



Sea to Shining Sea LIVE Project Brief

Hans-Werner Braun, University of California San Diego
 Kimberly Bruch, University of California San Diego
 Susan Teel, National Park Service

Background and Purpose

Sea to Shining Sea (StSS) LIVE connects youth to America's Great Outdoors and promotes participation in applied STEM based activities on Federal lands. The project also addresses the National Park Service (NPS) Director's *Call to Action* goals 16 and 17.

The National Park Service, Fish and Wildlife Service, Bureau of Reclamation, and NOAA National Marine Fisheries, in collaboration with NSF Funded High Performance Wireless Research and Education Network (HPWREN) and educational partners are working to ensure access to America's Great Outdoors by using current and leading-edge technology to facilitate STEM education. StSS LIVE is a tool which every classroom in America may employ to interface with scientists, NPS staff, and other experts. Students will be involved in on-going research and monitoring activities on Federal lands towards improving their understanding of local, national, and global environmental concerns.



Fourth grade students in downtown Los Angeles participate in a LIVE program broadcast from Cabrillo National Monument in San Diego, CA. Photo Credit: HPWREN and California Science Center

Sea to Shining Sea LIVE Backpack System

A low-cost LIVE backpack system, allows educators and scientists to easily move about in the field while broadcasting LIVE distance education programs.

To date, a range of LIVE broadcasts have been conducted by from 18 NPS sites and have included presentations to students in classrooms, teachers at professional conferences, and audiences at university and museum auditoriums.

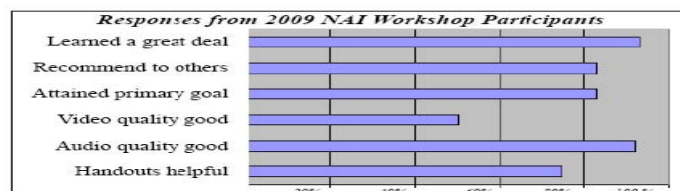
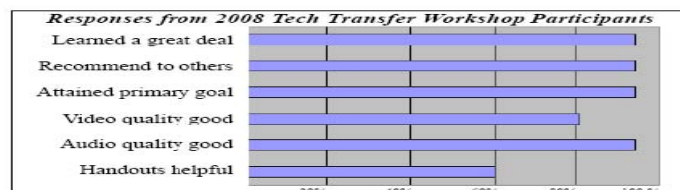


Sea to shining Sea focuses on reaching traditionally under-served students. Pala Native American youths participate in a StSS LIVE activity between their rural reservation and the Cabrillo National Monument tidepool area. One student attempts to reach out and touch a hermit crab as it scurries along the rock crevices. Photo Credit HPWREN

LIVE Workshops and Training

LIVE workshops are offered each year. The next workshop is scheduled for November 1-3, 2011 in San Diego and another is planned for spring 2012 in Florida.

Workshop evaluation results are available in a 2009 George Wright Society article at: <http://www.seatoshiningsea.org/news>.



Additional Resources

Mann-Bruch, K., Braun, H-W., Teel, S. (2011) Evaluating the Effectiveness of Live Interactive Virtual Explorations Involving a Hard-to-Reach Native American Earth Lodge and a Pacific Island Volcanoes Site. *Journal of Interpretation Research*. Vol. 16 (1). 2011.

Mann-Bruch, K., Braun, H-W., Teel, S. (2010) Live Interactive Virtual Explorations at a Southern California Native American Learning Center: Case Studies and Lessons Learned. *Journal of Cases on Information Technology (JCIT)* Vol. 12 (3), 2010

Mann-Bruch, K., Braun, H-W., Teel, S. (2010) An Examination of Live Interactive Virtual Explorations with the High Performance Wireless Research and Education Network in Southern California. Pages 311-332 in: Mukerji, Siran and Tripathi, Purnendu, Eds. *Cases on Technological Adaptability and Transnational Learning: Issues and Challenges*, IGI Global. Hershey, PA, USA.

