

## New sciarid species *Bradysia aleica* sp.n. (Diptera: Sciaridae) from the Altai

### Новый вид сциарид *Bradysia aleica* sp.n. (Diptera: Sciaridae) с Алтая

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КЛЮЧЕВЫЕ СЛОВА: насекомые, двукрылые, сциариды (Sciaridae), *Bradysia*, новый вид, Алтай.

**ABSTRACT.** A new sciarid species, *Bradysia aleica* sp.n. from Altai is described and illustrated. *Bradysia aleica* belongs to the *Bradysia brunnipes*-group of Menzel and Mohrig [2000]. A new species is very different from other species of this group, and similar to *B. forcipulata* (Lundbeck, 1898). *B. aleica* sp.n. differs by having a broader gonostylus with a shorter apical tooth. There is more space between the apical tooth of the gonostylus and the local group of mesial subapical megasetae and is palpomere 3 longer.

**РЕЗЮМЕ.** Приводится описание нового вида сциарид *Bradysia aleica* sp.n. с территории Алтая. Новый вид принадлежит группе *Bradysia brunnipes*, но хорошо отличается от всех её представителей строением гоностилия. От наиболее близкого *B. forcipulata* (Lundbeck, 1898) новый вид отличается более широким гоностилем, коротким вершинным зубцом, большим расстоянием между вершинным зубцом и группой из 5–6 крепких субапикальных зубцов и более длинным третьим члеником щупиков.

#### Introduction

Several papers and taxonomic findings on the Sciaridae of Altai have been published from faunal-ecological data. The aforementioned papers focused on the habitat of dark coniferous forests. This paper deals with the habitat of deciduous forests and the sciarids fauna which is not well known in Western Altai. Furthermore, a new species, *Bradysia aleica* sp.n. belonging to the *Bradysia brunnipes*-group is described and illustrated.

According to Menzel and Mohrig [2000], the *B. brunnipes*-group is characterized e.g. by a wider gonostyles that is not tapered to a point (sometimes distinctly swollen); apex with dark, dense, fur like setae with dense subapical group of bristles or spines; inner side of gonocoxites with long bristles that often reach middle of genitalia and with two dense groups of bristles on basal corner or with a group of bristles or lobe-

like process on inner membrane; sensory area on basal segment of palpi with distinct margin or in a deep pit; R/R usually long, merging with C almost opposite or only slightly before base of M-fork [if species is smaller with relatively short R, R with only dorsal bristles, finer setae on abdomen, narrower row of bristles on apex of fore tibia, fewer than 4 marginal bristles on scutellum and weaker setae on apex of gonostyles, then the hypopygium is always without a central basal lobe].

#### Material and methods

The material was collected during summer expeditions in the Altai Province and the Altai Republic. The sites studied differ in their physical-geographical conditions, origin, and composition. To collect imago in the field, an entomological net was used. The specimens were collected from herbs, shrubs, trees, mushrooms, rotten stumps, fallen trees and from along streams. Malaise traps were also used. The captured insects were lulled in ether and placed in tubes with 70% alcohol and labeled accordingly. The ethanol specimens were mounted on microscope slides using Euparal. The drawings were made with the help of a camera lucida attached to a Leitz Diaplan compound microscope. The nomenclature and classification follows that of Menzel and Mohrig [2000]. The material is stored in a private collection belonging to Lyudmila A. Komarova (PLKB).

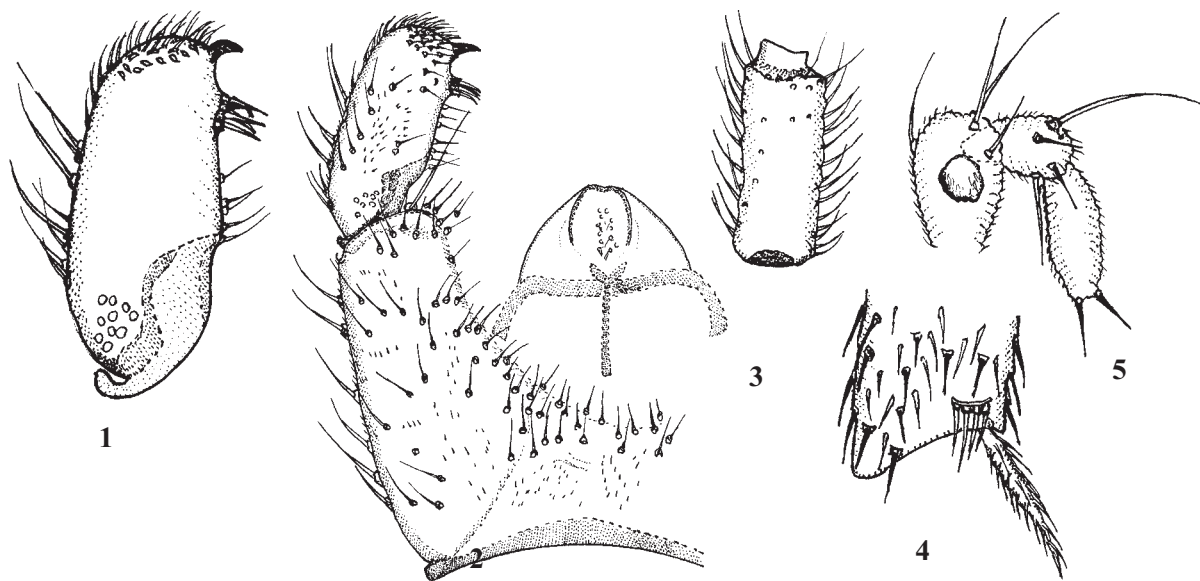
#### Description

*Bradysia aleica* Komarova, sp.n.

Figs 1–5

**MATERIAL.** Altai Region: Holotype: ♂, labelled “№1091, черневая тайга, верховье реки Алей, с. Новоалейское, Третьяковский р-н, 6.08.2007” [= ♂, №1091, dark coniferous forest, river Alei, village Novoaleyskoe, Tretjakovskij district, 6.VIII 2007]. L. Komarova coll.

**DESCRIPTION** (male). *Head.* Eye bridge with 2–3 rows of facets. Interfacetal setae present. Antennal scape and pedicel dark brown. Antennal flagellum pale brown, long.



Figs 1–5. *Bradysia aleica* sp.n. (holotype): 1 — gonostylus; 2 — hypopygium; 3 — 4<sup>th</sup> antennal flagellomere; 4 — apex of fore tibia ( $t_1$ ); 5 — maxillary palp.

Рис. 1–5. *Bradysia aleica* sp.n. (голотип): 1 — гоностиль; 2 — гипопигий; 3 — 4-й членник жгутика усиков; 4 — вершина задней голени ( $t_1$ ); 5 — челюстной щупик.

Antennal flagellomeres becoming slightly longer towards apex of flagellum; length/width of flagellomere 4 — 2.30 (Fig. 3). Prefrons and clypeus dark brown. Maxillary palpus dark brown (Fig. 5) with 3 palpomeres. Palpomere 1 long and thick, with distinct sensillar pit and with 4 long setae. Palpomere 2 shorter than palpomere 3, with some long and shorter sharp setae and some truncate short sensilla.

**Thorax.** Dark to medium brown. Thoracic setae pale long and strong. Acrocentrals in indistinct rows, dorsocentrals in indistinct rows of 1–3 setae, laterals in indistinct rows of 4–5 setae. Posterior pronotum bare, anterior pronotum with 8 setae. Scutellum with numerous short, and three longer and stronger setae. **Wing.** Fumose brown. Length 1.9 mm, length / width 2.3. Anal lobe normal, small;  $C=2/3W$ ,  $R_1=3/4R$ ;  $X(r-m)=Y(b-m)$ . Fork of M shorter than stM. X ( $r-m$ ) without any setae, bM with 2–3 dorsal setae. stM, M and Cu non-setose. Halteres dark, with short stalk.

**Legs.** Pale brown, tarsi slightly darker brown; long and strong. Setae pale. Femora normal, not thickened. Width of apex tibia 1/length of spure 1.0. Tibiae, in addition to normal socketed and non-socketed setae, with some spinose setae on all sides except dorsally,  $t_1$  with a subapical prolateral comb of 4–5 spinose setae (Fig. 4).  $t_3$  with indistinct row of spinose setae ventrally at apical half, and distinct apical retrolateral row of spinose setae. Tibia 1 spurs 1+2+2, as long as apical diameter of tibiae, subequal in length in  $t_2$  and  $t_3$ . Tarsal claws simple, without teeth.

**Abdomen.** Normal, pale brown, paler than thorax, colorous with femora and tibiae. Setae pale, slender, rather densely placed on sclerites.

**Hypopygium** (Fig. 2). Pale brown. Gonocoxites separate, intercoxal area with non-setose stripe, without lobes or groups of densely placed setae. Gonocoxite non-modified, long as broad, with a distinct long and strong seta at ventral and dorsal apicomesimal corner, setae long; mesial membranous area non-setose. Tegmen about as long as wide, widest sub-basally, tapering slightly towards apex: apodemes strong and well sclerotized; parameres weakly sclerotized; apex of tegmen

with membranous area; tegmen with dorsal sclerotized oval ridge, interrupted apically. Aedeagal stalk short, strongly sclerotized, aedeagal plate with separate teeth. Sternite 9 with 1–2 setae.

**Gonostylus** (Fig. 1). Elongate-cylindrical. Apical tooth strong and curved placed on apex of gonostylus. Gonostylus with one apical and 5–6 subapical (near middle) megasetae, the separated from apical tooth by a non-setose area. Lateral setae of gonostylus relatively short, longest ones about as long as gonostylar width.

**DISCUSSION.** *Bradysia aleica* sp.n. belongs to the *Bradysia brunnipes*-group according to Menzel and Mohrig [2000]. A new species is very different from other species of this group and similar to *B. forcipulata* (Lundbeck, 1898) by a broader gonostylus with a shorter apical tooth and has more space between the apical tooth of the gonostylus and the local group of mesial subapical megasetae. It also has a sparser and shorter setosity on the gonocoxa, a smaller sensory pit on the palpus and is palpomere 3 longer. Both species have a circular sclerotized ring on the tegmen.

**ETYMOLOGY.** The species name reflects the source of the river Alei (Western Altai) in Southern Siberia, where the species was collected.

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## References

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