



INVASIVE SPECIES COUNCIL OF METRO VANCOUVER



Emerging Species in Metro Vancouver

Tasha Murray

November 1, 2023


Provincial EDRR



Provincial EDRR Species Present in MV:

- Brazilian elodea (contained)
- European common reed, *Phragmites* (contained)
- Cordgasses (contained)
- Dyer's woad (contained)
- Mouse ear hawkweed (not contained)
- Water hyacinth (Surrey detention pond)
- Jointed goatgrass (historic site, site under concrete)
- North African grass (contained, monitoring)
- Water lettuce (Surrey detention pond - contained, eradicated?)
- Yellow floating heart (contained)





 B.C. Proposed Prohibited Noxious Weeds

The following invasive plant species are not present in BC or are present but extremely limited in extent, and pose a significant threat to BC's environment, economy and/or human health. These species have been identified as a result of an extensive review that considered their regulation and status in BC and bordering jurisdictions, presence elsewhere in similar environments to those that occur in BC, and listing under federal regulations. These species are proposed BC Prohibited Noxious Weeds and candidates for the B.C. Early Detection Rapid Response (EDRR) Program.

Common Name	Scientific Name	Type
African-rue	<i>Peganum harmala</i> L.	Terrestrial
Black Henbane	<i>Hyoscyamus niger</i> L.	Terrestrial
Brazilian Elodea/ Waterweed	<i>Egeria densa</i> Planch.	Aquatic - submerged, rooted
Camel Thorn	<i>Alhagi maurorum</i> Medik.	Terrestrial
Common Crupina	<i>Crupina vulgaris</i> Cass.	Terrestrial
Common Reed, European	<i>Phragmites australis</i> (Cav.) Trin. ex Steud. subsp. <i>australis</i>	Semi-aquatic - emergent
Cordgrass, Dense-flower	<i>Spartina densiflora</i> Brongn.	Semi-aquatic - tidal
Cordgrass, Salt Meadow	<i>Spartina patens</i> (Aiton) Muhl.	Semi-aquatic - tidal
Cordgrass, Smooth	<i>Spartina alterniflora</i> Loisel.	Semi-aquatic - tidal
Cordgrass, Common	<i>Spartina anglica</i> C.E. Hubbard	Semi-aquatic - tidal
Dyer's Woad	<i>Isatis tinctoria</i> L.	Terrestrial
Eggleaf Spurge	<i>Euphorbia oblongata</i> Griseb.	Terrestrial
False-brome, Slender	<i>Brachypodium sylvaticum</i> (Huds.) P. Beauv.	Terrestrial
Flowering rush	<i>Butomus umbellatus</i> L.	Aquatic - submerged and emergent, rooted
Foxtail, Slender/Meadow	<i>Alopecurus myosuroides</i> Huds.	Terrestrial
Geranium, Shiny	<i>Geranium lucidum</i> L.	Terrestrial
Goatruie	<i>Gallega officinalis</i> L.	Terrestrial
Halopogon/Saltlover	<i>Halopogon glomeratus</i> (M. Bieb.) C.A. Mey.	Terrestrial
Hawkweed, Mouse-ear	<i>Hieracium pilosella</i> L.	Terrestrial
Hyacinth, Water	<i>Eichhornia crassipes</i> (Mart.) Solms	Aquatic - semi-emergent
Hydrilla	<i>Hydrilla verticillata</i> (L. f.) Royle	Aquatic - submerged,
Johnsongrass	<i>Sorghum halepense</i> L.	Terrestrial
Jointed Goatgrass	<i>Aegilops cylindrica</i> Host	Terrestrial
Knapweed, Squarrose	<i>Centaurea virgata</i> Lam. ssp. <i>squarrosa</i> (Boissier) Gugler	Terrestrial
Kudzu	<i>Pueraria montana</i> (Lour.) Merr. var. <i>lobata</i> (Willd.) Maesen & S. Almeida	Terrestrial

REPORT Priority Invasive Species: www.reportinvasives.ca

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 Revised February 2015



Mouse-ear Hawkweed (*Hieracium pilosella*)

INVASIVE SPECIES ALERT!

MOUSE-EAR HAWKWEED

(Hieracium pilosella)

HAVE YOU SEEN THIS PLANT?

DESCRIPTION

- Native to Europe
- Perennial herb
- Mature plant grows 15 to 30 cm tall
- Yellow, solitary (rarely 2) flower crowns unbranched, leafless stem. Stem hairy at base
- Leaves at base of plant, narrow and egg-shaped
- Leaf upper surface dark green with long eyelash-like hairs
- Leaf under surface whitish with dense mat of short stubble-like hairs
- Stolons 10 to 25 cm long, leafy and mat-forming
- Prefers well-drained coarse-textured soil in disturbed areas but thrives along roadsides, in turf, mountain meadows, forest clearings and pastures
- Reproduces by seed, stolon, rhizome and adventitious root buds
- Local dispersal mainly by 'hitch-hiking' on hair, fur, clothing, vehicles and equipment. Contaminated soil and animal and bird feces are the main pathways for long distance spread.

REPORT INVASIVE SPECIES
www.reportaweedsbc.ca
1-888-WEEDSBC

PRIMARY THREAT: Degrades quality forage and dominates beneficial plant communities.

DID YOU KNOW?
Annually, mouse-ear hawkweed can produce up to 40,000 seeds/m² and more than 6,500 rosettes/m², with each flower head producing between 12 and 30 seeds.

LOOK-ALIKES
Native and non-native yellow hawkweeds, especially whiplash hawkweed (*Hieracium flagellare*)

For more information: www.for.gov.bc.ca/hra/Plants/prohibited.htm



Min. of Forests, Lands and Natural Resource Operations



Mouse-ear hawkweed stem and stolon (MFLNRO)



Mouse-ear hawkweed Leaf underside (MFLNRO)

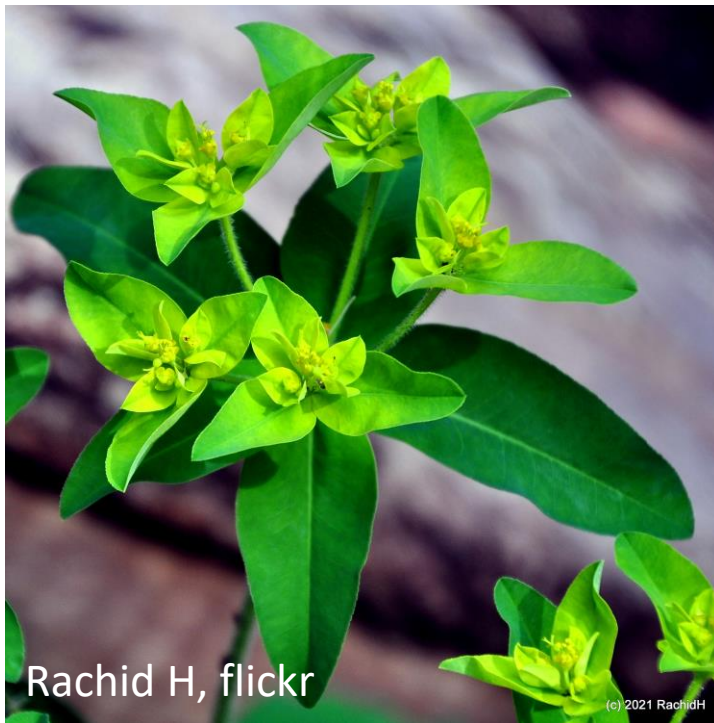


www.mvcb.wa.gov

DISTRIBUTION IN BC
BC confirmed sites are limited to the regions of the West Kootenay, Boundary and Metro Vancouver.



Eggleaf Spurge (*Euphorbia oblongata*)



INVASIVE SPECIES ALERT!

Eggleaf spurge (*Euphorbia oblongata*)

HAVE YOU SEEN THIS PLANT?

DESCRIPTION

- Native to East Europe.
- Upright perennial forb grows to 1 metre tall; multiple stems grow from a woody, branched taproot.
- Stems covered in fine white hairs and branch at the tip, turning red as plant matures (July to October).
- Stems contain a milky, latex sap that can cause skin irritation.
- Flower clusters are yellow and inconspicuous, occurring at terminal tips (March to August). The clusters are formed by a single female flower surrounded by small male flowers. Each cluster has yellow bracts at the base, then a whorl of yellowish green leaves.
- Leaves oblong, hairless (up to 6.5 cm long) with finely toothed margins and distinct midvein. Leaves alternate up single stem, with leaf whorl at base of flowering stems.
- Seeds brown and smooth are held in 3-lobed capsules and ejected when ripe. Green seed capsules are waxy and sticky.

PRIMARY THREAT: Forms a dense, monoculture and inhibits the growth of beneficial plants.

Yellow flower clusters at stem tips



BIOLOGY & SPREAD

- Reproduces by seed and can generate new stem and root buds at root crown.
- Local dispersal mainly by wildlife, humans and machinery.
- Long distance spread in contaminated seed and machinery, or occasionally as an ornamental.

HABITAT

- Occurs on dry to moist roadsides, grasslands, gardens, streambanks, rocky hillsides, wastelands and forest edges, in open to semi-open canopy.



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Water hyacinth/Pickerelweed
(*Eichhornia crassipes*)

Water lettuce (*Pistia stratiotes*)



Kevin Li



Josh Hillman, FloridaNature.org,
Bugwood.org

Yellow Floating Heart (*Nymphoides peltata*)



INVASIVE SPECIES ALERT!

Yellow floating heart
(*Nymphoides peltata*)

HAVE YOU SEEN THIS PLANT?

DESCRIPTION

- Native to Asia and Europe.
- Aquatic, substrate rooted perennial plant.
- Stems are long and branched reaching up to one meter or more and are located below the surface of the water.
- Flowers are 2-4cm in diameter and consist of five bright yellow petals with fringed edges. Blooms from June to August.
- Leaves are circular or heart-shaped and 3-10cm in diameter.

PRIMARY THREAT: Impedes use of shallow waters for recreation, irrigation & industrial activities, and alters natural ecosystems.

BIOLOGY & SPREAD

- Reproduces mainly by plant fragments, and by seed.
- Local dispersal mainly by water, human recreation, wildlife and intentional planting.
- Nursery sales are the main pathway for long distance spread.

HABITAT

- Occurs in 0.5 to 4m depths in still or slow-moving fresh water including wetlands, lakes, ponds, reservoirs, swamps, rivers, sloughs, canals, ditches, channels, and slow moving streams

For more information:
<https://www2.gov.bc.ca/gov/content/did-ec/s/209727294034872A464E810987E>

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B.C. Government

B.C. Government

BRITISH COLUMBIA

May 2023

Other Species of Concern



Poison Hemlock (*Conium maculatum*)



Kevin Li, City of Delta




Kevin Li, City of Delta



Italian Arum (*Arum italicum*)



Lesser Celandine/Fig Buttercup (*Ranunculus ficaria*)



Saanich

Lesser Celandine
Ranunculus ficaria

Invasive Plant Alert

One of the biggest threats to natural ecosystems in Saanich is the spread of invasive non-native plants. The District of Saanich appreciates the cooperation of all residents in removing Lesser Celandine from private property.
For assistance, see contacts on reverse.

An early blooming invasive buttercup that forms dense mats.

Why is Lesser Celandine a problem?

- Dense groundcover infestations eliminate native plants and impact wildlife habitat.
- This species establishes and spreads quickly through very early seasonal growth and dense networks of roots, tubers and bulbils.
- Toxic to most mammals, causing sickness in livestock and rare deaths.

Habitat and biology:

- Perennial, low growing, early spring herb.
- Flowers in late winter/early spring and seeds ripen early; dormant in summer (as soon as temperatures reach 20°C) through early winter.
- Reproduces by seed and vegetatively (except *R. ficaria* bulbifer subspecies that does not produce viable seed); extensive roots/tubers and bulbils.
- In its native range, this species is associated with moist, deciduous forests. It can be found in a variety of locations including both disturbed and undisturbed sites, in lawns and horticultural areas and urban sites including ditches and in stream banks.

What does it look like?

- Low growing, herbaceous perennial from the buttercup family.
- Yellow flowers 2-3 cm wide with 8-12 petals. Thick, shiny, dark-green leaves; kidney or heart-shaped; stalked and densely packed.
- Double-flowered variety with many petals.

Could be confused with:

- Marsh Marigold (*Caltha palustris* var. *radicans*, native to BC and C. *palustris* var. *palustris*, introduced from Eastern North America), found in wetter environments.
- Ground Ivy (*Glechoma hederacea*).




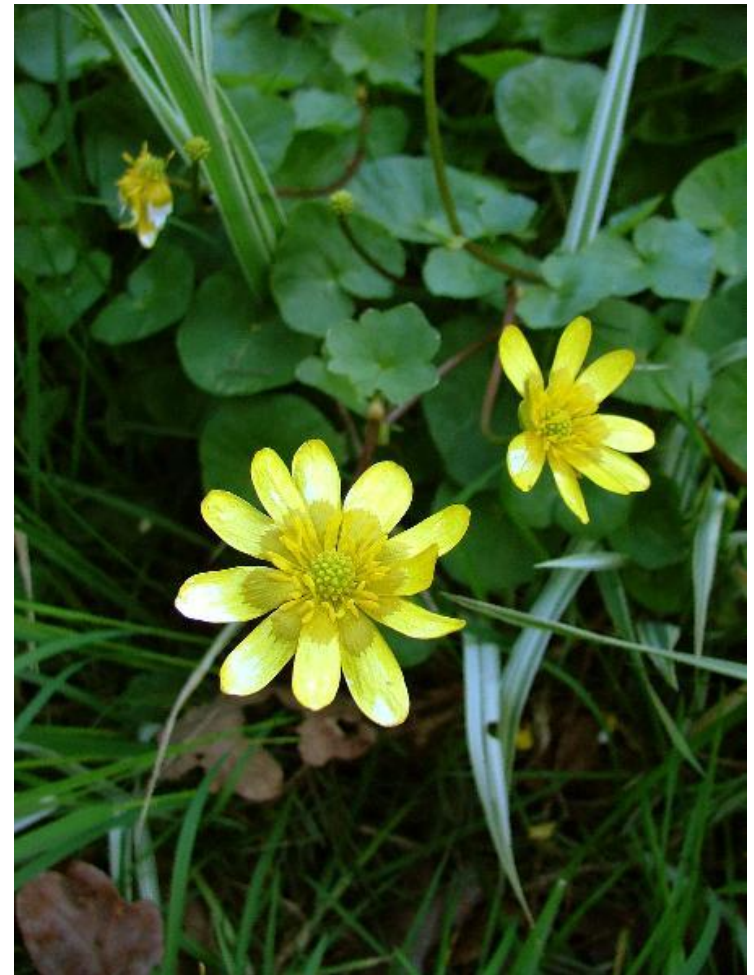




Image: Celandine © Laura J. Matheoff, University of Connecticut, Bugwood.org

Image: Celandine leaves © Laura J. Matheoff, University of Connecticut, Bugwood.org

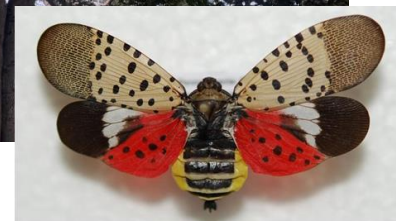
Image: Celandine flowers © Laura J. Matheoff, University of Connecticut, Bugwood.org

www.invasives.saanich.ca





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



Lawrence Barringer,
Pennsylvania Department of
Agriculture, Bugwood.org



Common Butterbur (*Petasites hybridus*)



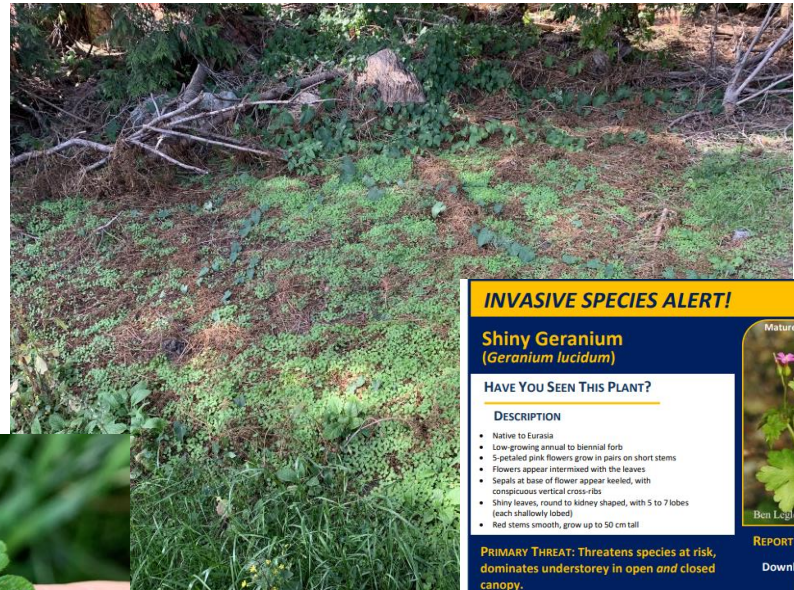


Great leopard's-bane
*(***Doronicum pardalianches***)*



Scamperdale, Flickr

Shiny Geranium (*Geranium lucidum*)



INVASIVE SPECIES ALERT!

Shiny Geranium
(Geranium lucidum)

HAVE YOU SEEN THIS PLANT?

DESCRIPTION

- Native to Eurasia
- Low-growing annual to biennial forb
- 5-petaled pink flowers grow in pairs on short stems
- Flowers appear intermixed with the leaves
- Sepals at base of flower appear keeled, with conspicuous vertical cross-ribs
- Shiny leaves, round to kidney shaped, with 5 to 7 lobes (each shallowly lobed)
- Red stems smooth, grow up to 50 cm tall

PRIMARY THREAT: Threatens species at risk, dominates understorey in open *and* closed canopy.

BIOLOGY & SPREAD

- Reproduces by seed Feb to Oct
- Local dispersal mainly by wildlife, humans, yard waste, and surface run-off
- Long distance spread in contaminated growing mediums, vehicles, equipment, contaminated seed, and fill material

HABITAT

- Prefers semi-open woodlands and open grasslands in the Pacific Northwest
- Will thrive in lawns, gardens, trail edges, forest-understorey, sidewalk cracks, eavestroughs and compost piles



Ben Legler

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www.gov.bc.ca/invasive-species



Ben Legler

For more information: <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/priority-species/priority-plants>


Updated Dec. 2021

North Africa Grass (*Ventenata dubia*)



INVASIVE SPECIES ALERT!

NORTH AFRICA GRASS

(Ventenata dubia)

HAVE YOU SEEN THIS PLANT?

DESCRIPTION

- Native to north Africa, south-central Europe, south Russia, and west Asia
- Winter annual grass
- Young plants: vibrant green, reddish-black nodes, long ligules, and shallow roots (May/June)
- Mature plants: erect, narrow, in-rolled culms (10 - 45 cm), with microscopic hairs making stems smooth-like
- Plants with shiny silvery-green appearance and open panicle (June/July)
- Senesced plants: lower awns straight, upper awns twisted and bent (July/August)

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PRIMARY THREATS: Decreases forage and increases risk of fire.

BIOLOGY & SPREAD

- Reproduces by seeds with 15-35 seeds/plant
- Seed viability of at least 3 years
- Seeds produced in spring and germinate in fall
- Seeds dispersed by grass seed mixes, hay, machinery, vehicles or humans and animals
- Twisted and bent awns "unwind" when wet and drill into soil

IMPACT

- Replaces perennial grasses and forbs
- New invader that infests and degrades native, newly seeded, and managed grasslands
- Increases soil erosion
- Mature, wiry stems are not palatable to livestock
- Can impede mechanical harvesting equipment

For more information: <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/priority-species/priority-plants>



BRITISH COLUMBIA







Plant ID Apps

Plant Apps

The right app can help you identify plants (and other species), connect with nature, participate in community science projects, and even discover which plants are dangerous or invasive. Whether you are new to plant identification, want to improve your skills, or need verification of a challenging plant, there are apps to help!

Below is a list of available plant apps that can be used for the identification of native and/or invasive plants. A printable PDF version of this list can be found at the bottom of the page.

This list was compiled by ISCMV in August 2023 for informational purposes only. If you know of any other plant apps that you do not see on this list, please [contact us](#).

Application	Overview	Details	Cost
 FlowerChecker	Uses a team of experts who receive and analyze photos, posting the ID	<ul style="list-style-type: none"> Not immediate, although it claims that 50% of its responses are posted within one hour 	first 3 IDs are free, then \$1/per correct ID
 Google Lens	Point your phone's camera at a plant and Google Lens will analyze the image to ID the plant	<ul style="list-style-type: none"> With an iOS device, you can use the functionality with Google photos Can be used to ID many objects, not just plants 	free
 iNaturalist	ID plants in the field and confirm findings with amateur and professional naturalists from around the world	<ul style="list-style-type: none"> If no matches are found, then the images are public so others can make ID suggestions A community science platform that allows users to contribute data to many different projects 	free
 LeafSnap	Uses high-tech AI to ID plants based on leaf photos	<ul style="list-style-type: none"> Instant access to a large database of plants that is 	free



Where to Report?

- Use internal reporting processes for your jurisdiction
- Anywhere in BC → free **Report Invasives BC app**
- Don't know who to contact? Need help with ID? → ISCMV

