

A NEW SPECIES OF AMBLYSEIUS (ACARINA: PHYTOSEIIDAE) FROM ISRAEL

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Amblyseius engaddensis sp. n. , a phytoseiid collected at 'En Gedi on Gramlneae, is described and illustrated.

Female (2 females): Dorsal shield 325-333 μ long; strongly reticulated all over, with 17 pairs of setae: 6D, 2M, 9L. In the dorsal and median rows seta M₂ longer than the remaining setae; in the lateral series seta L₉ elongate, the remaining setae short; setae L₁ - L₇ shorter than the distances between their bases; setae L₁, L₂, L₃, L₅ subequal in length, setae L₄, L₆, L₉ slightly longer than the above mentioned setae; setae M₂, L₇, L₈, L₉ slightly serrated. S₁, S₂ = 19 - 21 μ .

Pores and minute structures: between L₁ - L₂, mesiad to D₂ - L₃, posterior to L₄, antero-mesiad to L₅, anterior to M₂, mesiad to L₂.

Sternal plate smooth or slightly reticulated, with minute structures posterior to its first setae. Genital plate bears one pair of setae. Ventrianal plate subtriangular, striated, without pores, with three pairs of preanal setae; length = 109 - 111 μ ; width = 91 - 93 μ ; ratio of length/width = 1.17-1.22. Four pairs of setae in the posteroventral integument surround the ventrianal plate; VL₁ 42.... long. Two pairs of metapodal plates, the principal 29 - 34 μ long and the secondary one about 10 μ long.

Peritremes extend forward between L₁ - L₂. Calyx of spermatheca (Fig. 4) campanulate, adjacent to atrium, minor duct distinct.

Hind leg carries a macroseta on basitarsus, 42 - 44 μ long. Genu 42 μ long, tibia = 39 - 44 μ , basitarsus 22 - 23 μ . In the chelicerae the fixed digit has about five teeth and pilus dentilis, and the movable digit has one tooth.

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TABLE 1

Amblyseius engaddensis sp.n., Females (Measurements of setae in μ)

D ₁	D ₂ - D ₄ , M ₁	D ₅	D ₆	M ₂	L ₁	L ₂	L ₃	L ₄	L ₅	L ₆	L ₇	L ₈	L ₉
17	13 - 15	17	10	27	18	15	16	23	18	22	28	27	62
17	12 - 15	15	12	26	16	15	17	21	18	19	**	**	*

- 1 - Holotype
- 2 - Paratype
- * - bent
- ** - broken

Male (1 male): Dorsal shield 268 μ long; reticulated; the setal pattern resembles that of the female, but correspondingly shorter; setae S₁ and S₂ on the dorsal shield; measurements of setae are given in Table 2. S₁ = 19 μ , S₂ = 16 μ .

Ventrianal plate 101 μ long, 127 μ wide, with three pairs of preanal setae, without ian pores; VL₁ 29 μ long.

Hind leg carries a macroseta on basitarsus (39 μ). The spermatophores in the single specimen are not well disposed in the slide for examination.

TABLE 2

Amblyseius engaddensis sp.n., Male (Measurements of setae in μ)

D	D ₂ - D ₄ , D ₆ , M ₁	D ₅	M ₂	L ₁	L ₂	L ₃	L ₄	L ₅	L ₆	L ₇	L ₈	L ₉
17	10 - 13	14	26	16	10	12	19	16	19	23	21	40

Type locality and habitat: Holotype female (No. 2150 cl), a paratype and an allotype male were collected from undetermined Gramineae at 'En Gedi (by the Dead Sea, 390 m below sea level), on Dec. 21, 1967.

Location of Types: In the collection of the Division of Entomology at The Volcani Institute of Agricultural Research.

TABLE 3

The relation of Amblyseius engaddensis sp.n. to A. cucumeris (Oud.) sensu latiore (Measurements of setae in μ)

ian pores	<u>Amblyseius engaddensis</u>	<u>A. cucumeris</u> (Oud.) Type	<u>A. cucumeris</u> California population	<u>A. bellinus</u> (Wom.) (=A. cucumeris) (Oud.)	<u>A. cucumeris</u> sensu Womersley 1954
present	absent	present(3, 4)	present(4, 5)	present (7)	present (7)
D ₅	15 - 17	25 (4)	25 (5)	22 (7)	17 (7)
M ₂	26 - 27	36 (1)	40 (5)	39 (7)	42 (7)
L ₁	16 - 18	34 (4)	32-36 (4)	36 (7)	17 (7)
L ₂	15	30 (4)	28-33 (4)	31 (7)	23 (7)
L ₄	21 - 23	40 (4)	37-42 (4)	38 (7)	28 (7)
L ₆	19 - 22	39 (4)	36-42 (4)	36 (7)	30 (7)
L ₉	62	72 (4)	6176(4)	70 (7)	42 (7)

Relation to Other Species: Amblyseius engaddensis sp.n. belongs, by virtue of its general setal pattern and the shape of the spermatheca, to group II, 13 in Athias-Henriot's extensive work on palaeartic Amblyseius. It can be easily distinguished from A. cucumeris (Oud., 1930) sensu latiore, by the absence of ian pores and by the relative length of setae on the dorsal shield (see Table 3) (1 - 7).

In Amblyseius reticulatus (Oud., 1930) (also sensu Westerboer and Bernhard (6)) the reticulation of the dorsal shield is stronger than in A. engaddensis, ian pores are present and the apex of peritreme extends to D₁, or almost so, whereas in A. engaddensis it reaches L₁ - L₂ (1, 3, 6). A. masseei (Nesbitt, 1951) has ian pores, three macrosetae on hind legs (A. engaddensis has only one) and some setae in the lateral series (L₁, L₄) are longer (1, 2, 3, 6).

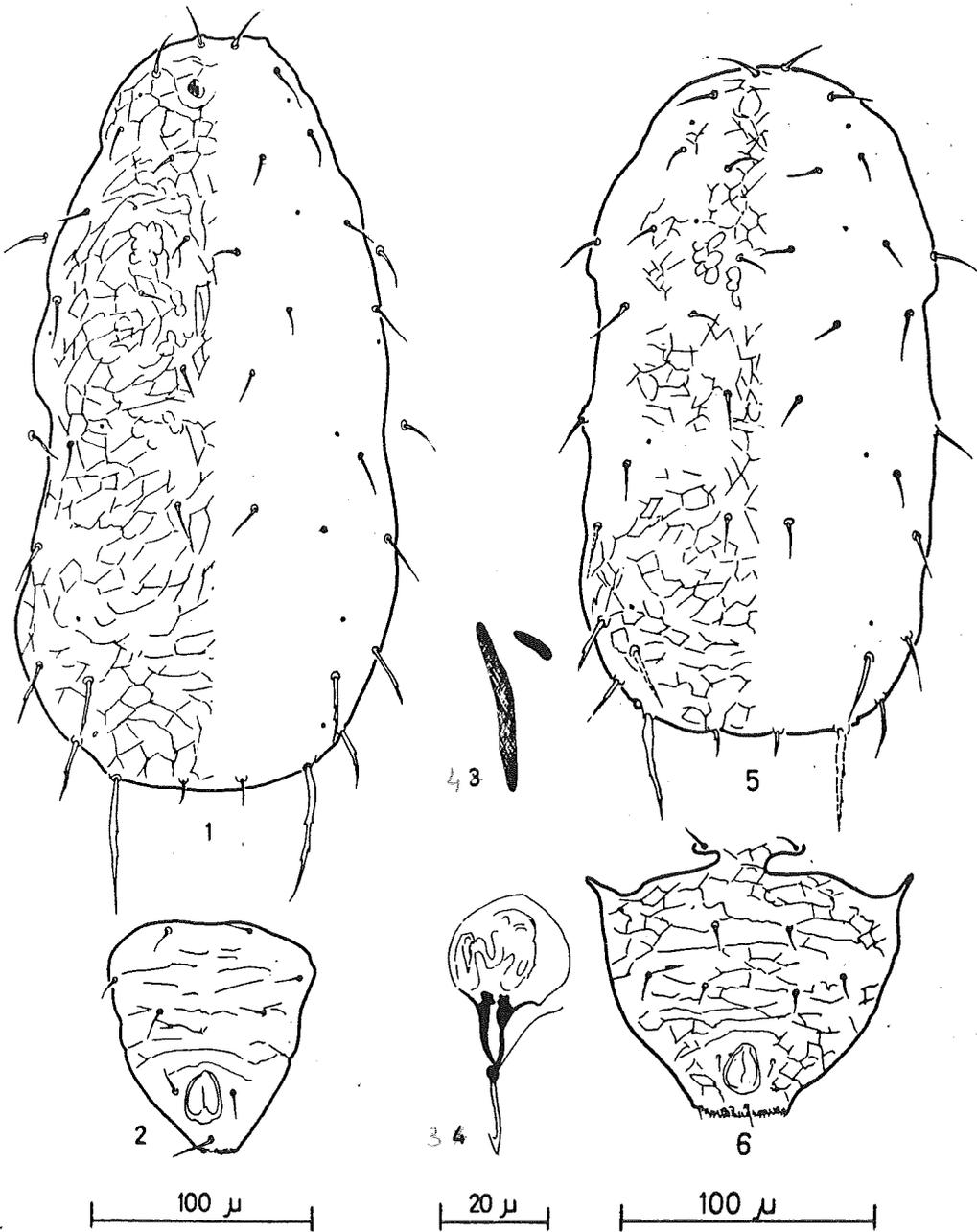
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Left: Female, Reticulation on the dorsal shield (Photo M. Wysoki).

Right: Spermatheca (Photo M. Wysoki).



Figs. 1-4. Amblyseius engaddensis sp.n., female: 1-dorsal shield;
2 - ventrianal plate; 3-spermatheca; 4-metapodal plates.

Figs. 5-6. Amblyseius engaddensis sp.n., male: 1-dorsal shield;
2-ventrianal plate.