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Two New Species of *Psammonyx* and the Identity of the Genus *Wecomedon* (Amphipoda, Gammaridea)

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Abstract Two new species of the genus *Psammonyx* Bousfield, 1973: *P. tzvetkovae* sp. nov., and *P. kudrjaschovi* sp. nov. - are described based on the materials collected from the Sakhalin shelf. *Psammonyx tzvetkovae* is similar to both *Wecomedon similis* Jarret and Bousfield, 1982 and *P. kurilicus* (Gurjanova, 1962). However, it differs from *W. similis* in having shorter interantennal lobe, more oblique palm of gnathopod 1 and different length of articles 5 and 6 of gnathopod 2. *Psammonyx tzvetkovae* is distinguished from *P. kurilicus* in having eyes, the absence of a saddle-like depression on urosomit 1, the shape and armament of article 6 of gnathopods 1 and 2, the absence of a "pineapple pad" on article 5 of gnathopod 2 and other characters. *Psammonyx kudrjaschovi* is closely related to *Hippomedon denticulatus* (Bate, 1857) and *P. longimerus* Jarret and Bousfield, 1982 in having epimeron 3 with a slender, tapering posterodistal tooth, dorsal margin with a distinct notch bearing 1 short seta. But it differs from the latter in the presence of "ineapple pad" on article 5 of gnathopod 2, the diagonal keel on epimeron 2, and the wider coxal plate 5. The genus *Wecomedon* is considered to be synonymous with *Psammonyx* on the basis of analysis of characters of both genera.

Key words: Amphipoda, Psammonyx, Wecomedon, Sea of Japan

Introduction

The Institute of Marine Biology of the Far East Branch of the Russian Academy of Sciences carried out a series of expeditions to the Western Sakhalin shelf during 1976-1978. Dredge samplings were made on a variety of bottom types at depths from 2 to 350 m. These collections contain more than 300 species of amphipods. In the present paper I describe two new species of the family Lysianassidae: *Psammonyx tzvetkovae and P. kudrjaschovi. Psammonyx tzvetkovae* could be placed in the genus *Wecomedon* Jarret and Bousfield, 1982, while the other new species occupies an intermediate position between the genera *Wecomedon* and *Psammonyx*, I conclude that they are closely related genera, since many characters are shared or overlap, and the existing differences are insufficient to separate the genus *Wecomedon* from *Psammonyx*. Therefore, I propose to synonymise the genus *Wecomedon* with *Psammonyx*.

Description

Psammonyx tzvetkovae sp. nov. (Figs. 1-6)

Material examined

Type series. Holotype- female 13.2 mm (coll. of the Inst. Mar. Biol., Vladivostok, N 1/19453), Sakhalin I., Cape Vindis, st. 229, sample 1240, 5 m depth, (substrate: sand), Sept. 1978, V.I.Fadeev coll. Paratypes (preserved in the same place, No 1/19454): 18 females, 4,2-10,0 mm, 3 juv., 2,7-3,7 mm, Sakhalin I., Cape Vindis, st. 229, sample 1240; 1 juv., 3,8 mm, Sakhalin I., Cape Vindis, st. 229, sample 1239, 5 m depth, (sand), Sept. 1978, V.I.Fadeev coll.; 7 females, 4,5-4.9 mm, 3 juv., 3.1-4.0 mm, Sakhalin I., Cape Vindis, st. 229, sample 1241, 5 m depth, (sand), Sept. 1978, V.I.Fadeev coll.; 1 female, 13.5 mm, Sakhalin I., in the area off river Staritza, st.63, sample 394, 5 m depth, (silty sand), August 1977, V.I.Fadeev coll.; 1 female, 12.0 mm, Sakhalin I., in the area off river Staritza, st. 63, sample 395, 5 m depth, (silty), August 1977, V.I.Fadeev coll.; 1 female, 8.9 mm, Sakhalin I., in the area off village Pereputie, st. 117, sample 704, 10 m depth, (sand), August 1977, V.I. Fadeev coll.; 3 juv., 3,3-4,1 mm, Sakhalin I., in the area off village Mgatchi; st. 157, sample 899, 10 m depth, (sand), August 1978, S.A.Rostomov coll.; 1 female, 6,1 mm, Sakhalin I., in the area off village Gornozavodsk, st. 114, sample 692, 10 m depth, (sand); August 1977, S.A.Rostomov coll.; 1 male 12,3 mm, Sakhalin I., Cape Lamanon, st. 208, sample 1152, 15 m depth, (silty sand), S.A.Rostomov coll.; 1 female, 10 mm, South-West Moneron I., st. 22, sample 141, 20 m depth, (sand), July 1977, V.I.Lukin coll.; 1 male, 4,1 mm, Moneron I., Kologerasa Bay, st. 32, sample 206, 20 m depth, (sand), July 1977, V.I. Lukin coll.



Fig. 1. Distribution of two new species of amphipods: circle- *Psammonyx tzvetkovae*, triangle- *P. kudrjaschovi*. 1- Kologerasa Bay, 2- South-West of Moneron Island, 3- Cape Vindis, 4- Area off village Pereputie, 5- Area off village Gornozavodsk, 6- Jablonovy Cape, 7- Area off river Staritza, 8- Cape Lamanon, 9- Area off village Mgatchi.



Fig. 2. *Psammonyx tzvetkovae* sp. nov., holotype- female, 13.2 mm: a- habitus; b- labrum; cepistome and labrum, lateral view; d, e- antennae 1, 2; f- maxilliped; g- mandible; h- maxilla 2; i- labium; j- maxilla 1, inner and outside views.



Fig. 3. *Psammonyx tzvetkovae* sp. nov., holotype- female, 13.2 mm: a- gnathopod 2; b- coxal gill of gnathopod 2; c- oostegite of gnathopod 2; d- gnathopod 1; e- pereopod 3.



Fig. 4. *Psammonyx tzvetkovae* sp. nov., holotype-female, 13.2 mm: a, b, d, e- pereopods 4, 5, 6, 7; c- coxal gill of pereopod 3.

L. L. BUDNIKOVA

Etymology

The species is named in honour of N. L. Tzvetkova, a prominent carcinologist, collaborator at the Zoological Institute of St.-Petersburg, Russian Academy of Sciences.

Description of the holotype (female, 13.2 mm long).

Body elongated, without keels. Head almost twice as long as mesosomite 1, lateral cephalic lobe small, hardly distinct, the lower margin partially overlapped by coxa 1. Eyes yellowish, hardly discernible in fixed specimens, of middle size, oval. Coxa 4 slightly serrated posterodistally. Epimeron 3 extended posteriorly into an upturned acute tip.

Antenna 1 slightly shorter than antenna 2, nearly 1/5 times as long as the body length, peduncular article 1 long, slightly bulbous, with small dorsal keel overhanging distally, lower margin trimmed



Fig. 5. *Psammonyx tzvetkovae* sp. nov., holotype- female, 13.2 mm: a,b, c- epimera and pleopods 1, 2, 3; d, e, f- uropods 3, 2, 1; g- telson.

with short plumose setae; articles 2 and 3 short, subequal in length, in combination 1/4 times as long as article 1; article 2 furnished with plumose setae posteroventrally. The primary flagellum slightly longer than peduncle, 14-articulate; article 1 two times as long as others; lacking setae; the rest articles bearing short setae on the anterior margin. The accessory flagellum about 1/3 times as long as primary flagellum, trimmed with setae, 6-articulate, last article very short. Peduncle of antenna 2 shorter than flagellum, gland cone narrow; articles 2 and 3 subequal in length, articles 4 and 5 elongated, subequal in length to each other, armed with groups of long setae. Flagellum 20- articulate, trimmed with long and short distal setae.

Epistome not produced forward, labrum exends beyond the front margin of epistome. Labium lacks inner lobes, apex and inner margins of outer lobes trimmed with hairs.

Mandible with straight incisor. Cylindrical molar with distinct triturative surface. Palp attached



Fig. 6. *Psammonyx tzvetkovae* sp. nov., paratype- male, 12.3 mm: a, b- antennae 2, 1; c- mandible; d- telson; e, f, g- uropods 3, 2, 1.

above molar, 3-articulate; article 1 short, articles 2 and 3 subequal in length; articles 1 and 2 bearing distal setae, article 3 with long apical setae, row of short setae and some singly inserted subapical setae.

Maxilla 1 with biarticulate palp furnished with 11 apical spines, 1 long subapical seta, and thin hairs along outer margin. Outer plate with 12 pectinate spines. Inner plate with two long plumose apical setae.

Maxilla 2 with long apical setae arranged in two rows on both plates. Inner plate with several plumose distal setae and thin long hair on the inner margin.

Inner plate of maxilliped with serrate rounded apex bearing three short spine and three setae; inner margin with plumose setae. Outer plate large, apex nearly reaching the edge of palp article 3, inner margin thickly coated with spines, several spinelets located on the inner surface. Palp 4-articulate; first three articles with distal setae, article 2 also bearing long setae on the inner margin; article 4 dactyliform, without armament.

Coxal plates long, increasing in size from 1 to 4; first three with small denticle posterodistally; coxa 4 serrated posterodistally; coxa 1 with convex front margin. First two plates expanding distally; coxa 3 with subparallel margins; coxa 4 with excavation, exceeding 1/2 plate depth; coxa 5 equibilobate; coxa 6 significantly smaller than coxa 5, bilobate, anterior lobe shorter than the posterior one, its distal margin oblique, posterior lobe rounded distally; coxa 7 small with oblique distal margin, short straight anterior margin and long posterior margin. Coxal gills large, broad, located on coxae 2-6, gills on coxae 2-4 lacking accessory lobes, gills on coxa 5 with one accessory lobe, gills on coxa 6 with three accessory lobes. Oostegites on coxae 2-5.

Gnathopod 1 small, stout; basis slightly dilating distally, almost equal in length to subsequent three articles combined, with tuft of long setae posteroventrally and setae along anterior margin; articles 3 and 4 much shorter than article 5 with posterodistal setae; article 5 longer than article 6 with tufts of long antero- and posterodistal setae, setae on the anterior margin and small short hairs on the posterior margin; article 6 long, narrow, with a distinctly oblique palm, one locking spine and numerous long setae. Dactyl strong, subequal in length to palmar margin, with notch and hair at distal 1/3 of grasping margin.

Gnathopod 2 elongate, slender; basis more than two times as long as article 3, both articles with parallel margins and setae on the anterior margins. Articles 3 and 4 with tufts of posterodistal setae, as in gnathopod 1. Posterior margin of article 4 with small short hairs. Article 5 long, bulbous with tufts of long distal setae, its anterior margin in the distal part and the posterior margin trimmed with thin short hairs. Article 6 small, nearly 0,4 times longer than article 5, of irregular oval shape, trimmed with thin short hairs throughout its surface and with long antero- and posterodistal setae. Palm very short, produced forward to form miniature chela with small dactyl.

Percopods 3 and 4 similar to earch other (excluding coxal plates), but all articles of percopod 3 slightly longer and more slender than in percopod 4. Basal articles long, armed with setae over the anterior margin, and tufts of distal setae. Articles 3 short, approximately 1/2 times as long as articles 4, with tufts of setae on the posterior margin. Articles 4 to 6 subequal in length, with tufts of long anterodistal setae and groups of setae on posterior margins.

Pereopod 5 slightly shorter than pereopod 6 and subequal in length to pereopod 7. Basis broad, tapering distally, posterodistal angle forming rounded lobe; anterior and posterior margins serrated, anterior one armed with groups of long spines, and posterior one with thin hairs. Article 3 short. Article 4 is 20% longer than article 3, dilated moderately. Article 5 narrower and shorter than article 4. All articles bearing long setae or spinelets on anterior margins, articles 4 and 5 having such armament on posterior margins as well. Dactyl subequal in length to the article 5, narrow.

Percopod 6 is the longest. Basis wide, oval, not tapering; proximal half of the posterior margin serrated, anterior margin slightly serrated distally and armed with spinelets and setae. Article 4 longer than that of percopod 5, moderately dilated; shape and armament of the rest articles similar in percopods 5-7.

TWO NEW SPECIES OF PSAMMONYX (AMPHIPODA, GAMMARIDEA)

Basis of percopod 7 is broader than in percopod 6, and does not tapering distally; the posterior margin slightly convex, serrated, ventral margin straight, distal half of the anterior margin slightly serrated, bearing spines. Article 4 subequal in length to that of percopod 5, not dilated, same width as article 3.

Epimera 1-3 deep. Epimeron 1 little shallower than epimera 2 and 3, slightly tapering distally, anterodistal angle oblique, ventral margin straight, posterior margin slightly concave. Epimeron 2 with weak diagonal keel, posterodistal angle extended into small acute tooth, anterodistal angle slightly convex, ventral margin straight. Epimeron 3 slightly dilating distally, posterodistal angle protruded to form broad upturned process recurved dorsally.

Pleopods 1-3 similar in form and size; peduncles slightly exceeding half the length of rami, furnished with rare setae on posterior margins. Distal end of peduncle bearing serrated coupling spines on the inner side. Rami equal in length, with long plumose setae. In the proximal part inner ramus bears cloth-pin spines the longer process having small spheroid formations on the inner side; the structure of forked spines is visible only at large magnification of microscope.

Uropods 1-3 decreasing in size. Apex of ramus of uropod 3 level with that of uropod 1. Peduncle of uropod 1 subequal in length with the outer ramus, its dorsal side bearing one row of spinelets and spines; inner ramus slightly shorter than the outer one; both rami thin, bearing proximal spines. Uropod 2 significantly shorter than uropod 1; peduncle slightly shorter than rami with long dorsal setae and spines; rami furnished with proximal setae. Uropod 3 nearly half as long as uropod 1; peduncle half as long as rami, with distal setae and spines; rami subequal in length, lanceolate, with spines on margins; distal article of outer ramus accounting for 1/4 the length of article 1.

Telson fused basally nearly 1/3 length; lobes wide, slightly tapering distally, with truncated apices bearing 3 spines; lateral margin with one distal spine and two pairs of double spines.

Description of a paratype male (12.3 mm).

Male differs from female in a variety of characters. Antenna 2 are half as long as body length, flagellum 53- articulate, with shorter setae. Uropod 3 have narrower rami, armed, in addition to spines, with thin plumose setae; distal article of outer ramus of uropod 3 constitutes 1/6 the length of proximal article. Telson has one proximal plumose seta in addition to spines.

Remarks

The new species has a short first flagellar article of antenna 1 and can be readily distinguished by this character from the genus *Hippomedon sensu lato*. In spite of the fact that it fully conforms to the diagnosis of the genus *Wecomedon* Jarret and Bousfield, 1982, I refer it to the genus *Psammonyx* Bousfield, 1973, because I consider this genus a senior synonym of the genus *Wecomedon*, as I will be discussed later. Here I shall compare *P. tzvetkovae* with species of *Psammonyx* and *Wecomedon*.

Jarret and Bousfield (1982) assigned 5 species to Wecomedon. These are W. wecomus (Barnard, 1971), W. wirketis (Gurjanova, 1962), W. boreopacificus (Gurjanova, 1962), W. minusculus (Gurjanova, 1938) and W. similis Jarret and Bousfield, 1982. Psammonyx tzvetkovae differs from all these species by a diagonal keel on epimeron 2 and teeth on the posterodistal angles of the first three coxae. P. tzvetkovae differs from W. wirketis (Gurjanova, 1962) and W. boreopacificus (Gurjanova, 1962) by the following characters: it has eyes, a short interantennal lobe, lacks a saddle-like depression and a keel on urosomite 1, has a different shape and length ratio of articles 5 and 6 of gnathopods 1 and 2. P. tzvetkovae has an apparently different form of basal articles of pereopods 5-7. From W. minusculus the new species differs by the shape and a relative length of articles of gnathopods 1 and 2, the absence of a "pineapple pad" on gnathopod 2, a short distal article of the outer ramus of uropod 3, a broad telson with several apical spines, the labium which lacks a corniculatus growth at the lobe apex, and different armament of inner lobe of maxillipeds. P. tzvetkovae differs from W. wecomus by the absence of a saddle-like depression on urosomit 1, shorter lateral cephalic lobe, antenna 1 and 2 of equal length, the armament of telson, gnathopods and some mouthparts.

L. L. BUDNIKOVA

P. tzvetkovae is closest to *W. similis* Jarret and Bousfield, 1982, but this new species is distiguished by still shorter lateral cephalic lobe, a relative length of articles 5 and 6 of gnathopod 2 (article 6 in *P. tzvetkovae* is 0.3 times as long as article 5, whereas in *W. similis* it is more than half), more oblique palm of gnathopod 1, article 2 of gnathopod 1 not so thickly trimmed with setae, and not tapering basis of pereopod 6. Besides, there are some differences in the shape and armament of maxillipeds: *P. tzvetkovae* lacks proximal setae on inner plate, only the distal half of the inner margin of the inner plate is trimmed with plumose setae, article 3 of the palp is narrower. There are distinctions in the length ratio of antennae 1 and 2 and in some other characters.

P. tzvetkovae resembles also *P. kurilicus* (Gurjanova, 1962) by the shape of basal articles of percopods 5-7 and epimeron 3, and by a diagonal keel on epimeron 2. It differs from *P. kurilicus* by having eyes, lateral cephalic lobe less pointed and less produced forward; a shorter article 1 of the primary flagellum of antenna 1, the absence of calceoli on antennae 2 and the absence of a saddle-like depression on urosomit 1, by the armament of plates of maxillae 1 and 2, the shape and armament of articles 6 of gnathopods 1 and 2, the absence of a "pineapple pad" on article 5 of gnathopod 2. In spite of the fact that *P. tzvetkovae* and *P. kurilicus* have similar basal articles percopods 5-7, in the new species the anterior margin of these articles begins not higher than the posterior, and the basal article of percopod 6 is serrated only in the proximal half. In addition to spines, males of *P. tzvetkovae* are armed with plumose setae on uropod 3 and telson.

Psammonyx kudrjaschovi sp. nov.

(Figs. 7-11)

Material examined

Holotype- female, 11.0 mm (coll. of Inst. Mar. Biol., Vladivostok, No 1/19455), Sakhalin I., Yablonovy Cape, st. 105, sample 637, 25 m depth, substrate: pebble, Aug. 1977, S.A.Rostomov coll.

Etymology

The species is named in honour of V. A. Kudrjaschov, a well-known carcinologist, investigator of Far Eastern Seas.

Description of holotype (female, 11.0 mm long).

Body slender, elongated. Eyes small, slightly dilating ventrally, yellowish-brown, hardly discernible. Lateral cephalic lobe rounded, produced markedly forward. Epimeron 3 with a slender, tapering, posterodistal tooth, dorsal margin with a distinct notch bearing 1 short seta.

Antenna 1 slightly shorter than antenna 2, nearly 0.3 times as long as body length; peduncular article 1 long, cylindrical, with dorsal keel overhanging distally and with some setae ventrodistally; articles 2 and 3 not shortened, subequal in length, each being slightly longer than flagellar article 1; flagellum 22- articulate, two times as long as peduncle; flagellar article 1 short, not fused; all articles bearing distal short setae; accessory flagellum 5-articulate, subequal to 1/5 length of the primary flagellum, trimmed with setae, the ultimate article very short. Peduncle of antennae 2 more than half as long as flagellum. Gland cone broad, short; articles 2 and 3 subequal in length, article 3 with tuft of distal setae, articles 4 and 5 elongated, subequal to each other in length, armed with lateral and distal setae; flagellum 27-articulate, trimmed with short setae.

Epistome not produced beyond labrum. Labrum with rounded anterior margin, reaching beyond the front margin of epistome. Labium lacking inner lobes, inner margins of outer lobes trimmed with hairs.

Mandible with straight incisor. Cylindrical molar with distinct triturative surface. Palp long, thin, 3-articulate, attached at the level of molar. Article 1 short, without armament; article 2 long (about 5 times longer than article 1) with one distal seta; article 3 shorter than article 2 with two long and two short apical setae and one long subapical seta.



Fig. 7. *Psammonyx kudrjaschovi* sp. nov., holotype- female, 11.0 mm: a- habitus; b- labrum; c, dantennae 2, 1; e- labium; f- epistome and labrum, lateral view; g, h- mandible, inner and outside views; i, j- maxillae 2, 1; k- maxilliped.



Fig. 8. Psammonyx kudrjaschovi sp. nov., holotype- female, 11.0 mm: a, b- gnathopods 1, 2.



Fig. 9. *Psammonyx kudrjaschovi* sp. nov., holotype- female, 11.0 mm: a, b- pereopods 3, 4; c- coxal gill of pereopod 4.

Maxilla 1 with a biarticulate palp having 9 blunt apical spines and 1 long subapical seta. Outer plate with 12 pectinate spines. Inner plate with 2 long plumose apical setae.

Maxilla 2 with long apical setae, arranged in two rows on both plates, and thin hairs along inner margins. Inner plate with one plumose distal seta.

Inner plate of maxilliped with truncated apex, bearing two simple setae in the distal outer margin and plumose setae on apex and along the inner margin. Outer plate reaching distal end of palp article 2, apex having 4 acute spines, inner margin thickly furnished with blunt spines near which a row of minute sparse spinelets inserted. Palp 4-articulate, the first three articles bearing distal setae; article 2 also bears long setae nearly throughout the inner margin, article 3 with long setae in the distal half of the inner margin; article 4 dactyliform, with small distal hair on the inner margin.

Coxal plates long, increasing in size from 1 to 4; first three with small denticle posterodistally;



Fig. 10. *Psammonyx kudrjaschovi* sp. nov., holotype- female, 11.0 mm: a, b- pereopods 5, 6; c- coxa and coxal gill of pereopod 6, outside view.



Fig. 11. *Psammonyx kudrjaschovi* sp. nov., holotype- female, 11.0 mm: a- pereopod 7; b, c, e- epimera and pleopods 1, 2, 3; d- telson; f, g, h- uropods 3, 2, 1.

L. L. BUDNIKOVA

coxa 4 with two shallow notchs posterodistally. First two plates slightly dilating distally, coxa 3 with subparallel margins, bent; coxa 4 dilating distally, with excavation exceeding 2/3 plate depth; anteroproximal margin oblique; coxa 5 bilobate, the lobes subequal in size, anterior lobe rounded, posterior lobe oblique posterodistally; coxa 6 also bilobate, posterior lobe large, broad, anterior lobe small, half as wide as posterior lobe, both lobes rounded; coxa 7 unilobate, subequal to the preceding one in width but significantly less in depth, rounded antero- and posterodistally. Coxal gills located on coxae 2-7, gills on coxae 2-6 large, broad, on coxa 7 small; gills on coxae 2-4 and 7 lacking accessory lobes, gills on coxa 5 with one accessory lobe, gills on coxa 6 with two accessory lobes. Oostegites on coxae 2-5.

Gnathopod 1 small, stout; basis with subparallel margins, slightly shorter than next three articles combined, with several long setae posterodistally and setae along anterior margin; articles 3 and 4 significantly shorter than article 5; article 3 with posterodistal setae, article 4 with setae along posterior margin; article 5 longer than article 6 with tufts of long antero- and posterodistal setae and some very short hairs posterodistally; article 6 long, slightly dilating distally with oblique finely serrated palm bearing two locking spines, some short and a few long setae; tufts of long setae located anterodistally and in distal half of posterioir margin. Dactyl thick, subequal in lenght to palmar margin, with notch and proximal hair.

Gnathopod 2 elongate, slender thin; basis more than 2 times as long as next article, both articles slightly dilating distally, trimmed with setae on anterior margins; article 4 slightly shorter than article 3, with long posterodistal setae and short thin hairs on posterior margin. Article 5 2,5 times longer than article 6, bulbous, with a "pineapple pad", tuft of long distal setae, setae and hairs on anterior and posterior margins. Article 6 irregularly oval, slightly dilating distally, with long distal setae; almost the entire surface of the article trimmed with thin hairs, palm very small. Dactyl small, with hair on outer margin.

Pereopods 3 and 4 similar to each other, but basis of pereopod 4 slightly broader, and article 6 slightly shorter than corresponding articles of pereopod 3. Basis long, dilating distally, with tuft of long posterodistal setae and several isolated setae along anterior and posterior margins. Article 3 short, about 1/5 length of preceding article, with several posterodistal setae. Article 4 with the anterodistal angle produced markedly ventrally; posterior margins and anterior corners of articles 4-6 armed with long setae. Article 5 much shorter than articles 4 and 6. Articles 6 long, narrow. Dactyl long with blunt tip.

Pereopod 5 of almost the same length as pereopod 7. Basis broad, tapering distally, posterodistal margin extended into rounded lobe; anterior and posterior margins serrate, anterior margin armed with short spines, and posterior margin with thin hairs. Article 3 short; article 4 more than two times as long as article 3, dilating moderately, posterodistal angle extended into small lobe. Article 5 subequal in length to the preceding one, but considerably narrower. Article 6 narrow, approximately 1,5 times as long as article 5. All articles bearing long and short spines along anterior margins; article 4 with spines on posterior margin as well. Dactyl subequal in length to article 5, long, narrow, with blunt tip.

Pereopod 6 longer than pereopods 5 and 7. Basis wide, oval, slightly tapering distally, posterodistal angle extended into small lobe, anterior and posterior margins serrated, anterior margin armed with short spinelets and groups of spines, posterior margin with thin short hairs. Article 3 short, with tuft of long anterodistal setae and several long setae along anterior margin. Article 4 twice as long as article 3, subequal to it in width, posterodistal angle extended into small lobe; anterior margin furnished with long setae and minute spines, posterior margin only with short spines. Article 5 subequal in length to article 4, but much narrower, with spines on anterior margin and posterodistally. Article 6 narrow, longer than article 5 with double short spines on anterior margin. Dactyl long, narrow, with blunt tip, more than half as long as article 6.

Basis of percopod 7 nearly 1,5 times as long as basis of percopod 5, broad, not tapering distally, posterodistal angle extended into small wide lobe; anterior and posterior margins serrated and with the same armament as in preceding percopods. Shape and armament of the rest articles similar in

percopods 6 and 7, but article 6 and dactyl in percopod 7 much shorter.

Epimera 1-3 deep. Epimeron 1 shorter than epimera 2 and 3, anterior margin slightly convex, posterodistal margin oblique, ventral margin straight. Epimeron 2 with weak diagonal keel, posterodistal angle extended into small acute tooth, anterodistal angle rounded, ventral margin straight. Epimeron 3 dilating distally, with slender, tapering, posterodistal tooth, dorsal margin convex with distinct notch bearing 1 short seta; anterior and ventral margins straight.

Pleopods 1-3 similar in shape and sizes, peduncle slightly more than half as long as ramus, trimmed with sparse setae, with 2 retinaculae. Rami subequal in length, with long plumose setae. Inner ramus with cloth-pin spines.

Apex of ramus of uropod 3 exceeding apex of uropod 1. Peduncle of uropod 1 subequal in length to rami, with 3 dorsal spines; both rami narrow, pointed; inner ramus slightly shorter than the outer one, with one proximal spine; outer ramus lacking armament. Uropod 2 significantly shorter than uropod 1, peduncle slightly shorter than rami with five dorsal spines along outer margin and one posterodorsal spine near the inner ramus; rami subequal in length, narrow, pointed, outer ramus with two proximal spines, inner ramus with one spine. Uropod 3 subequal in length to uropod 2; peduncle slightly exceeding half as long as outer ramus, thick, trimmed with dorsal setae and distal spines. Rami pointed; outer slightly longer than inner, biarticulate, proximal article armed with spines on the outer margin and with plumose setae on the inner margin; distal article 1/5 times as long as proximal article; inner ramus armed with proximal spines and with marginal plumose setae.

Telson fused basally nearly 1/5 of its length, each lobe narrow, tapering distally, with 3 apical and several lateral spines.

Remarks

The new species has a very distinctive epimeron 3. It is readily distinguished by this character from most species of the family Lysianassidae and is similar only to two species: *Hippomedon denticulatus* (Bate, 1857) and *Psammonyx longimerus* Jarret and Bousfield, 1982. *P. kudrjaschovi* differs from the first species primarily by a short flagellar article of antenna 1 as well as by a variety of other characters. It differs from the second species by the shape of the head, larger eyes, the relative length of the percopods 5-7, the armament and shape of the palp of mandibles and maxillipeds, the shape of coxa 1 and article 6 of gnathopod 1, a "pineapple pad" on article 5 of gnathopod 2, less serrated posterodistal margin of coxa 4, wider coxa 5, not tapering basis of percopod 7, a diagonal keel on epimeron 2, less developed armament on uropods 2 and 3, longer distal article of the outer ramus of uropod 3, the presence of two instead of three accessory lobes on coxal gill of percopod 6.

Having such characters as coxal gill on pereopod 7, the number of accessory lobes on cocal gill of pereopod 6, the presens of setae on both margins of segment 3 of mandibular palp and the relative length of the pereopods 5-7, *P. kudrjaschovi* does not fully conform to the diagnosis of the *Psammonyx* Bousfield, 1973. Because of the first three features listed above as well as owing to longer peduncular articles 2 and 3 of antenna 1, it cannot be referred to the related genus *Wecomedon* Jarret and Bousfield, 1982, either. Presented below is a comparative table of basic diagnostic characters of two closely related genera: *Psammonyx* Bousfield 1973 and *Wecomedon* Jarret and Bousfield on the basis of literature data (after: Jarret and Bousfield, 1982), as well as characteristics of a new species *Psammonyx kudrjaschovi* (Table 1).

As evident from the table, a comparison of features of the genera *Psammonyx* and *Wecomedon* mainly indicates that they differ in the relative length of peduncular articles 2 and 3 of antenna 1 and the relative length of pereopods 5-7. Many diagnostic characters of the genera *Wecomedon* and *Psammonyx* are shared or overlap, and the new species *P. kudrjaschovi* occupies an intermediate positioin between the genera *Psammonyx* and *Wecomedon*. The genus *Wecomedon* appears to be artificial. I believe that the separation of the genus *Wecomedon* is unjustified and propose to synonymize it with the genus *Psammonyx*.

As a result, the following species should be referred to the Psammonyx genus with Anonyx nobilis

 Table 1.
 Basic diagnostic characters of Wecomedon Jarret and Bousfield, 1982,

 Psammonyx Bousfield, 1973 and Psammonyx kudrjaschovi sp. nov.

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Characters	Wecomedon	Psammonyx	Psammonyx kudrjaschovi sp. nov.
Antenna 1.			
peduncular article	shorter than article 1 of	longer than article 1 of	slightly longer than
2 and 3 (each)	primary flagellum	primary flagellum	article 1 of primary
		I many grant	flagellum
Eyes	present, whitish,	when present, small,	present, yellowishbrown,
	moderatelly large, oval,	subovate	brown, small, slightly
	slightly widened below		widened below
Maxilla 1:			
outer plate	with 11 apical spines	?	with 12 apical spines
inner plate	with 2-5 apical setae	with 1-2 apical setae	with 2 apical setae
Mandible:			
article 1 of palp	with or without distal	usually with distal	without armament
	setae	setae	
article 3 of palp	more than 1/2 article 2		more than $1/2$ article 2
F	with setae on medial	more than 1/2 article 2	without setae on
	margin	with setae on both	margins
		margins	
Maxilliped:			
outer plate	extends distal of palp	not extend beyond palp	extends distal of palp
	article 2	article 2	article 2
Coxae 1-4	long, coxa 4 slightly	long, coxa 4 slightly	long, coxa 4 not
	serrated on	serrated or not	serrated
Coordbarra 12	posterodistal margin		
Gnathopod 2	minutely subchelate	minutely chelate or	minutely subchelate
Paraonad 5	distinctly shoter than	subchetate much (25%) shoter	alightly shoter than
r ercopou 5	nereopod 6	than percopods 6 and 7	percopod 6
The longest	Percopod 6	nereopod 7	percopod 6
pereopod	x on oppoint o	Prinspoor.	P
Pereopod 7:	Broad, weakly or not	broad, weakly tapered	broad, not tapered
basal article	tapered		
Coxal gills			
on percopod 5	with 1 accessory lobe	with accessory lobes	With 1 accessory lobe
on pereopod 6	with 3 accessory lobes	with 3 accessory lobes	with 2 accessory lobes
on pereopod 7	lacking	lacking	present, small
Uropod 3:	-	5	
rami	subequal, lanceolate,	subequal, lanceolate,	subequal, lanceolate,
	marginally spinose,	marginally spinose,	marginally spinose,
	setose in male	and plumose	and plumose
	(sometimes in female)		

Such characters: flagellar article 11 of antenna 1, palp of maxilla 1, article 5 of gnathopod 1, coxal gills on gnathopod 2 and pereopods 3, 4, and telson are identical for genera *Wecomedon*, *Psammonyx* and the new species *Psammonyx kudrjaschovi*.

Stimpson, 1853, as the type species: *P. terranovae* Steele, 1979; *P. kurilicus* (Gurjanova, 1962); *P. longimerus* Jarret and Bousfield, 1982; *P. wecomus* (Barnard, 1971); *P. similis* (Jarret and Bousfield, 1982); *P. wirketis* (Gurjanova, 1962); *P. boreopacificus* (Gurjanova, 1962); *P. minusculus* (Gurjanova, 1938); *P. kudrjaschovi* sp.nov.; *P. tzvetkovae* sp. nov.

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References

- Bousfield, E.L. 1973. Shallow-water gammaridean Amphipoda of New England. Cornell University Press, Ithaca, London, 313pp.
- Gurjanova, E.F. 1962. Bokoplavy severnoi chasti Tikhogo Okeana (Amphipoda,-Gammaridea) chast' 1. Opredeliteli po faune SSSR, Zoologicheskiy Institute Akademii Nauk SSSR, 74, 1-440.
- Jarret, N.E. and Bousfield, E.L. 1982. Studies on the amphipod family Lysianassidae in the Northeastern Pacific region. *Hippomedon* and related genera. Systematics and distributional ecology. Publications in Biological Oceanography, no. 10, 103-128.