

im Semmering, im Preinthal und am Schneeberg nur *temporaria* von den braunen Fröschen vor.

Am 27. August hatte ich in der Einöde bei Baden Gelegenheit, die Begattung der interessanten Locustide *Ephippigera vitium*, die hier auf Schwarzföhren, Hasel-, Eichen-, Weißbuchen- u. dgl. Sträuchern häufig ist, zu beobachten. Die beiden Thiere saßen in einiger Entfernung von einander auf einem Strauch und zirpten aus Leibeskräften. Plötzlich schwiegen beide und das Weibchen sprang mit einem kurzen Satze dem Männchen auf den Rücken, und klammerte sich mit den Tarsen an den Schienen des ♂ fest. Dann hob es das Ende des Abdomens, so daß der Legestachel fast unter einem Winkel von 60° mit der Horizontalen stand und das ♂ hob gleichzeitig sein Hinterende empor und brachte es mit der Genitalöffnung des ♀ in Berührung, wobei es fortwährend Bewegungen auf- und abwärts mit dem Hinterende machte. Endlich kam ein großer Klumpen einer gallertigen Spermamasse aus der Genitalöffnung des ♂ heraus, der von der des ♀ schnell aufgenommen, förmlich eingeschluckt wurde. Dabei betastete das ♀ das ♂ fortwährend mit den Antennen, Kiefer- und Lippentastern und zwar vom Kopfe an zum Rücken zurückgehend, daher schließlich, da hinten fixiert, mit dem eigenen Körper einen Bogen bildend. Als die mehrere Minuten dauernde Begattung zu Ende war, sprang das ♀ ebenso plötzlich, wie es aufgesprungen war, ab und senkte den Legestachel wieder in die Horizontale. Beide Thiere blieben dann noch lange unbeweglich sitzen, augenscheinlich ermattet.

7. The Cerebrum of the Marsupial Mole (*Notoryctes typhlops*).

By Doctor G. Elliot Smith, University of Sydney, Australia.

eingeg. 24. September 1895.

In common with that of all other Marsupials the cerebrum of *Notoryctes* presents the following features:

- a. There is no corpus callosum.
- b. The hippocampus (including the fascia dentata) extends forwards above the commissures to the anterior extremity of the brain, and is curved in conformity with the bending of the hemisphere.
- c. The fornix commissure is bilaminar, consisting of a horizontal dorsal limb (situated in the upper part of the thickened mass of the lamina terminalis, which is the homologue of the septum pellucidum of placental mammals) and a ventral limb (occupying the same relative position as the whole fornix-commissure [psalterium] of the higher mammal i. e. behind and below the representative of the sep-

tum pellucidum'. These two limbs of the commissure meet posteriorly in a »splenium commissurae fornicis« and include between them the thickening of the lamina terminalis, which in higher mammals becomes stretched and otherwise modified by the growing commissure to form the septum pellucidum.

d. The fibres homologous to the corpus callosum (commissura pallii dorsalis) of Eutheria, form part of the anterior commissure (commissura hemisphaerium ventralis) in the Meta-, as also in the Proto-, theria.

e. As there is no proper corpus callosum the anterior extremity of the hippocampus does not atrophy, as it does in the Placentalia to form gyrus supracallosus and striae Lancisii.

f. Associated with the fact that the hippocampus is not disturbed by a dorsal pallial commissure, the fornix is not divided into a *f. longus* and *obliquus*, nor is there any division into psalterium dorsale and ventrale in the sense of Honegger.

g. There is a well marked olfactory ventricle communicating with the anterior horn of the lateral ventricle.

Individual features of the cerebrum of Notoryctes. — It is characterised by the possession of a huge olfactory bulb, which is half as long as the hemisphere proper, and, as in the reptile-brain, is placed entirely in front of (i. e. not overlapped by) the cerebrum.

Associated with the large size of the olfactory bulb, there is a huge tuberculum olfactorium (quadrilateral space of Broca) forming a large hemisphere extending as far as the lateral aspect of the hemisphere.

The large pyriform lobe not only forms the whole of the rest of the basal aspect of the cerebrum but also the greater part of its lateral aspect. The nucleus amygdalae is correspondingly large. In spite of the fact that it forms part of the smell-centre the hippocampus does not appear to be enlarged proportionately to the olfactory bulb.

The pallium (Turner) is relatively much smaller than in any other mammalian brain with which I am acquainted.

Associated with the small size of the pallium the characteristic inrolling and folding of the hippocampus is much slighter and simpler than in any other mammalian (including the monotreme) brain.

In spite of the fact that the pallium is markedly smaller, both actually and relatively, than the corresponding structure in both Monotremes, the bending of the hemisphere is developed to a much greater extent in the Marsupial. As a consequence of this bending the

vallecula Sylvii and the eminentia natiformis are much more distinct than in the Prototherian cerebrum.

The cerebrum of *Notoryctes* resembles that of *Perameles nasuta* more than that of any other marsupial, a fact to be explained by a functional resemblance rather than by any relationship between the two animals. In its histological features it closely resembles such lowly marsupials as *Perameles* and *Dasyurus*, an account of whose cerebrum I shall shortly publish.

A fuller account of this brain, with figures was sent to the Royal Society of South Australia in May last, and will probably be published towards the end of the year.

II. Mittheilungen aus Museen, Instituten etc.

1. Zoological Society of London.

19th November, 1895. — The Secretary read a report on the additions that had been made to the Society's Menagerie during the months of June, July, August, and September, 1895. — A letter was read from Mr. J. H. Gurney, F.Z.S., respecting a Kingfisher (*Alcedo Bearani*) which had been lately ascertained to be a permanent resident in some parts of Ceylon. — Mr. Sclater gave a short account of the principal animals he had noticed in the Jardin d'Acclimatation and Jardin des Plantes at Paris during a recent visit. — Mr. Sclater exhibited and made remarks upon the skin of a Zebra from Nyasaland, obtained by Mr. R. Crawshay, and a remarkably fine pair of horns of a male Livingstone Eland (*Oreas canna Livingstonei*), which Mr. H. H. Johnston, C.B., F.Z.S., had offered for the Society's acceptance. The animal had been shot by one of Mr. Johnston's hunters in 1893 between Zomba and Lake Chilwa. — Col. L. H. Irby, F.Z.S., exhibited and made remarks on two British-killed specimens of the Greater Bullfinch (*Pyrrhula major*). — Mr. W. T. Blanford, F.R.S., exhibited and made remarks on skins of *Capra sibirica* and of *Ovis ammon* killed by Major Cumberland in the Altai Mountains. — A communication was read from Mr. Swale Vincent, containing contributions to the comparative anatomy and histology of the supra-renal capsules. In the present paper Mr. Vincent described the naked-eye and microscopical anatomy of the supra-renal bodies in the different orders of Fishes. He was inclined to the view that supra-renal bodies are present in all the Elasmobranchii, Holocephali, Ganoidei, and Teleostei, and probably also in the Dipnoi. The supra-renal bodies of fishes were in their essence »secreting glands«, as the mammalian organ was now supposed to be. There was no relation whatever, in Mr. Vincent's opinion, between the supra-renals and the lymphatic head-kidney. In the great majority, at any rate, of Teleosteans they were both present in a well-developed condition. — Mr. Gerard W. Butler, F.Z.S., read a paper on the complete or partial suppression of the right lung in the Amphisbaenidae, and of the left lung in Snakes and snake-like Lizards and Amphibians. The author gave particulars as to the relative development of the right and left lungs in a large number of Amphisbaenidae and other snake-like Lizards and Snakes and limbless Amphibians, which appeared to

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