



Invasive  
Species  
Centre

# Annual Report

## Fiscal Year 2021

April 1, 2020 - March 31, 2021

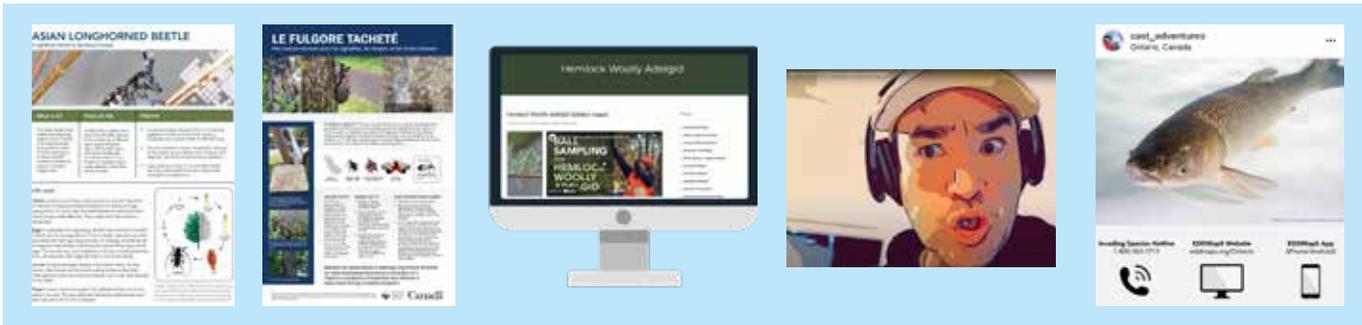


Together with our partners and collaborators, the Invasive Species Centre (ISC) enjoyed a successful fiscal year (FY) 2021, with measurable advances in our three strategic priority areas: Catalyze Action, Share Knowledge, and Increase and Diversify Investment in Invasive Species. In 2021, we are excited to celebrate the ISC's 10<sup>th</sup> anniversary, and we look forward to continuing to work together to further our vision of a Canada where land and water are protected from invasive species.

*Sarah Rang, ISC Executive Director*



# Share Knowledge



**DESCRIPTION:** The ISC works to increase and share knowledge and learn from our target sectors, to increase the prevention and management of invasive species. In 2021, the way we engaged pivoted, as we discovered new ways to connect with our partners, community scientists, audiences, and other stakeholders to share knowledge about invasive species.

**HIGHLIGHTS:**

- Hosted the 2021 Invasive Species Forum virtually, presenting sessions on a variety of topics including emerging threats, policy and legislation, science and research, and celebrating successes. More than 250 people registered for the event, and the recordings have been watched more than 250 times on the ISC's YouTube channel.
- Developed a new agreement with Anishinabek Nation on invasive species.
- Launched the redesigned ISC website that is a hub for resources, upcoming events, and news.
- Piloted the use of social media influencers to help spread the word about the importance of protecting the Great Lakes from Asian Carp. The Asian Carp Canada program worked with three angling influencers and reached 150,000 people.
- Led Invasive Species Awareness Week (February 22-26, 2021) with collaborative partners. The campaign gained more than 43,000 impressions and 2,200 engagements on ISC channels, and garnered more than 800,000 impressions from social media and web posts from across North America.
- Produced stories in our quarterly e-newsletter, The Spread, that were clicked on more than 800 times, and curated articles for our bi-weekly Media Scan that were clicked on more than 2,400 times.
- Developed a Municipal Community of Practice to encourage sharing of knowledge among municipalities on invasive species.
- Developed new species profiles for spiny water-flea, hemlock woolly adelgid, wild pig, elm zigzag sawfly, Prussian carp and flowering rush.
- Created new resources for priority pests, including new factsheets for *Ldd* moth and Asian longhorned beetle, as well as a new spotted lanternfly poster.



# Catalyze Action

The ISC works with partners to catalyze action on invasive species prevention and management by creating networks, contributing to policy, increasing response, developing new tools, and growing capacity and training. There has been steady progress in FY2021 in the development of virtual resources for community science, insect and zooplankton diagnostics, research on e-commerce and the roundwood pathway, insect trapping innovations, hemlock community science, and priority species and pathways.

Through the Early Detection & Rapid Response (EDRR) Network Ontario, we involved more than 430 volunteers in local action initiatives and engaged with more than 1,500 people.

Completed the *Ldd* moth (formerly known as European gypsy moth) egg mass scraping contest in Ontario with 53 entries and 12,000 reported egg masses scraped in the province.

Launched a campaign in partnership with the Hemlock Woolly Adelgid Working Group to encourage citizen reports of hemlock stands in Ontario, which resulted in new reports of hemlock stands.

Started work on a Tree Check Form in collaboration with the Canadian Food Inspection Agency (CFIA), where citizens can monitor their community trees and report on their status to help CFIA gain a better understanding of the current health status of Canada's trees.

Produced new invasive garlic mustard plant management resources to encourage public action, including how-to identify the plant, host a public pull, and removal guides for homeowners.

Participated as guest speakers in numerous webinar presentations focused on community science, monitoring and management, and priority species of concern.

Completed insect identification and supported research for beech leaf disease and oak wilt projects for the Ministry of Northern Development, Mines, Natural Resources and Forestry.

Supported research into biocontrol methods for invasive plants.



Photos from top:

- *Ldd* moth egg mass scraping
- Community Science Tree Check Form
- Garlic mustard resources

# Increase and Diversify Investment in Invasive Species

ISC works to increase the sense of importance and urgency of invasive species to all orders of government, land managers, private sector, citizens, and academics, and to develop new models and mechanisms for additional investment and support to achieve increased, stable, diversified investments in invasive species. A focus for this year was quantifying the costs and impacts of invasives and building a business case for investment.



Coordinated the Green Shovels Collaborative to develop a menu of 11 scalable and flexible projects with \$50 million in investment and 1,000 jobs.

Conducted a Preliminary Cost-Benefit Analysis for Prevention, Treatment and Control of Phragmites in Ontario with the Green Shovels Collaborative. Findings determined that the benefits of controlling Phragmites outweigh the costs of control.

Started a new microgrants program to support local invasive species education and community action in Ontario and awarded 24 microgrants of \$1,000 each.

Worked with local partners to support the development of a Biodiversity Garden project to highlight the importance of choosing native plants over invasive plants.

Participated in the provincial budget consultation meeting for Northern Ontario, highlighting the issue of invasive species and encouraging additional investment.

Worked with our partners and industry experts to explore the feasibility of an Environmental Impact Bond for invasive species in Ontario and beyond.

Hosted *'InvaCost 3.0 The Global Synthesis of the economic cost of biological invasions'* webinar, which reported that costs of invasions reached a minimum of U.S. \$1.288 trillion (2017 U.S. dollars) over the past few decades (1970–2017), with an annual mean cost of U.S. \$26.8 billion.



Photos from top:

- Garlic mustard pull.  
Credit: EcoSuperior
- Phragmites removal.  
Credit: Georgian Bay Forever
- Ontario Youth Naturalist Program.  
Credit: Lakehead University, Office of Community Engagement and Lifelong Learning



The ISC Board of Directors is grateful for the support and continued investments from our partners and collaborators in helping us address the serious issues of invasive species prevention and management. The Board and the ISC staff team are committed to creating impactful results from these contributions, greeting future challenges and opportunities, while striving for natural spaces that can be protected from invasive species.

*Robert Lambe, ISC Board President*

## ISC Board of Directors

### President:

Mr. Robert Lambe

### Vice President:

Mr. Dave Burden

### Ex-officio Members:

Ms. Christie Curley  
 Mr. Danny Galarneau  
 Dr. David Nanang  
 Mr. James Crawford  
 Mr. Kevin Urbanic

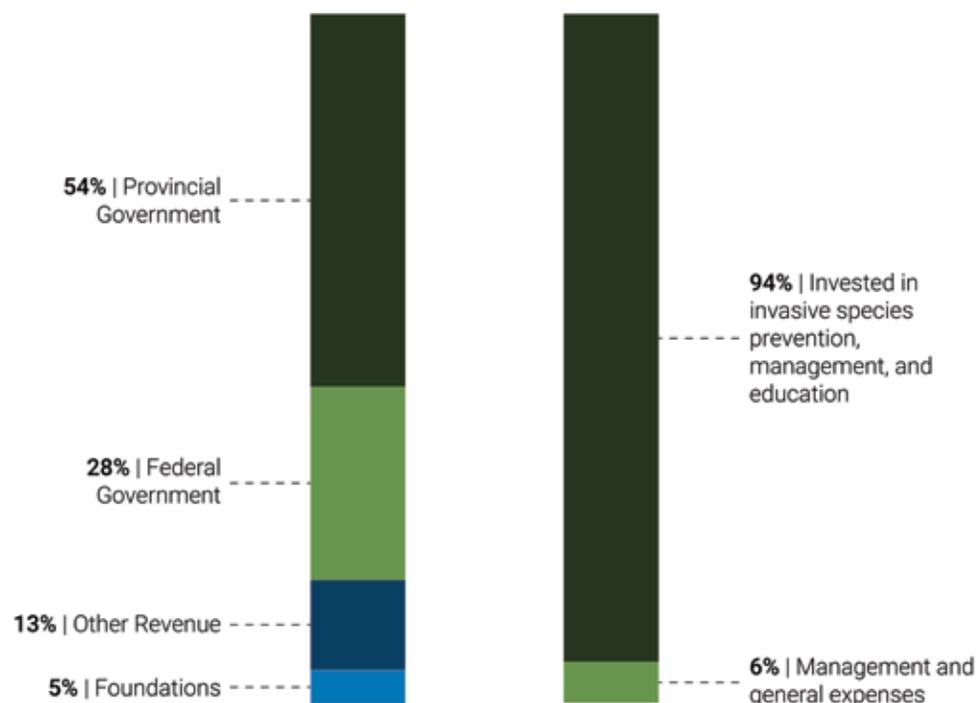
### Directors:

Ms. Nicola Crawhall  
 Ms. Kaaren Dannenmann  
 Ms. Jane Gilbert  
 Mr. Cameron Mack  
 Dr. Stephen Murphy  
 Mr. Jason Pollard  
 Mr. Michael Pratt

## FISCAL 2021 FINANCIALS

**REVENUE**  
**\$2,274,871**

**EXPENSES**  
**\$2,024,286**



# Partners and Collaborators

2021 represents the ISC's 10<sup>th</sup> anniversary, with the theme of '10 Years Together'. The list below is a testament to the power of working together towards a common vision.

**It is with gratitude that we acknowledge ISC's partners and collaborators. Thank you for your dedication and commitment to protecting Canada's land and water from invasive species.**

Alberta Environment and Parks  
Alberta Invasive Species Council  
Algoma University  
Anishinabek Nation  
Annex 6 Sub-committee to the Great Lakes Water Quality Agreement  
Asian Carp Canada  
Asian Carp Regional Coordinating Committee  
Batchewana First Nation  
Biodiversity and Education Awareness Network  
BioForest - Lallemand  
Bow River Irrigation District  
Box Tree Moth Technical Advisory Committee  
Canada Nature Fund\*  
Canada Summer Jobs Program, Service Canada\*  
Canadian Bushplane Heritage Centre  
Canadian Council on Invasive Species  
Canadian Food Inspection Agency\*  
Canadian Institute of Forestry  
Canadian National Collections of Insects, Arachnids, and Nematodes  
Carleton University  
Carolinian Canada  
Center for Freshwater Research and Education Lake Superior State University  
Central Algoma Freshwater Coalition  
Chaffey's Area Lake Association  
City of London  
City of Mississauga  
City of Ottawa  
City of Sault Ste. Marie  
City of Windsor  
Conservation Ontario  
Ducks Unlimited Canada  
Early Detection & Rapid Response (EDRR) Network Ontario  
Eastern Ontario Model Forest  
Eastern Ontario Regional Forest Health Network  
Eco Canada\*  
Entomica  
Environment and Climate Change Canada\*  
Enviro-Responsible  
Fisheries and Oceans Canada\*  
Fisheries and Oceans Canada, Sea Lamprey Control Centre  
Forestry and Agricultural Biotechnology Institute (FABI) at University of Pretoria  
Federation of Ontario Cottagers' Associations  
Forests Ontario  
Front of Young Environmental Advisory Committee  
Garden River First Nation  
Grape Growers of Ontario  
Great Lakes Commission  
Great Lakes Executive Committee  
Great Lakes Fishery Commission  
Great Lakes Panel on Aquatic Invasive Species

Great Lakes Phragmites Collaborative  
Great Lakes Sea Grant Network  
Great Lakes St. Lawrence Governors and Premiers  
Green Shovels Collaborative  
Haliburton Forestry  
Hemlock Woolly Adelgid Technical Advisory Committee  
Honourable Ross Romano and Staff  
Instituut Natuur – En Bosonderzoek (INBO)  
International Conference on Aquatic Invasive Species Technical Program Committee  
International Joint Commission  
International Society of Arboriculture  
Invasive Mussel Collaborative  
Invasive Phragmites Control Centre  
Invasive Species Council of B.C.  
Invasive Species Municipal Community of Practice  
Ivey Business School  
Kensington Conservancy  
Lake Superior Watershed Conservancy  
Manitoba Ministry of Agriculture and Resource Development  
McGill University  
Mersey Tobeatic Research Institute  
Michigan Department of Natural Resources  
Michigan State University  
Midwest Invasive Plant Network  
Ministry of Transportation of Ontario  
Missanabie Cree  
Muskoka Watershed Council  
National Aquatic Invasive Species Committee (NAISC)  
National EDDMapS Working Group  
Natural Resources Canada, Canadian Forest Service\*  
Nature Conservancy of Canada  
Netherlands Office for Risk Assessment & Research (NVWA/BuRO)  
New Brunswick Invasive Species Council  
New Zealand Forest Research Institute Limited (Scion)  
North American Invasive Species Management Association  
North American Invasive Species Network  
Northern Ontario Heritage Fund Corporation\*  
Nova Scotia Invasive Species Council  
Oak Wilt Technical Advisory Committee  
Ohio Department of Natural Resources  
Ontario Apple Growers  
Ontario Biodiversity Council  
Ontario Federation of Anglers and Hunters\*  
Ontario Horticulture Outreach Committee  
Ontario Invading Species Awareness Program  
Ontario Invasive Plant Council  
Ontario Land Trust Alliance  
Ontario Ministry of Agriculture, Food, and Rural Affairs  
Ontario Ministry of the Environment, Conservation and Parks\*  
Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry\*

Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry, Ontario Forest Research Institute\*  
Ontario Nature  
Ontario Phragmites Working Group  
Ontario Professional Foresters Association  
Ontario Tender Fruit Growers  
Ontario Trillium Foundation\*  
Ontario Turtle Conservation Centre  
Ontario Woodlot Association  
Parks Canada  
Parks Canada Invasive Species Community of Practice  
Quantified Ventures  
Radboud University Nijmegen  
Regional Municipality of York\*  
Regional Public Works Commissioners of Ontario  
Royal Ontario Museum  
RNT Consulting Inc.  
Saskatchewan Association of Watersheds  
Saskatchewan Ministry of Environment  
Saskatchewan Ministry of Environment, Forest Service Branch\*  
Sault and Lakeshore Kinsmen Clubs  
Sault College  
Sault Naturalists  
Sault Ste. Marie Innovation Centre  
Sault Ste. Marie Public Library  
Science North  
Scouts Canada  
Serpent River First Nation  
Severn Sound Environmental Association  
Silv-Econ Ltd.  
Simcoe County  
Spotted Lanternfly Education and Outreach Committee  
The Professional Edge  
Toronto and Region Conservation Authority  
Toronto Zoo  
Trent University  
UK Centre for Ecology and Hydrology  
Université Paris-Saclay and the InvaCost Consortium  
University of Georgia, Centre for Invasive Species and Ecosystem Health  
University of Guelph  
University of Ottawa  
University of Toronto  
University of Toronto, Scarborough  
University of Waterloo  
Water Wise  
Watersheds Canada  
Westbrook Public Affairs  
Wildlife Habitat Canada  
World Wildlife Fund

**\*Financial Partners**



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**OUR VISION** is a Canada where land and water are protected from invasive species.

**OUR MISSION** is to connect stakeholders, knowledge, and technology to prevent the spread of invasive species that threaten our environment, economy, and society.

Learn more about invasive species threatening Canada's natural spaces by visiting [www.invasivespeciescentre.ca](http://www.invasivespeciescentre.ca) and signing up to receive media and research updates, information on upcoming events and our quarterly newsletter.

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