

# UAB DEPARTMENT OF BIOLOGY NEWSLETTER



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## **Illuminating Alumni: Ricardo Tapilatu Receives PEW Fellowship**

UAB Biology alumnus Dr. Ricardo Tapilatu is one of eight marine conservationists chosen worldwide by the Pew Charitable Trusts to receive a 2018 Pew Fellowship in Marine Conservation, which includes a \$150,000 grant that will greatly enhance his ability to save the critically endangered Pacific leatherback sea turtle. These magnificent sea turtles can migrate from Dr. Tapilatu's native country of Indonesia, where his conservation efforts are focused, thousands of miles to the Pacific coast of the United States.



Tapilatu completed his Ph.D. in 2014 under Dr. Thane Wibbels' mentorship. During his time at UAB, Tapilatu developed a conservation plan for the most important nesting beaches for the leatherback in the western Pacific Ocean. He has continued his collaborations with UAB Department of Biology in order to transfer the latest technology to sea turtle conservation in Indonesia and implement his plan. "Ricardo's effort to save the Pacific leatherback in Indonesia is also contributing to the preservation one of the most biodiverse and pristine ecosystems in the world," says Dr. Wibbels. "He has developed into a true leader in sea turtle conservation due to his dedication, experience, and international academic background."

## Faculty Focus: Dr. Sami Raut



Dr. Sami Raut has had a busy year!

In February, Dr. Raut was named the recipient of the College of Arts and Sciences' Dean's Award for Excellence in Teaching in the area of Natural Sciences and Mathematics. This award recognizes faculty members of CAS who have demonstrated exceptional accomplishments in teaching. Dr. Raut's interests include undergraduate STEM Education, future STEM faculty training via the Center for the Integration of Research Teaching and Learning Lab in the Graduate School, service learning, and sustainability. Her teaching philosophy is

focused on creating an all-inclusive classroom by emphasizing team-based learning, service-learning, and sustainability.

This winter, Dr. Raut was selected as a member of the first cohort of the National Science Foundation-sponsored Biology Teaching Assistant Program (BioTAP) Scholars, a network of professionals enacting research projects to collect and analyze data about graduate training assistants' professional development. Dr. Raut's BioTAP project investigates the comparison of undergraduate student perceptions of native and international graduate teaching assistants in the science, technology, engineering and math fields.

In Spring 2017, Dr. Raut was awarded the UAB Disability Support Services' Outstanding Faculty Award for her commitment to the needs of students with disabilities. Around the same time, she was one of ten UAB faculty members to receive an Affordable Instructional Materials (AIM) grant for her efforts to reduce the amount of money students spend on textbooks.

When she's not teaching and mentoring students, Dr. Raut acts as the advisor for UAB's Disabilities Advocates Club and Phi Sigma Biological Honor Society, as well as the co-founder of the ROSE (Research on STEM Education) Network. Dr. Raut says her main priority is doing what is best for her students and helping them have the best learning environment. Dr. Raut's dedication to UAB and her students keeps her busy, but she wouldn't have it any other way.

## Darwin Day

*UAB Darwin Day 2018: A Celebration of Science*, a collaborative activity co-sponsored by the Departments of Biology, Anthropology, Art and Art History, and the Honors College, took place on February 8<sup>th</sup> and was packed with festivities for the UAB campus and members of the Birmingham community to enjoy. The Department of Art and Art History kicked off the affair with a student art exhibit, entitled "One Drop at a Time," that displayed visual artwork exploring the habitat and ecology of North Alabama's Manitou Cave.

Later that day, students ranging from high schoolers to doctoral candidates presented their innovative research in a scientific poster session. The research covered an array of topics including marine biology, STEM education, robotics, and evolution.



Following the poster session, paleoanthropologist, TED Fellow, and National Geographic Explorer Genevieve von Petzinger presented the Darwin Day keynote lecture to a brimming audience at UAB's Alumni House. Von Petzinger's research focus is cave art, specifically geometric signs, painted by early humans. During her lecture, she discussed how these signs can help us to better understand the early human cognition, communication and use of symbolism.

Thanks to everyone who attended and supported Darwin Day 2018. Fun was had by all! Stay tuned for more information about Darwin Day 2019, featuring guest speaker and hometown hero Beatrice Hahn.

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## Faculty Focus: Dr. Roger Gilchrist Receives President's Award for Excellence in Teaching



Dr. Roger Gilchrist was one of 12 UAB faculty members selected to receive the 2017 President's Award for Excellence in Teaching, which honors those who have demonstrated exceptional accomplishments in teaching. The honorees represent each school, the College of Arts and Sciences (CAS), the Honors College, and the Joint Health Sciences departments. Dr. Gilchrist, an assistant professor of biology, has taught at UAB for nearly two decades. During that time, he has earned a reputation for being a patient, accessible, and exemplary professor, and students say he has a well-rounded teaching style that encourages students to challenge themselves and truly learn and understand the material. Gilchrist is well-known for making time for his students. "Often there is a line of students in the hallway waiting their turn," one colleague wrote. Gilchrist is dedicated to providing quality programs and courses; he chairs the CAS Curriculum and Education Policy committee and also developed and continues to teach BY 216: Introduction to Human Pathophysiology, which is unique to UAB.

The Department of Biology has a long-standing history of success with the President's Award for Excellence in Teaching. Dr. Gilchrist is the department's sixth recipient, preceded by Drs. Anne Cusic (1995 and 2005), Thane Wibbels (2001), Stephen Watts (2006), Doug Watson (2010), and Asim Bej (2014).

## Biology Spring 2018 Awards Ceremony

The Department of Biology's Spring 2018 Awards Ceremony was held on April 12, 2018 at the UAB Alumni House. Faculty, staff, and students gathered to honor the incredible accomplishments of our department's undergraduate, master's, and doctoral students during the 2017-2018 school year.

### LOCAL AWARD WINNERS

*Deja Murray*

Anne M. Cusic Scholarship in Biology

*Regina Sherman*

Ken R. Marion Biology Career Award

*Raven Edwards*

Ken R. Marion Ecology / Environmental  
Science Career Award

*Nicholas Bolin*

Department of Biology Outstanding  
Undergraduate Student Award

*Marlee Hayes*

Department of Biology Outstanding  
Masters Student Award

*Adele Fowler*

Department of Biology Outstanding  
Doctoral Student Award

### NATIONAL AWARD WINNERS

#### Graduate

*Sarah Adkins*

American Society of Microbiology  
Outstanding Abstract Award

*Sabrina Heiser*

- Phycological Society of America's  
Ralph A. Lewin Poster Award  
- Antarctic Science Bursary

*T.C. Howton*

First Place Oral Presentation, Southern  
Section of American Society of Plant  
Biologists Annual Meeting

*Megan Roegner*

Best TCS Oral Presentation Award,  
Society for Integrative Comparative  
Biology Annual Meeting

*Amy Bonka*

National Geographic Early Career  
Grant

*Elise Keister*

PADI Foundation Research Grant

*Kayla Lewis*

- Fulbright Scholar Semifinalist  
- Susan G. Komen Graduate Training in  
Disparities Research Fellowship

*Kendra Royston*

Susan G. Komen Graduate Training in  
Disparities Research Fellowship

### NATIONAL AWARD WINNERS

#### Undergraduate

*Trevor Holden, Trung Huynh, and  
Edna Teiko-Awere*

Clinton Global Initiative University  
Meeting Presenters

*Autumne Lee*

Benjamin A. Gilman Int'l Scholarship

*Niharika Loomba*

Amgen Scholars U.S. Program

## 2018 Outstanding Alumni Awardee: Martin Nowak

Martin took as circuitous a route to UAB's Biology Department. Born in Germany where he lived until the age of 13, Martin and his parents moved to Tennessee and then Colorado, where his interest in herpetology blossomed. As a 16 year old, he turned a hobby of collecting and breeding snakes into a business, and that business helped put him through college. In our Biology Department, he fell under the mentorship of Dr. Ken Marion, a like-minded herpetologist, where they spent many hours and days in the field

and lab together. Between his freshman and sophomore years, Martin took a job at East End Hospital (now St. Vincent's East Hospital) working in the surgery and emergency departments. Upon graduation, he surveyed the job prospects for academic herpetologists, ultimately deciding to pursue an MS in Healthcare Administration as it seemed to promise a more secure future. It turns out that he had a flair for hospital administration to match his flair for breeding snakes. He rose quickly through the ranks, heading up a series of hospitals, before eventually returning to UAB, where he became CEO of UAB hospital. Martin emphasizes that Dr. Marion's mentorship taught him three important lessons. First, he learned the value of formal research and how that could be used to answer specific questions whether in biology or in hospital administration. Second, he learned the value of field research. Even in the hospital setting, he thought of the whole hospital as his field site which he needed to constantly monitor and interact with in person. Third, he learned the art of mentoring, something that is not only useful but necessary to be a successful leader. Having now evolved out of hospital administration to become President of his own healthcare and consulting firm, Martin's snake breeding hobby and business is still going strong. Once a biologist, always a biologist.



*Dr. Steven Austad presents Martin Nowak with the Department of Biology's Outstanding Alumni Award at the Spring 2018 Awards Ceremony.*

## Recently Awarded Grants

### Dr. Steven Austad

Source: National Institutes of Health  
Title: "A Sex Difference Approach to Evaluating Resilience in Mice"  
Funding Amount: \$1,500,000  
Duration: 5 years



### Dr. Peggy Biga

Source: United States Department of Agriculture  
Title: "Improving Rainbow Trout Growth Performance through Optimization of Diet-Epigenetic Interactions"  
Funding Amount: \$500,000  
Duration: 4 years



### Dr. Shahid Mukhtar

Source: National Science Foundation  
Title: "Symbiosis, Defense and Self-Recognition Cluster"  
Funding Amount: \$800,000  
Duration: 3 years



### Dr. Liou Sun

Source: National Institutes of Health  
Title: "Aging and Somatotrophic Axis and Abeta Toxicity"  
Funding Amount: \$392,747  
Duration: 2 years

Source: National Institutes of Health  
Title: "Longevity Assurance Interventions, Metabolic Health and A $\beta$  Toxicity"  
Funding Amount: \$366,400  
Duration: 2 years



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