



Winged Pigweed Invades Piping Plover Habitat

Importance

The Great Lakes piping plover is an endangered species that nests in Michigan and also in Wisconsin, here at the park on Long Island. This location was designated critical habitat in 2001 by the U.S. Fish & Wildlife Service. Degradation and loss of habitat, as well as nest disturbance and predation contributed to their rare status. The birds nest on wide, low beaches away from forests that can hide predators. Microhabitat conditions include the presence of small stones used to line nests. On Long Island, beach grass stabilizes low dunes and at times plovers nest in the transition between this zone and the beach.

In September of 2011, an exotic species seasonal funded by the Great Lakes Restoration Initiative discovered winged pigweed (*Cycloloma atriplicifolium*) in both open beach and beach grass habitat on Long Island. Also known as a species of tumbleweed, pigweed is native to the west but considered adventive (not native or well established) east of the Mississippi River. It is particularly invasive in disturbed, open, arid, or windy habitats, all of which describe Long Island. The plants form large round bushes that break off at the base and roll across the landscape releasing seeds as they move.



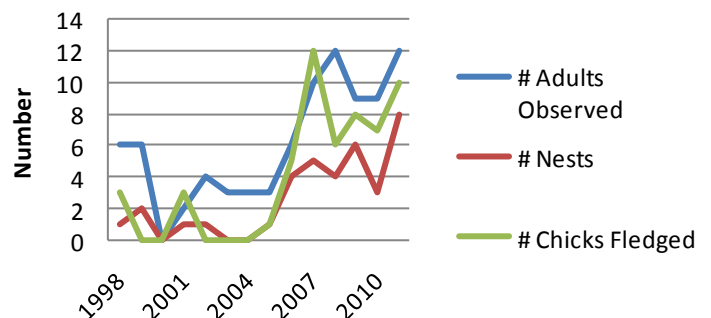
Adult piping plover with chicks. NPS photo

Status and Trends

The recovery goal for the Great Lakes population of plovers includes 150 pairs for at least 5 consecutive years in Michigan, and 50 breeding pairs among other Great Lakes states. Apostle Islands National Lakeshore is the only location consistently contributing to the latter. Trends for the number of adults, nests, and fledged chicks on Long Island indicate increased habitat use, especially since 2006 (graph). The highest number (12) of adults occurred in 2008 and in 2011. The highest number of chicks (12) fledged in 2007 and in 2011, the second highest number (9) survived the summer.

In October 2011, park staff surveyed most of Long Island for winged pigweed and identified approximately 3,000 bushes. Unfortunately, each bush averages 27,000 seeds indicating the potential for significant increase and encroachment into plover habitat in the future.

Trends for Piping Plover Adults, Nests, and Chicks



Management Implications

This is a unique situation because winged pigweed is directly competing for nesting habitat with an endangered bird species. It is also impacting beach grass that is important for dune stabilization. Plans for 2012 include monitoring to determine the impacts to beach grass, along with hand pulling of pigweed.

The presence of this tumbleweed on Long Island requires active monitoring not only on this island but also on other sandy beaches throughout the park. We already search for exotics in sensitive sandspits as part of our efforts to maintain healthy habitats, and plans now include searching for this species as well. In addition, we plan to work with the Great Lakes Exotic Plant Management Team and other partners to minimize the impacts of winged pigweed to the piping plovers that nest in the park.



Winged pigweed on Long Island.
Photo by Daniel McConnell.