

PLATE XXII.

*Tylobranchion speciosum*, n. sp.

<p><i>b.s.</i> Blood sinus.  <i>d.t.</i> Dorsal tubercle.  <i>d.l.</i> Dorsal lamina.  <i>ec.</i> Ectoderm.  <i>g.t.</i> Germinal tubule.  <i>h.m.</i> Horizontal membrane of branchial sac.</p>	<p><i>l.</i> Languet.  <i>m.b.</i> Muscle band in mantle.  <i>o.</i> Ovum.  <i>p.</i> Papilla.  <i>p.p.</i> Peripharyngeal band.  <i>sg.</i> Stigmata of branchial sac.  <i>sph.</i> Sphincter.</p>	<p><i>t.c.</i> Test cells.  <i>t.m.</i> Test matrix.  <i>tn.</i> Tentacles.  <i>tr.</i> Transverse vessel of branchial sac.  <i>t.v.</i> Spermatic vesicles.  <i>v.d.</i> Vas deferens.</p>
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- Fig. 1. Colony of *Tylobranchion speciosum*; natural size.
- Fig. 2. Ascidiozoid of *Tylobranchion speciosum*; natural size.
- Fig. 3. Another Ascidiozoid with much larger post-abdomen; natural size.
- Fig. 4. Ascidiozoid, seen from right hand side; magnified (S., 1 inch).
- Fig. 5. Part of test of *Tylobranchion speciosum*; highly magnified (S.,  $\frac{1}{6}$  inch).
- Fig. 6. Part of endostyle of *Tylobranchion speciosum*, seen from ventral surface; magnified (S., 1 inch).
- Fig. 7. Part of branchial sac of *Tylobranchion speciosum*, seen from the interior; magnified (S., 1 inch).
- Fig. 8. Part of another branchial sac, from interior; magnified (S., 1 inch).
- Fig. 9. Another part of the branchial sac, from interior; magnified (S., 1 inch).
- Fig. 10. Small part of branchial sac; highly magnified (S.,  $\frac{1}{6}$  inch).
- Fig. 11. Three ciliated cells, from stigmata; highly magnified (S.,  $\frac{1}{6}$  inch, enlarged).
- Fig. 12. Part of dorsal edge of branchial sac, showing languets; magnified (S., 1 inch).
- Fig. 13. Dorsal part of anterior end of Ascidiozoid, showing tentacles, &c.; magnified (S., 1 inch).
- Fig. 14. Diagrammatic transverse section of post-abdomen, showing tubules in which the reproductive elements are produced; magnified.
- Fig. 15. Part of germinal tubule, from young Ascidiozoid, showing ova in various stages of development; highly magnified (S.,  $\frac{1}{6}$  inch).
- Fig. 16. Part of smaller tubules, containing young ova; highly magnified (S.,  $\frac{1}{6}$  inch).
- Fig. 17. Tubules from older Ascidiozoid, in which spermatozoa are being produced; highly magnified (S.,  $\frac{1}{6}$  inch).