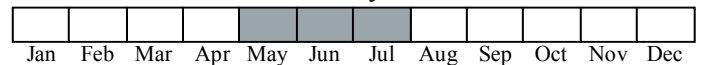


Best Survey Period



**Status:** State threatened

**Global and state rank:** G5/S2

**Family:** Laridae (gull and tern family)

**Total range:** The common tern breeds throughout much of the temperate zone of the Northern Hemisphere. Its primary breeding range in North America is from the south central Northwest Territories to southern Quebec and Newfoundland, the Atlantic Coast (from Nova Scotia to North Carolina), the Great Lakes region and the northern Great Plains. Great Lakes common terns migrate along the Atlantic coast and winter primarily along the north and west coasts of South America, in the Caribbean, and less frequently along the U.S. Gulf coast and the southern Atlantic coast (Austin 1953, Haymes and Blokpoel 1978).

**State distribution:** Common tern nesting sites have been recorded for seventeen counties in Michigan. These are Alpena, Bay, Charlevoix, Cheboygan, Chippewa, Delta, Emmet, Huron, Mackinac, Macomb, Midland, Monroe, Presque Isle, St. Clair, Schoolcraft, Tuscola, and Wayne counties. No recent nest sites have been recorded from either the northern coast of the Upper Peninsula or the western coast of the Lower Peninsula, although the species was once abundant on all the Great Lakes (Barrows 1912).

**Recognition:** The slender body, long pointed wings and deeply forked tail are key characteristics of the common tern. Their typical call is a drawled *kee-arr*. Their 31 inch average wingspan distinguishes them from the Caspian tern whose wingspan averages 54 inches. Wintering adults and immature birds have a black nape and dark bill. In the

breeding season adults have a **red bill with a black tip, a black crown, and red legs**. Although it is easily confused with the Forster's tern, the common tern has darker wing tips, a higher pitched call, and a redder bill.

**Best survey time:** Common terns can be seen in Michigan from mid-April through October, although the best time to survey for them is in May, June and July.

**Habitat:** Common tern colonies occur on sparsely vegetated sand and gravel beaches of islands and peninsulas. Artificially created islands currently provide the most favorable nesting habitat. Colonies utilize sites formed from dredged material in Chippewa, Saginaw, and Monroe Counties. They also have been known to use abandoned wooden piers (Harris and Matteson 1975). Ocean shoreline habitats are used for roosting and foraging during the winter.

**Biology:** Common terns return to their Michigan breeding grounds beginning in mid-April and depart to their wintering grounds from late August through October. Nesting begins the second week of May in southern counties and in late May in northern counties. Both adults incubate a clutch, averaging two or three eggs, for a 22 to 25-day period. Initial nest loss is common and is often compensated by a second nesting. Although typically single-brooded, common tern pairs occasionally attempt to raise a second brood (Hay 1984). Both adults share in feeding the young (Wagner and Safina 1989) which begin flying four weeks after hatching. Reproductive maturity is reached at three years of age.

Common terns prefer to nest in relatively large colonies



where they cooperate to defend against competitors and predators. The pair cooperates in building a nest that can be as simple as excavating a slight hollow in the sand and gravel, to construction of a slightly raised mound with a lining of fine grass and other material. Nests are usually associated with low, herbaceous vegetation and driftwood (Blokpoel et al. 1987). Common terns are opportunistic feeders, foraging on the small fish species that are most available (Courtney and Blokpoel 1980). They feed primarily on fish that are between 1 to 3 inches long by hovering over the water and then diving and capturing them with their bill. Insects are also caught while flying and can play a significant role in the common tern's diet in certain locales (Vermeer 1973).

**Conservation/management:** Common terns were once the most abundant tern in Michigan waters, frequenting the shores and islands of the Great Lakes as well as all the principal streams and interior lakes (Barrows 1912). The market for plumes and feathers nearly caused their extinction until they were given protection under the Migratory Bird Treaty of 1916. During the mid 1970's through 1984, an average of 1,800 nesting pairs were recorded in the state. Recent reductions in the Michigan population to 1,500 pairs in 1985 have been attributed to the declining quality of their nesting habitat.

A combination of natural and human-related factors are severely impacting common tern populations. Regularly fluctuating water levels of the Great Lakes, vegetation succession, and erosion continually reduce or eliminate suitable nesting sites. Competition and predation from increasing populations of ring-billed gulls (*Larus delawarensis*) and herring gulls (*L. argentatus*), are a significant limiting factor, especially due to competition for limited suitable nesting sites. (Scharf 1981). Other predators which impact reproductive success include: Norway rats, red fox, garter snakes, great horned owls, black-crowned night herons, and Canada geese (Cuthbert 1980, Evers 1994).

Human factors that limit common tern populations include island and beach development, use of off-road vehicles on beaches, and the release of chemical contaminants into the environment. Recent evidence suggests that PCB's have put Great Lakes populations under severe stress. High levels of this toxin in eggs correlate with rising rates of deformities, embryonic abnormalities, and depressed hatching rates (Ludwig and Kurita 1988).

Using fire to expose the ground surface, in areas succeeding to closed vegetation, has been demonstrated to be very helpful to common terns (Scharf 1986). Control of competitors and predators may be crucial in maintaining common tern populations, although restricting one competitor or predator is usually not adequate to increase fledgling success. Intensive programs to control all predators impacting a population as well as reducing disturbances by humans may be needed (Cuthbert 1980).

**Research needs:** More research is needed to understand the population dynamics of common terns and to insure the long-term preservation of nesting colonies in Michigan. Habitat availability, relationships with gulls and other competitors, and food requirements are key areas that need further study. Immediate measures such as habitat manipulations are needed to insure that populations in the Great Lakes ecosystem are maintained at healthy levels (Evers 1994).

**Related abstracts:** open dunes, Caspian tern

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