

## Field Stations: Partners for Advancing Research, Education, and Public Engagement



***Dr. Sarah Oktay***  
***Director, Nantucket Field Station***  
***University of Massachusetts Boston***

### ***“Biological Field Stations: A Legacy of Success and a Plan for Impact”***

In 2014, the National Academy of Sciences undertook a review of field stations, marine laboratories, and nature reserves. The resulting report, *Enhancing the Value and Sustainability of Field Stations and Marine Laboratories in the 21st Century*, demonstrates the remarkable value of field stations to science and society, and provides recommendations to guide their future sustainability. The report recognized the potential for field stations to bring together scientists from many disciplines, to involve students through hands on research, and to engage the public in science.

The report is an outgrowth of a National Science Foundation funded workshop that brought together representatives of field station and marine labs, as well as other stakeholders to evaluate the contributions these institutions make to science, education, and decision-making (from federal to local). The workshop also produced a framework to inform the future of these institutions, particularly focusing on how they can make even greater contributions to regional and global challenges that require interdisciplinary research, and more rapid communication of research findings to appropriate decision makers.

Dr. Oktay will discuss how the Organization of Biological Field Stations is working to implement the recommendations offered by the National Research Council, with a particular focus on the need for increased partnerships.

**Dr. Sarah Oktay** is passionate sharing information about environmental issues on Cape Cod and the islands with the public, something she is well placed to do in her role as the Director of the University of Massachusetts Boston’s Nantucket Field Station. She writes a weekly column for *Yesterdays’ Island*, which allows her to describe scientific issues and the natural world to the public. A chemical oceanographer by training, Dr. Oktay earned her doctorate from Texas A&M University in Galveston. She is President of the Organization of Biological Field Stations, an invited member of the Society of Woman Geographers, a former President and Vice President of the Nantucket Civic League, the Co-Captain of the Nantucket Clean Team, and former Chair of the Nantucket Harbor Plan Implementation Committee. She is currently partnering with Water Defense to test water safety and pollution levels in Massachusetts and across the country. Among her honors and awards, she is quite proud of a citation the field station received from the Massachusetts House of Representatives in recognition of the Grace Grossman Youth Collaborative.



**Jeff Brown**  
*Director, Central Sierra Field Research Stations*  
*University of California, Berkeley*

***“The Sagehen Forest Project: Collaborative Approach to Natural Resource Management”***

The management of forests in the western United States has historically been a contentious issue. Many factors complicate the management of these forests, including timber harvesting, fire suppression, drought, threatened and endangered species, public interests and land use desires, and climate change.

The Sagehen Forest Project serves as a case study for how diverse and disparate interests can be brought together to identify shared goals and to build consensus. The Sagehen Field Station played a critical role in bringing groups together to collaboratively create and implement a natural resources plan for the area.

The Sagehen Forest Project began as a research initiative to test a forest fire management strategy known as Strategically Placed Land Area Treatments. Given its history of research on how the Sagehen ecosystem functioned, the field station then worked to expand the project to develop a more comprehensive or holistic management plan that also considered the effects of drought and changing climatic conditions.

Because of the complexities inherent in the expanded project—particularly diverse interests of varied stakeholders—a facilitator was engaged. The project brought together federal, state, and local government entities; non-governmental organizations; private citizens; timber industry; and environmental organizations.

**Jeff Brown** has managed the Sagehen Creek Field Station since 2001. Since 2004 he has also served as Director of the University of California, Berkeley’s five Central Sierra Field Research Stations (Sagehen, Central Sierra Snow Lab, Onion Creek Experimental Forest, North Fork Association property, and the Chickering Reserve). Jeff has a Bachelors of Science in Business Services and has focused on stabilizing the field stations’ funding base. Among the new programs implemented during his tenure are initiatives to work with land managers on pressing natural resource management issues and public engagement efforts to broaden the populations reached with education activities. Jeff has received the University of California, Berkeley Chancellor’s Outstanding Staff Award. The Sagehen Adventure Risk Challenge Program was the recipient of the Organization of Biological Field Stations Human Diversity Award.



***Dr. Tom Arsuffi***  
***Director, Llano River Field Station***  
***Texas Tech University***

***“Bridging Silos: Engagement in Research and Natural Resource Literacy in a Land of Private Property”***

Field stations, together with agency partnerships and stakeholder/landowner involvement, conduct research and education that promote resilience of natural systems. Building authentic relationships with community leaders, such as mayors, county judges, and ranchers, is critical to the Texas Tech University Llano River Field Station (LRFS). Located in the Texas Hill Country, LRFS enjoys a strategic geographic position to conduct research and education on water and watersheds, the impacts of invasive species, and other agricultural and ecological studies in a region encompassing an area larger than 10 states. An important feature is the Edwards Plateau, characterized by a large number of springs, forming the headwaters of five major river systems.

LRFS engages in a comprehensive spectrum of collaborations focused on finding solutions to regional problems related to natural resources and education. The station partners with 14 state and federal agencies, 65 school districts, 8 professional scientific and educational organizations, as well as funding agencies, NGOs, municipalities, landowners, community colleges, and other universities who share expertise, planning and resources.

LRFS has engaged in a number of innovative initiatives with outside entities. The Water Symposium—a joint project with Texas Public Radio—provides perspectives from policymakers and scientists on the challenges associated with providing Texas with water. Working with the National Park Service’s River, Trails, and Conservation Assistance Program, the field station developed 3.2 miles of land trails that connect with a 4.4-mile paddle trail that highlight best management practices for natural resources. LRFS is also working with the U.S. Geological Survey’s South Central Climate Science Center, which provides scientific information to inform decisions about the impacts of climate variability. The field station has also engaged in watershed planning and education using the Environmental Protection Agency’s Healthy Watersheds framework, which uses a stakeholder engagement process for decision-making on issues regarding ecosystem services, landowner concerns, and types of treatment measures.

**Dr. Tom Arsuffi** is Director of the Llano River Field Station at Texas Tech University, located in Junction, Texas. He received his Ph.D. from New Mexico State University and completed post doctorates at the University of Georgia and Mount Allison University. His research interests are in aquatic and watershed ecology and environmental education. Dr. Arsuffi has published in leading ecological journals and presented his work at national and international scientific meetings. He has served as President of the Texas Academy of Science, Program Chair for regional and international scientific societies, Executive Board of Organization of Biological Field Stations, and Chaired the Executive Committee of Society for Freshwater Science. He advises the LRFS Outdoor School, a national award winning science education program. Recently, as Director of LRFS, Dr. Arsuffi received the University Council on Water Resources Public Service and Education Award.