

**A new species of the huntsman spider genus
Cerbalus Simon, 1897 from S. Tunisia (Araneae:
Sparassidae)**

Peter Jäger

Institut für Zoologie,
Johannes Gutenberg-Universität,
55099 Mainz, Germany

Summary

Cerbalus ergensis sp. n. is described from S. Tunisia. Diagnostic and descriptive characters are given for *Cerbalus* in comparison with the genera *Cebrennus* and *Olios*. Known *Cerbalus* spp. are listed with comments on synonymies.

Introduction

Species of the huntsman spider genus *Cerbalus* Simon, 1897 seem to represent important predators in North

African arid ecosystems. In spite of this they are poorly known and insufficiently investigated. The genus *Cerbalus* was described by Simon (1897), who included two species: the widespread *C. pulcherrimus* (Simon, 1880) as type species and *C. verneaui* (Simon, 1889) from the Canary Islands. Four further species are currently listed in *Cerbalus*: *C. aleganzaensis* Wunderlich, 1991, *C. negebensis* Levy, 1989, *C. pellitus* Kritscher, 1960 and *C. psammodes* Levy, 1989. Levy (1993) described the female of *C. negebensis*. Two additional nominal species appear to be nomina dubia: *C. nigriventris* Simon, 1909 (immature female; see Kritscher, 1960; Levy, 1989) and *C. nigropatellata* (Caporiacco, 1928) (immature male; see Levy, 1989). In addition, *C. angustifrons* Denis, 1960 and *C. sahariensis* Jézéquel & Junqua, 1966 were synonymised by Levy (1989) with *C. pulcherrimus*, and *C. concolor* Denis, 1947 was transferred by Levy (1989) to *Cerbalopsis* Jézéquel & Junqua, 1966. *Cerbalus*

beluinus (Karsch, 1881) was placed by Simon (1903) in the synonymy of *C. pulcherrimus*. Kritscher (1960) doubted the synonymy in consideration of the differences between the original drawings of *C. beluinus* by Karsch (1881) and examined material of *C. pulcherrimus*. One specimen in the Berlin museum, which is designated as type (ZMB 3274, examined), is immature and cannot be the type, since Karsch mentioned in his original description only four adult female specimens. For the same reason, a single male in the Muséum National d'histoire Naturelle, Paris, labelled as *Cerbalus beluinus* (MNHN 1615, Libya, examined), cannot be a type specimen. It belongs to *C. pulcherrimus*. The problem cannot be solved without the original type material.

A single male specimen, collected by Uwe Moldrzyk in S. Tunisia, is recognised as belonging to a new species, described below.

All measurements are in mm. The spination formula follows Davies (1994). Abbreviations: ALE, PME, AME, PLE, ME, LE, AE, PE refer to anterior lateral eyes, posterior median eyes, etc.; PJ=working number of Sparassidae examined by Peter Jäger. Collections: HLMD=Hessisches Landesmuseum, Darmstadt; MNHN=Muséum National d'histoire Naturelle, Paris; ZMB=Zoologisches Museum der Humboldt-Universität, Berlin.

Cerbalus Simon, 1897

Cerbalus Simon, 1897: 38, 43, 48 (gen. n., type species: *Cebrennus pulcherrimus* Simon, 1880, by original designation); Kritscher, 1960: 271; Levy, 1989: 131, 141.

Marmarica Caporiacco, 1928: 95 (gen. n., type species: *Marmarica nigropatellata* Caporiacco, 1928, by monotypy); Levy, 1989: 141 (syn.).

Diagnosis and description: Kritscher (1960) and Levy (1989) gave diagnostic characters for the genus. Additional characters for diagnosis and description are: (1) Males with heavy embolus, not pointed distally; species of *Cebrennus* (a related genus, whose representatives inhabit similar habitats to *Cerbalus* spp.) have a filiform embolus, at least in its distal half (exception: *Cebrennus tunetanus* Simon, with embolus pointed distally). (2) Palpal tibia with only one prolateral spine; *Cebrennus* spp. and some *Olios* spp. also have only one prolateral spine; this reduced number of tibial spines is considered an apomorphic state; the plesiomorphic state seems to be three prolateral spines—two proximal spines and a distal one (Jäger, pers. obs.). (3) At least *Cerbalus ergensis* sp. n., *C. pellitus*, *C. psammodes*, *C. pulcherrimus* and *C. verneui* have a characteristic projection on the inner side of the retrolateral apophysis (Fig. 1: P); this is lacking in *C. negebensis*, and *C. alegranzaensis* was not examined. (4) The conductor is

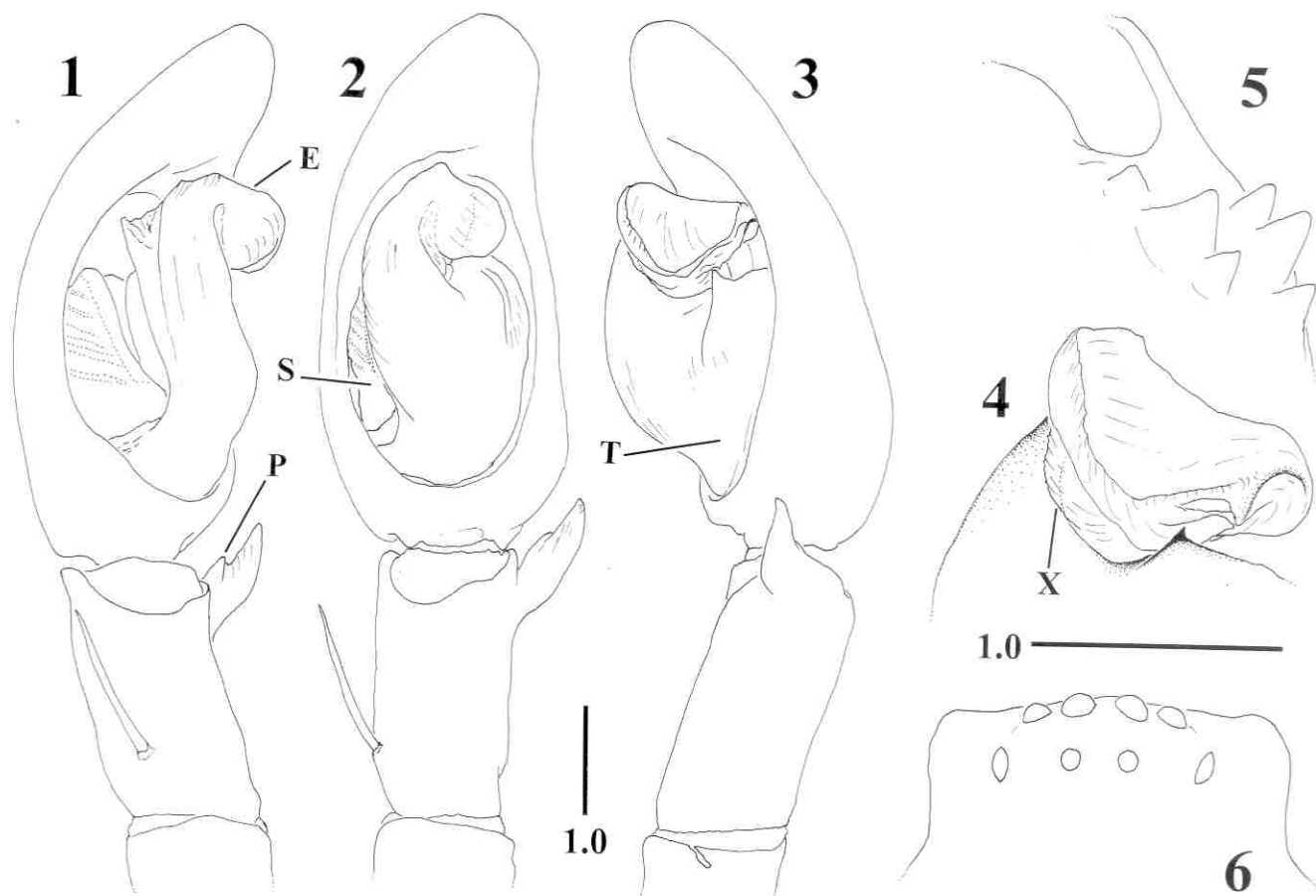


Fig. 1-6: *Cerbalus ergensis* sp. n., holotype ♂. **1** Left palp, prolateral, hairs omitted; **2** Ditto, ventral; **3** Ditto, retrolateral; **4** Distal part of embolus, retrolateral; **5** Dentition of right chelicera, ventral; **6** Eye arrangement, dorsal. Abbreviations: E=embolus, P=projection on retrolateral apophysis, S=subtegulum, T=ttegulum, X=membranous remnant of conductor. Scale lines in mm.

strongly reduced in all *Cerbalus* and *Cebrennus* spp. (Fig. 4: X).

Cerbalus ergensis sp. n. (Figs. 1–6)

Type material: Holotype ♂ (PJ 1356), June 1999, outside the Parc National de Jebil, S. Tunisia, near 32°49'N, 09°01'E, dug out with its tube, leg. U. Moldrzyk, HLMD.

Etymology: The specific name is derived from the type locality, the north-eastern tip of the Eastern Grand Erg (adjective).

Diagnosis: Male closest to *C. pellitus*. The new species can be recognised by its very heavy embolus, with large distal cavity directed distally (Figs. 1–4); in *C. pellitus* the embolus is smaller, and its distal cavity is directed retrolaterally. The cymbium of *C. ergensis* sp. n. has a patch of dense bristles dorsally in distal half, reaching the middle of the cymbium; in *C. negebensis* this patch is small and limited to the distal part of the cymbium, while in *C. psammodes* it is larger, but does not reach the middle of the cymbium.

Description: Male: Prosoma length 9.5, width 7.6, anterior width 5.2, height 2.5; abdomen length 7.9, width 6.5. Eye measurements and interdistances: AME 0.57, ALE 0.45, PME 0.39, PLE 0.44; AME-AME 0.22, AME-ALE 0.20, PME-PME 0.45, PME-PLE 0.74, AME-PME 0.52, ALE-PLE 0.45; clypeus AME 0.42, clypeus ALE 0.49. Leg formula: 2143. Spination: palpus 131,000,1000; femur I 3(4)23(2), II 323, III 322, IV 32(3)2; patella I–III 100, IV 1(0)00; tibia 2024; metatarsus I–III 2024, IV 3036. Chelicerae with 3 (right) and 2 (left) anterior teeth and 3 posterior teeth (Fig. 5: three anterior teeth seems to be an exceptional state; the distal tooth is an additional one). Eye rows nearly straight, posterior row slightly recurved and broadest (Fig. 6). Conductor reduced, its membranous remnant (Fig. 4: X) between distal and middle parts of embolus, subtegulum visible in prolateral part of bulb (Figs. 1–2). Colour: legs, palps and abdomen bright yellow; other parts (carapace, sternum, chelicerae, coxae, trochanters, labium, gnathocoxae [the last two with a light distal margin], patellae, palpal tarsi and venter of abdomen behind the epigastric furrow) chocolate brown. Distal parts of legs darker, spines dark brown. Abdomen dorsally with a distinct brown longitudinal stripe, ventrally in front of epigastric furrow with sparse brown hairs. Carapace with whitish hairs, especially on margin. Abdomen with long, dense, bright yellow hairs. Leg measurements:

	Fe	Pa	Ti	Mt	Ta	Total
Palp	4.1	1.5	1.9		4.6	12.1
I	11.5	4.7	10.0	10.7	3.6	40.5
II	13.2	4.8	11.5	12.1	3.9	45.5
III	11.4	4.1	9.1	9.0	3.2	36.8
IV	12.2	4.1	9.1	9.4	3.1	37.9

Female: Unknown.

Distribution: Known only from the type locality.

Relationships: Most likely related to *C. pellitus* from Egypt: in both species the embolus arises in the middle of the bulb, and the subtegulum is visible in the prolateral half of the bulb (not visible in *C. negebensis*, *C. psammodes*, *C. verneaulti*), subtegulum occupying about a third of the width of the bulb (in *C. pulcherrimus* subtegulum occupying one half of the width of the bulb).

Biology: The specimen was found in a silken tube in loose sand in a transition zone between a rocky area and sand dunes (U. Moldrzyk, pers. comm.). Another huntsman spider species, *Cerbalopsis villosa* Jézéquel & Junqua, 1966, was also found at this locality in silken tubes in loose sand.

Acknowledgements

I am grateful to Uwe Moldrzyk for entrusting me with the material of his collection and providing information on the type locality. Helpful comments on the manuscript were given by Peter Merrett and anonymous reviewers.

References

- CAPORIACCO, L. di 1928: Risultati zoologici della Missione inviata della R. Societa Geografica Italiana per l'esplorazione dell'oasi Giarabub (1926–1927). Aracnidi di Giarabub e di Porto Bardia. *Annali Mus. civ. Stor. nat. Giacomo Doria* **53**: 77–107.
- DAVIES, V. T. 1994: The huntsman spiders *Heteropoda* Latreille and *Yiinthe* gen. nov. (Araneae: Heteropodidae) in Australia. *Mem. Qd Mus.* **35**(1): 75–122.
- KARSCH, F. 1881: Verzeichnis der während der Rohlf'schen africanischen Expedition erbeuteten Myriopoden und Arachniden. *Arch. Naturgesch.* **47**(1): 1–14.
- KRITSCHER, E. 1960: Zur Kenntnis der Gattung *Cerbalus* Simon 1897 (Aran., Eusparassidae). *Anz. öst. Akad. Wiss. Mathematisch-Naturwissenschaftliche Klasse* **97**: 271–279.
- LEVY, G. 1989: The family of huntsman spiders in Israel with annotations on spiders of the Middle East (Araneae: Sparassidae). *J. Zool., Lond.* **217**(1): 127–176.
- LEVY, G. 1993: On the unknown male of *Nonianus pictus* and the female of *Cerbalus negebensis* (Araneae: Sparassidae) from Israel. *Israel J. Zool.* **39**: 231–234.
- SIMON, E. 1897: *Histoire naturelle des Araignées* **2**(1): 1–192. Roret, Paris.
- SIMON, E. 1903: *Histoire naturelle des Araignées* **2**(4): 669–1080. Roret, Paris.