



2013-2014 - #2

Wednesday, October 23, 2013



The Department welcomes Dr. **Luke Juran** to our faculty. Luke joins us from the University of Iowa to work in the college of Natural Resources and Environment's new water degree program. Luke will teach the course "Introduction to Water Resources and Environment" to freshmen in that major. He has wide ranging research interests in water and human ecology, sustainability of coupled human-environment systems, and the effects of and solutions to anthropogenic stressors upon ecosystems. Luke brings a wealth of international experience to the department having done his dissertation work: *Churning the water after the wave: water components of housing reconstruction in post-tsunami South India* while living in India for a lengthy period of field work. Luke has also worked in Mexico, Bangladesh, and Sri Lanka. His domestic interests are also very applicable to our programs as he worked with the Des Moines water system

assisting with natural hazards preparedness and mitigation in order to comply with state and FEMA policies. Luke will begin his teaching in the spring semester, but is already in residence making preparations for the classes.

Tim Baird had a busy summer of publications and a presentation in Europe:

Timothy D. Baird. (Accepted) Conservation and Unscripted Development: Proximity to park associated with development and financial diversity. *Ecology and Society*.

Timothy D. Baird and Paul W. Leslie (In press). Conservation as Disturbance: Upheaval and Livelihood Diversification near Tarangire National Park. *Global Environmental Change*.

Presented at conference: **Baird, T.** (2013, June) Livelihood Diversification and Social Network Transformation in northern Tanzania. Paper presented at the "[*Transformation in a Changing Climate*](#)" conference sponsored by the University of Oslo and the IPCC. Oslo, Norway.

Tammy Parece (currently a Geography student in the Geospatial and Environmental Analysis doctoral program in CNRE at Virginia Tech) along with her thesis advisor, Professor Emeritus **Lawrence Grossman**, have published a second article from her master's thesis: **Tammy E. Parece, Tamim Younos, Lawrence S. Grossman, and E. Scott Geller.** 2013. "A Study of Environmentally Relevant Behavior in University Residence Halls" *International Journal of Sustainability in Higher Education*: 14, 4: 466 - 481.

Tim Baird presented a his paper, Conservation as disturbance: How Tarangire National Park has cultivated social and economic diversity in northern Tanzania at the weekly speaker series at the **Center for African Studies** at the **University of Florida** (Gainesville) on September 20th.



Graduate student **Ashley Lewis** (in the Blue helmet) volunteers (when not doing her MS degree) as a search and rescue team member. Her team recently helped other teams to save two men in Patrick County who were lost overnight in some extremely steep terrain, in 40 degree drizzling conditions. Their success was reported in the Martinsville Bulletin newspaper which included the picture at left.

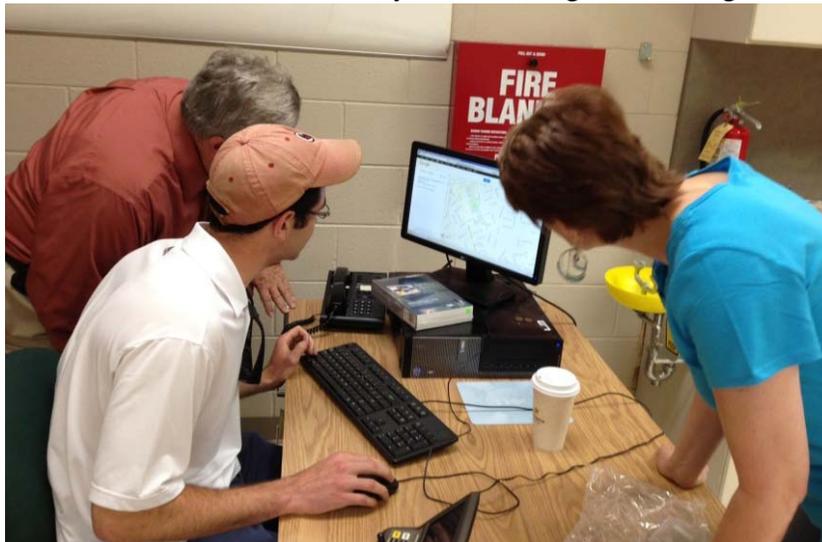
Undergraduate Student News:

Geography Students Engage with Roanoke City Public Schools

Dissertation Grant and Scholarship Monies Support Learning for both K-12 and University Students

Weather Stations

Over the summer, M.S. student **Paul Miller** and Ph.D. Candidate **Tammy Parece** began visiting Roanoke Virginia City Public Schools (RCPS) to install weather stations. RCPS staff installed the hardware. Tammy and Paul began installing the software for long-term data



collection on June 4. Paul continued to work on software installation during June and July.

In the picture on the left, Paul and Tammy are reviewing the software installation at Breckinridge

Middle School and the upload of data onto WeatherUnderground with RCPS Science Coordinator, Tom Fitzpatrick.

In August, Tammy and Paul were joined by undergraduate student, **Mario Garza**. Mario initially began working with one specific school - Fishburn Elementary School - to assist its science teacher in connecting the school's existing weather station to the internet. While this process is ongoing, Mario has successfully facilitated periodic data uploads to WeatherUnderground (<http://www.wunderground.com>).

The process has been ongoing as some schools have moved the inside data consoles from one computer to another, some computers were replaced with new computers, and additional funding was obtained to allow more stations to be added to the network.



As such, on Friday, September 6, 2013, two additional undergraduate students, **Bonnie Long** and **Michael Marston**, joined the team. In the picture below, RCPS Science Coordinator, Tom Fitzpatrick is discussing additional installations with Mario, while Bonnie and Michael are installing Fallon Park Elementary

School's software.

To date, 9 weather stations have been successfully installed in the RCPS schools and one in the main office. Below are screens shots from the weather stations' display on WeatherUnderground dated Saturday, September 7, 2013. At the current time, installation of two additional weather stations is in process at Breckinridge Middle School and Fishburn Elementary School.

Garden City ES 

Station ID: [KVAROANO35](#)
3718 Garden City Boulevard, Roanoke, VA, US

 
79.9 °F
Partly Cloudy

[Status Message](#) | [Get Weather Sticker](#)

Westside ES 

Station ID: [KVAROANO31](#)
1441 Westside Blvd, NW, Roanoke, VA, US

 
80.2 °F
Partly Cloudy

[Status Message](#) | [Get Weather Sticker](#)

Grandin Court ES 

Station ID: [KVAROANO38](#)
2815 Spessard Avenue, SW, Roanoke, VA, US

 
80.8 °F
Partly Cloudy

[Status Message](#) | [Get Weather Sticker](#)

Hurt Park ES 

Station ID: [KVAROANO32](#)
1525 Salem Ave SW, Roanoke, VA, US

 
82 °F
Partly Cloudy

[Status Message](#) | [Get Weather Sticker](#)

Addison MS 

Station ID: [KVAROANO36](#)
1220 5th Street NW, Roanoke, VA, US

 
82 °F
Partly Cloudy

[Status Message](#) | [Get Weather Sticker](#)

Fallon Park ES 

Station ID: [KVAROANO33](#)
502 19th Street SE, Roanoke, VA, US

 
80.8 °F
Partly Cloudy

[Status Message](#) | [Get Weather Sticker](#)

Fairview Magnet ES 

Station ID: [KVAROANO37](#)
648 Westwood Blvd NW, Roanoke, VA, US

 
79 °F
Partly Cloudy

[Status Message](#) | [Get Weather Sticker](#)

RCPS 

Station ID: [KVAROANO39](#)
40 Douglass Avenue NW, Roanoke, VA, US

 
82 °F
Partly Cloudy

[Status Message](#) | [Get Weather Sticker](#)

Crystal Spring ES 

Station ID: [KVAROANO42](#)
2620 Carolina Avenue, SW, Roanoke, VA, US

 
82 °F
Partly Cloudy

[Status Message](#) | [Get Weather Sticker](#)

Roanoke Academy ES 

Station ID: [KVAROANO41](#)
1616 19th Street NW, Roanoke, VA, US

 
82 °F
Partly Cloudy

[Status Message](#) | [Get Weather Sticker](#)

The weather stations are being installed to facilitate weather data collection for Tammy’s Ph.D. Dissertation research on urban agriculture. The data will also be used by the Department’s undergraduate meteorology students in their studies, and Roanoke City Public Schools’ science teachers will use the data for teaching weather and climate in compliance with the Virginia Standards of Learning.

Funding for purchase of the weather stations was made possible through research monies from **Dr. Andrew Ellis** of our Geography Department, Tammy’s grants from the Sidman Poole Endowment and the Virginia Tech Graduate Research and Development Program, and Tammy’s scholarship from the United States Geospatial Intelligence Foundation. Funding for all field assistants was made possible through Tammy’s scholarship from The Cabell Brand Center for Global Poverty and Resource Sustainability Studies.

One on One Interaction with K-12 Students



While in Roanoke, Virginia on Friday, September 6, 2013, **Mario Garza** took the opportunity to speak with Ms. Heller's class at Fallon Park Elementary School. In the photos on the left, he is explaining the car top mesonet units to her students and discussing the Geography Department's storm chase that occurs each May and June. In the photo below, he explains differences in thermal properties of impervious surfaces and uses an infrared thermometer to show students the higher temperature of said surfaces.



On that same day, Mario, RCPS Science Coordinator, Tom Fitzpatrick, and mesonet volunteer driver, **Chris White**, were at Crystal Spring Elementary School showcasing one of the mesonet units and had discussions with three additional science classes. Their visit to Crystal Spring can be seen on the Roanoke City Public Schools' Facebook page.