EEB IS COMMITTED TO
TEACHING
RESEARCH
SERVICE

Teaching  What better way to demonstrate an understanding of bird adaptations than to model it yourself? From woodpecker tongue to bird of paradise ornamental plumage to the keel bone, the students of Dr. Donata Henry’s Ornithology class fully commit.

Research  For her PhD, Sarah Khalil of Dr. Karubian’s lab is studying variation of carotenoids (pigments that make vertebrates yellow, orange and red) in red-backed fairy wrens and the mechanics of carotenoid production. And while conducting fieldwork in Queensland Australia, she pauses so that a bearded dragon can study her.

Service  Biology teachers from New Orleans area middle and high schools traveled to the Smithsonian Tropical Research Institute to work with Dr. Sunshine Van Bael and her lab as part of the NSF Research Experience for Teachers program. Dr. Van Bael was eager to participate to help the teachers develop curricula that incorporates on-going vital research in the tropical forests. And of course they got to take a side trip to historic Casco Viejo near Panama City.

THE EEB NEWSLETTER IS GOING GREEN!

EEBers talk a lot about conservation and we strive to practice what we preach. So, we’ve decided to discontinue the print version of this newsletter. Starting next year you will receive a copy of the EEB Alumni Newsletter via email - so make sure your email address is updated with the Tulane Alumni Office! We will also make it available through social media and our website.
Meet the newest EEB faculty member, Dr. Dorothy Cheruiyot

Dr. Dorothy Cheruiyot grew up on a self-sustaining farm in a rural community in Kenya. But for Dorothy it was more than just an idyllic lifestyle on a quiet farm, it was the experience of being immersed in and among the living world. For example, butchering a chicken to prepare for dinner wasn’t a chore, it was a dissection; she would study the anatomy asking her parents about the different parts and their functions.

Plants were what Dorothy really loved. She loved working in the family vegetable garden, cultivating beans, corn, potatoes, tomatoes, cabbage and other leafy greens. She also particularly enjoyed observing how the farm animals, and even her own community, interacted with plants. She would watch the cows and sheep in the pasture, observing which plants they ate and which they avoided. She would talk to local herbalists about which plants were medicinal and what purpose they served.

Dorothy’s father, a teacher, recognized the curiosity his daughter exhibited and encouraged her by giving her a book titled *A Journey into Science*.

“It was a giant text book – pretty much a science encyclopedia that never left my side,” Dorothy recalls fondly.

Her father also saw Dorothy’s interest and aptitude for science as a means for empowerment. “When I was 6 years old, I witnessed a lot of injustice and abuse of women. My dad told me that education was the best way to find freedom and a voice to speak against injustice.” She decided at the age of 6 that she wouldn’t stop studying until she had received the highest degree.

After high school, Dorothy left home to attend college at Columbus State University and fragmented rainforests of the Ecuadorian Chocó.”

**Welcome new staff!**

EEB welcomes Charles-Ryan “Ryan” Duncan, Program Coordinator, and Michelle B. Smith, Accountant, to the EEB administrative office staff.

Together with Operations Manager Jack Leslie, the triumvirate are eagerly supporting the mission of the faculty & students of EEB!

**2017 DEPARTMENT AWARDS**

**UNDERGRADUATE**

**THE FRED R. CAGLE MEMORIAL PRIZE**

EMMA BETH SALZBERG

Emma graduated with an excellent GPA in the major and successful completion of an Honors Thesis entitled “The impact of lead exposure on reproductive success and nestling viability in the Northern mockingbird.” Her professors identify her as an inquisitive, engaged student with excellent analytical reasoning and communication skills.

**SENIOR SCHOLARS AWARD**

ECOLOGY AND EVOLUTIONARY BIOLOGY

TADEO HERNAN RAMIREZ PARADA

Tadeo is graduating with a double major in EBio and Math. His professors identify him as a sophisticated thinker, with superior analytical, written and oral communication skills. He successfully completed an Honors Thesis entitled “Effects of neighborhood structure on the reproductive phenology of Oenocarpus bataua”.

**THE ZOOLOGY PRIZE**

GINA GRACE ZWICKY

Gina has a vast store of EBio knowledge, particularly on the natural history of arachnids, reptiles, mammals and marine organisms, and is an adept educator. She successfully completed an Honors Thesis entitled “Ecological niche modeling of elasmobranch fishes endemic to the Gulf of Mexico after the Deepwater Horizon oil spill.”

**THE GERALD E. GUNNING MEMORIAL AWARD FOR TWO RECIPIENTS**

MICHAEL CHALCIE MAHOMEY

Mike brought real spirit to the EBio department. His learning extended well beyond his courses as he pursued diverse experiences in the field and local community; from coastal restoration issues and brown pelican research to exploring ecological questions in the tropics. He successfully completed an Honors Thesis entitled “Investigating the role of animal-mediated seed dispersal for forest regeneration in the Chocó rainforest, Ecuador” and served two semesters as an Undergraduate Teaching Fellow.

EMMA ALINE DARR

Emma has been described as a “rock” in the Van Bael lab, assisting with research on flooding and bald cypress trees with precision and care. She also completed an internship at the Tulane Primate Center in the Division of Bacteriology and Parasitology investigating Lyme disease. She has maintained a strong GPA, has excellent communication skills and is perceived by her professors to be a very promising scientist.

**GRADUATE**

**GEORGE HENRY PENN AWARD**

LUKE BROWNE

PhD with Dr. Karubian’s lab - Dissertation entitled “Patterns and processes of biodiversity in pristine and fragmented rainforests of the Ecuadorian Chocó.”

**THE GERALD E. GUNNING MEMORIAL AWARD**

SAMANTHA LANTZ

PhD with Dr. Karubian’s lab - Dissertation entitled “Behavioral ecology of red-backed fairywrens (Malurus melanocephalus) during the non-breeding season.”

**TEACHING ASSISTANT AWARDS**

LOWER-LEVEL CLASSES

MAE BERLOW

Excellence in Teaching Assistant for Diversity of Life

UPPER-LEVEL CLASSES

KIMBERLY MICHHELL

Excellence in Teaching Assistant for Entomology
Alum pieces together the origins of life

Dr. Olivia Nigro graduated from Tulane with a BS in 2000. She loved Marine Biology with Dr. John Caruso, and General Ecology lab collecting spiders in Jean Lafitte National Park with Dr. Sherry.

Dr. Nigro then got a masters of microbiology at the University of Hawaii-Manoa studying Green Turtle Herpesvirus, which is believed to cause debilitating tumors in green sea turtles. She stayed at UH to get her PhD in the Department of Oceanography. But her dissertation work actually brought her back to New Orleans, where she studied pathogenic vibrios in Lake Pontchartrain immediately following Hurricane Katrina.

“It was very difficult to see New Orleans struggling after Katrina, but it was also heartening to see the resilience and the rebuilding. I was happy I could be there and contribute to a scientific study that could hopefully inform people about the recovery of Lake Pontchartrain after the influx of Hurricane Katrina’s floodwaters.” 

Two of her favorite classes while pursuing her EEB undergraduate degree were Processes of Evolution and Darwinian Medicine, both taught by Dr. David Heins. They shaped her understanding of, and enthusiasm for, how evolutionary processes shape the natural world.

In fact, her postdoctoral research has centered around researching evolutionary processes, to better understand the origins of life.

In 2012, Dr. Nigro received a fellowship to the Center for Dark Energy Biosphere Investigations (C-DEBI), a National Science Foundation-supported center for research and education, to study viruses in the Juan de Fuca Ridge (JdFR) Flank crustal fluids.

In the early 2000’s scientists began installing CORKs (Circulation Obviation Retrofit Kits) on boreholes drilled by the International Ocean Drilling Project. These CORKs allowed scientists to tap into the aquifer that is flowing through the oceanic crust. After many years and three iterations of CORK devices, scientists were able to obtain pristine crustal fluids from the CORKs.

“When I began my post-doc studies, these pristine fluids were just beginning to be sampled routinely.”

The deep subsurface environment is important with respect to implications for origins of life and early evolution because these systems are often considered the oldest continuously inhabited ecosystems on Earth. And there is reason to believe that the evolution of viruses occurred in an environment similar to present-day oceanic crustal environments. And viruses could have very well played a role in molding the early RNA world. By understanding how viruses or virus-like genetic elements existed could lead scientists to a last universal common ancestor (LUCA).

“Unfortunately, the fossil record remains silent as to the biology of LUCA as well as the existence of virus-like pre-cellular genetic elements. The DNA sequences that we obtain from the basaltic fluids of the JdFR Flank are likely important for exploring the origins of the deepest branching nodes on the evolutionary tree of life.”

Dr. Nigro recently co-authored her first successful NSF proposal to fund an expedition to collect data from North Pond on the Mid-Atlantic Ridge. And after finishing fieldwork this fall, she will begin at the Hawaii Pacific University as an assistant professor of biology.

The undergraduate research experience

In her freshman year, Elizabeth Holland ’20 took full advantage of the opportunities offered by a research university. Under the tutelage of her advisor Dr. Emily Farrer, Elizabeth jumped right into a research project that deals with Louisiana’s shrinking wetlands.

Coastal erosion, subsidence and salt water intrusion are the new reality in Southeast Louisiana. Jean Lafitte National Park, located just south of New Orleans, is working to combat these ill effects of climate change by planting bald cypress trees. Elizabeth and Dr. Farrer designed an independent study course aimed to help the park achieve its project.

Elizabeth teamed up with a senior Henry Adams ’17 to analyze Global Information Systems (GIS) data provided by the park in order to identify the types of terrain that were most likely to result in cypress growth success. Sifting through two thousand varied data points, all with different qualitative and quantitative aspects, they identified the most important factors to cypress survival.

Then, they created a protocol to help the park use its limited resources to get the most complete and expansive data points in their GIS data collection, which will allow them to track the outcomes of their planting efforts.

And after going out into the field themselves to aid in a park tree planting, they offered recommendations to help the park streamline its process in terms of finding a good balance between the quantity of trees planted and the quality of the particular planting locations.

Elizabeth considers this project a seminal moment in her college experience. It was more than just an academic pursuit, but also a collaborative, hands-on application of science to achieve results to an issue that means a lot to her.

As a sophomore this year, Elizabeth is hard at work in the classroom. But she still has the research bug. She’s already thinking about the summer, hoping to work with climatologists in the South Pacific, an area like Louisiana that faces the eminent threat of climate change.

Make a Donation to EEB!

Donating directly to EEB helps fund programs that are vital to the educational experiences for our undergraduate and graduate students.

The EEB General Endowed Fund was established with an initial generous gift from Katherine S. Griffin (BA, 1925) to support EEB’s academic programs. Help us grow the fund by making an unrestricted gift to EEB. Simply make the check out to Tulane University and write “EEB General Endowed Fund, #050105” in the memo line.

Donate via our website - click the Donate tab at the top of the screen.

You can also make a restricted gift, which will be used in the specific way of your choosing. Contact Dr. David Heins, EEB Chair, to discuss restricted gifts at (504) 865-5191.
Profiles of young EEB Alums

Hannah Strobel, 2015

Hannah Strobel discovered an interest in science while working in Hank Bart's lab at Tulane. She worked in the lab for a year, including five weeks abroad in Kenya helping to collect fish for a collaborative project between Tulane and the National Museums of Kenya.

It was the first experience she had with molecular methods, which she used to characterize fish biodiversity in lakes and streams across the country. She was particularly interested in the use of these techniques to explore questions about biological processes and patterns.

Hannah used these new molecular skills to develop a senior thesis with Dr. Heins and Dr. Blum. The thesis involved well-studied interaction between the threespine stickleback fish and its tapeworm parasite (Schistocephalus solidus).

Her specific project examined population genetic variation and differentiation in the host fish and evaluated the hypothesis that host and parasite would have corresponding population genetic structures due to co-divergence and local adaptation. They found that geography played a much greater role than host population genetics in structuring variation in parasite populations. The results suggest that high levels of gene flow caused by long range dispersal of parasite eggs by birds that eat infected stickleback may dampen genetic differentiation in local host-parasite populations.

In the last two years since graduating, Hannah has been working at an animal hospital. She got some great practical experience, and a much-needed break from the rigor or university life. But she couldn't leave it all behind. In her spare time, Hannah worked with her former advisors to prepare her honors for publication. The paper was published in 2016 in the Biological Journal of the Linnean Society. And she has even begun a new project examining the effective population size of S. solidus in Alaska using microsatellite genotyping. She feels like the process of getting published and the ongoing collaboration with her former advisor have prepared her well for grad school.

Hannah entered a PhD program at UC San Diego this fall and working in Dr. Justin Meyer’s lab studying experimental evolution of viruses and genomic features of disease emergence.

Erik Iverson, 2016

Since graduating with his 4+1 masters in 2016, Erik Iverson has been testing the waters with what the future may hold for his career. Despite being proud of his graduate degree, Erik missed his own graduation ceremony because he was in Utah training for a position with the Bureau of Land Management / Utah State University's National Aquatic Monitoring Center. He spent the summer of 2016 working as a technician in streams across rural Northwestern Colorado sampling water quality, macroinvertebrates, geomorphology, vegetation, and the human influence in remote drainages.

Erik’s field sites were so remote that when the deadline for submitting his masters thesis to an academic journal drew near, Erik had to drive pretty far to get to the nearest village and the only public connection to the internet was the wifi at a McDonald’s restaurant.

In October of 2016, when it got too cold to keep working in the streams of Colorado and Utah, Erik moved to Florida to begin working as an intern at the MacArthur Agro-ecology Research Center, a division of Archbold Biological Station. He helped with studies of greenhouse gas fluxes, wetland ecology, and fire regimes, as well as completed an independent project on the impact of trees on soil nutrients in pasture. In April of 2017, he presented this work as a poster at the Greater Everglades Ecosystem Restoration Conference in Coral Springs, FL.

In June of 2017, Erik was ready to move on to something different. So, he moved to the Peruvian Amazon to work for a new NGO called the Alliance for a Sustainable Amazon, where he serves as the Academic Programs Coordinator. Erik runs the internship and volunteer programs and he also leads the plant phenology and avian studies.

Erik is excited to have this opportunity to do research along the agricultural frontier of the world’s most biodiverse rainforest, and to work with an organization dedicated to finding more sustainable ways for people to live in the Amazon. And Erik was excited to be able to increase his teaching experience as that is ultimately something he would like to pursue professionally. Although he may try on a few more hats first before he settles.

[Update: Erik is happy to report that the paper submitted via McDonald’s wifi in rural Utah was recently accepted by The Auk!]

Continued on page 5...
The Royal D. Suttkus Fish Collection is the largest of its kind in the world. Dr. Hank Bart and his staff at the Tulane University Biodiversity Research Institute (TUBRI) maintain over 7 million species. This summer, TUBRI received an additional 85,000 new specimens from the University of Louisiana at Monroe. While TUBRI is happy to take on these additional resources, the trend of universities shuttering specimen collections is disheartening. Scientists from across the world rely on collections like TUBRI’s to aid in a variety of vital research. One notable example was in 2015 when NOAA scientists published the discovery of the third ever pocket shark. Accidentally caught during a different research trip, the very small, rare fish was only identified as a pocket shark with the help of the Suttkus Fish Collection’s vast taxonomic resources. Dr. Bart continues to promote the importance of natural history museums and specimen collections at conferences across the country hoping to prevent any further closures.

From page 4...

Kelly Barry 2012

After graduating in 2012, Kelly Barry accepted a fellowship with TeachNOLA, a nonprofit organization that prepares recent college graduates for a career in education and places them in local public schools. It turns out that a six-week training program is not quite enough to prepare one for the challenges of teaching high school biology. That first year, Kelly says she relied heavily on her experiences at Tulane, and in particular EEB. To Kelly, it was a benchmark for what good teaching should be, and also a source for inspiration in designing her lesson plans. Six years later, Kelly has teaching down to a science. Having identified lack of interest and enthusiasm in students as some of the biggest hurdles to teaching, she puts extra effort on finding ways to excite and motivate them. “It’s thrilling to hear students who ‘don’t like science’ say that Biology is their favorite class.”

A student’s personal situation can also be a hurdle for a teacher to make a connection. Some students may be interested in biology, but lack reading fundamentals, have language and/or cultural barriers, or even learning disabilities. Kelly works with these students to find what each may need to have what she calls a “lightbulb moment.”

“My goal is for every student to gain confidence in their ability to learn so they can continue working hard throughout high school and into college.” She learned the importance of a strong teacher-student relationship from her time at Tulane, where bonds with her EEB instructors bolstered her confidence in her knowledge. First was Dr. Bruce Fleury, whose enthusiasm and spirit prompted her to declare EEB as her major. Then Dr. John Caruso cultivated her love of marine biology, and pushed her to be the best student she could be.

Many other professors in the EEB also inspired her along the way, but it was a series of independent study courses with Dr. David Heins that imbued her with the passion for biology that she has today. For three years, including the summers, she worked with Dr. Heins on sticklebacks and parasites. The work resulted in a published paper with Kelly as second author, a truly amazing experience. While teaching is an enriching experience, Kelly still plans to get a masters of science.

Bon voyage, nos amis!

Associate Professor Mike Blum and Assistant Professor Liz Derryberry have decided to accept jobs at the University of Tennessee. While we’re happy that they’ll be closer to family, we’re very sorry to see them go. Good luck to Mike & Liz and all the members of their labs!

PhD Grad Wins OTS Student Paper Award

Luke Browne, of Dr. Jordan Karubian’s research lab, successfully defended his PhD thesis this past spring. An article from his thesis, which was published in the journal Ecology Letters this past fall, has recently been awarded the 8th Annual Student Paper Award by the Organization of Tropical Research. The article, “Frequency-dependent selection for rare genotypes promotes genetic diversity of a tropical palm,” describes how the rarity of an individual’s genotype could be used to predict patterns of survival of a tropical palm tree, and by extension, patterns of genetic diversity. This study adds to the growing evidence that genetic variation among individuals is an understudied but important aspect of tropical forest regeneration.

Luke now works as a postdoc at the UCLA La Kretz Center for California Conservation Science.
Meredith Kurz worked in the Heins lab for three years and spent two summers doing field work in Alaska. Her undergraduate research, Shifts in life-history traits of two introduced populations of threespine stickleback, was published in the journal Evolutionary Ecology Research in early 2016.

Meredith loved her research work so much she knew she wanted to go to graduate school. But first she decided to take a few years to give back to New Orleans by becoming a teacher in an underprivileged school. From 2013 to 2015, Meredith taught science at Helen Cox High School in nearby Harvey, LA. Teaching was a rewarding, yet challenging experience.

Once her teaching stint was up, she began a 2 year masters program at the University of Delaware College of Earth, Ocean and the Environment, where she became involved with two lines of research for her graduate work.

First was her thesis research in which she used satellite imagery and marsh soil data to estimate the carbon sequestration ability of marshes behind the barrier islands of the Mid-Atlantic coast, as well as their rate of change since the late 1800s. She’s just finishing up a manuscript that uses her research to project the potential loss of carbon storage ability along the coast under different sea level rise and beach management scenarios.

The second of her research pursuits involved several projects related to ocean and climate policy for an NGO that her advisor is involved in. This group, called the Global Ocean Forum (GOF), researches and promotes sustainable science-based ocean policy, largely at the international policy level. Meredith worked on writing policy briefs and literature reviews, creating recommendations for improving the consideration of healthy ocean ecosystems within the United Nations Convention on Climate Change (UNFCCC) and UN Law of the Sea (UNCLOS) negotiations.

Meredith finished her MS in May and immediately began working for the GOF to write a Progress Report on International Ocean and Climate Action, which will be presented to the UNFCCC’s conference. After her appointment at GOF is complete, she will begin a year-long Sea Grant Knauss Fellowship in marine policy in Washington, D.C.

Meredith credits her research work in the EEBS department with preparing her for getting her graduate research published. In particular, it was working in Dr. Heins’ lab and going through the publishing process with him that gave her the skills and confidence to be a great science writer.

John Herbert is investigating the influence of landscape and anthropogenic effects to shorebird populations. Specifically, how the habitat structure affects survival, habitat choice and migration strategies during the non-breeding portion of the annual cycle. Pictured above are foraging semipalmated sandpipers in Bigi Pan, Suriname. On top John holds a pectoral sandpiper in Cameron Parish, Louisiana.

Zoë is studying how dispersal processes and the local environment shape patterns of genetic diversity and variation across natural populations of the palm tree. She’s also interested in understanding how forest fragmentation might be impacting dispersal processes across a landscape scale. Below Zoë collects data with members of her Fcat Team. On the right the tropical palm Oenocarpus bataua.

PhD Research Spotlight:
Zoë Diaz-Martín 3rd year-Karubian Lab

PhD Research Spotlight:
John Herbert 2nd year-Taylor Lab
Jennifer Weaver (’05) is an ecologist at Research Planning Inc. (RPI), a consulting firm based in Columbia South Carolina that advises government agencies, non-profit organizations and for-profit industry in coastal and environmental management.

Specifically, Jennifer melds the ecology and biology she learned as an EEB major with the coastal management and analytical GIS work she did while earning her masters at Duke University to help mitigate oil and hazardous chemical spill disasters.

One aspect of her job involves aiding in the preparation of risk assessment projects to prepare for potential future disasters by creating Environmental Sensitivity Index maps and natural resource data syntheses. Specifically, Jennifer works with local data providers in a given area to obtain information available on distribution and abundance of sensitive species, and then displays it in a manner that helps responders make decisions about response activities in the event of oil and chemical spills.

Jennifer has also served on the National Oceanic and Atmospheric Administration (NOAA) Scientific Support Team as an on-site responder in the immediate aftermath of the Santa Barbara Oil Spill in 2015. Jennifer was on-scene for two weeks after the spill doing shoreline assessment and cleanup work. The analyses she and her colleagues created informed NOAA cleanup recommendations, which were immediately executed by the cleanup crews. It was meaningful to Jennifer to see the hard work she participated in have such immediate and successful results.

Long after the initial oil spill containment and cleanup is over, there are still lingering effects that can cause issues for years to come. Another aspect of Jennifer’s job is to help with longer-term oil spill recovery recommendations for disasters such as 2010’s Deepwater Horizon. She’s spent quite a bit of time supporting the development of restoration plans for the Deepwater Horizon Natural Resource Damage Assessment, which has involved working with stakeholders to evaluate and develop potential restoration projects. She doesn’t know yet which specific projects will get implemented, and is interested to see how the restoration efforts continue to unfold.

Working in Southeastern Louisiana on the Deepwater Horizon projects has been important to Jennifer as she has fond memories of her time at Tulane. Moments that no doubt shaped her career at RPI.

Jennifer did a work-study in Dr. Irschick’s lab that involved catching anoles in Audubon Park and then assisting in different experiments with them. She dissected innumerable amounts of stickleback as part of her Honors thesis with Dr. Henry’s Ecology fieldtrips, like talking about bird foraging and flocking in Audubon Park.

It’s a known fact to members of the EEB community that Gina Zwicky (’17) is an animal whisperer. Whether in the field, in the classroom or just walking across campus, Gina will find animals and befriend them.

Her love of animals fuels her academic career focused on active conservation. Gina was by all accounts a great student (she graduated with honors this past May as well as won two EEB departmental awards). But if you ask Gina it was all about the research both in the lab and the field. She participated in a variety of grant-funded research projects that focused on conservation ecology.

She first cut her research teeth in the Richard Zawacki lab working helping to collect data from northern cricket frogs that Dr. Julia Sonn (PhD ’17) had gathered from the Atchafalaya basin. Gina looked at the size, weight and other important viability data for the cricket frogs (which, for unenlightened, Gina describes as “super cute”).

Gina also spent a summer traveling through Panama helping collect data for the Derryberry lab research on Jacana behavior, funded by two grants from Tulane’s CELT program and the Newcomb Institute. Despite the difficulty of getting to and setting up the experiments, seeing the efforts elicit dramatic behavioral results from the birds was worth it.

The following summer Gina got a fellowship from NOAA to go on a “cruise.” Instead of relaxing on this cruise, Gina and PhD student Mike Cyran of the Bart Lab worked twelve-hour shifts from midnight to noon every day conducting marine biological surveys in a lab that was cramped and was rocking incessantly by the Gulf waves.

During her senior year, Gina worked at the Audubon Zoo in two husbandry internships, one with the zoo’s African Hoofstock collection and another with the carnivores of the Asian Domain. Two moments in particular made her zoo experience life-changing: she witnessed the birth and subsequent raising of a litter of endangered African painted dogs; and Gina also experienced the gradual death of Macite, who at the time of her passing at the age of 53 was the world’s oldest white rhinoceros.

All of these experiences have stuck with Gina. Her career goals include working with conservation groups, whether through scientific research or by working directly with activists and lawmakers to influence environmental policy. Whatever she does, she’s sure to excel – and make plenty of animal friends along the way.

Undergrad runs the research gamut

Tulane undergraduate students take a break from their research to pose before an enormous Ceiba tree in southwestern Ecuador. These students were participating in Tropical Field Biology and Conservation, a two-week, intensive field biology course co-taught by Dr. Renata Ribeiro and Dr. Jordan Karubian. This course provides Tulane undergraduates with first-hand experience in tropical biology in one of the most diverse spots on the planet.
OPPOSITE ENDS OF THE EARTH

Two PhD students, literally on the other side of the globe from one another, found themselves traveling this summer by boat to reach their respective remote field sites. **What better place to snag a selfie?**

**LEFT:** John Herbert rides at the front of a motorboat on a river in Suriname with his PI Dr. Caz Taylor, who is visible over his shoulder. Caz & John were assessing the survival of semipalmated sandpipers during their winter phase using an array of radio towers and attaching automated VHF radiotags (nano-tags) to the birds.

**RIGHT:** While appearing more quiet and tranquil, Erik Enbody and fellow PhD student John Jones (immediately behind him) paddled through crocodile infested marshland in Western Province, Papua New Guinea often as they studied the behavior of female White-shouldered Fairywrens, which inhabit elevated patches of dry grassland in the region.