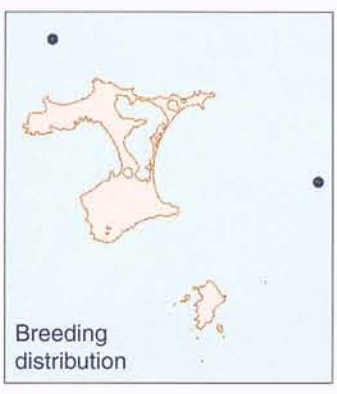
Text and images extracted from Aikman, H. & Miskelly, C. (2004). *Birds of the Chatham Islands*. Department of Conservation, Wellington. Pages 16-18.

Northern royal albatross
Diomedea sanfordi

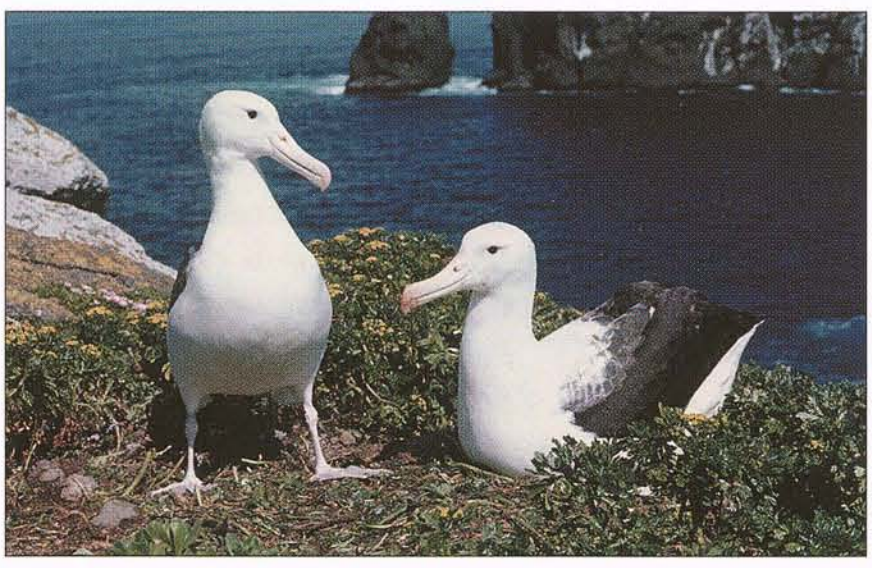
115 cm



NEAR ENDEMIC TO CHATHAM ISLANDS, NATIONALLY VULNERABLE

Other name: toroa

Right: Northern royal albatross. Photo: Christopher Robertson (DOC).



Northern royal albatross pair at nest, Little Sister Island. Photo: Rod Morris (DOC).

Identification

The largest albatross regularly seen at the Chatham Islands, with a wing span of up to 3 metres. White on the head, body and under-wing, and black on the upper surface of the wing. Juveniles have black mottling on the back between the wings. The bill is light pink with black on the cutting edge of the upper mandible.

Distribution and ecology

Almost all northern royal albatrosses (99.5%) breed on the Chatham Islands—on The Forty Fours, Big Sister Island and Little Sister Island, where there is an estimated breeding population of around 6500 pairs. A small number of birds (20–30 pairs) breed at Taiaroa Head on the Otago Peninsula, and a few breed with southern royal albatrosses (*Diomedea epomophora*) on Enderby Island in the Auckland Islands.

Successfully breeding northern royal albatrosses lay a single egg every 2 years, as incubation and chick-rearing takes about 11 months. If a breeding attempt fails at the egg or early chick stage, they will re-nest the following season. Royal albatross pair for life and reaffirm their bond with elaborate courtship rituals when they reunite in September–October, at the beginning of each breeding season. Nests are circular mounds of vegetation, small stones or peat.

Northern royal albatrosses forage in the South Pacific Ocean close to New Zealand during the breeding season and, when not breeding, move widely over the Southern Ocean in a circumpolar migration, moving from west to east with the prevailing winds between 30°S and 50°S.

Threats and conservation

The major threat at present appears to be habitat degradation due to severe storm events. A storm in 1985 removed large amounts of soil and vegetation from The Sisters and The Forty Fours, impacting on the nesting material available. As a result, nests were built from stones, or eggs were laid on bare rock, resulting in low hatching success. Habitat degradation was exacerbated by the normally biennial breeding pattern being disrupted by low breeding success, resulting in most of the total breeding population attempting to nest annually. This prevented the habitat from recovering as the high density of birds stripped the remaining vegetation in an attempt to create nests.

To date, few northern royal albatrosses have been captured on tuna long-lines, and there are no records of by-catch from trawl fisheries. The high survival rate of adults and fledglings indicate that this form of mortality is not a major threat. However, because of the large area over which the birds forage, they could be at risk from a wide range of pollutants or oil spills. Northern royal albatross have been harvested in large numbers in the past. The illegal harvest of chicks still poses a threat, and there have been a number of incidences of birds being taken illegally over the past 20 years.

Northern royal albatross colony, Big Sister Island. Photo: Christopher Robertson (DOC).

Northern royal albatross colony, Little Sister Island. Photo: Christopher Robertson (DOC).

The small Taiaroa Head population of northern royal albatross is very accessible, and the breeding biology and population dynamics of the species have been studied closely there since the colony's establishment in 1919. The populations on the Chatham Islands were studied in the 1970s and 1990s. Most of the research was conducted on Little Sister Island and involved an assessment of population dynamics, breeding success, breeding biology and the effects of habitat change on the breeding population. Aerial photographic surveys have been undertaken three times annually to count numbers of breeding pairs, and to determine breeding success at both The Sisters and The Forty Fours colonies. Satellite tracking has been carried out on adults from both Taiaroa Head and The Sisters colonies to monitor movements during the breeding season and dispersal after breeding.