

PLATE V.

Psammophyllum.

Figs. 1-4. *Psammophyllum reticulatum*, n. sp. (p. 50).

| | Diam. |
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| Fig. 1. A young specimen. The entire parenchyma of the flabelliform sponge is traversed by a coarse network of brown cylindrical tubes, the hydrorhiza of a symbiotic Hydroid (<i>Stylactella?</i>). The meshes of this coarse network are filled up by a very fine and delicate network, composed of branching and anastomosing spongin-fibrillæ, which enclose and connect foreign bodies, mainly siliceous spicules of different sponges, | × 10 |
| Fig. 2. A small portion of the skeleton of the flabelliform sponge. Between the thick brown tubes of the symbiotic Hydroid (<i>h</i>), the fine network of the yellow spongin-fibrillæ (<i>f</i>), and numerous scattered xenophya (<i>x</i>) are visible, | × 100 |
| Fig. 3. A small portion of the same; less highly magnified. Characters as in fig. 2, | × 50 |
| Fig. 4. A few xenophya (sponge spicules and Radiolarian fragments) cemented together by the scanty yellow spongin-fibres (<i>f</i>), | × 300 |

Fig. 5. *Psammophyllum flustraceum*, n. sp. (p. 51.)

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| Fig. 5. A forked chitinous tube of a symbiotic Hydroid (<i>h</i>); the epithelium on its inside is exceptionally well preserved. In the surrounding maltha of the sponge are visible single amœboid cells and eggs (<i>e</i>), and between them are scattered a few xenophya (<i>x</i>), and the connecting yellow spongin-fibres, | × 200 |
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