NOTES ON THE BEHAVIOUR OF VARIABLE OYSTERCATCHERS

By ALAN JONES

INTRODUCTION

Buffalo Beach is a sandy beach exposed to the open sea, extending about 3 km northward from the narrow entrance to Whitianga Harbour, where the township of Whitianga is situated, to the settlements of Brophy's Beach and Ohuka Beach. The central 2 km are backed by a narrow belt of low sand dunes which separate the beach from the main road. At the mid-point of the beach are a small estuary and lagoon at the mouth of Taputapuatea Stream, known locally as Mother Brown's Creek (Fig. 1).

On the beach, large beds of the bivalve Tuatua (*Paphies sub-triangulata*) extend from below low-tide mark to about half-tide mark; as the tide falls, live tuatuas are often exposed. Small green mussels, about 50 mm long, and larger green mussels attached to seaweed debris, are often washed up on the beach. These molluscs provide regular food for the Black-backed Gulls (*Larus dominicanus*), Red-billed Gulls (*L. novaehollandiae*) and Variable Oystercatchers (*Haematopus unicolor*) which frequent the beach.

A small population of Variable Oystercatchers, varying from 5 to 15, often accompanied by one or two South Island Pied Oystercatchers (*H. ostralegus finschi*), regularly occupies the lower part of Whitianga Harbour and the southern part of Buffalo Beach to a boundary about 800 m south of Mother Brown's Creek (Fig. 1). Two pairs of Variable Oystercatchers live and breed at the Ohuka Beach end and the central beach, at present occupied by two pairs, was from before 1969 up to December 1974 occupied by one pair whose territorial centre was the mouth of Mother Brown's Creek.

I named these birds Darby and Joan as they had been together so long. Joan's left leg was twisted inwards, causing her to limp, and she had a small smudge of white near her left leg. Darby was fully black. The following notes refer mostly to incidents I watched during many beach patrols on Buffalo Beach between June and December 1974. The names Darby and Joan are retained for simplicity. I could make no thorough study nor did I try to define the various calls and their function.

TERRITORIAL AFFAIRS

During the period March to late June 1974, Darby was rather tolerant towards other oystercatchers on the beach to within about 200 m south of Mother Brown's Creek. As the breeding season approached, however, he would not tolerate them within 800 m to the north and 400 m to the south of Mother Brown's Creek.

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FIGURE 1 — Locality map. a: northern boundary; b: nesting site; c: southern boundary of Darby and Joan's territory. Stipple: recreation reserve (fore-dunes and/or grass).

In early June 1974, six of the Whitianga Harbour oystercatchers established themselves at the northern end of their Buffalo Beach territory (Fig. 1). As soon as they had arrived, Darby and Joan moved from their usual position on the northern side of Mother Brown's Creek to the southern side. They often visited the six, the encounters apparently friendly, with much head-tossing and the picking up and throwing away of sticks, seaweed and shell. However, if any of the six tried to cross the creek, Darby and Joan would sprint at them with head down, beak open and held close to the ground, back feathers raised, accompanied by noisy piping. Joan was always on the left of and about a body-length behind Darby. I have seen this relative position of male and female in the territorial display of many pairs of Variable Oystercatcher on Buffalo Beach.

On one occasion (10 June), when one of the six approached the creek, Darby flew straight at it and soon they were striking each other with their beaks and at times Darby followed up his strike by jostling the other bird with his body until it fell over. The other five arrived and they all ran round and round anticlockwise, accompanied by noisy piping. A Black-backed Gull was attracted and stood as close as possible to the circle. The fight lasted 15 minutes and ended when the group returned to the harbour. Several days later, the group was back near its northern boundary.

On 13 June, a new pair of oystercatchers settled in on the beach about 200 m south of the creek. They were visited from time to time by Darby and Joan and there were the usual territorial displays. Once, when one of the birds came near the creek, Darby chased it to the water's edge and attacked it viciously, rolling it over and over in the water and then pecking it. After this attack, the intruding pair was not seen again.

On 23 October, a single bird challenged from about 30 m down the beach. Darby and Joan flew to within 20 m and began their territorial display. Then Darby took flight and began diving at the intruder, each dive more close until the intruder had to crouch on the sand at each pass. Darby was diving at about 45° angle, changing at the last moment to an upward glide, without landing. After five dives, the intruder started to move away. Darby then reduced the angle, each time hitting the intruder's back with his body and then bouncing along the beach on his feet for a short distance before flying up for the next dive. From the sound of the impact, it was obvious that the blows were hard. After about five such dives, the intruder crouched behind a small log. Darby then began hitting with his feet. After about 15 minutes of this, Darby rejoined Joan and they returned to their territory. The intruder was not seen again.

On 21 November 1974, an oystercatcher landed near Darby and Joan's nest on the north side of the creek, about two weeks before hatching. Both birds attacked it, pecking it and rolling it over and over on the sand. The intruder flew, closely followed by Darby and for 20 minutes the two were in the air, mostly over the sea, with Darby keeping to landward of the intruder which was forced to move seaward to avoid colliding with Derby flying closely alongside. Both then landed on the beach, some 600 m from the nest, where they carried out the territorial or visiting display for 10 minutes. The intruder flew again and the same sequence of shepherding away in the air and display on the beach occurred. This sequence occurred four times altogether and ended after two hours with the intruder leaving the beach completely.

This was the first time I had seen Joan join Darby to attack an intruder, probably because she was sitting on eggs. From then on, it was she who attacked whenever the nest was threatened, while Darby attacked birds intruding on the general territory. The next day, when I came to within 2 m of the nest, she dived and hit me on the back with her wings.

On one occasion, just before the eggs hatched, she hit me very hard several times on the back, using both her feet and beak. Meanwhile, Darby merely stood by making a shrill noise (not piping). The same occurred the next day. On this day also a fairly large dog came too close to the nest. Joan began flying round the dog's head, while Darby arrived and stood nearby making his shrill noise. When the dog did not move away, Joan began hitting it on the back of its head and neck and it soon retreated, with Joan harassing it until it was well away.

When Darby and Joan had left Buffalo Beach in December 1974, two other pairs soon moved in, one on the north side and one on the south side of the creek. Their behaviour was little different, though perhaps less skilled and determined. One day a north bird flew over the creek and chased a south bird along the sand into northern territory. The pursuer extended its wings horizontally and bounced in pursuit along the sand like a small plane making a bumpy landing. When it had caught up, the pursuer folded its wings and for 15 minutes, in complete silence, slowly walked anticlockwise round the pursued, its beak almost touching the body of the latter which stood throughout as if mesmerised.

Among several similar incidents was an occasion on 1 July 1977 when five Variable Oystercatchers from the harbour, accompanied by a South Island Pied Oystercatcher, flew into Mother Brown's Creek and began bathing. Within a minute the pair from the northern side flew in and quickly chased the five out of the creek and along the beach toward the harbour. The five were at full sprint, followed by the two aggressors and, well to the rear, by the South Island Pied. Once all took to the air, the South Island Pied soon caught up to the others.

FAMILY AFFAIRS

To my knowledge, Darby and Joan lived on Buffalo Beach from before 1969. They hatched eggs every year up to and including 1974 but did not rear any chicks, mainly because of dogs. For example, in 1973 one chick was reared almost to the point of flying but was killed by a dog.

Their nest in November 1974 was a shallow depression in the sand very close to the high-tide storm level, near the northern bank of Mother Brown's Creek, within a few metres of the sites of the previous five years. As is often the case, it was on the seaward side of a small log.

On 11 November, Joan was sitting on one egg and, becoming upset at my approach, flew and hit me on the back with her wings. On 12 November, there were 3 eggs. Darby spent most of his time sitting on a hump of sand about 1 m from the nest. From time to time, Joan would walk about or stand nearby for up to 15 minutes; Darby would wait for several minutes and then reluctantly sit on the nest. When Joan had had her exercise, she would walk back and Darby would move away to let her sit. Although I saw many of these change-overs, I saw no ceremonies with them. Nor did Darby bring food to Joan, even though he was often feeding on tuatuas while she was sitting. I did not see her feed while off the nest, although she may well have done so when I was not there.

If I walked quickly toward the nest, Joan would attack me but if, as on one occasion, I sat on the sand and slowly edged forward, I could reach to within 1 m of the nest. She showed no alarm while I stayed there and Darby even went down to the water to feed. In 1972, during a "Save the birds" project at Whitianga School, two pupils sat about 1 m from the nest every day after school and at weekends, to protect the nest from dogs and thoughtless children. Joan was not concerned but would attack anyone else who came near.

Dogs were generally deterred by the combined noise of Darby and Joan, two pairs of Pied Stilts (*Himantopus himantopus*) and one or more of the male New Zealand Dotterels (*Charadrius obscurus*) that bred nearby.

On 3 December, there were three chicks, one still in the nest, giving an incubation period of about three weeks. From then on, the chicks were to be found in the soft sand at the top of the beach, by 5 December having moved about 400 m north along the beach to a less public area. Between 3 and 9 December, both adults found the chick's food, breaking it into small pieces which were dropped in front of the chicks. On 14 December, Darby started bringing opened tuatuas up from the wet sand. On 9 December, I first noticed a chick probing in the soft sand with the parents.

On 9 December, Joan had a broken wing which dragged on the ground as she walked; there was a large red patch under the wing, as though a dog had had the wing in its mouth. On the 11th, while Darby was at the top of the beach with the chicks, Joan was chased by a dog. Both Darby and Joan made a lot of noise but, although Joan with her broken wing was in danger, Darby was distracted by a passing oystercatcher and immediately flew up and did not reappear for 20 minutes. I had to intervene until his return.

There were two chicks on the 13th, one chick on the 17th and no chicks on the 21st, when Joan's wing was partially healed. She was seen to walk into the dunes and also parallel to them, giving

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the short, quiet call she used with the chicks. Later, Darby brought an opened tuatua, seemed to look for a chick and finally left the tuatua untouched on the dry sand. On 23 December, Joan was listlessly standing near the nest site, often lifting her broken wing. Darby was busy chasing oystercatchers south of the creek. This was the last occasion when Darby and Joan were seen.

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SHORT NOTES

A FURTHER GREY-FACED PETREL COLONY

Some years ago, Medway (1966, Notornis 13: 17 and 1967, Notornis 14: 223) recorded the presence of breeding colonies of Greyfaced Petrels (*Pterodroma macroptera*) on coastal cliffs and stacks at Pukearuhe and Tongaporutu, North Taranaki. At that time he postulated the existence of further colonies within the area. This present note records the occurrence of such a further colony, 10 km southward of the Pukearuhe sites.

On 23 January 1978, I was shown a small group of "muttonbird" burrows by Messrs P. and J. Carr, Urenui, who had known of them for a number of years. The colony, about $2\frac{1}{2}$ km north of the Urenui River mouth, consists, apparently, of about half a dozen mainland burrows and a smaller as yet unascertained number on a stack about 20-30 m off-shore. Several of the mainland burrows had been occupied during the previous breeding season and a few feathers were present at the entrances. The burrows are confined to a narrow (c. 3 metre) strip of taupata (*Coprosma repens*) and flax (*Phormium tenax*) atop 10-15 m mudstone sea cliffs.

This colony may well be the most southern mainland breeding colony of Grey-faced Petrels as it is near the limit of the coastal cliffs apparently favoured by the species in Taranaki.

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GOLDEN PLOVER ON BOARD SHIP

Early on 12 September 1978, when Marama was at $24^{\circ}50'S$ 177°45'W, a Golden Plover (*Pluvialis dominica*) was noticed flying around the ship and attempting to land on board. In this it was eventually successful, and it was seen a number of times during the day in various parts of the vessel. In the evening it was caught and placed in a bathroom for the night, where it was seen to eat finely chopped meat, and to drink fresh water. It was released at $31^{\circ}26'S$ 178°22'E on 13 September. It flew around the ship twice before heading off southward. The weather on the 12th was heavily overcast with heavy rain and on the 13th was partly cloudy and fine.

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