

- opposite side. In the brain there exists a powerful commissural system, from which portions reach laterally into the powerful optic-ganglia.
16. The ganglion-cell-layers are thickenings of the superficial layer. Inner ganglionic nuclei do not exist. The small-celled ganglion formation of the cap-shaped hinder lobe answers to the fungus-like structure on the brain of the higher Crustacea and insects.
 17. The optic-fibres of the lateral eye and of the frontal eye run in planes that cross at nearly a right angle.
 18. Each eye is surrounded by a firm sheath, the continuation of the outer nerve-sheath of the brain, which also wraps itself over the front surface, and before each complex of two crystal cone-cells between the rounded vesicles of their nuclei contains two flat oval nuclei.
 19. The cuticular cornea is not derived from the crystal cone-cells, but from a special hypodermis-layer separated from those cells by the eye-sheath, and is renewed at the time of exuviation.
 20. The eye continuously increases in extent with the growth of the body, by the formation of new peripheral elements.
 21. The objection to the possibility of mosaic vision based on the form of the crystal cone is thoroughly untenable. [At p. 72, Claus expresses his agreement with Grenacher's opinion, that the Hyperidæ are not dim-sighted.]
 22. At the ovary there is a special germinal layer. The geniculate terminal section of the oviduct ends with a sack-like expansion in a seminal pocket.
- Of parasites, Claus found in the crop of *Phronima* and *Phronimella* almost constantly a little oval Gregarine, free or encysted; more rarely, in the body-cavity of *Phronima*, embryos of *Echinorhynchi*, and sometimes in the brain a young Nematode, spirally rolled.
- To judge by the short list of literature on page 81, Claus was unacquainted with the papers on the pelagic Amphipoda by Dr. T. H. Streets, which are dated 1877 and 1878.

1879. CLAUS, C.

Die Gattungen und Arten der Platysceliden in systematischer Übersicht. Wien, 1879. (Separat-Abdruck aus den Arbeiten des Zoolog. Instituts zu Wien, Tom. II., Heft 2.)

This work, which has been since its publication the leading authority on the group with which it deals, is practically embodied, though with a few modifications, in the larger and finely illustrated work by the same author published this year (1887).

It is noticed that in external form the Platyscelidæ show an astonishing number of gradations from the egg-like Typhidæ to the rod-like Oxycephalidæ. The common features are to be found in the structure of the antennæ in the male and of the fifth and sixth thoracal legs (third and fourth pereopods) in both sexes. Five families are established, in two divisions, division A. containing the Typhidæ and Scelidæ, division B. the Pronoidæ, Lycæidæ and Oxycephalidæ. In 1887 the Lycæidæ form a separate division.

The Typhidæ contain five genera:—1. *Eutyphis*, taking the place of *Typhis*, Risso, preoccupied, and having in the synonymy “(*Thyropus*, Dana, Sp. Bate ♂ = *Dithyrus* Dana ♀, *Platyscelus* Sp. Bate ♀),” of which names *Dithyrus*, Dana, must take precedence of *Eutyphis*. In this genus both pairs of gnathopods have compound chelæ, the two end-joints of the hinder antennæ in the male are very much shorter than the two preceding joints, and the lobes of the maxillipeds (Unterlippe) are slightly concave on the inner edge. The species assigned to it are—1. *ovoides*, Risso (including *Platyscelus serratus*, Sp. Bate (♀), and *Thyropus ovoides*, Sp. Bate (♂)); 2. *armatus*, n. s.; 3. *serratus*, n. s.; 4. *globosus*, n. s. In 1887 Claus adds “*E. inermis* Cls. (*Dithyrus Faba* Dana?).”