"Barriers to informing sound biodiversity policy with sound biodiversity science"

Short title: "Barriers to sound biodiversity policy"

Monday, May 13, 1315-1645, CSEE Annual General Meeting

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## **Synopsis and Rationale:**

Science provides the foundation for credible decision-making, both by characterizing problems and in informing the manner in which they are addressed. Transparent, sound, and publically available science advice can enable policy-makers to both make good decisions and to be seen doing so. In the field of environmental management, timely and defensible decisions are required now, both along Canada's southern border and coastlines, where development pressure is intense, and in northern parts of the country where climate is changing rapidly and development is accelerating.

Our symposium will focus on current challenges in bringing the best available scientific knowledge to bear on Canadian law and policy decisions about the conservation of biodiversity. The timing for such a discussion is particularly salient given the recent changes to federal and provincial legislation and the charge that new federal policies on access to scientific information are akin to muzzling. We will explore four key challenges to the integrity and transparency of biodiversity-related science advice in Canada: how the existence or structure of current laws affects the integrity or role of science advice; how government policy affects proper dissemination and use of science advice; the role of media and public engagement in the process; and how approaches to implementing laws that require science advice affect the integrity of the advice. We will look to case studies from federal and provincial law/policy. Though novel territory for many in environmental science, there is interest, and active engagement at the policy level is required now more than ever.

## Schedule:

This symposium will be in a half-day format, scheduled with time for an extended discussion, and a dinner afterwards for participants.

1. How do government policy and decisions about capacity/resourcing affect the integrity of science advice?

Time: 1:15pm-1:45pm

Speaker: Gordon McBean (Depts Geography and Political Science, U Western Ontario)

Abstract: "Research Integrity for Better Public Policy"

It is argued that research integrity should be the basis for transparent, sound, and publically available science advice as input to public policy. Synonyms for integrity are truthfulness, honesty, openness and reliability. The free and responsible practice of science is fundamental to scientific advancement and human and environmental well-being. Part of the scientific basis for policy making needs to be communication to the public so they can play a constructive role in policy making. This presentation will review the evolution of the science-policy interface in Canada by examining the longitudinal change since the 1980's and making a lateral comparison of Canada with the US, UK and others. The presentation will draw some conclusions, based on the presenter's experience, how we can address present deficiencies.

2. How can we maximize the integrity of science advice for biodiversity law and policy decisions in Canada?

Time: 1:45pm-2:10pm

Speaker: Jeff Hutchings (Dalhousie University)

Title: "Yes, Minister!": Communication of Science to Decision-Makers and Society"

Science plays an integral role in decision-making, as recognized by decade-old federal government policy and enlightened countries worldwide. Evidence suggests that this role has been fundamentally altered in Canada. Relevant examples include weakening of environmental legislation, dismantling of science capacity, censorship of government scientists, and misrepresentation of science by decision-makers to society. Based on personal experience with environmental, fisheries, and species-at-risk laws and policies, I focus on elements integral to the effective use of science by decision-makers and to the utility of science to society: credibility; peer review; communication; and transparency. Scientific integrity will be further discussed within the context of the Values and Ethics Code for federal government scientists that demands and prioritizes loyalty and accountability to government ministers. A key question that arises is whether this model is one that best serves parliament and society.

3. How does the public's access to government science affect biodiversity policy decisions?

Time: 2:10pm-2:35pm

Speaker: Mike De Souza (Postmedia News)

Title: (to be finalized) "The Federal Government's Approach to Science and the Media: Implications for Scientists and Society".

This talk will explore the availability of government science and scientists to the media, the

effect on the media of reduced integrity of public service science, and the role of the media in maintaining the integrity of public service science.

## 4. How do the existence and structure of laws affect the integrity of science advice?

Time: 3:00pm-3:25pm

Speaker: Mark Haddock (Faculty of Law, University of Victoria)

Title: "Conservation Biology Meets the Law: Lessons from the Recent Past"

Scientists sometimes think of law as extraneous, tangential or even irrelevant to the objectives of science. Law and science are distinct endeavours, but conservation biology itself loses its relevance if it does not lead to actions that maintain biological diversity and recover species at risk. Advances in conservation biology over the last two decades have taken place in a social and legal context that has a strong bias towards the status quo contractual rights of resource extraction industries. Positive change therefore requires laws that incorporate science in a meaningful way. This presentation will survey some recent lessons from the regulation of forest practices, fisheries and wildlife, and argue that scientists need to be meaningfully engaged in the law-making process.

## 5. How does the manner in which law is implemented affect the integrity of science advice?

Time: 3:25pm-3:50pm

Speaker: Justina Ray (Wildlife Conservation Society Canada)

Title: "Maintaining scientific integrity throughout the process of implementing environmental laws and policies"

It is the oft-stated desire of both members of the public and decision-makers that policies designed to address modern environmental problems be scientifically grounded ("science-" or "evidence-based"). Accordingly, specific provisions are often incorporated in legislation that define where and how science input is required. However, even when designed to do so, the actual impact that science has on policy decisions is, in practice, highly variable. One fundamental challenge relates to the extent to which decision-making structures are built to separate scientific advice from political negotiations and how the various considerations are ultimately "balanced". But where such separation is achieved, variable approaches to implementation can affect the degree to which scientific considerations actually inform or influence outcomes. Drawing from personal experience, particularly with provincial and

federal species-at-risk legislation, I will explore the ways legislative and policy provisions intended to incorporate science advice can be implemented to preserve or, alternately,

compromise, the integrity of scientific advice, often in unanticipated ways.

6. Response

Time: 3:50pm-4:15pm

**Speaker: David Schindler (University of Alberta)** 

7. Moderated Discussion: Arne Mooers

Time: 4:10pm-4:45pm

The role of scientists in affecting the integrity of science advice in law and policy decisions

about biodiversity conservation.