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Description of *Acantharachna mirabilis*, a new Form of Ophiuridæ.

By EDGAR A. SMITH, F.Z.S., Zoological Department, British Museum. (Communicated by Dr. MURIE, F.L.S.)

[Read March 1, 1877.]

(PLATE XVIII.)

THE specimen upon which the following new subgenus is founded was obtained by the British Museum many years ago (about the year 1840) from Mr. Cuming, by whom it was collected at the Philippine Islands. To it is attached his label, which runs thus, "Isle of Corregidor, Bay of Manilla, 7 fathoms—coarse sand and gravel."

This very remarkable species apparently partakes more of the character of the genus *Ophiomastix* than of any other. The soft skin covered with minute scales, the mouth-organs, and the character of the arm-plates and upper series of spines agree precisely with those of that genus; but the absence of tentacle-scales is perhaps sufficient to separate it subgenerically therefrom.

Genus OPHIOMASTIX, *Muller & Troschel*.

Subgen. nov. ACANTHARACHNA\*.

Discus cute molli, minute squamata, spinas paucas supra et infra gerente, indutus; scuta radialia nuda; dentes, papillæ dentales oralesque ut in *Ophiocomidis*; squamæ ambulacrales nullæ; rimæ genitales duæ; spinæ brachiales supremæ maximæ irregulariter positæ.

ACANTHARACHNA MIRABILIS, sp. nov.

Discus subpentagonalis, in medio inter brachia sinuatus, cute molli minute squamulata indutus; squamæ ad marginem inter scuta radialia imbricantes cæteris majores; superficies supra et infra spinis gracilibus paucis hic illic munita; scuta radialia parva, cuneiformia, longe distantia; brachia quinque inferne plana, supra convexa, diametrum disci octies paulo superantia; scutella oralia longiora quam latiora, ovalia, intus leviter acuminata; adoralia triangularia lateribus concavis, margines oralium amplectentia, intus inter se tangentia; papillæ orales crassæ, octo ad quemque oris angulum; papillæ dentales seriebus tribus, oralibus intimis similes; dentes — ?; scuta brachialia inferiora fere æque longa ac lata, heptagonalia, marginibus aboralibus medio in angulum levem pro-

\* ἄκανθα, a thorn, ἀράχνης, a spider. The name was suggested from the general appearance of a long thorny-legged spider.

ductis; scuta superiora hexagonalia, frequenter hic illic fracta, latiora quam longiora, ad latera acute angulata; scuta lateralia nec supra nec infra tangentia, extra valde prominentia; spinæ brachiales 2-3, duæ inferiores subæquales, longitudinem scuti inferioris paulo superantes, supremæ maximæ, crassæ, apice sæpe lobatæ, aliquanto scabræ, latitudinem brachii longitudine circiter æquantes, intervallis irregularibus positæ; color ubique lacteus. Diam. disci 16 mill., brachii 3.

Disk subpentagonal, sinuated in the middle of the margins between the rays, covered above and beneath with a soft minutely scaled skin, which is produced a little way up the arms; the scales along the lateral margins between the radial shields overlap one another and are much larger than those on the rest of the disk; on the upper and under surface are a number of small slender mobile spines widely and irregularly distributed. The radial shields are small, wedge-shaped, and very far apart, being separated by a space as wide as the arms; arms five, very long, flat beneath, and arched above and gradually tapering, eight or nine times as long as the diameter of the disk; oral shields longer than broad, oval, faintly pointed within; lateral mouth-shields triangular, with concave sides, embracing the sides of the oral shields and just meeting at their base; mouth-papillæ stout, four on each side of every angle, the outermost by far the largest, triangular and contiguous to the side mouth-shields and appearing like a supplementary lateral oral shield; the other three are in rotation smaller; tooth-papillæ in three rows, stout and like the inner mouth-papillæ; teeth — ?; tentacle-scale none; lower arm-plates about as long as broad, heptagonal, the two aboral margins sloping to a roundish angle, the two sides are rectilinear, the two inner lateral margins bounded by the side arm-plates, and the oral side concave, through the overlapping of the roundish angle or point of the preceding shield; upper arm-plates normally hexagonal, but frequently broken irregularly in one or more places, broader than long, the outer and inner sides equal and almost straight, the side margins almost equal and forming an acute angle between the lateral arm-plates.

The side arm-plates do not meet above or beneath, and are very prominent on the side remotest from the disk. The number of arm-spines is not constant on all the plates, some bearing two and others three. The two lower ones are subequal, not very acumi-

nate, and a trifle longer than a lower arm-plate. Uppermost spines placed at irregular intervals of two to five or even more plates; they are very large and stout compared with the others, frequently lobed at the end, somewhat scabrous, and about as long as the width of the arm. The colour is everywhere of a uniform cream-tint; the specimen perhaps is faded.

I cannot give the exact number of teeth, as there is but a single specimen, which would have to be mutilated too much in order to ascertain it; however, as far as can be seen, they appear to be few in number, stoutish, and truncate at the ends.

Under the microscope the arm-plates and spines are seen to be delicately granulous; and the apices of the largest spines are beset with most minute prickles.

Both the upper and lower arm-shields gradually become proportionally longer towards the end of the arms.

*Ophiomastix flaccida*, of Lyman, in many respects closely resembles this species; and since it has no tentacle-scale, it will come in this subgenus *Acantharachna*. The chief difference in the two species is in the covering of the disk. In *A. flaccida* it is "wholly covered by a smooth skin," whilst in *A. mirabilis* the covering is minutely squamose and displays small naked radial shields, and the margins of it are clothed with larger scales than those on the dorsal surface. The form of the lower arm-plates is different in the two species; the side mouth-shields and the colour also show certain differences.

#### DESCRIPTION OF PLATE XVIII.

- Fig. 1. *Ophiomastix (Acantharachna) mirabilis*. View of upper surface, of natural size.
2. View of the lower surface, also of natural size.
  3. The disk, seen from below, enlarged about twice nat. size, and showing the oral orifice with papillæ and also form of oral and anal shields.
  4. Part of an arm seen from above, showing the form of the plates and the spines. About 3 diam.
  5. Magnified view of a bifid brachial spine.
  6. Apex of a terminally trifid brachial spine, also enlarged.

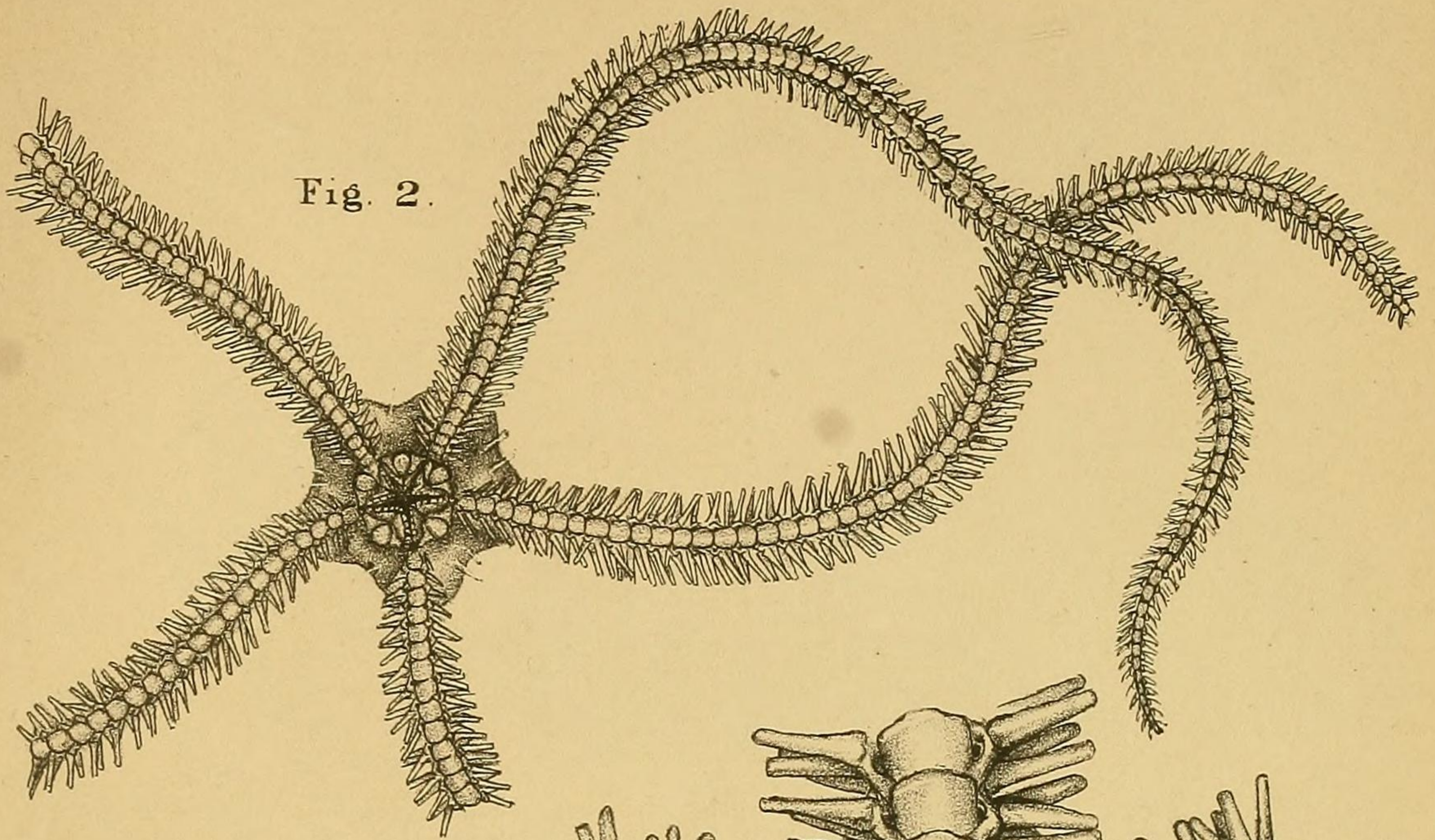


Fig. 2.

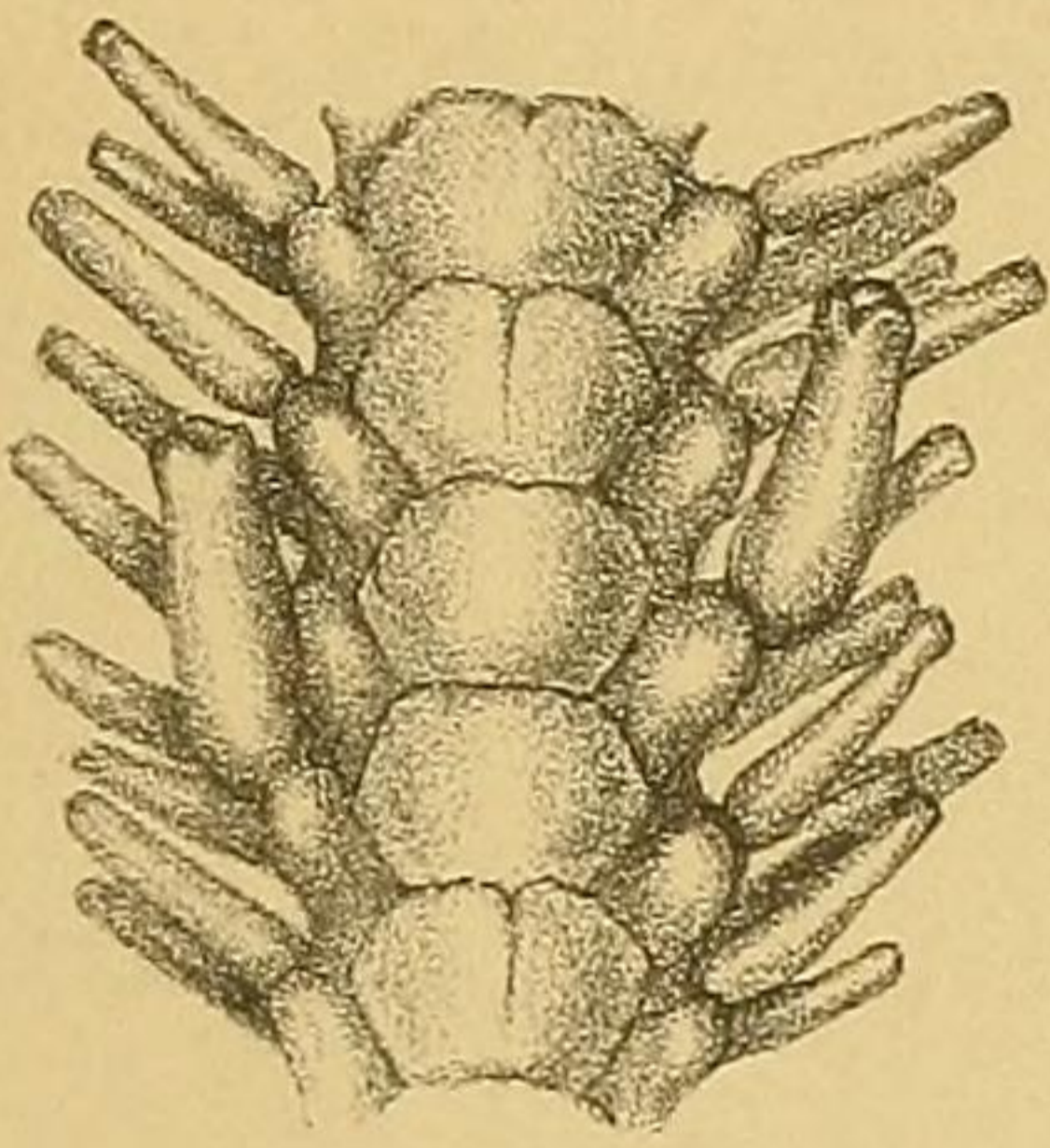


Fig. 4.

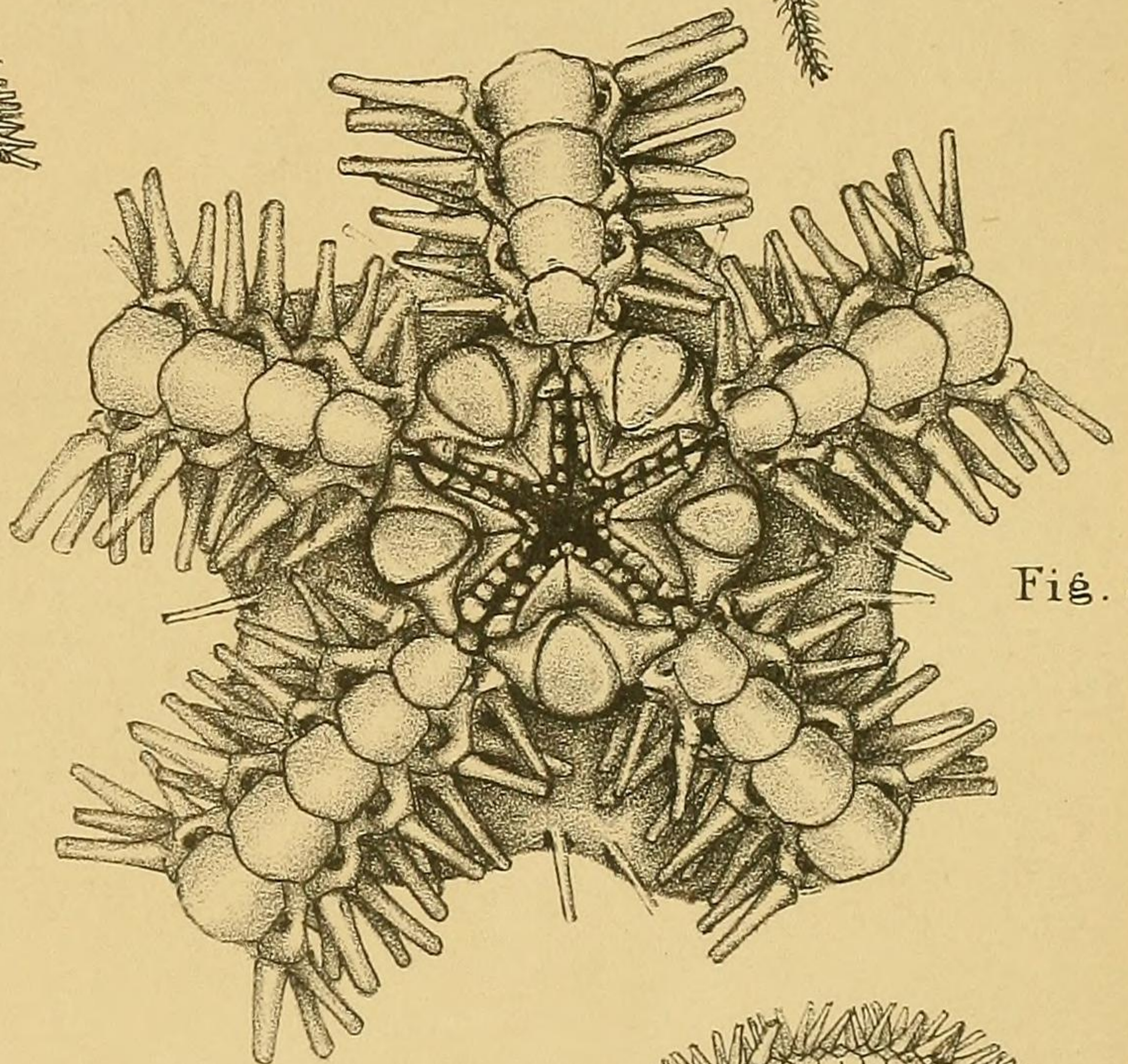


Fig. 3.

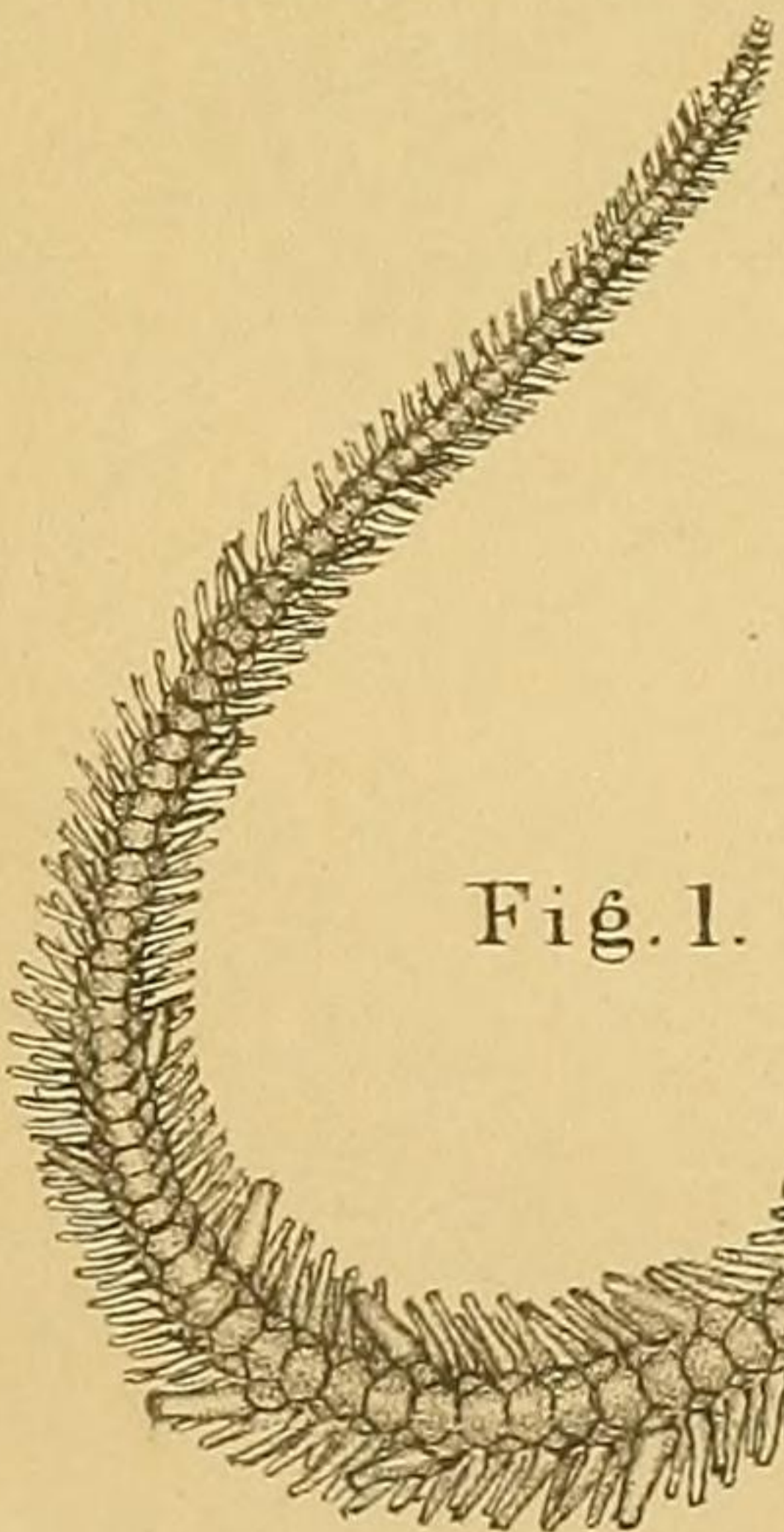


Fig. 1.

Fig. 5.

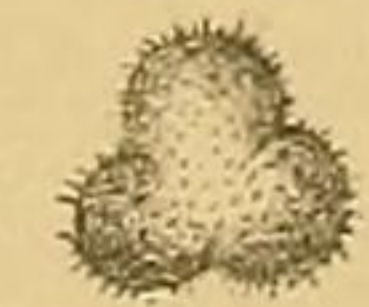
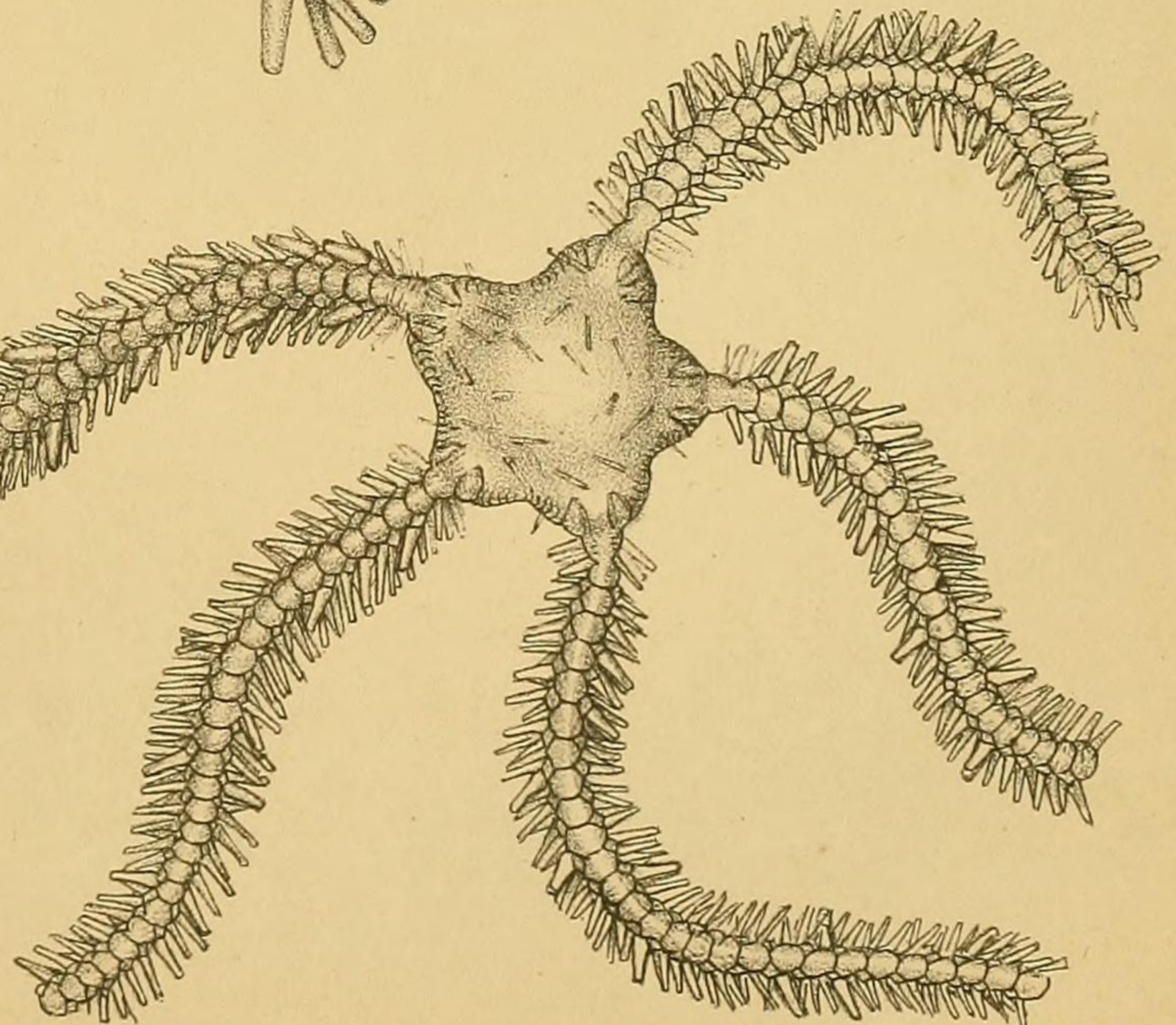


Fig. 6.



Berjeau lith.

Mintern Bros imp.

ACANTHARACHNA MIRABILIS