

A new species of *Dolichopus* (Diptera: Dolichopodidae) from Sakhalin and designation of lectotype of *Dolichopus grunini* Smirnov, 1948

Новый вид *Dolichopus* (Diptera: Dolichopodidae) с Сахалина и обозначение лектотипа *Dolichopus grunini* Smirnov, 1948

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Key words: Diptera, Dolichopodidae, *Dolichopus*, new species, lectotype, Sakhalin.

Ключевые слова: Diptera, Dolichopodidae, *Dolichopus*, новый вид, лектотип, Сахалин.

Abstract. A new species *Dolichopus vadimi* Negrobov, Selivanova et Maslova **sp. n.** is described from Sakhalin. The type specimens of *Dolichopus grunini* Smirnov, 1948 were examined and the lectotype is designated. The hypopygium of *D. grunini* is illustrated for the first time.

Резюме. Описан новый вид *Dolichopus vadimi* Negrobov, Selivanova et Maslova **sp. n.** с Сахалина. Изучен тип и выделен лектотип *Dolichopus grunini* Smirnov, 1948. Впервые приводится рисунок гипопигия *D. grunini*.

The genus *Dolichopus* is the largest genus of Dolichopodidae with more than 600 species worldwide. The last key to Palaearctic species was published by Negrobov et al. [2005]. The new species *Dolichopus vadimi* Negrobov, Selivanova et Maslova **sp. n.** is included in the *Dolichopus sagittarius* species-group. This group has the following differential characters of protarsi of male: 4th and 5th protarsomeres are compressed laterally and widened, 4th tarsomer is trapezoidal, 5th tarsomer with deep excision, bilobed and asymmetric, with lobes differing in lengths and shape.

This group included *Dolichopus sagittarius* Loew, 1848, *D. reichardti* Stackelberg, 1930, *D. grunini* Smirnov, 1948, *D. portentosus* Negrobov, 1973, and *D. hejingensis* Yang, 1998 in the Palaearctic.

This study is based on specimens from the collection of Zoological Museum of Moscow State University and the Department of ecology and taxonomy of invertebrate animals of Voronezh State University (Russia).

Dolichopus vadimi Negrobov, Selivanova et Maslova, **sp. n.**
(Fig. 1–3)

Material. Holotype, ♂, Sakhalin, 29 km SW of Yuzhno-Sakhalinsk, Urozhaynoe, 13.07.1982 (Shamshev). The holotype of the new species is deposited in Zoological Institute of Russian Academy of Sciences (St. Petersburg, Russia).

Description. Male. Length: body 6 mm, wing 6 mm. Face ochre-yellow, mat, without hairs, not reaching lower margin of eyes, their width subequal to width postpedicel in middle. Proboscis dark-brown. Palpus yellow, with black hairs. Frons dark green with bronze tinge, shining, but pollinose on margins. Antennae black, scape yellow ventrally, postpedicel reniform, pointed, transverse. Arista short, located in middle of dorsal surface of postpedicel,

slightly thickened on apex by the presence of dense hairs. Ratio 'postpedicel length / postpedicel width / arista length' as follows: 1 : 1.1 : 2.9. Postocular bristles black, some pale-yellow setae present near mouthparts.

Thorax green with bronze shade, mesonotum metallic shining with bronze shade, pleura grey pollinose. Proepisterna with 1 strong black bristle and 2 groups of pale hair-like setae.

Mid and hind coxae black, covered with black setae; fore coxae dirty-yellow, but darkened basally; other parts of legs mostly yellow, excludely dark apices of 1–3th fore tarsomeres, entire fore tarsomeres 4–5, apex of first mid tarsomeres, all other mid tarsomeres, mid tibiae and hind tarsomeres; pulvillus white. Femora without long ventral bristles. Fore tibia without long apicoventral seta, with 3 anterodorsal, 1 dorsal, 3 posterodorsal and 2–3 posteroventral setae. Fore tarsomeres 3–5 compressed laterally, fore tarsomere 3 slightly broadened apically, fore tarsomere 4 short, trapezoidal and very widened, tarsomere 5 broad, with deep apical excision and asymmetrical lobes (dorsal process nearly twice as large as ventral process. Ratio of length of fore tibia to length of fore tarsomeres ratio (from 1st to 5th): 7.8 : 3.9 : 1.8 : 1.4 : 1 : 3.1. Mid and hind femora with 1 strong preapical bristle. Mid tibia with 5–6 anterodorsal, 3 posterodorsal, 3 anteroventral and 1 posteroventral bristles. Mid basitarsus with 2 strong dorsal and several smaller bristles. Ratio of length of mid tibia to length of mid tarsomeres (from 1st to 5th): 11.3 : 6.6 : 2.8 : 1.9 : 1.5 : 1.2. Hind tibia thickened on basal 3/4, with bare region in basal part and long white dorsal oblique chink apically (tibial organ), with 7 anterodorsal, 7–8 posterodorsal, 1 strong anteroventral and with short ventral bristles. Hind basitarsus with 4 strong anterodorsal, 5 dorsal and line of short ventral bristles. Ratio of length of hind tibia to length of hind tarsomeres (from 1st to 5th): 11.4 : 6.8 : 4.4 : 2.8 : 1.8 : 1.4.

Wings scarcely infuscate. Costal vein with long oval thickening near apex of subcostal vein. Veins R₄₊₅ and M₁₊₂ parallel near wing margin; M₁₊₂ weakly curved in apical part, without rudimentary M₂. Apical section of M₃₊₄ longer than hind m-crossvein – 2.7 : 1.9. Anal angle obtuse. Calypter yellow with black setae. Halter yellow.

Abdomen greenish-bronze, pollinose laterally and near base. Hypopygium: surstylus dark-yellow, broad, curved, truncate apically, with strong apical seta and dorsal seta on middle part. Cercus longer than epandrium, dirty-brown, with wide black apical margin, with serrate edges and crescent bristles.

Body length 5.7 mm, wing length 5.4 mm.

Female. Unknown.

Diagnosis. Face ochre-yellow, arista slightly broadened at apex, appearing thickened along entire length due to dense hairs, postocular bristles black, fore tarsomeres 3–5 compressed laterally, fore tarsomere 3 slightly broadened apically, fore tarsomere 4 short, trapezoidal and very

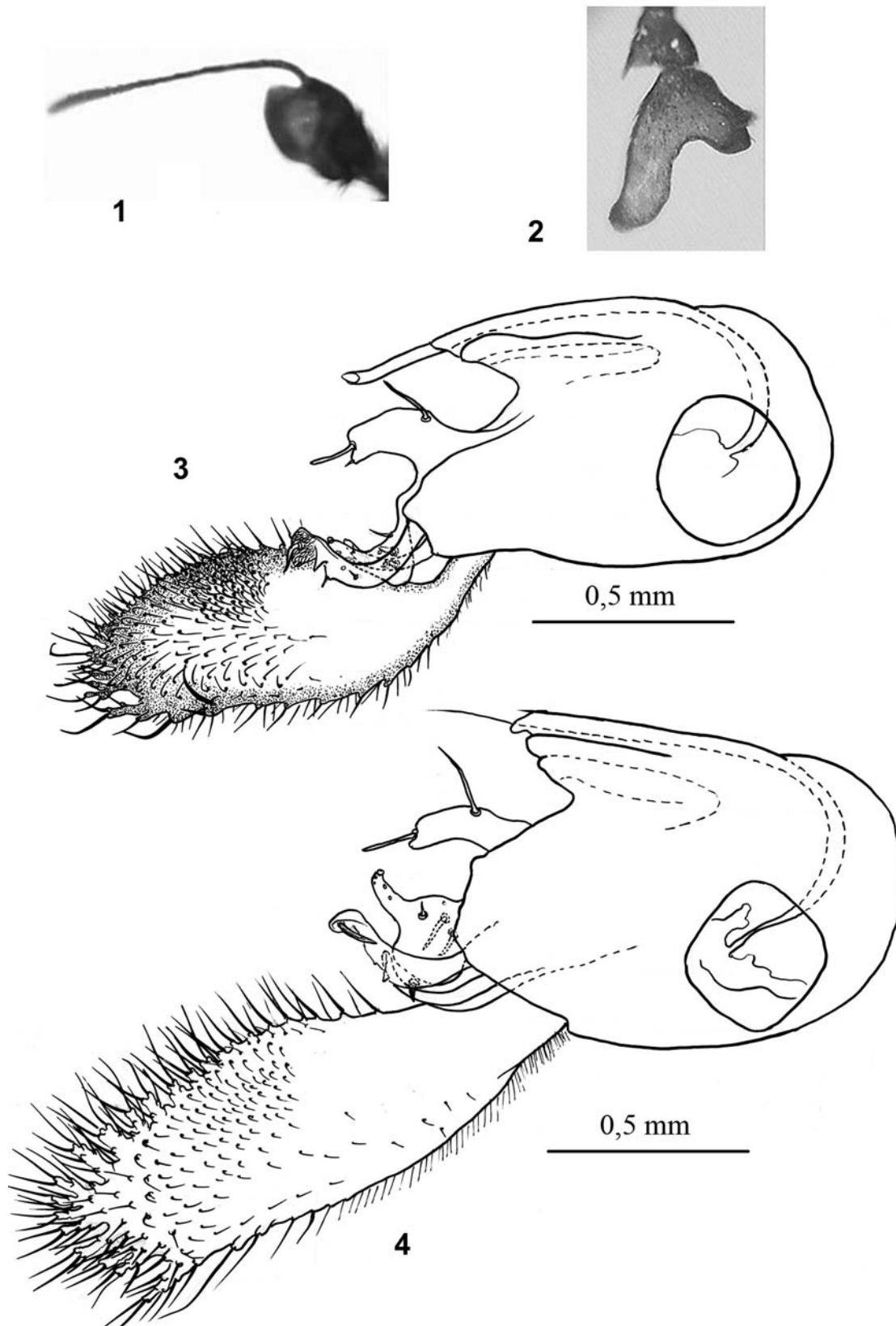


Fig. 1–3. *Dolichopus vadimi* sp. n. (1–3) and *D. grunini* Smirnov, 1948 (4), details of structure.

1 – postpedicel; 2 – fore tarsomeres 4–5th; 3–4 – hypopygium.

Рис. 1–4. *Dolichopus vadimi* sp. n. (1–3) и *D. grunini* Smirnov, 1948 (4), детали строения.

1 – 3-й членик усика; 2 – 4-й и 5-й членики передних лапок; 3–4 – гипопигий.

broad, fore tarsomere 5 wide, with deep apical excision and asymmetrical process, costal vein with long oval thickening near apex of subcostal vein.

Etymology. The epithet refers to the name of Professor Vadim Zaitzev, a school student of A.A. Stackelberg. Several species of the family Dolichopodidae have been dedicated to this scientist – *Medetera zaizevi* Negrobov, 1972 from Tajikistan, *Sympycnus vadimi* Negrobov, 1973 and *Hydrophorus zaitzevianus* Negrobov, 1978 from Mongolia.

Remarks. Within the key to Palaearctic species of the genus *Dolichopus* by Stackelberg [1930] the new species is compared with *D. sagittarius*.

- Postocular bristles yellow on lower part. Arista with elongate-oval plate on apex. Fore and mid femora with dark stripe *D. sagittarius* Loew
- Postocular bristles black on lower part. Arista not flattened on apex, slightly broadened at apex, appearing thickened along entire length due to dense hairs. Femora yellow *D. vadimi* **sp. n.**

Within the key to Palaearctic species of the genus *Dolichopus* by Negrobov et al. [2005] the new species can be compared with *Dolichopus grunini*.

- Arista is dilated on apex as elongate-oval plate. Cerci without digitiform dorsal apical projections *D. grunini* Smirnov
- Arista clothed in dense hair-like setulae and appearing thickened. Cerci with deep excisions apically and digitiform dorsal apical projections *D. vadimi* **sp. n.**

Dolichopus grunini Smirnov, 1948 (Fig. 4)

Material examined. Lectotype (here designed) ♂, labeled: Jasnaya Polyana, on the river Takema, Sihote-Alin, 2.07.1937, K.Ya. Grunin. Paralectotype, 1♂: same data as lectotype (Zoological Museum of Moscow State University, Moscow, Russia).

Remarks. Smirnov [1948: 224] described this species after four males collected from the Russian Far East. However, we could find only two syntypes, both of which are in poor condition.

Distribution. The species is known from Russia (Primorsk Province) and China [Yang et al., 2011].

Acknowledgements

The authors are grateful to M.V. Nabozhenko for editing of the manuscript.

This study was supported by RFBR (11-04-01051-a).

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