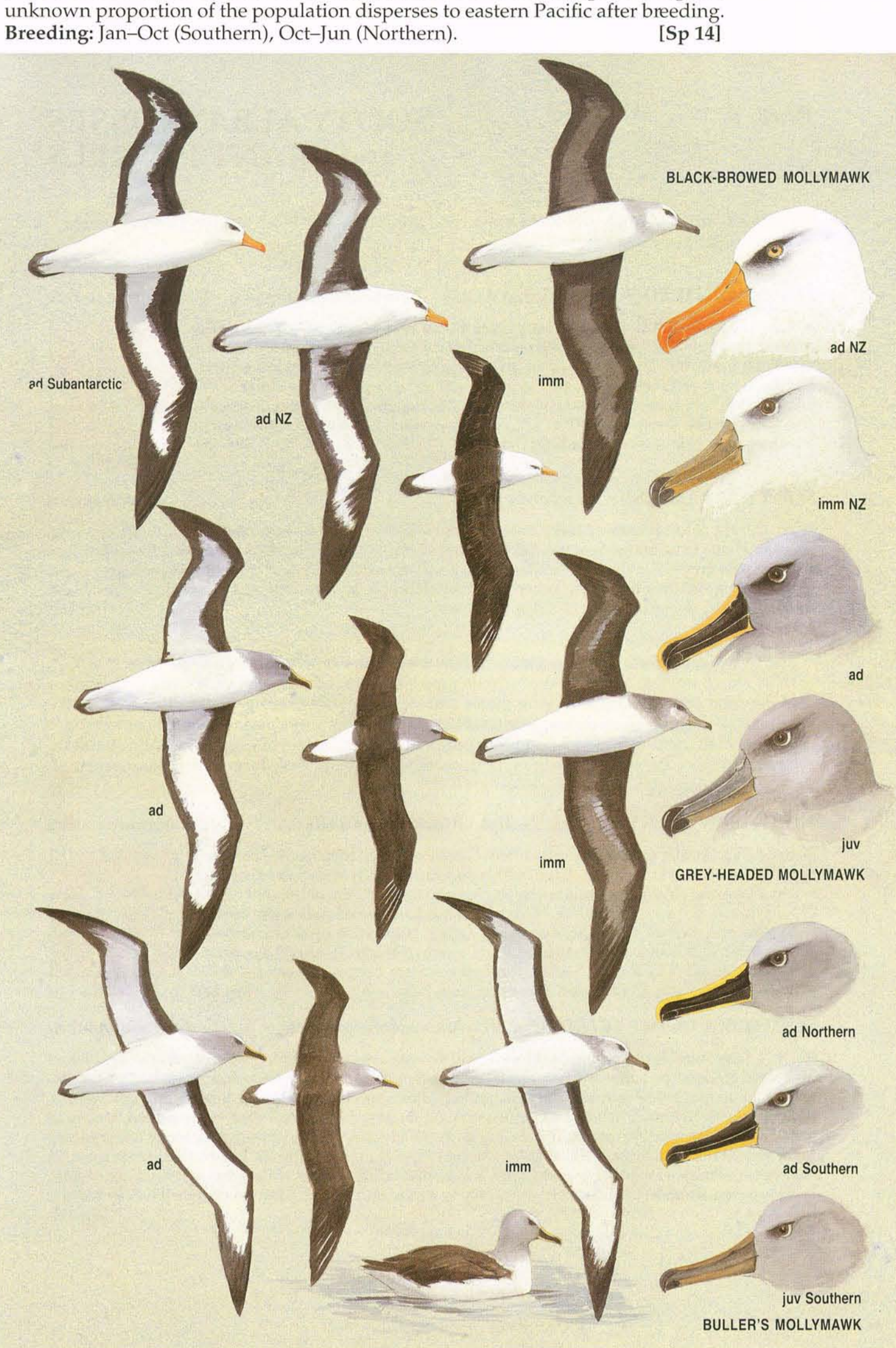


Huge ('albatrosses') or very large ('mollymawks') seabirds with long narrow wings and short tail. Long heavy hooked bill covered with horny plates, nostrils in small tubes on the sides near the base. Most are dark above and mainly white below. Pattern of upperwing, underwing, head and bill are distinctive. In flight, soar gracefully on stiffly held wings, and only rarely flap. Clumsy on ground; legs and webbed feet set well back. Generally oceanic; occasionally seen near land. Many follow ships or gather around fishing boats. Silent at sea except when fighting over food. Loud bleats, croaks, whines and cackles at breeding colonies, and elaborate displays accompanied by bill-clapping and calls. Lay 1 large white egg in shallow bowl or on top of pedestal constructed of vegetation and mud. Long incubation period and extremely long fledging period (7–11 months for full breeding cycle). Sexes alike but males larger. Juveniles generally distinctive for several years.

BULLER'S MOLLYMAWK *Diomedea bulleri*

Common endemic

80 cm, 3 kg. Two subspecies in NZ region, separated by bill size and head plumage. Adult Southern Buller's Mollymawk (*bulleri*) has silvery-white forehead, contrasting light grey crown, black patch around and ahead of eye, small white crescent behind to below eye; neck, hindneck and throat grey, with sharp margin on chest from white underparts; rump white, tail grey. Upperwings and back dark grey; underwings white with clear-cut broad black leading edge and very narrow black trailing edge. Bill (118 x 27 mm) black with golden yellow along ridge and tip and along bottom edge; legs and feet pale bluish grey to grey-mauve. Northern Buller's Mollymawk (*platei*) similar but forehead silvery grey; darker grey on head and throat. Bill more robust (120 x 31 mm); feet darker. Immature like adult except whole head dark grey and bill brownish horn with darker tip. **Habitat:** Southern Buller's breeds The Snares and Solander Is; Northern Buller's breeds Three Kings and Chatham Is. Commonly seen off NZ coast or behind boats and trawlers offshore during breeding. An unknown proportion of the population disperses to eastern Pacific after breeding. **Breeding:** Jan–Oct (Southern), Oct–Jun (Northern). [Sp 14]



ALBATROSSES

Diomedidae

14 species, 11 with breeding restricted to the Southern Hemisphere and 3 in the North Pacific.* In the New Zealand region, 10 species have been recorded including 2 endemic species and 5 other breeding species.

identifying beach-wrecked specimens, but at sea the head colour and pattern of black on the wings is also important to note.

Albatrosses and mollymawks (the common name in New Zealand for smaller albatrosses) are a clearly defined group of very large seabirds belonging to the tube-nosed petrel order (Procellariiformes). Although they are among the largest of all flying birds, albatrosses are noted for their perfection of soaring flight behind boats and among the tempestuous seas of the southern oceans. In strong winds, they wheel effortlessly on very long, narrow and stiffly held wings for hours, but in almost calm conditions they have a flapping flight and more usually rest on the surface until the wind picks up. Their webbed feet are used for swimming and as rudders in flight, especially when coming in to land.

They nest in loose colonies, mainly on uninhabited and often inaccessible islands of the southern oceans. At their breeding grounds they have an elaborate series of displays accompanied by neighs, groans, baahs, wails, croaks, cackles, and bill-snapping and clapping. All species lay 1 white egg, usually in a shallow depression on top of a pedestal ('chimney pot') made of vegetation and mud. Incubation takes 66–83 days. Nestlings are downy and take many months to reach flying age. With this long breeding cycle, some species can nest only every second year if they have bred successfully.

Albatrosses have long bills with a strongly hooked tip and small, raised tubular nostrils on either side near the base. The shape and colour of the bill plates can be useful in

Albatrosses feed mainly on various squids, fish and offal, on or close to the surface. Some species are readily attracted to boats and follow them for hours, occasionally alighting to pick up scraps cast overboard or food disturbed in the wake. Some are especially attracted to fishing boats, and in recent years several species have suffered high mortality from being drowned in trawl nets or after

taking baited fish-hooks on tuna long-lines. Research is under way to develop new methods to reduce seabird by-catch problems. **Reading:** Harrison, P. 1987. *Seabirds of the World: a photographic guide*. London: Christopher Helm. Harrison, P. 1988. *Seabirds: an identification guide*.

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14. BULLER'S MOLLYMAWK

Diomedea bulleri

Plate 5

Size: 80 cm, 3 kg

Islands, 20 pairs; Sisters Islands, Chathams, 2100 pairs; Forty Fours, Chathams, 16,000 pairs; Solander Islands 4900 pairs; The Snares 8700 pairs.

Geographical variation: Recent taxonomic research suggests that the two subspecies should be reclassified as full species: the Southern Buller's Mollymawk *bulleri* breeding on The Snares and on the Solander Islands, and the Northern Buller's Mollymawk *platei* breeding at the Chatham Islands and on Rosemary Rocks, Three Kings Islands.

Conservation: Protected endemic. Numbers of Buller's Mollymawks breeding on The Snares increased 78% between 1969 and 1992, but declined and the Solanders between 1985 and 1996, and the nesting density has apparently declined on the Forty Fours since the 1970s. Many Southern Buller's Mollymawks (8% of all seabirds caught in 1988–97) are caught on tuna long-lines and some are caught in trawl nets, but the many deaths caused by flying into netsonde cables behind squid boats have ceased since these cables were phased out after 1992. On balance, they may have derived some benefit from the increased fishery in southern New Zealand waters; however, further close monitoring of all breeding populations is needed.

Distribution: Breed only in New Zealand, near or north of the Subtropical Convergence. The largest colony is on Motuhara Island (Forty Fours), to the east of the Chathams. They are regularly seen in coastal waters and over the continental shelf around southern New Zealand and the Tasman Sea, and they are quite often beach-wrecked in winter, especially on the Southland, Otago and Wellington coasts. Buller's Mollymawks are uncommon in northern New Zealand waters. After breeding they disperse across the South Pacific Ocean, north of the Antarctic Convergence, to the west coast of South America; a few stray into the South Atlantic and South Indian Oceans.

Breeding: Northern Buller's Mollymawks return to the Chathams in late September and eggs are laid between 26 October and 23 November, whereas Southern Buller's Mollymawks return to The Snares in mid-December and eggs are laid over a long season, from

Population: Total population is c. 30,000 breeding pairs: Rosemary Rock, Three Kings

late December to mid-February. They lay 1 white egg (104 x 65 mm, 246 g), with brownish-red speckling at the broader end, in a shallow cup on top of a small pedestal of soil, rock chips and vegetation. The adults share incubation in stints of 2–4 days in the northern subspecies, but of 10–14 days in the southern form. Incubation lasts 68–72 days and the parents share duties guarding the downy chick until it is c. 21 months old. The chicks fledge at c. 5–6 months old, in June at the Chathams but August–October at The Snares.

Feeding: Diet during the breeding season is mostly squid, with some fish, krill, octopuses, tunicates and carrion such as small seabirds. Prey is mainly seized on the surface, and only rarely do birds plunge or dive for food.

Birds apparently mate for life and retain the same nest site from year to year – one pair banded in 1948 was still using the same nest 23 years later, and the female was last seen there in 1993, aged at least 50 years old. **Behaviour:** Nest in large colonies, generally keeping apart from other species. At sea, they are usually solitary but are sometimes seen in small groups and occasionally in large

In the hand: Males are slightly larger than females. Although there is much overlap, most can be sexed from a combination of tarsus width and minimum bill depth. The nominate *bulleri* has a narrower bill (male 26.3–30.2 mm, female 25.5–28.1 mm) than *platei* (male 30.7–34.5 mm, female 28.7–32.4 mm).

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