



Piping Plover (*Charadrius melodus*)



Piping Plover and chick (photo by

mollusks, and other invertebrates (Bent 1928), which are plucked from the sand. Chicks begin feeding on smaller sizes of these same foods shortly after they hatch.

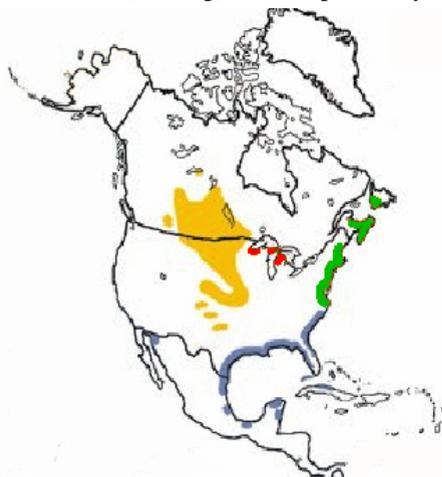
Habitat: Piping plovers nest along the sandy beaches of the Atlantic Coast, the gravelly shorelines of the Great Lakes, and on river sandbars and alkali wetlands throughout the Great Plains region. They prefer to nest in sparsely vegetated areas that are slightly raised in elevation (like a beach berm). Piping plover breeding territories generally include a feeding area; such as a dune pond or slough, or near the lakeshore or ocean edge. These birds are primarily coastal during the winter, preferring areas with expansive sand or mudflats (feeding) in close proximity to a sandy beach (roosting).

Status: [Endangered](#) and Threatened (With designated Critical Habitat)

Description: The piping plover is a small, stocky shorebird with sandy-colored plumage on its back and crown and a white underside. The adults weigh 1.5 to 2 ounces, have a length of 7 inches with a wingspread of 15 inches. Both sexes are similar in size and color; upper parts are pale brownish, underparts are white. A black band across the forehead over the eye, and a black ring around the base of the neck are distinguishing marks in adults during the summer, but are obscure during the winter.

The bird's call is a plaintive "peep-lo" whistle. Like other plovers, it runs in short starts and stops. The piping plover eats worms, fly larvae, beetles, crustaceans,

Distribution and Range: The piping plover breeds on the northern Great Plains, in the Great Lakes, and along the Atlantic coast (Newfoundland to North Carolina); and winters on the Atlantic and Gulf of Mexico coasts from North Carolina to Mexico, and in the Bahamas West Indies. Breeding birds on the North Carolina coast are mostly found from the vicinity of Cape Lookout northward.



- Northern Great Plains Population
- Atlantic Coast Populations
- Great Lakes Populations
- Wintering Range (All Populations)

Map Date 2003

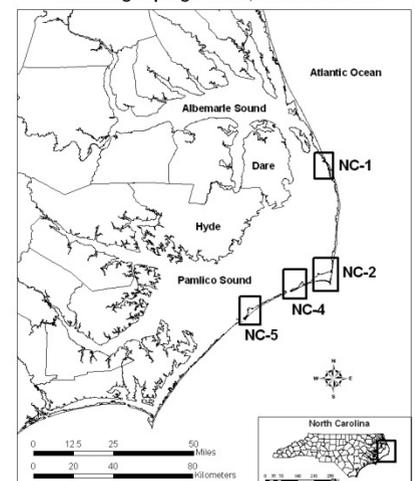
Listing: The piping plover became a protected species under the Endangered Species Act on January 10, 1986. Along the Atlantic Coast it is designated as threatened, which means that the populations would continue to decline if not protected. The Endangered Species Act provides penalties for taking, harassing or harming the piping plover and affords some protections to its habitat.

Other rare species that inhabit the beach ecosystem, including the Federally endangered roseate tern, the threatened northeastern beach tiger beetle, the threatened seabeach amaranth, the least tern, the common tern, the black skimmer, and the Wilson's plover may benefit from piping plover protection efforts.

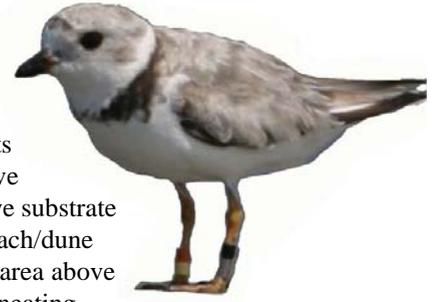
Critical Habitat: Critical habitat is defined under the Endangered Species Act as the specific areas within the geographical area occupied by a species which have physical or biological features essential to the conservation of the species and that may require special management considerations or protection, or specific areas outside the geographical areas occupied by a species but for which those area are essential for the conservation of the species.

Critical Habitat is currently being proposed for the wintering Piping Plover in North Carolina. There are approximately 2,043 acres of critical habitat being proposed for the wintering population of the piping plover in coastal areas of Dare and Hyde counties in North Carolina. The Service has amended and designated four units (NC-1 Oregon Inlet, NC-2 Cape Hatteras Point, NC-4 Hatteras Inlet, and NC-5 Ocracoke Island) as critical habitat for the wintering population of the piping plover. All areas proposed as critical habitat are federally or state -owned and managed by the National Park Service (NPS), the Service, or the State of North Carolina.

Index Map: Proposed Critical Habitat for Wintering Piping Plover, North Carolina



Primary constituent elements are physical and biological features of the designated critical habitat essential to the conservation of the species. The constituent elements for the wintering piping plover habitat include sand and/or mud flats with no or very sparse emergent vegetation. In some cases, these flats may be covered or partially covered by a mat of blue-green algae. Adjacent unvegetated or sparsely vegetated sand, mud, or algal flats above high tide are also essential, especially for roosting piping plovers. Such sites may have debris, detritus (decaying organic matter), or micro-topographic relief (less than 50 cm above substrate surface) offering refuge from high winds and cold weather. Essential components of the beach/dune ecosystem include surf-cast algae for feeding of prey, sparsely vegetated backbeach (beach area above mean high tide seaward of the dune line, or in cases where no dunes exist, seaward of a delineating feature such as a vegetation line, structure, or road) for roosting and refuge during storms, spits (a small point of land, especially sand, running into water) for feeding and roosting, salterns (bare sand flats in the center of mangrove ecosystems that are found above mean high water and are only irregularly flushed with sea water) and washover areas for feeding and roosting. Washover areas are broad, unvegetated zones with little or no topographic relief that are formed and maintained by the action of hurricanes, storm surge, or other extreme wave action. Several of these components (sparse vegetation, little or no topographic relief) are mimicked in artificial habitat types used less commonly by piping plovers, but that are considered critical habitat (e.g., dredge spoil sites).



Threats: The primary threats to the piping plover are habitat modification and destruction, and human disturbance to nesting adults and flightless chicks. Recreational and commercial development and dune stabilization have contributed greatly to the loss of piping plover breeding habitat along the Atlantic Coast and Great Lakes. In the Great Plains region, damming and channelization of rivers also have eliminated sandbar nesting habitat. Wintering habitat has probably also been lost to coastal development, and inlet and shoreline stabilization features.

Recreational pressure, and pedestrian and vehicular traffic can seriously affect breeding success. Over the past 40 years, the number of vehicles and people on beaches has increased significantly. Human presence can indirectly lower productivity by disrupting territorial establishment, courtship, egg laying, and incubation activities. Foot traffic, dune buggies, and other vehicles (including raking of beaches for trash) can directly crush eggs or chicks and the ruts left by off-road vehicles can trap flightless chicks.

Management and Protection:

State, federal, and private organizations are collaborating to monitor Piping Plover populations and assess current and potential habitat on breeding and wintering grounds. Research concerning reproductive success, food habits, habitat selection, and limiting factors is underway. The results of these studies will help biologists develop management plans designed to benefit Piping Plovers. Protective measures, such as signs or fences, are being implemented to reduce human disturbance to breeding birds. Vegetation management, predator control, pollution abatement, and habitat creation/restoration are management strategies being used to benefit Piping Plover populations. Biologists continue to assess habitat availability and quality throughout the plover's range in Texas, and identify essential habitat for management and protection. Finally, public information campaigns concerning Piping Plover conservation are a vital part of the recovery process.

Why Protect the Piping Plover: Extinction is a natural process. Normally, new species develop through a process known as speciation at about the same rate they go extinct. However, because of air and water pollution, over-hunting, extensive deforestation, the loss of wetlands, and other human-impacts, extinctions are now occurring at a rate that far exceeds speciation. These actions are reducing the biodiversity on Earth. The reduction of biodiversity reduces the ecological integrity of our environment. All living organisms perform a function in our environment and are dependent on the functions of other organisms. In turn, there is interconnectedness among species including us in the environment. The Piping Plover is a bellwether species. It is an indicator of the health of a complex ecosystem. The loss of the piping plover along the North Carolina Coast may be an early warning sign of environmental damage and ecosystem change.

What You Can Do to Help Protect the piping plover:

- Respect all areas fenced or posted for protection of wildlife.
- Do not approach or linger near piping plovers or their nests
- If pets are permitted on beaches used by plovers, keep your pets leashed.
- Do not leave or bury trash or scraps of food on beaches -- food attracts plover predators.

For additional information regarding this Web page, contact [David Rabon](#) in Raleigh, NC, at David_Rabon@fws.gov

