

ON A COLLECTION OF
PODOCINIDAE (ACARINA : MESOSTIGMATA)

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INTRODUCTION

In the course of faunistic surveys from various localities in India, a few podocinid mites were collected. On examination, the collection was found to comprise three species, one belonging to genus *Podocinella* Evans and Hyatt 1957, and the remaining two of the genus *Podocinum* Berlese 1982. The present paper deals with *Podocinella meghalayaensis* sp. nov. from Meghalaya, *Podocinum pacificum* Berlese from Uttar Pradesh and *P. sagax* (Berlese) from Nancowry (Bay Island).

The type specimen is in the collection of the Zoological Survey of India, Calcutta.

***Podocinella meghalayaensis* sp. nov.**

Female : Dorsal shield 0.385 mm long, 0.260 mm wide, a few setae are not discernible (fig. 1).

Tritosternum bipartite, laciniae pilose. Sternal shield bearing 3 pairs of setae, anterior margin not distinguishable. Each metasternal shield bearing a seta. Endopodal plate present between coxae II and IV. Genital shield truncate posteriorly, with a pair of setae. Ventri-anal shield 0.110 mm long, 0.180 mm wide, bearing 9 setae (fig. 2).

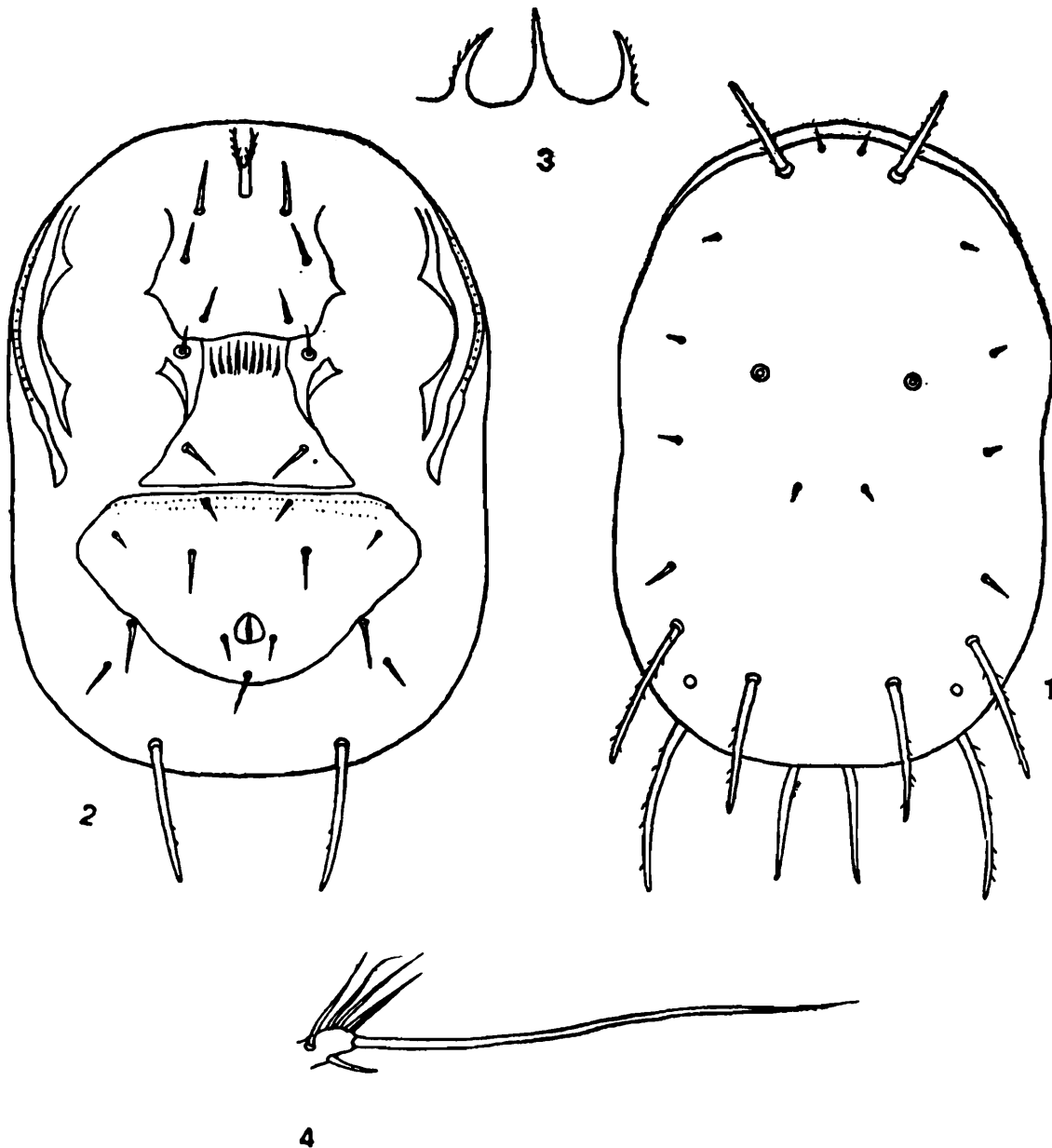
Tectum as in fig. 3. Chelicera not examined. Apotele and gnathosoma usual for the genus.

Tarsus I bearing a very long terminal seta (fig. 4). Tibia and tarsus of leg I 0.150-0.162 mm and 0.270-0.275 mm long respectively.

Male : Unknown.

Habitat : Holotype female, fern litter, along a road to Cherrapunji, United Khasi and Jaintia Hills District, Meghalaya, 3.12.1969, Dr. S. K. Bhattacharyya.

Remarks : The new species markedly differs from other known species in the chaetotaxy of dorsal shield, in the structure of ventri-anal shield and tectum.



Figs. 1-4 : *Podocinella meghalayaensis* sp. nov.

Female : 1. Dorsum ; 2. Venter ; 3. Tectum ; 4. Tarsus I (in part).

Podocinum pacificum Berlese

Podocinum pacificum Berlese, 1896, *Atti. Soc. Veneto* (2) 22 : 319.

Podocinum pacificum : Berlese, 1913, *Redia* 9 : 83.

Podocinum pacificum : Berlese, 1913a, *Acarotheca Italica*, Firenze : 85.

Podocinum pacificum : Evans & Hyatt, 1957, *Ann. Mag. nat. Hist.* 12 10 : 917, 923.

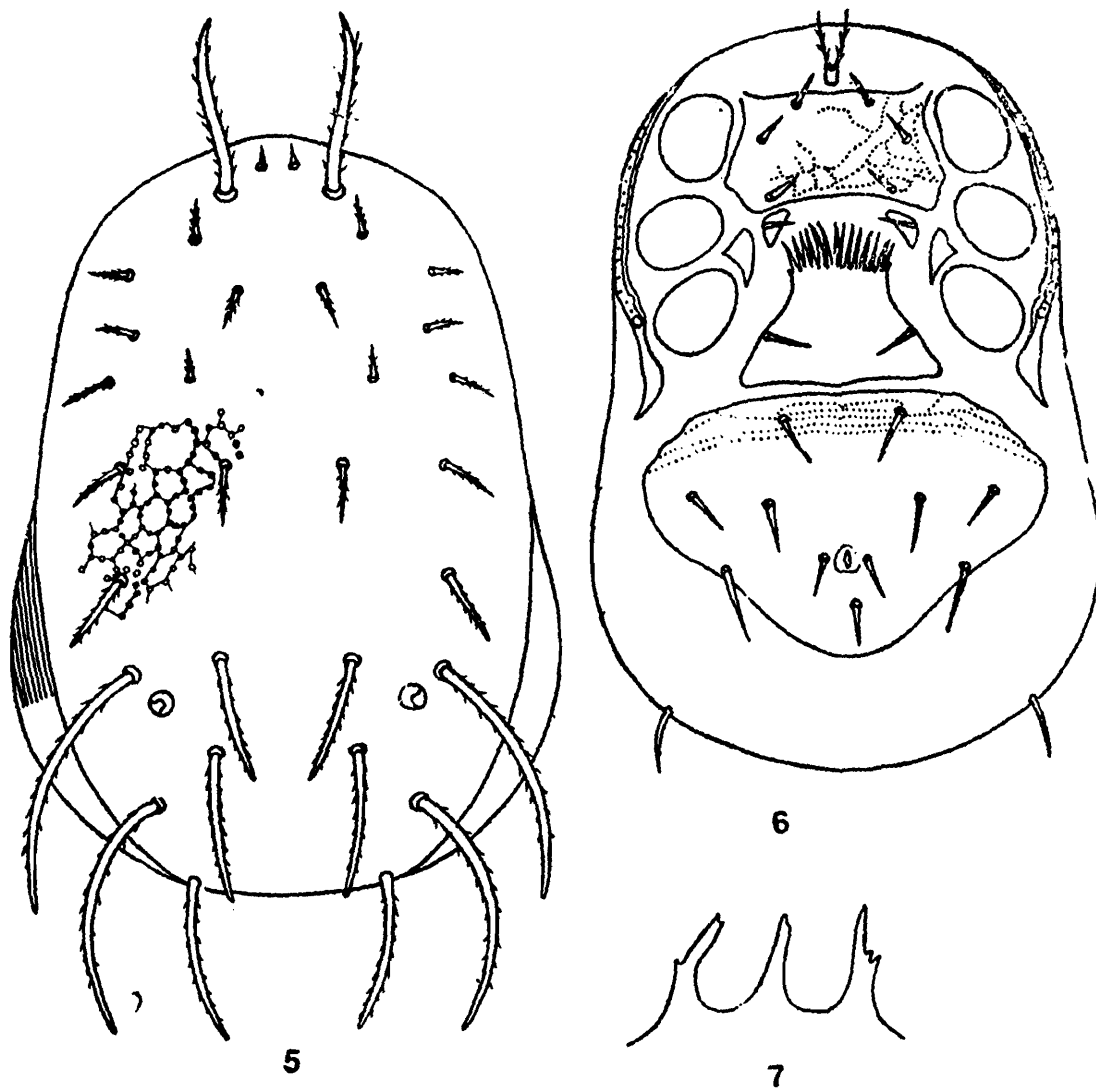
Podocinum pacificum : Westerboer, 1963. Beitrage zur Systematik und Okologie Mitteleuropaischer Acarina 2 : 203.

Podocinum pacificum : Athias-Henriot, 1959. *Acarologia* 1 : 24.

Podocinum pacificum : Ishikawa, 1969. *Bull. Nat. Sci. Mus. Tokyo*. 12 1 : 62.

Podocinum pacificum : Ishikawa, 1970. *Annot. Zool. Japan* 43 (2) : 112, 113.

Female : Dorsal shield 0.437-0.475 mm long, 0.247-0.285 mm wide, entire covered by minute projections forming polygonal net work, with 16 pairs of setae of which vertical setae only simple (fig. 5).



Figs. 5-7 : *Podocinum pacificum* Berl.

Female : 5. Dorsum ; 6. Venter ; 7. Tectum.

Tritosternum bipartite, laciniae pilose. Sternal shield reticulate, with 3 pairs of setae. Metasternal plate bearing a seta. Endopodal plates present between coxae III and

IV. Genital shield truncate posteriorly, bearing a pair of setae. Ventri-anal shield carrying 11 setae. Stigma at level of coxa IV, peritreme extending beyond coxa I. Post-stigmatal extension of peritrematal shield extended well beyond posterior to coxa IV (fig. 6).

Tectum as in fig. 7. Chelicera not examined. Apotele three-tined. Gnathosoma with 4 pairs of setae. Corniculi horn-like ; 6 rows deutosternal denticles.

Leg I with 2, very long terminal setae, subterminal setae. Tibia and tarsus of leg I 0.260-0.270 mm and 3.320-0.330 mm long respectively.

Distribution and habitat : This species has previously been recorded from Italy (Berlese, 1913a). Austria, Argentina, U.S.A., Sikkim (Evans and Hyatt, 1957), Algeria (Athias-Henriot, 1959), Japan (Ishikawo, 1969, 1970).

One female from rotten logs, Kaligarh Forest, Ranikhet, Almora District, Uttar Pradesh, 22.4.1971, Dr. S. K. Bhattacharyya. One female from rotten log, Kaligarh Forest, Ranikhet, Almora District, Uttar Pradesh, 22.4.1971, Dr. S. K. Bhattacharyya.

Remarks : *Podocinum pacificum* is recorded for the first time from India.

Podocinum sagax (Berlese)

Laelaps sagax Berlese, 1882, *Atti. Inst. Veneto* (5) 8 1 : 638.

Podocinum sagax (Berlese) : Berlese, 1882a, *Bull. Soc. ent. ital.*, 14 : 340.

Podocinum sagax : Berlese, 1882b, *Acari, Myriopoda et Scorpiones Fasc. 1, tav. 1.*

Podocinum sagax : Berlese, 1913, *Redia* 9 : 83.

Podocinum sagax : Evans and Hyatt, 1957, *Ann. Mag. nat. Hist.* 12, 10 : 917, 918.

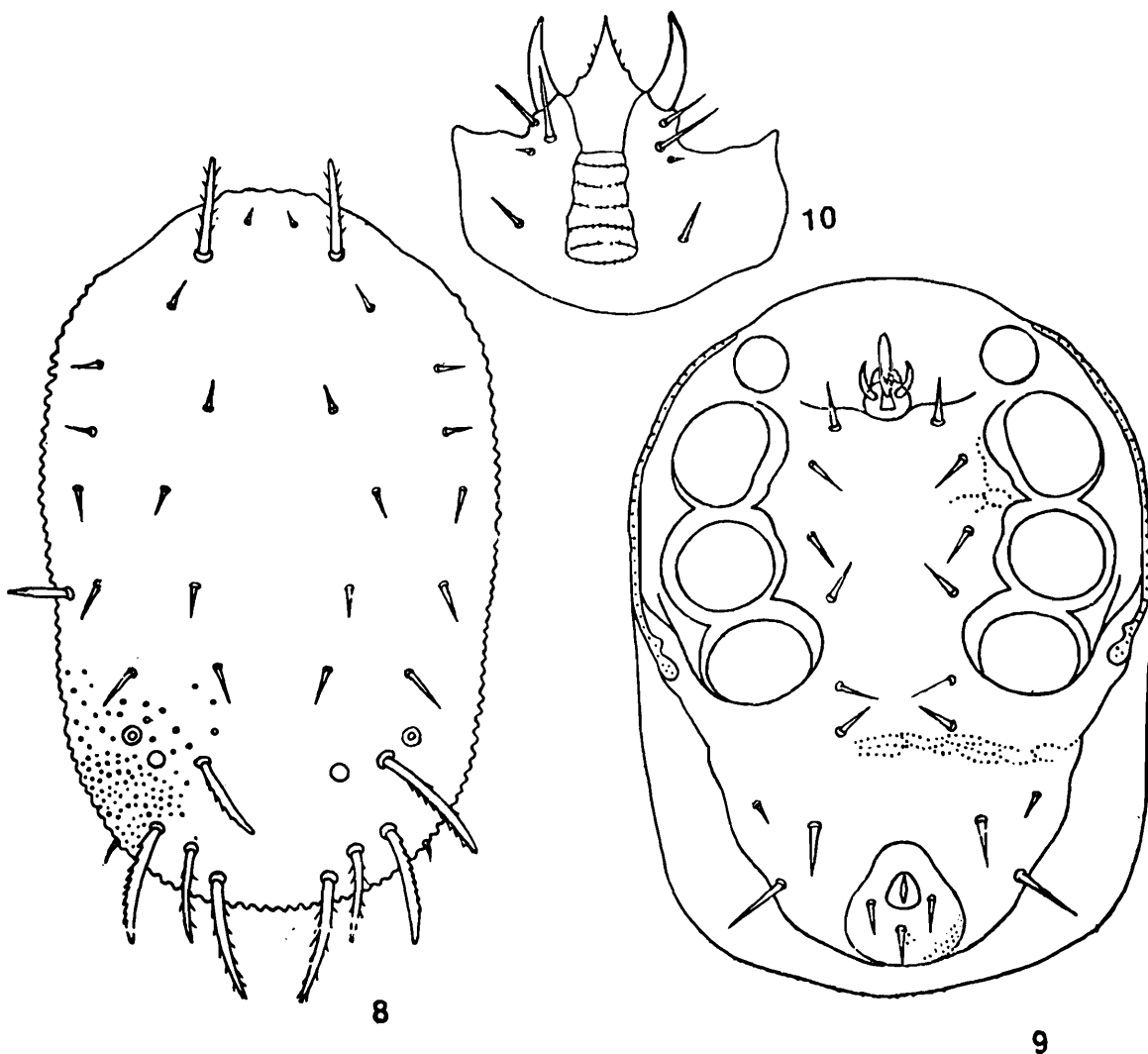
Male : Dorsal shield 0.375 mm long, 0.250 mm wide, without posterolateral incisions, almost entirely covered by minute projections, an aberrant setae present in left side but in right a seta and a pore interchanged placement, also without any setal base fig. 8.

Tritosternum bipartite. Genital orifice pre-sternal. Holoventral shield being 21 setae. Stigma lying at level of coxa IV and extending beyond coxa I. Peritrematal shield fused with podal elements between coxae III and IV and holoventral shield (fig. 9).

Tectum basically trispinate. Pedipalp five segmented ; apotele three-tined. Chelicera chelate-dentate, arthrodial processes at the base of movable digit. Spermatodactyl grooved, free distally, terminal end pointed and serrated. Ventrally gnathosoma with 4 pairs of setae. Corniculi horn-like, long. Hypostomal process slightly fringed. Deutosternal denticles arranged in six rows (fig. 10).

Leg I without ambulacrum, with a pair of very long terminal setae and two long subterminal setae.

Distribution and habitat : This species has already been recorded from Italy (Berlese, 1812, 1913), British Isles (Turk, 1953), Argentina, Indonesia, Jamaica (Evans and Hyatt, 1957).



Figs. 8-10 : *Podocinum sagax* (Berl.)
Male : 8. Dorsum ; 9. Venter ; 10. Gnathosoma.

One female from rotten banana plant, Government Agriculture Farm, Camorta, Nancowry. Nicobar District, 18.1.1975, Dr. S. K. Bhattacharyya.

Remarks : This is the first record of the species from India.

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