

An illustration of a large brown spotted fish, likely a brook trout, with its mouth open, eating a smaller fish. The scene is set in a river with yellowish water and ripples. In the background, there are several other fish, including a silver fish and a yellowish fish. The bottom of the image shows a riverbed with dark rocks and some orange-colored eggs or small fish. The text is overlaid on a semi-transparent dark grey box with an orange vertical bar on the left side.

# The Impacts of Invasive Species

in the syilx Traditional 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.



## Acknowledgments

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The syilx territory includes diverse ecosystem types over a wide range of elevations. Photo: C. Thomas.

# The Impacts of Invasive Species in the syilx Traditional Territory

## syilx Traditional Territory

The syilx Okanagan are a transboundary Nation, divided by the settler colonial line of what is known as Canada and the United States. To be succinct, the term syilx will be used throughout this chapter to refer to the syilx-Okanagan people. The Nation is made up of seven member communities in the Southern Interior of British Columbia—Okanagan Indian Band, Osoyoos Indian Band, Penticton Indian Band, Upper Nicola Band, Upper and Lower Similkameen Indian Bands, and Westbank First Nation, as well as the Colville Confederated Tribes in Northern Washington State<sup>1</sup>. United by their shared

nsyilxcən language, culture, and customs, the syilx people are part of a distinct and sovereign Nation. The territory shares borders with other nations, such as the Ktunaxa, Secwépemc and Nlaka'pamux. Today, they continue to uphold their responsibility over their lands, resources, and all things living. Through the continued use of the nsyilxcən language and the practice of syilx Okanagan culture, they honour the natural laws of the tmixw (all living things). Their stewardship remains deeply rooted in respect for the lands and waters and all they provide<sup>2,3</sup>.

## Geographical and Ecological Diversity

The syilx territory includes diverse ecosystem types over a wide range of elevations. The land spans the dry interior plateaus and semi-arid desert regions of the southern Okanagan and Similkameen Valleys, extending into the higher-elevation forests of the Thompson Plateau and the Monashee and Cascade Mountain ranges. These variations in elevation and geography result in an amazing diversity of climates, from the hot, dry valleys—some of the warmest areas in Canada—to the cooler, wetter highlands and alpine regions.

## Rivers and Riparian Zones

Water plays a central role in the territory. The Okanagan and Similkameen river systems are critical aquatic passages that support salmon populations, especially sockeye (*Oncorhynchus nerka*), which are both ecologically and culturally significant to the syilx. These rivers, along with major lakes like Okanagan, Skaha, and Osoyoos Lakes, help regulate local climates and sustain both natural ecosystems and human communities. In recent years, the syilx have led salmon reintroductions and watershed restoration and protection efforts to support the health of these waters and the life they nurture<sup>4</sup>.



Shingle creek on Okanagan river— site of the annual fry release ceremony. Photo: C. Thomas.

**Grasslands face increasing pressure from agriculture, urbanization, and invasive species, making their protection a key focus of syilx-led stewardship.**

## Grasslands and Sagebrush Ecosystems

The grasslands of syilx territory, primarily in the Okanagan and Similkameen valleys, are ecologically and culturally significant too. Consisting of bunchgrasses (e.g., bluebunch wheatgrass [*Pseudoroegneria spicata*] rough fescue, [*Festuca scabrella*] Idaho fescue [*Festuca idahoensis*]), sagebrushes (*Artemisia* spp.), and other vegetation types, they support many unique species<sup>5</sup>. For the syilx, these areas provide traditional foods and medicines such as bitterroot (*Lewisia rediviva*) and wild onions (*Allium* spp.), which are tied closely to cultural practices. Grasslands are also crucial wildlife passages that maintain biodiversity. However, they face increasing pressure from agriculture, urbanization, and invasive species, making their protection a key focus of syilx-led stewardship.



Grasslands in Okanagan Indian Band territory. Photo: C. Thomas.



The montane and subalpine forests of syilx Territory span the Thompson Plateau and the Monashee and Cascade Mountains. Photo: Lower Similkameen Indian Band Natural Resources & Parks Working Group.

## Montane and Subalpine Forests

The montane and subalpine forests of syilx Territory span the Thompson Plateau and the Monashee and Cascade Mountains. Montane zones host Douglas fir (*Pseudotsuga menziesii*), western larch (*Larix occidentalis*), and lodgepole pine (*Pinus contorta*), while higher elevations support Engelmann spruce (*Picea engelmannii*) and subalpine fir (*Abies lasiocarpa*) with mossy understories<sup>6-8</sup>. These forests provide vital habitat for wildlife and essential water storage. For the syilx, they are central to cultural practices such as hunting and are guided by principles of respect and interdependence.

**“A lot of important information is embedded in our stories. The four food chiefs provide us with guidance and show how we are to conduct ourselves and care for the land and waters.”**  
— syilx Territory Voices

## The Significance of Traditional Foods and Medicines

Traditional foods and medicines are vital to the syilx cultural, spiritual, and physical well-being<sup>9</sup>. Closely tied to the land, these resources uphold identity, support health, and ensure the continuity of cultural practices. A traditional teaching that embodies the syilx story (chaptikwl) that relates to traditional foods and medicines, is “How Food was Given.” In this teaching, kul’nchut’n (the creator) visits the tmixw, which are all living things, including people, animals, plants, air, and water, and announces the arrival of the stelsqilxw (people-to-be). kul’nchut’n sends senklip (coyote) to help prepare the land and the beings for the arrival of these future people.



Elliot Tonasket and his brother, Skyaka, sharing their knowledge on the Four Food Chiefs and syilx teachings. Pictured in front of the Four Food Chiefs Poles located at the En’owkin Centre. Photo: C. Thomas.



**Recognizing the need for sustenance, four Food Chiefs—skemxist (Black Bear), siya? (Saskatoon Berry), sp'iłəm (Bitterroot), and ntyxtix (King Salmon)—gathered to decide how to provide food for the people.**

Each Chief offered their gifts and wisdom:

**skemxist** (Black Bear - *Ursus americanus*)

The eldest Chief and Chief of all four-legged animals. He is the holder of where syilx traditions and protocols come from. He gave people access to all living things, so that we would have protection and nutriment.



**siya?** (Saskatoon Berry - *Amelanchier alnifolia*)

The Chief of all things growing above land. Siya? is responsible for youth innovation and creativity. She gave people the ability to harvest all fruit-bearing plants for food and medicine throughout the summer.



**sp'iłəm** (Bitterroot - *Lewisia rediviva*)

The Chief of all roots. Sp'iłəm gave the syilx people access to everything that grows underground for medicine and food. She is responsible for the female aspects of new life and creating nurturing relationships

**ntyxtix** (King Salmon/Chinook - *Oncorhynchus tshawytscha*)

The Chief of all things in the water. He represents perseverance, working against the current to obtain prosperity. His male energy teaches us that water is our most valued resource, and we must take action in a confident and focused way. He gave the syilx people access to everything that lives in the water for food and medicine.



The four food Chiefs' sacrificed themselves as food for the People-To-Be, to survive, and in return, the stelsqilxw were given the responsibility to uphold respect and care for the land and its gifts. This knowledge is embedded in many aspects of syilx life today, from the personal values held by individuals, to guidelines and information that guide many syilx groups and organizations. It embodies stewardship and protection over the ecosystem and those who inhabit it<sup>10-13</sup>.

Photos (top to bottom): Laura Wolf [CC BY 2.0](#), via Wikimedia Commons, M. Meggar, Coralee Miller, Okanagan Nation Alliance.

## Warnings From Community

In syilx territory, ecosystem health is becoming more at risk. This is due to various reasons such as climate change, resource extraction, and the arrival of invasive species.

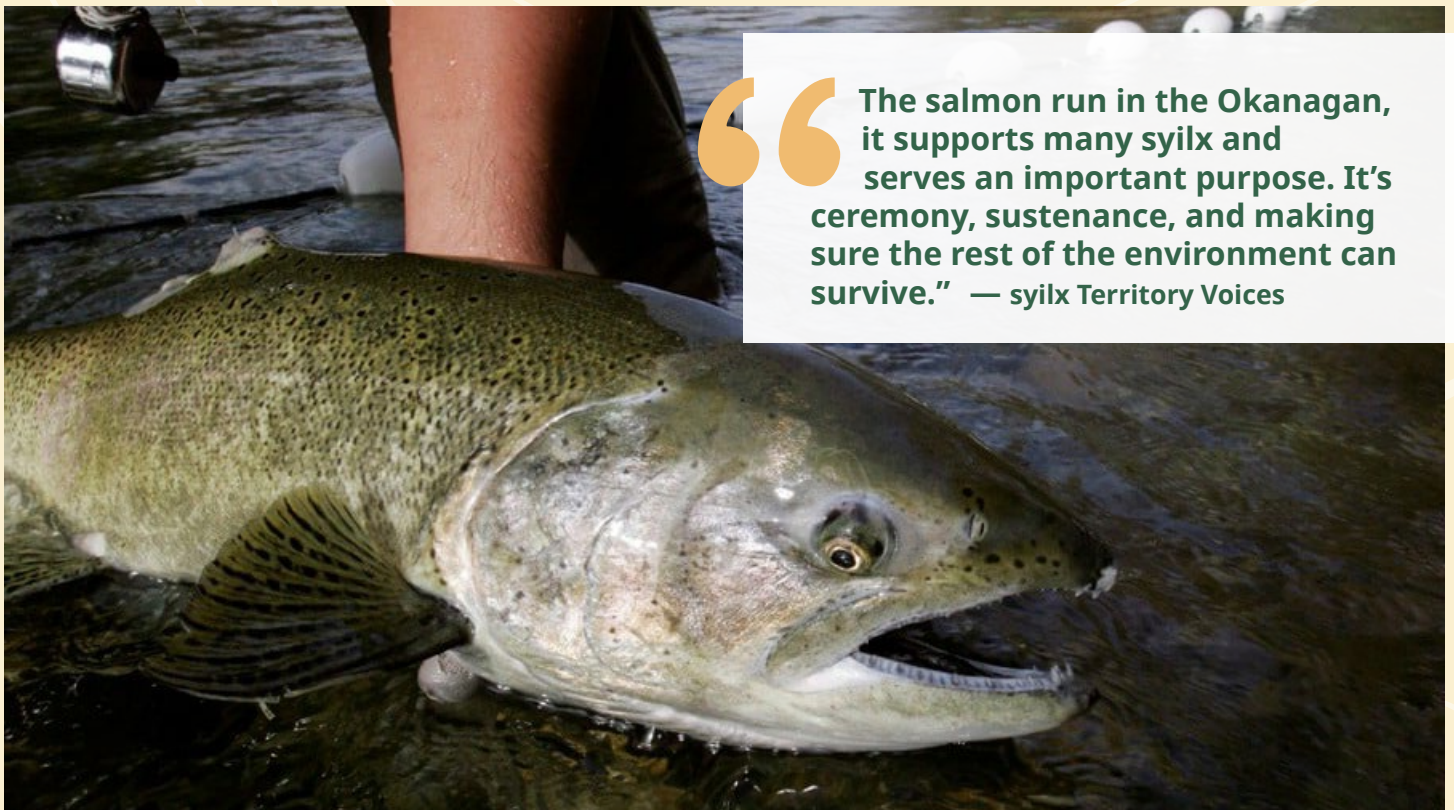
syilx leaders and knowledge holders have long warned about the dangers of unchecked resource extraction and climate change. Rooted in strong relationships with the land, syilx teachings emphasize balance, respect, and responsibility. Elders have spoken out about how mining, logging, and water diversion disrupt natural cycles and harm culturally significant species. These warnings are not new—they reflect generations of observation and a duty to protect *tmixw*. As climate impacts worsen, syilx voices continue to call for action grounded in Indigenous knowledge, collective stewardship, and the restoration of ecological relationships across the territory.

## Native and Invasive Fishes in syilx Territory

### Native Species: Interconnected Roles in syilx Culture, Ecosystems, and Watersheds

Rainbow trout (*x<sup>w</sup>ux<sup>w</sup>m'ína?* - *Oncorhynchus mykiss*), sockeye salmon (*ścwin* - *O. nerka*), and Chinook salmon (*ntytyix* - *O. tshawytscha*) hold a strong, interconnected significance to the syilx. These species are not only vital sources of nutrition but are understood as relatives who offered themselves to the people. Each plays a central role in syilx *captik<sup>wł</sup>* (oral stories), ceremonies, and teachings that reinforce values of respect, connection, and care for the land and water<sup>14</sup>.

All three species support the health and well-being of the syilx freshwater ecosystems they inhabit. They contribute to biodiversity, nutrient cycling, and food web stability and equilibrium, while also



“The salmon run in the Okanagan, it supports many syilx and serves an important purpose. It’s ceremony, sustenance, and making sure the rest of the environment can survive.” — syilx Territory Voices

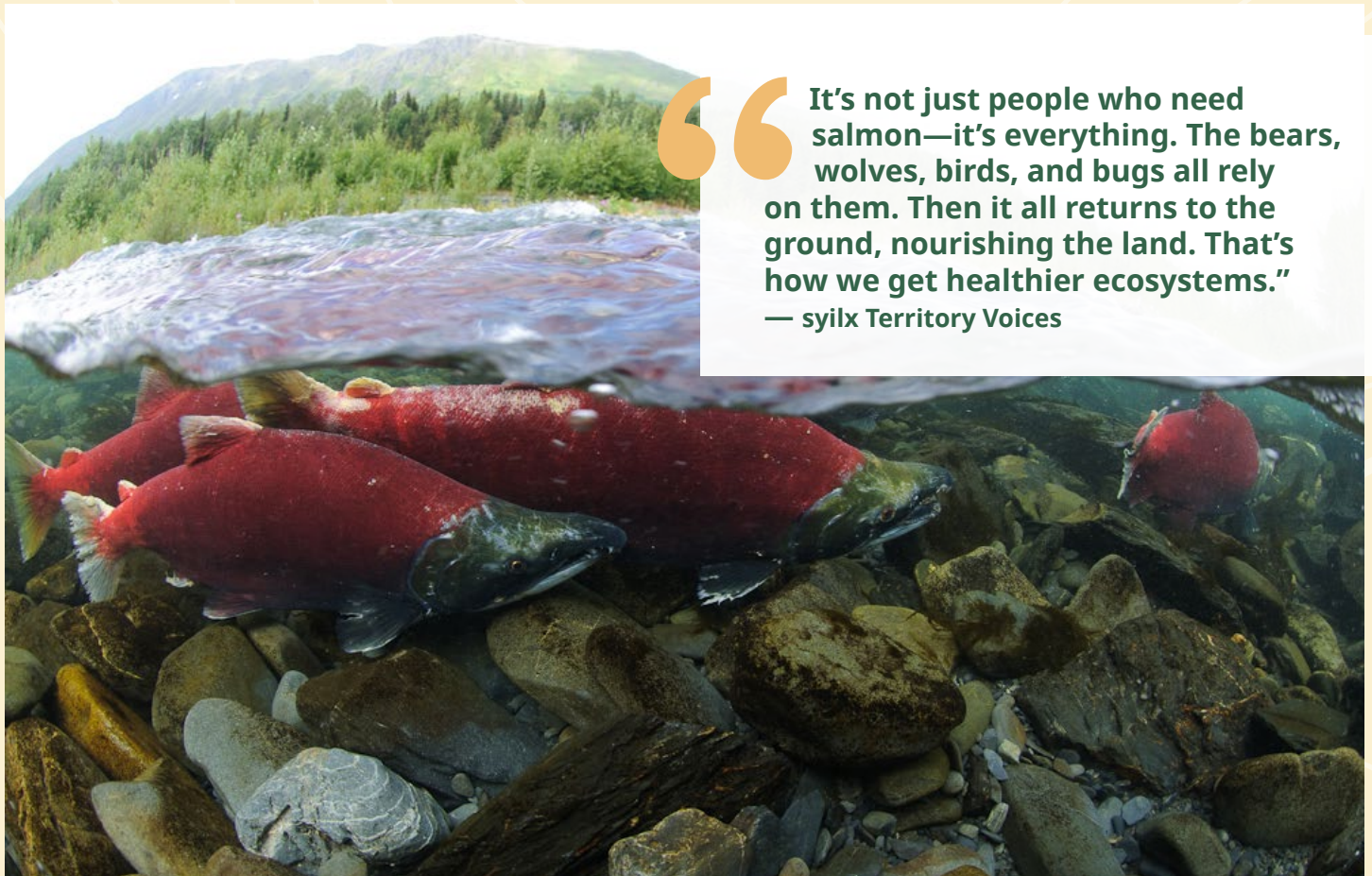
Rainbow trout (*x<sup>w</sup>ux<sup>w</sup>m'ína?* - *Oncorhynchus mykiss*), sockeye salmon (*ścwin* - *O. nerka*), and Chinook salmon (*ntytyix* - *O. tshawytscha*) (above) hold a strong, interconnected significance to the syilx. Photo: Okanagan Nation Alliance.

As keystone species, species that are key to maintaining the integrity of the ecosystems they belong to, salmonids transport marine nutrients upstream, helping riparian zones and forest ecosystems after spawning, as well as help maintain aquatic balance by preying on insects and smaller fish, while also serving as prey for birds and mammals<sup>15-17</sup>.

Despite these shared roles, their distribution across syilx territory varies and reflects unique ecological relationships with the land and water. Rainbow trout are widespread throughout interior streams, rivers, and upland lakes across syilx territory<sup>18</sup>. Their year-round presence makes them a staple food source and environmental indicator, particularly in cooler, high-elevation tributaries and headwaters.

Sockeye salmon are concentrated in the southern Okanagan Basin. The Okanagan sockeye population—now the dominant remaining stock in the Columbia Basin—spawn in the Okanagan River, specifically the tributaries of Osoyoos, Skaha and Okanagan Lakes. Their transboundary journey connects the Columbia River to syilx waters, linking communities and ecosystems from the ocean to the interior<sup>19</sup>.

Chinook salmon have a more localized and vulnerable presence. Spring-run Chinook return to tributaries in the upper Okanagan and Columbia River systems, while summer-run Chinook spawn in the mainstem Okanagan River. Their migration is more sensitive to disruption from invasive species and habitat loss, requiring targeted stewardship and restoration efforts<sup>20</sup>.



**“It’s not just people who need salmon—it’s everything. The bears, wolves, birds, and bugs all rely on them. Then it all returns to the ground, nourishing the land. That’s how we get healthier ecosystems.”**  
— syilx Territory Voices

Sockeye salmon. Photo: Kentaro Yasui, [CC BY](#), via Flickr.

**“ We (Okanagan Nation Alliance) organize a syilx community fishing event for rainbow trout. Members should have opportunities to access their traditional foods and learn from others who attend.”**  
— syilx Territory Voices



Broodstock of Sockeye salmon. Photo: Okanagan Nation Alliance.

Together, these fish help to sustain the cultural identity, food sovereignty, and ecological stewardship practices of the syilx people. The syilx actively monitors water quality, restore spawning habitat, advocates for fish passage, and defends these species from threats such as dams, climate change, and invasive predators<sup>4</sup>. These efforts reflect a deep understanding that the health of native fish is inseparable from the health of the land, water, and the syilx people themselves<sup>14</sup>.

### Invasive Fish in syilx Territory

The introduction of invasive fish species such as northern pike (*Esox lucius*)<sup>21</sup>, smallmouth bass (*Micropterus dolomieu*)<sup>22</sup>, and largemouth bass (*M. salmoides*)<sup>23</sup> has caused ecological and cultural disruption across syilx territory. These non-native species, introduced largely for recreational sport fishing, now threaten native biodiversity, aquatic ecosystems, and the intergenerational food systems that are vital to syilx identity, sovereignty, and stewardship<sup>24,25</sup>.

### Shared Threats Across Species

All three invasive species are aggressive predators that prey on juvenile salmon, trout, and other native aquatic life<sup>26-29</sup>. Their presence undermines decades of Indigenous-led habitat restoration, salmon reintroduction, and water protection initiatives. These invasive fish not only disrupt aquatic food systems by feeding on smaller fish, amphibians, and aquatic insects, but also directly compete with native species for habitat and food<sup>30</sup>. The impacts are cultural as well as ecological—

**A 1993 study from Washington State, observed juvenile salmonids made up 59% of the smallmouth bass diet by weight and were present in 65% of the stomachs of smallmouth bass in the Columbia River.<sup>32</sup>**

each invasive species further threatens the survival of species central to syilx food sovereignty, food security, ceremony, and knowledge systems.

Salmon species, including Chinook and sockeye, are of particular concern, as they are listed under Canada’s Species at Risk Act (SARA), as well as being essential to syilx peoples since time immemorial. Bass and pike predation on juvenile salmon significantly reduces survival rates during key migratory phases<sup>29,31</sup>, while at the same time, climate change continues to amplify these effects by warming water temperatures and expanding the range of warm-water invaders like bass<sup>33</sup>.

## Geographic Distribution and Habitat Patterns

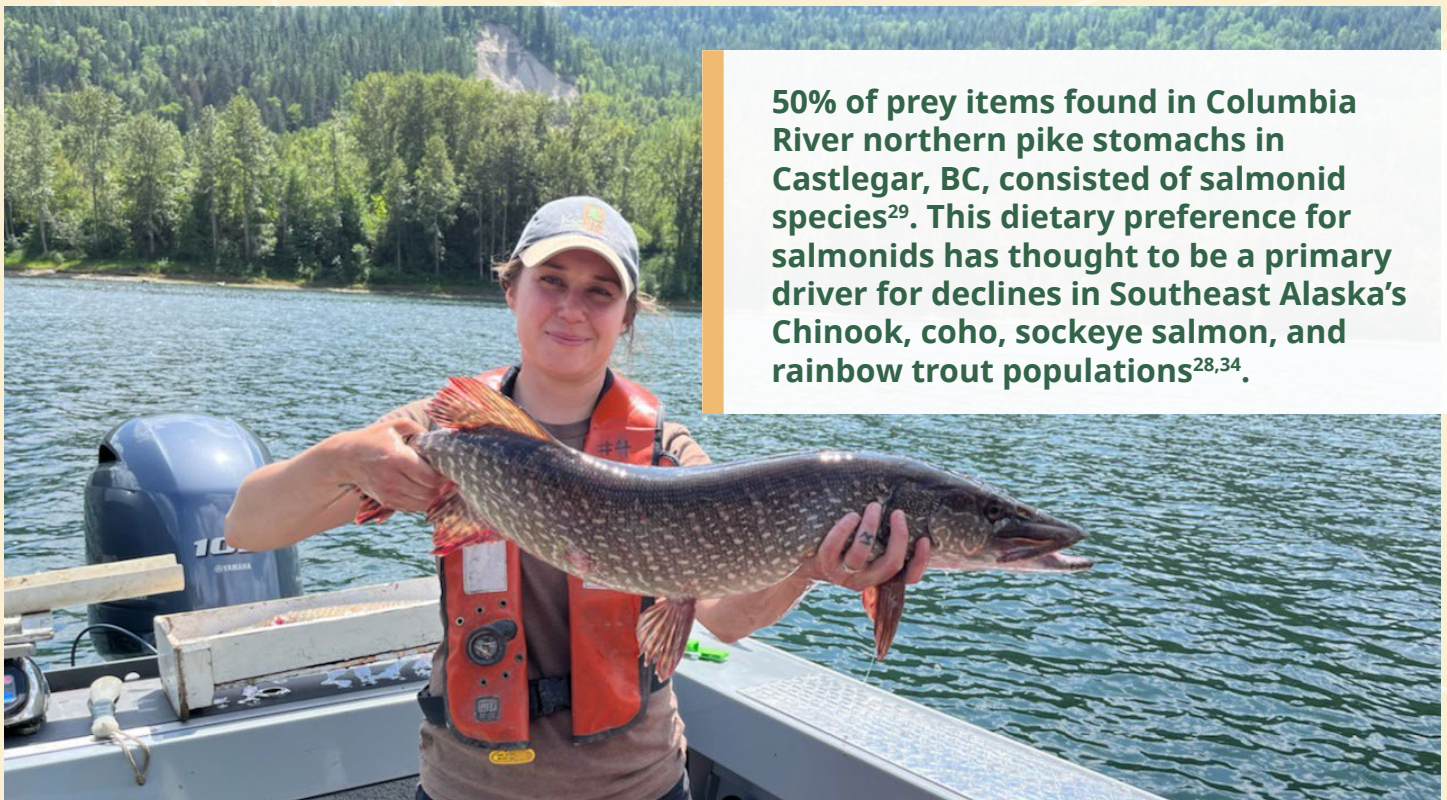
Though these invasive species share similar ecological impacts, they differ in their spread and habitat preferences. Northern pike are largely concentrated in the Pend d'Oreille and Columbia River reservoirs where they have well-established populations<sup>29</sup>. These colder, northern aquatic systems provide ideal conditions for pike where they are apex predators. Okanagan Nation Alliance (ONA) suppression programs in these waters have shown some success<sup>35,36</sup>, but eradication remains unlikely due to the vast and interconnected nature of the river systems.

Smallmouth bass are more prominent in the Okanagan River system and its mainstem lakes, where they tend to concentrate at river outlets and shallow lake regions<sup>27</sup>. These areas are crucial migratory corridors for juvenile salmon, making

the presence of bass especially damaging. ONA monitoring efforts have shown that only a fraction of released Chinook fry survive predation-heavy zones, with bass being a major cause of the reduced numbers (Elinor McGrath, pers comm).

Largemouth bass, while overlapping with smallmouth in some areas, prefer warm, shallow, vegetated waters—a habitat type increasingly prevalent across the southern Okanagan region due to climate change. Their broad diet and adaptability allow them to thrive in altered habitats, making them especially difficult to contain<sup>26</sup>.

These invasive fish species represent widespread and escalating threats to syilx watersheds. While their impacts vary by region and habitat, they share a common role in destabilizing ecosystems, undermining native fish populations, and eroding the cultural and ecological foundations of the syilx.



**50% of prey items found in Columbia River northern pike stomachs in Castlegar, BC, consisted of salmonid species<sup>29</sup>. This dietary preference for salmonids has thought to be a primary driver for declines in Southeast Alaska's Chinook, coho, sockeye salmon, and rainbow trout populations<sup>28,34</sup>.**

Northern pike suppression work on the Columbia River. Photo: Okanagan Nation Alliance Northern pike suppression crew.



Smallmouth bass catch. Photo: Okanagan Nation Alliance.

## Restoring Balance

The connection to land, water, and place is a vital responsibility for the syilx people. These responsibilities include ensuring ecosystems and the interconnected web of life, which includes plants and animals are cared for. The framework for success for reclaiming balance in ecosystems lies at the intersection of community-led stewardship, public education, science, and support of infrastructure in combination to protect and preserve the lands and waters. Through the ONA, active engagement in habitat enhancement, stream restoration, water quality monitoring, and ceremonial practices are used to protect species such as rainbow trout, sockeye and Chinook salmon.

An intersectional, culturally focused framework to protect the environment can be found in the decades of work led by the ONA. Formed in 1981 as the first unified First Nations government in the Okanagan region, the ONA brings together eight member communities—Okanagan Indian Band, Upper Nicola Band, Westbank First Nation, Penticton Indian Band, Osoyoos Indian Band, Lower Similkameen Indian Band, Upper Similkameen Indian Band, and the Colville Confederated Tribes to collectively address issues of shared concern,

**“The (syilx) community members are the ones that are out harvesting, fishing and out on the land and they see lots of stuff, and they have lots of knowledge. It’s not a percentage or number, but what they have is still very important knowledge that’s used to help protect the native species.” — syilx Territory Voices**

including a strong focus on the environment. Each community is represented through the Chiefs Executive Council (CEC), which includes the Chief or Chairperson from each Nation.

## syilx Initiatives: Water

To support rainbow trout (*Oncorhynchus mykiss*), Kokanee (*O. nerka*), and mountain whitefish (*Prosopium williamsoni*) populations and broader ecosystem health, one key initiative was the restoration of Pass Creek (Norns Creek), the first major tributary feeding into the Columbia River below the Hugh Keenleyside Dam near Castlegar, B.C.. This creek provides approximately 2.2 kilometres of critical spawning habitat for rainbow trout migrating from the Columbia River<sup>37</sup>.

The ONA's kł c'pálk stiím Hatchery, which opened in 2014, is an integral part of syilx salmon restoration efforts. It supports the rearing of up to eight million salmon eggs annually, playing a key role in restoring salmon to the Okanagan and Columbia River basins<sup>38,39</sup>. To ensure the continuation of sockeye salmon—of which only two populations remain in the Columbia River system, including the Okanagan Sockeye—the ONA launched the Bring the Salmon Home initiative. This Canada/U.S. cross-border project restores sockeye populations through habitat revitalization, improved water management, and reintroduction into Skaha Lake<sup>40,41</sup>. Fish passage was also restored over McIntyre Dam, allowing access to upstream spawning habitats. These actions are deeply rooted in ceremony and cultural protocols, along with the Annual Salmon Feast, all emphasize the spiritual significance of the salmon's return<sup>42,43</sup>.

In parallel, syilx communities are working to restore chinook salmon populations, particularly sk'lwist (summer-run) and ntityx (spring-run) chinook in the Okanagan Basin. The ONA's Chinook Restoration Program is a long-term effort that includes hatchery releases, passive integrated transponder (PIT) tagging, habitat restoration, and ongoing monitoring. sk'lwist, listed as endangered, are released annually since 2017, while recovery of ntityx is progressing through collaboration with U.S. partners, with increasing sightings in Canadian tributaries. The goal is to rebuild these populations, reclaim historic spawning areas, and revitalize their ecological and cultural roles<sup>44</sup>.

To support this work, the ONA also manages the Chinook Salmon Angler Identification Program. It encourages anglers to report sightings and catches of sub-adult and juvenile chinook—especially in areas such as the Lower Arrow Lakes and Waneta region—to track Chinook distribution and support population recovery<sup>45</sup>.

**“We’re about to enter the freshet season, depending on how much snow there is in the high country. All those nutrients are going to be washed out to the ocean. And it’s the salmon that bring those nutrients back from the ocean to the land. That cycle essentially feeds everything — the berries, the birds, the bears, the coyotes — you name it. Every living thing depends on the salmon to return those nutrients.”**  
— syilx Territory Voices

Ceremony remains central to syilx stewardship. Community-led salmon fry releases are held annually in locations such as Okanagan Lake (Westbank First Nation), Shingle Creek (Penticton Indian Band), the Spallumcheen River, the Salmon River, and s'xwəḥ'wnitk'w (Okanagan Falls). These ceremonies include syilx language, songs, and prayers that are integral to the health of the salmon and the journey they will make<sup>46,47</sup>.

The ONA actively engages in early detection and suppression efforts to manage invasive fishes that threaten syilx waters, ecosystems, and culturally significant species. A key component of



Largemouth bass.

early detection is the use of environmental DNA (eDNA). The ONA's Fish Health and Diagnostics Lab in Penticton developed an eDNA test to identify northern pike. This technique allows for any waterbody to be sampled for pike eDNA to enable early detection without having to catch any fish<sup>48</sup>.

Suppression efforts in the Columbia and Pend d'Oreille Rivers are vital for protecting native fish like rainbow trout, which are heavily preyed upon by northern pike. Led by ONA Fisheries Biologist Ross Zeleznik, these programs employ various suppression methods and benefit from strong community support<sup>48</sup>. Despite progress, pike and other aquatic invaders remain entrenched in syilx waters. In a recent suppression season, invasive species—including northern pike, tench (*Tinca tinca*), carp (*Cyprinus carpio*), and yellow perch (*Perca flavescens*)—made up 53% of the total catch. Targeting pre-spawn adults helps limit reproduction and reduce future populations (Ross Zeleznik, pers comm). To support community involvement, the ONA also runs a bounty program to reward the

**“ We’re seeing significant predation in the river by smallmouth bass. We know for a fact they’re eating Chinook salmon—we’ve found the acoustic tags we implanted in the Chinook inside the stomachs of the bass.” — syilx Territory Voices**

capture and reporting of northern pike in syilx waterways<sup>49</sup>. Finally, the introduction of invasive Eurasian watermilfoil (*Myriophyllum spicatum*) into the Robson Reach section of the Lower Columbia resulted in ideal spawning habitat for northern pike. Together, the ONA, the Central Kootenay Invasive Species Society (CKISS), and Golder Associates of Castlegar conducted a pilot program in 2017 to test two different suppression methods for the invasive milfoil in an effort to control the plant and reduce pike spawning habitat<sup>50</sup>.

Smallmouth and largemouth bass are other increasing concerns, especially for Chinook salmon. ONA's predation studies revealed that



The introduction of invasive Eurasian watermilfoil (*Myriophyllum spicatum*) (above) into the Robson Reach section of the Lower Columbia resulted in ideal spawning habitat for northern pike. Photo: Donald Hobern, [CC BY 2.0](https://creativecommons.org/licenses/by/2.0/), via Wikimedia Commons

smallmouth bass in the Okanagan River were responsible for significant fry reduction, while largemouth bass dominate lake environments. In response, ONA has shifted attention toward understanding and mitigating bass impacts. Fisheries Biologist Elinor McGrath and her team have been leading the development of bass suppression strategies. Direct suppression measures to reduce invasive populations and restore balance in syilx ecosystems include exploring electrofishing in high-density bass areas, manual removal through targeted fishing near river mouths where salmon fry migrate, and nest disruption during bass spawning.

Changing public perception is a critical part of this work. Bass are popular and often viewed as harmless sportfish, but many remain unaware of their ecological impacts<sup>51</sup>. The ONA emphasizes the importance of education and awareness, working with environmental groups and fishing clubs to share information and promote stewardship.

## syilx Initiatives: Land

Along with the ONA, other groups and organizations are leading efforts to protect the lands. [The En'owkin Centre](#), located on the Penticton Indian Band reserve, is a syilx-led cultural, educational, ecological, and arts organization that promotes self-determination and the affirmation of Indigenous identity and knowledge systems. The centre is vital to

**“I’ve noticed a lot of invasives are ornamentals that are often sold in stores. People want them for their yard or garden because they look nice or they can have a little piece of their home here. But they don’t realize there are native plants with a home already here that is being impacted by those they buy and plant.”**  
— syilx Territory Voices



Learning about syilx traditional species such as bitterroot and wild rose at the Sncewips Heritage Museum. Photo: C. Thomas.

“There needs to be a real commitment to protecting and stewarding the lands. Out there, the land is our grocery store, our pharmacy, our home depot. If you start messing with that and neglecting it, we won’t have any of those important things.”  
— syilx Territory Voices

protection of syilx territory, as they promote and share traditional knowledge systems related to the local ecosystems. The centre’s Indigenous plant nursery which propagates native plants and promotes their planting to support pollinators, prevent erosion, and foster healthy ecological relationships. By making these plants available to the public, the nursery aims to raise awareness and encourage the restoration of traditional plant knowledge and land stewardship.

The [Sncewips Heritage Museum](#) is another excellent resource for syilx knowledge and the protection of local ecosystems. Sncewips means “our objects tell our stories” or “a conversation with an ancestor” and the museum is guided by the belief that community voices can educate, inspire, and create change. It offers a welcoming space for sharing language, culture, and stories in respectful and meaningful ways. Leading this charge are Pamela Barnes and Jasmine Peone. Together, these stewards engage in revitalizing and retaining syilx culture and practices, emphasizing the urgent need to protect culturally significant plants such as bitterroot (sp’ił’əm, *Lewisia rediviva*) and Saskatoon berries (siya?, *Amelanchier alnifolia*) from invasive species. By educating others and being out on the land, they are actively working to preserve food security, food sovereignty, and the continuity of syilx traditions. They believe that protecting these food chiefs—as well as other traditional species, requires a collective commitment to stewardship as a shared value that not just the syilx needs to have, but everyone who relies on the lands and waters.



En'owkin Centre's Indigenous Plant Nursery wild rose. Located at Sncewips Heritage Museum. Photo: C. Thomas.

In summary, collaboration between the syilx people and non-Indigenous partners—grounded in both Indigenous knowledge and Western science—can help ensure a sustainable future. Integrating Indigenous knowledge into species management and environmental stewardship supports the long-term health of vulnerable and culturally significant species while fostering more holistic and respectful approaches to stewardship of the lands and waters.

This perspective is reflected in the words of Elliott Tonasket, syilx member and Cultural Research Lead at the ONA, who emphasizes that syilx knowledge systems hold important potential for addressing many of the environmental challenges we see today. As he notes, if we begin to incorporate the values and teachings embedded within these knowledge systems, it becomes possible to restore ecosystems in ways that were once thought impossible.

Note: According to nsyilxcən beliefs, there are no capitalizations in the spelling of any nsyilxcən words. Capitalization insinuates there is something that holds more importance over another, and that does not fall in line with syilx ethics.

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