

Advancing Ecological Restoration in Canada: Setting the Agenda Workshop Report

May 30-31, 2022

Canadian Museum of Nature

Ottawa, Ontario



Acknowledgements

We met on the traditional, unceded territory of the Anishinābe Algonquin people whose relationships with the lands and waters stretches back thousands of years and continue to this day.

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Summary

The workshop was motivated by awareness that Canada's role in advancing restoration requires clarity and support. Over the past few decades, Canadians led the development of the first national-level principles and guidelines for ecological restoration in the world, incorporating restoration science and practice into protected areas management, hosted major international meetings, and played critical leadership roles in the International Society for Ecological Restoration. With the dawn of the UN Decade of Ecosystem Restoration, the question arose: *Has Canada lost momentum in expanding the science, practice, and policy of restoration? What can be done to regain and enhance a leading role?* The workshop brought together thirty specialists from government agencies, civil society organizations, industry, and universities to discuss what has been accomplished, where might we go, and how best to get there. There was unanimous agreement that a major push is needed to live up to the promise the UN Decade, and that over the next year focused effort will aim to increase capacity and effectiveness of the Canada's restoration leadership. Future outcomes should respect diversity in practice and honour and advance commitments to Indigenous reconciliation.

Recommended Actions to work towards the development of a Canadian strategy and action plan for the UN Decade on Ecosystem Restoration with a clear set of goals **for effective, efficient, engaging, and equitable** restoration that supports major new and existing commitments to nature-based solutions, climate change, biodiversity, and indigenous-led conservation.

1. Engage with existing federal-provincial-territorial (FPT) tables such as the Pathway to Canada Target 1 National Steering Committee and other similar fora will be important for advancing ecological restoration as a solution to the climate crisis and biodiversity loss and conservation through reconciliation.
2. Develop key messages around the need to develop a Canadian strategy and action plan for the UN Decade and share with workshop participants to use with FPT officials.
3. Establish an interim secretariat to manage and support this initiative and assess the feasibility of a Canadian Office for the UN Decade. Seek funding that will build strong and coherent support for expanded and effective restoration practice, secure Canada as a leader in restoration knowledge and learning and develop progressive guidance and policy. This concept could be seeded in the next Green Budget Coalition report.
4. Establish and mobilize a coalition of individuals and organizations from all relevant sectors, many of whom attended the workshop, to develop a campaign(s) to increase awareness, capacity, and effectiveness of restoration in Canada. There may be a need to tailor objectives, communications and actions to specific audience, i.e. researchers, practitioners and policy makers.
5. Further connecting this initiative to recently launched programs for nature-based solutions (e.g., 2 Billion Trees; Nature Smart Climate Solutions Fund; Pathway to Target 1; Agricultural Climate Solutions) could presents many opportunities to better integrate and advance the knowledge-policy-practice nexus in restoration. <https://www.canada.ca/en/environment-climate-change/services/environmental-funding/programs/nature-smart-climate-solutions-fund.html>
6. Support development of the Restoration, Reclamation and Rewilding (RE3) conference in Québec City (June 10-14, 2023) to use it as a platform for major governmental announcements to work towards an Action Plan for Canada's contribution to the UN Decade on Ecosystem Restoration and to strengthen

research networks in restoration through large-scale collaborative programs.
<https://www.re3-quebec.org/en>

7. Use the existing [ecologicalrestorationcanada.ca](https://www.ecologicalrestorationcanada.ca) website as a digital hub for the coalition's work, and adjust and structure the site based on action plans development.

Summary of presentations and discussions

Background

With the launch of the United Nations Decade on Ecosystem Restoration (2021-2030), we asked:

What is needed for Canadians and Canada to build on a legacy of excellence in restoration?

Canadians have played an outsized role in leading and developing the field of ecological restoration. Fourteen percent of the international Society for Ecological Restoration (SER) members are Canadian (the highest per capita in the world). Since 1989, 3 of 11 chairs of SER have been Canadian. Three major international conferences have been hosted in Canada. The Editor-in-Chief of the flagship journal *Restoration Ecology*, Stephen Murphy, is Canadian. Parks Canada and the Canadian Parks Council (2008) developed the first national level principles and guidelines for ecological restoration in the world. These guidelines formed the basis for the first global advice on restoration by the World Commission on Protected Areas. Almost every type of restoration practice is represented in Canada, from large-scale tree planting to school yard rewilding, from long-term research restoration projects to pop-up urban restoration.

Over the last year (2020-21) a team of scholars from four universities assembled what we know about restoration in Canada. Sponsored by a Knowledge Synthesis grant from the Tri-Council research agencies, they conducted almost seventy interviews with restoration scientists and practitioners, completed an exhaustive review of restoration literature, and prepared three comparable case studies of restoration-in-action (<https://onlineacademiccommunity.uvic.ca/ecorestoration/>).

The results suggest tremendous and increasing collaboration amongst restoration practitioners and scientists, both in the co-production of knowledge, and in the development and implementation of restoration projects. Reconciliation is emerging as a theme that restoration practice can contribute to. In the academic literature concern is growing for climate change: How to incorporate rapid change into restoration planning? How best to mitigate climate change through restoration? This points to significant potential for Canadians to mobilize more support for and action on restoration.

Summary of Day 1--Monday May 30

The workshop opened by Mike Wong, Lisa McLaughlin and Eric Higgs with a territory acknowledgement, participant welcome and introduction, and overview of workshop goals and agenda. The overall workshop goal was articulated: Whether and what kind of agenda for action will support and amplify restoration efforts in Canada. The UN Decade of Ecosystem Restoration was highlighted alongside other major international commitments, including the UN Convention on Biological Diversity, the UN Framework Convention on Climate Change, and the International Union for the Conservation of Nature (IUCN) World Commission on Protected Areas Programme of Work.

A series of presentations¹ set the stage for understanding distinctive Canadian contributions to restoration.

- **Eric Higgs** described a succession of restoration guidance, including the “Canadian principles” of effective, efficient, and engaging restoration. He posed three questions that the workshop might address: 1) What can we do in Canada to bolster our restoration efforts?; 2) What distinctive contributions can Canadians make to restoration during the UN Decade?; and, 3) What can we offer more widely?
- **Tim Alamenciak** described his research with Dorian Pomezanski on establishing a comprehensive understanding of what has been written about Canadian restoration and by Canadian restoration scientists and practitioners. This presentation was part of the Social Sciences and Humanities Research Council of Canada Knowledge Synthesis research project.
- Fellow team member, **Sonia Voicescu**, reported on what Canadians think about restoration science and practice.
- **Kent Prior and Emily Gonzales** described experience in Parks Canada with a variety of restoration initiatives. Parks Canada was a lead agency in developing the 2008 *Principles and Guidelines*. A provocative idea was floated about whether the focus should be on more restoration, or better-quality restoration.
- **Nicolas Mansuy and Anne-Hélène Mathey** presented on lessons learned on the Canadian Forestry Service restoration efforts, including from the 2 Billion Trees initiative.
- **Darcy Henderson**, offered insights into restoration guidance, best practices, and lessons learned through his work with the Canadian Wildlife Service.

¹ Presentations are available from <https://onlineacademiccommunity.uvic.ca/ecorestoration/>.

- **Mark Gloutney**, from Ducks Unlimited, provided an overview of extensive restoration work in wetlands, including successes and challenges.
- **Lyn Garrah** described actions and principles guiding the Department of Fisheries and Oceans restoration activities.
- **Risa Smith, James Snider, and Elizabeth Hendricks** focused on the challenges experience by the World Wildlife Fund-Canada in managing biodiversity and climate change.

The remainder of the day was spent initially in breakout groups tackling four questions.

What gaps need to be filled? Energetic conversations produced a wide range of responses. Improvements to information management are needed to bolster restoration effectiveness: what works, and what doesn't? There is presently no animating national vision for restoration in Canada. How can restoration be scaled up?

What is working well? There is strong, diverse restoration expertise across sectors, and background of distinctive guidance. Existing principles and guidelines work reasonably well. A new generation of restoration scientists and practitioners are bringing diversity, innovation, and creativity to restoration.

What are unexpected challenges? Climate and other rapid environmental changes are causing reconsideration of restoration goals. There is a perennial mismatch between restoration and political timescales (restoration slow and long; political decisions on a shorter cycle). The pandemic "reboot" has taken us back to business as usual. The pressure on climate action has produced a significant flow of funding, but this is coming like a firehose rather than a steady stream. Funding programs are a patchwork and often difficult to mobilize.

What are structural barriers? Knowledge gathering and mobilization are limited—how can lessons learned be shared more effectively? Jurisdictional overlap causes problems in some restoration projects. There are some perverse incentives. For example, it is often easier to get a development permit than a restoration permit. There are few clear paths for those wanting to develop as restoration practitioners.

The final plenary discussions of the afternoon focused on emerging themes. Notable was attention to Indigenous inclusion and social justice considerations, which are often lacking. Who sits at the table is a critical consideration. The conversations

acknowledged the importance of aligning top-down strategies (funding programs, policies, legal frameworks) with community-based bottom-up realities.

Summary of Day 2--Tuesday May 31

The second day began with two bigger picture perspectives.

- **Steven Cooke** presented recent work on what it takes to realize the promise of the UN Decade on Ecosystem Restoration, including perspectives on the function and value of such declarations.
- **Keith Bowers** illustrated the range of projects his firm has worked on, and how these challenge and deepen the range and role of contemporary restoration. He emphasized that successful restoration is *more than a combination of science and practice and must include policy as third essential axis*.

The conversation turned to the question of ***A Vision for Restoration in Canada in 2030***. Each participant weighed in, and here is a small sample of the rich conversation. Restoration practice is more effective at monitoring projects to know what works. There is social change to make restoration desirable and more widely permitted and becomes a mainstream career opportunity. Restoration in 2030 is more diverse, and there is a shared understanding with Indigenous peoples of what restoration is and who it is for. Restoration will be more thoroughly integrated in accounting and economic allocation decisions, and improved data and evidence will inform good decisions. There is a national organization that integrates science, policy, and funding to support many large-scale projects that can be celebrated and shared with the world. Restoration is understood more widely, and connects across diverse projects including living infrastructure, reclamation and rewilding. The wheel is not reinvented, but genuine progress is made based on decades of leading work. In 2030, there will be continent-wide community service gatherings that connect social and ecological health through restoration. A composite view of degradation and restoration potential guides effective and efficient restoration. The private sector has mechanisms and motivations that accelerate restoration.

The subsequent conversation focused on the elements of a Canadian strategy for restoration to realize a 2030 vision. To tighten the response, participants were asked to imagine the opening plenary at the RE3 conference in June 2023. The federal minister for ECCC steps up to the podium to make a major announcement about

restoration in Canada: What is it? Suggestions were diverse but consistent with the vision. This conversation allowed participants to dig more deeply into specifics. Considerations were raised about a national strategy and action plan, how to integrate restoration more effectively with allied programs provincially, nationally and internationally, Indigenous reconciliation, inclusivity and equity, improved learning, better access to data for adaptive management, improved funding, better tie-in with the private sector, and many others. There was discussion about what type of organization would be best suited to coordinate and advance restoration, and general agreement was that it should sit beside government, but not be within government.

The recommended actions emerging from the workshop reflect key initiatives suggested by participants. Concluding conversation focused on new steps, which involves a “coalition of the willing” to work steadily on building capacity and awareness over the next year. Whatever we do must inspire and enhance existing commitments to addressing reconciliation, climate change, and the biodiversity crisis. Lisa McLaughlin reminded us that “restoration is the vehicle not the goal.” When nature and people thrive, there is greater equity and justice, a stronger economy, and resilient landscapes. Restoration is an act of hope, because “what we do today will have an impact tomorrow.” Keith Bowers remarked from his perspective that this gathering is remarkable for the alignment and potential for greater action on restoration. We concluded with reflections from early career people, mostly graduate students, on what they hope for. There is an opportunity to work across generations, and it is heartening to know that experience and energy are in good supply.



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EVIDENCE-BASED
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Carleton
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