

РОССИЙСКАЯ АКАДЕМИЯ НАУК
Южный Научный Центр

RUSSIAN ACADEMY OF SCIENCES
Southern Scientific Centre

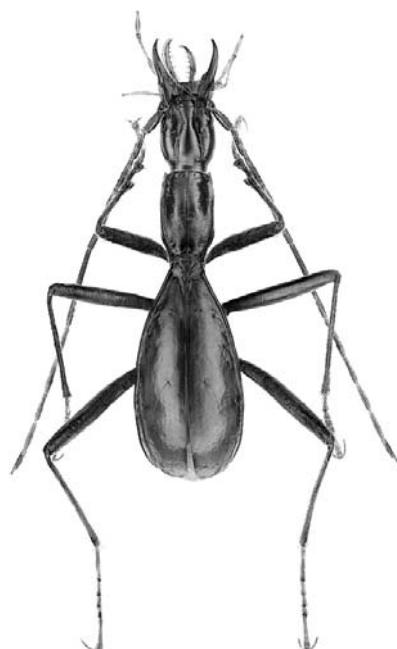


Кавказский Энтомологический Бюллетень

CAUCASIAN ENTOMOLOGICAL BULLETIN

Том 6. Вып. 1

Vol. 6. No. 1



Ростов-на-Дону
2010

A new species of the genus *Achalcus* Low, 1857 (Diptera: Dolichopodidae) from Far East region of Russia

Новый вид рода *Achalcus* Low, 1857 (Diptera: Dolichopodidae) с Дальнего Востока России

O.P. Negrobov, O.V. Selivanova
О.П. Негров, О.В. Селиванова

Voronezh State University, sq. Universitetskaya, 1, Voronezh 394006 Russia. E-mail: ins285@bio.vsu.ru
Воронежский государственный университет, Университетская пл., 1, Воронеж 394006 Россия

Key words: Dolichopodidae, *Achalcus*, Russia, Amur region, new species.

Ключевые слова: Dolichopodidae, *Achalcus*, Россия, Амурская область, новый вид.

Abstract. *Achalcus polleti* Negrobov et Selivanova, sp. n. is described from Amur region, Russia.

Резюме. Описан новый вид *Achalcus polleti* Negrobov et Selivanova, sp. n. из Амурской области (Россия).

Introduction

The revision of Palaearctic species of the genus *Achalcus* Low, 1857 was made by Pollet [1996], in which 4 new species from Europe were described and a key of Palaearctic species of this genus was given. Pollet and Cumming [1998], Pollet [2005a, b] revised Nearctic and Neotropic species of the genus.

Material

3 specimen of a new species of the genus *Achalcus* from Amur region were studied from collection of Zoological Institute of Russian Academy of Sciences, St. Petersburg (ZIN). The holotype and paratypes are deposited in ZIN.

Nomenclature of hypopygium structures is given on Negrobov, Stackelberg [1971].

Achalcus polleti Negrobov et Selivanova, sp. n.
(Fig. 1–7)

Material. Holotype: ♂, Russia, Amur region, Klimovtsy, 40 km W Svobodniy, 31.07.1958 (Zinovjev). Paratypes: 2♀, the same labels.

Description. Male. Frons black with grey pollinose. Setae of head black. Face is grey-black, grey pollinose in the middle. Palp ovoid black, with black setae. Antennae dark brown. 1st flagellomere triangular, with short white pubescence, longer than thick (1:1:0.6). Arista apical, a little longer than 1st flagellomere. Palp ovoid small with dark pubescence. Postocular seta black.

Thorax black, grey pollinosity, with black setae. Metapleura mainly dark brown. Propleura with 1 dark seta. 5 dorsocentral dark setae. Acrostichal setae biserial, 5–6 setae in fore part of mesonotum more long than distance between rows. Scutellum with 2 black setae.

Legs almost completely dark-yellow, coxa and apical part tarsi dark brown, fore coxa infuscated at lateral part, mid coxa with dark outer spot, hind coxa dark, all coxae with black setae. Fore femur without strong ventral seta. Mid femur with 1 strong preapical seta; without strong ventral setae. Hind femur with 2 strong preapical setae. Fore tibia with 1 anterodorsal seta. Length

ratio of fore tibia to fore tarsomeres – 3.8:2:1:0.8:0.4:0.6. Mid tibia with 2 anterodorsal and 1 posterodorsal setae. Length ratio of mid leg tibia to tarsomeres – 5.1:2.3:1.3:1:0.5:0.7. Hind tibia with 2 anterodorsal and 2 posterodorsal setae. Length ratio of hind tibia to hind tarsomeres – 6.9:1.6:2.1:1.4:0.9:0.7.

Wing slightly darkened. Ratio of costal vein between R₂₊₃ and R₄₊₅; R₄₊₅ and M₁₊₂ – 2.1:1.4. Veins R₄₊₅ and M₁₊₂ is diverging towards wing apex. Proximal section of vein M₁₊₂ longer than apical section (6.7:6.3). Ratio m-cu and apical section CuA₁ – 1.9:2; Halter pale. Squama dark, with brown hairs.

Abdomen with 6 pubescent segments. Abdominal tergites and sternites entirely dark brown. Hypopygium dark. Phallus smoothly curved, with small subapical dorsal process. Cercus oval elongate, without strong apical seta.

Female as male. Antennae dark brown. 1st flagellomere longer than thick (0.9:0.6). Arista longer than antenna (2.2:1.7). Thorax, abdominal tergites and sternites entirely dark brown, with dark setae. Legs, including coxa, dark yellow. Ratio costal vein between R₂₊₃ and R₄₊₅; R₄₊₅ and M₁₊₂ – 2.2:1.8. Veins R₄₊₅ and M₁₊₂ are diverging towards wing apex. Ratio proximal section of vein M₁₊₂ and apical section M₁₊₂ – 6.5:6.3. Ratio m-cu and apical section CuA₁ – 1.9:2. Abdominal tergites and sternites entirely dark brown.

Body length 1.5–1.8 mm, wing length 1.9–2.1 mm.

Etymology. The species is named in honor of dipterist Marc Pollet (Belgium).

Comparison. The new species differs from all Palaearctic species by dark colour and morphology of hypopygium – the form of gonopode, sursylus and cerci, fore femur without long ventral seta.

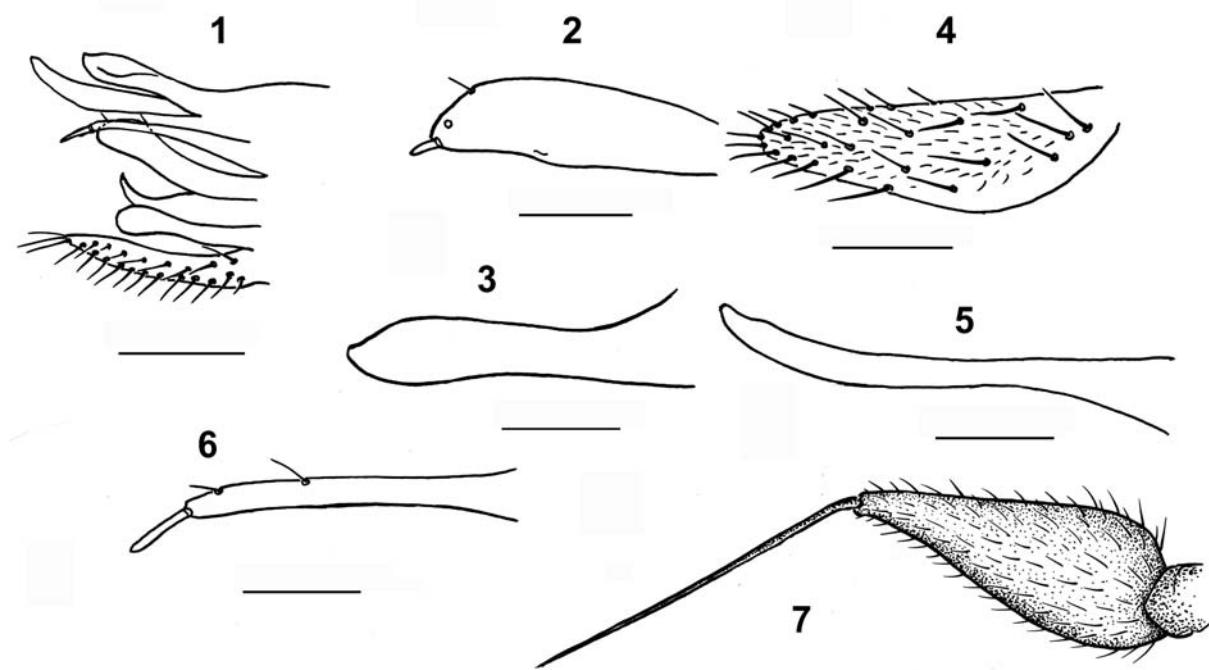
After the key of Pollet [1996] the new species is similar with *Achalcus cinereus* (Haliday in Walker), 1851.

— Fore femur without long ventral seta. Apical part of CuA₁ longer than outer crossvein. Setae on thorax and abdomen dark *Achalcus polleti* sp. n.

— Fore femur with long ventral seta. Apical part of CuA₁ approximately so long as outer crossvein (m-cu). Setae on thorax and abdomen ochreous yellow *Achalcus cinereus*

Acknowledgements

The work was supported by Grant project No. 08-04-01623-a from the Russian Foundation for Basic Research.

Fig. 1–7. *Achalcus polleti* sp. n.

1 – apical part hypopygium; 2 – gonopod; 3 – hypandrium; 4 – cerci; 5 – phallus; 6 – surstyli; 7 – 1st flagellomere of antenna. 1–3, 5, 7 – lateral view, 4 – ventral view. Scales: 1 – 0.1 mm, 2–6 – 0.05 mm.

Рис. 1–7. *Achalcus polleti* sp. n.

1 – апикальная часть гипопигия; 2 – гоноподы; 3 – гипандрий; 4 – церки; 5 – фаллус; 6 – сурстили; 7 – 1-й членник усика. 1–3, 5, 7 – латерально, 4 – вентрально. Размеры: 1 – 0.1 мм, 2–6 – 0.05 мм.

References

- Negrobov O.P., Stackelberg A.A. 1971. Dolichopodidae // E. Linder: Die Fliegen der Palaearktischen Region. Stuttgart. 29(224): 238–256.
 Pollet M. 1996. Systematic revision and phylogeny of the Palaearctic species of the genus *Achalcus* Loew (Diptera: Dolichopodidae) with the description of four new species // Systematic Entomology. 21: 353–386.
 Pollet M. 2005a. Systematic revision of Neotropical *Achalcus* and a related

new genus (Diptera: Dolichopodidae, Achalcinae) with comments on their phylogeny, ecology and zoogeography // Zoological Journal of the Linnean Society. 143(1): 27–73.

Pollet M. 2005b. Nearctic Achalcinae with a first Australachalcus species of North America (Diptera: Dolichopodidae) // European Journal of Entomology. 102(2): 279–288.

Pollet M., Cumming J.M. 1998. Systematic revision of Nearctic *Achalcus* Loew (Dolichopodidae, Diptera) with comments on their phylogeny, ecology and zoogeography // Systematic Entomology. 23: 371–385.

References

- Negrobov O.P., Stackelberg A.A. 1971. Dolichopodidae. In: Die Fliegen der Palaearktischen Region. Lieferung 284. (E. Linder ed.). Stuttgart: 238–256.
- Pollet M. 1996. Systematic revision and phylogeny of the Palaearctic species of the genus *Achalcus* Loew (Diptera: Dolichopodidae) with the description of four new species. *Systematic Entomology*. 21: 353–386.
- Pollet M. 2005. Nearctic Achalcinae with a first *Australachalcus* species of North America (Diptera: Dolichopodidae). *European Journal of Entomology*. 102(2): 279–288.
- Pollet M. 2005. Systematic revision of Neotropical *Achalcus* and a related new genus (Diptera: Dolichopodidae, Achalcinae) with comments on their phylogeny, ecology and zoogeography. *Zoological Journal of the Linnean Society*. 143(1): 27–73.
- Pollet M., Cumming J.M. 1998. Systematic revision of Nearctic *Achalcus* Loew (Dolichopodidae, Diptera) with comments on their phylogeny, ecology and zoogeography. *Systematic Entomology*. 23: 371–385.