

A New Species of Eriophyoid Mite (Acari: Eriophyoidea) from West Bengal, India

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Abstract: A new species of eriophyoid mite viz. *Tegonotus golaghatiensis* n. sp. infesting *Milletia pinnata* (L.) Panigrahi (Leguminosae) is described from Kolkata district of West Bengal, India.

Keywords: Eriophyidae, West Bengal, Golaghat, India

1. Introduction

During general surveys for exploring the eriophyoid mite diversity in different localities of West Bengal, India a new species under the genus *Tegonotus* is described here from *Milletia pinnata* which is a oil producing plant and has several economical importance. So far, 53 species of *Tegonotus* Nalepa (1890) worldwide including 13 species from India are known.

2. Material and Methods

Eriophyoid mites were collected and studied as described by Chakrabarti *et al.* (2017) and Hoyer's medium with chloral hydrate, Gum arabic, glycerine and distilled water in the proportion following [Mercet, 1912 (in Upton, 1993)] was used for mounting the specimens. The terminology and classification given by Lindquist (1996) and Amrine *et al.* (2003) respectively, are followed here. The specimens were examined with Nikon phase contrast microscope. All measurements were made following Amrine and Manson (1996) and de Lillo *et al.* (2010) and are given in micrometres (μm). Measurements and means are rounded off to the nearest integer when required, and referred to the length of the morphological characters unless specified otherwise. Drawings were made following de Lillo *et al.* (2010). In the text, measurements of holotype are followed by the range of measurements of the paratypes given in the parentheses. All type specimens will be deposited in the National Zoological Collection, Zoological Survey of India, Kolkata.

3. Results

Family **Eriophyidae** Nalepa, 1898
Subfamily **Phyllocoptinae** Nalepa, 1892
Tribe **Tegonotini** Bagdasarian, 1978
Tegonotus golaghatiensis n. sp.
(Figure 1)

4. Description

Female (n=15). Body fusiform, yellow colour in live, 171 (171-182), 60 (60-63) wide. **Gnathosoma.** 23 (22-24), curved down; dorsal pedipalp genual setae *d* 3 (3-4); pedipalp coxal setae *ep* 2 (2-3). **Prodorsal shield.** 56 (56-58), 63 (63-67) wide with distinctly defined thick anterior

prodorsal shield lobe over rostral base; median line absent, admedian lines not complete, sinuate, present on 0.5-0.6 part of median prodorsal shield converging at anterior and posterior ends, submedian lines absent; two postero-lateral lobes with prominent notches and rear shield margin ornamented with fine longitudinal short granular lines; scapular tubercles much ahead of rear shield margin, scapular setae *sc* 8 (8-9) and directed outward to each other. **Coxae I.** 13 (13-14), with few lines; setae on *lb* 6 (5-7) and 8 (8-9) apart; setae *la* 12 (12-14) and 7 (7-8) apart; setae *lb* located ahead of setae *la*; distinct sternal line present; **coxa II.** 14 (14-15), with very few lines, setae *2a* 34 (30-34) and 26 (26-27) apart, setae *la* located little ahead of setae *2a*, not in same line. **Leg I.** from base of trochanter 31 (31-34), femur 11 (10-11), femoral seta *bv* 6 (6-8); genu 4 (3-4), genual setae *l'* 22 (22-24); tibia 7 (6-7), tibial setae *l'* 5 (4-5); tarsus 5 (4-5), tarsal setae *ft'* and *ft''* both 10 (10-12), empodium *em* 5 (5-6), simple and 4-rayed; solenidion ω 6 (6-7), slightly curved, knobbed; setae *u'* 2 (2-3). **Leg II.** from base of trochanter 30 (29-30), femur 10 (10-11), femoral seta *bv* 5 (5-6); genu 3 (3-4), genual setae *l''* 7 (7-8); tibia 5 (4-5), tibial setae *l'* absent; tarsus 5 (5-6), tarsal setae *ft'* 9 (9-10) and *ft''* 8 (8-9); empodium *em* 5 (5-6), simple, 4-rayed, solenidion ω 6 (6-7), slightly curved, knobbed, setae *u'* 2 (2-3). **Opisthosoma.** dorsal annuli 22 (22-23) with mid dorsal ridges present till 18th dorsal annuli, 1st, 4th, 7th, 10th, 13th and 16th dorsal annuli larger, plate like and extending laterally and ventral annuli 55 (55-56) with rounded microtubercles; setae *c2* 32 (30-32) on ventral semiannulus 8; setae *d* 49 (48-49) on ventral semiannulus 24; setae *e* 18 (18-19) on ventral semiannulus 36; setae *f* 23 (23-24) on ventral semiannulus 50; setae *h1* absent, setae *h2* 37 (37-38). **Genital coverflap.** 13 (13-14), 22 (22-23) wide, with 12 (11-12) longitudinal ribs; setae *3a* 10 (10-11). **Internal genitalia.** apodeme short, spermathecae rounded with short funnel-like spermathecal tubes.

Type host plant: *Milletia pinnata* (L.) Panigrahi (Leguminosae).

Relation to host: The mites are undersurface leaf vagrant and no damage symptom was observed due to their infestation.

Type locality: Kolkata, Golaghat, (22° 37' N 88° 22' E), elevation 22m, West Bengal, India, 17 February 2020, coll. no. G-1/2020, coll. S. Sur.

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Type material: Holotype: Female (marked) on slide (no. 01/02/2020), Paratypes: 15 females on 3 slides (nos. 02-04/02/2020).

Etymology: The specific epithet, 'golaghatiensis' is masculine gender and is derived from the collection locality of the species.

Differential diagnosis

This new species comes very close to *Tegonotus convolvuli* (Channabasavanna, 1966) in having thick anterior lobe, admedian lines arising at the base of anterior lobe as well as absence from posterior 1/3 part of shield, both coxae ornamented, postero-lateral margins of shield with a lobe like appearance and 4-rayed empodium but remains distinct from the latter by the following characters: no sign of submedian lines on prodorsal shield, rear shield margin ornamented with fine longitudinal short granular lines, 1st, 4th, 7th, 10th, 13th and 16th dorsal annuli larger and plate like, opisthosoma with 22 (22-23) dorsal and 55 (55-56) ventral annuli (whereas submedian lines present on prodorsal shield, no such longitudinal short granular lines on rear shield margin, no larger plate like dorsal annuli and opisthosoma with 29 dorsal and 80 ventral annuli in *T. convolvuli*).

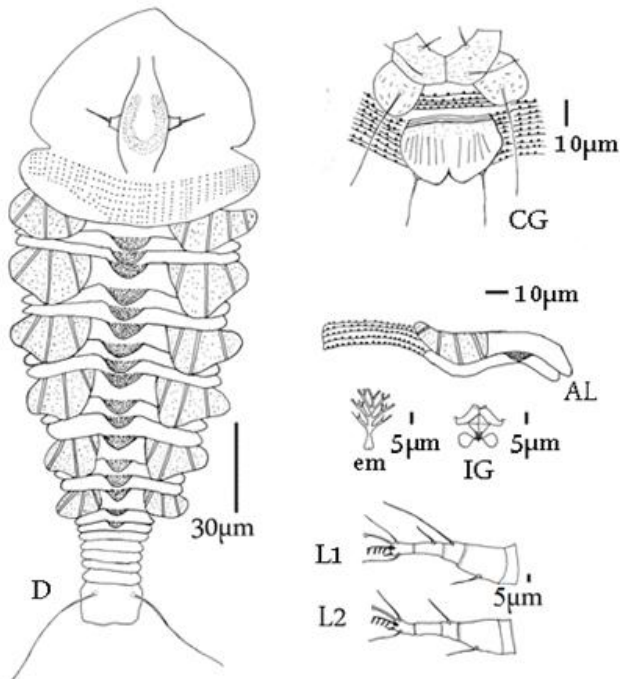


Figure 1: *Tegonotus golaghatiensis* n. sp. **D** Dorsal view of the body; **CG** Coxi-genital region; **LA** Lateral view of anterior body region; **em** Empodium; **IG** Internal genitalia.

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