

PLATE XXXIII.

Figs. 1-8. *Didemnum aurantiacum*, n. sp.

Figs. 9-15. *Leptoclinum rubicundum*, n. sp.

*br.* Branchial aperture.  
*en.* Endostyle.  
*n.g.* Nerve ganglion.  
*p.p.* Peripharyngeal band.

*sg.* Stigmata of branchial sac.  
*sp.* Calcareous spicule in test.  
*sph.* Sphincter.  
*t.c.* Test cells.

*tn.* Tentacles.  
*tr.* Transverse vessel of branchial sac.  
*v.ap.* Vascular appendage.

- Fig. 1. Colony of *Didemnum aurantiacum*; natural size.
- Fig. 2. A small portion of the surface layer of test of *Didemnum aurantiacum*; enlarged.
- Fig. 3. One of the branchial apertures seen from the surface; magnified (S., 1 inch).
- Fig. 4. Section of the test in its deeper part; highly magnified (S.,  $\frac{1}{4}$  inch).
- Fig. 5. One of the branchial apertures seen from the inside, showing sphincter muscle, and three lobes; highly magnified (S.,  $\frac{1}{4}$  inch).
- Fig. 6. Spicules from the test; *a* shows the most common form; highly magnified (enlarged from S.,  $\frac{1}{4}$  inch).
- Fig. 7. A small portion of the wall of the large testis, with the vas deferens coiled round it; magnified (S., 1 inch).
- Fig. 8. One of the large tailed larvæ of *Didemnum aurantiacum*; magnified (S., 1 inch).
- Fig. 9. Colony of *Leptoclinum rubicundum*; natural size.
- Fig. 10. Part of the outer layer of the colony, including the anterior parts of the Ascidiozooids, seen from the inside; magnified (S., 1 inch).
- Fig. 11. Part of the surface of the colony, seen from the outside; magnified (S., 1 inch, enlarged).
- Fig. 12. Spicules from the test of *Leptoclinum rubicundum*; highly magnified (S.,  $\frac{1}{4}$  inch).
- Fig. 13. Part of the branchial sac of a young Ascidiozoid of *Leptoclinum rubicundum*; highly magnified (S.,  $\frac{1}{4}$  inch).
- Fig. 14. Part of the branchial sac of an adult Ascidiozoid of *Leptoclinum rubicundum*; highly magnified (S.,  $\frac{1}{4}$  inch).
- Fig. 15. The anterior end of an Ascidiozoid, seen from the inside, and showing endostyle, nerve ganglion, peripharyngeal band, tentacles, sphincter, branchial aperture, &c.; highly magnified (S.,  $\frac{1}{4}$  inch).