Delaware Bay Estuary Project

Monitoring shorebirds of Delaware Bay and conserving and restoring their habitat

Delaware Bay is a unique and valuable resource of international importance for migratory birds. DBEP partners on projects that monitor shorebirds and restore and conserve the habitat they rely on throughout the year in Delaware Bay. This work includes a focus on spring migration but also summer nesting habitat for beach-nesting birds.

Sea level rise, storms, alterations to the coast line resulting in loss of sandy beaches and suitable roost sites, reduced food availability, human disturbances, predators, and risk of oil spills all threaten the habitat value of beaches along Delaware Bay to shorebirds. We support efforts to understand and mitigate these threats to shorebirds through partnerships in conservation, restoration, monitoring, and applied science. We can provide technical assistance, help finding funding, and on-the-ground support.

Delaware Bay hosts the second largest population of migrating shorebirds in North America during the spring. These shorebirds rely on the resources of Delaware Bay to continue their northward migration to the Arctic and to commence nesting. Foraging shorebirds, such as the federally threatened red knot as well as sanderling, semipalmated sandpiper, and ruddy turnstone, rely on the abundant and easily digested eggs of the horseshoe crab. The populations of the horseshoe crab and shorebirds are intricately linked. Changes in the horseshoe crab population and the timing and abundance of their spawning can dramatically influence the success of shorebird migration and breeding. DBEP supports efforts to conserve both the shorebirds and the horseshoe crabs.

The red knot is an example of a long distance migrant wintering as far away as the southern tip of South America and nesting in the Arctic. Some birds migrate 25,000 kilometers or more in a year. Red knots arrive in early to mid-May in Delaware Bay at approximately 100 grams and leave in late May weighing 180 grams. This rapid weight gain is dependent on the birds foraging on the horseshoe crab eggs.

Delaware Bay hosts the largest spawning population of horseshoe crabs in the world. Maintaining and ideally increasing this population is critical for shorebirds. We support restoring or maintaining wide gently sloping sandy beaches for spawning and allowing only carefully regulated harvest informed by science.

DBEP has had a long relationship working with the State of Delaware on the Delaware Shorebird Project to monitor trends in migrating shorebirds that rely on Delaware Bay as a spring stopover site. Data obtained from this monitoring are critical to understand and manage the populations of shorebirds and horseshoe crab.

The beaches of Delaware Bay provide habitat to nesting shorebirds, including the federally threatened piping plover; the Delaware and New Jersey State-listed black skimmer and least tern; and the Delaware State-listed American oystercatcher and common tern. DBEP supports conservation and restoration efforts to help these species and the beach ecosystem.

The Delaware Bay Estuary Project is part of the Coastal Program, a habitat conservation program of the U.S. Fish and Wildlife Service that focuses on conserving the ecological integrity of beaches, bays, estuaries, and coastal watersheds. We work through voluntary partnerships with a variety of public and private entities, such as private landowners, land trusts, municipalities, states, and other federal agencies, to enhance, restore, conserve, study, and monitor habitat for key federal trust wildlife resources in the Delaware River and Delmarva Peninsula ecosystems.

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