



# First record of *Augeriflechtmannia penisinuus* (Acari: Tetranychidae) in Asia, from Iran

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The genus *Augeriflechtmannia* Koçak & Kemal, 2008, belongs to the family Tetranychidae, subfamily Tetranychinae and tribe Tetranychini. Genus *Augeriflechtmannia* includes six known species, of which three species have been identified from Iran: *A. astragalus* Mahdavi, Asadi, Latifi & Seeman, 2021, collected on *Astragalus* sp. (Fabaceae); *A. baloxyloni* Mahdavi, Latifi, Asadi & Auger, 2022, collected on *Haloxylon ammodendron* (Amaranthaceae); and *A. iraniensis* (Mahdavi & Ueckermann 2013), collected from *Salsola* sp. (Amaranthaceae) (Mahdavi and Ueckermann 2013; Mahdavi *et al.* 2021, 2022; Migeon and Dorkeld 2025). In this paper, *A. penisinuus* (Auger & Flechtmann, 2003) is the first record from Asia and the second report of this species worldwide. During a survey of tetranychid mites, six females and seven males of *A. penisinuus*, were collected and identified on *Salsola* sp. (Amaranthaceae). Leaves and sheaths were collected in plastic bags and taken to the laboratory. The dipping-washing-filtering method was used to extract the mites (Boller 1984). The samples were then filtered through a sieve (400 mesh). The mites retained on the sieve were washed with 75% ethanol into a Petri dish, then collected individually under a stereomicroscope and mounted in Hoyer's medium. Mites were identified using an Olympus BX43 phase-contrast compound microscope.

## Family Tetranychidae Donnadieu, 1875

### Subfamily Tetranychinae Berlese, 1913

### Tribe Tetranychini Reck, 1950

### Genus *Augeriflechtmannia* Koçak & Kemal, 2008

*Diplonychus* Auger & Flechtmann, 2003: 75. (Preoccupied)

*Augeriflechtmannia* Koçak & Kemal, 2008

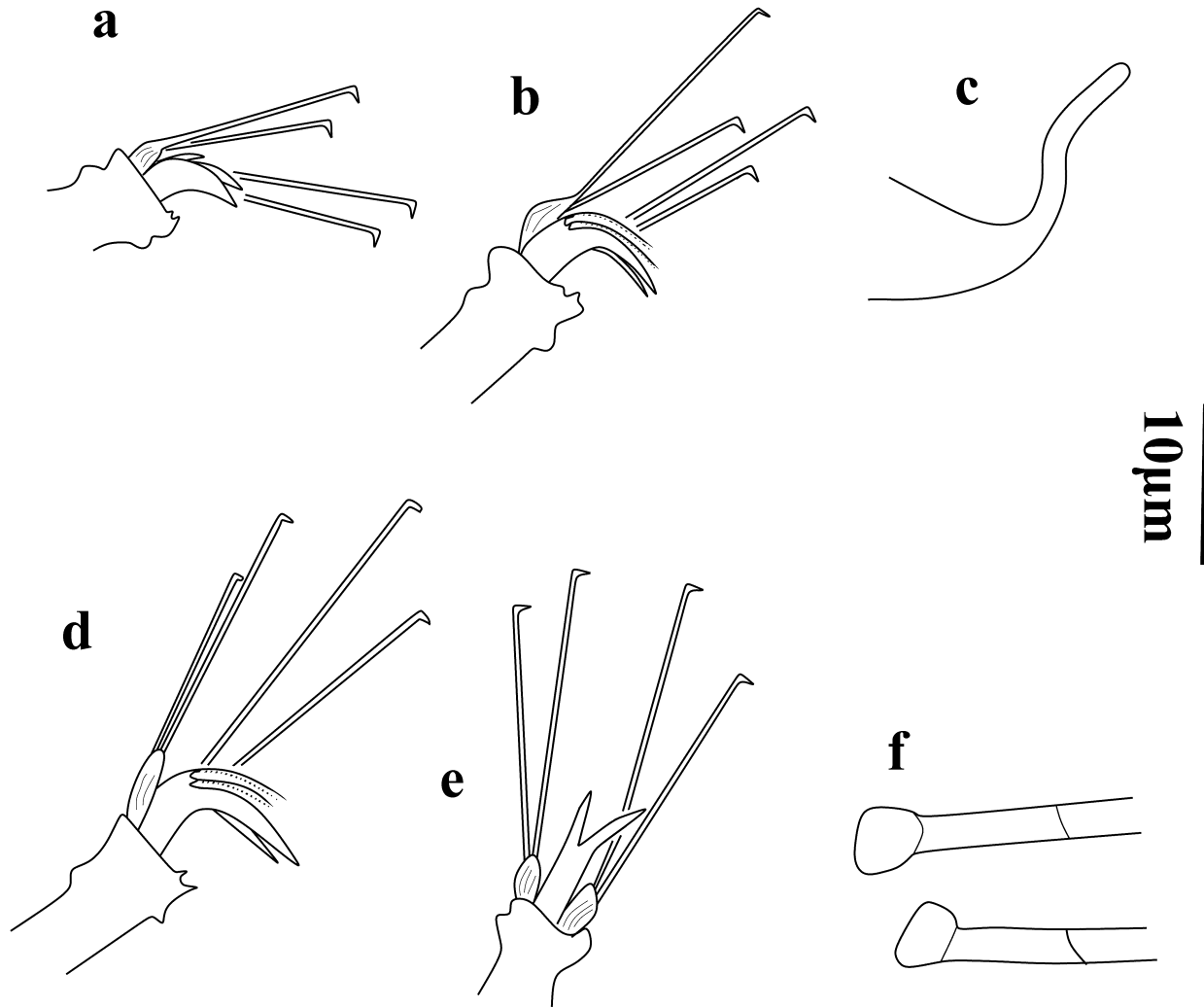
**Type-species:** *Augeriflechtmannia jeridi* (Auger & Flechtmann, 2003)

### *Augeriflechtmannia penisinuus* (Auger & Flechtmann, 2003) (Figs 1–2)

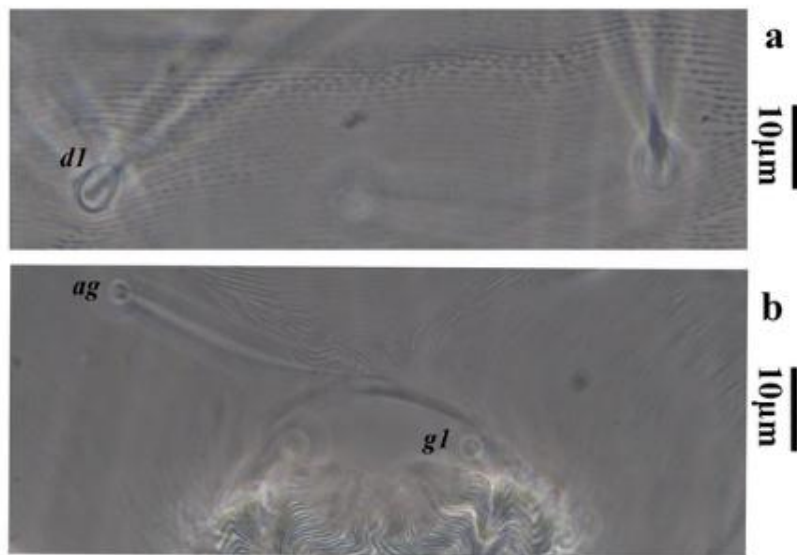
The first report of *Augeriflechtmannia penisinuus* (Auger & Flechtmann, 2003) was from *Cornulaca monacantha* and *Salsola* sp. in Tunisia. This species was collected from *Salsola* sp. (Amaranthaceae) in Iran, Kerman, Kerman Province, 30° 15' 27" N, 56° 38' 52" E, altitude 1749m a.s.l., on 10 September 2023,



coll. D. Bastani-Rad.



**Figure 1.** *Angerjlecbtmannia penisinuus* – Male. **a.** Empodia I; **b.** Empodia II–IV; **c.** Aedeagus; Female. **d.** Empodia I–IV; **e.** Empodia I–IV (dorsal view); **f.** End of peritreme.



**Figure 2.** *Angerjlecbtmannia penisinuus* (Female) – **a.** Dorsal striation; **b.** Pregenital area.

*Augeriflechtmannia penisinuosus* (Auger & Flechtmann, 2003) is newly recorded from Asia and Iran. Iranian specimens match the original description. The species was described in the genus *Diplonychus* but later transferred to *Augeriflechtmannia* Koçak & Kemal, 2008. This species differs from other species of the genus *Augeriflechtmannia* by having a typical aedeagus that bears a long sigmoid distal part (Fig. 1c). This report is the third species of spider mite to be recorded on the genus *Salsola* from Iran.

**Author contributions:** Methodology: D.B.R, M.L, S.M.M, I.E.B; Sampling, collection and preparation of specimens: D.B.R.; Analyses and data curation: D.B.R., S.M.M.; Illustration and photography: D.B.R.; writing – original draft preparation: D.B.R.; writing – revisions and editing: I.E.B., M.L., S.M.M.; supervision: M.L.; funding acquisition: M.L. All authors have read and agreed to the published version of the manuscript.

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**Data availability:** VUR—Collection of the Acarology Laboratory, Vali-e-Asr University of Rafsanjan, Kerman, Iran. Specimens are available under request.

**Ethics approval:** This study only included arthropod material, and all required ethical guidelines for the treatment and use of animals were strictly adhered to in accordance with international, national, and institutional regulations. No human participants were involved in any studies conducted by the authors for this article.

**Conflict of interest:** The authors declare no conflict of interest.

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