

Cataglyphis zakharovi sp. n. – Second Socially Parasitic Species in the Genus *Cataglyphis* Förster (Hymenoptera, Formicidae)

Alexander G. RADCHENKO

I. I. Schmalhausen Institute of Zoology, Ukrainian National Academy of Sciences, Kiev, Ukraine

Abstract. *Cataglyphis zakharovi*, a new workerless socially parasitic species is described. *C. zakharovi* was collected in the nest of *C. setipes* Forel in Turkmenistan. New species similar to *C. hanna*e – another socially parasite, described by D. Agosti from Tunisia, and easily differentiated from species of bicolor group by small body size.

Key words: Hymenoptera, Formicidae, *Cataglyphis*, taxonomy

D. Agosti (1994) described *C. hanna*e from females and males from Tunisia – the first socially parasitic species in the genus *Cataglyphis*, belonging to the bicolor group. I found 2 males and 2 females in the collection of Zoological Museum of the Moscow University, collected by Prof. A. Zakharov in Turkmenistan. These males and females were found in a nest of *C. setipes* Forel, and belong to the new, probably socially parasitic, species that is very different from the host species.

Measurements and indices follow Agosti, 1990, with some additions: $AI = (AL:AH) \times 100$ (AH is height of alitrunk in profile from dorsum to lower base of mesopleuron).

Cataglyphis zakharovi Radchenko, sp. n.

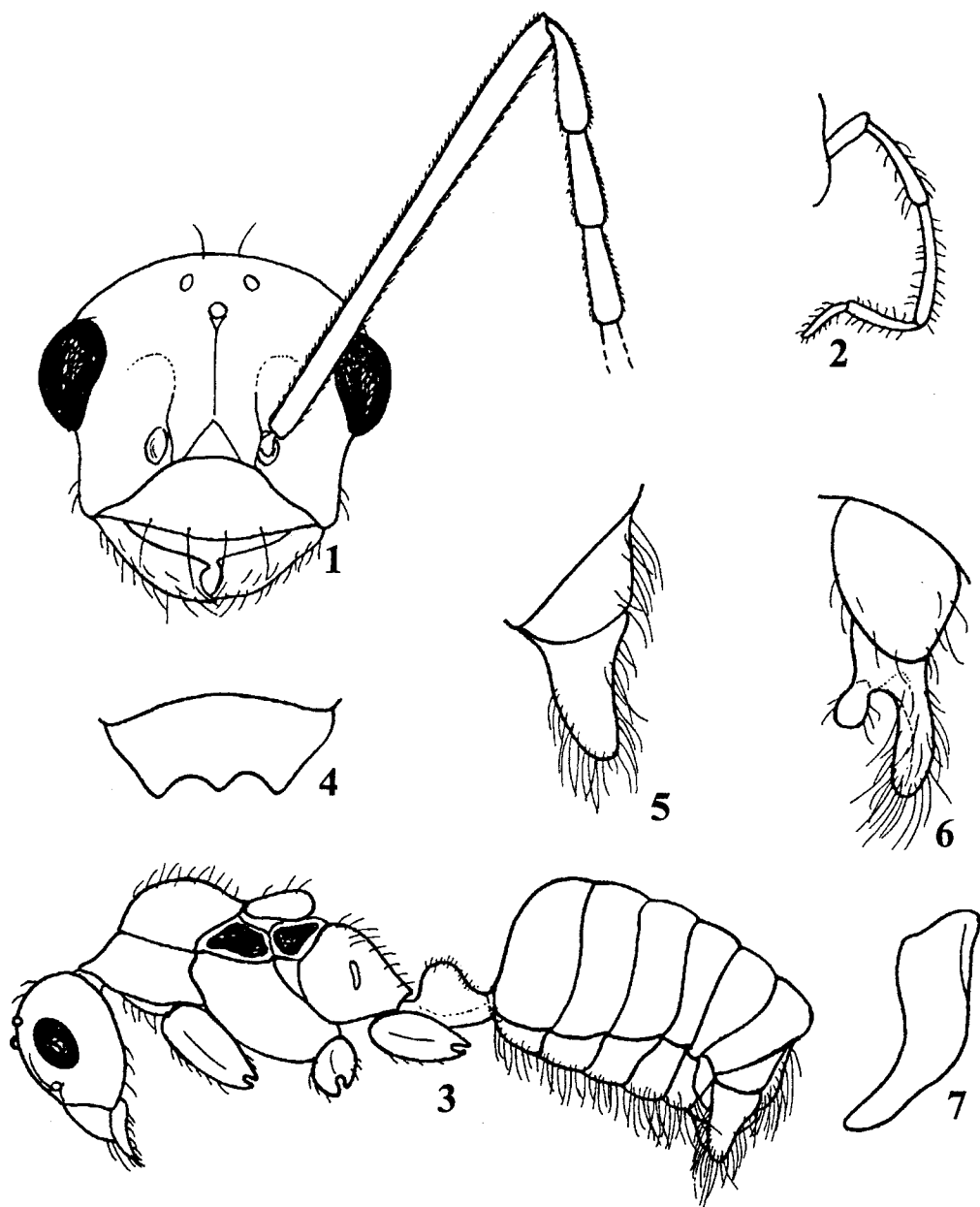
Material examined. HOLOTYPE: male, T.S.S.R. (now Turkmenistan), Akybaj, 9.VIII.[19]72 (leg. A. Zakharov). PARATYPES: 1 male and 2 females from the same nest. Holotype and paratypes deposit at Zoological Museum of the Moscow University, Moscow.

HOLOTYPE: HL=1.35; HW=1.3; OL=0.51; AL=2.95 mm; CI=96; SI=175; OI=39; FI=100; MPI=157; AI=174.

Diagnosis of males (Figs 1–7)

Head somewhat clongate (CI=96–98), widely rounded above eyes and with slightly concave sides. Eyes large (OI=39–40). Antennal scape long (SI=175–180); first, second and third funicular joints long, subequal one another (FI=97–100). Mandibles not broad, masticatory margin bidentate. Maxillary palpes long (MPI=152–157), length of fourth joint equal or slightly shorter than sum of length of fifth

Address for correspondence: Alexander G. Radchenko, I. I. Schmalhausen Institute of Zoology, Ukrainian National Academy of Sciences, B. Khmel'nitsky str. 15, Kiev-30, 252601, Ukraine



Figs 1-7. *Cataglyphis zakharovi* sp. n., male (holotype); 1 - head in full-face view; 2 - maxillary palpus; 3 - body in profile; 4 - subgenital plate; 5 - stipes, lateral view; 6 - stipes, from behind; 7 - volsella, lateral view.

and sixth ones, third joint slightly shorter than fourth ($3:4=1:0.8$). Occipital margin with 1-2 outstanding hairs, cheeks with 2 short hairs, clypeus with long setae. Antennal scape without outstanding hairs.

Alitrunk not high, rather long ($AI=174-176$), petiole nodiform, height of node approximately equal to its length. Dorsum of alitrunk with numerous outstanding hairs, dorsum of petiolar node with short hairs. Femora and tibiae without outstanding hairs, only internal surface of tibiae with fine bristles. Gastral tergites without outstanding hairs, sternites with numerous long hairs. Head, alitrunk and gaster densely sculptured, submate.

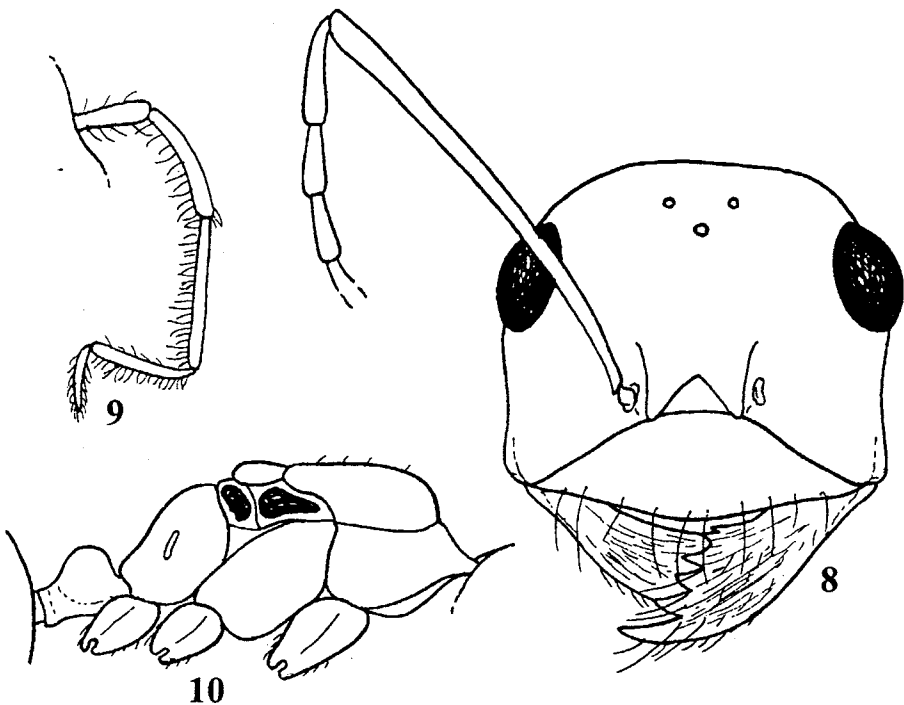
Subgenital plate with two short lateral and one median triangular processes. Stipes relatively short, thick and with medial appendix. Volsella curved, narrowed to the apex.

Head and alitrunk dark brown to black, tibiae and tarsi ochraceous, gaster yellow.

Size small (similar to *C. hanna*): $HL=1.28-1.35$; $HW=1.25-1.30$; $SL=2.28$; $EL=0.51-0.52$; $AL=2.90-2.95$ mm.

Diagnosis of females (Figs 8-10)

Head somewhat transverse ($CI=104$), with somewhat convex occipital margin and slightly concave sides. Eyes rather large ($OI=29$); antennal scape long ($SI=128-131$); first funicular joint longer than second one ($FI=148$), second and third ones equal one another. Mandibles with 5 teeth (except basal tooth). Maxillary palpes long ($MPI=157-160$), its fourth joint somewhat longer than sum of length of fifth and sixth ones, third joint slightly shorter than fourth ($3:4=1:0.8$).



Figs 8-10. *Cataglyphis zakharovi* sp. n., female (paratype); 8 - head in full-face view; 9 - maxillary palpes; 10 - alitrunk and petiole in profile.

Alitrunk long (AI=197–201), petiole nodiform, height of node approximately equal to its length. Pronotum with sparse outstanding hairs, another parts of alitrunk and petiole without hairs. Femora, tibiae and antennal scapes without erect hairs, only internal surface of tibiae with row of fine bristles. Gastral tergites (except last one) without outstanding hairs, each of sternites with 2–3 pairs of long straight hairs. Head, alitrunk and gaster densely sculptured, submate.

Head and alitrunk orange-red, legs and scapes brownish-red, gaster dark brown.

Size small (similar to *C. hanna*): HL=1.73–1.83; HW=1.80–1.90; SL=2.35–2.43; EL=0.53–0.55; AL=3.45–3.48 mm.

Workers unknown.

Comments

C. zakharovi differs from species of bicolor group by small size and similar to *C. hanna* Agosti.

Females differ from *C. hanna* by transverse head, relatively more long first funicular joint, lower petiolar node.

New species differs from *C. setipes* by much smaller size; besides this, its males differ from the latter species by short lateral processes on subgenital plate, which subequal to median one (lateral processes in *C. setipes* much longer than median one); females differ from *C. setipes* by the absence of coarse, thick, black bristles on hind tibiae.

REFERENCES

- Agosti D. 1990. Review and reclassification of *Cataglyphis* (Hymenoptera, Formicidae). *Journal of Natural History*, **24**: 1457–1505.
- Agosti D. 1994. A new inquiline ant (Hymenoptera, Formicidae) in *Cataglyphis* and its phylogenetic relationship. *Journal of Natural History*, **28**: 913–919.