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A NEW RECORD FOR THE LONGEST BANDING RECOVERY DISTANCE IN MUSK DUCKS *Biziura lobata*

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INTRODUCTION

Historically, there has been much debate as to whether Musk Ducks *Biziura lobata* are flightless. Ramsey (1867) states that "They seldom take wing; only upon a few occasions have I seen them do so, and these when they have been fired at and wounded mortally". Campbell (1901) reports the following correspondence he received suggesting that Musk Ducks are incapable of flight: "I never saw one fly, and the native tell me they never fly"; "Musk Ducks can no more be said to actually fly than, say, flying-fish". Conversely, one correspondent reported, "I, as an old bushman, was of opinion that they could [fly]; otherwise it seems to me unaccountable how they could suddenly arrive at swamp, etc., up country, newly-filled or filling by the first rains". Campbell (1901) also reports that Musk Ducks have been shot on the wing in a few instances and presents the following interesting comment from a man from Queensland: "We have a small steam launch here, [...], and go out for moonlight excursions, and when we came to the part where Musk Ducks congregated, as the launch came up to them, they used to get up and fly, whereas in the daytime they would merely flutter along the top and dive". Campbell therefore concludes that Musk Ducks can fly, although they do so mainly at night.

It is now clear that Musk Ducks can fly: a first hand account of Musk Ducks taking flight has been described (Dickison 1962; Frith 1967) and numerous extra-limital records have been noted in Queensland and Western Australia. Brisbane and Shark Bay are at the northern edge of their eastern and western distribution respectively, but Musk Ducks have been recorded in Broome, WA and Northern Queensland (P. Collins pers. comm.; Barrett *et al.* 2003; Marchant and Higgins 1990). Musk Ducks seem to be sedentary on permanent wetlands, but can disperse to colonise inland water bodies like Lake Eyre after rains (Frith 1967). A total of 81 Musk Ducks has been banded to date throughout Australia. Although available information suggests that Musk Ducks can fly long distances, only one banded Musk Duck has ever been recovered at a site other than where it was banded (ABBBS 2006).

OBSERVATION

During the 2003 breeding season (August to December), 31 Musk Ducks were banded by the author on Lake Wendouree in Ballarat (37°33'S, 143°49' E) with metal bands. Eleven ducks were also fitted with a colour band to allow recognition of individuals to perform behavioural observations. Since then the water level in Lake Wendouree has steadily decreased and the Musk Duck population has diminished. The lake is now dry and all of the Musk Ducks have dispersed.

On 27 February 2006 while performing behavioural observations at the Western Treatment Plant in Werribee (WTP; 38°00'S, 144°38' E), a female Musk Duck banded with a metal band on the right leg and an orange band on the left leg was sighted by the author on one of the treatment ponds. The combination of metal and colour band was unique and the band number was inferred from that information.

That female was banded on Lake Wendouree on 12 December 2003. The recovery time was 2 years, 2 months, and 15 days and, more interestingly, the distance between the two sightings is 86 kilometres, which constitutes a record for the longest recorded recovery distance for a Musk Duck.

DISCUSSION

Only four other recovery records exist for Musk Ducks. Three of them are birds banded and recovered on Lake Wendouree in Ballarat (ABBBS 2006). The only other recorded long distance movement for Musk Duck comes from a bird banded at Herdsman Lake, Perth (31°56'S, 115°47' E), and recovered in Mandurah Estuary (32°32'S, 115°42' E; distance of 68 km). Although Herdsmand Lake is not connected to Mandurah Bay by waterways, which clearly implies the bird had to fly, the duck could have swum most of the way. Herdsman Lake is situated close to the Swan River (5.5 km) and the ocean (4.5 km). The Musk Duck could therefore have flown to the ocean or Swan River and then swam over the course of seven months to Mandurah Estuary. Musk Ducks are frequently observed displaying and foraging in marine habitat, on Port Philip Bay next to the WTP (pers. obs.). Musk Ducks have also been observed foraging in saline environments at Kangaroo Island, South Australia, and Encounter Bay, South Australia (Wood 1960; McCracken 1999). The recovery from the WTP constitutes the longest recovery distance recorded for Musk Duck, but more importantly, implies flight, as there are no waters connecting Lake Wendouree and the WTP. The female must, therefore, have flown from Ballarat to Werribee.

The water level of Lake Wendouree has drastically decreased since 2003, when the Musk Duck female was banded, and has now dried out. The Musk Duck population diminished with retreating water levels and all ducks have now disappeared. Prior to the lake level decrease, Musk Ducks seemed to be quite sedentary in Ballarat. A female banded in 1991 was resighted on the lake more than six years later (ABBBS 2006). This banding recovery record is therefore the first one to confirm, as Frith (1967) suggested, that although they can be quite sedentary, Musk Ducks can disperse over long distance when local conditions become unfavorable.

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