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THE WOMBATS (MARSUPIALIA, PHASCOLOMYIDAE)

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The wombats are large, marmot-like, phalangeroid marsupials with open-rooted dentition substantially similar to that of the Rodentia. Jones writes of them: "The build is stout and clumsy. The limbs are short and stout, and of exceptional strength. There are five digits on both manus and pes, but on the pes the hallux is poorly developed. The tail is reduced to a mere rudiment. The number of ribs is large. The skull is massive, peculiarly flattened, and the bullae are very small and imperfect [formed from the squamosal, not the alisphenoid]. The animals are terrestrial, fossorial, nocturnal. . . The pouch [in *Vombatus*] extends more in front of the opening than it does behind. The nipples are two in number" (Jones, 1925, p. 263).

An excellent survey of the history of the discovery of the wombats and of their taxonomic history was made by Spencer and Kershaw (1910). The most recent treatment is that of Mohr (1942). Mohr recognized six forms, three of the *ursinus* type (*Vombatus*) and three of the *latifrons* type (*Lasiiorhinus*). From her map showing distribution she omitted *barnardi* Longman. Her article includes a considerable number of photographs of "zoo" specimens of various races, many of them with well-grown pouch young.

In my opinion the *ursinus* wombats should continue to be treated as generically distinct from the *latifrons* wombats, the usual practice of authors. In addition, there is the extinct genus *Phascolonus*, comprising relatively gigantic wombats of the Australian late Pleistocene.

KEY TO THE GENERA OF WOMBATS

1. Upper incisors greatly flattened externally and internally. Size of animal very great.....*Phascolonus*
 Upper incisors not greatly flattened. Slightly so internally. Size of animal much less.....2
2. Nasals relatively unbroadened, not touching the lacrimal; postorbital processes slight or absent; roof of anterior palate not domed; molars not narrowed; alisphenoid bulla widely opened behind; supratympanic cell small.....*Vombatus*
 Nasals markedly broadened, making contact with lacrimals; postorbital processes very strongly developed; roof of anterior palate (containing incisive foramina) strongly domed; molars narrow; alisphenoid bulla slightly opened behind; supratympanic cell very large.....*Lasiorhinus*

The osteology of living species was gone into most ably by Owen (1872, pp. 173-194); in subsequent pages (pp. 241-258) he discussed extinct species. He dealt with the distinctions between *latifrons*, *platyrhinus*, and *vombatus*, the recent forms, illustrating his text with the magnificent drawings shown on his plates. He then proceeded to discuss *mitchelli*, *krefftii*, *thomsoni*, and *parvus*, fossil forms of about the same size as recent wombats, and *medius*, *magnus*, and *gigas* (*Phascolonus*), forms substantially larger than recent wombats. It has been generally believed that extinct *mitchelli* and recent *platyrhinus* are synonymous, but after reading Owen's careful distinction of *mitchelli* from *platyrhinus* I am inclined to question their absolute synonymy. Owen's discussions and illustrations were rearranged and amplified later (1877).

Besides the foregoing, the following names of extinct forms occur: *pliocenus* M'Coy, 1874, *curvirostris* Owen, 1886, *angustidens* De Vis, 1891, and *hacketti* Glauert, 1910.

De Vis (1891a) reviewed the extinct wombats. Following Owen, he believed (p. 239) that the fossil *mitchelli* was distinct from the living *platyrhinus*. He concluded that *thomsoni* was synonymous with *mitchelli*. He then proposed *angustidens* for a narrow-toothed wombat found on the Darling Downs, a species that appears to me to be possibly equivalent to *latifrons*. This species also has narrow teeth. Longman (1939) has implied that *Wombatula* Iredale and Troughton should be discarded and that the species *gillespiei* De Vis, its type, should be treated as yet another race of *latifrons*. He expressed a further opinion, namely, that *hirsutum* Perry was almost certainly identical to *ursinus*, the wombat of the Bass Strait islands and not to *mit-*

chelli or *platyrhinus*, the wombats of New South Wales west of the main divide. This conclusion seems entirely reasonable, since Perry, who wrote in 1810, knew only of coastal and Tasmanian wombats.

Concerning the character of wombat teeth, Bensley (1903) wrote, "the unworn molar patterns present resemblances to those of the advanced bunodont Phalangerinae [i.e., *Trichosurus* and *Phalanger*]; the incisor modification represents a more advanced stage than in any of the latter forms or in the Diprotodontidae; the moderately elaborated posterior premolars bear a general resemblance to those of *Dromicia* on the one hand, and, at least in the case of the lower, to those of *Nototherium* and *Diprotodon*." As regards syndactyly Bensley (1903, p. 203) wrote, "there has been a re-development of the second and third digits." Thus he implied that syndactyly was a reversible process. He was disposed to unite the Phascolomyidae with the Diprotodontidae on these three bases: foot plantigrade, incisors scalpriform, median premolars absent.

Flower (1867) dealt briefly with dental succession. Röse (1893) treated tooth development more extensively. Röse showed that a series of two upper and three lower deciduous incisors, milk canines, and milk premolars are first formed and later resorbed during development. These embryonic teeth, according to his findings, were accompanied by three upper and two lower permanent incisors, of which all but one upper and one lower were resorbed. Bensley (1903) found certain homologies between the cusps of unworn wombat teeth and those of *Trichosurus* and *Phalanger*. Macalister (1870) and Sonntag (1923) worked on the myology of the Phascolomyidae. Sonntag reached the conclusion that *Phascolomys* and its allies formed a group with *Phascolarctos*, which he termed the Phascolarctidae, and *Phalanger*, with its allies, and *Pseudocheirus* formed the Phalangeridae. This was despite the essential identity of the dentitions of *Pseudocheirus* and *Phascolarctos*.

Cleland (1870) described and figured the viscera of *Phascolomys*. Draseke (1931, 1939) studied the brain. Scott (1915) described the humeri of wombats. Boardman (1943) described external characters of the pouch young of *Vombatus hirsutus* (= *ursinus*).

Glauert has recorded a *Vombatus (hacketti)* from the Mammoth Caves, Western Australia, and *Vombatus parvus*, *Lasiiorhinus*

latifrons, and *Phascolonus gigas* from Balladonia in the Eucla Division of Western Australia.

In the present paper the dental measurements are taken chiefly from Owen's plates; those depicting wombats appear to have been reproduced natural size. In other cases the measurements are taken from the type, the type description, or the type illustration.

VOMBATUS GEOFFROY

Vombatus GEOFFROY, 1803, Bull. Sci. Soc. Philom., Paris, no. 72, p. 185.

Phascolomis GEOFFROY, 1803, Bull. Sci. Soc. Philom., Paris, no. 80, p. 149.

Phascolomys ILLIGER, 1811, Prodrum systematis mammalium et avium, p. 78.

TYPE: *Didelphis ursina* Shaw.

Careful comparison of skulls representing living *ursinus*, *tasmaniensis*, and *platyrhinus* reveals no difference other than size. But as Spencer and Kershaw (1910) pointed out, this size distinction is positive and is linked with the geographical distribution of the three forms. In consequence I feel that they should be grouped together to form one full species comprising three geographical races.

The genus *Vombatus* has the rhinarium bare and hairless, the ears somewhat rounded, the nasals not so greatly broadened as to make contact with the lacrimals, and the mid-brain area of the skull not much narrowed, so that the postorbital processes are rather small and inconspicuous.

Considerable difference of opinion appears in the literature in regard to the identity of the living *platyrhinus* with the extinct *mittelli*. Murie (1865) examined the question with care and concluded that they were alike. His opinion was concurred in by M'Coy (1868) and Thomas (1888), but Owen (1877) pointed out certain rather weak differences between the two, and one may suspect that those weak differences are valid. One of Owen's characters distinguishing *mittelli* was the extremely slight degree of contact between the maxillaries and the nasals, due to the fact that the maxillo-premaxillary suture and the maxillo-frontal suture so closely approached each other before either touched the nasals. In *platyrhinus* and *vombatus* he showed that the maxillo-nasalsuture was usually some 6 mm. in length. A second difference, according to Owen, lay in the extremely small size of the posterior palatal foramina of *mittelli* (1877, pl. 51, fig. 1) compared with those of

platyrhinus (*op. cit.*, pl. 48, fig. 1). Furthermore, the idea that *mitchelli* and *platyrhinus* were distinct was supported by De Vis (1891a, p. 239).

I have vainly examined every one of our wombats of *ursinus* type in an attempt to find a skull possessing the *mitchelli* characters given above. In all of them the maxillo-nasal suture is well developed, and the posterior palatal foramina are fairly large. I am therefore disposed to allow that the probable prehistoric ancestor of *ursinus platyrhinus*, namely, *mitchelli*, was slightly different in those particulars emphasized by Owen and am willing to treat it as a separate form.

***Vombatus ursinus ursinus* (Shaw)**

Didelphis ursina SHAW, 1800, General zoology, vol. 1, pt. 2, p. 504.

Opossum hirsutum PERRY, 1810, Arcana, pl. [21] and text.

According to Spencer and Kershaw (1910), the wombat of Bass Strait, the form originally discovered on Clarke Island, is smaller than the Tasmanian wombat. It is known from King, Deal, and Flinders Islands. It is extinct on all islands except Flinders where living species still existed in 1908. Kershaw (1910) published notes on the Flinders Island wombat.

Mr. H. C. Raven obtained for the American Museum of Natural History a number of parts of skeletons representing this race. In one specimen from King Island p_4 - m_4 measure 44.0 mm.

***Vombatus pliocenus* (M'Coy)**

Phascodomys pliocenus M'COY, 1874, Prodromus of the palaeontology of Victoria, dec. 1, p. 21.

The type, a mandible, is certainly referable to *Vombatus*. The length of the lower tooth row, p_4 - m_4 , is 58 mm.; the depth of the ramus (deepest beneath m_3), 34 mm. It is from the "hard ferruginous gold cement of Dunolly."

M'Coy found that this animal differed from *mitchelli* Owen "in its much larger molars and in the symphysis extending behind the third molar instead of only behind the second."

***Vombatus ursinus mitchelli* (Owen)**

Phascodomys mitchelli OWEN, in Mitchell, 1838, Three expeditions into eastern Australia, vol. 2, p. 362.

Nearly the same size as the present *platyrhinus*, but distinguished by Owen from that race by the shortness of the palato-nasal suture and the small size of the posterior palatal foramina. Extinct.

Vombatus ursinus tasmaniensis (Spencer and Kershaw)

Phascolomys tasmaniensis SPENCER AND KERSHAW, 1910, Mem. Natl. Mus. Melbourne, art. 3, pp. 37-65.

MATERIAL: Arve River, Huon District, Tasmania, collected by H. C. Raven, 10; several others from various sources (mostly Bronx Park "zoo").

Raven wrote in his field notes: "When a wombat (*tasmanien-sis*) is annoyed it emits a strong hissing growl. A young one which we captured alive and kept for a short time, would growl savagely when touched, but if suddenly picked up by grasping its sides, it would squeal like a little pig. While squealing, it would open its mouth to the fullest extent."

Vombatus ursinus platyrhinus (Owen)

Phascolomys platyrhinus OWEN, 1853, Catalogue of the osteological series in . . . the Royal College of Surgeons, vol. 1, p. 334.

Phascolomys latifrons GOULD (not Owen), 1859, The mammals of Australia, vol. 1, pls. 57, 58 and text.

Gray (1863) explained that Gould had mistakenly figured a different wombat skin for *latifrons*. He proceeded to give the Gould skin a new name:

Phascolomys setosus GRAY, 1863, Ann. Mag. Nat. Hist., ser. 3, vol. 11, p. 459.

Phascolomys assimilis KREFFT, 1872, Proc. Zool. Soc. London, p. 796.

This is the large continental race of *V. ursinus*, which Spencer and Kershaw (1910, p. 55) have carefully distinguished from the two smaller races of Tasmania and of Bass Strait.

The American Museum of Natural History possesses three specimens (A.M.N.H. Nos. 35512, 34701, 66197), all from the zoological gardens and without data, which, on the basis of measurements, conform to the present race.

M'Coy (1867, pp. 269-270; 1868) believed that *setosus* Gray was a perfectly valid species. He offered (in a sketch) structural differences in the nasal bones as proof that *setosus* was distinct. We have no specimens with nasals formed like those of M'Coy's figure. Krefft (1872) also regarded *assimilis* as distinct from "*platyrhinus*."

Glauert's fossil form *hacketti* is based on a nearly complete skull and numerous bones of the skeleton.

Vombatus ursinus platyrhinus var. **niger** (Gould)

Phascolomys niger GOULD, 1863, The mammals of Australia, vol. 1, pl. 60 and text.

Phascolomys angasii GRAY, 1863, Ann. Mag. Nat. Hist., ser. 3, vol. 11, p. 458.

Gould (1863) figured this brownish black wombat very clearly, though he used the name *niger* only on page xxix of his Preface (undated). The name placed over the text accompanying the plate is *wombat* Peron and Lesueur. It remained for Gray (1863) to rename this blackish wombat *angasii*, indicating its origin as "South Australia."

There are two specimens of the black wombat (*Vombatus*, not *Lasiorhinus*) in the American Museum collection (A.M.N.H. Nos. 35701 and 35789). Both are from the Bronx Park "zoo" and, having been procured from an animal dealer, are without geographical data. Both are females, and one is said to be the parent of the other.

M'Coy (1867) commented on two examples of black wombats from the Goulbourn River, Victoria (a stream that flows north to the Murray River at about longitude 145° E.) and another (1868) from Yea (on a branch of the Goulbourn).

Kreffit (1872) recorded specimens from Port Lincoln, South Australia. He remarked upon the breadth of the scapula in *niger* which, however, he regarded as a race of *Lasiorhinus*. Perhaps blackish forms occur in both genera.

Vombatus thomsoni (Owen)

Phascolomys thomsoni OWEN, 1872, Phil. Trans. Roy. Soc., London, vol. 162, p. 192, pls. 18, 21 (mandible)—Gowrie, Darling Downs.

"Does not exceed the Tasmanian species [*tasmaniensis*]." The molars are narrower transversely, especially the hind lobe of the last molar. The lower molar series, p_4-m_4 , measures 50 mm. Distinguished by Owen from its near allies *mitchelli* and *platyrhinus* by its narrower molars, particularly the posterior lobe of m_4 .

Vombatus parvus (Owen)

Phascolomys parvus OWEN, 1872, Phil. Trans. Roy. Soc., London, vol. 162, p. 193, pls. 19, 20, 23—Kings Creek, Darling Downs (three cotypes).

This form is even smaller than *thomsoni*. The length of p_4-m_3 is 32 mm.; depth of ramus beneath m_3 , 27 mm.; diastema, 27 mm.

Examples of teeth believed referable to *parvus* were reported by Glauert (1912) from Balladonia, Eucla Division, Western Australia.

LASIORHINUS GRAY

Lasiiorhinus GRAY, 1863, Ann. Mag. Nat. Hist., ser. 3, vol. 11, p. 458.

Wombatula IREDALE AND TROUGHTON, 1934, Mem. Australian Mus., no. 6, p. 35.

TYPES: Of *Lasiiorhinus*, *m'coyi* Gray (= *latifrons* Owen). Of *Wombatula*, *gillespiei* De Vis.

Rhinarium hairy, somewhat as in *Macropus canguru*; pelage soft and silky; ear relatively pointed. The nasals are so greatly broadened that they make contact with the lacrimals. The mid-brain area of the skull is much narrowed, while the anterior portion expands into large postorbital processes.

Three extinct wombats which appear to be species of *Lasiiorhinus* are known.

Owen distinguished *krefftii* (1872, p. 178), which he wrote was "as closely allied to the broad-fronted or hairy-nosed wombat as *Phascolomys mitchelli* is to the bare-nosed continental species," by the fact that "the lateral margins [of the nasals] are suturally joined to a smaller proportion of the premaxillaries than in *Phascolomys latifrons*." The premaxillae of *krefftii* lack the narrow pointed process that in *latifrons* wedges backward between the nasals and maxillaries.

Phascolomys krefftii Owen is almost certainly very close to *latifrons*. His other two species, *medius* and *magnus*, are farther removed and when they are better understood may possibly require generic recognition. Nevertheless, the little that is known of them suggests they are more closely related to *Lasiiorhinus* than to *Vombatus*. In this paper they are considered *incertae sedis*.

Lasiiorhinus latifrons (Owen)

The original description was based on a single skull.

Angas (1861) described an adult male at the Botanical Gardens, Adelaide, giving detailed body measurements. He did not mention the "hairy-nosed" character. Gray (1863), after distinguishing the genus *Lasiiorhinus*, named a specimen in the "zoo" at

Regent's Park *Lasiiorhinus m'coyi*. This was a hairy-nosed wombat similar to the *lasiiorhinus* figured by Gould. (Gray seems to have objected to the tautonymy.) Murie (1865) positively linked *lasiiorhinus* Gould with *latifrons* Owen, and continued with an extended comparison of the skeletons. M'Coy (1867) pointed out further contrasts in the sacral region. Macalister (1872) discussed *latifrons* in detail.

De Vis (1891a, p. 243) described a fossil mandible of a wombat which he named *angustidens*. This he compared not with *latifrons*, which also has quite narrow teeth, but with *mittelli* and *platyrhinus*, which he considered differed from each other. But it appears to me that in *angustidens* De Vis has an example of an extinct *latifrons* wombat, possibly separable as a race but not improbably the late Pleistocene predecessor of recent *latifrons*. Again, a few years later (1900) he described *Phascolomys gillespiei* from the Moonie River, a living form that his illustration of the skull shows without question to be another member of the genus *Lasiiorhinus* and quite close to *latifrons*. Kershaw (1909) further described *latifrons*. Finally, Longman (1939) made known still another form referable to *Lasiiorhinus*, which he named *barnardi*. This race occurs near Clermont in central Queensland and seems to represent an isolated colony. Longman's plate shows the nasals and postorbital processes to have the forms characteristic of *Lasiiorhinus*.

I am now disposed to consider *Lasiiorhinus* a monotypic genus containing only the living species *latifrons* with three recent geographical races, *latifrons*, *gillespiei*, and *barnardi*, and two antecedent fossil races, *angustidens* and *krefftii*.

A wombat related to *latifrons* was reported by Glauert (1912) in the "soak" at Balladonia, Eucla Division, Western Australia.

Living *latifrons* was recorded by Boehm (1944) in the Mt. Mary Plains between Mt. Lofty and the Murray River.

***Lasiiorhinus latifrons latifrons* (Owen)**

Phascolomys latifrons OWEN, 1845, Proc. Zool. Soc. London, p. 82.

Phascolomys lasiorhinus GOULD, 1859, The mammals of Australia, vol. 1, pls. 59, 60 and text.

The type, judging by the dimensions mentioned in the original description, was an unusually large specimen. It was said to be from "Continental (South) Australia." Owen compared it with *Vombatus*.

MATERIAL: A.M.N.H. No. 243; M.C.Z. No. 7069; U.S.N.M. No. 34949.

It seems certain, from the rarity of the hairy-nosed wombats in collections, that this is a relatively scarce mammal.

***Lasiorhinus latifrons gillespiei* (De Vis)**

Phascolomys gillespiei DE VIS, 1900, Ann. Queensland Mus., vol. 5, p. 14—Bullamon Station, Moonie River, southern Queensland.

“. . . Skull broader in proportion to its length than in [*latifrons*], frontal absolutely shorter, and nasals at the nasal orifice much broader; nasals extending backward between the frontals; lachrymal protuberance well developed; nasal spine of the intermaxillary high and projecting; all the nasal sutures, especially the naso-frontal, intricately interlocking.”

***Lasiorhinus latifrons barnardi* Longman**

Lasiorhinus latifrons barnardi LONGMAN, 1939, Mem. Queensland Mus., vol. 11, p. 286—Epping Forest Station, 75 miles west of Clermont, central Queensland.

An exceptionally large race, the feature by which it is distinguished. No skull measurements were given. Longman compared this wombat with *latifrons* and *gillespiei* and suggested reduction of *gillespiei* to a subspecies of the former. He did not consider De Vis' cranial distinctions very important.

The position of the maxillary-premaxillary suture lateral to the nasals appears from Longman's illustration to be very similar to that in *krefftii* Owen.

***Lasiorhinus krefftii* (Owen)**

Phascolomys krefftii OWEN, 1872, Phil. Trans. Roy. Soc., London, vol. 162, p. 178.

The type consists of the rostral portion of the skull, with nasals, parts of frontals, maxillary, and premaxillaries, and broken incisors.

This wombat appears to be nearly identical to recent *latifrons*. It probably bears the same relationship to that species that *mittelli* does to *platyrhinus*. An unexplained opening along the midline of the nasals shows in Owen's figure.

The width across the nasals at the maxillo-premaxillary sutures

is 34.5 mm.; the length of median nasal suture, 71. In our recent *latifrons* (one specimen) these measurements are 36 and 51 mm. *Lasiorhinus krefftii* is distinguished chiefly by the abrupt ascent of the maxillo-premaxillary suture to join the nasals, giving a premaxillary-nasal suture length of only 12.5 mm., instead of 24 mm. as in true *latifrons*.

Lasiorhinus angustidens (De Vis)

Phascolomys angustidens DE VIS, 1891, Proc. Linnean Soc. New South Wales, ser. 2, vol. 6, p. 243.

COTYPES: Four mandibles from Darling Downs.

"Teeth narrow, in a relatively long series; posterior molars oblique; premolar large, subrectangular, with its long axis in the axis of the jaw; symphysis rather short."

"Length of molar series, 52.5 mm. . . width of m_3 [the terminology of Owen; m_4 of present nomenclature], 6.8 mm. . . . Symphysis extends only to the middle of m_1 [m_2]." De Vis made his comparisons with *mitchelli*, a member of the genus *Vombatus*.

PHASCOLONUS OWEN

Phascolonus OWEN, 1872, Phil. Trans. Roy. Soc., London, vol. 162, p. 257, legend to pl. 36 (as a subgenus).

Sceparnodon RAMSAY, 1881, Proc. Linnean Soc. New South Wales, vol. 5, p. 495.

Phascolonus was proposed tentatively as a subgenus. Its type was *Phascolomys gigas* Owen. Owen (1884) distinguished the upper incisors only of an equally large animal as *Sceparnodon*. Lydekker (1891) expressed the view that the internally and externally flattened teeth bearing the name *Sceparnodon* were actually the hitherto unknown upper incisors of *Phascolonus*. De Vis (1891b) objected; in his view the specimens of teeth on which *Sceparnodon* was based comprised both upper and lower incisors; therefore *Sceparnodon* could not be the same as *Phascolonus*. Later he (1893) figured a large cylindrical tooth as the missing upper incisor of *Phascolonus*. Finally, Stirling and Zietz (1899) described a more complete skull, found at Lake Callabonna, in which the adze-like incisors of *Sceparnodon* were positively associated with *Phascolonus* molars. Stirling amplified his conclusions in a later monograph (1913). He urged full generic rank for *Phascolonus*.

Phascolonus gigas (Owen)

Phascolomys gigas OWEN, 1859, Encyclopaedia Britannica, ed. 8, vol. 17, p. 175 (*vide* Owen, 1872, p. 248); 1872, Phil. Trans. Roy. Soc., London, vol. 162, p. 248.

Sceparnodon ramsayi OWEN, 1884, Phil. Trans. Roy. Soc., London, vol. 175, pp. 245-248.

The lower fourth premolar (by Owen named d_3) is described as "sub-bilobed . . . The prolongation of the anterior end of the mandible shows a nearer resemblance in *Phascolomys gigas* to *Phascolomys latifrons* and *Phascolomys krefftii* than to *Phascolomys platyrhinus*" (Owen, 1872, pp. 251-252).

The proportion of the area in section of the lower incisor to the "first molar" [p_4] in *platyrhinus* is double; in *gigas* these proportions are almost reversed. The incisor is a relatively slender tooth.

The Department of Geology and Paleontology of the American Museum possesses a part of a left mandible of *gigas* (A.M.N.H. No. 19258) containing the base of an incisor and the entire molar series, p_4 - m_4 . The posterior part of the symphysis can be seen. At the proximal end the base of the coronoid process is preserved. The molar series, p_4 - m_4 , measures 93 mm.; the depth of mandible at the symphysis, 74 mm.

That Department also possesses a plaster cast (A.M.N.H. No. 18373) of one of the incisors of "*Sceparnodon*." The extreme flatness of this structure is emphasized by its dimensions, 36 mm. in width against only 9 mm. in thickness, less in the hollowed-out center of the tooth. The paleontology department of the Museum of Comparative Zoölogy has portions of the upper incisors (M.C.Z. No. 17714), and also three lower jaws with complete symphyses. The narrowness of the lower incisor in such specimens as M.C.Z. No. 17711 makes it difficult to believe that these teeth opposed such very broad teeth as the *Sceparnodon* upper incisors.

Upper and lower teeth of *Phascolonus* from Balladonia Soak, Eucla Division, Western Australia, were reported by Glauert (1912) and from the Fitzroy River area, Western Australia (1922).

SPECIES INCERTAE SEDIS

The species *medius*, *magnus*, and *curvirostris* in my opinion do not fit into the present generic scheme of the Phascolomyidae. The first two seem to be more or less related to *Lasiiorhinus*, but

the unusual incisors of *curvirostris* indicate no relationship to named genera. In honor of its discoverer, Mr. E. P. Ramsay, I suggest for it the name:

RAMSAYIA, NEW GENUS

TYPE: *Phascolomys curvirostris*.

A large, extinct wombat in which the upper incisors project far beyond their symphysis and have their beveled surfaces many times longer than in any other genus. Premolar palate with a deep longitudinal median slot or trough.

Ramsayia curvirostris (Owen)

Phascolomys curvirostris OWEN, 1886, Quart. Jour. Geol. Soc., London, vol. 42, p. 1.

The Department of Geology and Paleontology of the American Museum of Natural History possesses a good cast (No. 18368) of the type specimen, which Owen stated was deposited in the Australian Museum, Sydney.

The extension of the terete incisor beyond the alveolus is 37 mm. The anterior palate is deeply grooved. The strongly proödont upper incisors, coupled with their unique bevel, the tapered, or worn, inner face occupying 28 mm. in contrast to the extremely short bevel in existing specimens of *Vombatus* (about 10 mm.), suggest a distinct generic concept. It is not possible that these incisors can be the upper incisors of *medius*, broken off short in Owen's plates (1872, pls. 32-35), for in lateral profile the palate of *curvirostris* partakes of a curvature (radius about 70 mm.) based on the same center as the circle described by the incisors themselves. The ante-molar palate is, furthermore, cleft by a deep median groove penetrating to a depth of approximately 17 mm., in the depths of which, no doubt, the incisive foramina are found.

Phascolomys (?) *medius* Owen

Phascolomys medius OWEN, 1872, Phil. Trans. Roy. Soc., London, vol. 162, p. 241—Condamine River, Darling Downs.

A large wombat with the roof of the anterior palate strongly domed; p^4-m^3 measure 53 mm.; the diastema is 67 mm.; space between p^4-4 , 25 mm. The same dimensions in Owen's second specimen (pl. 32, fig. 2) are: \pm 62 mm., 64, 13. Some of the differences may be due to distortion. The mandibular tooth row

(pl. 34, fig. 1), p_4-m_4 , measures 65 mm.; the depth of mandible, 38 mm.

I judge this species to be near, but not congeneric with, *Lasiorhinus*.

***Phascolomys* (?) *magnus* Owen**

Phascolomys magnus OWEN, 1872, Phil. Trans. Roy. Soc., London, vol. 162, p. 246—two cotypes, palates with molar dentitions.

The lengths of p^4-m^4 (pl. 35, fig. 1) are 89 mm.; (pl. 35, fig. 4), 93 mm. The widths between p^4-m^4 are (pl. 35, fig. 1), 31; (pl. 35, fig. 4, much distorted), 60 mm. Here again the ante-molar palate is arched. The species may be related to *medius*.

The upper incisors are subterete in section (pl. 35, fig. 5) but what appear to be the nerve canals are much flattened, giving the appearance one might expect in the nerve canals of the flat-toothed *Sceparnodon* (= *Phascolonus*).

Under modern taxonomic concepts, both *medius* and *magnus*, if they could be found entire, would probably be relegated to genera other than those named in this paper.

TABLE 1

MEASUREMENTS (IN MILLIMETERS) OF THE LENGTHS OF TOOTH ROWS OF WOMBATS

	Crowns of p^4-m^4	Crowns of p_4-m_4
<i>Vombatus u. ursinus</i>	49.0	51.0
<i>Vombatus pliocenus</i>	—	58.0
<i>Vombatus u. mitchelli</i>	55.0	55.0
<i>Vombatus u. tasmaniensis</i>	47.0	47.0
<i>Vombatus u. platyrhinus</i>	54.0	53.0
<i>Vombatus thomsoni</i>	—	50.0
<i>Vombatus parvus</i>	—	40.0
<i>Lasiorhinus l. latifrons</i>	49.5	—
<i>Lasiorhinus l. gillespiei</i>	—	—
<i>Lasiorhinus l. barnardi</i>	—	—
<i>Lasiorhinus krefftii</i>	—	—
<i>Lasiorhinus angustidens</i>	—	52.5
<i>Phascolonus gigas</i>	—	103-115
<i>Phascolomys</i> (?) <i>medius</i>	55-66	63
<i>Phascolomys</i> (?) <i>magnus</i>	85.0	—

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