

NOTES ON THE SEABIRDS OF THE CAPE HORN ISLANDS

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ABSTRACT

Observations of seabirds during two visits in the yacht *Totorore* to the southern extremity of South America in the summer and autumn of 1984 and 1985 are summarised with comments on their status in South America. Rockhopper and Macaroni Penguins (*Eudyptes chrysocome* and *E. chrysolophus*) are commoner than in the past, but larger penguins were not found breeding and may be more vulnerable since penguins still appear to be taken for bait. Chile holds about a sixth of the world's breeding Black-browed Mollymawks (*Diomedea melanophrys*), a tenth of the Grey-headed Mollymawks (*D. chrysostoma*), many Blue Petrels (*Halobaena caerulea*) and Narrow-billed Prions (*Pachyptila belcheri*), and some Southern Giant Petrels (*Macronectes giganteus*). The White-chinned Petrel (*Procellaria aequinoctialis*) probably breeds, and possibly the Fairy Prion (*Pachyptila turtur*), collected in the past, and Antarctic Cormorant (*Leucocarbo bransfieldensis*). The first Manx Shearwaters (*Puffinus puffinus*) for Chile were also seen in the Magellan Strait and near Cape Horn.

INTRODUCTION

Cape Horn occupies a strategic position off the southern extremity of South America, facing the Antarctic Peninsula across the bottleneck where the turbulent waters of the West Wind Drift pour east through the Drake Strait under an endless procession of storms. The area is of particular ornithological interest because it has a rich marine avifauna with some of the least-known major seabird colonies in the world and the most southerly community of landbirds (Johnson & Goodall 1965-72, Schlatter 1984).

Many naturalists have passed by briefly in the past, including Cook's first expedition, which collected many seabirds (drawn by Sidney Parkinson) at 58-59°S while rounding Cape Horn on 1-3 February 1769 (Lysaght 1959), H.M. Ships *Adventure* and *Beagle*, which surveyed the area in 1829-30 (Fitzroy 1839), and Sir James Ross's Antarctic Expedition, which studied terrestrial magnetism at Hermite Island from 19 September to 7 November 1842 (Ross 1847, McCormick 1884), collecting many birds, some still in the (British) Natural History Museum. The islands were investigated again in 1914-15 by R.H. Beck (Murphy 1936) and in December 1932 by Reynolds (1935), but there is little more recent information. Many were visited again by GSC with Anthea Goodwin and Julia von Meyer in March-April 1984 (Clark *et al.* 1984a), and by GSC, AC and PH in December 1984-January 1985, during the *Totorore* Expedition (Clark 1988 and references listed in *Ibis* 132: 133).

The area formerly supported several dozen Fuegian Indians living at the lowest subsistence level and taking many birds (Fitzroy 1839). It is now deserted except for a few fishing and crabbing boats, small outstations of the Chilean Navy, and a growing number of yachts and wildlife tours. Seabirds are scarce and patchy in the inner channels with their fluctuating salinity (Brown *et al.* 1975), but there are some of the most important pelagic seabird colonies in the Southern Ocean on the outer islands. We are

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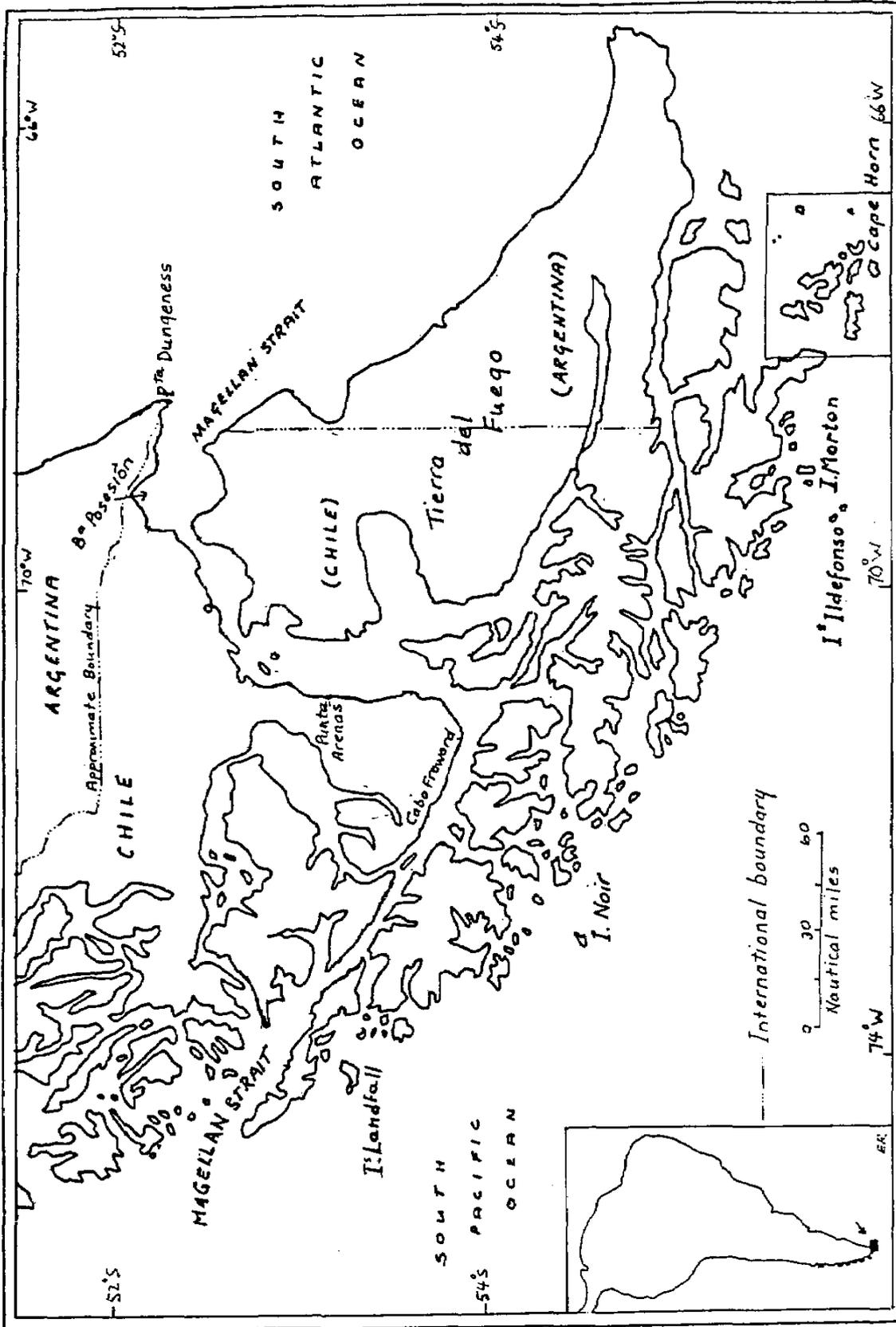


FIGURE 1 — The southern extremity of South America

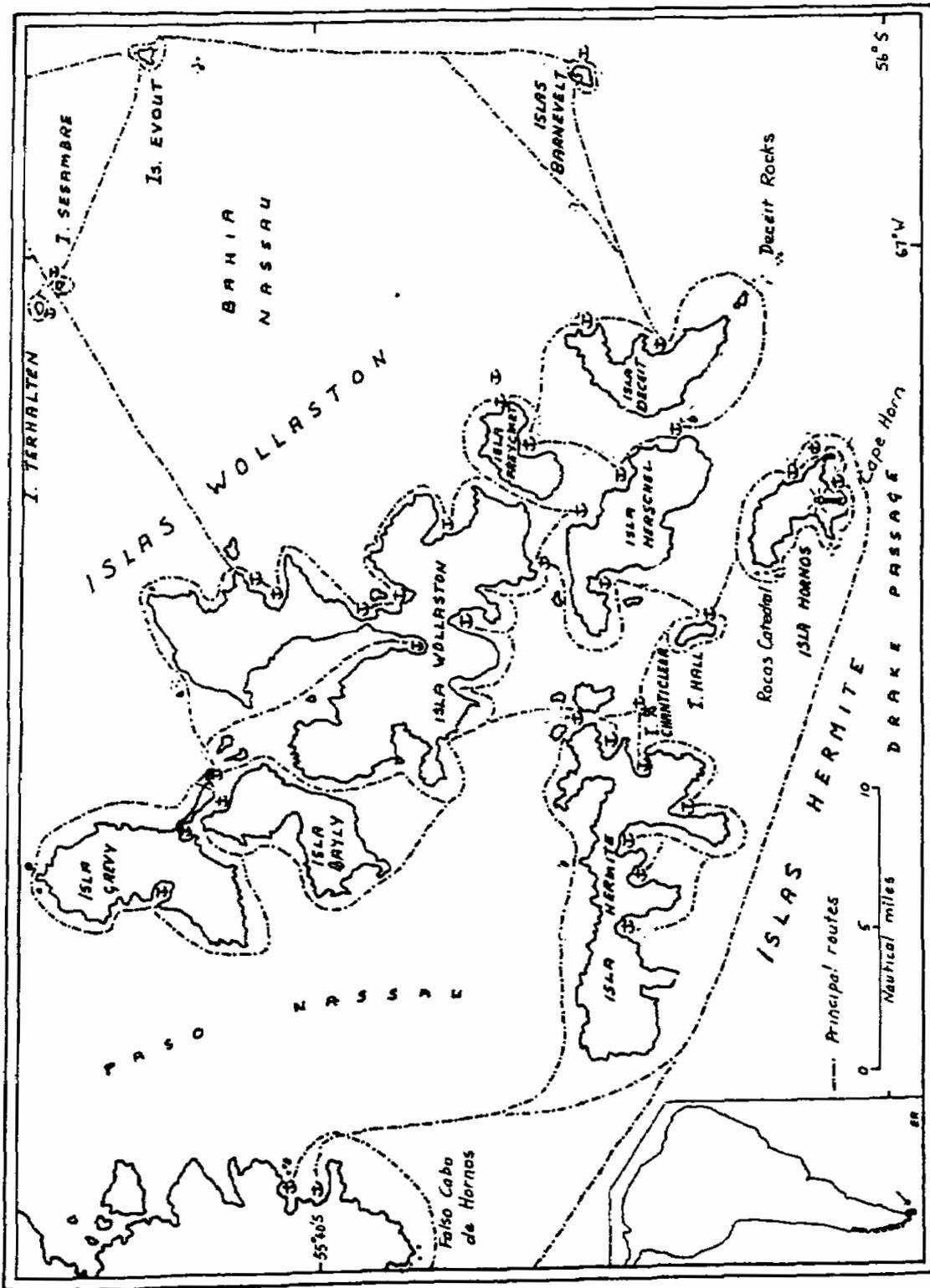


FIGURE 2 — The Cape Horn archipelago

commenting only on information supplementing the account by Reynolds (1935) confirming the similarity of the avifauna to that of the better-known Falkland Islands (Woods 1988), and to a lesser extent South Georgia (Prince & Croxall 1983).

Current threats to the birds are limited by the rocky coastline, the tall, dense vegetation, and the treacherous weather, which make it difficult first to land, and then to locate the wildlife, which in consequence is still poorly known. Some species, notably the more migratory smaller penguins, appear to be increasing, possibly owing to a reduction either in competition for food from whales or of exploitation by the Indians. The birds are still shy, however, and clubs were lying about in some colonies and about 50 battered penguin bodies were seen in a king crab fishing boat. Unfortunately we were unable to find the more sedentary larger penguins, which nest in more accessible sites, and they may have been wiped out when most other seabirds depart in the winter. If so, it seems likely that now that they are increasing elsewhere they might soon reappear if they were protected.

NOTES ON SPECIES

Some earlier records have already been published by Clark *et al.* (1984a,b). While the current New Zealand usage has been followed*, names for South American species used by Meyer de Schauensee (1982) have been added.

WHITE-TUFTED GREBE *Podiceps rolland*

There were a pair on a lake on Grevy Island adjacent to Canal Victoria, and two pairs, one with a small chick, on a lake 2.5 km NW of Bahia Scourfield, Wollaston Island. Not mentioned by Reynolds (1935).

GREAT GREBE *Podiceps major*

Nineteen in full breeding plumage were seen up to 1 km from the shore along 5 km of coast NW from Bahia Scourfield, Wollaston Island, on 29 December 1984, although they could not subsequently be found on the local lakes and ponds. Not mentioned by Reynolds (1935).

ROYAL and WANDERING ALBATROSSES *Diomedea epomophora* and *D. exulans*

Four Northern Royal Albatrosses (*D.e. sanfordi*) were seen between Barnevelt and Deceit Islands during a gale on 16 January 1985. The nominate race of the Royal was also seen with Wandering Albatrosses by Harrison during several voyages past Cape Horn in MV *Lindblad Explorer* in December 1984, and George E. Wallace and Graham Bundy (*in litt.*) saw Royal Albatrosses with small numbers of Wanderers off Cape Horn on 23 February 1989 and 3 January 1991, though Royal Albatrosses are more characteristic of the shallower Patagonian Shelf around the Falklands (Bourne & Curtis 1985).

* Bourne wishes to emphasise that this should not be assumed to imply approval; he has recorded his opinion of the usage adopted for the petrels in particular in *Ibis* 129: 404.

BLACK-BROWED MOLLYMAWK or ALBATROSS *Diomedea melanophrys*

Previously known to breed in Chile only at the Ildefonso group, Diego Ramirez (Murphy 1936), and an unidentified site between the Magellan Strait and Talcahuano in October 1955 (Gibbs 1957). Although Reynolds (1935) was informed by the person who also reported breeding King Penguins, discussed below, that it bred at Evout Island, there were few birds, and no sign of breeding, when we sailed round it on 13 January 1985, so this may be unreliable as well. Some chicks were present on the SE islet at Ildefonso on 16-17 December 1984, and a rough count revealed some 8500 chicks on the NW islet on 28 January 1985, suggesting that Ildefonso could hold 50 000 pairs. Since Schlatter (1984) apparently found up to 20 000 pairs at Diego Ramirez, and we found about 15 000 pairs at Isla Diego de Almagra at 51°30' S 75°15' E, which may be the site reported by Gibbs (1957; Clarke *et al.* 1984a), there may be at least 85 000 pairs breeding in Chile. If this is compared with revised totals of 390 000 pairs in the Falklands and 65 000 pairs around South Georgia (Croxall *et al.* 1984a,b), 23 000 pairs at Campbell Island (P. Moors pers. comm.), and a few thousand elsewhere (Tickell 1976), it would appear that Chile may hold about a sixth of the world breeding population.

GREY-HEADED MOLLYMAWK or ALBATROSS *Diomedea chrysostoma*

Six adults were seen on nests on the east slope of the SE islet at Ildefonso on 16 December 1984, and there may have been others around the perimeter of the Black-browed Albatross colony there. Schlatter (1984) has already estimated that there are 10 000 pairs on Diego Ramirez. Some 60 000 pairs are reported to breed around South Georgia (Croxall *et al.* 1984b) and about 25 000 elsewhere (P.J. Moore pers. comm.), so Chile may hold about a tenth of the world breeding population.

LIGHT-MANTLED (SOOTY) ALBATROSS *Phoebastria palpebrata*

Graham Bundy (*in litt.*) saw one off Cape Horn on 3 January 1991.

GREAT SHEARWATER *Puffinus gravis*

Watson (1971) reported presumed immature non-breeders moulting off the east coast of Tierra del Fuego in December 1961, and moulting birds also become common around the Falklands and South Georgia in the late summer (Bourne & Curtis 1985). Fifteen were seen from *Totorore* in the western Magellan Strait in January 1984, and one in the central Strait east of Cabo Froward in March 1984 (Clarke *et al.* 1984a). Harrison also saw over 200 from the *MV Lindblad Explorer* between Point Dungeness and Posesion Bay at the eastern end of the Strait on 4 January 1985. About 50 moulting their coverts were seen a few miles east of the Deceit Islets on 23 December 1984, and Steve Madge (*in litt.*) saw seven near Cape Horn on 26 February 1990.

SOOTY SHEARWATER *Puffinus griseus*

Although vast numbers were seen offshore and in the various channels in the Cape Horn area, their nests proved difficult to find. Many thousands circled over the centre of Ildefonso Island at dusk and called persistently

from the tussock grass overnight. An unrecorded colony of thousands of burrows was found on Sesambre Island, with more on Wollaston and Horn Islands, and it probably breeds on most islands in the vicinity. It has now also been found breeding where Darwin apparently misidentified large numbers as Grey Petrels (*Procellaria cinerea*) near Chiloe Island (Gould 1940, Darwin 1963, Marin 1984), and we found another huge colony also missed by the *Beagle* on Guafo Island (Fitzroy 1839, Clarke *et al.* 1984b).

MANX SHEARWATER *Puffinus puffinus*

The most southerly past records appear to be at 49°S off Argentina (Cooke & Mills 1972) and in the Falklands (Woods 1988). Harrison saw six with the Great Shearwaters at the east end of the Magellan Strait on 4 January 1985, and one also occurred with Sooty Shearwaters at 55°42' S 68°12' W between Cape Payen and Cape Horn on 18 December 1984. These appear to be the first records for Chile.

COMMON DIVING PETREL *Pelecanoides urinatrix*

Four adults and a large downy chick were collected at Diego Ramirez by R. Schlatter (pers. comm.) in mid-January 1981.

MAGELLANIC DIVING PETREL *Pelecanoides magellani*

Seen occasionally in small numbers around the islands, with a skull among the skua kills on Hall Island, but no burrows located.

WHITE-CHINNED PETREL *Procellaria aequinoctialis*

Small numbers were seen frequently both offshore and among the islands, especially between False Cape Horn and Franklin Sound, and on 10 January 1985 a thousand were resting in loose flocks three miles NE of Snipe Island in the Beagle Channel. Although no nests were found a small collection of seabird bones from beneath a skua perch on Hall Island includes a poorly ossified shaft of a humerus which probably comes from a young bird. Since it breeds in South Georgia and the Falklands it probably does so here as well.

CAPE PIGEON or PETREL *Daption capense*

Not seen until 16 April 1984, after which up to three occurred among the Cape Horn Islands and in Bahia Nassau until we left in May, although it was scarcer than the last species, and did not enter the canals.

SOUTHERN or ANTARCTIC FULMAR *Fulmarus glacialisoides*

Not recorded by Reynolds (1935) in December. We saw the first two west of False Cape Horn on 24 March 1984. By 12 April it had become common off the outer islands, and by the end of the month abundant in Bahia Nassau and the southern canals. Also seen by George E. Wallace (*in litt.*) off Diego Ramirez on 23 February 1989, while Steve Madge (*in litt.*) saw 20 clumsy and possibly moulting birds in the Beagle Channel on 27 February 1990.

SOUTHERN or ANTARCTIC GIANT PETREL *Macronectes giganteus*

Common offshore, and we have confirmed a report by Agostini (Reynolds 1935) that it nests on Isla Noir (Clark *et al.* 1984a). It is also said to nest on Diego Ramirez (C. Olog *in* Watson 1975), and pale-headed adults

were seen around the Ildefonso group on 28-29 January 1985, whereas the darker immatures predominated inshore.

NORTHERN or HALL'S GIANT PETREL *Macronectes halli*

George E. Wallace (*in litt.*) reports that one followed the ship for several kilometres about 30 km SE of Cape Horn on 23 February 1989.

FAIRY PRION *Pachyptila turtur*

There is a Fairy Prion resembling those breeding in the Falklands and South Georgia (Prince & Croxall 1983) labelled "Cape Horn, June 1864" in the (British) Natural History Museum obtained by exchange from G.M. Mathews in 1911. Since it is comparatively sedentary, it may also breed in this area. Other birds from further north along the west coast of South America, which Mathews (1912) designated the type of a local race *P.t. solanderi* and Philippi (1967) identified as this species, are immature Thin-billed Prions.

THIN- or SLENDER-BILLED PRION *Pachyptila belcheri*

The species was first collected at 59°S off Tierra del Fuego on 1 February 1769 during Cook's first expedition (Lysaght 1959). Only occasional flocks were seen at sea in the Cape Horn area, but a large breeding colony was found on Isla Noir, about 345 km to the northwest, in February 1984 (Clark 1984a). Fitzroy (1839) also reported that on 19 December 1829 an Indian canoe visited HMS *Beagle* when anchored off Landfall Island, 112 km further north, "with many eggs and dead birds which they eat raw. The birds were a light blue or dove-coloured petrel about eight inches long, which goes on land for a part of the year to lay eggs in holes in the ground...". Gould (1841) identified these as Broad-billed Prions (*P. vittata*), but Murphy (1936: 618, 631) suggested Thin-billed Prions instead. The laying date is much too late for the Blue Petrel (Prince 1980 and below), and even more so for the Broad-billed Prion, but agrees with the Thin-billed Prion in the Falklands (Strange 1980). They also predominate among the prions which come ashore along the west coast of South America north to Peru, with a minority of Antarctic (or Dove) and Salvin's Prions *P. desolata* and *P. salvini* (*P.W. Post in litt.*, Plenge 1974, Bourne 1982), which might also breed.

BLUE PETREL *Halobaena caerulea*

The remains of unidentified "blue petrels" were reported on Deceit Island by R.H. Beck on 15 January 1915 (Murphy 1936: 630). Schlatter (1984) confirmed that *H. caerulea* itself breeds on Diego Ramirez, and suggested that a million pairs may nest in the area, and fully-feathered chicks were also seen on Diego Ramirez by George E. Wallace (*in litt.*) on 23 February 1989. Non-breeding birds were visiting burrows on top of Cape Horn in March and April 1984, when birds and remains were also seen on Freycinet and Deceit Islands (Clark *et al.* 1984a). Chicks close to fledging were found on Barnevelt, Chanticleer, Hall and Ildefonso Islands in December 1984 and January 1985, with a deserted egg measuring 50 x 37 mm. They seemed most numerous, with possibly 25 000 pairs, on Hall Island, breeding under tussocks and scrub and in crevices from near sea level on the headlands to the summit. They seemed equally common on the

smaller Chanticleer Island, and these islands appeared to form the nucleus of the colony.

GADFLY PETRELS *Pterodroma* sp.

A number of gadfly petrels frequent the Drake Strait, and although we did not see them inshore, doubtless appear there during bad weather. During Cook's first expedition, when they were probably much commoner, they included the first recorded Mottled Petrel (*P. inexpectata*), collected at 58°46' S 78°42' W on 1 February 1769, and White-headed Petrel (*P. lessonii*), collected at 58°33' S 81°55' W two days later, both about 500 km SW of Cape Horn (Beaglehole 1955, Lysaght 1959), and the latter was also reported off Cape Horn by Garnot (1826). The Atlantic (or Hooded) and Great-winged (or Grey-faced) Petrels (*P. incerta* and *P. macroptera*) have also been reported (Lathbury 1973, Peter K. Kinnear *in* Brown *et al.* 1975), but may have been confused with the Soft-plumaged and Kerguelen Petrels (*P. mollis* and *Lugensa brevirostris*), not mentioned by these observers although they are commoner in the south (Bourne & Curtis 1985). Thus George E. Wallace (*in litt.*) saw ten Kerguelen Petrels in the Strait of Le Maire on 4 April 1986, and Steve Madge (*in litt.*) another with 100 Soft-plumaged Petrels between 62°56' S 66°33' W and 60°42' S 65°54' W, 500 km SE of Cape Horn, on 25 February 1990.

GREAT-WINGED or GREY-FACED PETREL *Pterodroma macroptera*

Pete Kinnear (*in litt.*) reports that he still clearly remembers one of the several possible Great-winged Petrels that he saw which came swooping over the boat between the west end of the Cockburn Channel and the entrance to the Brecknock Passage on 13 March 1972. It was a stocky bird with a dashing forceful flight, entirely dark except for a pale area around the base of the bill. This appears to be the first record of the species for Chile and of the New Zealand race *P. m. gouldi* for South America.

WILSON'S STORM PETREL *Oceanites oceanicus*

Four were seen at lights on Barnevelt Island on 14 January and three at sea between Morton and Ildefonso Islands during a gale on 29 January 1985. Steve Madge (*in litt.*) also saw 17 off Cape Horn on 26 January 1990 and 30 in the Beagle Channel next day.

[BLACK-BELLIED STORM PETREL *Fregatta tropica*

Collected at 58°S about 500 km SW of Cape Horn on 2 February 1769 during Cook's first expedition (Lysaght 1959). Although Steve Madge (*in litt.*) also saw 50 between 62°56' S 66°33' W and 60°42' S 65°54' W, about 500 km SE of Cape Horn, on 25 February 1990, apparently never recorded closer to land.]

KING PENGUIN *Aptenodytes patagonicus*

Reynolds (1935) reported that a colleague saw over 200 with eggs on a high, barely detached rock NE of Cape Horn in October 1930. Despite a thorough search none could be found there, however, and the rock seems a much more likely site for Rockhopper Penguins, which Reynolds did not

find breeding. A single adult King Penguin was seen on a sandy beach between Cape Spencer and Cape Seal, Hermite Island, on 26-27 January 1985.

GENTOO PENGUIN *Pygoscelis papua*

One on 28 March 1984 where Mansilla reported two in November 1981 in the bay east of Cape Horn (Venegas 1982, Clark *et al.* 1984a).

[CHINSTRAP PENGUIN *Pygoscelis antarctica*

Although Venegas (1978) and Schlatter (1984) have recently reported about 1000 pairs breeding in Chile, none were found.]

ROCKHOPPER PENGUIN *Eudyptes chrysocome*

Although this species was known to breed on the Ildefonso Islands (Murphy 1936), Reynolds (1935) identified only small parties at sea off the Horn group, with one body on the shore and one report of possible breeding on Horn Island attributed to King Penguins. There has been a massive increase. Sample counts indicated 100 000 pairs, mainly on the SE and NW islets of the Ildefonso group; 10 000 pairs on the SE corner and 500 and 300 pairs along the S coast of Barnevelt Island; 3000 pairs on the N and SW coasts of Terhalten Island; 600 pairs behind Cathedral Rocks on Horn Island; and 500 pairs near the SE cape on Hall Island. George E. Wallace (*in litt.*) also reports that 70 000 birds are reported to breed on Diego Ramirez, where 7000-8000 mainly moulting adults were seen on Isla Gonzalo on 23 February 1979. Elsewhere in Chile they were breeding north to Isla Solitario at 47°42' S 75°42' W (Clark *et al.* 1984a). They have short crests, and 80% were breeding at altitudes of up to 130 m on the cliffs, as in other southern populations, though some were nesting in scrub on Terhalten and Noir Islands.

MACARONI PENGUIN *Eudyptes chrysolophus*

The status of this species in Chile has been obscured by confusion with the previous one. Reynolds (1935) reported that Agostini had found it at Isla Noir and that he might have seen it off Cape Austin, Deceit Island. It formed about 0.5% of the Rockhopper colonies on Horn and Barnevelt Islands, 5% in the Ildefonso group, and 20% (several thousand) on its SE islet. It also occurs on Diego Ramirez (Schlatter 1984), Wallace (1991) saw one with five Rockhoppers on Terhalten Island on 3 March 1989, and we have already reported its occurrence north to Isla Buenventura at 50°45' S 75°09' W, with a pure colony of 25 000 birds on Cabo Noir at the west end of I. Noir (Clark *et al.* 1984a).

MAGELLANIC PENGUIN *Spheniscus magellanicus*

Widespread, many thousands breeding on Terhalten, Barnevelt and Horn Islands, leaving the last island in late March, and all gone by 6 April.

BLUE-EYED SHAG or CORMORANT *Leucocarbo atriceps*

A total of 21 colonies were found, ranging up to at least 10 000 birds on Terhalten Island.

[ANTARCTIC SHAG or CORMORANT *Leucocarbo bransfieldensis*?

Four small colonies of another, tamer, white-breasted cormorant were also found, which remained separate from *atriceps*, with none of the mixing reported to occur with that form and "*albiventer*" (Devillers & Terschuren 1978). It seems possible that these might be the Antarctic Shag, recognisable only from its bones, reported by Siegel-Causey & Lefevre (1989) to occur among cormorant bones in middens all round southern South America.]

ANDEAN CONDOR *Vultur gryphus*

Although not reported by Reynolds (1935), this was seen eight times, usually in pairs, sometimes three, attending the seal and cormorant colonies. It appeared to be nesting on Wollaston and the nearby Treble Islands.

STRIATED CARACARA *Phalacrocorax australis*

First seen at Isla Guarello (50°22' S 75°19' W), and a tame and numerous predator and scavenger around the outlying marine bird and mammal colonies south of the Magellan Strait, as in the Falklands (Strange 1986).

YELLOW-BILLED or SNOWY SHEATHBILL *Chionis alba*

Although Reynolds (1935) saw only a dozen on a rock north of Hermite Island, this was widespread, occurring with cormorants or seals on Terhalten, Barnevelt, Ildefonso, Grevy, Woodcock and rocks off Lennox and Grevy Islands.

CHILEAN SKUA *Catharacta chilensis*

This form, recently elevated to a species by Devillers (1978), bred on most islands in the area, though there were none of the large, gull-like colonies reported by Reynolds (1935). They were much less aggressive than the forms of *Catharacta* nesting on remoter islands, and even when the nests were approached or the eggs and young were handled, would merely hang high overhead crying plaintively. Bones collected below a perch on Hall Island included seals (3), Blue Petrels (37), a young White-chinned Petrel, Sooty Shearwaters (4), a cranium of a Magellanic Diving Petrel, and cormorants (8).

SOUTHERN BLACK-BACKED or KELP GULL *Larus dominicanus*

Thinly distributed throughout the area, with a large breeding colony on an island in a lake on Grevy Island.

SOUTH AMERICAN TERN *Sterna hirundinacea*

Very common. Colonies on Horn and Barnevelt Islands had eggs in most nests in December and eggs or chicks in January. There was remarkable dimorphism in the eggs and chicks, often in the same nest. Unlike most terns, the adults also showed a complete lack of aggressive defence.

Also seen: Rock Shag or Cormorant (*Stictocarbo magellanicus*) and Dolphin Gull (*Larus scoresbii*).

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REVIEW

Homeward Bound: problems waders face when migrating from the Banc D'Arguin, Mauritania, to their northern breeding grounds in spring, by B.J. Ens, T. Piersma, W.J. Wolff & L. Zwarts (eds), 1990. Published for WIWO and RIN by Uitgeverij Het Open Boek, Den Burg, Texel. Softback, 364 pages, ISBN: 90 70292 131. Price, inc. p & p DFL 55.00. Available from Stichting WIWO, U.v. Stuivenbergweg 4, 6644 AB Ewijk, The Netherlands. Text in English.

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The Banc D'Arguin, western Africa (5% of the intertidal land along the east Atlantic), harbours over a quarter of the 7.5 million waders wintering along the East Atlantic Flyway. While by the 1980s the biology of waders wintering in Europe was becoming increasingly well documented, almost nothing was known about the vast numbers of birds wintering further south.

This book presents 22 scientific papers resulting from expeditions to the Banc D'Arguin between 1985 and 1988. The unifying theme is how waders manage to migrate from this major wintering ground to their northern breeding grounds, information essential for the understanding and conservation of the waders and habitat along the Atlantic.