

Jumping into the policy puddle



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When it comes to the question of whether scientists should get involved in policy, there are three camps of thought: those who prefer to keep their feet dry, those who put on waders and tentatively cross the puddle, and those who jump right in. I urge graduate students to at least get their feet wet. Gaining some experience in policy will give you a better understanding of how to make your research relevant to the public and how to communicate why a particular issue is important. It will also provide you with a greater appreciation for the policy process.

As graduate students, we are trained to communicate with our peers, by publishing in scientific journals and presenting talks and posters at professional conferences. Emphasis should also be placed on conveying research to non-scientists. As seen in previous *Fresh Perspectives* articles, students are becoming increasingly involved in outreach and education activities (Morgan *et al.* 2008). Yet, there appears to be a knowledge gap when it comes to interacting with elected officials. Most of the faculty I interact with regularly have never met with their local, state, or federal legislators to discuss science-related policy issues, and although my sample size is small ($n = 15$), I suspect it is representative of the wider academic community. This apparent reluctance among faculty to communicate with legislators may be passed along to graduate students, who might then miss out on potential professional development opportunities, particularly if they are interested in a career outside of academia.

Much debate surrounds the appropriate role of scientists in shaping public policy. The spectrum of opinion ranges from presenting the results of a scientific study without interpretation to using study findings to advocate a specific stance on a proposed law. My intent is not to expound on the “appropriate” role of scientists in policy. This is a personal and professional decision, and there are many articles that explain the advantages and disadvantages of each approach (Blockstein 2002; Pielke 2007; Scott *et al.* 2008; see also the special sections in *Conservation Biology* 21:1 and *Frontiers* 1:1). One reason academic researchers may be reluctant to engage policy makers is the worry that participating in any kind of policy activity may tarnish their perceived objectivity. To ease this worry, Nadine Lynn, director of the Public Affairs Office at the Ecological Society of

America (ESA), reminds students that Members of Congress frequently complain that they do not hear from scientists. She points out that, “being a ‘citizen scientist’ is not only exercising your civil right, it is one of the only ways to be heard on issues ranging from research funding to environmental concerns”.

Navigating the political landscape can be daunting and requires a fair amount of insider knowledge (WebPanel 1). To avoid making your first policy experience too overwhelming, you can work with an organization whose message you support or with a scientific society (WebPanel 2). For example, I participated in a coalition to promote increased federal support for biological research, organized jointly by the American Institute of Biological Sciences and ESA. We attended a briefing on how to deliver our message and received information packets containing important statistics that were relevant to our argument; finally, the coalition arranged for us to meet with the legislators (or, more often, their aides) in Washington, DC. There are also numerous opportunities to discuss science policy with your legislators closer to home. For example, you can participate in legislative visit days with your state or local government representatives, or meet with your federal legislators in their local offices.

Accept that your first policy experience may be intimidating. The first time you meet with legislators, you will probably fumble a bit – that’s okay. They do not expect you to be polished and perfect. They are meeting with you because (1) you are their constituent and you have a right to be heard, and (2) you are a skilled scientist and can provide expertise and insight. Ron Sutherland, a doctoral candidate at Duke University, is an active participant in policy activities. He feels that “talking directly to [one’s] legislators, while nerve-racking, has a greater impact than writing, calling, or emailing”. His years participating in legislative visit days with the Land for Tomorrow Coalition in North Carolina have paid off; the state has approved tens of millions of dollars to support conservation trust funds.

I initially participated in legislative visits simply because I supported the proposed legislation and thought it would be a good experience, but in fact I loved it! It was rewarding to use my scientific skills in a way that could inform decision making in a fast-paced political environment. However, even if your first policy experience is less than inspiring, you will still learn a great deal about the process. For example, Yiwei Wang, a graduate student at the University of California – Santa Cruz, said that her recent visit to her representatives “put into perspective how many issues they have to juggle and really drives home the point that you

have to make your voice heard if you want your concerns to be addressed". By talking to legislators, you can learn the factors that lead them to support or oppose a particular policy, and adjust your arguments accordingly. Furthermore, you might identify much-needed areas of research, which could inspire future projects. It is ultimately the responsibility of legislators to sift through the available information to form policy, but they are less likely to consider the science if scientists do not get their feet wet and engage in the policy-making process.

Faculty response



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Now, more than ever, we need ecologists to be engaged with public policy. The amount of, and access to, available information are increasing exponentially; environmental issues are potentially more cataclysmic, yet are more subtle and exist at a scale that is hard for the public to relate to. The pace of change is increasing, whether it be rising atmospheric CO₂ levels or human population growth, and interest groups with views from opposing sides of an environmental issue are using science to support their policy position. Given these challenging circumstances, what can students and early career ecologists do to help save society from environmental ruin? And how do ecologists take this step without sacrificing their career goals?

First students and early career ecologists need to understand the tradeoffs before getting involved in the policy arena. It takes time and energy to become an accomplished scientist, whose research is accepted by one's peers. Making the ecologist's life even more challenging is the complexity of today's environmental problems, which demand multidisciplinary solutions. So, an ecologist needs to be conversant not only with the various subdisciplines of ecology, but also with the social and physical sciences, and with various professions (eg engineering). You quickly realize that one ecologist cannot do it all! As a student, then, you will constantly need to make decisions about how to allo-

cate your time and energy, including whether to take the plunge.

Once involved in policy, how does an ecologist remain a respected member of the ecological science community? The answer lies largely in the community itself, and perhaps we need look no further than at one group of organisms that ecologists study – the social insects. Members of their "society" play specialized roles, to ensure the fitness of the entire group. Similarly, the ecological community should recognize and support those individuals who choose, for however long, to get involved in the legislative process, since the community as a whole will benefit.

In addition to Leidner's excellent tips on interacting with legislators, I present some overall advice for individual ecologists who wish to take the plunge (and I hope there are many!): (1) be strategic and think long term; you have a lifetime to achieve career goals as well as to get involved with public policy; (2) develop and maintain personal relationships with users of scientific knowledge – they will be more willing to trust information from people they know; (3) get involved locally – local issues are the easiest for ecologists to focus on when they interact with policy makers; (4) help a teacher – there is a multiplicative effect through students and their parents; (5) develop both your IQ and EQ (Emotional Quotient), as well as your knowledge of the political process; and (6) try not to conflate advocacy with science. And may the ecological science community be with you as you set off down this important path!

References

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