

WCS informs discussion of responses to a changing Arctic

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Increased numbers of walrus on haul-outs are being observed due to receding summer sea ice in the Arctic. As many as 100,000 have been reported on land at one time at Cape Serdtse-Kamen (Chukotka, Russian Federation). Credit: Chukot-TINRO

In two critical reports released at the Arctic Council Ministerial Meeting in Kiruna, Sweden on May 15th, the scientific expertise of the Wildlife Conservation Society helped inform an international body of senior government officials about changing conditions in the Arctic, and

potential responses to those changes.

The scientific reports reviewed by the ministers are products of contributions from various experts, representing a range of knowledge and traditions—including indigenous perspectives.

The first report, entitled "[Arctic Biodiversity Assessment – Status and Trends](#)," provides the best available science and traditional ecological knowledge on the status and trends of biodiversity in the Arctic. It looks at all aspects of Arctic biodiversity, including all taxonomic groups and [ecosystems](#), and includes a section on recommendations for conservation actions and policy.

WCS Canada's Associate Conservation [Zoologist](#) Dr. Don Reid is the lead author of the "Mammals" chapter of this report, which documents recent and ongoing changes to distribution and abundance of marine and terrestrial mammals, along with an assessment of the likely causes of those changes. In addition, he contributed to the "Synthesis" chapter, which brings together the key findings of all the chapters and lays out recommendations for dealing with trends that have been or may soon be problematic for conservation of species and ecosystems.

Reid summarizes the changes as both negative and positive depending on the species, "The Arctic is changing fast, and for mammals, the changes are most obvious in the shifts in habitat that a warming climate is driving," said Reid. On the oceans, ice creates habitat, but summer ice is disappearing, creating problems for [polar bears](#), [walrus](#) and seals, but opportunities for some [whales](#). On land, substantial tundra is changing to shrub land, which means a loss of feeding habitats for some species such as [reindeer](#), but a novel area of expansion for moose."

Reid goes on to point out that, "These climate-driven changes then overlay the various other human-induced forces that Arctic wildlife face.

This includes new mines, roads, pipelines, oil and gas developments, and increased industrial pollutants, creating a growing complexity of management issues that will require harmonized regulatory regimes internationally, and greater involvement of northern communities in the conservation of the wildlife which are so crucial to their food security and culture."

A second report, the Arctic Resilience Report (ARR), features the insights of WCS Beringia Director Dr. Martin Robards and makes a science-based assessment of the integrated impacts of change in the Arctic. The report looks at the potential for large shifts in ecosystem services that affect human well-being, and how drivers of change interact to affect the ability of ecosystems and human populations to adapt or transform. In addition, this report offers an evaluation of adaptive strategies.

Dr. Robards is a lead author on the Background/Introduction chapters and the author of Chapter Seven that presents one of four case studies. His chapter discusses the rapid increase in Arctic shipping in the narrow confines of the Bering Strait – the gateway for all vessel traffic passing between the Arctic and Pacific Ocean.

"We found great political challenges for responding to the rapid increase in international vessel traffic in a manner that minimizes risks to the incredible aggregations of marine mammals and the food security of indigenous communities," said Dr. Robards. "However, there are also great opportunities for learning from successful efforts elsewhere such as on the eastern seaboard of the United States where Atlantic right whales have received greater protection through attention to vessel speeds and routing. Through our continuing work in the Arctic, WCS is well-suited to offer a unique perspective on the issue and to be a critical voice in offering science-based solutions to these challenges that benefit from the active engagement of the region's indigenous communities."

Approximately 300 people including ministers, delegates from the eight Arctic states (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States), representatives of indigenous peoples, scientists, and observers gathered in Kiruna to mark the end of the two-year Swedish chairmanship and the beginning of the Canadian chairmanship of the Arctic Council.

The Council is a high level intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States. This includes active involvement by Permanent Participants, including Arctic Indigenous representatives, on common Arctic issues, such as sustainable development and environmental protection.

Provided by Wildlife Conservation Society

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