distinct from the other known genera, and what its exact position is, cannot be determined without more information as to the structure than is given in Gray's short description.

In 1871 Dr. R. O. Cunningham, in his Report upon the collections made during the cruise of the "Nassau,"[1] described a remarkably large Ascidian from the Strait of Magellan under the name of *Goodsiria coccinea*. This species, which Cunningham regarded as a Social Ascidian, forms an elongated massive colony, sometimes more than 2 feet in length. The rounded Ascidiozooids are imbedded in the test, and are not divided into thorax and abdomen. I have examined the "Nassau" specimens in the British Museum, and the species was obtained again by the Challenger, consequently this form is well known to me. It is certainly distinct from the genus *Thylacium*, and it cannot be compared with the imperfectly known *Oculinaria*. *Goodsiria* may therefore be retained provisionally as a distinct genus, although it ought to be remembered that it may possibly be identical with *Oculinaria*, Gray.

Giard in 1874 described[2] two new genera of Ascidians from the French coast, *Polystyela* and *Synstyela*, which he regarded as being allied not to the Social Ascidians (Clavelinidæ), but to the Cynthiidæ and especially to the genus *Styela*. *Polystyela lemirri* is an incrusting species consisting of a common basal part above which the Ascidiozooids project to a height of from 4 to 6 mm. In this respect it agrees with the genus *Thylacium*, and Giard does not point out any differences between the two forms. As, however, Giard was acquainted with Carus's genus, the probability is that the two are distinct, and that *Polystyela* differs from *Thylacium* in having no distinct abdomen in the Ascidiozooids. Giard was of opinion that reproduction by gemmation was probably carried on, but he had not determined the matter conclusively. The second genus, *Synstyela*, is characterised by having the Ascidiozooids depressed and not projecting above the upper surface of the colony. Alder's *Thylacium variegatum* would therefore, as was suggested above, naturally find a place in this genus. Giard speaks of his species as being of a red colour, while Alder's *Thylacium variegatum* is shaded with flesh colour and red: possibly they may be the same species. If so, it should be called *Synstyela variegata* (Alder).

Heller,[3] writing in 1877, divided the family Cynthiidæ into two groups—the Monocynthiæ, including all the ordinary Cynthiidæ, and the Polycynthiæ, comprising the three genera *Thylacium*, *Polystyela*, and *Synstyela*. He therefore included these forms amongst the Simple Ascidians. Since that date no further attempt has been made to classify this curious little group of Ascidians.

There can be no doubt that the family Polystyelidæ is allied to the Styelinæ amongst Simple Ascidians, and especially to the genus *Polycarpa*, Heller. The condition of the test in some forms, the shape of the Ascidiozooid in others, and the structure of the

[1] *Trans. Linn. Soc. Lond.*, vol. xxvii. p. 465. [2] *Assoc. franç.*, Lille, 1874, p. 432.
[3] Untersuchungen über die Tunicaten des Adriatischen und Mittelmeeres, Abth. 3, Wien.