

THE DISTRIBUTION AND SEASONAL OCCURRENCE OF GANNETS OFF THE SOUTH AUSTRALIAN COAST

J. B. COX

Accepted July, 1978

SUMMARY

COX, J.B., 1978. The distribution and seasonal occurrence of gannets off the South Australian coast. *S. Aust. Ornith.* 28:18-19.

Australasian Gannets were observed in South Australian coastal waters between 1968 and 1978. They were recorded from west of Eyre Peninsula, Spencer and St. Vincent Gulfs, Kangaroo I. waters east to the Victorian border. Counts were made during regular sea-watches at two localities. Larger numbers occurred off Waitpinga, southern Fleurieu Peninsula, than off Brighton, Gulf St. Vincent. Gannets were seen off both places in all months but were most abundant from May to August.

A report of a Masked Booby in S.A., which is considered doubtful, and the generic name for gannets are also discussed.

INTRODUCTION

The Australasian Gannet *Sula serrator* breeds in New Zealand and outlying islands, and islands off south-east Australia. After breeding it disperses around the Australian coast as far as Queensland and Western Australia. The nearest breeding site to South Australian waters is only about 62 km east on Lawrence Rocks, near Portland, Victoria, and presumably gannets from this colony, and others in Bass Strait, forage throughout the year in eastern S.A. seas. Others occurring in western regions during the breeding season are probably immatures or unsuccessful breeders, as was suggested by Serventy *et al.* (1971), who also said that banded N.Z. gannets have been recovered in W.A. Many gannets which frequent S.A. seas are also probably migrants, but little data of their local distribution or seasonal occurrence have been documented.

From 1968 to 1978 gannets were observed in S.A. coastal waters from boats and during sea-watches, while general field-work on seabirds was being undertaken. The records obtained, when analysed, indicate local status and distribution.

DISTRIBUTION

Areas where gannets were seen by D. H. Close, J. H. Hatch and the writer are shown in a grid of ten minute squares in Figure 1. Blank squares reflect lack of observations rather than no gannets. Nevertheless, they were consistently seen in most areas covered, especially in winter when a scan of the horizon from most parts of the coastline visited usually revealed their

presence. Eyre and Yorke Peninsulas were seldom visited and the fewer records from nearby seas do not indicate that gannets are scarcer in the west. In fact all records from the west of Eyre Peninsula were obtained in the summer when lesser numbers are present in most S.A. waters. The regular occurrence of gannets off W.A. indicates that they frequent the seas west of areas we visited in S.A. Few observations were made in Spencer Gulf, but gannets were seen as far north as Point Lowly in winter. On the other hand, the south central parts of eastern Gulf St. Vincent were regularly watched, and gannets were commonly seen north to seas adjacent to metropolitan Adelaide beaches. Further north they were seen off Price (twice in summer) and Port Clinton (once in winter). Also, they were common in eastern Kangaroo I. waters, off southern Fleurieu Peninsula (often in large numbers) and the south-east coast.

Gannets constantly move from one area to another, foraging widely and following fish schools, and large numbers gather in places of abundant food. Flocks of over 100 were seen feeding about 500 to 800 metres offshore at Waitpinga and other nearby rocky coasts, and up to 50 were regularly seen in 1973 and 1974 feeding close to the sandy beaches of Brighton in Gulf St. Vincent where the water is less than three fathoms. Although they seem to prefer inshore waters for feeding, some were also watched diving into water of 60 to 100 fathoms off the south-east coast. Our records indicate that gannets frequent most S.A. coastal seas, at least between the coastline and the 100 fathom contour.

SEASONAL OCCURRENCE

While gannets occur in all months, they are noticeably more abundant in winter. The averages of counts made in each month during regular sea-watches at Brighton and Waitpinga are shown in Figure 2. The lowest number of counts for any month was seven in February at Waitpinga, and the duration of each count was fairly constant, occupying most of the morning from approximately 07.30 to 11.00. Some sea-watches were prolonged; but no gannets were counted after mid-day, and the bias present is probably insignificant because slight differences

in the duration of sea-watches occurred in all months.

At both localities gannets were most abundant from May to August and relatively few were seen in the summer months, during which time their numbers at both places were little different. These data indicate that most gannets are winter visitors to S.A. seas; and there is no indication that a substantial proportion are passage migrants, although numbers of them must spread into W.A. seas. The highest single counts were made near mid-winter: 51 at Brighton on 7 July 1974, and 337 at Waitpinga on 25 July 1977.

BEACH-WASHED SPECIMENS

In the course of field-work beaches were irregularly searched for derelict seabirds. 26 gannets were found: five immatures in May and June and one adult in October at Waitpinga; four immatures in March and two in June at Goolwa; six immatures from May to July at Aldinga; and seven immatures and one sub-adult from March to July at Brighton. All were found over a period of several years. By regu-

larly patrolling Goolwa Beach Robinson (1971) found nearly as many in six months: 20 immatures and two adults from December to May.

Serventy *et al.* (1971) said "By late April or early May most of the chicks have left" (their natal colonies). But some must leave much earlier because, for example, four very young birds were found dead on Goolwa Beach on 21 March 1976. Judging from beach-washed specimens, it seems that many young birds die during the first few months after leaving the nest, as should be expected in most wild bird populations (Lack 1954:88-106). The regular occurrence of this natural phenomenon should not be confused with the true seasonal occurrence of gannets in S.A. waters.

DISCUSSION

Gannets are conspicuous birds (even from the shore) which are always present in S.A. seas, common and at times locally abundant in winter. Therefore, it is difficult to understand why Condon (1969) classed them as "a rather rare visitor in coastal waters." Their population is about 35,000 pairs (Cramp *et al.* 1976) and

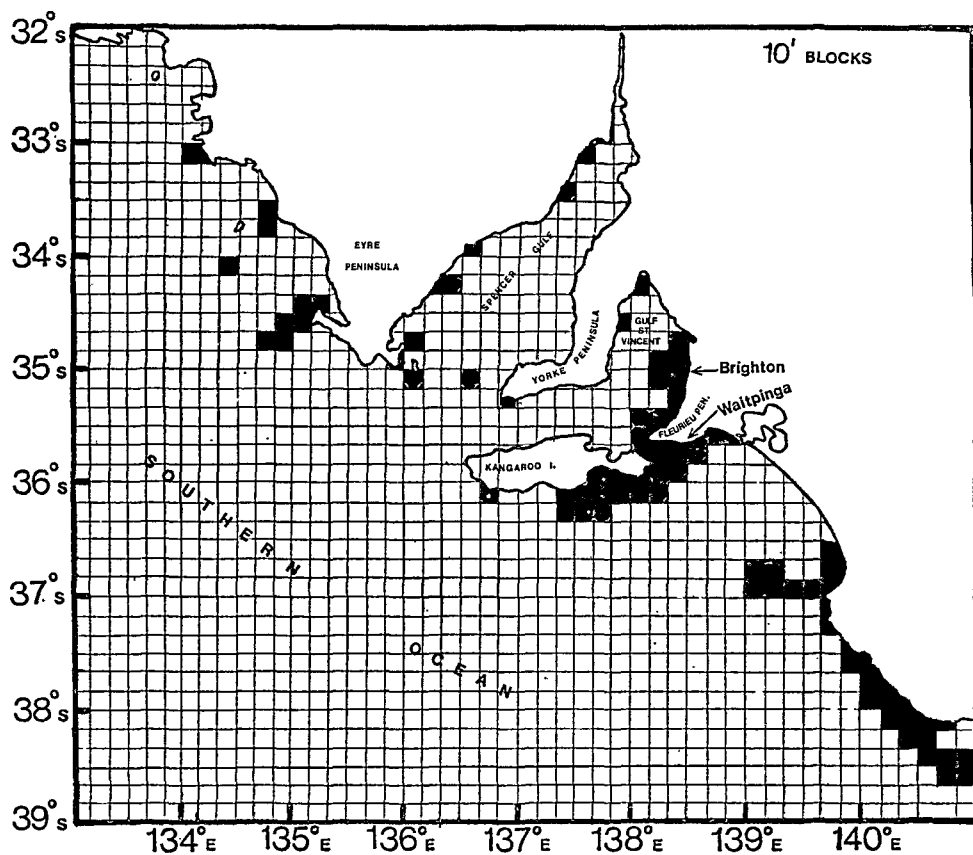


FIGURE 1. Records of Australasian Gannets 1968-78.

probably a substantial proportion occur contranuptially in S.A. There is no indication that greater numbers occur off the east Australian coast. Gannets counted by Marchant (1977) from Burrewarra Point, southern N.S.W., occurred in greatest numbers flying northwards in May and June, and southwards in September, indicating that many were on passage. Otherwise his figures are not greatly dissimilar to ours; but proper comparisons of figures from regular sea-watching in both states is needed. Milledge (1977) recorded a maximum of 15 gannets in February during a year's study of seabirds over inshore continental shelf waters off Sydney.

The Australasian Gannet is the only member of the genus positively known from S.A. seas. However, van Gessel (1968) reported sighting a Masked Booby *S. dactylatra* off Granite I., Victor Harbor, on 28 December 1966. I doubt

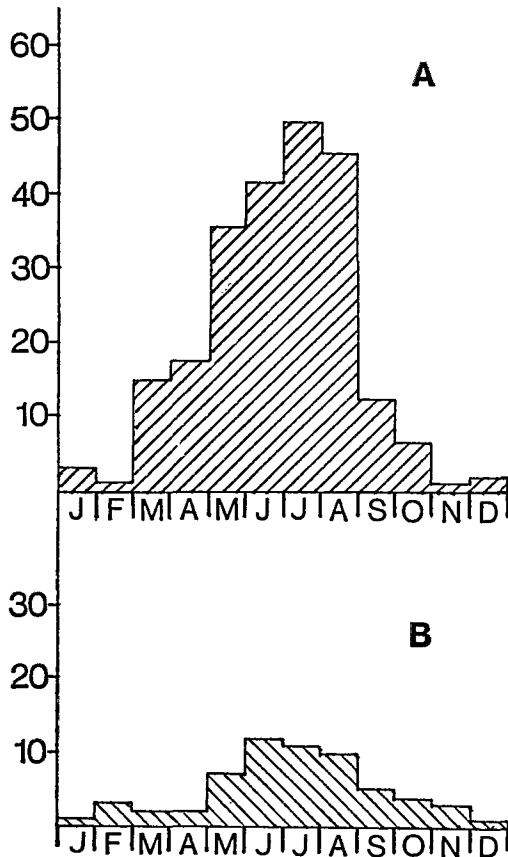


FIGURE 2. The mean numbers of gannets counted during sea-watches in each month: A — Waitpinga, B — Brighton.

this sighting because there are several questionable features in his description of the bird. He used three phrases which seem to be the same as in Alexander (1955) word for word, even though one of them is inappropriate (in Masked Boobies the skin of the face is unlikely to appear as "blue-black" on flying birds, it would probably seem blackish). He incorrectly believed that adult Australasian Gannets have only their primaries blackish; and he did not acknowledge that sub-adults, with nearly adult wing and body patterning, can have all their tail feathers dark like Masked Boobies. Therefore statements that the head was white and the bill yellow are the only points which support his identification; and when one considers the questionable points in his report, it seems possible that these two statements could also be wrong.

The Australasian Gannet, Cape Gannet *S. capensis* and North Atlantic Gannet *S. bassana* have been either classified as subspecies (Condon 1969, Watson 1975), or listed as species under the generic name of *Morus*, with *Sula* being used only for the Boobies (Serventy *et al.* 1971, Macdonald 1973, Condon 1975). However, I follow Lockley (1974) and Cramp *et al.* (1976) in regarding them as three species congeneric with boobies. Lockley said "their structure and life histories are so similar that we prefer to regard them as one genus *Sula*." The gannets may however be better thought of as semispecies of a super species in the genus, because while they are clearly very closely-related to each other, they each have constant morphological distinctions and are isolated by great distances when breeding.

ACKNOWLEDGEMENTS

I am indebted to Drs. D. H. Close and J. H. Hatch for use of their records and companionship in the field, also to W. B. Hitchcock for commenting on this paper.

REFERENCES

- Alexander, W.B., 1955. *Birds of the Ocean*. London: Putnam.
 Condon, H.T., 1969. *A Handlist of the Birds of South Australia*, 3rd ed. Adelaide: S. Aust. Orn. Assoc.
 Condon, H.T., 1975. *Checklist of the Birds of Australia*, I. Non-passerines. Melbourne: RAOU.
 Cramp, S., W.R.P. Bourne and D. Saunders. 1976. *The Seabirds of Britain and Ireland*. London and Glasgow: Collins.
 Lack, D., 1954. *The Natural Regulation of Animal Numbers*. Oxford: Clarendon Press.
 Lockley, R.M., 1974. *Ocean Wanderers*. Melbourne: Wren.
 Macdonald, J.D., 1973. *Birds of Australia*. Sydney: Reed.
 Marchant, S., 1977. A seawatch on the southern coast of New South Wales. *Emu* 77: 9-18.
 Milledge, D., 1977. One Year's Observations of Seabirds in Continental Shelf Waters off Sydney, N.S.W. *Corella* 1: 1-12.
 Robinson, R.D., 1971. New South Australian Specimens from Goolwa Beach. *S. Aust. Ornith.* 26: 18-22.
 Serventy, D.L., V. Serventy and J. Warham, 1971. *The Handbook of Australian Sea-Birds*. Sydney: Reed.
 Van Gessel, F.W.G., 1968. The Masked Gannet, a sight record from Granite Island, S.A. *S. Aust. Orn.* 25: 55.
 Watson, G.E., 1975. *Birds of the Antarctic and Sub-Antarctic*. Washington: Amer. Geophys. Union.