



Black-bellied plover



Whimbrel



Dunlin

conserving maine's significant wildlife habitat

SHOREBIRDS

An Incredible Flight Made Possible by Incredible Places

Shorebirds fly thousands of miles as they migrate from their arctic breeding grounds to winter in South America. Along the way, tens of thousands of shorebirds stop on the coast of Maine to feed and rest before continuing out over the Atlantic for a non-stop marathon flight to South America. From coastal mudflats to sandy beaches to rocky shorelines, the abundant food and lack of human disturbance in these staging areas are essential to shorebird survival. Without these areas, there would be no way for shorebirds to complete their amazing migration. These areas in the Gulf of Maine are recognized as the *most* important southward staging areas for shorebirds in eastern North America. In the face of threats such as coastal development, human disturbance, contaminants, and pollution, the designation of Significant Wildlife

Habitat provides a much-needed tool to ensure that our shorebirds will have the irreplaceable habitat that is so essential to their survival.

What is Significant Wildlife Habitat?

Significant Wildlife Habitat is an area protected under Maine's Natural Resources Protection Act. The Department of Inland Fisheries and Wildlife (DIFW) has identified and mapped 158 areas along the coast as Significant Wildlife Habitat for shorebirds. Permits from the Department of Environmental Protection (DEP) are required in these areas for regulated activities, including but not limited to residential and commercial development, road construction, the building of new wharves, and bridge construction. These activities may be allowed in Significant Wildlife Habitat if they are done in a way that minimizes harm to shorebirds and their habitat.



Shorebirds in flight

About Maine's Special Shorebirds

Maine provides important habitat to a unique mix of many different shorebird species, including plovers, sandpipers, turnstones, knots, dowitchers, whimbrels, and phalaropes. In fact, 36 of the 49 shorebird species found in North America use habitat in Maine at some point during the year.

Shorebirds generally have small bodies and relatively long, thin legs. Most blend into their surroundings with mottled gray, brown or black feathers. Varying in size from six to more than 17 inches long, shorebirds also have different types of bills for eating different types of foods. Most travel, feed, and rest in groups that can number from a dozen to several hundred birds.

After a brief breeding season in the high arctic, tens of thousands of shorebirds fly to the Maine coast as early as July and continuing through November. With individuals staying here up to three weeks, the birds need *feeding areas* where they eat invertebrates (soft-bodied animals including marine worms, insects and snails) to build up their fat reserves. They also need *roosting areas*—sand or gravel bars, rock islands and ledges, or openings in salt marshes—where they can rest undisturbed, and clean and weatherproof their feathers. *Staging areas* are places that are used for feeding and roosting during migration. Time spent feeding and roosting before their migratory flight south is essential. Without adequate fat reserves they will literally run out of fuel, and plummet to an untimely death, before they reach South America.



Yellowlegs

Some of Maine's incredible shorebird species include:

- **Red knot:** This bird travels a total of 10,000 miles one-way from the Canadian arctic to Tierra del Fuego, Argentina, for the winter.
- **Ruddy turnstone:** This bird gets its name from its habit of turning stones and shells over along the shore as it searches for barnacles, mussels, and periwinkles.
- **Semipalmated sandpiper:** This bird needs to double its body weight in Maine before it migrates south. One of these birds banded in Eastport, Maine, was observed only 48 hours later in Suriname, South America.
- **Greater yellowlegs:** This bird skims for prey from the surface of shallow water, swinging its bill back and forth to catch aquatic invertebrates.
- **Whimbrel:** This bird uses its long bills to probe deep in mud for worms and clams that short-billed birds can't reach.
- **Willet:** One of only eight species nesting in Maine, this bird nests and feeds in salt marsh habitat.

Irreplaceable Habitats at Risk

The amount of shorebird habitat has decreased in recent decades, in part due to increased use of this habitat by people. The impact from human disturbance is of particular importance in Maine, since shorebirds have little time to get the food and rest they need. Every time they fly away from a disturbance, they waste valuable energy and lose time from feeding or resting. Maine's highest quality areas for shorebirds, designated as Significant Wildlife Habitats, have abundant food sources and/or are free from frequent human disturbance. These areas can not be replaced. If they are destroyed or degraded, shorebirds will lose valuable resources. They will not have the same quality of food or rest by simply moving to the next mudflat or beach.



Willet

Designating Significant Wildlife Habitat for shorebirds is an important tool to balance human activities with shorebird conservation. There is not a lot of Significant Wildlife Habitat for shorebirds. Fewer than 25% of the more than 670 areas monitored for shorebird activity have been designated Significant Wildlife Habitat. Protecting habitat for shorebirds in these 158 areas is critical to the survival of the shorebird species that pass through Maine each year.

Why Should We Protect Maine's Shorebird Habitat?



Dowitchers

Shorebird populations are declining. The number of shorebirds in Maine has dropped significantly since the early 1970s, when there were more than a half-million birds. Regional long-term surveys of shorebirds show significant declines in shorebird populations of between 33 and 46 percent.

Protecting shorebird habitat protects marine resource industries. By limiting poorly planned development adjacent to these sensitive shorebird habitats, we protect the health of the mud flats that feed the shorebirds *and* keep Maine's shellfish harvesters and worm diggers employed. Good shorebird protection is good local economic development.

Shorebirds help keep shellfish predators in check.

Hungry flocks of shorebirds eat thousands of marine invertebrates, which helps slow the establishment of marine invasive invertebrate species. Too many of these species can damage Maine's rich clam flats.

Protecting shorebird habitat protects the quality of our coastal areas. Maine's significant shorebird habitats are also significant scenic areas and treasured landscapes that define our coastal character. By encouraging careful development of these shorefront locations, Maine communities protect the natural assets so vital for future prosperity.

Shorebirds are an important source of revenue. A 2006 U.S. Fish and Wildlife Service survey estimates that wildlife-watching in Maine generates over \$1.3 billion in economic impact each year, including more than \$100 million in tax revenue and spending by almost 600,000 bird watchers. The diversity of Maine's shorebirds is an attraction to Maine birders as well as those from away.

Proactive protection of shorebird habitat is cost-effective. Protecting migratory shorebirds now, before they become endangered, is both efficient and cost-effective. Once a species becomes endangered or threatened, regulations become much more restrictive and the cost for management grows. For example, costs for intense management of beach habitat in southern Maine for one state endangered shorebird species, the piping plover, tops \$60,000 each year.



Sanderlings and Ruddy Turnstones

Which Areas Qualify as Significant Wildlife Habitat?

Significant Wildlife Habitat for shorebirds is *rare* - only 158 areas have been identified along the coast and many are extremely small - less than one acre in size. Regulated activities may still be allowed in this habitat, but they require a permit. The permit review process assures that activities are done in a way that minimizes habitat loss and degradation for shorebirds.

Maps of Significant Wildlife Habitat for shorebirds can be found at the DEP website (www.maine.gov/dep, enter "bird habitat" in the search box). You will need to download Google Earth to view the maps (earth.google.com). There is a 250-foot buffer included around all designated roosting areas, and a 100-foot buffer around feeding areas.

What You Can Do:

- If you think your property qualifies as Significant Wildlife Habitat, documentation by a regional biologist from DIFW may be required. Call (207) 287-8000 to request a visit.
- If you are planning to build or conduct other regulated activities in Significant Wildlife Habitat, contact your local DEP office for more information about the permit process so you can efficiently plan your activities and get advice about steps you can take to avoid impacts.
- If you live near Significant Wildlife Habitat, avoid using chemicals where they can run off into the environment. Shorebirds are especially sensitive to chemicals and pollutants.
- If you are working on local land conservation efforts in your town or region, learn more about Significant Wildlife Habitats in your community by looking at SWH maps from the Maine DEP website (www.umaine.gov/dep) or by consulting your town's High Value Plant and Animal Habitat map from Beginning With Habitat (www.beginningwithhabitat.org).
- If you are walking near a flock of shorebirds, keep your distance so they don't take flight. If you have a dog with you, keep it leashed. Many dogs love to chase shorebirds.

For More Information:

Department of Environmental Protection
www.maine.gov/dep, search for "bird habitat"

Bureau of Land and Water Quality (*Augusta*)
(207) 287-3901 or 1-800-452-1942

Southern Maine Regional Office (*Portland*)
(207) 822-6300 or 1-888-769-1036

Eastern Maine Regional Office (*Bangor*)
(207) 941-4570 or 1-888-769-1137

Northern Maine Regional Office (*Presque Isle*)
(207) 764-0477 or 1-888-769-1053

Department of Inland Fisheries and Wildlife
www.mefishwildlife.com

For questions about SWH regulations, please contact the Environmental Coordinator (207) 287-5258

For questions about wildlife and habitats, please contact staff at Beginning with Habitat (207) 287-5254 or visit www.beginningwithhabitat.org

Maine Audubon
(207) 781-2330, www.maineaudubon.org/swh

PHOTOS COURTESY OF RAY SPENCER

MAINE 
AUDUBON



This conservation guide was developed and printed with funding from the Maine Outdoor Heritage Fund Spring 2009