

ON A COLLECTION OF PHYTOSEIIDAE (ACARINA :
MESOSTIGMATA) FROM MADHYA PRADESH AND
UTTAR PRADESH WITH DESCRIPTION OF A
NEW SPECIES OF
PHYTOSEIUS RIBAGA

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(With 1 Text-figure)

So far no information is available on the phytoseiid fauna of Madhya Pradesh and only one species is known till date from Uttar Pradesh. In connection with study on Indian Phytoseiidae the author had an opportunity to survey some parts of Madhya Pradesh and could make some collection from there. Besides, a small collection from Uttar Pradesh was available through the courtesy of one of his colleagues. The present paper is based on material of these two states. Altogether, eleven species belonging to four genera are treated in this paper, of these, one species of the genus *Phytoseius* Ribaga, is described here as new to science. Chant *et al.* (1974) was followed for setal nomenclature and Chant (1965) was followed as to the concept of the genera. All the measurements are in microns.

Types are deposited in the National Collection of the Zoological Survey of India, Calcutta.

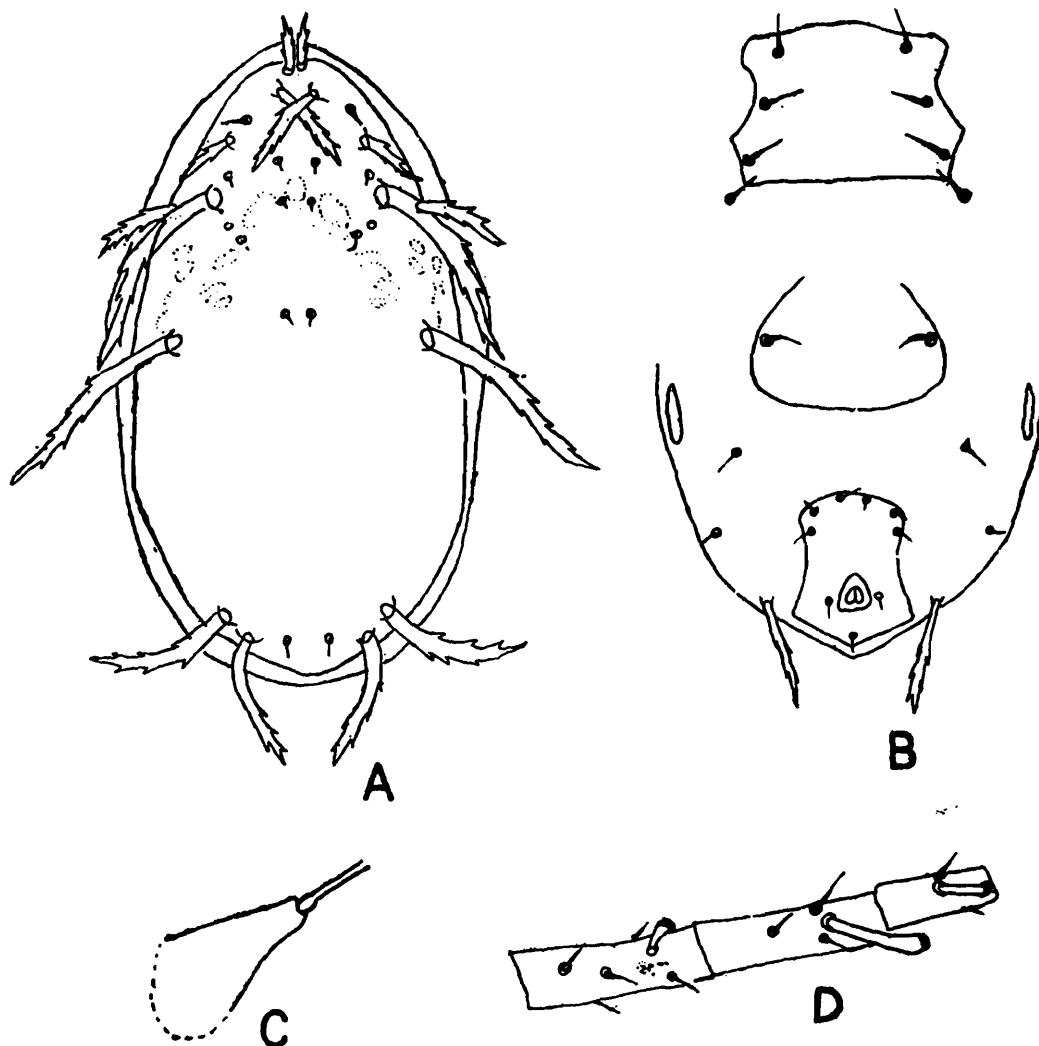
***Phytoseius* (*Phytoseius*) *jaunpurensis* sp. nov.**

(Text-fig. 1)

Female : Dorsal shield 275 long, 150 wide with 14 pairs of setae of which j_1 , j_3 , s_4 , s_6 , Z_5 and Z_4 long and serrate, other setae being minute. Measurements of setae j_1 -25, j_4 - j_6 -6 each, j_3 -50, z_2 -12, z_3 -36, s_3 -12, s_4 -100, s_6 -100 Z_5 -66, z_5 -6, Z_4 -70, r_3 -44. Sternal shield with 3 pairs of sternal setae, 4th. pair of setae lie on interscutal membrane, metasternal plate absent. Genital shield normal with a pair of genital setae. Ventrianal shield 72 long, 48 wide, lateral margins deeply concave with three pairs of small preanal setae, 3 pairs of setae present around ventrianal shield, 1 pair of metapodal plates present. Spermatheca as in figure. Leg chaetotaxy : genu II 7 setae (4 dorsal, 3 lateral), genu III 6 setae (4 dorsal, 2 lateral), genu IV 7 setae (4 dorsal, 2 lateral,

1 ventral), tibia II 7 setae (3 dorsal, 2 lateral, 2 ventral) ; macrosetae on leg IV : genu-16, tibia-36, basitarsus-22.

Male : Unknown.



Text-fig. 1. *Phytoseius (Phytoseius) jaunpurensis* sp. nov.

Holotype : ♀, INDIA : U. P., Jaunpur, on *Zizyphus jujuba* Lamk., 22. x. 1974 (Coll. Y. N. Gupta). 1 Paratype ♀, data same holotype (ZSI Reg. Nos. 3435/17) and 3436/17.

Remarks : This new species is very close to *Phytoseius (Dubininellus) coheni* Swirski and Shechter (1961), but differs from it in having s4, s6, Z5 and Z4 longer and in spermatheca differing in shape. It further differs from another related species, *P. (P.) huangi* Ehara (1970) in having s4, s6, Z5 and Z4 being longer and in the absence of the platelets around ventrianal shield.

***Phytoseius (Phytoseius) roseus* Gupta**

Phytoseius (Dubininellus) roseus Gupta, 1969 *Israel J. Agric. Res.* 19 : 119-120.

Material : 1 ♀, 1 ♂, U. P., Izzatnagar, on guava, 6. i. 1977 (Coll. Y. N. Gupta) ; 4 ♀ ♀, Izzatnagar, on beans, 6. i. 1977 (Coll. Y. N. Gupta).

Distribution : INDIA : West Bengal, U. P. (new record).

Phytoseius (pennaseius) kapuri Gupta

Phytoseius (Phytoseius) kapuri Gupta, 1989 *Israel J. Agric. Res.* **19** : 115-117.

Material : 7 ♀ ♀, 1 ♂, M. P., Mandasor Agril. farm, on brinjal, 8. v. 1975 (Coll. S. K. Gupta).

Distribution : India : West Bengal, M. P. (new record).

Indoseius ricini Ghai and Menon

Indoseius ricini Ghai and Menon, 1969 *Oriental Ins.* **3** : 348.

Material : 2 ♀ ♀, U. P., Jaunpur, on *Ricinus communis*, 17. x. 1974 (Coll. Y. N. Gupta).

Distribution : INDIA : Tamil Nadu, U. P. (new record).

Typhlodromus rickeri Chant

Typhlodromus rickeri Chant, 1960 *Canadian Entomol.* **92** : 62-64.

Material : 3 ♀ ♀, M. P., Panchmarhi, on an unidentified host, 30. iv. 1975 (Coll. S. K. Gupta).

Distribution : INDIA : Meghalaya, Karnataka, M. P. (new record).

Typhlodromus homalii Gupta

Typhlodromus homalii Gupta, 1970 *Oriental Ins.* **4** : 188-189.

Material : 1 ♀, U. P., Jaunpur, on *Zizyphus jujuba* Lamk., 22. x. 1973. (Coll. Y. N. Gupta).

Distribution : INDIA : West Bangal, U. P. (new record).

Amblyseius alstoniae Gupta

Amblyseius alstoniae Gupta, 1975 *Intl. J. Acar.* **1** : 31-32.

Material : 12 ♀ ♀, 1 ♂, U. P., Jaunpur, on grass, 17. x. 1974 (Coll. Y. N. Gupta) ; 4 ♀ ♀, Jaunpur, on rose, 17. x. 1974. (Coll. Y. N. Gupta) ; 7 ♀ ♀, 2 ♂ ♂, Jaunpur, on *Nyctanthes arbortristis*, 17. x. 1974 (Coll. Y. N. Gupta) ; 1 ♀, M. P., Raipur, Lavandi Agril. farm, on guava, 21. iv. 1975 (Coll. S. K. Gupta) ; 6 ♀ ♀, Chhindwara, on *Ficus*, 25. iv. 1975 (Coll. S. K. Gupta) ; 2 ♀ ♀, Chhindwara, on guava, 26. iv. 1975 (Coll. S. K. Gupta) ; 1 ♀, Mandasor, on *Citrus*, 3. v. 1975 (Coll. S. K. Gupta) ; 2 ♀ ♀, Dhar, on an ornamental plant, 4. v. 1975 (Coll. S. K. Gupta) ; 4 ♀ ♀, 1 ♂, Rupmati, on an ornamental plant, 5. v. 1975 (Coll. S. K. Gupta) ; 7 ♀ ♀, Mandasor Agril. farm, on grape vines, 8. v. 1975

(Coll. *S. K. Gupta*); 4 ♀♀, Mandasor Agril. farm, on guava and citrus, 8. v. 1975 (Coll. *S. K. Gupta*); 5 ♀♀, Mandasor, on rose, 8. v. 1975 (Coll. *S. K. Gupta*); 2 ♀♀, Mandasor Agril. farm, on beans, 8. v. 1975 (Coll. *S. K. Gupta*); 9 ♀♀, Dhodhar, on mulberry, 9. v. 1975 (Coll. *S. K. Gupta*); 1 ♀, Nimach, on sunflower, 10. v. 1975 (Coll. *S. K. Gupta*); 7 ♀♀, 3 ♂♂, Shivpuri, Govt. garden, on an ornamental plant, 13. v. 1975 (Coll. *S. K. Gupta*); 5 ♀♀, Shivpuri, Govt. garden, on guava, 13. v. 1975 (Coll. *S. K. Gupta*); 4 ♀♀ Shivpuri National Park, 15. v. 1975 (Coll. *S. K. Gupta*); 4 ♀♀, 1 ♂, Shivpuri Govt. garden, on pomegranate, 15. v. 1975. (Coll. *S. K. Gupta*).

Distribution : India : West Bengal, U. P. (new record), M. P. (new record).

Amblyseius coccineae Gupta

Amblyseius coccineae Gupta, 1975 *Inil. J. Acar.*, 1 : 33.

Material : 5 ♀♀, M. P., Chhindwara, on *Ficus*. 25. iv. 1975 (Coll. *S. K. Gupta*); 5 ♀♀, 1 ♂, Chhindwara, on *Polianthes tuberosa*, 26. iv. 1975 (Coll. *S. K. Gupta*); 6 ♀♀, 1 ♂, Panchmarhi, on an unidentified host, 28. iv. 1975 (Coll. *S. K. Gupta*); 4 ♀♀, Panchmarhi, on *Shorea robusta*, 28. iv. 1975 (Coll. *S. K. Gupta*); 1 ♀, Panchmarhi, on *Eucalyptus*, 28. iv. 1975 (Coll. *S. K. Gupta*); 1 ♀, Piparia, on mango, 29. iv. 1975 (Coll. *S. K. Gupta*); 1 ♀, Mandu, on fig. 2. v. 1975 (Coll. *S. K. Gupta*).

Distribution : INDIA : West Bengal, M. P. (new record).

Amblyseius bhadrakaliensis Gupta

Amblyseius bhadrakalinsis Gupta 1969 *Bull. Ent.*, 10 : 127-128.

Material : 1 ♀, U. P., Jaunpur, on an unidentified plant, 17. x. 1974 (Coll. *S. K. Gupta*); 10 ♀♀, Jaunpur, on brinjal. 24. x. 1974 (Coll. *S. K. Gupta*).

Distribution : INDIA : West Bengal, U. P. (new record).

Amblyseius kalimpongensis Gupta

Amblyseius kalimpongensis Gupta, 1969 *Bull. Ent.* 10 : 126-129.

Material : 4 ♀♀, M. P., Chhindwara, on *Lantana*, 26. iv. 1975 (Coll. *S. K. Gupta*); 8 ♀♀, Panchmarhi, on *Shorea robusta*, 28. iv. 1975 (Coll. *S. K. Gupta*); 20 ♀♀, Panchmarhi, on an unidentified host, 28. iv. 1975 (Coll. *S. K. Gupta*); 1 ♀, Piparia, on peach, 29. iv. 1975 (Coll. *S. K. Gupta*); 16 ♀♀, Panchmarhi, on cashew-nut, 30. iv. 1975

(Coll. *S. K. Gupta*) ; 3 ♀ ♀ , Mandu, on *Chrysanthemum*, 3. v. 1975 (Coll. *S. K. Gupta*).

Distribution : INDIA : West Bengal, U. P. (new record), M. P. (new record).

***Amblyseius tetranychivorus* (Gupta)**

Material : 2 ♀ ♀ , U. P., Izzatnagar, on *Citrus*, 6. i. 1977 (Coll. *Y. N. Gupta*).

Remarks : The same specimens were collected from Tamil Nadu, Kerala and Karnataka.

SUMMARY

Eleven species of Phytoseiidae belonging to four genera from Madhya Pradesh and Uttar Pradesh are treated in this paper. This included a new species of *Phytoseius*. All the species treated in this paper were hitherto unknown from these regions.

ACKNOWLEDGEMENTS

The author expresses grateful thanks to Dr. T. N. Ananthkrishnan, Director, Zoological Survey of India and to Dr. P. D. Gupta, Officer-in-Charge, Gangetic Plains Regional Station, Patna for the working facilities. Sincere thanks are also due to Mr. Y. N. Gupta, Acarology Section, Calcutta for placing his personal collection at the disposal of the author for study.

REFERENCES

- CHANT, D. A. 1965. Generic concepts in the family Phytoseiidae (Acarina : Mesostigmata). *Canadian Entomol.*, **97** : 351-374.
- CHANT, D. A., HANSELL, R. I. C. and YOSHIDA, E. 1974. The genus *Typhlodromus* Scheuten (Acarina : Phytoseiidae) in Canada and Alaska. *Canadian J. Zool.*, **52** : 1265-1291.
- EHARA, S. 1970. Phytoseiid mites from Taiwan (Acarina : Mesostigmata). *Mushi*, **43** : 55-63.
- SWIRSKI, E. AND SHECHTER, R. 1961. Some Phytoseiid mites (Acarina : Phytoseiidae) of Hong Kong, with a description of a new genus and seven new species. *Israel J. Agric. Res.*, **11** : 97-117.