

MOUNTAIN LAKE ECHOES

MOUNTAIN LAKE BIOLOGICAL STATION

 UNIVERSITY of VIRGINIA

Fall 2012, vol.7

Power Outage

Jaime Jones

MLBS has always known its students and researchers were flexible, but this summer's extended power outages gave us a chance to see just how adaptable they really are. On June 29th—the height of field season—a widespread, long-lasting windstorm swept across the state. It traveled almost 700 miles in 10 hours, caused extensive damage in 10 states, and resulted in power outages for 4.3 million. (www.AEP.com). At MLBS, our only warning was the sound of the wind

roaring up the mountain. Ultimately, the power was out from June 29 to July 10–11 full days—followed by a second, 3-day outage.

An outage of that length was unprecedented at MLBS, but with a bit of creativity, a few extra generators, and a lot of dedication, the station remained operational. By Monday, wireless internet access and basic office functions were available. Experiments requiring uninterrupted light cycles, temperature regulation, and continuous filming

were facilitated; PCR (polymerase chain reaction) cycles were run; the water pump was powered; hot showers were available; the dining hall served three hot meals a day; and, importantly, coffee was brewed!

After about a week, operating without power became the “new normal”. We stopped reaching for light switches and started automatically grabbing headlamps before heading to evening seminars. We became blind to the extension cords and deaf to the hum of generators. We got accustomed to gathering on the porch of Wilbur Lab in the evenings to check e-mail, our faces lit up in the dark by the blue light of our laptop screens. And—before additional generators were acquired to power the network—we crowded around fireplaces and remembered what life was like on the mountain before the internet.

For everyone who endured The Great Power Outage(s) of 2012, it was certainly a summer that won't be forgotten!

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Upcoming

Dates

- REU APPLICATIONS DUE FEBRUARY 20TH
- EARLY CAREER FELLOWSHIP APPLICATION REVIEW BEGINS FEBRUARY 20TH
- SUMMER 2013 CLASSES ANNOUNCED SOON!



Evening square dance powered by generator

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From the Director

Butch Brodie

The 2012 season at MLBS will be remembered most for the derecho. I was off the mountain when the storm hit, and had no inkling that severe weather was headed our way. Skating down I-81 was an adventure, but when I turned on 700 to head up the mountain, I knew that another chapter would unfold. It took about 90 minutes to negotiate the hill, stopping to move branches and downed trees. It was no surprise that power was out when we finally reached the Station.

The surprise was how long we were to be without power! What began as our typical rush to get generators plugged in trans-

formed into a long-term lesson in priority assessment, morale maintenance, and electrical rewiring. Throughout the blackout the Station community saw our local heroes in action. It was literally a 24-hour a day job to keep basic functions on line. I can't say enough positives about how Tom Mc Namara, Jaime Jones, and Eric Nagy pulled to-



Lewis Hall

gether to troubleshoot the many dimensions of Station life, from ensuring we had drinking water, to reconfiguring the cooling units of the animal rooms, to providing electricity for wireless, and the occasional hot shower. John and his crew in the kitchen hung in there along with us, providing hot meals with minimal kitchen equipment

and little refrigeration. It would have been easiest to board up shop and close the Station for a spell, but with round the clock work, our team had all critical functions back on line. Don't hesitate to remind them how grateful we are for all their efforts to keep MLBS operating and the residents safe and happy.

While I hope we never have to repeat a test like this one, it did serve to show just what an amazing community MLBS is. To a person, station users maintained positive attitudes and even seemed to revel a bit in the extra challenge of conducting their research or classes under duress. This spirit, and the exceptional attitude and skills of our Sta-

Student Corner

Jenn Vance

"So, you're here for the Sex class?" the Station Manager asked, making me blush ever so slightly. *Field Biology of Sex*, that is. Professor Kristal Cain led the examination of sex as a reproductive strategy. Lively discussions punctuated our morning lectures. In the field we performed experiments with striped maples, red-backed salamanders, tree frogs, and birds. The course culminated in independent projects. All around, it was the best class I have ever taken thanks to the camaraderie and emphasis on research.

Next, I took *Field Ethnobotany* with Professor Lytton Musselman. We went on trips to explore the area's native plants and undertook projects preparing the plants we foraged. My partner and I brewed elderflower champagne and made nettle pesto and deep fried cattails. Menu items included sassafras tea, *Rhus* juice, sautéed Indian cucumber, cattail rhizomes, *Oxalis* salad, and rose petal jam.

Outside the classroom, the education continued. Students, researchers, professors, and grad students mingled to create a sort of



Jenn Vance and Joe Welklin— with snake

paradise for the biologically inclined. We held bonfires, swam, played volleyball, and threw parties under the pavilion. Twice a week we attended evening biology seminars. The community at Mountain Lake is truly special and I would urge anyone with an interest in field biology to experience life "on the mountain" as early as possible in their academic careers.

REU Spotlight—Alex Styer

Melissa Wender



A pollinator species collected on American Bellflower

MLBS has hosted cohorts of REU students since 1993. REU programs across the country provide undergraduates with hands-on research experience in physics, chemistry, and biology. And REU Alex Styer, Georgetown University, got plenty during his 10 weeks at MLBS this summer. Each day he

and his mentor Dr. Janet Steven, Sweet Briar College, met in the Galloway Lab and headed to the field. Dr. Steven herself is a 1995 alumna of the MLBS REU program.

Styer's project didn't shy from difficult concepts. For example, his work involved the neighborhood

area equation, which estimates the area around a plant in which there's an 85% chance of finding its parents. It's a measure of how far seeds and pollen travel from their parents. Styer appreciated having a mentor to walk him through the application of academic concepts to real life situations. Together, he and Dr. Steven addressed the challenges of designing a field experiment with compounding factors. For instance, pollinators might appear faithful to a certain light environment, but it's possible that that they are actually just faithful to their original location. Styer says, "You need the time to think it through.

That is why the Q&A sessions at MLBS are really helpful. You don't get upset when someone points something out; it just tells you your next step in figuring out a complex problem. It's encouraging; it gives you a reason to go out and collect more data."

Styer says, "The scientific community at Mountain Lake is very supportive. "They want to help us become better scientists."

Dr. Steven has agreed to continue working with Styer throughout the fall semester. "You realize over time this data comes together to form something quite interesting and it begins to answer the bigger questions."

Re-envisioning Lewis

Eric Nagy

The National Science Foundation's Field Stations and Marine Labs program has awarded MLBS \$25,000 to plan Lewis Hall renovations. This one-year project will "reprogram" the design of Lewis to better suit today's functions and needs while preserving building character and history. Lewis Hall was constructed in 1939, and it hasn't changed much in the past 73 years. But in that time Mountain Lake has shifted from a summer facility hosting UVA courses and

research, to a 12-month nationally oriented full-service field station with a growing outreach compo-

ment. The planning project has three phases: 1. Collect input from field station users and stakehold-

ers; 2. Engage the national field station community in a visioning workshop; 3. Work with planning professionals on Grounds to generate a conceptual plan with which to pursue funding for the renovation work.

All friends of MLBS are invited to contribute to the project. Email your ideas and visions for Lewis to enagy@virginia.edu.



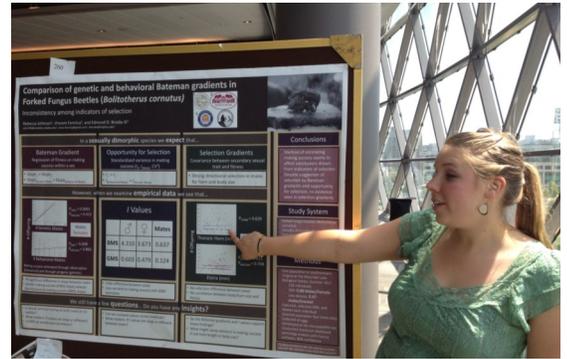
Cramped, out-of-date lab space in Lewis Hall.

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Rebecca Johnson at the First Joint Congress on Evolutionary Biology



Newly landscaped south entrance to Lewis Hall

Butch Brodie, Director
Eric Nagy, Associate Director
Melissa Wender, Office Manager
Jaime Jones, Station Manager
Tom Mc Namara, Facilities Manager

News and Notes

◆ We are pleased at the completion of “phase one” of our master landscape plan. Improvements to Lewis Hall’s south entrance (above) create the much needed, and more inviting, public entrance to the Station. Future work will include improvements to parking, plantings, paths and lighting station-wide.

◆ MLBS yearbooks 1946-1997 are now [available on our website](http://mlbs.org).

◆ We were excited to hear from Andrew Sleeper, who spent the summer of 1967 at MLBS. “I was 16 and

had four jobs that summer: 1) Clerk at the snack bar after dinner selling stamps and ice cream. 2) After dark I’d go out with Craig Adler (who went on to become a Dean at Cornell) to collect slimy salamanders. 3) I collected wood roaches out of rotten logs, packaged them for shipping to a Harvard professor, and was paid 10 cents per roach. 4) An important unofficial assignment - if anyone spotted a rattlesnake, someone would let me know and I’d relocate the snake away from the campus.” Andrew was at the Station

with his father, David A. Sleeper, a biology professor at Hobart & William Smith College, who worked on the USPHS Mosquito Control Project.

◆ Professor Megan Marlatt was awarded a Buckner W. Clay award for the Humanities to sponsor a professional artist in residence at MLBS next summer.

◆ In 2013 we will again offer a limited number of fellowships to cover residency and station use costs for researchers exploring new projects or collecting preliminary

data. Contact bbrodie@virginia.edu for more information on these [Early Career Fellowships](http://mlbs.org).

◆ 2011 REU Rebecca Johnson had the opportunity to present a poster at the First Joint Congress on Evolutionary Biology (above) highlighting her research on sexual selection. Congratulations Rebecca!

◆ This newsletter is vol. 7, making the Winter 2012 newsletter effectively vol 5. and Spring 2012, vol 6.