

The most original feature of the classification of von Siebold is the adoption of the types Protozoa and Vermes, in the sense in which they are limited here. The type of Worms has grown out of the investigations of the helminthologists, who, too exclusively engaged with the parasitic Worms, have overlooked their relations to the other Articulata. On the other hand, the isolation in which most entomologists have remained from the zoölogists in general, has no doubt had its share in preventing an earlier thorough comparison of the Worms and the larval conditions of Insects, without which the identity of type of the Worms, Crustacea, and Insects can hardly be correctly appreciated. Concerning the classes¹ adopted by von Siebold and Stannius, I have nothing to remark that has not been said already.

CLASSIFICATION OF R. LEUCKART.

The classification of Leuckart is compiled from the following work: LEUCKART, (R.) Ueber die Morphologie und die Verwandtschaftsverhältnisse der wirbellosen Thiere, Braunschweig, 1848, 1 vol. 8vo.

- I. COELENTERATA, Lkt.
- CL. 1. Polypi. Ord. Anthozoa and Cylicozoa (Lucernaria.)
- CL. 2. Acalephæ. Ord. Discophoræ and Ctenophoræ.
- II. ECHINODERMATA, Lkt.
- CL. 3. Pelmatozoa, Lkt. Ord. Cystidea and Crinoidea.
- CL. 4. Actinozoa, Latr. Ord. Echinida and Asterida.
- CL. 5. Scytodermata, Brmst. Ord. Holothuriæ and Sipunculida.
- III. VERMES.
- CL. 6. Anenterati, Lkt. Ord. Cestodes and Acanthocephali. (Helminthes, *Burm.*)
- CL. 7. Apodes, Lkt. Ord. Nemertini, Turbellarii, Trematodes, and Hirudinoi. (Trematodes, *Burm.*)
- CL. 8. Ciliati, Lkt. Ord. Bryozoa and Rotiferi.
- CL. 9. Annelides. Ord. Nematodes, Lumbricini, and Branchiati. (Annulati, *Burm.*, excl. Nemertinis et Hirudineis.)
- IV. ARTHROPODA.
- CL. 10. Crustacea. Ord. Entomostraca (Neusticopoda Car.) and Malacostraca.
- CL. 11. Insecta. Ord. Myriapoda, Arachnida, (Acera, Latr.), and Hexapoda.
- V. MOLLUSCA, Cuv. (Palliata, Nitzsch.)
- CL. 12. Tunicata. Ord. Ascidiæ (Tethyes Sav.) and Salpæ (Thalides Sav.)
- CL. 13. Acephala. Ord. Lamellibranchiata (Cormopoda Nitzsch, Pelecypoda Car.) and Branchiopoda.
- CL. 14. Gasteropoda. Ord. Heterobranchia, (Pteropoda, Inferobranchia, and Tectibranchia,) Dermatobranchia, (Gymnobranchia and Phlebenterata,) Heteropoda, Ctenobranchia, Pulmonata, and Cyclobranchia.
- CL. 15. Cephalopoda.
- VI. VERTEBRATA. (Not considered.)

¹ The names of the types, Protozoa and Vermes, are older than their limitation in the classification of Siebold. That of Protozoa, first introduced by Goldfuss, has been used in vari-

ous ways for nearly half a century, while that of Worms was first adopted by Linnaeus, as a great division of the animal kingdom, but in a totally different sense.