entwickeln sich aus ihnen durch einen Faltungsproceß die Genitalorgane, so daß sie dann schließlich auch die Function von Leitern der Geschlechtsproducte haben. Sowohl der Bau der Excretionsorgane als auch die Bildung des Genitalapparates und die Entwicklung der Sexualproducte ist bei den Priapuliden demnach völlig verschieden von den andern Gephyreen, wodurch eine ziemlich weite Kluft zwischen ihnen geschaffen wird, so daß das System derselben hierdurch vielleicht modificirt werden müßte, wie es ja bereits von Hatschek versucht wurde.

6. Note upon the cerebral commissures in the lower Vertebrata and a probable fornix rudiment in the brain of Tropidonotus.

By Dr. Henry F. Osborn, Princeton, New-Jersey, U. S. A.

eingeg. 12. September 1886.

The further study of the cerebral commissures has confirmed in most particulars the observations which I published in an April number of the Zoologischer Anzeiger[1].

The corpus callosum is present in the Amphibia and Sauropsida. From the close homology between the Amphibian and Dipnoan brain, observed in *Protopterus* by Rabl-Rückhard and Fulliquets, and by myself in an embryo *Ceratodus*, I anticipate that the corpus callosum will also be found in the Dipnoi and that in these forms we shall be able to trace the transition to the commissura interlobularis in the brain of the lower fishes. This is probably homologous with both the anterior commissure and corpus callosum.

The pars olfactoria of the anterior commissure seems to be wanting in the Chelonia (*Emys*) and Aves (*Anas* and *Columba*) but is well developed in the Ophidia (*Tropidonotus*). Associated with this in the latter genus is a distinct bundle supplying the anterior portion of the hemisphere mantle. This division, which attains a great development in the Marsupial brain, may be called the pars frontalis.

The corpus callosum in *Emys* extends upwards in the inner wall of the lateral ventricle and divides. The larger division spreads over the inner wall, the smaller division extends backwards above the foramen of Monro and downwards along the hippocampal fold. This is homologous with the commissura cornu ammonis. This observation, supported by the development history of the cerebral commissures in the Marsupial brain prove that the above commissure is primitively a portion of the corpus callosum and only secondarily united with the fornix.

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[1] See also the Morphologisches Jahrbuch 12. Bd. August.

In the communication published in April I remarked upon the improbability of Rabl-Rückhard's suggestion (Zool. Anzeiger 1881, p. 281) that a commissure in the roof of the ventriculus communis in the Reptilian brain represents the fornix. His hypothesis proves to be untenable on several grounds[2]. The brain of *Tropidonotus* has a very large anterior commissure and a distinct but feebly developed corpus callosum. In transverse sections, through the terminal plate, we observe the pars olfactoria below, then the pars temporalis and at some distance above this, the corpus callosum. At either side of the corpus callosum are distinct vertical tracts which pass above into the callosal bundle and probably unite with the commissura cornu ammonis. Below, they descend behind the anterior commissure. These tracts probably represent the columns of the fornix. This conclusion is founded upon the close resemblance between the relations of the fibre tracts above described and those observed in the embryo mammalian brain. I hope soon to procure more complete sections which will enable me to confirm this interesting observation.

August, 27th 1886.

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[2] Morphol. Jahrbuch 12. Bd. p. 250.

III. Mittheilungen aus Museen, Instituten etc.

1. Linnean Society of New South Wales.

30th June, 1886. — 1) Note on Ctenodax Wilkinsoni. By William Macleay, F.L.S., etc. It is here explained that the fish described by Mr. Macleay under the above name has been ascertained by Dr. Ramsay of the Australian Museum to be closely allied to *Tetragonurus Cuvieri* of Risso. Some remarks are also made on the habits and affinities of the fish. — 2) Geological. — 3) Notes on Australian Earthworms. Part I. By J. J. Fletcher, M.A., B.Sc. Up to the present time but three Australian Earthworms have been described, *Lumbricus Noræ-Hollandiæ*, Kinberg, and *Digaster lumbricoides*, Perrier, from N.S.W., and *Megascolides australis*, McCoy, from Victoria. In this paper a fuller account is given of Kinberg's species, and descriptions are given of six new or undescribed worms from the rich volcanic soil of Burrawang and of Mt. Wilson. Of these, two species (*P. Coxii* and *P. australis*) are referred to Schmarda's genus *Perichæta;* two others (*N. Camdenensis* and *N. grandis*) are included in a new intraclitellian genus *Notoscolex*; a fifth (*Didymogaster silvaticus*) also is intraclitellian but differs from *Notoscolex;* and the sixth (*Cryptodrilus*) is postclitellian, with eight rows of setæ, but is different from *Digaster*. Three of these, as far as is known at present, occur only at Burrawang, one at Mt. Wilson only, one is common to both localities as well as Sydney, and one occurs at Burrawang, Springwood and Jervis Bay. Mr. Fletcher has heard of the occurrence of worms, some of them very large, in the Hunter and Manning River districts, and probably these, as well as Illawarra, the Richmond and Clarence districts