

CASPIAN TERN *Hydroprogne caspia*

Conservation Status

ALASKA: None

N. AMERICAN: Low Concern

GLOBAL: Least Concern

Breed	Eggs	Incubation	Fledge	Nest	Feeding Behavior	Diet
May-Aug	1-4	~ 27 d	~ 35 d	ground, surface scrape	plunge dive, piracy	fish

Life History and Distribution

Caspian Terns (*Hydroprogne caspia*) are the largest terns in the world with a wing span of nearly four and a half feet. A long, stout, red bill with a trace of black on the tip and a black cap with a slight crest at the back are characteristic of this robust tern. The face, neck, breast, and belly are white; the back and upper surface of the wings are pale gray; and the underside of the wings are light colored and tipped with smoky-gray. Black feet and legs and a short, white, notched tail add the finishing touches to the impressive appearance. Males and females look alike.

In 2006, the American Ornithologists' Union reclassified this species based on genetic sequence comparisons. Previously, it was in the genus *Sterna*; now it is the only tern in the genus *Hydroprogne*.

Nesting usually occurs on flat, natural and artificial islands with sand and shell substrate and very little vegetation. Colony size varies widely, but generally ranges from tens to hundreds of pairs. Nest sites often adjoin those of other birds, especially gulls and other tern species. Numerous habitat types are used for nesting; coastal estuaries, saltwater marshes, barrier islands, and freshwater beaches and islands. One to four eggs are laid in a depression (scrape) on the ground which may be lined with grasses, seaweed, or mosses. Fish comprise the bulk of the diet and are captured by plunge diving.

Colonies of Caspian Terns are found throughout the world on every continent except South America and Antarctica. The North American breeding population consists of wide-spread locations in six regions; the Pacific and Atlantic coasts, central Canada, west-central interior of the U.S., Great Lakes, and the Gulf Coast.

In Alaska, Caspian Terns are rare. They were first detected in 1981 near Ketchikan and Sitka in Southeast Alaska. The first nesting record for Alaska was in 1996 on Neragon Island, north of Cape Romanzof in the Bering Sea. Three nests were discovered among a dispersed colony of Glaucous Gulls (*Larus hyperboreus*). Three Caspian Tern nests were again found on Neragon Island in 1997. The first documented breeding record for Southeast Alaska occurred in 2000. A breeding colony of approximately 16 adults and at least four nests with eggs were located on a rocky island at Twin Glacier Lake, Taku Inlet. In July 2005, four to five pairs of Caspian Terns attempted to nest near the mouth of the Kashunuk River



USFWS Lee Karney

(central Yukon-Kuskokwim Delta, ~ 60 miles south of Neragon Island). At least one bird fledged from these efforts (Bob Gill, USGS, unpubl. data).

In 2006, two new nesting areas were recorded for Caspian Terns in Alaska. Twenty-five pairs were observed nesting at Icy Bay in Southeast Alaska (Michelle Kissling, USFWS, pers. comm.) and ~ 116 pairs were found nesting on the Kokinhenik Bar at the mouth of the Copper River Delta, east of Prince William Sound (Tyee, Teal, and Trae Lohse and Aaron Lang, Cordova, AK, pers. comm.).

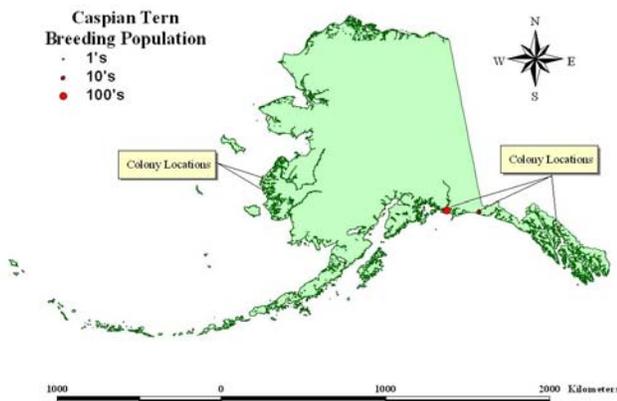
Alaska Seasonal Distribution

AK Region	Sp	S	F	W
Southeastern *	R	R	R	-
Southcoastal *	R	R	R	-
Southwestern	-	-	-	-
Central	-	+	-	-
Western *	+	+	-	-
Northern	-	-	-	-

C= Common, U= Uncommon, R= Rare, + = Casual or accidental, - = Not known to occur, * = Known or probable breeder, Sp= Mar-May, S= June and July, F= Aug-Nov, W= Dec-Feb. © Armstrong 1995.

North American breeding birds winter along the Pacific Coast from southern California to Costa Rica; along the Atlantic and Gulf Coasts from southernmost North Carolina; south around the Florida Peninsula; west to southern Texas; and south along the coast of Mexico to at least northern Honduras. Numbers of birds wintering in North America are unknown. Wintering also occurs locally (rare) in the West Indies, Panama, and northern South America.

Breeding also occurs in Eurasia, the southwest Pacific,



Seabird breeding population maps created from data provided by the Beringian Seabird Colony Catalog Database. U. S. Fish and Wildlife Service, Anchorage, Alaska.

northwestern and southern Africa, and interior Africa at Lake Rudolf in Kenya. Wintering of these populations occurs in Africa, the Mediterranean, Persian Gulf, and Indian Ocean.

Population Estimates and Trends

The North American breeding population is the largest of the continental populations and is estimated at 33,000-35,000 pairs. Since the 1980s, the Pacific Coast population has more than doubled to about 12,900 pairs in 2000. Nesting in the Columbia River estuary was first documented in 1984 and the population increased rapidly between 1986 and 1991. The estuary now holds the largest breeding colony in North America and in the world at East Sand Island, Oregon (9,200 pairs in 2006). A concentration of this magnitude at one location (~65% of the U.S. Pacific Coast population) is very unusual.

Distribution of breeding Caspian Terns among Pacific coastal areas has changed considerably over the last two decades. In the early 1980s, the largest breeding concentrations were along the coast of Washington State and in San Francisco Bay. By 2006, approximately 65% of breeders were nesting in Oregon versus 4% during the late 1970s. During the last 25 years, the proportion of this population nesting at inland sites versus coastal sites has remained constant (18% and 82% respectively), but before 1980 many terns shifted from nesting in small inland colonies at natural sites to large coastal colonies at man-made sites. Although it is too early to know if it represents a consistent trend, the breeding range of the Pacific Coast population has recently expanded northward into Alaska and farther south into Mexico.

Dramatic changes in distribution of the Pacific Coast population may have been facilitated by its tendency to exhibit low philopatry (propensity of a migrating bird to return to a specific location in order to breed or feed) relative to other seabirds. Caspian Terns often nest in habitats that could be susceptible to flooding and erosion, invasion by early seral stage plants, or degradation of nearby shallow-water foraging areas. The increase in the Columbia River estuary population is probably the result of a unique abundance of stable nesting and foraging resources. Development of dredge material islands offered stable nesting sites and the man-made islands were located close to abundant supplies of hatchery reared salmon smolts.

Population numbers outside of North America are: Finland, Sweden, and Estonia (1,850-1,950 pairs, 1984); Afro-tropical region, mostly West Africa (a few thousand pairs, 1992); southern Africa (~500 pairs, 1992); New

Zealand (3,500-5,000 pairs, 1985); and Australia (many thousands, 1996).

Conservation Concerns and Actions

Dramatic increases in the number of Caspian Terns nesting in the Columbia River estuary has led to concerns about their potential impact on fish stocks of conservation concern (juvenile salmonids of the *Oncorhynchus* species). A federal Environmental Impact Statement (2005) was prepared to explore possible management of Caspian Terns to reduce predation on juvenile salmonids in the estuary.

The unprecedented concentration of terns nesting at one site in the Columbia River estuary could negatively impact the entire Pacific Coast population should a major natural or anthropogenic catastrophe (e.g. oil spill, introduced predators, disease) occur at this one location.

Additional conservation concerns for this species are habitat loss and degradation of nesting sites, and disturbance at nesting colonies.

Recommended Management Actions

- Determine the Alaskan breeding population and the trend in population size.
 - Reconfirm nesting at all five previously verified locations in the State of Alaska.
 - Create a Caspian Tern “WATCH” enlisting the public, state, other federal agencies, and USFWS biologists involved in monitoring and surveying of other species to report sightings of Caspian Terns, especially nesting birds, in Alaska.

Regional Contact

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References

American Ornithologists’ Union 2006; Armstrong 1995; Cairns 1992; Cuthbert 1988; Cuthbert 1981; Cuthbert and Wires 1999; Gill and Mewaldt 1983; Isleib and Kessel 1973; IUCN Internet Website (2005); Johnson 2003; McCaffery *et al.* 1997; Monaghan 1996; Roby *et al.* 2002; Shuford and Craig 2002; Suryan *et al.* 2004; U.S. Fish and Wildlife Service 2006, 2005b; 2005c; Wires and Cuthbert 2000.

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