Audiology

**Hazardous cheers?**

TOM ZALEWSKI, professor of audiology; Jack King, assistant professor of audiology; Joe Hazzard, assistant professor of exercise science; and Mike McFarland, director of athletics, recently forged a collaborative effort to examine the hazards excessive noise exposure pose to hearing health at sports venues. The goal of this collaboration is to perform precision measurement of noise levels at various BU athletic venues to determine the hazards posed to hearing of athletes and staff on the sidelines.

The investigators kicked off their project at the Sept. 7 home football game against Stonehill. Although more data is needed, preliminary findings are indicating that larger stadiums and crowds are likely to be damaging to hearing.

**White coat ceremony**

Six students received their white coats during the audiology department’s ceremony for third-year students. The white coat ceremony symbolizes that the students are qualified to start their third-year internships, where they will continue to work toward their clinical doctorate degrees.

**Aphasia and iPads**

CHRISTA IRZINSKI, senior audiology and speech-language pathology major, studied the ability of persons with aphasia to use iPad technology to establish new relationships with unfamiliar communication partners during the summer. Her research was funded by Undergraduate Research, Scholarship, and Creative Activity Awards, known as URSCA. Mentored by Pamela Smith, professor of audiology and speech pathology, Irzinski measured the acceptance, preference and ease of use specifically for video conferencing versus email. The results will be presented during the poster session at the American Speech, Language, and Hearing Association (ASHA) Convention this fall in Chicago.
Plaques raise awareness of runoff pollution

THE MAPPING, PLANNING, Environment and Rock Society, a student club within the department of environmental, geographical and geological sciences, partnered with the Green Campus Initiative to install 19 plaques at storm drain locations on campus to raise awareness of stormwater runoff pollution.

When people litter, stormwater runoff carries debris down drains that were installed to divert potential flood waters. That waste empties into local streams and rivers.

“The plaques remind people that when water goes into the sewer, it doesn’t disappear,” says the society’s president Matthew Hess. “Litter is going to be picked up by the Susquehanna River.”

Hess approached the Green Campus Initiative after he heard about a similar project in the Town of Bloomsburg. Society members Jim Cusick and Chelsea Myers recorded the storm drains’ latitudes and longitudes on lower campus and mapped the points using the Geographic Information System (GIS). With the data they collected, the Green Campus Initiative agreed to provide funding for 20 storm drain plaques, with one plaque to be kept for demonstration purposes.

Previously called the Geography and Planning Society, the Mapping, Planning, Environment and Rock Society discusses the overall campus plan/layout and works to improve it with projects like this one.

— Sean Williams ’15

JAZZ: TUNING INTO THE CONVERSATION

MICHAEL STEPHANS HAS MANY CAREERS. He’s an assistant professor of math, computer science and statistics who teaches technical writing at BU; an award-winning poet, writer and jazz journalist, who has written liner notes and promotional materials for musical greats; and an experienced percussionist, who has played drums since childhood and dabbles with trumpet and trombone. He enjoys listening to and playing in a variety of genres, with his style leaning mostly toward rock ’n’ roll and jazz.

Stephans recently finished a book that is the culmination of three years of work, Experiencing Jazz: A Listener’s Companion. The book takes readers on a tour of the musical genre he loves, offering a look into the lives of great musicians who define jazz.

“I felt like it was time for a musician to write a book about the music,” says Stephans. “The book is called ‘experiencing jazz,’ not ‘listening to jazz.’ It’s not just a history of the music. It’s also a memoir, as well as a non-technical guide for new listeners.”

Stephans interviewed many world-class musicians for his book, most of whom he has collaborated with at some point. Notable interviews include NEA Jazz Master saxophonist David Liebman and four Grammy winners: saxophonist Joe Lovano, guitarist John Scofield, bassist John Patitucci and pianist Alan Broadbent.

Jazz is a genre that Stephans believes is not well-marketed, nor widely listened to, despite being a deeply personal style of music.

“Not enough people know about this music that is America’s indigenous art form,” he says. “The fact that it is so personal may be the reason people are not initially attracted to it.”

“You don’t do the dishes to John Coltrane,” says Stephans of the late jazz saxophonist and composer. “If you listen to him closely, his music may take you places you’ve never been. Experiencing jazz music is all about connecting with the artist on a deeply personal level – sort of like having a one-to-one conversation with someone through music.”

Stephans hopes his book will help people tune in to that conversation. His experience in technical writing plays a big role in this goal.

“Tech writing takes things that are technical and makes them readable,” says Stephans. “I want people not to be afraid of jazz. I listen to everything. I give it a chance. People need to give jazz a chance. That’s what this book is for.”

Stephans’ book hits shelves on Nov. 6.

— Nick Cellucci ’16

PHOTO: GARTH WOODS

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**PHYSICS**

**Solar kiosk online**

THE SOLAR KIOSK, a collaborative project of physics, computer science, instructional technology and environmental, geographical and geological science, went online in October. Ned Green and Jeff Brunskill are the principal investigators; other collaborators include Curt Jones, Tim Phillips, Helmut Doll and Ghassan Ibrahim. The project was developed by 34 undergraduate and graduate students over the last 18 months.

[www.bloomu.edu/sustainability](http://www.bloomu.edu/sustainability)

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**RADNET explained**

JARRARD BARNHART ’13 gave a presentation describing his work with the recently installed EPA RADNET system at the second James E. Turner Memorial Symposium of the East Tennessee Chapter of the Health Physics Society. The equipment on the roof of the Andruss Library is part of the U.S. Environmental Protection Agency’s nationwide program to track radiation levels in the United States in the event of an emergency.

The symposium in Oak Ridge, Tenn., honors the legacy of James E. “Jimi” Turner, his contributions to the field of dosimetry and microdosimetry, and his lifelong emphasis on providing a strong radiological physics foundation to young health physics professionals and students. Forty-five attendees heard presentations over two half-day sessions by health physics faculty and students from BU, Clemson University, Francis Marion University, Georgia Institute of Technology, University of Florida and University of Tennessee – Knoxville.

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**NURSING**

**Miller’s ‘good work’**

JOAN MILLER, associate professor of nursing, wrote the lead article for the spring 2013 issue of *Pennsylvania Nurse*, which was devoted to the concept of good work in nursing. Her article espoused good work in nursing as essential in today’s health care environment where market forces impact quality of care and satisfaction in the work environment.

Miller initiated the study of good work in nursing in collaboration with the GoodWork Project at Harvard University. In addition to Miller’s lead article, colleagues from Norway addressed good work in nursing as it is experienced in their settings.

Miller currently is mentoring honors student Caroline Toomey who will conduct a study of good work in a clinical setting with the Geisinger Health System. Upon completion, Toomey will present findings at the College of Science and Technology Research Day, followed by publication in a peer-reviewed journal. Miller addressed good work in nursing as a way to diminish burnout among nurses at Penn State’s inaugural Dimensions in Heart and Vascular Care: Advancing Your Scope of Excellence meeting at the Penn State Milton S. Hershey Medical Center.
EGGS

THIRTY-TWO STUDENTS from environmental, geographical and geological sciences, known as EGGS, participated in full-time academic internships during summer 2013 – a record number of placements. The majority were in the environmental planning or urban and regional planning option of the geography major.

Internship sites included county conservation district offices, county and city planning agencies, Pennsylvania state parks and private environmental consulting firms. Skill sets in high demand from internship site supervisors included working with geographical information systems (GIS), mapping (design and production), fieldwork (surveying and sampling) and database construction and maintenance.

Locally, four environmental planning majors interned in the Columbia County GIS Office. Over the last five years Tim Murphy, director of the GIS office, has worked with 10 EGGS interns.

NEW FRESHMEN, transfer students and others took part in the two-day environmental, geographical and geological sciences boot camp, led by faculty members Jen Whisner, Chris Whisner, Stephanie Shepherd Prater and Mike Shepard. The event gave students a chance to get to know each other, meet the faculty, see how their major can lead to careers, explore the classic geology of the Appalachian Valley and Ridge and Plateau, and understand the impact of geology on the people who live in the region. Activities included orienteering, plant identification scavenger hunt, discussion of flooding in Fernville, a cookout and hiking at Rickett’s Glen State Park.

This research will contribute to understanding how landscapes in low topography settings respond to changes in base level, i.e. sea level. The outcomes of this work will improve reconstructions of past landscapes including changes in the hydrologic cycle south of the glacial limit in North America, how bedrock rivers change over time, and how the sedimentary record is created and preserved in caves and alluvial terraces. The funding will support two student summer research projects during the period of the grant.

EGGS in many baskets

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NSF grant

STEPHANIE L. SHEPHERD PRATER, assistant professor of environmental, geographical and geological sciences, received a National Science Foundation grant of $383,000 over three years for collaborative research, Defining the role of heterogeneous lithology in bedrock incision and terrace formation in the Buffalo National River, Ark. Prater, whose portion of the grant is $70,191, is collaborating with Amanda Keen-Zeber of the Desert Research Institute, Reno, Nev.

Scrambled EGGS

STUDENTS AND FACULTY in environmental, geographical and geological sciences (EGGS) have been involved in a number of recent initiatives including:

• Students started collecting daily weather observations for the National Weather Service Cooperative Observer Program (COOP) Program in June. More than 11,000 volunteers take observations on farms, in urban and suburban areas, national parks, seashores and mountaintops. The data are representative of where people live, work and play.
• Faculty Jen Whisner, Stephanie Shepherd Prater and Cynthia Venn are part of the newly formed Columbia-Montour Source Water Protection Coalition, dedicated to promoting the protection and conservation of source water resources by partnering with agriculture, industry, landowners and municipalities; educating the public; and developing risk reduction strategies.
• Susquehanna Greenway Partnership received a Department of Community and Economic Development grant to provide technical assistance to two local communities severely impacted by flooding in fall 2011. EGGS partnered with Susquehanna Greenways to conduct a workshop for municipal leaders on creating greener, more flood-resilient communities.
• Geology graduate Sarah Kitting ’13 of Lewistown received the Aldo Leopold Award for outstanding academic achievement at the six-week Western Michigan University summer 2013 hydrogeology field camp.
• Two EGGS and two biology students submitted a final report to the Town of Bloomsburg Park Board on their inventory of trees. The students conducted the inventory of trees in Town Park during fall 2012.

Participants in the fifth annual EGGS boot camp hike in Rickett’s Glen
EXERCISE SCIENCE

Faculty profile: Rawson researches creatine

ERIC S. RAWSON, professor of exercise science, received his doctoral degree from the University of Massachusetts, Amherst. Over the past decade and a half, Rawson’s research has focused on the interactions between nutrition and skeletal muscle. In particular, he has extensively studied the effects of the dietary supplement creatine on muscle function.

Rawson has been an active member in the American College of Sports Medicine (ACSM) since 1996 and has served on the ACSM Annual Meeting Program Committee, as chair of the ACSM National Chapter Nutrition Interest Group and on various task forces. He has frequently moderated sessions at ACSM regional and national conferences. Rawson was advanced to fellowship status of the ACSM in 2008.

Rawson is an associate editor for Applied Physiology, Nutrition, and Metabolism, Amino Acids, and the Journal of Strength and Conditioning Research; is on the editorial board of the ACSM’s Health & Fitness Journal; and has reviewed articles for more than 30 peer-reviewed journals. Rawson has delivered more than 100 professional presentations, is co-author of the 10th edition of the text Nutrition for Health Fitness and Sport and has authored or co-authored numerous articles and book chapters. His research has been funded by the National Institutes of Health National Center for Complementary and Alternative Medicine, Bloomsburg University and various foundations.

Rawson is president of the Mid-Atlantic ACSM regional chapter (MARC-ACSM), which will host more than 600 researchers, clinicians, practitioners and students at its annual conference in Harrisburg this fall. The program, designed by Rawson and his board members, will include more than 100 research and clinical case abstracts, nearly two dozen featured lectures from nationally recognized speakers, and undergraduate, master’s and doctoral student investigator awards. Research conducted in BU’s Department of Exercise Science will be presented at the conference by faculty and students. Several BU exercise science students have been awarded outstanding student investigator awards at this conference.

First-person account: A week in the Dominican Republic

First-person account: A week in the Dominican Republic

my role served to the athletic teams. My role as an athletic training student was to evaluate and rehabilitate athletic injuries as well as other functions. Medical care is scarce and the ambulance had to make several trips on the way to the hospital to pick up the supplies needed since the hospitals are not well supplied.

I stayed with the mission organization I was working with in a hotel in Juan Dolio. Juan Dolio is a town about 20 minutes outside of the nation’s capital, Santo Domingo. Our building was completely secured with iron gates and armed guards with rifles who worked around the clock. The town became very unsafe at night, especially for young females. Sex trafficking is a common occurrence in Juan Dolio at nightfall.

It was an all-around diverse experience when compared to living in the luxurious United States. The villages we traveled to were dirty and the houses were pieced together with scrap metal and whatever other material was available. Tap water was unsafe to drink and the only water available to drink was the purified water sold in 10-ounce bags instead of bottles.

It was a real eye-opening experience. I realized how much we, as United States citizens, take for granted the many blessings of everyday life. It is an experience I will never forget, and I encourage every student to take advantage of these kinds of opportunities when they are available. Build and diversify your experiences as a student because these kinds of opportunities are not as readily available to you once you graduate.

— By Amanda Truscott ’12, Exercise Science graduate student
INSTRUCTIONAL TECHNOLOGY

A Day with the Marines

KARL KAPP, PROFESSOR of instructional technology, participated in the Marine Corps Executive Forum (MCEF) event, at the invitation of Christopher Reese ’98. The event is designed to help leaders of business, industry and academia better understand the role of the Marines.

The event included a Pentagon briefing by Marine Corps Commandant Gen. James F. Amos and a trip to Quantico, complete with a Meals Ready to Eat lunch and a chance to fire a few Marine Weapons Systems. The executive forum ended with a Marines Parade at the “Oldest Post of the Corps” in Washington, D.C. This post was established in 1801 and Marines have performed military reviews and ceremonies since its founding.

First paper, then technology

MARY NICHOLSON, TIMOTHY PHILLIPS, Helmut Doll and Karl Kapp, instructional technology faculty, recently created and delivered a workshop focused on mobile learning for a corporate client. The custom-designed workshop provided information on the best design, technology and applications for mobile learning. It consisted of hands-on exercises, complete with stencils and paper “tablets” for attendees to design their mobile learning applications before programming began. Paper prototyping is the preferred method to ensure that the mobile learning application is well-designed before the costly programming investment.

BIOLOGY/CHEMISTRY

Corbin in Spain

CLAY CORBIN, associate professor of biology, collected foraging data on stonechat and participated in the international congress of vertebrate morphology in Barcelona, Spain, during summer 2013. He presented two papers: Between two worlds: the correlation between morphology and foraging ecology of migratory passerines in temperate and tropical environments, and Killing rates and morphology in ambush-predator birds.

Chemistry awards

THE FOLLOWING CHEMISTRY majors received Undergraduate Research, Scholarship, and Creative Activity Awards (URSCA) for summer 2013: Louisa Andrew, Kristie Darrah, Sawyer Davis, Chandra Dewar, Conor Flynn, Amanda Pritzlaff, Eric Rahner and Franklin Rodemer. Receiving summer chemistry scholar research awards were Jocelyn Legere, Thomas Malinski, Leonard Oddo and Christopher Rosengrant.