

The figure of the nervous system of *Cymbulia* given by Souleyet¹ shows three ganglionic enlargements on the visceral commissure, whilst the text states only that "la disposition du système nerveux est la même que chez les autres Ptéropodes testacés."² Now it has been shown that in these latter the ganglia of the visceral commissure form a mass composed of two asymmetrical halves, more or less clearly separated.

On the other hand, van Beneden³ describes the elements of the visceral commissure as "une paire de ganglions," whilst Gegenbaur⁴ agrees with Souleyet in saying that the nervous system of *Cymbulia* resembles that of typical Thecosomata. Finally, von Jhering, the last who has studied these organs, describes and figures⁵ the elements of the visceral commissure as fused with the pedal ganglia in such a way as to form two large symmetrical infracesophageal ganglionic masses, upon which the otocysts are placed.

The investigation which I have made of the nervous system of *Cymbulia*⁶ has shown that Souleyet's figure is by no means complete with respect to the nerves which proceed from the visceral ganglia, but it is *absolutely accurate* as regards the number and disposition of the ganglionic enlargements, that is to say, that there are three closely placed visceral ganglia, separated only by constrictions, and of which the outer are approximated to the cerebral ganglia (Pl. III. fig. 10, *c*, *d*, *e*).

The two outer ganglia are symmetrical, the median is the largest (fig. 10, *d*). It may further be seen (figs. 10 and 11) that the visceral ganglia are quite distinct from the pedal ganglia (*b*), in contradiction to what is stated by von Jhering. The central nervous system of *Cymbulia*, seen from the ventral surface, can only present the appearance attributed to it by the last-named author, before the surrounding connective-tissue has been removed from it.

The nerves which arise from the visceral ganglia are four in number, as follows,—one springs from each lateral ganglion (*1* and *4*), and two (not one only as depicted by Souleyet) which issue from the unpaired median ganglion (*2* and *3*). The stronger of these latter proceeds from the left of the ganglion, the more slender on the right side.

The nerves of the lateral ganglia (*1* and *4*) supply the mantle; the nerves from the median ganglion proceed to the genital (*3*) and to the circulatory and excretory organs (*2*).

The nerves from the other ganglia are distributed in the following manner:—

From each cerebral ganglion arise three nerves (and not two as I stated formerly⁷); an incipient transverse segmentation, which recurs more clearly expressed in *Gleba*, may be observed in the cerebral ganglia (Pl. III. fig. 11). From the dorsal segment proceeds

¹ Voyage de la Bonite, Zoologie, Mollusques, pl. xv. bis, fig. 38.

² *Ibid.*, t. ii. p. 239.

⁴ Untersuchungen über Pteropoden und Heteropoden, p. 44.

⁶ Recherches sur le système nerveux des Ptéropodes, *Arch. de Biol.*, t. vii. p. 117.

³ Exercices Zootomiques, p. 11.

⁵ *Loc. cit.*, pl. v. fig. 19.

⁷ *Ibid.*, pl. iv. fig. 13.