Invasive Species Council of BC

The Impacts of Invasive Species

in the Traditional Nlaka’pamux Territory

About Us

The Invasive Species Council of BC (ISCBC) is a registered charity and non-profit society making a difference in the lives of people across British Columbia by helping diverse parties work together to stop the spread of invasive species. We engage people, businesses, government and industry in adopting simple, but important practices that have a huge impact. Our goal is to protect the places we love from the detrimental environmental, social, and economic effects of invasive species. Indigenous partners have a significant role in our work. They guide training and resource development and identify opportunities for collaboration. ISCBC coordinates the Indigenous Invasive Species Network which supports communication and knowledge exchange on invasive species prevention, management practices, and other initiatives

We recognize and value the critical importance of Indigenous leadership in ecological stewardship and we are committed to reflecting this in all aspects of our work.

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Nlaka'pamux Traditional Territory

The Nlaka'pamux Traditional Territory in British Columbia spans the Fraser River Canyon, Nicola Valley, and Thompson River watersheds, extending north and east to the Shuswap and Okanagan Nations, and west and south to the St'at'imc and Sto:lo Nations, respectively.

The territory is within an ecologically diverse region, that has been shaped by the mountains, rivers, grasslands, and forests, has sustained the Nlaka'pamux people for thousands of years. Its biodiversity and natural resources remain integral to their cultural, spiritual, and economic practices.

These traditional lands have provided sustenance and grounding for thousands of years.

The Nlaka'pamux comprises numerous communities or Indian Bands, including the Coldwater Indian Band, Shackan Indian Band, Lower Nicola Indian Band, and Cook's Ferry Indian Band. The territory also features present-day communities like Spences Bridge, Lytton, Ashcroft, and Merritt[1-7].

> **"This is my classroom outside, you know? This is the office out here."**
>
> **— Nlaka'pamux Territory Voices**

The territory is within an ecologically diverse region, that has been shaped by the mountains, rivers, grasslands, and forests, that have sustained the Nlaka'pamux people for thousands of years. Photo: C. Thomas.

Geological and Ecological Diversity

The Nlaka'pamux territory is geologically and ecologically diverse, spanning montane forests, semi-arid grasslands, and riparian systems. The Fraser and Thompson Rivers are ecological lifelines that provide food, medicine, and resources essential to cultural practices.

Rivers and Riparian Zones

The Fraser and Thompson River watersheds support numerous salmonid species such as chinook *(Oncorhynchus tshawytscha)*, coho *(O. kisutch)*, sockeye *(O. nerka)*, steelhead *(O. mykiss irideus)*, rainbow trout *(O. mykiss)* and Dolly Varden *(Salvelinus malma)*, as well as species like white sturgeon *(Acipenser transmontanus)* and suckers *(Catostomus* spp.) which have been vital to the Nlaka'pamux. These fish species sustain not only human communities but also culturally significant wildlife like bears and eagles. The riparian zones host critical vegetation like willows, cottonwood, and sedges which provide valuable ecosystem services, stabilize riverbanks, provide shade, and support diverse wildlife.

Grasslands and Sagebrush Ecosystems

Lower elevations feature semi-arid grasslands with bunchgrasses (e.g., bluebunch wheatgrass [*Pseudoroegneria spicata*], rough fescue [*Festuca scabrella*], needle-and-thread grass [*Hesperostipa comata*], sagebrushes [*Artemisia* spp.]), and diverse wildflowers[8]. These areas support deer, elk, and smaller mammals, along with culturally significant plants like bitterroot *(Lewisia rediviva)*, which have been managed for generations by the Nlaka'pamux.

Montane and Subalpine Forests

Higher elevations host Douglas-fir *(Pseudotsuga menziesii)*, ponderosa pine *(Pinus ponderosa)*, spruce *(Picea* spp.), and western redcedar (*Thuja plicata)* forests[9]. These forests provide habitat for bears, moose, and cougars while offering resources for firewood, medicines, and materials for traditional practices. Forested areas are also home to medicinal plants, berries, and fungi that play critical roles in Nlaka'pamux health and spirituality[10].

The Nlaka'pamux territory is geologically and ecologically diverse, spanning montane forests, semi-arid grasslands, and riparian systems. Photos: C. Thomas.

The Significance of Traditional Foods and Medicines to Nlaka'pamux People

Traditional foods and medicines are essential to the cultural, spiritual, economic, and physical lives of the Nlaka'pamux. These resources are deeply connected to the land, sustaining identity, health, and cultural survival.

Culturally, foods like salmon *(Oncorhynchus* spp.) and bitterroot *(L. rediviva)* play a central role in ceremony and oral history. Harvesting follows cultural protocols of respect and sustainability, with knowledge passed down through oral storytelling and hands-on learning, reinforcing cultural continuity despite the impacts of colonization. Prior to colonization, the trade system between First Nations peoples was well established. A notable trade item that was vital to the Nlaka'pamux and their economy was dried salmon. Valued for its nutritional content and portability, it was used to acquire valuable goods such as hemp dogbane from neighbouring nations in the Okanagan[5,11,12].

Traditional foods and medicines promote health and well-being. Nutritional staples like salmon provide essential nutrients, while plants like soapberry *(Shepherdia canadensis)* and bitterroot are used for traditional medicines, blending physical, mental, and spiritual health.

Socially, gathering and preparing food strengthens community bonds. However, colonial policies and practices, as well as climate change have disrupted these traditions. The Nlaka'pamux continue to reclaim their culture through land-based education and revitalization programs, and the traditional foods and medicines remain a foundation of Nlaka'pamux cultural resilience, connecting their past, present, and future.

Nutritional staples like salmon (top) provide essential nutrients, while plants like soapberry (middle) and bitterroot (right) are used for traditional medicines, blending physical, mental, and spiritual health.

> **"My grandmother and mom used to teach me how to respectfully harvest from the land. I was taught to collect only what you need and to give back. This could include offering traditional tobacco or sage to the land before harvesting."**
>
> **— Nlaka'pamux Territory Voices**

Stealing the Soil: How Grassland Invasive Species are Impacting Native Species

In the Nlaka'pamux territory, invasive grassland species are altering ecosystems, competing for nutrients, water and space with native plants such as bitterroot, that have sustained the land and its people for generations. Some common grassland invaders to the region, such as blueweed *(Echium vulgare)*, cheatgrass *(Bromus tectorum)*, sulphur cinquefoil *(Potentilla recta)* and spotted knapweed *(Centaurea stoebe)*, can compete with native grassland species, replace more palatable forage, can be toxic to grazers, be allelopathic, deplete soil nutrients, disrupt traditional harvesting, and increase wildfire risks[13-16]. As these species spread, they threaten culturally significant species, eroding Indigenous food systems, medicinal practices, and Indigenous Knowledge[17].

Bitterroot holds great significance for the Nlaka'pamux people, both as a source of sustenance and as a cultural symbol. Credit: Nlaka'pamux Nation Tribal Council Cultural Archives (Photo by Randy James and NNTC)

Found in the dry habitats of the interior plateau in British Columbia, it (bitterroot) remains hidden among grasses and sagebrush for most of the year but is integral to Nlaka'pamux traditions, practices, and ecological knowledge.
Photo: Nlaka'pamux Nation Tribal Council Cultural Archives (Photos by Randy James and NNTC)

Native Species: Bitterroot (Łkʷəpn) (*Lewisia rediviva*)

Bitterroot holds great significance for the Nlaka'pamux people, both as a source of sustenance and as a cultural symbol[18]. Found in the dry habitats of the interior plateau in British Columbia, it remains hidden among grasses and sagebrush for most of the year but is integral to Nlaka'pamux traditions, practices, and ecological knowledge.

Bitterroot has long been a staple food and trade good valued for its starchy, nutrient-rich roots. Traditionally harvested in the spring, the roots are carefully cleaned, then either boiled for immediate use or dried for long-term preservation. As a vital source of carbohydrates, bitterroot is often combined with salmon, berries, and other traditional foods to create nourishing meals[19,20]. Beyond sustenance, bitterroot holds significance in traditional medicine, where it has been used to treat inflammation, digestive issues, and respiratory ailments[21]. Bitterroot is also spiritually significant. Its annual harvest, accompanied by ceremonies, expresses gratitude to the land and represents renewal and resilience. Elders often share stories of bitterroot's origins, teaching younger generations about respect for the land and traditional harvesting practices. A great example is the annual IhQUOOpen (bitterroot) digging and gathering conducted by the Nlaka'pamux community. Hosted by John Haugen, the event brings Nlaka'pamux people together to share their traditional knowledge, and how to locate, harvest, clean, and cook bitterroot. The special event fosters a sense of unity, reinforcing the importance of passing down cultural knowledge[22].

The significance of bitterroot to the Nlaka'pamux people is deeply rooted. Its accessibility and the ability to harvest it are crucial to food sovereignty and security. Additionally, bitterroot plays a vital role in the intergenerational transfer of knowledge, which is essential for preserving and continuing the Nlaka'pamux way of life.

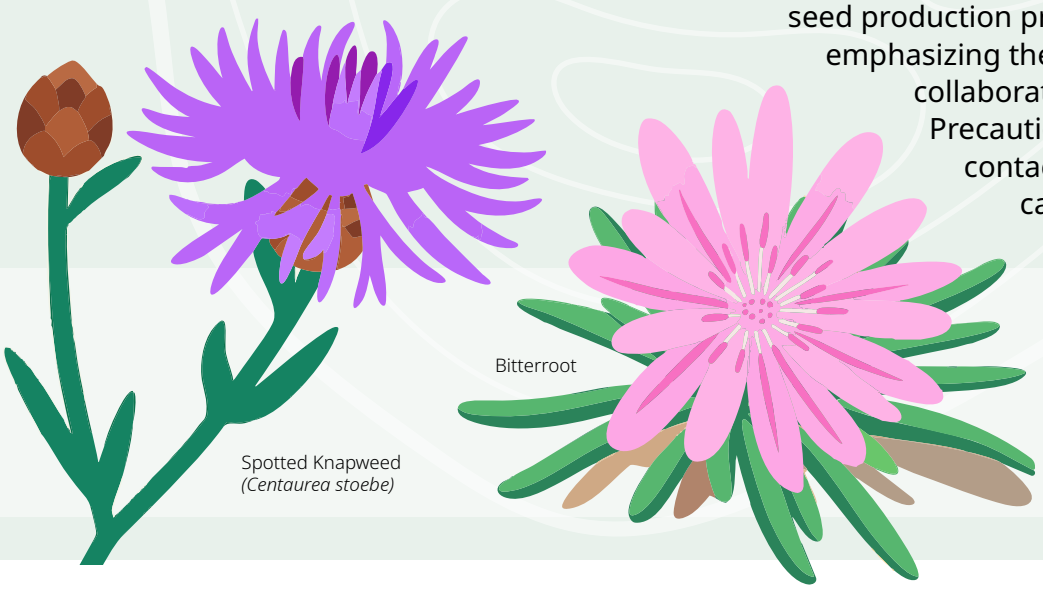
Invasive Species: Spotted Knapweed *(Centaurea stoebe)*

Spotted knapweed, a non-native perennial introduced to B.C. in the late 19th century from Eurasia[23], is a significant threat to the traditional grasslands of Nlaka'pamux territory. This invasive species aggressively outcompetes culturally important plants such as sagebrush *(Artemisia* spp.), bitterroot, balsamroot (sníłqn, *Balsamorhiza sagittata)*, Indian celery (stweta, *Lomatium nudicaule)*, Saskatoon berry (*Amelanchier alnifolia)*, Indian potato (tatowen, spring beauty, *Claytonia lanceolata)*, wild carrot/desert parsley (kokwe'la, *Lomatium macrocarpum)*, and mariposa lily (məqʔ-úʔseʔ, *Calochortus macrocarpus)*. By competing for resources like water and nutrients, spotted knapweed disrupts the ecological balance that supports these key species. It also releases allelopathic chemicals into the soil, suppressing seed germination and growth of surrounding vegetation[24,25,26]. The spread of knapweed threatens biodiversity and undermines the traditional practices and knowledge systems that rely on these native species.

The threat to native grassland plants has cascading ecological and cultural effects. Bitterroot, a plant of deep cultural, nutritional and medicinal importance to the Nlaka'pamux people, struggles to persist in areas overrun by knapweed. Other native grassland species like bunchgrasses, essential forage for wildlife, also diminish, which could lead to declines in animal populations traditionally harvested for food since. It is also less palatable and has less nutritional value than native forage species[27]. This disruption in ecological relationships directly impacts the Nlaka'pamux people's ability to maintain food security, sovereignty, and intergenerational knowledge transfer.

Spotted knapweed's ability to establish monocultures is driven by allelopathy and its stout, deep taproot, which allows it to extract water and nutrients more efficiently than native species. This competitive advantage not only reduces native plant diversity but also accelerates soil erosion and alters hydrological processes within the ecosystem[29,30]. These ecological shifts further degrade grassland integrity, reducing the abundance of traditional plants in harvesting areas and forcing community members to travel greater distances in search of remaining stands of culturally significant plants.

Protecting grasslands and addressing invasive plants like spotted knapweed is critical for preserving both ecological and cultural resilience for future generations to maintain their connection to the landscape. Management strategies, including mechanical removal, targeted herbicide application, and biological control agents, have been employed to mitigate its spread. However, spotted knapweed's resilience and prolific seed production present ongoing challenges, emphasizing the need for sustained and collaborative management efforts. Precautions must also be taken as contact with spotted knapweed can cause skin irritation[23,24].



Spotted Knapweed
(Centaurea stoebe)

Bitterroot

Bitterroot, a plant of deep cultural and medicinal importance to the Nlaka'pamux people, struggles to persist in areas overrun by knapweed.

Invasive Species: Cheatgrass *(Bromus tectorum)*

Cheatgrass is an annual plant introduced to North America from Europe in the late 19th century. It spreads rapidly due to its adaptability, high seed production, and quick germination in disturbed soils[31,32]. It thrives in the dry, open landscapes of Nlaka'pamux territory, outcompeting native grassland plants for resources. Cheatgrass's early germination allows it to pre-emptively use soil moisture, giving it a competitive edge[32,33] over native species such as bitterroot.

One of the most significant impacts of cheatgrass is its role in altering fire regimes. Cheatgrass is highly flammable after drying out, and its presence increases the frequency and intensity of wildfires. Furthermore, when wildfires burn through cheatgrass-infested areas, the newly exposed soil becomes the ideal environment for cheatgrass seed to germinate with the arrival of precipitation. The rapid growth of cheatgrass then suppresses the growth and recovery of native perennial plants [33,34]. This transformation of diverse ecosystems into cheatgrass-dominated landscapes disrupts biodiversity and ecosystem function, affecting the other culturally important species to the Nlaka'pamux like deer, elk, and small animals.

The introduction of cheatgrass and knapweeds has led to declines in bitterroot populations in some areas, making it increasingly difficult for the Nlaka'pamux to access this traditional resource. The loss of access to bitterroot undermines cultural practices and erodes the transmission of intergenerational knowledge to younger generations and ultimately affects food security and food sovereignty for the Nlaka'pamux people. Ecologically, the decline of bitterroot can disrupt the balance of local ecosystems. Bitterroot plays an important role in supporting pollinators and maintaining soil health, and its loss may have cascading effects on other species and ecosystem functions.

Cheatgrass invasion has completely transformed ecological communities on millions of acres in the sagebrush grasslands of North America. [35]

Cheatgrass
(Bromus tectorum)

> **"When I'm out walking the land and digging, there's so much cheatgrass. It's hard not to get it on you and take it to other spots."**
>
> **— Nlaka'pamux Territory Voices**

Beyond their impacts on culturally significant plants like bitterroot, grassland invasive species also create broader ecological challenges. As mentioned earlier in this chapter with cheatgrass, many invasive plants alter vegetation patterns and increase the amount of dry, highly flammable material on the landscape, raising the risk and intensity of wildfires. These changes can further threaten native plant communities and the cultural and traditional practices connected to them.

Sayge Fisher, Environmental Protection Coordinator for the Lower Nicola Indian Band (LNIB), highlights how these invasive plants particularly affect cultural and traditional burning. This important practice used by many First Nations in the region to manage landscapes, reduce potential wildfire fuel loads, and support the regeneration of healthy food and medicinal plants, has become more difficult in areas where invasive plants thrive. Fisher explains that species such as spotted knapweed, cheatgrass, kochia (*Bassia scoparia*), mustard weed, and various thistle species (e.g. *Cirsium* spp., *Onopordum acanthium*) can increase fuel loads, intensifying wildfires and potentially destroying native plants while preventing their regrowth.

To address these risks, LNIB works closely with its own fire department, as well as the Merritt Fire Rescue Department and BC Wildfire Service, to provide safety information and education about the dangers of invasive species as wildfire fuel in grassland ecosystems. The LNIB fire department is also present during cultural and traditional burns to provide support and ensure safety if assistance is needed.

Weeds that act as potential fuel. Photo: Lower Similkameen Indian Band Natural Resources & Parks Working Group

Kochia

... species such as spotted knapweed, cheatgrass, kochia, mustard weed, and various thistle species can increase fuel loads, intensifying wildfires and potentially destroying native plants while preventing their regrowth.

Yellow perch (*Perca flavescens*), is an invasive freshwater fish in British Columbia[36], has the potential to disrupt Nlaka'pamux waters. Photo: M. Herborg.

A Cautionary Message: Yellow Perch and Their Potential to Disrupt Nlaka'pamux Waters

Yellow perch (*Perca flavescens*), is an invasive freshwater fish in British Columbia[36], has the potential to disrupt Nlaka'pamux waters. It is native and widespread to the east of the Rocky Mountains in North America, but in neighboring syilx territory, yellow perch compete with native fish like kokanee salmon *(O.nerka)* and burbot *(Lota lota)*[37,38]. In Douglas Lake, their rapid reproduction allows them to dominate the environment, reducing biodiversity and species of cultural significance through predation and competition[39]. With Upper Nicola bordering Nlaka'pamux territory and its waters, yellow perch poses a great risk to undermining traditional practices, which are central to Nlaka'pamux identity, sustenance, and knowledge transfer. Introduced through colonial and recreational means, yellow perch demonstrates how invasive species can erode food sovereignty and sever deep-rooted relationships with the water and its species.

> **"To me, invasive species are messengers. They are biological indicators that show us the state of things. Compare them to a runny nose - it's a signal telling us something is wrong. Focusing only on the runny nose misses the point, the real need is to treat the underlying sickness causing it."**
>
> **— Nlaka'pamux Territory Voices**

Native Species: Kokanee Salmon (Kekn'íy) *(Oncorhynchus nerka)*

Kokanee salmon, the freshwater form of sockeye, are ecologically and culturally significant in British Columbia. Unlike their ocean-migrating relatives, kokanee spend their entire life cycle in freshwater, spawning in lake tributaries and contributing nutrients that support diverse ecosystems[40]. For the syilx people, kokanee salmon have long been central to their diet, culture, and identity. As a food source, its high protein content and ability to be dried and eaten during the winter months makes it an excellent source of sustenance. Culturally, salmon is more than a food source; they are seen as gifts from the creator that embody perseverance and self-sacrifice. At the community level, Brian Holmes, from the Upper Nicola Indian Band, is working diligently to ensure there is access to kokanee salmon for the future generations[41]. His efforts focus on keeping the invasive yellow perch at bay, as this species competes with salmon for resources like food and space, which can impact growth and survival, as well as predate upon juvenile salmonids[42,43]. If the yellow perch were to go unchecked, kokanee salmon numbers would diminish, which would harm access to food security, sovereignty, the continuation of traditional knowledge and the ability to pass on beliefs and practices that have been carried through generations.

Yellow perch compete with salmon for resources like food and space and predate upon juvenile salmonids.

If the yellow perch were to go unchecked, kokanee salmon numbers would diminish, which would harm access to food security, sovereignty, the continuation of traditional knowledge and the ability to pass on beliefs and practices that have been carried through generations.

Invasive Species: Yellow Perch *(Perca flavescens)*

Yellow perch found their way into the Nicola River watershed via their introduction to Douglas Lake, whose waters flow into Nlaka'pamux territory. They have been introduced both intentionally through stocking programs and releases from aquariums and private ponds, and accidentally, by boats and bait buckets [43,44].

As opportunistic predators, yellow perch consume insects, tadpoles, and other fish species. Their rapid reproductive rate, adaptability to varying water temperatures and tolerance to a wide range of environmental conditions allow them to dominate aquatic environments, often outcompeting native fish species[43].

Community members have seen the impacts firsthand. Brian Holmes, from the Upper Nicola Indian Band, has spent years monitoring their spread, learning about their life cycles, and exploring different ways to control their population[45]. For Brian, this work is rooted in responsibility to the land, the fish, and to future generations. He wants to ensure that future generations can continue to fish, learn from the water, and take part in the practices that have sustained his people for generations. Brian has trapped yellow perch in Douglas and Nicola Lakes, removing over 20,000 perch in 2020 and 2021[39]. His work is driven by two core principles: the responsibility to act as caretakers of the lands and waters and the importance of preserving traditional food sources and cultural practices for future generations.

Controlling the spread of yellow perch is vital for maintaining both ecological balance and cultural resilience. In syilx and Nlaka'pamux territories, aquatic ecosystems are not only essential for food security but are intertwined with cultural identity and traditional knowledge.

As opportunistic predators, yellow perch consume insects, tadpoles, and other fish species.

Yellow perch *(Perca flavescens)*

Huckleberry is culturally vital to the Nlaka'pamux, serving as a source of food, and medicine. Photo: David Walkem.

Nurturing the Land: Protecting Huckleberries from Invasive Species Threats

Black Huckleberries (ć̓əl̓ćále) (*Vaccinium membranaceum)*

Huckleberry is culturally vital to the Nlaka'pamux, serving as a source of food, and medicine. They are found in the mountainous regions of British Columbia, growing in mid to high elevations in dry openings. These berries are harvested in late summer and early fall and can be eaten fresh, dried for winter storage, or made into jams, syrups, and pemmican, ensuring food security during colder months. The berries' nutritional value has made them essential for maintaining health and well-being. Culturally, huckleberry harvesting is guided by traditional protocols that emphasize respect for the land. These practices not only ensure sustainability but also safeguard the environment[46,47].

These berries are harvested in late summer and early fall and can be eaten fresh, dried for winter storage, or made into jams, syrups, and pemmican, ensuring food security during colder months. Photo: David Walkem.

How Invasive Species Can Spread to Huckleberry Areas

Invasive plants, such as knapweeds *(Centaurea* spp.), hawkweeds *(Hieracium* spp.), sulfur cinquefoil *(Potentilla recta)* and blueweed *(Echium vulgare)*, are increasingly encroaching on huckleberry habitats. Their spread is often unintentional, driven by human activities. Logging and road development have opened once-remote areas, creating new pathways for invasive plants to be introduced. Vehicles, ATVs, and even hikers can inadvertently carry plant parts and seeds on tires, boots, or clothing.

Wildfires and flooding, like those that have impacted the Nlaka'pamux territory over the last decade, also accelerate the spread of invasive species[48]. Fire-scarred soil creates open niches and the perfect conditions for invasive plants to take hold[49]. When berry pickers, hunters, or recreational users travel through these areas, they risk transporting invasive seeds further into the landscape, where they can establish and displace native plants like huckleberry. Flood events can also act as vectors and pathways for invasive species like knotweeds *(Reynoutria* spp.), transporting plants, seeds and other plant parts downstream to new areas[50].

Protecting Huckleberry Harvesting Areas: Best Practices to Prevent the Spread of Invasive Species

Safeguarding huckleberry harvesting areas from the growing threat of invasive species is essential to preserving both the health of the land and the traditional practices. As Dave Walkem, from Cooks Ferry Indian Band highlights, harvesting is more than just gathering food—it is a vital part of cultural identity, food security, and the sustainable relationship between people and the land. However, the spread of invasive plants puts this delicate balance at risk[47].

Invasive plants, such as knapweeds *(Centaurea* spp.), hawkweeds *(Hieracium* spp.), sulfur cinquefoil *(Potentilla recta)* and blueweed *(Echium vulgare)*, are increasingly encroaching on huckleberry habitats.

Best Practices for Protecting Harvesting Areas[51-53]

To protect special places like huckleberry patches and fishing areas from invasive species, it is critical to adopt and promote best practices like PlayCleanGo and CleanDrainDry, that minimize the risk of accidental spread:

- **Clean Your Clothing, Equipment and Vehicles:**
  Before and after traveling through harvesting areas, thoroughly clean vehicles, tires, undercarriages, and ATVs to remove any clinging seeds or plant material. Similarly, your clothing, hiking boots and gear should be brushed off to prevent carrying invasive plant parts or seeds into sensitive huckleberry habitats.
- **Use Designated Trails and Roads:**
  When accessing harvesting areas, stick to established roads and trails. Driving or walking through disturbed or weedy areas increases the likelihood of picking up invasive plant parts or seeds. Staying on designated routes reduces this risk.
- **Harvest in Low-Risk Areas First:**
  When moving between multiple harvesting sites, start in areas that are least impacted by invasive species. This reduces the chance of spreading invasive seeds from infested areas to clean patches.
- **Practice Fire-Awareness Land Management:**
  Historically, Nlaka'pamux people used controlled burns to manage the land, clearing away encroaching vegetation and promoting growth. Today, fire management practices should include invasive species mitigation plans. Post-fire monitoring and targeted removal of invasive plants can help prevent them from colonizing newly burned areas.
- **Clean, Drain and Dry**
  Before moving to another waterbody, CLEAN off all plants, animals and mud from your boat and gear; DRAIN all water from your boat and gear onto land; DRY all parts of your boat and gear completely.
- **Report and Remove Invasives Early:**
  When traveling to or through huckleberry areas, report any sightings of invasive species. Early detection makes it easier to contain their spread. Learn all about reporting invasive species here.
- **Promote Education and Outreach:**
  Spreading awareness about the impact of invasive species on traditional harvesting areas is crucial. Sharing knowledge with fellow harvesters, recreational users, and land managers encourages broader adoption of best practices. By building community awareness, more people can contribute to preventing the unintentional spread of invasives.

Protecting the Future of Huckleberry Harvesting

Invasive species pose a significant threat to the ecosystems that support traditional huckleberry harvesting.

Without preventative management, these aggressive plants could make it much more challenging for Nlaka'pamux people to access and sustain their food sources. By adopting and promoting responsible practices, harvesters and land users can help protect the integrity of huckleberry patches for future generations.

As Dave Walkem reminds us, maintaining the health of the land is more than just conservation—but also about preserving the cultural practices and traditions that have sustained the Nlaka'pamux for generations. Protecting huckleberry harvesting areas from invasive species is a critical step in ensuring that this relationship with the land endures.

Safeguarding huckleberry harvesting areas from the growing threat of invasive species is essential to preserving both the health of the land and the traditional practices. Photo: David Walkem.

Restoring Balance: Nlaka'pamux Efforts Against Invasive Species

Many Bands, community organizations, individuals and initiatives are actively working to preserve vital native species and push back against the spread of invasive species. As the impacts of invasive species on grassland ecosystems have intensified in recent years, there has been growing discussion about how best to address the issue. One approach gaining momentum focuses on bringing together Indigenous Knowledge and Western scientific knowledge to support more holistic and effective land management strategies.

Across the Nlaka'pamux territory, a number of organizations and community initiatives are already putting these ideas into practice. Through territorial stewardship, land-based learning, and monitoring programs, they are working to restore ecological balance and respond to the growing impacts of invasive species.

Grasslands Conservation Council of British Columbia (GCC), a non-profit organization dedicated to conserving and enhancing the province's grasslands, brought together First Nations leaders, researchers, land managers, and community members from Merritt and surrounding region to discuss collaborative approaches to protecting local grasslands from invasive species such as cheatgrass and spotted knapweed.

During the gathering, participants emphasized that successful management of invasive species requires on-the-land learning, collaboration, and shared decision-making that meaningfully includes First Nations voices. Attendees highlighted the importance of ensuring that First Nations Indigenous Knowledge is not only included in land management discussions, but also recognized and valued alongside Western scientific knowledge. Bringing these knowledge systems together was identified as a critical step toward developing

Gathering Indigenous Perspectives for holistic restoration of invasives in the Lundbom grasslands. Photo: C. Thomas.

more holistic, culturally informed, and effective approaches to grassland restoration and invasive species management in British Columbia.

Citxw Nlaka'pamux Assembly - The Citxw Nlaka'pamux Assembly (CNA) is a not-for-profit organization that is supported by eight of the Nlaka'pamux Bands. Headquartered in Merritt, B.C., CNA provides training and job readiness along with cultural, social, and technical programming. Their work is rooted in the protection of the Nlaka'pamux people and culture, values, and territory.

Focusing on territorial stewardship, CNA offers programming to aid in the preservation and sharing of traditional and cultural knowledge. The nłeʔképmx (NLX) Guardians are vital in their work on territorial stewardship. They strive to build strong connections amongst their traditional territory through land-based learning and youth-elder relationships. Much of their work centres on monitoring, managing, and stewarding traditional lands. Through this work, they are on the ground assessing the health of native species and monitoring the impacts of invasives across the territory[54].

Lower Nicola Indian Band - The Lower Nicola Indian Band (LNIB) is part of the Nlaka'pamux Nation and is located in the Merritt area along part of the Nicola River in south-central British Columbia. The Band oversees many vital components, such as language and cultural preservation and sharing, community programs and services, and territory management.

A key part of LNIB's work involves protecting native species that are culturally and ecologically significant to the community. This includes developing programs, resources, and supports that help ensure community members can continue to safely access and harvest important native plants and foods within their territory[4,55].

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