HPWREN LIVE
Live Interactive Virtual Explorations

Exploration and understanding of hard-to-reach science and history sites

Preparation for fieldtrips to such sites

2002-2012

Kimberly Mann Bruch
HPWREN, Palomar College, and Tribal Digital Village Network (TDVNet) offer a Computer Science and Information Systems course at the Pala Learning Center for Pala, La Jolla, Rincon, and San Pasqual Native Americans.

Experiments with vic (multicast tool) and rat (audio tool) were also utilized for occasional remote classroom sessions via HPWREN.
Teachers attending the National Teacher Training Institute Conference in Irvine participated in an underwater tour of Crystal Cove State Park and examined fossilized oyster beds in nearby Fish Creek.

(The remote Fish Creek is approximately 100 miles from Irvine.)
Experiments at California Wolf Center test Skype with PDA and then laptop. The team discovers that a backpack equipped with a laptop running Skype (and transmitting images via DV camera) produce the best results.

Backpack system replicated and used for experiments between Cabrillo and California Science Center. Also experimented with Remotely Operated Underwater Vehicle (ROV).
Pala Little Feathers and Adult Education (Even Start) students participated in a LIVE activity between the Admin Building and Santa Margarita Ecological Reserve as well as the Palomar Observatory.

Additional HPWREN LIVE activities included demos at the NSF booth during the AAAS meeting as well as demos at a San Diego Youth Science Fair.
HPWREN LIVE Pilot Activities

Two activities between Pala youth programs and Cabrillo tidepools. Activities included on-site geologist and hands-on activities with southern California shells.

Reuben H. Fleet Science Center’s Astronomy Day 2008 included an HPWREN LIVE demo - featuring the telescopes at Palomar Observatory.
HPWREN LIVE Pilot Activities

Activities included:

- Women in Science Summer Camp at Reuben H Fleet Science Center (Cabrillo LIVE)
- National Geographic Bioblitz Species Inventory (Santa Monica Mountains)
- Experiments with Off-Shore ROVE, Rural Science Class, and SDSC Building Dedication Demos
- National Park Service Workshop at Cabrillo for 35 Rangers from USA Parks
2009

HPWREN LIVE Pilot Activities

Activities included:

- Green Day and NanoDay at Reuben H Fleet Science Center (SMER and UCSD JSOE)
- George Wright Society Conference (Portland)
- National Association for Interpretation Conference (Hartford)
- Demos with Palomar Observatory, Cabrillo intertidal area, Birch Aquarium, SMER, and CA Wolf Center
2010

HPWREN LIVE Pilot Activities

Activities included:

- AAAS Family Science Days & TeacherTECH LIVE
- Old Point Loma Lighthouse Demos
- HACU Conference (San Diego)
- Dept of Interior Diversity Days (Washington, DC)
- Published text book chapter and journal article
- Sustainability Strategy
Activities included:

- NPS National Leadership Council
- Old Point Loma Lighthouse Demos
- San Juan Capistrano School District Demos
- NPS LIVE StSS Workshop
- Published journal article
- Sustainability Strategy
Activities include:

- California Wolf Center
- Point Loma Tidepools
- Guadalupe Mountains
- Published journal article
- Sustainability Strategy
Peer-Reviewed Publications Regarding LIVE

**LIVE Textbook Chapter and Journal Articles**


Bruch, K. M., Braun, H-W., Teel, S. (2012). Live Interactive Virtual Explorations Provide Students with Glimpse of Life at Old Point Loma Lighthouse in the late 1800s. Park Science.

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Let the Exploration Begin!