

# The Wide Ranging, Yet Threatened – Roseate Tern

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One of the more graceful birds found in Connecticut – the roseate tern – is also one of our most threatened. Hanging on with a tenuous connection, this tern has only one regular breeding site in the state which commands special protections to ensure breeding success.

Roseates are slender, white-bodied terns, similar to common and Arctic terns. They have a black cap and pearl gray mantle (topside of wings and back). The deeply forked, snow white tail is one of their most notable features. In flight, their sweeping elegance cannot be overstated. At rest, the outer tail feathers extend far beyond the folded wing tips. At the start of the breeding season, the bill is black with a small amount of red at the base. As incubation and chick rearing progresses, the bill acquires varying amounts of pinkish red. Roseate terns get their name from the faint and hard-to-see rosy splash of color on their breast during the breeding season. Their calls include a harsh and raspy “kraak,” which is loud and low

in pitch. The birds also frequently give a soft “kulick” or “hew-it” call.

## Distribution

Roseate terns have a global range. In North America, they are known to breed in two separate populations – the northeastern and the Caribbean. The northeastern population is distributed in scattered locations on the Atlantic coast from the Madeleines Islands, Quebec, to Long Island, New York. There are two main breeding sites within that range, Great Gull Island, New York, and Bird Island, Massachusetts. Roseates also breed in 15 to 20 other smaller colonies, including one at Falkner Island in Connecticut. Falkner Island is owned and managed by the U.S. Fish and Wildlife Service (USFWS) as part of the Stewart B. McKinney National Wildlife Refuge.

The breeding range for the Caribbean population includes the Florida Keys and most of the islands south to Venezuela and west to islands off Central America.

The winter range is not fully known, although records indicate that most roseates winter along the coast of South America as far south as Brazil. Some birds may winter at sea. Roseate terns are also found in parts of Europe, Africa, Asia, and Australia.

## Behavior

Roseates are exceedingly buoyant and effortless fliers. They are strong and fast, using rapid, shallow wingbeats to power across great maritime distances. Their wings are relatively short when compared with other similar-sized terns.

Like other terns, roseates plunge dive over shallow coastal water to catch small fish. They will hover over their quarry before plunging, but do not hover as long as a common tern might. In our region, the roseate’s most important food item is the sand lance, which makes up an overwhelming percentage of its diet. Other fish that show up in the roseate’s diet include small herring, anchovy, sil-



Slender and buoyant, roseate terns are perhaps the most graceful birds of the maritime habitat. Their long, deeply forked tail is one of their most notable field marks.

versides, and juvenile menhaden and bluefish. Rarely do the birds catch crustaceans, including shrimp, even if those food items are abundant. When compared to common terns, roseates tend to catch smaller fish and their diet is much less diverse. They will normally forage close to the breeding colony, but have been known to sometimes travel over 20 miles to a foraging area.

The courtship display involves high spiraling flight in which the male leads the pair down from heights of up to 900 feet. From there, the pair will glide downward on set wings. The male will exhibit a somewhat exaggerated posture, with bill pointed downward. At times, males will also fly around the breeding colony carrying a fish in their bills, calling excitedly, “*ki-RIK-chi-vik-chi-vik-chi-vik.*”

The northeastern population of roseates breeds in colonies that also contain either common or Arctic terns. In such colonies, roseates may be taking advantage of the other species’ highly aggressive and protective behavior directed at intruders and predators. In our region, roseate terns usually nest under the cover of rocks, driftwood, or dense vegetation, or in artificial nest structures. They will readily use old tires and wooden nest boxes that are placed on the ground by wildlife managers.

The typical clutch size is two, with the chicks hatching after approximately 24 days of incubation. The chicks take their first flight about 28 days later. It is during this time, when the young are growing and unable to fly, that they are at their most vulnerable. Roseate tern chicks and eggs have a long list of predators. Among the most significant are black-crowned night herons, herring gulls, great black-backed gulls, peregrine falcons, raccoons, and rats. Other species that have been known to prey on roseates include great-horned owl, red-tailed hawk, red fox, mink, and ruddy turnstone (eggs). Red ants have also been documented killing chicks in the nest.

### Conservation

The roseate tern is classified as a federal and Connecticut endangered species, and is considered near threatened globally. Roseates were formerly killed in great numbers along the Atlantic coast of North America to supply birds and their feathers for the plume industry. Bird



The roseate tern’s call of “*KRAAAK*” is likened to the sound of ripping cloth. It is a good identification characteristic that easily separates roseates from other similar-looking terns.

protection laws, such as the Migratory Bird Treaty Act of 1918, put an end to market hunting in the early 1900s. With regulatory protection, the roseate population peaked in the 1930s when there was an estimated 8,500 pairs. However, the population has never fully recovered its former abundance, even though other species, including the common tern, have fared better. The trend for the northeast population also has been poor. Since 2000, roseate numbers in the northeastern region have dropped by 25%, and the population is currently estimated at 3,500 pairs.

The roseate tern colony on Connecticut’s Falkner Island was once considered the third largest in the northeastern population. The island hosted an average of 150 to 200 pairs, along with up to 3,000 pairs of common terns, until the early 1990s. More recently, the Falkner Island population has declined significantly, with only 45 pairs reported in the 2010 breeding season and 47 pairs in 2011.

More recently, roseate breeding colonies have suffered from burgeoning gull populations that have displaced terns and resulted in increased predation at breeding sites. Other predators have also grown in numbers recently. Late summer hurricanes have been known to decimate large congregations of terns, striking at a time when juvenile terns are most vulner-

able as they are still mastering their flight skills.

The USFWS has been working on many conservation measures to reverse the decline in the northeast roseate population, including monitoring of nesting colonies to track breeding pair numbers and productivity, banding studies, foraging studies, and habitat protection and restoration at breeding sites. The management of nesting sites to provide roseates with artificial nest shelters has been highly successful. Despite all of these measures, the northeast roseate population has still declined significantly over the past 10 years.

Current conservation goals for roseate terns include: 1) increasing the northeast nesting population to 5,000 breeding pairs, with at least six large colonies, 2) increasing the total number of colonies to 30 or more sites, and 3) expanding the breeding range into historically occupied areas south of the current range.

Little is known about roseate tern ecology during migration, and there are many unanswered questions about mortality, specifically why the northeast population is declining at such a fast rate while the breeding colonies have had good productivity. Survival rates of fledglings and juveniles is one area that needs to be studied further.