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# Jersey a Way Station for Migratory Birds

*By Kathleen E. Clark*



New Jersey lands are critical links in the migratory journeys of raptors like the red-tailed hawk.

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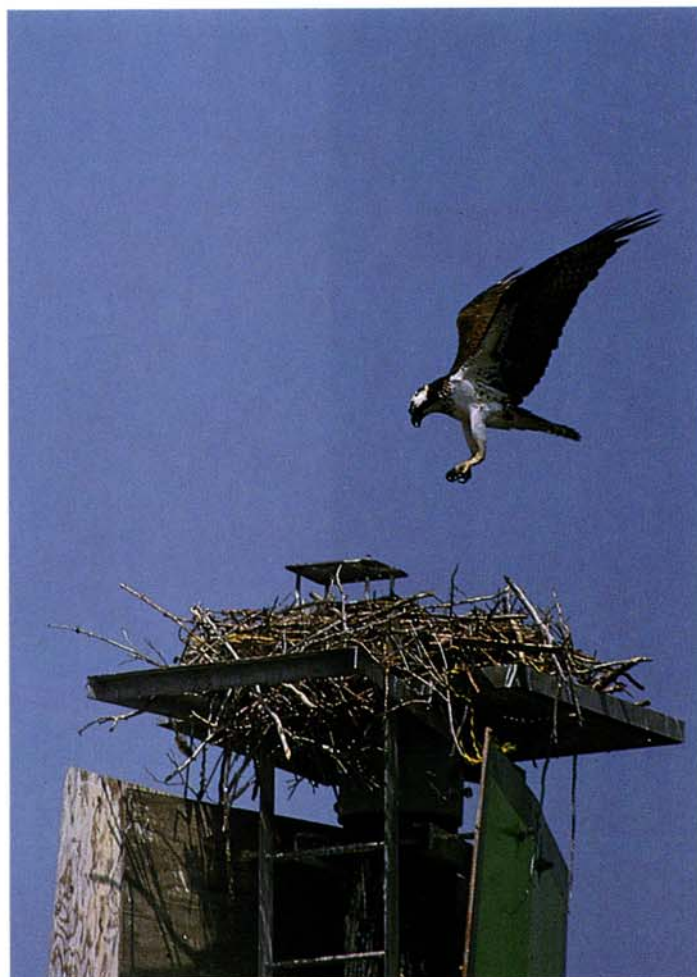
An osprey on its nest  
at a marker in  
Barnegat Bay

An osprey coming in  
for a landing

New Jersey may be one of the smallest states in the country, but its strategic location makes it a critical habitat for many migratory birds. It includes a large chunk — greater than 100 miles — of the Atlantic coast, a superhighway for many migrant species. It also lies between northern harsh-winter states and southern mild-winter states, making it the first stop for birds on a short migratory journey. New Jersey has a diverse habitat ranging from majestic mountains to the Pinelands. Because of the state's unique ecological position, the preservation of open space plays a major role in protecting birds.

The shore birds that migrate through coastal New Jersey are a prime example. By nature, shore birds are residents of the coastal environment; they use beaches, marshes and shallow-water mud flats. They rely on these habitats when they are breeding in the arctic tundra in June or are wintering in South America. But in between the wintering and breeding territories lie 8,000 to 10,000 kilometers of land and water the shore birds must migrate across. To survive this journey and reach the arctic in good condition to mate, they must find food resources of exceptional quality and quantity. In early spring as they reach New Jersey, this might seem like a tall order. On Delaware Bay, however, they find one of the most unusual food abundances: the eggs of more than one million horseshoe crabs using the beaches to spawn.

The public lands along Delaware Bay and the Atlantic coast are critical in maintaining the birds' trans-hemispheric lifestyle. It is this beach-greenway corridor that they rely on





to survive the most hazardous portion of their lives — migration. Biologists from the state Endangered and Nongame Species Program have observed as many as 350,000 shore birds in one two-hour survey of the bay. There are six primary species: the red knot, ruddy turnstone, semipalmated sandpiper, sanderling, dunlin and short-billed dowitcher. Although they can be seen in greatest numbers on the Delaware bay beaches, these birds extensively use the marshes of the Atlantic and Bay coasts. Program biologists have found shore birds using these marshes at high tide for feeding and resting. By mid-June, the crowd on the beaches and marshes is reduced to stragglers heading north, leaving hungry laughing gulls and glossy ibis to feed. By that time, the shore birds are in the arctic, beginning to nest and using energy reserves they accumulated here.

New Jersey hosts another large group of migrants, this time in the fall. Each year tens of thousands of raptors (hawks), songbirds and woodcock funnel along the Atlantic coast and concentrate on the Cape May peninsula. The

raptor migration is estimated to be the largest and most diverse in the country. Raptors from the Northeast and Canada move south in the fall, hurried along by dominant northwest winds. These winds, and perhaps the birds' inexperience with migration, lead them to the Atlantic coast where they must avoid being blown out over the ocean. These birds, including endangered bald eagles, peregrine falcons, ospreys, and red-tailed and broad-winged hawks, funnel down Cape May peninsula to Cape May. There they encounter Delaware Bay, and many pause there apparently waiting for wind conditions that will favor a successful crossing. Many choose to avoid the crossing and fly up the Delaware Bay coast to a safer and sheltered crossing. Biologists have observed major flights of these birds moving north along Delaware Bay, following the edge of forest and marsh. They hunt and rest in the forests of the Dennis Creek Wildlife Management Area, Belleplain State Forest, Heislerville and Egg Island before they finally cross Delaware Bay, continuing to their destinations in the southeast United States and Central and South

Ruddy turnstones and other migratory shore birds rely on public lands along Delaware Bay and the Atlantic Coast.





Americas. These lands, remnants of a once wilder southern New Jersey, are critical links in the migratory chain extending across the eastern United States into South America.

Not only raptors concentrate on the coastal areas of New Jersey. Each year, thousands of songbirds, or passerines, fly through New Jersey and along the Atlantic coast. These include more than 200 species, such as warblers and sparrows. On some autumn days, songbirds can be found in almost every available piece of habitat along the coast, especially near Cape May Point. They, like raptors, fly to places where they can spend the winter, but for these birds, especially a group known as the neotropicals, the flight will lead them to Central and South America. Songbirds are less visible than raptors and generally migrate at night, so biologists know little about their routes of travel and in-route habitat needs.

However, given their small body size and high metabolism, it is known that they lose body fat quickly if forced to make long flights without suitable resting areas. They rely on fall

Peregrine falcons migrate through New Jersey in the fall.



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foods of fruiting shrubs, the seed of weeds and grasses, and the supply of late summer and fall insects. Because New Jersey has so much undisturbed wild land along its coast, the state is important to many species during migration.

Many of these songbirds are recognized by experts throughout the Western Hemisphere as seriously threatened, but no one is

quite sure why. Some believe they declined because of the severe loss of breeding habitat, which for many is large areas of forest. Others believe they declined because of losses of wintering habitat. The importance of migratory habitat has not been recognized until very recently. This year, the Endangered and Nongame Species Program, the Division of Parks and Forestry's Office of Natural Lands Management, New Jersey Audubon and counterparts in four other states will cooperate in a study to determine which habitats are important for neotropical migrants.

Important migration routes have been traced along New Jersey's coast. Notable among the barrier islands is Island Beach State Park, where banding studies have confirmed its importance to migrant birds. Songbird banders open their

## Major Migratory Corridors



Each spring, the Delaware Bay hosts the second-largest concentration of shore birds in the Western Hemisphere. Green Acres is involved in a continuing effort to acquire land along the beach, and has purchased many acres of land in each of New Jersey's major migratory bird corridors. These corridors and the Green Acres lands are:

**Kittatinny Ridge:** Stokes State Forest, Worthington State Park, and the Hainesville, Flatbrook and Columbia Lake wildlife management areas.

**Central Highlands:** Wawayanda, Ringwood and Allamuchy state parks, and Hamburg Mountain Wildlife Management Area.

**Atlantic Coast Corridor:** Allaire, Cheesequake and Island Beach state parks, Cape May Wetlands, and the Great Bay Boulevard, Beaver Swamp, Manasquan River and Marmora wildlife management areas.

**Delaware River and Bayshore:** The Higbee Beach, Heislerville, Edward G. Bevan, Fortescue, Mad Horse Creek, Logan Pond, Baldwin Lake and Dennis Creek wildlife management areas, and Cape May Point and Washington Crossing state parks.

nets each year at the Island Beach State Park Research Area, Cape May Point State Park and the Higbee Beach Wildlife Management Area, where they document the flight path of thousands of the tiny migrants.

These birds continue to the Cape May region where, like raptors, they apparently congregate before the water crossing. They use Higbee Beach and surrounding lands for much-needed feeding and resting, finding refuge in fields, forests and even wetlands dominated by *Phragmites* (common reeds). Cover is critical in an area where raptors specializing in songbird consumption also concentrate. Impressive morning flights of warblers have been noted in Cape May, signaling their dispersal into surrounding suitable habitats for the day's food and rest.

It is observations like these, plus banding and long-term studies, that help make us aware of the needs of birds passing through our state on their international travels. The preservation of New Jersey's open space has played a pivotal role in preserving migratory routes they have developed over evolutionary time. 🐾

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