STUDIES IN TASMANIAN MAMMALS, LIVING AND EXTINCT.

Number X.

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GIANT WALLABY.

Macropus anak, Owen.

(Protemnodon anak.)

As is generally known, the animals called by Owen *Protemnodon anak*, *Protemnodon og*, and in part also *Sthenurus atlas*, now figure upon the lists as *Macropus anak* and *Sthenurus atlas*. In the British Museum Catalogue of Fossil Marsupials the late Richard Lydekker says at page 216:—"The followng specimens include those referred by Owen to "*Protemnodon anak*," and of the ten folios that follow, attention is drawn to No. 38,753—a left ramus from Queensland which Owen figured in Phil. Trans., 1874, plate 25, figs. 7 to 10. From the (recently acquired) material Mr. K. M. Harrisson obtained at King Island, we select for description a similar left ramus, that has no other skull associates, but supplies us with various parts of the skeleton. The premolar is missing, and the last molar has been badly mutilated, but the fangs of both broken teeth supply useful data. In total length, from the tips of the tusk to the end of the molar series, the measurement is 127 mm. both in our specimen and in Professor Owen's figure. The total length of the cheek series is given by Lydekker as being 66 mm., and this appears to agree exactly with our specmen if due allowance is made for the missing teeth—restoration being based on the alveolar evidence, and the comparative data supplied by Owen's figure. If our ramus is placed over the wood cut, it covers it, except for a slight reduction in stoutness which is obviously individual, and all its characters and measurements agree in other directions. Seemingly therefore the fossil Wallaby listed at the British Museum under No. 38,753 is here represented by a similar left ramus of the mandible, and the following parts of the skeleton now to be passed in review.

HUMERI.

	Right Humerus.	Left Humerus.
Total length (rubbed)	224 mm.	228 mm.
Greatest proximal width	56 mm.	57 mm.
Least proximal width	50 mm.	51 mm.
Girth of shaft including the pectoral ridge	103 mm.	101 mm
Head to deltoid tubercle	90 mm.	95 mm.
End of supinator ridge to the entepicondylar foramen	60 mm.	63 mm.
Articular width of distal condyles	46 mm.	46 mm.

That these two humeri are the associated arm bones of the same skeleton as that which supplied the ramus of the mandible, there seems to be no reasonable doubt, and the same applies to the appended descriptive data collected from the other bones available to us.

FEMORA.

Unfortunately, neither femur is intact, the left being only represented by the shaft, while the right supplies a shaft, and a complete distal end, but fails us at the floor of the trochanterian fossa. In these circumstances we are without knowledge as to the actual head, but the information supplied by these two bones leaves us in no doubt as to the kind of femur that obtained in this fossil skeleton. Seen in profile, the shaft is straighter than in modern animals, and the rotular groove does not ascend the shaft as in our living Wallabies, but spreads itself out into a more decided rotular fossa, the upper wall of which slowly subsides upon the surface of the shaft. Muscular scars and foramina are similar, and the condyles agree fairly well upon all their articular faces, but the intercondylar fossa is formed at an equal cost to either condyle, and not at a marked toll upon the internal condyle as in the Wallaby of to-day.

TABLE OF MEASUREMENTS.

Total length of imperfect specimen	251 mm
Distal condyles to floor of trochanterian fossa ..	225 mm.
Greatest distal width	67 mm.
Least distal width	56 mm.
Girth in centre of shaft	93 mm.
Girth above condyles	139 mm.
Girth around condyles	220 mm.
Greatest proximal width in the mutilated specimen which includes about 25 mm. of the trochanter above the floor of the fossa	66 mm.

All the above relate to the right femur, the left being reduced to a diaphysis of 145 mm. in length. This latter enables us to note that the bony substance of the shaft varies from 4 to 7 mm. according to the presence or absence of external muscular attachment scars.

Some twenty vertebræ, a calcaneum, and part of the sternum are among the available items, also parts of both ulnæ, the head of a radius, and the glenoid end of a scapula. The calcaneum is much stouter than that of the modern Forester Kangaroo, although similar as to length, the facets it presents suggest interesting points of comparison with that of the modern wallaby, with which it of course more closely agrees (upon the whole) than with the same bone from the foot of the kangaroo.

As a recent note from the pen of L. Glauert, F.G.S., of the Perth Museum (*vide* Pleistocene Fossils from the Fitzroy River, Kimberley, Western Australia, in Royal Society's Journal, Vol. 7), records a similar find, we have detailed our specimens for comparison.

CONCLUSION.

In reviewing Mr. K. M. Harrisson's King Island find, we see that the material has yielded specimens of the following animals:—

1. *Zaglossus harrissoni*,
2. *Nototherium mitchelli*,
3. *Nototherium victoriæ*,
4. *Macropus anak* (Owen's "*Protemnodon anak*"),
5. Bones of modern wombats, wallabies, and kangaroos,

the whole being associated in a common matrix.

The matrix in question is very like that of Smithton, being in point of fact exactly similar drained bog land, and the bones are in need of exactly the same form of treatment for future preservation. We beg to record our thanks to Mr. Harrisson for his kindness in presenting these very interesting remains to our Tasmanian Museums, thus enabling us to slowly build up valuable comparative collections of the extinct Pleistocene Marsupials.