

EXECUTIVE SUMMARY – Recovery Strategy for Redside Dace (*Clinostomus elongatus*) in Ontario

Prepared by the Redside Dace Recovery Team

The Redside Dace (*Clinostomus elongatus*) is a small colourful cyprinid (minnow family) that lives in small streams in the southern Great Lakes basin, the upper Mississippi drainage and the upper Susquehanna River drainage. In Canada, the Redside Dace is found only in southern Ontario where it most frequently occurs in streams flowing into western Lake Ontario. The species has declined in many areas throughout its range. The Committee on the Status of Species at Risk in Ontario (COSSARO) originally assessed the Redside Dace as threatened in 2000. Based on observed declines and threats to remaining populations the species was uplisted to endangered in 2009 under Ontario's *Endangered Species Act, 2007* (ESA 2007). Redside Dace was assessed as endangered in Canada by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) in April of 2007. The Redside Dace is currently being considered for listing as endangered under the federal *Species at Risk Act* (SARA).

The recovery strategy has been prepared by a recovery team consisting of representatives from the provincial and federal governments, conservation authorities, the Royal Ontario Museum, the Toronto Zoo, and Ontario Streams. The recovery strategy provides a framework for action for responsible jurisdictions and others to secure the persistence and sustainability of Redside Dace in Ontario.

Redside Dace require cool, clear flowing water with riffle-pool sequences and overhanging streamside vegetation. Redside Dace populations have been lost from several tributaries to western Lake Ontario and the length of stream occupied by several of the remaining populations has been reduced. Urban development is considered to be the most significant threat acting upon Redside Dace populations in Ontario. Most of Canada's Redside Dace populations are found in the 'Golden Horseshoe Region' of Ontario which is an area that is rapidly being developed. Urban development can cause siltation, changes in stream channel structure and water clarity, increased stream temperatures, alteration to groundwater and stream baseflow, result in the removal of riparian vegetation and result in the input of pollutants to streams. All of these factors can have negative impacts on Redside Dace populations. Other contributing threats to Redside Dace populations include intensive agricultural activities and introductions of non-indigenous species.

Several knowledge gaps are identified related to the distribution, biology and factors that limit Redside Dace populations. In order to direct recovery efforts efficiently, it is important to clearly identify the principal factors that limit the abundance and distribution of Redside Dace populations in Ontario.

The long-term goal of this recovery strategy is to restore viable populations of Redside Dace in a significant portion of their historic range in Ontario by:

- i) protecting existing healthy, self-sustaining populations and their habitats;
- ii) restoring degraded populations and habitats;
- iii) re-establish Redside Dace to sites of former distribution where feasible.

The short-term recovery objectives to be addressed over the next 5 years are to:

1. Determine distribution and abundance of extant populations.
2. Maintain the current geographical distribution and abundance of Redside Dace through habitat protection and other measures.
3. Establish a long-term monitoring program to assess the status of Redside Dace and its habitats.
4. Generate awareness regarding the significance of Redside Dace and protection and stewardship of its habitats.
5. Rehabilitate degraded Redside Dace habitats and identify candidate areas for re-introductions.

The recovery strategy identifies approaches that will protect existing populations, rehabilitate degraded habitats, collect information on the status of Redside Dace and its habitats, and increase awareness regarding the significance of Redside Dace.

Significant progress has been made on several recovery actions during (and prior to) the development of the recovery strategy. An action group has been established on Irvine Creek to promote stewardship initiatives and stream rehabilitation projects are ongoing on the Morningside tributary, Fourteen Mile Creek, and Purpleville Creek. Monitoring projects have been conducted throughout the Ontario range of Redside Dace by the Royal Ontario Museum, the Ontario Ministry of Natural Resources (OMNR), Ontario Streams and several conservation authorities. Redside Dace genetic research has been initiated by the OMNR and Fisheries and Oceans Canada. The Toronto Zoo has led the production and distribution of several awareness and education materials including a brochure, curriculum materials and displays. Research has also been conducted on monitoring protocols, habitat requirements, movements and food availability.

Evaluation of the approaches to recovery set out in this strategy should be largely accomplished through the extensive and intensive monitoring programs. These programs should assess the number of extant occurrences, the extent of occupied range, as well as population and habitat trends at specific sites. Evaluation measures should also be incorporated into the awareness strategy to assess the effectiveness of awareness efforts. This recovery strategy should be reviewed in 5 years to evaluate the progress on stated objectives and to identify additional approaches and changes that may be required.

It is recommended that all reaches currently occupied by Redside Dace, upstream headwaters (natural heritage features and supporting functions supporting the occupied reaches) and historically occupied reaches where there is a high likelihood of rehabilitation be prescribed as habitat within a habitat regulation under the *Endangered Species Act, 2007*. Redside Dace habitat consists of two elements. The first element includes bankfull stream width within the aquatic resource area. The second element of habitat includes the meander belt width of the stream and associated riparian habitat that is a minimum of 30 metres from the meander belt (measured horizontally).