

Aquatic Species at Risk



The Shortjaw Cisco... a *Species at Risk* in the North

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, 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
- Little is known about the growth of this species in northern lakes



Distribution

The Shortjaw Cisco has a widespread distribution in Canada. In the North, the species has been documented in Great Slave Lake (NWT). More recent reports of its occurrence in Great Bear Lake need to be confirmed. It has been recorded from only one lake in Alberta (Barrow Lake) and from numerous lakes in northern and southern Manitoba and Saskatchewan (Lake Athabasca, Reindeer Lake and Lake Athapapuskow, Clearwater Lake, Lake Winnipeg and George Lake). Abundance in these lakes is generally unknown, as is the true extent of distribution across the North and Prairies. In the Laurentian Great Lakes, it is believed extirpated from all lakes except Huron, Superior and Nipigon and has never been documented in Lake Ontario. It has also been reported from numerous smaller lakes in Ontario.

Habitat and Life History

Outside of the Laurentian Great Lakes, the habitat requirements of the Shortjaw Cisco are not well known. They generally inhabit deep waters up to 180 m in large lakes. This species spawns in the fall. 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. Age of maturity is variable, from two years (Barrow Lake), or four years (Lake Winnipeg), to five or six years (Laurentian Great Lakes). Its lifespan is between 10 and 13 years.

It 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

The historical and present abundance of the Shortjaw Cisco in the North is not known. Consequently, there is no direct evidence of its decline, and defining potential threats to this species is difficult. Nonetheless, the Shortjaw Cisco in the North is likely susceptible to similar threats occurring in the Laurentian Great Lakes, with the exception of commercial fishing. These threats include habitat degradation, climate change and hybridization with other ciscoes. No specific understanding of these impacts is currently available.

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: Alberta Wildlife Status Report No. 41 2002; Murray and Reist 2003; COSEWIC Status Report 2003.

SHORTJAW CISCO DISTRIBUTION



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

Cette publication est également disponible en français.

DFO/2005-853

©Her Majesty the Queen in Right of Canada 2005

Cat. No. Fs22-4/33-2005E-PDF ISBN 0-662-41559-0

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.”