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Two new *Troglohyphantes* from the Caucasus

(Aranei, Linyphiidae)¹⁾

By Andrei V. Tanasevitch

Abstract

Two new species of the spider genus *Troglohyphantes* Joseph, 1882 have been described from the Caucasus, USSR: *T. deelemanae* spec. nov., a troglobite from a cave in the Achibakh Plateau, Abkhazia, and *T. adjaricus* spec. nov., a surface-dweller from Adjara.

The linyphiid genus *Troglohyphantes* Joseph, 1882 is currently known to comprise over 110 species widespread in the Mediterranean (including North Africa) and chiefly restricted to major mountainous lands, i. e. the Cantabric Mountains, the Pyrenees, the Alps, the Rodopes, the Carpathians, the mountains of Yugoslavia, Anatolia, and the Caucasus. The majority of the species involved are cavernicoles (troglobites or troglaphiles), while only a minor part are epigeic and inhabit soil/rock crevices, litter, etc.

Only one *Troglohyphantes*, namely *T. birsteini* Charitonov, 1947 from several Caucasian caves (s. CHARITONOV, 1947; PICHKA, 1965), has hitherto been registered in the USSR fauna. The present paper puts on record additional two species, both new to science, both apparently confined to the Caucasus, one of them also being a troglobite, while the other a surface-dweller.

The type material has been shared between the collections of the Zoological Museum of the Moscow State University (ZMMU) and the Zoologische Staatssammlung, München (ZSM).

The following abbreviations have been accepted in the text: PME – posterior median eyes, Fe – femur, Pt – patella, Ti – tibia, Mt – metatarsus, Ta – tarsus. The chaetotaxy has been described using formulae, i. e. Ti1: 2–2–2–4. This means that tibia I carries two dorsal, two pro-, two retrolateral and four ventral spines (the apical spines are herewith disregarded). All the measurements have been given hereinafter in mm. Scale = 0.2 mm.

Troglohyphantes deelemanae spec. nov.

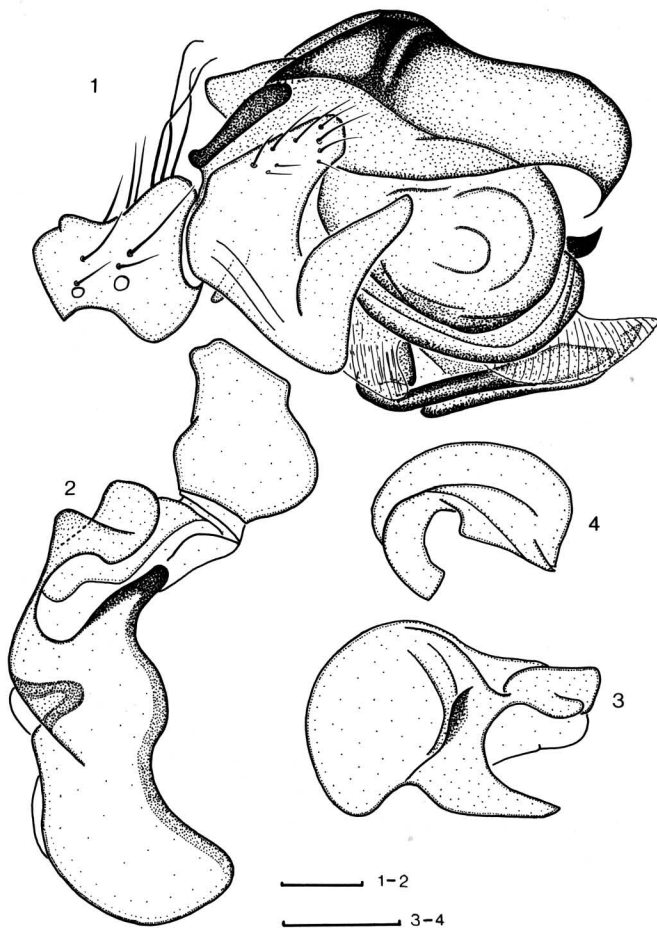
Figs. 1–7

Holotype: 1 ♂ (ZMMU), USSR, Caucasus, Georgia, Abkhazia, Plateau Achibakh (15 km SE of Lake Ritza), a nameless cave, 2000–2200 m a. s. l., 14. IX. 1984; leg. N. S. Myuge.

Paratypes: 1 ♂ (ZMMU), Plateau Achibakh, Cave Tupikovaya, 2000–2200 m a. s. l., 11. IX. 1984; 1 ♂, 1 ♀ (ZSM, Eingangskatalog-Nr. 877), 1 ♀ (ZMMU), same locality, Cave Sirotko, 7. IX. 1984; leg. N. S. Myuge.

Derivatio nominis: The new species is gladly dedicated to the well-known Dutch arachnologist, Dr. C. L. Deeleman-Reinhold, who has significantly contributed to the knowledge of the genus *Troglohyphantes*.

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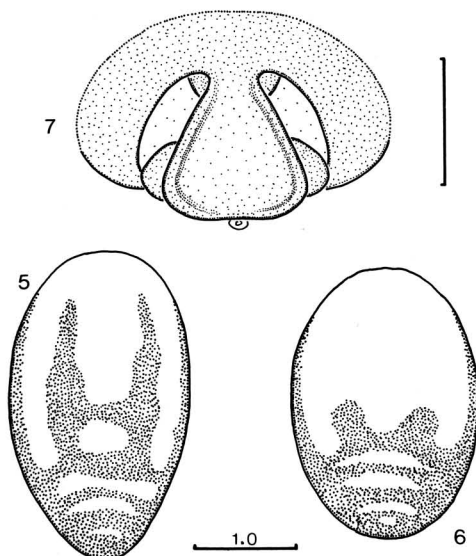


Figs. 1-4. *Troglodyphantes deelemanae* spec. nov.; ♂ paratype. - 1) right palp; 2, 3) cymbium (prolateral and dorsal view, respectively); 4) embolus.

Diagnosis: The new species joins the *orpheus*-group (s. DEELEMANN-REINHOLD, 1978), but is well distinguishable from all of its members by certain details of the shape of the cymbium (by which it seems particularly closely related to *adjaricus* spec. nov.), leg chaetotaxy, and subtriangular scape of the epigyne (which is more characteristic of the *salax*-group). *T. deelemanae* spec. nov. differs from the only other Caucasian troglobite, *T. birsteini*, by the structure of male palp, leg chaetotaxy (in *T. birsteini* it is: FeI: 1-1-0-0, II-III: 1-0-0-0; TiI: 2-3-4-2, II: 2-2-4-2, III-IV: 2-2-1-1; MtI-IV: 1-1-1-1), and subtriangular scape of the epigyne.

Description: ♂. Total length 4.22. Carapace pale brown, 1.85 long, 1.45 wide. Cephalic part of carapace convex, beset with short spines. Eyes normal, without evidence of reduction. PME separated by their 1.5D. Sternum grey, 0.80 long, 0.90 wide. Chelicerae: 0.80 long, anterior margin with three large teeth, posterior margin with four small teeth. Legs pale brown. Chaetotaxy: FeI: 1-1-0-0, II-IV: 1-0-0-0; TiI: 2-2-2-4, II: 2-0-1-4, III-IV: 2-0-0-1; MtI-IV: 1-0-0-0.

Legs		Fe	Pt	Ti	Mt	Ta	Total
I	♂	<u>2.65</u>	<u>0.55</u>	<u>2.70</u>	<u>2.65</u>	<u>1.50</u>	<u>10.05</u>
	♀	2.55	0.55	2.70	2.55	1.60	9.95
IV		<u>2.60</u>	<u>0.55</u>	<u>2.65</u>	<u>2.55</u>	<u>1.35</u>	<u>9.70</u>
		2.70	0.55	2.65	2.55	1.30	9.75



Figs. 5-7. *Troglodyphantes deelemanae* spec. nov.; ♀ paratype. - 5, 6) abdomen (dorsal view), 7) epigyne.

Palp: Figs. 1-4. Patella globularly swollen and carries a thick curved spine. Tibia basally with a small tubercle. Tegulum with a large membrane. Abdomen: 2.45 long, 1.45 wide. Color and dorsal pattern as in ♀ (s. Figs. 5-6).

♀. Total length 4.35. Carapace: 1.80 long, 1.35 wide, pale brown, with highly obscure grey radial stripes. Cephalic part of carapace slightly elevated. PME separated by their D. Sternum grey, 1.00 long, 0.90 wide. Chelicerae: 1.00 long, anterior margin with three large teeth, posterior margin with four/five small teeth. Legs pale brown. Chaetotaxy as in ♂, though in some specimens femora I-II carry additional spines (a dorsal and/or a prolateral one, often on one leg only), tibia IV is sometimes provided not with the usual one, but with 2 ventral spines. Abdomen ventrally grey, 2.95 long, 2.00 wide; dorsal pattern varies (s. Figs. 5-6). Epigyne as in Fig. 7.

***Troglodyphantes adjaricus* spec. nov.**

Figs. 8-11

Holotype: 1 ♂ (ZMMU), USSR, Caucasus, Georgia, Adjara, Kintrish State Reserve, Zeraboseli, deciduous forest, litter, 450-600 m, 1.-3. VI. 1981; leg. S. I. Golovatch & J. Martens.

Paratype: 1 ♂ (ZSM, Eingangskatalog-Nr. 876), same locality, together with holotype, 1.-3. VI. 1981; leg. S. I. Golovatch & J. Martens.



Figs. 8-11. *Troglobyphantes adjaricus* spec. nov.; ♂ holotype. - 8) left palp; 9, 10) cymbium (prolateral and dorsal view, respectively); 11) embolus.

Diagnosis: The new species joins the *orpheus*-group and seems to be especially closely related to *deelemanae* spec. nov., but is well different from the latter by the lack of a basal tubercle on the male palpal tibia and of a dorsal abdominal pattern, certain details of the shape of the cymbium, absence of a tegular and presence of a radical membrane of the palp.

Description: ♂ (♀ unknown). Total length 2.50. Carapace: 1.15 long, 0.95 wide, pale brown, with short grey radial stripes. Cephalic part of carapace not elevated. PME separated by their D. Sternum grey, 0.60 long, 0.65 wide. Chelicerae: 0.45 long, anterior margin with three large teeth. Legs pale brown. Chaetotaxy: FeI: 1-1-0-0, II-IV: 1-0-0-0; TiI: 2-1-1-2, II: 2-0-1-1, III-IV: 2-0-0-1; MtI-IV: 1-0-0-0.

Legs	Fe	Pt	Ti	Mt	Ta	Total
I	1.80	0.35	2.00	2.00	1.25	7.40
IV	1.75	0.35	1.85	1.85	1.00	6.80

Palp: Figs. 8-11. Radical sclerite of embolic division with a large and long membrane. Abdomen: 1.50 long, 1.05 wide, pale, dorsal pattern absent.

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Andrei V. Tanasevitch

All-Union Institute on Nature Conservation and Reserves
113 628 Vilar, Moscow M-628, Soviet Union