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XXIX. DIAGNOSES OF NEW SPECIES
AND VARIETIES OF FRESHWATER
CRABS.

By A. ALCOCK, F.R.S.

No. 4.

Genus **Paratelphusa**, Edw.

(Type: *P. tridentata*, Edw.)

Subgenus **Paratelphusa**.

Paratelphusa (Paratelphusa) trilobata, sp. nov.

Differs from *P. spinigera* only in the following particulars:—

The carapace is flatter, and the "cervical groove" is broader: its antero-lateral border on either side is produced between the external-orbital and lateral-epibranchial spines into a broad and very prominent, laminar lobe.

The subterminal spine on the upper border of the arm is blunt and coarse.

From Sibsagar, Assam: a single adult female.

Paratelphusa (Paratelphusa) blanfordi, sp. nov.

This is an aberrant member of the subgenus, having no spines or lobes between the external-orbital and lateral-epibranchial tooth, and no spine on the upper border of the arm. It is, however, closely related to *P. spinigera*.

It has much the appearance of *P. spinigera* except that its carapace is flatter; but is distinguished from that and every other Indian species but one in the form of the fingers, which have broad, blunt, "spooned" tips.

It has nothing to do with *Paratelphusa spinescens*, Calman, which has spiny antero-lateral borders and is not a *Paratelphusa* at all since it has the simple mandibular palp of *Potamon*.

From various places in Baluchistan: 10 males, 10 females.

Paratelphusa (Paratelphusa) grayi, sp. nov.

This is very close indeed to *P. sinensis*, from which it differs only in the following particulars:—

The "cervical groove" is distinct, and in places is almost deep: the front shows no trace of division into two lobes: the teeth

of the antero-lateral borders are not so sharp. The merus of the external maxillipeds is longer.

The abdomen of the adult male is even more decidedly hour-glass-shaped than in *P. sinensis*, the fifth segment being a long tapering joint, and the long sixth segment being narrower at its proximal end than in *P. sinensis*.

From Moug Sal, Makhok River : 13 males, 15 females.

Subgenus **Barytelphusa**.

(Type: *Paratelphusa jacquemontii* (Rathbun) = "*Telphusa indica*" of many authors.)

Paratelphusa (Barytelphusa) lamellifrons, sp. nov.

Very closely related to "*Telphusa indica*," from which it may be recognised by the following characters:—

The carapace is longer, and the ends of the wings of the "cervical groove" are broad, superficial and vague.

The front is a very prominent, hardly-deflexed lamella.

The distance between the tip of the external orbital tooth and the base of the epibranchial spine forms half the antero-lateral border of the carapace.

The epigastric portion of the continuous post-orbital crest is as thin as the true post-orbital portion; the outer end of the crest forms a prominent, but undetached, lobe, and the edge of the whole crest is elegantly crenulate.

From Travancore : 1 adult female, 1 young female.

Paratelphusa (Barytelphusa) edentula, Alcock.

I have already mentioned this species as a variety of "*Potamon lugubre*." At that time, although I knew that the terminal joint of the mandibular palp was bifurcate in "*Potamon lugubre*" (= *Telphusa lugubris*, Wood-Mason), I did not realize that the mandible was going to be so destructive to the established nomenclature, and that *Telphusa lugubris*, Wood-Mason, belongs to the present subgenus of *Paratelphusa*.

Paratelphusa (Barytelphusa) napæa, Alcock.

This has also been mentioned as a species of *Potamon* allied to "*Potamon lugubre*" (Wood-Mason). It is very closely related to *Paratelphusa (Barytelphusa) lugubre* (Wood-Mason).

Paratelphusa (Barytelphusa) pulvinata, sp. nov.

This species is distinguished from everything in the subgenus (1) by the carapace, which is subcylindrical, with the cervical groove running in a long and comparatively narrow loop, as in *Gecarcinucus*, and (2) by the long, narrow, sixth abdominal segment of the adult

male—the greatest breadth of this segment is barely two-thirds of its length.

From Coorg and from Ootacamund : 6 males, 2 females.

Paratelphusa (Barytelphusa) pollicaris, sp. nov.

Although this species comes from South India its closest relative is the Eastern Himalayan *P. lugubris* (Wood-Mason). As in the type of that species the carapace is flattish and about half of its antero-lateral borders lie in front of the lateral epibranchial spine.

The cervical groove is very deep and broad, and runs wide, to a point behind the much-retreated lateral epibranchial denticle.

The epigastric and post-orbital crests form one strong, nearly straight ridge, which runs, on either side, from the mesogastric furrow obliquely into the lateral epibranchial denticle.

The fingers are peculiarly broad, particularly the fixed finger.

From South India, probably Travancore : 3 males and 3 females, adult, and 6 non-adults of small size.

Subgenus **Phricotelphusa** (Type: *Telphusa callianira*, de Man).

Paratelphusa (Phricotelphusa) campestris, sp. nov.

Singular to tell, this species, from Barnagore near Calcutta, is so closely related to *P. gageii* from an elevation of about 5,000 feet in the Eastern Himalayas that, having only a single (male) individual to examine, I almost hesitate to separate it.

It resembles a *P. gageii* that has been holy-stoned, the epigastric crests being, not distinct elevations, but mere eroded patches ; the post-orbital crests being low, blunt, and faint ; and the lateral epibranchial tooth being entirely absent.

The carapace is more convex, and the antero-lateral borders are blunt and ill defined. The colour is greenish yellow. In the single specimen—an adult male with a carapace $\frac{5}{8}$ ths of an inch long and $\frac{7}{8}$ ths broad—the exopodite of the external maxillipeds has no trace of a flagellum.

Subgenus **Liotelphusa** (Type: *Telphusa levis*, Wood-Mason).

Paratelphusa (Liotelphusa) levis (Wood-Mason) var. *quadrata*.

Wood-Mason did not separate this variety, but to me it seems worthy of recognition.

The carapace is almost square, and its length is seven-eighths its greatest breadth. The “cervical groove” is hard to make out in any part of its course. The outer orbital angle and the lateral epibranchial tooth are more prominent than in the type of *P. levis*. The antero-lateral borders of the carapace, under a lens, are sub-cristiform. The epigastric crests, such as they are, are not so plainly continuous with the post-orbital crests, and the latter are almost sharp in their outer half.

From the Naga and Khasi Hills and from Assam : 19 males, 25 females.

Paratelphusa (Liotelphusa) austrina, sp. nov.

This species from South India is close to *P. levis*, but is easily distinguished by the form of the front and of the male abdomen.

The free edge of the front proper is quite distinct and separate from the antennular edge of the front, as it is in *P. hydrodromus* (Herbst).

The three terminal segments of the male abdomen are much contracted; the sixth segment is narrow and has parallel sides, and its length exceeds its maximum breadth.

Subgenus **Globitelphusa** (Type: *Paratelphusa bakeri*).*Paratelphusa (Globitelphusa) bakeri*, sp. nov.

Carapace broad, subcylindrical, with the regions barely distinguishable, the cervical groove being distinct only where it bounds the mesogastric area posteriorly.

Front broad, square-cut, almost vertically deflexed.

External orbital angle and lateral epibranchial denticle insignificant.

Epigastric crests just recognizable, post-orbital crests more distinct but still not conspicuous.

Length of 6th abdominal segment just equal to its distal breadth: 7th segment very much longer than broad.

Mandibular palp as in *P. tridentata*, Edw. Exopodite of external maxillipeds pointed, hairy, non-flagellate. Exopodite of 1st and 2nd maxillipeds with a vestigial flagellum.

Chelipeds unequal. Legs rather slender.

Chiefly from Ganjam in North Cachar: 10 males, 8 females.

Paratelphusa (Globitelphusa) bakeri var. *cylindrus*.

The cylindrical or barrel-like carapace has the branchial regions independently inflated in this variety. The epigastric crests are more distinct, and the post-orbital crests are less distinct, than in the type.

From the Naga Hills and from Assam: 9 males, 1 female.

Paratelphusa (Globitelphusa) pistorica, sp. nov.

P. pistorica is like *P. bakeri* var. *cylindrus* in form. It differs in having the side walls of the carapace rugose, and in having the exopodites of the 1st and 2nd maxillipeds flagellate: there may be a papillary vestige of a flagellum on those of the external maxillipeds.

From Assam and Cachar: 8 males, 7 females.

The three following species have a squarish and flattish carapace quite unlike the broad cylindrical carapace of the three previous species; but as the epigastric and post-orbital crests and the lateral epibranchial spine are all insignificant, and the cervical groove is indistinct, and the exopodite of the external maxillipeds is

non-flagellate, I include them in the subgenus *Globitelphusa*: all three are very small species and come from Mahableshwar.

Paratelphusa (Globitelphusa) gubernatoris, sp. nov.

Carapace flat, square; "cervical groove" reduced to a fine crescent bounding the mesogastric area posteriorly.

Front broad, square, strongly deflexed. Epigastric crests just distinguishable: post-orbital crests distinct only at their outer end.

Three terminal segments of male abdomen much contracted: in the 6th segment the distal breadth slightly exceeds the proximal breadth and equals the length.

Mandibular palp as in *P. tridentata*, Edw. Chelipeds unequal: tips of fingers pointed. Legs long, none of the joints particularly hirsute.

From Mahableshwar: 35 males, 22 females.

Paratelphusa (Globitelphusa) pilosipes, sp. nov.

Very like *P. gubernatoris*, but the epigastric and post-orbital crests can be imagined rather than discerned, and the lateral epibranchial tooth may be altogether absent. The antennal flagellum is vestigial. The finger-tips are broad, blunt, and spooned. The dactyli of the legs are short and clumsy and are thickly clothed with tufts of bristles.

From Mahableshwar: 5 males.

The question naturally arises: is this a second form of the male of *P. gubernatoris*?

Paratelphusa (Globitelphusa) fronto, sp. nov.

Much like *P. gubernatoris* and *pilosipes*, but the carapace is convex. Front of the adult immensely broad, half the maximum breadth of the carapace. Lateral epibranchial tooth distinct, very near the angle of the orbit. Epigastric and post-orbital crests very indistinct. Fifth segment of male abdomen very narrow, its length equal to its distal breadth: sixth segment also very narrow, its length considerably exceeds its distal breadth which is greater than its proximal breadth: seventh segment much longer than broad. Antennal flagellum much impacted and contracted: antennal flagellum absent. Chelipeds unequal: fingers pointed. Legs studded all over with tufts of long, coarse bristles.

From Mahableshwar: 23 males, 6 females.

Genus **Gecarcinucus**, Edw.

In this genus the front is a long, narrow, greatly deflexed lobe, hardly wider than the orbit: the dactyli of the crawling legs are slender. In other respects it agrees with *Paratelphusa*; and it is doubtful whether the two genera are really distinct.

Subgenus **Gecarcinucus** (Type : *G. jacquemontii*, Edw.).

In this subgenus the lower outer corner of the orbit forms a gutter-like recess and there is no trace of a lateral epibranchial denticle.

Gecarcinucus (Gecarcinucus) edwardsi, Wood-Mason, sp. nov.

Differs from *G. jacquemontii* in that the sides of the front are convergent, and the finger-cleft and the neighbouring part of the inner surface of the palm are covered with a thick, shaggy mat of hair.

From Khandalla: one male.

Subgenus **Cylindrotelphusa** (Type : *Gecarcinucus steniops*).

Carapace and front as in *Gecarcinucus*, but the orbit is of the usual form and there is a small lateral epibranchial denticle.

Gecarcinucus (Cylindrotelphusa) steniops (Wood-Mason), sp. nov.

“*Telphusa steniops*,” Wood-Mason (MS. name only).

Carapace subcylindrical: “cervical groove” forming a long narrow loop, the trend of which is fore-and-aft; very broad and deep and dividing the carapace into tumid lobe-like regions. Front a long, narrow, square-cut, strongly-deflexed lobe, hardly wider than the orbit. Antero-lateral borders of carapace full, blunt, coarsely crenate: a small lateral epibranchial tooth, placed close to the orbit. Epigastric crests broad and low: post-orbital crests low, blunt, indistinct, crenulate or broken in their outer half. In the sixth segment of male abdomen the length equals or slightly exceeds the distal breadth: seventh segment a good deal longer than broad.

Efferent branchial openings subtubular and exposed, as in *Gecarcinucus* (and in some species of *Paratelphusa*). Mandibular palp as in *Paratelphusa tridentata*, Edw. Exopodites of all the maxillipeds with a strong flagellum.

From Travancore: 14 males, 11 females.

With reference to my last paper in this series, I find that a subgeneric name *Oziotelphusa* was given by P. Müller to “*Telphusa*” *hippocastanum*, Müll. = “*Potamon*” *hydrodromus* (Herbst). This name *Oziotelphusa* must therefore be adopted for the subgenus *Leschenaultia*, though I may explain that in using the name *Oziotelphusa* it is the bare name, and nothing but the bare name, that I accept. *Paratelphusa (Leschenaultia) hydrodromus* and *bouvieri* will, therefore, now stand as *Paratelphusa (Oziotelphusa) hydrodromus* and *bouvieri*.

Again, I find that “*Paratelphusa*” *nilotica*, Edw., is not a true *Paratelphusa* of the *Paratelphusa tridentata*, type; but has a simple mandibular palp like those species (*dayanum*, *wood-masoni* (= *edwardsi*), *crenuliferum*, and *martensi*) which I have here separated as a subgenus of *Potamon* under the name of *Paratelphusula*.

But, for reasons quite distinct from mine, Ortmann long ago made "*Paratelphusa*" *nilotica* the type of a subgenus of *Potamon* which he named *Acanthotelphusa*. This name, therefore, must be substituted for *Paratelphusula*; and I am very glad of it, for "*Paratelphusula*" is too much like "*Paratelphusa*," and the "*Telphusidæ*" are confusing enough already. *Potamon* (*Paratelphusula*) *dayanum*, *wood-masoni* (= *edwardsi* No. 2), *fungosum*, *feæ*, *calvum*, *crenuliferum*, and *martensi*, will therefore now stand as *Potamon* (*Acanthotelphusa*) *dayanum*, *wood-masoni*, *fungosum*, *feæ*, *calvum*, *crenuliferum*, and *martensi*.
