

## **Piping Plover** (*Charadrius melodus*)

In 1986, U.S. Fish and Wildlife designated the Piping Plover (*Charadrius melodus*) as threatened. This meant that without care, the already critically small population would continue to decline, facing possible extinction. Coastal development and beach recreation are generally cited as the causes for the decline which began in the mid-1940. Since the designation however, the NJ Division of Fish and Wildlife, the New York State Department of Environmental Conservation and many other state, federal, and private agencies and groups dedicated considerable resources to manage, protect, and better understand this species. These efforts have helped the tiny population double over the last 20 years. The most recent surveys estimate the Atlantic Coast population at about 2000 pairs.



In spring and summer, the ocean beaches of the Harbor Estuary, including Long Island's South Shore, Jamaica Bay and Sandy Hook, NJ are potential courting, nesting and feeding grounds for the region's plover population. Peak recreational use of these areas unfortunately coincides with the Piping Plover's activities, conflicting with the shorebird's success in reproduction.

The Piping Plover (*Charadrius melodus*) is a robin-sized shorebird bearing a resemblance to a sandpiper. It has sand-colored plumage on top with white below. An adult plover will, on average, weigh 1.5 to 2 ounces with a body length of 6-7 ½ inches and a wingspan of 15 inches. Both the male and female are similar in size and color. The plover runs in short bursts on yellow-orange legs. Its bill is yellow with a black tip in summer and all black in winter. A black bar across the forehead and a black neckband (complete or incomplete) distinguishes adults during the summer months, but these marks fade by winter. The bird is often identified by its call, a "peep-lo" whistle.

Atlantic Coast Piping Plovers nest directly on the upper portion of dry sandy beaches, in sandy overwash areas, on replenished beaches filled with dredged sand or in sparsely vegetated dunes. They lay clutches of three to four cream or sand colored eggs spotted with brown, purple or black specs from mid-April to June. This camouflages the eggs from predators including dogs, cats, foxes, raccoons, skunks, crows and gulls. The eggs are placed in shallow indentations in the sand made by the plovers during courtship. These nests are sometimes lined with pebbles and/or shells and are located well above the high tide mark. Piping Plovers will often re-nest if the first brood of chicks fails. As a result, small, vulnerable chicks can still be present on the Harbor Estuary's beaches until mid-August. Incubation is done by both parents and lasts about 27 days. The young fly about 30-35 days after hatching. Research has shown that many plovers return to the same nesting area each year and may even retain the same mate year after year.

Diet consists principally of invertebrates such as marine worms, fly and other insect larvae, beetles, small crustaceans, mollusks and other small marine animals and their eggs. Food is obtained by foraging on the intertidal portions of ocean beaches including overwash areas and tidal wrack lines, in sparsely vegetated dunes, on mud and sand flats, or on the shorelines of coastal ponds, lagoons or salt marshes. The plover searches for its prey visually, running rapidly, stopping and starting and quickly pecking at or snatching prey.

Common in the 1800's, the Piping Plover was nearly driven to extinction in the early 1900's due to excessive hunting for meat, sport and the millinery or hat-making trade. The Migratory Bird Act of 1918 allowed the bird to recover, with the population peaking in the 1940's. Following that peak, populations steadily declined, largely attributed to increased coastal development and recreational use of beaches following World War II. By 1986 only 550 Piping Plover pairs nested along the U.S. Atlantic Coast from Maine to North Carolina.

The primary threats to Piping Plovers are habitat modification and destruction (coastal development), unpreventable natural events such as storm tides, predation (by raccoons, skunks, foxes and especially dangerous for chicks and eggs, feral and domestic cats), human disturbance from recreational activities on beaches (foot and vehicular traffic, fireworks, dog walking) that impact nesting adults and flightless chicks. In and around the Harbor Estuary, the Piping Plover population is more than likely most affected by the reduction in their preferred coastal habitat through residential and commercial development followed by recreational uses of beaches and shorelines.

When disturbed, adult birds walk or fly away from their nests; they can also pretend to be injured or have a "broken wing" to attract would-be predators away from chicks. Excessive disturbance can cause parents to interrupt feeding of chicks or, worse yet, desert the nest.

Each year, numerous state, local federal and non-profit agencies collect data throughout the Piping Plover's Atlantic Coast nesting range. This data is compiled into an annual status report by the Northeast Region of the U.S. Fish and Wildlife Service.



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