Education And Public Awareness Committee Report

Meetings held
October 3-5, 2005
December 1-2, 2005

Short-term charge
To create an ORION Education Strategic Plan
EPAC Members

George Matsumoto (Chair) - Monterey Bay Aquarium Research Institute
Julie Bursek - NOAA/Channel Islands Marine Sanctuary
Roman Czujko - American Institute of Physics
Annette deCharon - Bigelow Laboratory
Sharon Franks - Scripps Institution of Oceanography
Sharon Gilman - Coastal Carolina University
Amy Holt-Cline - University of New Hampshire
Darryl Keith - Environmental Protection Agency
David Malmquist - Virginia Institute of Marine Science
Janice McDonnell - Rutgers University
Carrie McDougall - NOAA
Mike Wright - Digital Library for Earth System Education (DLESE)
Karen Romano Young – Children’s author/illustrator
Yi Chao – California Institute of Technology (from Cyberinfrastructure Committee)
Background

A carefully crafted ORION education and public awareness plan will ensure that the research discoveries, technology innovations, unique near real-time information streams, and interactivity of the OOI infrastructure of the ORION program are used to capture the imagination of all Americans; engage young and old in scientific exploration and discovery; address key needs of the U.S. public education system (kindergarten through grade 16); and identify and address critical graduate and continuing education issues affecting the ocean science and technology workforce.
Four major challenges face the committee in its advisory role:

1. **making effective use of existing exemplary ocean science education programs and projects such as those at CORE, Ocean.US, JOI and many others,**

2. **developing education and public awareness programs that are relevant to different audiences including students, teachers, adults, youth and community groups, family groups, informal educators, university faculty, public policy makers, and the public;**

3. **building a seamless education plan that links the excitement of cutting edge research from ORION with relevant practical applications from IOOS and**

4. **contributing the academic perspective to the development of a comprehensive plan for the ocean observing workforce.**
Results to date

- Completed first draft of an ORION Education Strategic Plan
- Setup criteria for educators/students participation in upcoming Design and Implementation Workshop.
- Selected 11 participants
ORION Design and Implementation Workshop

Esat Atikkan  Montgomery College, MD
Rick Baker  Ocean Institute, CA
James Brey  Univ. of Wisconsin, WI
John DeLaughter  Education Director, Earthscope
Deborah Glickson  PhD student; Univ. of Washington, WA
Katrina Hoffman  MS student; Univ. of Washington, WA
Barbara Kirkpatrick  Mote Marine Lab., FL
Alison LaBonte  PhD student; Scripps Institute, CA
Christopher Petrone  Virginia Institute of Marine Sciences, VA
Leslie Sautter  College of Charleston, SC
Sarah Stoltz  North County Senior High, MD
Barbara Waters  East Carteret High School, NC
Primary Goals for ORION
Education and Public Awareness

GOAL I: Promote awareness, appreciation, and understanding of ORION’s importance to society.

GOAL II: Showcase the compelling attributes of ocean observatories to stimulate public support for ocean research.
Key Guiding Principles

Science and technology are interrelated:

The Ocean is fascinating:

Ocean Literacy needs improvement:

A diverse workforce is needed:

Assessment is crucial:

The target audience is broad:
Proposed National ORION Education Structure

- National Education Manager (in ORION Project Office)
ORION National Education Manager

PI – Kendra Daly
Director, OO – Peter Milne
Education Director – Sue Cook
Program Associate – Emily Griffin
Program Coordinator – Henry Hope

ORION PROJECT OFFICE

EPAC

Report
Advisory
Communications

NSF
Proposed National ORION Education Structure

- National Education Manager (in ORION Project Office)
- Education and Communications Coordination Office (ECCO)
Proposed National ORION Education Structure

• National Education Manager (in ORION Project Office)
• Education and Communications Coordination Office (ECCO)
• Data Translation and Visualization (DTAV) Facility
ORION PROJECT OFFICE

PI – Kendra Daly
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ORION National Education Manager + staff

DTAV

EPAC

ECCO

Data Translation And Visualization (DATV) National level issues

Common elements

Education and Communications Coordination Office (ECCO)
National level issues

NSF

Ocean Research Interactive Observatory Networks
Proposed National ORION Education Structure

- National Education Manager (in ORION Project Office)
- Education and Communications Coordination Office (ECCO)
- Data Translation and Visualization (DTAV) Facility
- Observatory-based educators and data translators/visualizers
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