



Featured Species Habitat Management Guidance for Piping Plover

Latin Name: *Charadrius melodus*

Scope: Statewide

Rationale - *why we value the species and the problem for the species:*

The piping plover (PIPL) is a state and federally endangered migratory shorebird, is listed as a SGCN (Eagle et al. 2005; Michigan DNR 2015), and is an Upper Mississippi River and Great Lakes Region Joint Venture Shorebird Habitat Conservation Strategy Focal Species (Potter et al. 2007). The Great lakes population breeds primarily in Michigan. It has declined from a high of several hundred breeding pairs in the late 1800's to a low of 10-14 by 1985. Currently, the Great Lakes population has over 70 breeding pairs and includes nest sites in Wisconsin and Ontario. However, the current size of the Great Lakes population still makes it extremely vulnerable to chance demographic and environmental events that could extirpate the species from the region. Protection of breeding pairs and nest sites from human disturbance and shoreline development is pivotal to successful production and eventual recovery.

Habitat Need - *the cause & effect relationship between habitat and species and its primary limiting habitat need:*

Throughout its range, PIPL selects open, sparsely vegetated sandy coastal habitats for nesting, rearing young, and foraging. Nest sites along Lake Michigan occur on sand spits or sand beaches sparsely vegetated with marram grass, bearberry, sand cherry, and willow; however, there is generally no vegetation within 16 feet (5 meters) of the nest (Matteson et al. 2007). Beach width may be an important factor in nest site selection. Several studies in Michigan report mean beach widths > 98 feet (30 meters) (USFWS 2003; Matteson et al. 2007). The Recovery Plan for the Great Lakes Piping Plover (2003) defines potential breeding habitat as areas with beach width > 23 feet (7 meters); shoreline length > 0.25 miles (0.4 kilometers); dune area > 4.82 acres (1.95 hectares); patches of > 0% cobble or debris; and areas of beach with up to 50% vegetation cover.

Habitat Objectives - *the treatment or management to address the primary limiting habitat need:*

At known breeding sites, work with partners to: 1) limit human activity near nests; 2) construct predator exclosures around nests; 3) and control avian and mammalian predators as needed. In other critical habitat, support land acquisitions and conservation easements. 4) Public education and awareness is important in avoiding disturbance to nesting birds.

Priority Geographic Areas – *the specific geographic areas where we should focus management for the species:*

The Federally designated critical habitat (USFWS 2015a & b) along Great Lakes coastal areas in 19 counties (Alger, Alpena, Benzie, Berrien, Charlevoix, Cheboygan, Chippewa, Delta, Emmet, Iosco, Leelanau, Luce, Mackinac, Manistee, Mason, Muskegon, Oceana, Presque Isle, and Schoolcraft); and 2 counties with confirmed observations by Michigan Natural Features Inventory (Bay and Huron).

Priority Landscapes – *the landscape, setting, or cover-type where we should focus management within the areas above:*

Beach and dune ecosystems within priority geographic areas.

Population Goal - *the goal for the species, its habitat, or a stakeholder's actions:*

A population of at least 150 breeding pairs, for at least 5 consecutive years, with at least 100 pairs in Michigan and 50 pairs in other Great Lakes states.

Evaluation Method - *the monitoring method to measure progress towards the goal above:*

As of 2010, the Great Lake's populations and habitat is monitored annually under a State of Michigan contract with the University of Minnesota.

Incidental Species – *other species which may benefit from management for this species:*

None identified.

References - citation for documents referenced in this guidance

- Eagle, A.C., E.M. Hay-Chmielewski, K.T. Cleveland, A.L. Derosier, M.E. Herbert, and R.A. Rustem, editors. 2005. Michigan's Wildlife Action Plan. Michigan Department of Natural Resources. Lansing, Michigan. 1592 pp.
- Matteson, S.W., J. Van Stappen, P. Burkman, and T. Doolittle. 2007. Piping Plovers breeding in Wisconsin, 1891-2006. Passenger Pigeon 69(1): 47-80.
- Michigan Department of Natural Resources (DNR). 2015. Michigan Department of Natural Resources (DNR) online list of Frequently Asked Questions on the 2009 Revision of the State Endangered Species List. <http://www.michigan.gov/dnr/0,1607,7-153-10370_12141-213610--,00.html>. Accessed 9 Sept. 2015.
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- U.S. Fish and Wildlife Service (USFWS). 2015a. USFWS Environmental Conservation Online System entry for "Piping Plover (*Charadrius melodus*)" <<http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B079>>. Accessed 9 September 2015.
- U.S. Fish and Wildlife Service (USFWS). 2015b. US Counties within Michigan in which the Piping Plover, Great Lakes watershed is known to or believed to occur (a list of 19 counties). <<http://ecos.fws.gov/speciesProfile/profile/countiesByState?entityId=130&state=Michigan>>. Accessed 9 September 2015.