

**REVIEW OF THE LEAF BEETLES GENUS *PARIDEA* BALY, 1886
(COLEOPTERA: CHRYSOMELIDAE) FROM THE RUSSIAN FAR EAST**

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Summary. A review of the genus and key to the species of *Paridea* Baly, 1886 of the fauna of Russia is given. A redescription of the male of the leaf beetles species new to the fauna of Russia, *Paridea avicauda* (Laboissière, 1930), is given.

Key words: *Paridea*, taxonomy, fauna, new records, East Palaearctic.

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Резюме. Представлен обзор рода *Paridea* Baly, 1886 и определительная таблица видов фауны России. Приведено переописание самца нового для фауны России вида листоеда *Paridea avicauda* (Laboissière, 1930).

INTRODUCTION

The genus *Paridea* Baly, 1886 includes 85 species, which occur mainly in the eastern part of Palaearctic region; nine species occur in the eastern part of Palaearctic region (China, Korea, Japan) [Gressitt & Kimoto, 1963; Kimoto, 1965; Yang, 1991; Warchałowski, 2010; Lee & Bezděk, 2014; Cho & An, 2020]. This is a large and taxonomically complex Oriental genus that is currently in need of revision.

In Russia, beetles of this genus are only known from the south of the Far East, where they were first found in 2012 in the Primorsky Krai (Orlova-Bienkowskaja & Bieńkowski, 2014). Until now, the only species known here was *Paridea angulicollis* (Motschulsky, 1854), which is widespread in the southern regions of Primorsky Krai (Sergeev, 2023).

Photographs were taken with the stereomicroscope Olympus SZX16 and digital camera Olympus DP74 and stacked using Helicon Focus software. The final illustrations were post-processed for contrast and brightness using Adobe Photoshop® software.

The studied specimens are deposited at the Federal Scientific Center of the East Asia Terrestrial Biodiversity, Vladivostok, Russia (FSCV).

RESULTS

Family Chrysomelidae Latreille, 1802

Subfamily Galerucinae Latreille, 1802

Tribe Luperini Gistel, 1848

Genus *Paridea* Baly, 1886

Type species: *Paridea thoracica* Baly, 1886.

REMARKS. The genus consists of two subgenera: *Paridea* s.str. and *Paraulaca* Baly, 1888 (Beenen, 2024). Nominotypical subgenus differs from *Paraulaca* by the prothorax between the coxae is inconspicuous; pygidium normal in both sexes, obtusely rounded, barely protruding beyond elytra tips; the 5th abdominal sternite in ♂ is three-lobed with a normal median lobe, in ♀ it is entire (in *Paraulaca*, the prothorax between the coxae is narrow and distinct; pygidium conical, elongate, protruding well beyond elytra tips, terminal ♂ blunt or slightly emarginate, ♀ deeply truncate; the 5th abdominal sternite ♂ trilobed, with a very long, deeply indented middle lobe) (Ogloblin, 1936; Lee & Bezděk, 2014).

Subgenus *Paraulaca* Baly, 1888

Type species: *Rhaphidopalpa angulicollis* Motschulsky, 1854.

REMARKS. Till now only one species was known in Russia (Orlova-Bienkowskaja & Bien'kowski, 2014; Sergeev, 2023). Second species is recorded from Russia below.

Paridea (Paraulaca) avicauda (Laboissière, 1930)

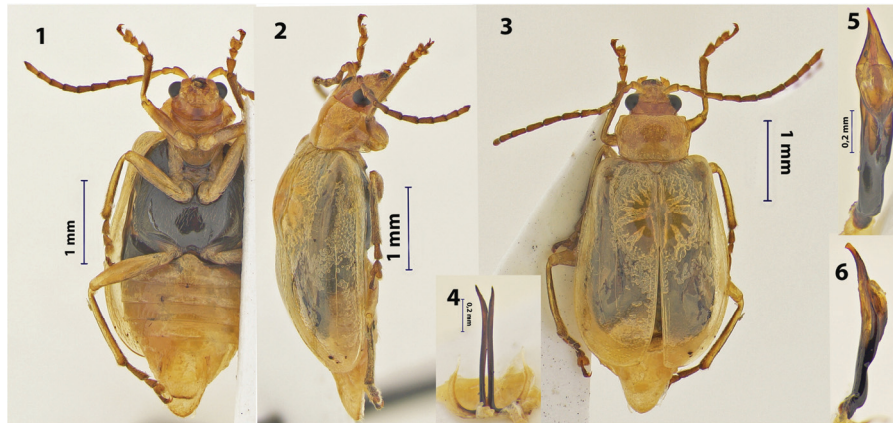
Figs 1–6

MATERIAL EXAMINED. **Russia:** Primorsky Krai: 7 km NE from Khasan, 'Golubinyi utes', 13.VII 2023, 1♂, leg. M.E. Sergeev (FSCV).

REMARK. Brief description of males and females from China (Sichuan: Mupin) was given by Laboissière (1930). The species has not yet been redescribed, but there is a morphologically similar species that differs in the structure of the aedeagus (*Paridea flavipennis* Laboissière, 1930). Below the male and its aedeagus are redescribed, as the type specimens of *P. avicauda* has not been opened and the aedeagus is unknown.

REDISCRPTION. Male. Body pale orange, elytra paler, surface smooth and glossy (Figs 1–3). The capsule of the head is hypognathic, short and not constricted at the back of the eyes. The labrum is broad and smooth. The eyes are large, round and convex in shape. The frontal ridge is convex, triangular, widening towards the base, covered with small wrinkles at the base. Frons is broad and smooth. The frontal tubercles do not touch and are separated from the vertex by frontal furrows, smooth, narrow, slightly curved. Gena length 2/3 of eye diameter. The antennae reach the middle of the elytra (Figs.1, 3). The 1–2 antennal segments are completely rufous, 3–11 are partially or completely darkened, reddish brown. The 3rd antennal segment is 2 times longer than the second, the 4th is the same length as the third. The 1st–3rd antennal segments are clearly wider at the apex than at the base, from the 4th to the 10th they are slightly widened at the apex, the 11th segment is pointed at the apex. The pronotum is rounded and widened in the anterior half. At its widest point it is about 1.5 times wider than it is long. The disc of pronotum is smooth with a transverse groove behind the centre (Fig. 3). The front corners of pronotum are straight and slightly protruding. The scutellum is triangular, smooth, equal in length to width, and rounded at the apex. Elytra widened towards apex, rounded separately at apex, and humeral tubercles developed (Fig. 3). Punctuation is mixed, dots are small and in some places clustered in irregular rows. The spaces of elytra are shiny and larger than the diameter of the dot. The epipleurae are broad, covered with small sparse punctures, narrowing towards the apex and disappearing at the apical angles. Male elytra with a general, large convexity, more intensely coloured than the

disc, beginning behind the scutellum and ending anteriorly from the middle of the elytra to the centre of the disc. The bulge in the suture area is deep, narrow and pressed posteriorly. The wings develop. Sides of mesosternum, metasternum, posterior edge of 1st abdominal sternite black; remaining abdominal sternites light. The fifth abdominal sternite is three-lobed, with deep incisions on each side; the middle lobe is large, straight cut, with a deep depression along its entire length (Fig. 1). Legs are long. Femurs slightly thicker. The 4th tarsal segment protrudes half its length from the third. Claws with a tooth at the base. The eighth tergite of the abdomen (Fig. 4) is weakly sclerotized at the base, transverse and thin, with a pair of strongly sclerotized, long and thin processes. The processes are flattened, pointed towards the apex, and their apices are slightly turned to the side in relation to each other.



Figs. 1–6. Imago *Paridea avicauda*: 1 – habitus, ventral view; 2 – same, lateral view; 3 – same, dorsal view; 4 – eighth abdominal tergite; 5–6 – aedeagus.

The aedeagus is asymmetrical, slightly curved in the ventral plane (Figs 5, 6). The apex is slightly widened in the upper third and elongated into a long apical process that is ventrally curved and laterally flattened.

Female. Similar to male, but elytra are not convexed. Pygidium strongly elongated, with a deep rectangular tip. Ends rounded, lined with small black teeth (Ogloblin, 1936; Warchałowski, 2010).

HOST PLANTS. No host plant has been found, but species of the genus *Paridea* are known to feed on plants from the family Cucurbitaceae (Lee & Bezděk, 2014; Orlova-Bienkowskaja & Bieńkowski, 2014).

DISTRIBUTION. **Russia:** Primorsky Krai (new record). China (Xinjiang, Sichuan, Shaanxi) (Ogloblin, 1936; Warchałowski, 2010; Beenen, 2024).

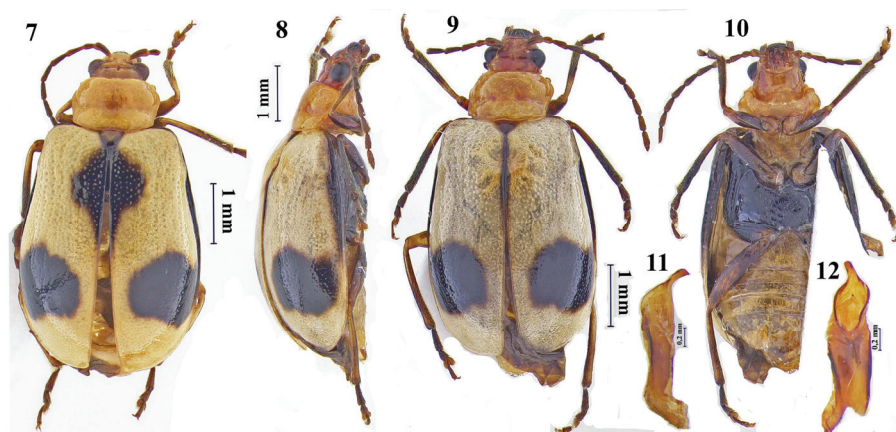
***Paridea (Paraulaca) angulicollis* (Motschulsky, 1854)**

Figs 7–12

MATERIAL EXAMINED. **Russia:** Primorsky Krai: 16 km SE from Barabash, Narva village, floodplain of the Narva River, 20.VI 2012, 2 ex., leg. S.N. Ivanov (FSCV); Vladivostok, botanical garden, 4.VI 2015, 2 ex., leg. M.E. Sergeev (FSCV); 5 km SE from

Barabash, floodplain of the Kedrovaya River, 23–30.V 2017, 2 ex., leg. K.V. Makarov (FSCV), same locality, 7.VI 2019, 1 ex., leg. M.E. Sergeev (FSCV); 35 km SE from Roschino, env. of Dersu village, floodplain of the Bolshaya Ussurka River, Merike traps, 5.VI 2023, 1 ex., leg. M.E. Sergeev (FSCV).

DISTRIBUTION. **Russia:** Primorsky Krai. Japan (Hokkaido, Honshu, Shikoku, Kyushu, and Ryukyu), S Korea, NE, E, and SE China (including Taiwan) (Ogloblin, 1936; Warchalowski, 2010; Lee, Bezděk, 2014; Cho, An, 2020; Sergeev, 2023; Beenen, 2024; Makarov, 2024).



Figs. 7–12. Imago *Paridea angulicollis*: 7 – female, dorsal view; 8 – male, dorsal view; 9 – same, lateral view; 10 – same, ventral view; 11–12 – aedeagus.

Key to species of the genus *Paridea* from Russia

- 1(2) Elytra of ♂ with general strong convexity, beginning behind scutellum, ending slightly anterior to the middle, reaching outwards to the middle of the disc, deeply depressed along the suture (Figs 2, 3). 1st abdominal sternite with black sides. Elytra without spots. Aedeagus slightly asymmetric, slightly narrowed at apical 1/6; apex narrow, tubular, and small; straight from lateral view (Figs 5, 6). Body length 5.5–6.2 mm *P. (P.) avicauda*
- 2(1) Elytra of ♂ are in anterior third, behind scutellum, with a deep small pit whose edges are moderately convex (Figs 8, 9). 1st abdominal sternite entirely yellow. Elytra rarely yellow, often spotted. The aedeagus is asymmetrical, the apex is slightly widened in the upper third and elongated into a long apical process that is ventrally curved and laterally flattened (Figs 11, 12). Body length 4.5–5.6 mm *P. (P.) angulicollis*

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