



Education Outreach and Communication

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EO Activities/Programs

Science Integration with the Arts and Humanities

- **In Times of Change (ITOC)** – Mary Beth Leigh
- **One Tree K-20 STEAM Education** - Jan Dawe, Zachary Meyer, Glenn Juday

One Tree K-20 STEAM Education

Janice Dawe, Glenn Juday



Learning is broader
and deeper with **STEAM**

Art acts as a
bridge or “hook” in to OneTree’s
STEM (science, technology,
engineering, and math) activities





EO Activities/Programs

- **Science Fair/Symposiums** –Coordination and judging, mentoring
- **Videos**
- **Courses-** Radiocarbon in Ecology and Earth System Science; Methods in Interdisciplinary Research
- **High School Summer Research Internship**
- **GK-12 Changing Alaska Science Education**
- **Permafrost/Active Layer Monitoring Project**



EO Activities/Programs

- **Research Experience for Undergraduates**
- **Research Experience for Teachers**
- **Permafrost/Active Layer Monitoring Project**
- **Citizen Science**
- **IGERT graduate program** in Regional Resilience and Adaptation (RAP)

EO Activities/Programs

- **Professional development Workshops- for teachers**
 - GLOBE: educators from Anchorage, Fairbanks, Juneau, Nenana and Nuiqsut; Trained teachers from Anchorage subsequently trained other teachers from the Anchorage School District, in the atmosphere/weather measurement protocols.



EO Activities/Programs

- **Dangerous Ice: Changing ice conditions on the Tanana River, Fairbanks.** Schneider, W.S., K. Brewster, K. Kielland and Chas Jones. 2013. Oral History Program, Rasmuson Library and the Institute of Arctic Biology, University of Alaska Fairbanks, 66 pages.

EO Activities

- Signs of the Land Climate Change Education Summer Camp

International EO Activities

- **Professional development follow-up**
 - Meeting with 30 educators from different regions of the Philippines.
 - visits to schools in Luzon province
- **CGAIN Workshop in India** - GLOBE Alumni from Benin, Czech Republic, Egypt, Thailand, and U.S



EO Outcomes

- **Development of Teacher Leaders/Trainers**
 - multiplier effect
 - Teacher awards
- **Student Projects**
- **School Projects**
- **Student Leaders**



EO Opportunities

- **Summer Research Experience/Internship-
Upward Bound High School Students**
- **LTER Children's Book**
- **Emerging Leaders Institute**

Future Directions