## 2. Linnean Society of New South Wales.

November 27th, 1895. - 1) On some Developments of the Mammalian Prenasal Cartilage. By R. Broom, M.B., C.M., B.Sc. The comparative anatomy of the prenasal cartilage among Vertebrates is briefly sketched, and its importance in the Mammalia dwelt upon. Though in the majority of Mammals it is absent or rudimentary, in the Platypus it forms the large rostral cartilage, while in Echidna it forms the axis of the beak. Among the higher animals it is held to be represented by the cartilage of the papilla in Marsupials, and by an interesting median cartilage in an Australian Bat (Miniopterus sp.). -2) On a small Fossil Diprotodont Marsupial, with large grooved Premolars. By R. Broom, M.B., C.M., B.Sc. A more complete description from more perfect specimens of the little fossil Marsupial described under the name Burramys parvus at the June meeting. --- 3) On a small fossil Petaurus-like Marsupial. By R. Broom, M.B., C.M. B.Sc. Under the provisional name Palaeopetaurus elegans is described a small fossil Marsupial from a bone-breccia deposit in the neighbourhood of Taralga. It is closely allied to Petaurus, but differs in a number of dental details, chiefly the greater proportional development of the upper  $pm^4$ . — 4) On the Organ of Jacobson in an Australian Bat (Miniopterus). By R. Broom, M.B., C.M., B.Sc. A description is given of the Organ of Jacobson in an Australian Bat (Miniopterus), and its affinities dealt with. Until the recent discovery of a Jacobson's Organ in Vesperugo, the Chiroptera have been considered devoid of such. In Miniopterus the organ attains a very great development, and presents certain features unlike those of any other form hitherto examined. - 5) Observations on a gravid Echidna. By R. Broom, M.B., C.M., B.Sc. From observation on a gravid female the period of gestation is believed to be not more than 26 or 27 days, and certainly not less than 18 days. - 6) Ethnological. - 7) Botanical. - 8) Preliminary Note on the occurrence of a placental connection in the Bandicoot (Perameles obesula): and on the Foetal Membranes of Certain Macropids. By Jas. P. Hill, F.L.S. The author in this preliminary note records the discovery of a true allantoic placenta of the discoidal type in Perameles obesula. The foetal membranes have the same general arrangement as those of Phascolarctus. The allantois consists of a long stalk and a terminal expanded and much flattened vesicular portion. In the stalk the allantoic cavity is reduced to a narrow compressed canal which opens distally into the cavity of the vesicular portion of the allantois. This latter cavity is also greatly compressed, appearing as a long fissure in sections. The mesoderm of the outer surface of the placenta is fused with the mesoderm of the serous membrane, and, not only so, one can no longer make out the ectoderm of the serous membrane as a distinct and independent layer. It seems more probable that the ectoderm of the serous membrane has fused with the uterine mucosa than that it has entirely disappeared. As a consequence of the union of foetal and maternal tissues the uterine wall exhibits certain modifications. The columnar epithelium which lines the non-pregnant uterus has disappeared, and a short distance below the surface of the mucosa groups of large cells, probably of the nature of decidual cells, are present. The allantoic vessels consist of a large vein, on either side of which is a smaller artery. They pass down the allantoic stalk, branch out on the inner or coelomic surface of the vesicular part of the allantois, and then extend round into the mesenchyme of the outer surface of the allantois, where they break up into capillaries. These capillaries become closely applied to the uterine mucosa, and form with it a somewhat irregular interlocking system -- the capillaries dipping down into the substance of the mucosa to form short villous processes. These vascular processes come into close relation with the maternal capillaries which ramify on and near the surface of the mucosa so that transfusion can readily take place between the foetal and maternal blood. - 9) and 10) Botanical. -- Mr. Steel exhibited a vivarium containing six or eight specimens of the N.S.W. *Peripatus* with their progeny, about thirtysix young, born within the past fortnight, after the mothers had been in captivity for about 10 months. The exhibitor stated that he had had the pleasure of witnessing the natural birth of numbers of these young. In the same vivarium was a young *Peripatus*, the survivor of a number born 10 months ago in captivity

## 3. New York Academy of Sciences, Biological Section,

December 9, 1895. - The following papers were presented: - Prof. C. L. Bristol: »The Classification of Nephelis in the United States«. The study of abundant material, collected from Maine to South Dakota, has shown that the color characters cannot be depended upon for specific determination. An examination of the metameral relations of this leech indicate that no more than a single species occurs in this country. - Prof. F. H. Osborn: »Titanotheres of the American Museum of Natural History«. The complete skeleton of Titanotherium robustum is remarkable in possessing but twenty dorso-lumbar vertebrae, a number identical with that typical of the Artiodactyla, but entirely unique among Perissodactyla. It now appears probable that the development of horns in the Titanotheres became a purely sexual character, and that the genera Titanops, Marsh and Brontops, Marsh, are founded respectively upon male and female individuals of Titanotherium robustum. - Dr. J. L. Wortman: »The expedition of 1895 of the American Museum of Natural History«. The Expedition passed into the Unita beds of N. E. Utah, then between the Eastern escarpment of the Unita range and the Green River into the Washakie Beds of S. W. Wyoming, the most important result geologically being that the Brown Park deposit is found to be of much later age than the Unita. Bashford Dean, Rec. Sec.

## III. Personal-Notizen. Necrolog.

Am 26. November 1895 starb in Isleworth (Middlesex) George Edward Dobson, bekannt durch seine monographischen Arbeiten über Chiropteren, Insectivoren und Nager. Er war am 4. September 1844 geboren.

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