

PLATE VII.

PSAMMINIDÆ.

Figs. 1A-1D. *Psammina plakina*, n. sp. (p. 35).

	Diam.
Fig. 1A. Facial view of the discoidal sponge, . . . . .	× 5
Fig. 1B. Marginal view of the same, . . . . .	× 5
Fig. 1C. Vertical section through the discoidal sponge. <i>g</i> , its gastral cavity; <i>o</i> , exhalent opening (osculum); <i>i</i> , inhalent openings (dermal pores); <i>k</i> , flagello-chambers; <i>e</i> , eggs (partly in segmentation); <i>x</i> , xenophya ( <i>Globigerina</i> shells); <i>x'</i> , upper plate of the pseudo-skeleton; <i>x''</i> , lower plate of the same, . . . . .	× 70
Fig. 1D. A small portion of the same section; more highly magnified. Characters as in fig. 1C, . . . . .	× 200

Figs. 2A-2D. *Psammina globigerina*, n. sp. (p. 36).

Fig. 2A. Facial view of the discoidal sponge (superior face). The whole surface is protected by a carapace composed of <i>Globigerina</i> shells, . . . . .	× 20
Fig. 2B. Marginal view of the same, exhibiting the corona of exhalent openings ( <i>o</i> ), on the peripheral edge of the discoidal sponge, . . . . .	× 20
Fig. 2C. Horizontal section through the discoidal sponge, exhibiting the radiating network of the symbiotic Hydroid, expanded in the medullar substance, between the two parallel cortical plates, . . . . .	× 20
Fig. 2D. A portion of the medullar parenchyma, after the removal of the calcareous shells by hydrochloric acid. Two different branched canal-systems are visible, the yellowish canals of the sponge, not anastomosing ( <i>c</i> ), and the dark greenish brown reticular canals of the symbiotic Hydroid ( <i>h</i> ). The maltha includes some Radiolarian tests ( <i>r</i> ), . . . . .	× 200

Fig. 3. *Psammina nummulina*, n. sp. (p. 37).

Fig. 3. After removal of the upper dermal plate, the soft medullar disc is visible, in which the network ( <i>h</i> ) of the symbiotic hydrorhiza ( <i>Stylactis?</i> ) is expanded, . . . . .	× 4
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Figs. 4A, 4B. *Psammopemma radiolarium*, n. sp. (p. 41).

Fig. 4A. Lateral view of the sponge, . . . . .	× 2
Fig. 4B. Basal view of the same, . . . . .	× 2

Fig. 5. *Psammopemma calcareum*, n. sp. (p. 41).

Fig. 5. The turbinate sponge, seen half from above, half from the lateral side, . . . . .	× 3
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Figs. 6A, 6B. *Holopsamma argillaceum*, n. sp. (p. 39).

Fig. 6A. Lateral view of the sponge; <i>o</i> , oscula, . . . . .	× 2
Fig. 6B. Vertical section through the sponge, exhibiting the branched canals ( <i>c</i> ) and their oscula ( <i>o</i> ). <i>x</i> , xenophya, . . . . .	× 5

Figs. 7A-7C. *Holopsamma cretaceum*, n. sp. (p. 39).

Fig. 7A. Superior view of the sponge, drawn by Miss Traill, . . . . .	nat. size
Fig. 7B. Inferior view of the same, . . . . .	nat. size
Fig. 7C. A branched canal of the sponge, isolated after the removal of the calcareous pseudo-skeleton, . . . . .	× 20