

New Data on the Composition and Distribution of the Genus *Leptomona* Bechyné, 1958 (Coleoptera, Chrysomelidae: Galerucinae)

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Abstract—The leaf-beetle *Leptomona russica* (Gmelin, 1790) known from the Caucasus, Kazakhstan, and Middle Asia was found in Orenburg Province for the first time. It is the first record of this species from Europe and the first record of the genus *Leptomona* from European Russia. The diagnostic characters of the two Russian *Leptomona* species are included.

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Data on the systematics and geographical distribution in Russia for the species of the rare and poorly known genus *Leptomona* Bechyné, 1958 are given in the present communication.

Bechyné (1958) described the genus *Leptomona*, having distinguished it from the large genus *Monolepta* Chevrolat, 1836, and included there 3 species: *L. erythrocephala* (Olivier, 1790), *L. russica* (Gmelin, 1790), and *L. heydeni* Joannis, 1865. The type species *L. erythrocephala* is distributed in France, Italy, Spain, Algeria, and Morocco; *L. russica*, in the Caucasus, Kazakhstan, and Middle Asia; and *L. heydeni*, in Egypt and Yemen (Beenen, 2010). Bechyné (1958) differentiated *Leptomona* from *Monolepta* in a relatively short 1st segment of the hind tarsus (not longer than the three rest segments combined) and in the bead-like antennae. Warchałowski (2010) included in the genus *Leptomona* two species attributed earlier (Beenen, 2010) to the genus *Monolepta*: *L. subseriata* (Weise, 1887) and *L. fulvicollis* (Jacoby, 1885). The same author returned *L. heydeni* to the genus *Monolepta*. The genus *Leptomona* has not been recorded for the European part of Russia (Bieńkowski, 2011).

The specimens examined are deposited in the Zoological Institute, Russian Academy of Sciences, St. Petersburg (ZIN), and in the collection of the first author (AB).

Genus *LEPTOMONA* Bechyné, 1958

Description. Body dorsally glabrous. Pronotum rufous, elytra metallic-blue. Antennae bead-like, inserted

behind level of anterior margins of eyes. Base of pronotum entirely marginate, pronotal disc without depressions. Fore coxal cavities closed. Mesothoracic sternite not covered by process of metathoracic sternite. Elytral epipleura well developed, wide, at least at base. 1st segment of hind tarsus as long as 3 rest segments combined. Claw with tooth at base.

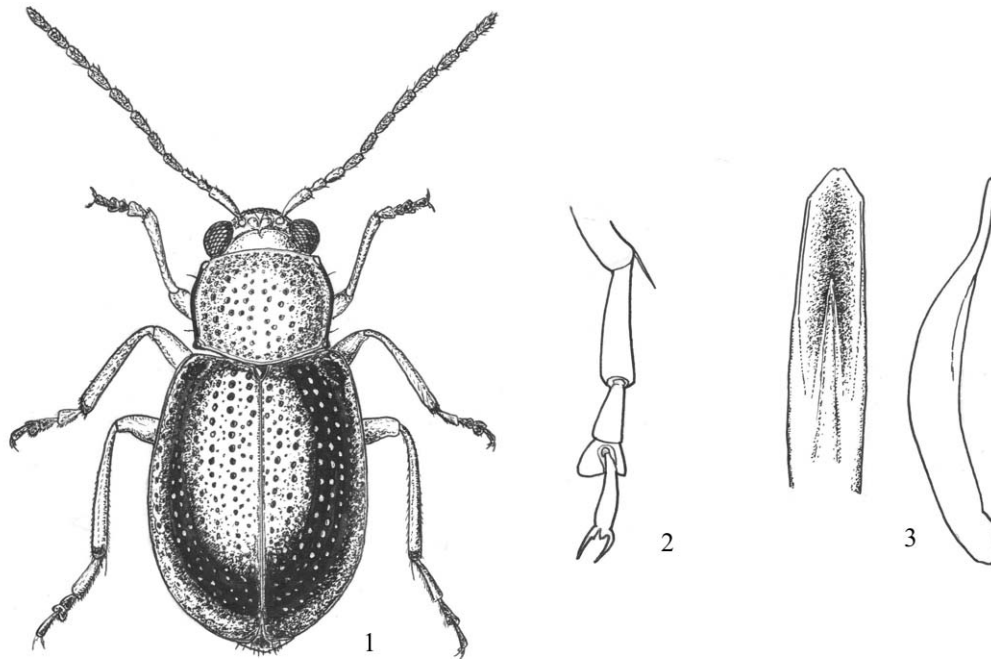
SPECIES OF THE GENUS *LEPTOMONA*, DISTRIBUTED IN RUSSIA

Leptomona russica (Gmelin, 1790)

Diagnosis. Punctuation of elytra entirely confused. Pronotum covered with fine punctures much smaller than those on elytra. Pronotum, prothorax, coxae, femora, and tibiae yellowish red; elytra and head behind frontal tubercles blue or bluish green; tarsi brown; lateral margination of pronotum, antennae (except for rufous 1st–3rd segments), labrum, meso- and metathoracic sternites, and abdominal tergites and sternites black. Wings reduced. Aedeagus almost not narrowed as far as its apex, with triangular apex—Fig. 3. Body length 2.9–3.7 mm.

Distribution. The species has been known until now from the eastern Ciscaucasia (Ogloblin, 1936), Azerbaijan (Mirzoev, 1988), Kazakhstan, and Middle Asia (Lopatin, 1977). We recorded it from Europe for the first time, based on the collections of A.S. Ukrainsky and Yu.A. Lovtsova from Orenburg Province.

Host plant. *Glycyrrhiza* (Lopatin, 1977).



Figs. 1–3. *Leptomona* Bechyne: (1) *Leptomona subseriata* (Weise, 1887), general view; (2) *L. subseriata*, hind tarsus; (3) *L. russica* (Gmelin, 1790), aedeagus, ventral and lateral view.

Material. Russia. *Orenburg Prov.*: Gaiskii District, Guberlinskii State Farm, Khmelevka Vill., steppe, near meadow flooded by stream, hay crop, 9.V.2012 (A.S. Ukrainsky, Yu.A. Lovtsova), 2 specimens (AB). *Daghestan*: environs of Kizlyar, 15.VII.1927 (Kiritschenko), 4 specimens (ZIN). **Kazakhstan.** Dzhambul (= Aulie-ata), 31.V.1909 (E. Fischer), 3 specimens (ZIN); Kzyl-Orda (Perovsk), V.1901 (Sumakov), 1 specimen (ZIN); 29.V.1905 (Bekman), 6 specimens (ZIN). **Uzbekistan.** *Tashkent Prov.*: environs of Tashkent, 1400 m, 16.VIII.1870 (Fedchenko), 8 specimens (ZIN); Chimgan, 5.V.1906 (Zandgagen), 1 specimen (ZIN). *Bukhara Prov.*: Gazlinskii District, Amudar'inskii Nature Reserve, 15.V.1995 (A.A. Klimenko), 2 specimens (AB). *Ferghana Prov.*: Ferghana (= Skobelev), 27.V.1918 (I. Ivanov), 1 specimen (ZIN); 15–16.VI (Trotsina), 1 specimen (ZIN). **Tajikistan.** “Lakes Aikol and Chai lek, Zeravshan valley,” 5.VIII.1869 (Fedchenko), 2 specimens (ZIN). *Khatlon Prov.*: “Tigrovaya Balka” Nature Reserve, 18.IV.1987, 1 specimen (AB). **Kyrgyzstan.** Bishkek (= Pishpek), 10.VIII.1905 (Matissen), 3 specimens (ZIN); Central Tien Shan, 80 km W of Naryn, 9.VII.1966 (E.L. Gur'eva), 3 specimens (ZIN); Naryn (G. Jacobson's collection), 1 specimen (ZIN); Belovodskii District, Sretenka Vill., 30.VI.1931 (Zimin), 1 specimen (ZIN); Tokmak (John Sahlberg), 4 specimens (ZIN).

Leptomona subseriata (Weise, 1887)

Diagnosis. Basal halves of elytra with rows of punctures (Fig. 1). Pronotum covered with large punctures not smaller or slightly smaller than those on elytra. Body reddish rufous or yellowish rufous; elytra blackish blue; legs rufous with darkened tarsi; lateral margination of pronotum, antennae (except for bases), and labrum black. Wings developed. Aedeagus strongly narrowed in apical half, with obtused apex. Body length 3.0–3.5 mm.

Distribution. The Transbaikalia, the southern part of Amurskaya Province, Khabarovsk and Primorskii territories.

Notes. This species has been attributed until recently to the genus *Monolepta* (Ogloblin, 1936; Dubeshko and Medvedev, 1989; Medvedev, 1992; Medvedev and Dubeshko, 1992). However, the specimens of this species examined by us correspond to the diagnosis of the genus *Leptomona* in all the characters, in particular, in the major distinctive feature, the length ratio of the 1st segment of the hind tarsus to other segments combined (Fig. 2). This character clearly differentiates the genera *Leptomona* and *Monolepta* and on the whole distinguishes the groups of genera within the subfamily Galerucinae. Thus, we

prove the ascription of this species (Warchałowski, 2010) to the genus *Leptomona*.

The characteristic of *L. subseriata*, given by Ogloblin (1936), contains an error. The species is attributed to the genus *Monolepta*, and the diagnosis of this genus describes the 1st segment of the hind tarsus as a long one. However, already Weise (1887) indicated in the original description of *M. subseriata* that this species does not differ from *M. erythrocephala* in the structure of the tarsi, i.e., it has a short 1st segment.

Material. Russia. *Khabarovsk Territory*: Bikinskii District, Boitsovo, 47.02°N, 134.21°E, 25–28.V.1993 (L. Zerche), 1 specimen (AB). *Primorskii Territory*: Dal'nerechenskii District, 37 km SE of Dal'nerechensk, 45.45° N, 134.07° E, 28.V.1993 (L. Zerche), 1 specimen (AB); Komarovka (= Suputinka) River, 10–14.VI.1960, 24.VI.1961 (O.N. Kabakov) (ZIN).

The transfer of the Far Eastern species *M. subseriata* and *M. fulvicollis* to the genus *Leptomona* significantly changes the concept of the distribution range of this genus, moving its known border far to the east. All the four species of *Leptomona* are allopatric, and their ranges do not overlap: *L. erythrocephala* is distributed in southwestern Europe and northwestern Africa; *L. russica*, in the steppes of Eastern Europe and western Asia; *L. fulvicollis*, in Japan, and *L. subseriata*, in Eastern Siberia and the Far East. However, the integrity of the genus is beyond doubt, since all its species are extremely similar in their morphology.

Warchałowski (2010) presumed that *L. subseriata* may be merely a variation of *L. russica*, and their only distinguishing character is the coloration of the metathoracic and abdominal sternites. In our opinion, *L. subseriata* and *L. russica* are clearly different species.

In conclusion, we would like to clear up one nomenclatural mess. In many publications (for example, Cerqueira et al., 2000), the protozoa belonging to the parasitic flagellates are erroneously mentioned under the name "*Leptomona*." The correct name of this protozoan genus is *Leptomonas* Kent, 1880 (Nomenclator zoologicus, 1939).

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REFERENCES

1. Bieńkowski, A.O., *The Leaf Beetles (Coleoptera: Chrysomelidae) of the European part of Russia* (Lambert Academic Publ., Saarbrücken, 2011).
2. Bechyné, J., "Notizen zu den neotropischen Chrysomeloidea (Col. Phytophaga)," *Entomol. Arb. Mus. Frey* **9** (2), 478–706 (1958).
3. Beenen, R., "Chrysomelidae: Galerucinae," in *Catalogue of Palaearctic Coleoptera. Chrysomeloidea*, Ed. by I. Löbl and A. Smetana (Apollo Books, Stenstrup, 2010), vol. 6, pp. 443–490.
4. Cerqueira, E.J.L., Silva, E.M., Monte-Alegre, A.F., and Sherlock, Í.A., "Considerações sobre pulgas (Siphonaptera) da raposa *Cercocyon thous* (Canidae) da área endêmica de leishmaniose visceral de Jacobina, Bahia, Brasil," *Rev. Soc. Brasil. Medic. Trop.* **33** (1), 91–93 (2000).
5. Dubeshko, L.N. and Medvedev, L.N., *Ecology of the Leaf Beetles of Siberia and the Far East* (Irkutsk State Univ., Irkutsk, 1989) [in Russian].
6. Lopatin, I.K., *The Leaf Beetles (Chrysomelidae) of Middle Asia and Kazakhstan. Keys to the Fauna of the USSR. Vol. 113* (Nauka, Leningrad, 1977) [in Russian].
7. Medvedev, L.N., "The Family Chrysomelidae—Leaf beetles," in *A Key to the Insects of the Far East of the USSR in Six Volumes. Coleoptera, or Beetles. Vol. 3, Part 2* (Nauka, St. Petersburg, 1992), pp. 533–602 [in Russian].
8. Medvedev, L.N. and Dubeshko, L.N., *A Key to the Leaf Beetles of Siberia* (Irkutsk State Univ., Irkutsk, 1992) [in Russian].
9. Mirzoev, N.B., "The Leaf Beetles of Azerbaijan," in *The Fauna of Azerbaijan. Vol. 5* (Ele, Baku, 1988) (in Azerbaijani).
10. *Nomenclator zoologicus* (Zool. Soc. London, London, 1939), vol. 2.
11. Ogloblin, D.A., *Leaf Beetles, Galerucinae. The Fauna of the USSR. Coleoptera. Vol. 26, Issue 1* (Acad. Sci. USSR, Moscow–Leningrad, 1936) [in Russian].
12. Warchałowski, A., *The Palaearctic Chrysomelidae. Identification Keys. Vol. 2* (Warszawska Drukarnia Naukowa, Warszawa, 2010).
13. Weise, J., "Neue sibirische Chrysomeliden und Coccinelliden nebst Bemerkungen über früher beschriebene Arten," *Archiv Naturgesch.* **9** (2), 164–214 (1887).