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New Collembola Symphypleona from India and
Australia

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Abstract

Two new species of globular Collembola are described; one belonging to the genus *Corynephoria* comes from Australia and the other, belonging to the genus *Arrhopalites*, comes from India.

INTRODUCTION

THE species of *Arrhopalites* from India is from the collection made by Dr T. Clay, of the British Museum Natural History, in India during 1952. The species of *Corynephoria* was amongst a small collection sent to me for identification by Dr M. H. Wallace, Division of Entomology, C.S.I.R.O., Canberra.

Subfamily: SMINTHURIDINAE

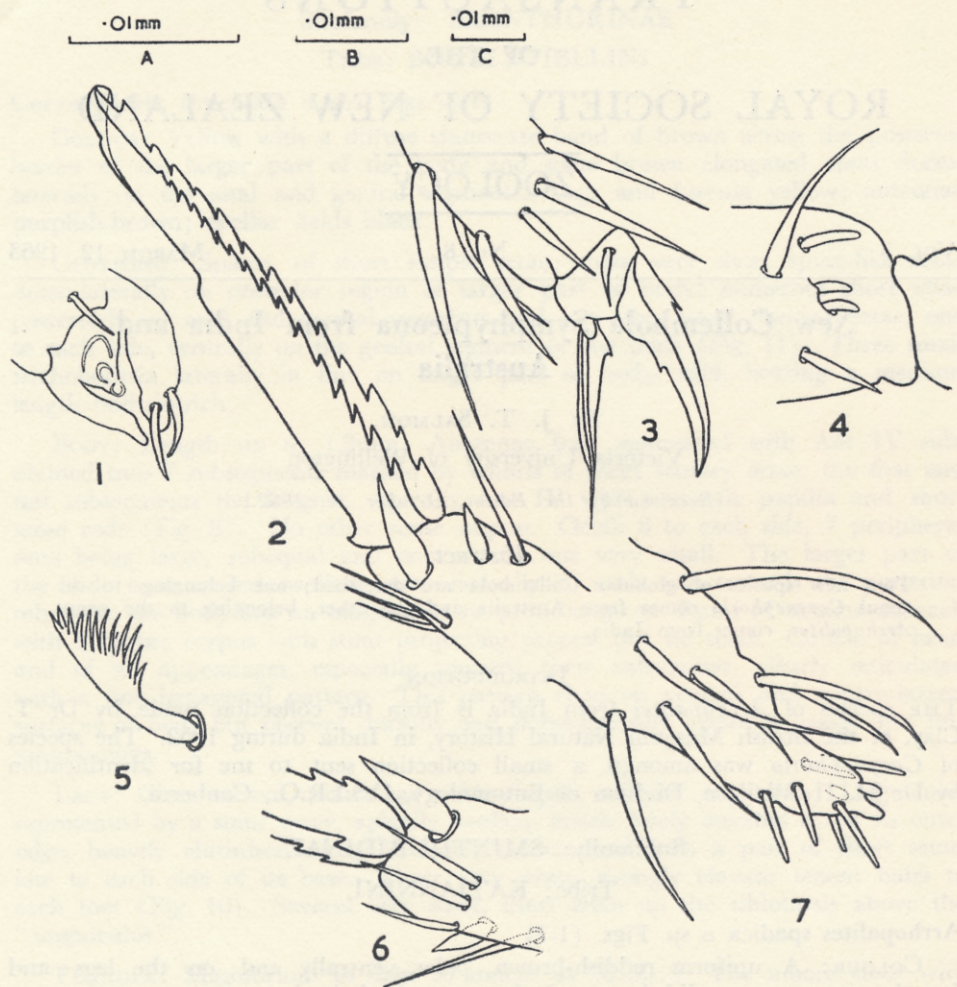
Tribe: KATIANNINI

Arrhopalites spadica n. sp. Figs. (1-7)

COLOUR: A uniform reddish-brown, paler ventrally and on the legs and furcula; antennae purplish-brown, darker towards their tips.

CLOTHING: Sparsely clothed with short simple curved setae, longer posteriorly; suranal setae serrated (Fig. 5). A single bothriotrich to each side of genital segment and three on each side of larger part of body. Some spines on top of head between the antennae.

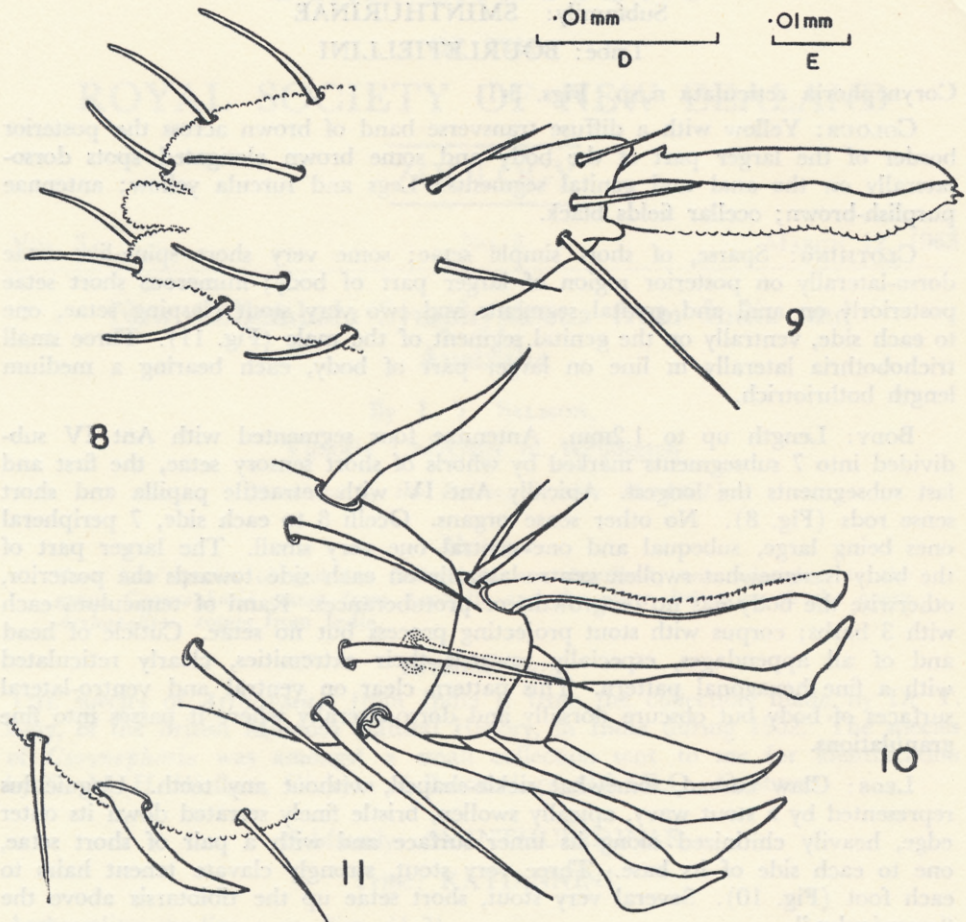
BODY: Length to 0.65mm. Antennae four segmented with each segment approximately double the length of the preceding one. Ant IV subdivided into 7 sub-segments, each marked by whorls of setae. Apex of Ant IV with a finger-like process, 2 small sense clubs and 5-7 straight tapering sense rods (Fig. 7). Ant III with apical sensory organ of 2 small sense rods close together; a third larger sense rod separated to one side and protected by a single long guard seta and on opposite side a short spine-like seta (Fig. 4). A single black pigmented ocellus to each side. Corpus of tenaculum elongated with 2 apical setae and a basal seta; each ramus with 3 barbs and a basal finger-like process (Fig. 1).



FIGS. 1-7.—*Arrhopalites spadica* n. sp. Fig. 1—Tenaculum. Fig. 2—Mucro and apex of dens from outer face. Fig. 3—Hind foot. Fig. 4—Sense organ of Ant III. Fig. 5—Suranal seta. Fig. 6—Apex of dens from inner anterior-lateral face. Fig. 7—Apex of Ant IV. Scale A for Fig. 4. Scale B for Figs. 5, 6, 7. Scale C for Figs. 1, 2, 3.

LEGS: Claw with an inner basal bulge; a single inner tooth at one third down, being very small on front feet but longer on all others; a pair of small outer lateral teeth at about one-quarter down on front feet and one third down on all others; a moderately long basal seta to each side of claw base. Unguiculus long, tapering, over-reaching tip of claw, especially on front feet; provided with a moderately wide inner lamella, having a basal angular tooth and a narrow outer lamella. No tenent hairs (Fig. 3).

FURCULA: Dens about twice length of mucro with a large outer distal anterior-lateral spine and a smaller outer distal posterior-lateral spine; a single long distal posterior seta and three distal setae on anterior lateral face (Fig. 6). Posterior face of dens with a row of four setae; anterior-lateral face with a row of four spine-like setae. Mucro serrated along both posterior edges; the inner edge deeply serrated with a large, subapical tooth, the outer edge smooth subapically



FIGS. 8-11.—*Corynephoria reticulata* n. sp. Fig. 8—Apex of Ant IV. Fig. 9—Mucro and apex of dens from inner face. Fig. 10—Hind foot. Fig. 11—Clasper seta of genital segment.

Scale D for Figs. 8, 10. Scale E for Figs. 9, 11.

for a short distance thence with increasingly large serrations towards the base. The apical two-fifths of mucro narrower than basal part and with a narrower subapical "neck" and a spoon-like apex formed by a wide bowed lamella which arises from the subapical anterior face of each edge and encircles the apex (Fig. 2).

LOCALITIES: Gangtok, Sikkim, India, in dry rotting leaves at 6,000ft altitude. Collected by T. Clay, 11/2/52.

TYPES: Holotype and paratypes in British Museum Natural History, London; paratypes in author's collection.

REMARKS: This species would appear to be nearest related to *A. habei* Yosii, 1956 from Japan from which it differs in the details of the mucro, in the spinal and setae arrangements of the dentes, and in the sensory structures of the antennae.

Subfamily: SMINTHURINAE

Tribe: BOURLETIELLINI

Corynephoria reticulata n. sp. Figs. 8-11

COLOUR: Yellow with a diffuse transverse band of brown across the posterior border of the larger part of the body and some brown elongated spots dorso-laterally on the anal and genital segments. Legs and furcula yellow; antennae purplish-brown; ocellar fields black.

CLOTHING: Sparse, of short simple setae; some very short spine-like setae dorso-laterally on posterior region of larger part of body; numerous short setae posteriorly on anal and genital segments and two very stout clasping setae, one to each side, ventrally on the genital segment of the male (Fig. 11). Three small trichobothria laterally in line on larger part of body, each bearing a medium length bothriotrich.

BODY: Length up to 1.2mm. Antennae four segmented with Ant IV subdivided into 7 subsegments marked by whorls of short sensory setae, the first and last subsegments the longest. Apically Ant IV with retractile papilla and short sense rods (Fig. 8). No other sense organs. Ocelli 8 to each side, 7 peripheral ones being large, subequal and one central one very small. The larger part of the body is somewhat swollen ventro-laterally on each side towards the posterior, otherwise the body has no outgrowths or protuberances. Rami of tenaculum each with 3 barbs; corpus with stout projecting process but no setae. Cuticle of head and of all appendages, especially towards their extremities, clearly reticulated with a fine hexagonal pattern. This pattern clear on ventral and ventro-lateral surfaces of body but obscure dorsally and dorso-laterally where it passes into fine granulations.

LEGS: Claw curved, somewhat sickle-shaped, without any teeth. Unguiculus represented by a stout wavy, apically swollen, bristle finely serrated down its outer edge, heavily chitinized along its inner surface and with a pair of short setae, one to each side of its base. Three very stout, strongly clavate tenent hairs to each foot (Fig. 10). Several very stout, short setae up the tibiotarsis above the "unguiculus".

FURCULA: Manubrium to dens to mucro as 30:30:9. The mucro stout with three small apical teeth and elevated or rising lamellae the outer of which is very finely crenulate (Fig. 9). A long, slender, anterior apical seta to dens.

LOCALITY: In clover pasture, Waddi Forest, West Australia. Collected by M. M. H. Wallace, 12/10/60.

TYPES: Holotype in South Australian Museum. Paratypes: British Museum Natural History, London; Dominion Museum, Wellington, New Zealand; author's collection.

REMARKS: This species brings the total number of known species belonging to the genus *Corynephoria* up to seven, of which five are confined to Australia, one to New Zealand, and one to the East Indies. This new species is quite unlike any of the known forms, being without any of the usual dorsal projections from the body, but it must belong here on account of the structure of the foot.

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