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The **OBFS Newsletter** is posted on the web site (www.obfs.org) under publications as a PDF file. It is available to all members in good standing. Hard copies will be sent only to members who specifically request them.

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Be sure to visit the newly redesigned OBFS website at www.OBFS.org. This is the site for information on annual meetings and member stations research, education, and outreach programs. The site also contains field course listings for 2010 and, most importantly, links to past OBFS Newsletters and Annual Reports.

2009 Human Diversity Award presented to State University of New York College of Environmental Science and Forestry

The Organization of Biological Field Stations (OBFS) is pleased to announce the winner of its 3rd Annual Human Diversity Award. This award is designed to recognize a station that demonstrates impressive success in recruiting underrepresented groups to field science activities. The award was presented at the OBFS Annual meeting at La Selva Biological Station, Costa Rica on 26 September, 2009 to the

The Organization of Biological Field Stations Human Diversity Award of 2009 was presented on to Stacy McNulty and Robin Kimmerer at the State University of New York College of Environmental Science and Forestry for their work with the NSF-funded Undergraduate Mentoring in Environmental Biology program "Science and Stewardship in the Adirondacks." Students in the two-year program focus on research and outreach activities for a multicultural community as they prepare for a career in science. The program centers around the independent, mentored research project undertaken at ESF's field stations, the Adirondack Ecological Center and Cranberry Lake Biological Station. For more information please see www.esf.edu/umeb.



Stacy McNulty receiving the Human Diversity Award from college President Dr. Neil Murphy



*Promoting
Human
Diversity in
Field
Science*

**IF YOU WISH TO NOMINATE A
PROGRAM OR FIELD STATION
FOR THE HUMAN DIVERSITY
AWARD, PLEASE SEE BELOW**

The Organization of Biological Field
Stations

2010 Annual Human Diversity Award

Nomination Deadline: 2 April, 2010

The OBFS Human Diversity Award provides recognition for unique activities, programs, or approaches (funded or unfunded) that increases the involvement, engagement, and sustainability of underrepresented groups in field science. Broadly speaking, underrepresented groups in field science may include, but are not limited to, ethnic minorities (African Americans, Hispanics, Asians, Native Americans, and others), women, first-generation college students, inner-city youth, disadvantaged rural communities, K-12 groups, tribal colleges, community colleges, undergraduate institutions with small programs, and citizen monitoring programs.

Promoting Human Diversity may be accomplished by disseminating materials and using, rearranging, or creating infrastructure to facilitate transitions between the field and classroom. Activities should stimulate both applied and individualized approaches to experiential scientific learning. We

will also recognize stations that demonstrate how retention and application of new scientific concepts are promoted to facilitate further discovery and increase scientific dialogue among diverse user groups. This may include a pedagogy for the basic knowledge needed by underrepresented groups to address the current challenges in environmental and natural resources management and research at all educational levels (K-12, undergraduate, graduate, and continuing education).

In addition to the honor and recognition of peers, the OBFS Human Diversity Award includes a permanent plaque for the winning station; an official award letter that can be included in the official materials, grant applications of the winning station; a second traveling OBFS plaque that will record previous winners and be housed at the most recent recipients facility; and recognition on the OBFS website. The award may include a travel reimbursement of up to \$1000 for the awardee to attend the annual OBFS meeting if travel funds are limiting for the winning institution.

Timing of Submission, Review and Award

January	A request for nominations for the award will be announced on the OBFS web site and through the OBFS list server in mid-January. Nomination of institutions by others as well as institutional self-nominations will be accepted.
2 April	Nominations due.
5 April	All nominees will be notified and requested to submit the information listed below.
23 April	Nominee supporting material due.
21 May	OBFS Diversity Committee announces recipient as determined by members of the OBFS Diversity Committee who are not from organizations with current applications.
September	Award will be presented at the OBFS Annual Meeting. The OBFS Historian will photograph the representative(s) from the field station receiving the award.

Send nominations to Stacy McNulty (smcnulty@esf.edu) by 2 April.



Promoting Human Diversity in Field Science
The Organization of Biological Field Stations
Annual Human Diversity Award

Nominee Supporting Material
Deadline: 2 April

Submission Instructions: Please email this form and (a) two high resolution digital photographs of program activity, (b) your station logo (if any), (c) your station strategic plan (if any) and (d) letters of support from project partners (if appropriate) to **Stacy McNulty (smcnulty@esf.edu)** by midnight, 23 April.

Program Title:

Field Station Name:

Station Website:

Contact Person:

Address:

Phone:

Email:

Program partners:

Funding sources (if any) for the program:

Describe your program objectives: (1/2 page maximum)

What is your station's strategy for human diversity? (1/2 page maximum)

How has the station and program successfully achieved the objectives listed above? Include example data (participant numbers, graduation rates, or other appropriate measures). (1/2 page maximum)

How does your the station distribute educational and research results and materials to a broad public, and, in particular, to underrepresented groups? (1/2 page maximum)

Materials submitted by the winning station will be posted on the "Promoting Human Diversity in Field Science" section on the OBFS web site to build a legacy of Human Diversity Success.

Revised 2/19/2010



**Improvements in Facilities,
Communications, and Equipment
at Biological Field Stations and
Marine Laboratories (FSML)**

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5449

Full proposal target date: March 5, 2010.
First Friday in March, annually thereafter

Contacts:

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Biological Field Stations and Marine Laboratories (FSMLs) are off-campus facilities for research and education conducted in the natural habitats of terrestrial, freshwater, and marine ecosystems. FSMLs support biological research and education by preserving access to study areas and organisms, by providing facilities and equipment in close proximity to those study areas, and by fostering an atmosphere of mutual scientific interest and collaboration in research and education. To fulfill these roles, FSMLs must offer modern laboratories and educational

spaces, up-to-date equipment, appropriate personal accommodations for visiting scientists and students, and modern communications and data management systems for a broad array of users. In recognition of the importance of FSMLs in modern biology, NSF invites proposals that address these general goals of FSML improvement.

A revised version of the **NSF Proposal & Award Policies & Procedures Guide** (PAPPG), NSF 09-1, was issued on October 1, 2008 and is effective for proposals submitted on or after January 5, 2009. Please be advised that the guidelines contained in NSF 09-1 apply to proposals submitted in response to this funding opportunity. Proposers who opt to submit prior to January 5th, 2009, must also follow the guidelines contained in NSF 09-1.

One of the most significant changes to the PAPPG is implementation of the mentoring provisions of the America COMPETES Act. Each proposal that requests funding to support postdoctoral researchers must include, as a separate section within the 15-page project description, a description of the mentoring activities that will be provided for such individuals. Proposals that do not include a separate section on mentoring activities within the Project Description will be returned without review (see the PAPP Guide Part I: **Grant Proposal Guide** Chapter II.C.2.d for further information).

Solicitation 05-550

2010 OBFS Annual Meeting

For more information and updates, go to the UMBS website at
<http://www.lsa.umich.edu/umbs/events/upcomingevents/obfs>
or the OBFS website at <http://www.obfs.org>

2010 Annual Organization of Biological Field Stations Meeting will be held at the University of Michigan Biological Station (Pellston, MI) September 23-26, 2010. The theme of the meeting is

“ADVANCED SENSOR NETWORKS FOR FIELD STATIONS”

The meeting will focus on the use of advanced sensor networks for field stations. Researchers from sites using sensor networks will be invited to give presentations and participate in a panel discussion. We also will invite representatives from environmental sensor vendors, including, YSI, Campbell Scientific, Onset, and others. The meeting will also have the standard OBFS business and committee items.



UMBS is among North America's oldest continuously operating field stations in the US. It has been dedicated to education and research in field biology and environmental sciences since 1909. Among the station's hallmarks are its active programs of interdisciplinary research and education, involving undergraduate and graduate students from across the United States and the world.



UMBS manages 10,000 acres bounded by seven miles of undeveloped shorelines of Douglas Lake and Burt Lake in Michigan's Lower Peninsula. These

holdings contain a rich diversity of natural habitats: extensive forests of pine, northern hardwoods, conifer swamps, and successional aspen stands, fields and meadows, pine plains, rivers, streams, and wetlands. There is an extensive wooded trail system for hiking and biking.

The UMBS campus of approximately 20 acres is laid out in the form of a small village along South Fishtail Bay on Douglas Lake (15 km² area) in Pellston, Michigan. Facilities include a 220-seat lecture hall, over a dozen classroom laboratory buildings, a year-round lakeside laboratory with connected boathouse, three atmospheric research towers, a stream laboratory, and an underground soil laboratory. The Station's full-service dining hall serves meals made on site with local produce and meat.



Accommodations range from rustic one-room cabins and larger two- to four-bed cabins with bathrooms, to a winterized dormitory with double occupancy rooms. Family accommodations are available. For off-site accommodations, the Pellston Lodge hotel is only 6 miles from UMBS, near the Pellston Regional Airport.

Travel to UMBS is relatively simple. The station is located at the northern tip of the Michigan's Lower Peninsula, only three miles west of U.S. Interstate 75 and six miles east of the Pellston Regional Airport (PLN). UMBS is two hours from Traverse City Airport (TVC) and four and a half hours from the Detroit Airport (DTW). The Pellston Airport has

3 or 4 connecting flights daily to and from Detroit via Northwest Airlines, and the Traverse City Airport has connecting flights to Chicago, Detroit, and other hubs via several airlines. Rental car companies operate out all three of these airports.



Pre-meeting field trips will be a day-long hike in Wilderness State Park on the shores of Lake Michigan and a half-day rafting or kayak trip on the Sturgeon River (the fastest river in the Lower Peninsula).

The registration fee will be about \$375 and include housing, dining, mixers and shuttles to/from the Pellston Airport. Field trip costs are not included in this registration fee. Make sure to bring items to donate to the OBFS Auction on Saturday evening!

Additional information, details and registration instructions, tours and the agenda will be posted on the website as they become available in the next few months. In the meantime, contact Karie Slavik, UMBS Associate Director, with any questions at slavik@umich.edu.

OBFS Remembers



In Memory of Linda L Wallace

On December 13, 2009 Linda L Wallace passed away after a long, valiant battle with cancer. In the end the cancer may have taken her body but not her brave and graceful spirit. Linda was born August 7, 1951 in Colorado. She received her BA in Biological Sciences from the University of North Colorado, her MS in Botany from the University of Wyoming, and her PhD in Botany from the University of Georgia. Her work as a postdoctoral research associate was conducted at Syracuse University and the Serengeti Research Institute in Tanzania. Her long term research interests revolved around the ecology and interactions of grasslands. She did work in the Wichita Mountains National Wildlife Preserve and Yellowstone National Park. Within the last decade her research interests turned to examining the effects of global warming and climate change on

grassland ecosystems, and most recently she was part of a working group investigating the ecological consequences, and dubious sustainability of cellulosic ethanol.

She was a member of the Organization of Biological Field Stations, the American Institute of Biological Sciences, the Range Management Society, and the Ecological Society of America (ESA). In 2004 she was Chair of the Rangeland Ecology Section of the ESA.

In 1981, she came to the University of Oklahoma as an assistant professor, becoming a full professor in 1994. Linda Wallace taught numerous undergraduate and graduate courses in botany, plant ecology, ecology and environmental quality, and physiological ecology. Professor Wallace also enjoyed team teaching interdisciplinary courses with colleagues from across the university. Linda leaves behind a number of important projects and legacies to the University of Oklahoma most of which are collaborative and interdisciplinary in nature.

Her research work in grassland ecosystems and in interdisciplinary teaching and research led to the establishment of the 350 acre Kessler Farm Field Laboratory in central McClain County. In addition, Linda was one of four faculty members who founded the Interdisciplinary Perspectives on the Environment program.

She was an excellent teacher, well-respected by colleagues and students for her creative methods for getting students engaged and involved in discussion. She served on and chaired numerous master and doctoral student committees. Her excellence was recognized by the University with the Regent's Superior Teaching Award as well as the five-year Samuel Roberts Noble Presidential Professorship. In addition to being a dedicated researcher and teacher, Linda had a wide and varied circle of friends.

Over the course of her life Linda raced bicycles, showed Appaloosa horses, played the piano, gardened, cooked, played poker, enjoyed good beer and raunchy jokes...she was giving and caring, helping out friends, neighbors and acquaintances in so many ways. As one friend noted "she was smart, wickedly sharp, funny and very caring." She will be sorely missed.

In Memory of Robert L. Fisher



A memorial service was held on Saturday, 29 August, 2009 at 3:00 p.m. for Robert L. Fisher, at the Raystown Field Station of Juniata College, of which he was the founding director. Juniata College

is an affiliate of the Church of the Brethren. The following excerpts were given by Dr. Ken Rockwell a colleague, neighbor, and friend of Bob.

Bob had a deep passion for the living world and for the people who crossed his path. Though he was often "up to his a** in alligators", he never saw "draining the swamp" as the solution. It was far too much fun to jump into the murky water and wrestle the problem into submission. He once arrived in my office complaining that the custodial

staff was not keeping the small, upstairs, animal room well cleaned. That there were about 30 live timber rattlesnakes housed in lightly covered aquariums in that room didn't strike Bob as a deterrent to good housekeeping.

Central to Bob's professional persona was the imperative to observe living forms in their natural haunts. To that end he organized and pursued a long list of "field based" laboratory trips for his students, experiences which I suspect may constitute, for a number of you reading this, your most fond memories of him. In short, if your topic was the "out-of-doors", it was highly probable that Bob had looked at it, collected a piece of it, scuba-dived to photograph it, flown over it, sent one of his dogs to fetch it, stayed up all night to think about it, thrown a net over it, stuffed it, swapped for it, tramped through it, hunted it, shared it with his students, or eaten and digested it.

The present Field Station facility and program is both a "monument" and a legacy that would not exist absent Bob's original vision and his long, and often lonely, commitment in time, sweat and personal resource to set the College on the path to "field studies". Though others now stand in his place, he was the initiator and catalyst that brought the Station to a viable place among Juniata College's many resources.

Bob had a wonderful, gregarious capacity to meet people in both familiar and unfamiliar circumstances. It was part of his CORE. Bob knew all about "networking" before the word was invented. I have often wondered whether there was any place in the world where one could drop Bob off, and upon returning within 24 hours, not discover that he had called two of his close friends and "wrangled" an invitation to come over for a few drinks and an evening of conversation.

Let me end with a quote that struck me, when first I read it many years ago, as the very essence of Bob. That he was a Californian, who grew up in Los Gatos, then a small town on the southwestern

slope of what we now call Silicon Valley, makes this, for me, even more apt.

From John Steinbeck's *Sea of Cortez*:

" We sat on a crate of oranges and thought what good men most biologists are, the tenors of the scientific world - temperamental, moody, lecherous, loud-laughing, and healthy. The true biologist deals with life, with teaming boisterous life, and learns something from it, learns that the first rule of life is living. Having certain tendencies, he must move along their lines to the limit of their potentialities. And we have known biologists who did proliferate in all directions."

Station News

New Lichen Species Discovered at Bernard Field Station

Lecanora munzii named for Philip A. Munz of Rancho Santa Ana Botanic Garden and Pomona College.

CLAREMONT, CA. - 8 December 2009. Kerry Knudsen, Curator of Lichens at the University of California Riverside Herbarium, has discovered a new species of lichen at the Claremont Colleges' Robert J. Bernard Biological Field Station. The new lichen, *Lecanora munzii*, grows on dead wood of Chaparral and Coastal Sage Scrub plants, especially California Sage Brush (*Artemisia californica*). This inconspicuous brown lichen produces an unusual chemical – gyrophoric acid – that is being investigated for its potential to fight bacterial infections, promote wound healing, and treat Type II diabetes.

Like all lichens, *L. munzii* is a fungus that harbors a photosynthetic partner within its tissues – either an alga or a cyanobacterium – that produces food for the fungus. The fungus in turn provides moisture, shelter, and light regulation for the algal partner. Lichens grow slowly and occupy sites that are too harsh or barren for other organisms.

Because *L. munzii* grows on dead wood, it occurs only in old-growth Chaparral or Coastal Sage Scrub that has not burned frequently, but increased fire frequency throughout southern California has made this type of habitat rare. *L. munzii*, however, is abundant in old-growth Sage Scrub at the Bernard Field Station that has been designated as the 'type locality' – the geographical location where the species was originally discovered. It so far has been found only in five other sites – all in southern California.

"We're very grateful to Kerry for his excellent work in describing this species, and thrilled that the species is named in honor of Dr Munz", said Pomona Professor of Biology, Jonathan Wright. "The Bernard Field Station harbors a rich but inconspicuous flora of epiphytic and ground-dwelling lichens, mosses and liverworts, typical of old-growth coastal sage scrub. It is exciting to have a new species discovered right in our own backyard,"

Tim Cox, Chair of the Friends of the Bernard Biological Field Station adds, "What you can find even in small portions of natural habitat is truly amazing. I'm sure the BFS has many more surprises in store for all of us."

L. munzii is named in honor of the great California botanist Philip A. Munz, of Rancho Santa Ana Botanic Garden, who was also Professor of Botany and Dean at Pomona College and the author of *A Flora of Southern California*.

The new species was published in the December 8th issue of *Opuscula Philolichenum*: K. Knudsen and J. C. Lendemer. 2009. Two new species of *Lecanora* with gyrophoric acid from North America *Opuscula Philolichenum* 7: 21-28.

The Robert J. Bernard Biological Field Station (<http://www.bfs.claremont.edu>) is an academic resource of the Claremont Colleges, serving as an outdoor laboratory for many courses and research

projects in biology, ecology, zoology, and other disciplines.

Submitted to OBFS News by Nancy Hamlett Visiting Professor, Harvey Mudd College (and Associate Collector of the new lichen)

Facilities Planned for Archbold Biological Station

Construction will begin in March 2010, on the Adrian Archbold Center at Archbold Biological Station, Venus, Florida, which will include a 8,687 sq. ft. Lodge for accommodations (background) and a 9,267 sq. ft. Learning Center (foreground) for environmental education. The goal is to achieve LEED platinum certification, using sustainability planning assistance from the Rocky Mountain Institute. Construction should be completed by December 2010 with implementation of interpretative signage, displays and exhibits in the following year. Support has been received to date from the Adrian and Jessie Archbold Charitable Trust, the National Science Foundation, the Kresge Foundation, and private donors."



Crab Rings Bell at Shoals Marine Laboratory

"I am going to train a crab to ring a bell," said determined high school student Lily Strassberg this summer at a four-credit Marine Environmental Science course at Shoals Marine Laboratory, Cornell's marine field station.

And indeed she did.

The course immerses high school juniors and seniors such as Strassberg, a junior at Newton (Massachusetts) South High School, in marine environmental issues and introduces them to scientific study.

Strassberg put her two test subjects, *Carcinus maenas*, the local green crab, to the test. She used a marked tank with a "bell" (a sinker tied to a stick)



at one end and the word "start" at the other. She placed a crab on the "start" line. When the crab walked toward the bell, Strassberg gave it mussel meat, its natural food. Strassberg rewarded the crab as it came closer to the bell, and finally when it deliberately touched the bell with its claw. After only three days and 10 minutes of training time, Strassberg's crabs tolled her bells.

When Strassberg presented her findings, her classmates gave her a standing ovation. According to Johnson, students and faculty alike were blown away by her results. "I could have taken the easy way out," Strassberg recalled about her

experience. "Instead, I carried out a potentially crash-and-burn theory." She also learned important lessons about scientific study. "I learned that science is more than what you read in the textbook -- that we simply don't know things and that asking questions in the first place is the only way to find answers."

Read the full story at
<http://www.news.cornell.edu/stories/Sept09/crabRingsBell.html>

OBFS Board of Directors 2009 Candidate Profiles

President

Ian Billick started attending the Rocky Mountain Biological Laboratory in 1988 and remembers when



OBFS passed through the Lab approximately 20 years ago leaving behind piles of good, unopened beer and wine that were greatly appreciated. Ian received his PhD in 1997 from UC-San Diego and does research on ant-insect mutualisms. He has edited

a book, "The Ecology of Place: Contributions of Place-based Research to Ecological Understanding", with Mary Price that is due out with Chicago Press in the fall of 2010 and which highlights the importance of field stations. He has been Director of the RMBL since 2000.

Secretary

Greg Smith currently is on the Graduate Faculty in the Department of Biology at the University of Akron and serves as Manager of the



Martin Center for Field Studies and Environmental Education located in Bath, Ohio. He strongly believes in the mission of field stations, especially given the continued increase in "urbanized" students that have little to no exposure to nature.

He is a field ecologist, who regularly takes advantage of field station resources. He has been actively involved with OBFS for the past six years. His experience includes serving as Director/Manager of field stations in Kansas and Ohio, serving on the OBFS Small Field Stations

Subcommittee, and serving the last two years as OBFS Secretary.

Member at Large

Sarah Oktay is the Managing Director of the University of Massachusetts Boston Nantucket Field Station. She



has a B.S. in Marine Chemistry and a Ph.D. in Chemical Oceanography from Texas A&M University at Galveston. Her primary research is on surface and groundwater quality for both fresh and salt water bodies. She is a passionate believer in outreach and community

input and dedicates approximately 30% of her time to working with students of all ages and with the lay public through multiple media outlets and civic positions. She is very excited about the role OBFS has in fostering collective research and education endeavors and would be willing to do all she can in furthering OBFS organizational goals. She believes that coordinating and meeting with fellow field station managers and directors through OBFS is one of the most efficient and fun ways of improving her own field station. She currently is the chair of the Small Field Stations committee that will be merging with the Member Support Committee.

Karie Slavik has been the Associate Director of the University of Michigan Biological Station for 7 years. She received her B.S. and M.S. degrees from Bowling Green State University, Ohio, in education and aquatic ecology. After graduating she worked as a research associate at



the Ecosystems Center of the Marine Biological Laboratory in Woods Hole, Massachusetts, where she was responsible for managing the stream research program for the Arctic Long-Term Ecological Research project at the University of Alaska's Toolik Lake Field Station. She was introduced to field stations as an undergraduate student at Ohio State University Stone Laboratory and has spent 15 of the last 17 summers at field stations.