

Wandering albatross

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The **wandering albatross**, **snowy albatross** or **white-winged albatross**^[3] (*Diomedea exulans*) is a large seabird from the family Diomedidae, which has a circumpolar range in the Southern Ocean. It was the first species of albatross to be described, and was long considered the same species as the Tristan albatross and the Antipodean albatross. A few authors still consider them all subspecies of the same species.^[4] The SACC has a proposal on the table to split this species,^[5] and BirdLife International has already split it. Together with the Amsterdam albatross, it forms the wandering albatross species complex. The wandering albatross is the largest member of the genus *Diomedea* (the great albatrosses), one of the largest birds in the world, and one of the best known and studied species of bird in the world.

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Taxonomy

The wandering albatross was first described as *Diomedea exulans* by Carolus Linnaeus, in 1758, based on a specimen from the Cape of Good Hope.^[3] There are two sub-species:

- Diomedea exulans exulans*
- Diomedea exulans gibsoni* (sometimes known as **Gibson's albatross**, and treated as a full species, *Diomedea gibsoni*, by some authorities^[6])

The *gibsoni* subspecies nests in the Auckland Islands.^[7]

Some experts considered there to be four subspecies of *D. exulans*, which they elevated to species status,

Wandering albatross



Conservation status



Vulnerable (IUCN 3.1)^[1]

Scientific classification

Kingdom:	Animalia
Phylum:	Chordata
Class:	Aves
Order:	Procellariiformes
Family:	Diomedidae
Genus:	<i>Diomedea</i>
Species:	<i>D. exulans</i>

Binomial name

Diomedea exulans

Linnaeus, 1758^[2]

Subspecies

Diomedea exulans

exulans(Linnaeus, 1758)^[2]

Diomedea exulans gibsoni

and use the term *wandering albatross* to refer to a species complex that includes the proposed species *D. antipodensis*, *D. dabbenena*, *D. exulans*, and *D. gibonsi*.^[8]

Etymology

Diomedea refers to Diomedes whose companions turned to birds, and *exulans* or *exsul* are Latin for "exile" or "wanderer" referring to its extensive flights.^[9]

Habitat

Wandering albatrosses spend most of their life in flight, landing only to breed and feed. Distances traveled each year are hard to measure, but one banded bird was recorded traveling 6000 km in twelve days.

Description



The wandering albatross has the largest wingspan of any living bird, typically ranging from 2.51 to 3.5 m (8 ft 3 in to 11 ft 6 in), with a mean span of 3.1 m (10 ft 2 in) in the Bird Island, South Georgia colony and an average of exactly 3 m (9 ft 10 in) in 123 birds measured off the coast of Malabar, New South Wales.^{[3][10][11]} On the Crozet Islands, adults averaged 3.05 m (10 ft 0 in) in wingspan.^[12] The longest-winged examples verified have been about 3.7 m (12 ft 2 in).^[11] Even larger examples have been claimed, with two giants reportedly measuring 4.22 m (13 ft 10 in) and 5.3 m (17 ft 5 in) but these reports remain unverified.^[11] As a result of its wingspan, it is

capable of remaining in the air without flapping its wings for several hours at a time (travelling 22 m for every metre of drop).^{[13][14][15]} The length of the body is about 107 to 135 cm (3 ft 6 in to 4 ft 5 in)^{[10][16][17]} with females being slightly smaller than males. Adults can weigh from 5.9 to 12.7 kg (13 to 28 lb), although most will weigh 6.35 to 11.91 kg (14.0 to 26.3 lb).^{[3][11][18][19]} On Macquarie Island, three males averaged 8.4 kg (19 lb) and three females averaged 6.2 kg (14 lb).^[20] In the Crozet Islands, males averaged 9.44 kg (20.8 lb) while females averaged 7.84 kg (17.3 lb).^[12] However, 10 unsexed adults from the Crozets averaged 9.6 kg (21 lb).^[21] On South Georgia, 52 males were found to average 9.11 kg (20.1 lb) while 53 females were found to average 7.27 kg (16.0 lb).^[22] Immature birds have been recorded weighing as much as 16.1 kg (35 lb) during their first flights (at which time they may still have fat reserves that will be shed as they continue to fly).^[11] On South Georgia, fledglings were found to average 10.9 kg (24 lb).^[23] Albatrosses from outside the "snowy" wandering albatross group (*D. e. exulans*) are smaller but are now generally deemed to belong to different species.^{[22][24]} The plumage varies with age, with the juveniles starting chocolate brown. As they age they become whiter.^[3] The adults have white bodies with black and white wings. Males have whiter wings than females with just the tips and trailing edges of the wings black. They also show a faint peach spot on the side of the head. The wandering albatross is the whitest of the wandering albatross species complex, the other species having a great deal more brown and black on the wings and body as breeding adults, very closely resembling immature wandering albatrosses. The large bill is pink, as are the feet.^[17] They also have a salt gland that is situated above the nasal passage and helps desalinate their bodies, due to the high amount of ocean water that they imbibe. It excretes a high saline solution from their nose.^[25]



In flight

Ecology

Breeding population and trends^[17]

Location	Population	Date	Trend
South Georgia Islands	1,553 pairs	2006	Decreasing 4%/year
Prince Edward Island	1,850 pairs	2003	Stable
Marion Island	1,600 pairs	2008	
Crozet Islands	2,000 pairs	1997	Declining
Kerguelen Islands	1,100 pairs	1997	
Macquarie Island	10 pairs	2006	
Total	26,000	2007	

Behaviour

Wanderers have a large range of displays from screams and whistles to grunts and bill clapping.^[3] When courting they will spread their wings, wave their heads, and rap their bills together, while braying.^[17] They can live for over 50 years.^[26]



Wandering albatrosses have the largest wingspan of any living bird.

Breeding

Pairs of wandering albatrosses mate for life and breed every two years. Breeding takes place on subantarctic islands and commences in early November. The nest is a mound of mud and vegetation, and is placed on an exposed ridge near the sea. During the early stages of the chick's development, the parents take turns sitting on the nest while the other searches for food. Later, both adults hunt for food and visit the chick at irregular intervals.

Feeding

They are night feeders^[16] and feed on cephalopods, small fish, and crustaceans^[3] and on animal refuse that floats on the sea, eating to such excess at times that they are unable to fly and rest helplessly on the water. They are prone to following ships for refuse. They can also make shallow dives.

Reproduction

The wandering albatross breeds every other year.^[16] At breeding time they occupy loose colonies on isolated island groups in the Southern Ocean. They lay one egg that is white, with a few spots, and is about 10 cm (3.9 in) long. They lay this egg between 10 December and 5 January. The nests are a large bowl built of grassy vegetation and soil peat,^[3] that is 1 metre wide at the base and half a metre wide at the apex. Incubation takes about 11 weeks and both parents are involved.^[16] They are a monogamous species, usually for life. Adolescents return to the colony within six years; however they will not start breeding until 11 to 15 years.^[10] About 30% of fledglings survive.^[3]

Range

The wandering albatross breeds on South Georgia Island, Crozet Islands, Kerguelen Islands, Prince Edward

Islands, and Macquarie Island, is seen feeding year round off the Kaikoura Peninsula on the east coast of the south island of New Zealand^[27] and it ranges in all the southern oceans from 28° to 60°.^[1]

Relationship with humans

Sailors used to capture the birds for their long wing bones, which they manufactured into tobacco-pipe stems. The early explorers of the great Southern Sea cheered themselves with the companionship of the albatross in their dreary solitudes; and the evil fate of he who shot with his cross-bow the "bird of good omen" is familiar to readers of Coleridge's *The Rime of the Ancient Mariner*. The metaphor of "an albatross around his neck" also comes from the poem and indicates an unwanted burden causing anxiety or hindrance. In the days of sail the bird often accompanied ships for days, not merely following it, but wheeling in wide circles around it without ever being observed to land on the water. It continued its flight, apparently

untired, in tempestuous as well as moderate weather.

The Maori of New Zealand used albatross as a food source. They caught them by baiting hooks.^[28] Because the wing bones of albatross were light but very strong Maori used these to create a number of different items including *koauau* (flutes),^[29] needles,



Individual taking off

tattooing chisel blades,^[30] and barbs for fish hooks.^[31]

Conservation

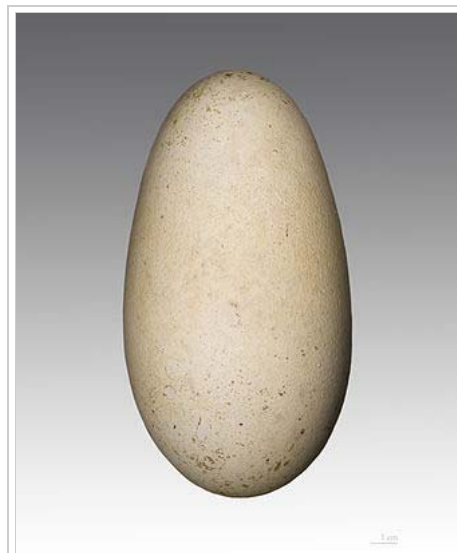
The IUCN lists the wandering albatross as vulnerable status.^[1] Adult mortality is 5% to 7% per year.^[3] It has an occurrence range of 64,700,000 km² (25,000,000 sq mi), although its breeding range is only 1,900 km² (730 sq mi).

In 2007, there were an estimated 25,500 adult birds, broken down to 1,553 pairs on South Georgia Island, 1,850 pairs on Prince Edward Island, 1,600 on Marion Island, 2,000 on Crozet Islands, 1,100 on the Kerguelen Islands, and 12 on Macquarie Island for a total of 8,114 breeding pairs. The South Georgia population is shrinking at 1.8% per year. The levels of birds at Prince Edward and the Crozet Islands seem to be stabilizing although most recently there may be some shrinking of the population.^[17]

The biggest threat to their survival is longline fishing; however, pollution, mainly plastics and fishing hooks, are also taking a toll.

The CCAMLR has introduced measures to reduce bycatch of albatrosses around South Georgia by 99%, and other regional fishing commissions are taking similar measures to reduce fatalities. The Prince Edward Islands are a nature preserve, and the Macquarie Islands are a World Heritage site. Finally, large parts of the Crozet Islands and the Kerguelen Islands are a nature preserve.^[17]

See also



Diomedea exulans - Muséum de Toulouse



Wandering albatross at South Georgia Island

- Sarus crane, the tallest flying bird alive today
- Bustards, which contain the heaviest living flying birds
- *Pelagornis sandersi*, the largest flying bird ever to live

Footnotes

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Further reading

- "Diomedea exulans" (http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=174525). Integrated Taxonomic Information System. Retrieved 24 January 2006.
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External links

- Species factsheet (http://www.birdlife.org/datazone/search/species_search.html?action=SpcHTMDetails.asp&sid=3952&m=0) - BirdLife International
- Fact file (http://www.arkive.org/species/GES/birds/Diomedea_exulans/) - ARKive
- Video, photos and sounds (<http://ibc.lynxeds.com/species/wandering-albatross-diomedea-exulans>) - Internet Bird Collection
- Holotype photos (<http://collections.tepapa.govt.nz/search.aspx?advanced=colFamily%3a%22Diomedidae%22>) - Collections Online, Museum of New Zealand Te Papa Tongarewa
- Do albatrosses have personalities? (<http://channel.tepapa.govt.nz/video/do-albatrosses-have-personalities/>) - Video, Te Papa Channel, Museum of New Zealand Te Papa Tongarewa
- Slide show (<http://www.expeditionsail.com/libraries/slideshows/slideshowsframe.htm>) - Expeditionsail



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