

# Museum Quarterly

LSU Museum of Natural Science

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Education

*Letter from the Director...*



## Transition Time

This spring, my 12 years as director ends, and it seems like a good time to take stock of where the Museum stands. As usual, the situation may be measured in terms of good, bad, and ugly.

Good news is plentiful. The Museum has the best group of curators and staff in its history. Grants pour in, research pours out, collections grow at an unprecedented rate, the front office moves with awe inspiring efficiency, and a stream of remarkable undergraduate and graduate students flows through the place. I can't take a lot of credit for this happy state; it's really a function of years of wise leadership by a group of senior faculty and dedication by hard working, underpaid collection managers. Whatever the source, the Museum is now infused with amazing energy and creativity.

The bad news isn't surprising. It's about money. Since I've been director, the Museum's operating budget has been cut almost in half, while our expenses have skyrocketed. Our allotment for graduate student assistantships is the same as it was 30 years ago, when students were paid less than \$10,000 a year. Now they're earning about \$20,000 a year. To meet this increase we have cannibalized about half our curatorial assistantship positions, even while demand for positions by outstanding graduate applicants has grown. Fortunately, we've been able to offset some of these setbacks with grants and especially by receiving support from friends and alumni.

The ugly is our physical plant. The Museum's collections are still spread around campus in temporary homes in the old Geology attic and Gym Armory basement. Foster Hall is dilapidated, and half of the building is still occupied by the Art Department, whose own home in the renovated Engineering Labs (behind Geology) has not yet materialized. When I started as director, we undertook — with great optimism — an architectural program for Foster Hall. The plan recaptured the original grandeur of the building when it was the University's dining hall. Without Art and with better space allotment, we would be able to centralize all the collections and update the workspace in a wonderfully renovated space. But, national and state budget crises have put that plan on indefinite hold. building. But it's inspired people and active collections, not buildings, that make a Museum great. And we have these in spades.

*Fred Sheldon*

# Ichthyological Adventures in Central America Part 2: Collecting Fishes in Guatemala

By Prosanta Chakrabarty



From February 28 - March 12, 2013, my third-year PhD student, **Caleb McMahan**, and I traveled to Guatemala to collect and study fishes for the **Museum**. This trip was particularly exciting because we had worked for over three years on obtaining permits from Guatemala. It was only through the networking of Caleb and my former postdoc, Dr. Wilfredo Matamoros at the Congreso Nacional de Ictiología conference in Chiapas, Mexico (2012), that we were able to finally get some contacts that could help us. The trip was also very exciting for me because with these collections it meant that my lab had been to every Central American country. We've sampled Costa Rica (2011), El Salvador (2011), Panama (2011), Nicaragua (2011) and Honduras (4 times since 2010). I traveled to Belize as part of my dissertation work in 2004. Guatemala would be a real prize because no outside ichthyologists have intensively sampled the native freshwater fishes since Donn Rosen and Reeve Bailey in 1974. Both of those gentlemen are my heroes. Rosen was a former curator at the American Museum of Natural History and was instrumental in founding the field of historical biogeography. Bailey was a curator of fishes at the University of Michigan Museum of Zoology and was collecting into his mid-90s while I

was there as a grad student (he passed away at age 100 a few years ago).

In Guatemala, we were aided by Christian Barrientos, who is a Guatemala native and currently a PhD student at the University of Florida. A-soon-to-be finished undergraduate, Diego Elias, and a Guatemalan environmental agent, Yasmin Quintana, also joined us to complete the collecting team.

Guatemala has a notable geological history as well as a biological one. The northern portion of the country is part of the Yucatan Peninsula (the Maya Block that is the southern portion of geologic North America), which is primarily in southern Mexico and parts of Belize. The more southern portion of the country is part of the Chortis Block that includes El Salvador, Honduras and parts of Nicaragua; this block is geologically on the Caribbean tectonic plate. The North American and Caribbean plates are separated by the Motagua fault that runs through Guatemala. You can see the difference as you drive along the central highway passing from the mountainous, limestone-rich Yucatan to the flatter, earthier Chortis Block. We spent most of our time sampling within the Yucatan portion (Peten) where cenotes, caves and other primary limestone habitats were abundant. The karstic

**Photo:** Early morning casting in Lago de Peten.

landscape gives a notable blue green tint to much of the freshwaters in the Yucatan region so you could be easily fooled into thinking you are collecting in the tropical ocean if it were not for the fact that you were surrounded by lush green inland forests.

We began our trip, as we often do, landing in the capital city airport, Guatemala City in this case – and, as is typically the case – site seeing was restricted to what could be viewed from the car window on the way out to the countryside. Luckily, the rich Mayan history of Guatemala has left much behind and we even sampled in the shadows of some giant ruins in Yaxhá (where the reality show *Survivor* was filmed in 2005). The perpetual frightening growl of the otherwise adorable Howler monkey also seemed to add to the sense that we were in a mythical, prehistoric land. Among our primary targets were the cichlid fishes of the region - about 23 species. Many of these are very important to our continued studies of Central American fishes and their biogeographic history. We sampled first along the Caribbean Slope in Lago Izabal, waking each morning before dawn and sampling until dusk. It was exhausting but well worth it. We typically collected from a boat that took us along to various sites that were otherwise inaccessible by foot.

Using cast nets and seines, we collected the black-belt cichlid, *Vieja maculicauda* and several other beautiful species of cichlids I had only seen as colorless specimens in jars or from aquarist photos. One of the species we were collecting was *Paraneotroplus melanurus*, which Caleb had studied and synonymized with another popular species (i.e., he found that the two species were in fact just one - much to the chagrin of the cichlid aquarists).

One of my favorite sites was Lago de Peten. Ever since I started working with cichlids as a graduate student, I always wanted to catch “blancos” (*Petenia splendida*) from Lake Peten. Not only did we collect them, but we had enough to eat (it’s always good when your study animal is as delicious as it is phylogenetically important). Our local hosts are doing several ecological studies on the fishes in these lakes and they were surprised to see us catch several species they had not seen before in that area. I told them that it was all based on Caleb’s fishing skills. Caleb has quickly become one of the best-known ichthyologists studying Central America. He worked there for his Master’s degree at Southeastern Louisiana University, but his reputation has grown greatly in the past few years, and deservedly so. I would put his knowledge of the fishes of these regions up



Photo: The Guatemala fishing team, from left to right, **Diego Elias, Yasmin Quintana, Prosanta Chakrabarty, Caleb McMahan and Christian Barrientos.**



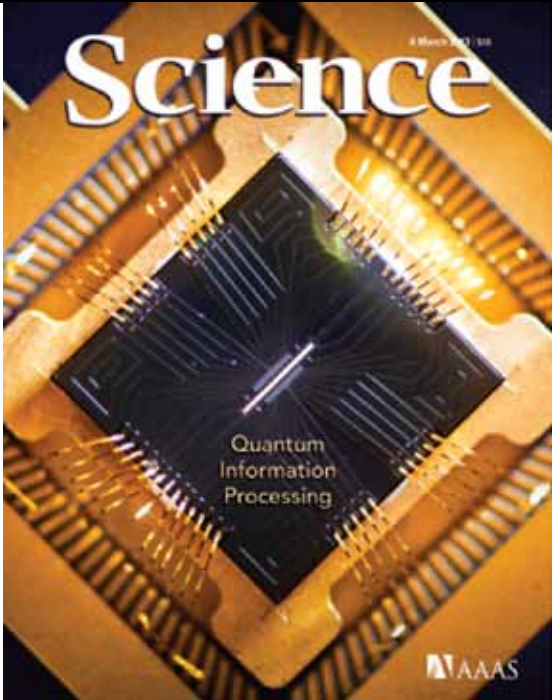
against anyone alive today. He was recently rewarded for his efforts in studying the region with a National Science Foundation Doctoral Dissertation Grant. Caleb also won the prestigious Stoye Award at the Annual Meeting of Ichthyologists and Herpetologists. This award is the highest award a fish student can get as a graduate student.

One of our last field sites was in Coban, an area we were eager to sample because it is a very different system than the Río Usumacinta system we had sampled most of the trip. Unfortunately, our first Coban site smelled like a sewer. After retrieving my first cast net throw, all I managed to pull out of the water was some weird white filmy material. As a faux-Cajan (Cajun?), I cast by putting one end of the net in my teeth: this technique has its drawbacks. Just as I put the cast in my teeth for the next throw I was informed that the white filmy material was toilet paper: a clear sign that this water was full of untreated sewage. After washing my mouth out thoroughly we decided to move on. Luckily we were able to get much better sites downstream where gringo tourists were happily inner tubing. Some of our best collections were actually from local kids that were snorkeling and spearing the fish with makeshift spear guns. I envied their skill and was glad they happily exchanged their haul for a few quetzales (the local currency, named after the national bird - a type of trogon).

Overall, the trip was a success. We collected over 59 species, nearly 600 tissue samples and about 2000 specimens. There is much of Guatemala left unexplored because permission has to be granted by local native communities who can be wary of outsiders (which include local non-native peoples). Despite my desire to go to those areas, I'm glad they are protected by people who care about their land and freshwaters. Yasmin and Diego are set to work up our collection at LSU in May, and we look forward to figuring out if we have any new species. We most certainly made collections of which other Neotropical ichthyologists will be quite envious.

Top: The beautiful *Thorichthys pasionis*, a cichlid collected from its type locality the Río de la Pasión.  
Middle: Caleb and Prosanta and their makeshift back-of-the-truck fish laboratory.  
Bottom: A nice little "blanco."

# WHAT'S NEW?



## '2 in Science'

Congratulations to **Dr. Sophie Warny** and **Dr. Prosanta Chakrabarty** on having stories published in the same volume of Science Magazine!

Sophie, who is an assistant professor (palynology) and curator for the Museum of Natural Science published a letter in the March 8 edition of Science magazine titled *Museum's Role: Pollen and Forensic Science*. She discusses the importance of preserving museum collections in the view of unique future use such as helping homeland security. The story can be read at <http://www.sciencemag.org/content/339/6124/1149.1.full>

Prosanta, who is an assistant professor (ichthyology) and curator for the Museum of Natural Science is featured as a model for unique career choices in the scientific field.

Many articles are submitted to this magazine, but only a few get published. Having two LSUMNS faculty members featured in the same volume is quite a feat. The LSU Museum of Natural Science is very proud of this rare accomplishment!

## The First LSU Science Cafe



### LSU Kicks Off Science Café Series with Curator of Fishes Prosanta Chakrabarty

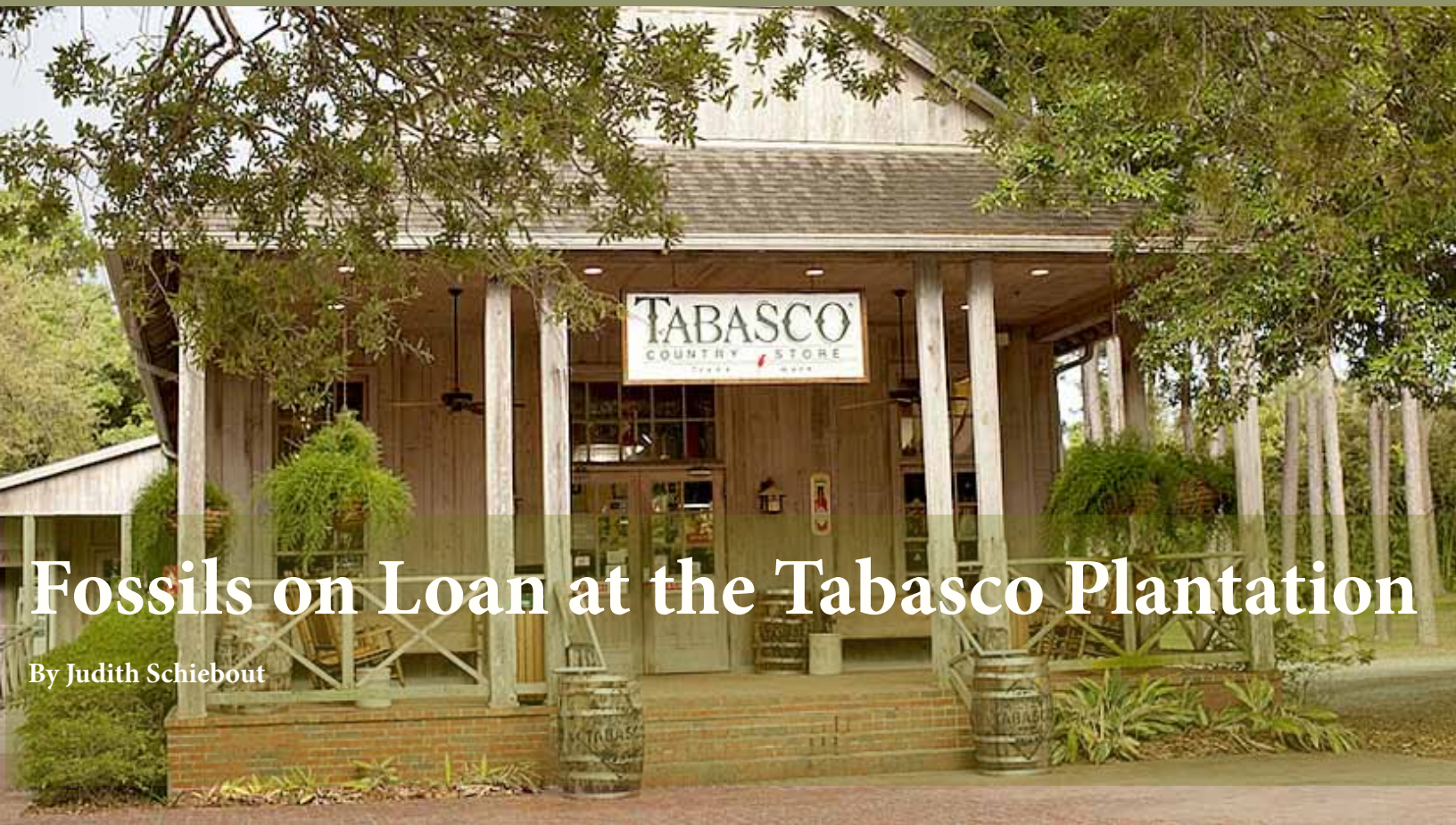
LSU faculty, students and friends gathered on Tuesday, Jan. 29, for the first installation of the Science Café series. The monthly event allows people the opportunity to ask questions and interact with some of LSU's top faculty like Prosanta Chakrabarty, curator of fishes at LSU's Museum of Natural Science. The event took place at Chelsea's Cafe, where nearly 50 people listened to Chakrabarty share stories of cave diving in Madagascar, exploring fish markets in Taiwan and discovering new species all around the world. Chakrabarty's talk also included a discussion of his discoveries leading to proof of continental drift.

## Rain Maker Award

Rainmakers are those faculty members who garner national and international recognition for innovative research and creative scholarship, compete for external funding at the highest levels and attract and mentor exceptional graduate students. These outstanding faculty represent a vast range of research areas, from mechanical engineering to communication studies, and exhibit excellence at every stage of the academic career, from rising researchers to seasoned scholars.

This year, our Curator of Fishes, **Dr. Prosanta Chakrabarty** (pictured to the left with his wife, Anne Marie Noel), received this prestigious honor for his cutting-edge research in the world of Ichthyology.

Congratulations, Dr. Chakrabarty!



## Fossils on Loan at the Tabasco Plantation

By Judith Schiebout

*The LSU Museum of Natural Science and the Smithsonian have loaned a dozen Pleistocene fossils each to the McIlhenny Company at Avery Island.*

*Pleistocene ("Ice Age") fossils originally found at Avery Island include remains of mastodons, mammoths, horses, bison, and giant ground sloths.*



Top L-R: **Dr. Su-Yin Ting** analyzes a Pleistocene fossil; **Ian Cannon**, a Geology & Geophysics undergraduate student working on some of these fossils.

Middle R: **Shane K. Bernard, Ph.D.** Historian & Curator for the McIlhenny Company

Bottom: Display of Pleistocene fossils at McIlhenny company at Avery Island, Louisiana.



of dozens of volunteers, over 200 persons were involved in the 2012 event!

Despite reduced numbers of Yellow Rails compared to previous years, just about all participants were able to see the “target species.” Participants also had opportunities to ride onboard the massive rice harvester combines- for some, this seems to be as (or more?) exciting and important than viewing the elusive Yellow Rail! In addition to Yellow Rails, a cumulative total of about 200 species of birds was tallied over the course of the festival during rice harvesting/rail viewing activities and on numerous additional field trips around southwest Louisiana.

LSUMNS has an underlying role in the festival: two of the original four founders of YRARF are LSUMNS collection managers Donna Dittmann and Steve Cardiff (both also current festival coordinators). LSUMNS has also become an official sponsor of the festival, and each year LSUMNS graduate students, undergraduate students, and research associates assist as volunteer field trip leaders and/or rail field “facilitators.” Representatives of LSUMNS are thus able to share with festival participants their enthusiasm and knowledge of Louisiana’s birds as well as information on their research activities farther afield. This year LSUMNS volunteers included: Matt Brady, Clare Brown, Vivien Chua, Jacob Cooper, Mike Harvey, Sarah Hird, James Klarevas-Irby, Dan Lane, John Mittermeier, Glenn Seeholzer, Ryan Terrill, and Paul van Els. YRARF 2012 also featured a pre-festival tour of the LSUMNS bird collection. Thanks to Dr. J. V. Remsen for hosting the collection tour, which we hope to offer again during future events.

By Donna L. Dittmann and Steven W. Cardiff

The Fourth Annual Yellow Rails and Rice Festival (YRARF) was held 24-28 October 2012. Once again based at Jennings in the heart of southwest Louisiana’s rice-growing region, the festival provides an “agritourism” experience while emphasizing the importance of our state’s rice-growing region and its water-based agriculture (“working wetlands”) to birds and showcasing Louisiana’s spectacular abundance and diversity of birds. It’s a great meeting place to bring participants from far and wide to meet with representatives of Louisiana’s ornithological, university, birding, conservation, agriculture, and tourism communities to enjoy Louisiana’s culture, cuisine, hospitality, and, of course, BIRDS.

Due to the festival’s rapid increase in popularity (despite minimal advertising other than by “word of mouth”), pre-registration is required and it has been necessary to limit attendance to 125 persons due to logistical constraints- the 2012 event filled-up early and pre-registration was closed a month in advance of the start of the festival. Including several post-festival tour groups, YRARF 2012 accommodated 144 participants representing 31 US states plus Australia, Canada, Kuwait, and Poland. Taking into account our superb corps



Left: T-shirt design by Donna L. Dittmann for YRARF 2012 illustrates the elusive Yellow Rail in flight and on the ground. Right: A subset of festival participants watching waves of White-faced Ibis





Also new in 2012 was a pre-festival field trip to the recently created White Lake Wetland Conservation Area (WLWCA) in southern Vermilion Parish south of Gueydan. After some morning rice field birding and then a quick check of the new WLWCA nature trail, participants were taken by boat to the White Lake Lodge. This trip, made possible through the cooperation of the Louisiana Department

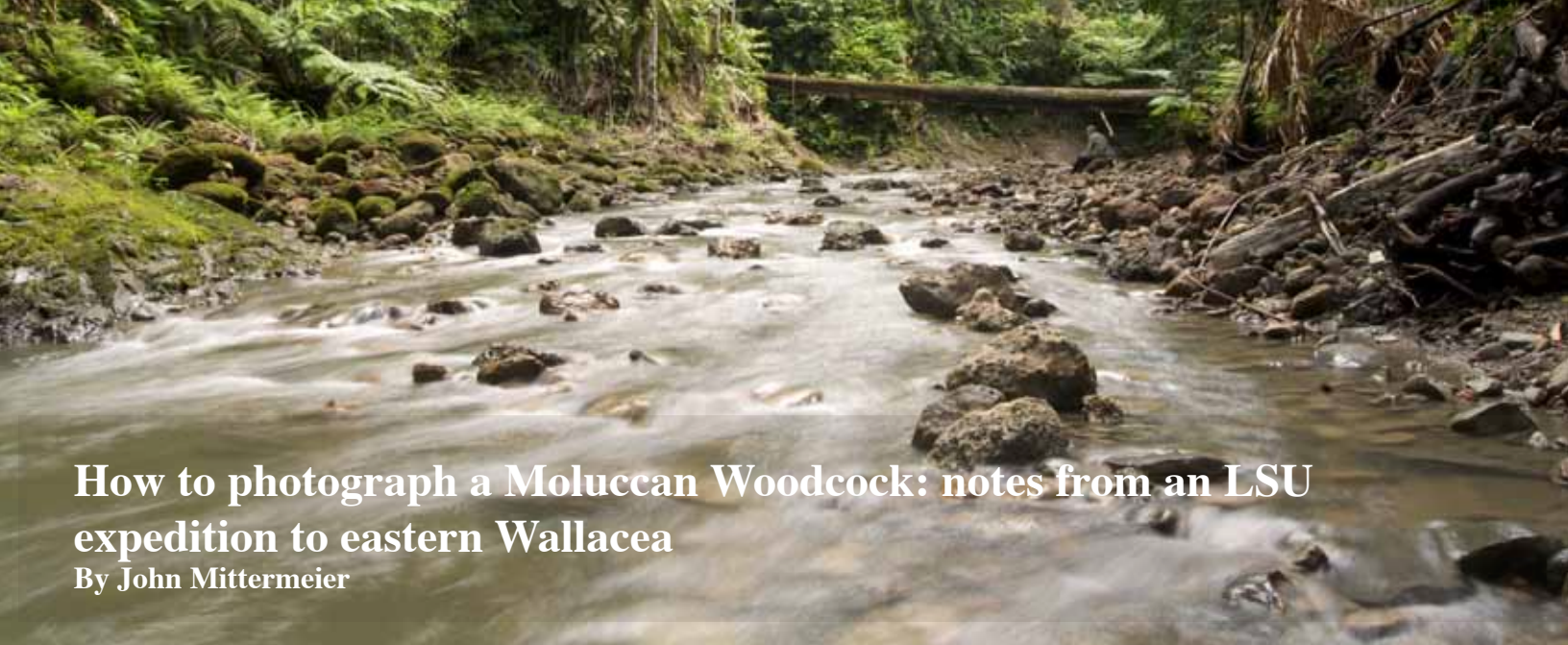
of Wildlife and Fisheries, was very well received and will hopefully be on the 2013 schedule.

Plans are in progress for YRARF 2013 – if you would like to be on the festival email list contact: [yellowrailsandrice@gmail.com](mailto:yellowrailsandrice@gmail.com). Also, check the festival website for information about this year’s event: [http://www.snowyegretenterprises.com/Snowy\\_Egret\\_Enterprises/Yellow\\_Rails\\_%26\\_Rice\\_Festival.html](http://www.snowyegretenterprises.com/Snowy_Egret_Enterprises/Yellow_Rails_%26_Rice_Festival.html)

Pre-registration will probably commence 1 July 2013 and spaces fill quickly!



Above: Waves of White-faced Ibis arrive at flooded fields at sunset during the festival’s opening day Sunset Tour. Right: LSUMNS graduate student facilitators (lime green vests) **Clare Brown** (far right) and **Sarah Hird** (left) assist a group of participants at the edge of the field as all wait for the next pass of the combine. Left: **Donna L. Dittmann** points out a circling hawk and also provides scale as to the immense size of a rice harvester.



## How to photograph a Moluccan Woodcock: notes from an LSU expedition to eastern Wallacea

By John Mittermeier

An exciting trend in ornithology is the recent, exponential growth in freely-available online recordings, distributional records, and photographs. Data and images that were once to be stashed in private notebooks and slide boxes are now instantly accessed through websites like ebird, xeno-canto, and flickr. For photos in particular, Google searching virtually any bird quickly returns an array of images for even the most obscure species. As this coverage becomes increasingly comprehensive, it is fun to consider which birds have yet to be photographed and what kind of effort might be required to track down these ‘missing’ species.

This past summer, I organized an expedition to the island of Obi in the Northern Moluccas, eastern Indonesia, together with Eden Cottee-Jones, a colleague from the University of Oxford, UK. Our project focused on conducting a general survey of the avifauna on this poorly-studied island (Mittermeier et al., *in review*), reviewing the impact of the parrot trade (Cottee-Jones and Mittermeier et al., *in review*), evaluating the conservation status of the Moluccan Woodcock *Scolopax rochussenii* (Cottee-Jones and Mittermeier et al., *in review*), and exploring the potential for future dissertation research in this part of Indonesia. Since its initial discovery in 1862, the Moluccan Woodcock had been recorded on fewer than ten occasions, and with only two sightings in the last thirty years it is a prime example of one of these un-photographed mystery species. My field notes on the challenges of getting the first-ever live pictures of this bird reflect some of the experience and excitement of doing research in eastern Wallacea.

It is 5:50 am, just before dawn on August 26, drizzling and still dark, and I am standing ankle deep in the fast-flowing water of the Sumbali River of northwestern Obi Island, hoping for a woodcock to fly overhead. Around me,

the outline of high forest edging the river looms barely visible against the heavy black sky. Together with my collaborator Eden, and three masters students from the University of Indonesia—Eka Hesdianti, Endang Christine Purba, and Nova Dina Ashuri—I have been travelling around Pulau Obi for the past seven weeks. Persistent rain and days of slogging through swamp forest have taken a toll on our equipment and our feet: one camera tinted images a dull, sickening blue before fading into an unresponsive torpor, a second became so infiltrated with damp that every photo appears to have been taken in a carwash, a headlamp fell in a river and fizzled, three pairs of field pants ripped and fell apart, a rain poncho and a tarpaulin have started to leak. The things that remain seem to teeter on the brink of imminent tearing, leaking, short-circuiting. The feet have not fared much better. This morning, I am wearing flip flops because some form of tropical foot rot—imagine meat soaked in water, then rubbed raw with sandpaper—has swollen my right foot beyond what can fit in a boot. But at the moment sore feet and ruined equipment are not on my mind. This is our last morning in the Obi forest, and I *need* to photograph a Moluccan Woodcock.

A large forest-dwelling shorebird endemic to the Moluccas of eastern Indonesia, *Scolopax rochussenii* was first collected by Heinrich Bernstein, a German naturalist who enrolled as a doctor in the Dutch Army to fulfill dreams of traveling to the tropics. Bernstein obtained a single male of *S. rochussenii* from Obi in 1862 (how exactly remains unclear) but never lived to see the species named. He died of illness in New Guinea in 1865 and “*Scolopax rochussenii*” was not described until 1866 when Bernstein’s specimen arrived back at the Museum of Natural History in Leiden, Netherlands. Over the next 150 years, western science only managed to find an ad-

ditional seven individuals of the Moluccan Woodcock, and in 1982 the species disappeared entirely for almost thirty years until, in 2010, a team of French bird-watchers observed and sound-recorded Moluccan Woodcock on two occasions along Obi's coast.

If you make it to Obi—a feat that for me required seven airplane flights, two weeks of obtaining permits in Jakarta, and eighteen hours in a cramped ferry—finding a Moluccan Woodcock, it turns out, is relatively easy. In areas along rivers and over swamp forest the birds display daily just before dawn and after dusk. When a territory was nearby, we heard the bird twice a day, every day. In seven weeks we had tallied nearly fifty observations.

Getting a photograph, however, is far less straightforward. Display flights are consistently timed when it is just too dark for a camera to function and the birds were always too high for mist nets, usually too high for a flash and often unpredictable in their choice of flight path. In areas with dense forest—most of the island—quick shadowy glimpses through the canopy were the only views you ever had. And as soon as the sun came out, Moluccan Woodcock apparently just evaporate. In fifty-one days and more than 630 hours of wading through streams, splashing into swamps, clambering up ridges and sliding down valleys and gorges, and kicking, shaking and thrashing about in every dense, muddy, spiny, and impenetrable possible woodcock hideout we could find one of us and had seen exactly one woodcock once during the day. It was in pouring rain at the end of a ten kilometer hike and the bird flushed in front of me and glided up and over a waterfall before I could even consider that I had a wet, non-functioning camera in my pack.

Wallacea will be familiar to anyone with an interest in biogeography and conservation. Defined as the region of islands stretching from Borneo and Java east to New Guinea, it sits at the intersection between the Oriental and Australasian biogeographic regions. To the west are pheasants, gibbons and elephants, to the east cassowaries, echidnas and birds-of-paradise, and in the intervening island patchwork influences from both combine with bizarre endemic lineages in spectacular display of biological diversity. It was the informative geography of Wallacea that famously inspired Alfred Russel Wal-

lace to develop his theory of evolution by natural selection. In his book the *The Malay Archipelago*, Wallace describes both the biological marvels and the difficulties he encountered in the Moluccas. Weather and the slow pace of logistics are a frequent theme:

“Looking at my whole voyage in this vessel from the time when I left Goram in May, it will appear that my experiences of travel... have not been encouraging. My first crew ran away; two men were lost for a month on a desert island; we were ten times aground on coral reefs; we lost four anchors; the sails were devoured by rats; the small boat was lost astern; we were thirty-eight days on the voyage home, which should not have

taken twelve; we were many times short of food and water; we had no compass-lamp, owing to there not being a drop of oil in Waigiou when we left; and to crown all, during the whole of our voyages from Goram by Ceram to Waigiou, and from Waigiou to Ternate, occupying in all seventy-eight days, or only twelve days short of three months (all in what was supposed to be the favourable season), we had *not one single day of fair wind*. (Wallace, p. 418)”

The italics are Wallace's, one of the only instances in the entire book where he uses them.

One hundred and fifty years later, the need for compass-lamps and sails has changed but the pace of travel and inconsistency of weather in the Moluccas seem much the same. At Tanjung Rijang in the south of Obi, we waited four days for the wind to change so a boat could leave. When we finally decided to move to the next village by piling all of our equipment on to motorcycles, a driver who promised to return in two hours left me sitting and waiting on porch for twenty-three hours before finally arriving smiling and ready to go. Despite reports that June-August tended to be the drier months, in the mountains—where we had been concerned that there might be a shortage of water—it rained on thirteen out of fourteen days, and often with a sort of ferocious intensity that made it seem the island was trying to collapse our tarps and hammocks and wash us off of its shoulders and back onto the coast where we belonged. In describing the climate of Wallacea, Derek Holmes notes simply: “those who visit Manusela National Park on Seram will soon discover the meaning of montane tropical rainfall” (Coates and Bishop 1997, p. 23). The same applies to Obi.



Hours spent waiting for boats and motorcycles and idly watching rain, quickly turned into hours of contemplating how to photograph a Moluccan Woodcock. We considered hoisting mist nets on 30-meter poles above the canopy and running nets on ropes between isolated high trees (no trees high enough, no consistent flight paths), sketched giant bird-catching butterfly nets (no bamboo stalks long enough) and captured fistfuls of bats with various strategically-placed evening mist nets. Playing back recordings garnered no response; climbing into a tree and hauling the camera up after me derailed when the only appropriately located tree was overrun with large, fierce ants which Iksan, one of our local guides, warned would sting my eyes and make me go blind. And so here I was standing in the Sumbali, where we were hopeful that the wide cut of the river would provide just enough of a view to squeeze out a picture. After the utter failure of every alternative idea, we were banking on a patched together assemblage of my backup camera, Eden's sometimes functioning flash and a 400m lens with a spotlight duct taped to it. With the ferry scheduled to leave tomorrow, this was our last chance.

Even if everything worked, the plan was a long shot. Success required hearing the woodcock coming, having it fly directly overhead, picking up its silhouette in the predawn darkness, finding it in the camera viewfinder, guessing a roughly correct focus and lucking into the flash deciding to perform at the right moment. If things go perfectly, the bird might fly over three times with a couple of seconds for each pass. Counting the time for the flash to recharge—if it worked—I could conceivably get one photo per pass. We had been here now for three nights but between rain, equipment malfunctions and the birds being generally uncooperative had nothing to show for it. Back in camp our two local guides, Iksan and Pak Irham, have decided that this woodcock photography is a doomed and ridiculous pursuit and have opted to stay in bed. At this point I am starting to agree with them.

At 5:52, exactly on schedule, I hear one of the woodcock start calling upriver to south: “t't't't't't't.... t't't't't't't'....t't't't't't't” The distinctive call is a short rattle repeated at steady intervals. I can track the bird's movements based on the vocalizations, and this bird is still far upstream. I listen as it draws closer and then bends away again following a ridgeline to the south.



C'mon, c'mon, c'mon. The calls edge closer again, twist away and then increase again, this time coming right at me. Spotlight on, camera on, check the flash, check the focus. “t't't't't't't.... t't't't't't't'....t't't't't't't” A shadowy outline breaks from the edge of the canopy and the bird begins to pass straight overhead. I lift the camera and can just make out the bird through the lens in the pale glow of the spotlight. Wait for it...wait for it...now! The flash gives a satisfying “pop!” followed by a shrill whine as it starts to recharge. The bird disappears into the shadows of the canopy on the opposite bank of the river. I anxiously check the picture. *Got it!* Not exactly frame filling but there, ghostlike against the dark sky, is the unmistakable image of a Moluccan Woodcock.

Eden and I received support for our research from a National Geographic/Waite Grant, a Ron and Mary Neal LSU graduate fellowship, the Royal Geographic Society, the Oxford University Expeditions Council and an Eton College Thesiger Travel Award. In addition to photographing the Moluccan Woodcock, we recorded 109 species on Obi, including 14 new records for the island. Most exciting were a *Micropsitta* pygmy parrot that likely represents a taxon new to science and an exceptional diversity of unrecorded rail species—amongst them a surprising range extension for the enigmatic Invisibile Rail *Habroptila wallacii* of neighboring Halmahera. I am looking forward to returning to Wallacea for more extensive fieldwork this coming year.



# LSUMNS Hosts Genomics Workshop

By Michael Harvey and Brian Smith

LSUMNS curators **Fred Sheldon** and **Robb Brumfield**, along with collaborators at other institutions, were recently awarded a National Science Foundation grant to study the diversification of all suboscine passerine birds (a group that includes woodcreepers and ovenbirds, antbirds, and flycatchers). During the week of 18-22 March 2013, 15 collaborators from around the country came to the LSUMNS to learn a new genetic approach pioneered by Robb Brumfield and collaborators. This approach involves sequencing thousands of ultraconserved elements in the genome, or parts of the genome that are very similar across unrelated species. The DNA sequences of these ultraconserved elements (UCEs) are then compared across species in order to determine their phylogeny and evolutionary history.

The collaborators, from the American Museum of Natural History (New York), Museu Paraense Emílio Goeldi (Brazil), Kansas University Biodiversity Institute, Tulane University, and the Smithsonian Institution (Washington, DC), spent a week at LSUMNS. They divided their time between learning laboratory protocols in the museum's state-of-the-art genetics lab and learning computer techniques for analyzing UCE data using the LSU High Performance Computing cluster. The week was very productive - the laboratory work was successful and we were able to process UCE data from start to finish on the cluster. We thank especially Graham Derryberry and Bhupender Thakur for their assistance with the computational aspect of the workshop. We greatly enjoyed working with our collaborators, and look forward to further work on suboscine diversification and other projects in the future.





## Birds of Louisiana and Their Habitats

By Mary-Elaine Bernard

In September 2012, the Talented Visual Art teacher, Mary-Elaine Bernard, at Mandeville Junior High received a grant from the Covington Three Rivers Art Festival Grant Program for an art project she had proposed in May 2012. The grant proposal had to be related to the theme of the festival, Louisiana Celebrates Its Bicentennial. She proposed an installation which included a 4' x 6' triptych of assorted native birds and their habitats in acrylic paint that the 7<sup>th</sup> grade students would create; and an assortment of clay birds which would be attached to or underneath a sculpture of a tree draped with Spanish Moss that the 8<sup>th</sup> grade students would create. In order to know how to paint the birds, students would need to be able to sketch birds on exhibit at the Bird Hall, Museum of Natural Science at LSU.

With the grant funds she was able to hire a school bus to drive the students to LSU. She was also able to purchase the supplies for the installation. In preparation for the field trip to the Bird Hall at the Museum of Natural Science, the students watched an LPB produced CD of Danny Heitman's *Summer of Birds*. An intern helped her create small portable sketchbooks for the students to use for sketching from the bird exhibit and dioramas.

Students filled their sketchbooks with accurate images of birds and habitats. They took notes on colors and details of each bird. On return to MJHS, the 7<sup>th</sup>



grade students laid in the background habitat and the bird each had selected from the sketchbook in chalk on each of the connecting 2' w x 4' h boards that would be assembled to form the triptych. They each painted a bird and some of the habitat. They also painted the three 2' x 2' boards on which the triptych would stand. All was sealed with a polymer gloss. The 8<sup>th</sup> grade students created clay birds from their sketches. They formed a clay body and then split the clay in half, dug out the center, re-assembled the body, added the head, feathers etc. The clay birds needed to dry before being fired in the school kiln. Meanwhile, they built the tree and painted it. Once the clay birds were bisqued, they painted them in acrylic paint. They were sealed with a polymer gloss. Students attached some of the birds to the tree branches with hot glue. For display the Spanish Moss was added to the tree and near exposed root structure of the tree. Some birds were placed in and around the root structure.

This installation was exhibited here at MJHS on Cultural Arts night; the Covington Three Rivers Art Festival; and, in March 2013, at the Mandeville City Hall lobby. The students worked hard on every aspect of this project. They learned a lot about birds, painting, triptychs and sculpture.

Left to Right: Clay birds; Students at Mandeville Junior High School with completed clay bird sculpture they prepared after visiting the LSU Museum of Natural Science.





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