



Elizabeth Murray, Teresa Sullivan, Jim Murray, and Alison Levine

Mountain Lake *Echoes*

UNIVERSITY of VIRGINIA

Produced by the University of Virginia's Mountain Lake Biological Station mlbs.org

Jim Murray Honored in Founder's Day Tree Ceremony

Long-time Mountain Lake Director and Emeritus Professor of Biology, J. James Murray, was honored with a ceremony and naming of a Founder's Day Tree on the UVA Lawn on April 13th. UVA President Teresa Sullivan reminded the crowd of approximately 50 friends, family members, colleagues, and University leaders of Jim's contributions to the field of biology and the University of Virginia. Jim's 50+ year commitment to the University Grounds and field stations was especially appreciated. Jim guided and inspired the University's Arboretum and Landscape Committee for decades. His botanical aesthetic and landscaping skill has helped define the Grounds UVA is so proud of. Thank you, Jim, for all you have given MLBS, UVA, and all of us privileged enough to have worked with you. - MLBS Staff

A Virtual Field Station Experience

If you are connected with us, you've probably noticed that Mountain Lake Biological Station is working to reach out, keep you engaged, and expand your field station experience even when you're not physically on the mountain. This winter, Station Manager Jaime Jones started a video series called *This Week at MLBS* in which she narrates short summaries of activity at the Station that week, and gives an overview of what is coming up. With five episodes produced so far, we plan to keep up with weekly segments as things ramp up this spring and summer. New episodes are posted on [Vimeo](https://vimeo.com) and shared at [Facebook](https://www.facebook.com/mlbs.org), [Twitter](https://twitter.com/mlbs.org) and mlbs.org.



Two additional special collections were also developed this winter:

Eliza Brodie has web-published her work on the history of MLBS cottage namesakes. Each historic cottage at the Station was named for a prominent biologist who contributed valuable research in the southeastern United States. Eliza's collection, *Mountain Lake Cottage Namesakes*, explores the history, importance, and contributions of these scientists. Station residents will recognize some of the portraits from those that are framed in MLBS cottages.

Some of you old-timers will remember Elizabeth Murray and Lucile Walton's series *In Nature's Garden*. For over eleven years (1970-1981), Bess and Lucile wrote and illustrated biological and natural history pieces that were published in *Virginia Wildlife*. Lucile's artwork from the series is familiar to many of you and is displayed throughout Lewis Hall. That artwork and Bess's essays are now reproduced in full [online](#).

Also be sure to check out other series on our website, including *Organism of the Day* (by Hazel Galloway), *What's In Bloom*, *Echoes* (current newsletters and historic yearbooks), and an archive of our [summer seminar series](#). Not only does our web site have new material, it also has a new look! Come pay us a [virtual visit!](#) - MLBS Staff

In This Issue Spring 2016, Vol. 14

From the Director	2
News & Notes	2
Student Corner	3
Mountain Laker Remembered	3
2016 Summer Courses	4

Upcoming Events

REU Program
May 23 - July 29

Summer 2016 Courses
Session I: May 23 - June 10
Session II: June 13 - July 8
Session III: July 11 - 29

Summer Seminar Series
Tuesdays and Thursdays
8 p.m. at Lewis Hall Auditorium
Begins May 24

ArtLab
June 12 - 26

ArtLab Lecture
Jo Yarrington, Fairfield University
June 13

Open House
June 25

July 4th Festivities

Walton Lecture
Ellen Ketterson, Indiana University
July 14

View our [web calendar](#) for up-to-date announcements.



From the Director

It gives me special personal pleasure to announce the 2016 Walton Lecturer will be Dr. Ellen Ketterson from Indiana University. Many past Mountain Lakers will be familiar with Ellen from her many years working at MLBS with her late husband, Val Nolan, and a long list of great scientists they mentored on the Junco Crew. Her recent research efforts have kept her from spending as much of her own time at the Station as we would all like, and so it seemed like a good time to honor one of the world leaders in evolutionary biology and animal behavior and get a spectacular Walton Lecture in the process. There really are few scientists who have done as much to push the execution and understanding of integrative biology into a field setting.



Dr. Ellen Ketterson
2016 Walton Lecturer

Beyond the amazing scientific advances that Ellen will talk about on July 14, her contributions to the human infrastructure of our business have been remarkable. She is a tireless and gracious advocate for students from all walks of life, a leader in developing interdisciplinary research and training efforts in animal behavior, reproductive biology, and gender studies, and an enviable role model for scientists young and old. She is able to demand greatness and rigor from her students and colleagues while simultaneously making them feel secure and unafraid to fail. On a personal note, it was Ellen and her lab that first brought MLBS to the fore of my own thinking long before I ever thought of joining its ranks. Watching Ellen and Val and their students gear up and depart for the Station every spring was one of experiences that first got me thinking about the possibilities at MLBS, and for that I am eternally grateful.



Butch Brodie

Support MLBS

You can support the programs at Mountain Lake Biological Station by donating online.

All donations are tax-deductible.

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News & Notes

ArtLab 2016

This year's ArtLab Lucile Walton Fellow will be Jo Yarrington. Yarrington is a Professor of Studio Art at Fairfield University's Department of Visual and Performing Arts in Fairfield, CT. Her works have been exhibited internationally and her recent projects have explored environmental issues and the relationship of language and image. Six other nationally recruited Artists-in-Residence and six UVA art students will join Yarrington at MLBS June 12-26. ArtLab work will be featured at the Station Open House June 25. ArtLab will also feature its writing course again this year from May 23-June 3, Science Writing: Creative Approaches to Biology and Ecology.



Containment and Spillage, a collaborative project by Jo Yarrington with Morgan Post
Brass, stainless steel, optical glass, water, dirt, sand, uranium glass, and additional components.
13"H x 13"W x 13" 2014
www.joyarrington.com

Containment and Spillage is an artist book object/presentation device that questions nuclear waste from power plants in Connecticut, the process of using water as coolants in the reactors, and the potential effects of the flow of radioactive materials. The book juxtaposes imagery of the still-active Millstone Nuclear Power Plant in Waterford, CT (activated in 1970) and the site of the decommissioned Connecticut Yankee Nuclear Power Plant in Haddam Neck, CT. Research into the visual process involved investigating the two plants' histories, practices, and documented environmental issues and concerns; photographing the plants and their surroundings; and collecting samples of organic material from the sites.

Sister Field Station Brings Summer Temporary Station Manager to MLBS



Please help us welcome Debbie Weeks to the Station this summer. Debbie will be standing in for Station Manager Jaime Jones while she is on leave. Debbie comes to us from a sister field station and brings a wealth of experience and field station wisdom. We are looking forward to the summer with her!

Debbie Weeks [in her own words] is originally from New York State, but has lived most of her life in Florida. She is the mother of three children, and is the grandmother of one adorable little boy. Debbie retired from the University of South Florida after 30 years of service in Information

Technology, and accepted a position as Interim Executive Director of the Gerace Research Centre on San Salvador, in the Bahamas. After experiencing Hurricane Joaquin and a very warm spring in the Bahamas, Debbie looks forward to the lower temperatures and higher elevations at MLBS this summer!

Student Corner

by Brittany Sutherland, University of Virginia

Aside from a fantastic month in 2012 taking Zack Murrell's Plant Conservation and Diversity course, I've spent most of my time as a graduate student seeing Mountain Lake in brief glimpses – *Silene* census, Biology retreats, a weekend or two helping other researchers. The rest of the time, I've spent my summers in Charlottesville while much of the ecology and evolution community migrated to the Station, leaving Gilmer Hall a quieter, lonelier place over the summer. Last spring, however, I realized that the MLBS REU program and new greenhouse would be ideal resources for some of my dissertation work, and I jumped at the chance to spend the summer at the Station.

As a total field work novice, I could not have been at a better place to learn. The diversity of research interests and the collegial atmosphere meant I never had far to go to find expert advice or someone willing to help, whether it was for a pollinator I couldn't identify or my 50th question about the greenhouse. From helping me find good sites to grow *Campanula rotundifolia* in field plots, to helping me refine ideas and experimental approaches, to lending a sympathetic ear when things in the field weren't going well, my projects sometimes felt like a group effort with the rest of the MLBS community.

One of my favorite things about working at the Station was being involved as an undergraduate researcher mentor. Every year MLBS brings together a great group of smart and motivated students, and I was lucky enough to work with two of them. As I helped them develop and implement their project ideas, Brandie and Tomas taught me as much as, if not more than, I taught them. Together, we shared our successes when our experiments were



Brandie Quarles tends to *Campanula* plants to be used in selfing studies.



Tomas Miranda-Katz preps a field site.



Tomas helps out building benches for the new greenhouse.

going well and our challenges when deer demolished our field plots, again. We also got into the fun side of Station life, and built two creative (if not terribly lake-worthy) boats.

I'm so thankful I got to spend a summer as a Mountain Laker before I finished graduate school. Being part of such a close-knit group of scientists helped me not only learn the ins and outs of field work and foster new ideas, it also introduced me to some of the best colleagues and friends I could ask for. Although I don't have plans to work at MLBS this summer, I have a feeling I'll be back before long. The Station seems to have a knack for calling us back from time to time.

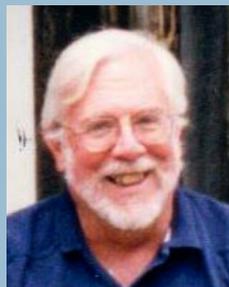


Brittany Sutherland is a PhD candidate in Laura Galloway's lab at the University of Virginia. She has research interests in plant evolution, polyploidy, and reproductive isolation, and plans to complete her degree in the Fall of 2016.

Mountain Laker Remembered

by Douglas R. Taylor

The Mountain Lake community mourns the passing of David E. McCauley, a long-term Mountain Laker and influential population geneticist. Born in 1950, Dave grew up in Baltimore and attended the University of Maryland. He earned his Ph.D. at Stony Brook (1976), and then was Mike Wade's first post-doc at the University of Chicago. After a brief teaching stint at the University of Virginia, Dave was hired as an Assistant Professor at Vanderbilt University where he remained until his passing. Dave McCauley's work has focused on the evolution of genetic differentiation among populations, both in theory and in nature, in beetles and in plants. He published more than 100 papers and many of these are regarded as classic works. Dave showed that population structure is greatly influenced by extinction and colonization events, and was instrumental in bringing the concept of 'genetic rescue' of small endangered populations to the forefront of our thinking. He also carried out elegant experiments showing that natural selection acts at multiple levels, and that group properties interact with individual traits to determine evolutionary



David Evan McCauley, PhD
August 4, 1950 - October 30, 2015

outcomes. Much of his experimental work, spanning more than 30 years, was done at Mountain Lake Biological Station. Although Dave was seldom keen about arduous field work, he had a sophisticated understanding of how to link theory to experimental design and a remarkable knack for the art of the soluble. Dave was also a remarkably clear writer. As such, Dave's science was elegant and of high impact. He was absolutely adored by his students and colleagues, who have been known to remark after first meeting him, "you mean that was THE Dave McCauley?" Friends of Dave will remember his unassuming personality, honesty, integrity, wry sense of humor and fascination for the oddities of popular culture. He loved Mountain Lake, spent many summers there, and was at one stage considered very much the Darwin of the Station. Dave always enjoyed talking and thinking about science, whether on the lawn or with a fishing pole and in peace with the outdoors. Dave is survived by his loving wife Pat and two children, Michelle and Joseph.



2016 Summer Courses *3 Credits*

Summer Session I (May 23 - June 10)

Plant Conservation and Diversity: Bioinformatics, Systematics, and Field Techniques

Zack Murrell, Appalachian State University

The extraordinary diversity of the southern Appalachians will be used to explore the world of plants. We will visit unique mountain habitats to study the different species assemblages in these ecologically wide-ranging sites. Based upon our observations and analyses, we will critique contemporary views of the most effective conservation units (individual, population, species, family, habitat) and the methods used to achieve conservation goals.



Field Herpetology

Christian Cox, Georgia Southern University

We will focus on the ecology and evolution of reptiles and amphibians, leveraging their diversity in the southeastern U.S. In both the field and laboratory, we will study 1) evolutionary relationships among reptiles and amphibians, 2) key evolutionary innovations that characterize each major lineage, 3) reptile and amphibian systems in ecological and evolutionary research, and 4) location and identification of reptiles and amphibians.



Science Writing: Creative Approaches to Biology and Ecology, a short ArtLab Course (May 23 - June 3)

Hannah Rogers, University of Virginia

Writing is fundamental to the practice of science. We write about individual organisms, ecosystems, and patterns, to record our findings and to reach broader audiences. This course will explore a variety of writing styles to make the students better communicators both inside scientific communities and to the public. Students will be inspired by their experience of observing at MLBS and by prominent nature and science writers (e.g. Wordsworth, Oliver, Cole, Thoreau, McPhee, Berry) to create poems, environmental essays, and longer written works.

Summer Session II (June 13 - July 8) Summer Session III (July 11 - 29)

Field Biology of Fishes

David Neely, Tennessee Aquarium

MLBS sits on the Eastern Continental Divide providing an incredible diversity of freshwater habitats. Proficiency in ichthyology will be developed through field trips and lab work. Themes include: fish identification; patterns and drivers of diversity; interactions on individual, population, community, and ecosystem levels; evolution; and influences of human activities. Students will design and conduct a research project and present at a class symposium.



Field Biology of Fungi

Rytas Vilgalys, Duke University

The southern Appalachians provide an ideal setting to explore the biology of fungi. This class provides an introduction with emphasis on field identification and current experimental methods used to study fungal genetics, ecology, and evolution. Lab exercises will use filamentous fungi to demonstrate methods for identification, culture techniques, breeding systems, genetic analysis, and interaction biology. Field trips will survey the taxonomic diversity.



Apply Online
mlbs.org



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