

New short-winged species of genus *Ceraphron* Jurine, 1807
from the Greater Caucasus
(Hymenoptera: Ceraphronoidea: Ceraphronidae)

Новый короткокрылый вид рода *Ceraphron* Jurine, 1807
с Большого Кавказа
(Hymenoptera: Ceraphronoidea: Ceraphronidae)

Vladimir N. Alekseev
В.Н. Алексеев

Zoological Museum of the Moscow State University, Bolshaya Nikitskaja Str. 2, Moscow 125009 Russia.

Зоологический музей Московского государственного университета им. М.В. Ломоносова, ул. Большая Никитская, 2, Москва 125009 Россия.

Vladimir Alekseev: inostemma@mail.ru ORCID <https://orcid.org/0009-0000-3368-3803>

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КЛЮЧЕВЫЕ СЛОВА: перепончатокрылые, Ceraphronoidea, *Ceraphron shcherbakovi*, новый вид, Большой Кавказ.

ABSTRACT. A new species of short-winged parasitoid wasps *Ceraphron shcherbakovi* sp.n. (Hymenoptera: Ceraphronidae) is described. New species found in the alpine belt of the northern slopes of the Greater Caucasus (Russia, Teberda) at an altitude of 2,750 m above sea level.

РЕЗЮМЕ. Описан новый вид короткокрылого наездника *Ceraphron shcherbakovi* sp.n. (Hymenoptera: Ceraphronidae), обнаруженного в альпийском поясе северных склонов Большого Кавказа (Россия, Теберда) на высоте 2750 м.

Introduction

The genus *Ceraphron* Jurine, 1807 is the largest in its family. Widespread, probably cosmopolitan, it is still relatively poorly investigated. At the same time, *Ceraphron* species are very diverse morphologically. In particular, a significant number of these very small parasitoids have reduced wings. The degree of brachyptery within the genus *Ceraphron* varies from a slight shortening to a complete absence of wings. This fact may be associated with inhabiting in the forest floor, myrmecophilia or parasitizing on secretive hosts. Perhaps brachyptery appears when living in an environment with strong winds, for example, in the highlands, where a new species *C. shcherbakovi* sp.n. was caught.

Material and methods

The studied material (type species) is stored in the collection of the Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia (ZIN RAN). The type species is dry and glued to a paper triangle.

The above photos were taken using an Olympus SZX10 stereo microscope and an Olympus OM-D E-M1 digital camera.

Taxonomic account

Ceraphron shcherbakovi sp.n.
Figs 1–4.

MATERIAL. **Holotype** ♀ (Fig. 1–3) with labels: “Russia, Karachay–Cherkess, Greater Caucasus. Teberda, Mt Mal. Khatipara 2750 m ASL. Festuca woronowii meadow, 43°27'N 41°41'E 6.08.1988. D.E. Shcherbakov leg.” and “HOLOTYPE ♀ *Ceraphron shcherbakovi* Alekseev, 2026”.

DESCRIPTION. **Female** (holotype) (Figs 1–4).

Body length 1,8 mm, forewing length 0,6 mm. The length of the head, mesosoma and metasoma is 0,35 mm / 0,6 mm / 0,85 mm respectively.

Body colouration. (Fig. 1). Head orange. From above two brown spots are visible in front of median ocellus, their size is close to doubled diameter of ocellus (Fig.3). Mesosoma orange, but the distal half of scutellum, metanotum and propodeum are black, as well as a spot at the base of the longitudinal mesoscutal furrow. Legs, mesopleuron and metapleuron orange. Metasoma in the anterior third light orange, in the rest dark brown. Antennae completely brown, bases of scapes

lightly lighter. Fore and hind wing membranes virtually transparent. Mandibles (except their dark ends) and palpi dark yellow.

Head. Slightly transverse in frontal view (230:200) and slightly wider than the mesosoma (87:70). Lateral margin of toruli distinctly raised; pubescent with sparse and very short white hairs. Eyes medium-sized. Interorbital space equal to

45–46% of the head wide. Frontal depression reaches the middle of the eye length. Praeocellar pit ventrally continues with a facial sulcus, reaching dorsal margin of frontal depression. Praeoccipital furrow present. Ocellar triangle with right angle, POL = OOL. The border between vertex and occiput smooth.

Antennae 10-segmented, flagellomeres cylindric, flagellum does not expand to apex (Fig. 4). Scape thick in its basal



Figs 1–4. *Ceraphron shcherbakovi* sp.n., ♀, holotype: 1 — habit, top view; 2 — habitus, side view; 3 — head, top view; 4 — head and antennae.
Рис. 1–4. *Ceraphron shcherbakovi* sp.n., ♀, holotype: 1 — габитус, вид сверху; 2 — габитус, вид сбоку; 3 — голова, вид сверху; 4 — голова и антенны.

half, 3.9× longer its greatest wide. Scape as long as pedicel, F1 and F2 combined. Pedicel 1.3× shorter than F1. F1 3.6× as long as wide. F2 and F3 about equal in length and width. The following segments are slightly oblong, no more than twice as long as wide. F10 1.7× as long as wide.

Mesosoma. Mesoscutum transverse, width 2.2× its length (from dorsal view); longitudinal mesoscutal furrow full, clearly visible; notauli are absent. (Fig. 1). Mesoscutum and -scutellum with no distinct areolae; finely shagreen. Scutellum equal in length to mesoscutum, large, equal in length and width. Lateral propodeal projections are small and pointed; median propodeal projection is small, with a notch at the top and reaches the anterior edge of metasoma. Mesometapleuron almost completely with longitudinal striations, smooth only above the middle coxae. The posterior surface of metamesopleurae with a brush of short white hairs (Fig. 2).

Wings. The fore wings reach half the length of syntergite. Marginal vein is preserved along the entire anterior margin of the wing. Stigmal vein is absent. (Fig. 2).

Legs. Metafemurs thickened, length 2.8× its maximum width

Metasoma. The anterior margin of syntergite with 10 very short basal longitudinal carinae, which gradually turn into fine longitudinal striation covering of the front half of syntergite.

Male. Unknown.

DIFFERENTIAL DIAGNOSIS. We hesitate to rank the new species to any subgenus of those already recognized within the genus *Ceraphron* [Dessart, Cancemi, 1986]. This is a very large representative of the family Ceraphronidae, which is not typical for short-winged species. The bicolor coloration of *Ceraphron shcherbakovi* resembles that of many tropical species. In our opinion, among the European fauna the new species is very similar to *Ceraphron speculiger* Dessart et Cancemi, 1999 [Dessart, Cancemi, 1999]. The latter species was

described from Sweden and Switzerland and its females have similar shortened wings. A key for distinguishing between these two species is given below.

- 1(2) Head black. Pedicel 1.5 x longer than F1. The forewings reach only ¼ the length of the syntergite. The surface of syntergite behind carinae is smooth
..... *Ceraphron speculiger* Dessart et Cancemi, 1999
- 2(1) Head orange. Pedicel 1.3 x shorter than F1. The forewings reach half the length of the syntergite. The surface of syntergite behind carinae is longitudinally striated up to half its length *Ceraphron shcherbakovi* Alekseev, **sp.n.**

BIONOMICS. Biology and hosts are unknown.

DISTRIBUTION. Russia. Greater Caucasus mountain system.

ETYMOLOGY. The new species is named after the paleoentomologist Dmitry Evgenievich Shcherbakov (Paleontological Institute of Russian Academy of Sciences, Moscow) who caught this insect in the wild.

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