

The Pattullo Conference: Building Community Through Mentoring

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“CAN I REALLY DO THIS?!”

Enthusiasm and doubt surrounded the junior women at the opening reception of the Pattullo Conference. As in other science and engineering fields, real and perceived challenges prevent many women from continuing careers in physical oceanography after graduate school, and we were gathered with senior scientists in the field to debunk the myths surrounding academic careers and help junior women understand the real challenges. Topics at the conference ranged from balancing work and family life to successfully funding research proposals. In this article, we—junior scientist attendees—share some of our personal revelations, surprises, and perspectives about women in physical oceanography gained from this conference. We hope this article will provide insight into the benefits of a gender-specific mentoring event such as the Pattullo Conference, inform senior scientists about what they can do to strengthen the field for junior scientists, and provide guidance to our peers in all geosciences about their chosen careers.

Why is the physical oceanography community concerned with retaining women in the field? Since June Pattullo,

the number of women obtaining PhDs in physical oceanography has dramatically increased. However, as in other science and engineering fields, the balance of female principal investigators does not reflect this increase. The problem does not seem to lie in recruiting women into the field, but rather in retaining those trained in physical oceanography. The barriers to success for women are varied. Many have historical and cultural roots that are hard to quantify. They include the demands of combining a family with a career, complications associated with dual-career couples, real and perceived sexism, and inadequate mentoring. The MPOWIR program seeks to improve the success of women in physical oceanography by providing early career resources and mentoring opportunities.

Recent studies consistently show that one indicator of an individual's success in science is whether or not that individual has a mentor or mentors (see *Women Scientists in Industry – A Winning Formula for Companies*, 1999). Several scientists at the Pattullo Conference relayed experiences where a seemingly small gesture by an individual played a significant role in determining

where they are today. At the Pattullo Conference, the junior scientists identified four types of mentors most significant to their success:

- Advisor: A mentor who provides scientific knowledge and helpful career tips
- Promoter: A mentor who opens doors and creates opportunities, such as introductions to colleagues and inclusion on grant proposals
- Guide: A mentor who knows your strengths and weaknesses and can encourage you based on their personal knowledge

The idea of multiple mentors was stressed several times: a single individual (e.g., one's advisor) does not need to advise, promote, guide, *and* be a role model. Rather, multiple people through different stages in our careers can fill these roles (Olmstead, 1993; Nelson, 2003). Additionally, the presence of one woman in an academic department does not guarantee that she will be an appropriate role model for all the junior women at an institution

(Handelsman et al., 2005). The Pattullo Conference offered an opportunity to engage in mentoring relationships with numerous senior and junior scientists from many institutions. As junior scientists, it is our responsibility to seek out, recognize, and nurture potential mentoring relationships.

During sessions at the Pattullo Conference, we were able to build mentoring relationships by sharing our research and discussing retention issues openly. The focus on professional development provided essential skills and built self-confidence. In terms of career preparation, the junior scientists were highly interested in the hiring process, negotiation, funding their own research programs, and how to successfully navigate the transitional postdoctoral years. Time and again, we heard the key to mastering the hiring process is preparation: applicants should maintain current Web sites with up-to-

role of mentors is particularly important in this area, as they have the means to guide junior scientists in preparation and completion of successful grant proposals.

At the conclusion of the Pattullo Conference, the junior scientists concurred that they felt more confident about their futures in physical oceanography. The conference provided an environment where junior scientists could voice their concerns, learn from others' experiences, and build scientific connections with both their junior counterparts and senior researchers from outside their home institutions. The key advice was to do good science, believe in yourself, and be proactive in seeking the advice and mentors you need. Continuing the work begun at the conference, MPOWIR is initiating mentoring groups with periodic mentoring conference calls and e-mails, and is organizing informal get-togethers at research conferences.

This community mentoring benefits

thinking, learning, or teaching that may or may not split along gender lines will ultimately strengthen the field of oceanography and all STEM (science, technology, engineering, and mathematics) fields. The Pattullo Conference is a first step toward continually improving the field of physical oceanography through innovation and diversity, and we hope that other disciplines will adopt a similar program for community mentoring. ☒

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date CVs and links to their publications. It is also important to clearly lay out future research directions and teaching interests. Another question on several of the women's minds was how to start their own research programs. Excellent presentations by federal agency physical oceanography program managers highlighted sources for grant funds. The

everyone by framing a path for success and initiating a network of support for all facets of a balanced life and career in science. In her presentation at the conference, Donna Garcia (University of Western Ontario) pointed to the fact that “diversity breeds creativity”—a diverse work force improves group problem solving (Milem, 2003). Different styles of