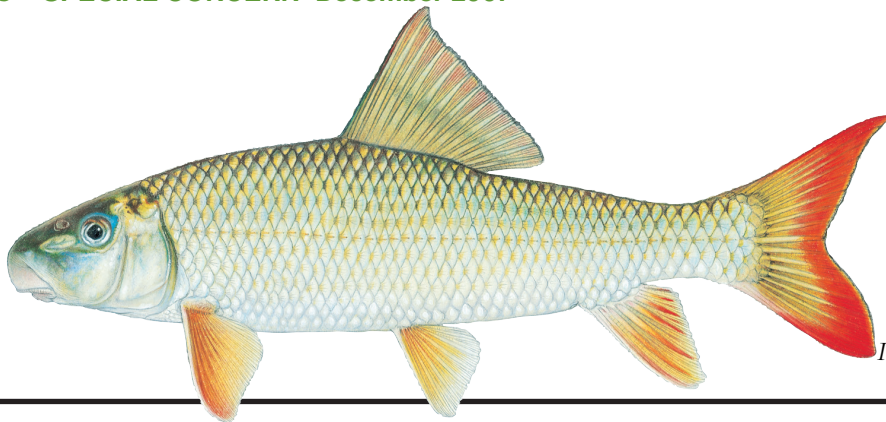


Aquatic Species at Risk



The River Redhorse ... a *Species at Risk* in Canada

COSEWIC Status - SPECIAL CONCERN April 2006
SARA Status - SPECIAL CONCERN December 2007



Moxostoma carinatum
Illustration © Joseph R. Tomelleri

This species has been assessed as Special Concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). It is listed as Special Concern under the *Species at Risk Act* (SARA), and was afforded protection as of December 2007.

It is also listed as Special Concern under Ontario's *Endangered Species Act, 2007*. As required under SARA, a management plan has been developed for this species.

General description

The River Redhorse (*Moxostoma carinatum*) is a large sucker in the family Catostomidae. It has also been referred to as the Big-sawed Sucker, River Mullet, Greater Redhorse, Redfin Redhorse and Redhorse Sucker. River Redhorse has the following characteristics:

- large, laterally compressed body;
- adults measure between 500 and 700 mm in length;
- subterminal mouth and heavy pharyngeal arch with molariform teeth;
- deeply folded lips without transverse ridges or papillae (bumps);
- straight or slightly concave single dorsal fin and a forked caudal fin;
- red-tinted caudal and dorsal fins, and orange to reddish lower fins;
- white belly, brown or olive green back and brassy, yellowish-green or coppery sides;
- dark, crescent-shaped spots on each scale;
- tubercles present on the snout, anal and caudal fins of spawning males; and
- caudal peduncle scale count is usually 12, while the count along the lateral line is 42 to 47.



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Distribution

The River Redhorse occurs throughout the central and eastern Mississippi River system and the Gulf Slope from Florida to Louisiana. In Canada, its distribution is characterized by disjunct populations in southern and eastern Ontario and southern and southwestern Quebec. This species has declined considerably over much of its range in the last 100 years. In Ontario, populations still occur in the Grand, Trent, Thames, Mississippi, Madawaska rivers and the Bay of Quinte, and recent data suggest a wider distribution in the Ottawa River watershed than previously documented. In Quebec, it also occurs in the Coloungue, Gatineau, Noire and Richelieu river systems into Quebec. This fish appears to no longer exist in the Ausable, Châteauguay and Yamaska rivers.

Habitat and life history

In Canada, the River Redhorse lives in medium- to large-sized rivers. In the late spring, fish migrate from pool habitats with slow currents and abundant vegetation to shallow areas with moderate to swift flow, riffle-run habitats and coarse (gravel, cobble) substrates. Spawning occurs at temperatures between 17 and 20°C and ritualized spawning displays have been observed. Fertilized eggs hatch within five to six days depending on the temperature. Larvae are dispersed by drifting to suitable rearing habitats. The age at maturity is older than in southern populations, ranging between five and ten years. Maximum age is 28 years in Canada.

Diet

The diet of the River Redhorse consists of crayfishes, insect larvae and other benthic invertebrates. It also feeds extensively on molluscs. Its large teeth allow it to crush the shells of these organisms.

Threats

Due to its narrow range of habitat preferences, spawning requirements and intolerance of high turbidity, siltation and pollution, the River Redhorse is susceptible to a number of threats. Habitat fragmentation can alter habitat conditions, resulting in restricted movements of individual fish and limited gene flow between populations. Also, changes in flow regime and siltation of spawning habitats may reduce recruitment. Poor water quality, such as increased sediment load and/or excessive nutrients, also adversely impacts this species. Other suspected threats include the effects of climate change, invasive species, disease and incidental harvest.

Similar species

The River Redhorse resembles all redhorse species especially the Shorthead Redhorse (*M. macrolepidotum*) and the Greater Redhorse (*M. valenciennesi*). The River Redhorse can be distinguished, although with difficulty, from most other members of the genus by its heavy pharyngeal arch with molariform teeth. Additional features that may distinguish it from other redhorse species include entirely plicate lips and caudal peduncle scale count.

River Redhorse distribution in Canada



Text Sources: COSEWIC assessment and status report on the River Redhorse in Canada, 2006; Fisheries and Oceans Canada. Management Plan for the River Redhorse (Proposed). 2014.

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.”