

Aquatic Species at Risk



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

COSEWIC Status - THREATENED May 2013
SARA Status - ENDANGERED January 2005



EF

Notropis anogenus
Illustration by E. Edmonson (NYSDEC)

The Pugnose Shiner has recently been re-assessed as Threatened by the Committee on the Status of Endangered Wildlife in Canada. It is currently listed as Endangered under the federal *Species*

at Risk Act and was afforded legal protection as of January 2005. Under the *Species at Risk Act*, a recovery strategy has been developed for this species.

General description

The Pugnose Shiner (*Notropis anogenus*) is a member of the minnow family (Cyprinidae) and has the following characteristics:

- Body is fragile, slender and small, somewhat compressed laterally;
- Extremely small upturned mouth;
- Distinct black lateral band extends around snout and chin, through the eye to the caudal peduncle, ending with a small dark wedge-shaped caudal spot;
- Overall colouration is silver with pale yellow and olive tints above the lateral black band;
- Males become brightly golden in colour during spawning;
- All fins are transparent;
- Eight dorsal rays; and
- Total length is approximately 50 mm for males and 60 mm for females.



Distribution

The range of the Pugnose Shiner extends from Ontario, south to Illinois, and west to North Dakota. The species has a disjunct distribution and it is often absent from theoretically suitable habitat within its range. In Canada, this species has only been found in four main areas of Ontario: 1) southern Lake Huron drainage; 2) Lake St. Clair; 3) Lake Erie; and 4) eastern Lake Ontario/upper St. Lawrence River drainage. It is assumed to be extirpated from Point Pelee and Rondeau Bay.

Habitat and life history

The Pugnose Shiner is usually found over sand and mud in slow-moving, clear, vegetated streams and lakes. It is found in sheltered ponds, wetlands, stagnant channels and protected bays adjacent to larger waterbodies. Spawning is thought to occur in late spring to early summer, and takes place in shallow, heavily vegetated waters. It does not guard its eggs, but rather distributes them widely over aquatic plants and substrates.

Diet

The diet was originally believed to be limited organic debris scraped from plant leaves; however, more recent accounts suggest that the Pugnose Shiner's food sources are predominantly made up of various plants and animals (including small leeches, water fleas and caddisfly larvae) up to 2 mm in size.

Threats

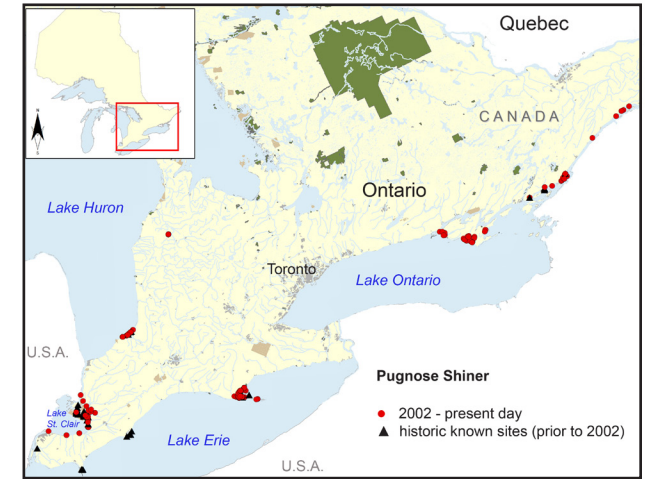
The Pugnose Shiner requires clear water with abundant aquatic vegetation. Habitat degradation and loss is the principal threat. Activities that contribute to these threats include agricultural, industrial and urban development, removal of aquatic vegetation, and changes in water quality/quantity. As many habitat areas are fragmented, there is limited connection between populations. Invasive species are also a growing threat, particularly Common Carp and Eurasian watermilfoil, due to their negative effects on native aquatic vegetation.

Similar species

The Blackchin Shiner (*N. heterodon*), the Pugnose Minnow (*Opsopoeodus emiliae*) and the Bridle Shiner (*N. bifrenatus*) all closely resemble the Pugnose Shiner, but can be distinguished by certain key elements. The Blackchin Shiner is distinguished by its larger, less upturned mouth. The Pugnose Minnow can be differentiated by dark areas on the dorsal fin, crosshatched areas on the upper surface and nine dorsal rays. The Bridle Shiner is identified by its larger mouth and pale chin.

Text Sources: COSEWIC Assessment and Update Status Report on the Pugnose Shiner (*Notropis anogenus*) in Canada 2013; Recovery Strategy for the Pugnose Shiner (*Notropis anogenus*) in Canada 2012.

Pugnose Shiner distribution in Canada



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.”