

Aquatic SPECIES AT RISK

in the Grand River Watershed

The Grand River in southwestern Ontario supports an incredible variety of aquatic life. In 1994 the Grand River and its major tributaries achieved the coveted status of Canadian Heritage River.

The Grand is also considered a world class fishery, due in large part to the successful efforts of many partners. More than 80 species of fishes and 34 species of freshwater mussels have been found in the river making it one of the richest watersheds in all of Canada.

Some of these species are rare in Canada and are listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) under the federal *Species at Risk Act*. Listed species fall into the following categories:

ENDANGERED

A species facing imminent extinction or extirpation.

THREATENED

A species likely to become endangered if limiting factors are not reversed.

SPECIAL CONCERN

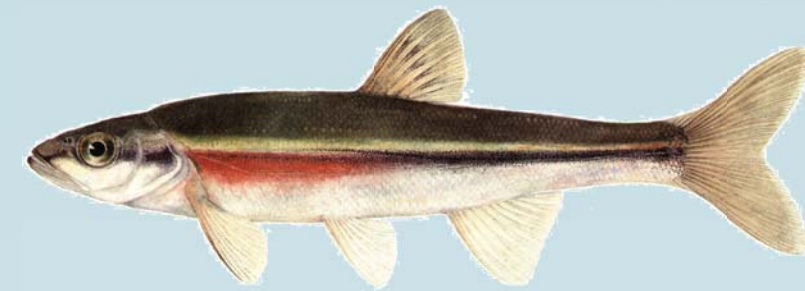
A species particularly sensitive to human activities or natural events, but is not yet endangered or threatened.

FISHES



Black Redhorse (*Moxostoma duquesnei*)
Threatened

The black redhorse is a small (30-50 cm) grey sucker that can be distinguished from other redhorses by several features such as its slate-colored tail and small scales. This species favours riffle and pool areas of clear flowing waters that have sand and gravel bottoms. It is found throughout much of the mainstem of the Grand and Nith rivers, as well as the lower Conestoga River.



Redside Dace (*Clinostomus elongatus*)
Special Concern

The redside dace is a small minnow (average size of 76mm) that inhabits pools and slow moving areas of small clear streams with good overhead cover. The main factors which have adversely affected redside dace populations are degradation of habitat through siltation, removal of bank cover, and water quality deterioration. The redside dace is only found at one location in the Grand River watershed on Irvine Creek.



Eastern Sand Darter (*Ammocrypta pellucida*)
Threatened

The eastern sand darter is a small member of the perch family that grows to a length of about 8cm. This slender, translucent-bodied species is found in sandy bottom areas of streams and rivers downstream of Caledonia where it often buries itself completely. Populations of this species have declined throughout its range due to siltation, sand bar removals, dam building and pollution.



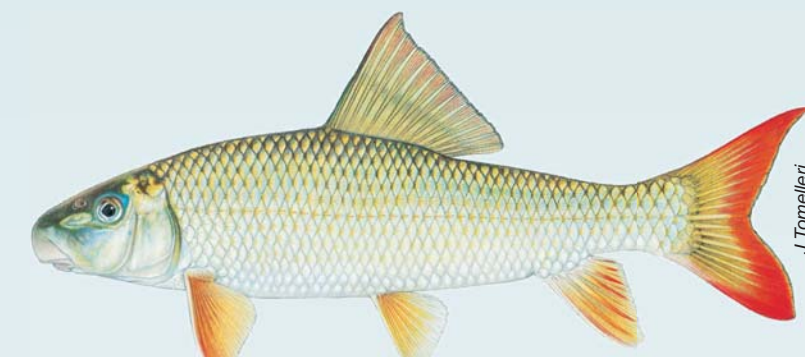
Bigmouth Buffalo (*Ictiobus cyprinellus*)
Special Concern

The bigmouth buffalo is a large member of the sucker family that reaches lengths up to 1m and resembles the common carp. It thrives in warm, muddy, highly enriched and poorly oxygenated waters like those conditions often found in the lower reaches of the Grand River.



Silver Shiner (*Notropis photogenis*)
Special Concern

The silver shiner is a relatively large minnow (up to 14 cm long) that prefers moderately-flowing sections of larger streams. It lives in schools and feeds on crustaceans and adult flies at the surface of the water. In Canada, it is only known from four river systems, and the population in the Grand River is probably the largest.



River Redhorse (*Moxostoma carinatum*)
Special Concern

The river redhorse is a large (up to 80 cm), thick bodied sucker with a prominent, slightly overhanging snout and a red tail. This species generally inhabits fast-flowing, clear rivers with rocky pools and runs. Canadian populations are scattered in isolated locations across southern Ontario and Quebec. It has a limited distribution in the lower Grand River where it is found in turbid and slower reaches.



Greenside Darter (*Etheostoma blennioides*)
Special Concern

The greenside darter is a small (up to 11 cm long) olive-green member of the perch family. It is distinguished from other Ontario darters by the presence of 5 to 8 "W" or "V" shaped marks on its side. This bottom dweller was probably introduced to the Grand River, and is now common in much of the watershed's fast flowing, clear rocky riffles.

TURTLES



Northern Map Turtle (*Graptemys geographica*)
Special Concern

This highly aquatic turtle has an oval, elongated shell with light yellow lines resembling map contours. A female's carapace typically exceeds 25 cm in length, while males average 14 cm. It inhabits areas with slow currents, muddy bottoms and abundant aquatic vegetation. Threats to this species include habitat alterations/ loss, barriers to movement (such as dams) and nest-flooding due to controlled water levels.



Blanding's Turtle (*Emydoidea blandingii*)
Threatened (in Ontario)

The high, domed-shaped black carapace and bright yellow undersides of its head and long neck help identify Blanding's Turtles. It is associated with wet, vegetated areas. This turtle species often makes long-distance overland nesting migrations. Raccoon predation and nest-flooding are two threats to this species.



Eastern Spiny Softshell Turtle (*Apalone spinifer spinifera*)
Threatened

This tan to olive turtle has a flat, leathery carapace and distinctive tubular snout unlike any other Ontario turtle. Juveniles and males have spots and lines on their carapace, while females have a more mottled pattern. This "pancake turtle" requires sandy, soft-bottomed water bodies. Habitat alteration/degradation, including bank hardening, are considered the biggest threats to this species.

MUSSELS



Wavyrayed Lampmussel (*Lampsilis fasciola*)
Endangered

The Wavyrayed Lampmussel is a medium-sized freshwater mussel that lives in mainly gravelly riffle areas in the middle reaches of the Grand and Conestogo Rivers. The female of this species has evolved a minnow-shaped lure that it uses to attract a host fish, the smallmouth bass. Clear water may be a critical requirement

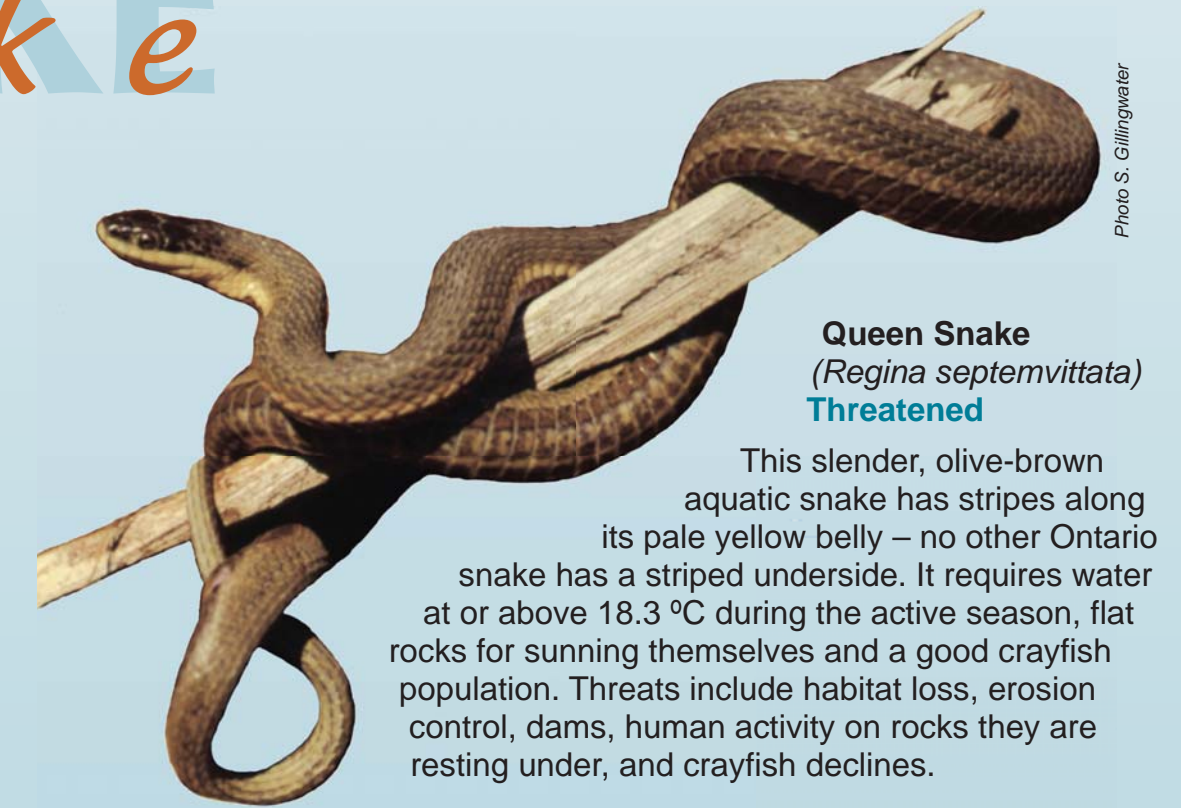
for successful reproduction and this may explain why the range of this mussel is becoming limited in southern Ontario.



Round Pigtoe (*Pleurobema sintoxia*)
Endangered

The Round Pigtoe is a freshwater mussel that lives in sandy substrates in the deeper water of large rivers, and the near-shore areas of some of the Great Lakes. Its distribution is restricted to the lower portions of the Grand River below Brantford. Adults have deep-mahogany coloured shells with darker banding, and juvenile mussels grow for several years and must attain a size of about 8 cm before they are mature and can breed.

SNAKE



Queen Snake (*Regina septemvittata*)
Threatened

This slender, olive-brown aquatic snake has stripes along its pale yellow belly – no other Ontario snake has a striped underside. It requires water at or above 18.3 °C during the active season, flat rocks for sunning themselves and a good crayfish population. Threats include habitat loss, erosion control, dams, human activity on rocks they are resting under, and crayfish declines.

Grand River Recovery Team

A Grand River Recovery Team for Fishes at Risk is in place in the Grand River watershed "to conserve and recover fish Species at Risk in the Grand River, and to enhance the native fish community using sound science, community involvement & habitat improvement measures."

For more information please contact:

INFORMATION
Grand River Conservation Authority
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Web Resources:
www.grandriver.ca
www.speciesatrisk.gc.ca
www.ontarioparks.com/English/sar.html

Aquatic Habitat in the Grand River

Sediments, nutrients, pollutants, treated sewage, oxygen depletion, invasive species and unnatural warming are some of the harmful impacts to aquatic habitat. In spite of these impacts, the Grand River and its tributaries have a diverse and much improved aquatic community compared to a few decades ago. A "Grand River Recovery Strategy" sets out means of protecting the aquatic species at risk.



What you can do

- Practice water conservation in your home and business
- Plant trees and shrubs along streams wherever possible
- Keep harmful substances out of the water and don't mow right up to the edge of creeks or river
- Limit the use of fertilizer and pesticides on your property
- Limit lawn watering to early and late in the day or follow local restrictions
- Use less salt on your walkway & driveway in winter
- Don't dump leftover minnows or crayfish into waterways after use
- Take a kid fishing, hiking, canoeing...

