the confluence of the Urubamba and Tambo rivers, which join here to form the Ucayali River. For the entire duration of the expedition, we contracted Atalaya resident Edgar Moncín as our motorista (boat driver), and we rented his 30-foot longboat for transport. Once we left Atalaya all of our travel was by river, since there are essentially no roads where we were working. To give you an idea of the remoteness of the area, at one point (at our camp near Camisea) we were a full 18 hours by motor boat from the nearest road system. Conveniently, the Urubamba River runs nearly north to south, and so setting up camps along this river at regular intervals allowed us to sample the transition between the different manakin color morphs.

Habitat requirements are always important to keep in mind when searching for birds. For the manakins, that requirement was *terra firme* forest,



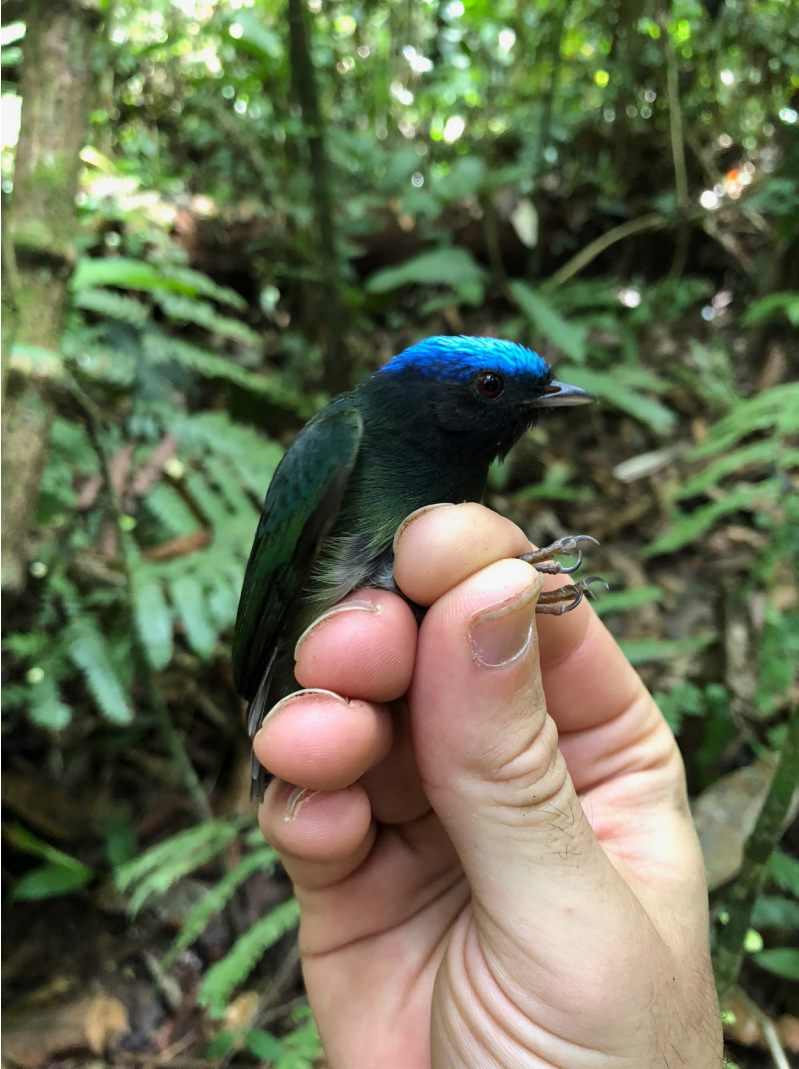
Above: Anna Hiller next to the hammocks at our bamboo satellite camp.

Title Photo: Our field team along the Río Tambo on September 29, 2018. Left to right: Andre Moncrieff (LSUMNS), Mayeli (daughter-in-law of Elizabeth and Edgar) and her baby, Cristhian Felix (CORBIDI), Anna Hiller (LSUMNS), Elizabeth Moncín (cook), Elías Pérez Díaz (Asháninka guide from Atalaya), Marcos “Gato” Ríos (Cushireni guide), Bernaldo Cañay (Mayapo guide), Edgar Moncín (motorista), Walter Flores (Mayapo guide), and Bernaldo’s son. Photo by Andre Moncrieff.

which is a kind of forest that does not flood at any time of the year. Since all of our access to this forest type was from a riverbank, we often had a substantial amount of trail-cutting and hiking to do in order to find the right forest, which typically occurs far from rivers. Thankfully, we had access to detailed topographic maps that allowed us to generally pick sites where higher elevation forest was near the river. In some cases along our transect, however, there was no appropriate *terra firme* forest for several miles from the river.

At one camp in particular we had a very diffi-

cult time finding the right forest type for the manakins. For two days we worked our way through the floodplain forest into the surrounding higher elevations, but we met only with bamboo. The bamboo stands in this region (genus *Guadua*) are incredibly difficult to cut a trail through due to the thickness of the vegetation and the large thorns. I was feeling pretty frustrated by mid-morning on the second day of searching, when all of a sudden, in a bush in the middle of an open cow pasture there was a male manakin! Anna and I saw the bird for about 5 seconds before it flew into the nearby bamboo and disappeared. With our guide leading the way, we spent



A netted male Blue-crowned Manakin with an intermediate plumage compared to the dark green (to the south) and black (to the north) populations. Photo by Andre Moncrieff.

the next few hours trying to cut through the bamboo until we could find open *terra firme* forest. We eventually had to turn back after a fruitless and exhausting search for appropriate habitat, but we did get some help from the owner of the pasture. He pointed out a trail that he said led through the bamboo for about 30 minutes and then opened up into “monte libre”, or open hilly forest. With this information in mind, we hiked back to camp and that evening hiked back to the bamboo trail (~1 hr 20 min by foot in the dark) and made a satellite camp. The next morning we hiked an additional 30-40 minutes from the satellite camp and, sure enough, the forest opened up and we immediately detected a male Blue-crowned Manakin. It was definitely worth the effort, since the males here were particularly variable in plumage compared to other localities. We ended up spending 6 nights total at the satellite bamboo camp (nights of September 3-8), but returned to the main camp daily to prepare speci-

mens. This was, without a doubt, the most exhausting part of the expedition. We were commuting about 4 hours daily between base camp and *terra firme* in addition to a full morning of collecting and cutting trails to find the manakins. Sleeping at the bamboo satellite camp was really awesome, however, because we could go to bed to the sounds of **Pavonine Cuckoo** and wake to the pre-dawn songs of **Peruvian Recurvebill**. Also, we could be in good *terra firme* forest within 40 minutes of waking.

Despite the demanding nature of this expedition, it was incredibly rewarding to see the picture emerge in the field for how the two different color morphs transitioned. We found that across seven localities on the transect, the transition was gradual with relatively little within-site color variation. Using the research specimens and genetic material that we collected on this expedition it will now be possible to begin studying things like what genes are involved in the color differences themselves.

Other highlights on the expedition included seeing a **Harpy Eagle** flying into a tree above me and collecting the first research specimen of the **Black-backed Tody-Tyrant** for the museum. The genetic material from this poorly known species will soon be incorporated into an ongoing research project on the evolutionary relationships of suboscine songbirds. Also, given the lack of previous ornithological work in the area we found range extensions for numerous species including **Black-faced Cotinga**, **Rufous Twistwing**, and **Flammulated Bamboo-Tyrant**.

A report like this wouldn't be complete without acknowledging the tremendous help we received from our numerous guides (seven), cooks (two), boat driver, and Machiguenga translator. Also, we could not have completed this fieldwork without the firm support of CORBIDI (our partner research organization in Peru) and the LSUMNS. Although my dissertation fieldwork is now successfully completed, I'll soon be itching to get in the field again to investigate the next of countless avian mysteries in the Neotropics.



Mammalogy Expedition to Mount Singgalang, West Sumatra, Indonesia

by Jon Nations

“The giant rat of Sumatra, a story for which the world is not yet prepared,” Sherlock Holmes said to Dr. Watson in the beginning of The Adventure of the Sussex Vampire. Sir Arthur Conan Doyle never had Holmes recount the tale and the giant rat of Sumatra became part of that fictional bestiary formed in the imagination based on suspicions and faulty facts.

*Life reflects art. There is a giant rat on Sumatra. It lives in tropical forests along the mountain backbone of that elongate island. So little was known about the animal it might as well have been an abstraction of the writer’s mind. All current data comes from six specimens, the first one found in 1913 and the last two in 1939. The rat is difficult to catch and its habits are unknown. We do know it has a large, chunky body (weighing 500 to 700 grams), a long brown tail, and shaggy brown and buffy fur. In 1942 the animal was described as *Rattus atchinus* (Miller, 1942). Rather than providing identity, that name plunged this large, handsome rat into the obscurity of being just another species in the genus *Rattus*, in which there were already more than 500 named forms. That rat was not heard of again until now.*

- G. G. Musser and C. Newcomb, *Malaysian Murids and the Giant Rat of Sumatra*, 1983

In perhaps one of the greatest passages in all mammalogical writing, Musser and Newcomb set the tone of mystique surrounding the fauna of the Indonesian island of Sumatra. This elongate island, with the backbone of the Barisan Mountains running from the northwest to southeast, has long been fascinating to biologists, both for its charismatic animals, such as tigers and orangutans, and for its diversity of smaller creatures. It was for the diversity that I headed to Mount Singgalang in West Sumatra for the second

LSU Mammalogy expedition of 2018.

Unlike our joint mammalogy-ornithology expedition to Mount Talamau in the spring of 2018, I headed off to Sumatra as the sole representative of LSU on this collecting expedition. However, I was never truly alone. Our excellent colleagues at the Indonesian national research institution LIPI in Bogor, West Java, helped me organize permits and supplies before heading off to the city of Padang, West Suma-



Top Left: Jon Nations preparing specimens with Andalas University student Ahmad Mursyid.
Bottom Left: Taking a break in the cloud forest of Singgalang on the way up to the 2900 meter summit.
Right: Jon Nations and Andalas student Ahmad Mursyid showing off one of the pitfall lines.
Title Photo: Mount Singgalang as seen from the village of Balingka

tra. Once in Padang, I was reunited with numerous friends and colleagues from Andalas University that I had met and worked with on our previous expedition. I received a warm welcome, and was in a restaurant talking, laughing, and enjoying Padang's famous food within an hour of my arrival.

On this expedition our target was the upper regions of Mount Singgalang, an inactive volcano that looms over Padang. Because of its proximity to Padang, students from Andalas have conducted lots of research in the area and have a good relationship with many of the nearby villages. Despite its accessibility, the upper reaches of Singgalang are quite wild, and filled with the calls of hornbills and siamang gibbons. This mountain is a popular hiking destination; however, the students knew of a more discrete trail

opposite from the hiking trail that receives virtually no outside visitors. With this knowledge, we packed up our 40 bags of gear (weighing 600 kilos/1300 lbs) and headed to the village of Balingka, before proceeding to our forest camp at 1850 meters above sea level.

In the village we met with our local guide, Pak Sati. Pak Sati is a legend in this region, and functions as the unofficial director and caretaker of the forest in this part Singgalang. His knowledge of the mountain and expertise as an outdoorsman are second to none: he can easily climb 20 feet into a tree to hang a tarp, run up the steep trails with the speed of an Olympian, and, magically, start a roaring fire in a rainstorm with freshly cut green trees. All of this at the age of 65.



The giant rat of Sumatra, *Sundamys infraluteus*

My advisor, mammal curator **Jake Esselstyn**, had previously visited Singgalang in 2012, but was unable to survey regions above 1800 meters in elevation. Therefore, our goal was to collect on the highest points on the mountain. We set 2 traplines on parallel ridges that extended from our camp in the upper reaches of lowland forest all the way up to the mossy montane forest at 2400 meters. This allowed us to catch low elevation species, such as the long-tailed giant rat *Leopoldamys sabanus*, the short-tailed gymnure *Hylomys suillus*, and high elevation species like the Sumatran montane endemic *Maxomys hylomyoides*. We were lucky enough to catch a rare albino *M. hylomyoides* as well. We also caught a *Mustela lutreolina*, the Indonesian mountain weasel, one of the least-known carnivores in the world. And of course, at just the elevation predicted by Musser and Newcomb 1983, we caught 5 specimens of the giant rat of Sumatra, *Sundamys infraluteus*.

Endemic species of mammals are often found only on or around the summit of mountains. In an effort to document all the small mammals of Singgalang, 4 of us made the 6 hour push to the 2900 meter summit for one night of collecting. Our effort paid off, as we collected a small *Rattus* species that was also collected on the summit of Talamau, but nowhere else on either mountain. We also caught an interesting species of *Crocidura* shrew that was not recorded at lower elevation.

In total we collected 250 specimens of approximately 20 species of small mammals in a short 18 days of trapping. This includes members of 5 mammalian families: Muridae, Soricidae, Mustelidae, Pteropodidae, and Sciuridae. From these specimens we collected roughly 700 tissue samples and parts. These include liver samples, lung samples, stomachs, and caeca, which will all be used in ongoing research and available for future generations of scientists.

Despite being the lone LSU representative on the trip, I felt like I was with family throughout my entire trip. The students at Andalas University are all impressive young researchers that are very knowledgeable in logistics, fieldwork, and the natural history of Indonesian species. Their kindness, hard work, and assistance made for an excellent and productive expedition to this wild volcanic mountain in the cultural center of West Sumatra.



Staying warm by the fire at Telago Dewi, the crater lake near the summit of Mount Singgalang.



Ichthyology Expedition to Guatemala

by Diego Elias

During the spring of 2018, I lead and planned an ichthyological expedition to my home country, Guatemala, for approximately a month. As usual in any field expedition, all of the “fun” happens at the beginning. The first part of the trip consisted of finalizing our collecting and export permits (a long year long process, yes a year long, even if you are a national) and reinforcing connections with Guatemalan academic institutions and national conservation agencies that are key partners on our research. I also got to meet with students from Universidad de San Carlos of Guatemala who volunteered to help with the expedition in exchange of learning about Guatemalan fish diversity and specimen preservation for museum collections. Then finally, I got to spend sometime quality time with my family and friends.

Guatemala is located in Northern Central America and borders Mexico, Belize, El Salvador and Honduras. From a biological standpoint, according the Biological Diversity Convention, Guatemala is on a list of countries that harvest 60-70% of the world’s biodiversity and possess rich cultural traditions, an-

central knowledge tied to their biodiversity among others, known as mind-like megadiverse countries. In terms of fish biodiversity in Guatemala, 246 species are known from freshwater and estuary systems (rivers, lakes, lagoons and mangroves). The ichthyological biodiversity in Guatemala has been studied for over a century, with the first records of freshwater fishes made by Spaniard priests dating back to the 1700s (after the colonization of the “New World”). Expeditions from European and North American Naturalists in the late 18th and 19th centuries led to the first collections. Finally 20th century explorations from North American ichthyologists (e.g. Donn Rosen, Reeve Bailey, Robert Rush Miller) lead to a better understanding of the diversity of freshwater fishes of Guatemala, including the description of various endemic species (species that only occur in a particular region of the world) on the main tributaries of the Usumacinta River, the largest river basin in Central America.

You may be asking yourself, if there is this long history of collecting freshwater fishes in Guatemala



Left: Backpack electrofishing at Polochic River
Right: Castnetting at Rio Chixoy
Title Photo: Rio Dolores

projects. This socio-political scenario has made this region a hard place to work, since it is necessary have authorization from local communities to sample in their water systems. Gladly after three years of trying to find the right contact, I met Elias Barrera, a local conservationist that worked in the cloud forest of El Quiche in the highlands of Guatemala. With the help of Elias we were able to collect at a few sites in the highlands.

After collecting in the Highlands we headed towards the central uplands and intermontane region of Guatemala. The central uplands and intermontane area is a complex geological area with at least nine endemic species of freshwater fishes known from this region. We collected specimens and samples from six of these endemics, some of which are species that we did not have previously in the LSU ichthyology collection. After 15 days of sampling and driving around the country we moved towards the lowland region of Guatemala towards the San Pedro River



Processing samples at Rio Los Esclavos

that date back to the 18th century “What is the purpose of going to collect to Guatemala?” My answer is, despite this amazing collecting effort, there are still several unexplored waterbodies in Guatemala and some regions have not been sampled for more than 50 years. A good example of the importance of collecting in this region is that as I am writing this small article, I got an email that the first record in Guatemala of a species of catfish (*Lacantunia enigmatica*) has been published - a species that has been only known from Southern Mexico until today.

I planned this expedition with the goal of visiting as many aquatic systems and covering the largest geographic extension across the country to collect as many specimens and samples as possible. So after finalizing the permits, getting supplies, planning the schedule (with the students that were of invaluable help in this expedition), and renting the vehicle, we embarked on this month long field expedition.

In the first part of the trip, we focused our collecting efforts in Pacific versant; despite easy access from Guatemala City, we were only able to get a few tissue samples from the species of this region. So, we drove back to Guatemala City to drop the collected specimens from the Pacific versant and then headed to the highlands of Guatemala.

Collecting in the highlands of Guatemala have been on my bucket list for a long time. This region in Guatemala was the most affected by the civil war that lasted 36 years (1960 – 1996) and recently this region is the target of different hydroelectric and/or mining



in El Petén, one of the main tributaries of the Usumacinta river basin. This region was of particular interest for this field expedition since as part of my dissertation I am trying to better understand the community structure and the levels of genetic variation among co-distributed species of freshwater fishes across the Usumacinta and Grijalva river basins in Northern Middle America. Since there was not tissue samples of any species available from this region, these samples are so valuable not only for my dissertation work but for future studies.

After a couple of days, we drove towards Izabal in the Caribbean region of Guatemala. We sampled for a couple of days in Izabal lake and the tributaries of the Sarstun River basin. After a few days there, we finally started driving towards Guatemala City, with a final sampling stop in the Motagua River and some of its tributaries. After 31 days of mostly daily driving, collecting and preparing specimens and tissues samples we drove back to Guatemala City with a car full of specimens and dirty clothes.

species in 50 genera, and 740 tissue samples. A portion of these specimens will be housed in the Museo de Historia Natural at the Universidad of San Carlos in Guatemala City.

From my perspective, this expedition was a total success because beyond adding species and new specimens to the LSU ichthyology collection that are invaluable to increase our understanding of the ichthyological diversity not only of Guatemala but for Central America, I came back to LSU with more questions that I would like to work with in the near future.

Finally, I just want to express my gratitude to all the people that made this expedition possible from the National Council of Protected Areas (CONAP), Centro de Estudios Conservacionistas, Escuela de Biología, and el Centro de Estudios del Mar y Acuicultura (USAC). To all the people that help us across the country and specially to Cesar Fuentes, Francis Santos, Ricardo Penagos, Lucia Lopez and Marvin Xajil undergraduate students of the Universidad de San Carlos, without their assistance this field expedition would have not been a success.



Lucia Lopes and Cesar Fuentes enjoying a coconut after processing samples

This field expedition resulted in 43 collecting sites across Guatemala, 4025 specimens from 78



Tenth Annual Yellow Rails and Rice Festival

by Donna L. Dittmann & Steven W. Cardiff

It seems hard to believe that the YRARF just celebrated its tenth year, on 31 October-4 November 2018. As usual, the event was based in Jennings, Louisiana in the heart of the state's southwestern rice-growing region. LSUMNS has been a festival sponsor since the beginning and LSUMNS staff, associates, and graduate and undergraduate students have assisted the event in many ways from being volunteer field trip leaders and/or rail field "facilitators," manning the LSUMNS information booth, or by providing logistical support. LSUMNS 2018 YRARF volunteers included (alphabetical order): **Steve Cardiff, Eamon Corbett, Valerie Derouen, Donna Dittmann, Tammie Jackson, Oscar Johnson, Dan Lane, Marky Mutchler, Jack Rogers, and Lauren Solomon.** LSUMNS personnel were able to share with festival participants their enthusiasm and knowledge of Louisiana's birds, as well as information about their research activities farther afield. In addition to the LSUMNS contingent, there were numerous other volunteers representing Baton Rouge Audubon Society, Audubon Louisiana, Birmingham Audubon Society, Gulf Coast Bird Club, Louisiana Department of Wildlife and Fisheries, Louisiana Bird Observatory, Louisiana Ornithological Society, Mississippi State University, Strawberry Plains Audubon Center, University of Louisiana-Lafayette, and US Fish & Wildlife Service. Without these critical volunteers, YRARF never could

have been such a successful venture.

YRARF is deliberately kept relatively small (now capped at around 115 participants) due to logistical constraints and to provide a uniquely memorable and positive experience for visitors. With a smaller group it is also easier to implement contingency plans due to inclement weather, flooding, or equipment malfunctions. The sold-out tenth festival drew participants to Louisiana from 21 US states and Canada, England, and Wales to watch rice harvest operations at the small community of Thornwell, which is the official *Yellow Rail Capital of the World*. *Rice Farming Magazine* highlighted the event in their December edition: pdf link: https://issuu.com/onegrower/docs/rice_farming_december_2018.

This year we were relatively lucky, losing just one harvesting day to wet conditions. With scattered rain showers building Wednesday afternoon 31 October, we were lucky to squeeze in the "Beat the Crowds" harvesting session (last year canceled due to rain) - brief rain forced a pause in harvesting but the rice quickly dried out and everyone present eventually got their Yellow Rail. On Thursday 1 November (Thursday is typically the festival's busiest day) conditions were too wet from the previous night's heavy rain and rice harvesting was not pos-



Above: During “Beat the Crowds” Wednesday on Halloween, 31 October, it was “trick or treat.” The skies are dark and gloomy and, after a brief rain shower, the combine takes a break from harvesting while moisture evaporates off the rice crop. Fortunately we were able to harvest before and after the rain and everyone got their Yellow Rail “treat!” YRARF facilitators are easy to spot in their florescent safety vests: volunteer facilitators in green vests are Casey Wright (front right, LDWF) and Matt Jansen (all the way from Ithaca, NY), and a festival coordinator in the orange vest is Steve Cardiff. Rice farmer/coordinator Kevin Berken is on the combine. Photo by Donna L. Dittmann

Title Photo: Participants wait in front of the banding workshop mist nets (barely visible) in hopes that rails will be flushed during the next combine pass during Saturday’s harvest activities. Photo by Donna L. Dittmann

sible. So, participants were offered improvised guided field trips visiting nearby areas such as Cameron Prairie and Lacassine NWRs, Sweet Lake, and Welsh. On Friday-Saturday 2-3 November, weather conditions were perfect for rice harvesting and all participants had the opportunity to see Yellow Rails and ride onboard a massive rice harvester.

This year, Yellow Rail numbers seemed about average, with approximately 50 individuals over three days, including six during the pre-festival Beat-the-Crowds Wednesday, 30 on Friday, and 12 on Saturday. The festival’s Bird Banding Workshop crew was able to operate on Friday and Saturday and captured two Yellow Rails on Saturday. An additional banding workshop trip to the Cameron Parish coast on Thursday evening (after the group grabbed their jambalaya at the Myer’s Landing reception) was successful

in locating and banding TWO Black Rails and a Yellow Rail. Over the course of the festival, the Banding Workshop, led by Dr. Erik Johnson, managed to capture and band 106 individual birds of 19 species.

As in previous years, participants were able to observe Louisiana’s spectacular abundance and diversity of birds during field trips through rice country, to the coast of Cameron Parish, and to the longleaf pineywoods of the Kisatchie National Forest in Vernon Parish. By covering a diversity of habitats, participants had a chance to see over 200 bird species as well as to enjoy the area’s culture, cuisine, and hospitality. Many vowed to return next year and bring their friends. Two hundred and fourteen species were recorded during the festival (list here): <https://www.dropbox.com/s/qewnyfcke6kk5hc/YRARF%202018%20final%20bird%20list.xlsx?dl=0>.



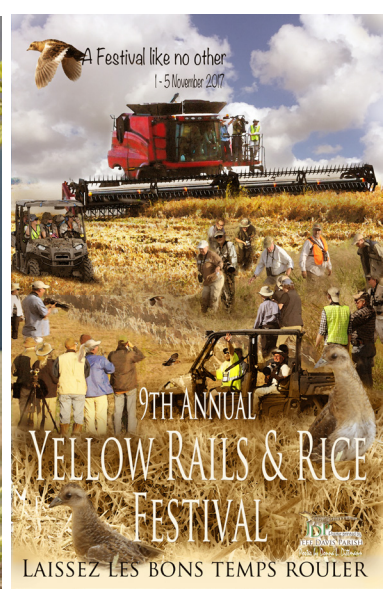
Left: LSUMNS Alumnus Peter E. Scott (PhD, 1989) and recently retired professor Department Biological Sciences at Indiana State University returned to Louisiana to attend this year's festival. A link to his travelogue can be found below. Photo Steven W. Cardiff.
Top Right: Gloomy gray skies did not allow wet rice to dry so Thursday's weather contingency plan included a field trip to Lacassine NWR Pool Unit. Photo of the group by Steven W. Cardiff
Bottom Right: Le Freres Michot (Tommy, Rick, and Louis Michot) entertained the participants at the Myer's Landing reception as the sun set on Thursday's activities. Photo of the band members and YRARF pumpkin by Steven W. Cardiff.

Plans are in progress for YRARF 2019 – if you would like to be on the festival email list contact: yellowrailsandrice@gmail.com. Also, keep an eye on the website for information updates about the 2019 event: http://www.snowyegretenterprises.com/Snowy_Egret_Enterprises/Yellow_Rails_%26_Rice_Festival.html

Registration will open on 1 August 2019 and spaces do fill quickly!

To read Peter Scott's Travelogue for the YRARF, go to:

http://lsu.edu/mns/files/newsletters/peterscott_yrarf-travelogue.pdf



Poster for 2009 Yellow Rails & Rice Festival (L) and 2018 Festival (R).

Warny Selected for AAPG Distinguished Lecture Program

The American Association of Petroleum Geologists is one of the world's largest professional geological societies with more than 35,000 members as of 2017. Their Distinguished Lecture (DL) Program is a joint program between AAPG and the AAPG Foundation and was developed to offer outstanding speakers on current research and applicable geology. In the past, lectures were hosted by AAPG affiliated geological societies or university departments. This year, AAPG is evolving into a new digital format as today's audiences expect instantaneous access to information. Six speakers were nominated to launch

the new DL program, they address various geological topics. **Dr. Sophie Warny**, the AASP Chair in Palynology at LSU and a curator at the LSU Museum of Natural Science is one of the speakers selected. She talks about how she became a palynologist, and about the various applications of the field, from biostratigraphy, to climate change studies and even forensic. To listen to her interview on palynology, log in at:

<https://www.aapg.org/videos/interview/Article/50444/digging-deeper-with-sophie-warny>

26

By GRETCHEN FLINT, AAPG Programs Communication Representative

EXPLORER DECEMBER 2018

Foundation Update

'Energy Insights' 2018-19

Updated Distinguished Lecture program announced

AAPG's historic Distinguished Lecture program has undergone a revolutionary transformation aimed at extending the program's accessibility, audience and reach.

New topics, new speakers and the new use of technology mean that this year, for the first time ever, everyone on earth will have access to all Distinguished Lectures – at any time you want to connect.

Videos and complementary podcasts featuring this year's six lectures (for audio and visual streaming or downloads), themed "Energy Insights," will be available starting in December.

This year's DL roster features six speakers, selected by the AAPG Distinguished Lecture Committee, who are the pioneers in a new era of sharing and accessing geoscience information.

What's gone: The concept of one speaker physically "touring" a region for two-three weeks, speaking only to groups in those areas.

What remains: Audiences worldwide will be introduced to emerging trends, new technologies and cutting-edge research in the geosciences, all presented by top experts in their respective fields.

Why the change?

Because today's audiences expect instantaneous access and delivery of information. You've told us you receive information from a variety of online sources by downloading or streaming files, and you want the flexibility of choosing

a convenient time to view or listen to the information rather than attending a single scheduled event.

We got the message.

Here's how it works:

Presentations of the lectures are now recorded as videos and podcasts. The lectures will be available for download from GooglePlay and iTunes as well as direct

download from the AAPG website.

For individual viewings or listening, all presentations will be available 24/7. Questions can be sent to the respective lecturer via a link that will be provided on the AAPG website, with the intent of rapid responses by the experts.

For groups and classrooms, webinars provide the opportunity for a "virtual

lecture experience." By contacting the AAPG Programs Team we can schedule the lecturer to be present for your group to host an online chat or Q-and-A session with audience members (this feature is subject to DL availability).

Continued on next page ►



ARANGO



CUNNINGHAM



HARRIS



HUDEC



STRIGHT



WARNY

This Year's Distinguished Lecturers:

► Irene Arango, senior geochemist, Chevron Energy Technology Co.: "Understanding Expulsion Capacity and Organic Porosity in Unconventional Petroleum Systems"

► Susan Cunningham, senior adviser, Darcy Partners: "What it Takes to be Successful In Exploration and Innovation"

► Ashley Harris, clastic stratigraphic team leader, Chevron Energy Technology Co.: "Re-evaluating the Relationship Between Relative Sea Level and Sediment Distribution Using Numerical Stratigraphic Forward Models"

► Michael Hudec, senior research scientist, director of the Bureau of Economic Geology, Applied Geodynamics Laboratory, University of Texas: "Evolution of the Salina del Bravo, Mexico: The Bravo Trough, Sigsbee Canopy and Perdido Fold Belt"

► List Stright, assistant professor, Department of Geosciences, Colorado State University: "Template-based Modeling: Bridging the Gap Between Quantitative Outcrop Studies and Subsurface Reservoir Characterization"

► Sophie Warny, associate professor/AAPG chair in palynology, Louisiana State University: "Evolution of Antarctic Vegetation Cover from the Paleocene to the Pliocene: A Review of Case Studies from the Antarctic Peninsula, the Ross Sea, the Sabrina Coast and the Dry Valleys"

OUTREACH ROUNDUP

DEAN'S CIRCLE



On October 12th, we participated in the LSU College of Science Dean's Circle event - "Science & Spirits" in Baton Rouge, LA. We were able to speak to members of the Dean's Circle about

museum collections and showcase some of the world's biodiversity. Thanks to **Larry Bird** for helping out.

LSU FALL FEST



On October 19, we had a booth at Fall Fest on the LSU Parade Grounds. Students, faculty, and staff got to view various birds, mammals, amphibians, reptiles, and fish from our collections. We

were also able to let students know where the museum is on campus. Thanks to **Jackson Roberts, Ryan Burner, Alex Haynes, and Link Morgan** for helping out.

HALLOWEEN ART & NATURE FEST



On October 27, we participated in the Halloween Art & Nature Festival in Arnaudville, LA. To go along with the theme, we brought some "creepy" specimens like weird fish,

skeletons, an opossum and a hawk. Thanks to **Prosanta Chakrabarty** and **Link Morgan** for helping out.

USFWS WILD THINGS



On October 13th, we participated in the 10th annual USFWS Wild Things event in Lacombe, LA. We brought specimens from our bird, mammal, amphibian & reptile, and fish

collections to showcase Louisiana biodiversity and talk about what we do as a museum. Over 5000 people attended this event. Thanks to **Zach Rodriguez** for helping out.

OCEAN COMMOTION



On October 25th, we participated in Ocean Commotion at the LSU PMAC. It was the museum's 20th year of participating and we received an award for our service. Our table, "Modern and Fossil Sea

Creatures," featured a basilosaurus jaw and vertebra, sharks & rays, and some other weird marine fish. We were able to meet over 2000 kids! Thanks to **Diego Elias, AJ Turner, Link Morgan, and Emily Nall** for helping out.

ST. ALOYSIUS STEM NIGHT



On November 13, we participated in a STEM Night at St. Aloysius School in Baton Rouge, LA. 450 students Prek-5th grade and their families enjoyed various science activities including a

specimen table from the LSUMNS. Thanks to **Larry Bird** and **Jaimie Gallagher** for helping out.

MASTER NATURALIST WORKSHOP



Continuing our ongoing partnership with the Louisiana Master Naturalists of Greater Baton Rouge, we hosted another natural history workshop on December 1st. After an overview of natural

history museums and the LSUMNS exhibits, participants went on behind the scenes tours of the bird, mammal, fish, amphibian & reptile, and genetic resources collections. They then watched a bird specimen prep demonstration. Thanks to **Oscar Johnson**, **Mark Swanson**, **Diego Elias**, **Zach Rodriguez**, and **Matt Brady** for helping out. And special thanks to **Janie Braud** for helping organize!

6TH GRADE DAY



As part of the Capital Area Promise, LSU hosted over 2500 6th graders from around Baton Rouge so they can learn about what LSU has to offer. These events took place over three days - January 15, January 22, and February 5th. The

students rotated through three areas: the LSU AgCenter, Shaver Theater in the Music and Dramatic Arts Building, and the Museum of Natural Science. The museum sight was part of the STEM, Education, and Humanities experience where students got to learn about some of the science, social science, and education departments at LSU in addition to viewing the public exhibits. Thanks to **Jaimie Gallagher**, **Anna Hiller**, **Alicia Reigel**, **Zach Rodriguez**, and **Jackson Roberts** for helping out.

WESTDALE STEM NIGHT



On December 6, we participated in Westdale Middle School's STEM Night in Baton Rouge, LA. Around 300 students moved through various STEM themed stations including a

specimen table hosted by us. We had mammals, birds, amphibians, reptiles, and fish on display, as well as information about field trips at the museum. Thanks to **Oscar Johnson** for helping out.

BOOK SIGNING



On January 19, we hosted a book signing for the new book for young readers, "Claire Carter, Bone Detective: The Mystery of the Bones in the Drainpipe" by forensic anthropologist Mary

H. Manhein. About 30 people attended the event. The book is part of a series that is based on real cases and is geared towards ages 10-14. One of the chapters even takes place in the Museum of Natural Science. At the event, Mary Manhein gave a presentation about the human skeleton and what you can learn from it. Guests then heard from the illustrator, Leah Wood Jewett, about the process of illustration, including how she was inspired by some of the LSUMNS exhibits. After the talk, Mary and Leah signed copies of the book and we had various animal bones on display. Thanks to **Spenser Babb-Biernacki** for helping out with this event! For more information on the book visit: <https://www.osliberpress.com>.

SPECIAL SATURDAYS



Costumed Critters

LSU MNS graduate student, **Zach Rodriguez** spoke to participants about amphibians and reptiles that use tricks to fool their predators or prey. Lots of amphibians and reptiles from the LSU MNS collections were on display for the kids to touch. Participants also made lizards and frogs with retractable tongues. Thanks to **Jackson Roberts**, **Genevieve Mount**, and **Larry Bird** for helping out.

Who Needs a Backbone Anyway?

Alicia Reigel Parker from the LSU Department of Biological Sciences, spoke to participants about marine invertebrates. They learned about what an invertebrate is as well as the different types of invertebrates that live in the ocean. Alicia brought along some live inverts like snails, crabs, coral, and jellyfish for the kids to see. Later the kids made edible coral polyps and crafted invertebrates to populate the ocean scene. Thanks to **Spenser Babb-Biernacki**, **Jessie Salter**, **Seth Parker**, **Olivia Neyland**, and **Anna Lucchesi** for helping out.

Bugs in the Atchafalaya

Patricia Shorter from the LSU Department of Entomology led our December Special Saturdays and taught participants all about insects and the importance of taxonomy. She brought along some of the beautiful insect drawers from the Arthropod Museum as well as some live insects. Participants got to create their own bugs complete with unique adaptations. Thanks to **Erin Bryan**, **Jaimie Gallagher**, **Perrin Teal Sullivan**, and **Zach Rodriguez** for helping out.

The Wonderful World of Plants

We kicked off the new year with a presentation by **Dr. Laura Frost**, **Dr. Laura Lagomarsino**, and **Janet Mansaray** from the Shirley C. Tucker Herbarium. They introduced participants to botany and how they preserve specimens in herbaria. They brought along real plant specimens and a plant press for the kids to see. Participants then got to create their own plant presses and frame pressed specimens to take home. Thanks to **Rafael Marcondes**, **Genevieve Mount**, **Spenser Babb-Biernacki**, and **Vivien Chua** for helping out.

To register for a **Special Saturday** visit: <https://www.lsu.edu/mns/education/special-saturdays.php>

NIGHT AT THE MUSEUM



Mammals

On November 8th, we hosted our second Night at the Museum of the school year with over 50 guests in attendance. LSUMNS Curator of Mammals, **Dr. Jake Esselstyn**, spoke to guests about the many uses of museum collections including some that were unexpected. We had tables themed around the evolution of flight in mammals, Louisiana's mammal mysteries, and a specimen prep demonstration manned by graduate students **Spenser Babb-Biernacki**, **Mark Swanson**, and **Heru Handika** respectively. We also had a table from LSU Libraries Special Collections featuring old books like *The Voyage of the Beagle* by Charles Darwin, Audubon's *Mammals*, and a facsimile of a book from the 12th century! Thanks to **Mark Martin** for bringing them. Later,

Mark Swanson gave behind the scenes tours of the mammal collection. Thanks to everyone who came out and special thanks to LSUMNS student **Rafael Marcondes** for taking photos.

Reserve your tour spot here: <https://www.lsu.edu/mns/education/night-at-the-museum.php>

UPCOMING OUTREACH EVENTS

February 21 - Night at the Museum - Herbarium
6-7:30pm; LSU Life Sciences Building

February 23 - Girls Day at the Museum
10am-3pm; LSU Museum of Natural Science
*Application closed

March 9 - Special Saturdays - Surviving Extreme Darkness
10am-12pm; LSU Museum of Natural Science

March 12 - McKinley Middle Magnet STEAM Night
6pm; McKinley Middle Magnet

March 14 - Night at the Museum - Fish
6-7:30pm; LSU Museum of Natural Science

March 30 - Big Bass Rodeo & Fishtival
9am-12pm; New Orleans City Park

April 6 - Special Saturdays - Extraordinary Chickens?
10am-12pm; LSU Museum of Natural Science

April 11 - Night at the Museum - Amphibians & Reptiles
6-7:30pm; LSU Museum of Natural Science

May 4 - Louisiana Master Naturalists of Greater Baton Rouge Workshop
8am-1:15pm; LSU Museum of Natural Science

For more information on outreach events and museum tours, contact **Valerie Derouen** vderou1@lsu.edu.

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

MNS NEWS & UPDATES

Dr. Chakrabarty named Top 40 under 40 & AAAS Fellow

Congratulations to LSUMNS Curator of Fishes, **Dr. Prosanta Chakrabarty**, who was named Top 40 under 40 by the Baton Rouge Business Report and a Fellow of the American Association for the Advancement of Science (AAAS) for his efforts towards advancing science. Read more about his AAAS distinction at bit.ly/AAASFellow.



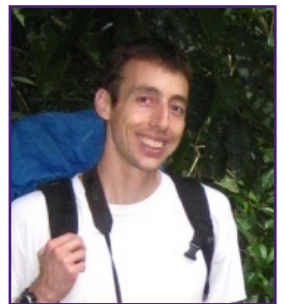
Judy receives PhD

Congratulations to LSUMNS ornithology graduate student, **Dr. Caroline Judy**, who earned her PhD this past December. Caroline worked under **Dr. Robb Brumfield** on streamertail hummingbirds in Jamaica. You can view a video of her dissertation defense at bit.ly/JudyDefense.



Burner defends dissertation

Congratulations to LSUMNS ornithology graduate student, **Dr. Ryan Burner** who successfully defended his dissertation in January. Ryan worked under **Dr. Fred Sheldon** on the ecology of birds in Borneo. He will receive his PhD in May. You can view a video of his dissertation defense at bit.ly/BurnerDefense.



Del-Rio receives Outstanding Graduate Student Award

Congratulations to LSUMNS ornithology graduate student, **Glaucia Del-Rio**, who was named the 2018 Outstanding Graduate Student. This prestigious honor is awarded to a graduate student who has made substantial contributions to science and the museum community.



Johnson receives Outreach Award

Congratulations to LSUMNS ornithology graduate student **Oscar Johnson** who was this year's recipient of the Museum Outreach Award. This award is presented to a graduate student who has shown outstanding service to museum outreach and education. Oscar helped out with 8 museum outreach events and tours during 2018.



Dr. Faircloth is a Top Cited Scholar of 2018

Congratulations to LSUMNS faculty associate, **Dr. Brant Faircloth**, who was among the Top Cited Researchers of 2018 released by Clarivate Analytics. Find out more about this honor at bit.ly/TopCited.



20 Years of Participation in Ocean Commotion

The LSUMNS was awarded for 20 years of participation in Louisiana Sea Grant's 21st annual Ocean Commotion event. Every year this event exposes around 2500 to our coast and sea through 70 exhibitors from around the state.



2019 SPRING SEMINAR SCHEDULE

February 8: Dr. William Murphy, Texas A&M

Title: "What a tangled web we weave: recombination and the genomic distribution of phylogenetic signal."

February 15: Dr. Laura Frost, LSU Herbarium

Title: "Comparing effects of niche conservatism and niche evolution on diversification rate in Neotropical flowering plant genus *Citharexylum* (Verbenaceae)"

February 22: Dr. Erin Sigel, University of Louisiana Lafayette

Title: "Into the next next generation of fern genomics"

February 26 (Tuesday): Clare Brown (Dissertation Defense), LSU Museum of Natural Science

Title: "Comparing effects of niche conservatism and niche evolution on diversification rate in Neotropical flowering plant genus *Citharexylum* (Verbenaceae)"

March 8: Dr. Brian Folt, Auburn University

Title: "Repatriation of the Eastern Indigo Snake: incorporating phylogenetic and population demographic models"

March 15: Dr. Graham Slater, University of Chicago

Title: TBA

March 22: Dr. Kathleen Ferris, Tulane University

Title: TBA

March 29: Anne Chambers, UT Austin

Title: "The implications of using the multispecies coalescent for species delimitation"

April 5: Dr. Andrew Hope, Kansas State University

Title: "Exploring the evolution of shrews for applied biodiversity management"

April 12 & 19: No Seminar - Spring Break

April 26: Dr. Ashley Long, Louisiana State University

Title: Using geolocators to identify migratory connectivity for an endangered warbler"

NEW FROM THE AMERICAN ASSOCIATION OF STRATIGRAPHIC PALYNOLOGISTS



MARK YOUR AGENDA!

**The 53rd AASP CONFERENCE WILL BE HELD MAY 26-30, 2020
ON THE BEAUTIFUL LSU CAMPUS, IN BATON ROUGE, LOUISIANA**

The campus is located about one hour west of New Orleans.

The conference will be hosted by
the Center for Excellence in Palynology (CENEX) and
the Center for Energy and Environment at Louisiana State University

If you have any questions, contact:

Sophie Warny at swarny@lsu.edu
Sibel Bargu Ates at sbargu@lsu.edu
Kam-Biu Liu at kliu1@lsu.edu



LSU

Louisiana State University

2018 LSUMNS PUBLICATIONS

Alda, F., Adams, A.J., McMillan, W.O., **Chakrabarty, P.** 2018. Mitogenomic divergence between three pairs of putative geminate fishes from Panama. *Mitochondrial DNA Part B* 3: 1-5.

Barley, A.J., **J.M. Brown**, and R.C. Thomson. 2018. Impact of model violations on the inference of species boundaries under the multispecies coalescent. *Systematic Biology*. 67:269-284.

Barrientos, C., Quintana, Y., **Elías, D. J.** and R. Rodiles-Hernández. 2018. Peces nativos y pesca artesanal en la cuenca Usumacinta, Guatemala. *Revista Mexicana de Biodiversidad*. 89 (suplemento 2018): S118-S130.

Brown, J.M. and R.C. Thomson. 2018. Evaluating model performance in evolutionary biology. *Annu. Rev. Ecol. Evol. Syst.* 49:95-114.

Brown, J.M. and R.C. Thomson. 2018. The behavior of Metropolis-coupled Markov chains when sampling rugged phylogenetic distributions. *Systematic Biology*. 67:729-734.

Burner, R.C., S.B. Shakya, T. Haryoko, M. Irham, D. Prawiradilaga, and **F.H. Sheldon**. 2018. Ornithological observations from Maratua and Bawean Islands, Indonesia. *Truebia* 45:11-24.

Burner, R., A. Styring, C. Boer, and **F. Sheldon**. 2018. Overlap in avian communities produces unimodal richness peaks on Bornean mountains. *Journal of Tropical Ecology* 34:75-92.

Burner, R., A. Siani, C. Boer. 2018. First Record of Bare-headed Laughingthrush *Garrulax calva* in Kalimantan, Indonesian Borneo. *Kukila* 21:17-21.

Burress, E.D., **Alda, F.** Duarte, A., Loureiro, M., Armbruster, J.W., **Chakrabarty, P.** 2018. Phylogenomics of the pike cichlids (Cichlidae: *Crenicichla*) and the rapid evolution and trophic diversification in an incipient species flock. *Journal of Evolutionary Biology* 31(1):14-30 <http://onlinelibrary.wiley.com/doi/10.1111/jeb.13196/abstract>

Campillo, L.C., **C.H. Oliveros, F.H. Sheldon**, and **R.G. Moyle**. 2018. Genomic data resolve gene tree discordance in spiderhunters (Nectariniidae, Arachnothera). *Molecular Phylogenetics and Evolution* 120:151-157.

Chakrabarty, P. (2018) Working Life: What I learned from my Year As a Fed. *Science* 359: 1066 March 1.

Derryberry, E. P., N. Seddon, G. E. Derryberry, **S. Claramunt, G. F. Seeholzer, R. T. Brumfield**, and J. A. Tobias. 2018. Ecological drivers of song evolution in birds: Disentangling the effects of habitat and morphology. *Ecology and Evolution* 8:1890-1905. DOI: 10.1002/ece3.3760.

Elías, D.J., Mochel, S.F., **Chakrabarty, P., McMahan, C.**, First record of the non-native Pacu, *Piaractus brachypomus* in Lago Petén-Itzá, Guatemala, Central America. *Occasional Papers of the Museum of Natural Science* 88, 1-6.

Ferguson, S., Warny, S., Anderson, J.B., Simms, A.R., and Escarguel, G., 2018. Holocene vegetation and climate evolution of Corpus Christi and Trinity bays: implications on source-to-sink deposition on the Texas coast. *Geobios*, 51(2): 123-135.

Ferguson, S., Warny, S., Anderson, J.B., Simms, A.R., White, C. Breaching of Mustang Island in response to the 8.2 ka sea-level event and impact on Corpus Christi Bay, Gulf of Mexico: Implications for future coastal change. *The Holocene*, 28(1) 166–172.

Ferguson, S., Warny, S., Escarguel, G. and Mudie, P. 2018. MIS 5e-1 dinoflagellate cyst analyses and morphometric evaluation of *Galeacysta etrusca* and *Spiniferites cruciformis* in southwestern Black Sea. *Quaternary International*, 465: 117-129 <https://doi.org/10.1016/j.quaint.2016.07.035>

Galen, S.C., J. Borner, E.S. Martinsen, J. Schaer, **C.C. Austin**, C.J. West, and S.L. Perkins. (2018) The polyphyly of *Plasmodium*: Comprehensive phylogenetic analyses of the malaria parasites (order Haemosporida) reveal widespread taxonomic conflict. *Royal Society. Open sci.* 5: 171780. <http://dx.doi.org/10.1098/rsos.171780>

Höhna, S., L.M. Coghill, **G.G. Mount**, R.C. Thomson, and **J.M. Brown**. 2018. P3: Phylogenetic Posterior Prediction in RevBayes. *Molecular Biology and Evolution*. 35:1028-1034.

Kuang, T., Tornabene, L., Li, J., Jiang, J., **Chakrabarty, P.**, Sparks, J.S., Naylor, G.J.P., Li, C. (2018) Phylogenomic analysis on the exceptionally diverse fish clade Gobioidae (Actinopterygii:Gobiiformes) and data-filtering based on molecular clocklikeness. *Molecular Phylogenetics and Evolution* 128, 192-202.

Ludt, W.B., Morgan, L., **Bishop, J., Chakrabarty, P.** (2018) A quantitative and statistical biological comparison of three semi-enclosed seas: The Red Sea, the Persian (Arabian) Gulf, and the Gulf of California Sea. *Marine Biodiversity*: 48, 2119-2124.

McBrayer, Lance D., **Parker, Seth E.** 2018. Variation in habitat management alters risk aversion behavior in lizards. *Behavioral Ecology and Sociobiology* 72:149

Mertens, K.N., Van Nieuwenhove, N., Gurdebeke, P.R., Aydin, H., Bogus, K., Bingué, M., Dale, B., De Schepper, S., de Vernal, A., Ellegaard, M., Eynaud, F., Grothe, A., Gu, H., Head, M.J., Heikkilä, M., Limoges, A., Londeix, L., Louwye, S., Marret, F., Masure, E., Matsuoka, K., Mudie, P.J., Penaud, A., Pospelova, V., Price, A., Ribeiro, S., Rochon, A., Sangiorgi, F., Schreck, M., Torres-Torres, V., Uzar, S., Versteegh, G., **Warny, S.,** Zonneveld, K., 2018. Summary of the round table discussions about *Spiniferites* and *Achomosphaera* occurring in Pliocene to modern sediments. *Palynology*.

Miao, Y., **Warny, S.,** and Cliff, P., **Gregory, M.,** Liu, C., 2018. Climatic or tectonic control on kerogen deposition in the South China Sea? A lesson learned from a comprehensive kerogen study of IODP Site U1433. *International Journal of Coal Geology*, 190: 166-177. <https://doi.org/10.1016/j.coal.2017.10.003>

Moncrieff, A. E., O. Johnson, D. F. Lane, J. Beck, F. Angulo-Pratolongo, and J. Fagan. 2018. A new species of antbird (Passeriformes; Thamnophilidae) from the Cordillera Azul, San Martín, Peru. *The Auk* 135: 114-126.

Mudie, Rochon, Richards, **Ferguson** and **Warny**, 2018. *Spiniferites cruciformis*, *Pterocysta cruciformis* and *Galeacysta etrusca*: morphology and paleoecology. *Palynology*.

Naka, L. N., and R. T. Brumfield. 2018. The dual role of Amazonian rivers in the generation and maintenance of avian diversity. *Science Advances* 4:eaar8575. DOI 10.1126/sciadv.aar8575.

Pegan, T.M., Gulson-Castillo, E.R., Biun, A., Byington, J.I., **Moyle, R.G.,** Tuh, F.Y.Y., Wood, E.M., Winkler, D.W. and **Sheldon, F.H.** 2018. An assessment of avifauna in a recovering lowland forest at Kinabalu National Park, Malaysian Borneo. *Raffles Bulletin of Zoology* 66:110-131.

Ribas, C. C., A. Aleixo, C. Gubili, F. M. d'Horta, **R. T. Brumfield,** and **J. Cracraft.** 2018. Biogeography and diversification of *Rhegmatorhina* (Aves: Thamnophilidae): Implications for the evolution of Amazonian landscapes during the Quaternary. *Journal of Biogeography* 45:917-928. DOI: 10/1111/jbi.13169.

Richards, E.J., **J.M. Brown,** A.J. Barley, R.A. Chong, and R.C. Thomson. 2018. Variation across mitochondrial gene trees provides evidence for systematic error: How much gene tree variation is biological? *Systematic*

Rodriguez, Z.B., S.L. Perkins, and **C.C. Austin** (2018). Multiple origins of green blood in New Guinea lizards. *Science Advances*, 4(5): eaao5017

Seeholzer, G. F., and **R. T. Brumfield**. 2018. Isolation-by-distance, not incipient ecological speciation, explains genetic differentiation in an Andean songbird (Aves: Furnariidae: *Cranioleuca antisimensis*, Line-cheeked Spinetail) despite near three-fold body size change across an environmental gradient. *Molecular Ecology* 27 (1): 279-296.

Shakya, S.B., T. Haryoko, **R.C. Burner**, D. Prawiradilaga, and **F.H. Sheldon**. 2018. Preliminary assessment of community composition and phylogeographic relationships of the birds of the Meratus Mountains, Southeastern Borneo, Indonesia. *Bulletin of the British Ornithologists' Club* 138:45-66.

Smith, Lorene E. 2018. Foraminifera photomicrographs, in: Dickas, Albert B. 101 American Fossil Sites You've Gotta See. *Mountain Press Publishing Co.*, Missoula, MT, p. 87.

Styring, A.R., J. Unggang, A. Jukie, O. Tateh, N. Megam, and **F.H. Sheldon**. 2018. Bird community structure in native forest fragments and Acacia mangium plantation in Borneo. *Wilson Journal of Ornithology* 130:112-130.

Thomas, M., Warny, S., Jarzen, D.M., Pocknall, D., Bentley, S., and Nittrouer, C., 2018. Palynomorph evidence for tropical climate stability in the gulf of Papua, Papua New Guinea, over the latest marine transgression and highstand (14,500 years BP to today). *Quaternary International*, 467: 277-291.

Giving Form to Support the Museum of Natural Science

Name (s): _____
Address: _____

City: _____
State: _____ Zip Code: _____
Telephone [Day]: _____
Telephone [Night]: _____

Billing Address: _____

City: _____
State: _____ Zip Code: _____

Signature: _____

Enclosed is My Gift of:

___ \$50 ___ \$100 ___ \$200 ___ \$500 ___ Other

**Make Checks payable to:
LSU Foundation**

___ Mastercard ___ American Express
___ Visa ___ Other:
Please Indicate: _____

Account #: _____ - _____ - _____ - _____
Exp. Date: _____

Name as it Appears on Card (please print):

All Donations are Tax Deductible

Please Mail Your Donation, Along with this Form to:

LSU Museum of Natural Science
119 Foster Hall
Baton Rouge, Louisiana 70803

Matching Gift Company: _____

Corporate Matching Gifts:

Many companies match donations by employees, their families or retirees. Please ask your human resources office for your company's matching gift form. Mail the form, with this pledge card to the address provided above.

Museum of Natural Science
119 Foster Hall
Baton Rouge, LA 70803

LSU IS AN EQUAL OPPORTUNITY/ACCESS UNIVERSITY

Address Service Requested

Non-Profit Org.
U.S. Postage
PAID
Permit No. 733
Baton Rouge, LA

If you would like to include items in the next issue of *Museum Quarterly*, please send information, articles and photographs to the Museum Education Office. Articles about research, study or any other items of interest are encouraged. Information may be submitted as completed articles with jpeg pictures in attachments, or in list form to be put into article.

Email your material to vderou1@lsu.edu

In This Issue...

Letter from the Director.....	Page 1
Ornithology in Peru.....	Page 2
Mammalogy in Sumatra.....	Page 5
Ichthyology in Guatemala.....	Page 8
Yellow Rails & Rice.....	Page 11
AAPG Distinguished Lecture Program.....	Page 14
Outreach Roundup.....	Page 15
News and Updates.....	Page 19
Spring Seminar Schedule.....	Page 20
2018 LSUMNS Publications.....	Page 22
Giving Form.....	Page 24