

EXECUTIVE SUMMARY – Recovery Strategy for the Piping Plover (*Charadrius melodus*) in Ontario

Prepared by David Anthony Kirk

The Piping Plover (*Charadrius melodus*) is a small migratory shorebird with a widespread but scattered distribution in North America. It breeds in North America but overwinters in the southern United States, Mexico and some Caribbean Islands. It is listed as endangered under Ontario's *Endangered Species Act, 2007* (ESA), Canada's *Species at Risk Act* and the United States' *Endangered Species Act*. There are two subspecies: *C. m. melodus*, which occurs in the Atlantic region, and *C. m. circumcinctus*, which occurs in the interior of the continent. This recovery strategy focuses on the *circumcinctus* subspecies. Within the *circumcinctus* subspecies there are two populations: one in the Prairies of Canada and Northern Great Plains of the United States (hereafter 'Great Plains population') and the other in the Great Lakes of the United States and Canada (hereafter 'Great Lakes population'). In Canada, the Great Plains population occurs in Alberta, Saskatchewan, Manitoba and northwestern Ontario in the Lake of the Woods. The Great Lakes population occurs in Michigan, Wisconsin, Illinois, and Ontario.

In this recovery strategy, the populations within Ontario are referred to as subpopulations: the Ontario Lake of the Woods (subpopulation of the Great Plains population) and the Ontario Great Lakes (subpopulation of the Great Lakes population). This recovery strategy focuses on these two subpopulations.

The United States Great Lakes nesting population was almost extirpated in the mid-1980s but numbers in the Great Lakes states have since increased due to a combination of management, intensive nesting site protection (including predator control) and some captive rearing of abandoned eggs. As a direct result of these management efforts in Michigan and other states, Piping Plovers have again begun nesting in Ontario. Prior to 2007, when a pair returned to nest at Sauble Beach, Piping Plovers last nested in Ontario on the Great Lakes in 1977. Historically, they nested at 24 locations on all Great Lakes in Ontario with perhaps 70 to 90 pairs. Each year since 2007 small numbers of Piping Plovers have returned to nest in the Ontario Great Lakes; in 2012, four nests were initiated at Wasaga Beach Provincial Park, and two nests at Sauble Beach. The United States and Canadian Lake of the Woods subpopulations have declined steadily since 1991. Sporadic nesting has occurred in the Ontario Lake of the Woods since 1938; although between zero and six adult birds were present, nesting has only ever been confirmed for one or two pairs. Most recently, nesting occurred at Windy Point on the Ontario Lake of the Woods in 2007, 2009 and again in 2010.

Piping Plovers have specific habitat needs for nesting, brood rearing, foraging, staging/migration and wintering. They generally occur on beaches that are more

than 10 m wide, with a shoreline of more than 400 m, with patches of gravel or sand/gravel and sandbars. Specific habitat features used by nesting Piping Plovers differ between the Great Lakes and the Great Plains populations. Great Lakes Piping Plovers nest on sand and cobble beaches with freshwater dune formations, whereas Great Plains Piping Plovers in Alberta, Saskatchewan and Manitoba are associated with reservoirs, lakes and rivers. The Ontario Lake of the Woods subpopulation nests in similar habitats to the Ontario Great Lakes subpopulation. Piping Plovers face many threats and the magnitude and relative importance of these threats vary among the Ontario subpopulations. In the Ontario Great Lakes subpopulation, the most important threats are predation, human disturbance, and habitat loss or degradation. In the Ontario Lake of the Woods subpopulation, predation and storm events that result in storm surges and flooding appear to be the main threats.

The overall recovery goal is to protect Piping Plovers at nesting locations, encourage the expansion of the current breeding population in Ontario, and ensure its persistence as part of the Great Lakes and Great Plains subpopulations. It is recommended that a population and distribution objective (including recovery targets) be set within the next three years based on: (1) the suitability of available (including historical) sites in Ontario determined from a habitat suitability model, (2) the area requirements of Piping Plovers and (3) population predictions based on a population model for the Great Lakes and Great Plains populations in the United States and Canada.

The recovery objectives identified in this recovery strategy are to:

- protect all nesting pairs and their habitat at existing sites: implement actions to address threats to territory establishment and/or nesting at occupied sites within Ontario;
- plan for the potential of greater numbers: identify potential nesting sites and establish Ontario population targets;
- promote conservation and stewardship of beach and dune ecosystems, including their overall biodiversity and associated species at risk in Ontario;
- increase knowledge of Piping Plover demography/population dynamics, habitat requirements and threats;
- foster stewardship and public outreach/education about Piping Plovers at occupied sites as well as communication within the province; and
- continue to coordinate/share information in existing databases for the Piping Plover with government and non-government conservation agencies, as required, for the Great Lakes and Lake of the Woods subpopulations.

The area to be defined in a regulation as habitat for Piping Plovers should take into account the area of beach used by Piping Plovers, the dynamic nature of beach-dune ecosystems, and the semi-colonial behaviour of nesting pairs. It is recommended that a habitat regulation include: (1) all sites occupied by nesting

Piping Plovers within the last 10 years and 10 years following occupation and (2) a one-kilometre length of continuous beach habitat (generally centred around the nest site) to provide the requisites for life processes. The width of this continuous beach habitat would extend from the water's edge to the upper or inland edge of open beach or open dune plant communities or the beginning of anthropogenic features. In instances where Piping Plovers nest in anthropogenic features, the area around the nest should be protected for one year (the season occupied), in addition to a one-kilometre strip of continuous beach habitat as defined above, where applicable.