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**ECOLOGICAL OBSERVATIONS ON
AFRICAN BANKS, AMIRANTES**

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INTRODUCTION

Stoddart & Poore (1970b) reviewed scientific knowledge of the two African Banks islands, the northernmost islands of the Amirantes, following their visit to South Island on 26 September 1968. Apart from a visit to North Island by Ridley & Percy (1966) in June/July 1966, there has been no recent account of North Island. I visited North Island on 6-7 July 1974, and this paper is based mainly on observations of birds.

The island is small, approximately 230 x 130m (cf dimensions given by Stoddart & Poore 1970b). At the time of my visit honeycombed sandstone cliff, 1-2m high, was present all round the south, east and northern coasts, the only sandy beach being the west coast. However considerable expanses of sandbank within the reef that encloses the two islands suggested that sand may be very mobile, and the island may undergo seasonal changes in form as does Bird Island (Feare, *in press*).

The centre of the island was a phosphatic sandstone plain. Around the north east and southern fringes of this plain the sandstone was overlain with sand which extended almost to the top of the beach sandstone cliff. To the west of the central plain vegetated sand graded into an extensive sandy beach.

The most recent development has been the construction, in 1972, of an automatic lighthouse in the centre of North Island. This does not appear to have affected the ecology of the island.

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VEGETATION

Fosberg & Renvoise (1970) listed 15 species of plants from African Banks, mainly from South Island, and there appears to be no description of the flora of North Island. The most densely vegetated part of the island is the sand ridge at the top of the beach on the western coast. This is dominated by *Scaevola taccada* and scattered *Tournefortia argentea*, some of which had a little *Cassytha filiformis* growing on them. On the seaward side of the ridge are *Suriana maritima* and *Cyperus pachyrhiza*, which Feare (*in press*) considered to be flora typical of areas of sand subject to periodic erosion on Bird Island. The central part of the phosphatic sandstone plain was bare, but the remainder was dominated by *Portulaca oleracea*, *Tribulus cistoides* and *Boerhavia repens*. At the southern and eastern edges of the phosphatic sandstone and to a lesser extent at the south-eastern edge within the *Scaevola* belt was a dense growth of *Stachytarpheta jamaicensis*, while on higher sandy ground at the southern end was *Achyranthes aspera*. The sand above the cliffs was dominated by grasses, which were not identified. In 1955 there were only two coconuts, *Cocos nucifera*, but in 1974 there were four at the southern end of the island and one at the north.

FAUNA OTHER THAN BIRDS

A small Green Turtle *Chelonia mydas* was seen in the lagoon, and fresh tracks and a nest were found at the top of the beach on the morning of 7 July. There were many turtle excavations at the top of the beach, but the absence of tracks indicated that these were not recent (ie. not since the last spring tide).

Ornithodoros capensis ticks, mainly adults, were found in the scrapes of Sooty Terns and Roseate Terns, but were not as numerous as on Bird Island. They were not found in Crested Tern or Brown Noddy nests. No viruses were isolated from these ticks by U.S. NAMRU-3, Cairo (Converse *et al* 1975). While handling sooty terns a few *Amblyomma loculosum* fell off the birds, but the ground beneath the coconut trees at the southern end of the island was infested with this species, an infestation first reported by C. R. Grainger in March 1974 (*in litt.*). When the vegetation was disturbed the ticks ran out and rapidly climbed the legs of observers. Most of these ticks were adult (Hoogstraal *et al.* 1975). Stoddart & Poore (1970a) remarked on the absence of this tick from African Banks, having found it abundant on Farquhar. Infestations may therefore be temporary.

The only other invertebrate of which special note was taken was a large land crab (possibly a *Cardisoma* or *Sesarma* - J.D. Taylor *in litt.*), whose burrows were found in the phosphatic sandstone and round the edge of the cliff at the southern end of the island close to a mixed group of Roseate and Crested Tern nests. Over the night of 6-7 July losses of eggs of Roseate and Crested Terns were noted. The eggs were left broken

in the nest with remains of albumen and yolk in the cup. No skinks or other potential egg predators were seen, and these crabs may therefore be implicated. After disturbance Roseate Terns in particular take several minutes to return to their nests, and my disturbance may therefore have contributed to these egg losses.

BIRDS

Wedge-tailed Shearwater

Puffinus pacificus

One in the lagoon 6 Jul. 1974.

Puffinus sp.

On 6 Jul. 1974 a shearwater, intermediate in size between *P. pacificus* and *P. lherminieri*, and less stockily built than the latter, black above and white below, was seen in the lagoon.

Red-billed Tropic Bird

Phaethon aethereus

Recorded by Stoddart & Poore (1970b).

Masked Booby

Sula dactylatra

Two immatures 6 Jul. 1974.

Red-footed Booby

Sula sula

Recorded by Vesey-Fitzgerald (1941).

Brown Booby

Sula leucogaster

A sub-adult in the lagoon 7 Jul. 1974.

Frigate Bird

Fregata sp.

Five frigates seen feeding off North Island 6 Jul. 1974.

Grey Heron

Ardea cinerea

Ridley & Percy (1958) recorded 2 nests in coconut trees on North Island, but no herons were seen in 1974.

Turnstone

Arenaria interpres

Recorded on South Island (Stoddart & Poore 1970b). c.20 in the Sooty Tern colony on North Island 6-7 Jul. 1974.

Whimbrel

Numenius phaeopus

One on beach North Island 6 Jul. 1974.

Greenshank

Tringa nebularia

One on beach North Island 6 Jul. 1974.

Crab Plover

Dromas ardeola

Recorded on South Island (Stoddart & Poore 1970b). One on beach North Island 7 Jul. 1974.

Roseate Tern

Sterna dougallii

Breeding on North Island was recorded by Ridley & Percy (1958), and they (1966) estimated that 250-300 pairs were breeding in June/July 1966. In 1974 there were 3 sub-colonies on the southern point and the east coasts with 13, 4 and 4 nests, each with a single egg. Many seabirds bred late and in reduced numbers in 1974 (see Sooty Tern below) and this count is probably a low estimate of the island's population.

On 7 July 1974, two parties of c.30 Roseate Terns were seen c.15 km from the island and heading towards it, suggesting that they fed well away from the island. They were never seen feeding within the reef. (On returning from African Banks on the evening of 8 July several parties of Roseate Terns (10-20 birds per flock) were seen near Silhouette flying in the direction of Aride, probably the largest breeding colony in the Seychelles, again suggesting that they feed away from the colony).

Black-naped Tern

Sterna sumatrana

Recorded breeding on South Island, with eggs in Sept.-Nov. (Vesey-Fitzgerald 1941) and breeding Jul.-Aug. (Ridley & Percy 1958). Not breeding North Island July 1974, but probably 100+ present feeding over shallows (dipping to surface) in the lagoon and roosting on sandbanks. Several birds on the beach of North Island were paired and courting (fish carrying).

Bridled Tern

Sterna anaethetus

One in the lagoon 6 Jul., and another found dead on the island.

Sooty Tern

Sterna fuscata

Recorded breeding by Vesey-Fitzgerald (1941), breeding on North Island but not South by Ridley & Percy (1958, 1966 - 43,300 pairs in 1955, 34,000 pairs in 1966), and breeding on South Island in large numbers in Sept. 1968 by Stoddart & Poore (1970). On 6-7 July 1974 20,300 pairs were estimated to have been breeding. Egg counts on the two days showed that laying had stopped, and on 6 July 1 newly hatched chick was found, with c.50 chicks on 7 July. In 1974 eggs were at a low density (av. 1.55/m², cf. Bird Island 3.38/m² in 1973) and did not occupy all of the ground that was potentially available to Sooty Terns -

the area of the colony was estimated at 1.31 ha., and that of the island at 2.27 ha, most of which could normally have been used by Sooties. In 1974 Sooty Terns, and other seabirds, bred late and in much reduced numbers on Bird Island, Desneoufs and Aride, this presumably being due to food shortage. However, it was interesting to note that while laying had stopped and hatching began on African Banks on 6 July, on Bird Island on 9-12 July laying was continuing and no birds had hatched. This supports the statement by Ridley & Percy (1958) that breeding begins earlier on African Banks than on other islands in the Seychelles and Amirantes, but the reason for this is unknown.

African Banks Sooty Tern eggs are not cropped commercially but the colony is poached. On our 1974 visit two shelters made of coconut leaves were found, and wings scattered around the colony showed that birds as well as eggs had been taken.

Saunders Tern

Sterna saundersi

A large flock was recorded on 8 Nov. 1937 by Vesey-Fitzgerald (1941).

Crested Tern

Thalasseus bergii

Eggs were found in Nov. 1937 (Vesey-Fitzgerald 1941). Ridley & Percy (1958) recorded this as a breeding species but did not say whether eggs or young were present in July-Aug. 1955. In Jul. 1974 there were 6 nests, all with 1 egg (weights of 5 eggs were 51g., 50g., 56g., 57g., and 56g.) in two sub-colonies, and one very recently fledged juvenile on the beach. On Aldabra Diamond (1971) recorded breeding in Jan. and July, and they may breed at 6-months or irregular intervals on African Banks.

Brown Noddy

Anous stolidus

Estimates of 5900 pairs on North Island in Jul.-Aug. 1955 but only 100 pairs in 1966 (Ridley & Percy 1958, 1966). In Jul. 1974 noddies, like Sooty Terns, bred late: c.200 bulky nests made of seaweed had been built about 0.25m above ground in the grass around the north-east and east coasts, but few contained eggs. Many more may breed in less abnormal years.

Black Noddy

Anous tenuirostris

Not recorded breeding on North Island, but Stoddart & Poore (1970b) recorded them with eggs on South Island in Sept. 1968 in a *Scaevola* bush. This is an unusual breeding habitat in the Seychelles, where on Cousin, Cousine and Aride it generally nests in taller trees. In July 1974 there appeared to be no bush vegetation on South Island (viewing it with binoculars from North Island and from a boat) and it may not have bred that year: only one Black Noddy was seen, outside the reef.

White Tern

Gygis alba

Not recorded breeding, although it breeds elsewhere in the Amirantes. Seen at sea in the vicinity of African Banks by Stoddart & Poore (1970b) and on the July 1974 visit.

Willow Warbler

Phylloscopus trochilus

Recorded once in Nov. 1970 (Benson 1972).

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