



Annals and Magazine of Natural History

Series 1

ISSN: 0374-5481 (Print) (Online) Journal homepage: <http://www.tandfonline.com/loi/tnah07>

Some observations on the skull of Phascolomys Vombatus

J.E. Gray Esq. F.R.S.

To cite this article: J.E. Gray Esq. F.R.S. (1847) Some observations on the skull of Phascolomys Vombatus, Annals and Magazine of Natural History, 19:129, 469-470, DOI: [10.1080/037454809495997](https://doi.org/10.1080/037454809495997)

To link to this article: <http://dx.doi.org/10.1080/037454809495997>



Published online: 23 Dec 2009.



Submit your article to this journal [↗](#)



View related articles [↗](#)

and Haiti there are several. Geological researches may assist the explanation of these anomalies. There are three mountain-ranges of different date and vegetation. One of these constitutes the Bahamas, north side of Haiti and Cuba: the Cibao range, covered with pathless forests of *Pinus occidentalis*, re-appears in Cuba and the Isle of Pines, terminating in Mexico. The precipitous mountains of the Grand Anse are formed of limestone, which is prolonged through Jamaica into Yucatan, covered with its peculiar production, *Myrtus Pimenta*, equally remarkable for its individual beauty and fragrance.

“*Pauca hæc vidimus operum DEI.*”

April 13.—William Yarrell, Esq., Vice-President, in the Chair.

The following communication was read:—

SOME OBSERVATIONS ON THE SKULL OF *PHASCOLOMYS VOMBATUS*.

BY J. E. GRAY, ESQ., F.R.S. ETC. ETC.

In the collection at the British Museum there are three skulls which agree with Prof. Owen's character of *Phascolomys Vombatus*, as described in vol. iii. of the Zool. Soc. Transactions: that is to say, they have only slightly curved upper cutting teeth, short noses, &c. Two were sent from Van Diemen's Land by Mr. Ronald Gunn, and one from N. S. Wales was presented by my late friend and admirable botanist, Mr. Allan Cunningham, F.L.S.

The specimens from Van Diemen's Land are much smaller (the largest being 6 in. 4 lines long), and more depressed and truncated behind, and have two moderate-sized oblong holes in the hinder part of the palate. The specimen from N. S. Wales is one inch longer, and has two large triangular holes in the end of the palate. All the three specimens differ in the size of the teeth, and especially in the size and relative position of the upper cutting teeth.

1. The least of the Van Diemen's Land skulls has rather small grinders, but the upper cutting teeth are small, compressed, rather diverging from each other, forming an angle in front and only touching each other at the truncated inner edge. The crowns of these teeth are 5 lines long and $2\frac{1}{2}$ lines wide. The lower cutting teeth are small with a roundish crown.

2. The other Van Diemen's Land skull, which is rather larger in all its measurements, has larger grinders. The cutting teeth are much larger: the upper large, oblong, diverging from each other, forming together a segment of a circle in front, and only touching each other by the inner edge. The crowns of these teeth are $5\frac{1}{2}$ lines long and $3\frac{1}{2}$ lines wide.

3. The skull from N. S. Wales has the teeth very like those of the small Van Diemen's Land specimen, but rather larger: the upper cutting teeth are considerably larger and rather more triangular, but in the same angular position.

It is desirable that more of these skulls should be compared, to determine whether these are only individual variations, or that there

are more than one species confounded under this name. I am inclined to the former view; but if this is the case, it shows that the skulls and teeth do not present such good specific characters as many zoologists are willing to believe.

MISCELLANEOUS.

MONSTROUS ROSES*.

Now that the spring is advancing, and nature is about to repeat the marvellous processes, which, when they are deranged by any circumstances, produce what we call monstrous flowers, we are anxious to prepare our readers to watch such phenomena by again directing them to the theory of morphology, taking for illustration the curious changes which were observed everywhere last year in the condition of the Rose. To the amateur they were a source of mortification, and to the unlearned observer, of wonder; but to the botanist, of admiration. The first deplored the deformity of his favourite flowers, without suspecting that it tended to elucidate one of the most curious points in their structure; the second puzzled himself in vain attempts to comprehend how Roses should grow out of Roses, or leaves and branches spring up from flowers; the third seized the evidence, weighed it, compared it with other evidence, and saw that it formed the most beautiful explanation of the means by which the great Author of Nature has provided plants with the means of perpetuating their race.

Linnaeus taught, and Goethe proved, that all flowers are but arrangements of altered leaves. The one thought that their birth was anticipated in order to obtain the means of building up the blossom; the other demonstrated, that although the fanciful doctrine of anticipation was unsupported by evidence, yet that the blossom was really formed, in all its parts, by leaves in what a chemist would call a nascent state.

Goethe thus laid the foundation of the modern school of structural botany; and if his successors have worked out his ideas, and applied them to all cases in all plants, they have done no more. It is now known that a flower is analogous to a leaf-bud, consisting of scales within scales, packed with the most admirable method; that in its ordinary condition nature moulds these flower-scales to particular purposes, and stamps them with new attributes; but that if the cosmic forces which regulate and determine customary development are interfered with, these scales resume more or less completely their original quality, and become leaves. Hence it follows, that in cases of disturbed organization a flower extends its centre into a

* This article is reprinted from the 'Gardeners' Chronicle' for March 13, 1847, and the Editors are indebted to the kindness of Dr. Lindley for the loan of the woodcuts illustrating these remarkable monstrosities.