

Weaving Together Arctic Science, Place, People, and Education in Alaska

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The Alaska Center for Ocean Education Excellence (COSEE) is one of 12 centers in the U.S. that promotes marine literacy by assisting and supporting scientists in the communication of the “broader impacts” of their ocean research on society and by targeting audiences that are underserved by science education and underrepresented in ocean sciences. The centers function as a network with each center focused on a geographic area or a theme. Alaska’s Center has a geographic focus on the marine ecosystems that surround Alaska and a thematic focus on climate change from the perspectives of science and Alaska Native knowledge.

Communicating Science



Workshops at the Annual Alaska Marine Science Symposium

The annual statewide symposium brings together more than 700 scientists, educators, and outreach specialists. The COSEE-sponsored Communicating Ocean Science workshop showcases effective practices in outreach and education by local, regional, and national programs.



SEANET Networking and Leadership

COSEE Alaska provides information and supports communications for more than 500 participants in the Scientists and Educators of Alaska Network. The SEANET Steering Committee provides leadership opportunities for scientists, educators, and communicators, including planning for a statewide marine education and outreach conference in January, 2011, and the National Marine Educators Conference in June, 2012.

Regional Resource Directory

This searchable, online database will provide partnership opportunities for scientists and educators.

Graduate-level Communicating Ocean Science Course

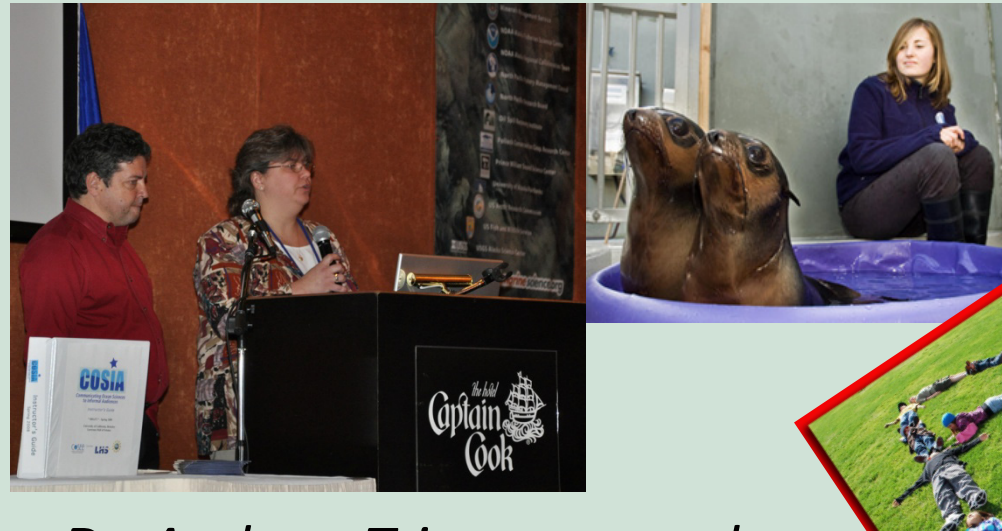
To be offered in Alaska in 2011

Scientist-Educator Workshops



COSEE-sponsored workshops bring scientists and educators together for their mutual professional development.

Scientist-Teacher Partnerships



Dr. Andrew Trites, researcher
Tonia Kushin, teacher

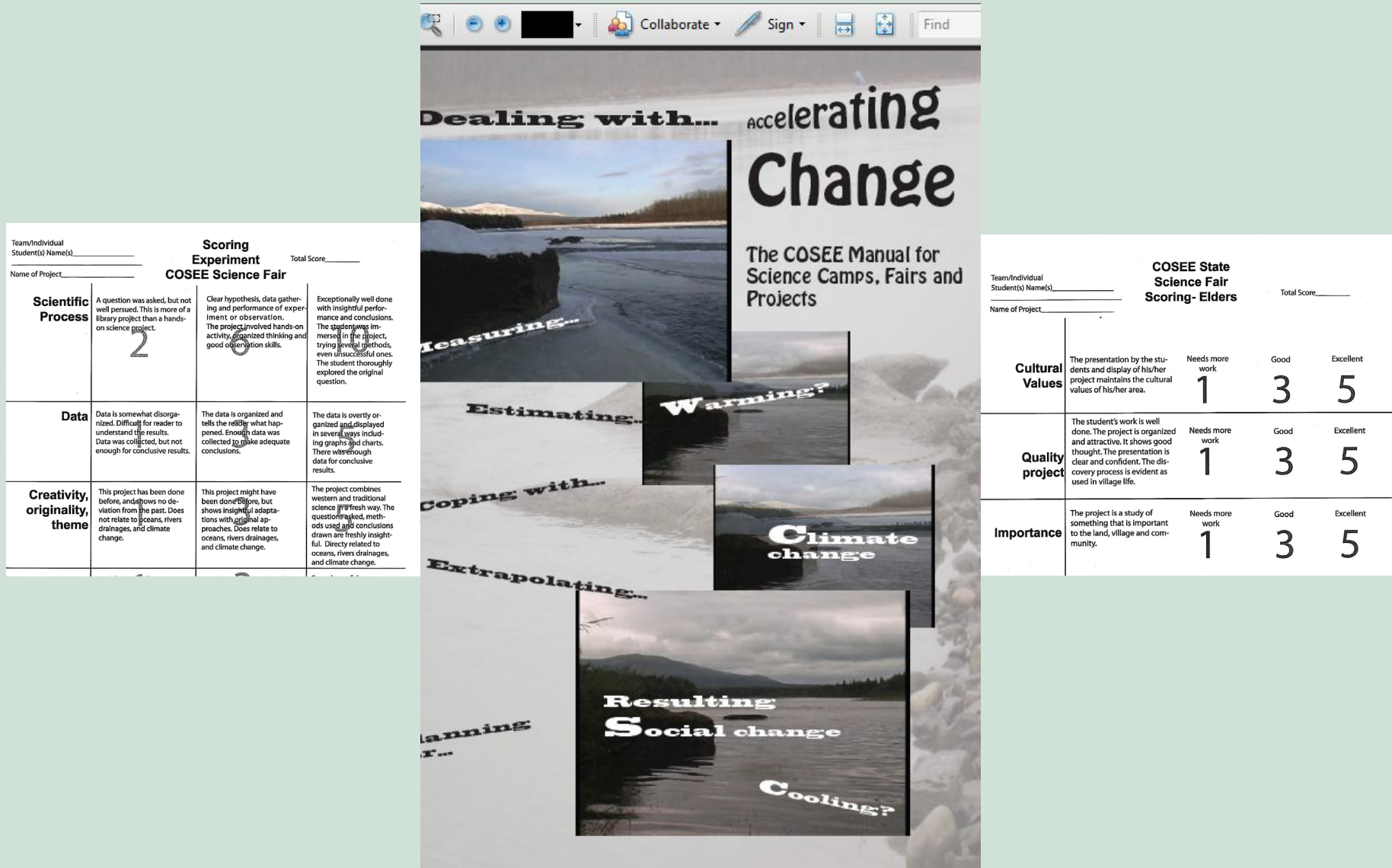
Pribilof Island students participated in marine mammal research via web technology and a field trip to the Vancouver Aquarium Lab.

Alaska Native Knowledge



COSEE Alaska revived an effective model for motivating Alaska Native and other rural students to participate in science fairs. Onsite support is being provided to teachers to organize fairs and to students to develop projects with both scientific merit and cultural and/or community relevance. Local winners advance to the state science fair, where more than 50 projects were judged in 2010 and 16 students received COSEE awards.

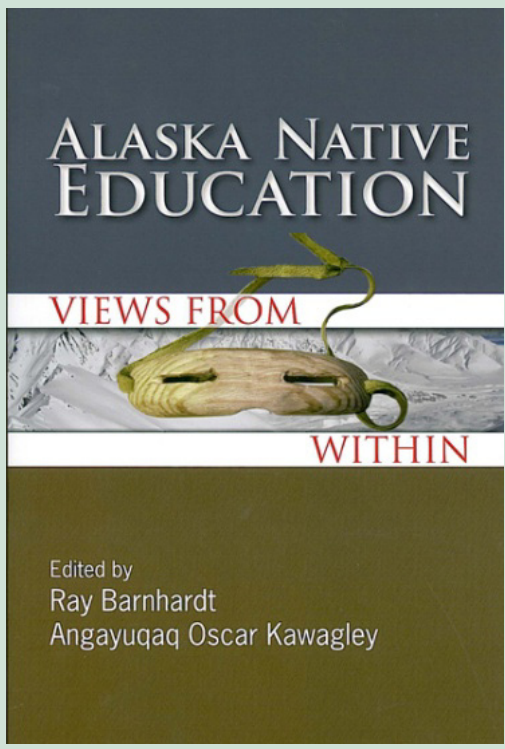
Ocean Science Fairs



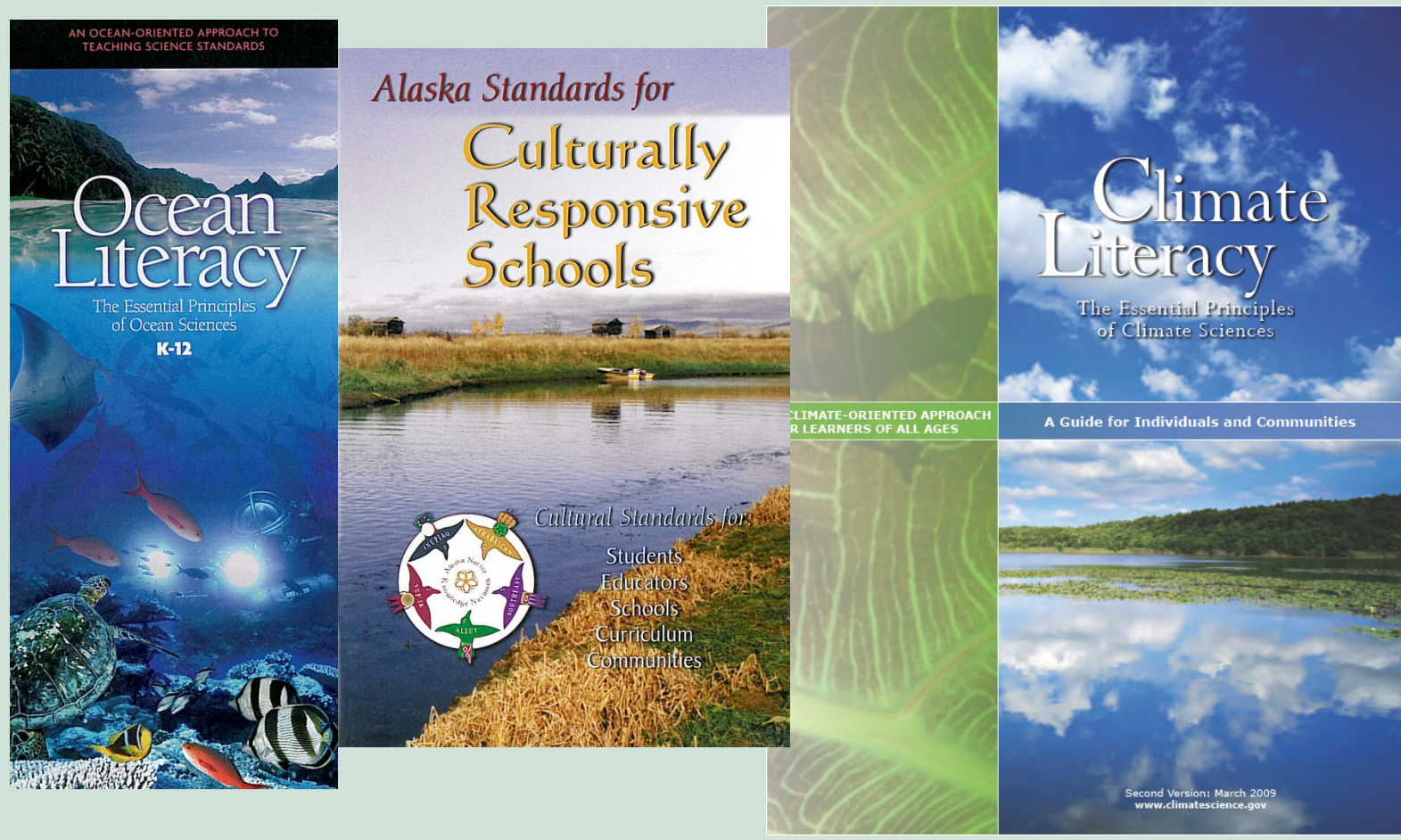
A manual of “how to” information for organizing ocean science fairs and planning and carrying out projects can be down-loaded from the COSEE Alaska website. The manual also includes hundreds of “village science” project ideas related to the COSEE theme.

Resources

COSEE Alaska contributed to the publishing costs of a synthesis of the research on effective Alaska Native education practices co-edited by Ray Barnhardt.



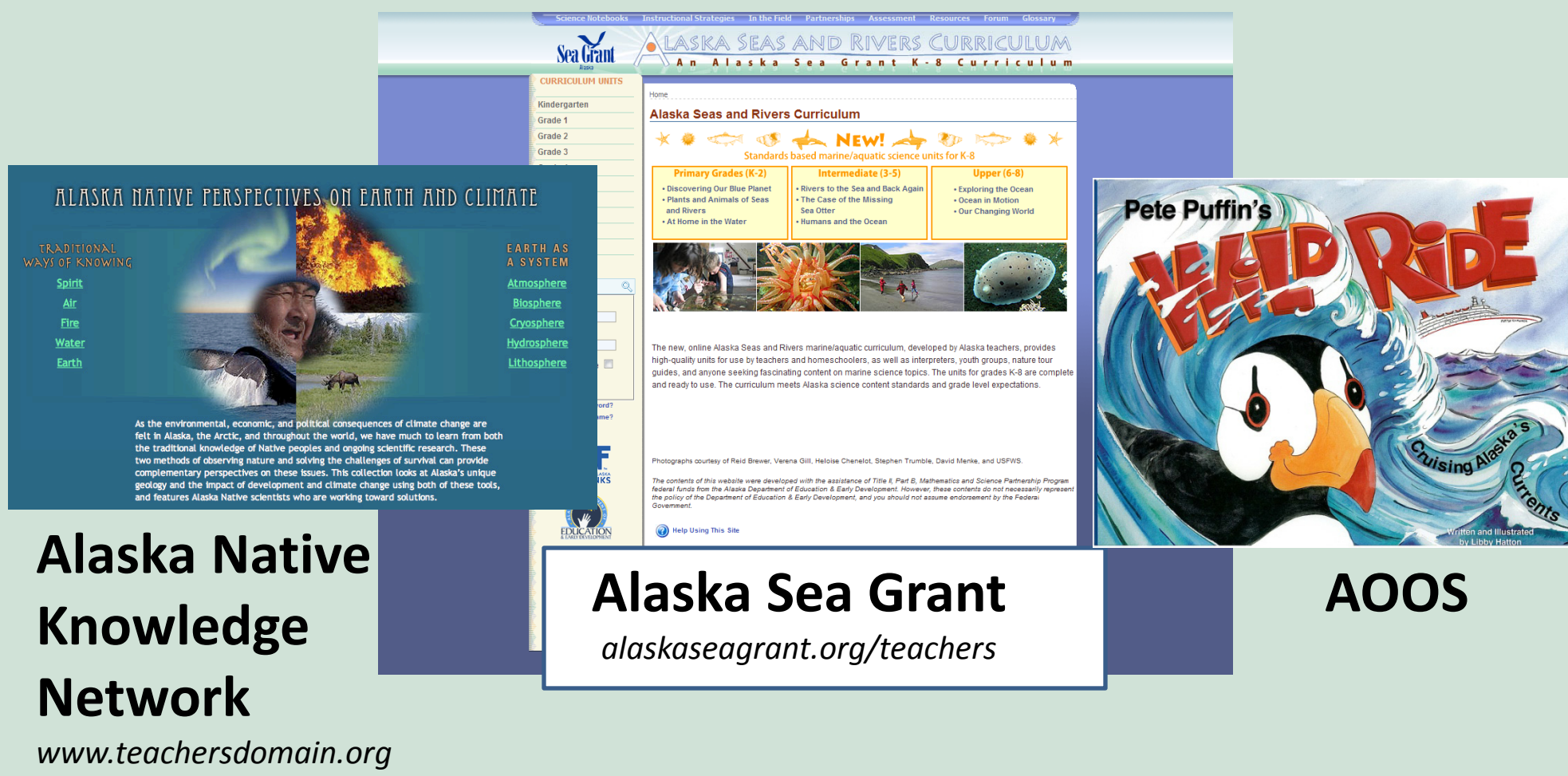
Science Literacy



Standards-based Curriculum

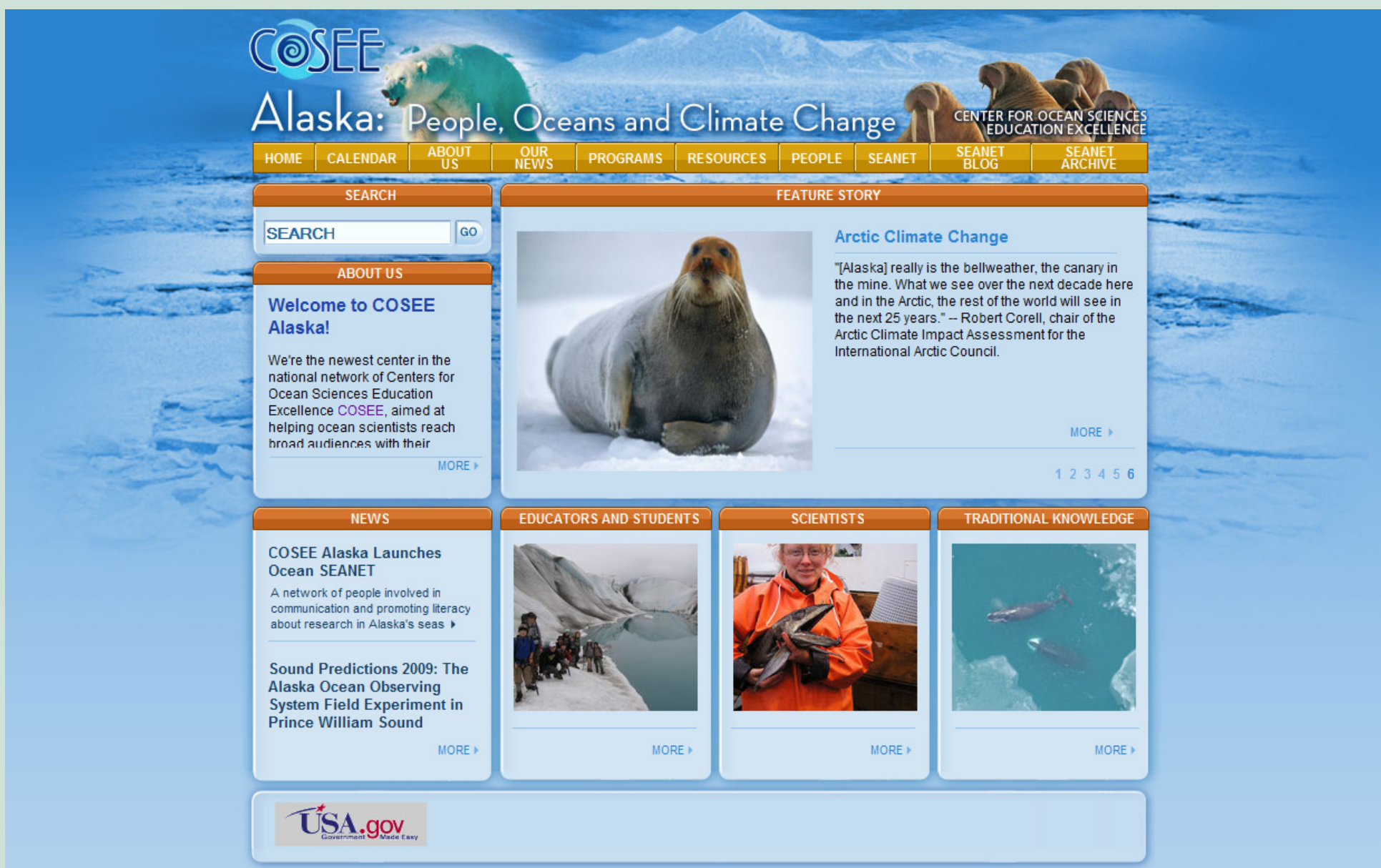
COSEE Alaska is working to align existing curriculum resources with state and national education standards. The team is also working to increase the emphasis on K-12 ocean and climate change literacy within Alaska by:

- Disseminating a model high school curriculum framework, and
- Participating in the development of an Alaska Environmental Literacy Plan that has broad support.



High-Quality Curriculum Resources

COSEE Alaska promotes best practices for teaching and communicating science in both formal and informal settings and the use of Alaska-relevant resources for teaching science in culturally-relevant ways.



Portal Website

<http://www.coseealaska.net>

The COSEE Alaska website serves as a portal for information and resources for communicating about Alaska ocean climate change science with emphasis on polar topics such as ocean acidification at high latitudes, sea ice dynamics, and Arctic and subarctic current patterns.

Pteropods are particularly vulnerable to ocean acidification.



- Russ Hopcraft

Multi-media Resources

- Virtual field trips
- “Faces of Climate Change” videos
- “Ocean Gazing” podcasts
- Climate change messaging for travelers to Alaska by ferry or cruise ship

COSEE Alaska will help ensure the synthesis, continuity, dissemination, and expansion of successful IPY outreach and education resources.

Principal Investigators:

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