



Introduction

Project title: Identifying uncertainty in conservation decision-making

We are asking you to complete this survey because you work in the field of conservation in Canada. This survey is being conducted by Dr. Courtney Robichaud (courtney.robichaud@carleton.ca) of the Carleton University Department of Biology working with Professor Joe Bennett (joseph.bennett@carleton.ca).

The aim of this study is to better understand the major sources of uncertainty encountered by conservation professionals when making or contributing to decisions around conservation choices in their professional capacity.

Summary:

We estimate that the survey will take about **10 minutes** to complete. Your participation in this survey is voluntary, and you may choose not to take part, or not to answer any of the questions. If you decide to withdraw after you submit the survey, we will remove your responses from survey data if you notify the researcher within **14 days of survey completion**. Upon completion of the survey, you will be given a unique numerical code that you can use to withdraw your responses.

Confidentiality and Data Storage:

The survey responses will be anonymized, though indirectly identifying information will be collected. We will treat your survey responses as confidential, although absolute privacy cannot be guaranteed. No information that discloses your identity will be released or published without your specific consent. Research records may be accessed by the Carleton University Research Ethics Board in order to ensure continuing ethics compliance. The results of this study may be published in the future. In this instance, the data will be aggregated so that it is not possible to identify any respondents. All research data will be password protected and stored on Qualtrics servers.

Carleton University Project Clearance

Clearance #: 117672

Date of Clearance:

REB Review and Contact Information:

This project was reviewed and cleared by the Carleton University Research Ethics Board. If you have any ethical concerns with the study, please contact the Carleton University Research Ethics Board by phone at 613-520-2600 ext. 4085 or by email at ethics@carleton.ca.

By completing the online survey, you are agreeing to participate in the study.

I voluntarily agree to take part in this study.

Yes

No

Throughout the survey, we will refer to "uncertainty" and "conservation decisions" or "decision-making". Please refer to these definitions when answering these questions. You can hover over the **orange text** during the survey to see these definitions.

Certainty: confident that something is known well enough to justify an action.

Uncertainty: not confident that something is known well enough to justify an action.

Conservation decision-making: For our purposes, we define conservation decision-making as the process of choosing a management action that aims to sustain, enhance, or otherwise positively impact biodiversity conservation

The survey can be completed on mobile but is optimized for web browsers. You can pause your survey responses for up to one week and return to the point where you left off.

Open-ended

Thinking about the **decisions** you make, or help make, about conservation in a professional capacity, what are the major sources of **uncertainty** you experience? Uncertainty can come from multiple sources, such as the natural world, or social and political processes.

Please enter your sources of uncertainty below and rank them, with one (1) being the **most** significant source of uncertainty and **five** (5) being the least significant source of uncertainty.

There are five options, but you do not have to use all five. Try to be as clear as possible in your answers.

Source

Source

Source

Source

Source

Individual's Capacity

What are the most common types of **decisions** about conservation you make or take part in as a professional? (For example, Where to locate a protected area; What type of mitigation methods are needed for a given development activity; The extent of community engagement needed on a project).

Briefly, what mandate(s), legislation, or goal(s) guides the decisions you make, or take part in making, as a professional?

Do you use any decision-support tools in your professional capacity?

Yes

No

Are these decision-support tools institutionally approved or created?

Yes

No

What are the tools that you use?

What is your typical level of decision-making autonomy in your professional role? Please answer to the best of your ability.

One (1) would be "no autonomy - not involved in the decision-making process" and five (5) would be "full autonomy - can make decisions without permission or approval".

- 1
- 2
- 3
- 4
- 5

☐
☐
☐
☐
☐

In my opinion, **decision**-making at my workplace is

	Never	Sometimes	About half the time	Most of the time	Always
Collaborative within my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaborative outside my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In my professional capacity, I experience **uncertainty** when

	Always	Most of the time	About half the time	Sometim
Making long-term decisions (e.g., > 3 years)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making short-term decisions (e.g., < = 3 years)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making decisions with people outside my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making decisions with people within my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Perception of prevalence

Thinking about a typical conservation **decision** you make as a professional, please indicate how **often** you experience the following types of **uncertainty**.

I experience uncertainty when considering

	Always	Most of the time
The environment (e.g., any physical or ecological aspect of a system)	<input type="radio"/>	<input type="radio"/>
The evidence (e.g., existing knowledge on an intervention or management strategy)	<input type="radio"/>	<input type="radio"/>
The actions or decisions of teammates, and/or colleagues	<input type="radio"/>	<input type="radio"/>
The actions or decisions of leaders of my agency or organization	<input type="radio"/>	<input type="radio"/>
The actions or decisions of elected leaders	<input type="radio"/>	<input type="radio"/>
The actions or decisions of stakeholders or rightsholders.	<input type="radio"/>	<input type="radio"/>
Funding (e.g., availability and timelines)	<input type="radio"/>	<input type="radio"/>



Perception of impact

Thinking about a typical conservation decision you make as a professional, please indicate how these same uncertainty categories **impact** your ability to make decisions.

The following sources of **uncertainty** impact my decisions

	Strongly agree	Agree
The environment (e.g., any physical or ecological aspect of a system)	<input type="radio"/>	<input type="radio"/>
The evidence (e.g., existing knowledge on an intervention or management strategy)	<input type="radio"/>	<input type="radio"/>
The actions or decisions of teammates, and/or colleagues	<input type="radio"/>	<input type="radio"/>
The actions or decisions of leaders of my agency or organization	<input type="radio"/>	<input type="radio"/>
The actions or decisions of elected leaders	<input type="radio"/>	<input type="radio"/>
The actions or decisions of stakeholders or rightsholders.	<input type="radio"/>	<input type="radio"/>
Funding (e.g., availability and timelines)	<input type="radio"/>	<input type="radio"/>



Solutions

In your opinion, what actions or changes would reduce the degree of **uncertainty** you experience in your conservation **decision-making** process?

Demographics

Which organization do you work with?

Canadian federal government agency

Canadian provincial or territorial government agency

Indigenous government

Municipal agency

Non-government agency (e.g., Nature Conservancy Canada, Ducks Unlimited Canada)

Conservation authority

Industry/private company

Other

How long have you worked with this organization?

Less than 1 year

1 - 2 years

3 - 5 years

5 - 10 years

over 10 years

☐
☐
☐
☐
☐

Do you have any formal training (e.g., academic course work, graduate thesis, professional development) in decision support and/or **uncertainty**?

Yes

No

Please briefly describe this training

What province or territory do you work in? Please choose all that apply.

Alberta
British Columbia
Manitoba
New Brunswick
Newfoundland and Labrador
Nova Scotia
Ontario
Prince Edward Island
Quebec
Saskatchewan
Northwest Territories
Nunavut
Yukon
Other

Is there anything else you would like to add?

Your unique ID is: \${e://Field/Unique%20ID}

Please copy this number. Once you have copied your ID, click "next" to finish the survey and record your responses.

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