

about seventy-five adambulacral plates may be counted along the furrow. Their armature consists of delicate tapering spines, irregular in number and disposition, forming a compact group, which occupies the whole surface of the plate, transversely elongate in form in relation to the direction of the ray, and resembles a compressed and enlarged paxilla. There are fifteen to twenty spinelets in each group. Two of the spinelets (sometimes three) larger than the rest, slightly flattened, and tapering to a point, stand at the margin of the furrow, their relative position being generally slightly oblique. The succeeding spinelets are less robust, and pass in gradation to the group of outermost spinelets, which are about equal in size to the paxillæ of the actinal intermediate plates. The five or six innermost adambulacral plates have much larger spinelets than the others.

The united mouth-plates form a sharp angle inwardly, and a large elongately ovoid, subtubercular swelling is developed on their superficies,—the whole surface being covered with spinelets arranged in somewhat similar series to the spinelets of the adambulacral armature, standing perpendicular, seven to eight along each side of the mouth-angle. The aboral portion of each plate is occupied by a compressed paxilliform group similar to those of the adambulacral plates.

The madreporiform body is obscure and concealed by paxillæ.

The ambulacral tube-feet, which are arranged in pairs, are robust and large, with a well-developed fleshy disk, devoid of spicules.

No traces of any form of pedicellariæ are present.

Colour in alcohol, a dirty yellowish ashy grey, or with a light brownish shade.

Localities.—"Knight Errant" Expedition:

Station 4. In the Faerøe Channel. August 10, 1880. Lat. $59^{\circ} 33' 0''$ N., long. $7^{\circ} 14' 0''$ W. Depth 555 fathoms. Mud. Bottom temperature $45^{\circ} 4$ Fahr.; surface temperature $57^{\circ} 0$ Fahr.

"Triton" Expedition:

Station 10. In the Faerøe Channel. August 24, 1882. Lat. $59^{\circ} 40' 0''$ N., long. $7^{\circ} 21' 0''$ W. Depth 516 fathoms. Bottom temperature $46^{\circ} 0$ Fahr.

Station 11. In the Faerøe Channel. August 28, 1882. Lat. $59^{\circ} 29' 0''$ N., long. $7^{\circ} 13' 0''$ W. Depth 555 fathoms. Bottom temperature $45^{\circ} 5$ Fahr.

Remarks.—The arrangement and appearance of the paxillæ, and the numerous papulæ interspersed, recall in a striking manner the habit of *Solaster*. On dissection, however, it is found that this appearance is deceptive and not real, and that the true structural resemblance lies in a very different and unexpected direction. In *Solaster endeca*, the form which at first sight is most nearly suggested by the dorsal covering of this species, the abactinal portion of the skeleton consists of a rather closely reticulated calcareous framework, built up of small imbricating plates, upon certain of which the paxillæ are borne. The skeleton of *Mimaster*, on the other hand, is constructed quite differently, the whole abactinal floor being composed of paxillæ alone, each of the paxillæ consisting