# Sessions on Responding to Ecological Transformation at NACCB 2024

**PRACTITIONER WORKSHOP: Monday, June 24**
**INTERACTIVE SESSION: Tuesday, June 25**

**Title**

Responding to ecological change and transformation – surprising failures and promising approaches

**Organizers**

Elizabeth Nelson, Parks Canada
Gregor Schuurman, National Park Service
Amanda Cravens, U.S. Geological Survey
Wylie Carr, National Park Service
Alex MacDonald, Parks Canada

**Summary of the sessions**

Driven by climate change, landscapes across the world are changing in substantial ways, including undergoing ecological transformation. This degree of change destabilizes a core assumption of natural resource management: that change in ecological systems fluctuates within predictable bounds (Milly et al. 2008) and that stewards can maintain ecosystems within those familiar bounds by managing for resilience (Schuurman et al. 2022). As natural systems change beyond their expected bounds, previously successful management strategies become less effective, or wholly ineffective (Williams et al. 2021). These sessions brought together a diversity of perspectives from more than 75 protected area practitioners, who explored common challenges in stewarding transforming ecosystems and identified opportunities for learning and collaboration.

These sessions focused on the following topics related to ecological change/transformation and how protected area practitioners are responding:

- What management challenges are we encountering? Which traditional management strategies have become less successful?
- What data, tools, resources, and approaches are we using?
- How are we monitoring and evaluating effectiveness and outcomes?
- What are the social, cultural, political, economic, and ethical considerations that we are confronting?
- What gaps in knowledge and tools remain, and what can we co-develop?

The sessions included a series of presentations followed by structured discussion in small groups. Discussions were captured on an online platform, building toward the following final outputs:

- a list of challenges;
- a list of potential tools and resources to meet those challenges; and
- a list of opportunities to collaborate.

Participants were encouraged to propose and "sign on" for collaborative projects they were interested in, and to share the online platform with others who may be interested. Six collaborations are now underway, and are summarized below. One collaboration has already influenced international discussions on conservation best practices, a second has led to a draft manuscript for a peer-reviewed publication, and a third has been incorporated into a grant proposal to support further work. Please reach out to Elizabeth Nelson (Elizabeth.Nelson@pc.gc.ca) if you would like to know more.

- Decision-science, structured decision making, and the Resist-Accept-Direct framework
    - Goal: Enable diverse strategies / RAD using decision tools
- RADical spatial planning
    - Goal: Integrate Resist-Accept-Direct framework with spatial planning tools, methods, and case studies
- Adaptation efficacy testing
    - Goal: Learn what is and is not working and share it
- An accessible landing point for adaptive management success stories
    - Goal: To share successes and failures in adaptive management in the face of unprecedented ecological change.
- Uniting conservation paleobiologists and conservation practitioners
    - Goal: Identify ways to collaborate to co-produce research questions and tools for clarifying deeper time responses to climate change
- Better integration of climate change adaptation into the Open Standards for the Practice of Conservation
    - Goal: explore the opportunity to use the Conservation Standards approach to develop effective (and innovative!) adaptation strategies.

Link to the online platform:

- https://padlet.com/PARKSCollective/responding-to-ecological-change-and-transformation-surprisin-q5kxyzsjaek6qge5