

## PLATE XI.

Figs. 1-6. *Abbyssascidia vasculosa*, n. sp.

Figs. 7-13. *Ascidia* sp. (Dorsal tubercle, &c.).

Figs. 14-16. *Styela sericata*, n. sp.

<p><i>a.</i> Anus. <i>at.</i> Atrial aperture. <i>bl.s.</i> Blood sinus. <i>br.</i> Branchial aperture. <i>br.s.</i> Branchial sac. <i>br.si.</i> Branchial siphon. <i>c.d.</i> Connecting ducts. <i>c.ep.</i> Cubical epithelium. <i>c.t.</i> Connective tissue. <i>d.l.</i> Dorsal lamina. <i>d.t.</i> Dorsal tubercle. <i>g.</i> Reproductive organs.</p>	<p><i>g.d.</i> Duct of reproductive organs. <i>gl.t.</i> Glandular tubules of dorsal tubercle. <i>i.</i> Intestine. <i>i.l.</i> Internal longitudinal bars. <i>inf.</i> Infundibula of dorsal tubercle. <i>l.</i> Languet. <i>l.v.</i> Longitudinal vessels. <i>m.</i> Mantle. <i>m.b.</i> Muscle bands. <i>n.</i> Nerve. <i>n.g.</i> Nerve ganglion.</p>	<p><i>œ.</i> Œsophagus. <i>p.</i> Papilla of branchial sac. <i>p.a.</i> Peritubercular area. <i>p.p.</i> Peripharyngeal band. <i>ret.</i> Network of stellate cells. <i>sg.</i> Stigmata. <i>sp.c.</i> Spherical gland cells. <i>sq.</i> Squamous epithelium. <i>st.</i> Stomach. <i>tn, tn'.</i> Tentacles. <i>tr.</i> Transverse vessels. <i>z.</i> Prebranchial zone.</p>
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- Fig. 1. *Abbyssascidia vasculosa*; natural size.
- Fig. 2. Body of same with test removed, from left side; natural size.
- Fig. 3. Dorsal tubercle, tentacles, &c., of same; magnified (S. 1).
- Fig. 4. Part of branchial sac of same, from inside; magnified (S. 1).
- Fig. 5. Part of dorsal lamina of same; magnified (S. 1).
- Fig. 6. Alimentary canal and reproductive organs of same; natural size.
- Fig. 7. The dorsal tubercle and neighbouring parts of a large *Ascidia* from Kerguelen Island; natural size.
- Fig. 8. The same parts seen in longitudinal vertical section; natural size.
- Fig. 9. An antero-posterior section of the dorsal tubercle; magnified (S. 1).
- Fig. 10. Small part of last; highly magnified, to show the ciliated infundibula, glandular tubule, connective tissue with blood sinuses, &c. (S.  $\frac{1}{8}$ ).
- Fig. 11. The cæcal end of one of the glandular tubules; highly magnified (S.  $\frac{1}{8}$ ).
- Fig. 12. Transverse section of a tubule filled with cells; highly magnified (S.  $\frac{1}{8}$ ).
- Fig. 13. Small part of the branchial sac of the same specimen of *Ascidia*; magnified (S. 1).
- Fig. 14. *Styela sericata*; natural size.
- Fig. 15. Part of the branchial sac and dorsal lamina of the same; magnified (S. 1).
- Fig. 16. The large and small tentacles of the same; magnified (S. 1).