

tail-less.¹ This most interesting developmental difference does not seem to be accompanied by any structural peculiarities in the adult form, which apparently does not differ generically from *Molgula*.

Glandula, as I pointed out in the Preliminary Report,² does not belong to the Molgulidæ, but should be placed in the sub-family Styelinæ of the Cynthiidæ.

Gymnocystis was founded by Giard in 1872³ for van Beneden's *Ascidia ampulloides*, which has been so often described, and referred to so many different genera. This species is undoubtedly one of the Molgulidæ, but I see no reason for separating it from *Molgula*. Giard distinguishes it chiefly on account of the test, which is smooth and semi-cartilaginous, like that of some species of *Ascidia*. This kind of test is, however, found in several undoubted species of *Molgula* (e.g., *Molgula gregaria*, Lesson), and graduates into the condition characteristic of the genus. I agree, therefore, with Lacaze-Duthiers in referring van Beneden's *Ascidia ampulloides* to the genus *Molgula*.

Pera, Stimpson, is probably either a *Molgula* or an *Eugyra*. Nothing in the description warrants our considering it as the type of a new genus. The species described by Macdonald,⁴ from the Bellona reefs, under the name of *Pera huxleyi* seems to be a *Rhodosoma*, and in that case belongs to the Ascidiidæ.

Lithonephrya is characterised by Giard⁵ as having the renal organ occupied by a large brown concretion. Otherwise it seems identical with *Molgula*.

Under the names of *Cæsira parasitica*, *Cæsira ficus*, and *Cæsira pellucida*, Macdonald⁶ described in 1859 three species of Simple Ascidiæ from Australia. They are evidently Molgulidæ, but whether or not they differ generically from *Molgula* and *Eugyra* is very doubtful. The tribe Cynthiæ Cæsiræ of Savigny includes the single species *Cynthia dione*, which seems from the figures and description,⁷ notwithstanding the assertion that both apertures are four-lobed, to belong to the Molgulidæ, and probably to the genus *Molgula*. Heller⁸ states that its nearest ally is Stimpson's *Glandula*. I cannot endorse this, as the latter genus is closely allied to *Styela*, while I consider Savigny's *Cynthia dione* a species of *Molgula*.

Ascopera was founded⁹ for the reception of two very large new species from the Antarctic. They are attached, pedunculated, and not incrustated; the chief peculiarity, however, is in the branchial sac, as the stigmata are never arranged in spirals, no infundibula being present.

¹ See Lacaze-Duthiers, Asc. Simp. des côtes de France.

² Proc. Roy. Soc. Edin., 1880-81, p. 234.

³ Archives de Zoologie expérimentale et générale, t. i. p. 405.

⁴ J. D. Macdonald, Jour. Proc. Linn. Soc., 1862.

⁵ Arch. de Zool. expér., t. i. p. 404.

⁶ J. D. Macdonald, Trans. Linn. Soc., vol. xxii. p. 367.

⁷ Mém. sur les Anim. sans Vert., p. 153, pl. vii. fig. 1.

⁸ Untersuch. ü. d. Tun. d. adriat. u. Mittelmeer., Abth. iii. p. 2.

⁹ Preliminary Report, Proc. Roy. Soc. Edin., 1880-81, p. 238.