



May 2022 Newsletter

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OBFS as Community

by Lara Roketenetz, President

I recognized the power of OBFS at my first conference in 2016 at the Sitka Sound Science Center in Alaska. It was a defining time in my new position as a Field Station Manager for the University of Akron (Ohio) when I realized I had the support and understanding of others doing similar work around the world. Our shared missions to advance scientific knowledge, promote understanding of the natural world, and provide educational field experiences for students of all ages, are strengthened by working together. Through OBFS, I found friendship, advice, mentors, and community.

As we work to further strengthen our bonds with each other and invite more people into this organization, our strategic plan will make sure that we build a professional space that is welcoming, safe, resilient, thoughtful, equitable, and accessible. Our Collaborations, Membership, and IDEA+ committees are planning a membership survey to assess where we are and where we want to go as a community; our International committee is developing cross-cultural connections and curricula between field stations; our Development committee has ideas to raise funds and friends; an Art/Science group has new collaborations; the list goes on. Please join a committee to bring your expertise into the community – we are better together. Thanks to the committee chairs and members, and especially to Chris Lorentz, who as Past President will be working tirelessly to advance the strategic plan goals.

We look forward to hosting you on Beaver Island at Central Michigan University's Biological Station in autumn. We hope gathering in person again will help us continue to grow as a community. I encourage you to connect with your local/regional stations and other OBFS members before then too – our collective community is strengthened by connecting more often through our shared experiences. Please do not hesitate to reach out to your OBFS board with suggestions, questions, or comments.

A Career in Field Stations By Stacy McNulty, Editor



OBFS President Lara Roketenetz notes:

Scott Thomas and I met up this year for the Biggest Week in Birding at Magee Marsh Wildlife Area, Ohio.

As the saying goes, birds of a feather flock together!

Scott Thomas has been working at field stations at every stage of his career. At present, Scott is a National Science Foundation postdoctoral fellow hosted by Murray State University in Kentucky. He received a Bachelor's Degree in biology from the University of Mount Union in Ohio in 2011. Graduate work took Scott to study amphibian population ecology at the University of Akron, and he received a Master of Science in biology in 2013 and a PhD in Integrated Bioscience in 2020.

Scott says "it's hard to imagine how a single step of the last decade of my life could have been possible without field stations existing both for me and for the people who worked before me." At Mount Union, he took ecology labs at the university's Huston-Brumbaugh Nature Center. As a next step in his career, Scott studied demographic factors associated with changes in abundance of spotted salamanders (*Ambystoma maculatum*). The long-term salamander data at the University of Akron Field Station (UAFS) in Ohio enabled Scott to compare developmental traits of different populations and led him to explore how elevation and other gradients affect population dynamics of the tiger salamander (*A. mavortium nebulosum*) at the Rocky Mountain Biological Laboratory (RMBL) in Colorado.

He is now a principal investigator at RMBL and planning an educational program at Murray State's Hancock Biological Station similar to a successful K-12 program at UAFS. Scott spent many years offering salamander walks to get people engaged, especially kids. He said it is rewarding to see repeat visitors on these walks from past years – a field station is an ideal place to engage people.

Scott says "my time at these very different field stations has given me a deep appreciation of their keystone role in facilitating place-based and collaborative science, education, and environmental appreciation in diverse populations." To that end, Scott focuses on keeping students safe and protected at RMBL and elsewhere. For instance, the Research Experiences for Undergraduate (REU) program is one way to engage college-age students in the technical and other skills needed for field science while promoting the well-being of these early-stage scientists as they prepare for a career in research.

Field stations factor heavily into Scott's current work as well as his background and training. He uses field stations for recreation, networking, mentoring, teaching, and educational outreach. Scott has served in various roles ranging from interfacing with donors to living at and serving as caretaker of a UAFS property for nine years. One can confidently say Scott knows field stations inside and out. The ever-present need for resources to keep field station facilities running and staffed is clear to Scott, as is the role of field station advocacy. Scott's extensive field station experience will serve him well in his new role on the board of OBFS.

Collaborations Corner By Paul Foster, Chair, Collaborations Committee

OBFS Collaborations

Station Exchange Program – Travel Awards

The Collaborations Committee is announcing a station exchange program. Travel awards for up to \$1000 / event will be given to facilitate short 2-3 day exchanges with a host station inviting participants to learn more about a common theme or topic. The events should be held in the Fall 2022.

An announcement will go out via the list serve on July 1 with more details about the application process.

Liaisons Sought

The Collaborations Committee is also seeking liaisons to the organizations that have an important connection with OBFS to facilitate the flow of information between other groups and OBFS. Organizations include: NSF, LTER, ESA-SEEDS, NAML, UFERN, The Virtual Field, US Federal Land management agencies and NGOS and tribes.

If you have an interest in serving as a liaison to one of these organizations, please let me know. Contact pfoster@bijagual.org.

Affiliations

ESA-SEEDS

The Ecological Society of America received a \$100,000 gift from Philip Taylor to support the Henry L. Gholz SEEDS Field Trip Endowment¹. Henry Gholz (1951-2017) was a long-time NSF Program Director in the Ecosystems Studies program and helped lead efforts in the LTER, NCEAS, and ESA-SEEDS programs. The endowment will fund ESA-SEEDS field trips including to LTER sites and biological field stations.

National Science Foundation

The US National Science Foundation is accepting public comment on revisions to its Proposal & Award Policies & Procedures Guide².

Among the changes for submission is a requirement when applicable for a Plan for Safe and Inclusive Field/Vessel/Aircraft Research (PSI-FVAR). This establishes NSF's expectations for creating safe and inclusive environments in the field and specifies the content for of the plan. The public comment period closes on June 13, 2022.

Footnotes

¹ <http://esa.informz.net/z/cjUucD9taT0yNDcwNjM1JnA9MSZ1PTUxNzU4NzMyMSZsaT0yNDgwNDQ1OA/index.html>

² <https://www.federalregister.gov/documents/2022/04/13/2022-07941/agency-information-collection-activities-comment-request-national-science-foundation-proposalaward>

“Endless and proper work”: Long term data collection at UMBS

By Jenny Kalejs, University of Michigan Biological Station - jennkale@umich.edu

Every Tuesday morning at 9am, you can find UMBS Resident Biologist Adam Schubel in the same place. And it's not the administrative office for coffee break.

Rain or shine, Schubel makes the familiar trek from his office, past the student cabins, and down the forested two-track near the “BioTron” underground soil science facility, until a break in the canopy marks the entrance to the “UV Field” – a popular site for atmospheric monitoring projects. The work at hand is no exception.

Schubel's weekly pilgrimage is in service of the National Atmospheric Deposition Program (NADP) National Trends Network, organized in 1977 by the U.S. State Agriculture Experiment Stations (SAES) to measure acids and nutrients in precipitation and their effects on the environment over time. NADP monitoring provides critical data that answer questions about the causes and consequences of acid rain – a phenomenon known to harm forests, soil, water, and their living inhabitants, as well as human health and the integrity of stone and metal structures.

Since 1979, UMBS has been counted among NADP's 260 site network. The longevity of the project allows researchers to better understand how human actions and natural events impact precipitation chemistry, and the sheer number and vast geographic distribution of sites help draw out local versus global trends.



UMBS Resident Biologist Adam Schubel.

According to Schubel, participation in NADP monitoring is a sterling example of UMBS's broader commitment to careful collection of useful long-term data – and how these data can help disparate sectors work together for the good of the world.

“For me, the NADP demonstrates how scientists working in concert with policy makers, regulators, and the private sector can diagnose and address issues of ecological health,” says Schubel. “This is an example of how scientific monitoring, sound policy, and regulatory enforcement can solve environmental problems and create jobs.”

(continued on page 7)

International Committee Events By Rhonda Struminger and David Maneli

<p>¡Estás invitado a la primera Conversación de Café Virtual el viernes 27 de mayo!</p> <p>El Comité Internacional te invita a disfrutar de un café, un té, un vino (dependiendo la hora) que represente algo de tu sabor local. Ofrecido en español e inglés, discutiremos cómo su estación biológica se conecta con su comunidad.</p> <p>Algunas preguntas que nos haremos:</p> <ul style="list-style-type: none">• ¿Quiénes son sus vecinos?• ¿Qué tanto o qué tan poco su estación biológica es parte de su comunidad?• ¿De qué manera te conectas con tu comunidad?• ¿Es la conservación una prioridad en sus interacciones?	<p>You are invited to the very first Virtual Café Conversation on Friday, May 27!</p> <p>The International Committee invites you to bring a coffee, a tea, a wine (depending on the time) that represents something of your local flavor. Offered in Spanish and English, we will be discussing how your field station connects with your local neighborhoods.</p> <p>Some questions we will be asking:</p> <ul style="list-style-type: none">• Who are your neighbors?• How much or how little is your station part of your neighborhood?• In what ways do you connect with your neighbors?• Is conservation a priority in your interactions?
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¿Cuándo? Depende de donde estés ...

When? Depends on where you are ...

9:30 - 10:30 AM PT
10:30 - 11:30 AM MT
11:30 - 12:30 PM CT
12:30 - 13:30 PM ET
18:30 - 19:30 PM CET

Donde? En ZOOM. Usar ID de reunión: <https://us06web.zoom.us/j/82406567777>

Where? On ZOOM. Use meeting ID: <https://us06web.zoom.us/j/82406567777>

Please RSVP on the [OBFS FB event page](#)
Por favor, responde lo antes posible en la página de [Facebook en el evento del OBFS](#)

Station Profile: TREES Toucan Ridge Ecology and Education Society

By Mathieu Charette

We are pleased to celebrate our 10th year of operations as the world is opening up again. Like many, we have used this down time to renovate our space, restructure our organization, and pursue our original objectives, including: long-term wildlife monitoring and research, capacity-building in Belizean ecologists, and promoting sustainable alternatives to slash-and-burn agriculture techniques used in subsistence agriculture. We partner with area rural communities as well as collaboration with NGOs to develop local solutions to world conservation issues.

The T.R.E.E.S Research Center is situated in the Maya Mountains of central Belize on 194 acres of lowland broadleaf forest with about twenty acres of organic tropical orchard. We are part of the Selva Maya, the largest expanse of tropical forest in the Americas after the Amazon. It hosts a huge biodiversity of plants and wildlife with numerous endemics only found in Central America.

The Center is home to the Toucan Ridge Ecology and Education Society (T.R.E.E.S), the Toucan Ridge Bird Observatory (T.R.B.O), and TREESBelize Farms. The facilities include: tropical cabins, dining hall/classroom, commercial kitchen, an outdoor screened-in classroom, processing lab and outdoor bird and bat processing lab. We can host up to sixty students and we focus on ecology and conservation or community service-based groups. In addition to field courses, we also offer wildlife ecology workshops and six-week internship positions on a variety of topics each year.

Our focus is vertebrate monitoring, but we also partner with entomologists, botanists and riparian specialists. We have monitored 56 species of bats detected to date through mist-net capture and acoustic monitoring. This includes one IUCN-listed species and one additional species on the Belizean National Red-list and forty other mammal species including IUCN-listed Baird's tapir (*Tapirus bairdii*), white-lipped peccary (*Tayassu pecari*) and black howler monkey (*Alouatta* sp.). We documented over 328 species of birds through bird banding, eBird accounts, transects and point counts. IUCN-listed birds include Cerulean Warbler (*Setophaga cerulea*) Great Curassow (*Crax rubra*) and Golden-winged Warbler (*Vermivora chrysoptera*). For amphibians and reptiles, 139 species with at least two IUCN-listed species have also been documented.

We believe strongly in conservation through education and will continue this ideology for our 2022-2023 season.

Contact: Mathieu Charette (M.Sc.), (He/Him)
T.R.E.E.S Executive Director, T.R.B.O Director
mcharette@treesociety.org
Phone: 604 612-9329 (CAN) or 501 626-4954

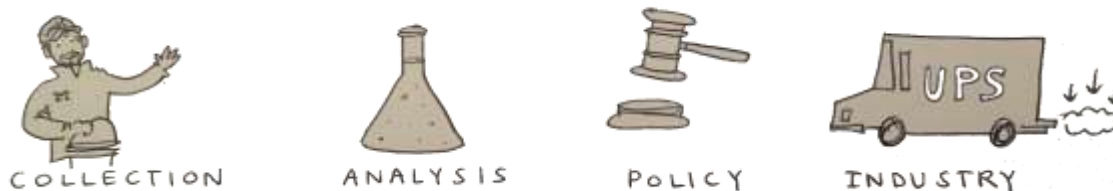


Front page Image and page 6 images of bird mist-netting and TREES facility credit Mathieu Charette

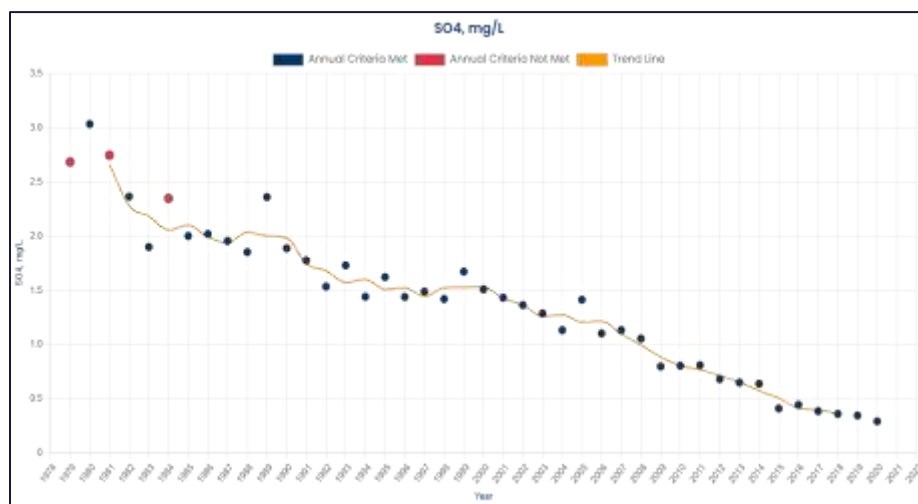
(continued from page 4)

He elaborates. “UMBS pays me to work on this program a few hours a week, and in the interest of public and environmental health, 259 other operators across the country are out there doing the same work. The program supports two fully staffed analytical labs in Wisconsin.

The program is a driver and benefactor of scientific research and technological innovation. Among other private companies, NADP utilizes the services of the United Parcel Service. UPS powers their trucks with General Motors engines. The EPA regulates the sulfur content of the gas that fuels those engines. NADP provides a good example of how we can align systems to benefit people and the planet.”



History supports Schubel’s notion. NADP data proved critical in informing Congress’s 1990 decision to amend the Clean Air Act after long term trends across the entire North American continent identified sulfur dioxide - a byproduct of fossil fuel combustion - as a key element of overly acidic rain.



Decline in sulfate concentration in precipitation at UMBS 1979-2020. (Source: National Atmospheric Deposition Program)

A 2010 Environmental Protection Agency (EPA) report suggested that the amendment was a huge success: emissions were down by fifty percent, damaged ecosystems were bouncing back, and heart attacks and respiratory conditions attributed to poor air quality were down by tens of thousands of cases per year.

Results like these underscore UMBS’s commitment to long term monitoring – as part of networks like NADP, and through the independent and collaborative work of our students and research community. In tandem, these projects help us better understand how humans, climate, and other factors interact to determine the composition and health of both northern Michigan, and the world.

Renowned poet-naturalist Mary Oliver once wrote: “To pay attention: this is our endless and proper work.” In this spirit, you can expect Schubel’s endless and proper work to continue at the UV Field each Tuesday morning. If you see him, bring him a cup of coffee.

In the News

Thank You

Vanessa Trujillo is the new Chair of the Outreach and Communications Committee. We very much appreciate her willingness to oversee this important role.

Thank you to Lisa Busch, for all your years of service on the committee.

LTER Data for Environmental Education - Marty Downs, [LTER](#)

The lterdatasampler R package is designed to curate LTER datasets and provide accessible examples for learner-friendly environmental issue and statistics teaching.

- Learn more <https://lternet.edu/stories/ready-to-teach-r-environmental-datasets-the-lterdatasampler-r-package/>
- Direct link to package: <https://lter.github.io/lterdatasampler/>
- Share your feedback with Authors Allison Horst and Julien Brun: <https://github.com/lter/lterdatasampler#how-to-provide-feedback>

Recent Publications

Click the link to access; some may require sign-in

Jones, Jabari C., and Susan Washko. 2021. More than fun in the sun: The pedagogy of field trips improves student learning in higher education. *Journal of Geoscience Education*
<https://doi.org/10.1080/10899995.2021.1984176>

Mark your calendars - Annual Meeting in the US Great Lakes!



OBFS 2022
Central
Michigan Univ.
Biological
Station,
September
14th – 17th

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[The Virtual Field](#)



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