A successful model for community-based mentoring in physical oceanography

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MPOWIR (Mentoring Physical Oceanography Women to Increase Retention)

BACKGROUND

• MPOWIR (Mentoring Physical Oceanography Women to Increase Retention) is a community-based program that provides essential mentoring to physical oceanographers from late graduate school through their early careers.

• Women have been graduating from physical oceanography programs in increasing numbers while the number of women occupying senior positions in the field remains low (Figure 1).

• Studies indicate that a positive mentoring experience is strongly correlated with retention in science (Nelson, 2002).

• MPOWIR was developed at a workshop attended by 29 physical oceanographers in October, 2005 (Lozier et al., 2006). The program provides a variety of resources to junior scientists including web-based mentoring and a conference for face-to-face networking. Statistics are continually collected to evaluate the success of our effort.

WEB-BASED MENTORING

• Because MPOWIR is focused on community-wide mentoring among individuals that are geographically separated, many MPOWIR programs are web-based.

• The MPOWIR website (http://www.mpowir.org) serves to heighten community awareness of issues that impact retention, link early-career scientists with potential mentors, provide resources, and facilitate conversations.

• The MPOWIR blog is updated several times each month with relevant articles, career advice, job postings, and information about MPOWIR events.

Figure 1. The disparity between the percentages of women at various career stages seems to be related to the retention of those completing graduate school, not in recruiting women to the field. Data is from NSF (2004) and Holmes O’Connell (2003).

PATTULLO CONFERENCE

• The first Pattullo Conference (named for June Pattullo, the first woman to receive a U.S. PhD in physical oceanography) was held May 19-21, 2008 in Charleston, SC and the second bi-annual conference will be May 23-26, 2010.

• Conference goals:
  • to bring junior women together with senior scientists to exchange research ideas and career experiences,
  • to build community networks with peers and senior scientists,
  • to build confidence and skills for promoting one’s science and research,
  • to raise awareness of issues confronting junior women among the senior scientist community.

• In 2008, 23 junior scientists and 15 senior scientists from across the country attended. Approximately 50 people will participate this year.

• Several senior scientists from outside physical oceanography will be invited to the 2010 Pattullo Conference. At the conference, we will discuss ways to export our effort to other disciplines.

COMMUNITY MENTORING

• Mentoring groups comprised of 6 junior scientists and 2 senior facilitators meet monthly for conference calls to discuss ideas and concerns. Five mentor groups (31 total junior participants) are currently enrolled, combining both Pattullo attendees and other individuals who have expressed interest. The mentor groups are intended to support both peer and traditional mentoring on a smaller more intimate basis.

• MPOWIR sponsors AGU/Ocean Sciences socials and town hall meetings to enhance the sense of community within physical oceanography. These events highlight early-career issues and allow young scientists to network with individuals outside of their own institutions.

• The NASA MPOWIR Speaker Series and the NOAA MPOWIR Internship give junior women the opportunity to learn about the research at government labs while promoting their own science. Each year, four junior participants are selected to speak at NASA or complete a 10 week paid internship at a NOAA lab.

STATISTICS

• A comprehensive survey was administered to physical oceanography graduate students in the fall of 2007 and 2008 for the purpose of assessing mentoring needs in the community. In order to track changes in time and improve upon statistical significance, this survey will be given to physical oceanography graduate students each fall (Figure 2).

• MPOWIR actively maintains a database with historical and current data gathered from institutions on the number of graduate students entering and graduating from physical oceanography departments each year.

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REFERENCES


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