

DESCRIPTION OF A NEW MITE OF THE GENUS *AMBLYSEIUS* (ACARI: PHYTOSEIIDAE) FROM DISTRICT POONCH, AZAD KASHMIR

Muhammad Rizwan Ullah Khan, Muhammad Afzal and Muhammad Hamid Bashir

Department of Agri. Entomology, University of Agriculture, Faisalabad, Pakistan

ABSTRACT

One new species *Amblyseius rawalakotensis* was collected from Rawlakot, District Poonch as the result of a survey of Azad Kashmir. This new species was collected from apple and is described and illustrated in this research paper. The types were deposited in Acarology Research Laboratory, Department of Agri. Entomology, University of Agriculture Faisalabad - Pakistan. This new species has raised the number to 40 of known species of this genus from Pakistan

INTRODUCTION

Mites of the genus *Amblyseius* are very important, since they as predators of phytophagous mites especially mites of the families like Tetranychidae, Eriophyidae, Tarsonemidae and Tenuipalpidae. These mites also feed on other small arthropods and insects like aphid, thrips, and scale insects (Evans, 1992). The genus *Amblyseius* was erected by Berlese in 1914. He designated *Zercon obtusus* Koch, 1839 as its type species. Chant (1959) gave the status of subgenus to *Amblyseius*. But later on in 1962 Pritchard and Baker again lifted its status to genus. They described 20 species in this genus at that time. Later on the work of Chant and Baker (1965), Chant and Hansell (1971), Corpuz and Rimando (1966), DeLeon (1961, 1966), Denmark (1965), Ehara (1996 a,b), Wainstein and Arutunjan (1970) and Tuovinen (1993) are worth mentioning.

From Pakistan Chaudhri (1967, 1968); Chaudhri *et al.* (1979); Shahid *et al.* (1984); Ahmad and Chaudhri (1989), Khan *et al.* (1997); Khan *et al.* (2000), Kamran *et al.* (2003), Afzal *et al.* (2003), Kamran *et al.* (2004), Bashir *et al.* (2004), Afzal *et al.* (2004) and Khan and Ashfaq (2005 a,b) have described 1, 6, 3, 9, 2, 5, 2, 1, 1, 1, 2, 2, 2 and 2 new species, respectively. One new species have now been described in this research paper, thus making a total of 40 species in this genus from Pakistan.

MATERIALS AND METHODS

The collection of the mites was made from different plant parts like leaves, soft branches and inflorescence which was beaten on sieve held over a white paper. The phytoseiid mites were sorted from the bulk with the help of hand lens and preserved in 50 % alcohol along with a few drops of glycerin in small vials. Permanent slides were prepared by

mounting the specimens on the glass slides by using Hoyer's medium prepared in the laboratory for this purpose. The specimens were then studied under phase contrast microscope. The drawings of different body parts of mites like chelicera, sternal, genital and ventrianal shield; spermatheca; peritremal shield base and leg IV were prepared by using an ocular grid. The specimens were identified with the help of literature and existing keys. All the measurements are given in μm . The authors have followed the Lindquist-Evans system of setal nomenclature (Rowell *et al.* 1978) in this manuscript.

RESULTS

Amblyseius rawalakotensis, n.sp. (Fig. 1A-F)

Female

Dorsum

Dorsal shield smooth, almost oval, 17 pairs setae and 2 pairs rounded pores, 370 long, 270 wide (Fig. 1A). Chelicerae 35 long, with one tooth on moveable digit and 3 teeth on fixed digit (Fig. 1C). Dorsal and sublateral setae measuring: j1 29, j3 32, j4 = j5 = 14, j6 20, J2 25, J5 7, z2 29, z4 32, s4 45, Z1 18, S2 25, S4 20, S5 25, Z5 55, z5 15 and Z4 25 long. Setae r3 = R1 = 14 long. All dorsal setae simple and smooth. Peritreme extending upto setae j3. Peritremal shield as shown in Fig. 1D.

Venter

Sternal shield smooth, 92 long, 70 wide, flat posteriorly, slightly convex anteriorly with 3 pairs setae and 2 pairs pores. Genital shield smooth, 80 wide, with 1 pair setae, wider than ventrianal shield's width. Genital and ventrianal shields 28 apart with a double membraneous fold in between.

Ventrianal shield smooth, 75 wide, 91 long with three pairs of preanal setae, 1 pair of para-anal setae, 1 post-anal setae and 1 pair of elliptical pores. Four pairs of setae present on membrane surrounding the ventrianal shield, two pairs of metapodal platelets, primary platelet 21 long and secondary platelet 10 long (Fig. 1B). Spermatheca peg like, 37 long as shown in (Fig. 1E).

Legs

Macrosetae on leg IV genu, tibia and basitarsus present, measuring 50, 75, and 80 long, respectively (Fig. 1F).

Male

Not came in collection.

Type

Holotype female, collected from Rawalakot (Poonch), on 28.v.2004 (Rizwanullah) from Apple (*Pyrus malus* L.). Paratype one female, collection data same. All deposited in the Acarology Research Lab, Deptt. of Agri. Entomology, U.A.F

Remarks

This new species can be separated from *Amblyseius animos* Khan on the of basis of extension of peritreme up to setae z2, length of setae z5, z4, S₂, S₄ and S₅ and length of macrosetae on leg IV.

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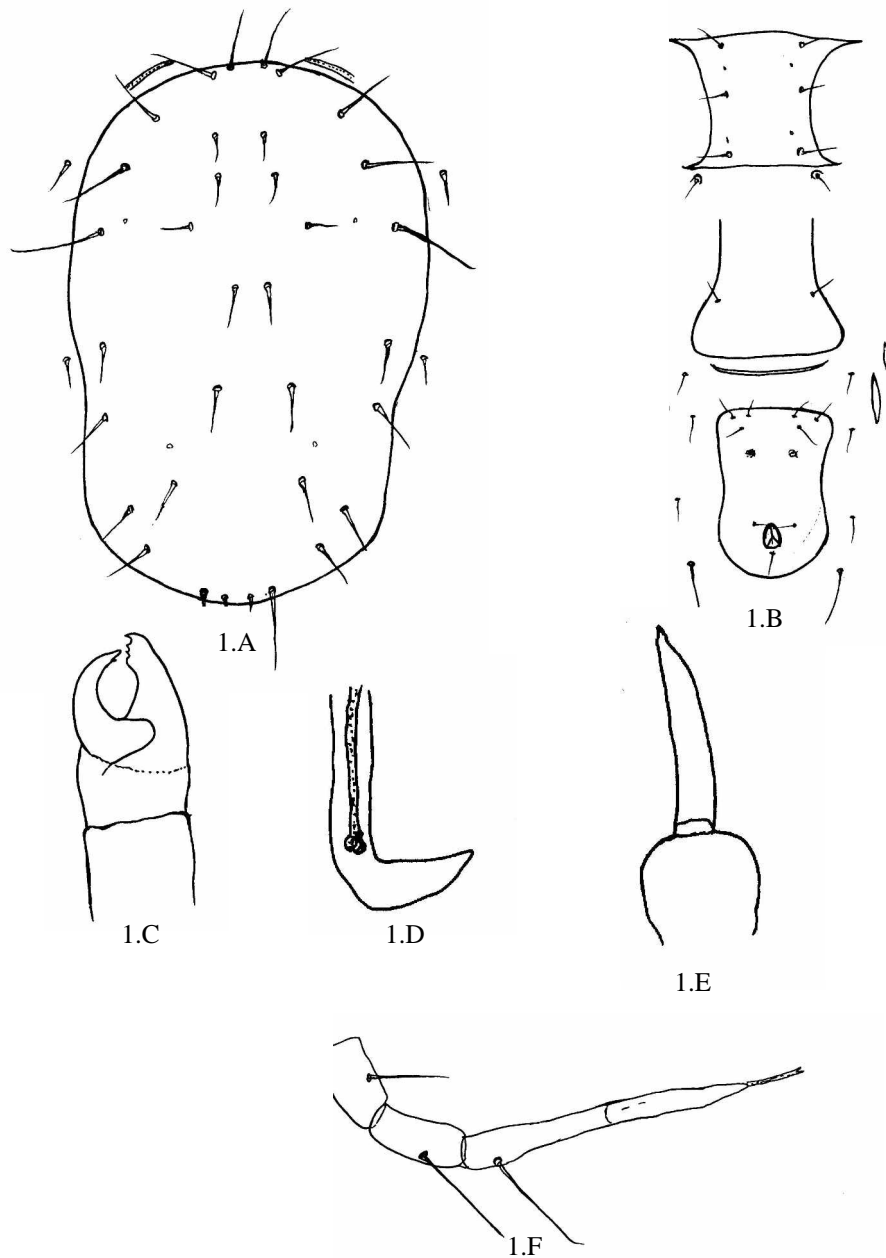


Fig. 1 *Amblyseius rawalakotensis*, new species; A. Dorsal shield; B. Sternal, genital, ventrianal shields and metapodal platelets; C. Chelicera; D. Peritremal shield base; E. Spermatheca; F. Leg IV