

ABSTRACT

On the nesting ecology of seabirds at Morant Cays, Jamaica, with special reference to nest site selection, conservation and management

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Nest site selection and survival of seabirds at South East Cay, Morant Group, Jamaica were investigated; previous management strategies were reviewed; and a pilot management strategy for the Morant Cays was developed, implemented and assessed.

Factors influencing nest site selection in Sooty Terns (*Sterna fuscata*), and to a lesser extent Brown Noddies (*Anous stolidus*), Laughing Gulls (*Larus atricilla*), and Royal Terns (*Sterna maxima*) were identified through observations and experiments and were compared with other colonies around the world. Important factors included cover, openness, edge density and adult quality. Sooty Terns and Brown Noddies selected opposite characteristics at their nest sites.

Longitudinal observations of Sooty Tern nests showed that preferred nest characteristics were associated with increased survival of chicks and, to a lesser extent, eggs. Predation by Laughing Gulls,

Magnificent Frigatebirds (Fregata magnificens) and crabs was the main cause of loss of Sooty Tern eggs and chicks. The microclimate of nests was related to vegetation but not to survival of eggs or chicks.

Past management strategies were shown to be unsatisfactory and therefore a new system was developed and implemented as part of the study. This was followed by an increase in the populations of Sooty Terns and Brown Noddies, which was attributed to increased fledging rates and immigration.

The probable causes of the long-term decline in Sooty Tern populations were reviewed and the socio-economic importance of seabirds in Jamaica was assessed. New information on the nesting ecology of Sooty Terns was used to propose a unique strategy for sustainable harvesting of seabird eggs (which is of potential relevance to other seabird colonies around the world) and to make suggestions for future resource management at the Morant Cays.