

Chalepoxenus hyrcanus – a new ant species (Hymenoptera: Formicidae) from Azerbaijan

Chalepoxenus hyrcanus – новый вид муравьев (Hymenoptera: Formicidae) из Азербайджана

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Abstract. A new ant species, *Chalepoxenus hyrcanus* sp. n., is described based on a queen from Azerbaijan (Talysh Mts.). This is the ninth known species of socially-parasitic genus *Chalepoxenus* Menozzi, 1923. In Appendix measurements of the holotype *Ch. zabelini* Radchenko, 1989 are given.

Резюме. Описан новый вид муравьев, *Chalepoxenus hyrcanus* sp. n., из Азербайджана (Талыш). Это девятый вид социально-паразитического рода *Chalepoxenus* Menozzi, 1923. В приложении (Appendix) даны промеры голотипа *Ch. zabelini* Radchenko, 1989.

Introduction

The ant genus *Chalepoxenus* Menozzi, 1923 comprises 8 socially-parasitic species that live in the nests of species of the genus *Temnothorax* Mayr, 1861. *Chalepoxenus* is the one of not numerous endemic Palaearctic genera, all known species distributed in the South Europe, North-West Africa, Crimea, Kazakhstan and Middle Asia.

Chalepoxenus species are superficially similar to *Temnothorax* species, e. g. to those of the group *T. semenovi* (Ruzsky, 1903). Particularly, they have elongate, subrectangular head and relatively big eyes, but differ from the *Temnothorax* species by presence of sharp tooth or spine on the ventral surface of postpetiole and petiole.

Taxonomic revisions and reviews of this genus were provided for all regions [Bernard, 1968; Kutter, 1973; Buschinger et al., 1988; Radchenko, 1989; Cagniant, Espadaler, 1997]. Recently, *Chalepoxenus* was reported for the first time for Transcaucasia (Azerbaijan) [Dubovikoff, 2005], and below we described a new species, *Ch. hyrcanus* sp. n., based on the single winged gyne, collected in Talysh Mts.

Material and methods

The holotype of *Ch. hyrcanus* sp. n. is preserved in the collection of Zoological Institute of Russian Academy of Sciences, St.-Petersburg (ZISP).

Measurements of specimens were made accurate to

0.01 mm, and these were used to calculate various indices: HL – maximum length of head in dorsal view, measured in a straight line from the most anterior point of clypeus to the posteriormost point of occipital margin; HW – maximum width of head in dorsal view behind (above) the eyes; SL – maximum straight-line length of scape from its articulation with condylar bulb to the proximal edge of scape; AL – diagonal length of the alitrunk seen in profile, from the anterodorsal point of alitrunk to the posterior margin of propodeal lobes; AH – height of alitrunk, measured from the upper level of mesonotum perpendicularly to the level of lower margin of mesopleura; SCW – maximum width of scutum from above; SCL – length of scutum+scutellum from above; PL – maximum length of petiole from above, measured from the posterodorsal margin of petiole to its anterior edge at the articulation with propodeum; petiole should be positioned so that measured points lay on the same plane; PW – maximum width of petiole from above; PH – maximum height of petiole in profile, measured from the uppermost point of the petiolar node perpendicularly to the lowermost point of the ventral face of petiole (excluding subpetiolar lobe); PPL – maximum length of postpetiole from above; PPW – maximum width of postpetiole from above; PPH – maximum height of postpetiole in profile from its uppermost to lowermost points, measured perpendicularly to the linear component of the lateral postpetiolar suture.

Chalepoxenus hyrcanus sp. n.
(Colour plate 7: fig. 1–3)

Material examined: holotype, winged gyne, [Azerbaijan] Talysh, Avrora (now – Bürcali), 38°39'N / 48°47'E, 14.07.2005, I. Shokhin (ZISP).

Head longer than broad, somewhat widened posteriorly, with straight sides, broadly rounded occipital corners and slightly convex occipital margin. Anterior clypeal margin convex, not notched medially. Scape quite short, does not surpass occipital margin. Frontal carinae straight, merge with rugae which run backward to the level of posterior edge of eyes. Mandibles with 5 blunt teeth, apical tooth not much longer than preapical one.

Alitrunk relatively long, scutum flattened, propodeum with blunt triangular denticles. Anterior face of petiole strongly concave, peduncle quite short, petiolar node dorsum widely rounded, ventral petiolar process not big, subtriangular, blunt at the apex. Postpetiole slightly higher than long, subglobular, ventrally with short but sharp tooth.

Frons finely longitudinally rugulose and striated, space between frontal carinae and subocular rugulae superficially micropunctated, though appears more or less shiny, area between ocelli and occiput smooth and shiny. Clypeus with distinct medial longitudinal carina.

Scutum and scutellum smooth and shiny. Pronotum and mesopleura with fine striation and superficial micropunctures, propodeum longitudinally rugulose. Petiole and postpetiole superficially micropunctated, but appears shiny.

Head margins, alitrunk, waist and gaster with numerous erect to suberect hairs. Inner margin of femora and outer margin of tibiae with erect to suberect hairs.

Body colour brownish-red, gastral tergites brown, first gastral sternite and appendages yellowish.

Measurements (in mm) and indices:

HL 0.90, HW 0.78, OL 0.25, SL 0.63, AL 1.20, AH 0.80, ScL 0.95, ScW 0.66, HTL 0.66, PL 0.45, PH 0.34, PW 0.31, PPL 0.29, PPH 0.31, PPW 0.46;

CI (HL/HW) 1.15, OI_1 (OL/HL) 0.28, OI_2 (OL/HW) 0.32, SI_1 (SL/HL) 0.70, SI_2 (SL/HW) 0.81, PL/HW 0.57, PL/PH 1.33, PW/HW 0.39, PPL/HW 0.38, PPL/PPH 0.95, PPW/HW 0.59, PPW/PW 1.50, AI (AL/AH) 1.50, ScI (ScL/ScW) 1.45.

Etymology. The species name is derived from the name of natural-historical district of Talysh – Hyrcan.

Differential diagnosis. *Ch. hyrcanus* sp. n. differs from *Ch. kutteri* Cagniant, 1973, *Ch. brunneus* Cagniant, 1985 and *Ch. tramieri* Cagniant, 1983 (the first species is distributed in France and Spain, and the latter two – in NW Africa) by presence of erect to suberect hairs of femora and tibiae. From *Ch. tauricus* Radchenko, 1989 and *Ch. spinosus* (Arnoldi, 1968) it differs by more short tooth on the ventral surface of postpetiole, from *Ch. muellerianus* (Finzi, 1922) – by distinctly short head (HL/HW 1.15 vs. ca. 1.30), from *Ch. tarbinskii* (Arnoldi, 1976) – by more abundant standing hairs of alitrunk and legs. From *Ch. zabelini* Radchenko, 1989 (known from Kopetdagh Mts., Turkmenistan, the nearest locality to Talysh among all known *Chalepoxenus*

species) it differs by coarse sculpture on head dorsum, by less abundant standing hairs on body, especially on gaster, by short scape (SL/HL 0.70 vs. 0.78, SL/HW 0.81 vs. 0.97), by somewhat more convex scutum and long alitrunk (AL/AH 1.50 vs. 1.67), etc. (compare also Colour plate 7: fig. 1–3 and 4–6).

Appendix

Below we provide measurement data and indices for the holotype queen of *Ch. zabelini*, made recently using more measurements with using better equipment than it 1989:

HL 0.91, HW 0.73, OL 0.29 SL 0.71, AL 1.4 AH 0.84 ScL 1.03, ScW 0.66, HTL 0.69, PL 0.51, PH 0.37, PW 0.34, PPL 0.4, PPH 0.33, PPW 0.5

CI 1.25, OI_1 0.31, OI_2 0.39, SI_1 0.78, SI_2 0.97, PL/HW 0.71, PL/PH 1.38, PW/HW 0.47, PPL/HW 0.55, PPL/PPH 0.8, PPW/HW 0.69, PPW/PW 1.46, AI 1.67, ScI 1.57.

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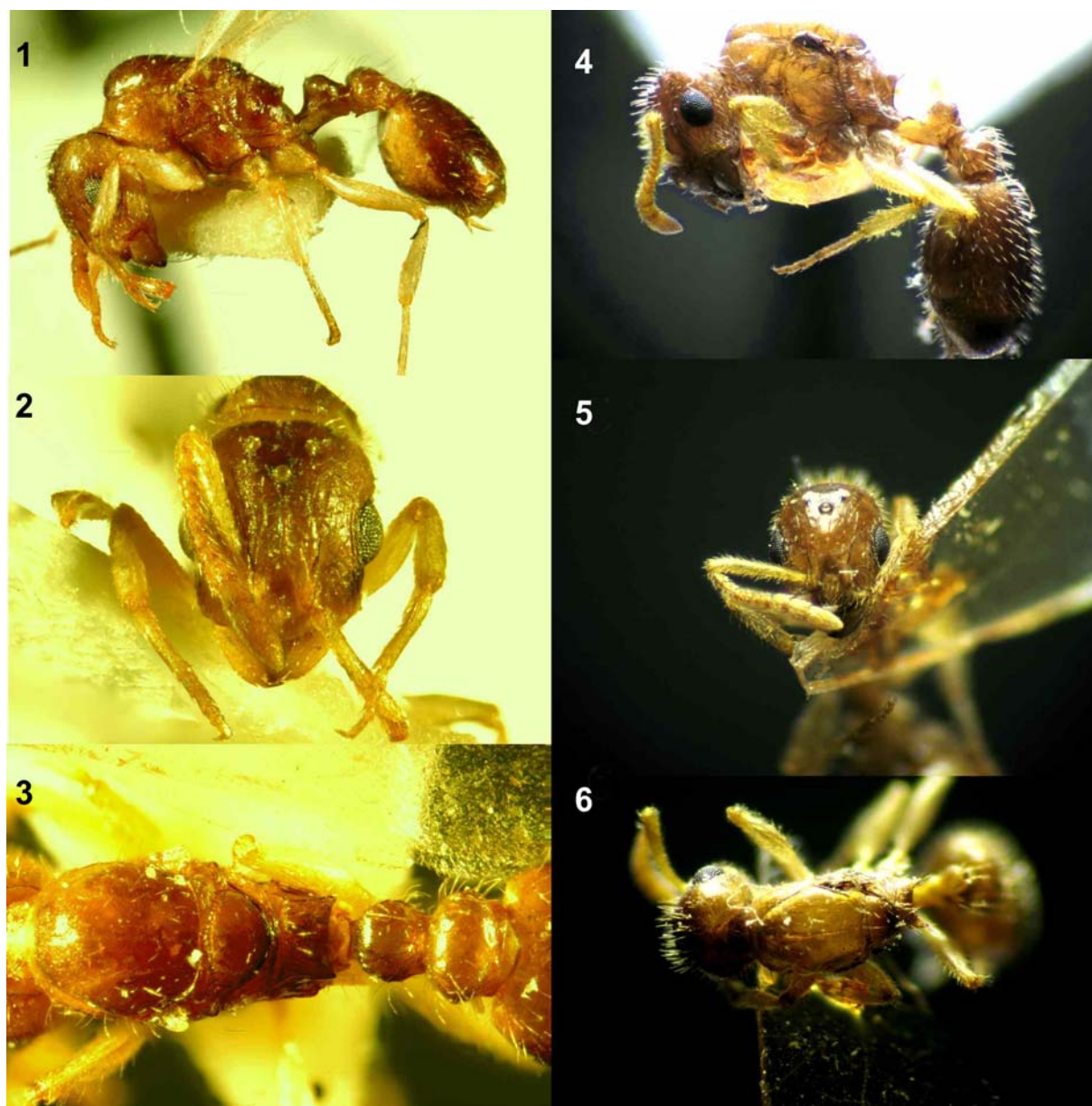


Fig. 1-6. 1-3 - *Chalepoxenus hyrcanus* sp. n., 4-6 - *Chalepoxenus zabelini* Radchenko, 1989.
1, 4 - body, lateral view; 2, 5 - face, dorsal view; 3, 6 - alitrunk on the top.

Рис. 1-6. 1-3 - *Chalepoxenus hyrcanus* sp. n., 4-6 - *Chalepoxenus zabelini* Radchenko, 1989.
1, 4 - вид сбоку; 2, 5 - голова, вид сверху; 3, 6 - грудь сверху.