

BREEDING OF SPECKLED TEAL *Anas flavirostris* ON SOUTH GEORGIA

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ABSTRACT. The speckled teal *Anas flavirostris* breeds at South Georgia where there are an estimated 40 to 50 birds in Cumberland East Bay, co-existing with the South Georgia pintail *Anas g. georgica*. It has not previously been recorded from South Georgia.

THE avifauna of South Georgia consists of approximately 25 species of dominantly marine birds which feed mainly at sea and come to land to nest (Matthews, 1929; Murphy, 1936; Stonehouse, 1964). Only three species have been considered terrestrial and even these often utilize foods along the seashore: sheathbill *Chionis alba*, South Georgia pipit *Anthus antarcticus* and South Georgia pintail or "teal" *Anas g. georgica*. With amelioration of climate and recession of glaciers, other terrestrial or fresh-water South American species should become established on South Georgia. Pioneering species reaching this remote island in sufficient numbers to reproduce must be able to find suitable food resources throughout the year, and overlap in diets and other requirements must be minimal if they are to co-exist.

It is not surprising that the yellow-billed pintail *Anas georgica* was the first duck to establish itself successfully on South Georgia. It is strongly migratory in Patagonia and Tierra del Fuego (Crayshaw, 1907), has been taken at Deception Island (Bennett, 1922), seen at Signy Island (Burton, 1967), and is resident on the Falkland Islands (Cawkell and Hamilton, 1961). Moreover, it is versatile in food habits and habitat use (Weller, 1968) and demonstrates the adaptability common to island species of *Anas* (Lack, 1970).

Another species with similar characteristics, not previously recorded from South Georgia, is the speckled or yellow-billed teal *Anas flavirostris*. It is widespread in Patagonia and ranked sixth of 11 species recorded on the Falkland Islands during October 1970–January 1971 (Weller, in press). This species has now become established on South Georgia where we saw it regularly during November and December 1971.

On 14 November 1971, while observing South Georgia pintail in Cumberland East Bay, a pair of speckled teal landed in a tussock-rimmed barrier pond at Horse Head (Fig. 1). During the period 14–26 November and 14 December 1971, we observed them regularly in the glacial ponds of Zenker Ridge, a lateral moraine on the west side of Moraine Fjord. On 16 November and 28 November–7 December 1971, we saw them daily at Dartmouth Point, the eastern lateral moraine of Moraine Fjord. They were also seen in barrier ponds near Nordenskjöld Glacier on 28 November and 3 December 1971. Minimal population estimates for these three areas are: Zenker Ridge, 8; Dartmouth Point, 7; Nordenskjöld Glacier area, 7. Our best estimate is that there are 40–50 birds in Cumberland East Bay.

Speckled teal were not seen elsewhere on South Georgia, although an extensive survey was conducted at the following sites during 1971 (Fig. 2): Bird Island (11–12 November), Rosita Harbour, Bay of Isles (13 November), Albatross Island and Salisbury Plain, Bay of Isles (19 November), Maiviken (21 November), Doris Bay (17 December), Moltke Harbour, Royal Bay (16 December), Bjorstadt Bay (18 December), Gold Harbour (19 December) and Cooper Island (20 December).

Pairs were seen regularly, often engaging in courtship displays. Sex ratio was difficult to establish because only dimorphism in voice provides certain sex determination in the field. Of 42 birds for which sex was determined, undoubtedly including some duplicate observations, the ratio was 2.5 males to 1.0 female. A pair with three downy young was observed at Dartmouth Point on 5–7 December 1971 (Fig. 3).

Speckled teal often fed in ponds with South Georgia pintail. They tended to feed by straining with only the bill submerged, although up-ending was not unusual. Pintails rarely fed by straining but grabbed surface items, fed with the head fully submerged, up-ended or even dived for food. Teal seemed to prefer ponds rich in free-swimming crustaceans such as *Cyclops*. On 1 December 1971, a male was collected after 12–15 min. of surface feeding on such a pond at

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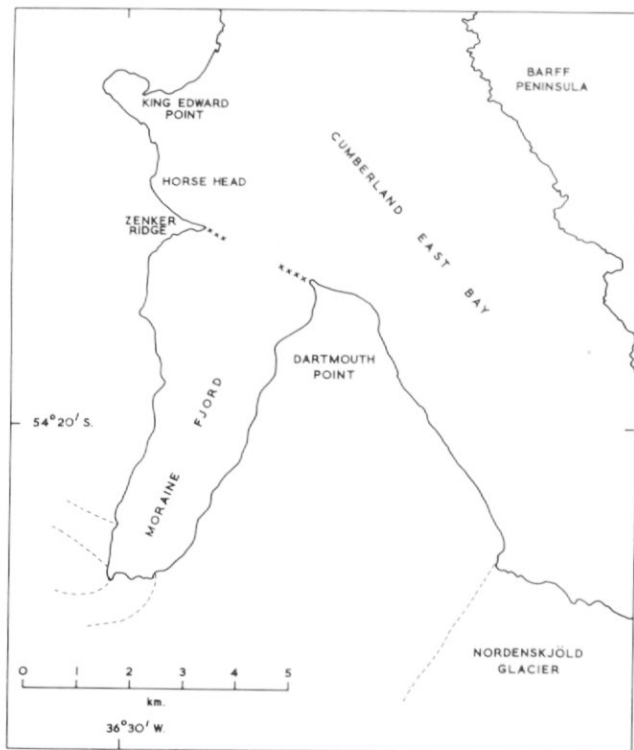


Fig. 1. Cumberland East Bay, Moraine Fjord and adjacent glacial ridges where ponds are most abundant.

Dartmouth Point. It had consumed mostly fine vegetable matter, Cladocera and traces of Cyclopoida, Nematoda, Arachnida and eggs of the fairy shrimp *Branchinecta gaini*.

Foods used by speckled teal in winter are unknown but fresh-water ponds freeze and production of food organisms is probably reduced. Some streams remain open but teal did not use these during our observation period. We saw only one pair of teal land on the seashore where they dabbled briefly and returned to fresh water. Speckled teal on the Falkland Islands do feed on the seashore in winter according to Cawkell and Hamilton (1961) and occasionally do so in summer (Weller, in press). On South Georgia, presumably they are restricted to fjords, seashore or to limited streams in winter—unless they migrate.

Island waterfowl are often smaller than their continental counterparts (Lack, 1968) but present populations at South Georgia prevent extensive collecting. The collected male was in excellent condition, weighed 420 g. and showed extensive but light body moult. Temperate Argentine teal average 429 g. (Weller, 1968) so this bird fits well within the range of continental populations. It had enlarged penis and testes (left, 17.1 mm. by 35.3 mm.; right, 14.2 mm. by 31.9 mm.).

It is possible that speckled teal have been at South Georgia for many years but were missed because their coloration is so similar to that of South Georgia pintail. It also is possible that teal were introduced by someone associated with the nearby Grytviken whaling station but there are no records to verify this. The upland goose was introduced in 1910 or 1911 (Murphy, 1916), and failed. Introduction of teal might explain its restricted distribution on South Georgia but also it may be restricted to the deep and permanent glacial ponds unique to the Moraine Fjord area; we saw nothing comparable in our landings elsewhere on South Georgia or on offshore islands. Deep permanent lakes such as those at Maiviken lacked the enriching tussock-covered slopes and were not as rich in invertebrate life.

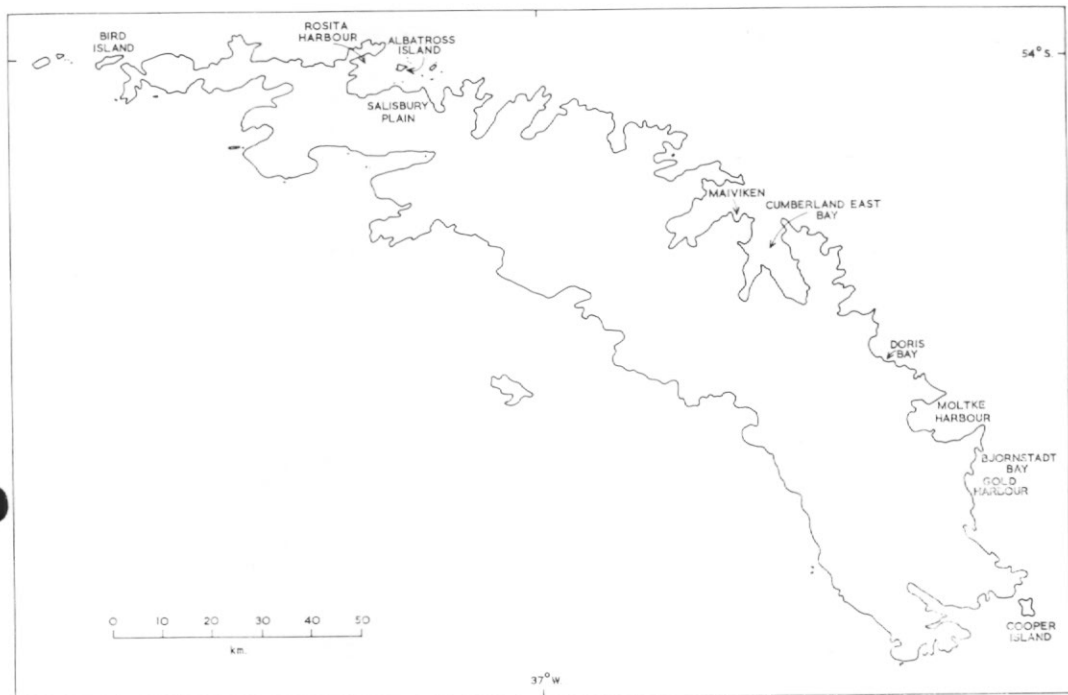


Fig. 2. Map of South Georgia showing landing sites checked for the presence of speckled teal.

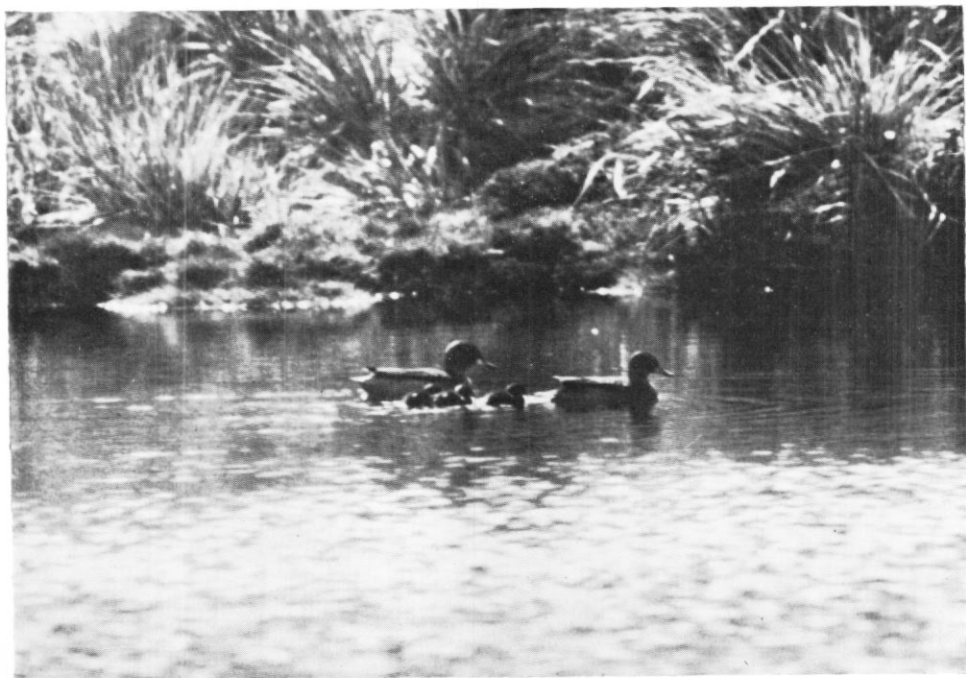


Fig. 3. A pair of speckled teal with three young at Dartmouth Point, 7 December 1971.

The two species presently co-exist with little apparent strife. It appears that they do overlap in food habits but not sufficiently to produce severe competition. The few interactions we saw indicated that the smaller speckled teal is dominant in disputes over feeding sites. Even if the two species feed together at sea in winter, it is unlikely that this food resource would be limiting. No teal nests were found but pintails nest in the tussock (Murphy, 1916) and both species frequent tussock areas which seem more than adequate to supply nesting cover. Further spread of speckled teal will probably be habitat-limited because they favour larger and more permanent water areas, whereas the more adaptable pintails use puddles of any size.

The presence of a true teal on South Georgia makes it imperative that the common terminology of South Georgia "teal" once applied to the single resident species be changed to South Georgia pintail. Murphy (1916) pointed out that this form was of pintail rather than teal origin and current workers consider it a subspecies of the yellow-billed pintail of South America rather than a full species.

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