

proles medusina,¹ and whether they separate or remain connected, their structural relations are everywhere the same. A comparison of Hydractinia, which is the most common and the most polymorphous Hydroid, with our common Portuguese Man-of-War (*Physalia*), may at once show the homology of their most polymorphous individuals.

The embryology of Mollusks has been very extensively investigated, and some types of this branch are among the very best known in the animal kingdom. The natural limits of the branch itself appear, however, somewhat doubtful. I hold that it must include the Bryozoa,² which lead gradually through the Brachiopods³ and Tunicata to the ordinary Acephala, and I would add, that I have satisfied myself of the propriety of uniting the Vorticellidæ with Bryozoa. On the other hand, the Cephalopods can never be separated from the Mollusks proper, as a distinct branch; the partial segmentation of their yolk no more affords a ground for their separation, than the total segmentation of the yolk of Mammalia would justify their separation from the other Vertebrata. Moreover, Cephalopods are in all the details of their structure homologous with the other Mollusks. The Tunicata are particularly interesting, inasmuch as the simple Ascidians have pedunculated young, which exhibit the most striking resemblance to *Boltenia*, and form, at the same time, a connecting link with the compound Ascidians.⁴ The development of the Lamellibranchiata seems to

¹ I shall show this fully in my second volume. Meanwhile, see my paper on the structure and homologies of Radiata, q. n., p. 20.

² ALLMAN, (G. J.) On the Present State of our Knowledge of the Fresh Water Polyzoa, Proc. Brit. Asso. Adv. Sc., 20th Meet., Edinburgh, 1850, p. 305. — Proc. Irish Ac. 1850, vol. 4, p. 470. — Ibid., 1853, vol. 5, p. 11. — VANBENEDEN, (P. J.) Recherches sur l'Anatomie, la physiologie et le développement des Bryozoaires qui habitent la côte d'Ostende, Nouv. Mém. Ac. Brux., 1845, vol. 18. — DUMORTIER, (B. C.) et VANBENEDEN, (P. J.) Histoire naturelle des Polypes composés d'eau douce, Mém. Ac. Brux., 1850, vol. 16, 4to. fig. — HINCKS, (TH.) Notes on British Zooplutes, with Descriptions of some New Species, Ann. and Mag. Nat. Hist., 2d ser., 1851, vol. 8, p. 353. — EHRENBURG, (C. G.) Die Infusionsthier als vollkommene Organismen, Leipzig, 1838, 2 vols. fol. fig. — STEIN, (F.) Infusionsthier auf ihre Entwicklungsgeschichte untersucht, Leipzig, 1854, 1 vol. 4to. fig. — FRANTZUS, (AL. V.)

Analecta ad Ophrydii versatilis historiam naturalem, Vratislav, 1849. — LACHMANN, (C. F. J.) Ueber die Organization der Infusorien, besonders der Vorticellen, Müller's Arch., 1856, p. 340. Having satisfied myself that the Vorticellidæ are Bryozoa, I would also refer here to all the works on Infusoria in which these animals are considered.

³ I see from a short remark of Leuckart, Zeitsch. f. wiss. Zool., vol. 7, suppl., p. 115, that he has also perceived the close relationship which exists between Brachiopods and Bryozoa.

⁴ SAVIGNY, (J. C.) Mémoires sur les Anim. sans Vertèbres, etc. q. n. — CHAMISSO, (AD. A.) De animalibus quibusdam e classe Vermium Linnæana, Fasc. 1, De Salpa, Berol., 1819, 4to., fig. — MEYER, (F. J.) Beiträge zur Zoologie, etc., 1st Abth., über Salpen, Nov. Act. Nat. Cur. 1832, vol. 16. — EDWARDS, (H. MILNE.) Observations sur les Ascidiées composées des côtes de la Manche, Paris, 1841, 4to., fig. — SARS, (M.) Beskrivelser, q. n. — Fauna litt., q. n. — VANBENEDEN, (P. J.) Recherches sur