

**Invasive Species Centre
Ducks Unlimited Canada
Federation of Ontario Cottagers' Associations
Nature Conservancy of Canada
Ontario Federation of Anglers and Hunters
Ontario Turtle Conservation Centre**

Written Submission for the Pre-Budget Consultations in Advance of the Upcoming 2021 Federal Budget

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August 2020



List of Recommendations

Recommendation 1: The federal government should commit to strategies and enhanced investments focusing on the early and most cost-effective stages of invasive species: prevention, early detection, and rapid response.

Recommendation 2: The federal government should enhance coordination nationally on invasive species regulation and response through an integrated national invasive species program. Improve outcomes through increased investment and collaboration, streamlining processes in new and existing partnerships and collaborative networks.

Recommendation 3: The federal government, working with provinces and partners, could explore sustainable finance mechanisms, including green bonds, to increase investment in invasive species prevention and management.

Recommendation 4: An invasive species response fund could be established by the Federal Government in collaboration with Provincial partners, which would mitigate costly delays and support response in an efficient way.

Recommendation 5: The federal government could consider investments in post COVID-19 economic recovery through investing in Green Shovels projects, to achieve job creation, economic recovery, and environmental progress.

Introduction

In 2011, the **Invasive Species Centre (ISC)** was formed as a strategic initiative of Fisheries and Oceans Canada, Natural Resources Canada, Canadian Food Inspection Agency, and Ontario Ministry of Natural Resources and Forestry, to be a unique example of partnership and hub for collaboration and knowledge sharing. Our mission is to connect stakeholders, knowledge and technology to prevent the introduction and spread of invasive species in Canada.

Ducks Unlimited Canada is the leader in wetland conservation. Since 1938 we have conserved, restored and protected more than six million acres of wetlands and associated wildlife habitats across Canada. We save wildlife and special natural places through partnerships, and we use science to find solutions to the most important environmental issues of the day.

Federation of Ontario Cottagers' Associations, a non-profit organisation, is the largest non-farm landowner group in rural Ontario, representing the 250,000 waterfront property-owning families across the province. Since 1963, Federation of Ontario Cottagers' Associations has been the voice of the waterfront.

Since 1962, Canada's leading not-for-profit, private land conservation organization, the **Nature Conservancy of Canada (NCC)** has been protecting Ontario's most important natural areas and the species they sustain. Along with its partners, NCC has helped to protect more than 84,000

hectares (207,000 acres) in Ontario. From the north shore of Lake Superior to Pelee Island in Lake Erie, NCC works to protect the province's most significant natural landscapes.

The Ontario Federation of Anglers and Hunters (OFAH) is Ontario's largest, non-profit, fish and wildlife conservation organization, representing 100,000 members, subscribers, and supporters, with almost three decades of experience in invasive species education, outreach, and control through Ontario's Invading Species Awareness Program.

The Ontario Turtle Conservation Centre is the leading native turtle conservation organisation in Ontario and supports native turtle conservation and recovery efforts across Canada. Their novel approach to turtle conservation includes head-starting, treating injured adult turtles and community engagement and has been adapted as a model for effective turtle conservation across the world.

Invasive Species Challenges in Canada

Invasive Species pose serious threats to the economic, social, and ecological benefit of Canada's freshwater lakes and rivers, oceans, lands and forests. Globally, invasive species are thought to be the second greatest threat to biodiversity, next to habitat loss. These species arrive, often accidentally, from elsewhere in the world and, in the absence of natural predators, kill, crowd out or otherwise devastate native species and their ecosystems.

According to the 2019 United Nations report ([IPBES](#), 2019) on global species extinctions, invasive species are one of the top 5 direct drivers of change in nature. The report notes that the numbers of invasive alien species per country have risen by about 70% since 1970.

The economic harm caused by invasive species in Canada is significant. [Estimates](#) indicate that the cumulative lost revenue caused by just 16 invasive species in Canada is between \$13 to \$35 billion annually.

Many more invasive species are not established in Canada but threaten future economic impacts. For example, an Asian carp invasion in the Great Lakes, would threaten \$8.5 billion in activities, including recreational and commercial fishing, boating, wildlife viewing, and beach use ([Fisheries and Oceans](#) Canada, 2018).

Zebra and quagga mussel are already established in the Great Lakes, costing municipalities, industry, and waterfront users tens of millions of dollars annually in Canada ([OAG](#), 2019). Lakes and rivers throughout the rest of Canada are threatened as these mussels begin to spread west.

Canada's municipalities are on the front lines and burdened with the costs of managing invasive species that spread rapidly through our communities. For example, the tree killing emerald ash borer is predicted to cost Canadian municipalities \$524 million over 30 years ([McKenney et al., 2012](#)) for tree removal and re-planting alone. The loss of healthy trees creates lasting community impacts through reduction in ecosystem services. [TD economics](#) valued the trees in

Toronto's urban forest at \$7 billion, or about \$700 per tree, and calculated that they provide Torontonians with \$80 million worth of environmental benefits and cost savings per year.

With an expected increase in invasions and outbreaks in the future, Canada must focus on a state of preparedness and rapid response to mitigate long term costs associated with invasive species.

Opportunity for investment in invasive species prevention across Canada

Prevention is the most effective and low-cost solution for managing invasive species. Waiting until an invasive species is established to start management is costly and can harm valuable infrastructure and the natural biodiversity needed for healthy ecosystems.

The invasion curve (Figure 1) shows the stages of invasive species management from pre-arrival (prevention) to long-term control. After a species is introduced, management costs increase and likelihood of eradication decreases as time passes.

Investing in prevention provides **economic returns up to 100x higher** than trying to manage a species after it spreads.

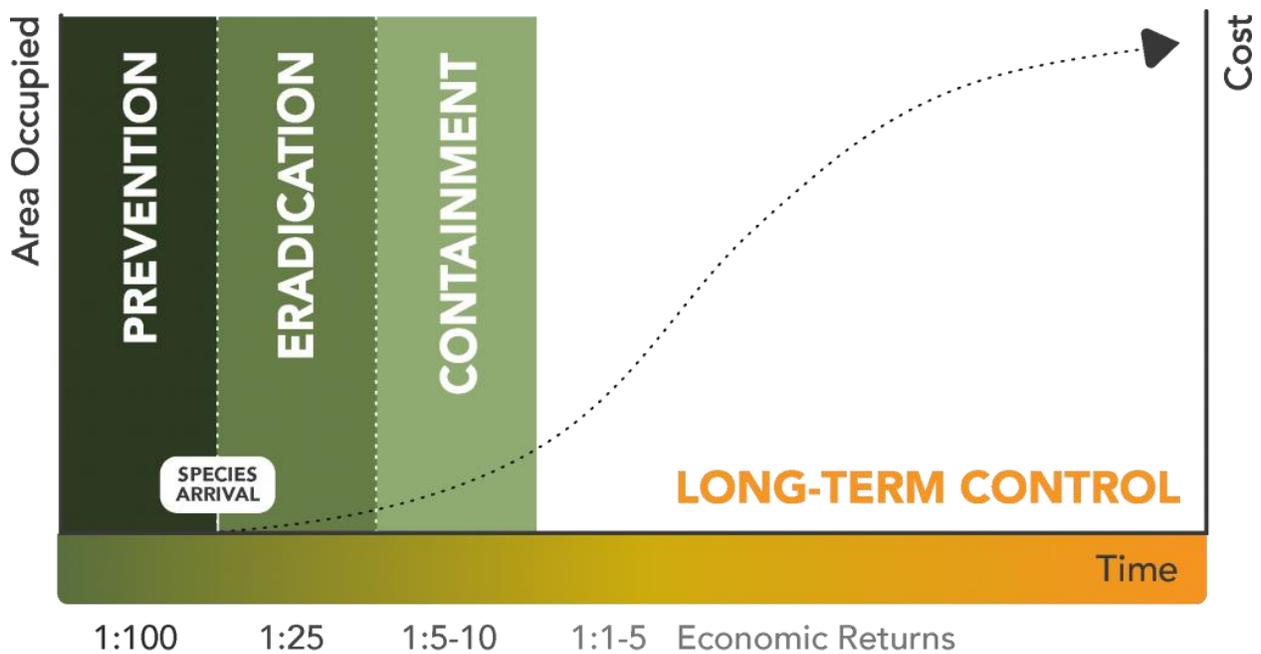


Figure 1: The Invasion Curve demonstrates the benefits of early investments in invasive species prevention.

Following the principles of the Invasion Curve, **the ISC proposes five recommendations for Federal Government's consideration in preparation for the 2021 federal budget.** These

recommendations align with Federal Sustainable Development Strategy targets for investments in green, low-carbon infrastructure and infrastructure resilience, will improve ecosystem health for lakes, rivers and sustainable forests, support adaptation and resilience objectives from the Pan-Canadian Framework on Clean Growth Climate Change, and align with the United Nations International Decade on Ecological Restoration. They will bolster critical habitat and link to Canada Nature Fund Targets and support policy like the Fisheries Act, Species at Risk Act, and binational agreements like the Great Lakes Water Quality Agreement.

Recommendation 1: The federal government should commit to strategies and enhanced investments focusing on the early and most cost-effective stages of invasive species: prevention, early detection, and rapid response.

An ounce of prevention is worth a pound of cure. Future strategies and enhanced investments by the Federal Government should focus on early stages of an invasion or outbreak: prevention and early detection. Early detection and rapid, sustained response to an invasive species is critical to reduce long term economic, environmental, and social impacts.

The Federal Government with the support of their partner network should scan the horizon: be *proactive* and prepare for future invasions, rather than *reactive* to invasive species that are already present.

Recommendation 2: The federal government should enhance coordination nationally on invasive species regulation and response through an integrated national invasive species program. Improve outcomes through increased investment and collaboration, streamlining processes in new and existing partnerships and collaborative networks.

We need an integrated, national invasive species program that has a transparent and efficient system for screening and assessing risk of invasive species, that will better enable priority setting for funding and action where it is needed most in Canada. Base the program in science, build on existing partnerships and be forward-thinking.

Recommendation 3: The federal government, working with provinces and partners, explore sustainable finance mechanisms, including green bonds, to increase investment in invasive species prevention and management.

Long term, efficient prevention and management of Invasive Species requires increased and sustainable financial investments. There are new innovations in conservation financing and the Federal Government has taken important first steps here, with the Expert Panel report on Sustainable Finance. These mechanisms, such as green bonds and environmental impact funds could also support nature conservation, including preventing invasive species. We encourage the federal government to explore and help implement opportunities for investment methods and conservation finance models for invasive species in Canada.

Recommendation 4: An invasive species response fund could be established by the Federal Government in collaboration with Provincial partners, which would mitigate costly delays and support response in an efficient way.

Once an invasive species is detected in Canada, immediate, rapid, and sustained response is essential to achieve eradication and prevent further spread. Financial resources and flexibility is required at the time of species detection to implement meaningful response. In the absence of immediate financial support, the problem will grow. For example, a 2009 report prepared for the Canadian Council of Forest Ministers concluded that Canada could have avoided a cost of \$165 million annually by preventing the introduction and establishment of four high-profile invasive forest insects and diseases.

\$34 million is the estimated average annual cost over the next 20 years if just one invasive species were to become established in Canada and for every \$1 spent on coordinated multi-jurisdictional prevention activities, \$3 in mitigation, regulatory and depletion costs can be avoided if only one such pest is prevented from establishing.

Recommendation 5: The federal government could consider investments in post COVID-19 economic recovery through investing in Green Shovels projects, to achieve job creation, economic recovery, and environmental progress.

As the call for increased investments in prevention activities continues, there are concrete steps which the Federal government can take to aid in economic and job recovery. The Invasive Species Centre, Nature Conservancy of Canada, Ducks Unlimited, Ontario Federation of Anglers and Hunters, Federation of Ontario Cottagers' Associations, and Ontario Turtle Conservation Centre, have developed [Green Shovels](#), a collaborative list of 11 shovel ready, **ready-to-implement** projects to achieve job creation, environmental recovery, and environmental progress.

These Green Shovels projects could be considered by the federal, provincial, and municipal governments as part of job and economic stimulus planning and as ongoing employment and infrastructure work. These projects would support local contractors, local communities, youth, and young professionals.

These projects have a high leverage rate of at least three to one and are supported by generous financial and in-kind contributions from organizations and partners, scalable from small to large. They can deliver major improvements in leading environmental challenges including habitat creation & protection, reducing invasive species, reducing flooding, and protecting species at risk. The Green Shovels projects outline an \$47 million investment to implement 11 shovel-ready projects, create up to 5,000 jobs, designed to support Canada's economic recovery.

Conclusion

Thank you for the opportunity to highlight the growing pressure of invasive species in Canada, and their threat to our economy, environment and communities. The time is now to increase our strategies and investments to prevent these invasive species becoming established in the first place. We would be pleased to discuss any of these recommendations with you in more detail.

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