

Invasive Species Video Transcript – Coastal Action

Hi, my name is Molly LeBlanc, and I am the Species at risk and Biodiversity Team Lead at Coastal Action, an environmental NGO on the South Shore of Nova Scotia. Today I am going to highlight some of the work that we do here coastal action around aquatic invasive species this time of year.

Each year we remove fish from the Petite Rivere watershed using a variety of methods, as a means of protecting native fish species and in particular the critically endangered Atlantic Whitefish. Atlantic Whitefish are endemic to Nova Scotia and currently only found in three lakes on the South Shore. Although their population was once anadromous, as a result of dams and fish passage barriers the species became landlocked. They are now thought to complete their life cycle in the freshwater system of the Petite. Invasive chain pickerel and small mouth bass are two of the main threats to this species, as they are with so many native fish in our province. Here are some of the ways we continue to lower the population and remove invasives from this critical whitefish habitat.

Through our partnership with DFO, Coastal Action staff conduct nightly boat electrofishing in the late summer and early fall. Similar to backpack electrofishing, the boat produces an electric current which stuns fish and allows capture. A live well in the centre of the boat holds the fish until processing. Invasives are removed from the lake while native fish are measured and returned unharmed. By using the boat we are able to target all size ranges of invasive fish in this important Whitefish habitat.

Hi, I'm Kaylee McLeod and I'm a senior species at risk and biodiversity field technician for Coastal Action. Today we're out on Millipsigate Lake as part of our Atlantic Whitefish project. With this, we're doing scientifically angling to remove invasive species. We're looking at chain pickerel and small mouth bass, and so this lake is divided into 24 separate sections, which are first electrofished using the electrofishing boat and then, in the following days, we come and scientific angle the same sites. We are averaging about one to five fish a day, and so far we've had 19 days out on the water.

We often conduct dissections to evaluate the stomach content of invasive fish. The most common prey item is freshwater invertebrates, however, we have also found native fish, other chain pickerel, frogs, toads, mice, voles, snakes, and hatchling turtles, including these two snapping turtle hatchlings which were found alive and then released.

Finally, our most recent method of invasive removal is our new floating light traps. These are currently being tested as a possible method to capture young of the year chain pickerel.

Alright, so these traps are light traps light source is this LED flashlight on the top, so this flashlight shines a light down through the trap and any photosensitive fish or invertebrates will be attracted to this. There is some styrofoam in the top so that floats, and the fish come in the entrances of this four leaf clover pattern, and then they're trapped within the bottom tray

which is held together by some piping. And these traps are targeting young of the year chain pickerel and small mouth bass. Right now they are in Milipsigate Lake, which is a part of the Petite Rivere system. We will check this trap, so we take the piping off and we lifted trap off of the bottom tray, and this will give us whatever the trap has caught over the last two nights. So it looks like a lot of inverts and some daphnia and others clouding up the water. I don't see any fish. These traps were set out in the spring of 2020 as well, and caught both juvenile chain pickerel as well as juvenile small mouth bass.

A couple weeks ago, our crew was surprised to capture this larval chain pickerel. This could be evidence of a second spawning event in late summer or early fall in addition to the typical spawning time in early spring. Two separate spawning events would have major implications for assessing the growth rate and spread of the chain pickerel population across the province.

Thanks so much for watching! If you have any questions, feel free to visit our website or contact me at Molly@coastalaction.org. You can also follow Coastal Action on Facebook, Instagram, Twitter and YouTube.