PROCEEDINGS

OF THE

ZOOLOGICAL SOCIETY

OF LONDON.

PART XXIV.

1856.

PRINTED FOR THE SOCIETY;
SOLD AT THEIR HOUSE IN HANOVER-SQUARE,
AND BY MESSRS. LONGMAN, BROWN, GREEN AND LONGMANS,
PATERNOSTER-ROW.

16. Ramphocelus sanguinolentus.

Tanagra (*Tachyphonus*) *sanguinolentus*, Less. Cent. Zool. p. 107. pl. 39.

Tachyphonus sanguinolentus, Gray, Gen. p. 365.

Ramphocelus sanguinolentus, Bp. Consp. p. 242.

Velutino-ater : pileo postico, nucha cum cervice laterali et pectore conjunctis necnon tectricibus subalaribus et uropygio crissoque coccineis : rostro albo : pedibus nigris. ♀ *mari similis, sed coloribus obscuribus.*

Long. tota 7·5, alæ 3·7, caudæ 3·3.

Hab. South Mexico, Valle Real (*Deppe* in Mus. Berol.); Cordova (*Sallé*); Coban (*Delattre*, in Mus. Derb.); Honduras, Camalacan river, near Truxillo (*Dyson*).

Mus. Brit., Derbiano.

3. Some remarks on Crustacea of the genus Lithodes, with a brief description of a Species apparently hitherto unrecorded. By Adam White.

(Annulosa, Pl. XLII.)

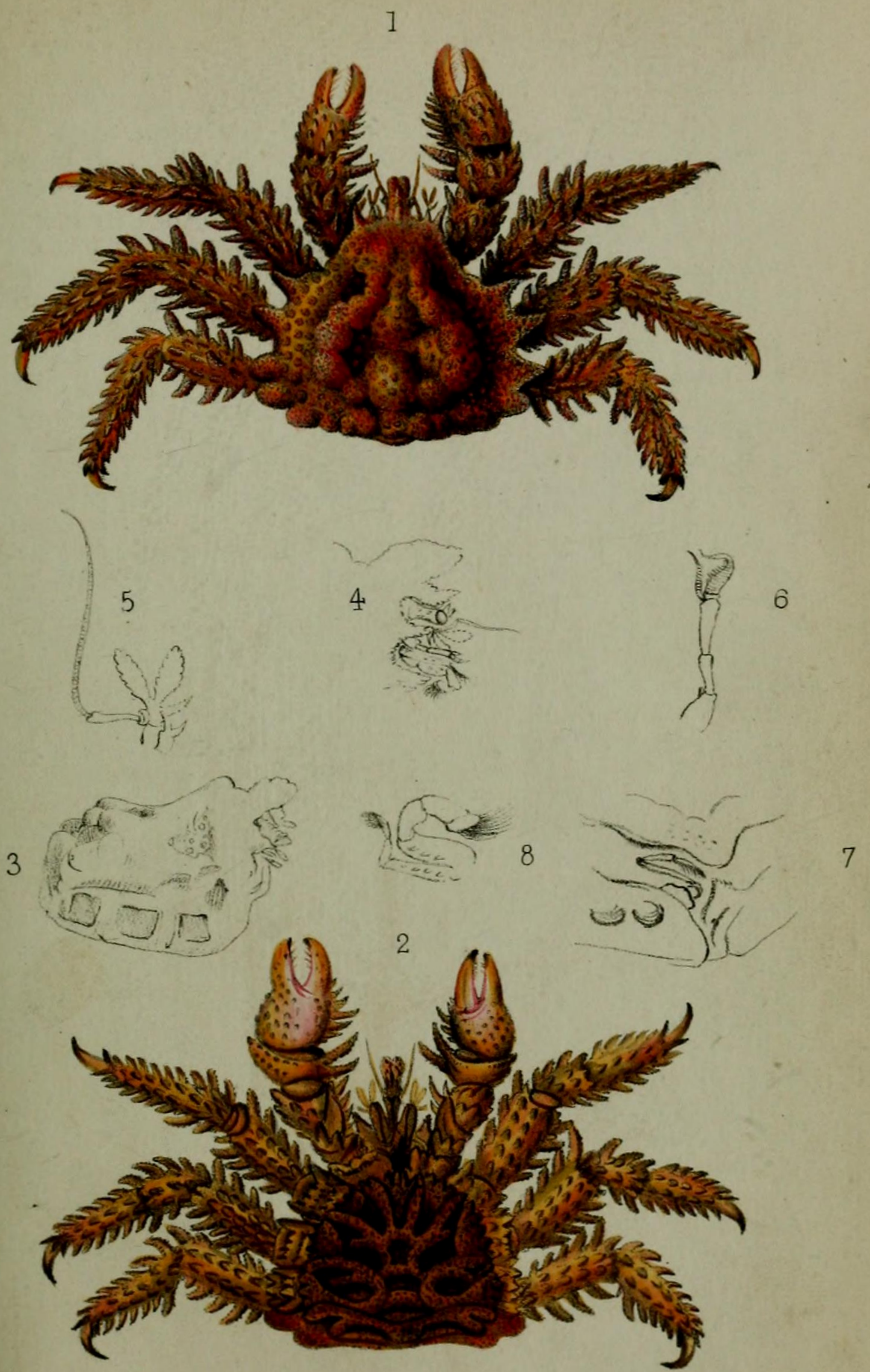
Having laid before the Society a description of the interesting *Lithodes* (*Echidnocerus*) *cibarius*, of which a very excellent figure is published in the Proceedings for 1848, drawn by the late W. Wing, F.L.S., I conceive that a brief account of another very curious *Lithodes*, of which a notice was given at a meeting of the Linnean Society, may not be without interest to some of the members.

The group *Lithodes*, founded by Latreille upon our well-known, though not very common, spine-covered, empty-bodied *Lithodes Maia*, begins now to become better known. Of the excellent figure of this type of the genus, published by Dr. Leach in his 'Malacostraca Britannica,' it is sufficient to say that it was drawn and engraved by the late James Sowerby, F.L.S., and coloured from his pattern.

A very young specimen, procured by R. McAndrew, Esq., F.R.S., during his late Norwegian cruise, shows that in the young state the asperities are rather sharper, and the carapace is decidedly longer in comparison with its breadth, than in the adult state; the arrested development of the pieces forming the tail is characteristic in the adult as it is in the young specimen, 1 inch long, dredged by Mr. Barrett, and presented by Mr. McAndrew to the Museum.

Seba (vol. iii. pl. 22. f. 1) has figured a specimen with longer and more divergent terminal horns to the rostrum. As a bad specimen exists of this variety in the Paris Museum, Prof. Milne-Edwards fancies, and with good reason too, that it may prove a distinct species; he has provisionally named it *Lithode douteuse* (Crust. ii. 186); at all events, it is a variety which research may find in this country, for different specimens differ in their degrees of divergence in the horns of the rostrum.

Haan, in his 'Fauna Japonica,' 217. t. 47, has figured the male



W. del. Ford & West, Imp. C.W.W. lith.

LITHODES (PETALOCERUS) BELLIANUS.
White

of *Lithodes Camschatica*, a species first described as *Maia Camschatica* by Tilesius in the 'St. Petersburg Memoirs,' v. p. 336. pl. 5. & 6, the female (1812). This species is named by the Chinese *Sima-gani*—that is, the Insular Crab.

Tilesius tells us that it is found on the shore of Kamschatka, among the rocks, where it conceals itself and keeps sedentary, living upon cuttle fish (*Sepia octopodia*), and snaring Starfishes and Mollusca. He records that this *Lithodes* fixes itself so firmly and resolutely in a hole of a rock, that you could not draw it out without breaking its shell. He compares the tenacity with which the Lithodes is held in the hollow of the rock to the fixedness of the *Echinus mammillaris*.

The same learned naturalist has figured another large species from Japan (218. t. 48) as the *Lithodes hystrix*; it is one which Siebold, in his 'Spicilegia,' p. 15, had only ventured to regard as the common *L. Maia* (*Lithodes arctica*, Lam., Sieb.). The *L. hystrix*, Haan, is a beautifully distinct species very thickly covered with sharp spines, named by the Japanese, *Jeara-gani*, the prickly crab, or *Aka-onigani*, the Devil's red-crab.

This list completed the number of the group found in the northern hemisphere, up to the publication of *L.* (*Echidnocerus*) *cibarius*, before alluded to. The species to be described in this paper was found by Mr. Lobb cast ashore after a violent storm on the coast of California; and as it has some peculiarities of structure in its legs, antennæ, carapace and abdomen, distinguishing it from any other, it may be named *Lithodes* (*Petalocerus*), from the beautiful petal-like lobes of the antennæ. Before describing it, it may be well to review the species of *Lithodes* found in the southern hemisphere.

Messrs. Hombron and Jacquinot, on D'Urville's 'Voyage au Pole Sud,' discovered a fine species which they named *Lithodes antarctica*, pl. 7–8. f. 9, jun. Dana, too, has described and figured this in the 'Crustacea of the United States Exploring Expedition,' i. 427. pl. 26. f. 15. ♀. He found it at Nassau Bay in Fuegia, where he tells us it grows to a very large size; the exuviæ of one, obtained by Mr. Dana, were 8 inches long, and the longest legs were 15 inches in length. He describes the species as abundant in water 6 or 7 feet deep, "where it is observed to creep along the bottom with sluggish motion; they have no legs or appendages fitted for swimming. Colour, dark cherry-red, the carapace with a slight purplish tinge. The long spines that cover the carapace and legs are longest proportionally in small individuals; the right hand is much the stoutest, the second basal joint of outer antennæ with a single longish spine on the outer side" (*loc. cit.* i. p. 428).

We hope that Mr. Despard and his noble band, who are now, or will shortly be, in these seas, will find this and the other, and perhaps new, Fuegian species. Specimens of the young are sometimes found in the stomachs of fishes, as in the case of the half-digested *Lithodes Maia* sent to Dr. Leach by the late Dr. Patrick Neill, and now in the British Museum. It would be well to keep some specimens like this.

Gay in his 'Chili' mentions it (iii. 182) as a native of Chili.

The *Lithodes granulosa*, Hombron and Jacquinot, 'Voy. au Pole Sud,' pl. 8. f. 15, has the beak scarcely projecting at all beyond the extra-orbital angle, the carapace and upper parts of its legs are thickly invested, as in some of the *Canceridæ*, with close strawberry-surfaced granules, closely pressed together. It is a small species, evidently very distinct from *Lithodes* and more allied to *Lomis*—it may be called *Paralomis granulosa*. We have it in the British Museum. The figure in the 'Voyage au Pole Sud,' is extremely bad, not at all giving correctly the surface of the carapace and legs, which are *closely* matted with the warts.

Messrs. Edwards and Lucas have published the description of a fine species, said to come from the Southern Pacific, in the Archives du Museum, ii. 465. pl. 24–27, and given ample details of it. It is named, from its short legs, *Lithodes brevipes*; its beak is short. In the British Museum we have a specimen.

The *Lithodes verrucosa*, Dana (pl. 26. f. 16. vol. i. pl. 428), was found by that able and active naturalist in Fuegia. The carapace is verrucose throughout.

The *Lomis hirta* of M. Edwards, founded on the *Porcellana hirta* of Lamarck (Anim. s. vert. v. 229), is an interesting generic form, to which Lichtenstein, in one of his catalogues, had applied the name *Thylacurus*. De Haan, who quotes this, has figured a second species in his 'Fauna Japonica' (219. t. 48. f. 2. & t. Q), under the name *Lomis dentata*:—"tota tomentosa, setis brevibus densis; thoracis margine medio 8-spinoso, pedibus secundis, tertiis et quartis margine antico 15-spinosis, spinis cristam subcontinuam formantibus."

Lomis hirta is abundant on the coast of Tasmania.

LITHODES (PETALOCERUS) BELLIANUS. (Pl. XLII.)

The first feature of the curious crab here figured is the strawberry-like surface of its carapace, and of the blunt spines with which its legs are covered; the next feature is the subequilateral triangular figure of that carapace; this part is produced above the eyes into a notched projection, with two slight prominences down the middle; this covers up the front part of the head, and conceals a wart-covered spine above the base of the pedicels of the eye, which pedicels are spiny above. The carapace has 3 spines on each side, and 2 tubercles; the first spine is directed forwards, and has one or two indistinct spinelets at its base, the second and third are separated from the first by a considerable sinus, and are near each other; they are directed laterally, but slightly inclined forwards like the other two, and indeed like the whole of the carapace and the spines on the legs; they are covered with the close warting so characteristic of this species; the two tubercles on the lateral border, but at its end are united at the base; the anterior is the larger; the hind part of carapace is straight, bending round towards these tubercles and thickened on the edges, one of its monticuli being connected with the hindmost lateral tubercle; the stomach, genital, and cardiac regions

are covered by a projecting portion occupying a considerable part of the back of the carapace and raised above it; this projecting part is environed by a somewhat lyre-shaped wall, pinched in front on the sides and somewhat notched behind with two deep fossæ placed transversely and connected by a short canal, the base of which is smooth with only a few groups of warts.

The abdomen is very regular and complete for the group, and when additional specimens will admit of its being dissected, its structure promises to be curious; the various parts of it are hardly perceptible in the individual examined; a tolerably regular series of strange, close-placed appendages on its edges, seem, on cursory observation, very curious: there are about 12 deepish fossæ over it, the 2 deepest in the basal portion close to back part of carapace, and almost at right angles to the rest of abdomen, 3 on each side diverging into smaller fossulæ towards the edges, and four down the centre. The figures, drawn by Mr. Westwood from the specimen, before it came into Mr. Bell's possession, show as much as can be shown without injuring the rare example.

I exhibited a drawing of this crab at a meeting of the Linnean Society some two years ago, and not having the specimen by me, concluded, as Mr. Westwood's drawing showed it, that there were no visible traces of the imperfectly developed leg-appendages, so prominent in some species of *Lithodes*. A subsequent examination of the specimen kindly sent me by Prof. Bell has shown me I was mistaken; and on removing the carapace, which Mr. Westwood did, they are to be seen concealed as represented in the figure. There is, however, no outward opening.

This fine species is named *Lithodes* (*Petalocerus*) *Bellianus* in compliment to the ablest of our British carcinologists, the learned and scientific President of the Linnean Society, Professor Thomas Bell; in whose fine collection it is preserved. It is to him I am indebted for the loan of the specimen.

The plate represents—

1. *Lithodes* (*Petalocerus*) *Bellianus*, of the natural size, viewed from above.
2. The same from beneath, showing the pitted abdomen.
3. Rough sketch of carapace in profile.
4. Profile view of rostrum, with eyes, antennæ, &c.
5. Outer antennæ with petaloid processes.
6. Inner antennæ.
7. Hind pair of legs, concealed under the carapace.
8. Jaw feet.

May 27, 1856.

Dr. Gray, F.R.S., in the Chair.

Mr. Gould brought under the notice of the Meeting a portion of the Birds collected by Mr. John MacGillivray, the naturalist at-