

Albatross Studies — Kangaroo Island, South Australia

Summary of Progress 1971-1983

A. F. C. LASHMAR

Results from banding and retrap data for three species of albatrosses and two species of giant petrels off Kangaroo Island, South Australia are presented. Methods of capture and marking are discussed.

Albatrosses *Diomedea* spp, and in some years giant petrels *Macronectes* spp, come to Eastern Cove, Kangaroo Island, in numbers during the winter months to feed on cuttlefish *Sepia* spp which rise to the surface of the ocean at that time. This presents the opportunity to research these species.

The albatross season in the Eastern Cove area where most of my investigations have so far been carried out is usually of about four months duration and commences early in May when Black-browed Albatross *D. melanophrys* are attracted by the cuttlefish. Giant petrels, mostly *M. giganteus*, and Yellow-nosed Albatross *D. chlororhynchos* usually arrive about six weeks later. Shy Albatross *D. cauta* and Grey-headed Albatross *D. chrysostoma* are infrequent visitors.

Methods

Cuttlefish seem to be the principal item of diet in this area although the birds, unless very full, readily take fish thrown from fishing craft. They also approach shark-fishing boats for the offal (particularly liver) discarded when sharks are being cleaned at sea. These habits led me to the adoption of the method I now use to lure albatrosses and giant petrels for capture; a fish (Red-mullet *Upeneichthys porosus*, seems to be the most favoured species) is attached to a nylon loop and clipped onto the end of a light line. This bait can be thrown and retrieved continuously unless the birds tear it too much. If birds are hungry they can often be attracted close enough to capture with a

1.5 m diameter hoop-net if I am alone or a 1.2 m diameter net if accompanied. The hoops which I have specially made for the purpose by The Royal Institution for the Blind are constructed of 15-20 m diameter cane strongly joined. I use nylon type 20 cm diagonal mesh shark net attached to the hoop so that there is about 30-40 cm dish or slack at the centre. If it is too tight the birds tend to throw the net off, if too much slack tangling of wings and neck takes place.

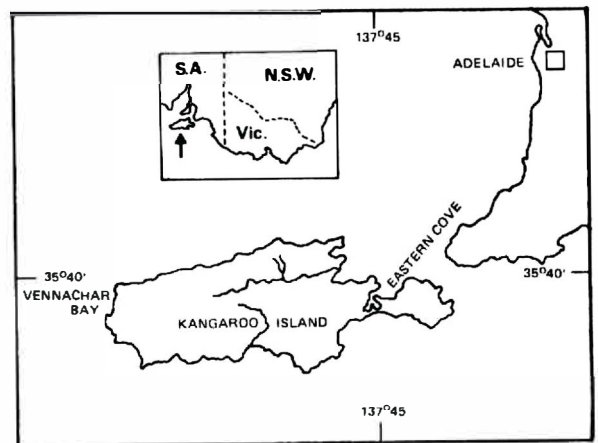


Figure 1. Map showing locations where banding of albatrosses and giant petrels was carried out off Kangaroo Island.

Birds having full crops are followed down-wind and can sometimes be captured before they become airborne. The smaller albatross species are able to get airborne quite rapidly even with little or no wind, making them much more difficult to capture than the Wandering Albatross *D. exulans* with its greater bulk and weight.

Prior to release birds have a red spot sprayed onto the nape to identify them as having been handled. "Spraymark" sheep marking dye, which has a somewhat variable lasting quality, is used. On some birds the dye lasts for several weeks whereas on others it disappears in a week or two. The lasting quality may be affected by the dryness or otherwise of the feathers at time of application, or the amount of natural oil on the feathers. It could also depend on the length of time before the bird washed the dyed spot. No dyed birds have been reported away from the area.

Results

During the period under review 133 Black-browed Albatross, 12 Yellow-nosed Albatross, three Shy Albatross, and 30 giant petrels were caught and banded*, the giant petrels included one Northern Giant Petrel and one white

phase Southern Giant Petrel. Thirty-nine Black-browed, one Yellow-nosed and two Shy Albatrosses and 11 giant petrels were retrapped in the area. The retraps included two Black-browed Albatross banded as young unable to fly in February 1961 and February 1962 near Bird Island South Georgia by U.S.A. Antarctic banding personnel. The 1961 bird was retrapped in June 1975 and the 1962 bird was retrapped in May 1981, and again in June 1983 when a CSIRO band was added to the other leg as the original U.S. band was nearing illegibility. A third bird banded as an adult in January 1973 at Kerguelen Island by the French was retrapped in May 1981. One Yellow-nosed Albatross banded as pullus in February 1982 at New Amsterdam, also by the French, was retrapped six months later. One Shy Albatross banded as pullus in January 1981 at Albatross Island Tasmania was retrapped seven months later and a second one banded as pullus in March 1983 also at Albatross Island Tasmania was retrapped in July 1983. A Southern Giant Petrel banded as pullus by BTO Antarctic Survey in March 1975 at Signey Island South

* Bands used were provided by the Australian Bird-banding Scheme, Division of Wildlife and Rangelands Research, CSIRO.

TABLE 1

Summary of total birds handled at Kangaroo Island. Retraps of Black-browed Albatrosses and giant petrels include repeats.

Species		1971	1972-80	1981	1982	1983	Totals
Black-browed Albatross	Bandings	12	27	24	38	32	133
	Retraps		3 ¹	10 ²	12 ¹	14	39 ⁴
Yellow-nosed Albatross	Bandings		6	1	3	2	12
	Retraps				1 ⁵		1
Shy Albatross	Bandings	1	2				3
	Retraps			1 ⁶		1 ⁶	2
Giant Petrel species	Bandings	14	5		9 ⁷	2	30
	Retraps	4	1 ⁸		5	1	11

¹ Includes one banded 1961 South Georgia by U.S.A. Antarctic banding.

² One banded 1962 South Georgia by U.S.A. Antarctic banding and one banded 1973 Kerguelen by French.

³ Includes one fresh dead, fed on by giant petrel.

⁴ Embraces 27 different birds.

⁵ Immature banded Feb. 1982, New Amsterdam by French.

⁶ Banded Albatross Island Tasmania.

⁷ Includes one *M. halli* and one white phase *M. giganteus*.

⁸ Banded South Georgia four months earlier by BTO Antarctic Survey.

Orkney Antarctica was retrapped in July of the same year. Only two birds have so far been recovered away from the place of banding; a Shy Albatross 140-25901 banded on 17 March 1971 near Vennachar Bay Western Kangaroo Island was recovered dead on 24 April 1971, 17 km west of Beachport S.A. 340 km ESE. A giant petrel 130-50604 banded on 15 August 1971, at Eastern Cove was found dead on 28 September 1971 at Tennyson S.A. 105 km NNE.

In July 1982 a feeding Southern Giant Petrel which was approached in an effort to net it, was found to have been eating the carcass of a fresh dead Black-browed Albatross which I had banded two months earlier. A fisherman who fished in this area for a number of years declared that on several occasions he had seen giant petrels trying to drown albatrosses by smothering them with their wings and holding the albatrosses heads under water. This raises the question as to whether giant petrels kill albatrosses or other birds as a food source.

The results of banding and recapture are summarised in Table 1, which includes a few birds caught beyond Eastern Cove, off the western and southern coasts of Kangaroo Island. Table 2 itemises recoveries of Black-browed Albatrosses near Kangaroo Island.

TABLE 2

Black-browed Albatross recoveries of birds banded at Kangaroo Island and recovered at banding place include repeats.

Year banded	Number banded	Recovered				
		1973	1979	1981	1982	1983
1971	12	1	1	3	2	1
1973					1	
1976				3		3
1979			1			1
1980					2	2
1981	24				5	4
1982	38					2

Acknowledgements

Until 1980 banding in this area (with the exception of 1971) has been limited due to the lack of a suitable boat. In 1971 Mr Nils Swanson of American River, Kangaroo Island made his fishing cutter available on several days thereby stimulating my interest in albatrosses and giant petrels. I extend my thanks to him for that, and also for his continuing assistance by the operation of a 'B' class bird-banders licence. In 1980 and the first half of the 1981 season Mr Wren Lashmar took me out in his boat on numerous occasions. Since the end of July 1981 I have had a 3.96 m aluminium open boat with 15 hp out-board motor available for my use at all times through the generosity and Mr and Mrs Michael Bartlett. This assistance by others has been greatly appreciated as without it the numbers of birds banded would not have been possible.

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Allan F. C. Lashmar,
P.O. Box 503, Penneshaw,
Kangaroo Island, S.A. 5222.