Stakeholder Needs Assessment

10 YEAR SCIENCE AND PROGRAM REVIEW

Stakeholder Needs Assessment Workshop Summary

Academic Researchers

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Aurora Room, Lister Centre, University of Alberta

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1.0 Introduction

In 2017, the Alberta Biodiversity Monitoring Institute entered its 10th year of formal operations. Over the past decade, the ABMI has developed valuable baseline data on biodiversity and land cover to support natural resource management in Alberta. Initial decisions about the ABMI's scope and direction were based on stakeholder feedback gathered between 2002 and 2006—a time when Alberta lacked a comprehensive biodiversity monitoring program. Ten years later, as part of the ABMI 10-year Science and Program Review, a series of stakeholder needs assessment workshops are being run again to collect feedback on the performance of the Institute to date and gather input on a range of emerging initiatives. This stakeholder input will inform decision-making on ABMI operations going forward.

2.0 Background

To formally engage its stakeholders across a range of sectors, this past spring the ABMI launched a 10-year Science and Program Review. The Review has two components: 1) a Science Review to evaluate the Institute's scientific framework and the extent to which it has delivered on its initial scientific objectives; and 2) a Stakeholder Needs Assessment to evaluate the range of products and services provided by the ABMI and how they meet stakeholder needs. The Stakeholder Needs Assessment primarily comprises a series of facilitated workshops, with a survey administered before each.

The Science Review and Stakeholder Needs Assessment receive strategic oversight from the Science Expert Committee and Stakeholder Advisory Group, respectively. Each committee is responsible for assessing the results of their respective review processes and developing a final report, which is then submitted to the Steering Committee overseeing the whole process. The Steering Committee will submit recommendations to the Board of Directors by March 31, 2018. The Board of Directors will then assess and prioritize those recommendations to guide future operations.

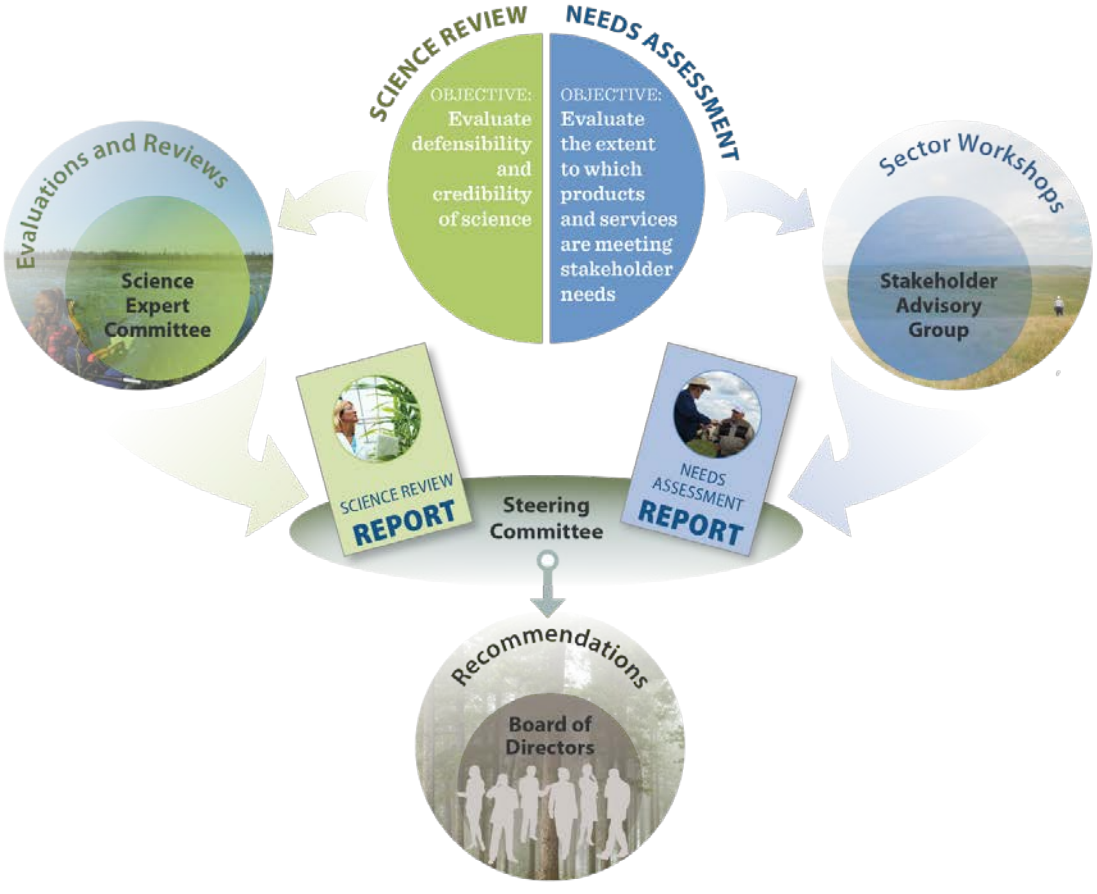

Figure 1 ABMI 10-year Science and Program Review process visualization

3.0 Stakeholder Needs Assessment workshops

As a first step in developing the stakeholder needs assessment workshops, the ABMI identified various stakeholder groups to engage. These include groups with a historical relationship with the ABMI, as well as additional groups that would likely be interested in using ABMI data to meet their own strategic priorities. Representatives of each of these stakeholder groups were invited to join the Stakeholder Advisory Group (SAG) that oversees the Stakeholder Needs Assessment process. In turn, the SAG membership nominated specific individuals to participate in the workshop process. In total, 10 facilitated workshops were held over the fall of 2017.

3.1 Workshop objectives

The objectives for the 10 facilitated workshops were to:

- assess the ABMI's range of products and services, and the extent to which they meet stakeholder needs;
- understand stakeholders' current and emerging biodiversity information needs; and
- solicit feedback on the ABMI's products under development and how they address stakeholders' needs.

The workshops were designed to assess the value and limitations of the ABMI's core monitoring program, as well as emerging ABMI products and services, and the extent to which they fulfill stakeholder biodiversity information needs now and into the future. The objectives were also partially achieved by distributing a pre-workshop survey with specific questions designed to assess the value and uptake by stakeholders of ABMI's core status and trend monitoring products (province-wide information on human footprint and land cover, and a range of data products, such as species abundance, species responses to human footprint, species habitat associations, and more, on hundreds of Alberta's plants and animals).

4.0 Workshop methods

This 4-hour session included:

- Part 1 – ABMI field protocols, and evaluation of data repeatability, accuracy and precision
- Part 2 – Facilitated question and answer period
- Part 3 – Leveraging ABMI data to meet research objectives
- Part 4 – Facilitated question and answer period

4.1 Who was there?

ABMI Stakeholder Needs Assessment workshops were targeted, sector-specific sessions. One of the goals of the workshops was to engage with as broad a cross-section of the sector as possible. This session's participants comprised 10 representatives from NAIT, the University of Calgary and the University of Alberta, although individuals from Mount Royal, SAIT and the University of Lethbridge were also invited.

4.2 What did the different sessions look like?

ABMI field protocols, and evaluation of data repeatability, accuracy and precision

There were six presentations delivered during the first module:

- *ABMI 101 and workshop objectives* – Tara Narwani
- *Field sampling protocols and techniques* – Jim Schieck
- *Comparing estimates of bird species trend between BBS and ABMI data* – Peter Solymos
- *Sampling plant diversity and rarity at landscape levels* – Scott Neilsen
- *ABMI geospatial data and product development* – Jahan Kariyeva
- *Data audit of ABMI geospatial products* – Carla Hutchings

The presentations were designed to provide a background and rationale for the ABMI's 10-Year Science and Program Review, a synopsis of the ABMI's core monitoring and science activities to date, and information about the accuracy and precision of its field monitoring activities.

A) Facilitated question and answer period

Following the presentations, participants were invited to contribute to a question and answer session. The ABMI posed the following questions to workshop participants:

- Could ABMI data be useful to support your research objectives?
- How can we enhance the uptake of ABMI data to support your work and research objectives?

Facilitators took notes to record information shared during the discussion.

B) Leveraging ABMI data to meet research objectives

Following lunch, participants were asked to gather for a series of presentations about leveraging ABMI data for publication purposes:

- *Introduction to ABMI derived products, and Data and Analytics Portal* – Tara Narwani
- *Using ABMI's camera data* – Dave Huggard
- *Boreal forest bird communities and climate change* – Erin Bayne
- *Use of unmanned aerial vehicles for monitoring recovery of forest vegetation on petroleum well sites* – Jennifer Hird
- *Tackling rarity and sample bias with large-scale biodiversity monitoring* – Diane Haughland

C) Facilitated question and answer period

Following the presentations, participants were invited to contribute to a question and answer session. The ABMI posed the following questions to workshop participants:

- Given what you've heard, are there ways you can think ABMI data can be incorporated into your research?
- How can we enhance the uptake of ABMI data to support your work and research objectives?

Facilitators recorded conversations during this session.

D) Workshop conclusion

For the final moments of the workshop, ABMI staff thanked participants for their engaged attendance. Facilitators announced that pre-workshop survey results and a workshop summary would be shared as soon as completed.

5.0 Workshop summary

Feedback from each of the participant activities was synthesized and evaluated to draw out common themes under the banners of “Needs” and “Challenges”.

In addition, feedback on new and emerging ABMI products was tabulated (see below).

5.1 Needs

The “Needs” identified during the workshop fell into two broad themes:

- Knowledge sharing
- Resources

The data that make up these themes have been provided in brief in Table 1 – Summary of Needs.

Knowledge sharing

There was some confusion about protocols of accessing, using and citing ABMI data for analysis. Participants expressed an interested in easier website navigation, and explicit data sharing agreements. At least one participant noted that it would not be enough to make the data easier to access, but that demonstrations of its use must also be shared, i.e. through blog posts, tutorials, workshops and testimonials. Participants suggested requesting research partners from different institutions to host testimonials in a module format. In addition, researchers requested the ABMI provide explicit lists of which species are omitted from data sets, and the reasons for their omissions.

Resources

Participants noted a significant incentive for researchers to use ABMI data is resources to support student research projects. Participants suggested seeking partnerships in terms of resources through internships, and exploring Mitacs funding opportunities as an industrial partner.

5.2 Challenges

Responses from participants lead to three themes for the challenges they are facing in meeting their biodiversity needs. These themes are:

- Language choice
- Changes over time
- Data

The data that make up these themes have been provided in brief in Table 2 – Summary of Challenges.

Language choice

One challenge identified to working with ABMI is the language used by ABMI when approaching researchers for partnerships, i.e. the word “collaboration” can create a barrier, and seemingly becomes closely aligned with “control.”

Changes over time

Workshop participants suggested that shifting protocols over time may impact the validity of trend analysis. In addition, participants expressed concern over changing nomenclature over time.

Data

Researchers were particularly concerned about the lack of access to complete ABMI data. Two subjects discussed in detail were access to GPS site locations, and ABMI's omission of certain observations from their data sets such as noxious weeds and rare species. Concern from the academic community is that those observations are extremely valuable in terms of publishable papers, and that with incomplete data sets their research may be rejected from journals.

6.0 Moving Forward

Throughout the session, our conversations highlighted areas where the ABMI can invest effort to continue to meet the needs of academic researchers in Alberta. Results of the workshop will be incorporated into the Stakeholder Needs Assessment Report, and used by the 10-year Review Steering Committee to develop a series of recommendations for the ABMI Board of Directors. The Board of Directors will use these recommendations to make decisions about ABMI operations going forward. Your feedback is invaluable in helping to shape the ABMI's next ten years of operations. Thank you.

Theme	Data
Knowledge Sharing	Standardize data access protocols; Develop data sharing agreements; Easy access to data; Easier website navigation; GPS coordinates of site locations; Information about data omissions; Examples of how data has been used for research in the past; Blogs, testimonials and workshops; "No strings attached" data access; Share taxonomic workbench developed by researchers.
Resources	Partnerships; Access to funding; Internships; Mitacs funding; ABMI Grants.

Table 1 Summary of needs

Theme	Data
Language Choice	The word "collaboration" suggests control; The word "partnership" is better.
Data	No access to GPS coordinates; Some noxious weeds and rare species are omitted from data sets; Data is difficult to access; ABMI data set is so large, it is hard to know where to start with analysis.
Changes Over Time	Shifting protocols with technological advancements; Changing nomenclature over time.

Table 2 Summary of challenges

Appendix 1 – Workshop notes

Appendix 2 – Workshop evaluation forms

Appendix 3 – Workshop presentations

Appendix 4 – Workshop information package