

CRUSTACEA.—By *Edward J. Miers, F.L.S., F.Z.S., Assistant in the Zoological Department, British Museum.*

The Crustacea collected by Messrs. G. Gulliver and H. H. Slater amount in all to 189 specimens, representing 35 species. All of these are forms that are widely distributed throughout the Indo-Pacific or Oriental Region (which includes the eastern coast of Africa, the south and east of Asia and islands adjacent, Australia, and the islands of Polynesia), with the following exceptions:—*Atergatopsis signatus* (hitherto only known from the Mauritius), *Caridina typus* (original locality not known), *Palæmon dispar* (hitherto recorded only from the Malayan Archipelago), *Palæmon hirtimanus* (from Mauritius, Réunion, and the Indian Ocean), *P. debilis* (from Amboina and the Sandwich Islands), and the new species of *Talitrus* (*T. gulliveri*), which is described below. With two exceptions all the species in the collection belong to the *Podophthalmia*. The following are the sub-tribes represented, with the number of species belonging to each:—

Sub-Tribe.	No. of Species.	Sub-Tribe.	No. of Species.
<i>Oxyrhyncha</i> - -	2	<i>Caridea</i> - - -	6
<i>Cyclometopa</i> - -	8	<i>Squillidea</i> - - -	2
<i>Catometopa</i> - -	9	<i>Oniscoidea</i> - - -	1
<i>Oxystomata</i> - -	1	<i>Gammaridea</i> - - -	1
<i>Paguridea</i> - -	5		

The Crustacea inhabiting the Red Sea have been made the subject of special study by Rüppell and Heller, those of Madagascar and the islands adjacent by Hoffmann, of Mauritius and Réunion by Alphonse Milne-Edwards, and of the South African coast by M'Leay and Krauss. Valuable additions to our knowledge of the Crustacea of the East African coast have been published by Hilgendorf, in Van der Decken's "Reisen in Ost-Afrika," where will also be found a conspectus of all the known species of East African Crustacea by Von Martens. So far as I am aware, however, no species have hitherto been recorded as inhabiting the Island of Rodriguez.

### PODOPHTHALMIA.

#### Decapoda.

#### *Menæthius monoceros*, Latr.

A single specimen, an adult male, was collected by Mr. Slater. There is probably no species of the *Oxyrhyncha* subject to greater variations, both in the form

and length of the rostrum and anterior legs and in the tuberculation of the carapace. Nearly a dozen supposed species of the genus *Menæthius* have been described, all of which are united by M. A. Milne-Edwards under the single name of *M. monoceros*; and although one or two of these forms (as, for example, the *M. tuberculatus*, Ad. and White, from the Mauritius) appear at first sight to present marked distinctive peculiarities, it is probable that these are no more than individual variations. The specimen from Rodriguez is of the normal form, in which the carapace is indistinctly tuberculated, the legs nearly smooth, the palm slender, and about twice as long as the fingers, which are not strongly arcuate. This variety is widely distributed throughout the Indo-Pacific region. Specimens are in the British Museum from the Gulf of Suez, Mauritius, Fiji Islands, Philippines, and Eastern Seas.

*Parthenope horrida*, Linn.

Two specimens, males, of this common species were collected by Mr. Slater. It is probably distributed throughout the Indo-Pacific region, and M. Milne-Edwards records its occurrence in the Atlantic Ocean. Specimens are in the British Museum from the Red Sea and Mauritius. This species is not to be confounded with *P. spinosissima* of M. Alph. Milne-Edwards (Faune Carcinologique, in Maillard, Notes sur l'île de la Réunion, Annexe F., p. 8, pl. xviii., fig. 1).

*Atergatopsis signatus*, Ad. & White.

A single specimen, a male, was obtained by Mr. Slater. This specimen is a little smaller than the typical example of this species in the British Museum Collection, from the Mauritius, hitherto its only recorded habitat.

*Zoerymus æneus*, Linn.

One example, a male, of this beautiful but very common species is in the collection obtained by Mr. Slater. It is found in the Red Sea, at the Seychelles, the Mauritius, Réunion, on the shores of the Indian Ocean, and in the Loo-Choo Islands, Australian Seas, and South Pacific (Samoa and Fiji Islands and Paumotu Archipelago).

*Actæodes tomentosus*, M.-Edw.

Two specimens, male and female, of this species were collected. It is found at the Mauritius, and is distributed throughout the Indo-Pacific region; its occurrence having been recorded from the Red Sea, Mozambique, the Indian Ocean, Nicobars, Sumatra, Sulu Archipelago, Samoa, and Fiji Islands; and specimens are in the Collection of the British Museum from the Seychelles, Philippines, Sandwich Islands, and Minerva Reef. *A. affinis*, Dana (U. S. Expl. Exp. xiii., Crust. i. p. 198, pl. xi. fig. 3), from the Paumotu or Society Islands, differs only in its more

distinctly areolated and minutely granulous carapace, and must be united with this species, as specimens in the British Museum Collection presented by the Smithsonian Institution prove.

*Daira perlata*, Herbst.

Three examples of this species, a male and two females, were collected. It is probably distributed throughout the whole Indo-Pacific Region. Specimens are in the British Museum from the Mauritius, Philippine Islands, Australian Seas, and Minerva reef. Milne-Edwards mentions its occurrence in the Atlantic Ocean and on the Coast of Brittany, and it has been recorded from the Samoa Islands, New Caledonia, Loo-Choo Islands, and Auckland.

*Cymo andrejossii*, Audouin.

A single specimen of this curious species was obtained by Mr. Slater. Its geographical range is probably as extended as that of the preceding species. Specimens are in the British Museum Collection from the Red Sea and Fiji Islands, and it has been recorded from the Loo-Choo and Samoa Islands, Tahiti, and New Caledonia. The *C. melanodactylus*, of De Haan (Faun. Japon. Crust. p. 22), from Java, as described and figured by Dana (U.S. Expl. Exp. Crust. p. 225, pl. xiii. fig. 1) from specimens collected at the Fiji Islands, is probably as M. A. Milne-Edwards has stated, a variety of this species. The colour of the fingers is not a constant character in *C. andrejossii*, but there appear to be two distinct forms; in one of which the carapace and anterior legs are nearly smooth, and the front nearly entire; in the other the sides of the carapace and anterior legs are conspicuously granulated, and the front denticulated on its anterior margin. The form of the carapace is very variable; it is usually nearly orbiculate, but sometimes longer and broadest in front. These characters, however, do not appear to be of specific value, as intermediate varieties occur, and forms in all respects identical are found at widely separated localities.

*Trapezia rufo-punctata*, Herbst., var. *maculata*, M'Leay.

One example is in the collection, a male, obtained by Mr. Slater. Specimens are in the Collection of the British Museum from the Mauritius, Red Sea, and Ceylon, and its occurrence is recorded at Zanzibar, the Cape of Good Hope, Tahiti, the Sandwich Islands, New Caledonia.

The specimen from Rodriguez is of the form figured by Dana (U.S. Expl. Exp. Crust. i. p. 256, pl. xv. fig. 4), as *T. maculata*, of M'Leay (*Grapsillus maculatus*, M'Leay, in Smith Zool. S. Africa, Crust. p. 67). This variety is distinguished from the typical *T. rufo-punctata* by the form of the frontal lobes, which are obscurely defined and obtuse or rounded, not strongly prominent and acute. The two or three anterior teeth upon the anterior margin of the arm are truncate or slightly

emarginate at their apex, the red spots, with which the whole animal is covered, are smaller and fewer in number than in the typical variety.

*Tetralia cavimana*, Heller.

Three specimens, two males and a female, were collected by Mr. Slater. Examples of this species are in the Collection of the British Museum from the Fiji Islands and Australian Seas; and it occurs also at Tahiti and the Red Sea and New Caledonia.

*Achelous granulatus*, M.-Edw.

One example, a male, was collected by Mr. Gulliver. This species is very commonly and widely distributed throughout the Indo-Pacific Region. Specimens are in the British Museum Collection from the Red Sea, Mauritius, Ceylon, the Philippine Islands, Fiji and Sandwich Islands; and it has been found also at Réunion, Zanzibar, Java, Samarang, and Japan, and New Caledonia.

*Gelasimus vocans*, Linn.

Four specimens, males, were collected by Mr. Gulliver, who observed that both this and the following species were very common in the island, burrowing in the sands by the sides of the estuaries rather than on the seashore. The prominent triangular lobes or teeth on the inner margin of the immobile finger vary considerably in size, and one or even both may be obsolete, as in the species or varieties described as *G. cultrimanus* by Adams and White (Voy. Samarang, Zool. Crust. p. 49), from the Philippines and Hong-Kong. Specimens of this species are in the British Museum Collection from Mauritius, Singapore, and the Fiji Islands; and it has been recorded from the Islands of Nossy-Faly and Nossy Bé adjacent to Madagascar, Zanzibar, Java, Malabar, the Nicobars, and Loo-Choo.

*Gelasimus annulipes*, M.-Edw.

Six specimens, including males, females, and young, were obtained by Mr. Gulliver, which I refer to this very variable species. The larger hand and fingers are smooth externally, without indications of longitudinal grooves, or with one obscurely-indicated at the base of the palm, which has a short transverse groove near its anterior margin. On the inner surface of the palm there is a high prominent oblique granulated crest, and two transverse lines of granules near the anterior margin. The fingers are granulated on their inner margins, the upper one arcuate, the lower nearly straight. There is always a tooth near the distal extremity, and usually one at about the middle of the inner margin of the lower finger, sometimes also two or three other tubercles or teeth placed at unequal distances along the inner margins of both the upper and lower fingers; often, however, these are absent. Specimens of *G. annulipes* are in the collection of the British Museum

from Zanzibar, Ceylon, the Malayan Archipelago, the Philippines, and the Fiji Islands; and it has been recorded from the Islands of Nossy-Faly and Nossy-Bé, Madras, and the Nicobars.

*Ocypode cordimana*, Desm.

Two specimens, a male and a female, were collected.

Mr. Gulliver states that the female taken by him was found in a wood, and considers it probable that this species was hibernating in holes at the time of his sojourn on the island. It has been recorded from the Red Sea, Zanzibar, Mauritius, Réunion, Mozambique, Natal, and the Cape of Good Hope, and its range extends over the whole Indo-Pacific Region; as specimens are in the British Museum from Ceylon, China, and the Australian Coast, the Samoa Islands, Fiji Islands, New Hebrides, and it has also been recorded from the Nicobars, Manilla, Japan, Hong Kong, Loo-Choo, and New Caledonia.

The *O. arenaria*, Say, which inhabits the Atlantic Coasts of the American Continent, is very nearly allied to this species, young individuals are indeed hardly to be distinguished, but adult specimens may be recognized by the laterally-compressed ambulatory legs, which are smooth (not granulated as in *O. cordimana*), and thickly clothed on the upper and lower margins with dense fulvous hair.

*Grapsus pictus*, Latr.

A female example of this very variable, common, and widely distributed species was taken by Mr. Slater. Specimens are in the British Museum from the Cape Verde Islands, St. Helena, S. Africa, the Mauritius, Ceylon, Fiji Islands, Galapagos, Peru, California, and New Zealand, and it also inhabits the West Indies and Coast of Florida.

*Geograpsus grayi*, M. Edw.

Three specimens, an adult male and two females, were collected. The examples obtained by Mr. Gulliver were found by him at some distance from the seashore. In the younger animal the hands are more granulous, and the series of teeth or spines upon the anterior margin of the arm more acute. In all the adult examples of this species that I have examined the frontal margin is straight or very nearly so, never bi-emarginate as in the specimen figured by Hilgendorf as the adult of *G. rubidus*, Stimpson (Crust. in van der Decken's *Reisen in Ost-Afrika*, pl. v. fig. 1c.). This species has been recorded from the Red Sea, Mauritius, Réunion, Zanzibar, Madagascar, the Indian Ocean, Australia, Bonin, New Caledonia, and the Sandwich Islands; and specimens from the Fiji Islands are in the Collection of the British Museum.

*Metopograpsus messor*, Forskal.

Four specimens, including males and females, were collected by Mr. Gulliver, who states that he found this species plentifully near freshwater streams in the

woods, but never actually on the seashore. It varies considerably in the marbled coloration of the carapace. It has been recorded from the Red Sea, Zanzibar, Natal, Persian Gulf, Coast of Malabar, Madras, Ceylon, Bonin, Sandwich Islands, Tahiti, and New Caledonia, and specimens are in the British Museum from Mauritius, the Eastern and Western shores of Australia, and the Fiji Islands. The *G. thukujar*, of Owen (Beechey's Voyage, Zool. Crust. p. 80, pl. xxiv. fig. 3), is, I believe, a variety of this species.

*Sesarma tetragonum*, Fabr.

Three examples, male and female and young, were collected by Mr. Gulliver who found them in burrows near the estuaries. In the adult male the fingers are arcuate, and meet only at the corneous excavated tips; in the young male the fingers are straight. This species has been recorded from the Red Sea, Mauritius, Zanzibar, Natal, Madagascar, Indian Ocean, Chinese Seas, and New Caledonia. Specimens from the Fiji Islands are in the Collection of the British Museum.

*Sesarma quadratum*, Fabr.

Seven examples, males, of a species of *Sesarma* were collected, which I refer with some hesitation to *S. quadratum*. The animal is of a blackish-brown colour; the carapace has the lateral margins entire, and is slightly granulated on the post-frontal region, with the four truncate frontal lobes well-defined; the arm has a prominent angulated lobe or tooth at the distal extremity of its anterior margin; the wrist is uniformly rugose without spines; the exterior surface of the palm smooth below, slightly granulated toward the superior margin, the upper surface has two small oblique very closely and minutely pectinated ridges, and behind these two or three oblique granulated lines. *Sesarma quadratum* has been recorded from Zanzibar, Natal, Pondicherry, and New California; and there are specimens in the British Museum Collection from Borneo and the Fiji Islands. The species figured by De Haan, (Faun. Japon. Crust. pl. xviii. fig. 5), under the name of *Pachysoma affinis*, is probably identical with this species; also the *Sesarma aspera*, of Heller (Voy. Novara, Crust. p. 63, pl. vi. fig. 1), from Ceylon, Madras, and the Nicobars. Dr. Hilgendorf, basing his observations upon a large series of specimens from the Indian Archipelago, Malacca, Sumatra, Luzon, Flores, and Timor, states that *S. quadratum* varies very considerably in the form of the carapace, frontal lobes, and anterior legs, but it is possible that he has confounded two or more species under the above-mentioned designation, as he neither mentions nor figures the minutely-pectinated ridges on the upper margin of the hand, which are characteristic of *S. quadratum*. (See Van der Decken's Reisen in Ost-Afrika, Crust. p. 90, pl. iii. fig. 3c. and pl. iv. fig. 3.)

*Cardisoma carnifex*, Herbst.

Two examples, a fine adult and a smaller male, were collected by Mr. Gulliver, who found this species burrowing in sandy ground by the estuaries of the streams,

but did not observe that it penetrated far inland. There is usually a small tooth behind the external orbital tooth or spine, but this is sometimes rudimentary or entirely absent: it is present in the smaller, wanting in the larger specimen from Rodriguez. As the animal increases in age, the body becomes very much more convex over the branchial regions, and is expanded laterally beyond the marginal line, which is hardly distinguishable in the oldest specimens; one or other of the anterior legs is very greatly developed, and the hair upon the penultimate and antepenultimate joint of the ambulatory legs becomes very long and dense. Specimens of this species are in the British Museum Collection from the Mauritius, Pondicherry, Philippines, the Fiji, Sandwich, and Samoa Islands. It has been recorded from Zanzibar, the Nicobars, and New Caledonia, and a young example obtained at Madeira is referred by Dana to this species.

*Calappa hepatica*, Linn.

Three specimens, two males and a female, were collected. It is one of the commonest and most widely distributed of the Indo-Pacific *Brachyura*. This species has been recorded from the Red Sea, Zanzibar, Natal, Madagascar, the Mauritius, Indian Ocean, Nicobars, Auckland, the Fiji and Sandwich Islands, and New Caledonia; and there are specimens in the Collection of the British Museum from the Seychelles, Ceylon, the Coast of China, the North-east Coast of Australia, the Loyalty Islands, New Hebrides and Samoa Islands.

*Pagurus punctulatus*, M. Edw.

Three examples of this species, one of the largest and most beautifully-coloured of the genus *Pagurus*, were collected. One is an adult female, bearing a large quantity of ova. It has been recorded from the Mauritius, Red Sea, Madagascar, Indian Ocean, Nicobars, the China Seas, Tahiti, and the Sandwich Islands; and specimens are in the British Museum from the Philippines, Australia, and the Fiji Islands.

*Aniculus typicus*, Dana.

Four specimens were collected. The recorded localities of this species are the Mauritius, Réunion, Batavia, Manilla, Japan, Auckland, the Paumotu Archipelago, Wakes Island. Specimens are in the Collection of the British Museum from the Seychelles, Australia, Samoa and Fiji Islands.

*Calcinus tibicen*, Herbst.

A single specimen inhabiting a shell of a species of *Turbo* was collected by Mr. Slater. This species has been recorded from Zanzibar and the Coast of Natal, the Nicobars, Straits of Balabac, Loo Choo, the Paumotu Archipelago, the Society, Sandwich, Samoan Islands, and Wakes Island. Specimens are in the Collection of the British Museum from the Pelew Islands and Mozambique.

*Calcinus elegans*, M. Edw.

A female example, with ova, is in the Collection, obtained by Mr. Slater. Both the anterior legs are unfortunately wanting, but the colouration agrees very well with the descriptions of this species; the legs of the second and third pair being beautifully marked with broad alternating bands of crimson and white, the tarsi with crimson spots upon a white ground. This species has been recorded from the Coast of Natal, Loo Choo, the Paumotu Archipelago, Hawaiian Islands, Wakes Island, Tahiti, New Ireland, and Western Patagonia.

*Cænobita rugosa*, M. Edw.

Fourteen specimens of this species were collected. The greater number of these inhabit shells of *Nerita polita*, one specimen was found in a shell of the terrestrial *Cyclostoma articulatum*. Mr. Gulliver observes of this species that it was often found in perfectly arid places a mile or so from the sea-shore. It is very commonly and widely distributed throughout the Indo-Pacific Region, and its range even extends to the Western Coast of America. It has been recorded from the Red Sea, Zanzibar, Mozambique, Réunion, Natal, Persian Gulf, Indian Ocean (Ceylon, Madras, Nicobars), Java, China Seas (Loo Choo), Australia (Sidney), the Sooloo Sea, Paumotu Archipelago, Fiji and Samoan Islands, Tahiti, and Panama. To these localities I may add, on the authority of specimens in the Collection of the British Museum, the Mauritius, Coquimbo, and Vancouver Island. M. Milne-Edwards (Hist. Nat. Crust. ii. p. 241) states that a specimen from Messina in the Collection of the Paris Museum appears to belong to this species, but may have been wrongly labelled.

*Caridina typus*, M. Edw.

To this species I refer a single specimen obtained by Mr. Gulliver, which only differs from Milne-Edwards' description and figure in having two instead of three minute teeth on the inferior margin of the rostrum, which is proportionately somewhat shorter and deeper than that of the example figured by Milne-Edwards. In many of the *Caridea* the form and number of teeth of the rostrum are so variable that these differences can scarcely be considered as of specific importance; and it may be that the *C. exilirostris* of Stimpson (Proc. Ac. Nat. Sci. Phil. p. 29, 1860) from Loo Choo, in which the inferior margin of the rostrum is obsoletely 2-3 dentate, represents an intermediate variety of this species. The habitat of the type-example is unknown.

*Alpheus laevis*, Randall.

A single example, a female with ova, is in the Collection obtained by Mr. Slater. The antennæ are imperfect, the smaller hand is wanting; the larger hand agrees well with the descriptions and Dana's figure of the species. It has been recorded



from the Red Sea, Nicobars, Sydney, Tahiti, and the Sandwich and Fiji or Friendly Islands.

*Palaemon ornatus*, Olivier.

A large number of specimens of this, one of the commonest, and most universally distributed of the Prawns inhabiting the freshwaters of the Indo-Pacific region, were collected, forty-one in all; of these, however, but few are in a perfect condition, the greater number having lost one or both of the large legs of the second pair; and but two or three examples are of full size. Many of the smaller examples are females bearing ova. The teeth on the rostrum vary between 6–11 on the upper and 2–3 on the lower margin; there are usually 8–9 upper and 3 lower marginal teeth ( $\frac{8-9}{3}$ ). The males of this species are at once recognized by the strong greatly elongated second pair of legs, which are closely beset with numerous minute spines, the palm in the adult animal is much longer than the wrist, the fingers are inflexed at the tips, the upper often considerably arched, the immobile finger has two, the mobile finger a single strong conical tooth on the inner margin. In the females and young these characteristics are not nearly so strongly marked, and perhaps some of the smaller specimens ought to be referred to the following species, (*P. dispar*). *P. reunionensis* and *P. longimanus* of Hoffmann, (Recherches Faune Madagascar, Crust. pp. 33 & 34, pl. ix., fig. 66 & 67, & 68, 69), from Réunion, appear to me to be founded respectively on younger and adult examples of this species. *Palaemon ornatus* has been recorded from Amboina and the Islands of Waigiu and Adenare, the Celebes, Philippines, Tahiti, and Auckland. There are specimens in the Collection of the British Museum from the Mauritius, Australia (Moreton Bay), the Samoa and Fiji Islands, New Hebrides.

*Palaemon dispar*, von Martens.

To this species is certainly to be referred a male example in the Collection obtained by Mr. Gulliver. When adult, *P. dispar* is distinguished without difficulty from *P. ornatus*, by its smaller size; the straighter rostrum, with more numerous marginal teeth, the very unequal legs of the second pair, and the form of the fingers, which, in the male, each have a series of conical acute spines on their inner margins. Hitherto *P. dispar* has been recorded only from Adenares Island, near Flores, in the Malayan Archipelago, but it may have easily been confounded with other species of this very difficult genus. The *P. alphonsianus* of Hoffmann (Rech. Faune Madagascar, Crust. p. 35, pl. ix., fig. 63–65) from Réunion is in all probability synonymous with it.

*Palaemon hirtimanus*, Olivier.

One specimen, a male, is in the Collection, obtained by Mr. Gulliver. In this example the large leg of the second pair on the right side has been broken off

above the second joint, and its place is supplied by another leg, evidently newly-formed, and very small and weak, but well-proportioned in all its joints. This species has been recorded from Mauritius and Réunion, and the Indian Ocean.

*Palaemon (Leander) debilis*, Dana.

No fewer than fifty-six specimens were collected, but a considerable number of these are more or less imperfect. Like all the species of this sub-genus, *P. debilis* is of small size, never exceeding 2 in. in length. This species is distinguished by the form of the slender rostrum which is directed upward in its distal half, and bears on the upper margin close to the extremity a small tooth; the apex thus, in some specimens, appearing bifid. The number of teeth upon the upper and lower margins is very variable. Of thirty-nine specimens from Rodriguez in which the rostrum is perfect, fourteen have five teeth upon the upper and six on the lower margins, exclusive of the sub-apical tooth ( $\frac{5}{6}2$ ); but beside this, which appears to be the normal form, there are no fewer than nine varieties, as shown in the following table:—

—	Dental formula.	No. of Specimens.	—	Dental formula.	No. of Specimens.
<i>Pal. debilis</i>	$\frac{5}{6}2$	14	var. <i>e</i>	$\frac{4}{5}2$	3
var. <i>a</i>	$\frac{4}{6}2$	5	„ <i>f</i>	$\frac{6}{6}2$	2
„ <i>b</i>	$\frac{5}{5}2$	5	„ <i>g</i>	$\frac{6}{5}2$	1
„ <i>c</i>	$\frac{5}{7}2$	4	„ <i>h</i>	$\frac{5}{4}2$	2
„ <i>d</i>	$\frac{4}{7}2$	2	„ <i>j</i>	$\frac{4}{3}2$	1

The second pair of legs are very small and slender, resembling those of the first pair. The specimens described by Dana were collected at the Sandwich Islands; Von Martens records the occurrence of this species at Amboina, at the mouth of the Weynitu River, in *salt-water*; Mr. Gulliver, on the other hand, found it in the *freshwater* streams of the Island of Rodriguez. The species of the sub-genus *Leander* are, I believe, generally marine, those of *Palaemon fluviatile*.

Dana has figured a variety of *P. debilis* from the Hawaiian Islands, to which he has applied the name of *P. attenuatus*; having six teeth on the upper and nine on the lower margin of the rostrum.

**Stomatopoda.**

*Lysiosquilla maculata*, Lam.

A single large male example (length nearly 13 in.) was obtained by Mr. Slater. This species has been recorded from the seas of Asia and Japan. Specimens are in the Collection of the British Museum from the Indian Ocean, Philippines, Samoa and Fiji Islands. On account of its large size, and the colouration of the segments of the body, which are marked with broad alternating bands of black and yellow, this species is perhaps the most conspicuous of the *Stomatopoda*.

*Gonodactylus chiragra*, Fabr.

Two specimens of this species were collected. The largest of these, an adult male, has a length of nearly  $3\frac{1}{2}$  in. It is a very common and widely distributed species, and its range probably extends throughout the warmer latitudes of the globe. There are specimens in the Collection of the British Museum from the Mediterranean, Red Sea, Zanzibar, Indian Ocean, Ceylon, Western, Southern, and North-eastern Australia, Sir C. Hardy Island, Philippine Islands, New Hebrides, Fiji Islands, and Panama. It has been recorded from Natal and Réunion.

**EDRIOPHTHALMIA.****Isopoda.***Oniscus* ? (*sp.*)

Five specimens of a species of Terrestrial Isopod, probably belonging to the genus *Oniscus* or *Porcellio*, are in the Collection obtained by Mr. Gulliver, who states that this species is common under stones. In all these specimens both antennæ and uropoda are wanting, and it is therefore impossible to ascertain even the genus to which they ought to be referred with certainty. The posterior margins of the first three segments of the body are straight, the terminal segment almost T-shaped, the posterior half being very narrow. From *P. truncatus*, M. Edwards (Hist. Nat. Crust. iii., p. 171) inhabiting the Mauritius, this species differs in the form of the terminal segment; from a species described under the same name by Brandt (Bull. Mosc. Soc. Nat. vi., p. 181), but placed in a different section of the genus by Milne Edwards (l. c. p. 173), from the Cape of Good Hope, in the form of the head, in which the front is scarcely at all prominent, the antero-lateral lobes large and rounded.

**Amphipoda.***Talitrus gulliveri*.

*T. gulliveri*, Miers, Ann. Mag. Nat. Hist. ser. 4, xvii., p. 406 (1876).

Slender, smooth, with the buccal organs considerably projecting, as in *T. locusta*. Head small, with the anterior margin straight, eyes round, black. Second and third segments of the postabdomen with the posterior margins straight, the inferoposterior angle somewhat prominent and acute. Superior antennæ scarcely as long as the head and about reaching to the extremity of the second joint of the inferior antennæ, with seven joints exposed, the basal very short, the two next longer, sub-equal, together about as long as the four last joints, of which three are equal and the last minute. Inferior antennæ slender, not as long as the body, with the basal joint of the peduncle very short, the second joint more than half the length of the third joint, the flagellum about eighteen-jointed and rather longer than the peduncle. First and second pairs of legs small and weak; the first pair with the three last

joints short, subequal, and not dilated ; the second pair (in some specimens) longer, with the palm slightly dilated and the finger quite rudimentary as in *T. platycheles*. Next three pairs of legs short, sixth and seventh pairs considerably longer, with the second joint moderately developed. Rami of the fourth and fifth pairs of tail-appendages subequal, those of the fourth shorter than those of the fifth pair, sixth pair quite rudimentary. The distal extremities of the joints of the antennæ, the legs, and the rami of the postabdominal appendages are fringed with short hairs. Length about 5 lines.

This species was found by Mr. Gulliver under stones in damp places, but never observed actually in the water.

I feel no hesitation in referring this species to the genus *Talitrus*, as in none of the specimens are either the first or second legs largely developed and subcheliform as in other genera of *Orchestiidae*. It differs from the common European *T. locusta* in its much shorter and slenderer inferior antennæ, and in the form of the segments of the post-abdomen ; the posterior margins not being sinuated as in that species. It seems to be more nearly allied to *T. platycheles*, Guérin. (Exped. Scient. Morée, Zool. Crust. p. 44, pl. xxvii., fig. 4), but differs in the proportionate length of the joints of the peduncles of the antennæ, in the larger second pair of legs, and sixth and seventh pairs of legs, and in the more obtuse infero-posterior angles of the post-abdominal segments, &c.

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