

SOME SPIDER MITES (ACARINA : TETRANYCHIDAE) FROM ANDAMAN AND NICOBAR ISLANDS WITH DESCRIPTIONS OF THREE NEW SPECIES

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(With 3 Text-figures)

INTRODUCTION

Tetranychid mites, commonly known as spider mites, have considerable economic importance being injurious to the plant epidermis, leaves etc. Heavy infestations may lead to the blotching, stippling and bronzing of the leaves, as a result leaves may fall down and fruits may become scarce.

So far six species have been reported from Andaman and Nicobar Islands (Gupta, 1976). The present communication reports occurrence of another seven species. Of these *Aponychus sarjui*, *Schizotetranychus masoni* and *Oligonychus manishi* are being described as new to science and the remaining four represent new record to this part of the country. Species recorded are briefly characterised and new species are described in detail. All drawings were prepared by the author from specimens mounted in lactic acid. All type specimens are deposited in the National Collection of the Zoological Survey of India, Calcutta.

1. *Aponychus sarjui* sp. n.

(Text-fig. 1 A-C)

Male : Unknown.

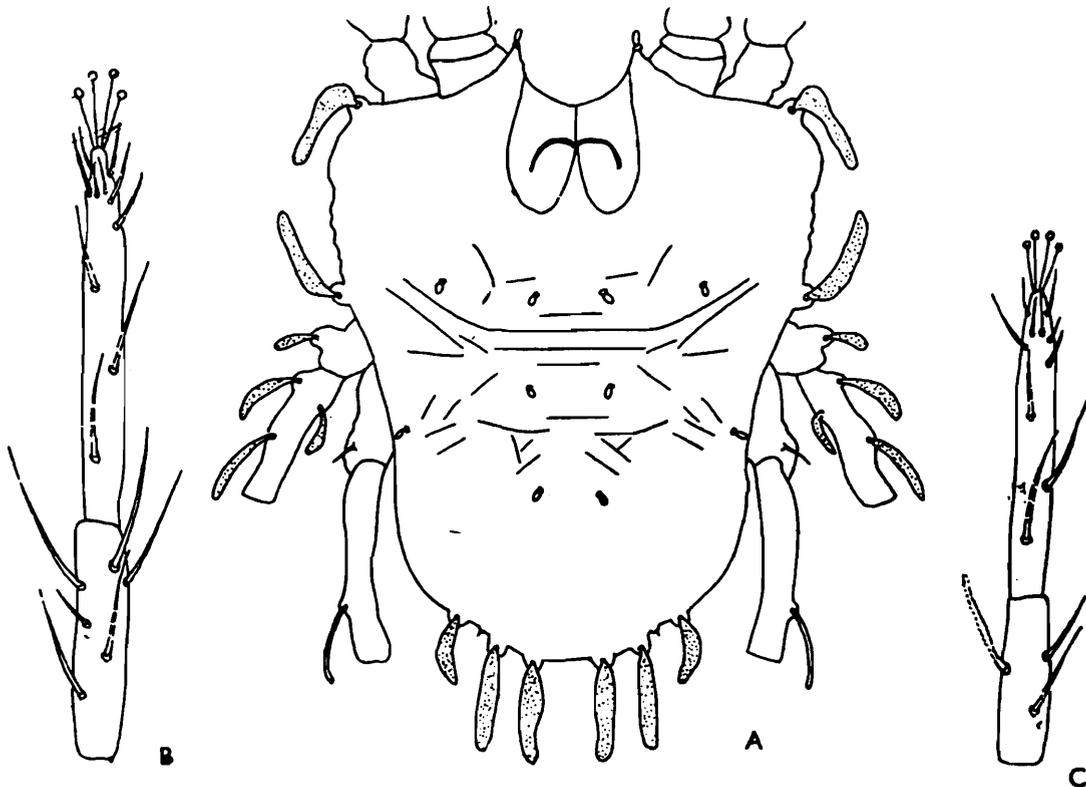
Female : Body including rostrum, 511 μ long, 234 μ wide ; oblong. Idiosoma with dorsal integument wrinkled as figured. Idiosomal setae spatulate, serrate. Dorsocentral, first and second dorsolateral hysterosomal setae are minute. Third propodosomal, humerals, third dorsolaterals same in length, inner sacrals small and outer sacrals and clunals large and same in length. Peritreme U-shaped. Genital flap with transverse striae. Palpus with terminal sensillum slender, dorsal sensillum much smaller. Legs with spatulate setae on proximal dorsum. Tibia I with one sensory and four tactile setae, tarsus I with 10 tactile setae. Tibia II with one sensory and two tactile setae, tarsus II with 10 tactile setae.

Holotype : ♀, South ANDAMAN ISLAND, Chiriatapu, on

bamboo (*Bambusa* sp.), 20. xii. 1972, coll. S. K. Gupta (Reg. No. 3081/17).

Remarks.—This new species resembles to *Aponychus siamensis* Ehara but can be distinguished by the small size of inner sacral and the number of the sensory and tactile setae in tibia and tarsus of legs I and II.

This species is named in honour of my father Sri Sarju Prasad.



Text-fig. 1. *Aponychus sarjui* sp. n., ♀ A—Dorsum, B—tibia and tarsus of leg I, C—tibia and tarsus of leg II.

2. *Panonychus citri* (McGregor)

**Tetranychus citri* McGregor, 1916, *Ann. Ent. Soc. Amer.*, 9 : 284.

**Paratetranychus citri*, McGregor, 1919, *Proc. U. S. Natl. Mus.*, 56 : 672.

Matatetranychus citri, Pritchard and Baker, 1955, *Mem. Pacif. Coast ent. Soc.*, 2 : 133.

Collection data.—4 ♀ ♀, North Andaman Island, Mayabunder, Togapur, on Jack fruit (*Atrocampus* sp.), 10. 1. 1962, coll. S. K. Gupta (Reg. No. 3082/17).

This species has been reported from California, South eastern United States, South Africa, Canton, China and Southern Japan, and India.

Remarks.—*Panonychus citri* is allied to *P. ulsui* (Koch 1836) but differs by having the outer sacrals and the clunals all similar in length, about one-third as long as the inner sacrals (Pretchard and Baker, 1955).

3. *Eotetranychus fremonti* Tuttle and Baker

Eotetranychus fremonti Tuttle and Baker, 1964, *Univ. Ariz. Tech. Bull.*, 158: 1-41.

Eotetranychus fremonti Tuttle and Baker, 1975, *Int. J. Acar.*, 2 (2):

Collection data.—20 ♀ ♀, 2 ♂ ♂, Nicobar Islands, CAR NICOBAR, Agriculture Farm, on fig (*Ficus* sp.), 26. xii. 1972, coll. S. K. Gupta (Reg. No. 3083/17).

This has been reported from Arizona, U.S.A. and this is the first record from India.

Remarks.—The Indian material have been determined by the characters given by Tuttle and Baker 1976.

4. *Schizotetranychus mansonii* sp. n.

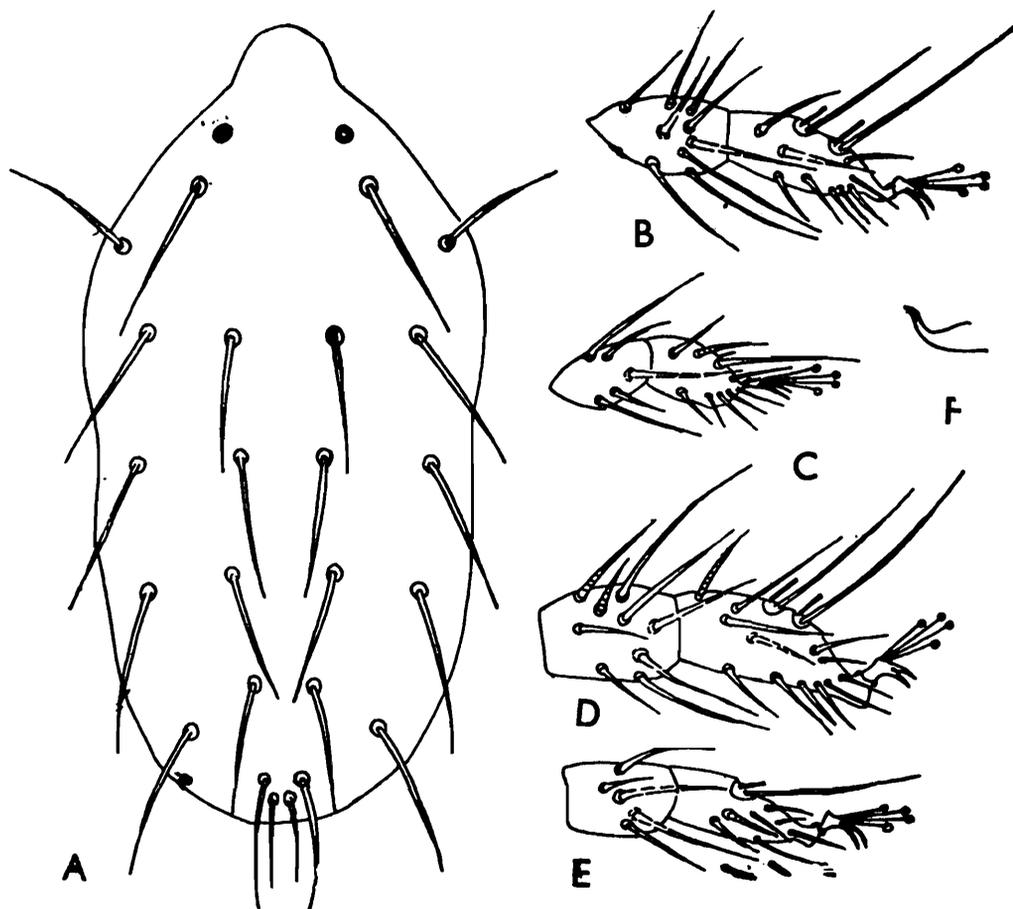
(Text-fig. 2 A-F)

Male : Body 298 μ long, 180 μ wide. Terminal sensillum of palpus 3x as long as wide. Dorsal sensillum slender. Tibia I with two sensory and seven tactile setae, tarsus I with one sensory and four tactile setae proximal to duplex setae. Tibia II with five tactile setae, tarsus II with one sensory setae proximal to duplex setae. Dorsal setae of idiosoma slightly longer than longitudinal interval between their bases. Aedeagus (figs. 2F) the bents upward to form a sigmoid distal end as in *Schizotetranychus elymus* McGregor.

Female : Body 352 μ long, 129.5 μ wide. Terminal sensillum of palpus 2x as long as wide : Tibia I with one sensory and 8 tactile setae, tarsus I with one sensory and three tactile setae proximal to duplex setae. Tibia II with five tactile setae, tarsus II with one tactile and one sensory setae. Dorsal setae of idionoma tapering, minutely with pubescent, reaches beyond the base of next setae. Dorsolateral hysterosomal slightly longer than dorsocentral hysterosomal setae. Outer sacral longer than inner sacral. Post anal setae thin and small. Medioventral setae moderate. Genital flaps with transverse striae.

Holotype : ♂, South Andaman Island, Humphrygunj, on paddy (*Oryza* sp.) 17. xii. 1972, coll. Dr. S. K. Gupta (Reg. No. 3084/17).
Paratype : 25 ♀ ♀ data same as far holotype Reg. No. 3085/17).

Remarks.—The species resembles *Schizotetranychus andropogoni* (Hirst) but differs from it in the shape of aedeagus, in the size of the dorsal setae and the number of tactile and sensory setae and tarsus of both legs I and II.



Text-fig. 2. *Schizotetranychus mansoni* sp. n. (A-C) ♀ A—dorsum, B—tibia and tarsus of leg I, C—tibia and tarsus of leg II. (D-F) ♂ D—tibia and tarsus of leg I, E—tibia and tarsus of leg II, F—aedeagus.

This species is named in honour of Dr. D. C. M. Manson, Horticultural Research Centre, Dept. of Agri., Levin, New Zealand,

5. *Oligonychus biharensis* (Hirst)

Paratetranychus biharensis Hirst, 1925, *Proc. zool. Soc. Lond.*, 69.

Oligonychus biharensis, Pritchard and Baker, *Pacif. Coast. ent. Soc. Mem. Ser.* 2 : 364-365.

Collection data.—8 ♀♀, 1 ♂, Middle Andaman Island, Rangat, Panchawati, on Cocoplant (*Cocos* sp.) 16. 1. 1973, coll. S. K. Gupta (Reg. No. 3086/17).

This species has been reported from Thailand, Philippines, Hawaii, Antigua, Mauritius, Brazil and India.

Remarks.—This species differs from other known species by the distinctive features of Aedeagus.

6. *Oligonychus isilemae* (Hirst)

Paratetranychus isilemae Hirst, 1924, *Ann. Mag. nat. Hist.*, (9) 14 : 524.

Oligonychus isilemae, Pritchard and Baker, 1955, *Pacif. Coast ent. Soc. Mem. Ser.*, 2 : 358.

Collection data.—6 ♀♀, 1 ♂, South Andaman, PORT BLAIR, Horticultural-cum-Zoological Garden, on grass, 11. xii. 1972, coll. S. K. Gupta (Reg. No. 3087/17)

This species is known only from the types from Coimbatore, Tamil Nadu, India.

Remarks.—This species is being reported for the first time from the Andaman Islands.

7. *Oligonychus manishi* sp. n.

(Text-fig. 3 A-H)

Male : Body 288 μ long, 144 μ wide. Terminal sensillum of palpus large above twice as long as broad. Tibia I with two sensory and 9 tactile setae, tarsus I with two sensory and four tactile setae proximal to duplex setae. Tibia II with one sensory and 6 tactile setae, tarsus II with one sensory and 3 tactile setae proximal to the duplex setae. Dorsal body setae long and tapering, longer than the longitudinal intervals between them Aedeagus short, stout as figured.

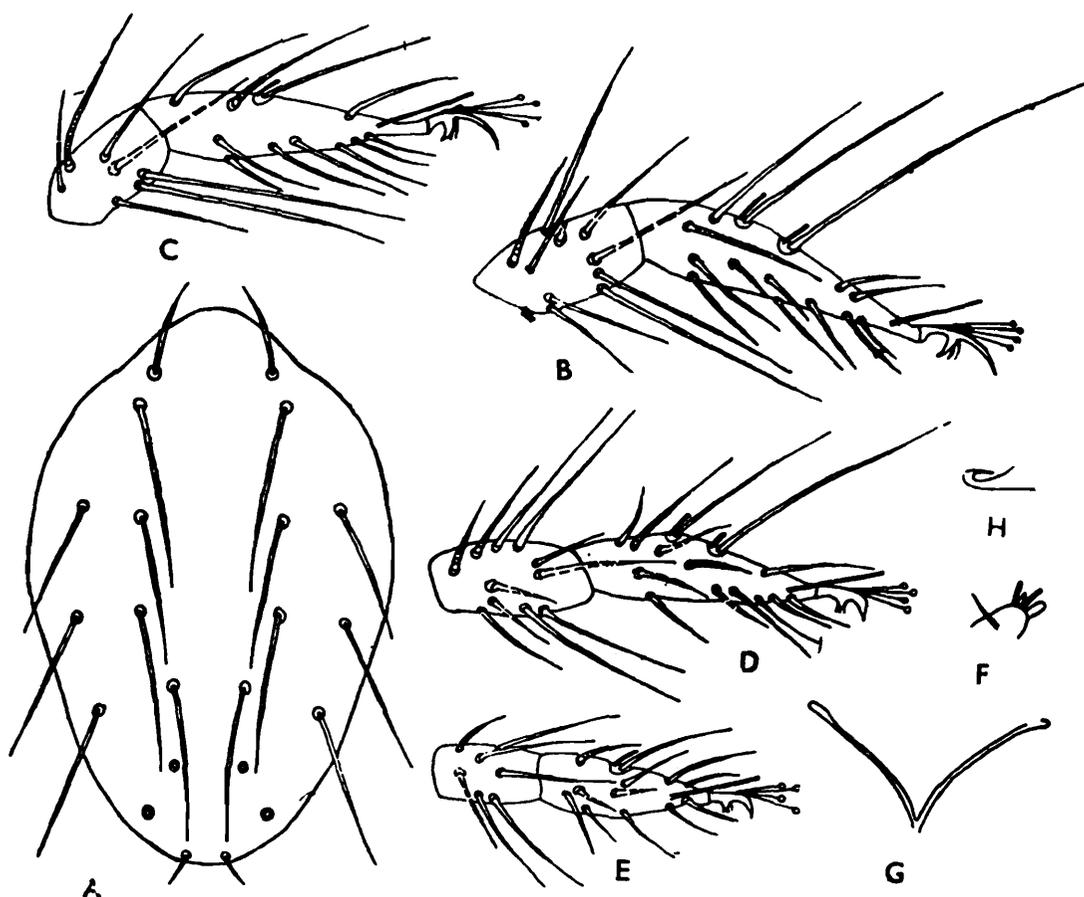
Female : Body 360 μ long, 216 μ wide. Terminal sensillum of palpus 2x as long as wide. Dorsal scusillum longer than terminal sensillum. Tibia I with one sensory and 9 tactile, tarsus I with two sensory and three tactile setae proximal to the duplex setae. Dorsal body setae same in length, with slightly pubescent, acutely tapering, one and half times longer than the longitudinal interval between their basis. Outer sacral and inner sacral setae same in length. Post

anal setae thin and small. Medioventral setae are of moderate length. Genital flap with transverse striae.

Holotype : ♂, Bedna land, on paddy (*Oryza* sp), 21. xii. 1972, coll. S. K. Gupta (Reg. No. 3089/17). *Paratype* : 1 ♂, 25 ♀ ♀, data same as for holotype (Reg. No. 3089/17).

Remarks : This species resemblance to *Oligonychus mcgregori* (Baker and Prichard) but can be distinguished by the shape of aedeagus.

The species is named in the name of my son Sri Manish Kumar Gupta.



Text-fig. 3. (A-C) *Oligonychus manishi* sp. n. ♀ A—dorsum, B—tibia and tarsus of leg I, C—tibia and tarsus of leg II; (D-H) *Oligonychus manishi* sp. n. ♂ D—tibia and tarsus of leg I, E—tibia and tarsus of leg II, F—terminal portion of palp, G—peritreme, H—aedeagus.

SUMMARY

A total of 7 species under 5 genera have been identified in a collection from Andaman and Nicobar Islands. Three species, viz.,