

Recovery of a Group of Ringed Gannets

By D. L. and V. N. SERVENTY, Nedlands, W.A.

A remarkable simultaneous recovery of four storm-killed Australasian Gannets (*Sula serrator*) some three years after they had been ringed as fledgelings together at Cat Island, Tasmania, directs attention to some unsuspected features of the life history of the species.

In July 1957, Mr. Ron Seach, a fisherman of Eden, New South Wales, found the remains of seven dead Gannets at Cattle Bay Beach, Eden. This is a small beach about 20 to 30 yards long, and four of the birds (three with rings) were at one end of it and two on the rocks at the other end. Mr. Seach considered the birds had been washed ashore about the end of June, following a storm when a big sea came in at Eden. He was sure the birds died naturally and were not killed by fishermen. Four of these seven birds carried C.S.I.R.O. rings—130-01901, 130-01902, 130-01905 and 130-01906. These had been placed on young birds in the nests at the gannetry at Cat Island, off Flinders Island, Tasmania, on March 13, 1954, by one of us (V.N.S.) and Mr. N. E. Stewart. There were 17 young birds in the gannetry at the time and all were banded.

A report from the Meteorological Bureau, Sydney, shows that there were two occurrences of very rough weather off the south-east corner of New South Wales. The first was from late June 21 to late June 22, when a cyclonic depression formed off the south coast, deepened rapidly and moved out into the Tasman Sea. For about 18 hours there were gale force south to south-east winds and rough to very rough seas, conditions improving on June 23, though a heavy south-east swell continued until June 24. More severe weather occurred from July 9 to July 11. A cyclonic depression developed in a trough of low pressure off the south coast, and, rather unusually, moved south-west, crossing the coast near Eden on the night of July 10. Gale force easterly winds to 45 knots were experienced, and very rough seas were again reported on July 10 and 11. Thick rain areas accompanied the storm. Other than these two periods the weather was generally fine (H. M. Treloar, Acting Deputy Director, *in litt.*).

Two interesting points arise out of this extraordinary find.

First, we may infer that members of a social group of Gannets which had been reared together tend to maintain their close association after their seasonal exodus from the nesting ground. As in this small reduced colony of about 20 nestlings the young birds leave individually for the sea, over a period of days, it is unlikely that such an association began

in this case at this early stage. From observations made at Cat Island by John Warham (*Emu*, vol. 58, p. 339 *et seq.*) it is more likely that the birds became re-associated when they returned to the island as unemployed birds at two or three years of age.

However, in larger colonies (and Cat Island before the depredations by fishermen accommodated some 2,500 breeding pairs of Gannets) such associations could quite well be formed at the initial exodus of young from the breeding ground. This has been established for the Common Tern (*Sterna hirundo*) by Oliver L. Austin ('Group Adherence in the Common Tern', *Bird Banding*, vol. 22, 1951, p. 12) in his classic studies at Cape Cod, Massachusetts. He was able to demonstrate, from the recoveries of banded individuals, that young birds associated together at distant wintering grounds, at least for the first year. Austin believed that this 'group adherence', as he termed it, functioned throughout the whole life of the species, and probably had its origin in kinship. The latter suggestion is pertinent in view of a record obtained by The Wildfowl Trust (Slimbridge, England) of two parent/young associations in White-fronted Geese (*Anser albifrons*) a year and a half after the hatching of the young (Hugh Boyd, *in litt.*). So far as we can discover from the literature, no other instances, proved by marking, have been reported, but evidence of this sort is peculiarly difficult to come by, and 'group adherence', as shown by the examples quoted, may well be general in colonial nesting birds.

The second point concerns the foraging ranges of Australian and New Zealand Gannets. Hitherto, all marked Gannets of this species found in Australia (away from the breeding area) had been ringed on New Zealand gannetries. Stein and Wodzicki ('Dispersal of New Zealand Gannets', *Notornis*, vol. 6, 1955, p. 58) showed that numerous immature birds had been recovered in south-eastern Australia, from northern New South Wales to South Australia. Subsequently, two recoveries of New Zealand yearling birds were found in Western Australia, on a beach off Northampton (lat. 28° s) and Rottneest Island (lat. 32° s). These were reported, respectively, by L. Glauert (*W. A. Naturalist*, vol. 5, 1956, p. 119) and G. M. Storr (*ibid.*, vol. 5, 1957, p. 230). The general recovery records to date suggest that the Australian and New Zealand breeding populations intermingle throughout the southern Australian foraging range of the species.