THE GENUS \textit{PARAPHYTOSEIUS} SWIRSKI AND SHECHTER WITH A NEW SUBGENUS AND ONE NEW SPECIES FROM INDIA

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ABSTRACT

The genus \textit{Paraphytoseius} Swirski and Shechter is revived. \textit{Tropicoselus}, a new subgenus under \textit{Paraphytoseius}, is erected to embrace a new species.

INTRODUCTION

The genus \textit{Paraphytoseius} was erected by Swirski and Shechter (1961) with \textit{Paraphytoseius multitentatus} Swirski and Shechter (1961) as its type. But Chant (1965), while reviewing the genera under Phytoseiidae, synonymised it with \textit{Amblyseius} Berlese. Although \textit{Paraphytoseius} bears similarities with \textit{Amblyseius} in characters, \textit{viz.} presence of 4 pairs of anterior lateral setae, sub lateral setae present on lateral integument, sternal shield with 3 pairs of setae, 4th pair present on metasternal plates, ventral shield with 3 pairs of preanal setae and usually 4 pairs of setae present on postero-lateral integument, but the characters, \textit{viz.} elongated body, dorsal shield leaves some part of post dorsum uncovered, usually 13 pairs of setae present on dorsal shield of which \textit{z}_8, \textit{z}_9, \textit{z}_4, and \textit{z}_5 always long, thick and serrate, presence of notch on dorsal shield at the level of \textit{s}_4, presence of a pair of large pores associated with \textit{z}_6, presence of 2 pairs of post lateral setae and macrosetae on leg IV always long with spatulate tip are some of the unique features which are neither universally present in \textit{Amblyseius} nor are met with constantly in any known genera under Phytoseiidae. All these warrant to keep these group of species separately and, hence, the genus \textit{Paraphytoseius} is re-established to accommodate the species \textit{viz.} \textit{multidentatus} Swirski and Shechter (1961), \textit{orientalis} Narayanan, Kaur and Ghai (1960), \textit{horrifera} Pritchard and Baker, (1962), \textit{santurcensis} De Leon (1965), \textit{urumanus} Ebara (1967), \textit{bhadrakaliensis} Gupta (1970).

Now, the author collected another related species bearing characters \textit{viz.} presence of \textit{s}_8 and thus making the total number of setae on dorsal shield to 14 pairs (13 pairs present in other known species), \textit{s}_8 and \textit{s}_9 being thick and serrate (minute in other known species) and presence of 2 pairs of metapodal plates (single pair in other species). Because of the presence of these combination of characters, this species could not be accommodated under subgenus \textit{Paraphytoseius} \textit{s. str.} and, hence, a new subgenus \textit{Tropicoselus} is erected to accommodate this new species.

In view of this, the genus \textit{Paraphytoseius} is re-defined, key to the subgenera is provided and a new species is described to serve as type of the subgenus.
The measurements given in the text are in microns. The material treated in this paper were collected by the author. Setal nomenclature as that of Chant and Hansell (1971) is followed.

Type material dealt with in this paper is deposited in the National Collection of the Zoological Survey of India, Calcutta.

Genus Paraphytoseius Swirski and Shechter

Type: Paraphytoseius multidentatus
Swirski and Shechter, 1961
(By original designation)

**Diagnosis:** Body elongated, dorsal shield moderately sclerotized, posteriorly leaves some part of dorsum uncovered, with 13-14 pairs of setae, of these 4 pairs of anterior lateral, 2-3 pairs of post lateral, 2 pairs of mediolateral and 5 pairs of dorso-central. Setae $j_5$, $s_4$, $Z_5$ and $Z_4$ being always long, thick and serrate, sometimes $s_2$ and $s_3$ also serrate (in Tropicoseius subgen. nov.), 2 pairs of sublateral setae present on lateral integument, anterior pair long, serrate, posterior pairs short. A pair of large pores always associated with $Z_5$. Dorsal shield notched at the level of $s_4$. Sternal shield with 3 pairs of setae, metasternal plate triangular with seta distinct.

**Key to the subgenera**

1. Dorsal shield with 13 pairs of setae, only 2 pairs of postlateral setae present, $s_8$ and $s_9$ minute, presence of only one pair of metapodal plates. **Paraphytoseius Swirski and Shechter, 1961.**
Fig. 1. (A-D) *Paraphytoseius (Tropicoseius) nucifera* sp. nov. A—dorsal shield, B—ventral surface, C—spermatheca, D—leg IV.

**Male**: Unknown

**Material**: Holotype Reg. No. 3057 / 17

INDIA: Kerala: Neyyar Dam, 15. xii. 1975, ex Cocos nucifera.

**Remarks**: This species is easily distinguished from all other known species by presence of $S_b$, setae $s_a$ and $s_b$ fairly thick and serrate and by presence of two pairs of metapodal plates.

Subgen. *Paraphytoseius* Swirski and Shechter

*Paraphytoseius (Paraphytoseius) bhadrakaliensis* (Gupta) comb. nov.


Remarks: This species was described from West Bengal and later was collected from different parts of India on a wide range of hosts but chiefly on vegetables and mostly found associated with *Tetranychus* spp.

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REFERENCES


