

LAYARD'S BIRD HUNTING VISIT TO TROMELIN OR SANDY  
ISLAND IN DECEMBER 1856

by R.K. Brooke<sup>1</sup>

This paper concerns the only known visit by a biologist to Tromelin Island in the XIX century.

That Edgar Leopold Layard, the Curator of the South African Museum, Cape Town, travelled as naturalist on the British Royal Navy survey ship H.M.S. *Castor* on a journey in the southern Indian Ocean in 1856 and 1857 was scarcely known at all until Brooke (1976) commented on some aspects of the journey and the bird records made on it. Subsequently Brooke (1978) reported on those birds' eggs collected on this journey which still survive in the South African Museum. He also deduced the approximate route and timing of the journey from the species collected, their known breeding seasons and migrations. As will appear below, these deductions were close to the truth. Since then I have had cause to examine in the South African Library, Cape Town, a run of the *Cape Monthly Magazine* (Series 1) published in Cape Town between 1857 and 1862. This magazine attempted to cater to the interests of the more educated residents of British stock by publishing scientific, philosophical and literary material.

In volume I of the *Magazine* the editors caused to appear on pp. 252 - 254 a notice entitled "Mr. Layard's cruise in the "Castor"." From this we learn that H.M.S. *Castor* left Simonstown on 10 October, 1856 under sail under the command of Commodore H.D. Trotter. They intended to land first at Rodriguez but extensive fog persuaded them to head for Mauritius where they spent five weeks and made several trips to nearby Round Island. Sandy Island as Tromelin Island was then often known (Staub 1970) and the focus of this paper was the next landfall (presumably in early December 1856). Then Farquhar Island was visited prior to reaching Africa at Fazi Island, Kenya, on 4 January 1857. Thereafter, Lamu, Melinda, Kisilundini, Zanzibar, Cabo Delgado and Dibo were visited before they put out to sea for a crossing to northwestern Madagascar via the St Lazarus bank and the Comoro Islands. Anjouan was reached on 1 February and a few days later a visit was made to Moheli. Two days were spent in Madagascar at Boyana Bay at a Jesuit Mission before recrossing the Mozambique Channel to Mozambique Town. After a substantial visit they set sail for home via Durban (departed 13 March), East London, Port Elizabeth (departed 19 March) and so back to Simonstown on 25 March 1857.

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Layard promised to write a full account of his journey and his collections for the *Magazine* but he did not do so, probably through pressure of work: he was only the part-time curator of the Museum being a nearly full-time civil servant as well. However, in 1858 in vol. III, pp. 289 - 296, appeared the following from Layard's pen:

SCRAPS FROM THE NOTE-BOOK OF A NATURALIST

SPORT ON SANDY ISLAND

BY E.L. LAYARD

"LAND, HO!" hailed the look-out man from the foretopsail yard of Her Majesty's ship *Castor*, as one lovely morning the Commodore and myself paced the deck of the good old frigate.

"Whither away?" went up the responsive query from the midshipman of the deck, who, stepping up to the officer of the watch and touching his gold-banded cap, reported the fact. In his turn, the officer reported to the Commodore; and, after a few questions, the order was given to head the vessel to the land, and we resumed our walk.

The low shores of the island now became visible, and the clear blue sky was dotted with birds, winging their way to and fro; some plunging headlong into the rippling water, that vied in the intensity of its azure with the sky above it, sought their finny prey, some returned to their nests heavy laden with food for their young, while others floated contentedly on the gently heaving bosom of the sea, or rose lazily out of the path of the frigate, as she majestically ploughed her way along, her white sails gleaming in the bright sunlight. One by one the studding-sails came home, and the noble ship cautiously felt her way to the rapidly rising land; and now, while the boats are told off, we descend to have a last look at *Horsburgh's Directory*, for landing instructions, hidden dangers, currents, etc.

For the benefit of such of my readers (and I suppose they are numerous) who do not know where Sandy Island lies, I transcribe the account given by the great hydrographer of its position and appearance:-

"Sandy Island, or L'Isle de Sable, in latitude 15° 52' S., longitude 54° 40' E., is a flat, sandy spot, about fifteen feet above water, half a mile long, from N.N.W. to S.S.E., and about a quarter of a mile broad, having a sand-bank projecting three quarters of a mile towards the S.S.E. It was discovered by the ship *La Diane*, in 1722, and in 1761, the *Flute l'Utile* was wrecked there."



After the men had got their dinners, the boats were reported ready, and the first cutter, attended by the dinghy to assist in landing, were soon off from the ship's side, well furnished with baskets, guns and ammunition, harpoons, fishing-lines, etc. The vessel had stood up as near the island as the light breeze permitted with safety, and on quitting her, she tacked and stood off, the Commodore trying for soundings (though finding none with one hundred fathoms of line), and practising reefing topsails and other manoeuvres, to exercise the men. The boats pulled cheerily along, the men eager for a run on shore and a supper of turtle steaks, the sportsmen anticipating no end of sport, and myself luxuriating in the idea of visiting the breeding place of the countless frigate birds, gannets, terns, and other birds that now filled the air with their piercing cries, and darkened the sky over the island.

As we reached the coveted shore, the water suddenly changed from blue to green, and presently the surf line showed itself, thundering on the sandy beach. The dinghy being signaled to pilot the way, the two Kroomen who rowed her, amphibious fellows equally at home in the water as on the land, urged their frail skiff in advance, and we soon descried a spit of land, under the lee of which the water lay comparatively smooth, and there we determined upon effecting a landing.

The dinghy soon lay high and dry; but our attention in the cutter was diverted by a tempting object that floated on the calm water, a few dozen yards ahead, and which we all, at once, and with an instinct worthy of city aldermen, knew to be turtle soup in its raw material. An old whaleman now crept forward to the bows and drew out the glittering harpoon, the boat's crew pulled noiselessly, the officer in charge gave his orders in whispers, and we stole on our prey. "Ah! old fellow, how many basins of soup will you make?" was in many a mind, and "What a splendid shell for the Museum," in one at least. Look at the harpooner, he stands upright, one foot on the gunwale, the barbed weapon poised; half-a-dozen strokes and he is — No, not a bit of it, — wide-awake is Master Turtle; and without a ripple, down sunk the huge bowl of soup and we saw him no more.

Disappointed with the failure of our first essay in turtle-catching, we turned our boat's head to the shore, and pulled in, avoiding with sailor's skill the huge rollers that ever and anon broke in masses of white foam on the beach. We ran in on the top of a wave, backed and let it break, and then pulled in. Out jumped the men who were appointed to run the boat up, and to our dismay, though only a few yards from the dinghy, our fellows found no bottom. Before they could recover the confusion into which this untoward accident threw them, and the men in the boat had recovered their oars, a huge surf broke right over us, washing two men out of the boat and throwing her on her beam ends. I held on to the guns and the benches, the rest made ready to spring out at a favorable moment; fortunately, the next wave had a "long-shore" course, and though it threw us about like a nut-shell, it drove us



into shallow water. The men still clinging to the gunwale found footing; the rest of the crew sprang out, and the next moment saw us in safety, though at the expense of a good ducking, and, on my part at least, not being a swimmer, of a good fright.

After wiping our guns and spreading our superfluous clothing on the sand to dry, we walked up to what we at once saw to be the remains of a human habitation. We found the ruins of a hut, which had contained three rooms; in the largest was a square enclosure of blackened stones, which had formerly served for a fire-place; but which now held the nests of three or four noddies (*Anous Stolidus*), who, utterly heedless of our approach, pecked furiously at our hands when we attempted to possess ourselves of their lovely spotted eggs. We found the nests of these birds in every hole and corner of the ruins; they had taken possession of every stone, and while the male bird sat perched on the top, the female covered her solitary egg by the side in a depression in the soil, lined with a few seaweeds. The eggs were beautifully spotted with patches of various shades of a light purple on a delicate cream-colored ground. An average sized egg measured two inches by one and a half inches; but hardly two were of the same size, or colored alike; still, a practiced eye could at once separate them from that of *Onychoprion Fuliginosus*, which we found breeding on another part of the same island.

From the ruins, we walked to the east side of the island, which appeared covered with bushes about the height of a man's head. Up to this time, the frigate birds had kept well out of range; but now a rustling sound was heard above us, like the falling of some heavy body through the air, and glancing upward, I saw a frigate bird darting down as if to attack us. As he swept past, I leveled my gun at him, fired, and he rolled over; and now the guns had plenty of work, for the birds poured down, and the ground was soon strewn with dead and dying.

How many of the wished-for birds we might have slain, I know not, when one of the men called out, "Hold hard, sir, — don't shoot any more, — here they sit by scores on their nests." And now the truth flashed on my mind, — we had intruded on their "rookery," and the poor birds had lost their lives in their vain attempts to intimidate the two-legged monsters that had suddenly disturbed their domestic privacy. Eager to possess myself of their eggs, I dislodged bird after bird from her nest, by the aid of a long stick, — to approach one's hand, was the sure precursor of a severe bite. Every one, almost, had a callow nestling under her maternal wing; and I obtained but few eggs in a fit state for blowing.

The Tars, who roamed about, found one place where the incubation seemed not so far advanced, probably the nursery of the new-married and inexperienced couples. Jack seized the prize, and though the eggs were in most instances sat upon, they were all devoured: so much for taste! I heard one fellow say to his chum,



as he gulped one down, "Dang it, Ned, there was a bone in that un."

The frigate birds (*Attagen Ariel* and *A.* ,) and the gannets, of which there were three species, — *Sula Fasciata*, *S. Personata*, *S. Fusca*, bred side by side, in patches. Their nests were huge structures of sea-weed, dung, and fishbones, their stratified appearance testifying that each successive year added to their size. The stench from this spot was dreadful, the ground being strewn with the debris of fish and young birds. I could not account for the numbers of the latter, till I saw a huge red and hairy hermit crab (*Pagurus*), inhabiting the dead shells of a large Turbo, which lay scattered in great abundance on the ground, deliberately descending the trunk of one of the bushes, with a writhing squab in his claws. I then saw that the branches were full of these cannibals, mostly laden with fish stolen from beside the nests. I presume, the robbers only occasionally manage the more dainty morsel of a tender chick, secured when the mother is absent from the nest, though doubtless sufficiently often to keep in check the rapid growth of the birds, — robbers in their turn, for from the mouth of one I shot was disgorged no less than seventeen fish, from three to nine inches long.

After forcing our way through the bushes, we emerged on the side of the island, opposite to that on which we landed, and found a reef, or ledge of coral and rock, extending along the shore, at the outer edge of which the surf broke in fearful splendour.

A hail from one of the men in advance, and the clustering of the lads as they reached the spot, induced us, who were leisurely advancing with prying eyes, to hasten our steps. We found, on arriving at the scene, that the men were busily engaged in examining two or three heavy iron guns, that lay half buried and jammed in between the rocks, and to seaward lay the timber of a vessel, with her huge anchor still with one fluke in the reef. These, then, were the remains of the ill-fated *L'Utile*, the French man-of-war alluded to by Horsburgh: the house now tenanted by the wandering sea-fowl had been the home of the survivors during their long imprisonment on this speck in the ocean; the fire-place in the large room had witnessed the gay laugh of the thoughtless, the bitter gloom of the despairing, and the high and manly thoughts of the undaunted and brave, each, perhaps, in his own way, pondering over the means of escape, or the question of to-morrow's food. The commander sat in the little room, overlooking the remains of his lost vessel: the officers crowded in the other room, and thought of those loved ones they might never see again; and now, how many of that band of men survived? Not one! and the place of their long sojourn would never again hear the sound of their voices.

We pushed onward to the northern end of the island, and crossed an open plain that lay between the bushes and a high bank of rolled stones, cast up by the storms of ages on that end of the



island. In the centre of this plain, we came upon a circle of stones, placed round a spot, whose vivid green attested to the presence of water beneath: this was the place from whence the shipwrecked men drew their supplies. Near this spot we could hardly tread for young terns (*Anous Stolidus*) and eggs, and on turning over a stone, out sprang two mice; another and another followed from every stone moved, the place literally swarmed with them. They had probably come in the French ship, and had peopled the island. How to account for the presence of the vast quantities of huge black ants, that ran their galleries in all directions under the sward, was a more difficult matter; as also was the advent of a lizard (Gecko) that I captured, but which subsequently made his escape.

Advancing a few yards from this spot, we entered on the domains of another species of tern (*Onychoprion Fuliginosus*), of which we were first made aware by the fearless birds striking at our faces with their sharp pointed bills. As in the other places, we had not seen a single nest of this species, so now we saw not a nest or specimen of *A. Stolidus*. The noise of the congregated numbers was so great that we could barely hear the shouts of our nearest neighbor, and I was glad to escape over the high ridge of stones and gain the quiet of the dashing surf.

This is evidently the stormy side of the island, and the direction of the prevailing wind. The whole shore consisted of large rolled stones; not one of which possessed an angle; all as smooth as a cobbler's lap-stone, they irresistibly brought to mind hundreds of jolly Crispins busily tapping soles and welts. Here we found another wreck — a huge tree; from whence had this floated? Madagascar probably, and was the ark in which had come the ants, and the gecko; so are those ocean dots peopled.

Turning from the scene of speculation, we wended our way back to our boats along a broad road, cleared of every stone, and nicely smoothed. For what could the poor refugees have constructed this road? Perhaps their commander, a wise man, reflecting that idleness excited gloomy thoughts in such situations, had set his men to work to clear this road, to convey — what? Firewood from shipwrecked trees, stones thrown up by the waves to build their house, — what! as a carriage road it had certainly been used, for we found the broken wheel of a cannonade lying on a heap of stones.

While walking here, I had given my gun to the Chaplain, who wanted to try his hand at a shot. He had fired once and unsuccessfully, at an oyster catcher (*Hoematopus*); and now to my vexation, I saw a new lovely snow white bird, much resembling a tern, slowly passing him. "New bird!" I shouted; "shoot, parson, shoot!" Alas, my friend was a better hand with his Hebrew books than with Westley Richards, and that eminent individual's death-dealing tubes were leveled in vain at the lovely stranger. To the bright flash and loud report, the snowy creature made a



graceful stoop, like a damsel in white muslin at an invitation to dance, and it floated over our heads and looked us full in our faces with its large black eyes. I was frantic: eagerly I crammed in a charge of powder; but alas, no shot had I, my *fidus achates*, "Ned," and "curio-man's Jack," as the sailors had dubbed him and me, was off to the boats with my pouch. But help was at hand, — the crack-shot of the ship, Lt. -----, was hastening to the scene, attracted by my shouts and vain attempts to knock the bird over with stones. Seeing another of the queer monsters running up, my white friend turned away, and was winging his course sea-ward. Oh agony! only known to the naturalist, who sees a new species slip away from his grasp. Inwardly, I resolved never more to trust my "shooting-iron" out of my hand on these unknown coasts. The white vision took another turn this time, land-ward — "run, run! — new bird! — long shot! — ah, my beauty, the parson does not hold that steady barrel: a deadlier eye is measuring the distance which you will fly over, ere the leaden messengers will reach you." And now, the sharp flash! — plump down falls the hapless bird. The reverberating report reaches my ears, and I dashed forward and the prize is mine; and oh, how beautiful the pure white plumage, without a speck, save the one pink spot on the breast, from whence oozed the ebbing life blood, the brilliant blue bill and the large dark eye now closing in death! And now, *quam mutatus ab illo!* its dry and shriveled skin and blackened bill grace the cases of the Museum, — a mockery of life; a burlesque on the loveliest bird I think I ever saw. Reader, you may see it labeled *Gygis Candida*.

The eggs of the *Onychoprion Fuliginosus* are rather larger than those of *A. Stolidus*, being about 2 inches and 2 lines long, by 1 inch and 7 lines broad, and more thickly dotted with smaller dots at the obtuse end. They are also generally darker, and may easily be distinguished by any one who has ever taken the two, though a written description would suit for either species.

The eggs of the frigate birds, *Attagen Ariel* and *A.* , are very similar in size and shape to those of the gannets; but are smoother and thinner in texture, and free from the thick incrustation of lime which at once distinguishes those of the latter. They are both pure white when fresh laid; but get sadly soiled amidst the filth in which they lie. They measure about 2 inches 7 lines long, by 1 inch 9 lines broad.

Just as we commenced our arrangements for the night, the old frigate which had been working up for the island, suddenly backed her topsails, ran up her recall flag, and fired a gun. Jumping into the dinghy, I went on board to ascertain the reason of this change of plan, while the cutter was launched and preparations made to return, if the recall should prove general.

"What sport?" shouted the Commodore, as we got within hailing distance. "Glorious!" was my reply. "What likelihood of turtle?" was the next question. "Very little! no marks on the



land of the breeding ones." The little dinghy shot under the tall sides of the ship, when again thundered her signal gun, and the cutter's recall, in lanterns, ran up to her mast-head; and just as total darkness fell on us, the cutter dashed along side, and in another moment was swinging at her davits; the old ship filled her sails, bowed to the night breeze, and we stood off from the island.

"I don't like the current hearabout," said the Commodore, as I finished my narration of our afternoon's adventure. "We must not lay the *Castor's* bones alongside those of *L'Utile*."

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The rest of what Layard did, collected or saw on that journey is lost save for the fragmentary allusions in his 1863 paper, his 1867 book (brought together in Brooke 1976) and what little can be learnt from the surviving eggs discussed in Brooke (1978).

It is possible now to present a picture of the bird life on Tromelin Island as it was in December 1856, 98 years before Brygoo's (1955) visit, believed to be the first ornithological visitor by Staub (1970). As Mr. A.S. Cheke has pointed out (in litt.) Brooke (1976, 1978) was mistaken in assuming that Layard's Sandy Island was the Sandy Island off Rodriguez. The Rodriguez records in those publications were all made on Tromelin Island (Layard 1858).

*Sula dactylatra*: a youngster and adults brought back to Cape Town (Brooke 1976), young in the nest (Layard 1858 sub nom. *S. personata*). It still breeds here (Staub 1970). The nest site fidelity described by Layard should be noted.

*Sula sula*: a pair and two youngsters brought back to Cape Town (Brooke 1976), young in the nest (Layard 1858 sub nom. *S. fasciata* for normal birds and *S. fusca* for dark phase birds). I know of no other usage of *S. fasciata*, let alone who proposed the name if, indeed, it is not just a misconception in Layard's mind. It still breeds here (Staub 1970).

*Fregata ariel*: adults collected, most nests held young but a few held eggs, usually well incubated (Layard 1858). Staub (1970) is uncertain whether it still breeds on Tromelin.

*Fregata minor*: as for *F. ariel* (Layard 1858). It still breeds here (Staub 1970).

*Haematopus ostralegus*: shot at but missed (Layard 1858). Not recorded on any Indian Ocean island by Watson et al. (1963) and there are no subsequent records (A.S. Cheke in litt.).

*Larus cirrocephalus*: an adult brought back to Cape Town (Brooke 1976). He gives reasons for not rejecting the record even though the specimen



no longer survives and there are no later records. Presumably it was a vagrant from Madagascar nearly 400 km to the west.

*Sterna fuscata*: eggs collected (Layard 1858 sub nom. *Onychoprion fuliginosus*). Not recorded by Staub (1970) whose visit was in late August when the birds would not have been breeding.

*Sterna dougallii*: Staub (1970) suggests that the terns described by Morris (1964) as "with light grey mantles and black crowns" were this species. They might equally have been *S. bergii thalassina* since no indication of size is given. Layard (1858) makes no suggestion that either species was present during his visit.

*Gygis alba*: an adult brought back to Cape Town (Brooke 1976). It does not appear from Layard (1858) sub nom. *Gygis candida* that it was breeding at the time of his visit. Not recorded by Staub (1970).

*Anous stolidus*: a youngster and adults brought back to Cape Town (Brooke 1976) as well as eggs (Brooke 1978). They had both eggs and young in their nests (Layard 1858). Not recorded by Staub (1970).

*Anous tenuirostris*: adults brought back to Cape Town (Brooke 1976) but it does not appear from Layard (1858) that he realised that two species of *Anous* were present. Not recorded by Staub (1970).

As for the fauna other than birds it appears from Layard (1858) that *Mus musculus* was by then well established and it has remained so (Staub 1970). Layard's belief that they had come from the wrecked *L'Utile* is likely enough. He does not mention *Rattus norvegicus*, the other well established rodent noted by Staub. Hermit crabs *Pagurus* sp. were common both in the 1850s and 1950s: Layard's remarks on their predation on the young of *Sula dactylatra* should be noted. Layard's gecko (Reptilia, Gekkonidae) was probably, as he said, a drifted vagrant since there is no mention of lizards in Staub. I am unable to equate Layard's (1858) "huge black ants" with Skaife's (1953) description of *Pheidole megacephala*, the only ant recorded by Staub (1970).

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