A CLASSROOM IN THE TROPICS

This past August, Drs. Alexander and Schwimmer taught the Introduction to Field Marine Science course on the tropical island of Roatan, Honduras. The course was based at Anthony’s Key Resort, located on the northwestern shoreline of Roatan.

Immediately adjacent to the resort was the Institute for Marine Science, which served as a classroom and laboratory for the course. For two weeks, ten students (Justine Diana, Bethany Eden, Jay Kubitsky, Harmony Liff, Jessica Messersmith, Jordana Nester, Clare O’Connell, Danielle Roscoe, Melanie Spence, and Jeff Zola), examined various ecosystems, such as a sea fan community, a coral reef, a rocky intertidal zone, a mangrove shoreline, and a shallow-water turtle grass community. The first week, students completed six group exercises, learning to recognize and quantify (!) the various relationships that exist between the organisms and their environment. At times, the work was challenging, considering the students had to be careful of the intense tropical Sun and heat, but they also had to watch out for stinging jellyfish, hydroids, worms, and fire coral. Luckily, the scenery, both above and under the water, was spectacular. It didn’t hurt also, that one of the exercises involved swimming with dolphins! Yes, that was a highlight. They were able to pet and hold the dolphins and then were allowed to swim with them within a very large pen. The dolphins were very friendly, and even enjoyed playing a game of fetch with you using turtle grass.

For the second week, Dr. Paul Jivoff joined the group and immediately tried to elevate the arthropod phylum to the Kingdom level! Fortunately, there were enough crabs, both land and marine varieties, to satisfy even “PJ.” As for the students, the week began with a group mapping exercise that investigated the distribution of invertebrates, algae/grasses, water depth, and sediment thickness over an area of approximately 2500 square meters! Then, if that was not enough, each student had to design and implement their own individual project, including a complete formal written report.
Ah, but not to worry, the students had some free time to soak up the sun, snorkel and swim at the beautiful Tabyana Beach at the western end of Roatan. Take a zip-line ride through the tree canopy, experience the local hot spots outside the resort, bounce on the enormous water trampoline at the resort, and even win the musical chairs, the limbo, and the dance contests at the Monday night beach cookout! Overall, it was a memorable trip and one that everyone is looking forward to do again.

**Kathy Browne – Moving Across the Hall (or Up the Food Chain?)**

Kathy Browne, Associate Professor of Geological & Marine Sciences, has a new office in the Science And Technology Center. It is still on the third floor, about 200 feet from her old one. It is located in the Teaching and Learning Center with her name stenciled in burgundy on the glass door. It says Dr. Kathy Browne, Director, Teaching and Learning Center. This year marks the 10th anniversary of Kathy’s affiliation with the Rider geological and marine science faculty as an assistant professor fresh from graduate school. Over the decade since her arrival, Kathy imprinted her unique style on courses such as Oceanography, Introduction to Oceanography Laboratory, Chemical Oceanography, Physical Oceanography, and Carbonate Sedimentology. In 1995, she team-taught the Introduction To Field Marine Science (MAR 228) at the Shoals Marine Laboratory, Appledore Island, Maine, for the first time. Since then, although the venues have changed, she has team-taught the field marine science course every year except 2000. She taught the subtropical course (MAR 227) at the Bermuda Biological Station for Research, and the Advanced Field Marine Science Course (MAR 429) at the Harbor Branch Marine Institute, Ft. Pierce, FL in 1998 and the Newfound Harbor Marine Institute, Big Pine Key, FL in 2003. Students appreciated Kathy’s methodology in these field courses and reveled in telling about the challenging experiences under her watchful guidance when they returned to campus.

Kathy was tenured and promoted to associate professor in 1999, the same year she began to spearhead the restoration project of Centennial Lake which was externally funded by a ~ $300K grant. Kathy has also been involved in the University Theme Project for the last five years and has been a valued mentor of the women’s volleyball team. Now that Kathy is Director of the TLC, her teaching responsibilities will be restricted to one, maybe two courses a year as she focuses on her administrative responsibilities. Nevertheless, Kathy will continue to hone her experientially-oriented, inquiry-based pedagogy that formally debuted in her introduction to oceanography laboratory section two years ago.

The department is conducting a search to hire a new chemical and physical oceanographer and we expect to be inundated with resumes of highly qualified Ph.D. applicants. But the successful applicant will never “replace” Kathy, although he/she will be a much welcome infusion of new academic blood to our dynamic faculty. At least the existing departmental faculty take some comfort in the fact that the TLC is only 200 feet away, and with its emphasis on science education and literacy, we will benefit from Kathy’s input in the development of our interdisciplinary courses for science educators.
We won’t be surprised to see Kathy in the field during ensuing summers, wading in tide pools, accompanied by K-12 science educators. Best wishes in your new position Kathy!

**ROCKING IT UP, DOWN UNDER**

Senior geosciences major, Nicholas Masi, was looking for something different when it came to satisfying his major’s geology field camp requirement. Nick just knew that he didn’t want to do what everyone else had done. So after much research, and a few false starts, Nick set off this past summer for the great outback of Australia to attend a geology field camp offered by James Cook University of Townsville, Queensland, Australia.

Officially known as the Outback Program, the course has been successfully run for twenty years and has been open to international students since 1999. This year, Nick was one of eight American students who came to Australia specifically to take the course, in addition to two other American students who were already in Australia as part of their study abroad program.

The camp started with one week of introductory classes for the Americans in order to better acquaint them with Australian geology and geologic history. The camp then continued with seven days in the outback near the Fanning River, 100 km west of Townsville. Dr. Robert Henderson, Chair of the Geology Department at James Cook University, led this portion of the course. After that, the group moved for two weeks to a ranch near Cloncurry in the heart of the Australian outback, 900 km west of Townsville. There, the group looked at and mapped metamorphic rocks from the Middle Proterozoic Era and studied how these rocks deformed already existing sedimentary and igneous units.

Nick loved how every student in the program lived, camped, cooked, cleaned, washed, hiked, climbed, studied, and dealt with injuries together. He further relates how what he learned on the trip goes far beyond the geology of the area of Australia he visited. Lessons in friendship, teamwork, humility, and interdependence are just some of the life lessons Nick says he will take away with him from the trip. As a direct result of his experiences in Australia, Nick now plans to participate this spring in a study abroad program in South Africa, followed by a return visit to Australia (possibly for graduate school) and a long vacation in New Zealand. Guess it pays to be different!

**STUDENT SUMMER INTERNSHIP**

Mia Castellucci, an environmental science major, was a Private Well Research Intern for the Hunterdon County Health Department. She assisted the health department by collecting water quality data of private wells in the county and participating in the inspection of wells and septic tank systems of private homes. Also, she was a part-time research assistant for Dr. Hongbing Sun this past summer, helping him collect and analyze state-wide arsenic concentration data in the water system and the related health data.

Two of our marine science majors, Jeffrey Zola and Kathryn Bateman, were interns under Dr. Paul Jivoff at the Rutgers University Marine Field Station in Tuckerton, New Jersey. While in Tuckerton, Kathryn worked on several projects that centered around several crab species including blue and green crab interactions, green crab distribution, blue crab population studies and the affect of shoreline development on the blue crab populations, which will then be the basis of her senior thesis. Jeff assisted in the on-going research on the interactions between the native blue crabs and invasive European green crabs in Great Bay and Little Egg Harbor. His team was exploring the differential habitat use between the blue crabs and the green crabs and how the native species influence the success of invaders in its new environment.
**BEST WISHES TO THE 2003 GRADUATES**

The department wishes success to its 2003 graduates. **William Bogetti** (environmental science), **Tanya Brown** (marine sciences), **Jonathan Cooper** (environmental sciences), **Robert Croskey** (marine sciences), **Sarah Faugno** (marine sciences), **Daniel Kuti** (marine sciences), and **Steve Snopkowksi** (marine sciences).

**ALUMNI UPDATE**

Department alumni continue to stop by to visit or contact us with their latest news. If you haven't done so recently, please feel free to tell us about what is going on in your life and of those close to you. You can find more alumni news, including specific contact information, on our alumni web page, located at [http://enigma.rider.edu/~wwwgeo/alumni.html](http://enigma.rider.edu/~wwwgeo/alumni.html). We look forward to hearing from you.

**Jim Ierubino '82** is currently a planning advisor for ExxonMobil Production Company Corporation in Houston, Texas. He has been with Mobil/Exxon Mobil for the past 18 years, including stops in California and Alaska. Jim and his wife, Colleen, a programmer/analyst, have a daughter, Paige. Jim received his Masters in Petroleum Engineering from Colorado School of Mines in 1986.

**Cheryl Coffee-Gomez'93** recently changed jobs and is now working for the Congoleum Corporation in Hamilton, NJ. She also has been taking online courses with the University of Denver that will lead to a Masters Degree in environmental policy and management.

**Greg Dietl '95** and **Joanne Gore Dietl '95** are the proud parents of two children, Samantha and Alex. Greg completed his Ph.D. in Zoology at North Carolina State University where he studied predator-prey interactions between whelks and clams. Dr. Dietl (sort of rolls off the tongue, doesn't it?) currently is a Postdoctoral Fellow in Marine Sciences at UNC-Wilmington. Joanne works for a firm that develops standardized tests for elementary-aged students.

**Brandon Muffley '96** completed his Master's in Fisheries Science at the University of Maryland in the spring of 2002. He's now working on multispecies management issues and studies throughout Chesapeake Bay as a fisheries biologist with the Maryland Department of Natural Resources. Brandon and his wife, Kimberly (also a Rider graduate), reside on the Eastern Shore of Maryland.

**Louise Bolge '97** completed her master's degree at the Department of Geological Sciences, Rutgers University, New Brunswick where she worked on the geochemistry of tephras from the Arenal volcano in Costa Rica. Louise is staying on at Rutgers to work on her doctorate on the geochemistry of various Central American volcanoes and to be a teaching assistant for their mineralogy and petrology courses. In addition, Louise spent much of December 2002 at Rider utilizing our Baird 2070 ICP for the whole-rock analysis of her thesis rocks.

**Mike Eldert '97** is working as an Environmental Chemist for DynCorp in Alexandria, VA. He conducts interlaboratory validation studies of new and updated analytical methods under the EPA's Sample Control Center contract. Mike married Tanya Trivett of Annapolis, MD in June, 2002 and their first child, Sianna Michelle, was born in January, 2003. Congratulations!

**Jennifer Durkin '00** is now an Education Specialist at the National Aquarium in Baltimore, Maryland. One of her responsibilities at the aquarium involves leading Dolphin Discovery Immersion Tours, a behind-the-scenes look at the lives and behaviors of the Aquarium's eight Atlantic bottlenose dolphins. Jennifer and the tours she leads were the object of the January 31, 2003 Saturday's Child column in the Washington Post's Weekend Section. It sounds like Jen is having a fantastic time.
Jennifer O'Reilly '01 is finishing up her Master's thesis in marine sciences at the University of North Carolina - Wilmington. After she's finished, Jen plans to apply for a Fulbright Scholarship. Jen also reports that she has returned to the pool, swimming in some Master's (i.e. old people) meets. She's also training for a triathlon and learning how to surf. Sounds like way too much fun for graduate school.

Julie Pasternak '01 is a geologist for the environmental consulting firm, Earth Tech. Julie reports that she is really learning a lot and that the fieldwork is great.

Russell Burke '02 is a Dean's Fellow pursuing his doctorate in Marine Conservation Biology in the Department of Fisheries at the College of William and Mary's School of Marine Science, Virginia Institute of Marine Science. His Ph.D. research will focus on the predator-prey interactions between blue crabs and native oysters in the York River Estuary of Chesapeake Bay.

Serena Turner '02 is working as a Senior Research Technician for the Center for Quantitative Fisheries Ecology at Old Dominion University in Norfolk, Virginia. Serena also will be taking graduate courses at ODU.

Matthew Wojtko '02 is working as a Geologist for Earth Data, Inc., a groundwater and environmental consulting firm located on the Eastern Shore of Maryland.