

Managing and reducing negative impacts to biodiversity

Controlling the economic, social, and environmental impacts of invasive species

The impact of invasive species on native ecosystems, habitats, and species is catastrophic and often irreversible. In Canada, invasive species are frequently and increasingly identified as a top threat to species at risk¹¹⁵ and economic impacts result in billions of annual losses. In the early 1960s, invasive species cost North America \$2 billion per year, which has increased to over \$26 billion per year since 2010.¹¹⁶ Significant impacts to the agriculture, forestry, fisheries, and tourism sectors are experienced, with the Canadian agriculture sector alone estimating a \$2.2 billion annual economic impact from invasive plants.¹¹⁷

Recommended Investment: Additional \$250 million over five years

Prevent new introductions of invasive species into and across Canada by identifying key pathways for introduction and providing education, resources, training, and support to address key pathways. [ECCC, PS, CFIA, AAFC]

- Develop, implement, and monitor a National Framework for Early Detection and Rapid Response Initiatives to ensure effective and early response to new and emerging invasive species. [CFIA, AAFC, ECCC, DFO, NRCan, HC]
- Enable and support cross-sectoral partnerships, collaboration, and Indigenous leadership and knowledge in planning, control, monitoring, and reporting to restore and improve habitat by controlling invasive species. [ECCC, DFO, AAFC, CFIA, NRCan, PS]
- Ensure access to and encourage strong science, management, and reporting that provides accessible and transparent research and data, and that helps evaluate policies and programs to ensure effectiveness. [ECCC, DFO] *See also Accurate data, research, information, and knowledge for improved evidence-based monitoring and decision-making, later in this document.*

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Photo: Nick Hawkins

115 McCune et al. 2013, Woo-Durand et al. 2020 <https://cdnsiencepub.com/doi/pdf/10.1139/er-2020-0032?download=true>

116 Crystal-Ornela, R. et al. 2021 <https://neobiota.pensoft.net/article/58038/>

117 Environment Canada, 2010

Advancing a One Health approach

There is increasing recognition that the health of humans, animals (domestic and wild), and ecosystems are interconnected. The Global Biodiversity Framework calls for countries to implement the framework with consideration of the One Health Approach.¹¹⁸ Compared to livestock and public health sectors, Canada's current approach to wildlife health is under-resourced and reactive. The Green Budget Coalition recommends that the federal government fund the Pan-Canadian Approach to Wildlife Health, as follows:

Recommended Investment: \$120 million over five years

- **\$45 million** for the Canadian Wildlife Health Cooperative and other non-government coordinating bodies, to build professional capacity within Canada, coordinate monitoring and surveillance, and provide access to diagnostics, data management and synthesis of information that is accessible across the country. [ECCC]
- **\$20 million** for application-based program funding to support non-government partners to deliver One Health programs including a Northern Wildlife Health Program. [ECCC, PHAC]
- **\$45 million** to build federal/provincial/territorial government capacity to implement wildlife health programs that collaborate with livestock and public health sector partners. [ECCC, CFIA]
- **\$10 million** for governance, targeted Indigenous hunter communication tools, professional exchange programs, research fellowships, and State of Wildlife Health reports. [ECCC]

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118 Canada supported the G7 Joint Statement in February 2021 and the Rome Declaration of May 2021 calling for strengthened implementation of the One Health approach to the prevention and control of diseases that can transfer between animals and humans.

Data collection to support regulatory evaluation of pesticides

The PMRA frequently lacks data on environmental concentrations and use patterns (e.g., information on the timing, location, and quantity of pesticide applications) for the pesticides it is responsible for evaluating and regulating. This is an unacceptable gap. In 2021, the government invested \$50 million over three years to strengthen pesticide oversight, including a pilot water monitoring program and development of a reporting system to collect data on pesticide use. These programs should be expanded and extended, taking into account lessons learned in the pilot phase. Systematic data collection on localized pesticide use and more comprehensive environmental monitoring data would allow the PMRA to perform trend analysis, validate models used in re-evaluation and special review assessments, identify early warnings, and better plan and target compliance and enforcement activities. However, environmental monitoring will never be comprehensive and should not be used as a pretext for disregarding precautionary modeling of exposure estimates. The collection of these data is also required to measure Canada's progress towards meeting Target 7 in the Global Biodiversity Framework (reducing pesticide risks by 50% by 2030).

In June 2023, the government announced proposed regulatory changes to strengthen consideration of species at risk in pesticide risk assessments. The Green Budget Coalition recommends that ECCC's Canadian Wildlife Service be funded to lead this work, and to assess and track overall risks to biodiversity from pesticides.

Recommended Investment: \$95 million over five years

- **\$40 million over five years** (and renewal in 2029) to expand and extend the new pesticide water monitoring program. [PMRA, in collaboration with ECCC]
- **\$25 million over five years** to get a system for collecting pesticide use data off the ground, **plus \$5 million in 2024** to design and develop a publicly-accessible portal to communicate real-time pesticide use data. [PMRA, in collaboration with AAFC]

- **\$25 million over five years** to support consideration of species at risk in pesticide assessments, and to assess and monitor overall risks to biodiversity from pesticide use in Canada. [ECCC]

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Photo: Ted Cheskey



Halt and reverse bird population declines

Canada’s 451 native bird species help to keep forests and other ecosystems healthy through pest control, pollination, seed dispersal, and nutrient cycling. Canada continues to lose significant numbers of birds to human-related causes, despite protections found in Canada’s oldest nature law, the *Migratory Bird Convention Act*. Focused action and investments are required to restore migratory bird populations and protect their habitats, including wintering habitats for Canada’s migratory birds in Latin America. Wintering habitats are integral to meeting the energy demands of incubation (see also *Increasing Canada’s international biodiversity assistance, later in this document*). The following investments and actions are recommended to urgently address the five main threats to all birds: habitat loss, pesticides and contaminants, invasive species and cats, collisions, and the climate crisis.¹¹⁹

**Recommended Investment:
 \$42 million over six years [ECCC, PC]**

- Invest in habitat restoration and protection programs, and activities that address the five human-related threats to birds in urban and working landscapes. (**\$18 million over six years**)
- Identify, prioritize, protect, and restore key habitats and areas for grassland birds, aerial insectivores and shorebirds. (**\$18 million over six years**)
- Maintain strong science programs including education and support for participatory science to inform conservation efforts (see also *Accurate data, research, information, and knowledge for improved evidence-based decision-making, later in this document*). (**\$6 million over six years**)

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¹¹⁹ Birds Canada. “Major threats to birds in Canada.” <https://www.birdscanada.org/conserv-birds/major-threats-to-birds>