

**FEDERALLY
ENDANGERED**

**STATE
ENDANGERED**

Roseate Tern

(*Sterna dougallii*)



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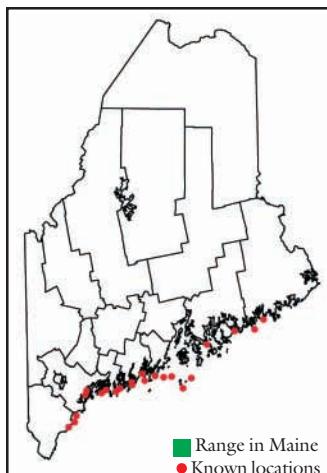
Description

Roseate terns are graceful seabirds (length 15 inches, wingspan 31 inches) with pointed wings and long, forked tails. They are very similar in appearance to arctic and common terns. Roseates are distinguished by their voices, the lack of a black trailing edge on the underwings, and shorter wings. At the beginning of the breeding season their bills are entirely black, but a salmon-red color develops along the basal third as the season progresses. In the breeding season, they have white bellies that can be washed with a rosy tinge (hence their name); light gray bodies; and white rumps and tails. Like other terns, they have black caps and napes, and their legs and feet are bright reddish-orange.

Range and Habitat

Roseate terns nest in temperate and tropical marine habitats throughout the northern hemisphere. The North American subspecies breeds in two distinct groups: the Northeast population,

which breeds from the Magdalen Islands of Quebec south to Long Island in New York, and a population in the Caribbean Sea. Both populations winter in South America from Colombia to Brazil. Roseate terns nest exclusively in marine environments on islands, barrier beaches, and salt marsh islands. Nesting islands are



close to good foraging areas. Of the 3,000 islands off the coast of Maine, at least 150 have been used by nesting terns in the last century. In recent years, only 4-6 islands have been used by roseate terns.

Life History and Ecology

First breeding is generally at 2-4 years old. After roseate terns breed for the first time, they are highly faithful to a nesting island, returning to the same breeding colony year after year. They arrive at breeding islands in Maine in mid-May. Roseates pair with a single mate, but may exchange mates from year to year. After a three-week period of courtship, 1-5 (average 2) eggs are laid in mid-May to mid-June. The nest is a simple scrape in dense vegetation or under rocks or driftwood. Both adults incubate eggs, and chicks hatch in about 23 days. The chicks stay close to the nest site and are fed by the parents for 22-30 days before they fledge.

Roseate terns feed on small fish, and sand lance predominates in the diet in the Northeast. In Maine, white hake, four bearded rockling, herring, and pollock are also taken. Roseates forage by plunging into the water and catching small fish with their bills. They favor fishing over shallow sand shoals and tide rips. During August and early September, large flocks of roseates can be observed at migratory staging areas (inlets, barrier beaches, and islands, usually adjacent to good food sources). The longevity record for a roseate tern is 25 years.

Threats

The primary factors affecting tern populations in Maine are gull predation, habitat loss, human disturbance, and food shortages. Herring and great black-backed gulls arrive on nesting islands earlier

than terns, occupy the best nesting areas, and drive terns away. Tern eggs, chicks, and even adults are taken by gulls. Laughing gulls, which nest in close association with terns, have increased rapidly on some islands, driving terns from prime nesting habitat and taking some eggs and chicks. Habitat on some islands has been lost because of the construction of permanent or seasonal dwellings.

Human disturbance on islands can cause nest and chick abandonment and increase gull predation. Terns feed on the immature forms of many commercial fish like herring and hake. Commercial fisherman may compete with roseate terns for food. Nesting productivity is low in years of poor food availability or adverse weather conditions (rain, fog) that prevent terns from finding food.

Conservation and Management

By 1890, roseate terns in the Northeast were reduced to about 2,000 pairs because of overharvest for the millinery trade (decorating ladies' hats). Although most nesting islands were abandoned during this period, at least four sizable colonies survived. With the passage of migratory bird laws in the early 1900s, roseate numbers rebounded. The Northeast population peaked in the 1930s at about 8,500 pairs. Maine's population was never very large, reaching about 275 pairs in 1931. Since the 1940s, roseate numbers have declined throughout their range because of predation and competition by increasing gull populations. By 1977, only 2,300 pairs remained in the Northeast. This population was listed as endangered in 1987 by the federal government. Maine's population dwindled to 52 pairs in 1987, the year after it was listed as endangered by the state. The roseate tern is also listed as endangered in Canada.

Recovery of Maine's tern populations (arctic, common, and roseate) has required intensive management on a few nesting islands. Ten Maine nesting islands are currently managed for terns. On each of these islands, gulls are removed or controlled, decoys and sound recordings of colonies are used to attract nesting terns, and tern managers live on the islands during the nesting season to deter predators and control human disturbance. Roseate tern numbers have responded well to management, and about 289 pairs nested on four islands in the state in 2001. Most of Maine's breeding population nests at only two or three islands, and the birds have yet to recolonize many of their former nesting areas. Roseate tern nesting islands are designated as Essential Habitats under the Maine Endangered Species Act, Significant Wildlife Habitats under the

Maine Natural Resource Protection Act, or as Protection Fish and Wildlife areas under the Land Use Regulation Commission. Because of Essential Habitat designation, all projects or activities funded and carried out by municipalities and state agencies within $\frac{1}{4}$ mile of roseate tern nesting islands are reviewed by MDIFW.

Recommendations:

- ✓ Protect seabird nesting islands and adjacent waters from further development, especially human dwellings, fishing piers, docks, and aquaculture facilities. Review Essential Habitat maps and guidelines prior to development near roseate tern islands. Consult with a biologist from MDIFW and the U.S. Fish and Wildlife Service to assist with planning.
- ✓ Municipalities should strive to prevent development of seabird nesting islands and adjacent waters and identify these areas in comprehensive plans. Consider protecting a $\frac{1}{4}$ mile buffer around seabird nesting islands.
- ✓ Use voluntary agreements, conservation easements, conservation tax abatements and incentives, and acquisition to protect important habitat for threatened and endangered species.
- ✓ Stay off seabird nesting islands during the nesting season (April 1 to August 15). If visitation is approved (e.g., commercial tours to a seabird island), remain on designated paths and in blinds to minimize disturbance.
- ✓ Keep boat activity more than 660 feet from seabird nesting islands. If birds flush from the island, you're too close.
- ✓ Keep all pets off islands. Do not introduce mammalian predators.
- ✓ Locate aquaculture facilities farther than $\frac{1}{4}$ mile from seabird nesting islands.
- ✓ Avoid overfishing and polluting nursery areas for herring, hake, and other fish stocks important as food for seabirds.
- ✓ Do not use gill nets near seabird islands or known feeding areas.
- ✓ Do not dump oil, litter, or waste overboard. Even small amounts of oil can kill birds. Seabirds are often injured by eating plastic particles from trash that are mistaken for food.
- ✓ Avoid overboard discharge of fish waste or bait. Predatory gull populations have increased because of this readily available supply of food. 