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TASMANIAN NATIVE-HEN *GALLINULA MORTIERII*: THE FIRST LATE PLEISTOCENE RECORD FROM QUEENSLAND

In 1983, Mr Ian Sobbe collected a complete right avian tarsometatarsus (Queensland Museum [Q.M.] F13690) from a bone-rich lens at the base of the 'Toolburra Silt' (= Pleistocene fluvial deposits; quotations are necessary as it is not considered a valid stratigraphic unit, R. Molnar pers. comm.) on the south side of King Creek, Clifton, Queensland. The tarsometatarsus is similar to that of *Gallinula mortierii* and differs from that of all other known Australian members of the Rallidae because it is larger and more robust (Olson 1975). The total length of the specimen (73.7 mm) is less than that of any other fossil or modern tarsometatarsus of *G. mortierii*. However, the proximal width (13.0 mm), least width of shaft (5.6 mm) and distal width (14.1 mm) are well within those recorded for that species (Baird 1984). Mr Sobbe has also collected from the same locality an incomplete right tarsometatarsus (Q.M. F13683) and the proximal end of a synsacrum (Q.M. F13692) of *Gallinula mortierii*, and the distal end of a left tibiotarsus of *Gallinula tenebrosa* (Q.M. F13691). The incomplete tarsometatarsus is missing the trochlea for digit III, which precludes the taking of a direct measurement of its total length. However it is comparable in size to a complete tarsus 79.5 mm length: it measures 70.0 mm from the proximal end to the distal foramen.

Gill (1978) described stratigraphic sections along both Darymple and King Creeks, where he located the bone-rich lens at the base of the 'Toolburra Silt'. C14 dates on the lens, from Clifton, include 23 600 ± 600 years before present (Y.B.P.) (NZ612), 28 400 ± 1400 Y.B.P. (JAK1394), and 41 500 ± 6100 Y.B.P. (NZ613) on

charcoal, and, 24 000 ± 600 Y.B.P. (NZ641) and 30 800 ± 3000 Y.B.P. (NZ640) on carbonate nodules (Gill 1978, pers. comm.).

This is the first Late Pleistocene record of *G. mortierii* from Queensland. Earlier records of the species from the Plio-Pleistocene Chinchilla Sand (Woods 1960) were considered to be of a small subspecies of *G. mortierii*, *G. m. reperta* (Olson 1975). Baird (1984), using the larger sample sizes afforded by recently identified Late Pleistocene specimens, showed that the specimens from the Chinchilla Sand were referable to *G. m. mortierii*.

The fossil-bearing sediments yielding this species are distributed throughout eastern and south-eastern South Australia and western Victoria, and range in age from approximately 26 000 Y.B.P. to approximately 12 000 Y.B.P. Although there are numerous localities along the east coast of Australia from which fossil-bearing sediments are known, *G. mortierii* is conspicuous by its absence from this area. I assume that it never colonized the Great Dividing Range or eastern coastline of the continent. The absence of *G. mortierii* from the east coast fossil-bearing sediments, together with the new record, suggests that the prehistoric geographic distribution of *G. mortierii* was restricted to the catchment of the Murray/Darling River Systems and the coastal plain as far south as Tasmania. These areas would have provided permanent water during the Late Pleistocene (Jones & Bowler 1980). The species probably went extinct on continental Australia because of the fluctuating wet and dry cycles that occurred between 20 000 and 12 000 years ago (Baird 1984). Horton (1984) also proposes that

it was because of these cycles that the large mammals went extinct.

Due to its sedentary nature and dependency on permanent water for breeding (Ridpath 1972), *G. mortierii* may be an important indicator of palaeoclimatic changes during the Late Pleistocene. Because it is flightless and cannot disperse widely, its disappearance from the Murray/Darling catchment in western New South Wales and Queensland may indicate the first stage of Late Pleistocene desiccation in this region.

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CORRIGENDA AND ERRATA

Emu 85, Part 2, p. 106, line 13 of Summary. 'All species had some clutches' should read 'All species had some repeat clutches'.

Part 3, p. 197, References. 'Croxall, J.P. 1981' should read 'Croxall, J.P. 1982' and 'C.N.F.R.A. 81' should read 'C.N.F.R.A. 51'. The two following references should read 'Gibson, J.D. 1963' and Gibson, J.D. 1967'.

Part 4, p. 218, Table III, column 3. '39 year ash' should read '39 year wattles'.