MOUNTAIN LAKE ECHOES

MOUNTAIN LAKE BIOLOGICAL STATION

UNIVERSITY of VIRGINIA

Spring 2013, vol.8

Community Outreach

Jaime Jones

MLBS is excited to develop new community partnerships as we expand our outreach and informal education activities. This spring, local chapters of the Virginia Native Plant Society and Master Naturalist Program will help support a pilot "What's in Bloom" program designed to teach participants basic field plant identification skills and collect data on wildflower phenology (the study of biological responses to seasonal change). These guided walks will be open for participation by anyone interested in learning more about the natural world.

The Station is also partnering with groups of Virginia Tech students designing an interpretive trail as a class project. As the "client," MLBS is helping students gain real-world experience in environmental interpretation and science communication, while also developing a plan for an interpretive trail that will highlight MLBS research. The trail is designed to serve local community members, families of MLBS residents, and Mountain Lake Lodge guests.

Other upcoming activities include holding an MLBS Open House (July 13), hosting the Master Naturalists basic training (late July – early August), serving as the base for a regional mushroom foray (September), and participating in the Great Outdoors Expo at Glen Alton (September 28).

Following this winter's productive and interesting focus group meeting at MLBS, we have continued to reach out to a wide variety of community contacts ranging from local K-12 educators and public school administrators to non-profit community organizations and environmental groups. As we continue our efforts to "take MLBS off the mountain", we ask for your input, value your support, and hope for your participation in these new and exciting events! Our phone lines, inboxes, and doors are always open. ♦

MLBS at the National Weather Service Open House

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Upcoming Dates

- Open house July 13
- Summer 2013 classes begin May 20, June 10, July 8
- July 4th festivities
- Summer Seminar Series begins May 30

Inside this issue:

From the Director

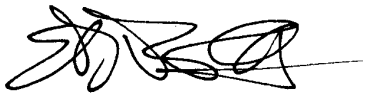
Butch Brodie

Visitors to MLBS will see some significant changes to the area this summer, starting with our neighbors at the renamed Mountain Lake Lodge. The "Hotel" has recently turned over operations to a new management group with new personnel at all levels. Considerable investments have been made to upgrade the facilities inside and out. A new ropes course and zipline facility ("Mountain Lake Treetops Adventure") has been added near the stables, and the disc golf course has been relocated to the old golf course. Over the winter, efforts were undertaken to slow the outflow of The Lake, in an attempt to return it to full pond levels for the first time in many years. MLBS users will still have access to Conservancy land for research, but please be aware that there may be some reeducation efforts as we help the Lodge move forward with their new vision and understand what we are about.

Lewis Hall

The much-anticipated NEON installation looks to be finally underway this spring. One of the most exciting additions for most users is the installation of the final stretch of fiber-optic line to provide internet service to the Station. This project is currently in the works, and should vastly improve the reliability of our connection to the outside world sometime this summer. Nonetheless, we will still have limited bandwidth to share amongst the large number of greedy applications, so please be considerate and patient as we get the new connections up and running. By winter 2013, the entire NEON sampling station should be ready to go, providing standardized data collection available to all.

In addition to the usual assemblage of fascinating people and events on the mountain this summer, be on the lookout for two new events. In July, the Station will host its first Artist-in-Residence. New York based artist Ana Golici will be on-site for three weeks in July interacting with Station residents and participants in ArtLab. In early August, MLBS hosts an NSF-sponsored writing and mentoring retreat for early stage biologists organized by Heather Bleakley of Stonehill College. The retreat will bring together about 40 participants and mentors from a range of biological disciplines and institutions to discuss strategies and best-practices for writing, publication and professional development. ♦



Endocrinology: New Course Explores Hormones and Behavior

Caitlin Gabor

Collecting hormones from *Eurycea nana*.

A great learning experience is planned for this summer. Endocrinology will begin by learning about stress and behavioral response during predator-prey interactions. We will use a recent water-borne hormone technique for assessing the stress hormone corticosteroid in larval newts. Then there will be a combination of lectures, paper discussions, collecting newts, performing behavioral studies and hormone assays. By the end of the course the students will write a paper on our research which we hope to publish. ♦

Endocrinology runs June 10-July 5 and will be taught by Caitlin Gabor and Andrea Aspbury of Texas State University,

Caitlin Gabor preparing to collect water-borne hormones in tadpoles.

MLBS Early Career Fellowship

Melissa Wender

MLBS is pleased to announce the 2013 Early Career Fellowship. These awards are intended to bring PhD level researchers to the Station to explore new projects and collect preliminary data that could support future proposals. Our hope is that this program will provide researchers at the early stages of their post-graduate careers an opportunity to develop long-term projects at the Station. The 2013 recipients include:

Harvey Ballard, Ohio University - Long-term comparative ecological, genetic, and evolutionary studies of violet species (*Viola*)

Long-spurred violet, *Viola rostrata*

Idelle Cooper, James Madison University - Evolutionary and ecological processes that drive phenotypic variation and speciation in *Calopteryx* damselflies

Andy Davis, University of Georgia – Examining elevational variation in immunity, stress and disease in a salamander to understand future impacts of climate change

Caitlin Fisher-Reid, University of Richmond - Characterizing the relationship between genetic variation and environmental gradients in plethodontid salamanders

Jessamyn Manson, University of Alberta – Nectar chemistry mediated tradeoffs between pollinator attraction and herbivore defense in milkweed (*Aesclepias*)

Ebony Jewelwing Damselfly *Calopteryx maculata*

Sujal Phadke, Duke University - Species diversity and population genetics of *Tetrahymena* ciliates ♦

Artist Statement: MLBS Artist-in-Residence 2013

Ana Golici

I am continuously observing and learning from the Natural world. I feel that there is much more to see and experience beyond the visible surface of things. I consider my artistic activity as a research into creating (discovering) new ways to relate to Nature. A lot of my interest focuses on insects, since I've had access to a Scanning Electron Microscope, and could freely explore unknown territories on the surface of a flea and other insects. Some of my projects aren't designed only for contemplation: they imply an interactive component. In leaf and bugs, the digitally printed giant leaf (12 x 20 feet) was intact in the beginning only to be physically "consumed" by the public during its exposure. On the back of a small cutout from the leaf a random mixture of fragments of insects could be discovered. Detailed info about those fragments could be found on the related website. It's a process very similar with how we collect info these days: we get fragments of info and then connect to the www to find their context.

"Tipping Point," work in progress, collage of pastel, laser prints, foil prints and photographs, 70" x 50"

Many times I am using scientific information and personal observations to build up "visual hypothesis" descriptive of natural and manmade phenomena.

My favorite medium is paper: it is a natural product, made of fiber of plants, and also produced by insects. I like its fragility, and versatility. Paper can feel and look as different as the many natural structures I am studying, displaying rough or extremely smooth and delicate translucent surfaces. ♦

Romanian born Ana Golici studied at the Inst. of Fine Arts Nicolae Grigorescu in Bucharest and received an MFA in printmaking from Hunter College.

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You can support Mountain Lake Biological Station by making a tax-deductible donation. Visit our homepage at mlbs.org

Kudos to 2012 REUs Eric Wice (Beetle Lab) and Abby Kimmett (Junco Lab). Both were awarded travel funds from the NSF REU leadership committee to attend professional conferences.

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

Summer 2013 Courses

SESSION I
May 20—June 3

PLANT CONSERVATION AND DIVERSITY *(3cr)* Zack Murrell, Appalachian State University

CONSERVATION BIOLOGY/ ECOLOGY *(3cr)*
Melissa Aikens, University of Virginia

SESSION II,
June 10—July 5

WILDLIFE DISEASE ECOLOGY *(4cr)*
Sonia Altizer, University of Georgia
Courtney Thomason, Texas Tech University

BEHAVIORAL ENDOCRINOLOGY *(4cr)*
Caitlin Gabor, Texas State University
Andrea Aspbury, Texas State University

SESSION III
July 8—26

BIOLOGY OF FUNGI *(3cr)*
Rytas Vilgalys, Duke University

BEGINNING DRAWING I and II: The Landscape, Small and Large
2 WEEK COURSE July 8-July 19*(3cr)*
Megan Marlatt, University of Virginia

APPLY TODAY!