

**A NEW SPECIES OF *AMBL YSEIUS* BERLESE (ACARINA: PHYTOSEnDAE)
FROM SINAI***

S. AMITAI and E. SWIRSKI

*Div. of Entomology, Agricultural Research Organization,
The Volcani Center, Bet Dagan, Israel*

ABSTRACT

A description is given of *Amblyseius sinaiticum* n.sp. collected on *Retama raetam* in Sinai.

Mites were stored in 70% ethyl alcohol, cleared in Nesbitt's solution, and mounted in Hoyer's fluid. The setal nomenclature of Garman (1948) and Nesbitt (1951), as well as the spermatodactyl terminology of Wainstein and Kolodochka (1974), were followed.

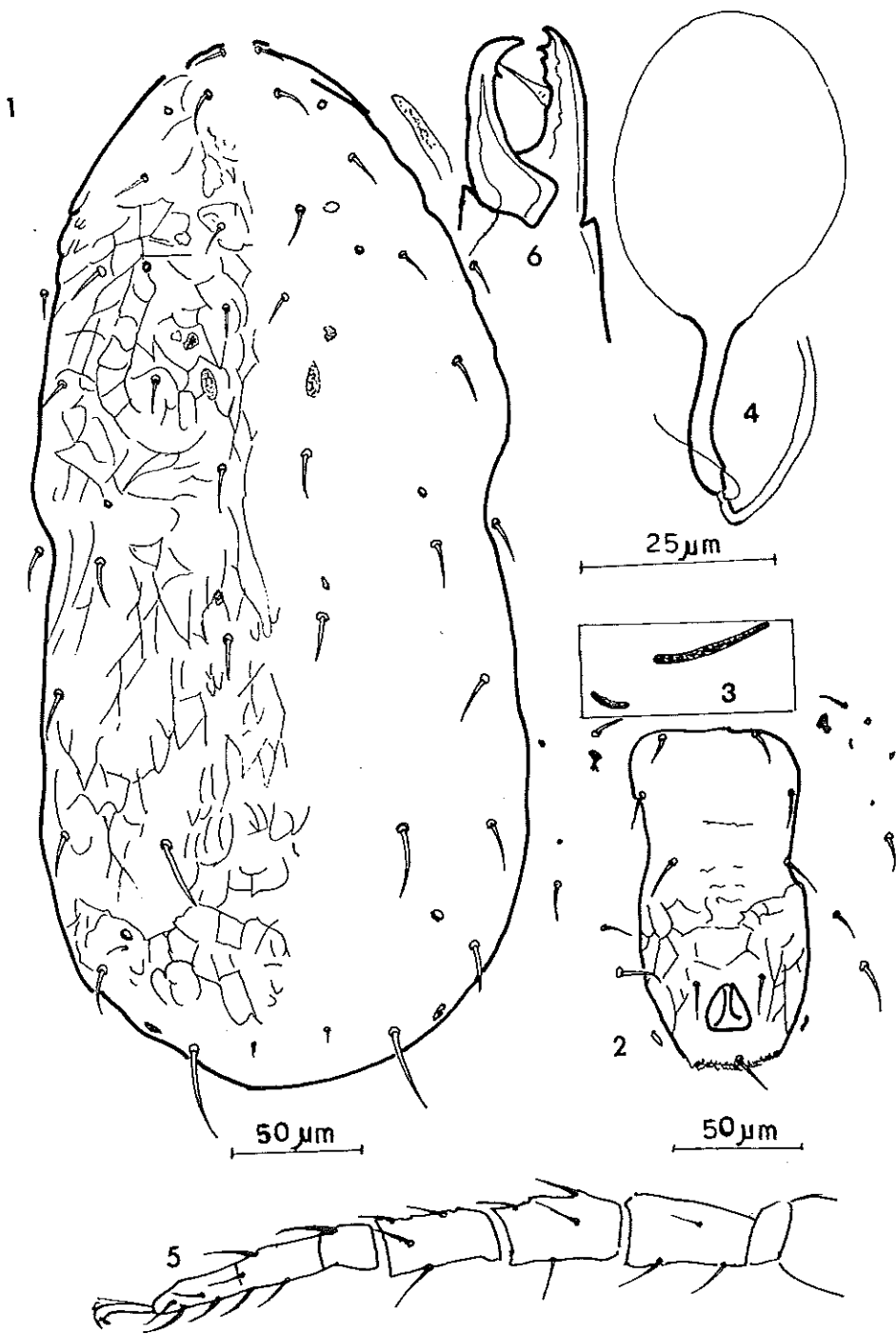
Type series are deposited in the Division of Entomology, Agricultural Research Organization, Bet Dagan, Israel.

Amblyseius sinaiticum n. sp.
(Figs. 1-8)

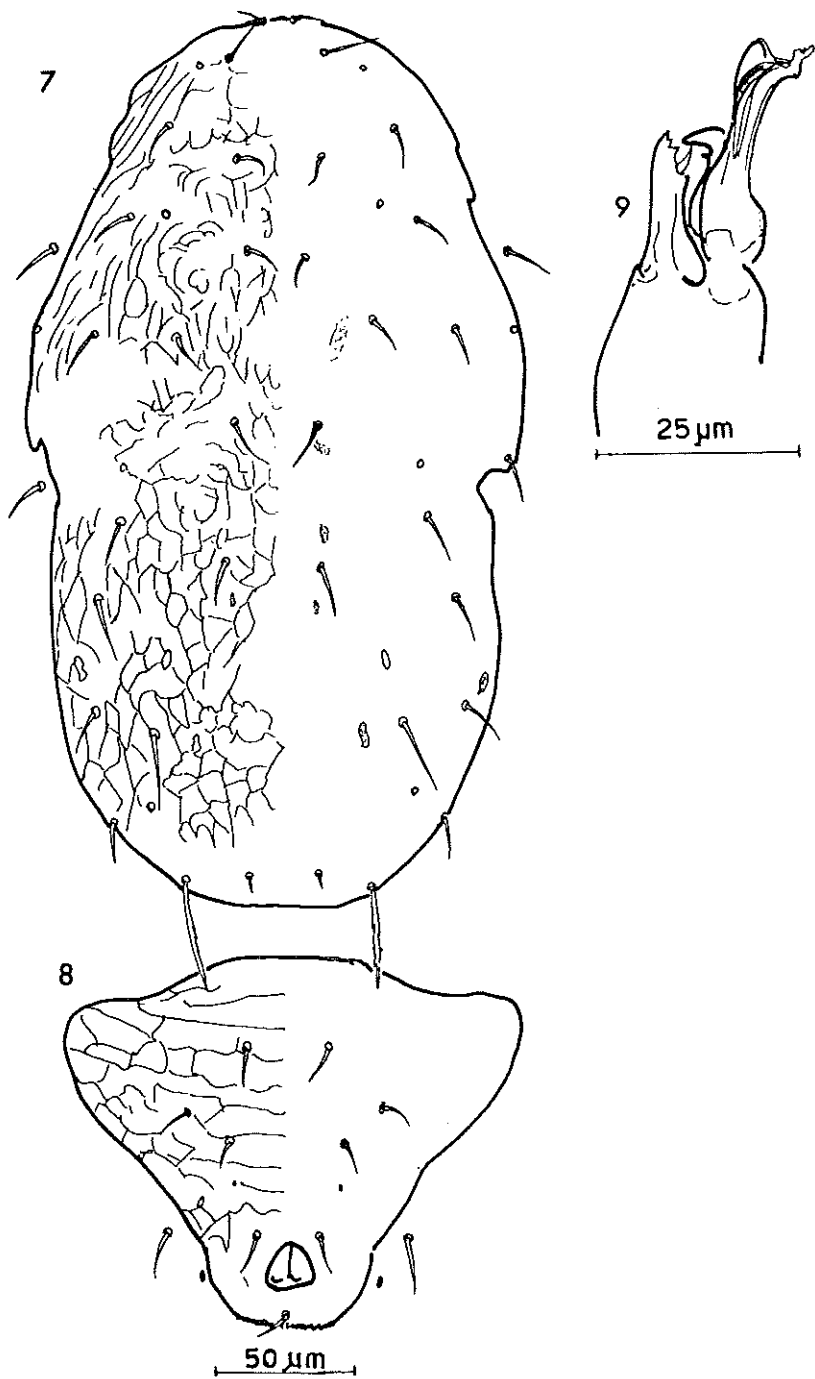
FEMALE: Dorsal shield (Fig. 1) suboval, with slightly constricted lateral margins; it is slightly sclerotic and reticulated. Dorsal shield carries 17 pairs of setae: 6D, 2M, 9L; setae and M₂ of moderate size, the remaining setae short; setae of the lateral series not exceeding the distances between their bases and those of the setae following next; setae M₂ and L₉ smooth or barely serrated; the remaining setae smooth. The shield bears 4 pairs of solenostomes, distributed as follows: lateral to L₁-L₂, mesad to L₃, between L₄-L₅, antero-mesad to L₈.

Sternal shield slightly sclerotized and striated; its borders are obscure (in the two specimens); the shield bears two pairs of setae and poroides pv1 and pv2; setae v3 are situated on minute platelets; setae v4 and poroides pv3 are placed on metasternal plates. Genital shield normal, slightly sclerotized; V-line prominent. Ventrianal shield (Fig. 2) smooth in its anterior part and striated and reticulated in the posterior one; with lateral

*Contribution from the Agricultural Research Organization, The Volcani Center, Bet Dagan, Israel. No. 368-E, 1982 series.



Figs. 1-6. *Amblyseius sinaiticum*, female. 1. Dorsal shield 2. Ventrianal shield. 3. Metapodal plates. 4. Spermatheca. 5. Hind leg. 6. Chelicera.



Figs. 7-9. *Amblyseius sinaiticum*, male. 7. dorsal shield. 8. Ventrianal shield. 9. Chelicera.

margins constricted anteriorly; solenostomes (ian pores) not visible; it carries three pairs of preanal setae; ratio of length/width = 1.79-2.02; rA = 1. Three pairs of setae, besides VL₁, surround the ventrianal shield. Two pairs of metapodal plates (Fig. 3) are present on the membrane; the primary ones are long and narrow (47-50 μ), the secondary ones much shorter (8-17 μ). Apex of peritreme reaches bases of setae L₁-L₂.

In the spermatheca (Fig. 4) the cervix is long, funnel-shaped; atrium small; the slender major duct thin-walled; the minor duct very prominent.

Hind leg as in Fig. 5. Hind basitarsus carries a short pointed macroseta, not reaching the dorsal lyriform fissure. Coxae I with solenostomes.

The movable digit of the chelicerae (Fig. 6) bears one tooth; the fixed one has two teeth, besides the *pilus dentilis*.

Measurements (in microns): Ds = 424 (403-445); Lva = 135 (129-141); lva = 70.5 (70-71); D₁, D₅, L₃, L₅, L₈ = 17.5 (17-18); D₂, M₁ = 12.5 (12-13); D₃ = 14 (13-15); D₄, L₁ = 17; L₂ = 15.5 (15-16); L₄, L₆, VL₁ = 21 (20-22); L₇ = 19 (18-20); L₉ = 35; M₂ = 34 (33-35); S₁, S₂ = 18 (17-20); st = 21 (20-22).

MALE. Dorsal shield (Fig. 7) sclerotized, reticulated; the lateral margins with elongated cells. It bears 17 pairs of setae: 6D, 2M, 9L; setae S₁ and S₂ on the inter-scutal membrane (one of the setae S₂ on the dorsal shield). Five pairs of solenostomes are distributed as follows on the dorsal shield: lateral to L₁-L₂, mesad to L₃, lateral to L₄, between L₄ and L₅, antero-mesad to L₈.

Genitosternal shield smooth, with five pairs of setae and a few pairs of poroides. Ventrianal shield (Fig. 8) sclerotized, reticulated; with 3 pairs of preanal setae. Apex of peritreme reaches bases of setae L₁-L₂, L₂.

Fixed digit of the chelicerae (Fig. 8) bears two teeth, besides the *pilus dentilis*; the movable digit carries a single tooth and the spermatodactyl. In the spermatodactyl (Fig. 9) ramus and antiramus well developed.

Hind basitarsus carries a short pointed macroseta, not reaching the dorsal lyriform fissure.

Measurements (in microns): Ds = 310; Lva = 129; lva = 164; D₁, D₂, M₁, L₂ = 13; L₃, st = 15; D₄, L₅ = 17; D₅, L₁, VL₁ = 18; L₄ = 22; L₆ = 23; L₇ = 20; L₈ = 14; L₉ = 35; M₂ = 33.

MATERIAL EXAMINED: Holotype ♀ (No. 2678), Southwestern Sinai, Wadi Hashabe, 27.XII.1977, S. Amitai, on *Retama raetam*, Paratypes: 1♀, 1♂, same data as holotype.

TAXONOMIC NOTES: *Amblyseius sinaiticum* resembles *Amblyseius desertus* (Chant, 1957) in the structure of the ventrianal shield and form of the spermatheca (Chant and Hansell, 1971); but differs by the following characters: a) shorter setae on the dorsal shield (L₉ = 35 μ vs. 62 μ; M₂ = 33-35 μ vs. 52 μ; L₄ = 20-22 μ vs. 30 μ; L₆ = 40 μ vs. 20-22 μ etc.); b) 2 pairs of setae on the sternal shield instead of 3.

REFERENCES

- Chant, D.A. 1957. Descriptions of some phytoseiid mites (Acarina: Phytoseiidae). Part I. Nine new species from British Columbia with keys to the species of British Columbia. *Canadian Entomologist*, 89:289-308.
- Chant, D.A. and Hansell, R.L.C. 1971. The genus *Amblyseius* (Acarina: Phytoseiidae) in Canada and Alaska. *Canadian Journal of Zoology*, 49:703-758.
- Garman, P. 1948. Mite Species from Apple Trees in Connecticut. *Connecticut Agricultural Experiment Station Bulletin*, No. 520, 27 pp.
- Nesbitt, H.H.J. 1951. A taxonomic study of the Phytoseiinae (family Laelaptidae) predaceous upon Tetranychidae of economic importance. *Zoologische Verhandelingen, Leiden*, 12:1-64.
- Wainstein, B.A. and Kolodochka, L.A. 1974. New species of the genus *Anthoseius* (Parasitiformes, Phytoseiidae). *Zoologicheskii Zhurnal*, 53:628-632. (in Russian)