

The Biology Flash

Fall 2012

Photograph by Justin Merry

Student News

- **Erika Bendick** ('12) is currently attending the Master's of Environmental Systems Analysis and Management Program at Sacred Heart University.
- **Chad Clair** ('12) & **Adam Mengel** ('12) are attending the Biology Master's Program at Indiana University of Pennsylvania.
- **Dr. Andria D'Amato** ('05) earned a Diploma of Junior Rank in Chinese Taoist Medical QiGong, May 2012 at QiGong General Headquarters, Beijing, China. Dr. D'Amato recently gave a presentation at SFU on acupuncture in modern medicine.
- **Patrick Green** completed a two-summer internship with the PA Department of Environmental Protection in their Black Fly Suppression Program.
- **Melissa Linden** ('06) & **Jonathan Shaw** ('06) gave a presentation at SFU about their careers. Melissa is an environmental scientist with the US EPA, while Jonathan recently completed his M.S. degree at Shippensburg.
- **Brittany (Bullion) Repko** ('08), a scientist at Red Path Integrated Pathology, gave a presentation at SFU about her career in biotechnology.

Summer a time of new experiences for SFU Biology Students

Summer is a time when many SFU Biology students seek out extracurricular activities that expand the breadth of their experiences. These often include research opportunities, internships, and summer jobs that are relevant to their career aspirations. What follows is a sampling of what some of our students did.

Jesse Felts conducted internships with Dr. Peter Swaan on apical sodium-dependent bile acid transporters, as well as an internship at the University of Maryland School of Pharmacy.

Laura Husband participated in the Primary Care Scholars Program at Penn State Hershey Medical Center. She also spent time working at a free clinic for the underserved.

Amanda Johnson and **Zack Rozansky** worked with

Dr. Lane Loya to compare riparian arthropod communities along polluted and clean regions of Blacklick Creek.

Marissa Kidwell held an internship with the Salisbury Zoo in Maryland.

Lauren Maline held an internship at Mote Marine Lab in Sarasota Florida, where she rehabilitated sea turtles and dolphins in their hospital facility. She also interned at Blair County Wildlife Rehab Center.

Thomas McWilliams conducted research on the role of heat shock proteins in acid mine drainage with **Dr. Irene Wolf**.

Paige Mundy was a STARS research student in the spring (**Dr. Wolf**) and gave research presentations at the Tribeta Meetings and UMBC Meetings.

Andrew Smith attended a class



Laura Husband (left) discusses her experiences in the Primary Care Scholars Program at Penn State Hershey. Lauren Maline (right) held an internship at Mote Marine Lab in Sarasota, FL.

at Wallops Island Marine Consortium.

Mark Steinmiller held an internship at the Pittsburgh Zoo and Aquarium.

What's New in the Biology Department?

- In appreciation of a \$1 million gift by Peter and Suzy Shields, Saint Francis University will name the first floor of the new Science Center the **Ferdinand and Frances (Little) Shields Center for Biology**. The Science Center is slated to open Fall 2013, and was profiled in the Spring 2012 edition of the Biology Flash.
- **Dr. Devonna Sue Morra** is traveling to Saint Francis University's Ambialet facility in France to teach the course "Natural History of Southern France" during the Spring 2013 semester.
- **Dr. Lane Loya** presented "Challenges to implementing an ecology-based immersion semester program for undergraduates" at the 2012 annual meeting of the Ecological Society of American in Portland, Oregon.
- The following freshmen received STAR grants to support research with Biology Department faculty during Spring semester: Morgan Dutrow & Nathan Herdman (Dr. Merry), Rachel Robinson, Mary Woloschuk, Jocelin Teachout, & Margaret Connelly (Dr. Loya), Joshua Ankeny (Drs. Falso & Morra), Nicole Ryba, Travis Schofield, & Matthew Williams (Dr. Wolf).

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Alumni: do you have news to share? New job? Attending graduate school? Please contact us and let us know:
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Faculty Profile: Dr. Paul Falso

Paul G. Falso, Ph.D., joins us this fall as a Visiting Assistant Professor of Biology. Paul grew up in Washington, PA, and did his undergraduate work at Allegheny College in Meadville. As someone who has long enjoyed outdoor activities, particularly flyfishing, backpacking, and nature photography, he realized early in his career the connection between his hobbies and the alteration of Pennsylvania's natural environment by human activities. While an undergraduate, he heard a research talk by Dr. Tyrone Hayes from the University of California Berkeley and became fascinated with the effects of water pollution on wildlife and human health.

Following his interest, Dr. Falso obtained his Ph.D. from UC Berkeley in Toxicology under Dr. Hayes. His research focused on water pollution from agriculture, and its effects on amphibian health. Worldwide, amphibian populations are declining due to environmental change, and they also serve as models for our own health.

Teaching was one of Dr. Falso's favorite components of his graduate education,



Dr. Paul Falso poses with two American bullfrogs (*Lithobates catesbeianus*) at one of his field study sites in California.

and he is excited for the opportunity to return to Pennsylvania and teach at Saint Francis University. In addition to teaching, Dr. Falso plans to continue his research and hopes to contribute to better management practices for the purpose of improving environmental health.

Student Profile: Mark Steinmiller

Mark Steinmiller, a senior Biology major with a marine biology concentration, and a minor in Biological Diving, is researching the ability of *Tridacna derasa* clams to lower the potentially toxic nutrients, phosphate and nitrate, in aquarium settings. The simplest way to reduce these nutrients is to partially change the water in the aquarium. If *T. derasa* clams can significantly reduce these nutrients, it may be possible to use *T. derasa* to reduce the number of water changes necessary to maintain an aquarium. Dr. Devonna Sue Morra is advising the project, which constitutes his Honor's Senior Thesis.

Mark has become quite the world traveler. He traveled to Australia for Dr. Morra's Natural History of Australia class, Crystal River, Florida for Manatee Ecology, and St. Lucia for Research Diver Methods. Now he is looking forward to another

field biology trip in the spring.

Mark is has president of the SCUBA club, and is a member of the Tri-Beta Biological Honors Society and the Saint Francis "Deep Friars" Ultimate Frisbee club. He has also volunteered his time as a dive master, assisting Open Water SCUBA diving students in the pool and on their training dives.

Over the summer, he interned at the Pittsburgh Zoo and PPG Aquarium where he learned to work as an aquarist. He will be applying to the Our World Underwater Scholarship Society for their Rolex Scholarship. This scholarship grants the scholar one year of hands-on experience from the leaders in underwater fields across the United States, and potentially, around the world. Barring that, he will be seeking a job in a zoo or aquarium following gradu-



Mark Steinmiller, diving near St. Lucia in the Carribean, holds a 1 meter by one meter square of PVC pipe that students used to establish quadrats for surveys of biodiversity.

ation and looking at grad school after gaining real world experience.