UC SANTA BARBARA

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Driving National Communications

The National Science Foundation (NSF) has selected UC Santa Barbara as the site of the first national communications office for the Long Term Ecological Research (LTER) network. The largest and longest-lived network in the United States that focuses on ecological issues, LTER conducts research that can continue for decades and span huge geographical areas. The communications office will be operated by the National Center for Ecological Analysis and Synthesis (NCEAS).

“We want the communications office to be the linchpin that nourishes and strengthens the LTER network both nationally and internationally,” said NCEAS Director Frank Davis, principal investigator on the $3.5 million NSF grant that will fund the LTER communications office.

The office will take advantage of NCEAS’s expertise in supporting multisite collaboration and synthetic research, graduate training and environmental science communication. “Over the past 20 years, NCEAS has had a transformative effect on the way that ecological information is organized, synthesized and applied,” said Peter Groffman, chair of the LTER Science Council and Executive Board. “It is very exciting to now apply their experience and expertise to the LTER network.”

“We are especially pleased to be selected to establish the National Communications Office, since it brings together several areas of strength at UCSB,” said Michael Witherell, vice chancellor for research. “Our Marine Science Institute manages the research program at two of the 25 LTER sites. In addition, NCEAS has been a national leader for 20 years in collaborative research in ecology. Finally, the Bren

School has an innovative academic program in environmental communication. When we saw that NSF was asking for an institution to lead the National Communications Office, we thought it sounded perfect for us. We are glad that NSF agreed."

Established in 1980, LTER currently supports 25 sites representing major biotic regions of the continental U.S., Alaska, islands in the Caribbean and the Pacific, and the Antarctic continent. UCSB's Marine Science Institute has overseen the Santa Barbara Coastal LTER since 2000 and the Moorea Coral Reef LTER since 2004.

The disciplinary scope of LTER network includes population and community ecology, ecosystem science, evolutionary biology, phylogenetic systematics, social and economic sciences, urban ecology, oceanography, mathematics, computer science and science education. The existence of a network across sites allows for continental-scale questions to be addressed, while enabling better sharing of ideas and information to facilitate more robust and integrative scientific insights.

Thousands of scientists and graduate students take advantage of the LTER sites to pursue research across diverse topics and disciplines. "These sites are doing important work that is relevant for policy and management with respect to natural resource management, environmental restoration, climate change adaptation, public health and many other important areas," said Davis, who is also a professor in the Bren School of Environmental Science & Management.

Recognizing that the value of long-term data extends beyond use at any individual site, the LTER Network makes data collected by all LTER sites broadly accessible to other investigators. "The new communications office will build awareness and participation in the network by developing an effective and engaging web presence," Davis explained. "We will offer such tools and services as virtual collaboration, training in data synthesis and open science, online research forums and multimedia research highlights."

The communications office will also support new programs and activities that encourage and promote diversity in education and training to enhance communication and outreach to the public and to local, regional and federal agencies as well as nongovernmental and nonprofit organizations. "Advances in web technologies and computational sciences in general are creating exciting new possibilities for scientific collaboration as well as for communicating research insights to nonexpert audiences," said NCEAS' Director of Computing Mark

Schildhauer. “The communications office will build upon technology expertise at NCEAS and across the LTER sites to extend these capabilities in support of scientific synthesis while expanding engagement with new audiences outside of LTER.”

“The NSF Directorate for Geosciences, which supports the LTER program through both its Ocean Sciences and Polar Programs divisions, is very excited about the synergies that will arise from linking the LTER team with an experienced NCEAS team,” said NSF Assistant Director for Geosciences Roger Wakimoto. “This aligns well with our commitment to long-term environmental and ecological observations, and we expect the new communications office to advance internal and external synthesis as well as education efforts.”

“The LTER program faces new challenges as it enters its fourth decade: the increasing multidisciplinarity of ecological research, the increased value of synthesizing heterogeneous data and rapid changes in the needs for and modes of science communication, among others,” said NSF’s Assistant Director for Biological Sciences James Olds. “The Biological Sciences Directorate welcomes a new office that brings an international reputation in ecological synthesis, strong partnerships with programs for science communication and outreach and a dedication to consolidating education programs across the network.”

The winning proposal included a number of other faculty members and researchers who will help direct projects in the communications office. Carol Blanchette, an associate research biologist at the Marine Science Institute (MSI), will work on education and training; Jenn Caselle, a research biologist at MSI, will coordinate research; and Schildhauer will lead technological support and data analysis efforts. NCEAS associates Stacy Rebich Hespanha and Jai Ranganathan respectively will drive program evaluation and virtual collaboration and outreach and online training courses.

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the

edge of the Pacific Ocean.