The search for the Campbell Island Flightless Teal *Anas aucklandica nesiotis*

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Our expedition had three objectives: to land on a volcanic plug of rock called Dent Island located in the heaving seas of the subantarctic, to find and catch four pairs of Campbell Island Flightless Teal (assuming they were not already extinct), and to keep the birds alive and healthy until a ship could bring the party back to New Zealand within six weeks. Most objectives were achieved.

Campbell Island Teal *Anas aucklandica nesiotis* are generally considered (Kinsky 1970) to be smaller flightless versions of the New Zealand Brown Teal *A. a. chlorotis*. They survive only on Dent Island (Robertson 1976) having been exterminated from nearby Campbell Island (*c.*600 km from New Zealand at 52°35'S) by large numbers of introduced rats. There are no ponds and the Teal live, almost like rats themselves, under the chest-high tussock *Poa* spp, *Stilbocarpa* and *Bulbinella* that form a dense cover on the less extreme slopes of the leeward side. Dent ('tooth') Island is only 700 m long but, on the seaward side, rises almost vertically for 200 m in a row of three peaks that are the backbone of the island and give it its name (Bailey & Sorensen 1962, Kerr 1976). Its strange proportions make it appear much smaller than it really is; from a distance, the 15 m high splash zone is insignificant compared to the 200 m high peaks. At close range, a human being is dwarfed against the near vertical bare rock of the splash zone. There is no landing beach.

Hardly anybody has seen Campbell Island Teal. The first specimen was collected by Captain Fairchild in 1886. It was not until 'coast watchers' were stationed on Campbell Island during the Second World War that another two ducks were collected in 1944 (Oliver 1955). Then, apart from a possible sighting in North West Bay in poor light in 1958 (Westerskov 1960), the Teal seemed to vanish and was thought to be extinct until a scientific survey in 1975 captured one specimen on Dent Island that was later returned (Robertson 1976, 1979).

This 1975 discovery proved that the Teal was alive; however, with the only known population concentrated on a single rock, its long-term survival did not seem good, particularly because Robertson found plenty of evidence that skuas *Stercorarius skua lonnbergi* were preying on the Teal. In January 1984, Murray Williams of the Department of Conservation (formerly the New Zealand Wildlife Service) and Andy Garrick made an intensive search for the Teal and, during 90 man-hours including overnight stays on the island, had four sightings (Williams & Garrick 1984). They did manage to catch and bring one male back to the New Zealand mainland. This put pressure on the Government to establish a population in captivity. In June of the same year, John Cheyne led a party of eight persons to Dent Island where they spent the best part of a day and, in repeated line abreast sweeps across it, had eight sightings and managed to catch three birds. Their efforts brought the captive population to three males and one female (Cheyne 1985).

In September 1990, when I was invited to take part in another mission, the captive female had refused to accept any of the drakes, nobody had ever seen a nest or an egg, and no-one knew the time of year that the ducks bred. There was no certain method of finding or catching them; members of previous expeditions had said that long-handled nets were useless - the nets caught on the tops of the tussock while the little ducks escaped beneath.

The opportunity to visit one of the subantarctic islands was too good to miss although reports of the weather there were daunting. Campbell Island is the second to last stop before Antarctica; there are frequent gale-force winds, constant bleak grey skies, fog, snow, rain, often in quick succession and sometimes simultaneously. One book (Kerr 1976) recorded 30 clear days in 32

years. Campbell Island stands exposed to the westerly airflow around the antarctic ice cap, and Dent Island is on its exposed side. Previous expedition members reported the wind chill factor as horrendous.

On the plus side was the wildlife. Campbell Island is the main breeding ground for the Royal Albatross *Diomedea epomophora*; it also has breeding colonies of Black-browed *D. melanophrys* and Grey-headed *D. chrysostoma* Mollymawks, Wandering Albatross *D. exulans* and Light-mantled Sooty Albatross *Phoebetria palpebrata*, Giant Petrels *Macronectes halli*, Hooker's sealion *Phocarctos hookeri*, elephant seals *Macrorhinus leoninus*, Yellow-eyed *Megadyptes antipodes* and Rockhopper *Eudyptes chrysocome* Penguins, numerous other petrel and shearwater species and, of course, skuas. Another plus was the promise of decent accommodation; a meteorological crew is stationed year-round on Campbell Island, and they have a comfortable, well-equipped hostel.

The two-day trip down was not very pleasant. We arrived at Campbell Island on 11 October 1990 but sea conditions were too rough to contemplate going to Dent Island until the 16th. We then managed two days on Dent before the weather deteriorated again. Our initial survey found little except one possible faecal sample, but we had more success when we began a slow search using a tape recording made of the calls of the captive Campbell Island Teal at the National Wildlife Centre, Mt Bruce, in New Zealand. Typically, the first indication of the presence of a Teal is a rustle in the tussock. If you stop and sit quietly, the Teal may come back to look at you - although it is extremely hard to spot it watching from a sea of tussock. The males sometimes advertise their presence with a whistle, and then sit where they can be seen; the females never expose themselves fully. Our most successful technique was to gather around the tape recorder in a gully, and we soon learned that a gully with a permanent trickle of water and the cover of tall vegetation was most likely to have resident Teal. By spreading out we increased the chances that one of us would see or hear the ducks moving towards the recorder. A few Teal answered the tape directly; more often they sneaked in with hardly a sound. If a member of the party spotted a Teal, he alerted the rest and guided them into position; we closed in and, more often than not, the Teal simply vanished. Sometimes there were petrel burrows present suggesting where the bird might have gone, at other times it was frustratingly inexplicable how the Teal disappeared so completely. On the second to last day, when we were searching selectively for females, we "watched" one male show us how it was done. He called repeatedly in reply to the tape allowing us to follow his movements. On several occasions he moved past within half a metre of where one of us was standing without anybody catching a glimpse of him as he did it. This bird also covered a surprising amount of ground in a short space of time. One minute he was beside the speaker and the next 30 m away, whistling in reply to the tape all the way so that we knew that it was the same bird.

During the first two days, we caught two males and one female. On 5 November we managed to obtain another pair, the female of which appeared to be the mate of one of the males caught in the same locality previously. We also used this opportunity to set up two Fyke nets and another six self-closing traps. These were baited initially with beach-cast kelp, with its clinging invertebrates, brought across from Campbell Island in plastic bags; later we used poultry pellets with success. The traps were left unset whenever we left the island because of the uncertainty of when we could get back. As it happened, the weather deteriorated and we were unable to use a boat again. Fortunately, the frigate that was to take us back to New Zealand carried a helicopter on board and, on each of our last three days, the pilot managed to put three of us on top of the southern peak. There was nowhere to land, so the pilot simply hovered with the two front wheels tucked into the slope. Getting off the lower slope with all the gear was more difficult - the pilot hovered into the wind beside the slope, his rotor blades clipping at the tussock, and we clambered up the legs one at a time.

On 15 November, the first of our last three days, we caught three Teal, of which the first two were male. At the end of the day we had just released one male and were preparing to release the second when I found a Teal in one of the traps. In the rush of preparing for the helicopter which was due to arrive shortly, I mistook its sex. It was not until the following afternoon, while a TV crew which arrived with the frigate were filming the Teal in bright conditions, that I realised I had another drake. Now we had an unacceptable surplus of males and two would have to go back. The pilot amiably agreed to return the next day, our last chance to catch a female.

The following morning we waited for the cloud to lift; we had already spent most of the 16th searching for females, but the only one we had seen had given us the slip. Eventually the

pilot took us through the saddle to Dent Island. We held onto both drakes while searching for another female, again without success although two females called briefly in reply to the tape and then vanished. Finally, when we could delay it no longer, we released the two males. The first male slipped off quietly into the tussock, but the second headed up his water course calling, and within moments, we heard a female reply. When we caught up, the pair were actually mating! You can imagine the effort we put into trying to catch those two Teal; the satisfaction of re-catching one quite quickly was swamped by frustration when we realised that it was the female that was getting away. We eventually caught her, and that must have been the most satisfying moment of the whole trip. Not only had we caught seven out of our target of eight (more Teal than had ever been seen before), but four of the birds were probably established pairs.

Over six days, we had had some 38 encounters with Teal and had caught ten of them. Many of the encounters were on the same sites and probably involved the same birds. There were also several sightings of different birds (males vary considerably in the brightness of their head and chest colour) at the same site indicating that territories are more flexible than we had expected. The Teal were concentrated around permanent water courses on the lower slopes but we found them everywhere, even close to the top of the island, giving us the impression that every suitable habitat was occupied and we estimated a total world population of 60 birds. The northern and western slopes were too dangerous for us to survey, but from the helicopter we could see that there were pockets of similar habitat where Teal might survive. Skuas were nesting all around the island but we saw no predation; the skuas appeared to be feeding predominantly on Sooty Shearwaters which were just starting their breeding season.

The Teal were a delight to look after since they started feeding on poultry 'laying pellets' immediately, and were naturally tame. Several times I allowed a male the freedom of the room while I serviced the holding pens; instead of trying to escape, he wandered around visiting and whistling to the other inmates, or poked in corners looking for food. All birds appeared to be light in weight at the end of their winter, and in captivity, became heavier quite rapidly despite my restricting the food available to them. Six males when caught ranged from 290 g to 385 g (343 g on average) and three females from 280 g to 305 g (292 g); after only nine days, one male had risen from 340 g to 410 g, and another took about a month to put on 95 g.

The return trip to New Zealand was more enjoyable, thanks to relatively calm and sunny weather. The birds arrived safely at their destination and quickly paired. The first female caught paired with the first male caught; they had been living in adjacent pens on Campbell Island for more than four weeks already. November is rather late in the year to start breeding, and they showed no signs of doing so during their first season in captivity. We expect the Teal to have adjusted to the captive diet within 12 months, and we look forward to breeding them later this year.

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View of Dent Island from the south. *Film and developing courtesy of Kodak New Zealand*