

Native Science Educators Workshop
Tempe, AZ March 14-16, 2015

Facilitators



Diana Dalbotten – University of Minnesota

Diana is the Director for Diversity and Broader Impacts for the St. Anthony Falls Laboratory and the National Center for Earth-surface Dynamics at the University of Minnesota. Her research is focused on supporting participation in STEM field for underrepresented minorities. She leads the Geoscience Alliance, a national alliance for broadening participation of Native Americans in the Geosciences. She also is the Education and Outreach Coordinator for the Consortium for the Advancement of Hydrologic Sciences, Inc. and directs the Research Experience for Undergraduates on Sustainable Land and Water Resources. She recently edited and contributed to the volume "Future Earth: Advancing Public Understanding of the Anthropocene," which is an AGU monograph.



Robert de Groot – SCEC

Robert is the manager of the Office of Experiential Learning and Career Advancement at the Southern California Earthquake Center (SCEC), an NSF+USGS Center headquartered at the University of Southern California in Los Angeles. His responsibilities include managing SCEC's undergraduate internship programs and formal and free-choice education programs. He is the statewide coordinator for the Earthquake Education and Public Information Center (EPIcenter) Network, a collaboration of free-choice learning institutions devoted to enhancing earthquake and tsunami education programs and exhibits. Dr. de Groot has twelve years of classroom experience as a chemistry and Earth science educator at the secondary and university levels and has worked as an informal educator at the California Science Center in Los Angeles and Lowell Observatory in Flagstaff, Arizona. He holds an M.A. with an emphasis in chemistry and Earth science education from Northern Arizona University and a Ph.D. in science education from the University of Southern California. Dr. de Groot has been a member the SCEC Communication, Education, and Outreach team since 1999.



Cindy Dick – EarthScope National Office

Cindy is the Program Manager for the EarthScope National Office. She has been at ASU for 16 years and has served in both the Alumni Association and the Athletic department. Within those roles, she has coordinated a multitude of events ranging from the National Championship Fiesta Bowl to outreach education for both graduating seniors to senior citizens. Cindy is from Virginia, earned her BA in Outdoor Recreation from Unity College in Maine and her Masters in Kinesiology from James Madison University in Virginia.



Lisa Lone Fight – Montana State University

Lisa (enrolled citizen of the Mandan, Hidatsa and Arikara [MHA] Nation, Dripping Dirt Clan) is an indigenous and remote sensing scientist. Her recent publications include, Keeping Native American Communities Connected to the Land: Women as Change Agents. *Rangelands* 35(6):63-67. 2013 and "A View from the Sky" in the book *Tribal GIS* (ESRI Press 2012). She is currently co-editing the book *Indigenous Food Systems* (2015). Lisa lectures and presents widely on indigenous and western science and has been an invited presenter at the United Nations speaking on Indigenous Women's intellectual property and presented an invited paper at Oregon State University's 3rd Traditional Ecological Knowledge conference. Lisa has served as the founding Director of the Wind River Native Science Field Center where she was responsible for developing and implementing a collaborative model for creating informal science learning experiences for Native students. Her work has been profiled in the Emmy Award winning PBS documentary "Before They Were Parks" and in *Indian Country Today*. She is currently a Sloan Fellow, Native Science Fellow and graduate student at Montana State University in the Department of Land Resources and Environmental Sciences-where her research focuses on documenting and analyzing the rate and scope of land use and change on the homelands of the MHA Nation. She uses remote sensing, field work based participatory research methodologies and is developing an indigenous land cover classification system. Lisa has organized the renowned Native Science Fellows Symposium for three years, was selected to be one of 35 national participants in the "Radical Innovation Summit to Advance STEM Education" and has served on the boards of a number of national organizations and institutions including the American Indian Science and Engineering Society, Museum of the Rockies, the Indigenous Women in Science Network and the Society of STEM Women of Color Research Review Board. Her work can be found on her website www.earthlodge.net. Lisa also shares her personal, professional, cultural and academic journey on Facebook (search: Lisa H. Lone Fight).



Ed Garner – Earthscope National Office

Ed is a Professor in the School of Earth and Space Exploration at Arizona State University, and also the [put that ESNO title I have here] in the EarthScope National Office. Ed is a seismologist, and uses seismic waves from earthquakes to study the interior of Earth. His work is motivated by trying to understand the driving forces that push tectonic plates around Earth's surface, the very forces that result in Earth's most massive earthquakes, as well as volcanic eruptions, mountain building, and continent construction. Ed received his Bachelor's degree at UC Berkeley, and his PhD at Caltech, both in Geophysics. Also an active musician in the great Phoenix metropolitan area, Ed often brings music into the classroom as a way to engage students.



Shelley Olds – UNAVCO

Shelley has been teaching about science and technology to interpretive professionals and educators for over 15 years. She is currently Science Education Specialist at UNAVCO, creating free educational materials and museum exhibits that use geodetic data and data products for undergraduate and secondary Earth science courses, developing improved online interface designs for data tools, and leading professional development programs for K-12, college faculty, and park interpreters. Her life-long love of science began at an early age observing stream-life with microscopes and using water & air quality kits to measure pollution. This passion continued into college where she graduated with a B.S. in Earth Science / Geophysics. She then combined her passion for science with her love for teaching to earn a Master's of Education in Instructional Systems Development. Shelley has been a member of the UNAVCO Education and Community Engagement program since 2006.



Sarah Robinson - EarthScope National Office

Sarah is the Education and Outreach Program Manager for the EarthScope National Office, currently on campus at Arizona State University. She runs the outreach program for EarthScope, including organizing workshops for interpretive professionals, organizing local and national outreach events, representing EarthScope at conferences, and planning higher-level outreach strategies for the EarthScope program. Sarah holds an MS and BS in Geological Sciences from Arizona State University and has had a research focus throughout her professional career on applying new technologies (such as high resolution topography and LiDAR) to the study of active tectonics. This research has had a large focus on Earth Science curriculum development, education, and outreach.



Steven Semken – EarthScope National Office

Steve is an Associate Professor and the Deputy Director for Education and Outreach, EarthScope National Office, both in the School of Earth and Space Exploration at Arizona State University. He is an ethnogeologist and geoscience education researcher interested in ways that place, culture, and affect influence inquiry, teaching, and learning in the Earth system sciences. He received his PhD from M.I.T. and was a faculty member at the tribal college of the Navajo Nation for 15 years before joining ASU. His work includes place-based science education and the function of sense of place; ethnogeology and Earth science education; K-12 teacher professional development; geoscience interpretation in National Parks; and diversity in the geoscience community.



Danielle Sumy - IRIS

Danielle is a Project Associate for the Education and Public Outreach and Instrumentation Services directorates at the Incorporated Research Institutions for Seismology (IRIS) in Washington, DC. She earned her PhD in Seismology from Columbia University in 2011, and went on to two postdoctoral positions at the United States Geological Survey and the University of Southern California. Her research specialty is in earthquake triggering from tides and oil and gas operations. In her postdoctoral position, she began to work specifically on possibly induced earthquake sequences in central Oklahoma. In addition, she worked on the Quake-Catcher Network, a citizen-science based research project. With IRIS, she manages the archival of best practices material for undergraduate, graduate, and professional resources. She also works directly on station operations and management of the Global Seismographic Network and the Central and Eastern US Seismic Network.

[Special Guests/coordinators](#)