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PLEISTOCENE MARSUPIALS FROM KING ISLAND.

The present specimens relate to the same find as that noted in our communication to this Society upon 13th June, 1921, when we detailed the characters relating to the humerus of *Zaglossus harrissoni*.

Nototherium mitchelli, Owen.—Female (?) animal. Our claim (1920, p. 24 and p. 107) that the plaster cast studied by Professor Owen, and practically elevated by him to the status of a type, was made from the skull of a female animal, is once more our theme, and the evidence is of some considerable interest. Of the animal to be studied, we have the nasal platform, some parts of the zygomatic arch, one tusk, the right upper maxillary with parts of four teeth *in situ*, and the fifth present, but detached. In addition to this, the atlas, axis, and third cervical are available to us—a most fortunate group of associated bones in view of the nature of our inquiry. We have given (1920, p. 81) a table of the calipered thicknesses of Nototherian nasal platforms, and to this we now add the following data:—

N. MITCHELLI.

	Female.	Male.
Thickness of right nasal boss	47 mm.	60 mm.
Thickness of left nasal boss	49 mm.	59 mm.
Central thickness of nasal platform	17 mm.	25 mm.
Thickness at base of nasal cartilage studs	18 mm.	22 mm
Thickness midway between studs and nasal bosses	16 mm.	16 mm.
Width of nasal platform	160 mm.	175 mm.

As far as it is possible to compare actual bones with a cast, these data agree very well with the skull case in question. In the item of total platform width, they agree exactly, since both give 160 mm. as a result.

Again, the general all-round reduction in size agrees with what might be expected from a female animal's skull, when studied in terms of a male animal of the same species. The surface of the bone of this nasal platform is so well preserved that it is easy to note even minute, superficial markings, and we accordingly supplied a sketch illustrating the contours, and grouping of vascular scars, etc., the diagram, we opine, being self-explanatory. Upon the assumption that the female animals carried a less massive nasal horn than the males, it naturally follows that the cervical vertebræ would share in a dimensional reduction, and this is exactly what we find to obtain.

COMPARATIVE CERVICAL VERTEBRÆ.

Assumed female.	Atlas.	Assumed Male.
Height of atlas	95 mm.	100 mm.
Anterior height of neural canal	60 mm.	77 mm.
Anterior width of neural canal	50 mm.	56 mm.
Across atlantean cups	110 mm.	125 mm.
	Axis.	
	mm. mm.	mm. mm.
Diameter of anterior centrum	82 x 40	100 x 50
Anterior width of neural canal	40	46
	Cervical 3.	
	mm. mm.	mm. mm.
Diameter of anterior centrum	62 x 42	75 x 47
Anterior height and width of neural canal	22 x 40	31 x 47

TUSK.

The single tusk belongs to the right upper side of the mouth, and what was said (1920, p. 107) needs little, if any, emendation, namely, "Female tusks flatter in outline, less "divergent, and less powerful in outline." As nothing remains to us anteror of the premolar, except the said tusk, and perhaps a mandibular tusk—to be noted later on—any remarks supplied respecting the amount of divergence would be largely speculative, deduced from a comparison with other King Island and Mowbray Swamp specimens, and if this is done the best conclusion we can arrive at is that, for the present at any rate, the descriptive terms "less divergent"

hold good. As to size, the specimen measures in total length, between verticals, 134 mm., and seems to be intact. As usually obtains, the lower surface of the exposed area of the tusk is deeply excavated by the lower tusk, a sharply drawn cross line marking its point of contact with the second incisor (whose whole crown is generally excavated to the outline of the grinding surface of the mandibular tusk).

GENERAL CONCLUSIONS.

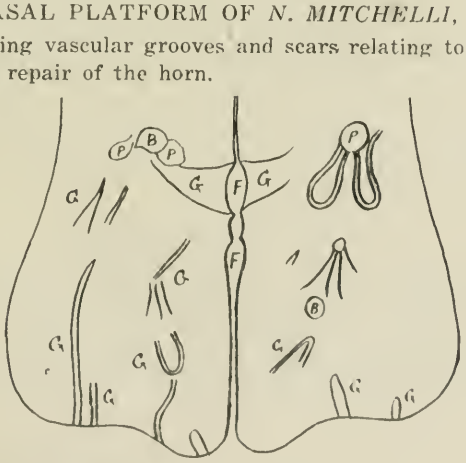
It would seem, therefore, that—as already suggested—the females of *Nototherium mitchelli* were fully armed and carried effective nasal horns, albeit less powerful than those of their mates. This conclusion is supported by the facts deduced from the study of the less solidly built nasal platforms, and weaker necks. That we are not here dealing with an immature male seems fairly assured, since the bones all suggest maturity, and the teeth have been well worn during the life of the animal. No feasible method of osteological development seems capable of converting this, apparently, matured nasal platform, of 160 mm. in width, into one of 175 mm. or more, or of expanding the cervical vertebræ to the size commensurate to the aggressive nature of the male animal. As noted in our former communication the specimens were recovered, and sent to us by Mr. K. M. Harrisson, of Smithton, during a trip to King Island upon survey work.

LITERATURE REFERRED TO.

1920 H. H. Scott and Clive Lord, Papers and Proceedings of the Royal Society of Tasmania, 1920, pp. 24 81, and 107.

NASAL PLATFORM OF *N. MITCHELLI*, ♀

Showing vascular grooves and scars relating to nourishment and repair of the horn.



NOTE.—Not drawn to scale.

B—Boss. F—Foramen. G—Groove. P—Pit.