

GRAY-BACKED TERN *STERNA LUNATA* BREEDING ON ANATAHAN, COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

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The Gray-backed or Spectacled Tern *Sterna lunata* has a distribution that is confined to the tropical Pacific and includes Wake Island, the Hawaiian Archipelago, the Line and Phoenix Islands, French Polynesia, Samoa, Tonga, Fiji, and the Bismarck Archipelago (Harrison 1983, del Hoyo *et al.* 1996, Mostello *et al.* 2000). It has also been reported from the Mariana Islands of Alamagan (Lemke 1983), Sarigan (Kessler 1999), Guguan and Uracas (Clapp & Hatch 1986) and Anatahan (Wiles *et al.* 2000). Nesting is reported from Guguan and suspected for Uracas and Sarigan. The closest of these islands to Anatahan is Sarigan, which is approximately 40 km to the north.

Anatahan is an extremely rugged volcanic island, 9 km by 4 km, and situated 160 km north of the population center on Saipan. No one currently inhabits this island permanently, although there have been substantial villages situated on the island throughout history and will undoubtedly be in the future. Until recently, biologists rarely visited this island, with short research trips taking place every five to ten years. In 2001 a project was initiated to remove feral goats and pigs and presently there are trips almost every month. Predators found on Anatahan are coconut crab *Birgus latro*, monitor lizard *Varanus indicus*, rats *Rattus* spp., feral cats *Felis silvestris*, and feral pigs *Sus scrofa*. There is also an unidentified hawk thought to be *Buteo buteo*. With the exception of the hawk, none of the listed predatory species are thought to live on or are able to reach the two small rock islets that support Brown Noddy *Anous stolidus* colonies, including the one mentioned below. People who have lived on Anatahan stated that these islets were important places to harvest seabird eggs.

On 14 May 2002, I visited one of the small rock islets on the south-central side of Anatahan. This is the same location that Wiles *et al.* (2000) reports seeing Gray-backed terns in late July 1995. This islet is locally known as Bird Rock, approximately 80 m offshore, and has dimensions of 35 m by 70 m. On the end closest to Anatahan, it rises to a pinnacle of about 20 m although most of the islet is roughly 10 m above sea level. It has one or two small shrubs and some grasses about 0.75 m high but is mainly barren dark basalt rock. Observed on and around this rock were approximately 60 Brown Noddies and 30 Gray-backed Terns. Both adult and juvenile Gray-backed Terns were noted although no chicks were seen. A minimum of ten Gray-backed Tern nests with eggs were counted by flushing the parent birds although the islet was not thoroughly searched. Eggs were laid singly on the bare rock, both



Fig. 1. Gray-Backed Tern *Sterna lunata* on Anatahan, Mariana Islands.



Fig. 2. Incubating Gray-Backed Tern *Sterna lunata* on Bird Rock, Anatahan, Mariana Islands. Note egg to the rear of sitting tern.



Fig. 3. Gray-Backed Tern *Sterna lunata* nest on Anatahan, Mariana Islands. Scale is a 10cm leatherman tool.

in the open and in the shade of the grassy clumps. Some nests were spaced 0.5 m or less apart. Brown Noddy eggs were also present but the two groups appeared loosely separated with the noddies using the higher and steeper slopes. It was apparent that space was at a premium on this islet and some overlap of the two species was evident. Competition for space with other tern species as well as nesting in the shade of grass bunches is similar to the situation reported in the Hawaiian Islands (Harrison 1990).

The breeding range of this species is stated as being confined to the tropical central Pacific Ocean, but that the western edge of the range is poorly known. In del Hoyo *et al.* (1996) its distribution is listed as including the Northern Mariana Islands, but that its status there is rare. This new nesting record for Anatahan combined with the Guguan nesting (Clapp & Hatch 1986) and the sightings of this species on other northern islands confirms that this species, although not abundant, is a resident species firmly established. It is predicted that as travel opportunities improve to the remote northern islands that more records of nesting for this species will be reported for the Mariana Islands.

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