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## Micronesian Starling Predation on Seabird Eggs

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Native and introduced bird predation on seabirds has been well documented in many areas of the world. Often the predator species are other seabirds, such as gulls (Anderson & Keith 1980), but in some cases passerine species have been responsible. Crows are known to prey on a variety of seabirds (Montevocchi 1977); Laysan Finches *Psittirostra cantans* have been reported eating the eggs of at least seven seabird species (Ely & Clapp 1973); and introduced Common Mynas *Acridotheres tristis* are a serious predator on nesting Wedge-tailed Shearwaters *Puffinus pacificus* in Hawaii (Byrd 1979). Predation by Micronesian Starlings *Aplonis opaca* has not been documented previously.

On a trip to Guguan (17°20'N, 145°51'E), Commonwealth of the Northern Mariana Islands, in May 1987 we observed two Micronesian Starlings on a Black Noddy *Anous minutus* nest eating an egg. We saw five other cases of Micronesian Starling predation of Black Noddy eggs that day. In all cases observed, the eggs were broken into with a hammer-like use of the bill and eaten on the nest using a drinking-like motion with a raising of the head. Often the shells and part of the interior were dropped to the ground but we never saw them feeding on these dropped eggs. On a short hike (180 m) down a gully we had traversed earlier in the day, we found the fresh remains of 13 Black Noddy eggs that had apparently been preyed upon by Micronesian Starlings within the previous several hours. Approximately 250 pairs of Black Noddies nested in this gully. Nests were of typical stick construction, clustered at heights of 3-10 m in mature Tropical Almond *Terminalia catappa*, Strangling Fig *Ficus prolixa* and Screwpine *Pandanus fragrans* trees.

In March 1988, we again visited Guguan and observed one case of Micronesian Starling predation on Black Noddy eggs. This was during the beginning of the nesting season and only two nests with eggs were seen. We also saw one case of Micronesian Starling predation of a Red-footed Booby *Sula sula* egg in a tree nest. Several days earlier on the island of Maug (20°02'N, 145°19'E), Estanislao Taisacan observed Micronesian Starlings eating eggs from two Black Noddy nests. In each case 2-5 Micronesian Starlings were present at the nest. On Ulithi in March 1986 John Engbring and Gary Wiles observed a Micronesian Starling enter a Black Noddy nest and knock the egg to the ground; the Black Noddy had apparently been scared off the nest by the observers (Wiles pers. comm.).

Micronesian Starlings appeared to follow us and eat the eggs in nests from which adult seabirds had fled. We had previously made note of their extreme lack of shyness and apparent curiosity towards human interlopers in this rarely visited small (412 ha) island wildlife sanctuary. Vocal groups of 2-6 birds often approached a stationary observer to distances of less than 2 m and remained nearby for several minutes. The presence of a human intruder could be a behavioural key which triggers the flocking and foraging (nest robbing) response in individual birds. Laysan Finch egg predation, facilitated by human disturbance, is said to have caused massive mortality in Sooty Terns *Sterna fuscata*, Black Noddies and White Terns *Gygis alba* (Ely & Clapp 1973). Anderson & Keith (1980) report Yellow-footed Gulls *Larus livens* walking ahead of human intruders in a Brown Pelican *Pelecanus occidentalis* colony and pecking holes in eggs. These Yellow-footed Gulls

often gathered over intruders calling frequently, which attracted more gulls and frightened more Brown Pelicans off their nests. Productivity, as measured by nesting success, was found to be markedly (52-100%) decreased in Brown Pelican subcolonies which received frequent human visitation.

The extent of predation under undisturbed conditions is unknown. Micronesian Starlings could be a substantial factor in reducing Black Noddy breeding success in conjunction with human disturbance. Presently only about 50 pairs of Black Noddies nest on inhabited islands in the Marianas while approximately 3000 nest on uninhabited islands (Reichel in press). While this distribution is thought to have resulted primarily from direct human exploitation, predation by Micronesian Starlings during human related disturbances may have contributed to losses.

These are the first published accounts of Micronesian Starling egg predation. Previous authors regarded these indigenous birds as exclusively (Baker 1951) or predominantly fruit and seed eaters and occasional insect eaters (Marshall 1949; Marshall 1975; Jenkins 1983; Engbring & Ramsey 1984). Eggs may be an important food for Micronesian Starlings, especially on islands which are small and have simple forest bird and vegetative communities.

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## Archbold's Bowerbird *Archboldia papuensis* (Ptilonorhynchidae) Uses Plumes from King of Saxony Bird of Paradise *Pteridophora alberti* (Paradisaeidae) as Bower Decoration

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Archbold's Bowerbird *Archboldia papuensis* (*Archboldia* hereafter) is a little-known large (37 cm) bowerbird patchily distributed in the central ranges of Irian Jaya and Papua New Guinea at altitudes of 2300-2900 m, rarely to 1800 m (Beehler *et al.* 1986). Due to inaccessibility, it remained

unknown except for a 'mat' type bower and a 'grovelling' male courtship display (Gilliard 1959, 1969) until the discovery of its nest and egg (Frith & Frith 1988).

The bower of adult males consists of several square