

REVISION OF AMERICAN SPECIES OF THE MARINE AMPHIPOD GENUS *PARAPHOXUS* (GAMMARIDEA: PHOXOCEPHALIDAE)

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Abstract.—Most American species formerly placed in *Paraphoxus* Sars by J. L. Barnard (1960) are distributed into *Metharpinia* Schellenberg and the following 5 new genera: *Eobrolgus*, *Eyakia*, *Foxiphalus*, *Grandifoxus* and *Rhepoxynius*. New diagnoses parallel to those published for previously known phoxocephalid genera by Barnard and Drummond (1978) are given for all 6 American genera, plus *Microphoxus*.

Metharpinia Schellenberg, revised

Metharpinia Schellenberg, 1931:65.—J. L. Barnard, 1960:182.

Diagnosis.—Eyes present. Flagella of antennae 1–2 unreduced in female; article 2 of antenna 1 ordinary to elongate, ventral setae narrowly to widely spread; article 1 of antenna 2 not ensiform, article 3 with 2 setules, facial spines on article 4 in 2 or more rows, article 5 ordinary in size. Right mandibular incisor with 3 teeth; molar not triturative, medium, pillow-shaped or elongate, conical, weakly granulated, bearing 4 or more splayed, semi-articulate spines, not (type) or bearing pubescence; palpar hump small. Palp of maxilla 1 biarticulate; inner plate with 4 setae. Setation of maxilla 2 ordinary. Inner plate of maxillipeds ordinary; apex of palp weakly protuberant, dactyl elongate, apical nail mostly immersed, obsolescent.

Gnathopods ordinary, small, similar; article 5 of gnathopods 1–2 elongate, without eusirid attachment; palms oblique, hands ordinary, ovatorectangular, poorly setose anteriorly. Article 2 of pereopod 5 broad; articles 4–5 of pereopods 5–6 broad to medium; article 2 of pereopods 5–6 not setose posteriorly; pereopod 7 ordinary, article 2 naked or weakly setulose ventrally, article 3 ordinary, dactyl normal.

Peduncle of uropod 1 normally elongate, without apicoventral spike, without displaced apicomедial spine; peduncular apices of uropods 1–2 not combed; inner ramus of uropod 1 with one row of marginal spines, rami with one or two accessory nails but no main nails, inner ramus of uropod 2 ordinary; uropod 3 ordinary, article 2 of outer ramus long, carrying 2 medium apical setae. Telson extraordinary, with 1–3 apical spines or setae on each lobe plus setules, with special dorsal and lateral brush of setae. Epimera 1–3 bearing numerous long posterior setae, without midfacial setae above ventral facial ridge, epimeron 3 ordinary. Urosomite 1 with lateral facial setae, often bearing one or more midventral crescents or bundles of setae; urosomite 3 without dorsal hook or with weak dorsal hump.

Description.—Rostrum fully developed, constricted; pubescence on article 1 of antenna 1 in male present; calceoli on male primary flagellum of antenna 1 present, calceoli on article 5 of male antenna 2 present, flagellum in male with calceoli; prebuccal parts ordinary, poorly separated from each other, upper lip dominant, epistome without spike, occasionally with tiny cusp; right lacinia mobilis bifid, thin, article 1 of mandibular palp short, palp medium to thin, apex of article 3 oblique, article 2 without outer setae; lower lip bearing cones; outer plate of maxilla 1 with 11 spines, one spine especially thickened; inner plates of maxilliped especially thick, ordinarily setose; coxae 2–4 without special anterodorsal humps; all posterior spines on article 6 of pereopods 3–4 thick and stiff, midapical spine or seta present, article 2 of pereopod 7 without facial setae, article 6 especially densely spinose and digitate apically; peduncle of uropod 1 with dorsolateral spines confined apically, medial spines widely spread, peduncle of uropod 2 with one medial spine or setule confined apically or with spines widely spread; peduncle of uropod 3 lacking extra subapical setae or spines; telson with ordinary pair of midlateral or dorsal setules on each side.

Type-species.—*Metharpinia longirostris* Schellenberg, 1931 (selected by Barnard and Drummond, 1978).

Other species.—*floridana* (Shoemaker, 1933); *jonesi* (J. L. Barnard, 1963).

Relationship.—Easily distinguished from all other new American genera in the retention of subapical, supernumerary spination on one or more rami of uropods 1 and 2. This seemingly small attribute has been found to be of generic value by Barnard and Drummond (1978).

Microphoxus J. L. Barnard

Microphoxus J. L. Barnard, 1960:291.

Diagnosis.—Eyes present. Flagella of antennae 1–2 unreduced in female; article 2 of antenna 1 ordinary, ventral setae widely spread; article 1 of antenna 2 not ensiform, article 3 with 2 setules, facial spines on article 4 in 2 or more rows, without special apical spines, article 5 ordinary in size. Right mandibular incisor with 3 teeth; molar not tritulative, small, pillow-shaped, bearing 3–4 splayed, semiarticulate spines, not bearing pubescence; palpal hump small. Palp of maxilla 1 biarticulate, inner plate with 1–4 setae. Setation of maxilla 2 ordinary. Inner plate of maxillipeds ordinary, apex of palp not or weakly protuberant, dactyl elongate, apical nail distinct, short.

Gnathopods small, similar, article 5 elongate, without eusirid attachment, palms almost transverse, hands heavily setose anteriorly, almost trichophoxin in shape. Article 3 of pereopod 5 of broad form, articles 4–5 of pereopods 5–6 broad, article 2 of pereopods 5–6 not setose posteriorly, pereopod 7 ordinary, article 2 naked or weakly setulose ventrally, article 3 ordinary, dactyl normal.

Peduncle of uropod 1 normally elongate, without apicoventral spike, without special displaced spine, peduncular apices of uropods 1–2 not combed; inner ramus of uropod 1 with one row of marginal spines, one or more rami continuously spinose to apex, or with subapical spines (not of nail category) inner ramus of uropod 2 ordinary; uropod 3 ordinary, article 2 of outer ramus carrying 2 long apical setae. Telson ordinary, with only 1–2 apical spines, or setae on each lobe plus setules, with special dorsal and lateral spines or setae. Epimera 1–2 lacking or bearing numerous long posterior setae, without midfacial setae above ventral facial ridge, epimeron 3 ordinary, of rounded classification and bearing 3 or more long setae. Urosomite 1 with or without lateral facial setae, bearing one or more midventral crescents or bundles of setae, or generally naked except for sparse apicoventral setae or spines near base of uropod 1; urosomite 3 with dorsal hook or special process.

Description.—Rostrum poorly developed, constricted; [? pubescence on article 1 of antenna 1 in male unknown, calceoli on male primary flagellum of antenna 1 unknown, calceoli on article 5 of male antenna 2 unknown, flagellum in male ?without calceoli]; prebuccal parts ordinary, poorly separated from each other, both epistome and upper lip dominant; right lacinia mobilis bifid, thin, article 1 of mandibular palp short, palp medium, apex of article 3 oblique, article 2 without outer seate; lower lip lacking cones; outer plate of maxilla 1 with 11 spines, one spine especially thickened; inner plates of maxilliped ordinarily setose; coxae 2–4 without special anterodorsal humps; all posterior spines on article 6 of pereopods 3–4, thick and stiff, midapical spine or seta present; article 2 of pereopod 7 without facial setae; peduncle of uropod 1 with dorsolateral spines confined apically, medial spines confined apically, peduncle of uropod 2 with only one medial spine or setule confined apically; peduncle of uropod 3 lacking extra subapical setae or spines; telson with ordinary pair of midlateral or dorsal setules on each side.

Type-species.—*Microphoxus minimus* J. L. Barnard, 1960 (original designation).

Other species.—*Metharpinia cornuta* Schellenberg, 1931.

Relationship.—*Microphoxus* differs from *Metharpinia* in the pair of large dorsal teeth on urosomite 3, and in the retention of a dactylar nail on the maxilliped. These do not seem to be strong characters, but in Australian phoxocephalids they are used to separate genera (Barnard and Drummond, 1978). However, American phoxocephalids are not as strongly divisible into groups as are Australian phoxocephalids and with the low level of exploration in South America one may expect to discover species intermediate between *Metharpinia* and *Microphoxus*.

The type-species is very convergent to the Brolginae although it clearly is descendent from the Birubiinae cluster of genera. The characters bringing

it close to Brolginae are the presence of only 3 molarial spines, the presence of only one spine in the final row of facial spines on article 4 of antenna 2 and the reduction of setae on the inner plate of maxilla 1 (reduced to one). Obviously the Brolginae must be redefined or abolished, and this problem is now under study.

Rhepoxynius, new genus

Etymology.—From “rhepo,” slope and “oxyno,” sharpen. Masculine.

Diagnosis.—Eyes present. Flagella of antennae 1–2 unreduced in female, though somewhat short on antenna 1; article 2 of antenna 1 ordinary to elongate, ventral setae widely to narrowly spread; article 1 of antenna 2 weakly ensiform, article 3 with 2 setules, facial spines on article 4 in 2 or more rows, article 5 ordinary in size. Right mandibular incisor with 3 teeth, molar not tritulative, small, pillow-shaped, bearing 4 or more splayed, semi-articulate spines, usually bearing pubescence; palpar hump small. Palp of maxilla 1 biarticulate, inner plate with 4 setae. Setation of maxilla 2 ordinary. Inner plate of maxillipeds ordinary; apex of palp weakly protuberant, dactyl elongate, apical nail distinct to weak.

Gnathopods ordinary, small, similar, article 5 of gnathopods 1–2 elongate, without eusirid attachment; palms weakly oblique to transverse, hands ordinary, ovatorectangular to weakly trichophoxin in shape, poorly setose anteriorly. Article 2 of pereopod 5 of broad form; articles 4–5 of pereopods 5–6 broad to medium; article 2 of pereopods 5–6 not setose posteriorly; pereopod 7 ordinary, article 2 naked or weakly setulose ventrally, article 3 ordinary, articles 5–6 usually with weak apical comb, dactyl normal.

Peduncle of uropod 1 normally elongate, without apicoventral spike, with or without displaced apicomedial spine, peduncular apices of uropods 1–2 combed or not, inner ramus of uropod 1 with one row of marginal spines, no rami continuously spinose to apex; inner ramus of uropod 2 ordinary; uropod 3 ordinary, article 2 of outer ramus carrying 2 long apical setae. Telson ordinary, with 2–4 apical spines or setae on each lobe plus setules, without special dorsal and lateral spines or setae. Epimera 1–2 lacking long posterior setae, without midfacial setae above ventral facial ridge, epimeron 3 ordinary, all posterior setae confined to narrow ventral clump. Urosomite 1 with or without facial setae or spines, bearing 2 ventral crescents or bundles of setae, otherwise generally naked except for sparse apicoventral setae or spines near base of uropod 1; urosomite 3 without dorsal hook or special process.

Description.—Rostrum fully developed, constricted; medial fuzz on article 1 of antenna 1 in male present; calceoli on male primarily flagellum of antenna 1 present, calceoli on article 5 of male antenna 2 absent, or unknown, flagellum in male with calceoli; prebuccal parts ordinary, poorly

separated from each other, epistome with or without spike, right lacinia mobilis bifid or simple, thin, article 1 of mandibular palp short, palp medium to thin, apex of article 3 oblique, article 2 with or without outer setae; lower lip bearing or lacking weak cones; outer plate of maxilla 1 with 9–11 spines, one spine especially thickened; inner plates of maxilliped ordinarily setose; coxae 2–4 without special anterodorsal humps; all posterior spines on article 6 of pereopods 3–4 thick and stiff, midapical spine or seta absent or vestigial, article 2 of pereopod 7 without facial setae; peduncle of uropod 1 with dorsolateral spines confined apically or widely spread, medial spines confined apically or widely spread, peduncle of uropod 2 with only one medial spine or setule confined apically, peduncle of uropod 3 lacking extra subapical setae or spines; telson with ordinary pair of midlateral or dorsal setules on each side.

Type-species.—*Pontharpinia epistoma* Shoemaker, 1938.

Other species.—*abronius* (J. L. Barnard, 1960); *bicuspidatus* (J. L. Barnard, 1960); *daboius* (J. L. Barnard, 1960); *fatigans* (J. L. Barnard, 1960); *gemmatus* (J. L. Barnard, 1969); *heterocuspoidatus* (J. L. Barnard, 1960); *lucubrans* (J. L. Barnard, 1960); *stenodes* (J. L. Barnard, 1960); *tridentatus* (J. L. Barnard, 1954); *variatus* (J. L. Barnard, 1960); *vigitegus* (J. L. Barnard, 1971).

Relationship.—This diverse American genus is the counterpart of *Birubius* Barnard and Drummond (1976) from Australia, but differs from it only in the ensiform process of antenna 2.

At first, this cluster of species was believed to be divisible into 2 genera, but the second genus, at first characterized by the attributes of *P. stenodes*, is intergraded by several species. *Rhepoxynius stenodes* differs from *R. epistomus* in the bifid right lacinia mobilis with the appearance of two fused raker spines, the great reduction or loss in epistomal spike, the arrangement of facial setae on article 4 of pereopods 3–4 almost parallel to the apical margin (not spread axially), the loss of the medial displaced spine on the peduncle of uropod 1, the absence of molarial plumes, generally in the shorter flagella of antenna 1 with smaller aesthetascs and stouter setules, and in the wider spread of ventral setae on article 2 of antenna 1. But all of these characters find intermediates in several of the other species listed for this genus. The genus therefore has a wide diversity in uropod 1 armament whereas *Birubius* has a wide diversity in head shape.

Foxiphalus, new genus

Etymology.—Contrived phonetic name, masculine.

Diagnosis.—Eyes present. Flagella of antennae 1–2 slightly reduced in female; article 2 of antenna 1 elongate, ventral setae widely to narrowly spread; article 1 of antenna 2 ensiform, article 3 with 2 setules, facial spines

on article 4 in 2 or more rows, article 5 ordinary in size. Right mandibular incisor with 3 teeth, molar not triturative, granulate-striate, small to medium, or elongate plaque-forming, bearing 4 or more splayed, semiarticulate spines, usually bearing pubescence; palpar hump medium. Palp of maxilla 1 biarticulate, inner plate with 4 setae. Setation of maxilla 2 ordinary. Inner plate of maxilliped ordinary, apex of palp weakly protuberant, dactyl elongate, apical nail distinct, short.

Gnathopods ordinary, small, similar, article 5 elongate, without eusirid attachment, palms oblique, hands of gnathopods 1–2 ovatorectangular, elongate, poorly setose anteriorly. Article 2 of pereopod 5 of broad form; articles 4–5 of pereopods 5–6 narrow to medium; article 2 of pereopods 5–6 not setose posteriorly; pereopod 7 ordinary, article 2 naked or weakly setulose ventrally, article 3 ordinary, dactyl normal.

Peduncle of uropod 1 normally elongate, without apicoventral spike, with or without displaced enlarged apicomedial spine, peduncular apices of uropods 1–2 not combed, inner ramus of uropod 1 with one row of marginal spines, no rami continuously spinose to apex, inner ramus of uropod 2 ordinary; uropod 3 elongate, article 2 of outer ramus carrying 2 short apical setae. Telson ordinary, with only 2–4 apical spines or setae on each lobe plus setules, often with special dorsal and lateral spines or setae. Epimera (1), 2, 3, bearing numerous long posterior setae, without midfacial setae above ventral facial ridge, epimeron 3 ordinary. Urosomite 1 without large lateral facial spines, bearing one or more lateral or midventral crescents or bundles of setae; urosomite 3 without dorsal hook or special process.

Description.—Rostrum fully developed, unconstricted; pubescence on article 1 of antenna 1 and articles 3–4 of antenna 2 in male present; calceoli on male primary flagellum of antenna 1 present, calceoli on article 5 of male antenna 2 present, flagellum in male with calceoli; prebuccal parts ordinary, poorly separated from each other, upper lip dominant; right lacinia mobilis bifid or simple, thin; article 1 of mandibular palp short, palp medium to thick, apex of article 3 oblique, article 2 occasionally with outer setae; lower lip bearing cones; outer plate of maxilla 1 with 11 spines, one spine especially thickened; inner plates of maxilliped thick, ordinarily setose; coxae 2–4 without special anterodorsal humps; all posterior spines on article 6 of pereopods 3–4 thick and stiff, midapical spine or seta present, elongate; peduncle of uropod 1 with dorsolateral spines confined apically, medial spines widely spread, peduncle of uropod 2 with only one medial setule confined apically, peduncle of uropod 3 lacking extra subapical setae or spines; telson with ordinary pair of dorsal setules on each side.

Type-species.—*Pontharpinia obtusidens* Alderman, 1936.

Other species.—*cognatus* (J. L. Barnard, 1960); *major* (J. L. Barnard, 1960); *similis* (J. L. Barnard, 1960).

Relationship.—This genus differs from *Birubius* in the presence of pos-

terior setae on epimeron 2 and the loss of the nail on the maxillipedal dactyl. It differs from *Rhepoxynius* in the unconstricted rostrum.

Grandifoxus, new genus

Etymology.—Contrived from root of type-species and contraction of phoxus. Masculine.

Diagnosis.—Eyes present. Flagella of antennae 1–2 unreduced in female, article 2 of antenna 1 ordinary to elongate, ventral setae narrowly to widely spread; article 1 of antenna 2 not to strongly ensiform, article 3 with 3+ setules or setae in adults, facial spines on article 4 in 2 or more rows, lacking special apical spines, article 5 ordinary in size. Right mandibular incisor with 3 teeth, molar not triturative, pillow-shaped, bearing 4 or more splayed, semiarticulate spines, usually bearing pubescence; palpar hump small to medium. Palp of maxilla 1 biarticulate, inner plate with 4 setae. Setation of maxilla 2 ordinary. Inner plate of maxillipeds ordinary, apex of palp not or weakly protuberant, dactyl elongate, apical nail mostly immersed, short.

Gnathopods ordinary, small, similar, gnathopod 2 weakly enlarged, article 5 of gnathopods 1–2 elongate, without eusirid attachment, palms oblique to transverse, hands of gnathopods 1–2 setose anteriorly, weakly trichophoxin in shape. Article 2 of pereopod 5 of broad form; articles 4–5 of pereopods 5–6 broad; article 2 of pereopods 5–6 not setose posteriorly; pereopod 7 ordinary, article 2 naked ventrally, article 3 ordinary, dactyl normal.

Peduncle of uropod 1 normally elongate, without apicoventral spike, with or without enlarged displaced medial spine, peduncular apices of uropods 1–2 not combed, inner ramus of uropod 1 with one row of marginal spines, no rami continuously spinose to apex, inner ramus of uropod 2 ordinary; uropod 3 ordinary, very short, article 2 of outer ramus carrying 2 medium to long apical setae. Telson ordinary, with 2–4 apical spines or setae on each lobe plus setules, usually with special dorsal and lateral spines or setae. Epimera (1), 2, 3 bearing numerous long posterior setae, without midfacial setae above ventral facial ridge, epimeron 3 ordinary. Urosomite 1 without large lateral facial spines, bearing one or more midventral or lateral crescents or bundles of setae; urosomite 3 without dorsal hook or special process.

Description.—Rostrum fully developed, constricted; pubescence on article 1 of antenna 1 in male present; calceoli on male primary flagellum of antenna 1 present, calceoli on article 5 of male antenna 2 present, flagellum in male with calceoli; prebuccal parts ordinary, poorly separated from each other, both epistome and upper lip dominant; right lacinia mobilis bifid or simple, flabellate or thin, article 1 of mandibular palp short, palp medium, apex of article 3 oblique, article 2 with or without outer setae; lower lip bearing cones; outer plate of maxilla 1 with 11 spines, one spine especially

thickened; inner plates of maxilliped ordinarily setose; coxae 2–4 with special apical humps; all posterior spines on article 6 of pereopods 3–4 thick and stiff, midapical spine or seta present; peduncle of uropod 1 with dorsolateral spines confined apically, medial spines widely spread, peduncle of uropod 2 with only one medial spine or setule confined apically, or rarely with widely spread spines; peduncle of uropod 3 lacking extra subapical setae or spines; telson with ordinary pair of midlateral or dorsal setules on each side.

Type-species.—*Phoxus grandis* Stimpson, 1856 (= *Pontharpinia milleri* Thorsteinson, 1941).

Other species.—*longirostris* (Gurjanova, 1938, 1951); *robustus* (Gurjanova, 1938, 1951).

Relationship.—Differing from *Birubius*, *Rhepoxynius* and *Foxiphalus* in the presence of more than 2 lateral setae on article 3 of antenna 2 and the humped coxae. Also characterized by very short article 2 on outer ramus of uropod 3 and, for the most part, supernumerary telsonic spines.

Eyakia, new genus

Etymology.—Named for a group of North American Indians. Feminine.

Diagnosis.—Eyes present. Flagella of antennae 1–2 unreduced in female; article 2 of antenna 1 ordinary, ventral setae widely spread; article 1 of antenna 2 not ensiform, article 3 with 2 setules, facial spines on article 4 in 2 rows, plus special apical spines, article 5 ordinary in size. Right mandibular incisor with 3 teeth, molar not tritulative, pillow-shaped, bearing 3–4 splayed, semiarticulate spines, one of these very large, usually bearing pubescence; palpar hump small. Palp of maxilla 1 biarticulate, inner plate with 4 setae. Setation of maxilla 2 ordinary. Inner plate of maxillipeds ordinary, apex of palp not or weakly protuberant, dactyl elongate, apical nail distinct, short.

Gnathopods dissimilar, gnathopod 2 moderately to strongly enlarged, article 5 of gnathopod 1 of ordinary length, but short on gnathopod 2, without eusirid attachment, palms oblique; hands of gnathopods 1–2 narrowly ovate, elongate, poorly setose anteriorly; article 2 of pereopod 5 of broad form, but tapering distally; articles 4–5 of pereopods 5–6 narrow to medium; article 2 of pereopods 5–6 not setose posteriorly; pereopod 7 ordinary, article 2 naked or weakly setulose ventrally, article 3 ordinary, dactyl normal.

Peduncle of uropod 1 normally elongate, without apicoventral spike, without enlarged displaced spine, peduncular apices of uropods 1–2 not combed; inner ramus of uropod 1 with one row of marginal spines, no rami continuously spinose to apex; inner ramus of uropod 2 ordinary, uropod 3 ordinary, article 2 of outer ramus carrying 2 medium to long apical setae. Telson ordinary, with only 1–2 apical spines or setae on each lobe plus setules,

without special dorsal and lateral spines or setae. Epimera 1–2 lacking long posterior setae, without midfacial setae above ventral facial ridge, epimeron 3 ordinary. Urosomite 1 without large lateral facial spines, bearing one or more ventral crescents or bundles of setae or generally naked except for sparse apicoventral setae or spines near base of uropod 1, urosomite 3 without dorsal hook or special process.

Description.—Rostrum fully developed, unconstricted, pubescence on article 1 of antenna 1 in male present; calceoli on male primary flagellum of antenna 1 present, calceoli on article 5 of male antenna 2 present, flagellum in male with calceoli; prebuccal parts ordinary, poorly separated from each other, both epistome and upper lip dominant; right lacinia mobilis bifid, flabellate; article 1 of mandibular palp short, palp medium, apex of article 3 oblique, article 2 without outer setae; lower lip bearing cones; outer plate of maxilla 1 with 11 spines, one spine especially thickened; inner plates of maxilliped ordinarily setose; coxae 2–4 without special anterodorsal humps; all posterior spines on article 6 of pereopods 1–2 thick and stiff, midapical spine or seta present; article 2 of pereopod 7 without facial setae; peduncle of uropod 1 with dorsolateral spines confined apically, medial spines or setae widely spread, peduncle of uropod 2 with only one medial spine or setule confined apically, peduncle of uropod 3 lacking extra subapical setae or spines; telson with ordinary pair of midlateral or dorsal setules on each side.

Type-species.—*Parharpinia calcarata* Gurjanova, 1938, 1951.

Other species.—*robustus* (Holmes, 1908); *subuncigerus* (Kudrjaschov, 1965); *uncigerus* (Gurjanova, 1938, 1951).

Relationship.—Similar to *Parharpinia* Stebbing and *Protophoxus* K. H. Barnard but differing from both in the absence of displaced peduncular spine on uropod 1 and in the enlarged third spine on the mandibular molars. The latter character distinguishes *Eyakia* also from *Birubius* Barnard and Drummond; in addition *Eyakia* differs from *Birubius* in the tapering article 2 of pereopod 5.

Eobrolgus, new genus

Etymology.—From “eos” early and *Brolgus*, an Australian genus; masculine; noting *Eobrolgus* more plesiomorphic than *Brolgus* in uropod 3.

Diagnosis.—Eyes present. Flagella of antennae 1–2 unreduced in female; article 2 of antenna 1 ordinary, ventral setae confined apically; article 1 of antenna 2 not ensiform, article 3 with 2 setules, facial spines on article 4 in 2 or more rows, lacking special apical spines, article 5 ordinary in size. Right mandibular incisor with 3 teeth, molar not triturative, pillow-shaped, bearing 4 or more splayed, semiarticulate spines, usually bearing pubescence, palpar hump medium. Palp of maxilla 1 biarticulate, inner plate with

4 setae. Setation of maxilla 2 ordinary. Inner plate of maxillipeds ordinary, apex of palp not or weakly protuberant, dactyl elongate, apical nail obsolescent to absent.

Gnathopods small, similar, article 5 of ordinary length, very short, cryptic on gnathopod 2, elongate on gnathopods 1, 2, palms oblique, hands of gnathopods 1–2 ovatorectangular, poorly setose anteriorly. Article 2 of pereopod 5 of broad form; articles 4–5 of pereopods 5–6 broad and narrow respectively, article 2 of pereopods 5–6 not setose posteriorly; pereopod 7 ordinary, article 2 naked ventrally, article 3 ordinary, dactyl normal.

Peduncle of uropod 1 normally elongate, without apicoventral spike, without enlarged displaced spine, peduncular apices of uropods 1–2 combed; inner ramus of uropod 1 with one row of marginal spines, no rami continuously spinose to apex; inner ramus of uropod 2 ordinary, uropod 3 ordinary, article 2 of outer ramus, carrying 2 medium to long apical setae. Telson ordinary, with 1–2 apical spines or setae on each lobe plus setules, without special dorsal and lateral spines or setae. Epimera 1–2 lacking numerous long posterior setae, without midfacial setae above ventral facial ridge, epimeron 3 ordinary, bearing one or more long setae. Urosomite 1 without large facial spines, generally naked except for sparse apicoventral setae or spines near base of uropod 1; urosomite 3 without dorsal hook or special process.

Description.—Rostrum fully developed, unconstricted, pubescence on article 1 of antenna 1 in male present; calceoli on male primary flagellum of antenna 1 present, calceoli on article 5 of male antenna 2 absent, flagellum in male with calceoli; prebuccal parts poorly separated from each other, both epistome and upper lip dominant; right lacinia mobilis bifid or simple, thin, article 1 or mandibular palp short, palp medium, apex of article 3 oblique, article 2 without outer setae; lower lip bearing cones; outer plate of maxilla 1 with 9 spines, one spine especially thickened; inner plates of maxilliped ordinarily setose; coxae 2–4 without special anterodorsal humps; all posterior spines on article 6 of pereopods 1–2 thick and stiff, midapical spine or seta present; article 2 of pereopod 7 without facial setae; peduncle of uropod 1 with dorsolateral spines confined apically, medial spines widely spread, peduncle of uropod 2 with only one medial spine or setule confined apically, peduncle of uropod 3 bearing extra subapical setae or spines; telson with ordinary pair of midlateral or dorsal setules on each side.

Type-species.—*Paraphoxus spinosus* Holmes, 1905.

Other species.—*?pontarpioides* (Gurjanova, 1953).

Relationship.—Because of the short article 2 of antenna 1 and the placement of the major setal group at the apex of the article (in contrast to being spread out along the ventral margin), this genus has close affinities with the Brolginae as described by Barnard and Drummond (1978). In that subfamily

it keys closest to *Paraphoxus* Sars but differs from that genus in the presence of more than 3 spines on the molars, the presence of large, or long, or numerous setae on epimeron 3, the presence of more than 2 setae on the inner plate of maxilla 1, the presence of a main apical spine on the inner plate of the maxilliped, and the division of the spines on article 4 of antenna 2 peduncle into several distinct groups the most proximal of which has more than 1 spine (*Eobrolgus* usually has 5). *Eobrolgus* thus is a very close mimic of *Paraphoxus* and superficially appears to be a brolgin but is not because of the characters of mandible and antenna 2. Instead, it belongs either to the Birubiinae or Parharpiniinae and differs from *Birubius* in the apical placement of setae on article 2 of antenna 1 or from other parharpiniins in the absence of supernumerary telsonic spination and untapering article 2 of pereopod 5.

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