

What are the Impacts?

Non-native, invasive species can have devastating effects on British Columbia's native freshwater fisheries.

Although these invasive species may thrive in the Thompson Basin, they are a threat to our native fishes, especially salmon and trout populations which are two socially and economically valuable resources in our province. Over time, spiny-rays can cause the decline or eradication of these populations through:

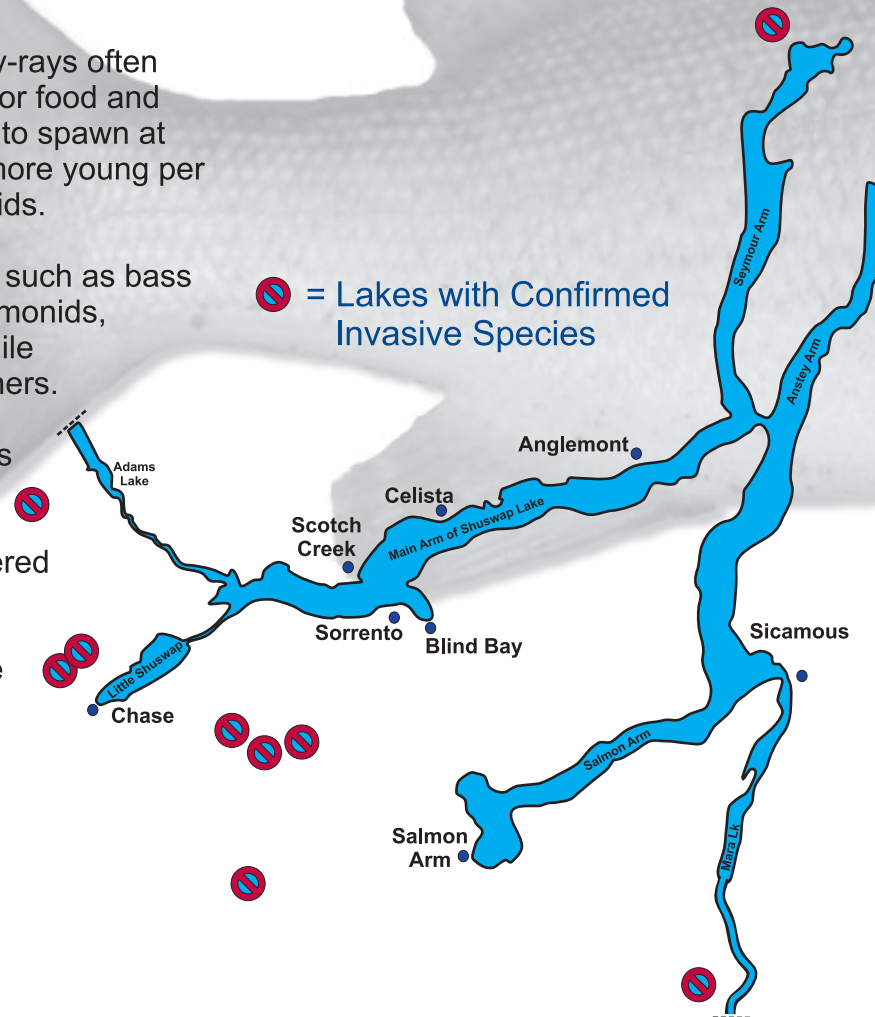
Competition: Invasive spiny-rays often out-compete native species for food and space. Spiny-rays also tend to spawn at younger ages and produce more young per spawning event than salmonids.

Predation: Some spiny-rays such as bass and perch prey on young salmonids, resulting in a decline in juvenile populations and fewer spawners.

Disease: Non-native species can spread disease to native fish. These diseases may not have been encountered by native fishes before and therefore no immunity has been developed to overcome these threats.

Where are they found?

The first cases of spiny-ray fish species in the Thompson Region were reported and confirmed in 1996. Yellow perch had been introduced and established in Skmana and Little Skmana lakes, as well as in Gardom Lake, in the nearby Okanagan Region. Since that time spiny-rays have spread to six other lakes including: Phillips, Nellies, Forest, Miller, Skimikin, and Fleming for a total of nine affected lakes known to fisheries managers.



What are we doing about it?

Financial Reward - In the summer of 1999, the Ministry of Environment and the B.C. Wildlife Federation were able to secure funds for a reward leading to the conviction of the person(s) responsible for the illegal introduction of bass, perch and pumpkinseed to the Thompson Region. With federal support from Fisheries and Oceans Canada, the current reward is up to **\$20,000**.

Media Releases - Ongoing local media coverage aims to educate the public about the potentially devastating impact of introduced invasive fishes.

Removal of Spiny-Ray Fish - The B.C. Conservation Foundation has received funding from the Habitat Conservation Trust Fund and British Columbia Conservation Corps to work with the Ministry of Environment (Thompson Region) fisheries staff on the eradication of spiny-ray fishes in the Thompson/Shuswap watershed.

Downstream Monitoring - Fisheries and Oceans Canada and Secwepemc Fisheries Commission have received funding from the Fraser Salmon Watershed Program to monitor downstream movement of fish and assess Adams and Shuswap lakes for the presence of invasive species. To date, no spiny-ray species have been detected in these lakes.

Fisheries Closures - The current small lake spiny-ray populations are a source of fish for future illegal introductions, as such all affected lakes in the Thompson region have been closed to fishing.

What can you do?

Don't Transport Live Fish - Transporting live fish is illegal and carries strong penalties. Thoroughly wash all boating and fishing gear to avoid the accidental movement of invasive species between water bodies.

Report Suspicious Activity - Any suspicious or illegal activities associated with the intentional or accidental movement of live fish or any other aquatic organism should be reported to the RAPP line.

Report Invasive Species - If you find any non-native fish, keep the fish, freeze it, and phone your local provincial fisheries biologist at the Ministry of Environment.

Education - Educate yourself as well as your family, friends and neighbours about invasive species and their devastating effects on our natural aquatic ecosystems.

It's Your Move - The key to controlling the quality of fishing in BC lakes and streams is you. What is yours to enjoy is yours to protect.

Contacts

Report All Poachers and Polluters

1 - 877 - 952-7277

BC Conservation Foundation

1 - 250 - 828-2551

Ministry of Environment

1 - 250 - 371-6200

Secwepemc Fisheries Commission

1 - 250 - 828-2178

Fisheries and Oceans Canada

1 - 250 - 851-4950

What Do They Look Like?

Smallmouth Bass



Smallmouth bass average 20-38 cm.

Largemouth Bass



Largemouth Bass average 20- 38 cm.

Perch



Perch range in size from 10 - 25 cm.

Sunfish (Pumpkinseed)



Sunfish (pumpkinseed) average 10 - 17cm.

What is an Invasive Species?

Invasive fish species are exotic or non-native species that have evolved elsewhere and been purposely or accidentally relocated outside of their native range. While some exotic species have little impact on their introduced environment, others can become strong competitors or predators with devastating effects on native species and ecosystems.

When a non-native introduced species aggressively competes with native fish and expands its range, it is defined as invasive.

Spiny-ray fish are an invasive species and have been introduced to the Thompson watershed by humans either through fishing gear, or intentionally and illegally, through the transportation and dumping of spiny-rays to increase personal recreational fishing opportunities.

In the lakes and streams of the Thompson Region, there is a growing concern about the presence and expansion of non-native spiny-ray species. These invasive fish are best known by their common names: bass, perch and sunfish.

What are Spiny-Rays?

Bass, perch and sunfish are called spiny-rays because of the spines which extend from their fins.



Spiny-rays are considered very aggressive and can deplete food chains if they become established. Historic ranges for spiny-rays do not include areas west of the Rocky Mountains.

The biology of spiny-rays is different from that of our native populations. Spiny-ray fish mature between the ages of 2-4 and females can produce between 10,000 and 40,000 eggs per year. In comparison, native trout, char and salmon mature at 3-6 years, producing an average of 3500 eggs per year per female. This along with aggressive spiny-ray feeding habits results in strong competition for native species.

Perch introductions to lakes in the Thompson and Okanagan regions have resulted in significant declines to trout populations.

A graphic featuring a large, stylized octagonal sign with a black border and a white background. The text inside the sign reads "Stop the Spread of SPINY-RAY INVASIVE FISH SPECIES" in bold, white, sans-serif font. Below the sign, the text "in the Thompson/Shuswap Region" is written in a smaller, white, sans-serif font. The background of the graphic is a light blue gradient with faint, repeating images of fish.