

**Contribution to the knowledge of pseudoscorpions in Armenia:
Atemnidae Kishida, 1929 and Cheliferidae Risso, 1827**

(Arachnida: Pseudoscorpiones: Atemnidae and Cheliferidae)

Noushig Zarikian & János Novák

Zarikian, N. & Novák, J. 2026. Contribution to the knowledge of pseudoscorpions in Armenia: Atemnidae Kishida, 1929 and Cheliferidae Risso, 1827 (Arachnida: Pseudoscorpiones: Atemnidae and Cheliferidae). Spixiana 49 (1): 23–30.

In this study, we report the first records of *Atemnus politus* (Simon, 1878) (Atemnidae), *Cheirochelifer heterometrus* L. Koch, 1873, and *Chelifer cancroides* (Linnaeus, 1758) (Cheliferidae) for Armenia. These findings also represent the first records of the genera *Atemnus* Beier, 1932 *Cheirochelifer* Beier, 1967; and *Chelifer* Geoffroy, 1762 for Armenia. Diagnostic characters supporting the identification of all three species are provided, and the significance of these findings for the regional arachnofauna is briefly discussed.

Noushig Zarikian (corresponding author), Scientific Center of Zoology and Hydroecology, P. Sevak 7, Yerevan, Armenia; e-mail: nzarikian@gmail.com

János Novák, Eötvös Loránd University, Faculty of Science, Institute of Biology, Budapest, Hungary; and National Laboratory of Virology, University of Pécs, 20, Ifjúság Rd, 7624 Pécs, Hungary

Introduction

Pseudoscorpions (Arachnida: Pseudoscorpiones) are a diverse, yet understudied group of small arachnids, many of which remain poorly documented throughout the Caucasus region. Despite their ecological importance as predators of small arthropods and indicators of microhabitat conditions (Harvey 2007, 2013, Heurtault 1994), the pseudoscorpion fauna of Armenia remains insufficiently explored. To date, only seventeen species and four additional subspecies have been recorded from the country (Schawaller & Dashdamirov 1988, Dashdamirov & Schawaller 1992, Gogshelidze & Novák 2024, WPC 2025) and comprehensive regional surveys are still lacking.

Species of the genus *Atemnus* Canestrini, 1884 (Pseudoscorpiones: Atemnidae) are widely distributed across Europe, the Middle East, and western Asia (Beier 1955, WPC 2025). Among them, *Atemnus politus* (Simon, 1878) is known from several regions of the Eastern Mediterranean, Anatolia, and the

Near East (WPC 2025). Still, its presence in the South Caucasus has remained unclear due to scarce sampling and limited taxonomic work (Dashdamirov & Schawaller 1992).

The only representative of the Atemnidae family from Armenia was *Diploaemnus balcanicus* (Redikorzev, 1928), which was reported recently (Gogshelidze & Novák 2024).

The family Cheliferidae Risso, 1827 with 273 species represents a morphologically quite diverse lineage within pseudoscorpiones, also characterized by a wide ecological amplitude. Members of the family are commonly associated with soil, tree bark, occasionally found in leaf litter and synanthropic habitats, and several species exhibit phoretic behaviour, facilitating their dispersal across broad geographic regions (Harvey 1992, Judson 1997).

The genus *Cheirochelifer* Beier, 1967 comprises a small number of species distributed mainly in Europe and the eastern Mediterranean region. Species of this genus are distinguished by their robust chelae, strongly curved palpal fingers, the arrangement of

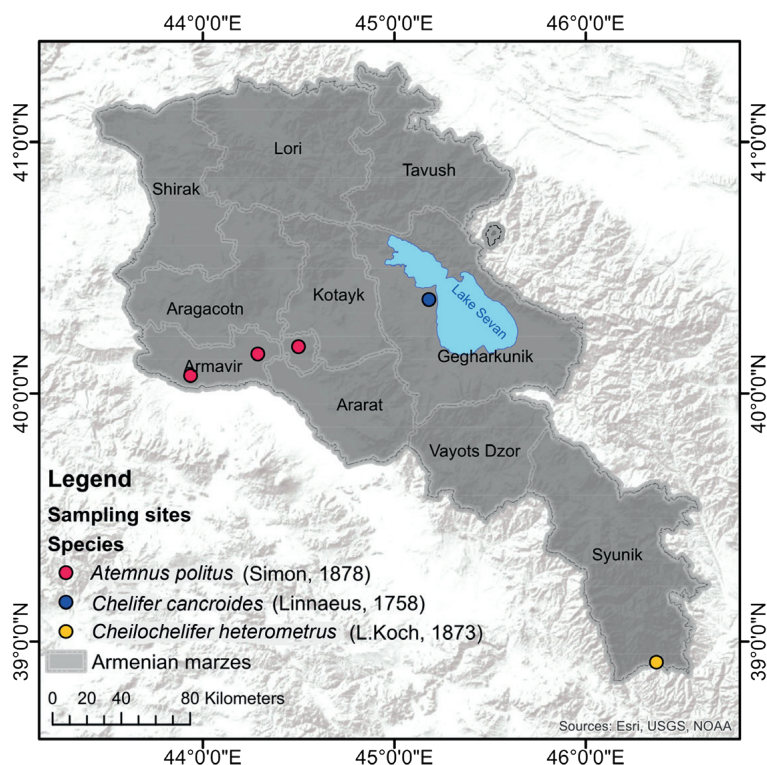


Fig. 1. Localities of the newly found species in Armenia.

chelar trichobothria, darkly sclerotized carapace, and characteristic abdominal pattern. Among them, *Cheirochelifer heterometrus* (L. Koch, 1873) is a well-defined and widely recognized species, previously reported from various parts of southern and central Europe and Anatolia (Mahnert 1978, WPC 2025).

In addition to *Atemnus* and *Cheirochelifer*, the species *Chelifer cancroides* (Linnaeus, 1758) represents another ecologically and biogeographically important lineage within Cheliferidae. *Chelifer cancroides* is one of the most widespread and frequently recorded species of the genus. It is commonly associated with tree bark, orchard habitats, and urban or suburban green spaces, and is often encountered in proximity to human settlements. Its tolerance of disturbed and anthropogenic environments has facilitated its broad distribution and frequent detection in neighborhoods, parks, and gardens (Zaragoza 2007, Beier 1963a, WPC 2025). Despite its wide range and ecological flexibility, *C. cancroides* has not previously been documented from Armenia.

The discovery of these three species in Armenia, therefore, represents an important faunistic addition, expanding the known distribution range

of the species and contributing to a more accurate understanding of pseudoscorpion diversity in the Caucasus biodiversity hotspot.

Materials and methods

Pseudoscorpions were collected from three localities in Armenia (Sardarapat, Yerevan, and Ejmiadzin) during the spring and autumn of 2025 (Fig. 1). The material includes specimens obtained from two habitat types: leaf litter and tree bark, all sampled in artificial forests near urban areas. Specimens were examined as temporary slide mounts in a lactic acid medium using a Carl Zeiss Jena biological microscope equipped with a Canon EOS 5D Mark IV camera, as well as a Bresser Advance Stereo microscope. After examination, the specimens were rinsed with water and returned to 96 % ethanol. All measurements are presented in millimetres. The maximum and minimum lengths of the body, carapace, chelicera, pedipalpal articles, and articles of legs I and IV were recorded for all examined adult specimens. The material is deposited in the collection of the Scientific Center of Zoology and Hydroecology, Armenia.

Results

Order Pseudoscorpiones De Geer, 1778
Superfamily Cheliferoidea Risso, 1826
Family Atemnidae Kishida, 1929
Genus *Atemnus* Beier, 1932

Atemnus politus (Simon, 1878)

Fig. 2A–D

Material examined: Armenia, 1♂ (SCZH Ps.0031); Armavir region, Sardarapat, artificial forest near the monument; 40°05'42.10"N, 43°56'40.84"E; 915 m a.s.l.; under tree bark; 14.May.2025 (leg. N. Zarikian). 1♂ (SCZH Ps.0036); Armavir region, Ejmiadzin, urban forest; 40°09'26.95"N, 44°17'14.75"E; 870 m a.s.l.; in leaf litter; 24.October.2025 (leg. N. Zarikian). 3♀, 1♂, 3 juv. (SCZH Ps.0041); Yerevan, Hrazdan River's Gorge; 40°11'10.61"N, 44°29'59.12"E; 970 m a.s.l.; in leaf litter; 12.October.2025 (leg. N. Zarikian).

Short description

Carapace and tergites yellowish-brown to dark reddish-brown, pedipalps dark reddish-brown, all other segments pale yellowish-brown. Carapace (Fig. 2A). 1.3 × longer than wide, smooth, with two transverse furrows. One pair of eyes is present. Six setae at the anterior and 6–8 on the posterior margin of the carapace. Lyrifissures: two situated in front of the anterior transverse furrow and 4–6 located near the posterior margin.

Chelicerae (Fig. 2B). 1.8–1.9 × longer than broad, with four setae on the hand; one seta on the movable finger; serrula exterior with 21 lamellae; galea with 5(♂) or 6(♀) branches; curved teeth at the base of the galea present; fixed finger with three small teeth at the marginal end.

Coxal region. Pedipalpal coxae with 2 marginal and one distal setae; coxa I: 4, coxa II: 4, coxa III: 6, coxa IV: 8 setae.

Pedipalps robust, prolateral side of femur, patella, and chelal hand with fine granulation; trochanter 1.1 ×, femur 3.1 × (♂) and 2.95–3.0 × (♀), patella 2.1–2.2 × (♂) and 2.5 × (♀), chela (Fig. 2D) 2.3–3.0 × (♂) and 2.3–3.1 × (♀) longer than broad. The venom apparatus is present only in the fixed finger. Chelal fingers are shorter than the hand without pedicel. Fixed chelal finger with 29–30, movable finger with 35 cusped teeth. Chelal trichobothria *b* and *sb* grouped together; *st* situated midway between *sb* and *t*.

Abdomen. Tergal chaetotaxy I–XI: 7:8:4:4:4:5:5:6:5:6:5:6:5:6:7:7:6:7; sternal chaetotaxy: III–XI: 6:8:8:6:6:6:7:6:5.

Legs Leg I: trochanter 1.4–1.5 × (♂) and 1.5–1.6 × (♀), femur 1–1.09 × (♂) and 1.0–1.1 × (♀), patella 2.3–3.2 × (♂) and 2.7–2.8 × (♀), tibia 2.9–3 × (♂) and

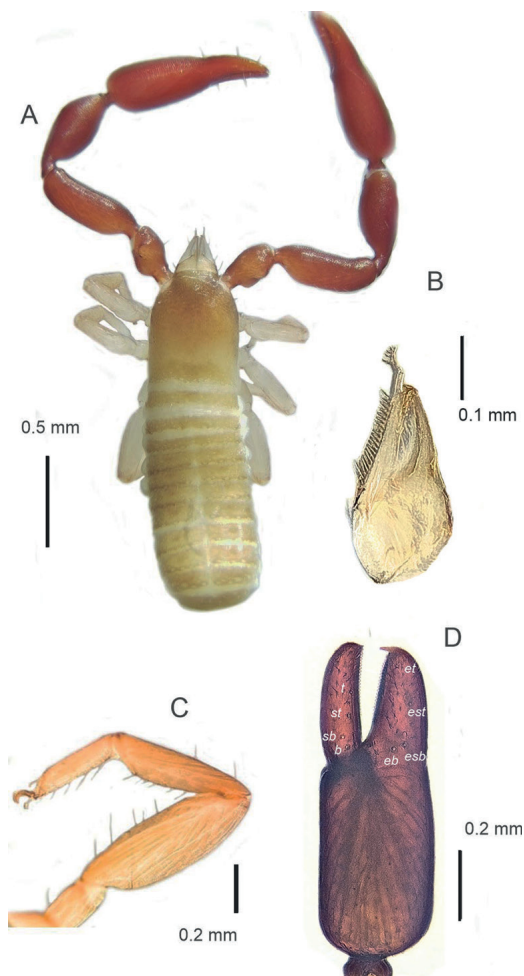


Fig. 2. *Atemnus politus*. A. General habitus; B. left chelicera, dorsal view; C. left leg IV, lateral view; D. right chela, lateral view.

2.7–2.9 × (♀), tarsus 5.8–6 × (♂) and 7.2–7.5 × (♀) times longer than deep. Leg IV (Fig. 2C): trochanter 1.4–1.5 × (♂) and 1.0–1.1 × (♀), femur + patella 3.5–3.6 × (♂) and 4.4–4.5 × (♀), tibia 2.0–2.05 × (♂) and 2.1 × (♀), tarsus 7.2–7.5 × (♂) and 7.2–7.7 × (♀) times longer than deep. Long seta of leg IV tarsus positioned proximal to the middle of the article.

Measurements (in mm). Body length 2.19–3.00 (♂) and 2.23–3.51 (♀); Carapace 0.68–0.69/0.52–0.53 (♂) and 0.70–0.71/0.52–0.53 (♀); chelicera 0.26–0.27/0.14–0.15 (♂) and 0.24–0.25/0.13 (♀); cheliceral movable finger 0.17–0.18 (♂) and 0.16–0.17 (♀). Pedipalp: trochanter 0.24–0.25/0.21 (♂) and 0.23–0.24/0.21 (♀); femur 0.62–0.63/0.20–0.21 (♂) and 0.59–0.60/0.20 (♀); patella 0.57–0.58/0.26–0.27 (♂)

and 0.55–0.56/0.22 (♀); chela 0.80–0.99/0.33–0.34 (♂) and 0.81–0.95/0.33–0.34 (♀); hand with pedicel 0.94–1.25 (♂) and 0.95–1.09 (♀); chelal movable finger 0.50–0.51 (♂) and 0.47–0.49 (♀). Leg I: trochanter 0.24–0.25/0.16–0.17 (♂) and 0.24–0.25/0.15–0.16 (♀); femur 0.11–0.12/0.09–0.11 (♂) and 0.15–0.16/0.14–0.15 (♀); patella 0.39–0.40/0.12 (♂) and 0.38–0.39/0.14 (♀); tibia 0.29–0.30/0.10 (♂) and 0.27–0.29/0.10 (♀); tarsus 0.29–0.30/0.05 (♂) and 0.29–0.30/0.04 (♀). Leg IV: trochanter 0.26–0.27/0.18 (♂) and 0.26–0.27/0.16 (♀); femur + patella 0.74–0.76/0.21 (♂) and 0.76–0.77/0.17 (♀); tibia 0.40–0.41/0.20–0.21 (♂) and 0.41–0.42/0.19–0.20 (♀); tarsus 0.29–0.30/0.04 (♂) and 0.29–0.31/0.04 (♀).

Remarks. The species was described by Simon (1878) from the type locality of Dhaya (as Daya), Sidi Bel Abbès, Algeria (Simon 1878). Since then, *Atemnus politus* turned out to be a species with a wide geographical area, ranging from the Western Mediterranean region to Middle Asia (WPC 2025). This new record for Armenia was expected, as the species was already known from neighbouring countries like Georgia and Turkey (WPC 2025). The Armenian specimens were attributed to *A. politus* primarily based on the long seta of leg IV tarsus positioned proximal to the middle of the article; the prolateral side of the femur, patella, and chelal hand with fine granulation; chelal trichobothrium *st* closer to *sb* than to *t*; the palpal patella 2.1–2.2 × longer than wide. The specimens examined in this study show morphological characters and morphometrical values fully consistent with the published descriptions (Beier 1932a,b, 1955) and with specimens from neighbouring regions (Kobakhidze 1962, Beier 1963a,b,c, Schawaller & Dashdamirov 1988, Dashdamirov & Schawaller 1992, Dashdamirov 1999). The species exhibits a relatively conserved morphology throughout its wide geographical range; nevertheless, molecular investigations to check for possible cryptic diversity would be desirable in the future.

Distribution. Widespread, found across Europe, Turkey, and the Middle East. Also reported from the neighbouring countries, Georgia, Azerbaijan, and Iran (WPC 2025).

Habitat. Dry environments by living under stones, tree bark, and in leaf litter, soil, and compost heaps, also found in tree hollows, bird nests, and even on moths for transport (Krajčovičová & Christophoryová 2014, Novák 2024).

Family Cheliferidae Risso, 1827 Genus *Cheirochelifer* Beier, 1967

Cheirochelifer heterometrus (L.Koch, 1873)

Fig. 3A–E

Material examined: Armenia, 1 ♀ (SCZH Ps.0066); Syunik region, south of Shvanidzor, riverside semi-desert area; 38°54'52.98"N, 46°22'13.02"E; 470 m a.s.l.; from light trap, the specimens were attached to a Lepidoptera; 24 April 2025 (leg. N. Zarikyan).

Short description

Carapace 1.8 × longer than wide, colour blackish dark brown with a distinctly darker anterior region; with 2 transverse furrows. Surface distinctly granulated (Fig. 3A). One pair of corneate eyes present. Four setae at the anterior margin and ten on the posterior margin. Two pairs of lyrifissures located near the posterolateral margins.

Chelicerae. 1.9 × longer than broad. Cheliceral palm with five setae; the serrula exterior bears 22 lamellae, of which the basal blade is distinctly elongated and terminates in a pointed tip. Galea broken (Fig. 3B).

Coxal region. Pedipalpal coxae with 3 marginal and 1 discal setae. Pedipalp coxae with 16–17 setae: Coxa I 7–8, II 7–8, III 7–10, IV 23–25.

Pedipalps dark brown and slightly granulate; the palpal femur is 2.2 × patella 1.8 ×, and chela (Fig. 3C) 2.1 × longer than broad. Venom duct short and present on both fingers. Trichobothrial arrangement. Fixed finger with 7 (*est* missing), movable finger with 4 trichobothria. The typical arrangement of the genus was observed in the newly found specimen – *b*, *sb*, and *st* were grouped basally on movable chelal finger; *est* absent; *ib*, *isb*, *ist*, and *it* grouped basally on fixed chelal finger. Chelal fingers are slightly shorter than the hand without a pedicel. The fixed finger with 33 marginal teeth, movable finger with 37 marginal teeth (Fig. 3D).

Abdomen. Tergal chaetotaxy I–XI: 4–4:5–5:5–5:5–5:5–5:6–6:6–6:7–7:8–8:6–6:8; sternal chaetotaxy: III–XI: 5–5:5–5:7:5–7:5–7:5–7:5–7:5–7:5–7:5–7:5–7:5–4–5.

Legs. Leg I: trochanter 1.27 ×, femur 1.10 ×, patella 3.1 ×, tibia 3.2 ×, tarsus 5.7 × times longer than deep; leg IV (Fig. 3D): trochanter 1.1 ×, femur + patella 2.5 ×, tibia 2.3 ×, tarsus 2.75 × times longer than deep.

Measurements (in mm). Body length 3.90; carapace 0.90/0.50; chelicera 0.27/0.14; cheliceral movable finger 0.14. Pedipalp: trochanter 0.26/0.18; femur 0.48/0.21; patella 0.51/0.28; chela 1.08/0.51; hand with pedicel 1.22; chelal movable finger 0.20.

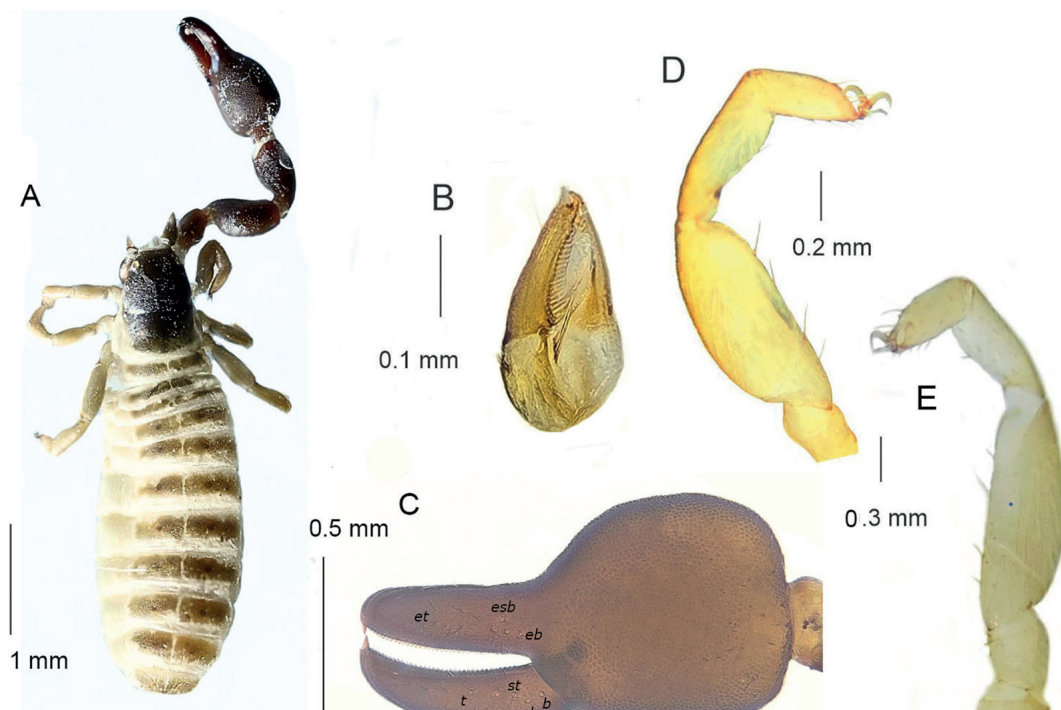


Fig. 3. *Cheirochelifer heterometrus*. A. General habitus; B. left chelicera, dorsal view; C. left chela, lateral view; D. right leg IV, lateral view; E. left leg I, lateral view.

Leg I: trochanter 0.14/0.11; femur 0.16/0.14; patella 0.35/0.11; tibia 0.29/0.09; tarsus 0.23/0.04 (Fig. 3E). Leg IV: trochanter 0.19/0.17; femur + patella 0.62/0.24; tibia 0.42/0.18; tarsus 0.33/0.12 (Fig. 3D).

Remarks. The Armenian specimen of *Cheirochelifer heterometrus* fits well with the diagnostic features provided by L. Koch (1873) and the revised redescription by Mahnert (1978). The distinctly dark, strongly sclerotized carapace, characterized by two transverse furrows, combined with the characteristic banded abdominal pattern, clearly corresponds to the typical morphology of the species. The pedipalpal proportions, particularly the relatively short and robust chela, the strongly curved fingers, and the high number of marginal teeth (33 on the fixed and 37 on the movable finger) fall within the known variation for *C. heterometrus* from Anatolia and the eastern Mediterranean (Beier 1963b, Mahnert 1978). The typical chelal trichobothrial arrangement of the genus was observed in the newly found specimen – *b*, *sb*, and *st* grouped basally; *est* was not present; *ib*, *isb*, *ist*, and *it* grouped basally. This constitutes the first verified record of *C. heterometrus* from Armenia and the Caucasus. The specimen was collected from

a light trap attached to a lepidopteran, which is the first observation of phoresy in the genus. Another species of the genus, *C. turcicus* Beier, 1967, is also present in the neighbouring Turkey. Mahnert (1978) highlighted that the two species could not be morphologically distinguished from each other; however, he insisted on designating *C. turcicus* as a junior synonym of *C. heterometrus*. Due to recent molecular results (Just et al. 2023, Muster et al. 2024), we know that a tendency of cryptic diversity is present within the family Cheliferidae. In light of those results, we also would like to keep *C. heterometrus* and *C. turcicus* as two separate species until molecular investigation of topotypical materials will be possible. Until such a clarifying investigation will be performed, we assign the newly found specimen to *C. heterometrus* as the older taxon.

Distribution. France (mainland); Greece (Kyklades); Italy (Sardinia); Turkey (WPC 2025).

Habitat. No available data regarding specific habitats and microhabitats.

Genus *Chelifer* Geoffroy, 1762

Chelifer cancroides (Linnaeus, 1758)

Fig. 4A–D

Material examined: Armenia, 1♂ (SCZH Ps.0014); Gegharkunik region, Noratus; 40°22'26.95"N, 45°10'53.68"E; 1925 m a.s.l.; from the house basement; 15.March.2025 (leg. L. Nesisyan).

Short description

Carapace dark brown, with two shallow but distinct transverse furrows. Surface finely granulate, at some parts weakly reticulate (Fig. 4B). Carapace approximately 1.27× longer than wide, with two corneate eyes. Four setae on the anterior margin and 10 setae on the posterior margin present. Two pairs of lyrifissures located posterolaterally.

Chelicerae 2.2× longer than broad. Cheliceral palms is with 4 setae and 1 subdistal seta located on the movable finger; serrula exterior with 14 lamellae; rallum with 3 blades. Galeae broken (Fig. 4A).

Coxal region. Pedipalpal coxae with 3 marginal and 1 discal setae. Pedipalp coxae with 4 setae. Coxa: I 7–8, II 7–9, III 8–10, IV 23–26.

Pedipalps (Fig. 4B) are dark brown and finely granulate; palpal femur is 7×, patella 7.3×, chela 4.2× longer than broad. Fixed chelal finger with 7 trichobothria, while the movable finger has 3 trichobothria, *eb*, *esb*, *ib*, and *ist* situated sub-basally, *esb* is closer to *et*, *et* situated closer to the end of the finger, *t* situated subdistally, and *st* located midway. Chelal fingers are slightly shorter than the hand without a pedicel. The fixed finger has 36 marginal teeth, while the movable finger has 40 marginal teeth (Fig. 4D).

Abdomen. Tergal chaetotaxy 12–14:14–17:14–20:15–21:16–24:18–26:19–26:18–25:18–23:17–24:12–20:2; sternal chaetotaxy: IV–XI:6–7:8–8:8–8:7–8:7–7:6–6:6–6:2.

Legs. Leg I: trochanter 1.08×, femur 2.52×, patella 1.90×, tibia 4.06×, tarsus 4.81× times longer than deep; leg IV: trochanter 1.75×, femur + patella 2.93×, tibia 4.60×, tarsus 6.76× times longer than deep. Tarsus of male leg I unmodified; claws of leg IV (Fig. 4C) with accessory teeth.

Measurements (in mm). Body length 3.20; carapace 0.83/0.65; chelicera 0.32/0.14; cheliceral movable finger 0.22. Pedipalpal trochanter 0.47/0.23; femur 1.40/0.20; patella 1.90/0.26; chela 1.81/0.43; hand with pedicel 0.94; chelal movable finger 0.22. Leg I: trochanter 0.25/0.23; femur 0.48/0.19; patella 0.40/0.21; tibia 0.61/0.15; tarsus 0.53/0.11. Leg IV: trochanter 0.51/0.29; femur + patella 1.38/0.47; tibia 1.06/0.23; tarsus 0.88/0.13 (Fig. 4D).

Remarks. The Armenian specimen of *Chelifer cancroides* fits well with the diagnostic features provided in the literature (Beier 1932b, Christophoryová et al. 2011). The specimen was attributed to *C. cancroides* primarily based on having the claws of leg IV with accessory teeth; having 4 setae on the cheliceral hand; tarsus of male leg I unmodified.

This represents the first verified record of *Chelifer cancroides* from Armenia; the species has previously been recorded from neighbouring countries like Georgia and Turkey (Kvavadze et al. 2008, Kunt et al. 2008). The specimen was collected from a house basement, a habitat frequently reported for the species and widely recognized as synanthropic (Ostrovsky 2020, Christophoryová et al. 2025).

Distribution. Cosmopolitan species (WPC 2025).

Habitat. Human structures, under bark/wood crevices, caves, bird nests, bee nests/hives, phoretic on other animals, leaf litter/natural detritus (Beier 1932b, 1963b, Ressler 1963, 1965, Atakishiev 1969, Christophoryová et al. 2014, Krajčovičová & Christophoryová 2014, Novák 2024).

Discussion

The present study significantly expands the known pseudoscorpion fauna of Armenia by documenting the first confirmed records of *Atemnus politus*, *Cheirochelifer heterometrus*, and *Chelifer cancroides*. All three species represent genera previously unrecorded from the country, underscoring the extent to which Armenian pseudoscorpions remain insufficiently explored.

Atemnus politus, a species widely distributed across the Eastern Mediterranean, had not been previously reported from Armenia despite its occurrence in neighbouring regions. The Armenian specimens were collected from leaf litter and beneath tree bark in artificial forests near urban areas, habitats consistent with those reported throughout the species' range.

The record of *Cheirochelifer heterometrus* represents an important eastward extension of its known distribution into the southern Caucasus. The specimen was collected in a semi-desert riparian environment using a light trap. However, as it was a phoretic specimen, this habitat data should be handled only tentatively.

Chelifer cancroides represents a particularly notable faunistic addition due to its cosmopolitan distribution and strong association with synanthropic environments. The Armenian specimen was collected from a house basement, a microhabitat frequently reported for this species across its range. Its frequent occurrence in proximity to humans, combined with

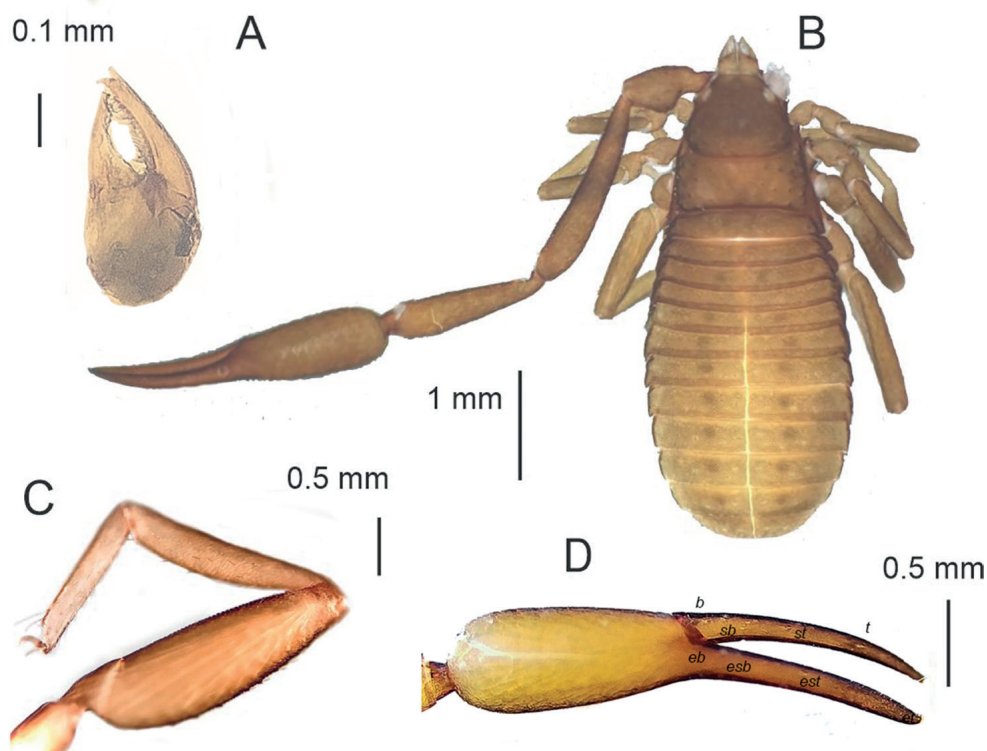


Fig. 4. *Chelifer cancroides*. **A.** Left chelicera, dorsal view; **B.** general habitus; **C.** left leg IV, lateral view; **D.** right chela, lateral view.

its capacity for passive dispersal via phoresy, has facilitated its near-global distribution. The absence of previous records from Armenia is therefore best explained by insufficient sampling rather than true absence.

The morphological conformity of all examined specimens with published descriptions confirms the reliability of identifications and indicates no evidence of regional differentiation at present.

The occurrence of these three species across artificial forests, semi-desert riparian habitats, and synanthropic indoor environments highlights the ecological diversity of pseudoscorpions inhabiting Armenia.

These findings further emphasize the incompleteness of current knowledge regarding the Armenian arachnofauna. Given the Caucasus' status as a major biodiversity hotspot, expanded pseudoscorpion surveys incorporating synanthropic habitats, arboreal substrates, and phoretic sampling are likely to yield additional new records. Continued research will be essential for clarifying species distributions, dispersal mechanisms, and biogeographic relationships in the southeastern Palearctic region.

Acknowledgements

This research was supported by the Higher Education and Science Committee of MESCS Republic of Armenia (research project No. 24 WS-1F017). We are grateful for the helpful suggestions and comments of the Reviewer.

Disclosure statement

The authors declare that there is no conflict of interest.

References

- Atakishiev, T. A. 1969. The pseudoscorpion *Chelifer cancroides* in bee hives. Scientific Notes, Proceedings of the Kazan State Veterinary Institute 105: 324–327.
- Beier, M. 1932a. Revision der Atemnidae (Pseudoscorpionidea). Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere 62: 547–610.
- Beier, M. 1932b. Pseudoscorpionidea II. Suborder C. Cheliferinea. i–xxi, 1–294 pp. in: Wermuth et al. (eds) Das Tierreich/ The Animal Kingdom, Lieferung 58. Berlin (De Gruyter).

- Beier, M. 1955. Neue Beiträge zur Kenntnis der iberischen Pseudoscorpioniden-Fauna. Eos, Madrid 31: 87–122.
- Beier, M. 1963a. Ordnung Pseudoscorpionidea (After-skorpione). i–vi, 1–313 pp. in: Bestimmungsbücher zur Bodenfauna Europas, Bd. 1. Berlin (Akademie-Verlag).
- Beier, M. 1963b. Die Pseudoscorpioniden-Fauna Israels und einiger angrenzender Gebiete. Israel Journal of Zoology 12: 183–212.
- Beier, M. 1963c. Pseudoskorpione aus Anatolien. Annalen des Naturhistorischen Museums in Wien 66: 267–277.
- Christophoryová, J., Štáhlavský, F. & Fedor, P. 2011. An updated identification key to the pseudoscorpions (Arachnida: Pseudoscorpiones) of the Czech Republic and Slovakia. Zootaxa 2876: 35–48. <https://doi.org/10.11646/zootaxa.2876.1.4>
- Christophoryová, J., Štáhlavský, F. & Krajčovičová, K. 2014. Štúriky (Arachnida, Pseudoscorpiones) pohoria Burda (NPR Kováčovské Kopce). Folia Faunistica Slovaca 19: 161–167.
- Christophoryová, J., Rusinko, A., Purkart, A. & Vičanová, L. 2025. Urban biodiversity of pseudoscorpions (Arachnida: Pseudoscorpiones) in the conditions of Central Europe. Zootaxa 5590(1): 1–45. <https://doi.org/10.11646/zootaxa.5590.1.1>
- Dashdamirov, S. 1999. New records of false scorpions in the Caucasus (Arachnida: Pseudoscorpiones). Arthropoda Selecta 8: 79–87.
- Dashdamirov, S. & Schawaller, W. 1992. Pseudoscorpions of the Caucasian fauna (Arachnida Pseudoscorpionida). Arthropoda Selecta 1(4): 31–72.
- Gogshelidze, M. & Novák, J. 2024. First record of the family Atemnidae (Pseudoscorpiones) from Armenia. Caucasiana 3: 257–262. <http://doi.org/10.3897/caucasiana.3.e137446>
- Harvey, M. S. 1992. The phylogeny and classification of the Pseudoscorpionida (Chelicerata: Arachnida). Invertebrate Taxonomy 6: 1373–1435.
- Harvey, M. S. 2007. The smaller arachnid orders: diversity, descriptions and distributions from Linnaeus to the present (1758 to 2007). Zootaxa 1668(1): 363–380. <https://doi.org/10.11646/zootaxa.1668.1.19>
- Harvey, M. S. 2013. Pseudoscorpions of the World, version 3.0. Western Australian Museum, Perth. <http://www.museum.wa.gov.au/catalogues/pseudoscorpions>
- Heurtault, J. 1994. Pseudoscorpions. Pp. 185–196 in: Juberthie, C. and Decu, V. (eds) Encyclopaedia biospeologica, Vol. 1. Moulis and Bucarest (Société de Biospeologie).
- Judson, M. L. I. 1997. Catalogue of the pseudoscorpion types (Arachnida: Chelonethi) in the Natural History Museum, London. Occasional Papers on Systematic Entomology 11: 1–54.
- Just, P., Štáhlavský, F., Bogusch, P., Astapenkova, A. & Opatova, V. 2023. Dispersal capabilities do not parallel ecology and cryptic speciation in European Cheliferidae Pseudoscorpions (Pseudoscorpiones: Cheliferidae). Diversity 15: 1040. <https://doi.org/10.3390/d15101040>
- Kobakhidze, D. 1962. About the locality of the pseudoscorpion *Atemnus ponticus* (Sim) in Georgia. Bulletin of Georgian Academy of Sciences 29(2): 197–198. [in Russian]
- Koch, L. 1873. Übersichtliche Darstellung der europäischen Chernetiden (Pseudoscorpione). Nürnberg (Bauer und Raspe).
- Krajčovičová, K. & Christophoryová, J. 2014. Faunistic survey of pseudoscorpions (Arachnida: Pseudoscorpiones) collected from trees and using Malaise traps in Slovakia and the Czech Republic. Klapalekiana 50: 167–180.
- Kunt, K. B., Bayram, A., Yağmur, E. A. & Danişman, T. 2008. Checklist of the pseudoscorpions of Turkey (Pseudoscorpionida; Arachnida). Turkish Journal of Arachnology 1(1): 70–84.
- Kvavadze, E., Arabuli, T. & Murvanidze, M. 2008. The pseudoscorpions (Arachnida: Pseudoscorpiones) of Georgia. Proceedings of the Institute of Zoology, Tbilisi 23: 68–73.
- Mahnert, V. 1978. Zwei neue *Rhacochelifer*-Arten aus dem westlichen Mediterrangebiet und Wiederbeschreibung von *Chelifer heterometrus* L. Koch. Comptes Rendus des Séances de la Société de Physique et d'Histoire Naturelle de Genève, Nouvelle Série, 12: 14–24.
- Muster, C., Corba, J., Bogusch, P., Heneberg, P. & Štáhlavský, F. 2024. And yet they differ: reconsideration of diversity within *Dactylochelifer latreillii* (Arachnida: Pseudoscorpiones). Diversity 16: 137. <https://doi.org/10.3390/d16030137>
- Novák, J. 2024. An updated checklist for the pseudoscorpion fauna of Hungary (Arachnida: Pseudoscorpiones). Zootaxa 5433(1): 51–95. <https://doi.org/10.11646/zootaxa.5433.1.2>
- Ostrovsky, M. A. 2020. On the fauna of false scorpions (Arachnida: Pseudoscorpiones) of south-eastern Belarus. Ecosystem Transformation 3(2): 11–21.
- Ressl, F. 1963. Können Vögel als passive Verbreiter von Pseudoscorpioniden betrachtet werden? Vogelwelt 84: 114–119.
- Ressl, F. 1965. Über Verbreitung, Variabilität und Lebensweise einiger österreichischer Afterskorpione. Deutsche Entomologische Zeitschrift 12: 289–295.
- Schawaller, W. & Dashdamirov, S. 1988. Pseudoskorpione aus dem Kaukasus, Teil 2 (Arachnida). Stuttgarter Beiträge zur Naturkunde (A) 415: 1–51.
- Simon, E. 1878. Liste des espèces de la famille des Cheliferidae qui habitent l'Algérie et le Maroc. Annales de la Société Entomologique de France, Sér. 5, 8: 144–153.
- World Pseudoscorpiones Catalog (WPC) 2025. World Pseudoscorpiones Catalog. Natural History Museum Bern. Online at <http://wac.nmbe.ch> [accessed on 18. October 2025].
- Zaragoza, J. A. 2007. Catálogo de los Pseudoscorpiones de la Península Ibérica e Islas Baleares (Arachnida: Pseudoscorpiones). Revista Ibérica de Aracnología 13: 3–91.