

## SHORT NOTE

### Copulation in the Yellow-eyed Penguin

To date copulation in the Yellow-eyed Penguin (*Megadyptes antipodes*) has not been recorded, despite the long-term work of L. E. Richdale, who studied the Yellow-eyed at colonies in the South Island: “. . . on my many visits to the nests of the Yellow-eyed Penguin in the ten years when I observed them, I never witnessed coition, although I had been present at night as well as in the daytime” (Richdale 1957:27).

During a study of the breeding behaviour of the Yellow-eyed Penguin I have once observed copulation by a banded pair, from a hide about 20 m away.

On 20 September 1985 at about 1800 h, both birds were upright near the nest bowl. The male began the behaviour by approaching the female in a “shoulders hunched” attitude, as described for the Erect-crested Penguin by Warham (1975). The female moved away from the male, also in a “shoulders hunched” posture. The male followed, and both birds circled the nest twice before the female stopped upright, back to the male, in the nest bowl. The male then walked up to the female’s back and began the “arms act” (Richdale 1951), rapidly vibrating his flippers against the female’s sides. As the female remained upright, the male leaned forwards and preened the female’s neck. Either voluntarily or due to the pressure being exerted by the male, the female adopted a prone posture; feet braced backwards, flippers extended to the sides, tail vertical, cloaca everted, neck upright, and head and beak firmly horizontal. The male continued to beat lightly with his flippers and nibble preen the female’s crown, while climbing on to the centre of her back. The female maintained her position as the male trod slowly backwards, all the time vibrating his flippers and preening the female. With his body bowed over the female’s, the male lowered his tail until their cloacas were held briefly together. Immediately afterwards the male dismounted and began to preen. The female remained prone for another minute before standing up and preening also. From the approach of the male to dismount, the whole sequence took 110 s.

I saw no further copulation attempts although I made daily visits to the nest. The first egg was laid after 12 days on 2 October and the second was laid 4 days later. Both eggs hatched after an incubation span of 42 days. Two chicks fledged at about 105 days.

*Copulation in other penguins:* The form of copulation here described for the Yellow-eyed Penguin is essentially the same as that recorded for the other penguins. There was some minor differences: Tail-wagging by the male during cloacal positioning was not noticed in the Yellow-eyed but is a feature of Jackass Penguin copulation (Eggleton 1979). Female head position when prone was beak horizontal in the Yellow-eyed, whereas the head of the female Adélie Penguin is raised (Spurr 1975). Immediately after coition a special attitude is adopted by the male Royal Penguin (Warham 1971) and the male Erect-crested Penguin (Warham 1972), which turn their head down and withdraw their beak. No such post-coital posture was observed for the male

Yellow-eyed Penguin. Because I saw only one complete copulation, however, these differences may not be real.

It is a reflection of the secretive nature of the Yellow-eyed Penguin that, despite breeding close to the activities of humans, such a basic behaviour as copulation has not previously been observed.

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### Cape Pigeons breeding and Westland Black Petrels seen at Chatham Islands

On 2 December 1983, M.J. Imber saw a Cape Pigeon (*Daption capense*) fly off a cliff ledge on the northern side of the main island of the Forty Fours, Chatham Islands (Imber, pers. comm.). In November and December 1987, SRV *Totorore*, while assisting with the Taiko research project, visited the Forty Fours and confirmed that the Cape Pigeon is breeding there.

Ten pairs of Cape Pigeons were seen on the four stacks to the eastward of the main island of the Forty Fours and three pairs on the cliff ledges on the main island itself. A landing was made on the third stack from seaward on 28 November, and Roger Mayhill, using ropes and climbing gear, was able to reach the summit, where he watched and photographed the change-over between a pair of Cape Pigeons incubating an egg.

On 2 December 1987, three pairs of Cape Pigeons were seen occupying ledges near the summit of the Pyramid. At the Sisters, about 40 Cape Pigeons were seen flying close around the islands, but none landed there during our visits.