

young. It should be remembered that throughout this portion of the work the Crustacea in general are dealt with, and that therefore, when the Edriophthalma are not being described in especial, many of the observations made are calculated to throw light upon their structure.

In the chapter on classification, after noticing earlier systems, Milne-Edwards explains his own. He prefers the zoological method which is not daunted by great differences of structure from grouping animals of high organization with others in which it may be far less complex, yet of the same general type and recalling "les états transitoires par lesquels les êtres les plus parfaits de la série ont passé pendant la durée de leur vie embryonnaire." He gives the definition of the class as follows:—

"Crustacés. Animaux ayant le corps divisé en anneaux, en général très-distincts, mobiles et d'une consistance assez grande (cornés ou calcaires), sans squelette intérieur proprement dit, et portant une double série de membres, presque toujours bien distinctement articulés, et constituant des antennes, des mâchoires, etc., et des pattes dont le nombre est, le plus ordinairement, de cinq ou de sept paires; le système nerveux, en général bien distinct, ganglionnaire et longitudinal; la respiration en général aquatique, et se faisant toujours à l'aide de branchies ou de la peau; la circulation, en général bien distincte; presque toujours un cœur aortique et des vaisseaux sanguins propres; les sexes séparés." p. 231.

He makes three subclasses, namely the Crustacés maxillés, Crustacés suceurs, and Crustacés xyphosuriens. The first of these he subdivides into various legions, the first of which, les Podophthalmiens, contains two orders, the Decapods and Stomapods, while the second, les Edriophthalmes, contains three orders, the Amphipods, Isopods, and Læmipods.

It is in treating of the Decapods, p. 243, that he mentions the designations which he says are often applied to the six joints into which the ambulatory foot is commonly divided. These terms are 1. *hanche*, 2. *trochanter*, 3. *cuisse* or *bras*, 4. *jambe* or *carpe*, 5. *metatars*, 6. *tarse* or *doigts*. The last two of these sometimes, "disposés en manière de pince," form a hand (*main*).

The Atlas, plate xi. fig. 1, repeats the diagram of the nervous system of *Talitrus* given in the earlier work.

#### 1834. ROUSSEL DE VAUZÈME, AUGUSTUS.

MÉMOIRE sur le *Cyamus ceti* (Latr.) de la classe des Crustacés. Annales des Sciences Naturelles. Rédigées pour la Zoologie par MM. Audouin et Milne-Edwards. Seconde Série. Tome premier.—Zoologie. Paris, 1834. pp. 239–255. 257–265. Pls. 8. 9. Fig. 19.

The author explains that he was able to study these parasites from a great number of whales harpooned under his own eyes in the Atlantic, in the neighbourhood of Tristan da Cunha, and off the Falkland Islands. He distinguishes three species, which he thinks had been hitherto confounded by authors under the same name. Lütken points out that all the three species are distinct from the northern *Cyamus mysticeti*, with which Roussel de Vauzème supposes his *Cyamus ovalis* to be identical. Of this species the anatomy is very fully described. The mistakes of Savigny and Treviranus are pointed out. Among other details of his own investigations, he says, "Des perquisitions inutiles pour trouver les glandes salivaires, m'ont fait remarquer souvent dans les tuniques de l'estomac des matières blanches, friables, de forme variée, dont je n'ai pu déterminer la nature, à moins qu'elles ne soient analogues aux pièces calcaires qu'on présume servir à la réparation du test chez les crustacés." He remarks that there is "parmi les viscères une membrane diaphane, parsemée de points