



INVASIVE SPECIES COUNCIL OF METRO VANCOUVER



Invasive Plant Webinar

April 23, 2024



Ministry of
Transportation
and Infrastructure



Agenda

- Invasive species 101
- High priority species
- Overview of MOTI program
- Best practices
- Resources
- Q & A



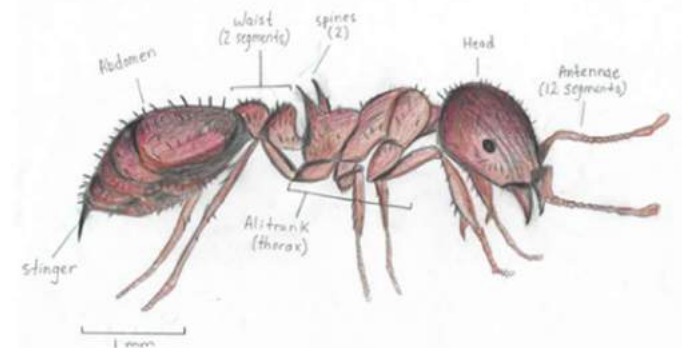


What is an invasive species?

- A non-native species
- Causes significant harm



Alan Chang



Giant Hogweed
Heracleum mantegazzianum



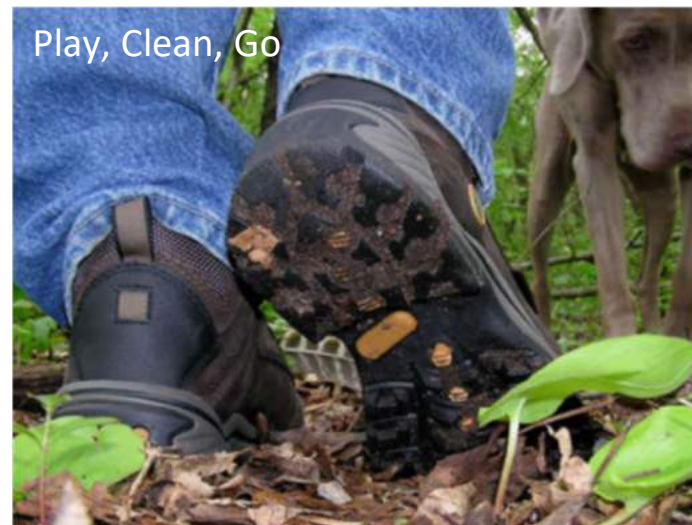
Impacts:

- Ecological
- Safety & infrastructure
- Economic





Where do they come from?





Methods of Control

Prevention: tips coming later!

Manual/Mechanical: digging, cutting, mowing, excavation, etc.

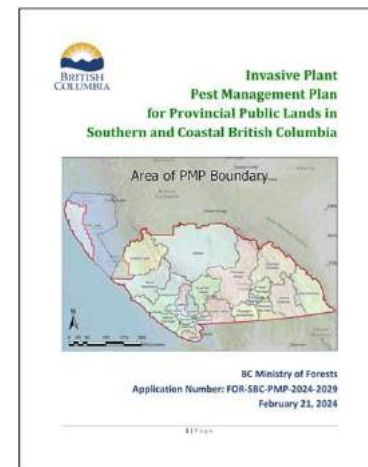
Chemical: herbicide application





Important Provincial Legislation & Resources

- BC *Weed Control Act* (**WCA**) Regulation
 - Provincially & regionally noxious weeds
- Proposed Prohibited Noxious Weeds are not present in BC or very limited → candidates for the BC EDRR Program
- *Invasive Plant Pest Management Plan for Provincial Public Land for Southern & Coastal BC*



Priority Species

2023 Provincial Public Land “Top 25” Invasive Plant Species Priorities

The Top 25 list was developed by Invasive Plant Specialists in the Ministry of Forests, Ministry of Transportation and Infrastructure, and BC Parks and is endorsed by the BC Inter-Ministry Invasive Species Working Group. The ranking considers each species’ current and potential distribution throughout the province and its threat and impacts to people, ecosystems and economic development. The list is used as a planning tool to determine funding of management activities throughout the Province for Provincial Public Land. Annual regional priority adjustments are then also considered and reflected in annual work plans.

Note: this list represents species priorities Province-wide (aka from a Provincial scale). The Provincial Public land containment lines mentioned below are for Provincial public land planning purposes only.

Invasive Plant Species (Species with containment lines in red)	NEW RANK 2023
Bohemian knotweed	1
Giant knotweed	1
Japanese knotweed	1
Giant hogweed	2
Poison Hemlock	3
Wild Parsnip	4
Marsh Plume Thistle	5
(NEW) Japanese Butterbur	6
Shiny geranium	7
Wild chervil	8
North Africa grass	9
Garlic mustard	10
Rush skeletonweed	11
Common tansy	12
Yellow flag iris (5m ² or less sites only)	13
Common bugloss	14



Knotweed (*Reynoutria/Koenigia* species)

Provincial priority #: 1

WCA provincially noxious weeds



Japanese knotweed



Giant knotweed



Bohemian knotweed



Himalayan
knotweed



Knotweed Through the Year



Credit DHC

Early Spring
(~15 cm)



Credit DHC

Spring
(~100 cm)



Credit DHC

Early Summer
(~180cm)



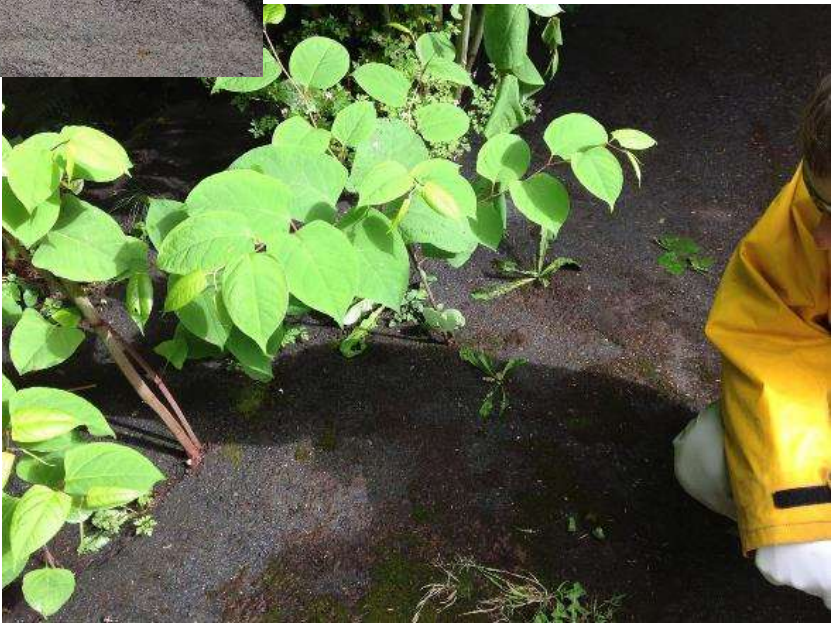
Credit DHC

Late Summer/Fall
(~210 cm)



Credit DHC

Winter
(~180 cm)





Giant hogweed (*Heracleum mantegazzianum*)

Provincial priority #: 2

WCA provincially noxious weed



USDA APHIS PPQ - Oxford,
North Carolina



Wild Chervil (*Anthriscus sylvestris*)

Provincial priority #: 8

WCA regionally noxious weed (Fraser Valley)





Poison Hemlock (*Conium maculatum*)

Provincial priority #: 3



Kevin Li, City of Delta



Kevin Li, City of Delta



Tree of Heaven/Chinese Sumac (*Ailanthus altissima*)

Provincial priority #: not listed





Fuki

(Petasites japonicus)

NEW Provincial priority #: 6



Common/giant butterbur

(Petasites hybridus)





Other Invasive Trees to Exclude on Landscape Plans

- Tamarisk/salt cedar
- Princess tree/Empress tree
- Russian olive
- Black locust
- Norway maple
- English holly
- Golden chain tree
- Many more...



English holly



Many Other Plant Species

Teasel #16



Garlic mustard #10



Blueweed #15
Sven-Arne Karlsson, Flickr



Gorse



Scotch broom #19



Japanese Beetle (*Popillia japonica*)

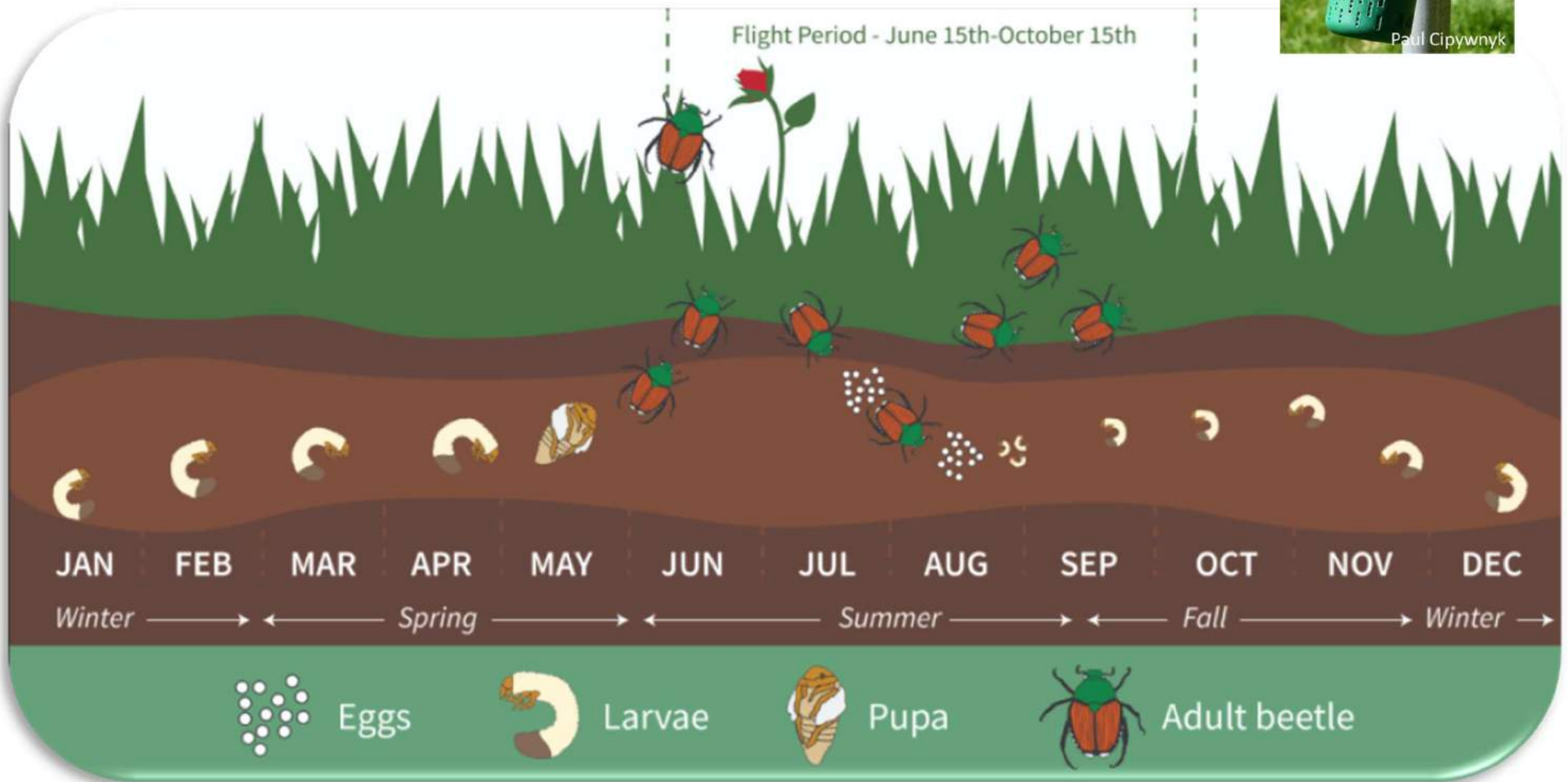


David Cappaert, Bugwood.org



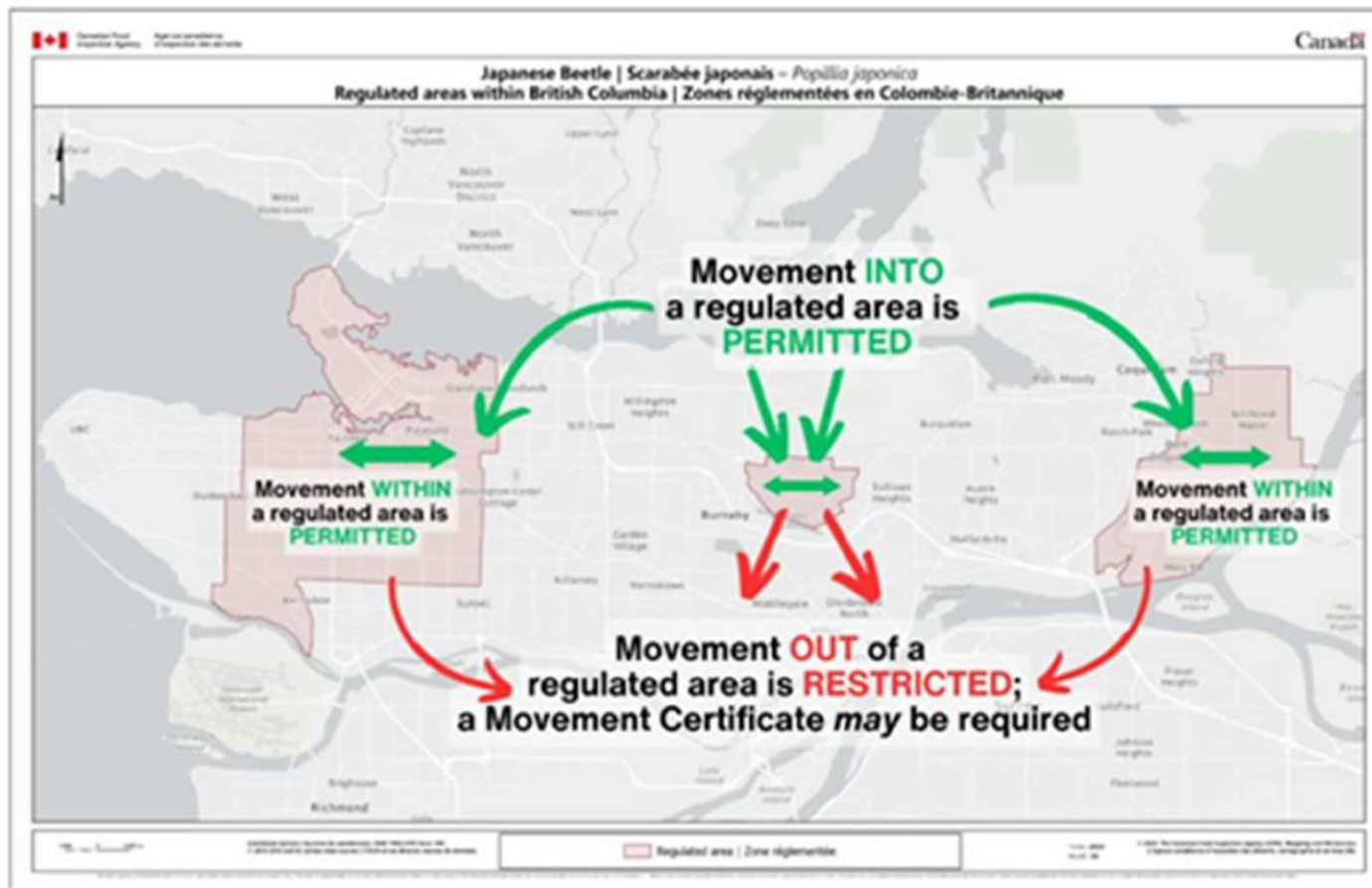
David Cappaert, Bugwood.org

Japanese Beetle Life Cycle





Restricted Movement of 'Regulated Articles' Outside Regulated Areas





Response: Materials Movement Control

(2023) Regulated articles, year-round, any species



Ornamental Grasses
with Soil



Outdoor Plants
with Soil



Key Messages for Japanese Beetle Management:

1. Identify if activities are undertaken within a regulated area
2. Identify if activities involve **plants/roots with soil**
3. Implement best practices to prevent the spread
4. Provide information to others working in regulated areas
5. Report suspect JB or signs of damage anywhere in BC



Dave Holden



MOTI's Invasive Species Management Program

- > \$2M annual budget
- Work with local committees & contractors to survey and treat invasive plants
- Support provincial initiatives





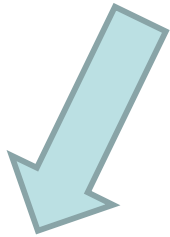
Service Area	Committee/Contractor
7 Fraser Valley	<ul style="list-style-type: none"> Fraser Valley Invasive Species Society (FVISS) 
6 Lower Mainland	<ul style="list-style-type: none"> Invasive Species Council of Metro Vancouver (ISCMV) Operations contractor Diamond Head Consulting (coordinated by Deirdre Bruce)
5 Sunshine Coast	<ul style="list-style-type: none"> Contractors (coordinated by Deirdre Bruce)
4 Howe Sound	<ul style="list-style-type: none"> Diamond Head Consulting (coordinated by Deirdre Bruce) Sea to Sky Invasive Species Council (SSISC) (north) 
1-3 Van. Island	<ul style="list-style-type: none"> Contractors (coordinated by Deirdre Bruce)

Regional Committees/Contractors on the South Coast





Invasive Species & Transportation Activities



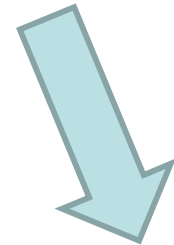
CAPITAL & REHAB PROJECTS

- *Treat in advance*
- *Avoid if possible*
- *Contract specifications*



ROAD & BRIDGE MAINTENANCE

- *Environmental Management Plan*
- *Local Area Specification*



DEVELOPMENT APPROVAL

- *Permitting process*



Metro Vancouver Priority Activities 2024

Activity	Species
Early season treatment	giant hogweed, wild chervil, poison hemlock, gorse, white Spanish broom, shiny geranium and teasel
Regular season treatment	knotweed (3 species: Bohemian, giant, Japanese), teasel, Himalayan balsam, blueweed, Japanese butterbur
Surveying for presence of biocontrol agents	Purple loosestrife



Key Best Practices

1. Identify and plan maintenance activities
2. Report
3. Keep equipment clean
4. Minimize roadside disturbance & retain desirable vegetation
5. Coordinate activities





Key Best Practices

6. Practice effective mowing and brushing
7. Ditch effectively
8. Manage source and waste materials
9. Remove invasive plants prior to seed set
10. Restore disturbed sites
11. Re-seed



Mow to a height
of 15cm above
ground level.



Do not mow invasive
plants after they flower.



Report Invasives

- Learn to ID local species
- Send a photo to an expert
- Free *Report Invasives BC* app
 - Upload photos
 - Note whether MOTI jurisdiction
 - Any site challenges (e.g., streams, access)
- Phone 1 888 WEEDSBC (1 888 933-3722) or online reporting form





Signage

"KNOT" ON OUR HIGHWAYS

Knotweed Best Management Practices for BC Highway Rights of Ways and Gravel Pits

LEARN TO IDENTIFY KNOTWEED



SPRING SUMMER FALL WINTER

IMPACTS OF KNOTWEED

- Spreads easily through plant fragments and seeds
- Potential to cause sightline issues due to fast growth
- Can affect road infrastructure, such as bridge footings, foundations, culverts, and asphalt



WATCH FOR KNOTWEED AND REPORT ALL SIGHTINGS



- Bridge and overpass footings
- Close proximity to watercourses and ditches
- Close to roads
- At future work sites

WHEN WORKING IN AN INFESTED AREA



- Avoid disturbance of knotweed sites
- Establish a clearly marked 20m contamination zone around sites
- Do not store materials, vehicles or equipment in this zone
- Thoroughly clean all equipment used in this zone
- Coordinate all knotweed activities with the Ministry
- Contact the Ministry Representative prior to disturbing the soil within the 20m contamination zone around knotweed sites
- Disposal of knotweed contaminated soil must be pre-approved by the Ministry

CALL BEFORE WORKING IN INFESTED AREAS

WHEN WORKING IN OR AROUND A HERBICIDE TREATMENT SITE




- Read any posted treatment signage
- Wait a minimum of 2 weeks after treatment date before any activities onsite
- Herbicide can only be applied by a certified professional
- Report any regrowth

Working together we can stop knotweed in its tracks and protect our infrastructure and environment

Report any invasive plant sightings to the Ministry Representative and using the Report-A-Weed mobile app or online at gov.bc.ca/invasive-species



HELP STOP THE SPREAD OF INVASIVE SPECIES

'NO MOW' KNOTWEED

Knotweed is an extremely invasive plant. It spreads very rapidly, and can damage roads and concrete, choke out wetlands and waterways and severely impact property values.

Knotweed reproduces from stem and root fragments. Mowing or burning knotweed along roadways can easily cause knotweed to spread and multiply.

KNOTWEED ACROSS THE SEASONS



SPRING SUMMER LATE SUMMER FALL - WINTER

IMPACTS OF KNOTWEED

- Outcompetes native plants, including rams and endangered species
- Destabilizes stream banks, causing erosion and smothering fish populations and water quality
- Knotweed roots can grow through concrete, severely damaging infrastructure
- Can impact property values, and is a huge potential burden to taxpayers

HELP US CONTROL KNOTWEED



Do not mow or weed-whack knotweed, as the plant fragments can propagate new colonies.

Your actions can play a determining role in slowing the spread of knotweed.



The bright yellow signs are installed at knotweed infestations in spring each year. They are a reminder to lift your blade and refrain from mowing.

The length of the no-mow zone is indicated on the sign. The end of the no-mow zone is also indicated with yellow flagging tape.

IF YOU SPOT A NEW KNOTWEED PATCH ALONG THE HIGHWAY

Contact SSISC at (800) 888-8334 or visit SSISC.CA/REPORT






Resources Coming to Your Inbox

- All links/documents mentioned, webinar slides & recording
- *Best Practices for Managing Invasive Plants on Roadsides*
- Invasive Species Roadside website
- Videos
- Short evaluation form





INVASIVE SPECIES COUNCIL OF METRO VANCOUVER

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