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# Description of new species of *Thricops* Rondani, 1856 (Diptera: Muscidae) from the Altai Mountains

# Описание нового вида *Thricops* Rondani, 1856 (Diptera: Muscidae) из горного Алтая

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КЛЮЧЕВЫЕ СЛОВА: *Thricops kosterini*, Muscidae, Diptera, новый вид.

ABSTRACT. *Thricops kosterini* **sp.n.** is described from the Altai Mountains, E Kazakhstan province of Kazakhstan.

РЕЗЮМЕ. *Thricops kosterini* **sp.n.** описан из горного Алтая, с территории Восточно-Казахстанской области Казахстана.

## Introduction

Genus *Thricops* with 45 valid species, is one of the best known and the less problematic genera in Muscidae, partly due to its exclusively Holarctic distribution and partly due to existence of the fresh revision of the world fauna by Savage [2003]. The Russian fauna of *Thricops* was reviewed by Vikhrev & Sorokina [2009], this paper showed that the genus is rather evenly distributed over the vast territory of Russia except the Caucasus which is the hot spot of the diversity and endemism for *Thricops*. Recently Sorokina [2012] published her report on Muscidae fauna of the Altai Mountains based on collecting during 6 field seasons. Thus, finding of a new species of *Thricops* in the Altai Mts. was a surprise, it was collected in the territory of Kazakhstan, but 2–3 km from the Russian border, 10–15 km from the Chinese border and about in 50 km from the area where Sorokina and her colleagues worked in the Russian territory.

## Material and methods

The holotype and paratype are in the Zoological Museum of Moscow University (ZMUM).

Geographical coordinates are given in the Decimal Degrees format.

The following generally accepted abbreviations for morphological structures are used: *f1*, *t1*, *f2*, *t2*, *f3*, *t3* — fore-, mid-, hind- femur or tibia respectively; *ac* — acrostichal setae; *dc* — dorsocentral setae; *a*, *p*, *d*, *v* — anterior, posterior, dorsal, ventral seta(e); *prst* — presutural, *post* — postsutural. The abbreviation for the tarsi as *tar* followed by a pair of digits separated by a hyphen was proposed by Vikhrev [2011]: the first digit (1 to 3) gives the leg number and the second digit (1 to 5) the number of the tarsal segment. For example, *tar1–4* — 4–th segment of fore tarsus; *tar3–1* — hind basitarsus.

*Thricops kosterini* **sp.n.**
Figs 1–3.

MATERIAL. Holotype ♂, Kazakhstan: *E Kazakhstan* reg., Ust'-Chindagatuy env., 1750 m asl, 49.25°N 87.00°E, 3–5.VII.2012, O.Kosterin. Paratype, 1♀, the same data.

DESCRIPTION. Male, body length 5 mm (Fig. 1).

*Head* holoptic, the narrowest distance between eyes 1.5x diameter of the anterior ocellus. Fronto-orbital plates narrow, grey; interfrontalia linear at middle, black; parafacials half as wide as width of antenna, grey; face grey; gena about 0.2x eye height, grey; occiput grey dusted. Fronto-orbital plates with 7 inclinate setae and some hairs in upper third. Antenna black, short; arista virtually bare. Palpi black; mentum of proboscis thinly dusted.

*Thorax* black with thin grey dusting; scutum in posterior view with black median vitta along *ac* hairs. Thoracic setae: *ac* 0+1, *prst ac* hairs in 4 rows; *dc* 2+4; postpronotal 2, intraalars 1+2, supraalars 1+1; prealar seta indistinct; notopleuron bare except 2 strong setae; katepimeron bare; scutellum bare ventrally. Wings hyaline, veins bare, halters whitish-yellow; calypters whitish.

*Legs*: tibiae and apices of femora yellow; the rest of femora and tarsi black. *t1* without setae except preapicals. *tar1–4* with 2–3 rather long *d* setae, otherwise without modifications. *f2* in basal 2/3 on *av* to *pv* surface with fine setae subequal to femur width. *t2* with 2 *p* setae. Hind coxa with setae on inner posterior margin. *f3* with a remarkable modification: a series of 3 strong hooklike *pv* spines at middle (Fig. 3); a row of *p* setae with length subequal to femur width, in basal half; 4 strong *av* seta in apical 1/3. *t3* with only single seta — a long *pd* below middle; apex of *t3* with 2 modified, stub-like apical *pv* spines, which are truncated closely to base, as if broken, that is not in the fact case since these stubs are the same on the right and left hind tibiae (normal, not truncated *pv* spines at apex of *t3* present in several species of *Thricops*).


Figs 1–3. *Thricops kosterini* sp. n., ♂ holotype: 1 — general view; 2 — apex of *t3*; 3 — *pv* spines on *f3*.
Рис. 1–3. *Thricops kosterini* sp. n., ♂ голотип: 1 — общий вид; 2 — вершина *t3*; 3 — *pv* шипы на *f3*.

Abdomen densely grey dusted, with black median vitta on tergites 3 and 4. Structure of male genitalia in *Thricops* has a limited value, there are species with long surstyli and narrow cercal plate, other species have short wider surstyli and wide cercal plate. I had not dissected abdomen of single available male specimen, from outward examination I suppose that *T. kosterini* sp.n. has terminalia of long and narrow type.

*Female* paratype has both mid legs missing, female differs from male as follows: frons wide, densely whitish-grey dusted, interfrontals absent; *tar1–4* without elongated *d* setae; thorax more densely grey dusted; short (3 times shorter than posterior notopleural) but distinct prealar seta present; *f3* without *pv* spines and without *p* setae in basal half; *t3* with *pd* seta shorter than in male but with 1 *ad* and 2 *av* setae below middle; abdomen with median vitta indistinct.

DIAGNOSIS. Male is unmistakable due to 3 submedian *pv* spines on *f3*; the single seta (*pd*) on *t3*; pair of ventral "stubs of setae" at the apex of *t3*. Female has bicolourous legs: dark femora except of apex, yellow apex of femora and tibiae (the same leg's colour is present only in northern specimens of *T. genarum* (Zetterstedt, 1838).

ETYMOLOGY. The species named after it's collector Oleg Kosterin (Novosibirsk).

RELATIONSHIP. Probably *T. kosterini* **sp.n.** is related to *T. foveolatus* (Zetterstedt, 1845), both species sharing a small size, narrow gena, reduced *ac* and prealar seta, a simple (for *Thricops*) leg chaetotaxy. *T. foveolatus* is rare in collections, according to my observations in the Caucasus *T. foveolatus* it is probably associated with horse dung and I especially asked Oleg to try to collect from/near horse dung on the Altai, but it is unknown where and how exactly the new species was found.

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