The species from the genus *Rainieria* RONDANI (Diptera, Micropezidae) of Russia including the description of a new species

[Die Arten der Gattung *Rainieria* RONDANI (Diptera, Micropezidae) aus Rußland nebst der Beschreibung einer neuen Art]

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Abstract The wide distribution of *R. latifrons* (LOEW) from Europe to the Kuril islands (Kunashir) is proved. A new species, ***Rainieria hennigi* spec. nov.** from Kunashir, is described. It was apparently mentioned before by HENNIG (1938) under the name of *R. latifrons*. The data on the distribution of *R. latifrons* in Japan need confirmation. A key to the species of *Rainieria* RONDANI is given.

Key words Diptera, Micropezidae, *Rainieria* RONDANI, new species, Russia, distribution, key to the species.

Zusammenfassung Die weite Verbreitung von *R. latifrons* (LOEW) bis zu den Kurilen (Insel Kunaschir) wird bestätigt. Es wird eine neue Art ***Raineria hennigi* spec. nov.** von der Insel Kunaschir beschrieben. HENNIG (1938) erwähnte diese Art unter der Bezeichnung *R. latifrons*. Die Angaben über die Verbreitung von *R. latifrons* in Japan müssen überprüft werden. Es wird eine Bestimmungstabelle für die Arten der Gattung *Rainieria* RONDANI gegeben.

Stichwörter Diptera, Micropezidae, *Rainieria* RONDANI, neue Art, Rußland, Verbreitung, Bestimmungstabelle der Arten.

Introduction

Three species from the genus *Rainieria* RONDANI are distributed in Palaearctic Region: *R. boninensis* (HENNIG, 1935), *R. calceata* (FALLÉN,1820) and *R. latifrons* (LOEW,1870). The representatives of the genus are characterized by the presence of well developed postocellar setae and massive shining clypeus projecting beyond the mouth cavity. *Raineria latifrons* is the most common and widely distributed species. It was registered from Hungary and Romania to Japan (STACKELBERG 1970; SOÓS 1984). *Raineria calceata* is known from various areas of Europe, as well as from southern Russia, and *R. boninensis* from Japan.
HENNIG (1938) gave short diagnostical descriptions of the 3 palaearctic species. The data on *R. latifrons* were based on the material from Hokkaido and the northern part of Honshu. The author might have adopted CZERNY's opinion (1930) that it was the only species distributed in Japan, and determined it as *R. latifrons* only because of the place of collecting. We examined specimens of *R. calceata* and *R. latifrons*, kept in the collections of the Zoological Museum of the Moscow Lomonosov State University [ZMUM] and A.N. SEVERTZOV Institute of Ecology and Evolution (IEE, Moscow). The material included large series of imagoes of *R. latifrons* from the territory of the former USSR from the Karpathians to the Far East. As a result of this it was shown that the part of the material of *R. latifrons*

from Kunashir Island proved to belong to a new species, which is very close to the previousely known one. Jurging by the figures, the specimens of *R. latifrons* mentioned by HENNIG (1938) from Hokkaido and Honshu belong to the same new species.

Description of species

***Rainieria hennigi* spec. nov.** (Figs. 1-3)

Diagnosis

Median frontal stripe formed by velvety-grey pollen relatively narrow, 2 times as wide as the orbital plate. The 3rd antennal segment and arista completely dark. Preapical light spot of the middle femora 2 times as long as the dark apical part (dorsal view). Median band of wing indistinct, the apex of R_1 light. Epandrium (Fig. 1) relatively short, narrowing apically. Sickle-like appendages of the copulative fork with black thick setae of various length, contacting at median line.

Description

Male: body length 7,5 mm, length of wing - 6 mm. Body brown. **Head** round, brown with strongly projecting shining black clypeus. Eyes oval, bare. Frons wider than the eye and slightly exceeding its length from anterior ocellus to the lunula. Velvety-grey pollen forms a spindle-like median frontal stripe. In front of the ocellus it is twice as wide as the orbital plate. 1 orb s, 2 fr s. Orbital setae are closer to frontal setae, than to vertical setae. The lower half of postcranium with silvery V-shaped spot, formed by dense short pubescence, and several long setae, the 4-5 of which forming a row. Narrow parafacial and genae with yellowish-silvery pubescence. Antennae and arista dark-brown, almost black, the 3rd antennal segment in dense short greyish pubescence. Palpae black. **Thorax** brown with grey pollen. Mesonotum with 2 npl s and 2 spal s. 2 dc in front of scutellum are long. Anepimeron with 2 rows of long setae on posterior margin. Scutellum broadly rounded with 3 pairs of short setae. Postnotum with bluish pollen without pubescence. **Legs**: coxa elongated, brown, fore coxa lighter, yellowish at apex but darkened at exterior surface. All femora light in base. Middle and hind femora with yellow spot near apex, the latter of the hind femora (dorsal view) being elongated, 2 times as long as the dark apex. Tibia dark. Fore tarsi snow-white, middle and hind tarsi brown but hind metatarsus light yellowish with dense light short pubescence. Halteres dark. Coloration pattern of **wing** indistinct. Median dark band is situated basally to R_1, slightly projecting beyond *rm*. **Abdomen** lighter in base and darker, almost black at apex, with bluish pollen on apical half. First abdominal segment with long erected light setae, the following segments with short brown lying setae. **Genitalia**: epandrium relatively short, slightly narrowing apically (lateral view). Copulative fork of the 5th segment with long sickle-like apical appendages which are about as long as or longer than the stem of the fork. Sickle-like appendages with long dense black thick setae (Fig. 2), situated on their inner margin and brought together near the median line. Exterior margin with long black erected setae.

Female

Resembling male but the next characters. Light spot in front of the apex of middle femora is as long as the dark apical part. Light spot in front of the apex of the hind femora is no more than 1,5 times as long as the dark apical part.

Biology: imagoes of the species were reared from the larvae taken under the bark of birch (*Betula*) and fir (*Abies*).

Distribution: Far East: Russia, Kurile, Kunashir; Japan: Hokkaido, Honshu (Hondo).

Material: Holotype ♂: Russia, Kurile, Kunashir, volkano Mendeleeva, 28 June 1977 (leg. A.I. ZAITZEV); Paratypes: Russia, Kurile, Kunashir, volkano Mendeleeva, 18 April 1977: 1♂, 1♀; 28 June 1977: 1♂, 1♀; Russia, Kurile, Kunashir, Tretjakovo, 17 July 1977: 2♂♂ (leg. A.I. ZAITZEV) [ZMUM].

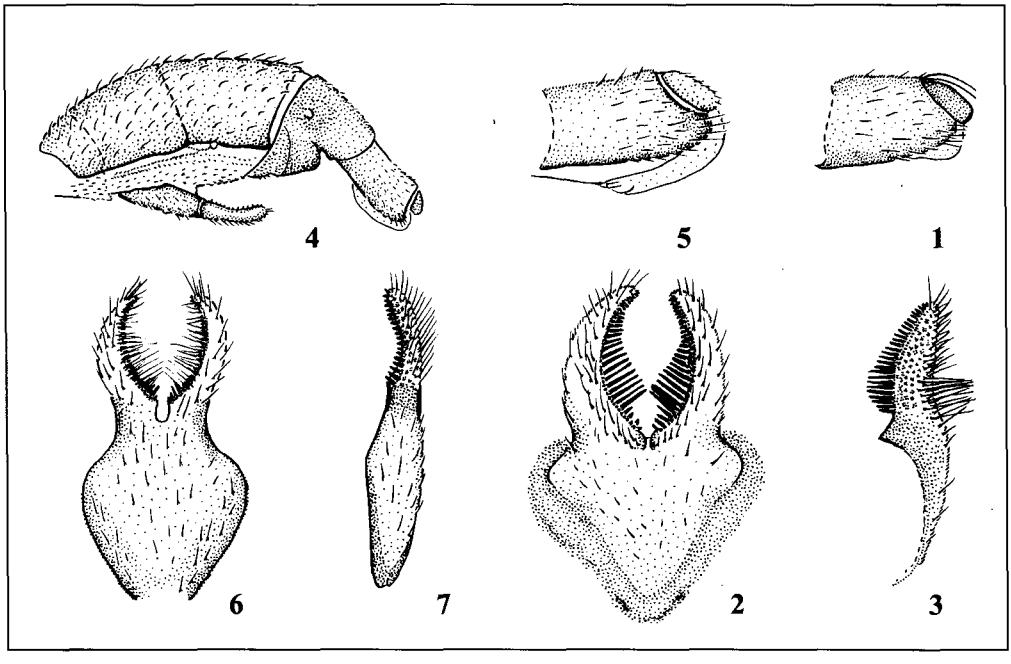
Rainieria latifrons (LOEW, 1870), (Figs. 4-7)

Diagnosis

Male:median frontal stripe wide, 2,5-3,0 times as wide as the orbital plate in front of the ocellar triangle. The 3rd antennal segment and arista red-yellow in base. Face with black band below antennae, this band absent in new species. Preapical light spot of the middle and hind femora is about as long as the dark apical part. Median band of wing wide, apex of R_1 darkened, the band reaching posterior margin of wing. Dark apical spot large. Epandrium relatively long (Fig. 5), not narrowed apically. Sickle-like appendages of the copulative fork with short spines of equal size on the inner margin.

Biology: larvae breed in friable light wood of decidious: beech (*Fagus*), hornbeam (*Rosa*), birch *Betula*), oak (*Quercus*), asp (*Populus*), lime-tree (*Tilia*), and *Chosenia*.

Distribution: wide Palaearctic, Far East, including Kunashir (Kurile).



Figs. 1-7: Genital structures of *Raineria hennigi* spec. nov. (1-3) and *Raineria latifrons* (LOEW,1870) (4-7); - **1**: female, tip of abdomen; - **2**: male copulative fork, exterior view and - **3**: lateral view; - **4**: male abdomen, lateral view (x32); - 5: female, tip of abdomen; - **6**: male copulative fork, exterior view and - **7**: lateral view. Figs. 1-3; 5-7 x64.

Material: Russia, Kaluzhskaya Area, Kirejkovo, 2 June 1992: 1♂, 2♀♀ (leg. A.I. ZAITZEV); Russia, Krasnodarsky Area, Ubinskaya , 9 July 1970: 2♂♂, 2♀♀ , 20 August 1970: 1♂, 1♀ (leg. N.P. KRIVOSHEINA); Russia, Amurskaya Area, Kundur, 21 May 1975: 1♂; 24 May 1975: 1♂ ; 2 June 1975: 3♂♂, 1♀ (leg. A.I. ZAITZEV); Russia, Amurskaya Area, Zeja, 12 June 1981: 2♂♂ (leg. A.L. OZEROV); Russia, Khabarovsky Kraj, Khabarovsk, 3 July 1975: 1♂ (leg. B.M. MAMAEV); Russia, Khabarovsky Kraj, Khabarovsk, 18 April 1976: 6♂♂, 23 May 1976: 1♂ (leg. N.P. KRIVOSHEINA). Russia, Primorskij Kraj, 32 km SE Ussurijsk, 15 September

1964: 1♀, 7 May 1967: 1♀, 7 June 1968: 1♀, 17 May 1969: 1♀ (leg. N.P. KRIVOSHEINA); Russia, Primorskij Kraj, 32 km SE Ussurijsk, 26 August 1987: 1♂ (leg. A.V. ANTROPOV); Russia, Primorskij Kraj, 32 km SE Ussurijsk, 6 August 1948: 1♂ (leg. V.V. GUSSAKOVSKY); Russia, Primorskij Kraj, Preserve „Kedrovaya Pad", 15-22 August 1985: 3♀♀ (leg. N.P. KRIVOSHEINA); Russia, Primorskij Kraj, Lazo, 14 July 1979: 1♀, 26 July 1979: 1♂ (leg. N.P. KRIVOSHEINA); Russia, Kurile, Kunashir, Tretjakovo, 21 July 1985: 1♂ (leg. S. CHURKIN).

Key to the species of *Rainieria* RONDANI

1 All femora black at base. Lunule with long light hairs. Median frontal stripe no more than 2 times as wide as the orbital plate ..... ***R. calceata*** **(FALLÉN, 1820)**

\- All femora or at least fore femora light at base **2**

2 Epandrium elongated, 2,5-3 times as long as high (lateral view). Sickle-like appendages of the copulative fork more than 2 times as short as the stem of the fork ..... ***R. boninensis*** **(HENNIG, 1935)**

\- Epandrium short, no more than 1,5 times as long as high. Sickle-like appendages of the copulative fork as long as or slightly shorter than the stem of the fork ... **3**

3 Median frontal stripe at least 2,5 times as wide as orbital plate. Sickle-like appendages of the copulative fork with short black spines of equal size on the inner margin ..... ***R. latifrons*** **(LOEW, 1870)**

\- Median frontal stripe no more then 2 times as wide as orbital plate. Sickle-like appendages of the copulative fork with long thick black setae of various size on the inner surface ..... ***R. hennigi*** **spec. nov.**

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