A VISIT TO THE PYRAMID AND THE MURUMURUS, 
CHATHAM ISLANDS

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SUMMARY

Observations are recorded from some of the rarely visited islands in the Chatham group. The western Nugget in the Murumuru group is an important site for nesting petrels with six species recorded breeding there. At The Pyramid, cape pigeons (Daption capense) were probably breeding, and new data on the timing of breeding of the Chatham Island mollymawk (Diomedea cauta eremita) suggests that hatching occurs throughout November and into early December.

INTRODUCTION

This article records details of a visit made on 2 December, 1987, to the islands south of Pitt Island, in the Chatham group (44°00'S 176°30'W). It mainly deals with observations of birds seen during landings on The Pyramid and on the western Nugget, in the Murumuru island group. Knowledge of these remote islands is still incomplete and much useful information can be obtained, even during a brief visit. In particular, information on the two endemic Chatham Island birds observed on this trip - the Chatham Island mollymawk and the Chatham fulmar prion (Pachyptila crassirostris pyramidalis) - is discussed.

THE PYRAMID

We travelled on board SRV Totorore, from Mangere Island to The Pyramid (Fig. 1), a spectacular 174m high volcanic cone (Fig. 2). At 1420hr, RCM and AJDT landed on the southeastern shore of the island where we clambered up to a plateau about 20m a.s.l. where many Chatham Island mollymawks were nesting. This was the area where Fleming and Turbott went ashore in 1937 (Fleming 1939). Hindered by the steepness and slipperiness of the rock, we were unable to climb much further, and returned to Totorore at 1630hr.

Chatham Island mollymawk

It was not until we were very close to The Pyramid that we first saw Chatham Island mollymawks. Hundreds were onshore and swirling in the air.
above the steep sides of the island but few were at sea. Hatching was near completion in the 60+ nests that we observed closely around the plateau. About half the nests contained chicks, while the remainder were empty. The largest chick stood about 40cm high and was estimated to be three weeks old, while the youngest was hatching from a well-pipped egg. No other eggs were seen. All chicks were being brooded or guarded by adults (e.g. Fig. 3). At least half of the adults seemed to be "unemployed", with many associated with empty nests. Nests were low pedestals, built out of soil, bones and vegetation. They were mainly spaced several metres apart, which allowed us to avoid the lunges of adults and the regurgitations of chicks, while we walked amongst them. All adults appeared to be in slightly worn plumage and a freshly dead bird was found to have active moult on its belly.
Cape pigeon
A few were seen offshore and about five were seen landing on ledges near the summit (see Clark 1989), where they were probably nesting. The individuals seen resembled birds of the race *D.c.australe* on the Snares Islands (AJDT pers. obs.).

Chatham fulmar prion
We found seven fulmar prions incubating. Two birds were at one of these nest sites. Their nests were small bowls, largely built out of vegetation and were concealed in rock crevices or under rocks. We saw one prion fly out to sea from the island.

Brown skua (*Catharacta skua lonnbergi*)
Two were seen in flight over the island.

Southern black-backed gull (*Larus dominicanus*)
Several were seen in flight over the island.
Fig. 3  Chatham Island mollyhawk (*Diomedea cauta eremita*) guarding chick.
Red-billed gull (*Larus novaehollandiae*)
About ten were seen around the shoreline.

White-fronted tern (*Sterna striata*)
About 20 were seen, either offshore or landing on ledges near the summit, where they may well have been visiting nests.

Starling (*Sturnus vulgaris*)
A single bird was seen in flight.

New Zealand fur seal (*Arctocephalus forsteri*)
We estimated that about 200, including males and females, were on or around the shoreline.

Vegetation
There was almost no soil on the southeast plateau of The Pyramid, but photographs in Fleming (1939) show that in 1937, there was considerably more soil and vegetation in this area. Waves could sweep over the plateau in a major storm (such as occurred in 1985), which could account for the changes. Plants on the plateau included: *Asplenium chathamica* (Chatham Islands spleenwort), *Carex trifida*, *Disphyma papillatum* (ice plant), *Festuca coxii*, *Lepidium oleraceum* (Cook's scurvy grass), *Leptinella featherstonii* (Chatham Islands button daisy) and *Senecio radiolatus* (Chatham Islands groundsel). Some specimens are lodged in the Auckland University herbarium (AKU).

THE MURUMURUS

The many stacks and reefs at the southern end of Pitt Island (including the Nuggets) are usually called the Murumurus (see Fig. 1). The Nuggets are also referred to as the Twins or the Twin Nuggets.

After landing on The Pyramid, we returned to the Murumurus, where we landed on the western Nugget (see Fig. 4) and made observations at some of the other stacks in the area. There appeared to be a reasonable amount of soil on the eastern Nugget and on the stacks near Goodman's Cove (also known as "Splutterguts") and skuas were seen on them. Therefore petrels are likely to breed on these islets. Apart from a small amount of Ice Plant, Round Rock and the Third appeared to be devoid of vegetation and they probably support few, if any, breeding birds.
Fig. 4 View from Mangere Island of the Nuggets and the Pyramid. From left to right: the eastern Nugget, The Pyramid (well behind the others) and the western Nugget.

THE WESTERN NUGGET

AJDT and RCM went ashore from 1930 to 2130hrs, landing at a spot between the two Nuggets. We climbed up an easterly facing slope that was covered in dead ice plant, reached a small plateau near the northern end of the island, then climbed up a ridge to the summit before descending to another ice plant slope on the eastern shore.

Broad-billed prion \(\text{(Pachyptila vittata)}\)

We found about 12 large downy chicks on the first ice plant covered slope. Both ice plant slopes were densely burrowed and most burrows probably belonged to this species. There were three old eggs and a further eight or so chicks in a small cave above the first of these slopes.

Fairy prion \(\text{(Pachyptila turtur)}\)

One bird was found, incubating an egg in a burrow on the ridge to the summit.
Sooty shearwater (*Puffinus griseus*)
Six single birds were located in burrows on the first ice plant slope. Two of these birds were incubating, as were presumably the others, although their nests were not checked. One bird had a very distended cloaca, indicating that egg laying had just occurred (Serventy 1956). Many sooty shearwaters could be seen flying ashore as we headed away from the islet at dusk.

Southern diving petrel (*Pelecanoides urinatrix chathamensis*)
One bird was found incubating an egg in a burrow just below the summit.

White-faced storm petrel (*Pelagodroma marina maoriana*)
Two birds were found incubating eggs in tunnels under *Festuca coxii*, on the ridge up to the summit.

Grey-backed storm petrel (*Garrodia nereis*)
One bird was found incubating an egg under *Festuca coxii*, on the ridge to the summit.

Brown skua
We saw two pairs of skuas while ashore on the island. One pair had two large chicks, the other pair had a nest containing two eggs. At least one further pair was seen from the yacht on the western side of the islet. The remains of broad-billed and fairy prions, diving petrels and grey-backed storm petrels were found in skua prey middens.

Blackbird (*Turdus merula*)
Two were seen.

Starling
One was seen.

Vegetation
Plants seen included: *Aciphylla dieffenbachii* (Dieffenbach’s speargrass), *Disphyma papillatum*, *Festuca coxii*, *Hebe chathamica* (Chatham Islands koromiko), *Leptinella featherstonii* and *Myosotidium hortensia* (Chatham Islands forget-me-not).

**DISCUSSION OF BIRD OBSERVATIONS**
Accounts about visits to The Pyramid prior to ours have listed four species
that we did not observe: grey-backed storm petrel breeding, Pitt Island shag (*Stictocarbo featherstoni*) breeding, Chatham Island pipit (*Anthus novaeseelandiae chathamensis*) (Fleming 1939), and one Salvin's mollymawk (*Diomedea cauta salvini*) (Robertson 1974). In addition, Fleming (1939) recorded that brown skuas were breeding. The listing of "*Diomedea exulans*" breeding on the island (Forbes 1893), was probably a reference to the Chatham Island mollymawk. Forbes must have been told that albatrosses bred on The Pyramid as he did not visit it. The finding of cape pigeons probably breeding on the island is notable, because the species had only just been found breeding elsewhere in the Chatham group (Clark 1989).

The Chatham Island mollymawk is still common at The Pyramid, which is the only known nesting site (Dawson 1973). Robertson (1974, 1991) estimated that there were about 4000 pairs on the island on 28 November, 1972. This included about 3200 breeding pairs and about 4215 occupied nest sites. The timing of its breeding cycle in 1987 was similar to that recorded in previous seasons (Fleming 1939, Dawson 1973, Robertson 1974, Robertson & van Tets 1982). However, hatching in 1987 was 2-3 weeks earlier than that postulated by Marchant & Higgins (1990), extended for about one week later than Robertson & van-Tets (1982) estimated, and was 4-5 weeks later than Robertson's (1991) estimate. All evidence suggests that hatching occurs throughout November and into early December.

Our observations on the timing of the fulmar prion's breeding cycle are in agreement with previous information for this species (see Miskelly 1984). However, as Robertson & van Tets (1982) noted, fulmar prions on The Pyramid seem to be less active on the surface during the day than at other localities. We did not see this species nesting in holes beneath the nests of mollymawks, as Fleming (1939) did.

There are few accounts of birds on the islands in the Murumuru group and none specific to the individual islands. Fleming (1939) recorded skuas there, Merton and Bell (unpubl) noted finding a fulmar prion skull there in 1968, Kelly (1971) recorded "petrels and prions", and Anon (1984) noted "high numbers of breeding petrels, Pitt Island shags, terns and gulls". Our observations showed that the western Nugget is an important site for petrels, with at least six species breeding there. Other islands in the Murumuru group may also be important for breeding seabirds and a more thorough survey of all the islands is required. Fleming's (1939) comment that "There is still much to be learned of the detailed distribution of [petrels] on the smaller islets" of the Chatham group, is still as relevant today as it was more than 50 years ago.
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