Table S1. Morphological descriptions of *Ommatogammarus flavus* and *Ommatogammarus albinus*

Source	*O. flavus*	*O. albinus*
Dybowsky, 1874, P. 24–25 (original description in German)	Die Stiele der oberen Fühler sind immer länger als das Kopfsegment. Die Stirn ist hoch, senkrecht gestellt, das heisst, nach unten umgebogen. Die Augen sind sehr gross, unregelmässig dreieckig, sie nehmen beinahe die Hälfte der ganzen Kopfplatte ein. Die oberen Fühler sind ungefähr um 2/5 länger als die unteren und der halben Körperlänge gleich. Die Steuerbeine betragen 1/6 der Körperlänge, ihr äusseres Blatt ist um die Hälfte länger als das innere. Die Zahl der Glieder: in der Geissel der oberen Fühler 43, der unteren Fühler 18—19, in der Nebengeissel 4—5. Die Lange des Körpers 26! mill. Der Körper pomeranzgelb. Die Augen schwarz. The peduncles of antennae I are always longer than the head segment. The forehead is high, vertical, i.e. bent downwards. The eyes are very large, irregularly triangular, taking up almost half of the entire headplate. The upper antennae are about 2/5 longer than the lower ones and equal to ½ the body length. The steering legs {uropods} are ⅛ of the body length, their outer “leaf” is half the length of the inner one. The number of segments: in the flagellum of the upper antennae 43, of the lower antennae 18-19, in the secondary flagellum 4-5. The length of the body 26 mm. The body is pomerance yellow. Eyes are black.	Die Stiele der oberen Fühler, sowie auch die der unteren, sind kürzer als das Kopfsegment. Die Stirn ist hoch, senkrecht gestellt, das heisst, nach unten umgebogen. Die Augen sind schmal, sie sind sehr unregelmässig gestaltet, ihr hinterer Rand ist zerrissen, unregelmässig lappig, ihre Höhe beträgt eine Kopflänge und ist 3 — 4 mal grösser als die Breite des Auges. Die oberen Fühler sind 2 mal länger als die unteren, aber sie erreichen kaum ⅓ der Körperlänge. Die Steuerbeine betragen Vs der Körperlänge, ihr inneres Blatt ist um die Hälfte kürzer als das äussere. Die Zahl der Glieder: in der Geissei der oberen Fühler 36, der unteren Fühler 13, der Nebengeissel 7 — 8. Die Länge des Körpers 24 mill. Der Körper ist gelblich. Die Augen sind fleischroth. The peduncles of antennae I, as well as those of antennae II, are shorter than the head segment. The forehead is high, vertical, i.e. bent downwards. The eyes are narrow, they are very irregularly shaped, their rear edge is torn, irregularly lobed, their height is the length of the head and is 3 - 4 times larger than the width of the eye. The upper antennae are 2 times longer than the lower ones, but they barely reach ⅓ of the body length. The steering legs are ⅛ of the body length, their inner leaf is half as short as the outer one. The number of segments: in the flagellum of the upper antennae 36, of the lower antennae 13, of the secondary flagellum 7-8. The length of the body is 24 mm. The body is yellowish. The eyes are flesh-red.

<table>
<tr>
<td>Dybowsky, 1875, P. 31 (in Russian)</td>
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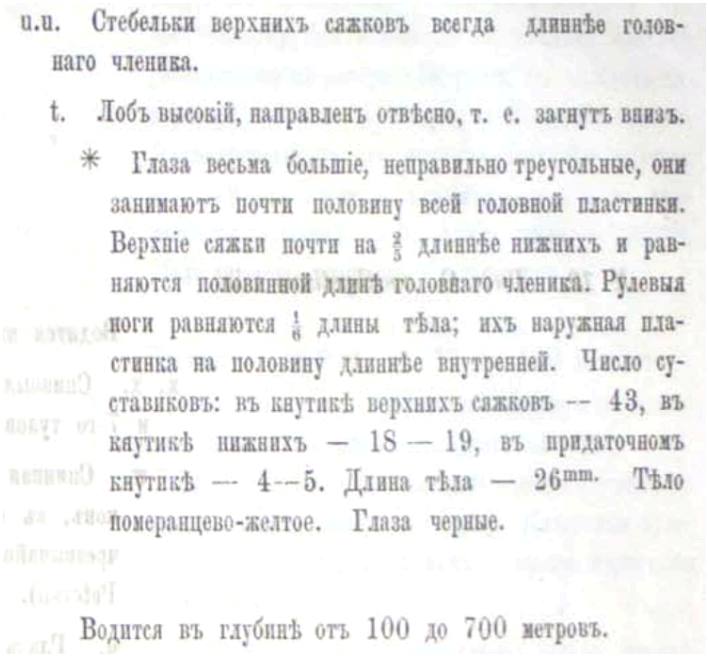
u.u. Стебельки верхнихъ сяжковъ всегда длиннѣе головнаго членика.
t. Лобъ высокій, направленъ отвѣсно, т. е. загнутъ внизъ.
* Глаза весьма большіе, неправильно треугольные, они занимаютъ почти половину всей головной пластинки. Верхніе сяжки почти на 2/5 длиннѣе нижнихъ и равняются половинной длинѣ головнаго членика. Рулевыя ноги равняются 1/6 длины тѣла; ихъ наружная пластинка на половину длиннѣе внутренней. Число суставиковъ: въ кнутикѣ верхнихъ сяжковъ — 43, въ кнутикѣ нижнихъ — 18 — 19, въ придаточномъ кнутикѣ — 4—5. Длина тѣла — 26mm. Тѣло померанцево-желтое. Глаза черные.
Водится въ глубинѣ отъ 100 до 700 метровъ.

Peduncles of upper antennae are always longer than the head segment.
Forehead is high, steep, i.e., inclined downwards.
Eyes are fairly large, irregularly triagonal, and occupy almost half of the head plate.
Upper antennae are almost ⅝ larger than the lower ones and equal in length ½ length of the head {should be the length of the body}.
Steering legs {uropods} equal in length ⅛ of body length; their external blade {outer ramus} is one-half longer than the outer. The number of joints in the flagellum of upper antennae is 43, in the flagellum of lower antennae 18-19, in the accessory flagellum 4-5. Body length 26 mm. Body has a bitter orange-yellow color. Eyes are black.
Inhabits depths from 100 to 700 meters.
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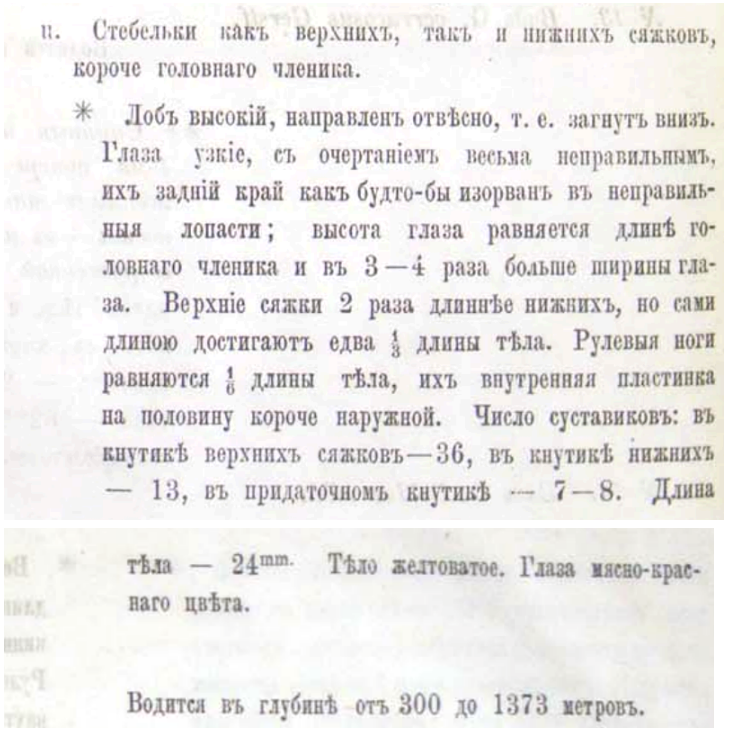
u. Стебельки какъ верхнихъ, такъ и нижнихъ сяжковъ, короче головнаго членика.
* Лобъ высокій, направленъ отвѣсно, т. е. загнутъ внизъ. Глаза узкіе, съ очертаніемъ весьма неправильнымъ, ихъ задній край какъ будто-бы изорванъ въ неправильныя лопасти; высота глаза равняется длинѣ головнаго членика и въ 3—4 раза больше ширины глаза. Верхніе сяжки 2 раза длиннѣе нижнихъ, но сами длиною достигаютъ едва 1/3 длины тѣла. Рулевыя ноги равняются 1/6 длины тѣла, ихъ внутренняя пластинка на половину короче наружной. Число суставиковъ: въ кнутикѣ верхнихъ сяжковъ—36, въ кнутикѣ нижнихъ — 13, въ придаточномъ кнутикѣ — 7—8. Длина
тѣла — 24mm. Тѣло желтоватое. Глаза мясно-краснаго цвѣта.
Водится въ глубинѣ отъ 300 до 1373 метровъ.

Peduncles of both upper and lower antennae are shorter than the head segment.
Forehead is high, steep, i.e., inclined downwards.
Eyes are narrow, with irregular contours and hind margin seemingly cut into irregular lobes; the height of the eye is equal to the length of the head segment and 3-4 larger than the eye width.
Upper antennae are almost 2x larger than the lower ones and equal in length ⅓ length of the body.
Steering legs {uropods} equal in length ⅛ of body length; their external blade {outer ramus} is one-half longer than the outer. The number of joints in the flagellum of upper antennae is 36, in the flagellum of lower antennae 113, in the accessory flagellum 7-8. Body length 24 mm. Body is yellowish. Eyes are flesh-red.

Inhabits depths from 300 to 1371 meters.
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<td>Stebbing, 1899</td>
<td colspan="2">Only description of Ommatogammarus n.g.</td>
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<tr>
<td>Stebbing, 1906</td>
<td>Eyes with hind margin obtusely lobed ..... . 2. O. flavus.. ..p.455</td>
<td>Eyes with hind margin acutely indentured ... . 1. O. albinus. . . . p.455</td>
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	Dorsal spines very delicate, on pleon segments 4 and 5 in 4 little groups, on segment 6 only in 2, spines in a group varying between 1 and 3. Head bent at right angles as in O. albinus, but the connecting curve larger. Pleon segments 2 and 3, postero-lateral corners acutely produced. Eyes very large, occupying nearly half the surface of head and nearly meeting at top, front margin closely adjoining upright front of head, hind margin divided into small rounded lobes, lower straight or a little concave, black or, in specimens from a great depth, reddish. Antenna 1 about ½ as long as body, in ♂ less, in ♀ more, than twice as long as antenna 2, peduncle shorter than peduncle of antenna 2 (or in O sometimes a little longer), flagellum 3 or 4 times as long as peduncle, 35—43-jointed, accessory flagellum 4- or 5-jointed. Antenna 2, ultimate and penultimate joints of peduncle subequal, flagellum 13—19-jointed. Gnathopod1, 6th joint described as slenderly piriform, but rather oblong, the hind margin being considerably longer than the oblique, very concave palm, which is armed with a strong spine at the centre. Gnathopod 2, 5th joint rather longer than in gnathopod 1, 6th oblong, considerably shorter but nearly as broad as in gnathopod 1, hind margin slightly indented near the short, concave, nearly transverse palm. Peraeopods 3—5, 24 joint narrower than in O. albinus, the hind margin at the narrowed distal end not forming a free angle. Uropod 1 reaching end of inner ramus of uropod 3. Uropod 3, outer ramus broad, about twice as long as the narrow inner one, 24 joint indistinct. Colour yellow to clear honey-yellow. L. 30 mm.	 Fig. 86. O. albinus. Head, antennae 1 and 2. [After B. Dybowsky.] Dorsal spines on pleon segments 4—6 very delicate, and solitary at the places corresponding to lateral groups. Head abruptly bent downward, the dorsal line being connected by a short curve with a frontal part at right angles to it. Eyes deep, closely adjoining the upright front of head, front margin slightly concave (Fig. 86), hinder cut into very unequal lobes, some of which are acute, clear flesh-coloured or white with a dash of rose-red. Antenna 1 (Fig. 86) about 1/3, as long as body and twice as long as antenna 2, peduncle rather shorter (or in ♀ sometimes a little longer) than peduncle of antenna 2, 1st joint thick, longer than 2d and 3d combined, flagellum 3 or 4 times as long as the short peduncle, 38-jointed, accessory flagellum 6—8-jointed. Antenna 2 (Fig. 86), ultimate and penultimate joints of peduncle subequal, flagellum 10—13-jointed. Gnathopod 1, 6th joint piriform, very broad at base, hind margin much shorter than the very oblique but well defined palm. Gnathopod 2, 5th and 6th joints longer and more slender than in gnathopod 1, 6th joint oblong, but gradually widening to the oblique palm, which is shorter than hind margin. Peraeopods 3—5, 24 joint with convex hind margin but narrowed near the distal end, where it forms a free angle. Uropods 1 and 2 reaching the second third of uropod 3. Uropod 3, outer ramus about twice as long as inner, 24 joint distinct. Colour more or less yellowish white. L. 28 mm.
Bazikalova, 1945 (in Russian)	Тело толстое, гладкое. Сегменты урозома с короткими шипиками. Голова — как у предыдущего вида (O. albinus) глаза черные, менее изрезаны по заднему краю, почти сходятся на дорзальной стороне головного сегмента. Верхние антенны равны половине длины тела, длиннее нижних; стержни их длиннее головного сегмента и короче стержней нижних антенн, II и III членики равной длины, каждый вдвое короче основного. Жгут состоит из: 35—44 члеников, придаточный жгутик — из 4—5 члеников.	Тело толстое, гладкое. Сегменты урозома несут очень короткие шипики. Головной сегмент высокий, лоб спускается отвесно вниз. Глаза неправильной формы, большие, плоские, красные; передний край вогнутый, задний глубоко изрезанный. Антенны короткие, более чем втрое короче тела и почти вдвое длиннее нижних; стержни их короче стержней нижних антенн и головного сегмента, II и III членики равной длины, каждый вдвое короче основного, все с короткими торчащими щетинками. Жгут состоит из 26—38 толстых и коротких члеников, придаточный жгутик — из 6—8 члеников.

	В нижних антеннах антеннальный конус короче III членика стержня, почти равной длины, длиннее и тоньше, чем у O. albihus. Жгут состоит из 17—18 члеников. Концевой членик palpus мандибул короче среднего, короче и толще, чем у O. albinus; максиллы I и II пар — как у O. albinus, максиллипеды с более тонкими члениками palpus. Гнатоподы в I паре с короткими миндалевидными subchelae, вооруженными короткими тупыми шипиками и пучками щетинок, во II паре subchelae бокаловидные, с пучками густых щетинок. Эпимеральные пластинки I пары в дистальном направлении почти не расширены, во II паре книзу сужены. Переоподы I и II пар тоньше и длиннее, чем У O. albinus, мероподиты самые длинные, слабо расширены, карноподиты короче проподитов. В I паре все членики несут шипы и длинные щетинки, во II щетинки очень короткие и слабые. Базиподиты III пары короткие и широкие, с вогнутым задним краем и выпуклым передним, задний край образует небольшую узкую лопасть, спускающуюся до половины II членика и слегка отогнутую кнаружи. Базиподиты IV и V пар грушевидные, в IV паре с вогнутым, в V с волнистым задним краем; все несут по пучку щетинок в проксимальной части переднего края и короткие шипики, остальные членики вооружены шипами. В уроподах I и II пар стержни короче ветвей, те и другие вооружены шипами. В уроподах III пары наружная ветвь широкая, двучленистая, с коротким концевым члеником, вдвое длиннее и толще наружной; вооружение то же, что у O. albinus. Telson разделен до основания, ветви яйцевидные, с короткими апикальными шипами и щетинками. Длина тела 22—26 мм. Окраска слаборозовая или желтовато-белая. Body is stout and smooth. Urosome segments bear short spines. The head has the same shape as in O. albinus. Eyes are black, less ragged at the hind margin {as in *O. albinus*}, and almost meet at the dorsal side of the head segment. Upper antennae equal ½ body length and are longer than the lower ones; their penucles are longer than the head segment and shorter than the peduncles of the lower antennae; joints II and III have equal length, both twice shorter than the main one. The flagellum consists of 35—44 joints, while the accessory flagellum contains 4—5 joints. The antennal conus (?) of the lower antennae is shorter than joint III of the peduncle, has almost equal length, longer and thinner than in O. albinus. The flagellum consists of 17—18 joints. The distal joint of mandibular palpus is shorter than the middle one, shorter and thicker than in O. albinus; maxillae I and II as in O. albinus, maxillipeds with thinner palpus joints.	В нижних антеннах антеннальный конус тупой, равен III членику стержня, IV и V членики равной длины, жгут состоит из 9—13 члеников; членики стержня и жгута снабжены недлинными, густыми щетинками. Концевой членик palpus мандибул равной длины со средним, основной членик длинный. В максиллах I пары наружная пластинка с двойным рядом простых и гребневидных игл, внутренняя яйцевидная, с 16—18 перистыми щетинками В максиллах II пары внутренняя пластинка к концу сужена, с косым рядом длинных щетинок. В максиллипедах palpus состоит из толстых и коротких члеников, наружная пластинка достигает половины среднего членика palpus, внутренняя с 3 короткими, тупыми зубцами. Гнатоподы в I паре с широко-миндалевидными, во II – с узко-бокаловидными subchelae; эпимеральные пластинки I пары книзу сильно расширены, во II всюду одинаковой ширины; нижний край их голый. Переоподы I и II пар короткие, мероподиты широкие, карноподиты короче проподитов, все членики вооружены щетинками, меро- и карноподиты, кроме того, короткими шипами. Базиподиты III пары короткие, широкие, в IV и V широко-грушевидные, с слегка выдающимся приостренным нижним углом крыловидного края. Во всех трех парах проподит самый длинный. Все членики вооружены пучками коротких шипов и редкими тонкими щетинками. В уроподах I и II пар ветви короче стержней, те и другие вооружены слабыми шипами. Уроподы III пары хорошо развиты, наружная ветвь двучленистая, вдвое длиннее внутренней, концевой членик тонкий. Простые щетинки сидят на наружной стороне наружной ветви, все остальные перистые. Telson разделен до основания; ветви яйцевидные, с 2–3 торчащими в стороны апикальными шипами. Длина тела 20—25 мм. Окраска желтовато-белая. Body is stout and smooth. Urosome segments bear very short spines. The head segment is high, the forehead is steep. Eyes have irregular shape, are large, flat and red; the front margin is concave, while the hind margin is deeply cut. Antennae are short, more than 3x shorter than the body and almost 2x longre than the lower ones; their peduncles are shorter than the peduncles of the lower antennae and head segment, joints II and III have equal length, both twice shorter than the main one, and all of them bear short protruding setae. The flagellum consists of 35—44 joints, while the accessory flagellum contains 6—8 joints. The antennal conus (?) of the lower antennae is equal {in lenght) to the joint III of the peduncle, joints IV and V have equal lengths. The flagellum consists of 9—13 joints. The joints of the peduncle and flagelllum bear not so long but thick setae. The distal joint of mandibular palpus is equal in length to the middle one, while the main joint is long. Maxillae I have outer plate with a double row of simple and comb-like needles, the inner plate is ovoid with plumose setae. The inner plate of maxillae II is narrower towards the end and has a slanted row of long setae. The

	The 1st pair of gnathopods bears short almond-shaped subchelae armed with short blunt spines and tufts of setae. In the second pair {of gnathopods} subchelae are cup-shaped with tufts of thick setae. Epimeral plates {coxae} of the first pair almost not dilated towards the distal part, while those of the second pair are constricted (?) downwards. Pereiopods I and II are thinner and longer than in O. albinus, meropodites are the longest, slightly dilated, carpopodites are shorter than propodites. All joints of the first pair bear spines and long setae, while in the second pair the setae are short and weak. Basipodites of the third pair are short and wide, with concave hind margin and convex front margin; hind margin forms a small narrow lobe that descends to the half of the second joint and is slightly bent outwards. Basipodites of the 4th and 5th pairs are piriform, in the 4th pair with concave, in the 5th with undulated hind margin; all of them bear a tuft of setae in the proximal part of the front margin and short spines. The other joints are armed with spines. The peduncles of the 1st and 2nd uropod pairs are shorter than the rami; both peduncles and rami are armed with setae. The outer ramus of the 3rd pair is wide, consists of two joints, has a short distal joint and is twice longer and thicker than the outer one; it is armed in the same way as in O. albinus. Telson is incised to the base, rami are ovoid, with short apical spines and setae. Body length 22—26 mm. Body color pale pink or yellowish-white.	palpus of maxillipeds consists of thick and short joints, the outer plate reaches the middle joint of the palpus, the outer plate has 3 short and blunt teeth (?). The 1st pair of gnathopods bears wide almond-shaped subchelae, the 2nd pair has narrow cup-shaped ones. Ephemeral plates {coxae} of the 1st pair are strongly dilated, those of the 2nd pair have the same width; their bottom margin is bare. Pereiopods I and II are short, meropodites are wide, carpopodites are shorter than propodites. All joints of the first pair are armed with setae; meropodites and carpopodites also have short spines. Basipodites of the 3rd pair are short and wide, those of the 4th and 5th pair are wide piriform with slightly protuberant bottom angle of the wide-like expansion. In all three pairs propodite is the longest. All joints are armed with tufts of short spines and rare long setae. The peduncles of the 1st and 2nd uropod pairs are shorter than the rami; both peduncles and rami are armed with weak setae. The 3rd uropod pair is profoundly developed, the outer ramus consists of two joints, is twice longer than the inner one, the distal joint is thin. The outer side of the outer ramus bears simple setae, while all other setae is plumose. Telson is incised to the base, rami are ovoid, with 2–3 protruding apical spines. Body length 20—25 mm. Body color yellowish-white.
Karaman, 1980	*Abludogammarus* Diagnosis: Body stout, large, laterally compressed, almost smooth, urosomites free, with spines. Coxae moderate, coxa 1 not dilated, coxa 4 with ventroposterior lobe, coxa 5 much shorter than coxa 4. Head inflated, as long as first thoracal segment, with subrounded anterodorsal tip. Eyes very large, irregularly ovoid. Antenna 1 attached almost in the middle of the head (in lateral view), with peduncle short but slender, ped. segment 1 at least twice as long as broad, accessory flagellum consisting of several segments. Antenna 2 slender. Labrum entire. Labium without inner lobes. Outer lobe of maxilla 1 with 11 toothed spines, palps of left and right maxilla 1 asymmetric to each other. Inner lobe of maxilla 2 with dorsal oblique row of setae. Outer lobe of maxilliped pointed distally, palp segments 1-2 not dilated. Gnathopods 1-2 subchelate, gnathopod 1 larger than gnathopod 2, both with concave palm. Pereopods 3-4 slender. Pereopods 5-7 rather stout, basis (segment 2) of pereopods 6-7 without ventroposterior tooth or lobe. Uropods 1-2 normal. Uropod 3 lanceolate, inner ramus shorter than outer one, outer ramus consisting of two segments (second segment short). Telson short, incised to the base, spinose. Coxal gills ovoid, simple. Oostegyts broad, setose, occur on thoracal segments 2-5.	*Ommatogammarus* Diagnosis: Body stout, large, laterally compressed, smooth, urosomites free, with spines. Coxae moderate, coxa 1 dilated ventrally, coxa 4 with distoposterior lobe, coxa 5 much shorter than coxa 4. Head as long as first thoracal segment, inflated anterally, with subrounded anterodorsal tip (rostrum). Lateral cephalic lobes short, compressed anteriorly, with ventroanterior sinus. Eyes large, irregularly ovoid. Antenna 1 attached almost in the middle of the head (in lateral view), with short, stout peduncle, peduncular segment 1 less than twice longer than broad, accessory flagellum consisting of several segments. Antenna 2 short and stout. Labrum entire, labium without inner lobes. Outer lobe of maxilla 1 with 11 toothed spines, palps of left and right maxilla 1 asymmetric to each other. Maxilla 2 narrow, with inner lobe provided with dorsal oblique row of setae. Outer lobe of maxilliped ovoid, palpar segments 1-2 very dilated. Mandible normal, incisor toothed, molar triturative, palp 3-segmented. Gnathopods 1-2 subchelate, gnathopod 1 smaller than gnathopod 2, both gnathopods with convex palm. Pereopods 3-4 short and stout. Pereopods 5-7 normal, their segment 2 (basis) provided with ventroposterior distinct tooth (lobe). Uropod 3 lanceolate, inner ramus shorter than outer one, outer ramus consisting of 2 segments (second segment short). Telson short, incised to the base, spinose. Coxal gills ovoid. Oostegyts broad, setose, occur on thoracal segments 2-5. Sexual dimorphism present (gnathopods 1-2, antenna 2).

	Sexual dimorphism present (antennae 1-2, gnathopods, pereapods).	
Takhteev, 2000 / Takhteev & Didorenko, 2015 (in Russian)	Стержни антенн 1 длиннее головы. Коксальная пластинка 1 равной ширины на всем протяжении. Глаза у фиксированных экземпляров темные. Peduncles of antennae I are longer than the head. Coxa I has fixed width. Eyes or fixed individuals are dark.	Стержни антенн 1 короче головы или равны ей по длине. Коксальная пластинка 1 книзу сильно расширена, значительно выдается вперед. Глаза у фиксированных экземпляров красноватые или слабо пигментированные. Peduncles of antennae I are shorter or equally long as the head. Coxa I is ventrally dilated and profoundly projects anteriorly. Eyes of fixed individuals are reddish or pale.