

The sac containing the larvæ is about three fourths of an inch long and half an inch broad, with a short tubular prolongation open at the extremity. It was uncertain whether the sac formed part of the intestine.

The dish of stewed terrapins was suspected to have been a mixture of the diamond-back, *Emys palustris*, and the red-bellied terrapin, *E. rugosa*. This is not the only instance of the occurrence of bots in turtles, as Prof. A. S. Packard notes the case of larvæ being found in the skin of the neck of the box-turtle, *Cistudo carolina* \*. —*Proc. Acad. Nat. Sci. Philad.* December 13, 1887, p. 393.

*A new Member of the Deep-water Fauna of the Freshwater Basins.*  
By Dr. O. E. IMHOF.

In my first deep-water investigations in the summer of 1883 and during the continuation of these studies I regularly found in a number of lakes (*e. g.* the Lake of Zurich) a fine, transparent, setigerous worm, of which permanent preparations were made from specimens obtained in the Lungeno lake, where it was particularly plentiful, on the 17th March, 1884. I paid no particular attention to it, because from its abundance and the remarkable facilities offered by the nature of its body for exact investigation I regarded it as certainly already described. Zeppelin's memoir upon *Ctenodrilus monostylos* furnished the inducement to examine this Chætopod more carefully. It is a form which can hardly be ranged in any known genus. It comes near to the genera *Ctenodrilus* and *Parthenope*, of which only marine species are known.

According to Forel, Duplessis, and Grube the following Chætopoda occur in the deep-water fauna of lakes:—*Tubifex rivulorum*, Lamk.; *T. velutinus*, Grube; *Clitellio Lemani*, Grube=*Bythonomus Lemani*, Gr.=*B. profundus*, Dupl.=*Lumbriculus pellucidus*, Dupl.

Noticeable anatomical peculiarities of the new form are:—

There is no ciliary coat on the surface of the body. The setæ exist only in one series of tufts on each side, directed towards the ventral surface. The setæ are thin, straight nearly to both ends, where they are slightly bent in opposite directions, and cleft into a fine fork at the free end. At rather more than one third of the length we find a slight enlargement of the part immersed in the body. I have not hitherto found individuals with generative organs, but, on the contrary, always multiplication by division. The body externally appears to be composed only of four segments, each of which bears two tufts of from four to six setæ. All the setæ are of similar structure. The nervous system is distinctly developed. It consists of a cerebral ganglion situated above the wide, thin-walled, anterior division of the digestive canal; this is of a broad band-like form with a slight constriction in the middle.

\* 'American Naturalist,' 1882, p. 598.



The œsophageal commissures are pretty strongly developed. The ventral cord presents two closely approximated longitudinal commissures, with a considerable number of ganglionic dilatations, which are in part not very sharply marked off, extending as far as the extremity of the posterior segment of the body. The whole nervous system lies in the body-cavity, not imbedded in the body-wall, as is the case in *Ctenodrilus* and *Parthenope*.

So much for the preliminary characterization of this interesting Chætopod, which measures a few millimetres in length. I name it *Vetrovermis hyalinus*, nov. gen. et spec. As a locality of considerable elevation I may cite the lake of St. Moritz in the Upper Engadine.—*Zoologischer Anzeiger*, no. 270, January 23, 1888, p. 48.

On *Psorospermium Hæckelii*.

By Dr. OTTO ZACHARIAS.

Years ago (1855) Hæckel, during a microscopic examination of the tissues of the freshwater crayfish, discovered a peculiar parasite, which does not appear to have been since frequently observed. Grobben \* (1877) again found it in the connective parts of the testis in *Astacus*, and recently (1883) Hilgendorf † also observed it, especially in the vicinity of the thoracic chain of ganglia in the crayfish. "In order to fix the structure in question by a definite name" the last-mentioned author has proposed the designation *Psorospermium Hæckelii*.

Last summer (1887) I frequently met with the sporozoon in question during the investigation of Silesian crayfish, and I ascertained its presence also in examples from Galicia (Tarnopol). It must therefore be a generally distributed parasite, but one which does no injury to its host. The specimens of *Astacus* examined by me were apparently quite healthy.

The organisms under consideration possess an elongated oval form and are sharply marked off from the tissues of their host by a firm cuticle. Their longitudinal diameter measures about 0.180 millim., their greatest breadth only 0.040–0.050 millim. Their thickness is also very small. They are flat, tongue-shaped structures, which may be met with in many thousands in a single individual crayfish. It is not impossible that when they increase to too great an extent they may cause epidemics among the crayfish. At any rate it will be advisable to examine (microscopically) from this point of view the tissues of diseased *Astaci*.

According to my observations *Psorospermium Hæckelii* occurs less frequently in young than in old crayfish. I have thoroughly examined all the tissues of individuals two inches long, and found nothing. When on the point of desisting from the microscopic examination I remembered that the eyes of the animals had been

\* 'Beitr. zur Kenntn. d. männl. Geschlechtsorg. der Decapoden,' &c., 1878.

† Ber. Gesellsch. naturf. Freunde in Berlin, Sitz. am 20 Nov. 1883.



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