

Ventrals 146; anal divided; subcaudals  $28 + x$ , possibly 40. Posterior maxillary tooth strong and separated from the preceding by an interspace.

Upper parts brown, with four rather indistinct blackish lines, the outer along the fourth and the inner along the seventh series of scales; upper labials yellowish, marbled with blackish like the throat; lower parts greyish, nearly black.

The length of the single specimen is 18 inches, of which the somewhat mutilated tail measures two.

This species seems to be allied to *Liophis quinquelineatus* (Ann. & Mag. Nat. Hist. 1881, vol. vii. p. 359), of which the type has been lost. It differs, however, by its somewhat larger eye, fewer series of scales, and different coloration of the head.

X.—*Report upon the Crustacea collected by P. W. Bassett-Smith, Esq., Surgeon R.N., during the Survey of the Macclesfield and Tizard Banks, in the China Sea, by H.M.S. 'Rambler,' Commander W. U. Moore. By R. I. POCOCK.*

THIS collection of Crustacea is composed principally of Brachyurous forms of small size. Seventeen species have been identified, and of these three are now described for the first time. This percentage of new species from seas so well known is distinctly good. The chief interest centres in the Maioid forms, two of them being new to science and the rest noticeable in other respects.

In addition to the species here enumerated several small specimens of a species of *Alpheus* were taken; but the identification of these has not been attempted, on account of their immaturity and imperfect condition.

1. *Gonodactylus chiragra* (Fabr.).

One small specimen in 3 feet of water at the north-east extremity of the reef.

2. *Galathea australiensis*, Stimpson.

*Galathea australiensis*, Stimpson, Proc. Ac. Sci. Philad. p. 89 (1858); Henderson, Anomura of 'Challenger' Exped. p. 118, pl. xii. fig. 5.

Two specimens without chelipedes in 32 fathoms of water on Macclesfield Bank.

3. ? *Dynomene hispida*, Desmarest.

*Dynomene hispida*, Desmarest, Consid. gén. Crust. p. 133, pl. xviii. fig. 2.

A single specimen, perhaps not referable to this species, on Macclesfield Bank, 32 fath.

4. *Nursilia dentata*, Bell.

*Nursilia dentata*, Bell, Trans. Linn. Soc. xxi. p. 309, pl. xxxiv. fig. 6.

A single female specimen at a depth of 40 fath.

5. *Caphyra lævis*, A. Milne-Edwards.

*Caphyra lævis*, A. Milne-Edwards, Nouv. Arch. Mus. v. p. 152, and ix. p. 173, pl. iv. fig. 2.

One specimen in 3 feet of water on Extreme Reef.

6. *Tetralia cavimanus*, Heller.

*Tetralia cavimanus*, Beiträge zur Crustaceen-Fauna des rothen Meeres, p. 353, pl. iii. figs. 24, 25.

Three specimens from Mace Island at a depth of 20½ fath.

7. *Trapezia cærulea*, Rüppell.

*Trapezia cærulea*, Rüppell, Miers, Brachyura of 'Challenger,' p. 165.

A single specimen on Extreme Reef in 3 feet of water.

The lateral spines of the carapace are almost obsolete; the manus is rounded above and not hairy externally.

8. *Trapezia cymodoce* (Herbst), Miers.

*Trapezia cymodoce* (Herbst), Miers, Ann. Nat. Hist. (5) ii. p. 408.

Taken with the above was a single specimen of *Trapezia* which is referable to *T. cymodoce* as restricted by Miers. It may be distinguished from those that I have named *T. guttata* by the absence of spots from the legs and by the presence of a cluster of very short hairs on the outer surface of the manus of the chelipede.

9. *Trapezia guttata*, Rüppell.

*Trapezia guttata*, Rüppell, Beschreib. Krabben des rothen Meeres, p. 27.

Half a dozen small specimens in 6 fathoms off Tizard Bank.

Our knowledge of the species of the genus *Trapezia* is in a very unsatisfactory state. I refer these specimens to *guttata* of Rüppell on the strength of the following characters:—a uniformly coloured thorax with a spine on each side of it, and legs bearing more or less faint indications of spots.

10. *Actumnus setifer*, de Haan.

*Actumnus setifer*, de Haan, Crustacea in Siebold's 'Fauna Japonica,' p. 50, pl. iii. fig. 3.

A small specimen on Macclesfield Bank at a depth of 32 fathoms.

11. *Daira perlata* (Herbst).

*Daira perlata* (Herbst), Milne-Edwards, Crust. i. p. 387.

A single specimen taken in 3 feet of water at the north-eastern extremity of the reef.

12. *Actæa tessellata*, sp. n.

*Carapace* wide, about as wide in proportion to its length as in *A. rufopunctata*, but more rounded at the sides; furnished in every part with distinctly defined lobes which exactly resemble the similar lobes in *A. rufopunctata* in being covered with rounded close-set granules; the depressions which separate these lobes are clothed with short hairs; at the edge of the carapace the lobes are not distinct, as in *rufopunctata*, but merely represented by clusters of sharper granules, which give to the carapace the appearance of being laterally spinulose; the frontal region furnished with four lobes, as in *rufopunctata*; margins of the orbits granular, but less distinctly lobate than in *rufopunctata*; the anterior half of the carapace, behind the orbits and the posterior frontal lobes, is furnished as in *rufopunctata* with eight lobes arranged in a transverse series; of this series the two which are close to the middle line are almost continuous in front with the posterior frontal lobes, while behind they are separated from each other by a very conspicuous elongate median lobe; at the posterior extremity of this and on each side of it there is a single small rounded lobe, and behind these three a single transverse lobe. This arrangement of granular lobes in this region of the carapace does not occur in any specimen of *rufopunctata* that I have seen; the arrangement of lobes on the rest of the carapace is much the same in the two species.

*Chelipedes* nearly smooth on the inner surface, granular externally, the granules on the carpus arranged more or less in clusters, on the manus in transverse series; the dactyli compressed and blade-like, the movable one slender and arched, granulate above, but on the inner surface feebly dentate only at the base; the immovable one obscurely dentate and thick from above downwards.

*Legs* very hairy and granular, as in *rufopunctata*, but not, as in that species, lobate.

Two specimens (♂ and ♀) on Extreme Reef in half a fathom of water.

The colour (in alcohol) of these specimens is a kind of pale reddish grey; the smooth parts of the limbs darker slate-grey, dactyli dark brown. In one specimen (the male) the lower half of the manus is black both on the inner and on the outer side. Whether this colouring is sexual or only "accidental" cannot of course be determined.

This species is more nearly allied to *rufopunctata* than to any other known to me, but may be separated from it by many well-marked characters. In addition to those already referred to in the description mention may be made of the form of the fingers and the absence of the red colouring-matter.

Width of carapace 14, length  $9\frac{1}{4}$  millim.

### 13. *Actæa rufopunctata*, M.-Edw.

*Actæa rufopunctata*, A. M.-Edw. Nouv. Arch. Mus. i. p. 268, pl. xviii. fig. 1 (1865).

A single specimen in 3 feet of water on Extreme Reef.

### 14. *Parthenolambrus calappoides*, Adams & White.

*Parthenolambrus calappoides*, Adams & White, Crust. in Voyage of 'Samarang,' p. 34, pl. v. fig. 5.

A single individual of large size at a depth of 27 fath. on the edge of the reef off Nam-yit.

The carapace gives the following measurements:—Length  $22\frac{1}{4}$ , width 33 millim.

This, the largest specimen that I have seen of the genus, I was at first inclined to look upon as the type of a new species mainly on the strength of the great erosion that the upper surface of the carapace presents. But an inspection of the series of *P. calappoides* in the Museum soon showed that this character is exceedingly liable to variation—in fact that no two individuals have the carapace similarly eroded.

15. *Hyastenus (Chorilia) tenuicornis*, sp. n.

Carapace pyriform, with well-defined regions; the rostral spines hairy, exceedingly long and diverging, *i. e.* each spine is considerably longer than the carapace and the distance between their apices is about equal to their length; the supernumerary rostral tooth, which is said to be characteristic of the genus *Naxia*, is absent; the antennal and orbital spines are very strong; from the base of each there runs backwards towards the margin of the posterior half of the orbit a tooth which in the case of the orbital spine partially bridges over the upper orbital hiatus; the orbital hiatus very large and the posterior portion of the orbit in consequence small and pillar-shaped; from its upper surface it sends forward a projection in the direction of, but not reaching, the backwardly prolonged tooth from the upper orbital spine; these two projections almost fill up the aperture of the upper orbital hiatus; the superior interorbital area furnished with two sub-parallel longitudinal series of tubercles; the gastric region of the carapace furnished with larger and smaller, not close-set tubercles, of which three in the middle line and one on each side are the largest; the cardiac region armed with two enormous tooth-like tubercles set in longitudinal series; the branchial region armed with three large teeth, of which the hindmost is the largest.

*Chelipedes* long, projecting slightly beyond the apex of the rostral spines; merus cylindrical, furnished at its distal end with a spine above and an articular tubercle on each side; manus long and slender, with an articular tubercle above and below at its proximal end and a longitudinally grooved external surface.

*Legs* almost alike, differing principally in length and in the fact that the merus of the first pair is furnished at its distal end with an enormous spine, which is scarcely represented on the other legs.

*Measurements in millimetres.*—Length of carapace 10, width 7, width outside orbits  $4\frac{3}{4}$ ; length of rostral spine  $12\frac{1}{2}$ ; distance between apices of spines  $12\frac{1}{2}$ ; length of chelipede  $17\frac{1}{2}$ , of first leg  $27\frac{1}{2}$ , of last 13.

The colour (in spirit) of this specimen is very beautiful; the bases of the legs and of the rostral spines, the interorbital area, and the antero-lateral portions of the carapace are carmine, the upper portions of the branchial region are bluish grey, the rest yellowish white.

One specimen at a depth of 32 fath., another at a depth of 25 fath., on Macclesfield Bank.

This species is very distinct from all known to me, and is to be at once recognized by its enormously long and divergent rostral spines and by the long and slender spinule which is situated at the distal extremity of the merus of the first pair of legs. It somewhat resembles *Hyastenus oryx* of A. Milne-Edwards \*, but differs in the armature of the cephalothorax and in its long and diverging rostra. In possessing two median, large, erect spines on the cardiac lobes of the carapace it appears to be allied to *Naxia hystrix* and to *Naxia elegans*.

16. *Naxia taurus*, sp. n.

*Carapace* pyriform, with gastric, cardiac, and branchial regions well defined by conspicuous smooth sulci; the whole surface covered with distinct though close-set minute tufts of hair, amongst which, especially in the gastric and branchial regions, project a few longer and coarser hairs; the rostral spines long and diverging, *i. e.* each spine is considerably longer than half the length of the carapace, and the distance between the tips of the spines is a little more than three quarters the length of each, coarsely and sparsely hairy in the proximal half of the inner surface, the additional spine is large and situated far from the apex near the middle, but in the distal half of the upper surface; antennal spine long and strong, but less strong than the superior orbital spine; the external half of the orbital margin is bidentate above and hairy on the inner surface; the superior interorbital area is furnished with two subparallel longitudinal series of tubercles, which extend, increasing in size from before backwards, almost from the base of the rostrum to the gastric region; gastric region armed with many symmetrically-disposed tubercles; three of these are very large and situated in the middle line, on each side of the anterior and posterior of these are two transversely disposed smaller tubercles, and in addition there are several still smaller tubercles scattered about; the anterior half of the cardiac region furnished with a cluster of small tubercles and the posterior half with three larger tubercles arranged in the form of a triangle; the hepatic and lateral portions of the branchial region covered with many small tubercles, the upper portions of the branchial region armed with fewer tubercles—on the epibranchial portion there is one large tooth and on the inner side of this a few smaller close-set tubercles, and on the metabranchial portion two or three widely separated small tubercles and a larger external tooth.

\* Nouv. Arch. Mus. viii. p. 250, pl. xiv. fig. 1.

*Chelipedes* when extended reaching slightly beyond the apex of the rostral spines; merus cylindrical and armed above with a single sharp spine situated at its distal extremity; manus cylindrical, furnished with an articular tubercle above and below at its proximal end; fingers slightly separated basally when closed.

*Legs* almost alike, differing principally in length, the first pair being much the longest; the segments are all simple and cylindrical, the merus alone being armed distally with a sharp spine; this spine, very large on the first pair, becomes gradually smaller from before backwards on the others, and finally disappears on the fourth.

*Measurements in millimetres.*—Length of carapace (without rostrum)  $20\frac{1}{4}$ , width 14, width behind orbits 7; length of rostral spine 12, of tooth from base  $6\frac{1}{2}$ ; distance between apices of spines  $9\frac{1}{4}$ ; length of chelipede 25, of first pair of legs  $57\frac{1}{2}$ , of last pair 26.

A single specimen on Macclesfield Bank at a depth of 32 fathoms.

Provisionally following Mr. Miers I refer to the genus *Naxia* those species allied to *Pisa* and *Hyastenus* which are characterized by the presence of an accessory spine or spinule on each of the rostral projections. Thus restricted the genus contains the species mentioned by Mr. Miers on p. 60 of his Report on the Brachyura of the 'Challenger,' and, in addition, two that are here added. Of these one is the species described above, the other is *N. elegans*, a species referred by Mr. Miers (*loc. cit.* p. 58) to the genus *Hyastenus*. Whether this species is more nearly allied to the typical *Hyastenus* than to the typical *Naxia* it is difficult to say; but at all events it unquestionably possesses the rostral spinules by which alone, according to Mr. Miers, the genus *Naxia* may be separated from *Pisa* and *Hyastenus*. Curiously enough these spines, which, although small, are very distinct, appear to have been overlooked by both author and artist; for no mention is made of them in the description, and in the figure that accompanies it no sign of them is to be detected. It is very questionable whether a genus should be retained on so slender a basis, and there appears to be but little doubt that a revision of *Pisa*, *Hyastenus*, and *Naxia* will show that the three can scarcely be regarded as distinct genera. It is for convenience' sake alone that *Naxia* has been here restricted to those few forms presenting an accessory rostral spine. The following table will perhaps serve to show how these may be separated from each other:—

- a.* Carapace armed wholly or principally with large spines and spiniform prominences; meral segments of appendages armed distally with a single spinule.
- a*<sup>1</sup>. Rostral spines less than a third the length of the carapace and widely diverging; legs very long. . . . . *hystrix*, Miers\*.
- b*<sup>1</sup>. Rostral spines considerably more than half the length of the carapace; legs shorter.
- a*<sup>2</sup>. Rostral spines subparallel, diverging only near apex; intestinal region of carapace armed with three spiniform projections . . . . . *Robillardi*, Miers †.
- b*<sup>2</sup>. Rostral spines diverging gradually from the base; intestinal region of carapace armed with only one large spiniform projection . . . . . *elegans* (Miers) †.
- b.* Carapace armed principally with more or less close-set, blunt, tuberculiform teeth, amongst which, especially on the branchial region, a few spines may project.
- a*<sup>3</sup>. Rostral spines more than half the length of the carapace and diverging strongly from the base; meral segments of the appendages distally spined. . . . . *taurus*, sp. n.
- b*<sup>3</sup>. Rostral spines less than one third the length of the carapace and subparallel; meral segments armed distally with a tubercle.
- a*<sup>4</sup>. Orbital spine not large; rostral tooth situated some distance from the apex of rostrum . . . . . *hirta*, A. Milne-Edw. §
- b*<sup>4</sup>. Orbital spine conspicuous; rostral spine situated close to the apex of rostrum. . . . . *serpulifera*, Milne-Edw. ||

17. *Huenia proteus*, de Haan.

*Huenia proteus*, de Haan, Siebold's 'Fauna Japonica,' Crustacea, p. 95, pl. xxiii.

A single specimen in 3 feet of water on Eldad Reef.  
This specimen, although a male, is furnished with those

\* Brachyura of 'Challenger,' p. 60, pl. vi. fig. 4.

† Proc. Zool. Soc. p. 339, pl. xx. fig. 1 (1882).

‡ Brachyura of 'Challenger,' p. 58, pl. vi. fig. 3 (sub *Hyastenus*).

§ Ann. Soc. Ent. Fr. (4) v. p. 143, pl. iv. fig. 1.

|| Hist. nat. Crust. i. p. 313.

antero-lateral laminar processes which are usually confined to the female.

On each side of the rostrum and attached to the hairs which adorn this portion of the cephalothorax there is a single branching piece of the Alga, *Galaxaura fragilis*, in a cluster of which this crab was taken.

XI.—*On the Species Rallus pusillus of Pallas and its Allies.* By W. R. OGILVIE GRANT.

WHILE recently engaged in arranging the Rails in the National Collection I was struck by the difference in appearance between the Pigmy Rails from the Indo-Chinese countries and those from Europe, Africa, and Madagascar, which have always been regarded as belonging to one species and known as *Porzana Bailloni*. A more careful examination of our large series at once convinced me that this is a mistake, and that the Indo-Chinese bird, of which Mr. Hume's collection contains a very fine series, is in reality very distinct from the true *P. Bailloni*, which is the Western form, both in plumage and geographical distribution. There can be no doubt whatever that the Eastern bird is the one described by Pallas in his 'Reise Russ. Reichs,' iii. Anhang, p. 700, under the name of *Rallus pusillus*, a name which was doubtfully referred by Mr. Dresser to the synonymy of *P. Bailloni* and added to the synonyms of that species by Mr. Seebohm in his 'British Birds,' although he preferred to retain the name *Bailloni* used by the majority of authors. Pallas obtained his specimens in Dauria, and gives an excellent description, which I shall quote, as it clearly gives the characters which distinguish *pusillus* from *Bailloni*. The Eastern species must stand in future as :—

*Porzana pusilla* (Pall.).

“*Colore et forma perquam similis Rallo aquatico; sed magnitudo Alaudæ vulgaris. Facies, collum subtus et pectus medium longitudinaliter cærulescenti-cana, media gula candicat. Litura per oculos longitudinalis obsolete ferruginea. Vertex, cervix, dorsum ferrugineo nigroque liturata; dorsum lineolis longitudinalibus vagis albis. Abdomen crissumque nigra, tæniolis albis transversis. Cauda inter alas compressa, arrigua. Pedes virescentes.*”

As compared with *Porzana Bailloni* it may be briefly cha-