

## Aquatic Species at Risk



# The Round Pigtoe... a *Species at Risk* in Ontario

as designated under the federal *Species at Risk Act*

COSEWIC Status – ENDANGERED May 2004

SARA Status – ENDANGERED July 2005



*Pleurobema sintoxia*  
(Rafinesque, 1820)

Photo by National Water Research Institute,  
(Environment Canada)

### General Description

The Round Pigtoe (*Pleurobema sintoxia*) is a mollusc belonging to the Family Unionidae. It has the following characteristics and distinguishing features:

- A medium to large freshwater mussel, which reaches lengths between 75 and 130 mm
- Somewhat rectangular in shape but may vary with habitat type
- Compressed and slightly elevated beak (raised part at the top of the shell), extending beyond the hinge line
- Shell is relatively thick and solid with a roughened surface and concentric rest lines
- Tan in colour (juveniles), darkening to a deep reddish brown with age
- Nacre is white or shades of pink
- Lifespan is unknown, however, other members of the genus may live for over 30 years

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 was afforded

protection under the SARA as of July 2005. Additional protection is afforded through the federal *Fisheries Act*. Under the SARA, a recovery strategy must be developed for this species.



## Distribution

The current distribution of the Round Pigtoe is similar to its historical range: New York and Ontario, west to South Dakota, Kansas and Oklahoma, and south to Arkansas and Alabama. In Canada, it occurs only in Ontario, in lakes Erie and St. Clair and in the Detroit, Grand, Niagara, Sydenham and Thames rivers. Currently, it is extant in the Grand, Thames and Sydenham rivers and in Lake St. Clair. The healthiest population is in the Sydenham River, where it is rare but showing signs of recruitment. Overall, its extent of occurrence has decreased by 54%.

## Habitat and Life History

In small rivers, this species can be found in areas of moderate flow on substrates of gravel, cobble and boulder. In larger rivers, it is found in mud, sand and gravel at varying depths. The breeding season lasts from early May to late July. Eggs are fertilized in the female gills and held there until the intermediate larval stage (glochidium). When released, the parasitic glochidia attach to the fins or gills of an appropriate host fish until they metamorphose into juveniles. The rate of survival to the juvenile stage is extremely low. Juveniles release from their host and begin life as a free-living mussel.

## Host

Spotfin Shiner (*Cyprinella spiloptera*), Northern Redbelly Dace (*Phoxinus eos*), Bluntnose Minnow (*Pimephales notatus*) and Bluegill (*Lepomis macrochirus*).

## Diet

The Round Pigtoe is a filter feeder, consuming bacteria, algae, organic detritus and protozoans.

## Threats

The spread of Zebra Mussels (*Dreissena polymorpha*) and Quagga Mussels (*Dreissena* spp.) throughout the Great Lakes has severely impacted or eliminated the Round Pigtoe in the offshore waters of Lake St. Clair, Lake Erie, and the Detroit and Niagara rivers. Other threats include deteriorating water quality and loss of habitat resulting from poor agricultural and urban land-use practices.

## Similar Species

This species is similar to the Wabash Pigtoe (*Fusconaia flava*) and the Hickorynut (*Obovaria olivaria*).

Text Sources: COSEWIC Status Report 2004.

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.

## ROUND PIGTOE DISTRIBUTION



*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.”