

Victoria Museum, Launceston, Tasmania.

MUSEUM BROCHURE
No. 5

ZOOLOGICAL MUSEUM
OF TASMANIA

Some Notes on the Humeri of Wombats



WITH THE COMPLIMENTS OF THE MUSEUM COMMITTEE.

LAUNCESTON MUSEUM, JAN. 1915.

Introductory Note.



Incidentally when dealing with the humeri of the Nototheria, I found that the extinct King Island wombat had an exceptionally long and narrow humerus, quite unlike that of any existing species. A similar type of humerus recently sent to the Museum by Mr. E. C. Clarke, of Mole Creek, Tasmania, closely simulates this upper arm bone of the extinct King Island animal. From the Limestone Caves, that furnished the latter, Mr. Clarke recovered a single humerus that agrees very closely with the same bone in the skeleton of the hairy-nosed wombat of South Australia.

As the narrow wombat humeri agree in general contour with those of *Nototherium tasmanicum*, and the humeri of the living Tasmanian, mainland, and Flinders Island wombats reproduce characters nearer to those of the so-called humerus of *Nototherium mitchelli*, I have decided to publish figures of these several bones.

As fully discussed in my Memoir upon *Nototherium tasmanicum*, issued by the Geological Survey of Tasmania, the humerus relegated to *Nototherium mitchelli* is open to question.

These comparative notes, however, tend to prove that future discoveries may show, that a long narrow type of humerus, and a short wide one, obtained among the extinct Nototheria, as it does among the more recent wombats.

H. H. SCOTT.

Museum, Launceston, January, 1915.

The Humeri of Various Wombats.



Before attempting to discuss the osteology of the specimens I propose to deal with, it will be necessary to call attention to the somewhat similar work detailed in Memoir No. 3 of the National Museum, Melbourne, compiled by Prof. Baldwin Spencer, F.R.S., and Mr. J. A. Kershaw, F.E.S. This paper will be the only one I refer to in the present text, as it is the only one that in any sense covers similar ground. The main object of the paper cited was to exhaustively emendate the existing classification of wombats, and to establish specific distinction for the wombat of Bass Straits Islands, as also for that commonly found in Tasmania. Inter alia, the authors listed comparative measurements of various humeri, but did not make quite the same special study of the King Island wombat humeri that I intend doing here. My notes are chiefly the outcome of certain comparative studies conducted among the extinct gigantic Nototheria. The recent discovery (1915) of wombat remains in Tasmanian caves, that closely simulate similar specimens from King Island, obviously establish a line of departure from that so clearly laid down by the authors abovenamed. About a year after the publication of the National Museum Memoir, I was making extensive comparative notes upon Nototheria and wombats, and was much struck with the fact that all the humeri of King Island wombats that had passed through my hands were, without any exception, long and narrow, with extended pectoral ridges, and deltoids high up the shafts. As far as is known to me, with the exception of these humeri just found in the Limestone Caves at Mole Creek, Tasmania, such bones are not at present obtainable from any other sources.

Plate No. 1, Figures 1 to 4 inclusive, depict King Island humeri of various stages of growth. Figures 5 to 6 inclusive give a similar series from the Mole Creek Caves of Tasmania. These photographs are sufficiently good to show the striking similarity of the two sets of bones.

Plate No. 2 is arranged to contrast the narrow and the wide type of humeri.

Figure 1 is a wide humerus from the existing Flinders Island wombat.

Figure 2 is a narrow humerus from Mole Creek.

Figure 3 is a similar specimen from King Island.

While Figure 4 is an immature, wide type of humerus from the existing wombat of Tasmania.

Plate No. 3 is of special interest, as the two humeri, one femur, and the two rami of the mandible of an extinct (immature) wombat, are all supplied by a single animal. These associated bones carry the numbers 1 to 5 inclusive.

Numbers 6 and 7 are two non-associated rami of King Island wombats, of approximately similar size. The King Island jaws, however, seem of greater age.

Plate No. 4 illustrates a heavy wombat humerus from the Mole Creek Caves that closely simulates the humerus of *P. latifrons*, of South Australia.

Here Figure 1 is the Tasmanian bone, and Figure 2 the hairy-nosed wombat's bone. This latter was kindly supplied to me by Mr. Edgar R. Waite, Director of the Adelaide Museum. My aim in setting out these facts is more comparative than taxonomic, and is intended to show that wide and narrow humeri obtained among wombats recent, and extinct, and possibly did so obtain among the extinct gigantic Nototheria. If this latter is eventually proved, then Prof. Owens' relegation of a fragmentary platyrhine type of humerus to *Nototherium mitchelli* may be vindicated.

I supply a table of comparative measurements for all the humeri illustrated in the present text.



Recapitulative.



It would thus appear that in Northern Tasmania, as well as upon King Island, a narrow humeral type of wombat once existed. Also, if the evidence of a single humerus cemented to the floor of a limestone cave at Mole Creek be accepted, that Tasmania formerly served as a habitat for a wombat with approximations to the latifrons type of South Australia, the super-ossification of the pectoral ridge of the Tasmanian humerus being practically the only difference between the two bones (Vide Plate No. 4). All the humeri from King Island that have come my way agree in having long, narrow shafts, irrespective of age; and similarly all Mole Creek humeri yet recovered are of this type (irrespective of age) with the single exception of the latifrons bone noted supra. All Flinders Island and Tasmanian humeri examined by me agree with the mainland platyrhine type. It must, however, be pointed out that Messrs. Spencer and Kershaw figure (loc. cit, plate xi., fig. 13) a platyrhine type of humerus as being a King Island specimen, so obviously there is room for extended research here. These narrow wombat humeri make a distinct approach to the upper arm bones of the phalangiers and phascolaretus, and in my opinion are of considerable phylogenetic importance.

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PLATE No. 1.

King Island and Mole Creek Wombat Humeri.

No.	Locality.	Total Length	Distal Width	Proximal Width	Epiphyses.	General Condition.
1	King Island	112 m.m.	36 m.m.	23 m.m.	Nearly closed	Distally good; rubbed proximally.
2	King Island	119 m.m.	37.5 m.m.	23 m.m.	Closed	Rubbed at both ends.
3	King Island	75 m.m.	24 m.m.	17 m.m.	Open	Rubbed proximally; distally perfect
4	King Island	75 m.m.	24.5 m.m.	16.5 m.m.	Open	Rubbed proximally; distally perfect.

Mole Creek.

5	Mole Creek, Tas.	118 m.m.	33 m.m.	24 m.m.	All missing	Reduced in length by loss of epiphyses.
6	Mole Creek, Tas.	114.5 m.m.	30 m.m.	23 m.m.	All missing	Reduced in length by loss of epiphyses.
7	Mole Creek, Tas.	75 m.m.	21 m.m.	15.5 m.m.	All missing	Reduced in length by loss of epiphyses.
8	Mole Creek, Tas.	81 m.m.	24 m.m.	17.5 m.m.	All missing	Reduced in length by loss of epiphyses.

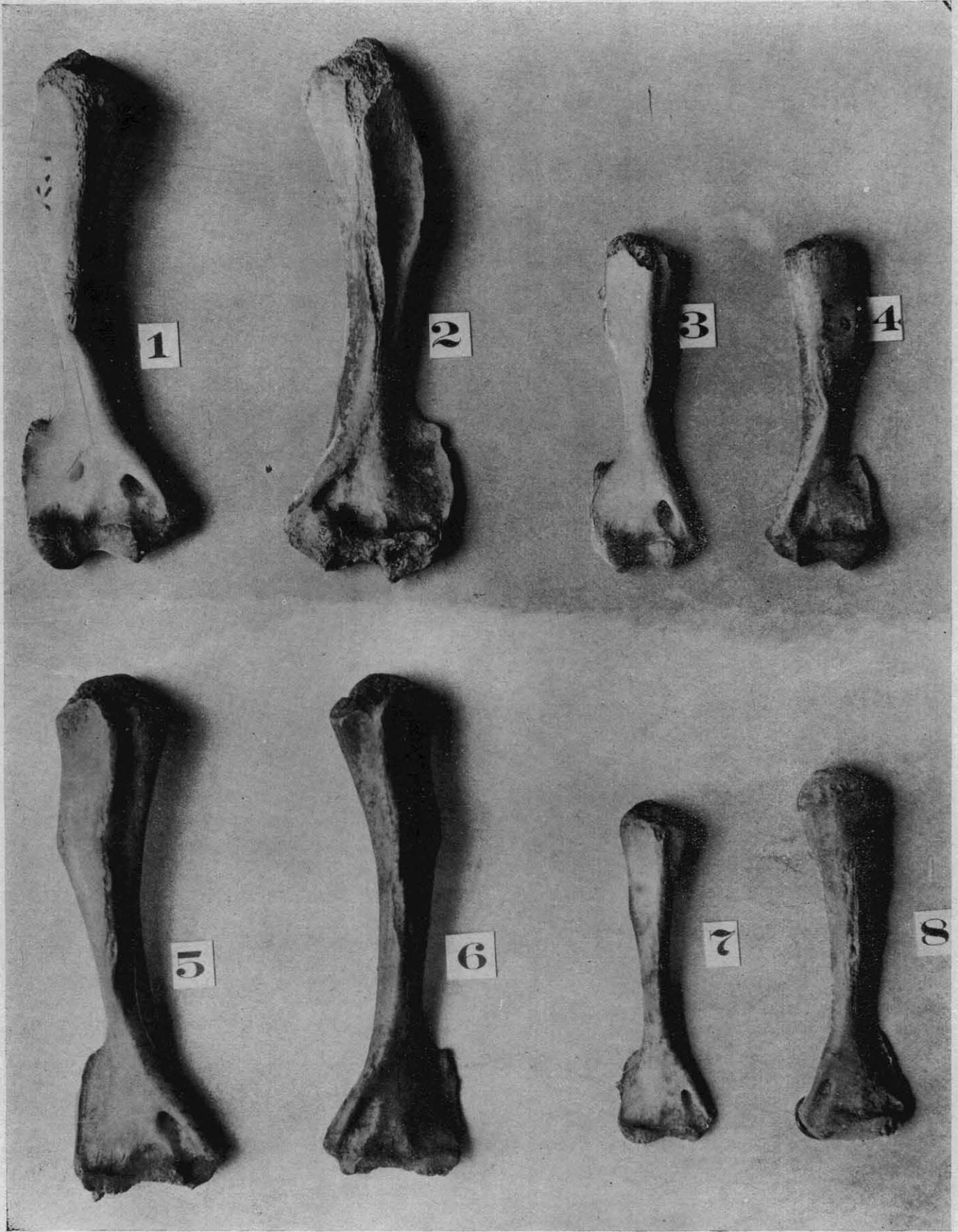


PLATE No. 1.

PLATE No. 2.

Comparative Wombat Humeri.

No.	Locality.	Total Length.	Distal Width	Proximal Width.	Epiphyses.	General Condition.
1	Flinders Island	95 m m.	39.4 m.m.	33 m.m.	Open	Good. Specimen recent.
2	Mole Creek, Tas.	121.5 m.m.	38 m.m.	25 m.m.	Lost	Reduced in length by loss of epiphyses.
3	King Island	115 m.m.	36 m.m.	23.5 m.m.	Proximal lost	Distally perfect.
4	Tasmania	95 m m.	48 m.m.	34 m.m.	Open	Good. Specimen recent.



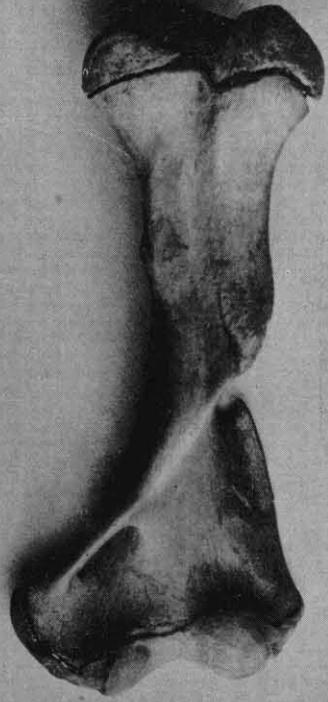
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PLATE No. 3.

Humeri, and other Wombat Bones.

No.	Locality.	Total length	Distal Width	Proximal Width	Epiphyses	General Condition.
1	Mo'e Creek, Tas.	Humerus 90 m.m.	27 m.m.	18 m.m.	All lost	Imperfect in length
2	Mole Creek, Tas.	Assoc. femur 112 m.m.	27 m.m.	35 m.m.	Open	Slightly imperfect.
3	Mole Creek, Tas.	Assoc. humerus 90 m.m.	27 m.m.	18 m.m.	All lost	Imperfect in length.

Mandibular Rami.

No.	Locality.	Total Length	Depth incl. teeth (central)	Height of the Coronoid	Height of the Condyle	General Condition.
4	Mole Creek, Tas.	115 m.m.	32 m.m.	Imperfect	Imperfect	Much mutilated.
5	Mole Creek, Tas.	118 m.m.	32 m.m.	Imperfect	56 m.m.	Coronoid mutilated.
6	King Island	112 m.m.	30 m.m.	Imperfect	Imperfect	Much mutilated.
7	King Island	114 m.m.	31 m.m.	Not quite perfect—49 m.m.	55 m.m.	Angle and Coronoid mutilated.

NOTE.—Numbers 1 to 5 inclusive are associated bones.

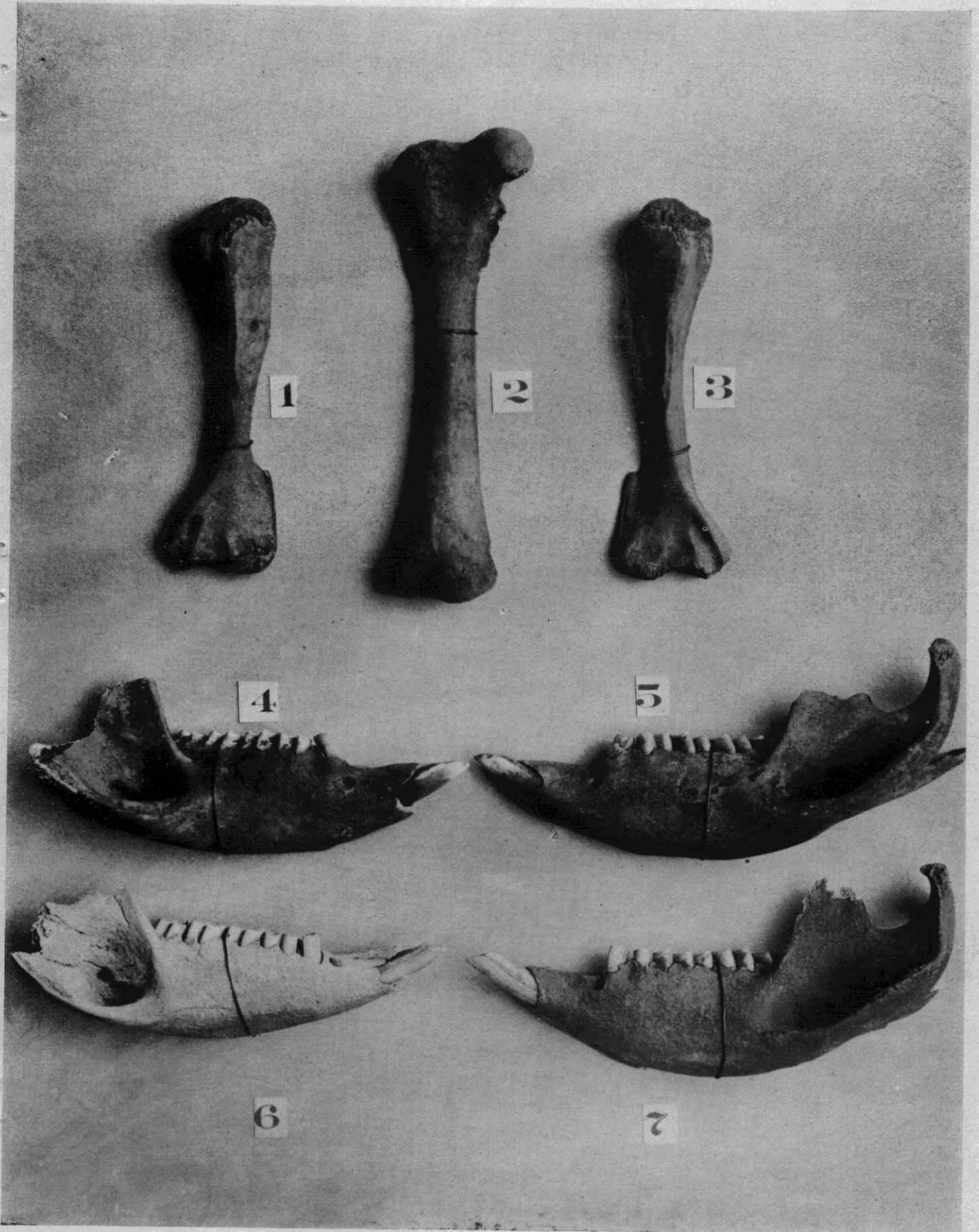


PLATE No. 3.

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PLATE No. 4.

Comparative Wombat Humeri.

No.	Locality.	Total length	Distal Width	Proximal Width	Epiphyses.	Condition.
1	Mole Creek, Tas.	113.5 m.m.	47.5 m.m.	36 m.m.	Closed	Perfect.
2	South Australia. Hairy-nosed wombat humerus	105 m.m.	48.5 m.m.	38 m.m.	Closed	Perfect.

NOTE.—Specimen No. 1 more closely approaches that of No. 2 than it does the humerus of P. Mitchell.



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