Two new species of eriophyid mites (Acari: Eriophyidae) from India

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Abstract

Two new species of eriophyid mites (Acari: Prostigmata) viz. Cosetacus sharadi n. sp., collected from leaf erineum on Cordia dichotoma (Boraginaceae), and Acalitus delhiensis n. sp., collected from leaf erineum on Salvadora persica (Salvadoraceae), are described from India. Cosetacus sharadi has divided feather claw, each branch comprising of 4–5 rays, shield with median line present from rear to mid, admedian lines parallel to median line till mid, then bulging out meeting at the anterior end, submedian lines present from anterior to mid, epigynium ribbed in 2 ranks, accessory seta absent, antapical seta present. Acalitus delhiensis has 7 rayed simple feather claw, shield with median line present in rear to mid, admedian and submedian lines branched, epigynium coarsely granulated, accessory seta and antapical seta absent.

Key words: Taxonomy, Cosetacus, Cordia dichotoma, Acalitus, Salvadora persica, India

Introduction

Cordia dichotoma (Forster F.) (Boraginaceae) is a small to moderate-sized deciduous tree, found in tropical and subtropical regions. A new mite species, namely Cosetacus sharadi has been described from the leaf erineum of this plant. The erineum mostly on the under surface is whitish when still fresh/immature, gradually becoming brownish as it matures. Salvadora persica (Linnaeus) (Salvadoraceae) is a medium to large, evergreen shrub. The plant is more popular for its medicinal properties and is used extensively in dental care products while its leaves are used as camel fodder. Acalitus delhiensis n. sp., was collected from the yellowish erineum occurring on both surface of leaves of the plant.

The genus Cosetacus was erected by Keifer in 1966 and to this genus he assigned Aceria camelliae (Keifer, 1945) as its type species. A total of three species are known so far, namely C. camelliae (Keifer, 1945, ex: Camellia japonica, California), C. citrifolis (Das & Chakrabarti, 1985, ex: Morinda citrifolia, India) and C. eupatoria (Chakrabarti & Pandit, 1997 ex: Eupatorium odoratum, India). The genus Acalitus was erected by Keifer in 1965, and literature reveals that of the 95 known species, 7 species namely, A. gossypii (Misra 1920, ex: Gossypium sp.), A. ruelliae (ChannaBasavanna 1966, ex: Ruellia patula), A. meliosoma (Mohansundaram 1981, ex: Meliosoma simplicifolia), A. reticulatae (Mohansundaram 1981, ex: Leptadenia reticulata), A. schefflerae (Mohansundaram 1981, ex: Schefflera sp.), A. hibisci (Mondal & Chakrabarti 1982, ex: Hibiscus vitifolius) and A. epiphytivagrans (Mohansundaram 1983, ex: unidentified epiphytic parasite) are known from India.

The classification and terminology is after Amrine et al., 2003. All measurements are in micrometre (μm) and are mean values followed by standard deviation and the range in parentheses. Length of the body is the distance from the tip of the rostrum to the posterior end. Length of leg is the distance from the base of trochanter to the tip of tarsus, excluding the tarsal appendages (solenidion and empodium). The ventral opisthosomal annuli count starts from the first complete ring visible posteriorly for A. delhiensis n. sp. and the first annulus bordering the genitalia posteriorly for C. sharadi n. sp.