

needed to see if Goldeneyes can, in fact, dive for longer periods than diving duck without air sinuses, bearing in mind that the deeper the dive the greater will be skull buoyancy and the less available the air.

While studying these wildfowl skulls I have been struck by the very complicated naso-lacrymal apparatus in duck, particularly certain diving species, and it is likely that a new field of research awaits to be explored here, and the findings may well link up with this work on skull pneumaticity. The whole should make an intriguing study. I am conscious of many gaps still to be covered—the Long-tailed Duck, Bufflehead and the Torrent Ducks, to mention but a few. That I have been able to examine so many is due to the kindness of Mr Peter Scott and the scientific staff of the Trust, who have taken so much trouble to get me specimens that have died in the collection, and also to Mr Philip Wayre and Mr Walter Salmon, who have sent me specimens from their collections which had died. Captain J. V. Wilkinson, D.S.C., G.M., R.N., collected me some most valuable wildfowl, while in command of H.M.S. *Protector* in Antarctic waters, and for many examples of British wildfowl I am indebted to members of the Kent Wildfowlers' Association. I am also most grateful to Dr Hugh Hay, Consulting Radiologist, who has been so helpful with the X-rays on my behalf; as has Mr Gordon Anckorn with the photography.



South Georgia Teal (*Anas g. georgica*)

THE SOUTH GEORGIA TEAL

by G. B. Spenceley

SOUTH GEORGIA, a small speck on the map of the South Atlantic, is an island, mountainous and snowbound, surrounded by the world's most stormy seas.

It was discovered by Captain James Cook in 1775 when he was sailing south in search of the mythical southern continent. Although in the same latitude as Cape Horn, geographically and climatically it belongs to the Antarctic. From the Weddell Sea flow cold ocean currents which maintain a low temperature, and the winds which blow from the west, uninterrupted by land, make South Georgia one of the stormiest places in the world.

The Teal were among the birds noted by Captain Cook on the first landing on the island. At the beginning of the present century they were probably abundant in all the coastal areas. The German expedition in 1890 observed several flocks of about a hundred individuals at Royal Bay. Unfortunately the

birds are no longer numerous, for, to the visiting whalers and sealers starved of fresh meat, they offered an attractive source of food. As with most of the birds of South Georgia, they showed little fear of man and they were an easy prey to the whalers' guns.

Robert Cushman Murphy from the American Museum of Natural History visited the island (1912-13) in the last of the Yankee whalers, the brig *Daisy*. He has recorded the experiences of this voyage in a charming book, *A Logbook for Grace*, a diary which he kept for his wife, which was published many years later, but the full fruits of his observations of the Teal and other birds are to be found in his standard work, *Oceanic Birds of South America*.

The South Georgia Teal is a pioneering member of a group of ducks inhabiting the southern tip of South America. It most clearly resembles the widely distributed Brown Pintail of that area, but it is smaller in size, has more dense spotting of the throat and fore neck and has 16 instead of 14 rectrices. Murphy in 1912 found them fairly common in the Bay of Isles. They were mostly in evidence on grassy islets, and despite persecution were remarkably unsophisticated. They blended very well with their environment, all but for their bright eyes and yellow bills. The call of the male is a shrill whistle, repeated several times and frequently uttered in flight. The duck utters a soft quack and a gurgling note.

After a lengthy search Murphy found one nest. This was in February, but he believed most of the young hatch during December and January.

The South Georgia Survey, 1955-56, the third expedition to the island to be led by Duncan Carse, had survey as its main object, and, perforce, most of the six months in the field were spent on sledging journeys in the interior. Nevertheless, it was hoped that an opportunity would occur of catching and bringing back alive a number of South Georgia Teal for the Wildfowl Trust.

During the season about 60 pairs of Teal were seen by members of the expedition, about half of which were sighted in late September at Hestesletten on the shores of Cumberland East Bay and others in the Bay of Isles. It was assumed from Murphy's records that December was the usual nesting-time and no attempt was made to capture South Georgia Teal, or indeed would have been possible, until a four-man party occupied a camp at Elsehul, at the extreme north-west end of the island, between 13 December and 9 January. During this period about 15-20 pairs of South Georgia Teal were seen, and an extensive search for nests was made in the tussock country over a wide area; only two nests were found.

The first nest was located on 19 December close to the camp site; it contained two eggs. When the nest was revisited later the same day it was found to have been deserted, and the eggs were already gone, presumably having been taken either by rats or Antarctic Skuas. The nest was never reoccupied. A second nest was found on 30 December; there were five eggs. In the hours of darkness the nest was twice visited by two people with a torch and small net; but each time only one parent bird was in occupation. On the second occasion, the sitting bird, a female, was caught without difficulty.

The two nests found were most carefully concealed; each was sited at the base and in the middle of a clump of thick tussock, with complete cover afforded by over-arching blades of dead grass. Both were situated on tussock slopes a little above the level to which the Elephant Seal normally climbed when hauling out.

In captivity, the bird never settled down, and there was no evidence that she

ever ate any of the food provided—broken biscuits dry and pre-soaked. A pen enclosing a small pool was constructed of wire-netting in the hope that this familiar habitat would encourage her and provide opportunity for her to find at least some natural food; but she became rapidly and increasingly listless and inactive, and died on the fourth day of captivity.

Bearing in mind the considerable area searched, and the fact that only two nests were found despite the comparative frequency of the species in this locality, some doubt is cast on Murphy's statement that December is the usual nesting-time. Furthermore, with few exceptions, all the birds seen in the Elsehul-Undine Harbour area were feeding in pairs and, on 4 January a fledgling was seen, almost as large as the parent birds and with full adult plumage.

All the South Georgia Teal seen were near the coast; they fed either from kelp-covered rocks and pools at low tide or, and more frequently, from the edges of fresh water tarns and streams inland. In late September they were seen in a flock of about 30 pairs over Hestesletten; otherwise they were seen in pairs—sometimes 2 pairs together—except on one occasion when visiting a fresh-water tarn in mid-December near Undine Harbour, when a flock of 10 pairs was seen.

South Georgia Teal are not timid; a cautious approach can be made to within 10 feet without causing alarm, and when disturbed they take flight only when in danger of being overtaken. In this way they can be coaxed in any desired direction, but a noisy or hurried approach will immediately set them on the wing.

It is the care with which these birds can be shepherded along the ground, and their apparent reluctance to fly, that will provide the clue to their capture. But there still remains the problem of keeping them alive. To rear the chicks with a foster-parent would appear to be the best solution.

