

up and down, high then low over the water, the Booby flew straight and low. The shelf on which the Booby was roosting was well manured. A brown feather and fish-bones were present. This Booby was very similar to one seen off Waiheke on 7/9/62 (*Notornis* X, 167), but as far as I can remember, the Waiheke Booby was paler on the abdomen.

While staying at the Bay of Islands, I took a trip to Cape Brett on 11/1/63 and the launch put in at the lighthouse bay to drop supplies. Opposite the light was a flourishing colony of Red-billed Gulls (*L. scopulinus*) and on the outskirts of the colony some White-fronted Terns (*S. striata*) were nesting. A strange bird, the size of a tern, flying over the gulls which were sitting on the rocks just above high-water mark, attracted my attention. It was fairly uniformly blue grey; the tail was forked and the bill was dark. Clearly it was a Blue-grey Noddy or Ternlet (*Procelsterna cerulea*). I had ample time to watch it, as it flew past the launch about sixty yards away following the shoreline. From time to time it dipped as if to fish, all the while keeping close inshore. Finally as the launch moved out of the bay, the Ternlet passed round the point.

Records of these small tropical noddies in northern New Zealand waters are slowly accumulating. In January, 1954, Major Magnus Johnson sighted one, nine miles north of Cape Brett (*Notornis* VI, 84). The species may indeed be a regular summer visitor to the Northland coast.

M. J. HOGG

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PREDATORY HABITS OF THE BLACK-BACKED GULL

An interesting feature of the 1962-63 breeding season on Motuotamatea (Schnapper Rock), at New Plymouth, has been the observed predation by Black-backed Gulls (*L. dominicanus*) on White-fronted Terns (*S. striata*). Schnapper Rock is one of two small islets near Port Taranaki readily accessible at low water, and is a popular breeding ground for a small number of Red-billed Gulls (*L. scopulinus*) and White-fronted Terns. Although in past years, only an odd pair of Black-backed Gulls has been known to nest there, this season saw five pairs nest and breed successfully — one pair on the northwest face and four pairs on the southeast face. Three pairs of these gulls nested together at one end of a small mixed Red-billed Gull and tern colony and it is in this group that the predatory habits were observed.

From 13/12/62 when the first of the Black-backed Gull chicks hatched out, to 27/1/63, a total of 24 terns had been killed. Of these 24, 16 were young birds reared this season (8 had been banded earlier in the season), the remainder being adult birds. In addition to the terns, the mutilated remains of a young Starling (*S. vulgaris*) and an adult Blackbird (*T. merula*) were also found.

Aspects of this predation which arouse interest are, firstly, the fact that in all cases, the young birds killed had all attained the powers of flight. Although there was a significant number of non-flying chicks within the near vicinity of the gull nests, no mutilated carcasses indicating a Black-backed Gull attack were found. On 8/1/63, an act of predation was witnessed. The gull swooped on the young flying tern, hitting it in the centre of the back with its extended feet. Before the tern could recover, the gull pecked it viciously in the region of the back of the

skull. The tern then fell dazed onto the rocks below, with the gull following it and there it continually pecked the tern in the head region, eventually drawing blood. Picking up the almost dead bird by the neck, the gull flew back to its nesting area and here further pecking at the head region occurred. When the tern showed no further life, the gull ripped the breast wide open, extracting large portions of the flesh which were fed to the chick. After consuming all the offered food, the chick was then allowed to pick at the remains. Whether or not this method of attack was the same for the more agile adult terns, it is difficult to say, as no such attack was witnessed.

The second point of interest is the comparative indifference shown by the other terns in the whole affair. Only a single pair of adult terns expressed their annoyance by repeatedly swooping low over the gull during the attack.

Thirdly, the 8 young birds killed, which had been previously banded, were all reared in the midst of the small gull and tern colony next to which the Black-backed Gulls nested. Whether or not the other young terns were also from this particular colony, it is hard to tell, but from the evidence of the 8 banded birds, it is highly probable that this is so.

Another characteristic of this predation was the fact that all the dead terns were brought back to the flat rock-shelf in front of the nesting area. Here the remains of all the terns were found and in no other area were other remains found.

Finally it appears relevant to mention that no cases of Black-backed Gulls robbing tern nests of eggs were found or reported seen. All broken shells of tern eggs examined indicated the hatching of a chick, while the odd infertile egg found, usually some distance away from a nest, showed no sign of having been probed by some other bird.

M. J. WILLIAMS



RED-BILLED GULLS NESTING IN CLEFTS AND CAVES

Soon after my arrival at Campbell Island in October, 1962, I began banding Red-billed Gulls (*L. scopulinus*) at the jetty and around the hostel, using traps and mist-nets. At the beginning of December their numbers began to decrease till only a few juveniles remained.

On 30/12/62 a trip was made to Middle and Northwest Bays, one of the areas where these gulls are known to nest. About thirty gulls were counted between the two bays. As we traversed the area the gulls uttering their usual cries attacked us in the manner to which I was accustomed on The Brothers' Islands, but nowhere in the open could I see any nests. Walking a little further I noticed a Red-billed Gull emerge from a cleft in the rocks. Here I found a nest containing two chicks about a week old.

On the return trip from Complex Point and Northwest Bay, I inspected all clefts and small caves along the route and so found seven more nests; two with two chicks each, three with two eggs each, and two partly built.

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