



OBFS IDEA+ Spotlight

BY TORI MCDERMOTT AND PHOEBE JEKIELEK

The IDEA+ (Inclusion, Diversity, Equity, Accessibility, plus) committee will host a spotlight in the Newsletter. This spotlight may include tips related to improving DEI+ (Diversity, Equity, Inclusion, Justice, plus), best management practices for creating an inclusive environment, highlights from DEI work being completed by OBFS members and more!

In this inaugural spotlight, the IDEA+ committee seeks to recognize and celebrate, Indigenous Peoples’ Day that occurred in the United States on October 10th, 2022.



Bullroarer, from the Kalapálo Amazonian community, used to communicate over long distances. Image from National Museum of the American Indian.

While there are many ways to celebrate Indigenous Peoples’ Day, we can celebrate and recognize Indigenous People and the lands they cared for everyday through Land Acknowledgements. Land Acknowledgements can be spoken at the beginning of meetings, placed on your station’s website, and posted around your station.

A Land Acknowledgement should be motivated by genuine respect and support for Indigenous People. The best way to create a Land Acknowledgement is to reach out directly to local Indigenous communities and Native Nations. *Continued on p. 7*

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Banner, inset photos: OBFS members at Central Michigan University’s field station, Beaver Island, Michigan, USA

DEVELOPMENT HAPPENINGS

Ten OBFS members and the Development Committee organized a friend- and fund-raising event on September 17th in Traverse City, MI.

The event featured a beautiful and educational three-hour boat ride aboard a research and teaching vessel from the Inland Seas Education Association's Captain Thomas M. Kelly Biological Station (ISEA) with dinner after the tour. Attendees had one-on-one conversations with OBFS members who shared the importance of field stations to the public.

OBFS members from several area field stations participated, including Au Sable Institute, Pierce Cedar Creek Institute, University of Michigan's Biological Station, and Michigan State University's W. K. Kellogg Biological Station.

Development Activities

The Development Committee facilitates awareness of and resources for OBFS and provides advice for members on creating station-based development programming.

The committee, co-chaired by Brian Kloepfel and Sarah Oktay, meets monthly to discuss the needs of the OBFS community regarding fundraising and building a donor base. At the annual meeting, presenters share ideas and best practices in a concurrent session.

Below: OBFS hosts Sarah Oktay, Stacy McNulty, Brian Kloepfel and Lara Roketenetz set sail.



STRATEGIC PLAN UPDATE—BY CHRIS LORENTZ

With the release of the OBFS [Strategic Plan \(2021-2026\)](#) at the 2021 Annual Meeting, the Board set the plan in action, prioritized items for Year 1, and began implementing several initiatives.

Notable among these are an overhaul of the website to be completed by the end of the year, a Matching Program for International Field Stations, a fund-raising/friend-raising event in conjunction with the 2022 annual meeting, and a comprehensive member survey to be launched in the fall.

“The goal of the Science Policy Internship is to raise the awareness of the work and value of field stations, with policymakers as the target audience.”

Further, we recently established a “Science Policy Internship” with Conner Philson, a PhD. Candidate in Ecology & Evolutionary Biology at UCLA and a Graduate Fellow at Rocky Mountain Biological Laboratory. The internship is funded by the National Science Policy Network’s SciPol Scholars Program.

The goal of the Science Policy Internship is to raise the awareness of the work and value of field stations, with policymakers as the target audience. Conner will be working with an Ad hoc Advocacy Committee, chaired by Jennifer Gee. Deliverables will include an infographic fact sheet to inform policymakers about field stations and a toolkit to empower and support individual field stations to engage policymakers on their local and state levels.

Related to this, several OBFS members worked closely with Joe Bischoff, Principal with Cornerstone Government Affairs in D.C. to support the NSF reauthorization legislation and to add specific references to FSMLs. We are happy to report that the Senate bill now includes our field station and marine lab language that was included in the House bill.

These items and others, outlined in the strategic plan, are helping us reach our vision to be an indispensable resource for the field station community, enhancing the value and sustainability of its members with fairness, integrity, transparency, and inclusivity.

Chris Lorentz is OBFS Past-President

SUMMER INTERN AVOIDS GATORS, LEARNS SCIENCE

—BY LILLIAN DOLL,
UNIVERSITY OF
SOUTH CAROLINA

Lillian is a senior in environmental science at the U of SC.

Right: Lillian Doll helps Dr. Skip Van Bloem collect tree diameters in a rather unusual way.



From early days in the field covered in bug-repelling and other protective gear to afternoons in the lab learning that organic chemistry is cooler than I initially thought, my experiences from a summer Environmental Biology Internship at the Clemson University Baruch Institute of Coastal Ecology and Forest Science (BICEFS) in South Carolina, USA broadened my horizons as a young scientist in many ways.

Dr. Stefanie Whitmire and Leah Gregory invited Ashley Weaver and I to join their lab for the summer to continue a project that began during Stefanie's course on Ecosystems of the Lowcountry. Our project on porewater chemistry in tidally-influenced freshwater wetlands aimed to study the effects of salinization on microbial metabolic activity. That sentence may be packed with biogeochemistry jargon, but it also encompasses many months of rich and memorable experiences.

Because of this project, I had the pleasure to meet a healthy-sized alligator in the thick of our study site, but only after it spotted me first – unnerving, to say the least. Walking carefully past an alligator on a boardwalk of single 2'x4' planks hoping it decides the view is fine from a distance is an excellent way to prepare for a morning of field work.

At BICEFS I picked up technical skills too, such as coaxing fickle lab instruments into conducting nutrient analyses. Preparing reagents and lab instruments was when I felt closest to fulfilling every young science-minded individual's goal of playing "mad scientist," though lab safety protocol usually got in the way of seeing that goal through.

One of my favorite parts about working in a field station environment was the proximity to other researchers engaged in projects of incredible variety that were also based in my study system. Sometimes I got lucky when these other researchers needed a helping hand and I was available to accompany them in the field that day. Those are the precise circumstances that led to me, an intern hired to assist on a biogeochemistry project, sitting on top of a recently sawed-down tree in the name of science.

STATION EXCHANGE PROGRAM (SXP)

As part of the Strategic Plan implementation, OBFS has launched a station exchange program to facilitate professional development opportunities between member field stations.

The intent of this program is to provide mini travel awards to facilitate field station staff travel to other field stations in the OBFS network for shadowing, cross-training and mentoring opportunities.

For more details contact: Andy Rappe, adrappe@ufl.edu.

Photos for Web Site Wanted

OBFS is revamping its web site! Share some of your best photos of people, highlights, activities and scenes from all types of stations. Send pictures via this form:

<https://forms.gle/KdiNKAEAUG4TM8iLA>

- by Paul Wetzel,
Treasurer

Left: View from the Ameriflux tower in Michigan.

KEEPING WATCH: UMBS AMERIFLUX SITE — BY JENNY KALEJS

Above the canopy of mid-aged northern hardwoods, aspen, and old growth hemlock west of camp, a sentinel keeps watch over University of Michigan Biological Station's (UMBS) 11,000 acres. The "AmeriFlux tower" is one of the most iconic pieces of research infrastructure in the station's catalog — and not just because of its impressive 150 foot stature.

The metal tower is equipped with an array of sophisticated tools that measure ecosystem CO₂, water, and energy *fluxes* — the rate of flow of gases and other properties. It is one among a network of PI-managed sites in North, Central, and South America established to collaborate and compare data across major climate and ecological biomes.

But despite belonging to a vast network, the UMBS AmeriFlux tower distinguishes itself impressively. According to Co-PI Dr. Gil Bohrer, Professor of Civil Environmental and Geodetic Engineering at The Ohio State University, the UMBS tower boasts *the highest quality long term data on forest carbon dynamics in the world*. But what makes the data so rich?

For one, longevity. "We belong to a select club of 'Core Sites'," says Bohrer. "Very few flux towers in the world have been running for 20 years straight, with so few gaps in data collection."

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The SSLI Campus, situated in Kruger National Park in northeastern South Africa

VIRTUAL CAFÉ TOPIC—FIELD STATIONS IN NATIONAL PARKS

The OBFS International Committee invites you to join a Virtual Café conversation on Field Stations in National Parks. We will hear from Donovan Tye at the SSLI Campus in Kruger National Park and discuss ideas around research and training collaborations with park management agencies, funding mechanisms and governance structures of field stations situated inside national parks. Please join us to share your ideas and experiences!

Some questions we will be asking:

- How is your partnership with the national parks agency structured?
- In what ways do you collaborate with your local protected area management authority?
- In your experience, what have been the key challenges and opportunities of working inside a protected area?

Join OBFS Across the Globe!

When? Thursday, Nov 17

Time Zone: Depends on where you are

Pacific Time, USA: 09:00 / 9:00 am
 Eastern Time, USA: 12:00 / 12:00 pm
 Central European Time: 18:00 / 6:00 pm
 South Africa: 19:00 / 7:00 pm

Duration: 1 hour

Where? Join Zoom Meeting

<https://us06web.zoom.us/j/89528302797>

Meeting ID: 895 2830 2797

One tap mobile

+13092053325,,89528302797# US

Find your local number:

<https://us06web.zoom.us/u/kdWnj8YosS>

WATCH FOR THE 2022 OBFS ELECTION MATERIALS!



Photo: A snapping turtle hatchling makes its way into the fresh water on Beaver Island, Michigan

The Virtual Field Contact Information

Angie Patterson, Mount Holyoke College;

Itchung Cheung, Hatfield Marine Science Center;

Sarah Oktay, Center for Coastal Studies;

Hilary Swain, Archbold Biological Station;

Kerry Winger and Claudia Luke, SSU Center for Environmental Inquiry

Gina Baleria is with Sonoma State University

THE VIRTUAL FIELD —BY GINA BALERIA

[*The Virtual Field*](#) (TVF) is breaking down barriers for underrepresented students and broadening public awareness about the value of field stations and marine laboratories (FSMLs).

This was the take-home message at a TVF-hosted workshop and concurrent session at the 2022 [OBFS](#) annual meeting. The hands-on workshop showed attendees how to submit project videos, and the session explored how virtual experiences increase FSML use and appreciation.

TVF connects field sites and marine labs from all over the world in one virtual space and began in response to COVID-19. OBFS members banded together to create cross-site virtual experiences allowing undergraduates to compare ecosystems. Two NSF grants - RAPID and RCN Incubator - funded the creation of modular virtual training materials and faculty recruitment from minority serving institutions and community colleges. To date, TVF has reached people from 200 universities in 17 nations.

“It was one of the few good things to come out of COVID,” said Kerry Winger, educational outreach & communications lead at Sonoma State’s [Center for Environmental Inquiry](#). Winger led training on ways to participate in Live-from-the-Field, a series of virtual events engaging undergraduates in conversations with field researchers at FSMLs.

“TVF is a powerful tool for reducing barriers to... field experiences, building public awareness about the value of FSMLs, and increasing collaboration.”

Now, as students return to in-person learning, TVF is a powerful tool for reducing barriers to high-impact field experiences, building public awareness about the value of FSMLs, and increasing collaboration.

TVF “brings people to FSMLs who traditionally aren’t able to get out into the field, including people with disabilities, those without means or time to visit, and those uncomfortable or intimidated going into the field,” said Winger. “Just... showing people what it’s like is enough to break down a barrier.”

Winger said TVF “wouldn’t exist without OBFS,” and it provides value to members. “People normally might have a two-minute conversation – ‘that’s cool that you’re doing that thing. See you next year.’ But now they can actually say, ‘you want to collaborate on this material?’ It’s ok that you’re thousands of miles apart. There’s a way to work together.”

Thanks to OBFS member participation, TVF has grown into a robust collaborative, educational, and transformative space. The TVF Leadership Team is currently seeking additional funding to continue growing access, inclusion, and reach to ensure broader impacts.

KEEPING WATCH: UMBS AMERIFLUX SITE—CONTINUED FROM P. 4

In addition to continuity, core sites are chosen based on ecosystem representation, length of prior data record, quality of existing data, and established ability of site PIs – including Bohrer, UMBS Associate Research Scientist Dr. Luke Nave, and UMBS researcher Dr. Chris Gough – to provide continuity in site management. Site PIs are quick to recognize the efforts of UMBS Research Scientist Dr. Chris Vogel, who maintains tower operations and continuous data collection on site.

Another reason the UMBS tower is special is the critical linkage between AmeriFlux datasets and other robust long term UMBS-based terrestrial and climate research – including Gough’s [Forest Accelerated Succession Experiment](#) (FASET) and [Forest Resilience Threshold Experiment](#) (FoRTE) on forest plant diversity, age, and disturbance. In conjunction with this supporting ecological context, AmeriFlux data help answer questions about carbon storage and exchanges of gases and energy in terrestrial systems, the influence of vegetation type, land use, and disturbance history, and the effect of seasonal and long term climate changes. Plus, the dataset is open source, which means scientists from all over the world can use it to better understand complex environmental processes.

“The wealth of ecological data together with the meteorological and flux data make for a powerful combination,” says Bohrer. “We have UV index, soil moisture, and leaf index data, both weekly and seasonally. This ecological data provides context and helps make sense of the flux.”

He elaborates. “Our monitoring is dual. Our AmeriFlux tower exists in the middle of a large-scale forest disturbance experiment, so we’re collecting flux data that we can compare with data on forest age, diversity, and tree mortality. Manipulations like this usually happen in a small plot or greenhouse. Our situation is really unique.”

AmeriFlux monitoring aligns seamlessly with UMBS’s commitment to long term data collection – especially as it pertains to climate change. Investigating flux dynamics as a product of ecosystem context means better understanding how changes in forest structure affect outlook for carbon sequestration, greenhouse gases, and climate related changes that are only becoming increasingly urgent. The watch continues.

IDEA+ Spotlight—continued from p. 1

If you are interested in learning about the Native lands your station may be on or if you are traveling and want to know whose lands you may be on, we recommend two resources. You can text the phone number 907-312-5085 with any zip code, city, or state or visit Native Land Digital at <https://native-land.ca/> to learn lands of the Indigenous People you may be on. Native Land Digital also has a [mobile app](#) to show Indigenous territories and languages that may be associated with the land.

The [Smithsonian American Indian Museum](#) honoring Original Indigenous Inhabitants: Land Acknowledgement resource page was used to develop this spotlight.

For additional resources or if you would like to submit content for the IDEA+ Spotlight, please reach out to OBFS IDEA+ Co-chairs Tori McDermott (vmcdermott@alaska.edu), Phoebe Jekiel-ek (phoebe@hurricaneisland.net) or email diversity@obfs.org.

HOW TO FIND USwww.obfs.org/[@joinobfs](https://www.facebook.com/joinobfs)[@OBFS-FieldBio](https://twitter.com/OBFS_FieldBio)[YouTube](https://www.youtube.com/channel/UC...)[The Virtual Field](#)**TRANSITIONS —BY PAUL FOSTER**

Black Rock Forest. Isabel Ashton will become the new Executive Director of Black Rock Forest on November 10, 2022. She succeeds Bill Schuster who after 30 years as ED will remain at Black Rock as a Senior Ecologist.

Jasper Ridge Biological Preserve. Jorge Ramos became the Executive Director of Jasper Ridge Biological Preserve on October 1. He replaces Tony Barnosky.

University of Kansas Field Station. Former KU Field Station Director Ken Armitage passed away on January 6, 2022. Ken was a long-term researcher at Rocky Mountain Biological Lab studying marmots and also served on RMBL's Board of Trustees. Ken was Vice President and President of OBFS from 1986-1989. <https://doi.org/10.1093/jmammal/gyac062>

National Science Foundation. Assistant Director for Biological Sciences Joanne Tornow retired from NSF at the end of September 2022 after 23 years. Her acting replacement is Simon Malcomber, a systematic botanist by training.

RECENT PUBLICATIONS

Click the links to access; journal subscription may be required

Messenger et al. 2022. [Course-based undergraduate research to advance environmental education, science, and resource management.](#) *Front Ecol Environ*; 20(7), doi:10.1002/fee.2507.

“...a global synthesis of field data collection, mapping the geography, temporal extent, and type of data collected by students worldwide, and calling attention to the associated benefits and challenges for course instructors.

Shaulskiy, S., A. Jolley, and K. O’Connell. 2022. [Understanding the Benefits of Residential Field Courses: The Importance of Class Learning Goal Orientation and Class Belonging.](#) *CBE—Life Sciences Education* 21:ar40.

This study found positive associations between the field station setting and scientific literacy as well as future science plans. The authors found class learning goal orientation and class belonging related to relationships between the field station setting and scientific literacy as well as future science plans. The results have implications for enhancing field course design, increasing access and inclusion in field education, and for understanding the mechanisms for the benefits of residential field courses. This was a [UFERN](#) project.

Shinbrot et al. 2022. [The Impact of Field Courses on Undergraduate Knowledge, Affect, Behavior, and Skills: A Scoping Review.](#) *BioScience:biaco70*. doi:10.1093/biosci/biaco70

Organization of Biological Field Stations

P.O. Box 400327
Charlottesville, VA 22904-4327



STACY MCNULTY, EDITOR
E-mail: editor@obfs.org