



## A NEW RECORD OF THE MESOSTIGMATA MITE, *Sertitympanum aegyptiacum* Nasr & Abou-Awad, 1986 (ACARI: AMEROSEIIDAE) FROM INDIA

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### ABSTRACT

The present paper details the diversity of Indian Ameroseiidae, reporting the first record of *Sertitympanum aegyptiacum* Nasr & Abou-Awad, 1986 in India. This species was collected from soil and litter habitats at Warangal Fort, Hyderabad, Telangana state, India. We provide a list of previously recorded Ameroseiidae species from India, alongside a diagnosis, habitat information, illustrations, and distribution for the newly recorded species.

**KEYWORDS:** New Record, Ameroseiidae, Mesostigmata, Acari, India

The family Ameroseiidae is an important family of mites within the superfamily Ascoidea. Globally, it comprises approximately 138 valid species across 12 genera (Khalili-Moghadam & Saboori 2021; Mašán 2017). This family exhibits a worldwide distribution and inhabits diverse environments, including soil and litter, dead wood and associated fungi, flowers, animal nests, tree hollows, and humid soils. They are also found in association with various animals such as bees, wasps, butterflies, and birds (Evans 1963; Allred 1970; Elsen 1972a, b, 1973; Castilho *et al.* 2015; Klimov *et al.* 2016).

Despite India's rich biodiversity, the Ameroseiidae family remains understudied in the country, with only eight species discovered to date compared to the global total. This indicates a significant knowledge gap regarding this group within India.

Previous work on the Ameroseiidae family in India includes *Indoseius stridulans* originally described by Evans (1955) from India later transferred to the genus *Neocypholaelaps* by Evans (1963). *Neocypholaelaps stridulans* Evans, 1963 from Trivandrum (Kerala) *Neocypholaelaps pradhani* Gupta, 1969 from Chennai (Madras). *Ameroseius plumigera* Kumud *et al.* (1989) from Haryana. *Ameroseius dipankari* Bhattacharyya, 2004 from West Bengal. *Ameroseius sternalis* Bhattacharyya, 2015 from West Bengal. *Klemania bengalensis* Bhattacharyya, 1972 from Assam.

### MATERIALS AND METHODS

Mite samples were collected from Warangal Fort, a historical site in India located within the Deccan Peninsula bio-geographical zone. After extraction using Berlese-Tullgren funnels, mites were preserved in glass tubes containing 70% alcohol. The contents of the tubes

were then sorted by hand under a LEICA EZ4 binocular microscope. For examination, temporary slides were prepared by mounting specimens in lactic acid. Specimens were examined using a NIKON H600L compound microscope equipped with a Nikon DS-R12 camera. Photographs and measurements were acquired using NIS-Elements (version BR 5.20) software. Figures and nomenclature were processed with Adobe Photoshop CS 8.0 software. All measurements are provided in micrometers (µm). For taxonomic study, we followed the methodologies of Lindquist and Evans (1965) and Evans and Till (1963). The newly recorded species are deposited in the National Zoological Collection of the Acarology Section, Zoological Survey of India, Government of India.

### Taxonomic Account

Family Ameroseiidae Evans, 1961 (in Hughes 1961)

Genus *Sertitympanum* Elsen and Whitaker, 1985

Species: *Sertitympanum aegyptiacum* Nasr and Abou-Awad, 1986

*Sertitympanum aegyptiacus* Nasr and Abou-Awad, 1986: 77.

*Sertitympanum aegyptiacus* Nasr and Abou-Awad 1986: 81.

*Sertitympanum aegyptiacus* Hajizadeh *et al.* 2013a: 150; Kazemi and Rajaei 2013: 67; Nemati *et al.* 2013: 21; Khalili-Moghadam and Saboori 2014: 674.

Type Depository: National Research Centre, Dokki, Cairo, Egypt.

Type Locality and Habitat: Egypt, Sohag Region, Girga, in litter.

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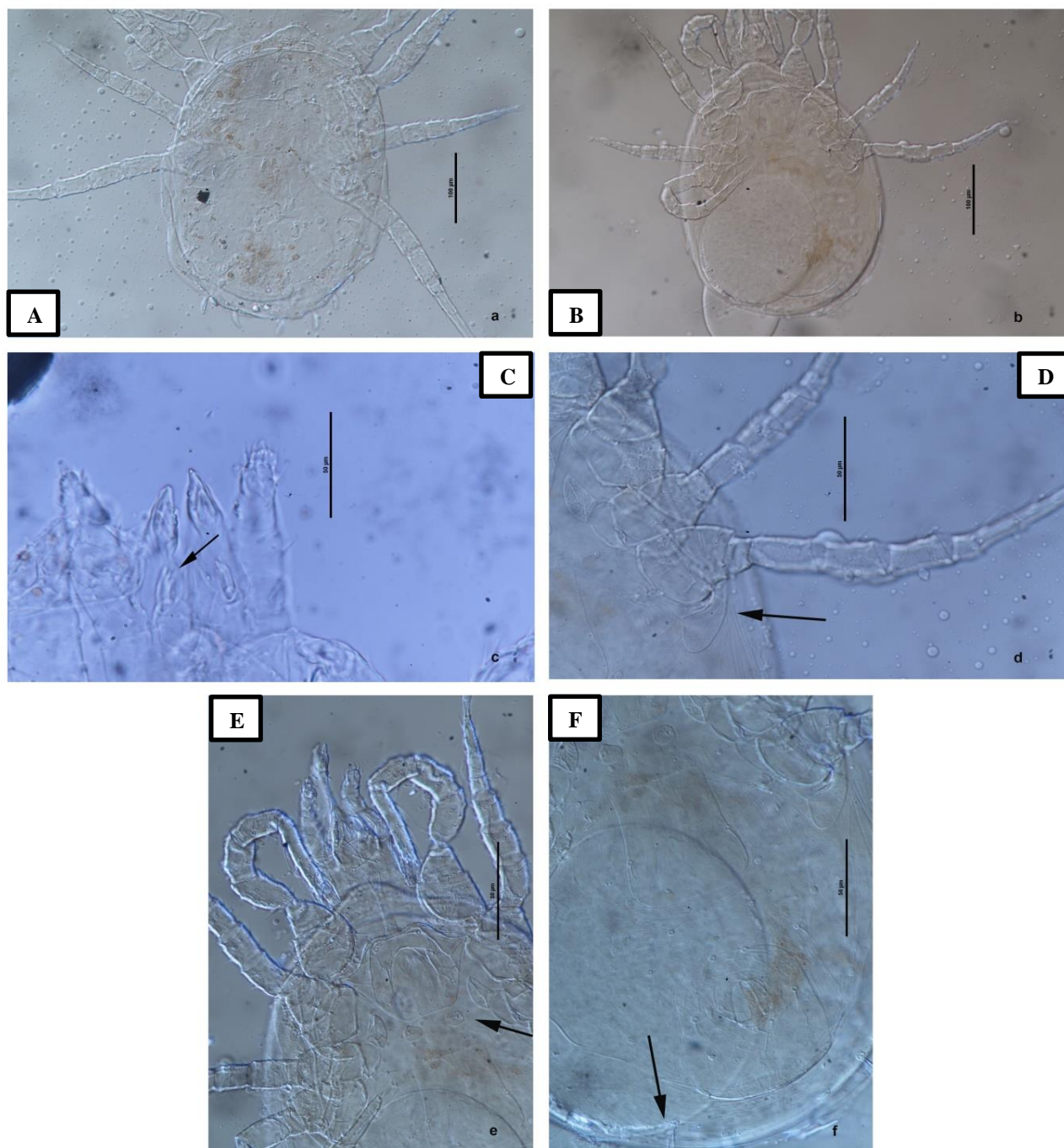
### Material Studied

42♀, Warangal Fort, Hyderabad (N 17° 57.3920'', E 79° 37.631''), collected from soil & litter on 19.02.2023 by D.N. Adagale. Specimen ID: 7523/17 ZSIHQ.

### Diagnosis

Dorsal shield (Fig. 1a): Length/width (736 µm / 536 µm), with 28 pairs of spatulate setae. Ventral shield

(Fig.1b). Corniculi with three tines distally (Fig.1c). Peritrematal plate well developed, extending behind coxae IV (Fig.1d). Tritosternum bipartite. Sternal shield with semi-circular reticulation forming a cogwheel-like structure medially; st2 and st3 present. Metasternal plate ovate in shape, bearing the third sternal setae (Fig1e), while the fourth sternal setae are on the sternal membrane near coxae III. Metapodal plate elongated. Ventral and anal setae simple. JV5 setae spatulate (Fig.1f). Fixed digit of chelicera with 3 teeth.



**Figure 1a:** Dorsal view of *Sertitympanum aegyptiacum* Nasr and Abou-Awad, 1986; **b-** Ventral view of *Sertitympanum aegyptiacum* Nasr and Abou-Awad, 1986; **c-** corniculi with three tines ; **d-** Peritrematal plate ; **e-** sternal shield with metasternal shield ; **f-** genital and anal shield with spatulate JV5

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