A new species of *Amblyseius* Berlese (Acari, Phytoseiidae) from the state of Rio Grande do Sul, Brazil

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ABSTRACT. A new species of *Amblyseius* Berlese (Acari, Phytoseiidae) from the state of Rio Grande do Sul, Brazil. A new species of *Amblyseius* Berlese, *A. vitis* **sp. nov**. is described from Dois Lajeados, State of Rio Grande do Sul. The specimens were collected on *Stachys arvensis* L. (Lamiaceae) and *Plantago tomentosa* Lam. (Plantaginaceae).

KEYWORDS. *Plantago tomentosa*; predator; *Stachys arvensis*; *Vitis labrusca*; weed.

RESUMO. Uma nova espécie de *Amblyseius* Berlese (Acari, Phytoseiidae) do Rio Grande do Sul, Brasil. Uma nova espécie de *Amblyseius* Berlese é descrita para o estado do Rio Grande do Sul, no Sul do Brasil. *Amblyseius vitis* **sp. nov.** é descrita de Dois Lajeados, Rio Grande do Sul. Os espécimes foram coletados sobre *Stachys arvensis* L.(Lamiaceae) e *Plantago tomentosa* Lam. (Plantaginaceae).

PALAVRAS-CHAVE. Planta daninha; predador; *Plantago tomentosa*; *Stachys arvensis*; *Vitis labrusca*.

The Phytoseiid mites feed on spider mites, nematodes, fungal spores, pollen and exudate from plants and soil. Several species are utilized in biological control program (Moraes 2002). The species of *Amblyseius* Berlese are classified as generalist predators, since they use various types of foods, showing better reproductive rates in this type of feeding than those of tetranychid (McMurtry & Croft 1997). *Amblyseius chiapensis* (Deleon, 1961), *Amblyseius herbicolus* (Chant 1959), *Amblyseius operculatus* (DeLeon, 1967) and *Amblyseius saopaulus* (Denmark & Muma 1973) are the species of this genus reported from Rio Grande do Sul, Brazil (Ferla & Moraes 1998, 2002; Lorenzato 1987, 1988; Ferla *et al*. 2005, 2007; Moraes *et al.* 2004). The new species herein described has been collected on a weed commonly found in grape orchards in Rio Grande do Sul, is described and illustrated.

MATERIAL AND METHODS

The mites were collected from the leaves of *Stachys arvensis* L. (Lamiaceae) and *Plantago tomentosa* Lam. (Plantaginaceae) found in crop of grape Bordeaux variety (*Vitis labrusca* L.: Vitaceae). The specimens were mounted in Hoyer's medium on glass slides and observed under a binocular microscope. The slides were dried on a slide warming plate, ringed with nail polish. The morphological details were studied under a phase contrast microscope. The drawings were made using a camera lucida apparatus. The setal nomenclature is that of Rowell *et al*. (1978) and Chant & Yoshida-Shaul (1992) for the dorsal and ventral surfaces of the idiosoma, respectively. Measurements are given in micrometers (μm), with their range given in parentheses.

Amblyseius vitis Ferla & Silva sp. nov.

(Figs. 1–5)

Diagnosis. *Amblyseius vitis* **sp. nov.** is similar to *Amblyseius waltersi* (Schicha, 1981). However, the latter have setae s4, Z4, Z5, Sge e Sti IV longer 38, 20, 40, 37 e 34%, respectively, than *Amblyseius waltersi*. The setae j3 are 33% shorter in the latter species. The setae J5, Z4 e Z5 serrated in *A. waltersi* are smooth in the new species.

Female. (Three specimens measured). Yellowish in life. Idiosomal setal pattern: 10A:9B/JV-3/ZV.

Dorsum (Fig. 1) - Dorsal shield smooth, 409 (380–425) long, 293(280–305) wide, j1 33 (28–38), j3 29 (28–30), j4 5(5), j5 5 (5), j6 6 (5–6), J2 6 (5–8), J5 10 (10), z2 6 (5–8), z4 8 (8), z5 5 (5), Z1 7 (5–8), Z4 198 (188–208), Z5 428 (418–438), s4 188 (175–200), S2 9 (8–10), S4 9 (8–10), S5 9 (8–10), r3 12 (8–15), R1 7 (5-8). Setae r3 and R1 on interscutal membrane. All setae smooth.

Peritreme (Fig. 2) - Extending forward to level of j1.

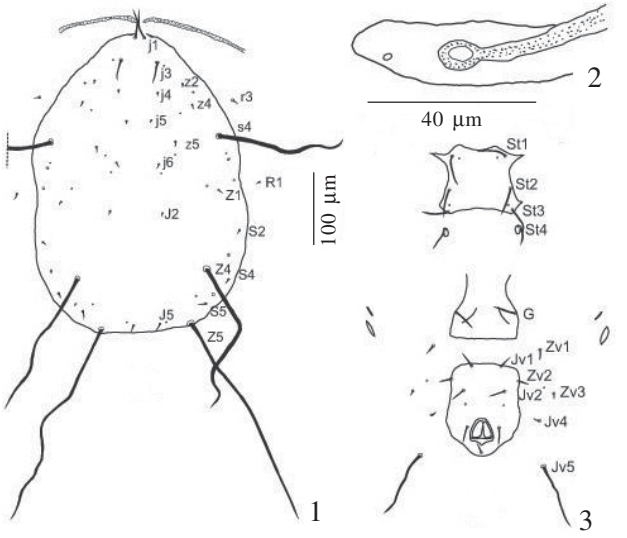
Venter (Fig. 3) – All shields smooth. Sternal shield with three pairs of setae and two pairs of liryfissures; distances between St1-St3 74 (70–78), St2-St2 83 (80–85). Distance between St5–St5 88 (88). Ventrianal shield nearly pentagonal, with lateral margins slightly concave, 133 (123–145) long, 97 (95–98) wide at ZV2 level and 98 (90–105) wide at anus level, with three pairs of setae and one pair of preanal pores posterior and about in longitudinal line with seta JV2. Two pars of slender metapodal shields. Setae JV5 smooth: 106 (103–108).

Chelicera (Fig. 4) - Fixed digit 41(38–45) long, with eight to ten teeth. Movable digit 36 (34–40) long, with three teeth.

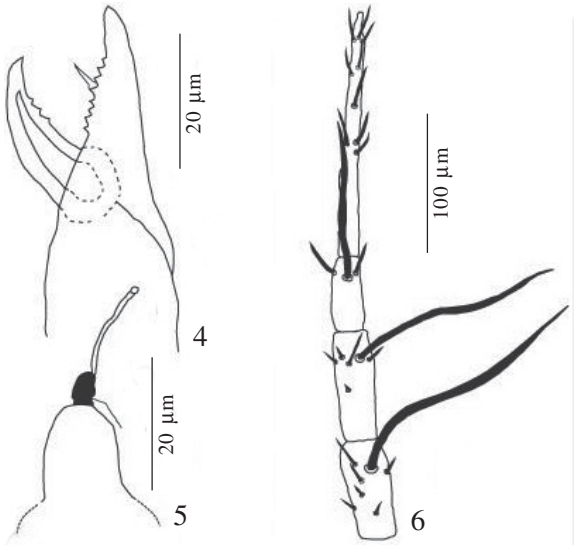
Spermatheca (Fig. 5) - Calyx in form of bell, 22 (20–23) long and 10 (10) diameter in median region; atrium nodular.

Legs (Fig. 6) - With setaceous macrosetae of the following lengths: Sge I 61 (55-65), Sge II 47 (43–50), Sge III 90 (88-93), Sti III 73 (70–75), Sg IV 207 (200–213), Sti IV 166 (163–170), St IV 129 (125–133). Chetotactic formula of genu II 2-2/0,2/0-1; genu III 1–2/1,2/0–1.

Male - Unknown.



Figs. 1-3. *Amblyseius vitis* **n. sp.** - Female: 1. Dorsal shield, 2. Peritrema, 3. Ventral surface



Figs. 4-6. *Amblyseius vitis* **n. sp.** - Female: 4. Chelicera, 5. Spermatheca, 6. Leg IV.

Type Material. Holotype female. Dois Lajeados (altitude: 626 m, Posição: Latitude 28°56'29" S e 51°51'44" W, Rio Grande do Sul, Brazil, 17/VII/2006, on *Stachys arvensis* L. (Lamiaceae). Two female paratype, same locality as holotype, 07/XI/2006, on *Plantago tomentosa* Lam. (Plantaginaceae). All the specimens have been collected by Guilherme Liberato da Silva. The type specimens are deposited at Departamento de Entomologia, Fitopatologia e Zoologia Agrícola, Escola Superior de Agricultura "Luiz de Queiroz" (ESALQ), Universidade de São Paulo (USP), Piracicaba - SP.

Comments. *Amblyseius vitis* **sp. nov.** belongs to the andersoni-group by having the spermatheca with calyx dish-, cup-, bell- or V-shaped, with the length/width ratio at the mid-point of the calyx < 3.0:1.0 (Chant & McMurtry 2004).

Etymology. The new species is named after the crop where the specimens were found.

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