

Blue-gray Noddy

Procelsterna cerulean saxatili

Other: Grey Noddy, Blue Ternlet

Family: Laridae; Subfamily: Sterninae

Identification

The delicate Blue-gray Noddy is the smallest of the world's terns. This species has blue-gray upperparts with a pale gray head, underbody and underwings and their tail is short and deeply forked. Their bill, eyes, and legs are black while their feet are black with paler webs. Individuals have large, black eyes with a white ring around them. Juveniles are very similar to adults but may be distinguished by their brownish coloration on upper parts, especially the crown. The sexes are alike.

The Blue-gray Noddy may be confused with the White Tern (*Gygis alba*) in bright sunlight, but can be distinguished by its smaller size.

Survival and Lifespan

Little information is available, but it is known that Blue-gray Noddies can live 16-18 years.

Distribution

Breeding (Dec-May, may extend into summer)

Blue-gray Noddies are confined to the tropical Pacific. They breed from Marshall Island and Hawaii in the north to Fiji and Tonga in the south. Because Blue-gray noddies require cliffs or rocky outcrops for nesting, they are confined to Hawaii's high islands (Nihoa, Necker, La Perouse Pinnacle at French Frigate Shoals, and Gardner Pinnacles). In the main Islands, a small colony may still exist in the steep cliffs at Kaula off Niihau, but breeding has not been confirmed there for over fifty years.

Marine

Blue-gray Noddies typically remain near their breeding colonies year-round, and are rarely found far from land.

Breeding Ecology

Hawaiian Blue-gray Noddies nest only in cliffs and rocky outcrops, preferring sties in the lee of northern storms. Blue-grays avoid isolated cavities and form loose nesting aggregations dictated in part by the presence of clustered cavities within ancient lava flows. Between December and mid-March this species will lay their eggs. Occasionally the breeding season will extend into summer during years of inclement weather. Generally, one egg is laid and incubated by both parents for a period of 32 days. The chick has usually fledged after about 37 days (mid-May), although parents continue to feed the juvenile for some time.

Feeding and Prey

- Feeding guild – NEUSTON-FEEDING TERN
- Food capture – Individuals feed by fluttering above the water and dropping down to pluck out food.
- Foraging Distribution – Blue-gray Noddies are the least pelagic of the Hawaiian Laridae. They feed primarily inshore with occasional ventures offshore.
- Microhabitat for foraging – They feed individually or in small flocks and tend to be active at first light.
- Diet – Their diet is unique. By volume, about 60% consists of fish, with the remainder divided equally between minute crustaceans and microscopic sea striders (*Halobates sericeus*), a marine insect. Sea-striders are found in 8 of 10 stomach samples are especially prevalent

during spring. Blue-gray Noddies' prey is so tiny (1-10 cm) that their stomachs can contain hundreds of items. Other common foods are stomatopods, copepods (*Pontella atlantica*), and juvenile forms of Forster's lizardfish, flyingfish, and goatfish.

Threats and Status

Historical changes are poorly known, but the species may have previously nested on the main Hawaiian Islands. Blue-gray Noddies once nested on Kaula, but have likely disappeared since the U.S. Navy began to use the island as a bombing target in 1952. The total population size in Hawaii is estimated at 3,600 breeding pairs with the majority on Nihoa and Necker (3,500 pairs combined). The worldwide population is estimated at 100,000 breeding pairs. However, inaccessible nesting locations make accurate counts difficult.

Main threats to the species include:

- Predation – Adults and nests are susceptible to predation by introduced mammals (e.g., rats, cats, dogs). Although all sites in Northwest Hawaiian Islands are free of rats, cats, and dogs, the main Hawaiian Islands support large populations of non-native mammalian predators. Also, native Nihoa Finches (*Telespiza ultima*) are responsible for considerable egg mortality.

Selected Readings

Division of Forestry and Wildlife (DOFAW). 2005. Hawaii's Comprehensive Wildlife Conservation Strategy. Div. Of Forestry and Wildlife, Dept. of Land and Natural Resources, Honolulu, HI. www.state.hi.us/dlnr/dofaw/cwcs/process_strategy.htm

Harrison, C.S. 1990. Seabirds of Hawaii. Cornell University Press, Ithaca.

NPS: Grey Ternlet species account:

http://www.nationalparks.nsw.gov.au/PDFs/tsprofile_grey_ternlet.pdf

Rauzon, M.J., Harrison, C.S., and Clapp, R.B. Breeding Biology of the Blue-gray Noddy. *Journal of Field Ornithology*. 55(3): 309-321. <http://elibrary.unm.edu/sora/JFO/v055n03/p0309-p0321.pdf>

U.S. Fish and Wildlife Service. 2005. Regional seabird conservation plan, Pacific Region. U.S. Fish and Wildlife Service, Migratory Birds and Habitat Programs, Pacific Region. Portland, (OR): U.S. Fish and Wildlife Service.