

# Aquatic Species at Risk



## The Snuffbox... a *Species at Risk* in Ontario

as designated under the federal *Species at Risk Act*

COSEWIC Status – ENDANGERED May 2001

SARA Status – ENDANGERED June 2003



*Epioblasma triquetra* (Rafinesque, 1820)  
Photo by National Water Research Institute

This species has been identified as Endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). It is listed under the federal *Species at Risk Act* (SARA) and is afforded protection

under the SARA as of June 2004. Additional protection is afforded through the federal *Fisheries Act*. Under the SARA, a recovery strategy must be developed for this species.

### General Description

The Snuffbox (*Epioblasma triquetra*) is the most widely distributed member of the genus *Epioblasma* and can be identified by the following characteristics:

- Shell is solid and thick, triangular in shape in males and inflated in females
- Males may reach 70 mm in length; females 60 mm
- Swollen and sculptured beak (the raised part at the top of the shell) with three or four faint double-looped ridges
- Rounded shell at both ends while top and bottom edges are nearly parallel
- Outside of shell is smooth, yellowish to yellow green and marked with numerous dark green rays that may resemble “dripping paint”
- Shell is white inside, iridescent on the back half and has a grey-blue tinge in the depression inside the beak
- Ragged and sharp triangular teeth at the front edge of the hinge; two teeth in each half of the shell
- Elongated teeth along the inside of the hinge are short, straight, raised and notched; two on the left side of the shell and one on the right
- Deep scars on the inside of the shell where the muscles attach and hold the shell halves together



## Distribution

The Snuffbox has been lost from 60% of formerly occupied rivers and streams in North America. Remaining populations are small and geographically isolated from each other. It was historically known from 19 states and the Province of Ontario. In Ontario, this species was found in Lake Erie and Lake St. Clair and their drainages. It is now restricted to a 50 km reach of the East Sydenham River where it occurs at very low densities, and to an unknown portion of the Ausable River.

## Habitat and Life History

The Snuffbox is typically found in small- to medium-sized rivers in shallow riffle areas with clean, clear swift-flowing water and firm rubble/gravel/sand substrates, free of silt. As it usually burrows into the substrate, it may be particularly sensitive to siltation. The Snuffbox is a moderately long-lived, sexually-dimorphic species with a lifespan of at least 10 years. It is believed that spawning occurs in late summer and the glochidia (larvae) are released the following May-June.

## Host

Two hosts for this species have been identified in Ontario: the Logperch (*Percina caprodes*) and the Rainbow Darter (*Etheostoma caeruleum*).

## Diet

Like all species of freshwater mussels, the Snuffbox uses bacteria and algae as its primary food source.

## Threats

The Snuffbox is sensitive to pollution, siltation, habitat perturbation, inundation and loss of glochidial hosts. The impoundment of large rivers has destroyed much of the habitat for this species over the last century. More recently, the Zebra Mussel (*Dreissena polymorpha*) has devastated the Great Lakes populations. Few known host species and the occurrence of populations near areas with agricultural run-off also threaten this species.

## Similar Species

This species is similar to the Fawnsfoot (*Truncilla donaciformis*) and the Deertoe (*Truncilla truncata*).

Text Sources: Watson *et al.* 2001.

For more information, visit the SARA Registry Website at [www.SARAregistry.gc.ca](http://www.SARAregistry.gc.ca) and the Fisheries and Oceans Canada (DFO) Website noted below.



*Cette publication est également disponible en français.*

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[www.aquaticspeciesatrisk.gc.ca](http://www.aquaticspeciesatrisk.gc.ca)

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