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H. BARROWCLOUGH FELL.

Transactions of the Royal Society of New Zealand 421
Vol. 76, Part 3, pp. 421–422, 1 Figure.

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By H. Barraclough Fell, Victoria University College, Wellington.

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Comparatively little was known of the echinoderm fauna of the southern fiords of New Zealand until 1946, when a collection of 43 specimens was made by members of the "New Golden Hind" Expedition. For the opportunity to examine this material, which will be described elsewhere, I have to thank Mr. R. W. Willett, Director of the Expedition. Of the echinoderms a number of ophiuroids belong to a species apparently new.

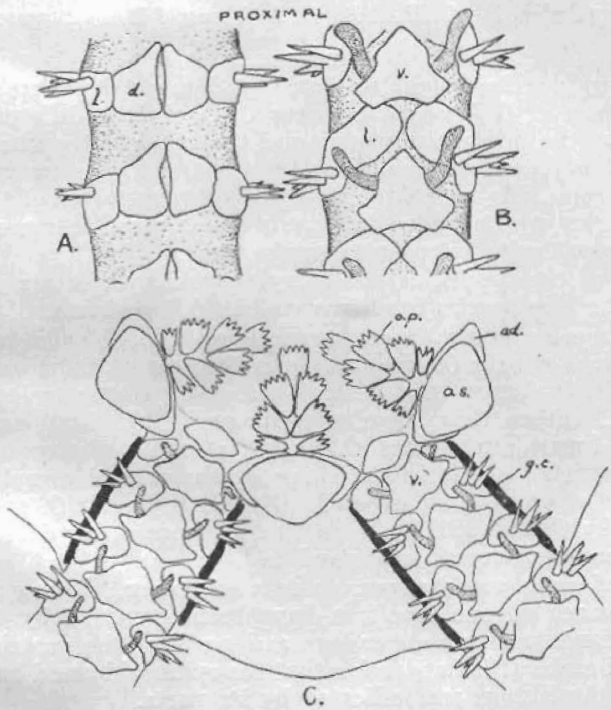

Fig. 1.—*Ophiomyxa duskiensis*.—A, aboral surface of arm, midway along its length. B, adoral surface of arm, midway along its length. C, adoral surface of disc. ad., adoral plate; d., dorsal arm-plate; g.c., genital cleft; l., lateral arm-plate; o.p., oral papilla; o.s., oral shield; v., ventral arm-plate.

Ophiomyxa duskiensis sp. nov. (Fig. 1.)

Dimensions: R, 15–16 mm.; r, 4–6 mm.; R/r, 3·4 (average).

Colour: Aboral surface dark grey shading gradually to paler grey on the adoral surface.

Arms: Dorsal armplates 2 in each segment, longer than broad, symmetrically disposed on either side of the radial axis, lying close

to each other, but separated from the adjoining pairs in neighbouring segments by an intervening band of dermis entirely lacking mosaic granules or other platelets. Ventral armplates unpaired, radially situated, pentagonal with concave distal base and concave proximal sides. Lateral armplates bearing 4, rarely 3, spines.

Disc: Oral shields large, almost obscuring the adoral plates, broader than long, bluntly triangular with a convex proximal base. Oral papillae 7, serrate, large and crowded, tending to overlap especially at the proximal extremity of the jaw, completely obscuring the oral plates. Genital clefts extending to the third arm segment.

Type: In the Zoology Department Museum, Victoria University College, Wellington.

Stella Cove: 7–10 fathoms, 1/2/46, 3 specimens.

Dusky Sound, at mouth and centre of Wet Jacket Arm: 3 fathoms, 13/2/46, 2 specimens (type locality).

Long Sound, Narrow Bend Reach: 22 fathoms, 28/1/46, 3 specimens.

Chalky Inlet, North Port: 6–12 fathoms, 4/2/46, 2 specimens.

Remarks.

Although at first sight this ophiuroid might be mistaken for a juvenile form of *Ophiomyxa brevirima*, the skeletal differences, particularly of the dorsal armplates, and the consistently small size of all specimens from four localities appear to justify its treatment as a distinct species. As in *O. brevirima* and other members of the genus, the armplates are imbedded in dermis which must be removed with sodium hypochlorite in order to expose them.

None of the specimens was carrying young, so it remains to be seen whether the species is viviparous like *O. brevirima*.

The species seems, from perusal of available literature, to resemble most closely *O. vivipara* from the seas of Patagonia. Mortensen (1924) figures the ventral plates of the latter species as rhomboidal rather than broadly pentagonal. *O. duskiensis* differs from the Australian species *O. australis* in the absence of dorsal mosaic platelets, as also in the shape of the ventral armplates, and the amount of adoral plate exposed. The North Pacific *O. anisacantha* described by Clark (1911) differs chiefly in possessing dorsal mosaic platelets and well-spaced oral papillae.

O. duskiensis would appear to be a scavenger. Structures found in the stomach of one specimen have been identified by Professor L. R. Richardson as an appendage and parts of the gastric mill of a Cancroid crab. It is improbable that the ophiuroid could have killed a crab of the dimensions indicated by its parts.

This is only the second species of *Ophiomyxa* to be recorded from New Zealand. It may be noted that Mortensen (1924), after examining some doubtful young material, concluded that more than one species of *Ophiomyxa* might ultimately be found to inhabit New Zealand waters.

References.

Clark, H. L., 1911. North Pacific Ophiurans in Collection U.S. Nat. Mus. *U.S. Nat. Mus. Bull.*, 75.

Mortensen, Th., 1924. Ophiuroidea N.Z. and Auckland–Campbell Is. *Vid. Med. Dansk Nat. For.*, 77, p. 91.