

THE EXTINCT TASMANIAN EMU.

By

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In a former communication to this Society, which was read on 8th October, 1923, dealing in part with the extinct King Island Emu, I gave, *inter alia*, some notes upon such Tasmanian Emu bones as had been to that date added to our Museum Collection.

Since then two other finds have reached us, and will now be passed in review.

THE SMITHTON FIND.

From an old contributor to our palæontological series of vertebrate remains—Mr. Tom Edwards—there came to us in October, 1924, a synsacrum, 1 femur, 1 tibio-tarsus, 2 tarso-metatarsi, and 1 cervical vertebra of a Tasmanian Emu recovered from Mowbray Swamp. These were all associated bones absolutely mature, using the word in its true osteological sense—as applicable only to bones whose external texture manifest the highest muscular development and the super-ossification incidental thereto. Everything considered, and having due reference to published notes, I consider this bird to have been a female.

THE FEMUR.

Greatest length	=	225 mm.
Proximal width	=	65 mm.
Distal width	=	68 mm.
Least girth of shaft	=	89 mm.

THE TIBIO-TARSUS.

Greatest length	=	422 mm.
Proximal width	=	88 mm.
Distal width	=	51 mm.
Girth in centre of shaft	=	72 mm.

THE TARSO-METATARSI.

RIGHT.

Length	=	349 mm.
Proximal width	=	55 mm.
Distal width	=	55 mm.
Girth in centre of shaft	=	73 mm.

LEFT.

Length	=	348 mm.
Proximal width	=	52 mm.
Distal width	=	54 mm.
Girth in centre of shaft	=	73 mm.

The details of right and left leg bones, thus given, serve the purpose of supplying data respecting bilateral asymmetry.

THE SYNSACRUM.

As far as my personal knowledge goes this is the only Tasmanian Emu's pelvis available for study, and it, unfortunately, is not perfect. Out of (*circa*) a 400 mm. length, only 270 mm. is represented in the specimen, its depth however—142 mm.—is a correct measurement. The iliac crest is intact for a length of 120 mm., and the proximal articulating centrum is still *in situ*. Distally—and therefore caudad—the mutilation is extensive. The acetabula and both ischiadic foramina are present, but both pubic and ischial processes are lost. A perfect pelvis, in direct comparison with one from an Australian Emu, would, I feel sure, reveal specific variation.

OSTEOLOGICAL NOTE.

The tarso-metatarsi of this Mowbray Swamp Emu are remarkable for the enormous development of the extensor digitalis grooves, which measured from the tibialis anticus tubercle run a distal course of 240 mm. before they subside upon the shaft. In width, the grooves are proximally 23 mm. wide—9 mm. in the centre—and 14 mm. distally. This ample space for muscular and tendonal lodgment speaks eloquently of the wonderful scratching and digging powers of the bird.

THE MOLE CREEK FIND.

From Mr. E. W. Clarke, of Mole Creek, we have received a tibio-tarsus of the Tasmanian Emu. This falls into line with our conceptions of the female bird. It is shorter, but mutilation in the item of post-mortem rubbing and grinding accounts for about 12 mm., the remainder coming within the range of individual variation.

TABLE OF SIZES.

Length (rubbed proximally) ..	=	400 mm.	(422 mm.).
Proximal width	=	83 mm.	(88 mm.).
Distal width	=	47 mm.	(51 mm.).
Girth in centre of the shaft ..	=	76 mm.	(72 mm.).

The figures given in brackets are the dimensions of the Mowbray Swamp bird, added for more direct comparison.

RECAPITULATIVE.

If the data collected from Mr. Ronald Gunn's specimens—as detailed by me—(*Pro. Roy. Soc. Tas.*, 1923, page 103) be regarded as having reference to the male bird, and the bones just passed in review those of females, then for the first time we have material for estimating the dimensional range incidental to the variation of sex in which the female was slightly smaller than the male bird.