



## Briefing on the 2019 Global Assessment from the United Nations Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

Testimony to the Standing Committee on  
Environment and Sustainable Development (ENVI)

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Thank you very much Mr. Chair and members of the Standing Committee on Environment and Sustainable Development for the opportunity to speak with you today about this recently-released global biodiversity assessment by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, or IPBES.

First, the perspective that I am speaking to you from is as a biodiversity scientist. I am president and senior scientist of Wildlife Conservation Society Canada and adjunct professor at University of Toronto and Trent University, with particular field research experience with boreal forest mammals. I have been intensively involved in the science-policy interface at provincial and federal levels, and recently concluded a 9-year stint as Co-chair of the terrestrial mammals subcommittee of COSEWIC (Committee on the Status of Endangered Wildlife in Canada). As such, I am very familiar with listing and recovery of species at risk, and policies in Canada that relate to biodiversity; I am a field biologist, published researcher, and very familiar with the kind of process that was followed with this IPBES report and understand the conclusions that were brought forward in the Summary for Policy Makers released last month. I also have extensive experience in African and Asian tropical forests so can view this in an international context.

In the short time I have available, I will say a few words here on:

- 1) what is unique about this particular report,
- 2) what about its findings is most relevant to Canada,
- 3) What this say about finding solutions to this crisis in Canada.

### **1) What is unique about this report**

This is a product about the global condition of biodiversity – or the variety of life on earth -- written by 150 scientists based on an enormous number of studies (15,000). It is an integrated global synthesis that has been subjected to intensive and extensive peer review. Another factor that makes it unique is that this was executed under the authority of the United Nations system, so it has also been endorsed by member governments. This kind of process ensures that this is not a representation of the opinion of a few, or that it is biased by certain governments only (as all governments agreed, including Canada, the US, EU, China, etc.), or that it is somehow an NGO document. IPBES is analogous to the International Panel for Climate Change (IPCC), which has issued several reports; this is the first for IPBES, which was first organized in 2012.

This is a global analysis, but includes some discussion of how the conclusions play out in particular regions.

The conclusions were not a surprise to most wildlife and ecosystem scientists. We have seen the evidence unfold through studies that appear everyday in the published literature and many of us have observed first-hand these trends ourselves playing out in the places that we are most familiar with and delivered similar key messages ourselves. However, the two major things that this report does particularly effectively:

First, the overall trends as they relate to the health and functioning of species and ecosystems and the earth's support systems are overwhelmingly negative and permeate the world everywhere. These deteriorating trends have been accelerating and intensifying since about the 1970s, at a remarkable pace and rate of change relative to the last 10 million years, and are certainly projected to continue or worsen into the future under business as usual scenarios.

Second, this report really makes clear the connection of these trends to human wellbeing, although the direct effects are unevenly felt by people across the planet. The summary documents the preponderance of evidence that nature is essential for achieving sustainability in all aspects and this documented deteriorating status of biodiversity will undermine our efforts and those of any country in the world of addressing fundamental issues of poverty, hunger, health, water, cities, and even economic development. The conclusions make abundantly clear that biodiversity can no longer be siloed into a pet or boutique environmental issue that receives begrudging afterthought.

## **2) What about this report is most relevant to Canada**

Canada is not mentioned anywhere in the summary, which places much emphasis on trends in tropical and developing countries where absolute numbers of species and diversity of ecosystems are higher, but no more important than here. Because Canada is a so-called "high governance country" with many regulations and lots of nature left in the north, this can lull many Canadians into a sense of complacency as to how relevant this report may be for Canada. But let me assure you how very relevant this report on some key issues.

- a) The drivers of biodiversity loss and degradation are the pretty much the same in Canada as reported in the summary for the rest of the world. Land conversion, overfishing, climate change, pollution and invasive alien species are the top drivers of species and ecosystem degradation here in Canada, with habitat loss out in front for species that live on land and over-exploitation in the sea. Certain ecosystems, like wetlands and grasslands are a shadow of what they once were; similar to the rest of the world land degradation has reduced productivity in Canada.
- b) There are some threats where Canada is at the worse end of the spectrum relative to the rest of the world. I would signal out of course the emerging and accelerating threat of Climate heating, which is worse in the high latitudes and already very clearly dominating the situation in the arctic, and industrial fishing, which the summary shows is concentrated in a few regions -- the northeast Atlantic, the northwest Pacific are highlighted -- yet covers at least 55 per cent of the oceans. Climate change has not been the main driver so far of species decline, but it is showing up more and more in COSEWIC reports, and is exacerbating other threats, like habitat loss from development, and may well be behind some alarming trends that are being increasingly

observed, like plunges in once-substantial numbers of caribou in the north, or the spate of marine mammal die-offs that seem to be occurring with more frequency.

- c) Canada may have fewer species than in many tropical areas of the planet, but the ones we do have are experiencing similar trends for similar reasons. Some of the species groups highlighted in the report, like amphibians and reptiles, larger mammals, birds, are experiencing similar declining trends here in Canada. We have once common species groups that are all of a sudden at risk of extinction from various causes, like little brown bats, barn swallow, common snapping turtle. Species loss already is having clear ramifications for food security -- one of the most visible being the difficult consequences of loss of caribou in the far north of Canada. Our knowledge emphasizes a certain relative handful of what we call species at risk where we have sufficient information to understand their status, but this is only at the forefront of biodiversity (Canada probably has about 80,000 species).
- d) The report also talks about the phenomenon of homogenization, which occurs as a consequence of biodiversity erosion. There are winners and there are losers, and the weedy species that can live everywhere and adapt well to humans are winning out and making ecosystems more simple and less resilient to change.

### **3) Required Actions in the Canadian context**

I have already referred to public complacency on this issue. Many or perhaps most of Canadians have lost their connections to nature, or have lost sight of the baseline. The connection between nature and human wellbeing so well articulated in the IPBES summary is just not as directly evident for most people and does not express itself so dramatically as weather events that are being increasingly understood as expressions of the climate crisis. One recent study showed that the media talks about climate change 8 times more than biodiversity loss.

Generally speaking, governments address matters of biodiversity through a focus on 1) wildlife 2) species at risk, and 3) a smattering of legislation and policies that mostly approach biodiversity as a thing to deal with once decisions are made, and generally in piecemeal fashion one project or development at a time, with an eye on making impacts less bad than they would otherwise be.

I want to highlight two recent reports that confront this situation in a similar fashion as the IPBES authors have advised. First, this Standing Committee wrote a fantastic report in June 2016 entitled *Federal Sustainability for Future Generations – A Report Following an Assessment of the Federal Sustainable Development Act* that emphasized the need for “truly integrated policy making” and whole-of-government or boundary-spanning issues for which current government structures are ill-designed.

Another great look at this issue was released earlier this year by the Council of Canadian Academies (and commissioned by Natural Resources Canada) called *Greater Than the Sum of Its Parts: Toward Integrated Natural Resource Management in Canada* that challenged the status quo approach to resource management in Canada. It made a strong case for the need for integration to address current realities, and overcome the limitations of conventional approaches which focus on managing individual activities and resources.

There are many ways to take action in Canada, and I will make just three points in conclusion:

- 1) Even though we have much to be worried about, the conservation opportunities are still phenomenal in this second largest country in the world. We have significant ecologically intact boreal and arctic systems where nature is also providing major carbon storehouses in the ground. We must understand from experience we can't take this for granted and rapid erosion is certainly possible if we don't change our current paradigm. In these areas in particular indigenous-led stewardship will be enormously important to support.
- 2) Protected areas are a critically important tool, and the recent investment in this area by the federal government will be enormously helpful. But we will have to pay equal attention to how intervening unprotected lands are managed. The situation facing Wood Buffalo National Park right now is an important illustration of this. A UN delegation has been looking at this largest protected area in Canada, and has expressed enormous concern (including earlier this month), about how Canada's land management policies outside the park, namely hydro-development in the to the west and oil sands development in the east, are directly driving multiple negative indicators of ecological health of the park itself, which is at high risk of landing on the 'World Heritage in Danger' list – a designation that it would share with about 33 other sites, almost all of which are in low-governance countries.
- 3) Much more substantial financial investment will be required to fuel action, but this must be accompanied by much better understanding and disclosure of costs to biodiversity from development decisions and economic instruments that cause harm to nature, including subsidies, financial transfers, tax abatements, commodity and industrial goods prices that hide environmental and social costs, which favor unsustainable production.

Thank you.

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