Insecta.

Corethra plumicornis Fabr.

Obgleich das Verzeichnis noch keinen Anspruch auf Vollständigkeit machen kann, glaube ich dennoch schon aus demselben schließen zu können, daß das Potamoplankton der Wolga dem der westeuropäischen Flüsse[1] im Ganzen sehr nahe steht.

2. Carinoma Tremaphoros, a new Mesonemertean Species.

By Caroline B. Thompson, B. S., Fellow in Zoology, University of Pennsylvania, Philadelphia, U. S. A.

(With 1 fig.)

eingeg. 12. November 1900.

While collecting at Wood's Hole, Mass., in July, 1900, one specimen of this *Carinoma* was taken. It is of especial interest, at it is the first time this genus has been found in North America. In size and shape it greatly resembles the heteronemertean *Zygeupolia litoralis* Thompson, which is very abundant in this locality, but differs in its flattened truncated head, paler color and absence of caudicle.

Carinoma.

Generic characters according to Bürger. Anterior end of body not thickened but tapering. Mouth directly behind brain. A thick inner circular muscle layer is present. Nephridia occur.

Carinoma tremaphoros n. sp.

External characters. Length about 12 cm, width 3 mm. Color: head white, with opaque longitudinal striations, body buff, intestinal diverticula and gonads showing as dark cross lines, tail end clear, whitish, absence of intestinal diverticula very marked. Head flattened, in life slightly constricted from body, anterior end rounded. Proboscis pore subterminal, ventral. Body rounded anteriorly, posterior part flattened and tapering.

Internal anatomy from sections. Mouth small, directly behind brain. Alimentary canal in three parts, anterior intestine, middle intestine with diverticula, posterior intestine (Enddarm) about 3 mm in extent, no diverticula. Brain: little differentiation of dorsal and ventral lobes, commissures long and stout, dorsal about one-fourth as thick as ventral.

[1] O. Zacharias, Das Potamoplankton. (Zool. Anz. No. 550. 1898.) — O. Zimmer, Über thierisches Potamoplankton. (Biol. Centralbl. Bd. XVIII. 1898.) — S. Prowazek, Das Potamoplankton der Moldau und Wotawa. (Verhandl. d. k. k. zool.-bot. Gesellsch. in Wien. Bd. XLIX. 1899.)

Oesophageal nerves arise close behind ventral commissure and, while still connected with brain lobes form a delicate commissure; a few sections farther back a second stouter commissure occurs between the two nerves. The lateral nerves lie outside of the outer circular muscle in the head region, in and then within the outer circular muscle in the forward part of anterior intestinal region, finally they come to lie in the longitudinal muscle, and continue in this position to the end of the body.

Dermal sense organs: twelve small sensory pits are found on the dorsal surface of the head in the median line. The first occurs eight sections behind the tip of the head, the twelfth, above the ventral commissure. The sense organ is a circular pit (s. p. Fig. 1), sunken

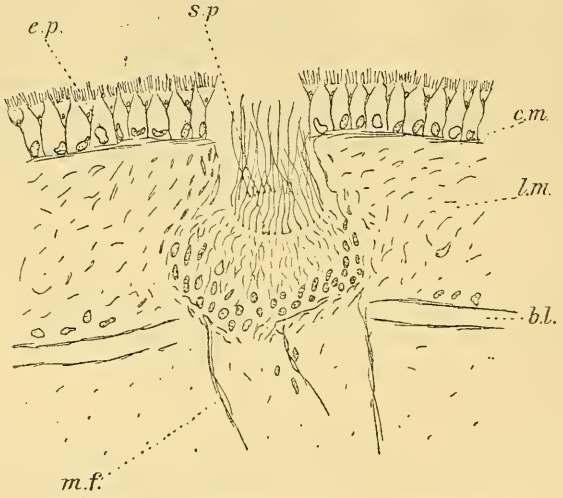

Fig. 1. (Zeiss Oc. 4., Obj. D.) Transverse Section of Sensory Pit. *e.p.* epithelium, *s.p.* sensory pit, *c.m.* circular muscle fibres, *l.m.* longitudinal muscle fibres, *b.l.* basement layer, *m.f.* muscle fibres.

below the surface of the skin, in which are long slender cells with nuclei at their basal ends and terminating in long cilia. I have not as yet been able to trace the innervation of the sensory pits, except in one case where I observed a nerve arising from the dorsal commissure and running dorsally, towards the pit above it.

Blood system: four lacunae communicating in tip of head farther back become two, which unite in a ventral commissure in brain region. From the ventral commissure, the two lateral trunks and an unpaired median ventral branch, oesophageal vessel, arise. The oesophageal branch soon divides into two vessels which reunite with the lateral trunks behind the mouth. The two »lateral rhynchocoel vessels« arise

from the lateral trunks just anterior to the commissure, the two »rhynchocoel vessels«, from the lateral trunks just behind the junction of the oesophageal vessels. These two pairs of vessels are of short extent, fusing again with the lateral trunks, respectively at, and anterior to the nephridial region. The lateral vessels extend throughout the body and are united in the tail region by broad commissures running dorsal to the intestine. Nephridia, a single pair, anterior part consists of about twenty terminal bulbs. The excretory duct runs backwards, doubles on itself, runs forward and opens to exterior by a single pore.

The inner circular muscle layer becomes very greatly thickened and ends in nephridial region, just in front of the beginning of the middle intestine. A thin outer longitudinal muscle layer is present for a short distance in head region, it eases after the lateral nerves have moved into the circular muscle. Rhynchocoel extends throughout body, proboscis sheath musculature slight or absent in anterior part of body. The gonads occupy usual position, between the pouches of the middle intestine. The specimen found was a mature male, with the spermatozoa partly discharged. It will be seen from the above description that *Carinoma tremaphoros* resembles *C. Armandi* (M'Int.) Oud. in many respects, but the considerable difference in the blood system, the slight differences in size, in the oesophageal nerves, the nubmer of terminal bulbs of the nephridia, and the greater thickness of the inner circular muscle layer, and, especially, the presence of the twelve dermal sensory pits have led me to make this a new species. The sensory pits are so apparent, even with a very low power, that I cannot believe they could have been overlooked in the European species.

The differences between *C. tremaphoros* and *C. patagonica*, the South American species, are in size, in the blood systems, in the nephridia, the terminal bulbs occurring in greater numbers and projecting farther into the wall of the blood vessel in *C. patagonica*, and in the sensory pits of *C. tremaphoros*.

In several places in the nephridium where the ducts leading to the terminal bulbs had been cut obliquely, it appeared as if there were an opening between the excretory duct and the blood vessel, but by means of adjoining sections these ducts may be traced to their terminal bulbs. It was no doubt such appearances as these that led Oudemans to describe the open communications between nephridium and blood vessel in *C. Armandi*. I am able to corroborate Bürger's view that this does not exist.

I would thank Dr. T. H. Montgomery, Jr., for his advice and criticism of my work.

Litterature.

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3. A Propos des „Doppelmännchen".

Par H. W. Brölemann.

eingeg. 12. November 1900.

En même temps que paraissait dans les Annales de la Société Entomologique de France (LXIX. 1900. p. 73—81) mon article sur les myriapodes cavernicoles en voie de transformation, mon collègue et ami, le Dr. C. Verhoeff, publiait dans ces mêmes pages (Zool. Anz. No. 623. p. 465—473) une très intéressante observation sur une migration de *Schizophyllum sabulosum*. Et, à ce propos, répondant à une question que j'avais posée antérieurement (Bull. Soc. Zool. France, XXV, p. 63), il s'est prononcé en faveur d'une opinion qui ne me parait pas justifiée et que je ne saurais partager.

Etablissons les faits:

Les mâles de certaines formes d'Iulides présentent deux modes de développement, aboutissant à deux états différents. Dans l'un de ces états les mâles, de taille plus grande et comptant un nombre de segments plus élevé que ceux de l'autre état, offrent en outre cette particularité de passer, au cours de leur croissance, par un stade (Schaltstadium) qui semble manquer chez leurs congénères. D'après les observations de Verhoeff cette sorte de mâles (à laquelle il donne le nom de *forma elongata*, par opposition à celui de *forma typica* appliquée aux autres) parait se rencontrer plus fréquemment dans les localités alpines d'une certaine altitude ou sur les points les plus élevés d'une région de collines ou de basses montagnes.

Verhoeff et moi avons dès l'abord cherché la cause de cette différence dans les conditions extérieures qui président à la croissance de l'animal, et qui peuvent influer sur la maturation de ses organes de reproduction; mais nous en sommes arrivés à émettre des opinions absolument dissemblables, savoir: