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Article/Chapter Title: Echinodermata In Account of the zoological collection made during the visit of H.M.S. ' Peterel ' to the Galapagos Islands.

Author(s): Edgar, E.A.

Subject(s): Echinodermata

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12. *EUNICA CÆRULA*.

♂. Exp. 2·4 in. Allied to *E. tatila*, H.-Sch. (Aussereurop. Schm. f. 69–72), ex Haiti, but differing in the greater extent and more purple tinge of the blue of the wings, which in Haitian specimens (agreeing fairly with H.-Schäffer's plate) is of a paler tint. Beneath, the posterior wings are deeper brown, and the markings much less distinctly defined.

Hab. Guatemala. Mus. nostr.

6. Account of the Zoological Collection made during the visit of H.M.S. 'Peterel' to the Galapagos Islands. Communicated by Dr. ALBERT GÜNTHER, F.R.S., V.P.Z.S., Keeper of the Zoological Department, British Museum.

[Received January 29, 1877.]

(Plates XI.–XIII.)

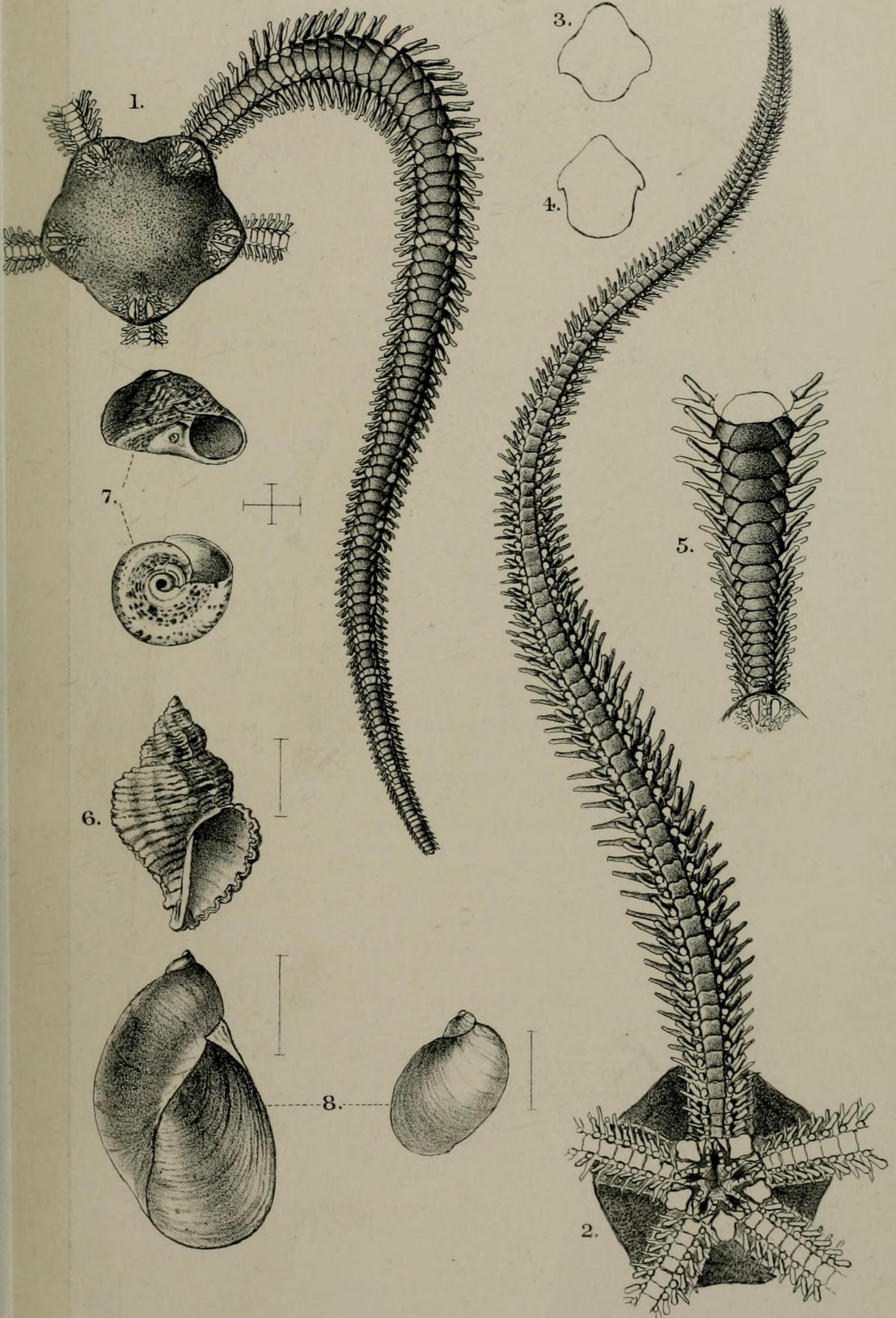
The circumstances under which the zoological collection¹ described in this paper was obtained are, shortly, the following. By direction of Rear-Admiral the Hon. A. A. Cochrane, who then commanded the Pacific Station, Commander W. E. Cookson proceeded in H.M.S. 'Peterel,' in June 1875, for a short cruise in the Galapagos archipelago. His whole stay was limited to a fortnight, in which time he landed on Charles and Abingdon Islands, and at Tagus and Iguana Coves in the Albemarle Islands. These, at least, were the localities where Commander Cookson, assisted by Staff-Surgeon Bett, collected the zoological objects which, by direction of Admiral Cochrane, have been deposited in the British Museum.

Valuable as this contribution to our knowledge of the Galapagos fauna is, it serves at the same time to show how incomplete is our acquaintance with one of the zoologically most interesting stations. But for Commander Cookson's timely visit, the Abingdon Tortoise would, in all probability, have disappeared, unknown as if it had never existed, or leaving only some fragments of its osseous frame. Perhaps we may hope that the success which attended Commander Cookson's search may encourage others to complete the work commenced by Fitzroy and Darwin.

For the convenience of the student of this fauna, it seemed desirable to keep together in a connected form the notices of the various parts of the collection which have been examined and determined by the staff of the Zoological Department.

My thanks are due to Mr. McLachlan, F.L.S., for the notice of the Libellulæ.

¹ Referred to at meetings of the Zoological Society last year; see P. Z. S. 1876, pp. 178, 422, 520.



E. A. Smith del.

Mintern Bros. imp.

1-5, OPHIONEREIS ALBOMACULATA. 6, RHIZOCHILUS PARVUS.
 7, TROCHUS COOKSONI, 8, SUCCINEA BETTI,

5. DELPHAX SIMULANS.

Delphax simulans, Walker, Cat. Homopt. ii. p. 355. n. 24.

Charles and James Islands (*C. Darwin*).

6. DELTOCEPHALUS OBLIQUUS.

Acocephalus obliquus, Walker, Cat. Homopt. iii. p. 851. n. 23.

7. JASSUS PLANUS, n. sp.

Above sordid testaceous; pronotum in front, and head, ochraceous, the latter with a greyish spot in the centre of the ocelli; tegmina pale testaceous, hyaline; pectus and venter pale testaceous; rostrum and legs sandy yellow; eyes brown; ocelli black: head very broad, exceedingly short from the vertex hindwards, convex in front, concave behind; thorax convex in front, the sides converging, subsinuate, and ending in a truncate slightly convex line behind; scutellum triangular, all the sides slightly sinuate; tegmina extending considerably beyond the abdomen, rather narrow, distinctly convex in front; rostrum extending to the second pair of coxæ, broad and angulated at base, its basal article centrally tumid; hind tibiæ with about seven external strong spines: length of body 3 millimetres, including the tegmina $4\frac{1}{2}$ millimetres.

One example from Charles Island (*C. Darwin*).

8. JASSUS LUCIDUS, n. sp.

Shining mustard-yellow; tegmina whitish, transparent; wings white; head broad, exceedingly short from the vertex hindwards, convex in front, concave behind; thorax transverse, much broader than long, very convex in front, less so behind; scutellum triangular; tegmina extending considerably beyond the body, rather narrow, slightly convex in front; rostrum nearly as in preceding species, but narrow at base; hind tibiæ densely spined: length of body about $2\frac{1}{2}$ millimetres, including the tegmina about $3\frac{1}{2}$.

One example, James Island (*C. Darwin*).

The specimen being somewhat damaged, I have been unable to take absolutely definite measurements.

9. JASSUS STRIOLARIS, n. sp.

Head testaceous, above with a central and lateral longitudinal line and a spot on each side between them, black; frons with a central line and the ocelli black; thorax black, with two central dots in front, and two U-shaped markings on the posterior half, testaceous; scutellum testaceous; tegmina black, with longitudinal testaceous veinings; body below black; legs testaceous: structure as in *I. planus*: length of body 3 millimetres, including the tegmina $4\frac{1}{2}$ millimetres.

Charles Island (*C. Darwin*).

XI. ECHINODERMATA. By EDGAR SMITH.

I. ECHINI.

1. CIDARIS THOUARSII, Val.

2. TOXOPNEUSTES SEMITUBERCULATUS, Val.

II. ASTERIIDÆ.

3. HELIASTER MICROBRACHIA, Xantus.

III. OPHIURÆ.

4. OPHIOTHRIX SPICULATA, Leconte.

5. OPHIONEREÏS ALBOMACULATA, sp. nov. (Plate XI. figs. 1-5.)

Disk somewhat pentagonal, finely scaled, the scales in the region of the radial shields larger than elsewhere; radial shields very small, narrow, pointed within, not far apart, the inner sides nearly straight, outer curved, white with the outer tips blackish; oral shields shaped like a short spear-head, the point being obtuse, and towards the mouth and the handle broad and short, the madreporic shield a little larger and of a somewhat different form; side oral shields irregularly triangular, small, situated on the sides of the orals, the outer angle touching the first very small ventral arm-plate, the lower end not nearly reaching to the apex of the oral shield; mouth-papillæ 6-8 on each mouth-angle, subequal, the outermost one generally the largest; arms about six times as long as the width of the disk, broadest about an inch from it, and towards it gradually attenuating; upper plates irregularly quadrangular, the sides converging outwardly; the outer edge is consequently narrower than the inner, and straight; the supplementary plates on each side about half as large as the central ones; lower arm-plates square, with the angles rounded; 4 spines on about the first twelve side arm-plates, 3 on the rest; the lowest is a little the smallest, the central one the largest (2 millims. in length), the uppermost broad, compressed and truncate at the apex; the single tentacle-scale is large and subcircular. The colour of the disk (in alcohol) dark olive, almost black, varied with white near the radial shields; arms above of the same dark tint as the disk, with white spots at intervals of a few segments, and towards the end of the arms the plates on each side of those which are white or which are white-spotted are almost black; lower arm-plates purplish brown, tentacle-scales a little paler; arm-spines dark olive with pale lips.

Diam. of disk 13 mill.; width of the first dorsal arm-plates including the supplementary ones 2 millims., of the fifteenth 3 millims.

Hab. Charles Island.

This species is remarkable in having the middle portion of the rays considerably broader than the base; the first lower arm-plate is very small, being only about one fourth the size of the next and situated between the side mouth-shields. The white spots on the upper surface of the arms are generally on the outer edges; but towards the end of the arms they meet, thus forming transverse white bands; and on each side of them the adjoining plates are much darker than the roots of the arms, in fact almost black, thus giving a very striking variegated aspect to them.

EXPLANATION OF THE PLATES.

PLATE XI.

- Figs. 1-5. *Ophionereis albomaculata*, p. 92.
 6. *Rhizochilus parvus*, p. 70.
 7. *Trochus (Omphalius) cooksoni*, p. 71.
 8. *Succinea bettii*, p. 72.

PLATE XII.

- Fig. 1. *Leptodius cooksoni* ♂, nat. size, p. 73.
 1 a. Front, antennal, and orbital region, and buccal cavity, showing absence of palatal ridge, enlarged.
 1 b. Hand of male; enlarged, twice nat. size.
 1 c. Abdomen of male; enlarged.
 1 d. Abdomen of female; enlarged.
 2. *Cubaris galapagoensis*; enlarged, three times nat. size, p. 76.
 2 a. Lateral view in outline.
 2 b. Front of head showing antennæ; enlarged, six times nat. size.
 2 c. Terminal segment, do.

PLATE XIII.

- Fig. 1. *Gasteracantha insulana*, Thorell, nat. size, p. 76.
 1 a. Profile of the same.
 1 b. Caput, with eyes, showing their position.
 1 c. Single falx, showing arrangement of teeth.
 2. *Epeira cooksonii*, Butler, nat. size, p. 76.
 2 a. Profile of the same.
 2 b. Caput, with eyes.
 2 c. Single falx.
 3. *Theridion carolinum*, Butler; enlarged, twice nat. size: p. 75.
 3 a. Profile of the same.
 3 b. Caput, with eyes.
 4. *Thomisoides utrifformis*, Butler, nat. size, p. 77.
 4 a. Single falx of the same.
 4 b. Profile.
 4 c. Caput, with eyes.
 5. *Latrodectus apicalis*, Butler, profile, nat. size: p. 75.
 5 a. Single falx of the same, showing the want of teeth.
 5 b. Caput, with eyes.

7. Description of a New Species of *Lobiophasis* and a New Species of *Pitta* from the Lawas River, N.W. Borneo. By R. BOWDLER SHARPE, F.L.S., F.Z.S., &c., Senior Assistant, Zoological Department, British Museum.

[Received February 6, 1877.]

When my friend Mr. Ussher was appointed Governor of Labuan, the first thing that I naturally asked him, was to try and get additional specimens of the *Lobiophasis bulweri*. I have received several letters from him, announcing the successive failures of his attempts to obtain more examples of this bird; but at last I heard from him that, although the collector whom he had sent to the Lawas river had not met with the longed for Pheasant, he had procured a pair of an apparently new species, which I might expect to see before long.

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[Begin Page: Page 64]

64 DR A. GIJNTHER ON THE ZOOLOGICAL [Feb. 6,

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E A. Smith, del. Minteni Bros-imj) .

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[Begin Page: Page 91]

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5. Delphax simulans.

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Charles and James Islands (C Darwin).

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7. Jassus planus, n. sp.

Above sordid testaceous ; pronotum in front, and head, ochraceous, the latter with a greyish spot in the centre of the ocelli ; tegmina pale testaceous, hyaline ; pectus and venter pale testaceous ; rostrum and legs sandy yellow ; eyes brown ; ocelli black : head very broad, exceedingly short from the vertex hindwards, convex in front, concave behind ; thorax convex in front, the sides converging, subsinuate, and ending in a truncate slightly convex line behind ; scutellum triangular, all the sides slightly sinuate ; tegmina extending considerably beyond the abdomen, rather narrow, distinctly convex in front ; rostrum extending to the second pair of coxae, broad and angulated at base, its basal article centrally tumid ; hind tibiae with about seven external strong spines : length of body 3 millimetres, including the tegmina 4 millimetres.

One example from Charles Island (O. Darwin).

8. *Jassus lucidus*, n. sp.

Shining mustard-yellow ; tegmina whitish, transparent ; wings white ; head broad, exceedingly short from the vertex hindwards, convex in front, concave behind ; thorax transverse, much broader than long, very convex in front, less so behind ; scutellum triangular ; tegmina extending considerably beyond the body, rather narrow, slightly convex in front; rostrum nearly as in preceding species, but narrow at base ; hind tibiae densely spined : length of body about 2 millimetres, including the tegmina about 3 millimetres.

One example, James Island (C Darwin).

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9. *Jassus striolaris*, n. sp.

Head testaceous, above with a central and lateral longitudinal line and a spot on each side between them, black ; frons with a central line and the ocelli black ; thorax black, with two central dots in front, and two U-shaped markings on the posterior half, testaceous ; scutellum testaceous ; tegmina black, with longitudinal testaceous veinings ; body below black ; legs testaceous : structure as in *J. planus* : length of body 3 millimetres, including the tegmina 4g millimetres.

Charles Island (C Darwin).

XI. Echinodermata. By Edgar Smith.

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1. *CIDARIS thouarsii*, Val.

2. *TOXOPNEUSTES semituberculatus*, Val.

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[Begin Page: Page 92]

92 ON THE COLLECTION MADE BY H.M.S. ' PETEREL.' [Feb. 6,

II. ASTERIIDA^.

3. *Heliaster microbrachia*, Xantus.

III. Ophiur^.

4. *Ophiothrix spiculata*, Leconte.

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