

**Redescription of *Centromerus bulgarianus* (Drensky 1931) and
Centromerus lakatnikensis (Drensky 1931), (Araneae, Linyphiidae)**

by

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Drensky (1931) described two new species, *Troglohyphantes bulgarianus* and *Troglohyphantes lakatnikensis* from Bulgarian caves. Later Kratochvil and Miller (1938) revised the description of these species and established that the two species belong to the genus *Centromerus*. The original description is very superficial and the drawings done inexactly. That is why I consider it necessary to redescribe these species, having had an opportunity to use the type material.

I would like to acknowledge my gratitude to Dr. Hubert of Paris for sending comparative material and to Dr. Saaristo of Turku, who made a comparison of types of *Centromerus bulgarianus* and *C. europeus*.

***Centromerus bulgarianus* (Drensky, 1931)**

Troglohyphantes bulgarianus, Drensky 1931, pp. 2, 25-26, 48-47, fig. 5, a-i; *Troglohyphantes balcanica* Drensky 1931 pp. 2, 41 (nomen nudum); *Centromerus bulgarianus* (Drensky 1931), Kratochvil and Miller (1938), pp. 1-7, fig. 2, a-e.

Description of male

Total length — 1.64 mm. Cephalothorax, length — 0.64, wide — 0.54 mm, pale-yellow, convexed.

Eyes completely absent. Clypeus, height — 0.09 mm, slightly concave.

Chelicerae length — 0.32 mm, wide — 0.12 mm, armed with 3 well developed teeth on outer row and 3-4 denticles on inner row.

Sternum, length — 0.36 mm, wide 0.36 mm.

Abdomen, length — 0.82 mm, grey.

Legs, yellowish short, covered proportionally with short fine spines. Femora I with 1 prolateral spine on apical half. Tibiae I-IV with 2 dorsal spines. Metatarsi I-II with small dorsal spine.

Measurements (in mm) of legs:

Leg	Fe	Pt	Ti	Mt	Ta	Total
I	1.00	0.18	0.87	0.82	0.54	3.61
II	0.97	0.18	0.76	0.73	0.54	3.18
III	1.00	0.18	0.91			

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Palpus fig. 1, 2. Tibia and patella each with a stout spine. Paracymbium large, with serrated inner margin. Lamella characteristic small. Basal apophysis forked, like *C. europaeus*.

Description of female

Total length – 1.74 mm. Cephalothorax, length – 0.73 mm, wide – 0.54 mm, pale-yellow.

Eyes completely absent. Clypeus, height – 0.09 mm.

Chelicerae (fig. 3), length – 0.27 mm, wide – 0.18, armed with 2 teeth on outer row and 3-4 denticles on inner row.

Sternum, length 0.36 mm, wide 0.36 mm.

Abdomen, length – 1.00 mm.

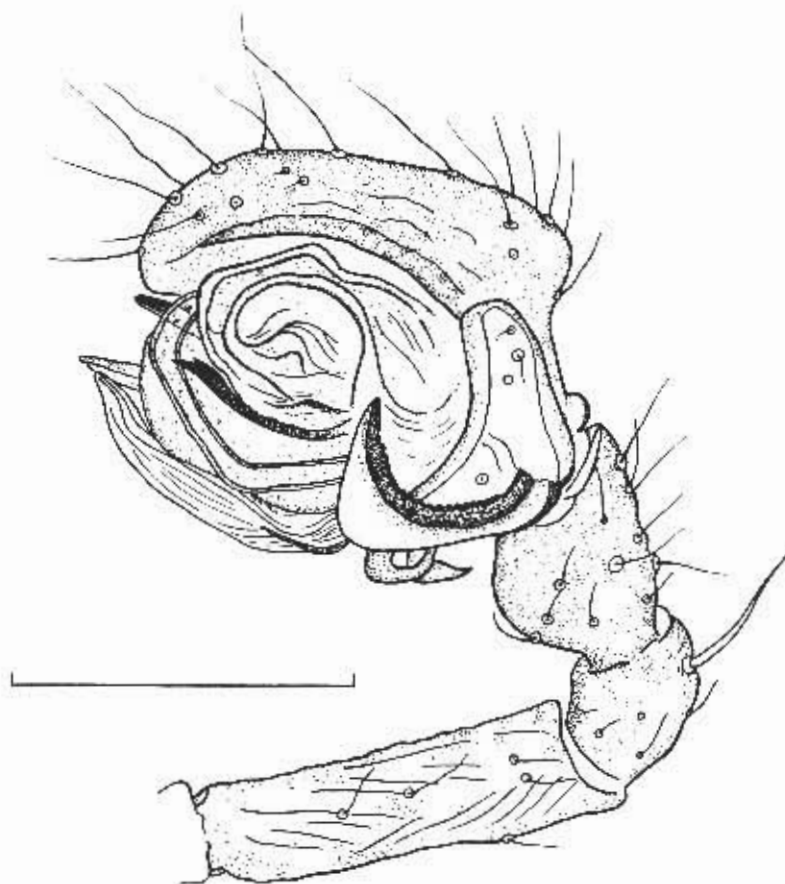


Fig. 1. *Centromerus bulgarianus* (Dr.). Left π palp, external view.

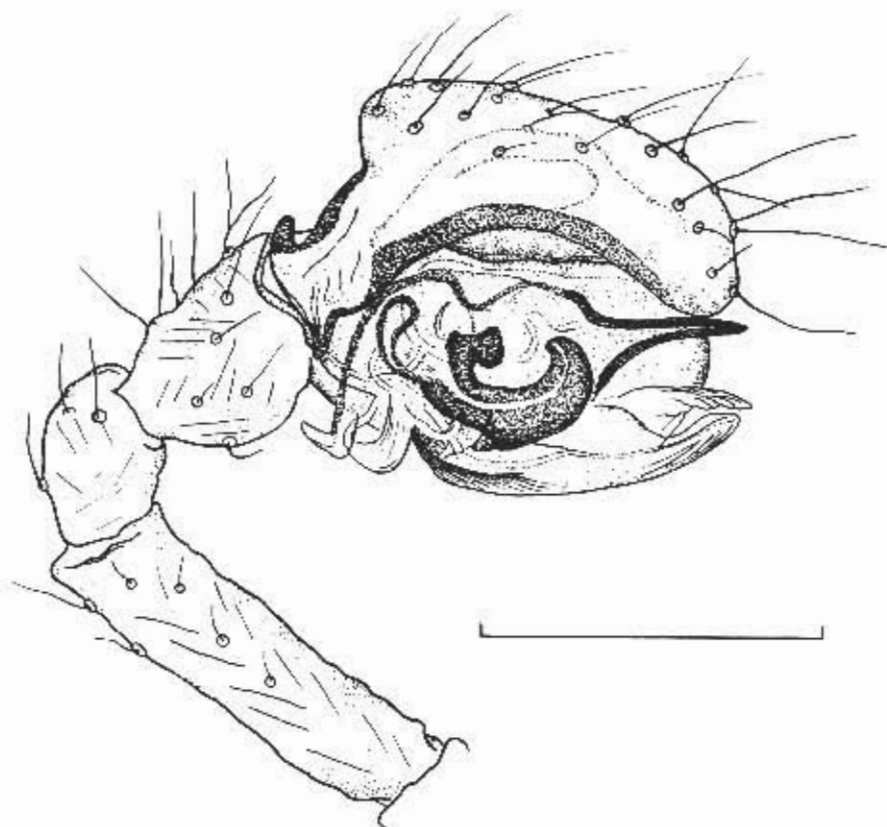


Fig. 2. *Centromerus bulgarianus* (Dr.). Left δ palp, internal view.

Legs: Femora I with a prolateral spine on apical half. Tibiae I–IV with 2 dorsal spines. Metatarsi I–II with small dorsal spine

Measurements (in mm) of legs.

Leg	Fe	Pt	Ti	Mt	Ta	Total
I	0.91	0.18	0.82	0.73	0.54	3.18
II	0.91	0.18	0.75	0.64	0.45	2.92
III	0.73	0.18	0.64	0.54	0.45	2.54
IV	0.95	0.18	0.91	0.73	0.49	3.26

Palpus: Fe - 0.27 mm, Pt - 0.18 mm, Ta - 0.27 mm. Epigyne (fig. 4) similar to those of *C. europaeus* and *C. subcaecus*.

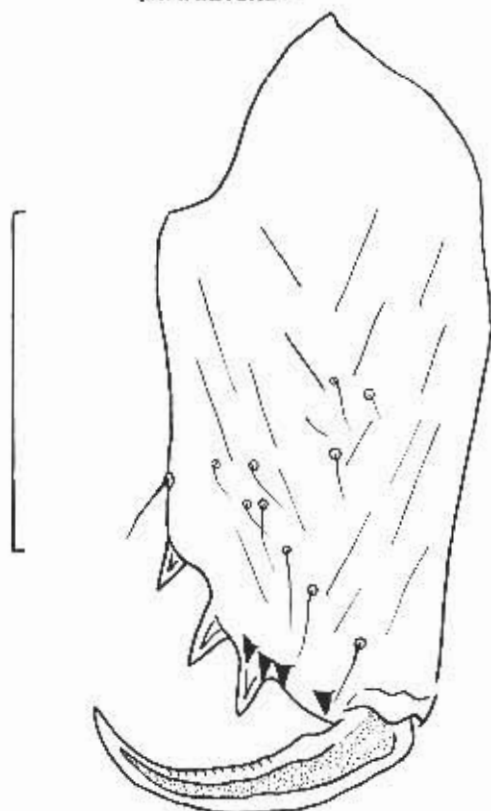


Fig. 3. *Centromerus bulgarianus* (Dr.). Right σ palp, posterior view.

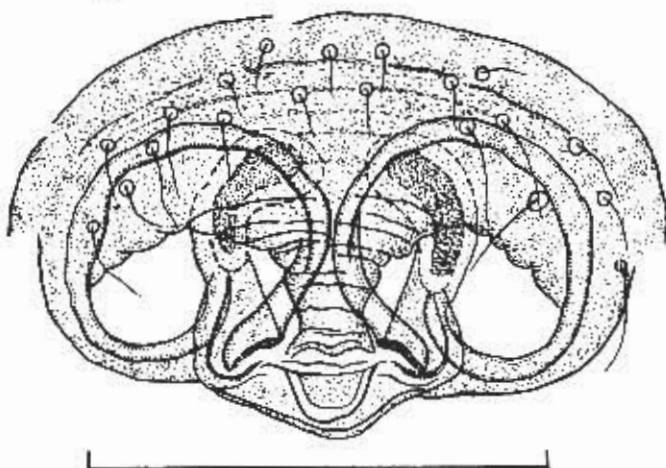


Fig. 4. *Centromerus bulgarianus* (Dr.). Epigyne.

DISCUSSION

Centromerus bulgarianus is related to *C. europaeus* and *C. subcaecus* but the three species are readily separated because:

1. There are differences in structure of the basal apophysis.
2. There are a few differences in the structure of the epigyne.

The epigyne of *C. bulgarianus* is bigger than *C. europaeus* (Saaristo in lit. 5, IV. 1972).

3. *C. bulgarianus* is the largest of the three species.

Material and locality.

"Suchata peštera" cave near the village Lakatnik (district of Sofia), 1 ♂ lectotype and 3♀♀ paralectotype (leg. P. Drensky); "Sokolskata peštera" near the village of Lutalgik (district of Vraca) 1♀, 6.II.1967 (leg. P. Beron); "Beljara" cave near the town of Vraca 1♀, 5.X.1968 (leg. P. Beron).

Centromerus lakatnikensis (Drensky 1931)

Troglohyphantes lakatnikensis, Drensky 1931, pp. 2, 5, 23-25, 46-47, fig. 4, a-d; *Centromerus lakatnikensis* (Drensky 1931), Kratochvil and Miller (1938), pp. 2-3, 6-7.

Description of male.

Total length — 1.92 mm. Cephalothorax, length — 0.91, wide — 0.73 mm, pale-yellow.



Fig. 5. *Centromerus lakatnikensis* (Dr.). Eyes (♂ from in front).

Eyes (fig. 5), well developed, surrounded by a black strip. Posterior row, 0.25 mm long, median eyes ca one diam. apart and one diam. from laterals. Anterior row, 0.18 mm long, medians very small and almost approached, ca one diam. from laterals. Clypeus concave, height — 0.09 mm.

Chelicerae, length — 0.36 mm, wide at the base — 0.18 mm, armed with 3 well developed teeth. Posterior row with 3-4 denticles.

Sternum, length — 0.54 mm, wide — 0.49 mm.

Abdomen, length — 1.01 mm, grey.

Legs, yellowish. Femora I with 1 retrolateral spine on apical half. Tibiae I-III with 2 dorsal spines. Tibia IV with 1 dorsal spine.

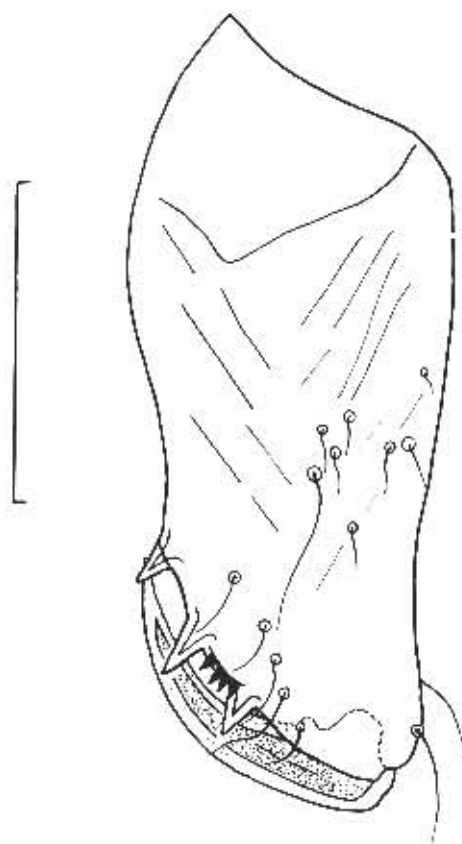


Fig. 6 *Centromerus lakatnikensis* (Dr.). Right ♂ chelicera.

Measurements (in mm) of legs:

Leg	Fe	Pt	Ti	Mt	Ta	Total
I	0.82	0.21	0.73	0.49	0.40	2.65
II	0.73	0.21	0.64	0.40	0.36	2.34
III	0.54	0.18	0.49	0.45	0.34	2.02
IV	0.82	0.21	0.69	0.45	0.40	2.57

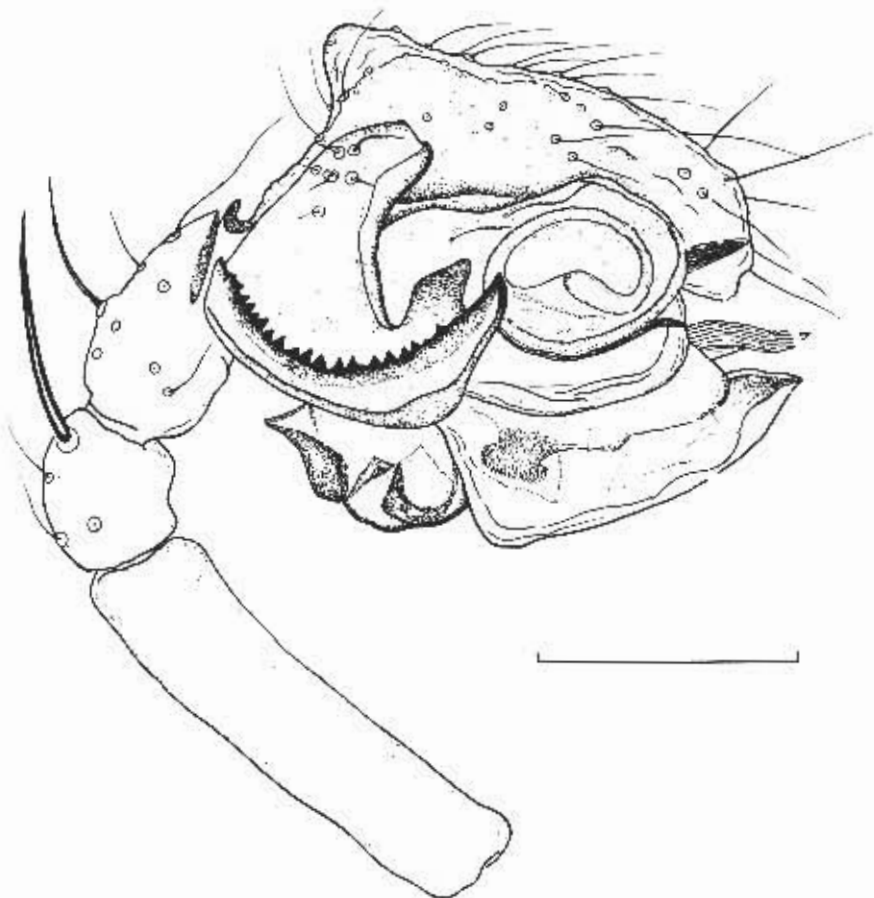


Fig. 7. *Centromerus lakutnikensis* (Dr.). Right ♂ palp, external view.

Palpus (fig. 7,8). Tibia and patella each with a stout spine. Paracymbium is large, toothed along its inner margin. Bulbus similar to those of *C. albidus* and *C. serratus*.

Description of female

Total length – 2.16 mm. Cephalothorax, length – 0.72 mm, wide – 0.57 mm.

Eyes, well developed, surrounded by a black strip. Posterior row, 0.23 mm long, median eyes ca one diam. apart and ca one diam. from laterals. Anterior row, 0.17 mm long, median eyes very small and almost approached, ca. one diam. from laterals. Clypeus, height – 0.05 mm.

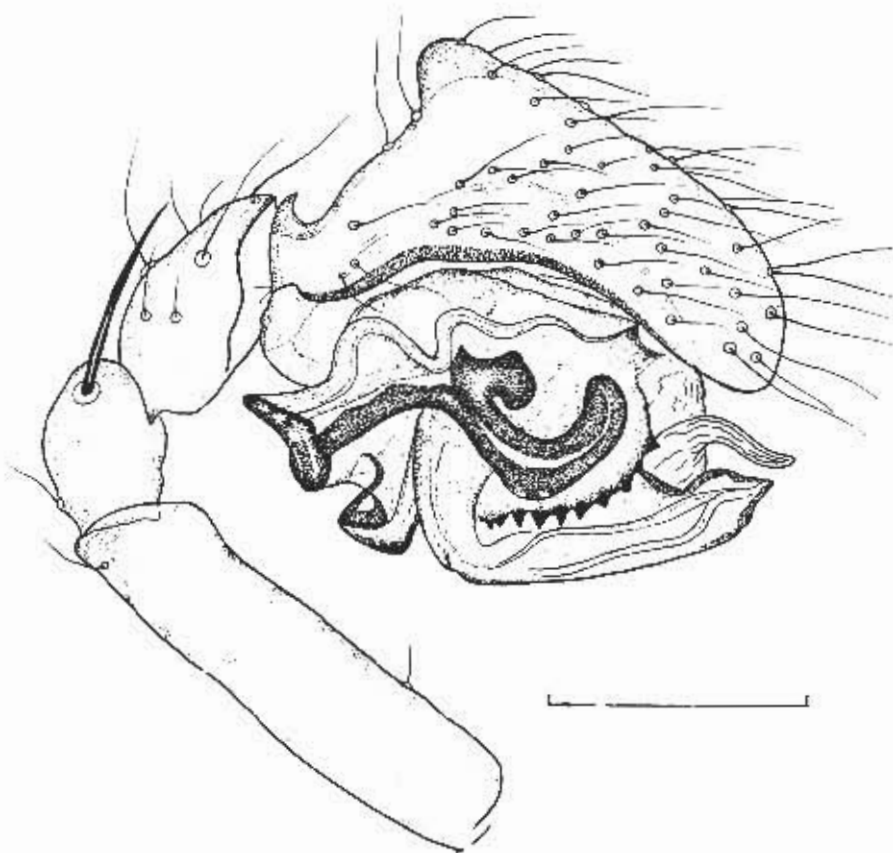


Fig. 8. *Centromerus lakatnikensis* (Dr.). Left δ palp, internal view.

Chelicerae, length - 0.32 mm, wide 0.14 mm, armed with 3 well developed teeth. Posterior row with 3-4 denticles.

Sternum, length - 0.57 mm, wide - 0.55 mm.

Abdomen, length - 1.40 mm, grey.

Legs: Femora I with 1 retrolateral spine on apical half. Tibiae I-III with ? dorsal spines. Tibia IV with 1 dorsal spine.

Epigyne presented on fig. 9. Vulva presented on fig. 10. The epigyne is very similar to those of *C. albidus* and *C. quercicola*.

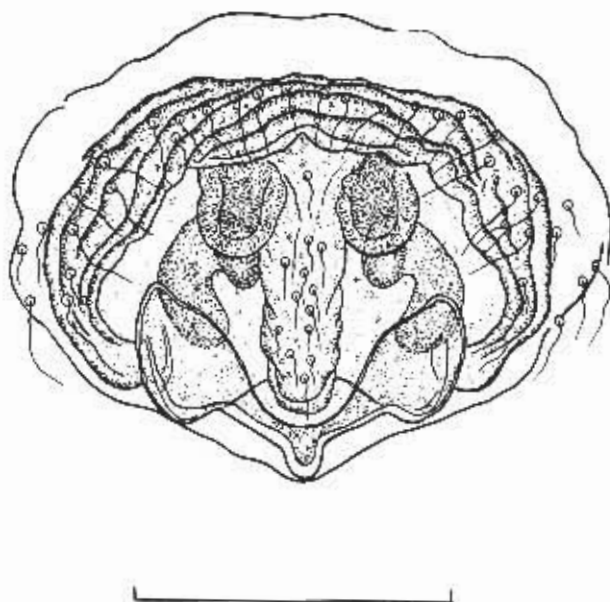


Fig. 9. *Centromerus lakatnikensis* (Dr.). Epigyno.

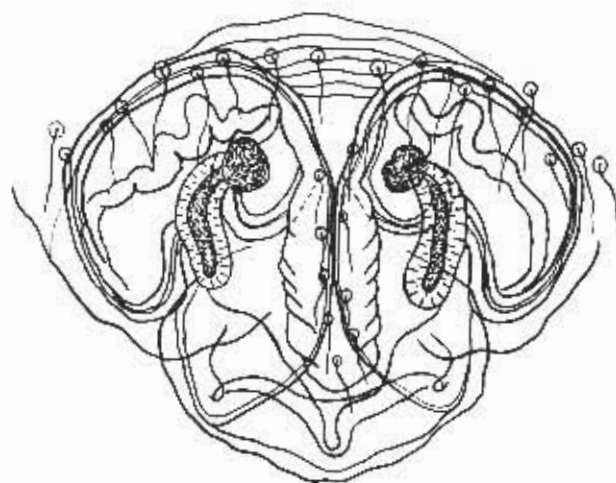


Fig. 10. *Centromerus lakatnikensis* (Dr.). Vulva.

DISCUSSION

Centromerus lakatnikensis is related to *C. albidus*, but *C. albidus* is smaller and there are a few differences in the structure of the epigyne.

Material and locality.

"Suchata peštera" near the village of Lakatnik (district of Sofia), 1♀ lectotype, 3♀♀ paralectotype, 23. III. 1930 (leg. P. Drensky); 2♂♂, 5.XI. 1970 (leg. Ch. Deltshev); "Radjova Jama" pot near the village of Millanovo (district of Sofia), 2♀♀, 3. XII. 1961 (leg. P. Beron).

By examining type-material of *Centromerus lakatnikensis*, it was established, that the species is very related to *C. albidus*, described by Simon 1929. The comparative material from *C. albidus*, which was sent to me, was very insufficient (1♀) and that did not give me a ground to synonymised *C. lakatnikensis*.

In the meantime while the article was in press, Dr. Moritz (to whom I had sent material from *C. lakatnikensis*) established (in litt.) that the two species are identical.

SUMMARY

The type specimens (lectotypes) of *Centromerus bulgarianus* and *C. lakatnikensis*, preserved in the collection of the Zoological Institut — BAN, Sofia, are redescribed. The redescription is necessary, because the original description is superficial and the drawings are inexact. Moreover, the male of *C. lakatnikensis* was unknown.

RÉSUMÉ

Les exemplaires du type (lectotypes) de *Centromerus bulgarianus* et *C. lakatnikensis*, conservés dans la collection de l'Institut Zoologique — BAN, Sofia sont décrits de nouveau. La nouvelle description originale est indispensable parce que la description originale est très superficielle et les figures ne sont pas précises. De plus, le mâle de *C. lakatnikensis* était inconnu.

LITERATURE

- Drensky, P. — 1931 — Höhlen-Spinnen aus Bulgarien. Rev. Bulg. Acad. of Sci., XI.IX, Sofia.
 Kratochvil, J., Miller F. — Sur le problème des araignées Cavernicoles du genre *Centromerus* de la péninsule Balkanique. Bull. Inst. roy. Hist. Natur. Sofia XI.