



## The Shortjaw Cisco... a *Species at Risk* in Ontario

**COSEWIC Status – THREATENED** May 2003

**SARA Status – UNDER CONSIDERATION**



*Coregonus zenithicus* (Reindeer Lake, SK)  
Photo by L. Murray (University of Manitoba)

This species has been identified as Threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). It is currently being considered for listing under the federal *Species at Risk Act*

(SARA). Protection is afforded through the federal *Fisheries Act*. If listed under the SARA, it will be afforded additional protection. Under the SARA, a recovery strategy must be developed for this species.

### General Description

The Shortjaw Cisco (*Coregonus zenithicus*) is a widespread species in the Salmonidae subfamily, Coregoninae. It has the following characteristics:

- Silver in colour with olive or tan on the back and white on the stomach
- Elliptically shaped body that is laterally compressed and covered with large, smooth scales
- Mouth is small and toothless; lower jaw is usually shorter than, sometimes even with, the upper jaw
- Gill rakers number between 32 and 46 (comb-like structure on the inner surface of the bony arch supporting the gill), fewer than most other cisco species
- Gill rakers are moderate or short in length compared to other cisco species
- Maximum length is highly variable ranging from 400 mm (Lake Nipigon) to less than 100 mm (White Partridge Lake)
- Weight is generally less than 300 g, although exceptionally large specimens can reach 1 kg

## Distribution

The Shortjaw Cisco has a widespread distribution in Canada ranging from the Laurentian Great Lakes throughout central Canada to the Northwest Territories. In the Great Lakes, it is currently found in lakes Superior and Nipigon and has recently been reported from Lake Huron after not being collected since 1982. It is believed to be extirpated from lakes Michigan and Erie, and is in serious decline in lakes Superior and Huron. Lake Nipigon populations have also been reduced but appear to be stable. It has never been documented in Lake Ontario. In addition to the Great Lakes, Shortjaw Cisco has been reported from 10 other lakes in Ontario and at least 10 lakes in the Prairies and the North.

## Habitat and Life History

The Shortjaw Cisco generally inhabits deep waters between 55 and 180 m of large lakes. In Lake Superior, seasonal differences have been recorded including movement into shallower water during spawning. In Lake Nipigon, it inhabits depths of 10 to 60 m, occasionally deeper. This species usually spawns in the fall; however, spring spawning has been reported in Lake Superior and inland lakes. Fecundity is likely similar to other deepwater ciscoes: 3,200 to 18,800 eggs depending on fish length. Eggs are deposited on the lake bottom and left unattended to develop for three to four months. Females grow faster in weight than males. Maturity occurs at five or six years in the Great Lakes but earlier in other areas. Its lifespan is generally between 10 and 13 years but

may be as short as three. The Shortjaw Cisco is prey for Lake Trout (*Salvelinus namaycush*) and Burbot (*Lota lota*).

## Diet

The diet of the Shortjaw Cisco includes the Opposum Shrimp (*Mysis relicta*) and the Scud (*Diporeia hoyi*), crustacea (copepods and cladocerans) and aquatic insect larvae.

## Threats

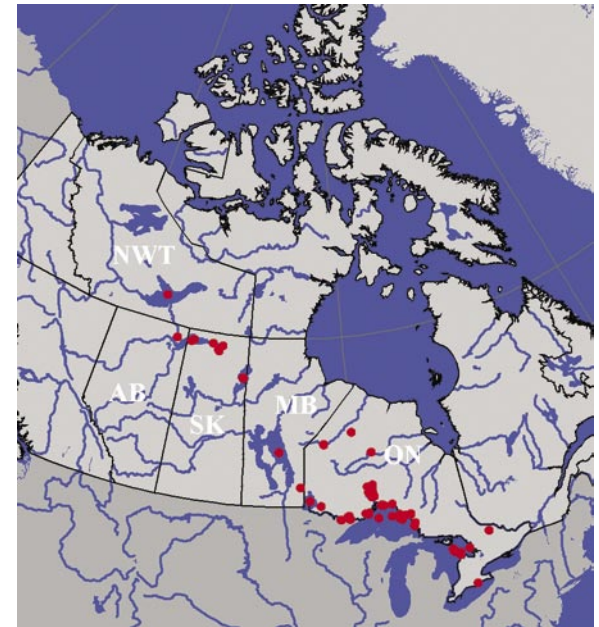
No single factor can be attributed to the decline of the Shortjaw Cisco in the Great Lakes. In the early 1900s, commercial overfishing had a negative impact on this species. More recently, habitat degradation (including eutrophication), and competition with/predation from exotics such as the Rainbow Smelt (*Osmerus mordax*), Alewife (*Alosa pseudoharengus*) and Sea Lamprey (*Petromyzon marinus*) have imposed additional stresses.

## Similar Species

The Shortjaw Cisco resembles the Lake Herring or Cisco (*C. artedii*) but usually has shorter and fewer gill rakers (32 to 46 compared to 38 to 64).

Text Sources: Murray and Reist 2003; COSEWIC Status Report 2003.

## SHORTJAW CISCO DISTRIBUTION



For more information, visit the SARA Registry Website at [www.SARAreistry.gc.ca](http://www.SARAreistry.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.”