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ADDITION TO THE RECLASSIFICATION OF BRACHYURAN CRABS (CRUSTACEA: DECAPODA: BRACHYURA) PART I. NEW TAXA

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In the continuation of the revision of the brachyuran system some additions are given. A good number of new higher taxa are established: families, subfamilies, tribes and genera. New taxa are briefly diagnosed, named and their systematic position is indicated.

Key words: Brachyuran crabs (Crustacea: Decapoda: Brachyura), new higher taxa, reclassification, addition

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U nastavku revizije sustava kratkorepih rakova (Crustacea: Decapoda: Brachyura) dodani su novi podaci. Uspostavljene su brojne nove više svojte: porodice, podporodice, plemena i rodovi. Nove svojte su ukratko opisane i imenovane uz naznaku njihovog sistematskog položaja.

Ključne riječi: kratkorepi raci (rakovice, Crustacea: Decapoda: Brachyura), nove više svojte, reklasifikacija, dodatak

In my previous work (ŠTEVČIĆ, 2005) I reclassified all extant and extinct brachyuran suprageneric taxa known up to that time. In this reclassification, genera were not included; that was postponed until the publication of the entire work (in prep.). It was announced (ŠTEVČIĆ, 2005: 13) that my entire work would be finished later and distributed by electronic media. Having published my work in 2005, I continued the revision of the brachyuran system and enlarged it down to the generic level, similar to the work of BALSS (1957). It is noteworthy that during the last few years numerous very important works have appeared, dealing with the revision of higher taxa as well as the reappraisal of the brachyuran classification system. Among the most important works at the time is the *Systema Brachyurorum* by NG *et al*. (2008), comprising a complete annotated checklist of brachyuran extant genera and species. All important new data recently published should be incorporated in my monograph which will include

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all supraspecific taxa with additional explanations and clarifications. Moreover, numerous revisions have led to some changes in the status and position of some previously described taxa, all justifiable improvements having been accepted.

During the continued revision I once again encountered a good number of new higher taxa awaiting publication. A higher taxon is, as defined by MAYR & ASHLOCK (1991: 418): »A taxon ranked in one of the higher categories; a monophyletic group of species (or a single species) separated from other taxa of the same rank by a gap greater than any found within the taxon». The new taxa described here are at categorial levels from genus to family; I diagnosed them, named them, and indicated their systematic status and position. Since the taxonomic names published in electronic media and distributed by pdf would be unavailable and invalid in the systematic practice as specified by the International Code of Zoological Nomenclature (1999), the enterprise would be wasted. Names of taxa are available if they are properly published in reliable publications (journals or books), but not in electronic media. In order to publish the whole manuscript in the electronic media, first I have to publish names and diagnoses of the new higher taxa separately in a paper, in a book or a journal. I chose the latter option so all the established new higher taxa (families, subfamilies, tribes and genera) are included in the current work. I have named newly established taxa, given a brief diagnosis, added type genus and indicated systematic positions. At the same time I propose a good number of new genera for species that do not conform with descriptions of genera to which they were previously accommodated and the particular characters of which warrant the establishment of new genera. Included diagnoses of taxa comprise the minimum characters sufficient to recognize the pertinent taxon. The majority of the new genera are named in honor of (mostly deceased) carcinologists. For the new genera, as well as the names, I have also given short diagnosis, which makes possible their recognition, etymology of the generic name, type species and systematic position. It is worth noting that the names of new genera in my last work (ŠTEVČIĆ, 2005: 133–134), as found by NG *et al*. (2008) are, according to ICZN (1999), not available, because taxa names of the new genera lack diagnoses. This deficiency is corrected here by this condition being met, namely, all taxa, as mentioned above are shortly described, with a designation of their systematic position (where the position is certain). New taxa are arranged here alphabetically together with other taxa inside the same categorial level. All mentioned taxa will be described entirely later on with many more details and comments. Most of the taxa diagnosed here are monotypical. Despite all of my efforts, some taxa (especially extinct taxa) are not completely described and therefore their systematic position remains uncertain.

Finally, the problem of systematic status (rank) has been often discussed. How do we know which taxon is at e.g. subfamilial or tribal level? The procedure is the following: If we wish to ascertain the systematic status of the species under study we have to look for a genus that can accommodate it. This genus, also the next higher taxon has to posses all important characters of the species e.g. similar shape, orbits, mouth parts, sternum, gonopods and abdomen so that this species in question is only »a variation on a theme«. If the conformity is complete the species in question belongs to this genus. If not, it means that it is new genus and that we have to seek the next tribe, subfamily or superfamily. If the genus in question belongs to the family it deserves subfamily rank. The systematic rank is, then, always determined by the rank of next higher taxon.

NEW FAMILIES:

Six distinct groups that deserve family rank are described below:

Family BRANKOCLEISTOSTOMIDAE fam. nov.

Retropluma-shaped, wider than long, dorsal surface with two transversal ridges; posterior margin wider than frontal; ischium and merus of third maxilliped obliquely furrowed, widely gaping, exognath well developed; chelipeds robust, symmetrical; ambulatory legs distally fringed with plumose setae.

Type genus: *Brankocleistostoma* gen. nov. (see: infra). (Type species: *Paracleistostoma fussulum* Barnard, 1955)

Position: *Incertae sedis* (*Varuninae* H. Milne Edwards, 1853?).

Family CAECOPILUMNIDAE fam. nov.

Subpentagonal, rounded; eyes reduced, peduncles fixed; antennulae nearly longitudinally directed; merus of third maxilliped nearly circular; abdominal segments freely articulated, first segment widest; first gonopod substraight gradually tapering, subdistally covered with conical spinules, second gonopod nearly as long as first, with long, slender flagellum and cup on its basis.

Type genus *Caecopilumnus* Borradaile, 1903. (Type species: *Caecopilumnus hirsutus* Borradaile, 1903).

Position: Pseudozoidea Alcock, 1898 (?).

Family GARTHOPILUMNIDAE fam. nov.

Cephalothorax (atypically) subhexagonal; dorsal surface spinose and areolate; front biconcave; anterolateral margins short, spinose; posterolateral margin long, concave with spinulose row; male abdominal segments freely articulated; gonopods simple, straight, apex bluntly rounded.

Type genus: *Garthopilumnus* gen. nov. (Type species: *Pilumnus palmeri* Garth, 1986).

Position: *incertae sedis* (specimen damaged).

Family *HAEMOCINIDAE* fam. nov.

Pilumnus-like; dorsal surface covered with short setae; epigastric and postorbital crests present; anterolateral margin convex, with three short spines; endostomial ridge present; dactyls of ambulatory legs long, slender; abdominal segments in male freely articulating; first gonopod curving outwards, margins lined with numerous short spinules; second gonopod straight, half length of first one.

Type genus: *Haemocinus* Ng, 2003.

Position: Pseudozoidea Alcock, 1898.

Family LAZAROCLEISTOSTOMIDAE fam. nov.

Retropluma-shaped, quadrangular, wider than long; dorsal surface of carapace with two transversal ridges; front narrow, feebly bilobed; posterior margin wide; ischium and merus of third maxilliped wide, obliquely furrowed, widely gaping; exognath distinct; chelipeds robust; ambulatory legs distally fringed with plumose setae.

Type genus: *Lazarocleistostoma* gen. nov. (*see*: infra).

Position: Grapsoidea MacLeay, 1838 (?) *(incertae sedis*).

+ Family LOVARACARCINIDAE fam nov.

Transversely oval, slightly wider than long, convex in both directions; dorsal regions indistinct; dorsal surface with irregular granulation surrounded by small pits (as in the Dairoidea); front four-lobate; frontal and posterior margins relatively narrow; orbits circular, entire, rimmed and beaded; anterolateral margin long, convex, four-dentated, posterolateral margin weakly convex, dentate.

Type genus: + *Lovaracarcinus* De Angeli & Beschin, 2010.

Position: Carpilioidea Ortmann, 1893 (?).

Family NEOMMATOCARCINIDAE subfam. nov.

Transversely rectangular; front relatively very narrow; interantennular septum absent; eyestalks and orbits extremely long; epibranchial tooth absent; abdominal segments 3-5 fused; vulva surrounded by sclerified elevated prominence; sternal suture 6/7 entire; penis with sclerified proximal portion, placed in sternal groove; abdomen in male narrowly triangular.

Type genus: *Neommatocarcinus* Takeda & Miyake, 1969.

Position: Goneplacoidea MacLeay, 1838.

NEW SUBFAMILIES:

Three suprageneric taxa in previously described families which deserve subfamily status are described below.

Subfamily MICHAELIINAE subfam. nov.

Subquadrate; front prominent, wide; eyes large, not accommodated completely into orbits, supraorbital margins oblique; hepatic tooth distinct; abdominal segments freely articulating in male; considerable portion of sternite 7 exposed, segment 3 not touching coxae of past pair of legs; sexual openings coxo-sternal; gonopods of subequal length; first gonopod with branch of subdistal part recurved; second gonopod subfiliform; flagellum with bifid apex, longer than peduncle.

Type genus: *Michaelia* gen. nov. (*see*: infra).

Position: Goneplacoidea MacLeay, 1838; Goneplacidae MacLeay, 1838.

Subfamily RHADINOPLACINAE subfam. nov.

Spherical, rounded; eyes and orbits reduced; thoracic sternum narrow, sternal suture 7/8 entire; abdomen relatively narrow in both sexes, in male covering entire sternite 8; penis short, unprotected by sternite 8; first gonopod long, slender, pointed apically, lacking small denticles; second gonopod long or slightly longer than first gonopod, flagellum as long as peduncle; vulva small, covered by vulvar cover.

Type genus: *Rhadinoplax* Castro & Ng, 2008.

Position: Euryplacidae Stimpson, 1971.

+ Subfamily TONGAPAPAKINAE subfam. nov.

Cephalothorax subovate, wider than long; front projecting beyond orbits, frontal margin straight, relatively narrow, with median notch, straight and beaded on either

side of notch; small spine on inner orbital margin; orbits narrow; anterolateral margin short with three spines; posterior margin rimmed, slightly concave medially.

Type genus: *Tongapapaka* Feldmann, Schweitzer & McLauchlan, 2006

Position: Pseudoziidae Alcock, 1898.

NEW TRIBES

An array of suprageneric taxa, which deserve tribal rank, are briefly described below.

Tribe Camilohelleriini trib. nov.

Transversely elliptical; third maxilliped auriculate; abdomen in male with segments 4 -6 fused, 3 – 4 freely articulated, telson long; first gonopod short, stout compressed, tip strongly bent, produced, lobate, guttered.

Type genus: *Camilohelleria* gen. nov. (= *Helleria* Števčić, 2005 *nom. praeocc.*) Type species: *Micropanope manteri* Garth, 1968).

Position: Xanthidae MacLeay, 1838; Xanthinae, 1838.

Tribe Davusiini trib. nov.

Cephalothorax and pereiopods smooth; frontal margin weakly sinused, oblique; lateral carapace margins nearly straight, slightly diverging; exognath of third maxilliped slender with palp; merus of third maxilliped narrower than ischium; rhomboidal gap between third maxillipeds distinct; fingers of chelipeds pointed; male abdomen wide, narrowing distally.

Type genus: *Davusia* Guinot, 2007.

Position: Plagusiidae Dana, 1851; Plagusinae Dana, 1851.

Tribe Gopttisakini trib. nov.

Cephalothorax subeliptical, much wider than long; dorsal surface with four transversal glossy carinae, one long and three short, and posterolateral facets on each side; ischium and merus of third maxilliped wide, nearly of equal width, articulation oblique, palp well developed, dactylus with bunch of long plumose setae; abdominal segments 3-6 fused in male.

Type genus: *Gopttisak* Naruse & Clark, 2009.

Position: Grapsidae MacLeay, 1838; Gaeticinae Davie & N. K. Ng, 2007.

Tribe Gustavini trib. nov.

Pinnotherid-like; dorsal surface finely pubescent front sharply triangular, deflexed; antennulae obliquely plicated; merus of third maxilliped elongate, triangular, inner distal angle produced to rounded lobe; male abdomen wide, linguiform; segments 4 – 6 fused.

Type genus: *Gustavus*_Ahyong & Ng, 2009.

Position: Astenognathidae Stimpson, 1858; Aphanodactylinae Ahyong & Ng, 2009.

Tribe Ihleini trib. nov.

Cephalothorax subglobular, posteriorly constricted; slightly longer than wide; covered with soft tomentum; basal antennular segment operculiform; anterior extremity of buccal cavern producing beyond level of anterior boundaries of pterygostomian region; chelipeds short, stout; first gonopod short, stout.

Type genus: *Ihleus* Ovaere, 1989. (Type species: *Randallia lanata* Alcock, 1896).

Position: Leucosiidae Samouelle, 1819; Ebaliinae Stimpson, 1871.

+Tribe Kowaicarcinini trib. nov.

Hexagonal to transversely ovate; dorsal surface smooth; front wide, square-cut; H-shaped depression distinct; front straight, entire with finely beaded rim; orbits rimmed, directed forward, margins entire; eyestalks short; anterolateral margin gently convex, trilobed; posterior margin straight, rimmed; abdominal segments freely articulated, lateral notch between segments 3–4 marked.

Type genus: +*Kowaicarcinus* Feldmann, Schweitzer, Maxwell & Kelly, 2008.

Position: Goneplacidae MacLeay, 1838; Carcinoplacinae H. Milne Edwards, 1852.

Tribe Krunorhombilini trib. nov.

Pseudorhombila-like; dorsal surface with coarse granulation; 2 anterolateral teeth; abdomen relatively wide, abdominal segments 3–5 almost free, sutures well marked; first gonopod elongate, apex terminating in poorly defined hump, continuing in large spinose lobe; second gonopod recurved, nearly S-shaped, terminal process with spinules, distally strap-like; female gonopore large, margins prominent.

Type genus: *Krunorhombila* gen. nov.

Position: Pseudorhombilidae Alcock, 1900.

Tribe Latreilliopsini trib. nov.

Elongately subquadrangular; rostrum and two supraorbital spines spiniform; *linea homolica* distinct; antennal flagellum long; eyestalks very long, basophthalmite slender, much longer than podophthalmite; third maxilliped opercullariform; no epipodites on ambulatory legs; 10 gills + 4 epipodites; abdominal segments freely articulated.

Type genus: *Latreilliopsis* Henderson, 1888.

Position: Homolidae De Haan, 1839.

Tribe Malayopotamini trib. nov.

Potamon-like. Exognath of third maxilliped slender, with long flagellum; first gonopod relatively short, very stout, terminal joint tubular or truncated; second gonopod distinctly shorter then first gonopod; flagellum of second gonopod laterally flattened, sclerotized, stiff, not forming true tube, but large groove; abdominal segment 6 in both sexes with transversal sulcus.

Type genus: *Malayopotamon* Bott, 1968.

Position: Potamidae Ortmann, 1896

Tribe Microgeneplacini trib. nov.

Transversely hexagonal; exorbital tooth in median portion of carapace; eyestalks and orbits long, stout, directed obliquely backwards; cornea elongated; inner infraorbital angle wide; cheliped carpal tooth obtuse; male abdomen usually narrow, uncovered portion of sternite 8 large; first gonopod slender, usually distally widened, with conical tubercles; second gonopod much shorter than first one, flagellum slightly curved; vulvar cover present.

Type genus: *Microgoneplax* Castro, 2007.

Position: Goneplacidae MacLeay, 1838; Goneplacinae MacLeay, 1838.

Tribe Otognathini trib. nov.

Subhexagonal; longer than wide; front very wide, entire, weakly bilobed; blunt tooth at junction of antero- and posterolateral margins; antennulae folding obliquely; endostomial ridges present; third maxillipeds with merus auriculiform, longitudinal sulci with granules on ischium and merus; fingers of chelipeds with chitinous edge and pectinate tips.

Type genus: *Otognathon* Ng & Ševčić, 1993.

Position: Grapsidae MacLeay, 1838; Varuninae H. Milne Edwards, 1853.

Tribe Paragoneplacini trib. nov.

Goneplax-like; cornea reniform; suborbital teeth obsolete; distal end of eyestalk with iridescent region; inner carpal spine obtuse; distal end of meri of ambulatory legs dentate; first gonopod bent; second gonopod much shorter than first, with slightly curved flagellum, tip straight; male abdomen relatively wide; vulvar cover absent.

Type genus: *Paragoneplax* Castro, 2007.

Position: Goneplacidae MacLeay, 1838; Goneplacinae MacLeay, 1838.

Tribe Pelini trib. nov.

Cephalothorax ovate; eyes reduced; third maxilliped widely rounded, feebly projecting; pereiopods very long and slender; fingers of chelipeds very long, dentate at occlusive margins; dactyls of last pair of legs almost straight, narrow; male telson elongate linguliform; first gonopod basally wide, bending sinuously upward, distally straight and slender apex sharply pointed.

Type genus*: Pele* Ng, 2011.

Position: Portunidae Rafinesque, 1815; Carupinae Paul'son, 1875.

Tribe Philippicarcinini trib. nov.

Transversely ovate; frontal margin entire, orbits closed, antennae excluded from orbits; anterolateral margin with 1 – 2 blunt teeth at tip; chelipeds heterochelous; dactyli of walking legs with pointed tip; coxae of last pairs of legs visible in dorsal view; first gonopod stout, tip spinose, second gonopod reaching tip of first one; abdominal segments in male freely articulated.

Type genus: *Philippicarcinus* Garth & Kim, 1983.

Position: Trapeziidae Miers, 1886; Trapeziinae Miers, 1886.

Tribe Rhabdonotini trib. nov

Pseudorostrum produced, not elongated; lateral carapace margins rounded; dorsal surface smooth, glabrous, regions indistinct; inner supraorbital angle small; first pair of ambulatory legs longest; first gonopod S-shaped.

Type genus: *Rhabdonotus* A. Milne-Edwards, 1879.

Position: Pilumnidae Samouelle, 1819; Eumedoninae Dana, 1853.

Tribe Richerellini trib. nov.

Frontal margin bilobed; anterolateral margin with 3 teeth; chelipeds elongated, longer than ambulatory legs, smooth, without distinct carina; second abdominal segment with transversal carina; first gonopod sinuous, slightly bilobed distally.

Type genus: *Richerellus* Crosnier, 2003.

Position: Portunidae Rafinesque, 1815; Carupinae, Paul'son, 1875.

Tribe Scopoliini trib. nov.

Suboval; front bilobed; first anterolateral tooth united with exorbital angle; merus of third maxilliped auriculate; chelipeds disproportionally large, heterochelous; small portion of sternite 8 uncovered; first gonopod bulbous distally with recurved apical projection.

Type genus: *Scopolius* gen. nov. (*see*: infra)

Position: Panopeidae Ortmann, 1893; Panopeinae Ortmann, 1893.

+Tribe Tehuacanini trib. nov.

Subsquare; dorsal surface marked by bosses of variable strength; front bilobed; anterior margin relatively narrow; supraorbital margin bifissured; anterolateral margin with three spines or lobes; thoracic sternum wide; male abdomen elongate, subrectangular; first abdominal segment completely covering space between last pair of legs;

Type genus: *Tehuacana* Stenzel, 1944.

Position: Geryonidae Colosi, 1923; Geryoninae Colosi, 1923.

NEW GENERA:

All the new genera described below were previously included as species in other genera and several of them have had uncertain systematic position. However, they differ considerably in some important features from the genera in which they were previously placed, so these differences warrant a new and separate generic level. Or in other words: new genera are species separated from other species by a gap greater than any found within the previous genus. After the revision of whole brachyuran system the following new genera can be recognized:

Aldrovandiopanope gen. nov.

Cephalothorax xanthoid-shaped, wide; anterolateral margin four-lobate; merus of third maxilliped subrectangular, wider than long, auriculate; male abdomen 5-segmented (3-5 fused), two proximal segments well developed, third widest, telson triangular, tip rounded; first gonopod slender, sinuous, compressed, tapering, apically

slightly curved, row of gradually lengthening setae on convex margin, row of short setae on concave margin, opening terminal, concealed by reflexed tip and extending short distance on sternal side.

Etymology: After Ulysses Aldrovandi, Italian naturalist.

Type species: *Micropanope taylori* Garth, 1986.

Gender: feminine;

Position: Xanthidae MacLeay, 1838; Xanthinae MacLeay, 1838; Xanthini MacLeay, 1838.

Aristotelopanope gen. nov.

Hexagonal, wider than long, moderately convex; supraorbital margin granulate, bifissured; merus of third maxilliped granulate, subrectangular; male abdomen with segments 3-5 fused, narrowest at base of sixth segment; two proximal segments short, wide; first gonopod thickened, flattened, scarcely tapered, slightly twisted near tip, opening hooded, terminal, row setae along convex margin, transverse row of longer setae below tip.

Etymology: After Aristotle, Old Greek scientist, founder of systematic science in general.

Type species: *Micropanope ashcrafti* Garth, 1986.

Gender: feminine.

Position: Xanthidae MacLeay, 1838; Xanthinae MacLeay, 1838; Xanthini, MacLeay, 1838.

Balssopilumnus gen. nov.

Cephalothorax nearly ovate; dorsal surface smooth with two transversal short array of small tubercles, regions rather distinct; supraorbital margin bifissured; infraorbital margin visible in dorsal view; anterolateral margin with three teeth; posterior margin relatively wide; larger cheliped with mushroom-shaped tubercles and distinct conical tubercles, smaller cheliped covered by sparse conical tubercles; upper margin of ambulatory legs crested with elongated tubercles; gonopods pilumnid.

Etymology: After Heinrich Balss, German carcinologist.

Type species: *Parapilumnus boletifer* Monod, 1956.

Gender: masculine.

Position: Pilumnidae Samouelle, 1819; Pilumninae Samouelle, 1819.

Bossacarcinus gen. nov.

Anterolateral margin short, arched with three short triangular teeth, directed forward; posterolateral margin long, anteriorly subparallel, posteriorly convex; posterior margin very wide, convex; third maxillipeds diverging, leaving triangular space uncovered, merus of third maxilliped wider than long, distinctly auriculate; first abdominal segment widest, not touching coxae of last pair of legs, partly covered by carapace margin, partly exposed dorsally, second segment half as wide as first, third nearly as wide as second, scarcely produced laterally; telson widely triangular.

Type species: *Speocarcinus celebensis* Tesch, 1918 (=?*Viaderiana c.* NG *et al*. 2008).

Etymology: After Bosiljka (short name: Bosa, pron. Bossa) Merker-Poček, Montenegrinean carcinologist.

Gender: masculine.

Position: Pilumnidae Samouelle, 1819; Pilumninae Samouelle, 1819; Heteropanopeini Alcock, 1898.

Bottoxanthodes gen. nov.

Roughly *Megametope*-shaped, subhexagonal, slightly wider than long; front slightly projecting, bilobed, lobes slightly convex; antennal sinuses distinct; anterolateral margin distinctly marked, much longer than posterolateral margin, four-dentate; posterolateral margins short, very diverging; chelipeds slightly heterochelous.

Etymology: After Richard Bott, German carcinologist.

Type species: *Xanthodes insculptus* Stimpson 1871.

Gender: masculine.

Position: Xanthidae MacLeay, 1838; Xanthinae MacLeay, 1838; Xanthini MacLeay, 1838 (near *Paraxanthias* Odhner, 1925).

Brankocleistostoma gen. nov.

Retropluma-shaped, wider than long; dorsal surface of carapace with two transversal ridges; front wide, feebly bilobed; posterior margin wide, wider than frontal one; ischium and merus of third maxillipeds obliquely furrowed, widely gaping; exognath distinct; chelipeds robust, homoiochelous; ambulatory legs distally fringed with plumose setae.

Etymology: After Branko Božić, Croatian carcinologist, active in France.

Type species: *Paracleistostoma fossula* Barnard, 1955. (*recte*: *fussulum*).

Gender: neuter.

Positiion: *Brankocleistostomidae* fam. nov.

Camilohelleria gen. nov.

Transversely elliptical; third maxilliped auriculate; abdomen in male narrow, two proximal segments relatively long, third segment widest, laterally triangular, segments 4-6 fused, 3-4 freely articulated, telson long; first gonopod short, stout, compressed, tip strongly bent at tip, produced, beak guttered, with entire margin.

Etymology: After Austrian carcinologist Camil Heller.

Type species: *Micropanope manteri* Garth, 1968

Gender: feminine.

Position: Xanthidae MacLeay, 1838; Xanthinae MacLeay, 1838; Camilohelleriini trib. nov.

Daipilumnus gen. nov.

Subhexagonal; dorsal surface mesially smooth, regions usually distinct, frontal, branchial and hepatic regions covered with granules; H-shaped groove distinct; front projecting forward, bilobed, lobes truncated; first two anterolateral teeth obtuse (first hardly distinct), next three teeth distinct, basally wide, apically tips spiniform; posterolateral margin longer and anterolateral one; chelipeds very asymmetric; first gonopod slender, gently S-shaped, distally flattened and twisted to one side.

Etymology: After Dai Ai-Yun, Chinese carcinologist.

Type species: *Parapilumnus trispinosus* Sakai, 1965.

Gender: masculine.

Position: Pilumnidae Samouelle, 1819; Pilumninae Samouelle, 1819; Pilumnini; Samouelle, 1819.

Garthopilumnus gen. nov.

Cephalothorax atypically subhexagonal; dorsal surface areolated and spinulated anteriorly; front biconcave, looking trilobed; orbital margins spinulose; exorbital angle small; anterolateral margins strongly spinose, shorter than posterolateral ones; abdominal segments (apparently) freely articulated in male; telson subcircular impressed into segment 6; first gonopods simple, cylindrical, tapering slightly to blunt, hollowed out tip.

Etymology: After John S. Garth, American carcinologist.

Type species: *Pilumnus palmeri* Garth, 1986.

Gender: masculine.

Position: Garthopilumnidae fam. nov.

Gordonoxanthus gen. nov.

Cephalothorax xanthoid-shaped, dorsally very convex; outer frontal teeth directed obliquely outward; merus of third maxilliped longer than wide; chelipeds heterochelous, dactylus of major chela lacking large crushing tooth; thoracic sternum with Y-shaped groove pattern; male telson short, rounded reaching posterior portion of sternite 4.

Etymology: After Isabella Gordon, English carcinologist.

Type species: *Platyxanthus cokeri* Rathbun, 1930.

Gender: masculine.

Position: Eriphioidea MacLeay, 1838; Platyxantidae Guinot, 1977.

Krunorhombila gen. nov.

Subhexagonal, wider than long; dorsal surface with coarse granulation; front bilobed, straight; anterolateral margin bidentate; male abdomen relatively wide; abdominal segments 3-5 almost freely articulated, sutures well marked; first gonopod elongate, terminating in hump, continued in large lobe; second gonopod recurved, distally strap-like; female gonopore circular, large, margin prominent.

Etymology: After Krunoslav Babić, Croatian carcinologist.

Type species: *Pseudorhombila ometlanti* Vázques-Bader & Gracia, 1995.

Gender: feminine.

Position: Pseudorhombilidae Alcock, 1900; Pseudorhombilinae Alcock, 1900; Krunorhombilini trib. nov.

Lamarckopilumnus gen. nov.

Almost rounded; dorsal surface relatively smooth, almost glabrous, covered with short stiff setae and numerous scattered long setae; frontal margin sinuous, median notch deep, wide, antennal sinuses distinct, anterolateral margin arcuated, with three low, widely separated tubercle-like teeth, with blunt tip; abdomen in male

wide, triangular; telson long, subtriangular; first gonopod slender, very sinuous, apically pointed, with long lateral spermal opening; second gonopod pilumnid.

Etymology: After Jean Baptist P. A. Monet de Lamarck, French zoologist.

Type species: *Pilumnus izuogasawarensis* Takeda & Ng, 1997.

Gender: masculine.

Position: Pilumnidae Samouelle, 1819; Pilumninae Samouelle, 1819; Pilumnini Samouelle, 1819.

Lazarocleistostoma gen. nov.

Cephalothorax roughly quadrangular, wider than long; dorsal surface smooth, regions ill defined; front very narrow, less than half width of orbits, square-cut, deflexed; anterolateral margins markedly concave, posterolateral margin convex, posterior margin wide, straight; eyestalks long; third maxillipeds completely covering buccal cavern, ischium and merus of equal length exognath partly exposed; ambulatory legs distally fringed with long setae ischium and merus of third maxillipeds obliquely furrowed, widely gaping; chelipeds robust; ambulatory legs distally fringed with plumose setae.

Etimology: After Lazar Car, Croatian carcinologist.

Type species: *Paracleistostoma dentatum* Tesch, 1918.

Gender: neuter

Position: Ocypodidae Rafinesque, 1815; Dotyllinae Stimpson, 1858 (?)

Lipkemedaeus gen. nov.

Cephalothorax hexagonal, wide, convex in both directions; dorsal surface of carapace deeply areolated, rough, with short scattered pubescence and spiniform granules; spinules very large anteriorly, smaller posteriorly, many becoming spinules on the anterolateral region; median groove between mesogastric triangle and medial notch crossed by transverse groove; median frontal sinus very large; tip of male abdomen concave.

Etymology: After Lipke B. Holthuis, Dutch carcinologist.

Type species: *Pilumnus spinulifer* Rathnun, 1898.

Gender: masculine.

Position: Xanthidae Macleay, 1838; Euxanthinae Alcock, 1898; Euxanthini Alcock, 1898 (near: *Medaeus* Dana, 1851).

Michaelia gen. nov.

Subquadrate; front wide, entire, projecting, straight; eyes large; supraorbital margin oblique; epibranchial tooth distinct; male sexual opening coxo-sternal; abdomen in male 7-articulated, not reaching coxae of last pair of legs; both gonopods peculiar, distally pointed, subequal in length.

Etymology: After Michael Türkay, German carcinologist.

Type species: *Psopheticus megalops* Takeda, 1989.

Gender: feminine.

Position: Goneplacidae MacLeay, 1838; Michaeliinae subfam. nov.

Otmaroxanthus gen. nov.

Cephalothorax relatively narrow; front projecting, four dentate; median notch and antennal sinuses deep; antennulae folding obliquely; chelipeds markedly heterochelous; proepistome anteriorly narrowing to acute apex; male abdomen elongate, second segment longer than third, latter widest; telson reaching posterior of sternite 4; apices of first gonopod over suture 4/5, protruding, visible at sides of abdomen.

Etymology: After Otmar Karlovac, Croatian carcinologist.

Type species: *Platyxanthus balboai* Garth, 1940.

Gender: masculine.

Position: Eriphiidae MacLeay, 1838; Platyxanthinae Guinot, 1977.

Pestoxanthodes gen. nov.

Carapace suboval, very convex longitudinally; branchial and gastric regions separated by deeply impressed groves, anterior part of mesogastric triangle distinct, short groove of mesogastric triangle extending to frontal margin and crossing near front transversal postfrontal groove, latter meeting on each side another groove which running parallel to upper margin of orbit, making two postfrontal and two postorbital areolets; third maxillipeds elongated, merus slightly auriculate.

Etymology: After Otto Pesta, Austrian carcinologist.

Type species: *Xanthodes sulcatus* Faxon, 1893.

Gender: masculine.

Position: Xanthidae MacLeay, 1838; Xanthinae MacLeay, 1838; Xanthini MacLeay, 1838.

Scopolius gen. nov.

Suboval; front slightly projecting, bilobed; first anterolateral tooth united with exorbital one; merus of third maxilliped auriculate; chelipeds disproportionally large, heterochelous, small portion of sternite 8 uncovered; first gonopod distally bulbous, with recurved apical projection.

Etymology: After Johannes Antonio Scopoli, Italian naturalist who first (already in 1763) applied Linnean nomenclature (for the Adriatic decapods).

Type species: *Xanthias nuttingi* Rathbun, 1898).

Gender: masculine.

Position: Panopeidae Ortmann, 1893; Panopeinae Ortmann, 1853; Scopolini trib. nov.

Veles gen. nov.

Subcircular, slightly wider than long; front thick, rather wide, projecting beyond orbits, bilobed, median notch distinct, antennular sinus small; lateral margin continuous with posterolateral one; ambulatory legs stouter and longer than chelipeds; abdomen in both sexes relatively narrow and 7-segmented; first gonopod slightly curved, apex simple (not bifid).

Etymology: After Old Slavic god Veles.

Type species: *Lybia hatagumoana* Sakai, 1961.

Gender: masculine.

Position: Xanthidae MacLeay, 1838; Polydectinae Dana, 1851.

Vojmirophthalmus gen. nov.

Subtrapezoidal, anteriorly wide; dorsal surface uneven; regions rather distinct, with two transversal ridges; orbits very strikingly long, arched, laterally close be well developed, anteriorly directed exorbital angle; anterolateral margin with only one small acute spine; eyestalks exceedingly long, basophthalmite flattened distally, with distal pterygoid expansion, podophthalmite very short with two expansions, one on anterior margin strongly curved outward other one on posterior margin curved inward; interorbital and interantennular septa very narrow.

Etymology: After Vojmir Vinja, Croatian linguist working on vernacular names of Adriatic marine animals.

Type species: *Podophthalmus minabensis* Sakai, 1961.

Gender: masculine.

Position: Portunidae Rafinesque, 1815; Podophthalminae Dana, 1851.

Wardoxanthops gen. nov.

Cephalothorax nearly subcircular, strongly convex, smooth, glabrous, regions indistinct, transversal groove behind gastric lobe hardly distinct; front distinctly projecting, rounded; basal antennal segment long, oblique, touching frontal margin; anterolateral margin with 4 dentiform lobes. Gonopods not described.

Etymology: After Melbourne Ward, Australian carcinologist.

Type species: *Neoxanthops? rotundatus* Guinot, 1968.

Gender: masculine.

Position: Xanthidae MacLeay, 1838; Xanthinae MacLeay, 1838; Xanthini MacLeay, 1838.

Williamstimpsonia gen. nov.

Widely suboval; dorsal surface divided into two parts: anterior subdivided into numerous lobules, each lobule bordered anteriorly by some very short hairs, posterior third smooth; anterolateral margin long, cut into nine somewhat irregular teeth, first tooth separated from supraorbital angle by furrow; carpus and palm of chelipeds covered with large rugose tubercles.

Etymology: After William Stimpson, American carcinologist.

Type species: *Xantho stimpsoni* A. Milne Edwards, 1879.

Gender: feminine.

Position: Xanthidae MacLeay, 1838; Xanthinae MacLeay, 1838; Xanthini MacLeay, 1838.

Changed name

Genus name *Alcockia* Števčić 2005 is preoccupied by the name of the fish genus *Alcockia* Goode & Bean, 1895 as well as of the coral genus *Alcockia* Eguchi, 1968 and therefore it is changed here into *Alfredalcockia* Števčić, gen. nov.

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S A Ž E T A K

Dodatak reklasifikaciji kratkorepih rakova (Crustacea: Decapoda: Brachyura). Prvi dio. Nove svojte.

Z. Števčić

U zadnjih nekoliko godina (osobito nakon 2005.) došlo je do ubrzanog napretka istraživanja sistematike kratkorepih rakova. Uspostavljene su mnogobrojne više svojte, a jedan manji dio svojti ostao je neopisan i neraspoređen pa ih je stoga trebalo opisati, imenovati i utvrditi njihov sistematski status i položaj. Ovdje su opisane nove porodice, podporodice, plemena i rodovi koji su uvršteni u klasifikacijski sustav kratkorepih rakova. Nazivi novoopisanih svojti temelje se na imenima istaknutih karcinologa, uključivši i sve one koji su radili na kratkorepcima Jadranskog mora. Ovim dodatkom nastojalo se popuniti postojeće praznine.