

Plate 3

ALBATROSSES

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.

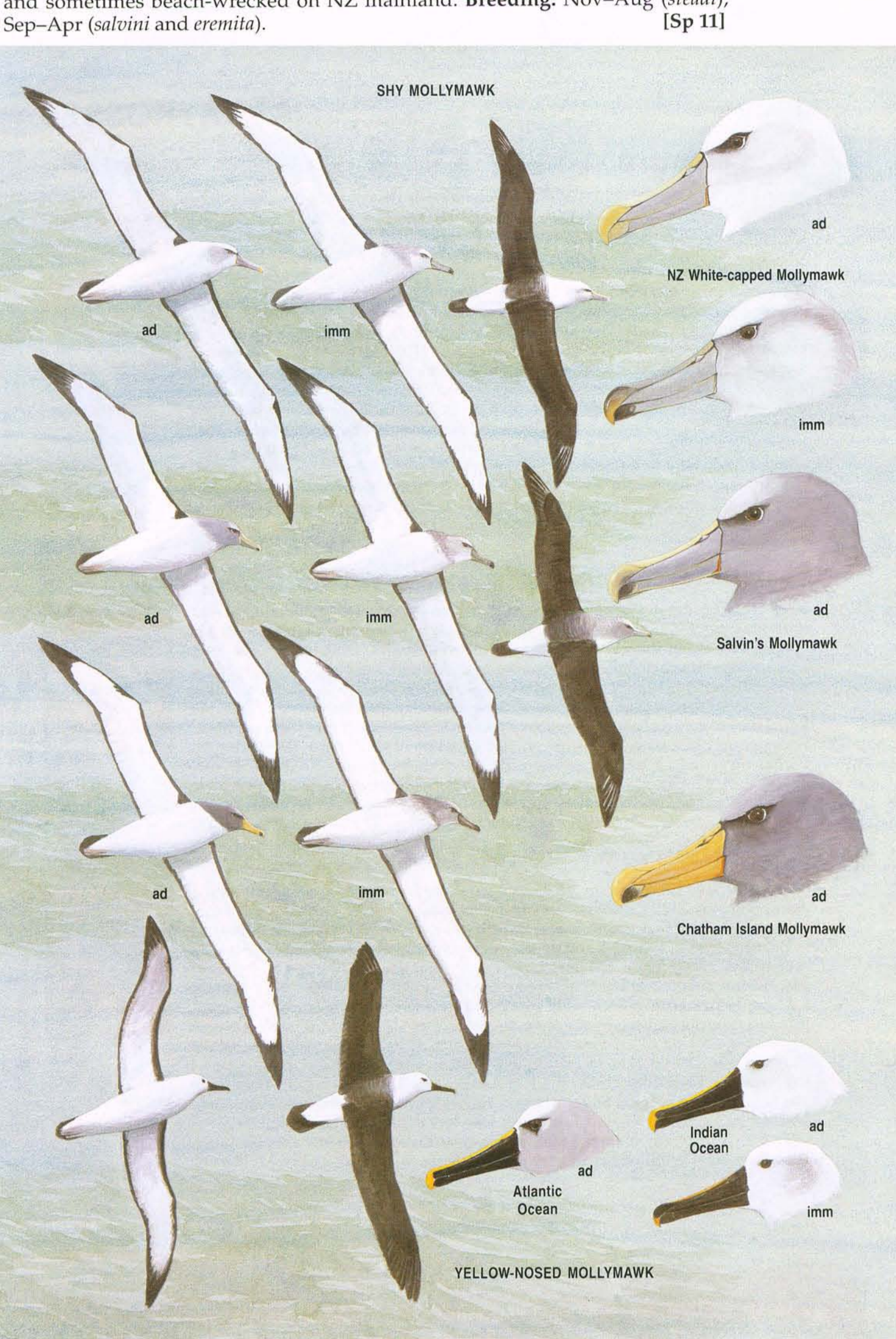
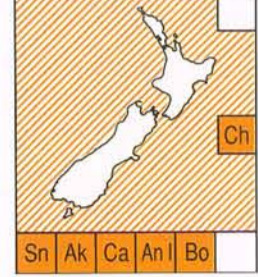
Plate 4

ALBATROSSES

SHY MOLLYMAWK *Diomedea cauta*

Common native

90 cm, 4 kg. Three subspecies breed in NZ region, separated by size, plumage and bill colours. All have diagnostic *white underwing with very narrow black borders and a small black triangular notch at base of the leading edge*. Larger and longer-winged than other mollymawks. Adult NZ White-capped Mollymawk (*steadi*) has white head and neck, small black patch from eye to bill shading to very faint grey wash on cheeks; mantle grey-brown merging into grey-black back and upperwings; rump white; tail grey-black, underparts white; *tips of underwing white with thin black edging*; bill (133 mm) pale bluish horn with yellowish top to bill, especially at base and tip; legs and feet pale blue-grey. Salvin's Mollymawk (*salvini*) smaller; crown pale grey, more extensive light grey on face, throat, hindneck and mantle; *tips of underwing black*; sides of bill (128 mm) grey-green, with paler top and bottom, and dark spot at tip of lower bill. Chatham I Mollymawk (*eremita*) is smallest and darkest race; crown pale grey; face, throat, hindneck and mantle dark grey; tips of underwings black; bill (120 mm) *yellow with dark spot at tip of lower mandible*. Immatures of all subspecies have more extensive grey areas; underwing patterns are similar to that in adults; *bill bluish grey with black tips to both mandibles*. **Habitat:** Breeds subantarctic, mainly in NZ region; at Auckland and Antipodes Is (*steadi*), Bounty Is and The Snares (*salvini*), Pyramid Rock, Chathams (*eremita*). Races *steadi* and *salvini* range widely through southern oceans and often to NZ coastal waters, especially around boats; *eremita* is rarely seen away from Chathams but reported off eastern S America and sometimes beach-wrecked on NZ mainland. **Breeding:** Nov–Aug (*steadi*), Sep–Apr (*salvini* and *eremita*).



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 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*.

London: Christopher Helm. Murphy, R.C. 1936. *Oceanic Birds of South America*. New York: MacMillan. Serventy, D.L. et al. 1971. *The Warham of Australian Sea-birds*. Sydney: Reed. Warham, J. 1990. *The Petrels: their ecology and breeding systems*. London: Academic Press.

11. SHY MOLLYMAWK *Diomedea cauta*

Plate 4

**Size:** 90 cm, 4 kg  
**Geographical variation:** Recent taxonomic research suggests that the four subspecies should be reclassified as full species, three of which breed in the New Zealand region and the fourth (*cauta*) breeds around Tasmania and occasionally visits New Zealand waters. New Zealand White-capped Mollymawks *steadi* breed on Disappointment, Auckland and Adams Islands, Auckland Islands; and a few breed on Bollons Island, Antipodes, and the Forty-Fours, Chathams; Salvin's Mollymawks *salvini* breed at the Bounty Islands and the Western Chain of The Snares; and Chatham Island Mollymawks *eremita* breed at Pyramid Rock, Chathams.  
**Distribution:** Breed widely in the New Zealand subantarctic and on islands off southwestern Tasmania and in Bass Strait, but elsewhere only a few pairs (*salvini*) breed at the Crozet Islands in the South Indian Ocean. At sea, they range widely in the southern oceans, with most records from subantarctic and subtropical waters of the South Pacific north to about 25°S, off South America and off South Africa.  
 Birds of all local subspecies are seen in New Zealand coastal waters and are the species of mollymawk most often beach-wrecked, mainly from early winter to late spring. Shy Mollymawks are very abundant over continental shelf waters around southern and central New Zealand during most of the year, except that Chatham Island Mollymawks are rarely seen off the mainland coast and most migrate to seas off Chile and Peru.  
**Population:** All but c. 5000 pairs of the world population of 150,000 pairs breed in the New Zealand subantarctic. *steadi*: Auckland Islands – Disappointment Island c. 75,000 pairs, 3000 pairs on Auckland Island, 100 pairs on Adams Island, 20 pairs on Bollons Island and a single pair on the Forty-Fours in 1991 and 1996. *salvini*: Bounty Islands c. 31,000 pairs in 1997, Western Chain of The Snares 1200 pairs; and *eremita*: Pyramid Rock, Chathams 5300 pairs.  
**Conservation:** Protected native. The Chatham Island Mollymawk is a threatened endemic subspecies and has been caught on long-lines

set for tuna, ling and swordfish. Feral pigs have almost wiped out all accessible breeding colonies on main Auckland Island. In the 1980s many White-capped Mollymawks were killed accidentally by fishing operations, most being drowned after having collided with and become entangled in squid trawling gear, but changes to fishing gear seem to have largely alleviated the problem. Many White-capped Mollymawks (15% of all seabirds in 1988–97) are killed on tuna long-lines in New Zealand and Australian waters.  
**Breeding:** On the Auckland Islands, eggs are laid from early November, whereas the other subspecies lay from late August to early October. They lay 1 white egg (103 x 67 mm, 238 g), with reddish-brown flecking at the broader end, in a shallow cup on top of a pedestal of dried mud, feathers, guano and vegetation. The adults share incubation for c. 70 days and then share duties guarding the downy chick for c. 3 weeks. Chicks of *steadi* on the Auckland Islands fledge in August, whereas chicks of the other subspecies fledge in April, aged c. 4.5 months old. The oldest Shy Mollymawk recorded is an Australian bird aged over 16 years.  
**Behaviour:** Breed in large densely packed colonies with nests averaging 1.2 m apart on the Bounty Islands, where they intermingle with Erect-crested Penguins. At sea, Shy Mollymawks sometimes form huge flocks of 2000–3000 birds around fishing boats and are often in large mixed flocks of seabirds.  
**Feeding:** Diet is mainly squid, fish, krill, salps, and offal from fishing boats, mostly seized on the surface. Their affinity for feeding on scraps near fishing boats makes Shy Mollymawks vulnerable to accidental capture or entanglement.  
**In the hand:** Males are larger than females in all measurements, but the ranges overlap extensively. The bill of *eremita* (120 mm) is much shorter than in *salvini* (128 mm), *cauta* (130 mm) or *steadi* (135 mm). The wing of *steadi* (595 mm) is longer than in the similar-looking *cauta* (560 mm).  
**Reading:** Bartle, J.A. 1991. *Bird Cons Int* 1: 351–359. Robertson, C.J.R. & van Tets, G.F. 1982. *Notornis* 29: 311–336.