



Anqotum
Resource Management



Conservation partners prepared to eradicate invasive smallmouth bass

Project critical to halt invasion of Miramichi watershed, one of the world's most productive Atlantic salmon ecosystems.

Aug 4, 2021

Fredericton, N.B. – The Working Group on Smallmouth Bass Eradication in the Miramichi is prepared to proceed with an approved conservation project to eradicate invasive smallmouth bass from Miramichi Lake, Lake Brook, and a section of the Southwest Miramichi River. The project is expected to take place on August 17th and 18th. A detailed map of the area is provided at the end of this press release.

Surface water within the project area will be treated with Noxfish Fish Toxicant II (PCP# 33247), a pesticide approved by Health Canada for use in aquatic environments, which contains the active ingredient rotenone at a concentration of 5.0%. The project is being led by the North Shore Micmac District Council in partnership with six other organizations pursuant to an authorization under Section 19(3) of Canada's *Aquatic Invasive Species Regulations*. New Brunswick's Department of Environment and Local Government conducted an environmental impact assessment and issued a positive certificate of determination in April 2021.

At the downstream extent of the river treatment area, a common water purification chemical, potassium permanganate, will be used to deactivate the rotenone.

This conservation action is necessary because Fisheries and Oceans Canada-led efforts to contain and capture smallmouth bass in Miramichi Lake failed to eradicate this invasive fish. Taking no action would ensure a permanent biological invasion of the Miramichi watershed that would negatively affect native species, like brook trout and Atlantic salmon, which support significant Indigenous and non-Indigenous fisheries.

The first known occurrence of smallmouth bass in the Miramichi watershed was recorded in Miramichi Lake in September 2008. The fish were likely introduced by people attempting to illegally plant a population for angling.

The results of environmental DNA testing conducted by Fisheries and Oceans Canada in 2019, 2020, and 2021, and accompanying electrofishing and citizen surveillance efforts, indicate smallmouth bass are limited to the treatment area, notwithstanding a single smallmouth captured downstream in 2020 and a handful of unconfirmed reports.

During the treatment, and for 72 hours afterwards, the public is prohibited from contacting the treated water. People not actively involved in the project are asked to avoid the area. Activities

like swimming, boating, wading, and fishing are not allowed in the treatment area during this time. Signs describing these and other restrictions will be posted at all access points 24-hours prior to treatment and will be removed when testing indicates the water is safe. A copy of the sign to be posted can be viewed here:

<https://www.asf.ca/assets/files/caution-attention-smallmouth-eradication.pdf>

The proposed treatment rate of 75 parts per billion rotenone is below the 90 parts per billion threshold for safe human contact established by United States Environmental Protection Agency and below 200 parts per billion maximum allowable rotenone treatment rate in Canada. Rotenone and the associated formulants in Noxfish Fish Toxicant II degrade rapidly in the environment. Modelling indicates that rotenone levels will degrade by half within three-days of application and will be undetectable in Miramichi Lake after 18-days.

The treatment plan has been developed by experts in aquatic invasive species eradication. Impacts will be limited to treated surface water and several mitigations have been built into the project to limit negative effects on non-target species. These include treatment timing, treatment rate, an adult fish rescue in the Southwest Miramichi, the establishment of a fish migration barrier, and deactivation of rotenone at the downstream extent of the project area.

Experience and literature based on decades of rotenone use around the world indicate most affected non-target organisms will recover quickly. For example, migratory fish species will re-enter the area later this fall. Anqotum Resource Management will lead an extensive five-year ecological monitoring program of the area and results will be shared regularly with adjacent property owners and the public.

To request interviews, please contact:

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The Working Group on Smallmouth Bass Eradication in the Miramichi was formed in 2016. We are dedicated to preserving the integrity of the Miramichi ecosystem for future generations. Members include the North Shore Micmac District Council, Anqotum Resource Management, Atlantic Salmon Federation, Miramichi Salmon Association, Miramichi Watershed Management Committee, New Brunswick Salmon Council, and New Brunswick Wildlife Federation. To learn more, visit our website: www.miramichismallmouth.com

Appendix B – Map of treatment area

