

PLATE IV.

Psammophyllum.

Figs. 1-4. *Psammophyllum annectens*, n. sp. (p. 52).

	Diam.
Fig. 1. A complete flabelliform specimen,	nat. size
Fig. 2. Portion of a section through the same. <i>f</i> , network of spongin-fibrillæ; <i>r</i> , Radiolarian shells,	× 300
Fig. 3. Some spongin-fibrillæ, including Radiolarian shells,	× 400
Fig. 4. Chitinous tubes of the hydrorhiza of a symbiotic Hydroid, with annular constrictions (<i>Eudendrium</i> ?),	× 100

Figs. 5-8. *Psammophyllum flustraceum*, n. sp. (p. 51).

Fig. 5. A complete flabelliform specimen,	nat. size
Fig. 6. Portion of a section through the same. <i>f</i> , network of spongin-fibrillæ; <i>r</i> , Radiolarian shells and sponge spicules,	× 300
Fig. 7. Portion of the surface of fig. 5, from its distal part, exhibiting three concentric zones, with the dermal pores (<i>p</i>), and the larger openings (oscula, <i>o</i>) at the thickened proximal margin of each zone,	× 4
Fig. 8. A small portion of the outermost distal zone; more highly magnified. The surface exhibits the smaller openings (pores), and scattered larger openings (oscula, <i>o</i>) at the thickened proximal margin of the zone,	× 12

Fig. 9. *Halisiphonia spongicola*, n. sp. (p. 77).

Fig. 9. Hydroid living in symbiosis with <i>Psammophyllum flustraceum</i> . <i>h</i> , the reticular hydrorhiza; <i>g</i> , gonangia; <i>p</i> , hydrothecæ,	× 20
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