

The body of every Gymnosomatous larva possesses three ciliated rings, of which the anterior is not continuous (see Pl. I. fig. 5) and is the first to disappear. Formerly, before the relation of these larvæ to the adult was known, they were considered and described as distinct genera.

These larvæ show many resemblances to one another, and when they are merely described without the complete development being traced out, or when the description omits the characters of the foot, buccal appendages and radula, which alone allow of their certain classification, it is very difficult to assert whether they belong to the Pneumodermatidæ or not, or at all events to say to which genus of this family they do belong. It is not possible to determine specific distinctions from the radula alone, because the number of lateral teeth increases with age, until adult life.

We are therefore of course unable to assert with absolute certainty whether the *Trichocyli* are larvæ of the Pneumodermatidæ or of another family. It is, however, probable that *Trichocyclus dumerili*, Esch.,<sup>1</sup> is the larva of *Spongiobranchæa australis*, on account of the length of its tentacles, which are much longer than those of *Pneumoderma*. I shall show further on that *Trichocyclus mediterraneus*, Costa,<sup>2</sup> is the larva of *Clionopsis krohni*.

*Trizonius cæcus*, Busch.,<sup>3</sup> of Malaga, appears to belong to the present family, and to the genus *Pneumoderma*; but it is very difficult to prove whether it really belongs to this genus, because the published description of it, as well as those of the two *Trichocyli*, are insufficient.

The Mediterranean Gymnosomata, moreover, are not yet all known. Larvæ formerly described by Gegenbaur,<sup>4</sup> do not appear to belong to any known genus inhabiting that sea, and ought to be placed in a new genus, *Thliptodon*, Boas,<sup>5</sup> the adults of which are still unknown. The larva that Professor H. N. Moseley discovered,<sup>6</sup> belongs to the genus *Dexiobranchæa*, as will be seen later on.

<sup>1</sup> Oken, *Isis*, p. 735, pl. v. fig. 4, 1825.

<sup>2</sup> Osservazioni su taluni Pteropodi del Mediterraneo, *Annuario del Museo zoologico della R. Università di Napoli*, Anno v., p. 46, pl. i. fig. 3, 1865.

<sup>3</sup> Beobachtungen über Anatomie und Entwicklung, &c., p. 112, pl. viii. fig. 10.

<sup>4</sup> Untersuchungen über Pteropoden und Heteropoden, pp. 95-97, pl. v. figs. 14, 15.

<sup>5</sup> *Spolia atlantica*, p. 174.

<sup>6</sup> On *Stylochus pelagicus*, &c., *Quart. Journ. Micr. Sci.*, p. 32, pl. iii. fig. 14, 1877.