First record of the genus *Cleptes* from Mongolia with the description of the male of *Cleptes dauriensis* (Hymenoptera: Chrysididae: Cleptinae)

Первая находка рода *Cleptes* в Монголии с описанием самца *Cleptes dauriensis* (Hymenoptera: Chrysididae: Cleptinae)

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The genus *Cleptes* Latreille, 1802 is recorded from Mongolia for the first time. The hitherto unknown male of *Cleptes dauriensis* Móczár, 1997 is described and illustrated.

Род *Cleptes* Latreille, 1802 впервые отмечен из Монголии. Дается иллюстрированное описание ранее неизвестного самца *Cleptes dauriensis* Móczár, 1997.

Key words: Mongolia, Russia, Cleptinae, *Cleptes*, *Cleptes dauriensis*, new record

Ключевые слова: Монголия, Россия, Cleptinae, *Cleptes*, *Cleptes dauriensis*, новая находка

INTRODUCTION

The family Chrysididae from Mongolia is scarcely known and a few occasional data are found in literature. Only one article (Móczár, 1967) deals with Mongolian material collected by Dr Z. Kaszab during his entomological excursions. Other scattered data are found in literature (du Buysson, 1901; Semenov-Tian-Shanskij, 1912, 1932, 1967; Semenov-Tian-Shanskij & Nikol'skaya, 1954; Linsenmaier, 1997; Rosa et al., 2017a, 2017c), while most of the remaining bibliographical data recorded for "Mongolia" actually refer to localities currently included in China (Inner Mongolia, Xinjiang, Gansu) (du Buysson, 1893; Radoszkowski, 1877, 1891; Mocsáry, 1890; Dalla Torre, 1892; Bischoff, 1913; Hammer, 1936; Tsuneki, 1947, 1953; Linsenmaier, 1959, 1968; Semenov-Tian-Shanskij, 1967; Kimsey & Bohart, 1991; Rosa et al., 2014, 2015). At present, about thirty species are properly recorded from Mongolia, but a precise estimation cannot be done, due to the confusion between Mongolian localities and other localities currently incorporated in neighboring countries, and generically reported as to "Mongolia" in various articles.

Recently, Rosa et al. (2017b, 2017c) published a report on the Siberian Chrysididae, including material collected in all the administrative regions bordering northern Mongolia (Altai, Tuva, Buryatia and Zabaykalskiy Terr.). Some species have been collected in these Siberian regions and in northern Mongolia too, as in the case of *Philoctetes cynthiae* Rosa, 2017; *Elampus coloratus* Rosa, 2017; *Hedychridium asianum* Linsenmaier, 1997; *H. cupreum* (Dahlbom, 1854); *Pseudochrysis gengiskhan* Rosa, 2017; *Chrysis nox* Semenov, 1954; *C. pseudobrevitarsis* Linsenmaier, 1951; *C. chinensis* Mocsáry, 1912. At least another eighty species collected in southern Siberian regions are expected to occur in northern Mongolia as well, because of the similarity of various habitats across these territories.

Among the material examined during the research on Siberian species, we observed an unusual male of the genus *Cleptes* Latreille, 1802, coloured as a female and belonging to the *C. nitidulus* (Fabricius, 1793) species-group. It turned out to be the hitherto undescribed male of *Cl. dauriensis* Móczár, 1997, previously known on a single female (holotype) collected in Siberia (Zabaykal-

skiy Terr.). Since the genus *Cleptes* was no yet recorded for Mongolia, we here report some new records and describe the male of this outstanding species.

MATERIALS AND METHODS

The specimens were examined and described under the stereomicroscope Togal SCZ; the images were taken with a Nikon D-80 connected to the stereomicroscope Togal SCZ and stacked with the software Combine ZP.

The morphological terminology follows Kimsey & Bohart (1991), and the following abbreviations are used in the descriptions: F1, F2, F3 – flagellomeres 1, 2, 3; MOD – mid ocellar diameter; MS – malar space, the shortest distance between the base of the mandible and the margin of the compound eye; OOL – oculo-ocellar line, the shortest distance between the lateral ocellus and the compound eye; P – pedicel; PD – puncture diameter; POL – the shortest distance between posterior ocelli; T1, T2, T3 – metasomal terga 1, 2, 3.

The studied material is deposited in the Zoological Institute of the Russian Academy of Sciences (St Petersburg, Russia; ZIN) and in the private collections of the author and G.L. Agnoli (Bologna, Italy).

TAXONOMIC PART

Order **HYMENOPTERA**

Family **CHRYSIDIDAE**

Subfamily **CLEPTINAE**

Genus ***Cleptes*** Latreille, 1802

Type species: *Sphex semiaurata* Linnaeus, 1761, by monotypy.

Cleptes dauriensis Móczár, 1997
(Figs 1A–B, 2A–F)

Cleptes (*Leiocleptes*) *dauriensis* Móczár, 1997a: 36. [Holotype, female; Southeast Russia: Dauria (Budapest)]; Móczár 1997b: 91.

Material examined. **Mongolia**: 1 male, *Kobdoskiy Aimak [= Khovd]*, Bodongin-Gol River, 12 km SW Altai, 22.VII.1970, M. Kozlov leg. (ZIN); 1 male, *Bayankhongor*, 16 km SW Bayankkongor, 46°13´N, 100°30´E, 2165 m, 10.VII.2004, J. Halada leg. (coll. G.L. Agnoli); 1 female, Övörkhangai, 12 km E Arvaykheer, 46°22´N, 102°49´E, 1800 m, 3.VII.2004, J. Halada leg. (coll. G.L. Agnoli).

Comparative diagnosis. *Cleptes dauriensis* belongs to the *Cl. nitidulus* species-group for pronotum without posterior pit row and without longitudinal median sulcus, and testaceous-blackish metasoma (Fig. 1). Móczár (1997a, 1997b) subdivided the genus *Cleptes* into subgenera and included the *Cl. nitidulus* species-group in the subgenus *Leiocleptes* Móczár, 1962; I follow Kimsey & Bohart (1991), reject subgenera divisions and subdivide the genus only into species-groups (Wei et al., 2013). Only two species with red or coppery head and mesosoma in the male were previously known in this species-group: *Cl. morawitzi* Radoszkowski, 1877 from Kazakhstan, Turkmenistan and Uzbekistan (Rosa et al., 2015), and *Cl. canadensis* Kimsey, 1987 from Canada (Móczár, 1997a).

Later, Móczár (1997b) included both species in the *Cl. morawitzi* species-group, based on head and monochromic mesosoma coppery or flame red, metasoma entirely black without metallic reflections, and T3 without double punctuation. This short definition of the species-group is not justified enough, in my opinion, because the mesosoma of *Cl. canadensis* is not uniformly black (T1–T3 are testaceous in male). Moreover, some new findings in the *Cl. nitidulus* species-group, e.g. *Cl. mareki* Rosa, 2003 (black metasoma with bluish reflections, and double punctuation on T3), *Cl. helanshanus* Wei, Rosa et Xu, 2013 (with black metasoma), and the male of *C. dauriensis* (with monochromic red to rosy forebody in male) show a large variability in colouration and punctuation of the *Cl. nitidulus* species-group. For these reasons, *Cl. morawitzi* and *Cl. canadensis* are considered here as members of the latter species-

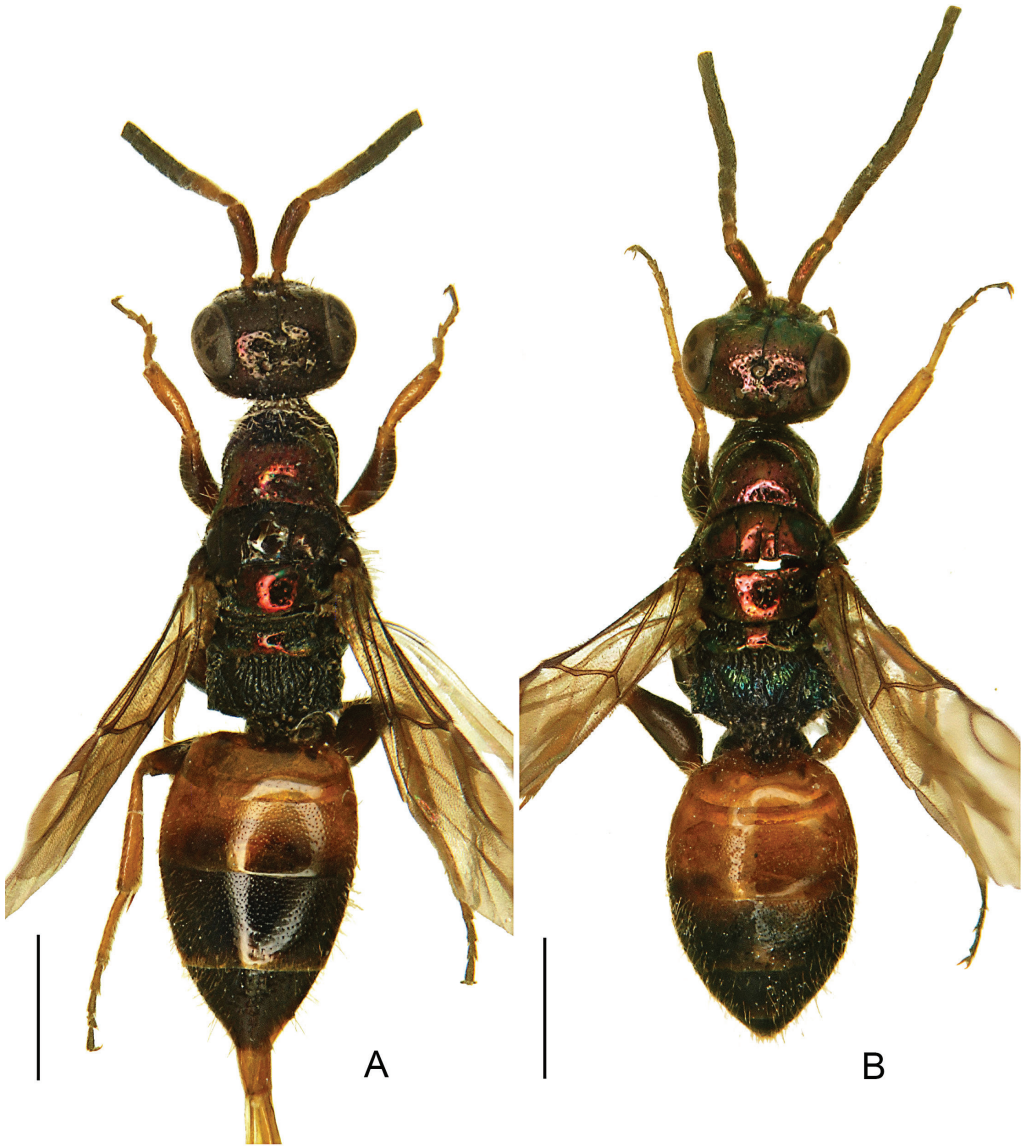

Fig. 1. *Cleptes dauriensis* Móczár, habitus, dorsal view. **A**, female from Övörkhangai; **B**, male from *Bayankhongor*. Scale bar: 1.0 mm.

group, following Móczár (1997a) interpretation.

Cleptes dauriensis is the second known Palaearctic species with metallic red-rosy colouration of head and mesosoma in the male within the *Cl. nitidulus* species-group. It is separated from *Cl. morawitzi* by colouration pattern (Fig. 1): blackish propodeum, with green to bluish reflections (*vs.* entirely metallic red in *Cl. morawitzi*), and metasoma testaceous-brown in the first two or three terga (*vs.* entirely black with metallic red reflections). The female can be easily distinguished by head and mesosoma largely black, and scape, pedicel and F1–F2 light brown (*vs.* forebody entirely metallic,

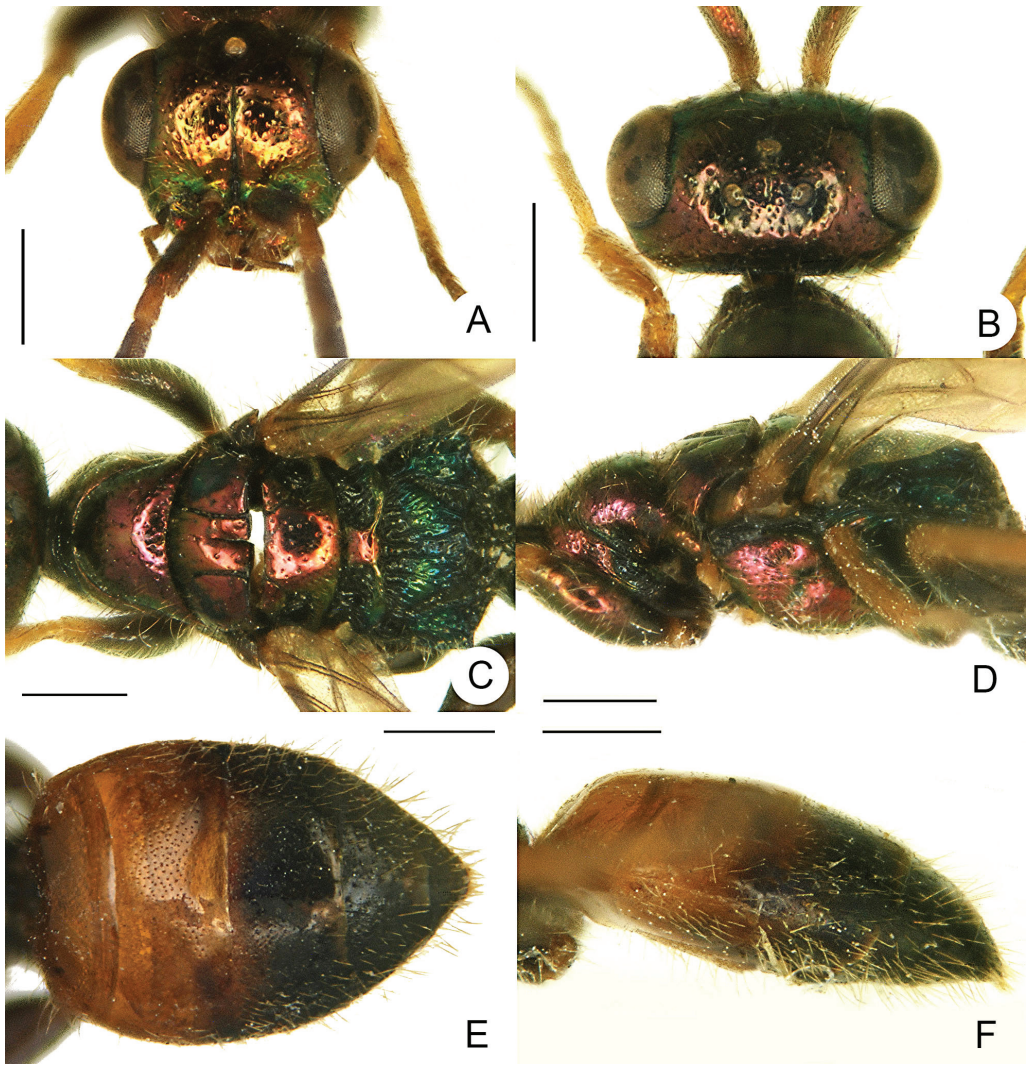

Fig. 2. *Cleptes dauriensis* Móczár, male from Bayankhongor. **A**, head, frontal view; **B**, head, dorsal view; **C**, mesosoma, dorsal view; **D**, mesosoma, lateral view; **E**, metasoma, dorsal view; **F**, metasoma, lateral view. Scale bar : 1.0 mm.

bright red, antennae yellowish), and testaceous colour of T1–T2 (*vs.* metasoma entirely black, with violet reflections).

Cleptes dauriensis female is similar to *Cl. helanshanus* Wei, Rosa et Xu, 2013 from Inner Mongolia (China), whose male is unknown. The female is separated by entirely black metasoma (*vs.* T1 and T2 testaceous-brown in *Cl. dauriensis*); golden pronotum, mesoscutellum, mesopleuron and metascutellum (*vs.* red-violet to rosy); scape and pedicel black (*vs.* yellowish); punctuation on T1 largely and finely micropunctate (*vs.* impunctate or with few scattered dots); punctuation on T2 dense (*vs.* punctures scattered and widely separate).

Móczár (1997a) considered *Cl. dauriensis* close to *Cl. doii* Tsuneki, 1959 (from Korea), according to the description of the latter. I could not examine Tsuneki's types

too, but the description apparently reports another species, whose female has the forebody ivory black with a bronzy reflection on pronotum, whereas the male has violaceus-blue head, mesosoma, scape, legs (excluding tarsi), and purple metasoma with apical margin of each segment discoloured and testaceous (Tsuneki, 1959). Some pictures of a Korean *Cl. doii* female have been published by Ha et al. (2011). According to the authors, the mesosoma of *C. doii* is not partially bronzy but largely metallic blue, with striatopunctate mesopleuron (*vs.* micropunctate, with scattered minute punctures in *Cl. dauriensis*), apparently without sulci or with narrow scrobal sulcus (*vs.* deep scrobal sulcus in *Cl. dauriensis* – Fig. 2D). The interpretation of this taxon is ambiguous, because Tsuneki (1959) did not describe a species with striatopunctate mesopleuron and blue mesosoma, therefore a revision of the whole type series of *Cl. doii* is needed.

Description of the male. Body length 5.5 mm (Fig. 1B). Forewing length 3.5 mm. POL = 1.7 MOD; OOL = 2.2 MOD; MS = 1.6 MOD. P : F1 : F2 : F3 = 1.0 : 1.6 : 1.0 : 1.2.

Head. Face with small, shallow and sparse punctures (1–3 PD). Clypeus with lower margin truncate, without acute teeth at corners. Frontal sulcus narrow, deep and complete, extending from clypeal margin to mid-ocellus (Fig. 2A). Mandible with four teeth. Ocellar area with slightly denser punctures. Ocellar triangle acute, without post-ocellar sulcus. F4 to F11 elongate, 2.0–2.3 times as long as wide at apex (Fig. 1B), whereas female with flagellomeres short and subsquare (Fig. 1A).

Mesosoma. Punctures small and sparse, similar to those on vertex; pronotum without posterior pit row and without longitudinal median sulcus (Fig. 2C). Mesonotum and mesoscutellum almost impunctate, with very sparse and shallow punctures. Mesoscutum with notauli complete; parapsidal lines incomplete; axillary trough longitudinally striate. Mesopleuron with deep scrobal sulcus, and with sparse rugulose punctures on anterior half (Fig. 2D), posteriorly somewhat polished. Metapleuron with transverse wrinkles on the upper part. Dorsal surface of propodeum irregularly sculptured, with aligned, longitudinal edges, with straight and parallel lateral margin. Propodeal angles short and stumpy (Fig. 2C).

Metasoma. T1 mostly impunctate, with some very minute punctures; T2 with small, scattered punctures, impunctate on posterior margin; T3 with double and denser punctures; T4 with with deeper, sparser, rugulose punctures; T5 mostly impunctate, with sparse minute punctures (Fig. 2E).

Pubescence. Dorsally on head and mesosoma with short, blackish bristles (1–2 MOD long); laterally and ventrally with whitish, long setae (2–3 MOD), as well as on metasoma.

Colouration. Face metallic golden-red, rest of head, pronotum, mesoscutum, mesoscutellum, metascutellum, and mesopleuron metallic red to rosy; propodeum blackish, with metallic greenish to bluish reflections. Metasoma with T1 and T2 testaceous-brown, T3–T5 entirely black without metallic reflections. Scape yellowish with metallic red reflections; pedicel yellowish; flagellum brown. Mandible brownish, lighter medially; tegula brownish. Femora metallic red-rosy, yellowish distally; tibiae and tarsi yellowish.

Variability. A second male specimen has darker mesoscutum, lighter femora, which are brownish without metallic reflections, and T3 testaceous-brown in the basal half, as T1 and T2.

Distribution. Russia (Zabaykalskiy Terr.); Mongolia (Bayankhongor, Khovd, Övörkhangai).

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