

DESCRIPTION OF A NEW SPECIES OF *TYPHLODROMUS* SCHEUTEN OF *RHENANUS* GROUP (ACARI: PHYTOSEIIDAE) ON DUST HOUSE CURTAIN FROM RIO GRANDE DO SUL, BRAZIL

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1 INTRODUCTION

Phytoseiidae is one of the most extensively studied families of the world. They are predators of spider mites and other small mites and insects on plants. Some species also feed on nematodes, fungal spores, pollen and exudates from plants (McMurtry and Croft, 1997), but rarely plant tissue (Sengonca *et al.* 2004; Magalhaes and Bakker, 2002). Several members of this family are of great importance in the biological control of spider mites and thrips in greenhouse crop production (Zhang, 2003).

So far, little information is known about the species of this group from the State of Rio Grande do Sul, in Southern of Brazil. Only *Typhlodromus (Anthoseius) ornatus* (Denmark and Muma 1973) and *Typhlodromus (Anthoseius) transvaalensis* (Nesbitt, 1951) have been reported in that region (Ferla and Moraes 2002; Ferla, Marchetti and Gonçalves, *et al.* 2011). Probably there is many species of this genre to be discovered in Rio Grande do Sul, but it's necessary more studies mainly in native areas, because until now, the majority of studies were realized in agroecosystems (Ferla, Marchetti and Siebert, 2005; Ferla *et al.* 2011) and just Ferla and Moraes (2002) studied mites in native forest area preserved.

Given the importance of this state in agricultural production, an effort has been recently dedicated to determine the phytoseiid species on the main crops and on wild plants growing around agricultural areas of the state. Recently, four works described species in Rio Grande do Sul state (Ferla and Silva, 2008; Ferla and Silva 2009; Ferla, Moraes and Silva 2010; Ferla and Silva 2011). So, the objective of this paper is to present the description of a new phytoseiid species of *Typhlodromus rhenanus* group collected in dust house curtain in Encantado County, State of Rio Grande do Sul.

2 MATERIAL AND METHODS

Dust samples were taken from the curtains using a handheld vacuum, Philips, model FC 6050 Mini Vac, with 3.6 V battery power. The collection comprised an average of nine minutes. The dust was removed from the vacuum using a brush tip and No. 6 individually in plastic bags and stored in a refrigerator for a period of up to two days. The mites found were removed with fine tip brush and stored in *ependorf* with 70% ethanol. The collection point is near a green area native.

The type specimens of the new species described in this paper were obtained from dust house curtain and mounted on slides. The slides of specimens were studied with the help of a phase contrast microscope. Drawings of different

body parts of the mite were prepared out by using a camera lucida. The standardization process was made using the Software Corel Draw X5. The setal nomenclature is that of Rowell et al. (1978) and Chant and Yoshida-Shaul (1992) for the dorsal and ventral surfaces of the idiosoma, respectively. Average measurements and the corresponding ranges are given in micrometers (μm). The dichotomic key was made based on Chant and McMurtry (1994). The laboratory activities were conducted in the Acarology laboratory in the Museum of Natural Sciences (MCN) University Center UNIVATES.

3 RESULTADOS E DISCUSSÃO

The new species described here differs from *Typhlodromus wonkooi* Ryu and Ehara 1992 having the setae ST3 on platelets. *Typhlodromus* n.sp has all setae of the dorsal shield larger than *T. wonkooi* beyond of the macrosetae on genu, tibia and basitarsus IV. *Typhlodromus* n. sp has three teeth on fixed digit while *T. wonkooi* has four inside. The cervix of the spermatheca is nodular shape. The *T. wonkooi* ventrianal shield is reticulated and has a constriction at level of JV2 while *Typhlodromus* sp hasn't constriction and it is smooth, characteristics were concluded it was a distinct species from *Typhlodromus (Anthoseius)*.

4 CONCLUSÃO

Through measurements of setae, shields dorsal, ventral, genital, spermatheca were concluded it was a distinct species from *Typhlodromus (Anthoseius)*.

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