

“teeth” round the anus; the former resemble small undeveloped pedicels, the latter have the shape of rather large perforated plates with the margin very uneven, spinous. Commonly the deposits in the anal portion of the body are more crowded.

Only a single madreporic canal and Polian vesicle are present. The calcareous ring seems to be of about the same conformation as that in *Cucumaria abyssorum*, though in a lower state of development. The retractors are very short, only 4 or 5 mm. long. A well-developed muscular stomach is present. The genital tubes are short, simple, and collected into two bundles, one at each side of the mesentery. The respiratory-trees have short, scattered branches, all over their length.

The two specimens brought home from Station 300 are slightly larger, about 40 mm. long; and the surface of their perisome is very rough, almost spinous, from the large outwardly directed spinous processes which are visible to the naked eye.

Cucumaria kerguelensis, n. sp. (Pl. XII. figs. 6, 7).

Body fusiform, more tapered posteriorly. Tentacles ten, two ventral considerably smaller. Anus with minute teeth. Dorsal surface with pedicels distributed without order all over its ambulacra and three interambulacra; only anteriorly and posteriorly an arrangement in rows is discernible. Ventral surface with close-lying pedicels arranged in a double row along each ambulacrum; its interambulacra are well marked, naked, excepting anteriorly and posteriorly, where some small pedicels are present, making the arrangement in rows there less distinct. The outer or rather upper series of the two lateral double rows of pedicels is, however, not very well marked out. Deposits—scattered minute \times -shaped bodies; and crowded, irregular, angular, rounded, oval or elongate, perforated plates, with uneven margin, numerous holes and more and less prominent knobs. The most highly developed plates almost resemble scales with their upper surface convex and knobbed. A whole series of developmental stages from simple \times -shaped deposits are to be found. Colour in alcohol, light yellowish-grey. Length, 75 mm.

Habitat.—Station 149B, January 17, 1874; lat. $49^{\circ} 28' S.$, long. $70^{\circ} 30' E.$; off Royal Sound; depth, 25 fathoms; volcanic mud; six specimens.

The body seems often to be slightly curved, with the anus bent upwards and the dorsal surface shorter than the ventral. In the foremost part of the body the pedicels are collected in five groups, consequently a tendency to an arrangement in rows of the dorsal pedicels is here traceable. Even posteriorly it is not difficult to distinguish the five rows. But for the rest, the pedicels are equally scattered over the dorsal surface. All the pedicels do not appear to be of equal size, some being considerably smaller.

The calcareous ring is small, of the ordinary shape, and its posterior margin is undulated without processes; the radial pieces are notched anteriorly and have about the same height as the interradial, 2 mm. A single Polian vesicle and madreporic canal are present.