An avid *Jurassic Park* fan growing up, Kate Krsnak ’13 received the opportunity of a lifetime when she participated in a paleontology field camp in Montana earlier this summer. There, Krsnak unearthed fossils, gained a greater understanding of methods, and landed a fall internship with the Academy of Natural Sciences of Drexel University in Philadelphia. Congratulations Kate!

Through the program, based out of Yellowstone Bighorn Research Association (YBRA), Krsnak spent July working with paleontologists and students to extract fossils along the border of Montana and Wyoming. The camp was run by David Parris and Jason Schein of the New Jersey State Museum.

Krsnak, a Secondary Education and Geosciences double major, explained that depending on the location of the fossils, the team used different extraction methods, including surface collecting, quarrying a pit, using a rock saw, or applying a plaster jacket. “We spent our days in the field and our nights in the classroom back at YBRA looking over the fossils we collected, cleaning them a bit, applying glue where we could, and properly labeling them, as well as working with mapping, learning about the geology, and learning about the bones and dinosaurs,” she said.

The team, which also included students from Boston University, Auburn University, and Rutgers University, discovered *Myledaphus bipartus* teeth (Cretaceous age sting-ray); Trionyx (ancient soft-shelled fresh water turtle); Troödontid tooth (a carnivorous dinosaur); Ankylosaur skull and bones; Triceratops rib fragments, frill, and vertebrae; Thescelosaur toe bone; ancient crocodile teeth and scutes; petrified wood; and gastropods. The fossils are being transported to the New Jersey State Museum to be processed and, later, to the Academy of Natural Sciences. This fall, Krsnak will assist preparing the fossils in the Fossil Prep Lab at the Academy of Natural Sciences. Poole, impressed by Krsnak’s willingness to work late in the class and interest in the subject, offered her the internship at the end of the field camp. Back at Rider, Krsnak will conduct an independent research project with Dr. William Gallagher that extends from the internship. In the spring, she will student-teach 8th grade in the West Windsor-Plainsboro Regional School District at Grover Middle School.

It was Gallagher who had encouraged her to apply for the field camp in Montana. Krsnak said she felt well prepared for the experience because of the skills she gained in his classes, which included trips to a marl pit in Gloucester County, N.J. “Dr. Gallagher has always stressed the importance of the proper way of collecting and labeling fossils,” she said. “He always had us bring old medicine pill bottles, paper towels, and resealable plastic bags. I had
a bunch of those in Montana that other students borrowed.”

Though Krsnak has a passion for teaching, she is also considering going to graduate school to study paleontology. “To have a full week in the field was really valuable. It’s a lot of hard work,” Krsnak said. “I just think it’s amazing the things you can learn about creatures that lived millions of ago just from looking at their remains. There’s so much we can learn about them.” There’s nothing like real-world experience in your field!

All geosciences majors at Rider attend a senior-level geology field camp where they learn fundamental field and mapping skills, and how to professionally apply and integrate what they have learned in their individual courses to complex, real-world geologic problems. This summer Nicholas Mazza ’13 participated in a geology field camp in the Catskill Mountains of New York State. Sarah Mozes ’14 and Hilary Boff ’14 studied volcanoes in Iceland, while Jillian Baumann ’14 studied volcanoes in Kamchatka, Russia.

DOUG STURGIS ’83 INDUCTED INTO THE RIDER UNIVERSITY SCIENCE STAIRWAY OF FAME

Douglas S. Sturgis ’83, a Rider Geosciences graduate, was inducted into the Rider University Science Stairway of Fame (SSOF) on June 9, 2012. The SSOF, located in the research wing of the Science and Technology Center, honors individuals who were exemplary students and who have achieved significant professional success in their chosen careers. The honorees also are loyal and generous supporters of Rider’s science programs. Doug becomes the fifth GEMS alumni to be inducted into the SSOF since its founding in 2006, joining Steve Bell ’79, Jim Ierubino ’82, Randy Kertes ’84, and Dick Alexander, Faculty.

At Rider, Doug studied under, Dr. Richard Alexander, Dr. Mary Jo Hall, Dr. Jonathan Husch, Dr. Joseph Nadeau, and Dr. Walter Spink, who instilled in Doug his long-term love and passion for geology, fieldwork, exploration, and the responsible utilization of petroleum resource reserves. He also completed a senior thesis on the geochemistry of four diabase bodies in west-central New Jersey under the direction of Dr. Husch and Dr. Nadeau, as well as co-authoring two journal articles and two abstracts with Dr. Husch and other GEMS students. After graduating from Rider, Doug earned a Master’s Degree in Geology from Bowling Green State University in 1985.

Doug has spent the majority of his professional career at ExxonMobil where he has served as a Geoscientist, Production Technical Advisor, and Exploration Supervisor in the Faroe Islands, Greenland, Ireland, North Africa, Norway, Malaysia, and the United Kingdom. He currently lives in Houston with his wife, Melissa, and his two children, Nathan and Jennifer. Doug’s current position at ExxonMobil center is Geoscience Advisor to exploration teams in Nigeria, Angola, Equatorial Guinea, and Chad. He also spent four years as a Project Manager with Parsons Engineering Science in their Cleveland, Ohio office. With expertise in subsurface exploration using 4-D seismic interpretation techniques, Doug has parlayed his Rider education into a very successful and fulfilling international career in geosciences management and energy exploration and development.

In addition to his significant career achievements, Doug has been a consistent supporter of Rider, in general, and GEMS, in particular. Thanks to his and Melissa’s generosity, as well as that of the Friends of GEMS alumni donor group, the department
recently was able to complete the purchase of six new Leica petrographic microscopes.

All of GEMS congratulates Doug for this much-deserved honor and recognition. We could not be more proud!

**INTRODUCTION TO INTEGRATED SCIENCE 100: A NEW COURSE IN THE DISCOVERY PROGRAM**

GEMS faculty member **Dr. Bill Gallagher** created a new course in the Discovery Program in the fall semester of 2011 and spring 2012. Introduction to Integrated Science (SCI-100) is an inquiry-based science course for undecided freshmen students and ISM majors designed to teach them about the nature of scientific inquiry and excite their interest in the natural sciences. The class focused on several large themes or “Big Ideas”: the energy basis for our civilization, geologic time, and evolution and extinction. Topics addressed in specific classroom exercises included: the nature of fossils and fossil fuels; the debate over fracking (hydrofracturing) for natural gas; how radioactive isotopes are used in dating rocks and fossils, nuclear power and nuclear weapons; controversies over teaching evolution; mass extinctions in the fossil record and the extinction of the dinosaurs; climate change and environmental change over time and how that influences biodiversity, and human impacts on Earth’s environment and biodiversity.

The course emphasized hands-on experiential exercises and field trips as active educational methods, as well as student involvement in debates, oral presentations, and role-playing exercises. Discovery Week in August 2011 kicked off with kayak trips to Barnegat Bay and a consideration of human impacts on Bay ecology and on the coastline in general; they collected sample for later analysis in class. Other field trips included a visit to the American Museum of Natural History in New York City to look at the dinosaur displays and other exhibits, trips to several New Jersey fossil sites where students collected their own fossils for study later on in class, and visits to the New Jersey State Planetarium to learn about Earth’s place in the universe. There also was a guided tour behind the scenes in the collections of the Academy of Natural Sciences in Philadelphia.

Along the way the students were introduced to basic concepts in physics, geochemistry, geology, biology, astronomy, and environmental sciences. All of this was brought to bear upon the question of global change and climate fluctuations and how these large-scale environmental changes have influenced the course of evolution on Earth from the Age of Dinosaurs through the Ice Ages, right on up to the present-day concerns over endangered species, biodiversity losses, and extinction. The discussions were set in the context of how science is done, and how students themselves could apply scientific thinking to problems and issues encountered in daily life. The course was connected to other classes by emphasizing shared ideas and practices. For example, students learned about evolutionary theory in both Dr. Jeffrey Halpern’s (Sociology) Discovery Program class in Anthropology and in SCI-100, and both classes visited the American Museum together.

Students completed their course requirements by presenting a group project and submitting a paper on a topic of their choice involving a subject covered in class. SCI-100 will be offered again in the Fall and Spring of 2012-2013.

**A WORLD OF OPPORTUNITIES - STUDY ABROAD WITH RIDER!**

Have you ever dreamed of studying environmental change in Austria, glacial geology in Scotland, or coral reef ecology in Fiji? Does fulfilling your language requirement in Spain or some of your liberal arts core in Italy sound perfect to you? Are you curious about the life and culture of people in
other parts of the world? If your answer to any of these questions is “yes” (or even an unsure “maybe”), check out Rider’s study abroad programs! From Europe to Asia, Australia to Africa and Latin America, you have a wide assortment of host countries and Universities from which to choose. The programs encompass a variety of options, including academic study, internships, and service-learning opportunities. The length of the programs varies, too, from a full year to a semester to a few weeks during summer break. Among all those choices, there is bound to be a perfect option for you!

**Why should I study abroad?** There are as many reasons as there are people, but here are a few important ones. Studying in another country helps you understand and respect different cultures and provides a new perspective on your own country and culture. You will improve your global and cross-cultural communication skills and acquire new problem-solving skills. You will learn how to effectively interact with diverse groups of people, and you can become fluent in another language. You will grow as a person, increasing your level of self-confidence and independence. All these skills are highly valued by employers in an increasingly global job market, and having international experience as part of your resume can give you a leg up. Besides, exploring another country and culture is a whole lot of fun, an adventure that will change forever the way you look at yourself and the world.

**Do I have time to study abroad?** Yes! Study abroad courses can be used to satisfy major, minor, and core requirements with approval from your department and the Dean’s office. Many study abroad programs offer courses in your GEMS major or minor that may be substituted directly for a Rider equivalent if the course covers similar topics, or may be counted as an elective if no similar course is available at Rider. This provides you with unique opportunities to take courses in an area of your interest that may not be taught at Rider University. The GEMS department has been very flexible in approving courses through study abroad, as we believe this to be an invaluable experience for our students.

**When should I study abroad?** Generally, most GEMS majors study abroad during their sophomore or junior year, usually in the spring semester. However, Rider allows for study abroad beginning with the spring of your first year all the way to your senior year. The exact timing of your study abroad stay will depend, in part, on your major, when required courses are offered here at Rider, and which courses you are planning on taking abroad. So, while it will take some advanced planning to work it all out (yet another skill to add to your resume…), this is not an insurmountable obstacle and you have plenty of people who will help you along the way (see “How do you get started” below).

**Can I afford to study abroad?** Yes! Most study abroad programs offered at Rider cost no more than (and sometimes less than) Rider tuition, room, and board. Students who qualify for financial aid at Rider generally continue to receive financial aid during their semester or year abroad, as long as they are participating in a Rider-approved program. Scholarships are also available for select programs, and many providers and organizations have small grants available to help defray expenses. Both the timing of your stay and the finances associated with it will benefit from early planning, as you will have more options available to you and more time to secure needed funds.

**How do I get started?** It’s never too early to start exploring and planning for a stay abroad. The earlier you start, the more options you’ll have available to you. Check out Rider’s Study Abroad website at rider.studioabroad.com and explore the options Rider has to offer.
Download and fill out the “My Study Abroad Profile” form from the “Applying” tab. This form will help you think about your goals and interests and will make all the planning that follows much easier. Talk to your academic advisor and your department’s study abroad advisor (for GEMS, that is Dr. Gabriela Smalley, SCI-323A). They can help you get started and point you in the right direction. Contact or visit the Center for International Education (CIE) in BLC 124 (896-7717 or CIE@rider.edu) and discuss your interest in study abroad with the CIE staff. The CIE also runs Study Abroad information sessions throughout the semester, so make sure you attend one.

GEMS NEWS AND AWARDS

It’s been a very exciting year for GEMS with terrific faculty and student activity and overall program growth. In fact, total GEMS enrollment, including ISM students, is about 130 majors and minors, the highest ever! And it looks like this level of interest will continue since the projected number of new students for fall 2012 is about 15-20, including 10 in environmental sciences. And that’s not counting the continuing high number of internal transfers into GEMS during the academic year, particularly for the environmental sciences program, which now numbers over 30 majors, more than double the number from five years ago.

As far as GEMS faculty are concerned, Dr. Dan Druckenbrod was appointed as the Program Director for Sustainability Studies at Rider, as well as receiving an Advisor Appreciation Award.

Dr. Bill Gallagher began his three-year, full-time Discovery Program appointment and created and successfully taught the SCI-100 Discovery Sciences course both semesters. In addition, Hillary Boff ’14 nominated him as her Andrew J. Rider Scholar Inspirational Professor (congratulations Hillary!).

In other important news from the department, our new state-of-the-art Spectro ARCOS Inductively Coupled Plasma (ICP) Emission Spectrometer became fully operational in January and already has provided high-quality data on elemental concentrations down to the part per billion level for numerous faculty/student research and lab projects. The purchase of the ICP was funded by a $102,000 grant from the National Science Foundation (NSF) awarded to Dr. Sun (PI), Dr. Husch (Co-PI), Dr. Schwimmer (Co-PI), Dr. Chen (Chemistry and Physics; Co-PI), and Dr. Hyatt (LAS Associate Dean; Co-PI).

GEMS faculty also received a fair amount of much-deserved recognition and support for their ongoing professional and scholarly work. Dr. Druckenbrod was awarded a $1,500 Rider University Grant for Innovative Faculty Teaching with Technology He also has been invited to participate as a Co-PI on a five-year NSF Macrobiology grant proposal led by a tree-ring scientist at the Lamont Doherty Earth Observatory of Columbia University. Dr. Husch was awarded a Rider University Summer 2012 Research Fellowship, Research Expense Reimbursement, and Fall 2012 Paid Research Leave in support of his studies on various aspects of Martian surface geology. He also was named as the Co-Investigator on Dr. Karunatillake’s (Chemistry and Physics) $297,322 NASA grant looking at chemically striking regions of Mars. Dr. Schwimmer was awarded a Rider University Summer 2012 Developmental Fellowship to work on an integrated approach to teaching field marine science. And Dr. Sun was awarded a Rider University Summer 2012 Research Fellowship to study the effect of mixed deicing salts on sodium retention and silicate mineral weathering in watersheds.

A large number of GEMS students also received awards and recognition for their many academic achievements. Leann Sinpatanasakul ’11 entered Columbia University's Master's degree program in Public Administration in Environmental Science and
Policy, and Nina Joffe '12 was accepted into New Mexico State University’s doctoral program in Environmental Biology with a research stipend and tuition waiver. Katelyn White '14 was awarded a highly competitive internship for fall 2012 at Climate Central to work as a production assistant, and Allison Ingram '13 received a 2012-2013 Undergraduate Research Scholars Award (URSA) to continue her investigation on factors controlling tree growth rates at Mount Vernon, Virginia. Caroline Baptist '12 and Jessica Horton '12 graduated with honors in Marine Sciences, and Nina Joffe '12 and Christine Sookhdeo '12 graduated with honors in Environmental Sciences. Allison Ingram '13, Christine Sookhdeo '12, and Gregory Stoto '13 were inducted into the Tri-Beta Honor Society, and Caroline Baptist '12, Nicole Chakowski '12, and Allison Ingram '13 were inducted into Sigma Xi. Marisa Arduini '12, Jonathan Capocci '12, Amy Crowe '12, Rebecca Erickson '12, Rebecca Kornblum '12, Paul Lomax '12, Allison Palicz '12, and Courtney Wenstrom '12 were inducted into Kappa Delta Pi, and Caroline Baptist '12 and Nicholas Mazza '12 were inducted into Delta Phi Alpha. Nicole Chakowski '12 and Rebecca Kornblum '12 were inducted in Gamma Sigma Alpha, and Marisa Arduini '12 and Amy Crowe '12 were inducted into Omicron Delta Kappa; Amy also was selected for inclusion in the 2012 edition of Who’s Who Among Students in American Colleges and Universities. And, as if all that were not enough, 46 GEMS students earned Dean’s List recognition for the fall 2011 semester and 49 (the most ever!) earned that recognition for the spring 2012 semester. Congratulations to all our students for all their hard work and their accomplishments! We are very proud.

“FRIENDS OF GEMS”

Through the continued initiative of Randy Kertes '84, the Friends of GEMS alumni group again donated funds to the Department to help support student learning and research and to serve as a “thank you” to the GEMS Department for providing a positive and rewarding undergraduate experience. Currently, Friends of GEMS consists of the following members: Russell Burke '02, William D. Edelman, '82, Rodger E. Fedak '81, Kerry A. Kertes, '80, Randy Kertes '84, Phillip Pappano, Jr., '90, Reed A. Schwimmer '84, Diane Pupa '84 and Alex Yankaskas '84.

If you would like to join this group and help acknowledge GEMS, please contact Randy Kertes. Randy is a Senior Project Manager at Sadat Associates, Inc. (Trenton, NJ) and he can be reached at 609-826-9600, ext 149, or by email at rkertes@sadat.com.

GEMS FACULTY/STUDENT RESEARCH

2011–2012 was another productive year for student research in GEMS with more than a dozen students completing senior theses, independent study projects, or published peer-reviewed research.

Dr. Gallagher also coauthored a manuscript on a new late Cretaceous–early Paleogene crocodilian from New Jersey published in the Journal of Vertebrate Paleontology, a manuscript on late Cretaceous mosasaurs from New Jersey published in the Bulletin de Société Géologique de France, and presented papers at meetings of the Society of Vertebrate Paleontology and the Geological Society of America.

Dr. Jonathan Husch is a co-author of a manuscript on segmenting Martian rover microscopic imager photos automatically for granulometric and sedimentologic analysis, which has been accepted for publication in the Journal of Sedimentary Research. Dr. Suniti Karunatillake, Rider Department of Chemistry and Physics, is the lead author.

Dr. Reed Schwimmer presented a paper on two exceptional educational field sites in
northern New Jersey at a meeting of the Geological Society of America, as well as presenting an invited seminar on New Jersey barrier island geomorphologies to the Department of Earth and Environmental Science at Temple University.

**Dr. Gabi Smalley** mentored Elizabeth Evans '12, who presented a paper on three artisanal fisheries in northern Honduras at a meeting of the American Fisheries Society. Elizabeth received a Rider University Undergraduate Travel Grant Award to attend the meeting. Caroline Baptist '12 completed two research projects with Dr. Smalley studying macroalgae preference for the purple sea urchin and also the effect of light intensity on dinoflagellate feeding (her senior thesis). Three other students also studied with Dr. Smalley: Trevor Hiller '14 – size of Karlodinium veneficum in relation to amount of toxins produced, Kelli Kaelin '12 – utilization of phosphate in the mixotrophic dinoflagellate, Karlodinium veneficum, and Amanda Young '13 – effects of different species of phytoplankton on the growth rate and survival of Arbacia punctulata larvae.

**Dr. Hongbing Sun** co-authored a manuscript with Dr. Husch, Maria Huffine '10, and Leeann Sinpatanasakul '11 on sodium retention in watersheds where winter deicing salts have been applied for extended periods of time, which was published in the *Journal of Contaminant Hydrology*, and presented related papers with the same co-authors at two meetings of the Geological Society of America. Nicholas Mazza '13 also worked with Dr. Sun to study the hydrogeological characteristics of the Duck Island Landfill in Trenton.

**Dr. Druckenbroad** co-authored a peer-reviewed manuscript with Christine Sookhdeo '12 accepted by the New Jersey Academy of Science titled, “Effect of forest age on soil organic matter at Mount Vernon, Virginia.” Christine also presented a poster co-authored with Dr. Druckenbroad at the Annual Meeting of the Association of American Geographers, New York City analyzing properties of post-agricultural soils, Lawrenceville, New Jersey (her senior thesis). Allison Ingram '13 also presented a poster at this same conference on the factors controlling growth rates of oaks, tulip poplars, and beech, across George Washington's Mount Vernon plantation in Virginia with Dr. Druckenbroad. Allison also is a Rider Undergraduate Research Scholar Award recipient for 2012 – 2013 and plans to turn this research poster into a peer-reviewed manuscript. Nicole Chakowski '12 also collaborated with Dr. Druckenbroad on a poster presented at the Annual Meeting of the New Jersey Academy of Science, which determined that Thomas Jefferson likely planted the two tulip poplars adjacent to his Monticello home.

**Dr. Jivoff** also supervised GEMS student research in marine science with Jessica Horton '12 investigating factors that influence the righting behavior of starfish and Shannon Melick '12 examining the effect of size on habitat preference and agonistic behavior in crayfish.

Nina Joffe '12 collaborated with Dr. Drawbridge on the phylogenetic analysis of Oophila ambystomatis (salamander algae).

**ALUMNI UPDATE**

As usual, many GEMS alumni either stopped by the department for a visit or contacted us with their latest news. If you haven’t done so recently, please bring us up to date with what is going on in your life. You can find additional alumni news, including specific contact information, on the GEMS alumni web page, located at www.rider.edu/gems. As always, we look forward to hearing from you.

Bill Edelman '82 wrote recently with an update telling us what he's been up to since graduating from Rider. After completing a Master’s degree in Geophysics from North Carolina State University, Bill joined Conoco...
(now ConocoPhillips) in Houston, Texas as an associate geophysicist where he was responsible for several offshore commercial oil/gas discoveries. When the oil slump hit in the 1980s, Bill took an environmental and regulatory compliance supervisory position with Conoco in their drilling and production office in New Orleans. After moving back to Conoco's Houston office, he was the Health, Safety, and Environment (HSE) Manager and Company Security Officer for Marine Operations for ConocoPhillips' global fleet of oil tankers, tugs, barges, and other vessels. Bill now is the Director of Audits, Compliance, and Special Projects with ConocoPhillips Global Security. Sounds like he’s had a very interesting and varied career with ConocoPhillips.

Doug Sturgis '83 was inducted into the Rider University Science Stairway of Fame on June 9, 2012 (see earlier story). Congratulations from everyone at GEMS on this richly deserved honor! Doug is back in Houston with ExxonMobil Production Company after being a Supervisor of a North Africa and Europe Field Studies and 4D Seismic Interpretation Team for ExxonMobil in London for 4 years. Doug has over 25 years with ExxonMobil, many of them abroad, and he says the best part of being overseas are the adventures he can have with his family, including hiking in the Himalayas and diving and snorkeling on the island of Sipadan, Malaysia and on the Great Barrier Reef. Doug and his wife of 26 years, Melissa, have two children, Nathan, 23, and Jennifer, 18. Doug also was instrumental in helping to fund the purchase of new state-of-the-art Leica student petrographic microscopes (see photo), along with the Friends of GEMS alumni donor group, organized by Randy Kertes '84. Thanks to everyone involved for helping with this effort.

Diane Pupa '84 finally wrote (after much gentle prodding!) to bring us up to date on her activities. After graduating Rider, Diane went on to receive her Master’s degree in Geology at Bryn Mawr College and has been working full time at the New Jersey Department of Environmental Protection (NJDEP) since 1988. Diane has worked for various NJDEP programs, including the Site Remediation Program, which oversees the clean up of contaminated sites, and the Water Supply Program, which is responsible for ensuring that clean and safe drinking water is supplied to all residents of the Garden State. She also has been a Certified Hazardous Materials Manager (CHMM) since 2001. Diane resides in Princeton Junction and, in addition to her many NJDEP responsibilities, she has been an adjunct instructor for GEMS, teaching Environmental Geology. It’s great having her back at Rider, even if it’s only part time!

Kerry Szemple Drennan '96 and Bill Drennan, a Bayonne, NJ fireman, are still living in Bayonne with their two children, Paige, 2, and Graham, 1 (see photo). Kerry is working part time as an Assistant Project Manager with Sovereign Consulting Inc. in their Parsippany, NJ office.

Jodi Wendt McDonald '96 is now Chief, Flood Risk Management and Ecosystem Restoration Section, Plan Formulation Branch, U.S. Army Corps of Engineers, New York District. Her job responsibilities include producing decision documents/feasibility studies that demonstrate to Corps Headquarters, Congress, and/or the Administration whether federal participation in flood risk management or ecosystem restoration projects within the Hudson River Watershed is warranted. Some of the projects
Jodi is working on include an aquatic ecosystem restoration study for the Hudson-Raritan Estuary, which examines opportunities to restore the aquatic environment within a 25 mile radius from the Statue of Liberty, and a flood-risk management study looking at the feasibility of reducing the flood risk for residents of the Peckman River Basin, which is a tributary to the Passaic River in northern New Jersey. She also has participated in Rider's Shadowing Experience Program for our students, which is greatly appreciated by all of us at GEMS.

Russell Burke '02 completed his first year as an Assistant Professor of Organismal and Environmental Biology at Christopher Newport University in Newport News, Virginia where he is continuing his work on restoring oyster populations in Chesapeake Bay; he was just awarded an U.S. Army Corps of Engineers subcontract to support his studies. Russ received his doctorate in Marine Science in the Fisheries Science Department at the College of William and Mary's School of Marine Science, Virginia Institute of Marine Science (VIMS) in May 2010. Our congratulations to Dr. Burke on all accounts!

Tanya Brown '03 recently moved from Lafayette, Louisiana, where she started a Ph.D. program in marine biology at the University of Louisiana in 2011, to Miami, where she will be continuing her doctoral research on coral immunity at Florida International University (her research advisor switched institutions and Tanya was asked to go with him). Prior to going to Louisiana, Tanya completed her Master's degree in Biotechnology at SUNY Buffalo's School of Medicine, where she studied differential gene expression of an Anthox-like gene in the Gorgonian coral, Pseudopterogorgia elisabethae, and then worked as a lab technician for the University of Buffalo's School of Pharmacy and Pharmaceutical Sciences. Tanya also is certified as a scientific diver and worked with the Buffalo Underwater Reef Research Lab.

Jason Morson '04 has been a Fisheries Lab Researcher at the Rutgers University Haskin Shellfish Research Lab (HSRL) in Port Norris, NJ since 2007. Over that time, he has worked on a number of research topics and programs with most trying to fill in data gaps impairing the best management of important recreational and commercial fisheries in the region. Some of Jason's recent work at HSRL has focused on Atlantic sturgeon, black sea bass, ocean quahogs, oysters, summer flounder, and surf clams. Prior to his present position at HSRL, Jason completed his Master's degree in Biology at Hofstra University, where he investigated the weak electric organ in the little skate, Leucoraja erinacea, and then worked for the NJDEP Freshwater Fisheries Bureau as a Fisheries Technician; he also served as president of the Mid-Atlantic Chapter of the American Fisheries Society in 2009-2010. Jason, his wife, Crystal (nee Keeper, Rider '05), and their son, Jason Jr. live in Williamstown, NJ.

Dan Hewins '07 was awarded his Master's degree with honors in Biology in 2010 and now is pursuing his Ph.D. in Ecology and Evolution at New Mexico State University. He has presented the results of his research on desert ecosystems at annual meetings of the American Geophysical Union and the Ecological Society of America. He also co-authored a paper that has been accepted for publication and is preparing several manuscripts for publication on his research and collaborative work. Dan also has been awarded a NMSU travel scholarship, a research scholarships from the Native Plant Society of New Mexico, a Preparing Future Faculty Fellowship from NMSU, a Howard Hughes Medical Institute Scientific Teaching Fellowship, and the Traylor Biology Graduate Student Scholarship from NMSU. As a result of all these awards, Dan was a teaching fellow for an NMSU Ecosystem Ecology undergraduate/graduate course where he lectured and assisted groups in their semester-long experimental research projects, and also co-taught an honors course for non-majors.
called Life, Energy, and Evolution. He also is studying the scientific teaching method and active learning practices for undergraduates. As if all that wasn't enough, Dan has somehow found the time (and energy!) to complete a number of marathons and ultra marathons, some at high altitude. Congratulations on all accounts!

Carl Natter '09 completed his Master’s degree in Geology at Montclair University and is now working for Woodard and Curran, an environmental consulting firm in East Windsor, NJ. Congratulations on both accounts!

Mike Ciaramella '09 recently completed his Master’s degree in Veterinary Science: Pathology and Microbiology at the University of Prince Edward Island in Canada. Congratulations. This past summer he was an instructor at the Newfound Harbor Marine Institute in Big Pine Key, Florida. Mike now is in the Food Science doctoral program at Mississippi State University, looking at changes in cultured catfish muscle quality caused by various environmental stresses. Apparently, he still is eating his data!

Daniel Brown '10 is a Program Technician for the Florida Program for Shark Research at the Florida Museum of Natural History in Gainesville. Along with assisting in various shark-related research projects, Dan is responsible for maintaining and updating the program's web site and its image gallery. A really cool video about the work Dan is doing to help increase the population of the endangered smalltooth sawfish can be viewed at http://vimeo.com/45092187. Prior to his work at the Florida Museum, Dan was a member of the AmeriCorps Environment Education Community Outreach (EECO) Program at the New Jersey School of Conservation where he did environmental education, as well as community outreach. One interesting and little known fact about Dan is that his resume is the sample resume Rider Career Services provides to science students. Who knew?

Maria Huffine '10 has been working for the Maryland Conservation Corps and AmeriCorps at Assateague State Park in Maryland. In 2011, Maria worked for the Student Conservation Organization and AmeriCorps while living in Georgia at the Cumberland Island National Seashore. There, she assisted with guided nature and history hikes, received multiple CPR and First Aid certifications, and created science-based educational programs for visitors and children. Prior to her time at Cumberland Island, Maria worked for an engineering firm and at an after-school science program.

Denise Breen '11 is a Regional Health and Safety Coordinator at Handex Consulting and Remediation, LLC based out of Monroe Township, NJ. Denise travels to job sites all across New Jersey and Pennsylvania, including oil refineries, Superfund sites, and oil spill locations to inspect for compliance with OSHA-required health and safety regulations. She also works closely with the New Jersey and Pennsylvania Departments of Environmental Protection to ensure each project is not only done safely, but in an environmentally appropriate manner as well.

Bryan DiMaulo '11 is teaching Earth and Natural Science at Parsippany High School in Parsippany, NJ.

Jacqueline Lehman '11 is in the Veterinary Technology Program at Harcum College in Bryn Mawr, Pennsylvania. In addition to her classes there, Jacqui is doing practicums at the University of Pennsylvania Veterinary Hospital, Adventure Aquarium, and New Bolton Center.

Leeann Sinpatanasakul '11 just began a Master's degree program in Public Administration in Environmental Science and Policy at Columbia University. She also was accepted into public policy/administration
programs at Georgetown, Johns Hopkins, and Rutgers, but decided that Columbia was the best fit for her. Congratulations!

Nicole Chakowski '12 is working for BASF at their Union, NJ facility. She is testing precious metal samples utilizing an Inductively Coupled Plasma (ICP) Emission Spectrometer (she learned how to operate an ICP at Rider) to determine their purity. In particular, Nicole will be analyzing material extracted from automobile catalytic converters for platinum, palladium, and rhodium.

Nina Joffe '12 has started a doctoral program and a teaching fellowship in the Biology Department at New Mexico State University with an ecology concentration. Her advisor is Dr. Maria Castillo and Nina will be working with her on Hawaiian squid and their bacterial, bioluminescent symbionts. Dr. Castillo studies immunological responses of the squid to the symbionts, but eventually Nina would like to focus on ecological factors and how they may affect the specificity of the symbiont-host relationship.

Nicholas Mazza '12 is working as a Staff Scientist for Bluestone Environmental, located in Somerset, NJ. Congratulations! Nick is doing field investigations, mainly in Bayonne, NJ, consisting of soil-core and water sampling. He also is recording data for project reports back in the main office.

Christine Sookhdeo '12 is working as an Environmental Scientist at Property Solutions Inc., a national environmental consulting firm, in their Edison, NJ office.