

no ticks were found. The sample of inflorescences as a site of tick infestation is purely circumstantial and only a suggestion. Differences in the birds' roosting and bathing sites could also account for the interspecific variation in tick infestation. Further studies, involving the systematic sampling of both birds and microhabitats for ticks, are required.

Ticks can transmit disease, cause death through toxic salvia, blindness if attached too close to the eyes, anaemia and a general weakening of the bird's condition (Rothschild and Clay 1961; Wallace 1963). The degree of harm depends on how many ticks are present and where they are attached. Very few of the birds examined in New England had high infestations. I suspect that the presence of ticks on most birds had little deleterious effect on the bird's survival.

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NESTING BEHAVIOUR OF SOOTY TERNS *Sterna fuscata* ON PELSART ISLAND, WESTERN AUSTRALIA

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From 19 to 27 November 1982 I visited Pelsart Island, Abrolhos Group, WA, with Dr G. K. Lane and my wife. We accompanied Mr P. J. Fuller from the WA Wildlife Research Centre during his survey of the breeding seabirds on the island.

Observations were made, among others, on the Sooty Tern *Sterna fuscata*. Although I had seen these birds breeding previously, the situation on Pelsart Island was almost unbelievable. Previous visitors had made comments on the numbers present. Gibson (1908) stated that

these birds were breeding in "hundreds of thousands" and Sandland (1937) said that "It is impossible to give any estimate of the numbers of Sooty Terns and Noddies nesting on Pelsart Island." V. Serventy (1942) made an estimate; he recorded that "approximately 20,000-30,000 birds were present, either nesting or roosting" during his visit in December 1941 to January 1942.

On approaching the island in November 1982, thousands of Sooty Terns were seen flying over the centre of the southern end. Later the colony was found to extend right to Wreck Point at the southern extremity, a distance of about one kilometre from where the birds were first sighted. At the time of our arrival the nearest nests were about 500 metres south of the camp site which was near the old, and long-since disused, jetty.

A few days later the aerial concentration of these birds appeared to be getting closer to the camp. Investigation revealed this to be the case, but less activity was occurring over the area first observed. However, any movement into that area (to the south) caused immediate disturbance of many brooding birds in the immediate vicinity; calling loudly they would scramble through the vegetation to the outside and fly off.

The bushes throughout the nesting area were up to 0.5 m high and the nests were scrapes in the sand under the shelter of any suitable vegetation, with barely pecking distance between most of the brooding birds.

Adjacent to the Sooty Terns, and overlapping part of their area, is the large colony of Common Noddies *Anous stolidus*; this colony is closer to the eastern side of the island at the southern end. The noddies nests are mainly built on low vegetation, though in some places where the guano was mined years ago, the egg is laid on the bare ground. In many of the overlap areas nesting was three-tiered, with noddies nesting on the bushes, Sooty Terns on the sand beneath and Wedge-tailed Shearwaters *Puffinus pacificus* in burrows underneath.

By the end of the visit, the breeding colony of the terns had extended northward beyond the camp site on the eastern side and almost to it

from the south. The birds left a margin around the camp site.

At one stage the northern location of the breeding birds was noted. Next day birds were flying over, and sitting on, bushes to the north of the noted line. What appeared to be pairs were seeking to alight on the bushes which invariably had one, two or more birds already perched on each bush. One of the pair would drop to the sand to select a nest site; the other would follow and sit close beside its mate. This occurred amidst considerable squabbling with other birds nearby until nest site selection was completed satisfactorily. While this was taking place thousands were flying overhead, but further to the south there was very little similar activity.

By the next day, eggs were present in the new area with one of the pair incubating. The aerial activity in that area had deteriorated noticeably. However, it was continuing unabated further north where more birds were selecting sites as the colony continued to extend. It appears that these birds come in to the breeding island when the females are ready to lay, necessitating very rapid nest site selection.

During the period of our visit, the colony had extended by about 600 metres northward; by the time of our departure it extended some 1 800 metres in length and up to 150 or 200 metres in width in many places, with nests densely packed throughout most of the area. At a rough estimate we considered that the number of breeding pairs could have exceeded 50 000, and may have even been 100 000 or more.

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