

state that they eat out round holes in composite Ascidians (*Leptoclinum maculosum*, *Polyclinum succineum*), and there deposit their ova. They shut the cavities with special lids which exhibit concentric rings, said to be produced by the rotatory movements of the animals. The *Onchidiopsides* seem to form cavities with somewhat similar lids in a Halisarcid (and probably also elsewhere). The brood-cavities contain, as Giard (*Marsenia*) and Bergh (*Onchidiopsis*) have observed, a number of nutritive ova which supply the developing embryos with food. Giard¹ has traced the general outline of the developmental history; according to him, two successive provisional shells are formed, the first nautiloid, the second simpler, exhibiting a greater resemblance to that of a *Carinaria*. Long before, however, Krohn² had noted that the larval shell of these animals does not develop into that of the adult, but that within the nautiloid shell, which is provided with several keels, a new shell is formed with a much greater resemblance to that of the adult *Marsenia*. The animal withdraws from the primary shell (which then disappears), and is finally covered only by the rudiment of the new persistent shell. Similar observations have been made by Macdonald³ on South Sea forms, as the result of which it would seem that the *Jasonillæ* of Macdonald, the *Browniæ* of d'Orbigny, and the *Calcarellæ* of Souleyet are probably simply larval forms of *Marseniæ* or other Marseniadæ. I have also observed a larva with a somewhat similar, but much ribbed, primary shell, and this is probably to be referred to an Arctic *Onchidiopsis*.⁴

The Marseniadæ are found in all seas; particularly developed types mostly occur in tropical seas (*Chelyonotus*) and the Arctic Ocean (*Onchidiopsis*). As to their distribution in time, they seem (*Marsenia*) to have appeared late in the tertiary period.

Although the Marseniadæ form, both in habit and structure, a tolerably well-defined group, they differ among themselves not a little in both these respects, but especially in the armature of the tongue; and it is because of this that the different members of the family have been repeatedly severed from one another.⁵ With the exception of the

¹ Giard, Sur l'embryologie du *Lamellaria perspicua*, *Comptes Rendus*, 22 Mar. 1875, pp. 736, 738, 739.

² A. Krohn, Ü. einen neuen mit Wimpersegele versehenen Gasteropoden, *Archiv f. Naturgesch.*, Jahrg. xix., Bd. i., 1853, pp. 223-226, taf. xi. figs. x. i.-ii.

A. Krohn, Nachtr. zu dem Aufs. ü. die *Echinospira diaphana*, *Archiv f. Naturgesch.*, Jahrg. xxv., Bd. i., 1855, pp. 1-5, taf. i. figs. 1, 2.

A. Krohn, Fernere Nachtr. zu dem Aufsätze ü. die *Echinospira*, nebst Bemerk. ü. eine ihr verwandte Larve, *Archiv f. Naturgesch.*, Jahrg. xxiii., Bd. i., 1857, p. 252, taf. xii.

³ Macdonald, Further Observations on the Metamorphosis of Gasteropoda, *Trans. Linn. Soc. Lond.*, 1860, vol. xxiii. pt. 1, p. 70.

⁴ A similarly caducous larval shell appears to have been hitherto observed only in the *Cymbulias* (by Krohn), where the gelatinous shell of the adult seems to be an altogether independent formation.

⁵ Troschel (*Das Gebiss d. Schnecken*, 1856-1863, vol. i. pp. 167, 185) placed the *Marseniæ* and the *Chelyonoti* next the *Naticaceæ*; the *Onchidiopsides* and the *Marseniæ* next the *Velutinaceæ*, as had been already proposed by Gray (*Guide*, 1857, vol. i. p. 46), who had incorporated the former in the *Velutinidæ*.

Gray wished (*Guide*, 1857, vol. i. pp. 27, 28) to divide the family into three generic groups, the *Coriocellæ*, the *Lamellarisæ* (with *Lamellaria tentaculata* as type), and the *Ermeæ* (with *Ermea perspicua* as type); an unreasonable proceeding in every respect, as to names, characterisation, and grouping.