

SPECIES AND AREAS UNDER PROTECTION: CHALLENGES AND OPPORTUNITIES FOR THE CANADIAN NORTHERN CORRIDOR

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KEY MESSAGES

The key findings and recommendations of this review are:

There is a global biodiversity crisis, and many of the threats to biodiversity are present in northern Canada. At a high level, these include habitat loss, degradation and fragmentation, climate change, overharvesting, pollution and the spread of non-native species.

A multi-modal transportation corridor will likely exacerbate many of these threats. For example, roads, pipelines and railways physically fragment ecosystems and habitats, lead to significant mortality in diverse animal groups (road and railways), indirectly contribute to climate change through the transport of non-renewable resources, increase salt, heavy metal, and/or sediment loads on nearby habitats and facilitate the arrival and spread of exotic species.

Some species, such as the boreal caribou, will require special consideration by CNC proponents. The current range of boreal caribou significantly overlaps with the proposed route, and many of the identified threats are relevant to the CNC, including increased predation facilitated by anthropogenic habitat disturbance (e.g., forestry, roads and other linear features), illegal and unregulated hunting, noise and light disturbance, vehicle collisions and pollution.

Federal Acts relevant to the CNC from a biodiversity conservation perspective include the *Canadian Wildlife Act*, *Species at Risk Act*, and *Impact Assessment Act*. The domains of these Acts are protected areas and critical habitats, protection of threatened species and mitigation of adverse environmental impacts of projects, respectively.

The extent of intact forests and roadless areas is shrinking around the world. The proposed route is (unsurprisingly) mostly within Canada's reservoir of roadless areas. Accordingly, the CNC stands to negatively impact Canada's status as holding a significant portion of the world's remaining ecologically intact areas.

The development of the CNC will likely lead to the proliferation of other infrastructure. This phenomenon of growth-inducing infrastructure means that the realized extent of negative cumulative impacts on biodiversity will only grow with time.

The opportunities associated with the CNC are largely in the areas of mitigating its impacts on biodiversity and increasing Western science’s knowledge of the health of northern ecosystems. There is a real opportunity for decades of research on wildlife crossing structures to be implemented in a deliberate and data-informed way, for increased monitoring of ecosystems and species in the North, and further research on a large number of topics (e.g., the efficacy of the *Impact Assessment Act* in protecting habitats and species at risk).

Indigenous Peoples must be equal partners throughout the entire CNC process.

Without this, biodiversity conservation/ecosystem-based management will be unsuccessful. Wherever the CNC is not desired, deemed irrelevant, or unable to positively support culture and livelihoods, it should not be developed.