## The Lesser Frigate-bird (Fregata ariel) in Coastal New South Wales

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The occurrence of frigate-birds well south of their normal range is usually associated with cyclones. A cyclonic disturbance that originated in the region of Cape York, northeastern Australia, on February 1, 1957, and which petered out in mid-coastal New South Wales some nineteen days later, was the apparent cause of the presence of several frigate-birds in the coastal waters of New South Wales.

On February 19, 1957, A. F. D'Ombrain saw three frigatebirds rise from the rocky and partly-detached north-western end of Cabbage-tree Island, which lies a mile or so off the entrance to Port Stephens, about 100 miles north of Sydney. The birds soared steadily into the wind to a height of about 800 feet and then flew northwards. Doubtless they had been driven from their tropical haunts by the recent cyclone,

'Clara' so-called.

Later, when discussing the occurrence with Alf. Mitchell, a trawler-owner of Port Stephens, Mr. D'Ombrain learned that a frigate-bird had been found in the port the same day. A lad, on jumping into a dinghy to go out to a mooring. found the exhausted bird in the bottom of the boat-and promptly killed it with a piece of wood. Fortunately, the body was recovered by Mr. D'Ombrain that night and was sent to the Australian Museum, Sydney. The bird was an adult male Lesser Frigate-bird in fine plumage; its gular-pouch was a bright orange-red and its gonads were enlarged, being about three-quarters of an inch in length. The stomach was empty except for about twenty beaks of cephalopods. The weight of the bird was 17 ounces (specimen no. 0.39647, Australian Museum, Sydney).

On February 20, two separate reports of a frigate-bird being seen near Broughton Island, several miles north of Cabbage-tree Island, reached Mr. D'Ombrain. Possibly the same bird was observed on both occasions and it may have been one of the three seen to rise from Cabbage-tree Island

the previous day.

Several days later (February 24) a female Lesser Frigatebird was noted by George Marshall as it soared fifty feet or so above a rocky headland at Dee Why, a few miles north of Sydney. The same, or another, female Lesser Frigate-bird was seen in Broken Bay, several miles north of Dee Why, on March 3, by members of a party camped on Lion Island at the mouth of the bay.

A point of interest concerns the cephalopod beaks found in the stomach of the frigate-bird from Port Stephens. Frigate-birds are much given to robbing gannets and other sea-birds, pursuing them until they disgorge their food.

Cephalopods (squid, cuttle-fish, etc.) usually come to the surface at night, and, as frigate-birds are neither crepuscular nor nocturnal in their feeding habits, it seems that the presence of cephalopod beaks in their stomachs can best be explained by assuming that other birds were the original captors of the squid or cuttle-fish and were later forced by

the frigate-birds to disgorge their food.

The closest breeding-place of the Lesser Frigate-bird to Port Stephens appears to be Raine Islet, near Cape York, and it is significant that three species of gannets, or boobies —the Masked, the Brown and the Red-footed—also nest on that islet. Of these three species, the Red-footed, particularly, is a very late feeder and may even capture its food on moonlit nights. Both flying-fish and squid were present in about equal quantities in the stomachs of Red-footed Boobies from the Pacific examined by Rollo H. Beck.<sup>2</sup> Thus it is probable that the indigestible chitinous beaks found in the stomach of the Lesser Frigate-bird from Port Stephens came from cephalopods originally captured by boobies in the region of Cape York, well over a thousand miles to the

Earlier records of frigate-birds in the coastal waters of New South Wales have been summarized in The Emu.<sup>3</sup> It may be pointed out that both the Greater and the Lesser Frigate-birds have been recorded from Port Phillip Bay, Victoria.4 Both species have also been taken in New Zealand following cyclonic weather.5

## REFERENCES

MacGillivray, Wm. 'Along the Great Barrier Reef', The Emu, vol. 10, 1910, pp. 224-7.
Murphy, R. C. Oceanic Birds of South America, vol. 2, 1936, p. 869.
Marshall, George. 'Frigate-birds near Sydney', The Emu, vol. 51,

1951, pp. 80-1.

Kershaw, Jas. A. 'The Lesser Frigate-bird: An Unusual Occurrence', The Emu, vol. 29, 1929, p. 112.
Turbett, E. G. 'Some Stray Tropical and Sub-tropical Sea Birds in New Zealand', Rec. Auck. Inst. Mus., vol. 4, 1952, pp. 187-9.

A Southern Record of the Dollar-bird.—While on a visit to Nagambie Weir on the Goulburn River on February 17, 1957, I observed four Dollar-birds (Eurystomus orientalis) in the gums below the spillway. Two of the birds displayed bright red bills and brilliant plumage but the other two were much more drab in plumage and the red was lacking from the bills. The latter were thought to be young of the year. Although they could fly strongly, they were much less active than the brighter birds.

Other interesting species present were Little Friar-bird, Darter and White - breasted Wood - Swallow. — HOWARD JARMAN, Parkville, Vic., 10/4/57.