

# Albatross Identification in the North Atlantic

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## PREFACE

Recent sightings of albatrosses in the North Atlantic and the increasing interest in observing birds at sea, have emphasized the need for a readily-available treatment of the field characters of this group of birds. A very useful paper on *Albatross Identification in the North Atlantic*, published in *British Birds*, in 1966 by Warham, Bourne and Elliott is here republished virtually unchanged, with the special permission of *British Birds*, along with an addendum by Warham and Bourne to bring the material up-to-date. This addendum is entitled *Additional Notes on Albatross Identification*, which presents further information on immature plumages, on Buller's albatross (not mentioned in the original paper), the two species of Giant Petrels and certain misleading discussions to be found in the literature, and on mollymawks in the North Pacific, which indicates critical points for distinguishing possible southern vagrants from the three resident species.

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## INTRODUCTION

Most textbook descriptions of albatrosses are based on the study of skins in museums and concentrate on useful characters for identifying birds in the hand, such as measurements and the bill characters illustrated on page 493 of Murphy (1936). As the growing interest in watching birds at sea produces more frequent reports of albatrosses in our area, especially young ones in difficult plumages, characters which are more easily distinguished at a distance are tending to assume greater importance and these need to be properly understood if the birds are to be identified from brief glimpses. It therefore seems timely to attempt to clarify and summarise the available information on the field-characters of the albatross species which are known or likely to visit the North Atlantic. Further information, with accounts of the other species, will be found in Alexander (1955), Moreland (1957), Murphy (1936) and Palmer (1962), and in the references cited by the last two. Elsewhere (*Ibis* 1967) Bourne presented a fuller discussion of long-distance vagrancy in the Procellariiformes and reviewed all records.

On present information, the albatrosses which require most serious consideration in the North Atlantic are the Black-browed *Diomedea melanophris* (six specimen records in the north and east), the Yellow-nosed *D. chlororhynchos* (three specimen records in the south and west), the Shy *D. cauta* (one specimen record in the North Pacific) and the Grey-headed *D. chrysostoma* (several specimens in both oceans, but of doubtful origin). These are all very similar, medium-sized species known as 'mollymawks' in

the southern hemisphere where they breed. For completeness we are also including the two 'great' albatrosses, the Wandering *D. exulans* (one specimen record in the Mediterranean) and the Royal *D. epomophora* (one very doubtful record in Morocco); the two 'phoebetria' albatrosses, the Sooty *Phoebetria fusca* and the Light-mantled Sooty or Grey-mantled *P. palpebrata* (neither recorded with any certainty and, although the former is more likely, the only records are based on the misidentification of *palpebrata* specimens of doubtful origin); and the albatross-sized Giant Petrel *Macronectes giganteus* (seen in the North Pacific). Other species are very unlikely indeed.

## GENERAL CHARACTERS

Albatrosses in flight may be readily recognised by their large size, all being appreciably larger than a Gannet *Sula bassana* (wingspan 5 feet 8 inches). The combination of very long, narrow wings with a powerful gliding flight is also distinctive. In a wind the wings are held stiffly and are beaten only occasionally without normally being raised above the level of the body, though they are flexed at the carpal joints and twisted to take advantage of air currents. In gales they may be raked back steeply from the carpal joint. In calms or fog albatrosses often settle on the sea where they ride very buoyantly and appear much larger than Gannets or Great Black-backed Gulls *Larus marinus* near-by.

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The species known to have reached the North Atlantic or likely to do so unaided can be divided into three groups according to the colour of their upper-parts. Of these it is the mollymawks in group A which pose the real problems of identification, while the members of groups B and C are less likely to be met and will usually be easily told apart:

- A. Large, wingspan 6-8 feet, with the body white but the upper-wing and mantle wholly dark, making a complete dark band from wing-tip to wing-tip like a Great Black-backed Gull, but with a white rump and dark tail (Black-browed, Yellow-nosed, Shy and Grey-headed Albatrosses, or mollymawks).
- B. Extremely large, wingspan about 9½ feet, and relatively long in the wing but short in the tail, with dark extremities to the upper-wing which do not meet across the white body, or, if they do, with much dark on the body as well (Wandering and Royal, or 'great', Albatrosses).
- C. Large, wingspan about 6½ feet, with wings and body brown to grey-brown both above and below (Sooty and Light-mantled Sooty, or 'phoebetria', Albatrosses and dark phase Giant Petrel).

#### GROUP A: THE MOLLYMAWKs

The identification of mollymawks is complicated by our incomplete knowledge of the sequence and characters of the immature plumages. Unfortunately it is the immatures which are seen most often in our area, although adults also appear, and most of those collected have been nearly or entirely adult by the time they came to grief. Members of the group are easily recognised by the dark back and tail, though the latter may be inconspicuous against the dark sea and is often omitted from descriptions. Adults usually have bright, contrasting bill markings and pure colours on the head and back which vary in shade with the species, while young birds are usually drabber with less well-defined markings. The following are the critical details to look for:

- (a) The amount and distribution of white on the under-wing, its width, and whether it is clearly demarcated from the dark wing margins.
- (b) The general and, if possible, the detailed colour of the bill, and its shape in relation to the head.
- (c) The amount of grey on the head or nape, if any; the extent of the dark patch round the eye and whether this confers a 'beetling' aspect to the brows; and the pres-

ence or absence of a white mark just behind and below the eye.

- (d) In adults at close quarters, the colour of the mantle.
- (e) Once comparative experience has been gained, the shape and build of the bird

Of these five key points, (a) is probably the most important, since it is the most likely to be visible at a distance, though a study of fresh and relaxed museum material and of photographs suggests that much allowance must be made for age and individual variation and the effect of light and angle of view. However, it should enable the bird to be assigned to one of three groups:

- (1) Under-wing with a white central area not very clearly marked off from the dark tips, and dark margins which are quite broad anteriorly but narrower posteriorly; some immatures have little more than a pale central area which may be hard to see in shadow (Black-browed and Grey-headed Albatrosses).
- (2) Under-wing with a large central area of white sharply marked off from a dark tip and well-defined dark margins which are a little wider in front than behind (Yellow-nosed Albatross).
- (3) Under-wing wholly white except for a black tip and very narrow black margins (Shy Albatross).

#### *Black-browed and Grey-headed Albatrosses*

These share much the same nesting islands in the far south, but, whereas the Grey-headed tends merely to disperse at sea in the same latitudes in winter, the Black-browed migrates north strongly to feed over the southern continental shelves. It follows that we are much more likely to see the latter than the former; indeed, none of the northern records of the Grey-headed Albatross stands up to detailed scrutiny. Should the Grey-headed occur, the adults of the two species are readily separable under ordinary viewing conditions, but the youngest immatures are not and present the most important cause of doubt in the identification of recent descriptions, often resolvable only by the consideration of geographical probabilities, since Grey-headed Albatrosses are so very unlikely in the north.

Unfortunately there are few specimens of the critical age-group in museums, because fully-feathered fledglings have seldom been collected. The most useful sources of information we have traced are a report of beached birds in South Australia by Condon (1936) and an account of observations in the Antarctic by Falla (1937), which we have supplemented by examining

series of skins in the Canterbury Museum, New Zealand, and the British Museum (Natural History), where Graham Cowles has also relaxed some wings to show the under-sides (plate 00).

It appears that in their first plumage both species are grey above, including the crown and hind-neck, with the bill more or less dark, the under-parts white, and the under-wing pale in the centre with a dark tip and broad, dark margins. The Black-browed Albatross tends to be greyer with slightly more contrast, and the Grey-headed browner above, but the difference is not great and there is a good deal of individual variation. Condon reported that the young Grey-headed has more and darker grey on the head than the young Black-browed; skins confirm this and also suggest that the Grey-headed always has the bill uniformly dark except on the ridge, whereas the young Black-browed has it greyish-horn with a darker tip. It is debatable to what extent these things could be distinguished at sea, but see figs. 1 and 2.

After the first year the two species diverge progressively in appearance. The head of the Black-browed becomes white and the bill progressively yellower from the base, while the head of the Grey-headed remains grey and the bill stays black but develops a yellow margin above and below. Both now begin to show a distinct

white centre to the under-wing. The characters of the mollymawks may therefore be summarised as follows.

*Black-browed Albatross* (plates 1-3)

This is one of the larger mollymawks, with a wingspan of just over 7 feet and a short, thick neck that gives the bird a humped look. The back of the adult is a slightly darker grey than in most other species, and *the under-wing has a small to quite large white central stripe with broad and somewhat ill-defined brownish-black margins*, wider in front, the white tending to merge with the margins most towards the wing-tip. *The head is wholly white except for a dark patch before, above and behind the eye-socket*, present to a varying extent in most mollymawks, but tending to give this species a 'frowning' look. *The bill is yellow or orange-yellow with a pink tip*; it is swollen at the base and tapers towards the tip, so that it does not appear disproportionate compared to the head.

*Immatures are duller, with the top of the head and neck grey at first*, though this soon wears, fades or is moulted to white, according to Miss M. Courteney-Latimer, leaving the lower neck bluish-grey. *The under-wing at first has little white which tends to merge with the dark tips and margins*, though the central white stripe soon

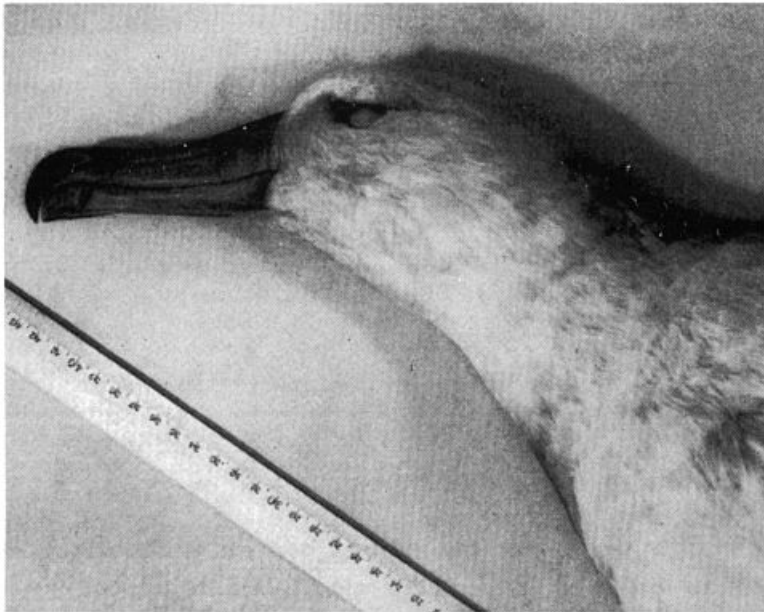


FIG. 1. Head of immature Black-browed Albatross *Diomedea melanophris*. The feathers are white dusted with greyish at their ends above and on the shoulders, creating a rather nondescript mottled effect which wears to white as the feather ends fade and are lost. The bill has brownish-horn lateral plates with a blackish-brown nail (photo: John Warham).

becomes prominent. *The bill is blackish-grey, soon developing horn-coloured patches on the lateral plates, and the tip is darker.* As the bird matures, the base becomes yellow and in most sub-adults seen at sea the bill is yellow with a dark tip, the last sign of immaturity. The shape of the bird and its bill should be distinctive at any age.

*Grey-headed Albatross (plate a)*

This is a medium-sized mollymawk of average build with a wingspan of about 7 feet. The back is a slightly paler grey than in the Black-browed. *In some adults seen in life the under-wing resembled that of many Black-broweds, with a broad central area of white, not too sharply marked off from brownish-black margins which were broader along the leading edge outward to the carpal joint, and narrower along the trailing edge.* However, R. O. Morris tells us that he thinks that the white is normally more extensive with less well-defined margins and extends further back behind the central axis of the wing than in the Black-browed. *The head, nape and face are grey, with a white mark just below and behind the eye which can often be seen at close range even in birds in flight.* There are dark feathers in the eye socket, but these do not confer a

frowning aspect. *The bill is glossy black, broadly edged above and below with orange or yellow, and tipped with orange-pink.*

*The immature has the head a darker grey than in the Black-browed* according to Condon in Australia, though W. L. N. Tickell considers the tone lighter than in the adult, while A. Y. Norris states that the whole head appears brownish-grey to dull grey where it meets and is sharply differentiated from the white on the throat and breast, in which respect it is quite distinct from some young Black-browed, in which the grey blends with the white.<sup>1</sup> *The bill is grey-black and comparatively short, becoming narrowly horn-coloured and then yellowish above and below as the bird matures.* In skins *the under-wing is very like that of the young Black-browed*; Condon reported that in beached birds it appeared *dark with a narrow central white band.*

*Yellow-nosed Albatross (plates 4b-5a)*

This is a rather small, lightly-built mollymawk with a wingspan of 6-6¾ feet. In adults *the head is very pale grey, looking white at a distance, and the dark feathers around the eye usually give the appearance of a small triangular patch pointing downwards.* The mantle is of about the same shade as that of the Black-browed Albatross. *The*

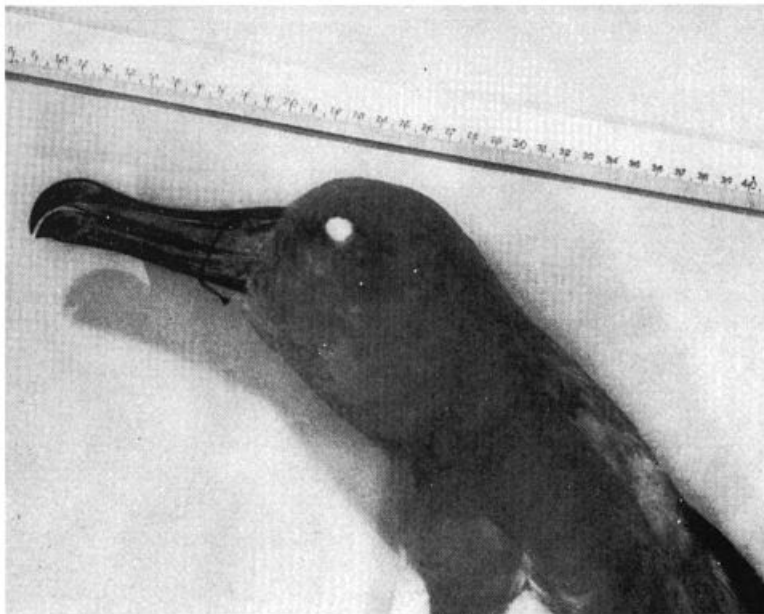


FIG. 2. Head of immature Grey-headed Albatross *Diomedea chrysostoma*. The entire head and throat is solid grey, almost bluish; this is sharply separated from the white of the upper breast (just visible here) and does not get paler with time. The bill is dark horny grey-brown all over, with the ramicorn a little browner and the centre of the ridge of the culmen mottled pale horn for the proximal two centimetres. A faint light crescent behind the eye may be more prominent in life (photo: John Warham).



PLATE 1. Adult Black-browed Albatross *Diomedea melanophris*. Note the short, thick neck. The white body and rump, grey tail, and grey mantle between sooty-brown wings are typical of the 'mollymawks' (photo: John Warham).



PLATE 2. Adult Black-browed Albatross *Diomedea melanophris* from below. The under-wings are broadly margined with blackish along the anterior edge and rather narrowly so along the posterior edge; the strip of white down the centre is less sharply defined, or sometimes even absent, in immature birds (photo: John Warham).

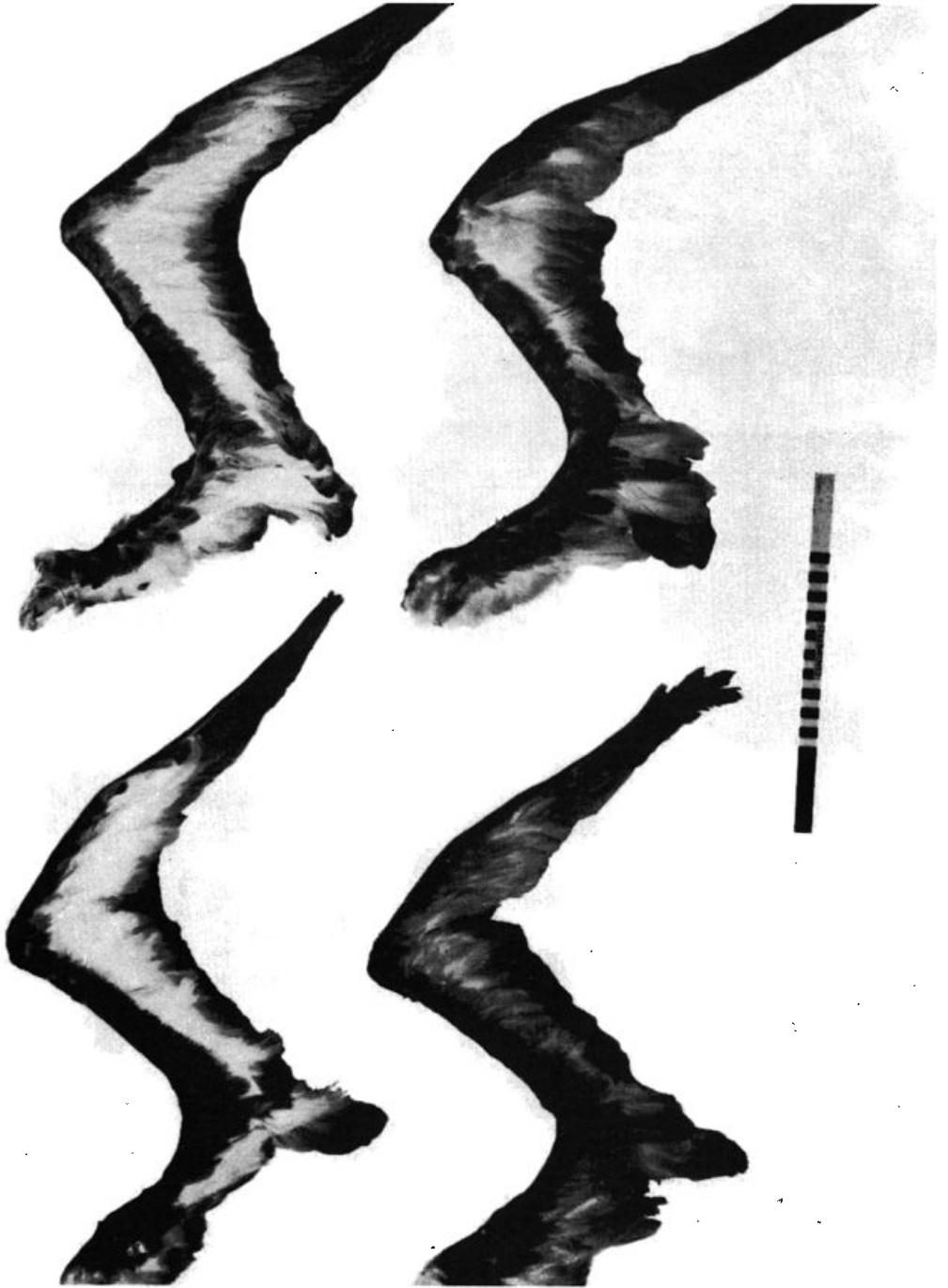


PLATE 3. Under-wings of Black-browed (upper) and Grey-headed Albatrosses *Diomedea melanophris* and *chrysostoma*, adults on left and immatures on right, to show age variation and the similarity between the species. These immatures may vary individually, and *melanophris* can be darker and *chrysostoma* lighter than in the examples shown (photo: Dept. of Photography, British Museum, Natural History).

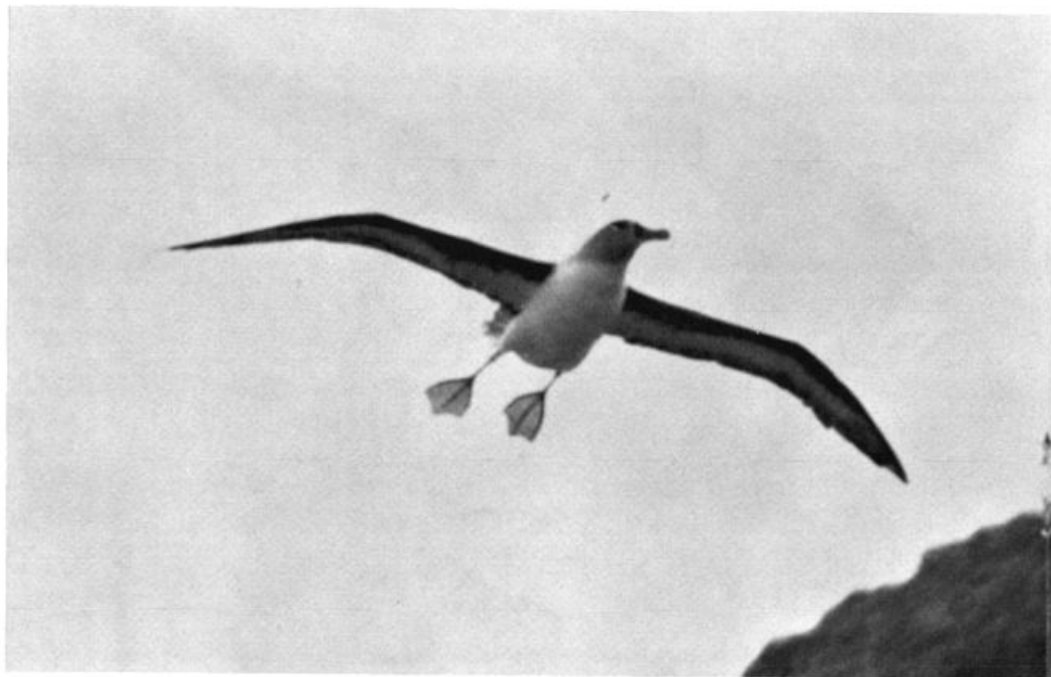


PLATE 4. Adult Grey-headed Albatross *Diomedea chrysostoma* with under-wing as Black-browed, but head blue-grey with white behind the eye (photo: John Warham). Below, adult Yellow-nosed Albatross *D. chlororhynchos* with yellow-ridged black beak and sharp black edges to under-wing (photos: R.N.B.W.S. and Patrice Paulian).

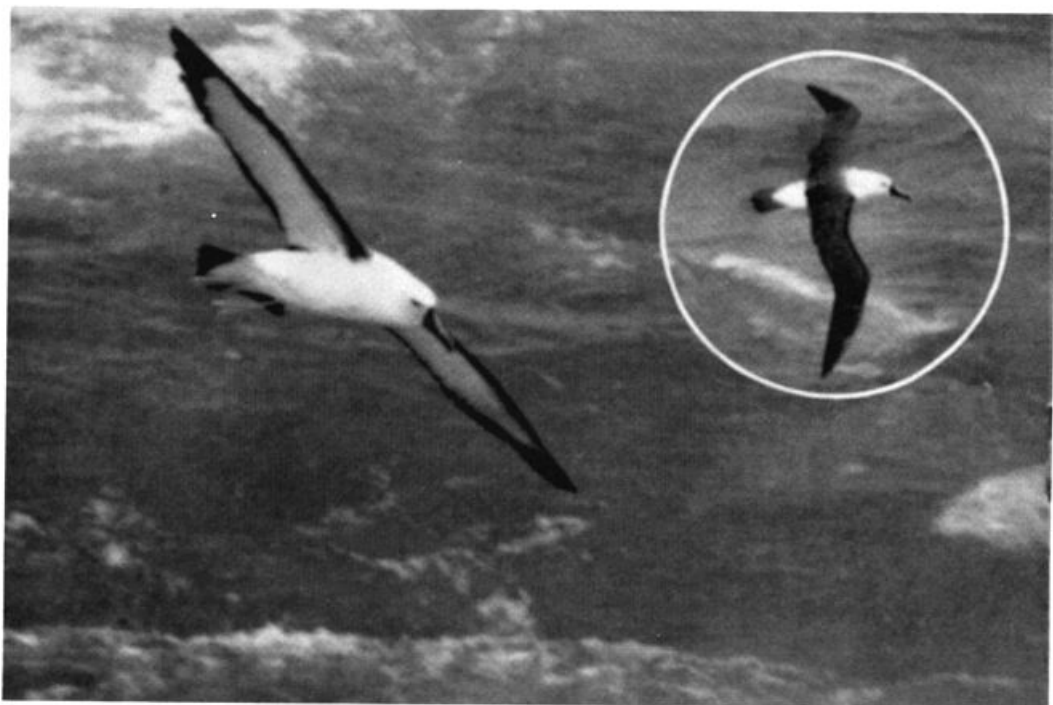






PLATE 5. Immature Yellow-nosed Albatross *Diomedea chlororhynchos* with the bill starting to lighten along the ridge; note the characteristic albatross shape on water (photo: V. N. Serventy). Below, adult Shy Albatross *D. cauta* showing the deep-based bill and narrow black edges to the under-wing (photo: Patrice Paulian).





PLATE 6. Immature Wandering Albatross *Diomedea exulans*; note the short tail. The fact that this bird still has dark tips to the tail-feathers excludes the possibility of a Royal Albatross *D. epomophora* (which likewise has a white body and, in the race *sanfordi*, similarly dark-based upper-wings) (photo: R.N.B.W.S.)

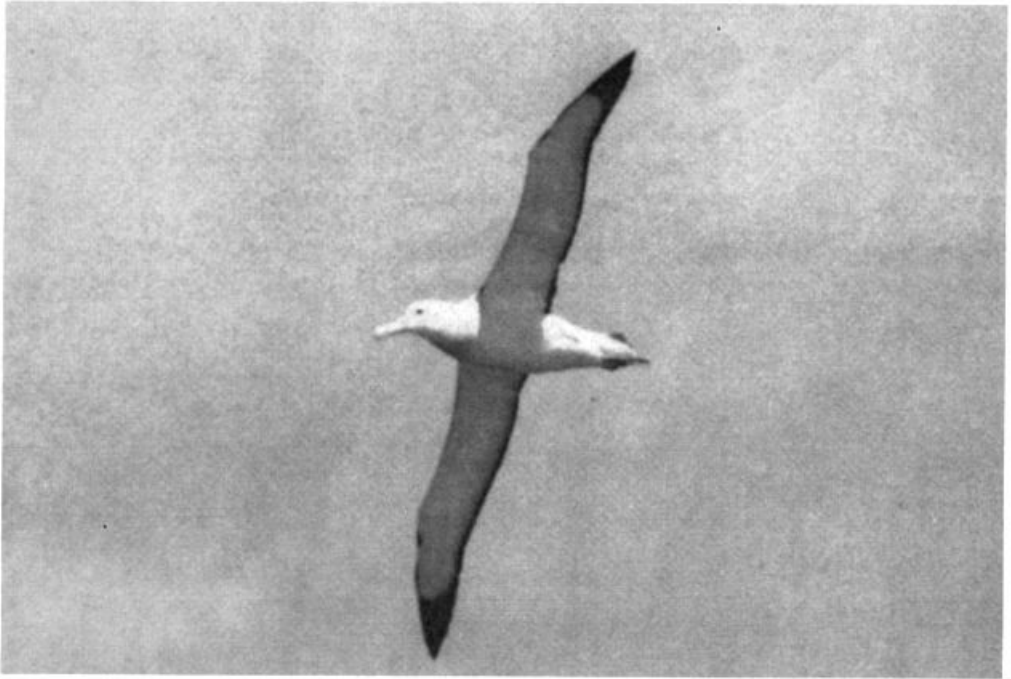
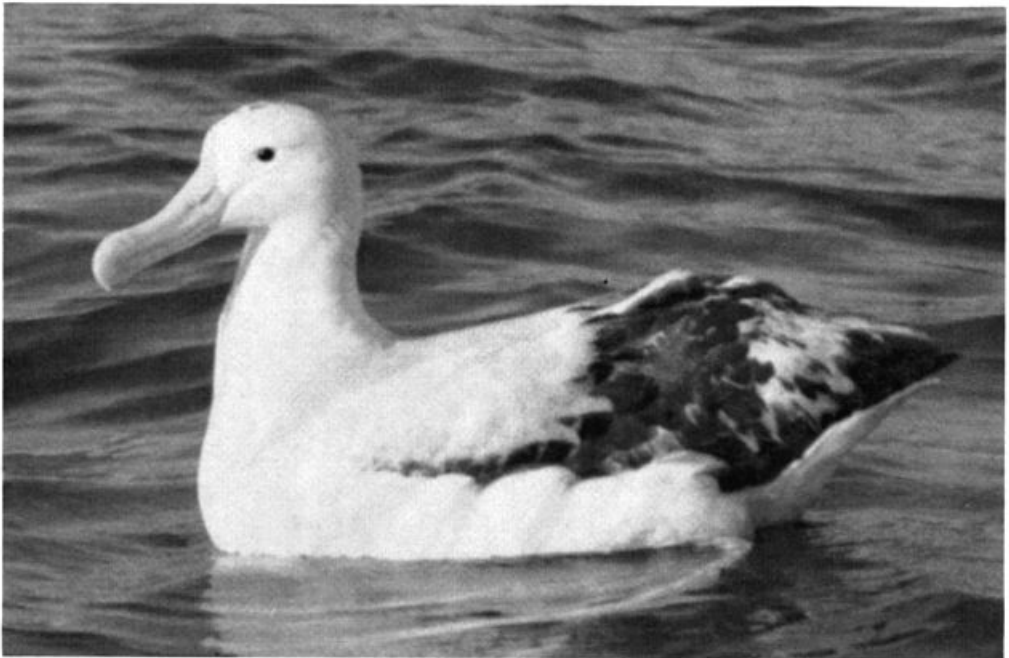
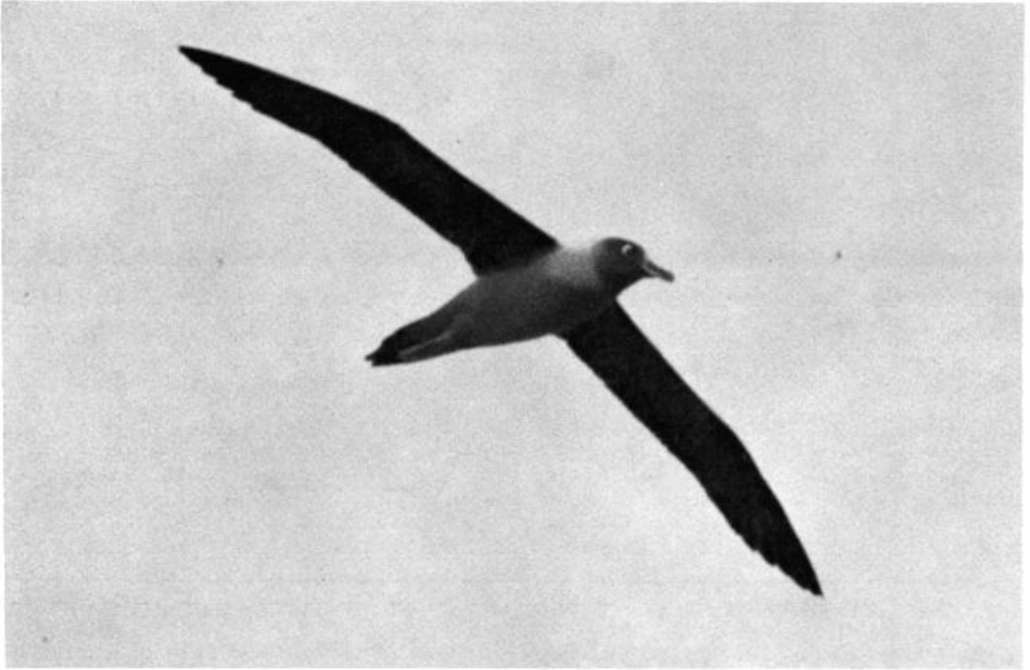


PLATE 7. Near-adult Wandering Albatross *Diomedea exulans* with brown suffusion on breast, black in tail and under-wing typical of both the 'great' albatrosses (photo: John Warham). Below, adult showing the heavy pale bill; some, females especially, have brown flecks on the crown (photo: N.S.W. Albatross Study Group).





**PLATE 8.** Adult Light-mantled Sooty Albatross *Phoebastria palpebrata* with the silhouette typical of this genus; note the dark bill with the blue groove and the white crescent behind the eye. Below, Giant Petrel *Macronectes giganteus*, which is albatross-sized but with stumper body and shorter wings (photos: John Warham).



*under-wing has much more white than that of either of the previous two species, though there is still a fairly broad dark anterior margin. The bill is black with a yellow stripe along the ridge of the upper mandible and a pinkish tip; it has a narrow base and broad tip with relatively little taper, and Warham thinks that it looks rather long and gives the head a top-heavy appearance (Fig. 5a).*

*Immatures are very similar, with a pure white head and black bill, which is quite slender at first, but becomes more massive with a horn and then yellow line on the ridge as the bird matures.*

#### Shy Albatross (Fig. 5b)

This is the largest of the mollymawks, and is rather thick-bodied and broad-winged, with a wingspan of 8 feet. It has a *grey head, and in the southern adults a white crown* contrasting with the shading in the eye-socket; hence the Australian name 'White-capped Albatross'. The mantle is medium grey, much like that of the Grey-headed, and the *distinctive under-wing entirely white* except for very narrow dark margins and a black tip. *The bill is deep at the base with pale blue-grey lateral plates* running up in front of the eye and set off by a dark line extending down and back in a horseshoe behind the nostrils. In the adult there is a yellow line above and below shading into orange at the tip, but young birds may have the whole bill grey or olive. Otherwise, apparently, *immatures are much like adults.*

#### GROUP B: THE 'GREAT' ALBATROSSES

These birds can hardly be mistaken for anything else, *with a wingspan of 9-10 feet and short tails which give them a 'stumpy' look; a characteristic white under-wing with a dark tip and narrow trailing edge; and a massive pink bill.* The birds most likely to appear in the northern hemisphere, young Wandering Albatrosses, have a *distinctive juvenile plumage.* Older Wandering Albatrosses are hard to tell from the typical race of the Royal Albatross, *which however has a narrow dark cutting edge to the upper mandible.*

#### Wandering Albatross (plates 6-7)

In the southern populations the extreme form of adult is *wholly white except for dark ends to the wings and a dark line along the rear margin of the under-wings. The massive bill is very pale flesh, almost white.* On fledging, *immatures have brown bodies and upper-wings, but their faces are white, and their bills and under-wings as in the adult.* With increasing age, *the brown of the body is gradually replaced by white* and the basal region of the upper-wing becomes paler, until finally there is only a dark patch on the breast and

dark feathers in the tail. The northern populations often start to breed before all traces of the immature plumage have been lost, and *while immature feathers remain they are instantly recognisable as Wandering Albatrosses as the Royal has no immature plumage.*

#### Royal Albatross

This species resembles extreme adult Wandering Albatrosses *at all ages except for the black cutting edge of the upper mandible.* However, the northern race *sanfordi* has an almost entirely dark upper-wing and a white body, a combination not found in the Wandering Albatross, so confusion may be avoided there. The species breeds in lower latitudes than the Wandering Albatross and appears to migrate east and west while the other moves north and south, so that it is comparatively unlikely to turn up north of the Equator, but it should be borne in mind.

#### GROUP C: THE 'PHOEBETRIA' ALBATROSSES AND THE GIANT PETREL

The very southerly Light-mantled Sooty Albatross has a range like that of the Grey-headed, and several northern records are untenable. Its northern representative, the Sooty Albatross, has a range like that of the Yellow-nosed and seems about equally likely to occur north of the Equator, though it has not been recorded yet except in error for the Light-mantled Sooty. If it did occur there would be a strong possibility of confusion with the young of the Giant Petrel, a species which breeds in the south and migrates north strongly, so that it is also likely to cross the Equator sooner or later in the Atlantic as well as the Pacific.

'Phoebetria' albatrosses have *long, cigar-shaped bodies* which appear pointed at both ends because the wedge-shaped tail is normally held closed. They are the most graceful and competent of all albatrosses on the wing. The Sooty Albatross is *dark brown all over, with the head darker still,* though the wing feathers are glossy so that the dark under-wing may reflect light as the bird banks away from an observer with the light behind him. *The bill is glossy black with a yellow groove along the lower mandible* and an incomplete white ring round the eye is prominent at close quarters. The Light-mantled Sooty Albatross (plate 8a) is *similar with a grey back and a blue, not yellow, groove in the lower mandible.* The young Sooty has a dark bill and may be paler on the back, while the young Light-mantled Sooty may be darker; indeed, Learmonth (1960) reported that *it may be impossible to tell immatures of the two species apart even in the hand*

The possibility of the occurrence of the Giant Petrel (plate 8b), a huge fulmar the size of an albatross with a fan-shaped tail and a distinctive massive pale bill, has only to be considered to prevent confusion. Apart from an all-white phase in the far south, adults are grey-brown with paler heads, while the immatures which migrate north are dark brown and could be mistaken for Sooty Albatrosses.

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History) for facilities for studying the albatross material in their care, and most especially Graham Cowles, who relaxed wings to show the pattern of the under-sides.<sup>1</sup>

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## Additional Notes on Albatross Identification

by John Warham and W. R. P. Bourne

Since the discussion of albatross identification by Warham *et al.* (1966) reprinted above was written, a number of field guides of very variable quality have dealt with albatrosses among other species of the tropical Atlantic (Watson 1966), tropical Pacific (King 1967), New Zealand (Falla *et al.*, 1966), Australia (Slater 1970) and South Africa (Prozesky 1970), while Serventy *et al.* (1971) have published a fuller account of Australian seabirds illustrated with photographs. Between them these cover most of the southern seabirds which have wandered north, and Falla *et al.* (1966), Slater (1970) and Serventy *et al.* (1971) also illustrate the distinctive characters of the bills of the southern albatrosses which, it is perhaps worth emphasizing, are the best means of telling them apart in the hand, though less useful at sea; some of these are also figured by Murphy (1936), while Palmer (1962) deals with the North Pacific species as well.

Following the review of vagrancy in the petrels by Bourne (1967) Black-browed Albatrosses (*Diomedea melanophris*) have been reported in Britain and Ireland in most years (such records are listed annually in reports of the occurrence of

rare species in *British Birds* and in the *Irish Bird Report*), with two in the Caribbean at 14°03'N 66°31'W on 6 May 1968 (de Bruijne 1970) and again off the east coast of the United States on various dates in the summer of 1972 (DuMont 1973). One even visited the gannetry on the Bass Rock off the east coast of Scotland for three summers from 1967 to 1969 (Waterston 1968), but it was frequently disturbed and eventually went away. McDaniel (1973) also lists four occurrences of Yellow-nosed Albatrosses (*Diomedea chlororhynchos*) off eastern North America in the period 1970-1972, and speculates on why there should suddenly have been an increase in albatross records. We suggest that it may partly be because more people are now interested in them, and partly because they are now less likely to be shot than in the past, so that birds which penetrate the northern hemisphere as migratory juveniles are now more likely to be able to settle down there and bring pleasure to many people as adults. It is notable that a good many of the recent

<sup>1</sup>. See Supplement.