

9. *Freyella benthophila*, n. sp. (Pl. CXI. figs. 5-8).

Rays six.  $R = 88$  mm. ;  $r = 3$  mm.  $R = 30 r$ , approximately. Breadth of a ray at the base, 2.5 mm. ; at 10 mm. from the disk, 1.75 mm. ; and at about midway between the base and the extremity, 1 mm.

Rays very long, extremely delicate and attenuate, cylindrical at the base, very slightly inflated in the ovarian regions, which extend about 10 mm. from the disk, or occupy the proximal ninth of the ray; beyond this the ray is subtriangular with a truncate carination, and tapers continuously to a very attenuate extremity. The interbrachial arcs, though sharply rounded, have somewhat of an angular character.

The disk is small, with the abactinal surface slightly subconically convex, and higher than the abactinal surface of the rays, the outline when seen in profile passing with a gentle slope towards and along the ray, the interference of the ovarian inflation being very slight. The abactinal area of the disk and of the ovarian regions is covered with very delicate calcareous plates overlaid with extremely delicate membrane. The plates bear two or three short, rather stumpy but very minute, spinelets (quite microscopic), and a number of small distributed pedicellariæ, the whole having more or less of a grouped appearance on each plate. On the outer part of the ovarian regions the microscopic spinelets frequently appear to be less numerous. The plating does not extend beyond the ovarian region, and from thence to the extremity the abactinal surface of the ray is covered with an extremely delicate semitransparent membrane. Small pedicellariæ are distributed over the membrane and, though numerous, have a comparatively widely spaced appearance; they are most numerous towards the lateral margin, and may to a certain extent be said to occur in patches corresponding to the "vertebræ" of the ray, but do not approach the character of the aggregated groups on the saddle-like sacculi noticed in other species.

The ambulacral furrow is broad and occupies nearly the whole of the actinal surface of the ray, the adambulacral plates forming only a narrow margin; its width is about 1 mm. where the ray is 1.75 mm. The adambulacral plates are elongate, 1.3 mm. in length at 10 to 12 mm. from the disk, and measure the same quite close to the extremity, where the length appears relatively greatly emphasised in consequence of their narrowness and attenuation. The plates are very narrow midway between their extremities, their outline being distinctly concave; the furrow-margin is the most incurved, and the outline of the furrow has consequently the appearance of a lineal series of confluent ovals. The armature of the adambulacral plates consists of a single very delicate spine articulated on a small tubercular prominence on the middle of the actinal surface midway between the extremities, and an equally delicate lateral spine, often of the same length but normally slightly longer, articulated on a rudimentary infero-marginal plate ankylosed on the lateral wall immediately beneath the spine just mentioned, usually on alternate plates, but sometimes less frequently. These spines are enclosed in delicate membranous sheaths with