

A new species of the genus *Gaeolaelaps* Evans & Till (Acari: Mesostigmata: Laelapidae) from China*

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As members of the family Laelapidae, *Gaeolaelaps* species are generally acknowledged from litter and edaphic habitats (Joharchi 2019; 2022). The taxonomic history of *Gaeolaelaps* is complicated and long-term (Halliday & Lindquist 2007). *Gaeolaelaps* was first defined by Evans and Till (1966) and used to be a subgenus of *Hypoaspis* (Halliday & Lindquist 2007; Beaulieu 2009). Prior to this paper, the genus *Gaeolaelaps* consisted of more than 120 described species (Nemati & Mohseni 2013; Kazemi 2020), with 20 species reported from China (Yan *et al.* 2018). Herein, a new species of *Gaeolaelaps* Evans & Till, 1966, *Gaeolaelaps* **sp. nov.** is described from adult females collected in soil under the *Osmanthus* trees in Jiangxi Province, China.

This new species can be recognized by having a smaller dorsal shield, covering only about 40 percent of dorsal idiosoma, with 39 pairs of moderately long and smooth common setae (Fig. 1A); anterior margin of sternal shield with deep V-shaped depression and pointed setae *st2* and *st3* (Fig. 1B).

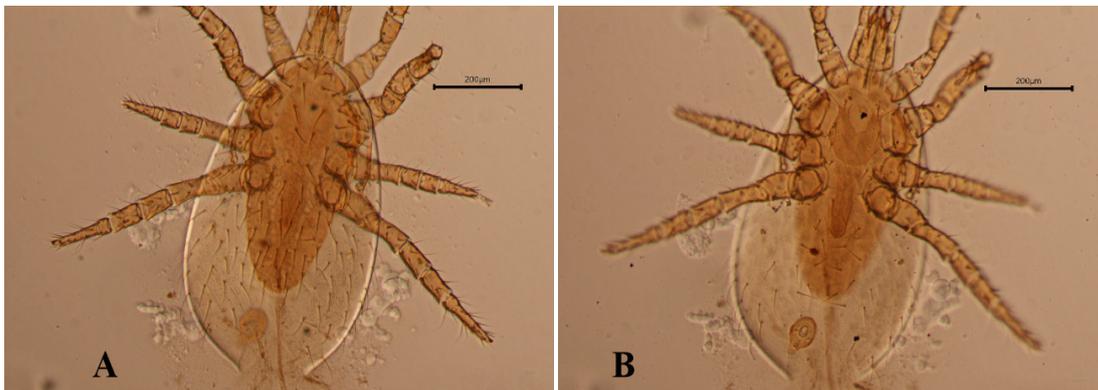


FIGURE 1. Phase-contrast micrographs of *Gaeolaelaps* “d” **sp. nov.** (female)—A. Dorsal idiosoma B. Ventral idiosoma; Scale bars = 200µm.

References

- Beaulieu, F. (2009) Review of the mite genus *Gaeolaelaps* Evans & Till (Acari: Laelapidae), and description of a new species from North America, *G. gillespiei* n. sp. *Zootaxa*, 2158, 33–49.
https://doi.org/10.11646/zootaxa.2158.1.3
- Evans, G.O. & Till, W.M. (1966) Studies on the British Dermanyssidae (Acari: Mesostigmata). Part II. Classification. *Bulletin of the British Museum (Natural History), Zoology*, 14, 107–370.
- Halliday, R.B. & Lindquist, E.E. (2007) Nomenclatural notes on the names *Gaeolaelaps* and *Geolaelaps* (Acari: Laelapidae).

Zootaxa, 1621, 65–67.

<https://doi.org/10.11646/zootaxa.1621.1.6>

Joharchi, O., Nemati, A., Döker, Ý. & Khaustov, V.A. (2022) *Gaeolaelaps hajiqaanbari* Joharchi & Nemati sp. nov. (Acari: Mesostigmata: Laelapidae) from Western Siberia, Russia. *Persian Journal of Acarology*, 11(1), 11–22.

Joharchi, O., Khaustov, A.A. & Ermilov, S.G. (2019) Two new species of *Gaeolaelaps* Evans & Till (Acari: Laelapidae) from Sri Lanka. *Zootaxa*, 4615(3), 563–576.

<https://doi.org/10.11646/zootaxa.4615.3.9>

Kazemi, S. (2020) A new species of *Gaeolaelaps* Evans and Till (Mesostigmata: Laelapidae) from mangrove forests in the Persian Gulf, and notes on gnathosomal structures of the genus and other laelapid genera. *International Journal of Acarology*, 46(3), 130–139.

<https://doi.org/10.1080/01647954.2020.1737223>

Nemati, A. & Mohseni, M. (2013) Two new species of *Gaeolaelaps* (Acari: Laelapidae) from Iran. *Zootaxa*, 3750(1), 71–82.

<https://doi.org/10.11646/zootaxa.3750.1.5>

Yan, Y., Zhang, Q., Guo, X.G. & Xie, L.X. (2018) Notes on the genus *Gaeolaelaps* (Acari: Laelapidae) with a newly recorded species from China. *Entomotaxonomia*, 40(4), 257–266.