A FAR INLAND SIGHTING FRIGATEBIRD NEAR BROKEN HILL. NEW SOUTH WALES. On Monday 12 March 2001 at around 1145 h I had almost completed walking around Stephens Creek Reservoir, which is located about 15 km NE of Broken Hill, New South Wales (NSW) at 31°53'S, 141°36'E, when I saw two birds interacting over the water at a height of perhaps 80 metres. The first was a Whistling Kite Haliastur sphenurus but the second was very different indeed. Of about the same overall size it was entirely black or at least very dark, with the exception of its head and the underside of its foreparts, i.e. the throat and upper breast, which were pale whitish or cream. I could not make out the shape or size of the bill presumably because it was pale, but the wings were very long, very slender, very pointed and, at times, sharply angled at the wrist. The tail length appeared to be about the same length as the body but was very deeply forked, and at one point when the fork closed a long slender and tapering tail profile was evident.

Regrettably I had not noticed which of the two birds was the aggressor. After two or three minutes the birds drifted apart, the second flying to the east and out of sight.

The size of the bird, its striking profile with long slender pointed wings and the exceptionally forked tail allowed no alternative identification to that of a Frigatebird Fregata sp. The pale foreparts, including the head, exclude an adult male or female of any of the three species recorded from Australia, namely Great Frigatebird Fregata minor, Lesser Frigatebird F. ariel and Christmas Frigatebird F. andrewsi (Marchant and Higgins 1990; Pizzey and Knight 1997). The absence of a dark breast band indicates the bird had progressed from juvenile to immature plumage. Identification to the specific level is not always possible at these early stages of development before more diagnostic features of adult plumage have developed (Marchant and Higgins 1990).

Frigatebirds are medium- to large-sized tropical seabirds, among the most aerial of birds, capable of sustained flights, e.g. 500 km for foraging, and sometimes disperse thousands of kilometres following breeding (Blakers, Davies and Reilly 1984; Marchant and Higgins 1990). Inland records of Frigatebirds are exceptional but there is a previous record for the Lesser (Least) Frigatebird at Whitfield, Victoria (36°S, 146°E)

in June 1952 (Hitchcock 1952), and a reference to their presence c. 18 km from the sea in the Iron Range area of far North Queensland (Johnson and Hooper 1973). R.J. Hollanby and others recorded a probable Lesser Frigatebird at Boggy Flat above Lock 2 north of Waikerie on 5 March 1983. The description includes: black colour, white markings on the underside of the wings, slender tern-shaped wings and an exceptionally forked tail (SAOA 1983). In Kenya's Lake Nakuru National Park on 28 April 2000 the Hewitt family observed and photographed a frigatebird, possibly an immature male Lesser Frigatebird, more than 600 km inland (Huxley 2000; Ng'weno 2000; Swara 2000).

Vagrant Frigatebirds may occur far from their usual distribution following high winds and Hitchcock showed that the 1952 occurrence at Whitfield, 'about 200 miles [320 km] from the nearest point on the east coast', was seven days after the development of an intense depression off the New South Wales coast with very strong to cyclonic winds from ENE to NE until the day before its sighting and two days before it being found dead. In relation to the 1983 record at Boggy Flat, there had been recent 'monsoonal rain' in the Barossa and elsewhere, and a northeasterly air flow over the previous eight days.

During the first two months of this year many tropical seabirds were seen along the NSW coast (Morris 2001). On 5 March an intense depression began to approach the northern NSW coast, centred at around 30°S and drifting a few degrees northward over the next two days: it crossed the coast of southern Queensland on 9 March causing devastating flooding in the region including the suburbs of Brisbane and north-eastern NSW towns and cities. A strong and persistent easterly wind prevailed from 5 to 10 March across the east of the continent, especially in the latitudes of 30°-35°S (Daily Weather Maps, South Australian Bureau of Meteorology).

Exceptional meteorological events commonly explain the inland occurrence of seabirds. A White-headed Petrel *Pterodroma lessonii* was observed north-east of Hay in south-central NSW on 1 June 1977 (Moffatt 1978) perhaps carried from the Southern Ocean by strong south-westerly winds over the previous three days. An event more directly comparable to the present report is the record of at least fifteen Red-tailed *Phaethon rubricauda* and fifteen White-tailed Tropicbirds *P. lepturus* in NSW, the

majority inland between 20 and 25 March 1978 (Morris 1979). The observations were mostly between latitudes 30° and 32°S and occurred as far west as Bourke, near to where a large rain depression—a relict of a tropical cyclone—had moved by 20 March.

Frigatebirds are not common in NSW, there being only five reports of Great Frigatebirds and around 33 of Lesser Frigatebirds including one on 3 February 2001 (A.K. Morris pers. com.).

Stephens Creek Reservoir is approximately 900 km from the east coast and over 1000 km from it at the same latitude. Cyclonic coastal conditions followed by strong and persisting easterly winds were responsible for carrying this immature bird so far beyond its usual range and essential marine habitat.

All iuvenile Frigatebirds have pale heads and pale under parts. In the Christmas Frigatebird, adults have pale lower breasts and bellies, and immatures, like adults, will be darker towards the upper breast and throat and paler posteriorly. In adult female Great and Lesser Frigatebirds, the opposite is true, i.e. the throat and upper breast are paler and the lower breast and belly are black. Immatures are likely to reflect this and the observed bird, which demonstrated these features, cannot therefore be ascribed reliably to Great or Lesser Frigatebirds. A distinguishing feature of the Lesser Frigatebird is an extension of white from the breast region into the axilla in the underwing (Marchant and Higgins 1990; Pizzev and Knight 1997). This was not noted in the bird observed, but may have been missed. As noted. Great Frigatebirds are much less common in NSW waters than Lesser Frigatebirds, and the other inland sightings in Australia and Africa are probably of Lesser Frigatebirds. Therefore, while a Great Frigatebird cannot be excluded, I think it more likely that the bird observed at Stephen's Creek Reservoir was an immature Lesser Frigatebird.

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