

Mid Atlantic COSEE

Observatory Scientist Survey
2004

Report – Summary
April 2004

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Report Summary

Overview

One of NSF's goals for funding the COSEEs was the bringing together of scientists and educators to benefit ocean sciences education. To gain a better understanding of how to tackle that goal, the Mid Atlantic COSEE conducted a needs assessment of our target scientist audience – scientists working on ocean observing systems. The needs assessment was to help us understand the scientists' involvement in and needs regarding public education (which we defined as including education and outreach efforts for K through 12 teachers and students, the general public, community groups, and coastal managers and decision makers).

During December 2003 and January 2004 we conducted an online survey of observatory scientists participating in the 2004 ORION conference. Of the 318 participants (of whom approximately 238 were scientists) sent an email inviting them to respond to the online survey, 131 responded. Of the respondents, we are reporting results from the 80 who identified themselves as scientists and/or researchers.

Results

Overall, observatory scientists were positive about their role in public education. The majority of respondents (81%) felt that it was important for them to get involved. Most (70%) are involved in it in some form even though only about half (55%) stated that they are required by funding to do so. Between 62% and 65% of respondents stated that they needed help on how to work with teachers and the public, respectively.

Some survey highlights are:

- Respondents stated that the greatest public benefits to having them involved in public education are that scientists can present the benefits and relevance of research (26%), focus awareness on environmental issues (26%), serve as models for teachers and motivators for children (25%) and increase public understanding, awareness and appreciation of science (about 22%).
- The greatest barriers to getting involved in public education are lack of time (stated by 43%) and lack of financial support (stated by 34%).
- Of the 70% of respondents who are currently involved in public education, they are involved primarily by contributing to websites (71%), working with science educators on programs/materials for K-12 teachers (35%) or for the public (29%), making presentations to K-12 students in the classroom or the public at community meetings (33%). Some involve the public in their research: 20% involve the public/coastal managers and 14% involve K to 12 teachers/students.
- 66% of respondents stated that it was important for them to work directly with teachers, K to 12 students and/or the public.
- When asked if they had someone on staff dedicated to public education and/or outreach, 48% stated no. Of the 40% who stated yes, 30% indicated that the staff person was full time.

- 44% of respondents indicated that they have institution/agency support to get involved in public education; 31% indicated that they do not have such support. The remainder were unsure.
- When asked how they might involve K to 12 schools or the public in their research, the top responses were websites or web products (23%) and inviting them on sampling trips or cruises (20%).
- When asked what assistance they needed to get more involved or do a better job at public education, the number one response was more funding (stated by 41%). Funding would enable them to spend more time (20%) or dedicate staff (14%) to education.
- 58% of respondents indicated that they were aware of COSEE; 39% stated they were not.

Recommendations

(Note: We're using the term "public" below as shorthand for K through 12 teachers and students, the general public, community groups, and coastal managers and decision makers.)

- Continue to encourage and support observatory scientists' involvement in public education – they believe in its value.
- Reduce barriers to observatory scientists' involvement by assisting with financial support, but also by working with institutions/agencies to gain widespread acknowledgment and support for scientists' role in public education.
- Continue to encourage and support partnership opportunities between observatory scientists and science educators/education specialists who work with schools and the public.
- Refine the *Scientist Connection* primer on the MA COSEE website (www.macosee.net) to reflect the current practices of observatory scientists involved in public education and to encourage greater levels of involvement. Then, evaluate and refine the primer to make it more useful to observatory scientists.
- Assist observatory scientists with information and training on best practices for developing and delivering websites/web products so they can improve what they currently offer the public via the web.
- Assist observatory scientists in their public education role by helping them to engage and interact with the public (in addition to talking to the public as most said they currently do).
- Work with observatory scientists who have successfully engaged the public in their research to develop a "how to" primer and offer training or mentoring to encourage more scientists to involve the public in research.
- Promote the need for observatory scientists to be involved in teacher professional development/ training (only 20% stated they were involved and 10% stated that it was a good way to involve them). Assist with information and/or training regarding best practices for involving scientists in such teacher training.
- Develop venues for observatory scientists where they can showcase what they believe are the greatest benefits of being involved in public education, those are

primarily, conveying the benefits/relevance of their research, awareness of environmental issues, and as models for teachers and motivators for students.