



CHANGING THE CONVERSATION, WOMEN FOR NATURE, AND
NATURE CANADA PRESENT:

Where do we go from here?

Biodiversity Conversation Series:

How important and the common loon and polar bear to Canadians?

April 30th, 2018

The final e-dialogue from the [Biodiversity Conversations: How important are the common loon and polar bears to Canadians?](#) brought forward recommendations from the previous three to develop more concrete on-the-ground actions. We will later release an action agenda bringing together ideas from the 40 e-panelists and e-audience members set for release in the Fall of 2018 for Canadian decision-makers in all sectors. Imagine if we design with biodiversity in mind, the possibilities that would open up.

Dr. Ann Dale, Moderator, Co-Chair, Women for Nature, Principal Investigator, [Meeting the Climate Change Challenge \(MC3\)](#), Royal Roads University

Dr. Dawn Bazely, Professor in Biology at York University; former Director of York University's Institute for Research and Innovation in Sustainability

Dr. Holly Clermont, Conservation Biologist and Social Scientist

Susan R. Eaton, Geologist, geophysicist, journalist and polar snorkeler; a former executive in several junior oil and gas companies; currently consults to international energy companies and equity financiers

Elizabeth Kilvert, Owner, Unrefined Olive; Educator with a background in natural history museums, aquariums, overseas development projects, and entrepreneurship

Pat Koval, Corporate director and lawyer; former Senior Partner at Torys LLP; former Adjunct Professor at the University of Toronto, serves on UofT Environmental Finance Advisory Committee; Board Chair, World Wildlife Fund Canada

Nina-Marie Lister, Graduate Program Director and Associate Professor in the School of Urban + Regional Planning, Ryerson University; Registered Professional Planner; founder and director of Ecological Design Lab

Chloe Dragon Smith, Climate Change Specialist; Co-Chair, Connecting a New Generation with Nature, Canadian Parks Council.

Susan Tanner, Former Executive Director, Canadian Environmental Network; Board member, Learning for a Sustainable Future; Founding chairperson of the Women's Legal Education and Action Fund (LEAF)

Ann Dale

Welcome to our last biodiversity conversation in this series. Since we began, research has continued to show how critical this human imperative is. As just one example, one in eight birds is now threatened with extinction according to a recently released report called [The State of the World's Birds](#).

Listen in as our expert panel discusses what we can do to avert a 'silent spring' before it is too late.

Before we begin, could each of you please introduce yourselves to our e-audience?

Holly Clermont

Hello everyone! I am a conservation biologist and social scientist on Vancouver Island, BC. I study environmental conflict and the social psychological aspects of decision-making affecting biodiversity conservation and climate action. Thanks, Ann, for these important conversations.

Susan R. Eaton

Hello, my name is Susan R. Eaton. Based in Calgary, I'm a geologist, geophysicist, journalist and polar explorer. I'm also a member of Nature Canada's board of directors. I'm delighted to participate in this e-dialogue on biodiversity.

Ann Dale

Welcome Susan and Holly.

Chloe Dragon Smith

Thanks Ann! Looking forward to the conversation. My name is Chloe Dragon Smith. I live in Yellowknife, NWT. I was on the National Advisory Panel for the Pathway to Canada Target 1, representing youth voices as well as Indigenous and northern perspectives. I have a B.Sc. in Earth Science from the University of Victoria. One of my core beliefs is that our relationships with the land are integral for the health of individuals, the Earth, and our relationships with each other!

Ann Dale

Welcome, Chloe. Glad to have you join us again.

Susan Tanner

Hi everyone, I am a change agent with an education, advocacy, mediation and management experience. I have been involved with many NGOs (CELA, FoE, RCEN, LSF, etc.) and hold a Masters of Environmental Studies and Masters of Law (Montreal Protocol).

Ann Dale

Susan, delighted to have you join. Susan has been one of this country's foremost environmental leaders. And Pat, welcome.

Elizabeth Kilvert

Hello All. My background is in International Development studies and Marine Biology with focus on sustainable agriculture and fisheries. I was a Biodiversity and Environmental Educator for many years and now am a small business owner in Ottawa where I specialize in foodstuffs.

Pat Koval

Hi everyone. I had some computer issues at the outset and missed the intros. I'm an ardent conservationist (work with and support a variety of NGO's) as well as U of T's Environmental Finance Advisory Committee. I currently chair the boards of three environmental NGO's. Thanks, Pat

Ann Dale

Welcome everyone. Let's get started. The purpose of our conversation today is to begin shaping what we think are the key actions we need to take to conserve biodiversity first at home and as well, globally, given that 'other species' don't adhere to man-made political boundaries. We have summarized the [recommendations from the previous three conversations](#).

So, on to our first question. You have all read the summary recommendations from our last three conversations, which have also been posted on the website. What do you think is missing for acting now on biodiversity conservation in Canada? Are there any specific actions we should be concentrating on?

Chloe Dragon Smith

The main point that I found to be underrepresented in the summary was the importance of collaboration and partnership with Indigenous systems at all levels. Indigenous culture in Canada is intrinsically tied to the land, and to biodiversity. Indigenous cultures have actively cultivated diversity and strength in ecosystems for

many thousands of years. For instance, controlled burns and architecting landscapes to create prime habitats for culturally important species. An interesting example is the [clam gardens in BC](#).

We need to work together more effectively and authentically, and this starts from early planning stages as true partnerships. This should be a cornerstone recommendation of the action agenda, and would complement the Pathway to Canada Target 1 recommendations. The newly released [ICE \(Indigenous Circle of Experts\) report](#) is a must read!

Holly Clermont

I agree with Chloe on this one. We Rise Together is a very important read. It speaks to re-inventing institutions to reflect a systems-based approach. The notion of creating Indigenous Protected and Conserved Areas can help redesign human relationships with nature and raise the profile of 'functioning' ecosystems. It also empowers First Nations to lead by example, and embraces epistemological pluralism.

Chloe Dragon Smith

Well said and summarized Holly!!!

Elizabeth Kilvert

From my perspective, Ecosystem Services are missing. I know I am from a food focused background but pollination services as well as food security and genetic diversity is missing.

Also collaboration with Small to Medium Business and Industry.

Holly Clermont

Elizabeth, I fully appreciate the notion of ecosystem services, but it is yet another phrase in the sustainability toolkit that lacks impact. Food security is more impactful for those of us who live on islands, but I feel this area of emphasis needs work if it's going to mobilize people to act for biodiversity.

Ann Dale

Chloe, don't mean to put you on the spot, but could you draft a specific recommendation for the action agenda we are going to prepare following this last conversation? And **Elizabeth**, as well, if you could?

Chloe Dragon Smith

Ann, I am happy to do that! I think that this point is a lens through which we should be looking at all of the recommendations, not necessarily a stand-alone recommendation. One that could summarize that thinking could be:

Prioritize collaboration and authentic partnerships between Indigenous systems and western systems at all levels.

Nina-Marie Lister

It's very clear that, in Canada, we are well into the Anthropocene with close to 86% of Canadian living in urbanized or urbanising settlements. Biodiversity is now and MUST BE understood as an urban challenge. Most (if not all) of Canada's conservation history and legacy has taken place against a backdrop of wilderness imagery centred in remote wild landscapes with few humans seen as partners let alone as creative agents of design (not only destruction and demise).

Under this dated approach to conservation, we could barely get to the IUCN's previous target of 12% conserved and protected lands; and worse, we are now the LAST of the original signatory parties to the 1992 Earth Summit in Rio and the BDC to begin to approach 17% (a far cry from the metaphorical Nature Needs Half movement).

The more I work in the ecological design and landscape planning field the more apparent it becomes to me that we still live with a powerful binary worldview of culture and nature. Our governance systems are profoundly linear and fragmented, institutionally and jurisdictionally; they still reflect a dominant and profound belief that nature and culture are hierarchically divided. This binary (or hierarchical dualism) is manifest most clearly in how we appreciate, evaluate and ultimately protect and exploit biodiversity— the cleavage between urban and peripheral, rural regions is every bit as profound as the approaches to conservation.

The future of effective, affirming and meaningful Biodiversity Conversation must “come into the city”; the Biophilic Cities movement of “nature-full” cities and global organizations such The Nature of Cities (TNOC) are examples of such grassroots municipal leadership for biodiversity. But the large landscape movement too — if it is to be effective in an urban world — must take on urban focus to speak the language of new Canadians, millennials and the growing number of urban dwellers. Natureful Cities are essential if we are to value what lives in the landscapes that sustain us!

Holly Clermont

“It's very clear that, in Canada, we are well into the Anthropocene with close to 86% of Canadian living in urbanized or urbanising settlements. Biodiversity is now and MUST BE understood as an urban challenge. Most (if not all) of Canada's conservation history and legacy has taken place against a backdrop of wilderness imagery centred in remote wild landscapes with few humans seen as partners let alone as creative agents of

design (not only destruction and demise).”

This point definitely caught my eye, thanks Nina-Marie! In connectivity-speak, we talk about 'the matrix' — that space between natural areas (backyards, green roofs, balcony gardens) that makes the landscape more permeable for species that need to move between habitats. Also, my research on place showed that many (anti-pipeline) southwest coast urbanites were attached to urban nature, even though they understood it to be less than pristine. Using Alberta pro-pipeline as an example, they too had strong connections to the outdoors, but it was different. Most had senses of place linked to their economy — their agricultural landscapes for example. This is definitely an area to further explore.

Chloe Dragon Smith

To me, this comes down to seeing ourselves as part of Nature, whether we are in cities or the country. Whether we are pro-pipeline or anti-pipeline. We are ALL part of this world and our cities are no exception. To position our cities as separate bubbles has been harmful. Great points!

Pat Koval

What is missing for acting now: I would add the following to the various strategies and recommendations:

1. Increasing Integration of Natural Capital into ESG Evaluations: In recent years, institutional investors, lenders, and insurers in Canada (and elsewhere) have increasingly embraced the importance and value of the integration of ESG issues into their investment, lending and insurance decisions. This, in turn, has provided an impetus for meaningful change. Those industries need to be encouraged to broaden their focus to the assessment of natural capital risks and opportunities in order to inform their decision-making—natural capital impacts and dependencies (including biodiversity) can be material to investment risk and returns. This could help to drive change that benefits biodiversity. The tools for investors, lenders and insurers to do this are increasingly available. Resources such as those provided by the Natural Capital Coalition and related organizations are already being used by the early movers in these sectors.

2. Aichi Targets and Finance: The vast majority of Canadians have no idea what the Aichi Targets are, and many people are only just learning now through the media about the Pathway to Canada Target 1 Initiative. Greater education is needed here—not just the general public, but, more specifically, business and investment leaders who might be able to contribute to enabling the financing and financing tools that will be necessary for Canada to reach its goals. That, in turn, needs to spark a broader dialogue about finance mechanisms to preserve biodiversity as it is clear that philanthropy alone is not going to bring in the needed dollars.

3. Legislation: The Auditor General's report released on April 24, 2018 has highlighted the fact that critical delays have hampered the operation and efficacy of federal species at risk legislation. It is widely believed that both federal and provincial endangered species legislation implementation and enforcement has suffered from sustained underfunding. Our governments, federal, provincial and territorial need to be monitored on their commitments in this area—efforts need to be made to increase public pressure to move this up the priority scale.

Susan R. Eaton

Many well-meaning (and concerned) citizens are simply overwhelmed by the enormity of global problems (hunger, social justice, women's equality, pollution, climate change) which all link to the environment and biodiversity. Via social media, citizens (including children) likely receive dozens of new reports per day, most of them containing dire predictions about the last white rhino dying, wildlife guardians being killed by poachers, the unprecedented rise in global temperatures, one in eight bird species on the brink of extinction, etc. As the recipients of this dire news, they tend to zone out (i.e., this news doesn't spur them to action, nor do they believe that they can make an impact). What's the solution here? I believe that ENGOs, corporations, news media and governments—including the Canadian federal, provincial and municipal governments—need to present biodiversity issues to Canadians in an extremely positive and personal way (i.e., in a human-centric manner) in order to spur change at the personal, community, provincial, national and international levels.

Chloe Dragon Smith

Susan, I totally agree with this. Something I've started sharing is that working on our relationships with Nature and each other (since we are Nature) is a base-level way to make a difference for yourself and for the planet. Get outside every day and sink into the world around you for at least several minutes. This is healthy for us personally but it also helps grow our relationships with the land. We have to have these relationships in order to understand how to act for biodiversity. Connecting with Nature mindfully and regularly is something that everyone can do to advance our societal understanding of this problem. The health benefits of spending time outdoors are great too! It can be a simple and powerful solution.

Susan Tanner

Missing items:

1. “Action briefs” of one page on key issues in simple (12-year-old) language with specific examples of impacts on humans of biodiversity loss (e.g. bees & food, spiders and mosquitos) with suggested actions.

2. Wording: "Respect for the interdependent web of all existence of which we are part" Unitarian Universalist Principle #7. Has been translated for children in many forms (visual art etc.) UU is a non-creed religion, welcomes diversity in common search for spiritual growth. Reformers: Mary Wollstonecraft, Pete Seeger, Ralph Waldo Emerson, Susan B Anthony, JQ Adams etc.

3. Indigenous sector: Indigenous groups are offering us valuable knowledge and leadership.

4. Existing national NGO: Learning for a Sustainable Future (lsf-1st.ca) which has peer reviewed curricula for all school subjects in all provinces available electronically and via teacher training. Urban outdoors, interactive map, green schools etc.

Ann Dale

Very wide-ranging first comments, thank you. I am 'hearing' the theme of reconciliation loud and clear, the critical need for investment strategies, and as Pat just said, public pressure to move this up on the priority scale. Let's try and drill down a little deeper and I will ask you to be as specific as possible, as we hope to make the action agenda as concrete as possible.

So, our second question, what is your own top five priorities for Canadian decision-makers and could you explain why?

Nina-Marie Lister

1. (Re)position conservation as an URBAN initiative and challenge; to clarify however this does not mean "urban biodiversity" but encumbers a shift in perception that ALL of the world's biodiversity is ultimately now in the scope of care and stewardship of an urban(using) population. This means that communication, language and strategic collaborations and partnerships as well as policies must become focused on the urban population as the drivers for support, engagement, education and ultimately valuing and protecting biodiversity. It doesn't mean that the strategies are urban but that urban populations are those who support and value (politically, financially and practically) large scale BDC efforts and initiatives.

2. Diversify voices in conservation: the movement is frankly very white and still dominated by men. One only has to look at the IUCN and most science- focused ENGOs, even Canada's Conservation2020 Target 1 initiative is very poorly represented. This mean specifically we must engage indigenous partners, new Canadians, women, millennials and youth in BDC initiatives from funding to policies.

3. Strategic partnerships and collaborations between sectors, agencies and regions are essential (I'm blending several recommendations here I realise). For reasons already mentioned, we need intersectoral, interjurisdictional and local-regional networks to build capacity, as much as to identify areas of cooperative boosting, program amplification and acceleration.

4. Related to the two above priorities I'd emphasize indigenous partnerships are absolutely essential. Our previous conservation approaches have not been successful at moving the needle and accelerating large scale conservation. Following the Truth and Reconciliation Commission report, we have an obligation to work with our indigenous citizens as collaborators and partners, and more importantly still, to understand and potentially share in indigenous values for biodiversity. Land and water are primordial relationships between humans and non-humans; from this understanding of relationships, new strategies and approaches to conservation are both possible and probable. Indigenous values for biodiversity are elemental — and fundamental to human spiritual, physical and mental wellbeing—and these offer new collaborative opportunities for affirming and effective conservation direction.

5. Emphasize connectivity. The key to conservation is connections: between wildlife, people, agencies and place. Large landscape connectivity is the physical manifestation of the need for flora and fauna to have access to abundant not merely adequate habitat (see next Q) — not only as insurance for climate change but as regimes shift and populations evolve. So too are decision-making connections and networks essential to (re)think, (re)frame, (re)design, (re)affirm the value of biodiversity.

While all the recommendations have merit, I see these above as a combination of low-hanging fruit (easier to achieve “quick wins”, with engaging new and diverse voices in conservation for example) as well as deeper, longer term and essential systemic changes that are imperative to work towards as they will necessarily unlock potential for other shifts to occur. To some extent I'd argue we need lateral networking as well as web-making, not only a linear sequential list of most important to least important. I'd also advocate for a sector-based and place-based approach (maybe for next steps discussion?)

Pat Koval

Thanks Ann. Here are my top 5 priorities:

1. Meeting Aichi Targets/Legislation: I firmly believe in the importance of protected areas as a tool to preserve biodiversity, and, as such, in the importance of Canada meeting its 17% terrestrial protected area Aichi target. I am involved in assisting the key proponents in the negotiation and establishment of at least one new national protected area (and creating related necessary territorial legislation).

2. Related to the above, I believe that the Canadian business community needs to become much more involved with NGO's and governments in the issue of conservation finance—particularly in generating funds to support the creation of protected areas. With others at the University of Toronto Environmental Finance Advisory Council, I will be organizing an event in Toronto targeted at the business community to explore the viability of different financial mechanisms to support this.

3. Urban biodiversity: Preserving and promoting urban biodiversity and seeking interconnected systems is something that has not received enough public and business attention. Opportunities abound in my city, Toronto, and creative vision and the will to

collaborate can bring those to life. I am involved in a number of projects with TRCA focusing on this in the Toronto area, including developing the community engagement portion of the recently announced Meadoway project.

4. Engaging and educating young people: No one can doubt that this is very important. I am involved in several projects in Toronto focused on this, including projects to engage and educate children in Toronto's urban gem, Tommy Thompson Park.

5. Evidence-based conservation strategies for migratory species: No one can doubt that solid science for in-situ conservation is critical. I am supporting research now on several keystone Canadian species, including barren ground caribou.

Holly Clermont

One of my top priorities encompasses several points in the summary: strategies to operationalize biodiversity conservation as a climate solution/portray biodiversity less as a victim of climate change and more as part of the solution/Associate calls for biodiversity conservation with calls for climate action/Stop portraying species and ecosystems as victims.

1. As a communication strategy, this is a relatively new message, whereas 'humans being a part of nature' (for example) has been around for some time with limited success.

2. It could be accomplished at multiple scales through a very wide range of venues.

3. Carbon credits could be used to encourage people to protect biodiversity hotspots and ecological connections, which would facilitate appropriate mapping and policy-making at every level. The carbon credits aspect was suggested in 2008 by SFU's Jon O'Riordan, in *Climate Change Adaptation and Biodiversity: Transitioning to an Ecosystem-based Economy in BC*.

4. Successful efforts and innovations can be showcased (Summary: Share success stories that communicate positive and hopeful messaging.)

5. My research showed that biodiversity issues were largely subsumed by climate concerns, and that biodiversity was portrayed as being affected by climate change rather than as an avenue for adaptation.

6. This will help (address the disconnect where people see nature, not biodiversity.) And, there is a catchy, relatable old quote: "To keep every cog and wheel is the first precaution of intelligent tinkering." (Aldo Leopold).

Pat Koval

Hi Holly. I think you make a good point about carbon credits—there are systems which link the crediting mechanism to biodiversity benefits, and, of course, there is the wide-open area of the development of biodiversity offset credits. There is early work on this by a number of NGO's—it should be further explored! Thanks, Pat

Holly Clermont

The notion of biodiversity offsets has been in the works for a decade or more, with little effect. Pat, can you think of ways to advance such efforts?

Also, my priorities link to yours as well.

Advance large-scale, ecosystem-based and connectivity planning initiatives, in marine, aquatic, and terrestrial environments, and follow through with implementation. These are slow-moving but once in place have broad stakeholder support. Development projects that fit within these plans can be approved more quickly. Connectivity mapping can be required and policies built into Official Community Plans and Land and Resource Management Plans, for example. (From summary: Use marine protected area models as an example.)

Engage (and support) young people on their own terms, who will bear the brunt of our near- and short-sightedness (see gun control efforts in the US). For example, the young men and women I know are very concerned about pollution and some are very aware of how their consumer habits affect the environment. Communication strategies to bridge the disconnect between everyday products and environmental impacts would have more impact coming from youth groups. I recently read a National Post editorial by Rex Murphy (Eco extremists vs. Canada, April 21, 2018) that blew off the effects of plastic drinking straws on the planet's ecosystems. A TV commercial, right around election time, that shows the life of a straw from production to plastics in our drinking water, food fish, etc., might have some effect on the Rex Murphy's of the world who clearly do not have strong nature-oriented values but might be driven to protect their own health. (From summary: Help people better understand how they are connected to the environment.)

Susan R. Eaton

What are my top five priorities for Canadian decision-makers and why?

1. Establish a larger network of interconnected parks (and marine protected areas) which includes wildlife corridors based upon wildlife migrations today as well as those animal/bird/insect/fish migrations that are predicted in 50 to 100 years' time due to global climate change;
2. Strengthening federal and provincial legislation to protect threatened and endangered species is needed to stop polluters and to evaluate industrial and resource

extractive projects for overall sustainability;

3. Enforce the teeth of the Migratory Bird Act, and prosecute and fine companies and organizations whose activities negatively impact migratory birds;

4. Promote and protect urban parks and woodlands (i.e., our [#NatureHoods](#)) as these areas may be the only 'natural' areas that some Canadians are able to access;

5. Key stakeholders (ENGOs, governments and organizations) need to increase education and awareness of biodiversity and environmental issues for Canadians, empowering citizens (including children) with concrete (and incremental) solutions can take to make a positive impact.

Chloe Dragon Smith

My top five..(six 🤔) priorities as pulled from the summary are below:

1. Communicate that humans are a part of nature, not separate from it;
2. Move away from our current model of disconnectedness and parceling of land, to one of large landscapes and flexible planning;
3. Aichi Targets: act on all 20, not just target 11, also work them in tandem;
4. Diversify voices at every table;
5. Advocate for an international level UN initiative in partnership with IUCN, involving museum and research curators, artists, and the humanities in addition to the social sciences and more;
6. Create public displays of museum collections, art exhibits that promote biodiversity—its challenges and opportunities, take the collections outside, public murals, community events.

My priorities are holistic, working towards seeing the world as a system that we are a part of. We need to change our mindsets before we see change. We need to cultivate healthy base-level relationships before we can make the technical changes we need. This comes from policy and communication changes, and also from integrating Nature and biodiversity into everything that we do. We are part of this world.

My number one recommendation of helping to shift mindsets to understand we are part of Nature, is the most important to me. From that first recommendation flows the others. If we are part of Nature, we see the landscape as a whole living, intertwined system that includes us. In that way, all Aichi targets help us to act more holistically. If we are all part of Nature, everyone's voice matters. We need to look at more ways, and creative ways to bring everyone into the conversation.

Susan Tanner

Wow, this is an amazing group with great ideas. I would however, agree with Susan Eaton that people are overwhelmed and we need to COMMUNICATE with them simply and clearly about the problem and offer them actions they can do. Many Canadians think we have too much nature, they do not believe there is a serious problem and would be very surprised that we are the worst performer in the G7 in meeting the Biodiversity targets. This is essentially a sales campaign: building awareness, creating connection or affect, and promoting action. We do not only have to combat ignorance, but also inertia and vested interest.

Holly Clermont

One of my priorities is to change the language around 'environment'. My research showed it is ineffective and even divisive (really!). I was contemplating new language – I thought of the advert-like phrase "NatureFit", that incorporates diversity concepts and strives for an ideal.

This IS an amazing group! I see this as more than a sales campaign – like Ann mentioned, critical habitat needs to be mapped (this is underway), governments need to roll protections into policy (inadequate), and therein lies a disconnect. Please forgive me for emphasizing my own research, but it is recent and relevant. I found most politicians, business leaders, and regulators did not prioritize nature-oriented values, and this is not something that is readily changed. I know people scoff at the notion that biodiversity needs to be framed in business language, since that undermines the inherent value of it. But making biodiversity relevant in monetary terms is likely what is going to make the difference.

Ann Dale

Chloe, isn't it in some ways all about connection, between ourselves and with the 'others'. Language of course is so crucial as just saying the 'others' makes us distant. I have written for a long time that we are taught we are a part from nature or a part of nature. I see Holly just picked up the issue of language.

Chloe Dragon Smith

Hi Ann, I agree completely! I think this thinking of togetherness and emotional connection is something that we cannot lose if we are to succeed. It is integral to many Indigenous perspectives on conservation as well. Maybe the messaging of 'we are part of Nature' is not effective on its own all the time (fair point Holly), but whatever we are sharing and whatever our strategies are at any given moment, can be guided by that foundational truth. This is really important if we are working on merging systems of thought and worldview — Indigenous and western — together.

Ann Dale

Please find a link to "[The Solutions Agenda: A Call to Action for and by Canadians](#)". We will be finalizing the same thing for biodiversity conservation.

Chloe, our first recommendation for this action agenda was the following:

"The overarching critical imperative that must be addressed is to recognize the contributions of First Nations, Inuit, and Metis communities to the political future of this country and to resolve outstanding governance issues, fairly and as soon as possible. Outstanding land claims will continue to ensure protracted disputes over future land development, as will the persistent drive to expand traditional extractive rather than sustainable natural resource development. Similarly, contested land use conflict will continue without new forms of community engagement and enlarged decision-making contexts in a highly connected and sophisticated Internet society. New models of collaborative leadership, rather than competitive elected electioneering, are urgently needed, to implement these on-the-ground solutions, and to close the knowledge-to-action gaps, accelerating local innovation across the country."

Ann Dale

Before I turn to our third question, I would like to add my two cents worth. I think one of the most critical first steps is to map the critical habitat of endangered and near to endangered species immediately and make these priority areas. I also think we are at a critical stage in the conservation of biological diversity and that we need to bring together social and natural science researchers, with the humanities and the arts in United Nations-led IPCC process dedicated to this imperative. Throughout these conversations, e-panelists have emphasized the importance of education and communications, and thus, the inclusion of the humanities and the arts in any international and national processes.

So, what are your next two priorities and again why?

Pat Koval

Hi Ann. First, I couldn't agree more and I think that we should encourage the good work that Nature Canada and some others are already doing towards this end.

My next 2 priorities:

1. Involving Business Actors More Fully/Natural Capital: As I suggested in my response to question 1, I believe it is vital to educate the financial community on the ESG analysis benefits of the integration of natural capital assessment into investment, lending and insurance decisions. Communication/messaging to the financial services

industry associations and opinion leaders in this sector is essential. Some work has begun in this area, but a lot more can be done. With others at University of Toronto, I hope to organize a more specialized second session for spring, 2019.

2. Endangered Species Legislation: Our panoply of legislation that contributes to biodiversity conservation could be improved. Adding to your point, I believe a "deeper dive" is needed at the federal level as well as at the provincial and territorial levels to better "map" what we do and don't have in place and to identify opportunities for betterment.

Holly Clermont

Fully agree with these.

Susan Tanner

An interactive map which could be contributed to by various experts and kept up to date would be a fabulous learning and awareness tool.

For me, the key themes coming out of the prior conversations were:

1. The need to communicate more effectively, simply and broadly and include art and music
2. Celebrate and support what works such as museums and IUCN, building onto rather than Re-inventing wheels
3. increase Collaboration – although time and energy seem to be an issue – cross disciplines, sectors, scales, communities and could also include convening diverse groups for collaboration
4. The need to campaign such as Nature Needs Half increasing public awareness and stimulating action
5. CHALLENGE government to do its job as per AG reports. Aichi targets at least. I liked the mention of promoting a larger UN effort because we do need a larger effort. Colleagues speak in terms of the need for a war effort in regard to Climate Change.
6. Link to the Climate change file...they are not separable in fact I am organizing a Climate Conference this fall in Ottawa and we start our blurb with our ecosystem in distress. Group78.org.

Nina-Marie Lister

Perhaps these are less “new” than simply reframed priorities from the summary recommendations but these are key pillars of my work right now and I’ll share them in that respect:

1. Design (places and policies) for LEGIBILITY: Biodiversity must be revealed and made legible, from which meaning is made. When a thing is made legible to people, it develops shared understanding from which we can build common values. When we can recognize something, we can value it and when we value it, we protect it. This basic tenet underscores the need for not only conservation education but strategies for engagement — using a new language of conservation, a broader appreciation of evidence, and a more inclusive scope for policy.

2. Design (places and policies) for CONNECTIVITY: related to above, the key to conservation is connection. Smart evidence-based ecological design is economical as well as effective; human-designed green infrastructure connects, protects, and reveals the importance of biodiversity. For example, essential landscape connections within, through and around urban regions facilitate wildlife movement (not only migration but breeding, feeding and access to habitat) and these connections can be reframed effectively as infrastructural investments. Connected landscapes rely on green infrastructure in the form of wildlife passages, corridors, overpasses and underpasses and these are arguably as important as the “grey” civil engineered Infrastructure that defines our cities. Understanding green infrastructure connections as essential to BDC is an important way to reframe our capital investments and to make legible landscape connectivity AND to reveal BD forms and functions. Now that is stacking our assets and compounding values!

Chloe Dragon Smith

My next two are not any less important than the previous 5! They are deserving of focus on their own. Connecting people with Nature is absolutely essential to creating lasting policy changes that are accepted and integrated into our culture. This should start young whenever possible.

1. Give all children the opportunity to connect with nature at an early age.
2. Engage young people on their terms.

[Here is a blog](#) on an initiative that I have been part of in Yellowknife, a forest and Nature school program called Bushkids. Bushkids helps teach students that they are part of the land, and it is part of everything we do. I hope to see variations of forest and nature school, in partnership with Indigenous communities, all across Canada, and that continue into high school and post-secondary. This can be a cultural change in how we view our education in Canada.

Holly Clermont

Bushkids — this is an example of effective language. I grew up in northern Alberta, where everyone I knew called forests 'bush'. It's essential that we diversify our messaging to fit cultural norms and language.

Susan R. Eaton

So, what are my next two priorities and why?

1. Increase multi-stakeholder (citizens' groups, ENGOs, governments, think tanks, women's groups, visible minorities, Indigenous groups) engagement with industrial sectors and individual corporations who can be far more nimble than governments in terms of adapting to a changing economic and environmental, governmental issues. Without a social license to operate, industrial sectors and corporations cannot survive.
2. The reconciliation process across Canada must include a discussion of the past, present and future state of the environment and biodiversity. Inuit, Metis and First Nations must be part of this nation-wide discussion about the environment and biodiversity. Historically, Indigenous women have not been part of these discussions, and we need to hear their voices.

Chloe Dragon Smith

@Nigrosh (from the e-audience): *I think we need to leverage an intersectoral approach where agriculture, tourism, health, manufacturing, education and natural resources promote, recognize our own interdependencies with the natural world. The indigenous approach really.*

I agree with what you've said about connecting Nature and biodiversity to everyone and every sector very much. This brings to mind what Holly said about business integration. It's critically important. We have to meet people where they are at. The land/biodiversity is important to all of us, but we frame the importance in different ways based on our context.

Ann Dale

I can't believe how quickly we run out of time. As you can see, I just brought your attention to one of the action agendas we have previously prepared, and I now want to get your advice on the biodiversity one. By the way, Nina-Marie Lister is stuck on a plane and we will be inserting her ideas into the final conversation which we will post on this site in a few days.

As you know, we are going to be finalizing an action agenda for Canadian decision-makers to be released in September 2018 based on our four discussions. How should

we structure the report which will be no longer than 10 pages, maximum? Organized by scale of action? By sector? In order of priority and category?

Chloe Dragon Smith

My suggestion would be to organize the agenda by category (perhaps with a few overarching ones at the beginning, then more technical ones following – a bit of an organization by scale), then have sector specific suggestions to help all kinds of people to see themselves in the actions. The sectors included should be very broad.

I would love to see the report focus deliberately on those traditionally outside of the circle of biodiversity conservation in Canada. We really need to diversify the voices at the table and fast. Biodiversity is important for everyone! These conversations are a great start – let's keep broadening, thinking holistically, and bringing in more perspectives.

Holly Clermont

There are many items that cross scales and categories, so I will suggest 'priority' to guide your structure. If that proves difficult, then scale is likely going to be more effective, with subheadings by category – although there will be some duplication, readers will gravitate to the scale that is most appropriate to them.

Pat Koval

Hi Ann. I like the segregation of the findings into, first, strategies, and then policy recommendations. I would suggest segregating the strategies into three groups: communication (and here I would suggest combining what we called communication strategies with what we called language), education and engagement of youth, and collaboration and strategic alliances. I would suggest identifying the five or so "big ideas or themes" in each area and elaborating on those.

For Policy Recommendations, I think it will be important to decide whether you want this to be a high-level general policy piece or whether you want to focus these recommendations for more a more specific action agenda within the existing Canadian governance framework, recognizing the different roles and powers that the federal government and the governments of the provinces and territories have, and different frameworks that are already in place. For example, these are some of the questions I'd pose if you opt for the latter approach:

Do we want to just refer to the Aichi targets or do we want to refer to the goals that Canada adopted in response to it? (i.e. use the Canadian target phrasing).

Some provinces are adopting carbon taxes rather than cap and trade legislation in response to the Federal initiative—are we suggesting here that they should be opting for cap and trade rather than a carbon tax?

Should we be encouraging the Feds and the provinces to build biodiversity co-benefits into the carbon offset protocols that are under development?

Do we want to make suggestions on how to get to 17% (i.e. specific areas that we know are under consideration)? Do we want to be more proactive and suggest that the Federal Government should also be examining funding strategies that might bring this about like green bonds or increased fees in Canada's parks?

Presumably we will also want to somewhere endorse the AG's recent audit on the Feds and biodiversity as well as the fact that the relevant federal departments agreed to implement the recommendations—and we should press for greater monitoring of these agreements by civil society.

Chloe Dragon Smith

Pat, I really like those three big category ideas. Each of them could have an Indigenous systems lens overlaying the recommendations!

Susan R. Eaton

My answer to your questions: “As you know, we are going to be finalizing an action agenda for Canadian decision-makers to be released in September 2018 based on our four discussions. How should we structure the report which will be no longer than 10 pages, maximum? Organized by scale of action? By sector? In order of priority and category?”

That's a tough question to answer, Ann!

The overarching message that I recommend conveying is that "time is of the essence," which is reminiscent of the new hashtag in the women's movement, #TimesUp.

That said, if we make the action agenda too overarching/high level, then it could be interpreted as a lot of "motherhood" statements, pardon the pun...In light of our Women for Nature context, the question begs to be asked, "Why is a vague, feel-good platitude, especially one that few people would disagree with, called a 'motherhood' statement?" But, I digress...

Given the foregoing, I recommend including several action item/targets (to protect Canada's biodiversity) that are achievable (and measurable) in two, five, ten and 20 years' time.

I recommend, further, addressing issues related to the industrial sector, focusing on resource extractive industries first: oil and gas, mining, power generation (coal and

hydro), timber and fisheries (Note: these sectors are not listed in any particular order).

Other issues that concern me, from a biodiversity perspective, are large-scale industrial agriculture, emissions from the transportation sector (planes, trains, automobiles, trucks and vessels) and urban sprawl gobbling up [#NatureHood](#) areas around municipalities.

Nina-Marie Lister

Please SHOW don't merely TELL! I recommend you develop and use an excellent systems-focused infographic that maps the relationships between sectors, agencies, voices and priorities will be an excellent use of limited space and could be both strategic and effective in showing HOW and by WHOM, WHERE. I'd strongly recommend you work with an accomplished graphic communication designer to develop a clear and compelling infographic language that frames the strategic direction. I would not recommend listing "by priority" as so much of the recommendation summary emphasis is on a systems approach. With that in mind, I'd suggest using a soft systems type approach, linking voices, places and policies (or plans).

Ann Dale

Of course, we will have to think of themes to guide the final action agenda—reconciliation, connection, systems, and one that I didn't hear regeneration maybe? We can never go back to an a priori state, thus, many of us are referring not to preservation but to regenerative sustainability. In terms of process, I will do my best to be faithful to these dialogues and draft a consensus document, no longer than 10 pages, that I will then send out to all of the e-panelists who have graced us with their participation. We will also be working closely with Nature Canada staff for peer review. If you agree to being a co-author, then it will be co-authored by all of us, and we hope to publish this September 2018. You will then have a document to distribute widely to your network, and whenever in meetings to lay on the table to local, provincial and national leaders. Let's make this front and center on the next political agenda.

Thank you for your participation, it is deeply appreciated and to our e-audience. Any final comments in our last five minutes.

Pat Koval

Thanks Ann and all my fellow panelists, this was a real pleasure! I would be happy to join as a co-author, and more than pleased to keep all of these conversations continuing!!

Chloe Dragon Smith

Thanks so much everyone!! Was truly wonderful chatting with you all. Great ideas all around :)

Holly Clermont

Thank you, Ann, Nature Canada, and Women for Nature! I am grateful to be part of this, and to engage with such extraordinary women.

Susan R. Eaton

Hello everyone!

It's been a pleasure participating in this e-dialogue on biodiversity.

Although this is my first experience communicating with this technology platform, everything went smoothly from my end, in large part due to the tutorial I received from Ann and Jaime. Thank you!

Warmest wishes all, Susan

Nina-Marie Lister

I've really enjoyed this hopeful dialogue and look forward to next steps. We have much work to do and there is so much creative power in the collective.

PS: Notes from Dr. Dawn Bazely, who was experiencing internet outages while communicating from Pakistan

In my decades-long experience, the main challenge of biodiversity is that, while it's a fairly simple concept, that taking action on to protect and improve biodiversity is a complex, nuanced multi-faceted, multi-scale activity, and that communicating this is just very tough.

Biodiversity can be measured globally, nationally and locally, and this makes it one of those motherhood and apple pie issues, that along with the need to address world poverty and hunger, quickly sound quite banal, trite.

For me, the top sectors are education and industry.

With that caveat and referencing the summary list from previous conversations, my top priorities are:

1. Improving members of the general public(s)' understanding of the role and contributions of biodiversity to their quality of life, in a measurable way.

I read the Canadian academies reports and surveys but haven't noticed many questions about biodiversity in any of the documents.

<http://www.scienceadvice.ca/en/assessments/in-progress.aspx>

When I quote these surveys about the importance of science, for example, I'm never sure where the baseline data on public understanding of biodiversity in Canada lie. I am sure that these surveys exist, but our ease of finding the benchmarking baseline data must be improved.

The Carolinian Canada and WWF Canada In the Zone programme is a great example of accessible actions everyone can take. It's great outreach and public science.

2. Integration of the concept of biodiversity into school curricula at the earliest possible stage. In the 1980s the three Rs (Reduce, Reuse, Recycle) were introduced in schools and parents learned about recycling and the actions to be taken.

While on sabbatical in India, I learned that there are few if any municipal waste management programmes like those in Ontario, much less those involving recycling, though excellent technologies exist. This is due to a general lack of understanding about the impact of trash on health and the environment beyond that of the experts and local bureaucrats.

My graduate student class all agreed that schools were the place to begin this education.

I think it's the same for biodiversity in Canada - and the lessons should be very clear about the actions that must be taken.

Is there an equivalent document to this one, for example? https://www.ontarioecoschools.org/wp-content/uploads/2014/11/2EN_WasteMin1_8FIN.pdf

3. Connecting biodiversity to climate change impacts

Goes without saying but is not often done.

The simple solution is to link the messages every time.

4. Communicating the role of biodiversity in the UN SDGs - an excellent existing international platform with the oomph to cascade its message down to national and regional levels

5. Finding, amplifying and reinforcing excellent science communication documents about biodiversity - while in India, Bangladesh, and Australia, basically **none** of the many biology and environmental sciences students and faculty to whom I presented (I gave about 26 hours of talks on biodiversity and

science communications in courses, at conferences and in department seminar series) knew about the WWF Living Planet reports.

This was shocking, because they are such extraordinarily good documents that I thought had been widely disseminated. I have used them in my courses since the very first one came out and each report has just gotten better at communicating a declining situation.

http://wwf.panda.org/about_our_earth/all_publications/living_planet_report_timeline/

Next 2 priorities:

1. Continue to network actively as widely as possible so as to connect with any many similar initiatives, globally and local as possible.

Basically, this is the practice of academic, science, and environmental diplomacy.

We need to stop reinventing wheels related to biodiversity communication and action.

2. Honestly, more of 1.

How to structure an executive summary and short policy document?

There is no one ideal format.

I would suggest having 2–3 different formats structure to appeal to each of the top sectors in terms of their accessibility.