

Pselaphinae of the Russian Far East (Coleoptera: Staphylinidae). Supplement

Жуки-ощупники Дальнего Востока России (Coleoptera: Staphylinidae). Дополнение

S.A. Kurbatov
С.А. Курбатов

All-Russian Plant Quarantine Center, Bykovo Moscow Oblast 140150 Russia.

Всероссийский центр карантина растений, Раменский р-н, пос. Быково Московская область 140150 Россия.

Sergey Kurbatov: pselaphidae@yandex.ru, pselaphidae1957@gmail.com; ORCID <https://orcid.org/0000-0002-9729-5751>

KEY WORDS: Pselaphinae, Bythinoplectini, Zethopsus, Bibloporus, Euplectus, Leptoplectus, new species, Russian Far East.

КЛЮЧЕВЫЕ СЛОВА: Pselaphinae, Bythinoplectini, Zethopsus, Bibloporus, Euplectus, Leptoplectus, новый вид, Дальний Восток России.

ABSTRACT: The species *Zethopsus omibongensis* Byeon et Park, 2023 (Kunashir), a representative of the tribe Bythinoplectini, is recorded for the first time in Russia. A description of the new to science species *Bibloporus mukhanovi* sp.n. (Kunashir) is provided. Data extending the Far Eastern range of two other known species are presented.

РЕЗЮМЕ: Впервые на территории России найден представитель трибы Bythinoplectini *Zethopsus omibongensis* Byeon et Park, 2023 (Кунашир). Дано описание нового для науки вида *Bibloporus mukhanovi* sp.n. (Кунашир). Приведены сведения, расширяющие дальневосточный ареал двух других известных видов.

Introduction

Following the recent publication of a revision of the Pselaphinae of the Russian Far East [Kurbatov, 2024], new data on the fauna of this region have become available. Most of these data were obtained during the author's expedition to Kunashir Island in August and early September 2025. Below is a description of one new species from the genus *Bibloporus*, information on the discovery of a representative of the tribe Bythinoplectini (new to the Russian territory), as well as findings that extend the range of other known species. The total number of species recorded in the Russian Far East has increased to 85.

Material and Methods

The following acronyms of different museums and private collection are used in this article (relevant curators are listed

in parentheses): PCSK — private collection of S.A. Kurbatov, Moscow; ZIN — Zoological Institute, Russian Academy of Science, St. Petersburg (A.G. Kirejtshuk); ZMUM — Zoological Museum, University of Moscow (V.Yu. Savitsky).

Measurements are defined as follows: body length is measured from the anterior outline of the head (i.e. apical margin of labrum) to the apex of the abdomen; length and width of body parts always imply maximum values; for instance, head length is measured from the clypeal margin to the middle of the occipital margin, head width is the distance between the outer outlines of eyes, length of elytra is measured along the elytral suture, and width of elytra is the maximum width of both elytra taken together. Abdominal tergites and sternites are numbered according to Chandler [2001] in Arabic (visible position) and Roman (morphological position) and are counted from tergite 1 (IV) and sternite 1 (III). The aedeagi and other body parts illustrated here were mounted in Canada balsam on acetate slides (the techniques are described in Kurbatov [2024]), and drawn using a drawing tube mounted on a Zeiss Axioskop compound microscope. The image of *Zethopsus omibongensis* were taken using a Canon EOS 6D digital SLR camera with a MP-E 65 mm f/2.8 1-5X Macro lens. Zerene Stacker was used for image stacking. All images were modified and grouped using Adobe Photoshop CC.

Taxonomy

Zethopsus omibongensis Byeon et Park, 2023
Figs 1–10.

MATERIAL. 9 males, 4 females: Kunashir Island, 1 km S of Stolbchaty Cape, 0–20 m, soil and plant debris at hot springs, 2.09.2025, leg. S. Kurbatov.

REMARK. This is the first record in Russia of a species belonging to the tribe Bythinoplectini L.W. Schaufuss, 1890 and the genus *Zethopsus* Reitter, 1880.



Fig. 1. *Zethopsus omibongensis* (photo S. Kurbatov & Yu.A. Lovtsova).
Рис. 1. *Zethopsus omibongensis* (фото С. Курбатова и Ю.А. Ловцово́й).

To include the genus *Zethopsus* in the section “Key to the genera of Pselaphinae of the Russian Far East,” the following couplets should be inserted between couplets 7- and 8 [Kurbatov, 2024: 303]:

- Antennae 10-segmented. All tarsi 2-segmented. Area below antennal insertions and anterior to eyes deeply excavated and receiving maxillary palpi when retracted.....
 *Zethopsus* Reitter, 1880
 – Antennae 11-segmented. All tarsi 3-segmented. Lacking deep excavation below antennal insertions 8

In the section “Keys to species” [Kurbatov, 2024: 306], the following information on the genus *Zethopsus* and the species *Zethopsus omibongensis* should be included before the information on the genus *Euplectus* Leach, 1817:

Zethopsus Reitter, 1880. Anterior half of head strongly narrowed dorsally, constituting about one-third of maximal width of head. Area below antennal insertions and anterior to eyes deeply excavated and receives maxillary palpi when retracted. Mandibles (Figs 6–7) with basal half forming distinct ledge in relation to apical half bearing teeth. Maxillary palpi (Fig. 4) with very small palpomere 1, large palpomere 2, large palpomere 3 modified, and transverse palpomere 4 strongly modified. Labrum as in Fig. 5. Antennae (Fig. 8) 10-segmented, with 1-segmented club, since 9th antennomere is half as wide as 10th and only slightly wider than antennomeres 3–8. Pronotum with short median longitudinal sulcus, with antebasal transverse impression divided by longitudinal carina, and with a pair of lateral antebasal foveae. Prosternum

with a pair of lateral procoxal foveae. Each elytron with a pair of basal elytral foveae, complete sutural stria and complete lateral sulcus and carina. Mesoventrite with a pair of median mesoventral foveae, with a pair of lateral mesoventral foveae, and a pair of promesocoxal foveae. Metaventrite with double median metaventral fovea and a pair of lateral metaventral foveae. Abdominal sternite 2 (IV) with a pair of very strongly reduced mediobasal and a pair of basolateral foveae; abdominal sternites 3–5 (V–VII) with basolateral foveae. All tarsi with two tarsomeres (Fig. 10). Male: abdominal sternite 6 (VIII) with three slender basal projections (Fig. 9). Aedeagus very small, asymmetrical, with various apophyses. 1 species; 1 Australian and about a dozen Oriental species.

1. Temples distinctly shorter than eyes. Antennomere 2 (Fig. 8) hardly shorter than wide, and of the same width as antennomere 1; antennomeres 4–8 distinctly transverse and more or less uniform in proportion. Aedeagus as in Figs 2–3. Body length 1.15–1.3 mm
 *omibongensis* Byeon et Park, 2023

The following information on the species *Zethopsus omibongensis* is included in the section “Annotated list of species of Pselaphinae of the Russian Far East” [Kurbatov, 2024: 341] at the very beginning of the list, before *Euplectus domefactus*:

1. *Zethopsus omibongensis* Byeon et Park, 2023. In Russia, it is known only from Kunashir Island, where it was collected on an ecological trail in the vicinity of Stolbchaty Cape in the upper soil layers and in plant debris around hot springs.

Bibloporus mukhanovi Kurbatov, **sp.n.**
 Figs 11–13.

MATERIAL. Holotype male: Kunashir Is., Kurilski N.R., cordon Ivanovski, 0–100 m, rotten *Abies*, 23.08.2025, S. Kurbatov (ZIN). Paratypes: 2 males with holotype (ZMUM, PCSK).

DESCRIPTION. Body 1.1–1.15 mm long, brown; palpi, antennae and legs yellowish-brown; head and pronotum of holotype lighter in colour than posterior half of body. Pubescence dense, fine and decumbent.

Head (0.16/0.26 mm) distinctly punctured, with the exception of smoother posterior margin behind vertexal foveae. Vertexal foveae large; distance between them slightly larger than their diameter. Vertexal sulcus runs behind antennal tubercles, roughly parallel to anterior margin of frons; longitudinal branches of sulcus less expressed than transverse branch. Eyes large and convex, 2–2.5 times longer than temples in lateral view. Antennae approximately as long as head and pronotum combined; scapus approximately as long as wide; antennomere 2 longer than wide, oval in shape, and approximately as wide as scapus; antennomere 3 as long as wide, much narrower than 2; antennomeres 4–6 and 8 approximately as wide as 3, but slightly transverse; antennomere 7 slightly larger than those surrounding it; antennomeres 9–11 form distinct club, which is longer than segments 3–8 combined (objective measurement), antennomere 9 wider than long, clearly wider than antennomere 2; antennomere 10 of same proportions but slightly larger; antennomere 11 slightly wider than 10 and slightly longer than 9 and 10 combined.

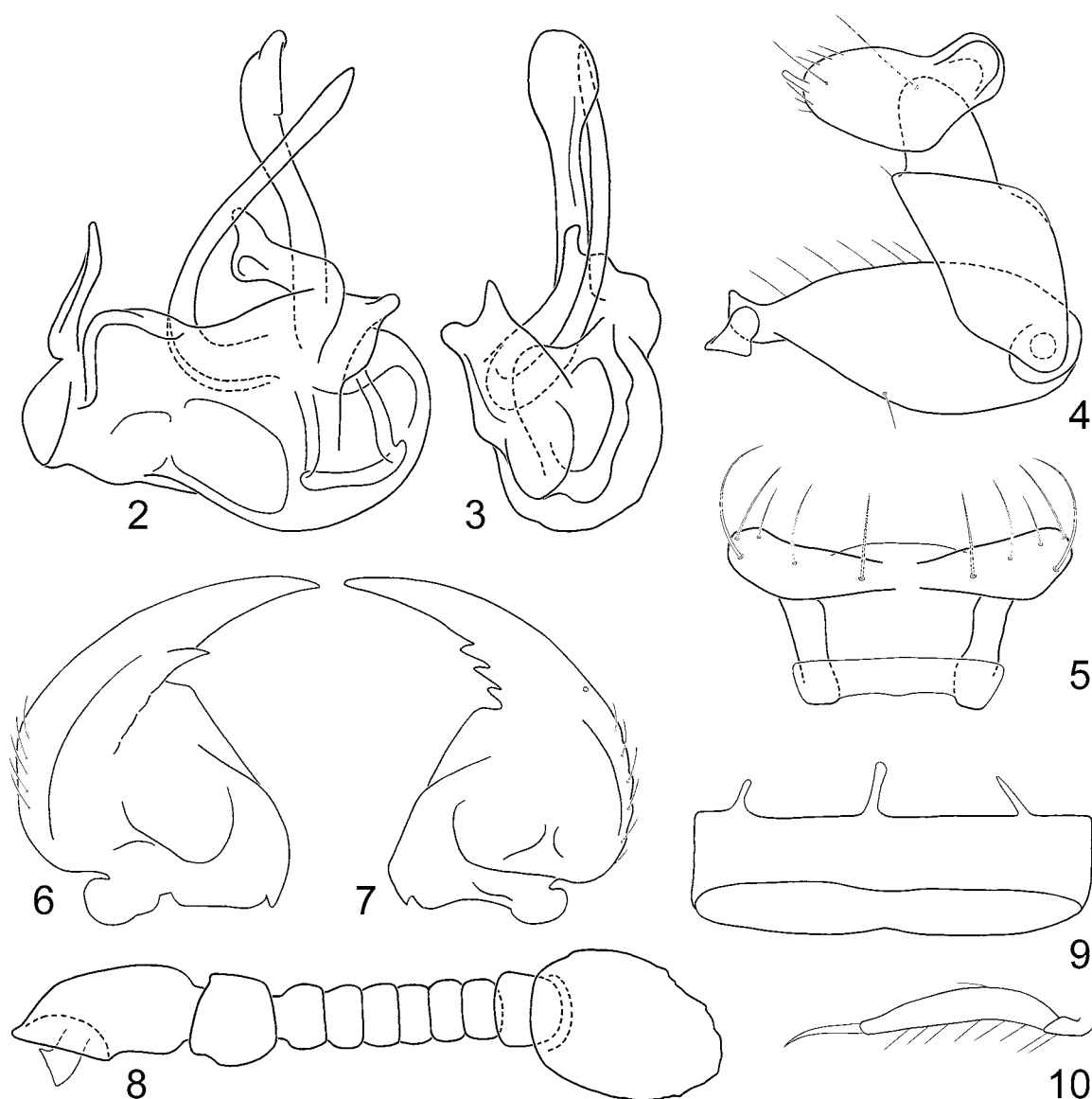
Pronotum (0.25–0.27/0.29–0.33 mm) distinctly wider than long, with fine, in parts indistinct, punctures; median longitudinal sulcus connected to median antebasal fovea. Elytra (length at suture 0.38–0.39, max. total width 0.43–0.46 mm) distinctly rounded at sides, with fine, in parts indistinct punctures, only in posterior third with distinct, fairly dense punctures.

tures; discal striae barely reaching middle of elytral length or even slightly shorter. Abdomen narrower and shorter than elytra; discal carinae of tergites 1 and 2 exceeding middle of length of corresponding tergites (in one specimen they do not reach the middle of the tergites), distances between carinae approximately one-third of tergal width (excluding paratergites); tergite 3 without carinae.

Male. Metaventrite with medial impression. Sternite 2 with fairly small lateral impression, sternite 3 with lateral impression and tubercle inside it. Femora 1 thickened. Femora 2 (Fig. 12) greatly thickened and curved, base of their ventral surface with bristle-bearing tubercle; tibiae 2 with large medial tooth. Abdominal sternite 9 (IX) (penial plate) more or less broadly oval, 0.13 mm long (Fig. 13). Aedeagus as in Fig. 11, 0.24–0.25 mm long.

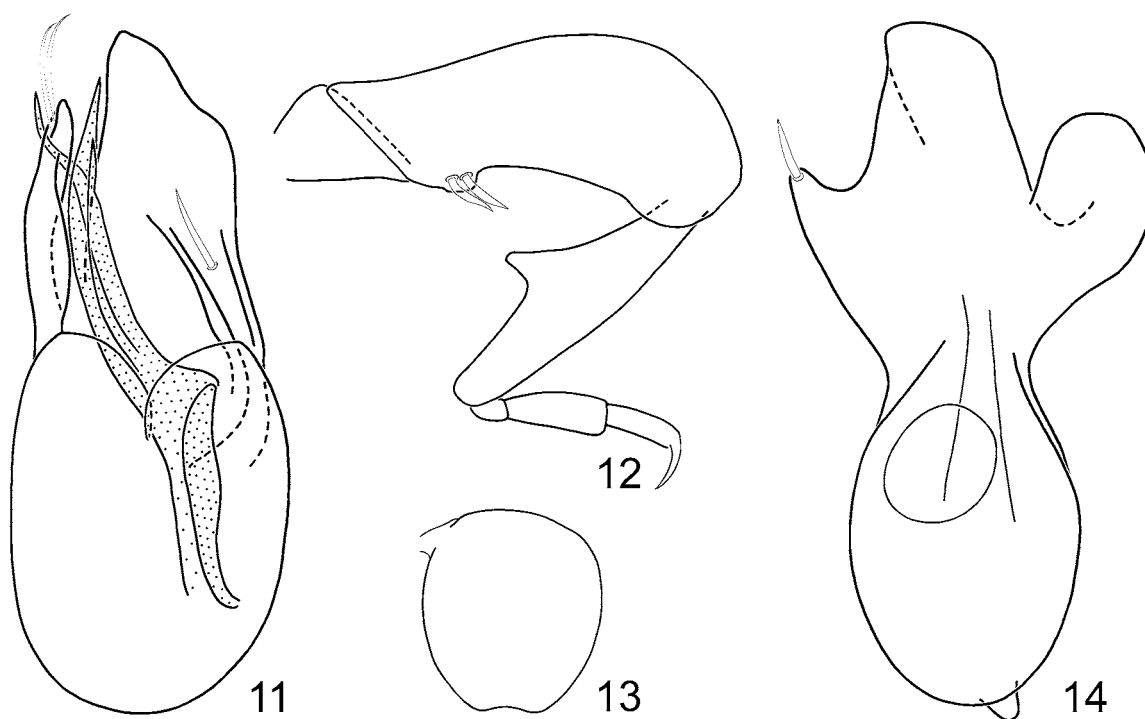
ETYMOLOGY. The species is named in honour of the Moscow entomologist Sergei Mukhanov, who provided the author with extensive assistance in collecting specimens on Kunashir Island.

COMMENTS. The new species is most closely related to *B. neglectus* Kurbatov, 1993, which is also found here on Kunashir, owing to: a) the presence of discal carinae only on the first two abdominal tergites, b) the punctuation of the elytra, which is more pronounced in their distal third, and c) the strongly thickened and curved male femora 2, with a tubercle at the base of the mesal side, bearing a pair of large specialised setae (see Kurbatov [2024, fig. 170]). Furthermore, these species have penial plates that are virtually identical in shape, and the image of the deformed penial plate of *neglectus* shown in Fig. 185 [Kurbatov, 2024] is incorrect. As for the differenc-



Figs 2–10. Details of *Zethopsus omibongensis*: 2 — aedeagus, lateral view; 3 — aedeagus, dorsal view; 4 — maxillary palpus; 5 — labrum; 6 — left mandible, 7 — right mandible; 8 — antenna; 9 — abdominal sternite 6 (VIII); 10 — tarsus 3.

Рис. 2–10. Детали строения *Zethopsus omibongensis*: 2 — эдеагус, латерально; 3 — эдеагус, дорсально; 4 — нижнечелюстной шупик; 5 — верхняя губа; 6 — левая мандибула; 7 — правая мандибула; 8 — усик; 9 — 6-й (VIII) стернит брюшка; 10 — лапка задней ноги.



Figs 11–14. Details of Pselaphinae: 11–13 — *Bibloporus mukhanovi* Kurbatov **sp.n.**; 14 — *Leptoplectus pumilio*; 11, 14 — aedeagus; 12 — leg 2; 13 — abdominal sternite IX (penial plate).

Рис. 11–14. Детали строения Pselaphinae: 11–13 — *Bibloporus mukhanovi* Kurbatov **sp.n.**; 14 — *Leptoplectus pumilio*; 11, 14 — эдеагус; 12 — средняя нога; 13 — IX стернит брюшка (пенял-плата).

es, tibiae 2 of the new species bear a fairly large tooth in the middle of the mesal side, whereas in *neglectus* there is only a small, flattened tubercle in the distal quarter of these tibiae; the aedeagus of these two species also differs markedly (see Kurbatov [2024, fig. 177]). If inversion is applied, it can be seen that the aedeagus of the new species bears some, though remote, resemblance to that of *B. minutus* Raffray, 1914; however, the middle coxae, femora and tibiae of the males of these two species differ markedly (see Kurbatov [2024, figs. 168, 175]).

In the early and mid-20th century, two species were described from neighbouring regions of southern Honshu in Japan: *B. pallidus* Raffray, 1912 (Kyoto) and *B. japonicus* Sawada, 1956 (Nara Prefecture), each of which is known from a single female specimen. At this stage, in the absence of males, a proper comparison / identification of these two species with other species of the genus *Bibloporus* is impossible, particularly as several species of the genus may be found simultaneously within the same territory (as, for example, on Kunashir Is. and in Primorsky Krai). We therefore regard *B. pallidus* and *B. japonicus* as species *incertae sedis*.

Euplectus punctatus Mulsant et Rey, 1861

MATERIAL. 1 male: Amur Region, Norskiy National Reserve, near Meunskiy cordon, 275 m, old *Fomes*, 14.09.2008, E. Veselova & A. Ryvkin.

REMARK. A fairly widespread Palearctic species, previously known in the Russian Far East only from Kunashir

Island. Among the material from the Amur Region collected by the Moscow entomologist and specialist in Staphylinidae, A.B. Ryvkin, a single male of this species was found. Thus, *Euplectus punctatus* is recorded for the first time from the mainland of the Russian Far East.

Leptoplectus pumilio Kurbatov, 1992

Fig. 14.

MATERIAL. 1 male: Kunashir Island, Kurilsky Nature Reserve, Ivanovski cordon, 0–100 m, rotten *Betula*, 25.08.2025, S. Kurbatov; 1 female, same locality but 26.08.2025.

REMARK. This smallest Far Eastern representative of the genus *Leptoplectus* (body length 0.9–1.0 mm) was previously known only from the south of Primorsky Krai, where it was found exclusively in decaying linden wood. It has now also been recorded on Kunashir Island, where it was collected from decaying birch wood.

Compliance with ethical standards

Ethical approval: No ethical issues were raised during our research.

Acknowledgements. I express my sincere gratitude to my colleague at the Institute, Julia Lovtsova; she was faultless in our collaborative production with her of conventional colour photograph of *Zethopsus omibongensis*. My friend and colleague Sergei Kazantsev (Moscow) carried out a linguistic review of the text, for which I am very grateful to him. Elena

Linnik, Deputy Director for Science at the Kuril Nature Reserve, did everything in her power to ensure that the expedition to Kunashir was as successful and productive as possible. The author received comprehensive assistance from Alexander Petrov (a specialist in Scolytinae) and Sergey Mukhanov (an insect rearing specialist), both members of the Kunashir expedition; without their support, the author's trip would not have been possible.

References

- Byeon U.-J., Park J.-S. 2023. Review of the Korean species of the tribe Bythinoplectini Schaufuss, 1890 (Coleoptera: Staphylinidae: Pselaphinae: Euplectitae) // The Coleopterists Bulletin. Vol.77. No.3. P.413–427. <https://doi.org/10.1649/0010-065X-77.3.413>
- Chandler D.S. 2001. Biology, morphology, and systematics of the ant like litter beetle genera of Australia (Coleoptera: Staphylinidae: Pselaphinae) // *Memoirs on Entomology, International*. Vol.15. P.i-viii, 1–560.
- Coulon G. 1989. Révision générique des Bythinoplectini Schaufuss, 1890 (=Pyxidicerini Raffray, 1903, syn. nov.) (Coleoptera, Pselaphidae, Faroninae) // *Mémoires de la Société royale belge d'entomologie*. Vol.34. P.1–282.
- Kurbatov S.A. 2024. Pselaphinae of the Russian Far East (Coleoptera: Staphylinidae) with comments about the current taxonomic status of the subfamily // *Russian Entomological Journal*. Vol.33. No.3. P.283–347. <https://doi.org/10.15298/rusentj.33.3.05>