

Priority Invasive Species in the Cariboo



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Acknowledgements

This booklet was developed by the **Invasive Species Council of British Columbia (ISCBC)** in partnership with the **Cariboo Regional District**. ISCBC is a non-profit organization that works in collaboration to minimize the introduction, establishment, and spread of invasive plants. For more information on invasive species, please visit the ISCBC website at bcinvasives.ca, and the CRD website at cariboord.ca.

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Introduction

Invasive species are a serious threat to British Columbia and to the Cariboo region. They have the potential to spread rapidly, devastate crops and forests and damage the ecosystems and economy the region relies on. Invasive species are any non-native species that have the potential to cause negative impacts to the environment, economy and society. A changing climate may increase their spread. Invasive plants can reduce crop quality, harbour diseases, and be harmful to livestock and wildlife, invasive insects attack crops and trees, and invasive fish outcompete native fish in our lakes and streams. Invasive species also outcompete native species, and reduce biodiversity. Luckily there is a lot we can all do to stop their introduction and spread. This guide provides information on some of the most common invasive species in the Cariboo, including identification, habitat details and management tips. Learning to identify invasive species and how to report them is key to stopping their spread. Spread the word, not the weeds!

Here are some ways you can report invasive species:

- 1. Download the free “Report Invasives” app**
available for both Apple and Android devices (found on the App store and Google Play store). It is easy to use to submit photos, and can be used offline as well.
www.gov.bc.ca/invasive-species
- 2. Report invasive species of concern to:**
1-888-933-3722
- 3. Contact the Cariboo Regional District:**
1-800-665-1636

Flowering and Seed Production Calendars

All plants should be controlled before they flower and set seed. The shaded months in these calendars indicate the time of year when each species is producing one of the following:

 Flowers (green squares)  Seed (orange circles)

In the example below, the plant produces flowers from June–August and seed from July–September.

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Perennial pepperweed

Lepidium latifolium L.



About: Perennial pepperweed is a persistent invasive species found in western Canada, the United States and Mexico, but is native to Eurasia. Perennial pepperweed seeds were probably brought to North America mixed in with a sugar beet seed shipment in the 1930s. It tolerates a range of saline and alkaline soils, and often invades sensitive areas such as marsh lands and grazing fields. This perennial species can reproduce through seeds, root fragments and rhizomes. Rhizome fragments can grow new shoots from the stem bases, from beneath the soil surface and from fragments that are broken off during human interference.

Distribution: Perennial pepperweed is currently found in the Vancouver, East Kootenay, and Thompson-Nicola agricultural regions, and South and Central Cariboo region of British Columbia. It is also found in Alberta, Quebec, and western non-forested coastal areas of the United States.

Identification: flowers are white with 4 petals and form dense clusters at the top of the branches. Flowers in June-August. Plant is multi-stemmed, upright, waxy, grey-green in colour, can have red spots. Can grow up to 2 metres tall. The plant has a woody base. Leaves are smooth, green-grey in colour. Rosettes have oval or oblong leaves with smooth or jagged edges. Mature leaves alternate on the stem. Fruits are small, round or oval shaped, with 2 flat seeds in each fruit pod.



Impacts: Perennial pepperweed is a serious threat to rangelands, croplands, pastures and riparian areas because it reduces forage quality. Perennial pepperweed mixed in with forage or hay may limit the ability of horses and cattle to retain sodium and water, making them sick. It also reduces suitable nesting habitats for birds when its semi-woody stems accumulate.

Integrated Pest Management: Minimize soil disturbance and promptly re-vegetate disturbed areas. Examine disturbed areas for root fragments and remove as many as possible. Use certified weed-free hay and seed mixes. Mow plants at flower bud stage to prevent seed production. Hand pull and dig to remove as much of the root as possible and dispose of all plant parts in a bag. Bags should be buried at a landfill. These methods can prevent seed spread but the plant will regrow. Post-emergent herbicides can control perennial pepperweed with repeat applications over several years.

Calendar

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<https://www.nrcresearchpress.com/doi/pdf/10.4141/CJPS06044>

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5410120.pdf

<https://www.nwcb.wa.gov/weeds/perennial-pepperweed>

<http://ipm.ucanr.edu/PMG/PESTNOTES/pn74121.html>



Field scabious

Knautia arvensis



About: Field scabious is a perennial plant that competes with native forage and pastures. It was brought to Canada from Europe as an ornamental plant but has become invasive. Most of the seeds fall from the plant and a single plant can produce 2000 seeds, but seeds can also spread through human interference. Can also be dispersed through baled forage. It is used in herbal medicine as a blood purifier.

Distribution: Found in the Bulkley-Nechako, Kootenay-Boundary, Cariboo-Chilcotin and Thompson-Nicola regions.

Identification: Stems are hairy and can grow up to 1.5m tall. Leaves are also hairy with variable lobes. Rosettes have narrow, hairy leaves with a pointed tip. Flowers are small purple florets clustered into a head that looks like a full flower. Below the flower is a ring of green bracts. Has a deep, branching taproot.



Impacts: Field scabious is not palatable for livestock unless the plant is very young, so livestock do not normally graze in infested areas. Infestations of field scabious can prevent pasture growth and hay production.

Integrated Pest Management: Mowing before seed set is effective to reduce and prevent seed production, but it is recommended to repeat mowing later in the season to cut down the re-sprouted plants.

Calendar

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<https://abinvasives.ca/wp-content/uploads/2017/11/FS-FieldScabious.pdf>

https://www.edmonton.ca/programs_services/pests/field-scabious.aspx

<http://www.agric.gov.ab.ca/app107/loadPest?action=display&id=74>

<https://www.plantlife.org.uk/uk/discover-wild-plants-nature/plant-fungi-species/field-scabious>



Wild caraway

Carum carvi



About: Wild caraway is an edible plant native to Eurasia, and came to Canada as a spice crop. Seed dispersal can occur when baled hay is displaced. It is a biennial plant that invades pastures, rangeland, and natural areas. The flowers are self-fertile. Plant can survive flooded ground and light frost.

Distribution: Present in the Cariboo-Chilcotin region.

Identification: In the first year it produces a low growing rosette of leaves. In the second year it shoots up to 60-90cm tall, has alternate and finely divided leaves similar to carrot leaves or parsley, tiny white flowers that grow in groups on branched stems at the top of the plant. Has a narrow taproot.



Impacts: Wild caraway is not eaten by livestock, and therefore displaces natural forage.

Integrated Pest Management: Control wild caraway with repeated hand pulling before seed set. Dispose plants at landfill. Mowing is not effective as plants can re-bloom below cutting height. It is easiest to control with a residual herbicide during its first year of growth.

Calendar: Blooms in mid-summer

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<https://prrd.bc.ca/wp-content/uploads/page/plans-reports-invasive-plants/PRRD-Profile-of-Invasive-Plant-Species-1.pdf>

<http://www.saskinvasives.ca/file/WildCaraway.pdf>

Marsh plume thistle

Cirsium palustre



About: Marsh plume thistle is a biennial plant, which grows as a low rosette in its first year, then shoots up and blooms in its second year. This plant prefers moist soil, open, disturbed areas. The seeds spread by wind, water, and bird ingestion and deposit.

Distribution: Noxious weed in the Bulkley-Nechako and Fraser Fort George regional districts, monitored and contained in sites in coastal BC, Revelstoke, Vernon and between Purden Lake and Valemount. Present in the Cariboo-Chilcotin region.

Identification: The rosette is low-lying with its leaves spread out on the ground in either a flat or a small bush shape. The following year, it shoots up as a single, slender un-branched stem with spiny wings. Purple flowers cluster at the top with spiny, hairy leaves at the base. Seeds are parachute-like to disperse easily in the wind.



Impacts: Can grow in rangeland and displace natural forage. The tall stems can lead to snow press, therefore damaging tree seedlings. They also form dense clumps in cut blocks and compete for nutrients and moisture with tree seedlings.

Integrated Pest Management: Deadhead the flowers and dispose of them in landfill, then dig up the plants with the roots to prevent regrowth.

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Russian knapweed

Rhaponticum repens



About: Perennial native to Russia and Europe, first introduced to Canada in alfalfa seed. It invades pastures, crop fields, and non-crop areas. Russian knapweed is poisonous to horses and causes equine nigropallidal encephalomalacia. It spreads mainly from vegetative propagation with help from its creeping root system. It can also be spread from infested hay, or seeds that attach onto vehicles.

Distribution: Found in Keremeos, east Kootenay region, Cariboo region, Kamloops, Merritt, and Okanagan.

Identification:

Branched, hairy stems reaching 1-3 feet tall, spread through a rhizomatic system. Flowers are pink to purple, with yellow green outer bracts. Leaves are dull green with lobes, upper leaves can be either smooth or have toothed edges. Seeds are white and feather-like to easily disperse in the wind.



Impacts: Russian knapweed can create a monoculture in non-crop areas, therefore outcompeting native species and disturbing the natural ecosystem.

Integrated Pest Management: Hand-pulling in the spring can be effective for small infestations if repeated for several years. Be sure to pull up the entire plant including the roots. Mowing may also suppress

Russian knapweed infestations, but will not completely eradicate it. Use weed-free seed, mulch, and hay to prevent spread. Russian knapweed can also be controlled with a selective, post-emergent herbicide.

Calendar

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<https://www.nwcb.wa.gov/weeds/russian-knapweed>

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd563042.pdf

http://www.oasiss.ca/pdfs/FACTSHEET_RK.pdf



Wild parsnip

Pastinaca sativa



About: Originally from Europe and Asia, likely brought to Canada from European settlers who cultivated it for its edible root. Wild parsnip escaped from gardens and invaded natural areas. Sap from wild parsnip can create severe skin burns. Leaves and stems are toxic to livestock. The seeds can be dispersed by wind, water, and equipment.

Distribution: Local infestations in North and Central Cariboo.

Identification: Plant grows up to 1.5 meters tall with a single green stem. The stem is smooth with a few hairs. The tiny yellow green flowers form an umbrella shape at the top of the plant, similar to Queen Anne's Lace. Leaves are compound, can be smooth or hairy and are sharply toothed. Seeds are round and flat. Taproot is thick and yellow-brown.



Impacts: Wild parsnip outcompetes native plants by growing in dense stands in natural areas. It also reduces the quality of forage and crops by invading crop lands and pastures. Wild parsnip also contains chemical compounds which may decrease fertility and weight in livestock.

Integrated Pest Management: Hand-pulling is effective for small infestations – be sure to use gloves and wear a long sleeved shirt to avoid skin contact. Mow plants before seed set to prevent spread.

Calendar

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<http://www.invadingspecies.com/wild-parsnip/>

<https://ckiss.ca/species/wild-parsnip/>

http://www.ontarioinvasiveplants.ca/wp-content/uploads/2016/07/OIPC_BMP_WildParsnip_Feb182014_FINAL2.pdf



Hoary alyssum

Berteroa incana



About: Hoary alyssum is an annual or short-lived perennial that reproduces by seed. It can be found in heavily grazed pastures. Plant is spread through hay, vehicles, wildlife, and birds. Hoary alyssum is toxic to horses and can cause fever, edema, and laminitis. Death has only been reported in horses that have consumed hay infested with a large proportion (30-70%) of hoary alyssum.

Distribution: Found in the Okanagan, Cariboo-Chilcotin, Boundary, Thompson, and Kootenay regions.

Identification: Can reach 0.7 meters tall. The whole plant is covered in star-shaped hairs that are rough to touch, with grey leaves that clasp closely to the stem. Has small white flowers with deeply notched petals. Seedpods are oval-shaped and contain 5-7 black seeds.



Impacts: Displaces natural forage for wildlife and livestock. Hoary alyssum reduces hay quality. Hoary alyssum is also toxic to horses if large amounts are mixed into hay.

Integrated Pest Management: Be sure to use certified weed-free hay and seed. Mow several times during the season as plants can regrow below mower height. Small infestations can be controlled by hand-pulling.

Foliar herbicide applications are most effective when done during spring and fall, but can be applied during the summer if the plant is green and actively growing. Repeat applications will be necessary for effective control since these herbicides do not persist in the soil.

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https://bcinvasives.ca/documents/Hoary_Alyssum_TIPS_Final_08_06_2014.pdf



Knotweed

(Japanese, Bohemian, Giant, Himalayan)



About: Four knotweed species are currently found in British Columbia: Japanese knotweed (*Fallopia japonica*), Giant knotweed (*Fallopia sachalinensis*), Bohemian knotweed (*Fallopia x bohemica*), and Himalayan knotweed (*Polygonum polystachyum*). All four species are similar in appearance, biology, impacts, and distribution. Knotweeds are native to Asia and were introduced to British Columbia as an ornamental plant. Small pieces of roots or stem fragments can regenerate and therefore spread the plant quickly. Plants are often spread through contaminated equipment and materials, and improper disposal of removed plant material such as dumping or composting of cut stems. Plants are also dispersed through water, wildlife, cutting and mowing, flooding events and through human actions such as selling, purchasing, and trading knotweed plants.

Distribution:

Knotweed species are found on Vancouver Island, Sunshine Coast, Central Coast, North Coast (Haida Gwaii), Lower Mainland, Nechako, Cariboo, Thompson-Okanagan and the Kootenays.



Bohemian knotweed; J. Hallworth



Bohemian knotweed; W. Tyrrell



Japanese knotweed; B. Stewart



Giant knotweed; W. Tyrrell



Himalayan knotweed; N. Page

Identification: All knotweed species, except for Himalayan knotweed, have small, white/ green flowers that grow in showy, plume-like, branched clusters along the stem and leaf axils. Himalayan knotweed flowers are usually pinkish/white. Green stems, or canes, are hollow, upright, and bamboo-like with reddish-brown/red speckles. Stems arise from the large bulbous rhizome crown that is 30 cm x 30 cm across. Knotweeds range from 1.5-6m tall. Stems grow in large, dense thickets and die back each fall and may persist through the winter as bare, grey or straw-coloured hollow stalks.

Leaves:

Bohemian knotweed leaves have a slight to moderate curve at the base, and are 5 to 30 cm long with a sharp tapered tip. Margins or veins on the underside of the leaf have small hairs or blunt spines.



Bohemian knotweed; W. Tyrrell

Japanese knotweed leaves have a straight base; truncate with an abruptly pointed tip. They are 3 cm to 10 cm long. Leaf undersides have small ridges or bumps on veins or margins.



Japanese knotweed; L. Scott

Giant knotweed: Leaves are deeply curved and heart shaped base (cordate). Mature leaves are 20 to 40 cm long. Margins or veins on the underside of the leaf have distinct multi-cellular hairs.



Giant knotweed; W. Tyrrell

Himalayan knotweed: Leaves are broadly lance-shaped with a long, pointed tip. They can grow up to 20 cm long and are about $\frac{1}{2}$ as broad.



Himalayan knotweed; N. Page

Impacts: Knotweeds can grow through concrete and asphalt, damaging infrastructure. This results in significant control, management and repair costs. Knotweeds grow rapidly, forming monocultures that limit resources for native plants. Their ability to outcompete native species threatens biodiversity and ecosystem functions. Knotweed roots lack the true root hairs necessary to bind to the soil, resulting in erosion and stream sedimentation along banks of creeks and rivers where it has become established, impacting fish and their habitat, and other aquatic organisms. Knotweeds affect home and business owners as knotweed rhizomes and stems can push through asphalt, building foundations, retaining walls, septic systems and drains causing significant damage and potential loss of property values.

Integrated Pest Management: Avoid unloading, parking, or storing equipment and vehicles in infested areas. Remove plants, plant parts, and seeds from personal gear, clothing, pets, vehicles, and equipment before leaving the infested area. Cutting and mowing may be effective for small populations (< 200 m squared) if repeated several times a year with constant monitoring. Cutting should be repeated until root reserves are depleted (usually several years). Cutting is most effective when followed up with herbicide application. Chemical treatment is a management strategy that requires monitoring and follow up treatments as long as there is re-growth. Generally knotweed sites can be controlled with herbicide within 3-5 years. Chemical treatment is most effective between bud formation and when the plant begins to die back after the first frost. Herbicides must be systemic for control of knotweed species. Elevate cut or mowed stems until they are completely desiccated and no longer viable, and do not allow them to touch soil or water during the desiccation process. Once completely brown and dry, they may be safely composted, as long as seeds are not present.

Calendar

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https://bcinvasives.ca/documents/Knotweeds_TIPS_Final_07_22_2016.pdf

<https://www.phlorum.com/services/japanese-knotweed/domestic-knotweed-removal/knotweed-identification/>

Brown marmorated stink bug

Halyomorpha halys



About: This bug is native to Asia, but was first identified in Pennsylvania in 2001. It was accidentally introduced to the United States in the 1990s. Since then, it has spread throughout the United States and was first discovered in British Columbia in 2015. Brown marmorated stink bug (BMSB) may have arrived in British Columbia by travelling on shipping containers from the United States or other provinces. The brown marmorated stink bug feeds on over 100 different plant species including apple trees and sweet corn, and is considered extremely destructive. They do not bite but they have a foul odour when crushed.

Distribution: High numbers of BMSBs are present in downtown Kelowna. They are also present in urban areas of Vancouver, the Fraser Valley, the Okanagan Valley, and Brentwood Bay on Vancouver Island.

Identification: Shield shape, about 1.5cm long, brown marbled colour on the outer body, brown and white markings on the abdomen, white bands on last two antenna segments. Nymphs have a similar appearance to ticks, range in size from 2-12mm in length, and do not have developed wings. The youngest nymphs are bright orange or red, and the older nymphs are black. Eggs are white or light green, spherical, 1.5mm in length, found on the underside of leaves in clusters of about 25 eggs.



Impacts: BMSBs threaten the agriculture industry by feeding on fruits and vegetables and damaging the crops, causing rotten areas on the produce. They can also damage grape crops and contaminate wine if they are harvested with grapes. The BMSB injects enzymes that destroy fruit/plant tissue, both in its nymph and adult stages. Symptoms of an infestation include: deformed and discoloured fruits and seeds, shrivelled berries and seeds, delayed maturity, increased sap flow and discoloured tree bark.

Integrated Pest Management: Prevent BMSB from entering your home or workplace by sealing off entry points. Homeowners can remove BMSBs by hand, by shop vacuum, or by sweeping. Collected bugs can be dropped into soapy water to drown. Pesticides for BMSB are not recommended for use in residential settings.

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/animals-and-crops/plant-health/insects-and-plant-diseases/tree-fruits/brown-marmorated-stink-bug>

<http://www.omafra.gov.on.ca/english/crops/insects/bmsb-registrations.htm>

<https://hortnews.extension.iastate.edu/2010/11-17/stinkbug.html>

http://www.omafra.gov.on.ca/english/crops/facts/info_bmstinkbug.htm

<https://journal.entsocbc.ca/index.php/journal/article/view/981>

<https://www.cbc.ca/news/canada/british-columbia/samurai-wasp-possible-solution-okanagan-stink-bug-1.4838181>

<https://www.sciencemag.org/news/2018/08/scientists-spent-years-plan-import-wasp-kill-stinkbugs-then-it-showed-its-own>

<https://forestinvasives.ca/Meet-the-Species/Insects/Brown-Marmorated-Stink-Bug>



True armyworm

Mythimna unipuncta



About: True armyworm is an agricultural invasive species that can migrate from southern United States and Mexico to southern parts of Canada during the summer.

Distribution: British Columbia, Ontario, Manitoba – not yet in the Cariboo region.

Identification: Larvae have stripes along the length of the body, with a net design on the head. They are yellow/brown, and become black when adult. Adult moths are about 2cm long with brown bodies and a small white dot on each wing.

Impacts: True armyworm larvae eat holes in leaves and grass, and when they become adults they are able to eat entire leaves, seed heads, and corn ears. They can cause damage within a few days. The first generation of true armyworm in June and July will damage grass, hay and cereals, and the second generation in August and September will cause damage to grass and corn crops.

Integrated Pest Management: Modify harvest plans to harvest earlier in the season. Cut or graze earlier and use fertilizer to encourage regrowth in hay fields. Mow grass weeds to decrease hosts and food sources for larvae. Monitor adult moths by using pheromone traps from April to August, and if more than 30 moths are captured overnight, then it is recommended to begin larvae searches in the field 2 weeks afterwards. Ground beetles, Rove beetles, and parasitic wasps and flies will kill true armyworm larvae. Some birds will also eat larvae. Although these organisms will not eradicate the population, they will damage it to an extent.

<https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/animal-and-crops/plant-health/phu-true-armyworm.pdf>

Grey tortrix moth

Cnephasia stephensiana

About: The caterpillars of grey tortrix moth damage alfalfa crops by mining leaves and then living inside them. Grey tortrix moth has also been found to damage legumes, clover, broad leaf plantain, and dock. Caterpillars are present in BC during mid-June, and moths fly in the late summer.



Distribution: Found in Williams Lake, Kersley, Lumby, Sparwood, Creston, Fort Fraser.

Identification: Caterpillars are varied in colour from yellow to brown/black. Adult moths are grey/white with a wingspan of 18-22mm.

Impacts: Damages crops and natural forage.

Integrated Pest Management: It is suggested to mow fields early prior to damage from caterpillars.

<https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/animal-and-crops/plant-health/grey-tortrix-moth.pdf>



Large yellow underwing moth

Noctua pronuba

About: Originally from Europe and Asia. First found in Halifax, Nova Scotia in 1979 then spread to other Canadian provinces by hitching rides on vehicles and equipment, or flown on their own. Eggs are laid in large batches from several hundred to more than a thousand. Eggs hatch in 10 days. Larvae can be found feeding on the roots of a plant in the soil during the day, and at night they climb the plant to eat the leaves. Larvae feed from the middle of summer to early autumn, and they become adult moths the following spring.



Distribution: Found on Vancouver Island and in Vancouver.

Identification: Eggs are white when freshly laid then become pink to grey over time. Caterpillars are about 50mm long, the head is light brown with dark markings, and the body colour varies from yellow to brown to green. The caterpillars have a light dorsal line with dark dashes along the body. Adults have a wingspan of 50-60mm and have a yellow hindwing. The forewings are brown and grey with dark patterns.



Impacts: Larvae feed on various plants such as tree seedlings, hops, lettuce, potato, and grasses. The larvae decrease the value and quality of crops and natural forage.

Integrated Pest Management: Monitor fields for damage. If damage to crops is found, dig 2-5cm deep next to the plant to expose larvae. Larvae can then be removed by hand or by applying insecticide. Larvae have some natural predators such as birds, wasps, and parasites.

<https://www.cabi.org/isc/datasheet/36417>

<http://www.wildlifeinsight.com/british-moths/large-yellow-underwing-moth-and-caterpillar-noctua-pronuba/>

<http://linnet.geog.ubc.ca/efauna/Atlas/Atlas.aspx?sciname=Noctua+pronuba>

<https://www.bcagclimateaction.ca/wp/wp-content/media/CB09-Priority-Pests-2018-report.pdf>

Goldfish

Carassius auratus



About: Goldfish are native to Asia and were brought to North America for the aquarium trade. They escape from ponds or are released by aquarium owners. They can tolerate many environments and temperatures including ice cover.

Distribution: Goldfish are found in the lower mainland, southern interior, and southern Vancouver Island.

Identification:

Can range in colour from white to orange to olive green. They have a long dorsal fin, big head and eyes, and a small mouth.



Goldfish have no scales on the head, but have scales on the rest of their body. They are about 15 to 20cm long when fully grown.

Impacts: Goldfish compete with native fish for food and disturb the local aquatic habitat. They also feed on smaller native fish. When feeding, they muddy the area around them, and can harm native aquatic plants.

Integrated Pest Management: Do not release goldfish into the wild. Do not use fish as live bait. Instead of releasing goldfish into local waters, contact the place where you purchased it or a local science centre or aquarium to see if they can use the fish for educational purposes.

https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/goldfish_alert.pdf

Smallmouth bass & largemouth bass

Micropterus dolomieu & *Micropterus salmoides*



About: Native to Central and Eastern North America. Brought to BC for sport fishing but has now infested local waters and ecosystems. They are also spread naturally by river systems that cross borders. The female fish can lay thousands of eggs at one time. They are dormant in deep water during the winter.

Distribution: Found in the lower mainland, Cariboo and Thompson-Nicola regions, Okanagan, and southern Vancouver Island near Victoria.

Identification:

Largemouth bass have a dark line from their gills to tail, and have a larger mouth that extends past the middle of their eye. Smallmouth bass



can be brown or green/grey, are white on the bottom of their body, can grow to be 25 to 40cm long, and have 2 dorsal fins that are fused.

Impacts: These fish create negative impacts on natural ecosystems by carrying parasites that can be harmful to native fish, and by feeding on juvenile salmon.

Integrated Pest Management: Do not release these fish into local water bodies. Do not use fish as live bait.

https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/smallmouth_bass_alert.pdf

Feral pig

Sus scrofa



About: Feral pigs are pigs that have been previously domesticated and have escaped their captivity. They are originally from Eurasia and have been introduced to North America for hunting and farming. Feral pigs like to travel in groups around riparian areas. Feral pigs reproduce quickly – females may have a litter of more than 10 piglets multiple times a year.

Distribution: Found in small populations around Vancouver Island, lower mainland, Thompson-Okanagan, Peace, Chilcotin, and Kootenay regions.

Identification: Feral pigs look like domesticated pigs. They are normally brown, black, or grey, have an elongated snout, and can vary in weight – females range from 35 to 150kg, while males range from 60 to 200kg.

Impacts: Feral pigs damage crops by disturbing the soil in crop lands while looking for forage. They can also transmit diseases to other livestock, wildlife, and humans including swine brucellosis and pseudorabies. They compete with native plants and wildlife and disturb the natural ecosystem. They can also feed on eggs, small mammals, reptiles, and livestock such as goats and sheep. Feral pigs dig up roots which affects biodiversity.



Integrated Pest Management: Do not release pigs into the wild. Do not leave out potential food sources for feral pigs. Maintain a secure fence around your property. Feral pigs can be hunted if found in BC.



BCINVASIVES.CA / 1-888-933-3722