



Invasive Species Council of BC

INDIGENOUS RESOURCE SERIES

2019

Invasive Species That Affect Indigenous Communities

Introduction

Invasive species are non-native plants, animals, and other organisms that can quickly spread and have negative impacts on ecosystems and native species. Invasive species can also have significant impacts to Indigenous communities by impacting infrastructure, economy, health and cultural practices including traditional economies and harvesting, especially when culturally important species are affected. This resource provides a list of some of the key invasive species affecting Indigenous communities in BC.

Note: *The ISCBC recognizes that Indigenous cultures are not homogeneous, as each have their own histories, languages, practices, and beliefs, and that traditional foods, medicines and practices differ greatly by territory. The Council respects the inherent right to Indigenous ownership of all traditional knowledge, and has taken precautions to provide accurate information without compromising ownership, specific locations or cultural practices.*



What Are Culturally Important Species and Why Are They Important?

Indigenous peoples have an intrinsic relationship to the land and environment. This relationship is built on reciprocity and stewardship of the land and is engrained in their cultures and histories. Culturally important species are a significant part of this relationship. Many plants and animals have special meanings and important cultural, spiritual and traditional significance, as well as being important sources of wild foods.

Invasive Species and Their Impacts

Included are 19 invasive species that are known to affect Indigenous communities in British Columbia.

Note to readers: *This list is not exhaustive nor exclusive but provides a sample of invasive species that have or can potentially have impacts on Indigenous communities, cultural practices, and economies.*



Common Tansy; R. Mueller

1. Blueweed

Current Distribution: *Cariboo, Columbia-Shuswap, Kootenay, Okanagan, Similkameen, and Thompson-Nicola regions.*

While beautiful, blueweed is an invasive species that is regionally noxious. Blueweed has hairy stems that are painful to the touch, making this an unpleasant weed to remove or come in contact with. Blueweed is unpalatable to grazers, thereby allowing its growth and spread to go unchecked. Large infestations reduce forage supply for grazers. Blueweed is commonly found in disturbed areas including roadsides, drainage ditches, rights-of-way, fence lines, pastures, and rangeland.

Key Impacts: The reduction in available food sources for wildlife can cause them to look elsewhere for forage, lessening the abundance and distribution of wildlife species that are hunted for sustenance. Blueweed can also limit access to areas that are used for harvesting foods and medicines.



J. Leekie

2. Burdock

Current Distribution: *Bulkley-Nechako, Cariboo, Columbia-Shuswap, Fraser-Fort George, Kitimat-Stikine, Coastal, Okanagan, Similkameen, Peace, and Thompson-Nicola regions.*

Burdock is a tall invasive herb known for its clinging burs. This pesky plant is regionally noxious and can lower the market value of livestock. The burs can become tangled in the hair and fur of animals, causing stress and even health problems, including injury to the eyes, nose, and mouth. There have even been



L. Scott

reported incidences where birds and bats have become entangled in the burs.

Key Impacts: Burdock burs can impact wildlife such as deer and moose, causing injury and other health impacts which could be problematic for hunters who harvest meat, and ranchers who keep livestock. Infestations of burdock can also make it difficult to harvest berries and plants, as large plants can block access.

“We have a lot of issues with burdock—burs getting on sheep and cattle, dropping off everywhere, getting into the hayfields. Canada and bull thistle too—we harvest blueberries, wild cranberries, Saskatoons, soap berries, and these plants take over areas, making it really hard to pick.”

**- Fernie May Garbitt
Saulteau First Nations, Chetwynd, BC**

3. Common Tansy

Current Distribution: *Omineca-Skeena, Peace, Fraser-Fort George, Cariboo, Thompson-Nicola, Columbia-Shuswap, Okanagan, Kootenay, Upper and Lower Fraser Valley, Vancouver and Gulf Islands, and southern coastal regions.*

If you have driven down a highway in BC, it is likely that you have spotted common tansy along the way. Common tansy is a regionally noxious invasive plant that thrives in disturbed areas, such as roadsides, pastures, and stream banks. It can reduce native vegetation in wetlands, causing bank instability. Common tansy infestations outcompete native plants, reduce biodiversity



L. Scott



Williams Lake Indian Band Weed Pull

5. Giant Hogweed

Current Distribution: Lower Mainland, Fraser Valley, Gulf Islands, and central to southern Vancouver Island regions.

Giant hogweed is a provincially noxious plant that has become rather infamous, and for good reason. This attractive but dangerous invasive plant grows aggressively and is tolerant of full shade and seasonal flooding. Its stem hairs and leaves contain a clear, toxic sap that can cause severe burns, blisters and scarring. Because of this, giant hogweed poses a danger to humans and animals alike, and can harm harvesters or hikers who accidentally come into contact with it.

Key Impacts: Giant hogweed poses a danger to anyone who comes into contact with it, whether hiking, harvesting or even gardening. This specifically affects harvesters, as it can block access to berries and other important plants.



IPCMV

and is unpalatable and even harmful to grazers by causing cumulative liver damage when ingested. Infestations in pastures and hayfields can significantly reduce crop productivity.

Key Impacts: Infestations of Common tansy reduce native plant diversity and forage, driving grazers to ingest the toxic leaves or urging them to look for food elsewhere. This impacts both hunting and harvesting practices and also causes economic impacts for farmers.

4. English Ivy

Current Distribution: Vancouver Island, Sunshine Coast, Central Coast, Lower Mainland.

Brought to Canada as an ornamental plant, English ivy thrives in moist, open forests but can easily adapt to a variety of conditions. English ivy impedes the growth and reproduction of native wildflowers, shrubs and trees by smothering and/or blocking sunlight. The vines spread densely on the ground and up trees or other objects, impacting trees and buildings.

Key Impacts: Large expanses of English ivy can weigh down infrastructure, such as buildings, and can smother trees, increasing the risk of blowdown and disease. Specifically, English ivy poses a threat to cedar trees that are culturally important for many uses including medicine, ceremony, carving and weaving.



J. Leekie

6. Himalayan Blackberry

Current Distribution: Lower Mainland, Sunshine Coast, Fraser Valley, Gulf Islands, Vancouver Island, Haida Gwaii, Okanagan, and West Kootenay regions.

Many of us have a love-hate relationship with Himalayan blackberry. While providing a tasty berry that many love to harvest, it also has thick, sharp barbs that can catch and cut clothing and skin. These plants are also very invasive and can easily take over an area, threatening native species and reducing biodiversity.

Key Impacts: Himalayan blackberry is problematic as it reduces biodiversity, and its barbed branches scratch harvesters and block access to other plants, berries and important areas.



L. Scott

“While on a weed pull by a salmon-bearing stream, there were Himalayan blackberry bushes everywhere. They were even wrapped around the salmonberry bushes, making it difficult to access these berries or even separate the two.”

- Caitlyn Therrien Iannone, Syilx, Sto:lo



Spotted knapweed; R. Mueller

7. Hound's-tongue



Hound's-tongue flowers; L. Scott



Hound's-tongue burs; L. Scott

Current Distribution: *Cariboo, Thompson-Nicola, Okanagan-Similkameen and Kootenay regions.*

Many people have experienced the frustration of finding their shoelaces covered in the clingy burs of this provincially noxious plant. Hound's-tongue thrives in dry disturbed areas and is found in dry pastures, roadsides, and logged forestland. Hound's-tongue seeds or burs cling to clothing, footwear, wildlife, livestock and pets and contribute to new infestations when spread over distances.

Key Impacts: Hounds-tongue can block access to harvesting spots. The burs can be difficult to remove, making them a nuisance and causing increased stress for animals who may find themselves covered in them. This species also contains toxic alkaloids that can cause liver damage to deer, cattle, horses and other animals, causing health and economic impacts to livestock, wildlife hunted for sustenance, and a reduction in forage.

“I remember huckleberry picking as a child, and we'd get to the car with hound's-tongue burs on our cloths, tangled into our shoelaces. The dogs would run up to us, their fur would be completely matted with burs. They were just everywhere.”

- Caitlyn Therrien Iannone, Syilx, Sto:lo

8. Knapweeds

Current Distribution: *Cariboo, Thompson-Nicola, Okanagan-Similkameen and Kootenay regions.*

Knapweed (spotted, diffuse, meadow, Russian) grows in open areas and well-drained soils and quickly establishes in grasslands, open forests and along roadsides.

While spotted and diffuse knapweed are provincially noxious, meadow and Russian are regionally noxious. Knapweeds can increase soil erosion and can cause skin irritation, and dead plant material from knapweeds can increase the risk of fire, posing a danger to wildlife and communities. Knapweeds contain chemicals that cause changes to the soil, preventing the growth of surrounding native plants.

Key Impacts: The establishment of knapweeds can threaten cultural activities such as harvesting and hunting, as they can be directly connected to declines in native vegetation, and reduction in harvesting plants and forage for wildlife. Infestations can result in changes to a habitat that may affect its ability to support wildlife populations (*Hirsch & Leitch, 1996*). It's ability to cause skin irritation can also make it difficult to harvest in areas surrounded by knapweed.

“Everywhere that the land has been disturbed, the invasive plants move in... we used to be all open grasslands around Merritt, good grazing for cattle and wildlife. I have really noticed the knapweeds and burdock moving in, they impact the berries as well. When the plants get over six feet tall, they are not easy to get through!”

- Harold Aljam
Coldwater Indian Band/Nlaka'pamux Nation, Merritt, BC



Diffuse Knapweed; R. Mueller

9. Knotweeds

Current Distribution: *Vancouver Island, Sunshine Coast, Central Coast, North Coast (Haida Gwaii), Lower Mainland, Nechako, Cariboo, Thompson-Nicola, Okanagan and Kootenay regions.*

Knotweeds (Giant, Bohemian, Japanese, Himalayan) are provincially noxious weeds with extensive root systems that can grow up to 20 metres. This species can grow through concrete and asphalt and can impact property values and production. Heavy knotweed growth along roadways can endanger public safety by creating blind spots, and can crack foundations and septic systems, impacting human health, and safety. The growth of knotweeds along streams and other waterways can cause erosion and increased sedimentation, causing negative impacts on the habitat, health and food supply of smolts and juvenile fish, including salmon (Birtwell, 1999).

Key Impacts: Knotweed establishment can lead to erosion of streambanks and increased sedimentation that can negatively impact salmon and other fish health and habitat, resulting in reduced harvesting. Knotweeds have caused extensive damage to homes and infrastructure. Blind spots created by heavy knotweed growth can hide signage and endanger pedestrians and roadside harvesters by blocking their view from drivers. Knotweeds can have significant impacts on food and medicinal harvesting by blocking access and outcompeting native plants.



Giant Knotweed; J. Hallworth



Japanese Himalayan Knotweed; J. Leekie



Himalayan Knotweed; N. Page



Giant, Japanese and Himalayan Knotweed; J. Hallworth

10. Orange Hawkweed

Current Distribution: *Kitimat-Stikine, Bulkley Nechako, Fraser-Fort George, Peace, Kootenay, Okanagan, Thompson, Cariboo, and Omineca regions.*

This beautiful orange flower may look harmless but can have impacts to the economy and harvesting practices. Unlike the native hawkweed species, orange hawkweed is an aggressive regionally noxious plant and can outcompete native flora, reducing biodiversity. Orange hawkweed thrives in well-drained soils, particularly in meadows, fields, pastures, and forest clearings. Humans and animals can accidentally spread this species to new locations by unknowingly transporting root fragments or seeds on clothing and fur.

Key Impacts: Orange hawkweed out-competes native species, forage plants, and key harvest species, reducing biodiversity. It can form dense patches that block native plant growth and restrict access to harvestable species. This species also diminishes agricultural crop value by decreasing yields.



J. Leekie

11. Oxeye Daisy

Current Distribution: *Peace, Omineca-Skeena, Cariboo, Okanagan, Thompson- Nicola, Kootenay and Coastal regions.*

Oxeye daisy is an attractive but regionally noxious invasive species that is known for its beautiful white petals. It thrives in dry conditions, particularly on roadsides, gravel pits, pastures and grasslands in low and mid elevations. Most grazing animals avoid it due to its unpleasant taste, leading to its further spread. Oxeye daisy can impact agriculture and wildlife, as infestations reduce available forage.

Key Impacts: This species grows aggressively and reduces available forage, native plant species and biodiversity. This can have impacts on harvesting and hunting, and large infestations can take over harvesting grounds that have been used for generations.



L. Scott

12. Purple Loosestrife

Current Distribution: *Vancouver Island, Lower Mainland, Fraser Valley, Columbia-Shuswap, Kootenay, Cariboo, Okanagan and Thompson-Nicola regions.*

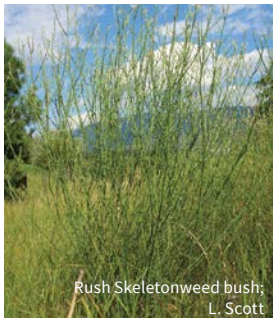
Purple loosestrife, sometimes known as the “purple plague”, is a provincially noxious plant that thrives in streams, riverbanks and wetlands where it can take over aquatic communities and displace important native vegetation that provide habitat. Dense infestations can clog ditches and canals, obstructing water flow. Infestations along streams and rivers can increase sedimentation and have impacts on salmonids. Unlike cattails and other native plants, stands of purple loosestrife do not provide valuable cover or nesting material for birds and animals and have little food value.

Key Impacts: Purple loosestrife can increase sedimentation in streams and rivers. Suspended sediment has been shown to have negative impacts on young salmon by limiting their foraging ability, disrupting their social behaviour, impacting growth and increasing the risk of disease (*Birtwell, 1999*). This can have negative impacts on the harvesting of salmon and other fish that serve as country foods. Purple loosestrife decreases biodiversity in wetlands, and can also impact infrastructure by clogging ditches and canals and obstructing water flow.



L. West

13. Rush Skeletonweed



Rush Skeletonweed bush;
L. Scott



Rush Skeletonweed flower;
J. Friesen

Current Distribution: *Kootenay and Okanagan regions.*

Rush skeletonweed is listed as noxious under the BC Weed Control Act Regulations. This plant, named for its long thin branches and tiny leaves, grows in grassland, rangelands, roadsides, and disturbed habitats. Rush skeletonweed can aggressively infest grassland and sage steppes, impacting native biodiversity, and can also impact croplands.

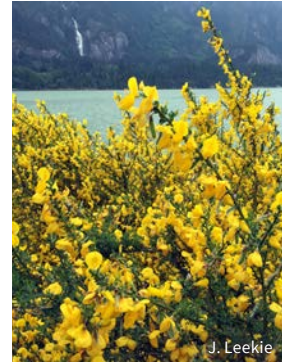
Key Impacts: Rush skeletonweed poses a threat to the availability and access to medicinal plants such as sage, sweetgrass, and bitterroot by aggressively outcompeting them. It also has an impact on wildlife and livestock, as it can infest important winter rangelands for grazers such as deer and elk.

14. Scotch Broom

Current Distribution: *Lower Mainland, Vancouver Island, Okanagan, Haida Gwaii, Shuswap, and Kootenay regions.*

Scotch broom is a shrub with bright yellow flowers that slightly resemble peas. This plant prefers sunny, disturbed areas and is known to invade rangelands, outcompeting forage plants. Scotch broom can also outcompete conifer seedlings and may hinder the movement of large animals. Dense thickets of Scotch broom can pose a threat to human health by increasing wildfire fuel loads and by obstructing sight lines on roads, causing blind spots.

Key Impacts: Scotch broom can directly impact harvesting by aggressively outcompeting native species and blocking access. It has had significant impacts on Garry oak ecosystems, outcompeting camas, chocolate lilies and other cultural species. Broom can also cause changes to large animal movement patterns, which in turn can impact hunting and other sustenance practices.



J. Leekie

15. Leafy Spurge

Current Distribution: *Thompson, Cariboo, Boundary, East Kootenay, Nechako and Okanagan regions.*

Leafy spurge is listed as provincially noxious under the BC Weed Control Act Regulations. Leafy spurge is typically found in grasslands, fields, dry roadsides, open forests, and disturbed habitats. This plant is an aggressive invasive that contains a white, milky latex that can irritate the skin of humans and animals, resulting in blisters and swelling. This species also has “allelopathic” properties, meaning it produces a compound that actively inhibits the growth of other plants nearby, including beneficial native species.



L. Scott

Key Impacts: Because of its aggressive characteristics, leafy spurge easily displaces native vegetation, including plants that are harvested for food, medicine, and ceremony, and its latex sap can irritate the skin of harvesters. It can also diminish wildlife forage, impacting Indigenous hunting and harvesting.



Feral Pigs; R. Brook

18. Feral Pig

Current Distribution: *Lower Mainland, Thompson, Okanagan, Peace, and Kootenay regions.*

Feral pigs are a significant concern in BC and beyond. Over time, they have escaped from farms and established in the wild, reproducing at alarming rates and threatening ecosystems and farming. Feral pigs compete with local wildlife for food, eat the eggs of ground nesting birds and are destructive to habitat, as they are capable of digging up vegetation much like a rototiller! They can also be a source of infectious diseases and parasites.

Key Impacts: Feral pigs have negative impacts on both the economy and the environment by damaging habitat, carrying diseases and competing with wildlife and livestock for food. They can impact both hunting and harvesting practices.



R. Brook

16. Yellow Flag Iris

Current Distribution: *Vancouver and Gulf Islands, Lower Mainland, Fraser Valley, Cariboo, Thompson, Shuswap, Okanagan, Boundary and west Kootenay regions.*

Yellow flag Iris is a beautiful but aggressive wetland species that spreads very quickly through rhizomes and seeds. Designated as provincially noxious, seeds floating downstream can cause new introductions and infestations, creating monocultures and reducing native wetland species, nutrients and habitat for wildlife. Yellow flag Iris can create dense stands in wetlands, slowing waterflow, trapping sediment, and causing negative impacts to salmon populations.

Key Impacts: Yellow flag Iris can reduce biodiversity by outcompeting native wetland species, reducing plant and animal diversity and blocking access to harvesting sites. It can also impact salmon populations and harvesting, due to increased sedimentation in waterways that affect fish behaviour, feeding, and health.



J. Leekie

19. Largemouth Bass & Smallmouth Bass



Largemouth Bass;
Bugwood.org, E. Engbretson



Smallmouth Bass;
Bugwood.org, E. Engbretson

Current Distribution: *Lower Mainland, Vancouver Island, Okanagan, Thompson, and Kootenay regions.*

While some people consider largemouth and smallmouth bass to be beneficial sport fish, they can have negative impacts as well. These invasive species pose a serious threat to native fish species in British Columbia, particularly salmon. Both largemouth and smallmouth bass are known to prey on juvenile salmonids, including chinook salmon. Bass grow rapidly and outcompete many fish species for food and habitat, causing serious declines in native fish populations and local extinctions of several small native prey fish. Largemouth bass can also carry hundreds of parasites, putting native species further at risk.

Key Impacts: Largemouth and smallmouth bass can have serious impacts to fishing and harvesting of salmon and other fish species.

17. American Bullfrog

Current Distribution: *Lower Mainland, Fraser Valley, Vancouver Island and Gulf Island regions.*

The American bullfrog is the largest frog in North America, originally from the eastern United States. It is invasive to BC and is spreading throughout the province. Bullfrogs can seriously impact wetlands as they have a voracious appetite and eat native frogs, snakes, salamanders, turtles, crayfish, snails, birds and even small mammals!



R. Ottens

Key Impacts: The American bullfrog poses a significant threat to biodiversity due to their impacts on wetland ecosystems. They can outcompete and prey on native species, which can impact harvesting and access to country foods.

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