



The BC Government Invasive Species Strategic Plan

IMISWG

Inter-Ministry Invasive Species Working Group





CONTENTS

Introduction 1

Prevent 4

Reduce 6

Regulate 8

Partner 9

Strengthen 13

Conclusion 15



Northern snakehead *Channa argus*



Eurasian water-milfoil *Myriophyllum spicatum*



Bohemian knotweed *Reynoutria x bohemica*



Asian longhorned beetle *Anoplophora glabripennis*



Invasive mussels on boat propeller

INTRODUCTION

Invasive species are plants and animals not native (alien) to the province, or are outside of their natural distribution, and can negatively impact British Columbia (BC)'s environment, people and/or economy. Free from their natural enemies and other constraints that keep them in check in their native ranges, invasive species can spread rapidly, outcompeting and preying on native species, dominating natural and managed areas, and altering biological communities.

Invasive species are the second biggest threat to species and ecosystems at risk in BC after habitat loss. Invasive species also threaten BC's diverse economy and societal values. Impacts include loss of productivity in agriculture, aquaculture and forest industries, damage to infrastructure, hazards to human health and safety, degradation or loss of recreational areas and tourism opportunities and increasing costs for managing these species in all sectors. Natural resources with cultural and spiritual significance to Indigenous communities are also negatively affected. Climate change is increasing the rate of spread and expanding the ecological limits of many invasive species as well as increasing the

frequency and severity of natural disturbances such as fires and floods that result in large exposed areas and fragile ecosystems that are at high risk of invasion as they are recovering. Due to the high socio-economic, cultural and environmental impacts of invasive species to the province, a complex, multi-jurisdictional effort involving numerous stakeholders from all sectors of society is required to successfully manage them.

Two strategic documents provide the framework for a province-wide approach to managing these invaders. The Invasive Species Strategy for British Columbia, initially completed in 2012 and updated in 2018, is a comprehensive framework for effective and coordinated management of invasive species, created with input from a wide variety of stakeholder groups from across the province. The second strategy is this document, The BC Government Invasive Species Strategic Plan (hereafter referred to as the Strategic Plan), prepared by a cross-agency provincial government committee formed in 2005 called the Inter-Ministry Invasive Species Working Group (IMISWG). This 2020-2025 version of the Strategic Plan replaces the December 2014 version.

DEFINITION OF AN INVASIVE SPECIES:

Species that are not native (alien) to the province, or are outside of their natural distribution, and can negatively impact British Columbia's environment, people and/or economy.

PURPOSE

The purpose of this Strategic Plan is to guide the coordination, integration, and delivery of the provincial government invasive species programs.

SCOPE

The scope of the IMISWG, and this Strategic Plan, is focused on, but not limited to:

- Terrestrial and aquatic invasive alien species such as plants, animals (including fish, mollusks, crustaceans and other invertebrates), fungi, and microbes that are not native to the province, or are outside of their natural distribution, and threaten to degrade the environment or negatively impact BC's people or economy.
- Legislation and regulations across government related to invasive species management.
- Key stakeholders that may be impacted by, or may directly impact, invasive species prevention and management.
- The goals and objectives contained in this and other strategy documents developed by the IMISWG.

The IMISWG may provide a supporting or collaborative role to related programs lead by other provincial agencies on a case-by-case basis, including:

- Diseases and pathogens that affect native fauna and flora, humans, and livestock. These health dimensions are addressed under existing native fauna and flora, human, and livestock health programs.
- Provincial agriculture and forest pests managed under the leadership of the BC Plant Protection Advisory Council (BCPPAC).



GOALS

Four strategic goals have been identified by the provincial government and are outlined in detail throughout this Strategic Plan:

GOAL 1: Prevent the establishment of new invasive species infestations in BC.

GOAL 2: Reduce the socio-economic, cultural, and environmental impacts of existing invasive species in BC.

GOAL 3: Build a strong, proactive, and comprehensive legislative framework for invasive species prevention and management in BC.

GOAL 4: Partner and support communication with all levels of Governments, Indigenous communities, interested stakeholders and invasive species organizations.

GOAL 5: Strengthen science-based and strategic approach to invasive species management decisions.

Objectives under each goal address priority programs and activities required to achieve each of the goals. Implementation of this Strategic Plan on an annual basis continues, signaling the provincial government's commitment to collaborative and effective invasive species management throughout BC.

Guided by this document and enabled by the operational mandates of member agencies, the IMISWG has streamlined cross-agency operations, minimized the conflict arising from differing mandates, and strengthened practices that deal effectively with governance, funding, early detection and rapid response, inventory and treatment. The IMISWG works cooperatively with, and provides strong leadership and support to local governments, Indigenous communities, the Invasive Species Council of BC, regional invasive species organizations and other non-profit groups and our federal partners.

With the two complementary provincial strategies in place, British Columbians are experiencing increased efficiency in program delivery, awareness in all sectors of society, and broad-based community action. Together, BC is progressing toward realizing our vision for "Healthy natural ecosystems and working landscapes, with minimal adverse effects from terrestrial and aquatic invasive species."

PREVENT

OBJECTIVE 1.1

Prevent the introduction of new species that have the potential to be invasive and of concern.

GOAL 1 | Prevent the establishment of new invasive species infestations in BC.



Black henbane *Hyoscyamus niger*

ACTIONS

- 1.1.1 Identify key pathways and vectors of introduction and spread of invasive species. Develop strategies and partnerships for effective monitoring and management of key pathways and vectors.
- 1.1.2 Use scientifically based risk assessments and ranking process applicable to BC.
- 1.1.3 Regulate pathways and invasive species that pose a risk to BC but are not here yet through provincial legislation; recommend they also be addressed by federal regulatory agencies.
- 1.1.4 Encourage the strengthening of federal regulations and risk assessments for the invasive potential of all proposed new imported species e.g. agriculture, horticulture, fish and game stocking, pet and live food trades.

OBJECTIVE 1.2

Apply an early detection and rapid response (EDRR) approach to address invasive species that have been recently introduced into BC.

ACTIONS

- 1.2.1 Continue to implement a coordinated province-wide invasive species early detection and rapid response plan program, following the BC Early Detection and Rapid Response Plan.
- 1.2.2 Initiate and coordinate informal monitoring activities and targeted inventory projects across the province to survey for new invasive species on an annual basis.
- 1.2.3 Initiate and partner in community (citizen) science initiatives to increase awareness and facilitate early detection of new invasive species occurrences in BC. Ensure well-used databases are scanned annually and that priority invasive species information is confirmed and transferred into the Provincial Invasive Species database "InvasivesBC".
- 1.2.4 Enhance and formalize invasive species identification networks involving provincial scientists and other expert taxonomists.
- 1.2.5 Maintain and promote the "BC Report Invasives" mobile application as the primary reporting mechanism in BC for invasive species and streamline response times to reports received.



Feral pig

REDUCE

OBJECTIVE 2.1

Address established invasive species infestations through integrated, effective, efficient, and cost-effective invasive species management actions.

GOAL 2 | Reduce the socio-economic, cultural, and environmental impacts of existing invasive species in BC.



ACTIONS

- 2.1.1 Establish cost-efficient and effective invasive species management plans, including containment guidelines for priority species.
- 2.1.2 Develop innovative practices and tools for invasive species management and create up to date species-specific treatment prescriptions guidance documents for provincial public land and waters.
- 2.1.3 Manage and contain priority invasive species infestations on provincial public land and water to limit spread using integrated pest management principles and cost-effective tools, including biological control.
- 2.1.4 Restore areas post-treatment using locally adapted and non-invasive species to prevent re-invasion, where appropriate.
- 2.1.5 Maintain an inventory of invasive species and management activities on provincial public land and waters and provide this information to all stakeholders through the InvasivesBC application.
- 2.1.6 Establish procedures for implementing, monitoring, and evaluating activities specified in invasive species management plans and treatment prescriptions.

OBJECTIVE 2.2

Reduce invasive species spread to new areas within BC.

ACTIONS

- 2.2.1 Determine provincial invasive species management priorities and support regional prioritization annually.
- 2.2.2 Promote best practices for preventing the spread of invasive species within BC, such as vehicle and equipment cleaning, checking seed mixtures for contaminants, and promoting the use of non-invasive species in restoration projects, and in the horticulture, pet and live food trades.
- 2.2.3 Encourage provincial government staff, contractors and volunteers working on provincial public land and water to take the IMISWG "Invasives 101" online training program; ensuring it remains accessible and current.
- 2.2.4 Educate landowners, land users, industry, and the general public in procedures to restrict the spread of invasive species.
- 2.2.5 Identify areas with a high risk for invasive species spread, such as land damaged by mountain pine beetle, floods, and wildfires, and prioritize the timely restoration of these susceptible sites.
- 2.2.6 Provide the framework and guidance to ensure best practices to prevent the introduction and spread of invasive species are incorporated into all large-scale projects throughout BC, including ecosystem restoration and/or prescribe burn projects. Promote inclusion of invasive species prevention and management clauses in all permits, licences, and agreements for all work on or use of Provincial public land and water.

REGULATE

OBJECTIVE 3.1

Improve legislative framework for preventing and managing invasive species in BC.

GOAL 3 | Build a strong, proactive, and comprehensive legislative framework for invasive species prevention and management in BC.

ACTIONS

- 3.1.1 Review, harmonize, and develop new provincial invasive species legislation, policy and standards as needed to address existing gaps, conflicts, and overlaps.
- 3.1.2 Develop and update regulations that categorize invasive species based on their pathways of introduction, current and potential distribution and impacts.
- 3.1.3 Stop the sale of known invasive species within BC.
- 3.1.4 Enforce provincial invasive species legislation as required.



PARTNER

OBJECTIVE 4.1

Continue to prioritize inter-ministry working relationships and build upon existing success of the IMISWG.

GOAL 4 | Partner and support communication with all levels of Governments, Indigenous communities, interested stakeholders and invasive species organizations.

ACTIONS

- 4.1.1 Ensure support and recognition among all agencies for the IMISWG, including regularly reporting up to the IMISWG ADM committee.
- 4.1.2 Establish a governance model that identifies accountability for invasive species management among ministries.
- 4.1.3 Develop an Invasive Species Strategic Framework that outlines and supports the provincial government's evolving approach to invasive species management.
- 4.1.4 Monitor success against the BC Government Invasive Species Strategic Plan, and track reporting of annual investments of IMISWG member ministries on invasive species.
- 4.1.5 Support knowledge transfer and succession planning throughout all IMISWG member ministries, including documentation of key priority information.



OBJECTIVE 4.2

Actively establish and support opportunities to work collaboratively with Indigenous governments and communities on invasive species management.



Spotted knapweed *Centaurea stoebe* with *Agapeta zoegana* biological control agent

ACTIONS

- 4.2.1 Continue to build and streamline information sharing approaches on invasive species management with Indigenous governments.
- 4.2.2 Incorporate Indigenous knowledge into invasive species management.
- 4.2.3 Invest in capacity building within Indigenous governments and provide opportunities for local communities for invasive species management training and employment.

OBJECTIVE 4.3

Partner with Local Governments, other Provincial and State Governments, and Federal Agencies.

ACTIONS

- 4.3.1 Collaborate with local governments to improve coordination and information sharing. Invite local government representatives to join IMISWG on a regular basis to exchange information on topics of mutual interest.
- 4.3.2 Provide and encourage adoption of guidelines for municipalities and regional districts to ensure consistent application of invasive species legislation.
- 4.3.3 Facilitate action on topics of shared interest or authority and lead topic specific working groups under the IMISWG such as the "Soils and Invasive Species Working Group" with representation from local governments and IMISWG member ministries.



St. John's-wort *Hypericum perforatum*

OBJECTIVE 4.4

Work collaboratively with, share information, and provide leadership on invasive species management in BC to Non-Government Organizations and interested stakeholder groups



ACTIONS

- 4.4.1 Work cooperatively with the Invasive Species Council of BC, regional invasive species organizations, and relevant stakeholders to promote consistent messaging and prioritization on invasive species across BC.
- 4.4.2 Initiate and partner in education and behavior change programs to increase awareness of the threat of invasive species and promote sound alternatives to the use of invasive species in all sectors.
- 4.4.3 Encourage inclusive and culturally appropriate education and outreach materials and programs to reach broad and potentially new audiences.

STRENGTHEN

OBJECTIVE 5.1

Facilitate the identification and analysis of invasive species impacts.

GOAL 5 | Strengthen science-based and strategic approach to invasive species management decisions.

ACTIONS

- 5.1.1 Develop procedures to determine when invasive species occurrences are of provincial significance and their priority for management.
- 5.1.2 Strengthen existing invasive species specialist networks to ensure that information to assess invasive species occurrences is readily accessible and available.
- 5.1.3 Operate and maintain InvasivesBC database and mobile data collection application to house invasive species inventory and management information in one location, available for use by all land managers, government agencies and relevant stakeholder groups. 
- 5.1.4 Explore and further document direct linkages between climate change and invasive species, ensure climate change projections are incorporated into risk assessments and address climate change adaptation challenges associated with the increase introduction and spread of invasive species throughout BC.
- 5.1.5 Use trend analyses to report the impacts of invasive species populations and overall success of management efforts to date.
- 5.1.6 Facilitate the development of updated Economic Analysis documentation to identify opportunities for increased return on investment for invasive species management activities.
- 5.1.7 Continue to build a strong online presence through regularly updating and promoting the shared Province of BC Invasive Species web pages and content.

OBJECTIVE 5.2

Strengthen partnerships and internal capacity for research, education, and training to ensure ongoing cost-effective, efficient and sustainable invasive species management.

ACTIONS

- 5.2.1 Support and collaborate in invasive species management research in BC, with partners such as post-secondary institutions and federal government agencies and facilitate sharing of research outcomes to various audiences including land managers.
- 5.2.2 Integrate and coordinate invasive species research, education and training programs throughout BC and encourage increased capacity within Canada.
- 5.2.3 Continue research of impacts associated with increased natural disturbances such as wildfires and floods through long term and post disturbance monitoring.
- 5.2.4 Lead collaborative inter-ministry trials and testing of new treatment methods and sharing of results and lessons learned.



CONCLUSION

As a province that has borders opening to international sea and land and a major hub for exports and imports, BC has an important role to play in the control of invasive species. This also highlights the importance of the coordinated approach through various agencies at every level. The plan expects to enhance provincial coordination, engagement and capacity building while protecting BC's environment, economy, and cultural values.

The IMISWG will continue to work together to implement this updated strategic plan by annually planning for delivery of identified actions. Measuring success is an important part of any strategy and the IMISWG will track accomplishments and report out on success in meeting stated goals. With a coordinated and strategic approach, the Province of BC is actively working toward our vision for minimizing adverse effects from terrestrial and aquatic invasive species.



Inter-Ministry Invasive Species Working Group

IMISWG

