

## Redescription of *Arctosa tbilisiensis* Mcheidze, 1947, a poorly known Pontocaspian wolf spider (Araneae, Lycosidae)

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### Summary

*Arctosa tbilisiensis* is redescribed, based on fresh material from Greece. Because of the loss of the original material from Georgia, a neotype has been designated. The species seems to have a Pontocaspian distribution.

### Introduction

The Mediterranean wolf spider fauna has partly been made accessible thanks to a series of reviews (e.g. Lugetti & Tongiorgi, 1965, 1967, 1969; Tongiorgi, 1966a, b). However, these works concentrate mostly on the western part of the area. The eastern part, which is very different from a zoogeographical viewpoint (see Blondel & Aronson, 1999 for review), is far less known as recent discoveries of new species have shown (e.g. Cordes, 1996; Thaler *et al.*, 2000). A recent collecting trip by the Belgian Arachnological Society to Greece produced many interesting species. One of them proved to be *Arctosa tbilisiensis*, a poorly known species described originally from Georgia by Mcheidze (1947). Ovtsharenko (1979) made the link with material from the other side of the Black Sea by considering *Arctosa*

*kozarovi* Buchar, 1968 from Bulgaria as a junior synonym. The species was also catalogued by Mikhailov (1997) from territories of the former Soviet Union, and included in the review of Bulgarian lycosids by Deltsev & Blagoev (1995). Thaler *et al.* (2000) provided additional faunistic data on the species from Greece, accompanied by colour photographs of both sexes and good drawings of the male palp.

Because of the availability of fresh specimens from different new localities and the relatively poor quality of some of the existing illustrations of this species (Buchar, 1968; Mcheidze, 1947), we judged it useful to provide a full redescription accompanied by good illustrations. Moreover, the type material of this species proves to have been lost due to a large fire at the University of Tbilisi, Georgia. Therefore, a neotype is proposed here, designated from material collected in a similar habitat on the southern slope of the Caucasus in Azerbaijan, about 300 km east of the original type locality.

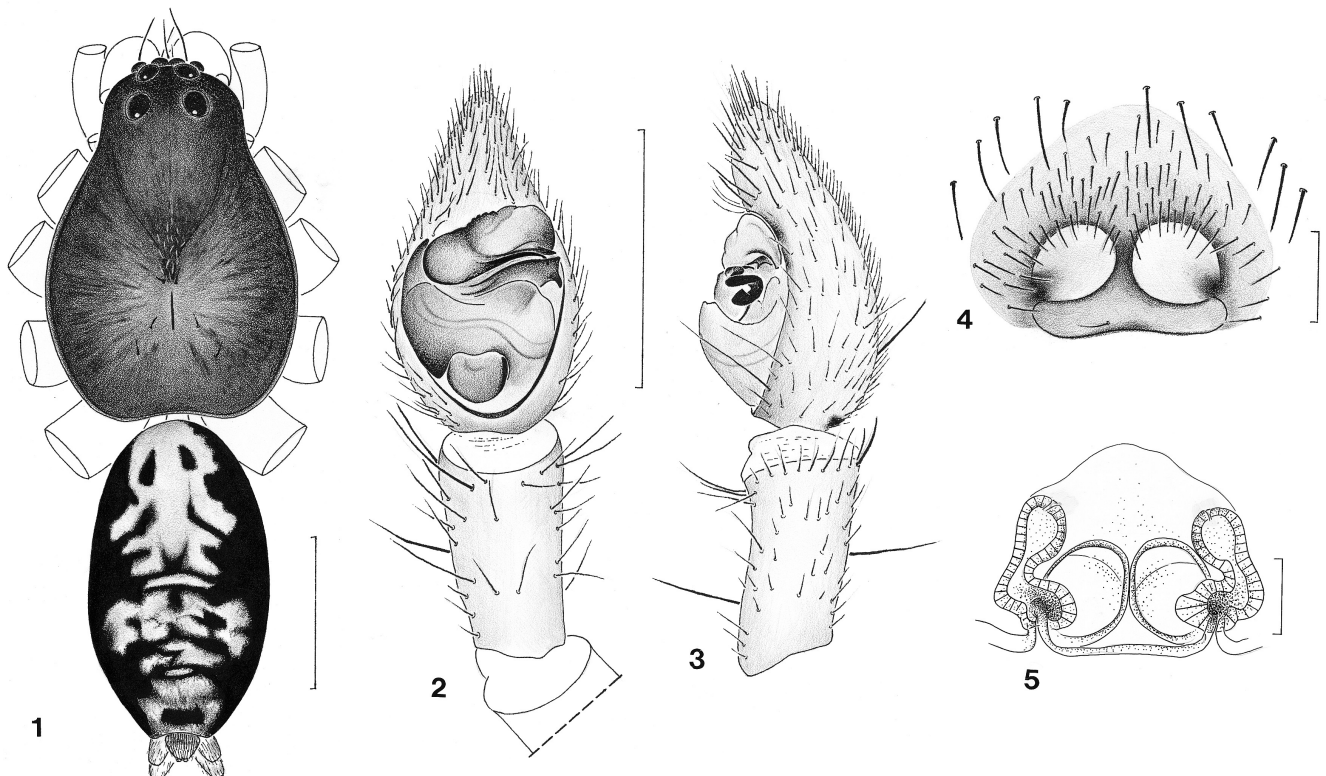
### *Arctosa tbilisiensis* Mcheidze, 1947 (Figs. 1–5)

*Arctosa tbilisiensis* Mcheidze, 1947: 285–287, 295–297, figs. 1–3 (descr. ♂♀).

*Arctosa kozarovi* Buchar, 1968: 128–129, fig. 5N, O (♀ holotype from Bulgaria, Sandanski).

*Arctosa tbilisiensis*: Ovtsharenko, 1979: 40 (syn.); Thaler, Buchar & Knoflach, 2000: 1076, figs. 15, 16, 49–51.

**Type material:** Neotype ♂: AZERBAIJAN, Geokczai river, south slope of Caucasus, July 1976, leg. Knobloch (deposited in Royal Belgian Institute of Natural Sciences, Brussels).



Figs. 1–5: *Arctosa tbilisiensis* Mcheidze, 1947. **1** Habitus of male; **2** Left male palp, ventral view; **3** Left male palp, lateral view; **4** Epigyne; **5** Vulva (cleared), ventral view. Scale lines=1.0 mm (1), 0.5 mm (2, 3), 0.1 mm (4, 5).

*Other material examined:* AZERBAIJAN: 18♂ 2♀, together with neotype (coll. M. Alderweireldt). GREECE: Maurovovni, along river, 2♂ 3♀, 27 May 1998, leg. J. Van Keer (coll. M. Alderweireldt & J. Van Keer); Rakita, grassland in mountains, 1♂, 31 May 1998, leg. J. Van Keer (coll. M. Alderweireldt).

*Diagnosis:* *Arctosa tbilisiensis* can be distinguished from all other known representatives of the genus by the typical shape of the median apophysis in the male palp (Figs. 2–3), the shape of the median septum of the epigyne (Fig. 4), and the striking colour pattern of the abdomen (Fig. 1).

*Description:* *Male:* Measurements (mean [range],  $n=5$ ): carapace length 2.32 [2.14–2.45] mm, carapace width 1.74 [1.63–1.84] mm, total length 4.17 [3.92–4.34] mm. Carapace: almost uniform chestnut brown, brilliant, with group of white hairs in front of fovea (Fig. 1). Sternum: uniform brown. Clypeus: uniform brown. Chelicerae: brilliant chestnut brown, inner margin with three almost equally sized teeth, outer margin with three teeth of unequal size. Abdomen: dorsally with very conspicuous pattern of white to pale yellow patches on dark grey to black background (Fig. 1). Spinnerets: uniform pale yellow. Legs: femora I almost completely dark brown, femora II–IV with apical half dark brown: darker femora contrasting with yellow to light orange colour of other leg segments; especially tibiae and metatarsi with some inconspicuous, slightly darker annulations. Palp (Figs. 2–3): almost uniform light brown; median apophysis ending in a typical broad hook.

*Female:* Measurements (mean [range],  $n=5$ ): carapace length 2.78 [2.66–2.91] mm, carapace width 2.15 [2.05–2.25] mm, total length 6.51 [6.35–6.68] mm. Carapace: almost uniform brown, somewhat paler than in male. Sternum: uniform light brown to yellow. Clypeus: uniform brown. Chelicerae: uniform brown, teeth as in male. Abdomen: dorsally with conspicuous pattern as in male. Spinnerets: uniform pale yellow. Legs: in general somewhat paler than in male; femora darkened as in male; no clear annulations visible on other leg segments. Epigyne (Fig. 4): with simple T-shaped median septum. Vulva (Fig. 5): with straight, untwisted, simple spermathecae.

*Distribution:* *Arctosa tbilisiensis* appears to have a typical Pontocaspian distribution, occurring on both

sides of the Black Sea, and is known now from Georgia, Azerbaijan, Russia, Bulgaria and Greece.

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### References

- BLONDEL, J. & ARONSON, J. 1999: *Biology and wildlife of the Mediterranean region*. 1–328. Oxford University Press.
- BUCHAR, J. 1968: Zur Lycosidenfauna Bulgariens (Arachn., Araneae). *Věst. čsl. Spol. zool.* **32**(2): 116–130.
- CORDES, D. 1996: A new wolf spider of the genus *Alopecosa* Simon from Greece (Araneae: Lycosidae). *Bull. Br. arachnol. Soc.* **10**(6): 211–214.
- DELTSHEV, C. D. & BLAGOEV, G. A. 1995: A critical review of family Lycosidae (Araneae) in Bulgaria. *Revue arachnol.* **10**: 171–198.
- LUGETTI, G. & TONGIORGI, P. 1965: Revisione delle specie italiane dei generi *Arctosa* C. L. Koch e *Tricca* Simon con note su una *Acantholycosa* delle Alpi Giulie (Araneae-Lycosidae). *Redia* **49**: 165–229.
- LUGETTI, G. & TONGIORGI, P. 1967: Su alcune specie dei generi *Arctosa* C. L. Koch e *Tricca* Simon (Araneae-Lycosidae). *Redia* **50**: 133–150.
- LUGETTI, G. & TONGIORGI, P. 1969: Ricerche sul genere *Alopecosa* Simon (Araneae-Lycosidae). *Atti Soc. tosc. Sci. nat* (Mem. Ser. B) **76**: 1–100.
- MCHEIDZE, T. 1947: Nov'e vid' paukov v Gruzii. *Bull. Mus. Géorgie* **13**(A): 285–302 [in Georgian and Russian].
- MIKHAILOV, K. G. 1997: Catalogue of the spiders of the territories of the former Soviet Union (Arachnida, Aranei). *Sb. Trud. zool. Muz. MGU* **37**: 1–416.
- OVTSHARENKO, V. I. 1979: Spiders of the families Gnaphosidae, Thomisidae, Lycosidae (Aranei) in the Great Caucasus. *Trudy zool. Inst. Leningr.* **85**: 39–53 [in Russian].
- THALER, K., BUCHAR, J. & KNOFLACH, B. 2000: Notes on wolf spiders from Greece (Araneae, Lycosidae). *Linzer biol. Beitr.* **32**(2): 1071–1091.
- TONGIORGI, P. 1966a: Italian wolf spiders of the genus *Pardosa* (Araneae: Lycosidae). *Bull. Mus. comp. Zool. Harv.* **134**(8): 275–334.
- TONGIORGI, P. 1966b: Wolf spiders of the *Pardosa monticola* group (Araneae, Lycosidae). *Bull. Mus. comp. Zool. Harv.* **134**(9): 335–359.