

Piping Plover

(Charadrius melodus)

Protecting one of New Jersey's Threatened Shorebirds

Piping plover "broken wing" display

Introduction

The piping plover was listed as a protected species under the federal Endangered Species Act in 1986. Along the Atlantic Coast the species is designated as threatened, which means that the population will continue to decline if it is not protected. The piping plover has been State-listed as endangered in New Jersey since 1984.

The Atlantic Coast population breeds on coastal beaches from Newfoundland and southeastern Quebec to North Carolina and primarily overwinters from North Carolina to Florida. In New Jersey, piping plovers nest on the coastlines of Monmouth, Ocean, Atlantic, and Cape May counties.

Description

Piping plovers are small, sandy-colored territorial shorebirds, approximately 7 inches in length. The bird's name was derived from its call, which resembles plaintive bell-like whistles that are often heard before the birds are seen. Breeding adults have orange legs, a black ring around the base of the neck and across the forehead, and an orange bill with a black tip. The female's neck band is often incomplete and is usually thinner than the male's neck band. In winter, the black band completely disappears, and adults and juveniles look similar, with pale yellow legs and a solid black bill. Chicks have speckled gray, buff, and brown down feathers, black beaks, orange legs, and a white collar around the neck.

Habitat and Ecology

Piping plovers inhabit New Jersey beaches between March and August, arriving at their breeding grounds in late March through early April. After choosing mates and establishing territories, piping plovers scrape depressions in the sand to form a nest and lay their eggs. The birds nest above the high tide line, usually on sandy ocean beaches and barrier islands, but also on gently sloping foredunes, blowout areas behind primary dunes, washover areas cut into or between dunes, the ends of sandspits, and deposits of suitable dredged or pumped sand. The nests are frequently lined with shell fragments and often located near small clumps of vegetation. Plovers will lay their eggs (up to 4) from mid-April through late June or early July and may renest more than once during the season if earlier clutches are lost. The eggs are well camouflaged and blend extremely well with their surroundings. Both the male and female will incubate the nest for about 30 days. After the eggs hatch, the chicks may be present on the beaches with their parents until the end of August when they are ready to fly.

Piping plover adults and chicks feed on marine macroinvertebrates such as worms, fly larvae, beetles, and crustaceans. Feeding areas include the intertidal zone of ocean beaches, ocean washover areas, mudflats, sandflats, wrack lines (organic ocean material left by high tide), and the shorelines of coastal ponds, lagoons, and salt marshes.



Piping plover adult



Piping plover chick

Photos: Gene Nieminen / USFWS

Threats

- Habitat loss from commercial, residential, and recreational development
- Human disturbance
- Pets (e.g., unleashed domesticated dogs and cats)
- Predation (e.g., foxes, rats, raccoons, skunks, gulls, feral dogs and cats)
- Flooding from coastal storms
- Oil spills and other contaminants

Habitat loss results from development as well as from beach stabilization, beach nourishment, and other physical alterations to the beach ecosystem. Commercial, residential, and recreational development reduce the amount of suitable habitat available for nesting and feeding. Structures such as seawalls, jetties, groins, and bulkheads promote stabilization of the beach and rapidly promote natural succession, decreasing the sandy, sparsely vegetated habitat required for nesting. Predation on chicks and eggs is intensified by development because predators such as foxes (*Vulpes vulpes*), rats (*Rattus norvegicus*), raccoons (*Procyon lotor*) and gulls (*Larus* sp.), thrive in developed areas and are attracted to beaches by food scraps and trash.

Human disturbance of nesting birds includes foot traffic, sunbathing, kite flying, pets, fireworks displays, beach raking, construction, and vehicle use. These disturbances can result in crushing of eggs, failure of eggs to hatch, and death of chicks. Excessive disturbance may cause the parents to desert the nest, exposing eggs or chicks to the summer sun and predators. Piping plovers are vulnerable to domestic animals before and after the eggs hatch. Adult plovers will stagger and act as if they have a broken wing to distract predators from their nest or chicks. Flightless chicks are simply no match for an agile cat or dog that instinctively sees a chick as something to hunt or chase. Camouflaged chicks can also become trapped in tire ruts and be run over by recreational or municipal vehicles.

Protecting Piping Plovers in New Jersey

In a collaborative effort the U.S. Fish and Wildlife Service (Service), the New Jersey Department of Environmental Protection (NJDEP), the National Park Service, the U.S. Army Corps of Engineers, municipal managers, and other federal, State, and private landowners work together to protect piping plovers that breed on New Jersey's beaches. Protection and management for the species involves a wide range of strategies including protective symbolic fencing, nest enclosures to deter predators, restrictions on off-road vehicles and recreational usage in nesting areas, and development of site-specific management plans. The Endangered Species Act provides penalties for taking, harassing, or harming the piping plover and affords some protection to its habitat.

The Service's New Jersey Field Office is promoting its "Coastal Beach Management Initiative," to develop site-specific Beach Management Plans in cooperation with local beach managers and the NJDEP to manage and protect the piping plover and other beach species. The goal of a Beach Management Plan is to provide for long-term protection and recovery of threatened and endangered species while recognizing local needs for storm protection, recreation, and public works. Beach Management Plans outline the roles and responsibilities of local beach managers, the NJDEP, and the Service.

How You Can Help

- Respect fencing and signs on the beach for the protection of threatened and endangered species.
- Avoid off-road recreational vehicle use on beaches.
- Do not approach or loiter near piping plovers or their nests.
- Do not leave trash on the beaches; it attracts predators!
- Keep your pets off the beach during the piping plover nesting season and other times of the year, according to your municipality's dog and/or cat ordinance.
- Do not feed feral cats, gulls, or foxes.
- Encourage your municipality to protect federally and State-listed threatened and endangered species such as the piping plover. As a first step, municipalities should develop a Beach Management Plan with the help of the U.S. Fish and Wildlife Service and the New Jersey Department of Environmental Protection.



Piping plover chick



Predator enclosure to protect nest

Piping plover nest

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