allowed to form an opinion from what is known (see especially Vejdovsky, »Entwick. Untersuch.«) to happen in the aquatic Oligochaeta: nevertheless, we must still endeavour to find out these facts for the Earthworms. No amount of argument much less imaginings from insecure premises, can settle the matter: only direct and accurate observation will satisfy Zoologists.

December 28, 1893.

4. Rotifers related to Euchlanis lyanceus, Ehrbg.

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eingeg. 2. Januar 1894.

In recent numbers of the Zoologischer Anzeiger have appeared articles by Jägerskiöld (Zool. Anz., Sept. 25, 1893) and Wierzejski and Zacharias (Zool. Anz., Nov. 13, 1893) setting forth the synonymy of the Euchlanis lyanceus of Ehrenberg and of other species of the same genus. The list of synonyms requires, it seems to me, some additions.

While studying the Rotifera of some of the inland lakes of Michigan in the summer of 1892 and of Lake St. Clair in the laboratory of the Michigan State Fish Commission in the summer of 1893, I found in great abundance the form described by Wierzejski and Zacharias in the Zeitschrift für wiss. Zoologie, Bd. 56, Heft 2, as Bipalpus lyanceus, Ehrbg. Comparison with the descriptions given by Herrick of Ploesoma lenticulare (Bulletin of the Scientific Laboratories of Denison University, Vol. I. No. I, 1885) and by Vorce of Gomphogaster areolatus (Proceedings of the American Society of Microscopists, 1882 and 1887) showed an agreement in all essential points — though both descriptions are incomplete, especially that of Vorce. In order to remove all doubt as to the identity of my specimens with those of Vorce, I sent mounted specimens of the form to Dr. Vorce, who very kindly compared them with his own mounted specimens and sent me photographs taken from the type specimen of Gomphogaster and from other specimens of the same species.

He reports that there is not the slightest doubt of the identity of my specimens with his own. Hudson, even in the absence of specimens, recognized the identity of Gomphogaster areolatus, Vorce, and Ploesoma lenticulare, Herrick (Monograph of the Rotifera, Supplement, p. 58). Moreover, the agreement of this form with the Bipalpus lyanceus of Wierzejski and Zacharias is so minute that there can be no question as to their identity. Jägerskiöld (l. c.) recognizes the identity of Gastroschiza foveolata with Bipalpus lyanceus. A complete
chronological list of the names under which this rotifer has been described or mentioned is as follows.

Euchlanis lymphicus, Ehrbg., 1838.


Gastropus Ehrenbergii, Imhof, 1888. (Zool. Anz., Bd. 11, p. 166.)
Gastrochiza lymphicus (Ehrbg.), Bergendal, Sept. 17, 1892. (Lunds Universitets Arsskrift, Tom 28.)


Bipalpus lymphicus (Ehrbg.), Wierzejski and Zacharias, Nov. 25, 1892. (Zeitschr. f. wiss. Zool., Bd. 56, p. 236.)

To these is to be added the generic name Dictyoderma, Lauterborn (Spengel’s Zool. Jahrb., Bd. 7), recently given to another species of the same genus.

From the above it appears that the generic name Ploesoma of Herrick, has the priority. If it be held, with Wierzejski and Zacharias, what I believe to be true, that this is the Euchlanis lymphicus of Ehrenberg, we have the following synonymy for the species of this genus.

Ploesoma, Herrick.

1) P. lymphicus, Ehrbg.

Syn. — Ploesoma lenticulare, Herrick; Gomphogaster areolatus, Vorce; Gastropus Ehrenbergii, Imhof; Gastrochiza lymphicus, Bergendal; Gastrochiza foveolata, Jägerskiöld; Bipalpus lymphicus, Wierzejski and Zacharias.

If it be held that this is not the Euchlanis lymphicus of Ehrenberg, then Herrick’s name Ploesoma lenticulare has the priority, and the names Gastropus Ehrenbergii, Imh., and Gastrochiza lymphicus, Bergendal, should perhaps be stricken from the list of synonyms of this species.

2) P. triacanthum, Bergendal.
3) P. Hudsoni, Imhof.

Syn. — Gastrochiza flexilis, Jägerskiöld; Bipalpus vesiculosus, Wierz. and Zach.; Dictyoderma hypopus, Lauterborn.

This species is also found in Lake St. Clair, though it is rare.

The fourth supposed species of this genus, Gastropus stylifer, Imh., Hudsonella picta, Zach., Notops pygmaeus, Calman, is very abundant in Lake St. Clair. It has of course been pointed out that this is not a member of the genus under consideration.

University of Michigan, Morphological Laboratory. Dec. 16, 1893.