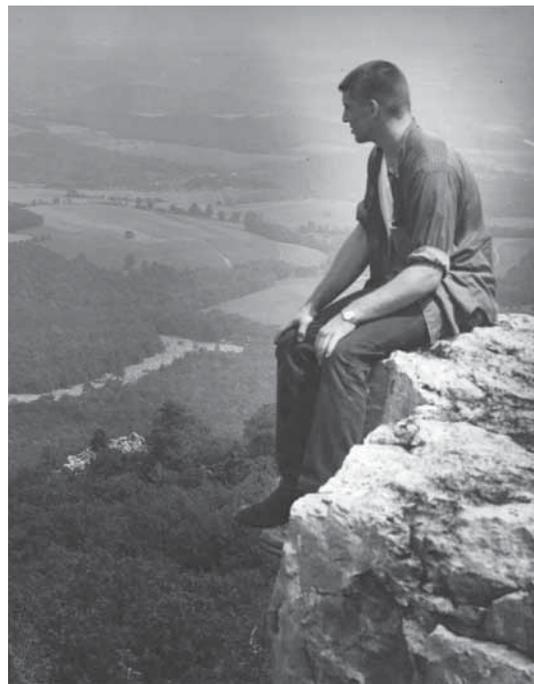


Accolade to Anderson

Resumes are, by nature, acts of limitation: how can one summarize a career in a few pages? But even a cursory glance at Thomas “TA” Anderson’s *curriculum vitae* shows a remarkable roster of achievement. Tom—who retired last semester after more than 35 years of service to the University—has a list of accomplishments that would make most academics envious:

- Author or co-author of more than 150 papers, publications, chapters, and conference proceedings, including his landmark work on the megashear in western North America. A megashear, Anderson argues, which may extend from Alaska to the Gulf of Mexico and fundamentally change our understanding of the tectonic history of the area.
- More than a dozen research contracts, including crucial work with governmental authorities in Nevada regarding the geologic feasibility of the proposed Yucca Mountain nuclear waste facility.
- Advisor to more than two dozen MS and PhD students, which have led to research collaborations that continue to this day.



*Tom Anderson overlooking the Blue Rocks Boulder Field, Berks County, Pa. Summer, 1963. Photo taken by Dr. Noel Potter, Dickinson College, Carlisle, Pa.
(photo taken before color photography was invented)*

But as impressive as this list is, it is not the essence of Tom Anderson’s career here. In two stints as department chair—more than 15 years—TA did the unheralded, underappreciated, invisible work that makes a place run. There is no reward for endless budget meetings, class schedules, personnel decisions, not to mention the endless stream of capricious student requests and the variable demands of sometimes-crabby faculty. It’s not a job for the faint-of-heart, and TA performed with...well, if not with grace, than with skill and compassion, for which his faculty is forever grateful.

“Perhaps the most valuable result of all education,” said biologist Thomas Huxley, “is the ability to make yourself do the thing you have to do, when it ought to be done, whether you like it or not.” There seems to be no higher calling than recognizing one’s responsibility and performing it well. Without fanfare, without accolade, without complaint.

Here’s to a well-deserved and active retirement, along with our overdue thanks.

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Letter from Department Chair William Harbert

Faculty

Mark Abbott

Associate Professor

Thomas Anderson

Professor

Daniel Bain

Assistant Professor

Rosemary Capo

Associate Professor

Mark Collins

Lecturer

Emily Elliott

Assistant Professor

William Harbert

Department Chair and Professor

Charles Jones

Lecturer

Michael Ramsey

Associate Professor

Michael Rosenmeier

Assistant Professor

Ian Skilling

Assistant Professor

Brian Stewart

Associate Professor

Staff

Dolly Chavez

Department Secretary/Purchaser

Shannon Granahan

Academic Affairs Secretary

Katherine Redling

Research Tech/
Stable Isotope Lab Manager

Lorrie Robbins

Department/Operations Manager

Dear Alumni and Friends,

I am pleased to begin another round as department chairman this year. Our department continues to improve and we have achieved a research-active status throughout the faculty. Among many highlights for this year, it is a pleasure to report that we now have four postdocs working this year in the department; we are in the process of setting a new external award record, and are supporting a wide variety of important and fascinating research! In software-related news, we have GeoGraphix, Landmark, Schlumberger (Petrel), Petra, and Seismic Micro-Technologies all up and running. Together this represents something like \$70 million of software resources present in G&PS. Lorrie Robbins, our office administrator and manager, and Pitt's legal department have done great work in getting these respective agreements signed and finalized.

An excellent regional meeting of the Geological Society of America was held in Pittsburgh and a leading role was taken by Dr. Thomas Anderson. This meeting had a wide variety of topics and many students, alumni, and faculty presented. It was a pleasure to see so many of our alumni at one meeting. The next large event in our world is the 2013 AAPG national meeting, which will be held in Pittsburgh. I joined the AAPG as both a member and exploration geophysicist to facilitate aiding this activity.

In the laboratory side of G&PS, our department continues to add hardware with an advanced

isotope-related device recently placed into the research areas of Dr. Stewart, and Dr. Capo in collaboration with the URS Corporation and the National Energy Technology Laboratory of the United States Department of Energy.

Presently, we are in the process of filling two tenure-stream positions to add to our already outstanding faculty. I am very happy to report that our tectonics and structural geology position has been filled by the addition of Dr. Nadine McQuarrie as an assistant professor. Dr. McQuarrie has an impressive record in teaching, research, and service and is an outstanding new member of our department. In addition we are in the final negotiations with an associate professor level hire, which I will report on next year. Reflecting the hard work of our faculty and staff, Geology and Planetary Science is on the move.

We have had many excellent PhD and MS students graduate this year and our alumni continue to do outstanding work. I congratulate all of undergraduates who have finished this year. Well done.

Please check our web page at for details regarding the faculty, graduate, and undergraduate research activities. If you have a chance, please drop the department a line and update us about your activities! www.geology.pitt.edu

W. Harbert



GEOL 0060 History of the Earth class field trip, Gettysburg National Military Park, Pa. Get out your hand lenses! April 2011



Eyjafjallajokull, Iceland—(left to right) Kathy Zollinger, Holly Kagy, Kevin Reath, Emily Mercurio, and Dr. Ian Skilling by a jökulhlaup. 2010

Alumni News

Jim Pottinger (MS '96)

The most exciting news I have to share is my return to Greenland this spring to



study solar radiation on the Greenland Ice Sheet.

I will be part of a research team conducting a tour and maintenance of 18 automated weather stations located on the Greenland Icesheet. The first leg of the expedition will be from May 23 to 31. The second part, from June 1 to 9, of the expedition will require us to travel to summit Greenland where we will begin an experiment analyzing water vapor at the Summit and determining its point of origin.

I live in Murrysville, Pa., and I am a coordinator of a gifted program at Gateway HS in Monroeville.

I have three kids who all love the snow!

Ryan Fandray (BA '00)

I am currently employed with DiGioia, Gray & Associates, LLC, located in Monroeville, Pa. I am working as an environmental Geologist alongside Richard Gray (Pitt alumnus) on a few large-scale geologic projects with utilities throughout the country. My workload includes mostly site characterization, hazard identification, and foundation evaluations. I recently received my professional geologist license for Pennsylvania and I am currently pursuing a national environmental certification. Also in the works is a publication through the Association of Environmental and Engineering Geologists on the geologic

characteristics of Pittsburgh, Pa. I am living in Munhall, Pa., with my wife, Jennifer, and my two beautiful daughters, Emma (8) and Addison (4).

Sarah Zimmerman McElfresh (MS '00)

I've not been up to much in the realm of geology, although I did just present in a webinar for the American Geological Institute on "Engaging Geoscience Alumni as Career Resources" (February 15, 2011) discussing the things my undergraduate institution (St. Lawrence University) does. This past summer my family moved to Winston-Salem, N.C. My husband and I have picked up where we left off in Pittsburgh in the music world, playing in a few ensembles. I play with the Historic Bethabara Park Concert Band and the Piedmont Wind Symphony (PWS). With PWS we performed with the original Irish Tenors who were on a reunion tour. That was pretty fun and exciting as it was the first time they had performed with a wind ensemble rather than an orchestra.

Lauren Burkert Lazzari (BA '02)

Lauren Burkert Lazzari of Johnstown has been selected as a recipient of the Pennsylvania Environmental Council's 40 Under 40 Award. Nearly 100 environmental professionals and volunteers were nominated for this statewide honor. Nominees



included volunteers and professionals in a diverse range of environmental fields including planning, research, education, and advocacy.

We are pleased



to announce the birth of our second daughter, Maggi Ann Lazzari, born October 1, 2010. She joins big sister Molli, age 3.

Stefanie Bernosky (Dilts) (BS '04)

The past few years have proven to be quite busy for my husband and me. We bought our first home and rescued our "brat" (greyhound pup). I'm still working at BP, currently in the Megaregional Gulf of Mexico Exploration Group, and my husband works for a quickly growing webhosting company (Host Gator).

In my free time, I've developed a passion for running and use this as an outlet to raise money for the Leukemia and Lymphoma Society (a cause close to my heart). In the past year I've run three half-marathons (with two more scheduled this year), and my first full marathon (Rock 'N Roll San Diego). I've recently begun training for triathalons, aiming to complete my first half Ironman in April 2011 (check my Web site for updates and occasionally a recipe or two).

Great to hear about how wonderfully the department is growing and I look forward to hearing from old friends and mentors.

Daniel Rowe (BA '05)

In the spring of 2010, I completed a masters' degree in urban planning at the University of Washington, with a focus on land use and transportation planning. My thesis research was focused on understanding the land-use regulatory barriers in building sustainable, transit-oriented communities. Specifically, my research studied the relationship between multifamily residential parking demand and varying levels of transit service in two different urban centers. Since completion of the research, my work has been published in two academic journals, the *Institute of Transportation Engineers Journal* (www.ite.org/itejournal/asp) and the *Transportation Research Board's Transportation Research Record* (publication accepted and due in 2011). Most importantly, I helped King County Metro apply for and win a \$1 million

Tell us your news! www.geology.pitt.edu/alumni/update.html

Federal Highway Administration grant to expand this research and create innovative tools for jurisdictions and developers to use in pursuing smart growth. In January of 2011, I was hired by King County as a transportation planner to administer and manage the three-year grant program.

Beyond work life, my wife and I live in the Ballard neighborhood of Seattle,



Wash. with our dog, Otis. Besides enjoying the eclectic northwest cultural life in the city, we also enjoy traveling and playing in the beautiful mountain landscapes that surround the Seattle metro area. It's pretty common that Dan Nelson (2004 MS geology graduate) and I share powder turns together in the Cascade backcountry on any given weekend.

Joshua M. McCullion (BA '06)

Currently on a one-year remote assignment to Thule Air Base, Greenland. Thule is located approximately 700 miles north of the Arctic Circle and 500 miles east of magnetic north. Originally built in the early 1950s, Thule has been home to many of the U.S. military's most strategic missions and still boasts as the northernmost U.S. military installation in the world, as well as the northernmost deep-water port in the world. Along with hosting one of the most crucial strategic points on the globe, Thule is also home to a number of scientific studies including the Peregrine Fund Arctic Program, ice sheet studies, and the take-off point for many of the resupply missions for various Arctic scientific locations across Greenland. (Oh, did I mention we have polar bear!) I am presently assigned to one of those strategic mission units, the 12th Space Warning Squadron (12SWS). I am entrusted with the running of a \$780M Upgraded Early Warning Radar (UEWR). The 12SWS UEWR is used to provide critical, real-time missile warning,

defense, and space surveillance to the president of the United States, secretary of defense, the joint chiefs, NORAD, and unified commands by operating a phased-array radar—which continuously provides warning of Submarine-Launched Ballistic Missile (SLBM) and Intercontinental Ballistic Missile (ICBM) attacks against North America—and detect, track, and identify earth-orbiting objects in support of USSTRATCOM's space control mission. As part of my duties I am chief of training for all personnel assigned to 12SWS and provide over 6000 hours per year of training to ensure that each of the personnel are combat mission ready on our weapon system.

My family is currently residing at my last duty location of Eglin AFB, Fla. I have to give an extreme amount of credit to my wife, Mandi, with whom I have two children, Kiera (6) and Eagan (2). Mandi is solely



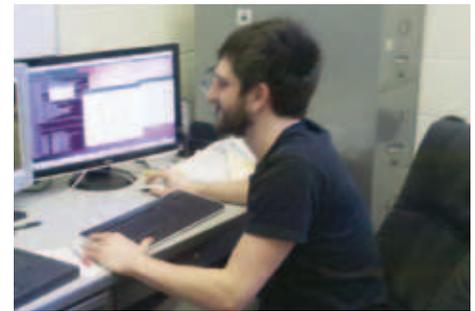
responsible for manning the household and raising our two kids while I am on my year-long remote assignment.

R. Sean Fulton (MS '07)

My wife is just finishing her residency at CHoP. We're staying here near Philadelphia and she'll be doing a fellowship in oncology/hematology. This past January we had a baby boy, Eamonn Oscar Fulton. He's keeping us busy to say the least. I'm glad the pro-MS program is still going strong. It was a valuable experience for me.



Kristina Hopkins measuring flow in Greene County, Pa. Fall 2010



Alan Mur working on his research data in SRCC building Pittsburgh—2011

Phi Beta Kappa

Pitt's Xi Chapter of Phi Beta Kappa—the national collegiate liberal arts honorary society—inducted 102 members into its 2011 class, including the seven below from Geology and Planetary Science. PBK seeks to promote and to recognize high levels of academic attainment in undergraduate studies that lead to a liberal education.

Samantha Evanoff

Tim Gallagher

Charles Horowitz

Clifton McKee

Zach Shelin

Allie Tessin

Kathryn Wright

Recent Graduates

PhD Graduates

Christopher Hughes (2011) - *Improved Mapping Accuracy of Planetary Surfaces Using Super-Resolution of Thermal Infrared Data*

Rachel Lee (2011) - *Thermal Emission Spectroscopy of Silicate Glasses and Melts: Applications to Remote Sensing of Glassy Volcanic Environments*

Shellie Rose (2010) - *Thermal Infrared Remote Sensing of Active Basaltic Volcanoes: A Thermal and Spectral Deconvolution Approach*

Byron Steinman (2011) - *Quantitative Drought Reconstruction in the Pacific Northwest from Lake Sediment Records and Predictive Models*

Amy Wolfe (2010) - *Oxidative Dissolution of Pyrite: A Combined Experimental and Iron Isotope Investigation*

Master of Science Graduates

Tonya Brubaker (2010) - *Strontium Isotope Systematics of Coal Utilization Byproducts and Their Interaction with Environmental Waters*

Aubrey Hillman (2011) - *A 2500 Year Lake Sediment Record of Drought and Human Activity from Southwestern China*

Katherine Redling (2010) - *Isotopic Investigation of Anthropogenic Sources of Atmospheric Nitrogen and Carbon Along Spatial Gradients*

Professional Master of Science Graduates

Jessica Benner (2010)

Randy Lentz (2010)

Patricia Roncevich (2011)

Martine Shendge (2010)

Graduate News

Graduate Fellowships

Andrew Mellon Predoctoral Fellowships

Emily Mercurio

Marion Sikora

Byron Steinman

Competitive Research Grants

Geological Society of America Student Research Grant

Joseph Felix

Alison Graettinger

Lucy Rose

Marion Sikora

Henry Leighton Memorial Scholarship

Elizabeth Chapman

Emily Mercurio

Lucy Rose

Joseph Felix

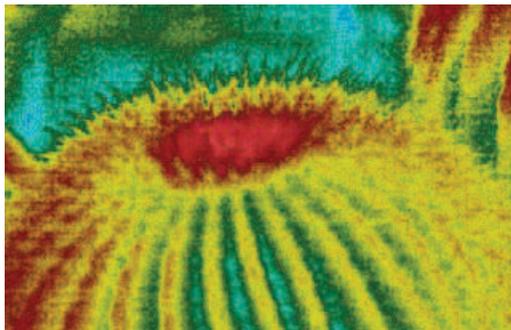
Tamara Misner

Marion Sikora

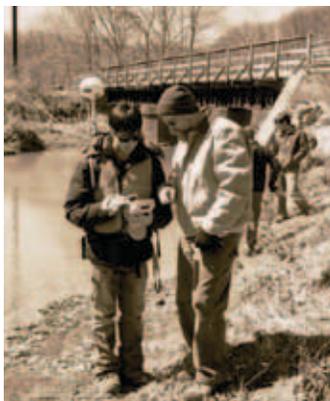
Excellence in Presentation of Research

Pitt Grad Expo 2011 Outstanding Poster Presenter

Lucy Rose



Long Wave Infrared image of Echinocactus grusonii at Phipps Conservatory, for Geol 2460 Applied Remote Sensing and GPS Techniques. Photo by graduate student, James Morar. 2011



Geol 2460 Applied Remote Sensing and GPS Techniques class field trip, Montour Run, Pa. 2011

Undergraduate News

Geology and Environmental Geology Graduates: August 2010 through April 2011

Babarsky, Albert Stephen (GIS)
Fontanella, Nicole R. (magna cum laude, GIS cert.)
Gallagher, Timothy Michael
(BPhil, magna cum laude, honors, anthropology double major, Fulbright Scholar, Phi Beta Kappa)
Horowitz, Charles (summa cum laude, honors, physics minor, Phi Beta Kappa)

Kane, Molly Mae (BPhil, summa cum laude, honors, religious studies minor)
Morgan, Hilary Anne (GIS cert.)
Pedrotti, Julia B. (cum laude)
Ratchkauskas, Tom J.
Roehrig, Erin E. (cum laude)
Rozen, Julie Lynn (cum laude, honors)
Shorten, Chilisa Marie (cum laude, honors)

Sieпка, Danielle A.
Stauffer, Shannon K. (magna cum laude, chemistry double major)
Tessin, Allyson C.
(BPhil, summa cum laude, honors, Fulbright Scholar, Phi Beta Kappa)
Turk, Jesse L.

Environmental Studies Graduates: August 2010 through April 2011

Abbott, Ellen M.
Anderson, Sarah Lillie (urban studies double major, GIS cert.)
Boyer, Sara Elyse
Bryan, Justin G. (GIS cert.)
Cable, Marlee Jo (cum laude)
Cala, John M. (cum laude, English writing double major)
Cann Jr, George David
Cornell, Kayleigh A.
Cummings, Lindsay Marie (Spanish double major, Portuguese minor)
Davis, Julie Madigan (Latin American cert.)
Dean, Casey Lauren (cum laude)
Evanoff, Samantha M.
(summa cum laude, Latin American cert., Phi Beta Kappa)
Farris, Tisha Joule
Fiscus, Jennifer L.
Fried-Petersen, Hannah Bess
Fury, Jacqueline Marie (summa cum laude)
Jacknin, Madeline

Johnson, Amelia L. (BPhil, magna cum laude, Phi Beta Kappa)
Kane, Molly Mae (BPhil, summa cum laude, religious studies minor)
Kelly, Elizabeth Cristin
Kohser, Stephanie T. (magna cum laude, computer science minor)
Kopko, Alison Elizabeth (magna cum laude, GIS cert.)
Liu, Yichun (economics double major, GIS cert.)
McGraw, Katie Elizabeth
McKee, Clifton Dyer (magna cum laude, ecology and evolution double major, chemistry minor, Phi Beta Kappa)
McLaughlin, Brian M.
Medinac, Alixandre Lea
Miller, Gabriel L. (cum laude)
Nolan, Elizabeth A. (GIS cert.)
Owens, Hannah Merrick (magna cum laude)
Pecharka, Adam D.
Phillips, Sean G. (chemistry minor)

Pigan, David E. (magna cum laude)
Racan, Abbey Marie (cum laude)
Scarfo, Brianna Marie
Schmittlein, Alexandra Constance (cum laude, French minor)
Shelin, Zachary James (summa cum laude, economics minor, global studies cert., Phi Beta Kappa)
Stankiewicz, Eric J. (magna cum laude)
Stough, Adam P. (chemistry minor)
Tarnock, Sarah Rose (cum laude, history double major)
Tessin, Allyson C.
(BPhil, summa cum laude, Fulbright Scholar, Phi Beta Kappa)
Velekei, Katherine M. (anthropology double major)
Vrabel, Melissa V.
Wason III, Jay Ward (summa cum laude, GIS cert.)
Wright, Kathryn (magna cum laude, Phi Beta Kappa)



Pitt Students joining Chinese and Korean Students for tree planting in Kubuqi Desert. April 2011



Graduation Reception May 2011



GEOL 1020 Sed/Strat class field trip near Mt. Nebo Road, Pa. October 2010

Thank You for Your Generous Contributions!

Contributions from our alumni are vital to the Department of Geology and Planetary Science. The individuals listed below have provided generous support to our department over the years. If your name is missing and you know you contributed last year, please accept our apology and let us know. We want to be sure to recognize you next year.

Sapphire Level (up to \$20,000)

Thomas Angerman

ExxonMobil

Frederick Sarg

Anthracite Level (up to \$10,000)

Francesco V. Corona
Mr. and Mrs. Peter F. Flint

Susan M. Flint
William C. Heilman, III

Jeffrey Wagner
Julie Wagner

James Werner

Bituminous Level (up to \$1,000)

Robert C. Anderson
David Becker
Mark J. Collins
Dennis A. Darby
Michele L. Darby
George F. Dellagiarino
Mary Garrow-Splittberger
Audrey Gray
Richard Gray

Donald Groff
Mary Groff
Bruce Hapke
Joyce Hapke
Christopher Kern
Cynthia Kern
Richard King
Sally King
Edward A. Klammer
James A. Martin

Clifford McCartney
Gregory Molinda
Gregory Napiecek
Robert Nelson
Caron E. O'Neil
Ronald Pinkoski
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Louis Vittorio
Mr. and Mrs. David L. Wallach
Dermot Winters
Robert R. Wood
William Zagorski
Robert W. Zei

Lignite Level (up to \$100)

Mr. and Mrs. Fred Babarsky
Daniel Bain

William Kardos
David R. Lanning
Kenneth Lasota

Willis J. McLean
Sarah Millspaugh
Kevin Reath

Graig D. Shaak
Rebecca Stanhope

Why donate?

Our students and faculty depend on alumni and donor contributions to fund academic classroom needs, required field camps, graduate research, and department colloquium speakers bringing us the latest in cutting-edge research. Please give generously!

Where can I donate?

Discretionary Departmental Gifts Fund provides us with the greatest flexibility in responding to building better classrooms and department for the future.

Norman K. Flint Memorial Field Geology Fund commemorates Dr. Flint's devoted and inspiring teaching by helping with summer field camp expenses. This memorial fund was initiated by family, friends, students, and colleagues of Dr. Flint.

Francis Dilworth Lidiak Memorial Fund supports lecture series and invited speaker costs.

Henry Leighton Memorial Scholarship Fund established by Dr. Helen Leighton Cannon (MS '34), provides a permanent graduate scholarship awarded for merit and need.

Samuel B. Frazier (BS '49) Student Resource Fund established by family and friends, provides educational expense support to undergraduates in honor of Samuel Frazier.

Harry J. Werner Oil Finder's Fund provides support for students preparing themselves to meet the diverse challenges in the search for energy resources. This fund was initiated by Francesco Corona (BS '77, MS '80).

Alvin J. Cohen Memorial Fund supports students conducting basic research in meteorics, mineralogy, and geochemistry.

Victor A. Schmidt Memorial Classroom Fund is a memorial classroom fund in honor of Professor Schmidt.

Lidiak Spectroscopy Lecture Series established by the Spectroscopy Society of Pittsburgh to promote student initiative in the application of spectroscopy in the field of geology and planetary science at the University of Pittsburgh. The Spectroscopy Society of Pittsburgh is dedicated to furthering science education in the Western Pennsylvania region. They support member education programs, teacher and student awards, a wide variety of educational programs, and grant programs for high schools, colleges, and beginning university professors.



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TRIFECTA: Three G&PS Students Score Fulbrights

Three graduates from the Department of Geology and Planetary Science won Fulbright Scholarships in 2010, joining nine other Pitt grads in this prestigious honor—the most in Pitt’s history.

The award is granted by the U.S. Department of State and the J. William Fulbright Foreign Scholarship Board. Recipients of Fulbright grants are selected on the basis of academic or professional achievement, as well as demonstrated leadership potential in their fields. The program operates in more than 155 countries worldwide. The departmental winners are:

- **Tim Gallagher** from Orchard Park, N.Y., earned a BS in geology, civil engineering, and environmental engineering, as well as a BA in anthropology. Gallagher will research the recent oxygen deficiencies in the water of the Sill Fjords on the west coast of Sweden.
- **Emily Pierson** from Doylestown, Pa., received a BS in biological sciences and a BA in environmental studies with a chemistry minor and a certificate in global studies. Pierson will study ecology and the relationship between tourists and scientific institutions in Coyhaique, Chile.
- **Allyson Tessin** of Hollidaysburg, Pa., earned her BS and BPhil in geology, as well as a BA in environmental studies and history. Tessin will research climate variability in the Southern Ocean and its impact on global thermohaline circulation, based in Norway.

