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December 3rd, 2013

Keith Robicheau
County Manager
Norfolk County
50 Colborne Street South
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**Subject: Invitation to comment on potential up-listing of the Pugnose Minnow under the
*Species at Risk Act***

Dear Mr. Robicheau,

This letter is being sent to individuals and groups with whom Fisheries and Oceans Canada would like to consult regarding the possible up-listing, from Special Concern to Threatened, of the Pugnose Minnow under the federal *Species at Risk Act* (SARA). The Pugnose Minnow was originally included in the List of Wildlife Species at Risk (referred to as the SARA List) as a Special Concern species when that Act came into effect in 2003. You have been contacted because you may have Pugnose Minnow within your watershed or municipality.

The Pugnose Minnow is a small minnow, with a maximum length of approximately 64 mm (2.6 inches). In Canada, the species is found only in Lake St. Clair and some of its tributaries (you can see the Canadian distribution on the enclosed fact sheet). Some of the specific threats to the continued survival and recovery of Pugnose Minnow are habitat degradation, species introductions (invasive species), and climate change.

Before a species or population at risk is offered protection under the SARA, it is first assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). This independent committee of experts uses science and traditional ecological knowledge to assess whether a species or population is at risk of disappearing. The Pugnose Minnow was designated as Special Concern by COSEWIC in 2001; however, the species was re-assessed in 2012 and designated as Threatened, a higher level of risk. Threatened status means that Pugnose Minnow is likely to become more imperilled if nothing is done to reverse the factors that are contributing to declining population trends.

The re-assessment by COSEWIC of Pugnose Minnow triggers the need by the Government of Canada to consult with Canadians on whether they would like this species to be up-listed to a Threatened status. Before a decision is made on whether to increase the level of protection for

Winnipeg, Manitoba
Municipality of Winnipeg

Pugnose Minnow under SARA, **we invite your community to provide input on whether this species should be up-listed under SARA, and how such a listing might affect your activities.** A Species at Risk consultation workbook is available on the Species at Risk Registry at www.SARAreistry.gc.ca (then click on "Public Consultations"). This workbook consists of a questionnaire and a form to submit comments. **All comments received by February 28th, 2014 will be reviewed and considered before the Government of Canada decides whether the Pugnose Minnow should be up-listed on the SARA List of protected species.**

If the federal government decides to increase the level of protection for the Pugnose Minnow by up-listing it on the SARA List, there may be restrictions on some activities and a recovery strategy that describes measures for protecting and recovering the species must be prepared. The recovery strategy will be developed with input from the public, stakeholders, and Aboriginal communities who may be affected by activities recommended in the plan.

We look forward to receiving any comments or input you wish to provide on the potential increase in protection of the Pugnose Minnow under SARA. If you have any questions, or would like to discuss with our staff the implications of listing this species, please contact the undersigned.

Sincerely,



Pooi-Leng Wong
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Enclosed:

1) Pugnose Minnow fact sheet

Additional Information:

- More information on the *Species at Risk Act* can be found at www.SARAreistry.gc.ca
- The COSEWIC Assessment and Status Report for the Pugnose Minnow can be found at: http://www.sarareistry.gc.ca/document/default_e.cfm?documentID=2468

Aquatic Species at Risk



The Pugnose Minnow... a Species at Risk in Canada

COSEWIC Status - THREATENED, May 2012
SARA Status - SPECIAL CONCERN, June 2003



Opsopoeodus emiliae
Illustration © Joseph R. Tomelleri

This species has recently been re-assessed as Threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). It was previously listed as Special Concern in

2003 under the federal *Species at Risk Act* and a management plan was developed in 2009. If the species is listed as threatened under SARA, a recovery strategy will be developed.

General description

The Pugnose Minnow (*Opsopoeodus emiliae*) is a small, short-lived and somewhat mysterious fish in the carp and minnow family (Cyprinidae). As its name suggests, it has a tell-tale rounded snout, as well as the following other features:

- small, slender and elongated body, reaching a maximum length of about 6 cm;
- bluntly rounded snout and very small, upturned mouth;
- forked tail and short pectoral (behind the head) fins;
- silvery-coloured with a distinct, thin black line running the full length of each side of the body;
- criss-cross pattern of scaling on the upper body;
- nine dorsal rays (spines in the back fin) compared to eight dorsal rays like other Canadian minnows; and
- spawning males turn dark silver-blue and develop many small, sharp tubercles around the mouth.



Fisheries and Oceans
Canada

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Canada

Canada

Distribution

In Canada, the Pugnose Minnow is only found in southwestern Ontario, where small populations are limited to Lake St. Clair and its smaller tributaries, and the Detroit and Sydenham rivers. Its small numbers have made research on this fish a challenge, and exact sizes of remaining populations in Canada are not known. However, recent monitoring suggests the Pugnose Minnow has been lost from the Thames River, and that its historical range has decreased by more than 80 per cent. In the United States, the Pugnose Minnow is common and widespread, from Texas to Wisconsin and across to South Carolina and Florida.

Habitat and life history

More research is needed on the biology and preferred Canadian habitat of the Pugnose Minnow, as it is typically found here in areas considered less ideal than where they were historically found—possibly because their ideal habitat no longer exists. For example, Pugnose Minnow used to be found in habitats described as clear, slow-moving, heavily vegetated waters, but are now typically found in warm, turbid (murky), slow-moving waters, with little to no vegetation, over substrates (bottoms) of silt, clay or sand.

The lifespan of the Pugnose Minnow is believed to be three years, and sexual maturity is likely reached at one year of age. The spawning behaviour of this fish is unique compared to other North American cyprinids. In late spring, spawning males choose a flat surface, such as the underside of a rock, and lead females there to lay eggs. The females will lay up to 120 eggs at a time in a single

layer along the flat surface and the males guard the nest and eggs from predators. Spawning is repeated many times over six to seven days and the eggs will typically hatch after six days.

Diet

The Pugnose Minnow mainly feeds on small aquatic insects such as midges, but may also eat larval fishes and eggs and small aquatic crustaceans such as water fleas. Its upturned mouth suggests this fish is a mid-water or near-surface feeder.

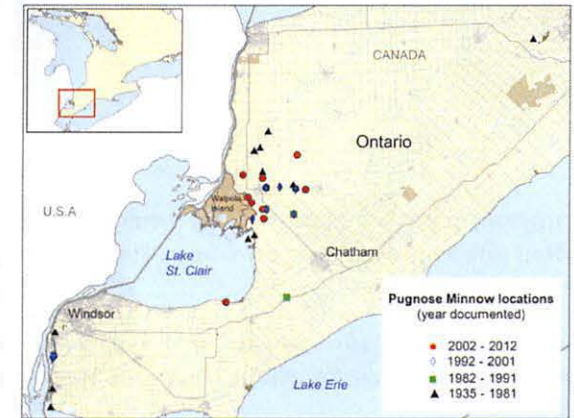
Threats

The loss of clean, clear, well-vegetated stream, river, and lake habitats is the most likely threat to the survival and recovery of the Pugnose Minnow in Canada today. Wetland destruction and vegetation removal, increased sediment input, turbidity (murkiness) and nutrients (nitrates and phosphates) from urbanization and agriculture are considered the main reasons for the small size of remaining populations of this fish in Canada. Climate change and competition with invasive fish and mussel species are also possible threats to its survival and recovery.

Similar species

The Pugnose Minnow most resembles the Pugnose Shiner (*Notropis anogenus*) and the Golden Shiner (*Notemigonus crysoleucas*), but is different from these fishes - and all other Canadian minnows - because of its extra ninth dorsal ray. The Golden Shiner is also deeper and thinner

Distribution of Pugnose Minnow in Canada



from side to side, and has a larger anal fin (more than 11 rays). The black lateral line on the Pugnose Shiner also runs all the way to its chin, whereas on the Pugnose Minnow, the line stops at its nose.

Text Sources: COSEWIC Assessment and Status report on the Pugnose Minnow *Opsopoeodus emiliae*, in Canada. 2012; Fisheries and Oceans Canada, Management plan for the Blackstripe Topminnow, Pugnose Minnow, Spotted Sucker and Warmouth in Canada, 2009; Scott, W.B. and E.J. Crossman. Freshwater Fishes of Canada. 1998; Trautman, M.B. The Fishes of Ohio with Illustrated Keys, 1981.

For more information, visit the SARA Registry at www.SARAreistry.gc.ca or the website below.

Cette publication est également disponible en français.

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www.aquaticspeciesatrisk.gc.ca

Section 32 (1) of the Species at Risk Act (SARA) states that “no person shall kill, harm or harass, capture or take an individual of a wildlife species that is listed as an extirpated species, an endangered species or a threatened species.”