Conservation Biology

Editorial

Roles for scientific societies to engage with conservation policy

Science and decision making can influence one another at several stages in the policy process. Scientists raise new issues for policy makers, policy needs shape research programs, scientific knowledge informs policy decisions, or research results are used to support or challenge established policies (Rudd 2011). Institutional arrangements that facilitate the integration of science and decision making include training and professional exchanges for individual scientists and conservation practitioners (Jenkins et al. 2012), formal linkages between research and management institutions (Cook et al. 2013), and boundary organizations that specialize in the science–policy interface (Bednarek et al. 2015). Careful consideration of how best to integrate science and policy is especially important given the current political climate, in which the role of science in public discourse is hotly debated around the world (Carroll et al. 2017).

Integrating science and policy is critical for achieving the goals of many nongovernmental organizations, the Society for Conservation Biology (SCB) in particular. Similar to other scientific societies (Jasanoff et al. 1997; Kissling-Naf 2009; Palmer 2012), SCB is considering the organizational structure, staff, and member services needed to meet its strategic goal to increase the application of science to policy and natural resource management. To support its planning, the society engaged an independent consultant (S.L.T.) to conduct a strategic analysis of SCB's future engagement in global conservation policy (Thomas 2016). This analysis involved conducting semistructured interviews of 28 conservation policy experts from around the globe, representing a variety of institutions and including several past and current SCB leaders, as well as outside experts. In response to open-ended questions, interviewees identified one or more possible roles (policy advocate, science broker, science networker, thought leader) for SCB to engage in conservation policy, roles that are relevant for other professional societies aiming to advance evidenced-based decision making.

Policy Advocate

Although acknowledging that the role of conservation scientists in policy advocacy has provoked considerable debate (Scott & Rachlow 2011), for the purposes of this analysis, we defined *advocacy* as efforts to directly influence the content of laws, regulations, guidelines, and other policies (Garrard et al. 2016). For a scientific society, engaging in policy advocacy could include hiring staff to represent the organization at decision-making fora (e.g., CBD, CITES), creating position statements, or lobbying decision makers for specific commitments, priorities, or policies. Few interview respondents (18%) favored a global conservation policy advocacy role for an organization like SCB and a majority (53%) opposed it, citing concerns that international fora and conventions are well attended and participation of another group would add limited value; lobbying could undermine a scientific society's credibility; and effective policy advocacy requires substantial and sustained resources.

Science Broker

Science brokers facilitate the transfer of scientific data and technical expertise and serve as intermediaries between research and policy institutions (Meyer 2010). The ultimate goal is not necessarily to change policy, but to ensure that the content of regulations, rules, and guidelines are informed by relevant and timely scientific knowledge. In a science broker role, society staff would participate directly on technical advisory boards while drawing on the expertise of member scientists. Or, staff could contribute and interpret scientific evidence for environmental organizations that undertake policy advocacy. A strong minority (39%) of interview respondents encouraged a science broker role for SCB, believing that it could allow a scientific society to leverage other organizations' infrastructure to inform conservation policy. However, they cautioned that having centralized staff could limit and bias the range of conservation policy discussions in which a society engages.

Science Networker

In a science networker role, a scientific society would build the capacity, connections, and efficacy of individual member scientists to engage in policy processes (Jenkins

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et al. 2012; Cook et al. 2013). Society staff could alert members to policy discussions, coordinate training and networking events, and provide behind-the-scenes logistical support to give individual scientists the skills, resources, and professional networks to participate effectively in informing conservation policy. For example, capacity building might entail policy training similar to that currently offered by the Smith Conservation Research Fellowship program and other organizations that have adopted a networker role (e.g., American Geophysical Union [Pandya et al. 2013]). The greatest proportion of interview respondents (67%) favored a science networker role for SCB, although several interviewees maintained that a scientific society could encounter challenges in this role due to scientists' existing professional commitments and the need for staff to track policy issues across a variety of locations and scales.

Thought Leader

A thought leader role consists of raising key conservation issues and making the scientific case for addressing them in a policy setting (Sutherland et al. 2017). For example, scientific society staff could work with editors and conference organizers to create dedicated journal issues, policy briefs, or high-profile symposia to focus attention on key conservation topics, summarize scientific evidence, and evaluate policy alternatives. A minority of interview respondents (28%) recommended that SCB should undertake this role, arguing that it leverages a society's scientific reputation and its members' expertise.

As SCB implements its new strategic plan, we recommend that the global society invest in the science networker role. Successfully adopting this role will require dedicated staff and considerable time and funding (Bednarek et al. 2015). However, interviewees argued that a science networker role was the most strategic use of SCB's strengths and existing resources, and in a recent survey, SCB members expressed strong support for building capacity to inform policy and resource management (McKinley Advisors 2015). The American Geophysical Union's Thriving Earth Exchange provides an encouraging example of a scientific society that has adopted a networker role (Pandya et al. 2013); the program's web platform connects communities posing scientific challenges to scientists offering potential solutions and sponsors willing to invest in implementing those solutions. Moreover, the bottom-up nature of the science-networker role acknowledges the organizational structure and autonomy of SCB's regional sections, local chapters, and topical working groups to pursue different roles depending on circumstances and scales of policy engagement, as many already do. Finally, building the capacity and supporting the engagement of member scientists in a networker role provides a foundation for a scientific society's future success in other conservation policy roles.

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