

colony the four terminal Ascidiozooids are very distinct, and form a row by themselves (Pl. II. fig. 8, 1, 2, 3, 4). This was given by Lesueur as one of the characters of his species *Pyrosoma elegans*, but Savigny declares that with care it may be made out in specimens of *Pyrosoma giganteum* also. I have never seen it so distinct as in the present specimen.

In the other three colonies the Ascidiozooids are not so prominent as in the case of the specimen just described, but here and there one is found on a conical eminence, or forming a projection on the surface; so they probably all belong to one species, and specimen B is more inflated than the other three. In all these colonies, but especially in C and D, the Ascidiozooids are arranged with regularity in transverse rows. There are from seven to nine rows in each colony, and the rows are most closely placed at the open end of the colony, where also all the young Ascidiozooids are situated. This arrangement of the Ascidiozooids of the colony in regular series or verticils is the chief character distinguishing *Pyrosoma elegans*, Lesueur, from the other species, and possibly these colonies may be young specimens of that species. On the other hand, the regularity of arrangement may merely be due to the fact that they are still fairly young colonies in which there has not yet been time for the Ascidiozooids to become irregularly scattered.

(8.) A small colony, from Station 170, July 14, 1874; lat. $29^{\circ} 55' 0''$ S., long. $178^{\circ} 14' 0''$ W.; 520 fathoms; surf. temp. 65° , bottom temp. 43° , is in such a bad state of preservation that nothing can be made out from it except that it is a *Pyrosoma*. It is 1 cm. in length and about 6 mm. in greatest breadth.

(9.) A small colony collected on the surface of the Pacific Ocean on April 5, 1875; Station 230; lat. $26^{\circ} 29' 0''$ N., long. $137^{\circ} 57' 0''$ E.; surf. temp. $68^{\circ} \cdot 5$, resembles specimen B, described above under (7), and may also possibly be referable to *Pyrosoma elegans*, Lesueur. It, however, consists of the test of the colony only; the Ascidiozooids have entirely disappeared, although the projections they formed on the surface of the colony are still visible. Probably the specimen was a dead and decayed one when collected. It measures 1.3 cm. in length and 1.0 cm. in greatest breadth. The common cloacal aperture is exceedingly small, being only 1 mm. across.

(10.) Two young colonies were collected on the surface of the Pacific in March 1875. They were mounted as microscopic objects during the expedition, and have become so transparent that almost nothing can be made out in them. The one is 1 mm. and the other 2 mm. in diameter. The smaller has four Ascidiozooids only. The larger appears to have more, but I cannot make them out with any certainty.

(11.) A young colony was collected on the surface of the Atlantic on April 13, 1876; Station 352; lat. $10^{\circ} 55' 0''$ N., long. $17^{\circ} 46' 0''$ W.; surf. temp. $77^{\circ} \cdot 7$. It had been mounted like the last specimens, but fortunately was stained in carmine first. This colony is apparently slightly older than the one obtained on April 12, 1876, and described above (No. 1). It is nearly 2 mm. in thickness, and has four Ascidiozooids; the tentacles are, however, all developed.