

- **Principal Investigator:** Annette deCharon, University of Maine
- **Location:** COSEE-OS is based at the University of Maine Darling Marine Center in Walpole, ME
- **Website:** <http://cosee.umaine.edu/>
- **Collaborators/Partners:** University of Maine, University of New Hampshire, Bigelow Laboratory for Ocean Sciences, Institute for Broadening Participation, Maine Sea Grant, Mount Desert Island Biological Institute, Seacoast Science Center, New England Aquarium, the New England Ocean Sciences Education Collaborative, Northeastern Regional Association of Coastal Ocean Observing Systems, and three Maine school districts
- **Co-Principal Investigators and Key Project Partners:** Ashanti Johnson, Institute for Broadening Participation; Sara Lindsay, University of Maine; Mark Wiley, University of New Hampshire and William Spitzer, New England Aquarium.



## COSEE OCEAN SYSTEMS

**Mission:** To support the COSEE Network by developing flexible and transferrable tools and processes to effectively bring ocean sciences research to broad audiences.

**What We Do:** By engaging scientists and educators in collaborative and innovative ways, COSEE-OS creates successful models by:

- Aiding scientists in the deconstruction of their complex science for non-scientist audiences
- Translating science content into concept maps containing multimedia assets
- Helping scientists and educators get “on the same page” when discussing ocean literacy topics
- Integrating concepts and resources into highly flexible and engaging online delivery systems that can be readily applied to a variety of disciplines.
- Creating multifaceted resources for educators vetted by scientists

**Who We Are:** Guided by the Center’s External Advisory Committee, the COSEE-OS team includes experts in marine research, formal and informal education, software and graphic design, and broadening participation in sciences.



**Audience:** Scientists, graduate and postdoctoral students, undergraduates, and formal and informal educators including those underrepresented in science.

**Date Established:** Fall 2005

**Why We Were Established:** COSEE-OS was established to implement several integrated activities, each designed to improve COSEE’s impact on rural and inland communities.

**History:** Since Fall, 2005, COSEE-OS has investigated issues in educational research that pertain to pedagogy, practice and the learning process. User feedback has reinforced the desire for interactive products and processes that highlight fundamental concepts as well as their “big picture” connections.

### What We Offer...

COSEE-OS engages teachers, ocean scientists, and informal educators in a broad range of programs, including:

- Conference presentations and regional collaborations to enhance ocean science education and increase ocean literacy
- Webinar presentations by scientists and educators driven by non-linear concept map format, freely available asynchronously through online archives

- Workshops that engage audiences in mutually beneficial exercises that help scientists better communicate and non-scientists clearly see connections in the ocean-climate system
- Concept Map Builder and Ocean Climate Interactive: free, web-based software tools

### Example Offerings...

- Workshops: Scientist-Educator Collaborative Model; Faculty-Graduate Student Collaborative Model

- Webinars: Research-based Online Learning Event (ROLE) Model Series, North Atlantic Bloom Experiment, Diversity/Broadening Participation Series (in collaboration with COSEE Ocean Learning Communities)
- Publications: Articles highlighting broader impacts work (EOS Transactions, Current, The Earth Scientist); educational resources (Teaching Physical Concepts in Oceanography)