

# British Columbia Invasive Species

Management, Species of Concern, Future Outlook

Montana Invasive Species Council

Summit Regional Panel

October 26, 2022

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### Invasive Species Council of BC

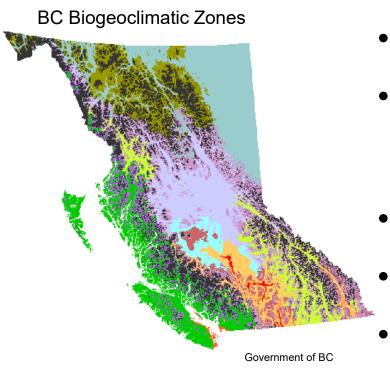
- Largest invasive species non-profit in Canada
- Focus: education, outreach, training, cross-border collaboration across
   Canada and internationally
- Founding member, co-chair of the Canadian Council on Invasive Species







#### British Columbia



- 233.45 Million Acres
- Ecologically diverse province
  - Coastline, deserts, mountains, grasslands, temperate rainforests
- Most biodiversity in Canada
- Most Species at Risk in Canada
  - High diversity of invasive species





# IS Management Federal



#### ~1-2% of BC land is federal

- National Parks
- Military Lands
- Railways

Department of Fisheries & Oceans

Aquatic Invasive Species

Canadian Food Inspection Agency



# IS Management Indigenous



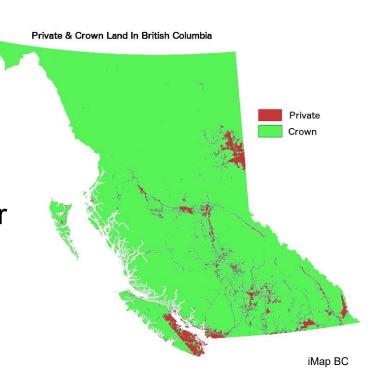
- > 200 First Nations & 39 Metis Communities
  - >30 First Nation languages
- ~0.5% of BC Land is under Treaty
- Reserve lands & Traditional territories
- Indigenous Invasive Species Network



#### **Crown Land**

#### **British Columbia**

- 233.45 Million Acres Total
- Crown Land = 94%
- Provincial government responsible for Crown Land Management
- Growing collaboration for recognizing traditional territories





# IS Management Provincial

- Ministry of Forests
- Ministry of Environment and Climate Change
- Ministry of Agriculture, Food and Fisheries
- Ministry of Transportation and Infrastructure
- Ministry of Lands, Waters and Resource Stewardship
- BC Inter-Ministry Invasive Species Working Group





# Provincial IS Designation

#### **BC Provincial Priority Invasive Species**

- Science-based Risk Assessment
- Direct limited management resources

#### **Weed Control Act: Schedule A**

- Noxious Weeds List
- Landowners must manage
- Illegal to transport, buy or sell

Prevent

Provincial EDRR

Provincial Containment

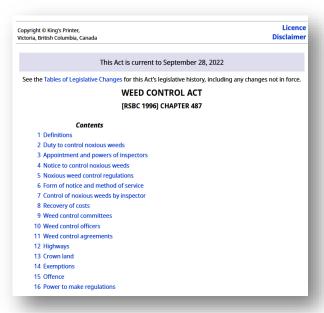
Regional Containment/Control

Management





# IS Management Provincial



#### **Provincial Invasive Species Legislation**

- Wildlife Act, 1996: Controlled Alien Species 2009
- Weed Control Act, 1996
- Forest and Range Act, 2002
- Community Charter, 2003
- Integrated Pest Management Act, 2003

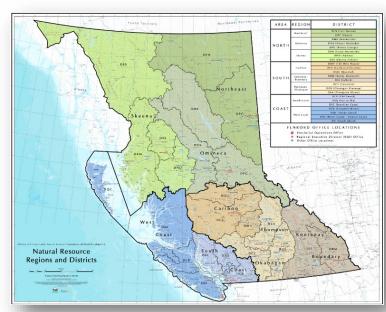




# IS Management Local

#### 28 Regional Districts in BC

- Diverse eco-regions with different priorities
- Region-specific noxious weeds
- Municipal bylaws
- Collaborate with ISCBC, 12 Regional Invasive Species Committees
- Local Government Invasive Species
  Network



Ministry of Forests, Lands, Natural Resource Operations and Rural Development





#### Japanese Beetle (Popillia japonica)



- Collaborative eradication program in Vancouver/Lower Mainland since 2018
- 2021 Small decline to 79 beetles trapped
  - Movement controls, outreach and education have contributed toward program early success



#### Lymantria moths

(Lymantria dispar dispar) & (L. dispar asiatica)

- Canadian Food Inspection Agency
  & Ministry of Forests as lead agents
- ISCBC supported ground efforts
- Monitored aerial spraying activities
- 2022 = BC's largest spray program for this species





### Feral pigs (Sus scrofa)



- "Squeal On Pigs"
- Nation-wide collaboration, including CCIS
- Awareness of range expansion and impacts (ecological, economical)
- Increased reporting of feral pig sightings
- Call for a strong response plan in BC
- Target audience: hunters & agriculture



#### **Spotted knapweed**

(Centaurea stoebe)

- Noxious agriculture weed
- Provincial government funded operations
  - Integrated Pest Management
  - Spraying, manual, biocontrol
- 13 Biocontrol Agents active in BC
  - Seed feeders Fly, moth, beetles
  - Root feeders Moth, beetles
- Progress: Diffuse knapweed (Centaurea diffusa)





# Invasive Species Report

#### Zebra & Quagga mussels

(Dreissena polymorpha & D. rostriformis bugensis)



- Not in BC, Alberta, or Saskatchewan
- Provincial Mussel Defence Program
- Barge moving from Ontario -> BC
- Notification from several provinces
- Largest ever decontamination protocol
- 30 Day quarantine



# **EDRR Species**

#### **Spotted lanternfly** (*Lycorma delicatula*)



Flowering rush (Butomus umbellatus)



Northern giant hornet (Vespa mandarinia)



Yellow star thistle (Centaurea solstitialis)



**Spongy moth** (*Lymantria dispar* dispar)



Cordgrasses (Spartina anglica, S. densiflora, S. patens, S. alterniflora)



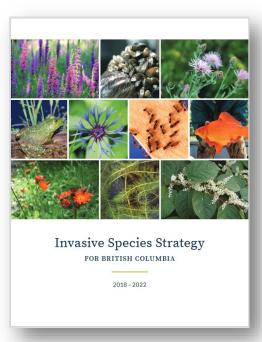




### Key Priorities for ISCBC

#### **Invasive Species Strategy for BC 2023-2027**

- Framework for Invasive Species Management
- Collaboration of all interested partners across BC
- Analysis of Invasive Species Strategy 2018-2022
  - Monitoring for Success
- Goal for 2023-2027: Identify what is missing

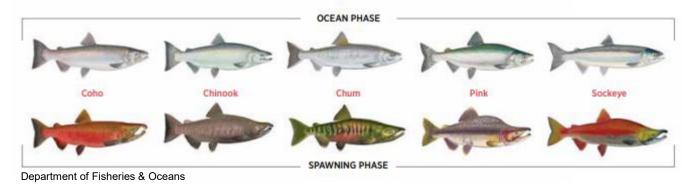




# Indigenous Leadership

#### Recognize Indigenous leadership and traditional knowledge

- Invasive species impacts traditional practices and medicinal plants
- ~50% Pacific Salmon (*Oncorhynchus* spp.) populations in decline



**Aquatic Invasive Species Impacts** 

Small mouth bass (*Micropterus dolomieu*) Yellow perch (*Perca flavescens*) Purple loosestrife (*Lythrum salicaria*) Knotweeds (*Reynoutria* spp.)



# Climate Change

#### Climate Change events in British Columbia, 2021







# Climate Change & Carbon

#### How Invasive Species management support IPCC goals?

- Restoration to maximize sequestration
- Prioritize invasive species that most disrupt carbon cycle
- Carbon sequestration & invasive plants

Scotch broom burn (Cytisus scoparius)

IPCC: International Panel on Climate Change



# Engaging Youth

#### **Youth Taking Local Action – Volunteer Program**



- 682 Youth Volunteers
- 34,769 Volunteer Hours
- Youth in Classrooms
- Ambassadors for Responsible Practices
- Reporting Invasive Species





Any questions, comments or collaborations please email

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Invasive Species Council of BC

