

NOTES ON THE GENUS *PLATYSEIELLA* MUMA  
(ACARI : PHYTOSEIIDAE) WITH A DESCRIPTION OF A NEW SPECIES,  
*P. ELIAHUI*, FROM SOUTH AFRICA

E.A. UECKERMANN  
Biosystematics Division, Plant Protection Research Institute,  
Private Bag XI34, Pretoria 0001, South Africa

ABSTRACT

*Platyseiella eliahui* n.sp. is described from *Pteridium aquilinum* (L.) Kuhn (Pteridophyta) and a key is given to the known species of *Platyseiella*.

KEY WORDS: Acari, Cydnodromallinae, Phytoseiidae, *Platyseiella*.

INTRODUCTION

Chant and Yoshida-Shaul (1986) created the subfamily Cydnodromallinae to accommodate the genera *Platyseiella* Muma and *Cydnodromella* Muma. This subfamily is characterised by the presence of 5 pairs of lateral setae (j3, z2, z4, s4 and s6) on the podoscutum.

The author collected *Platyseiella marikae* Ueckermann and a new species, here described as *P. eliahui*, from *Pteridium aquilinum*. Ueckermann (1990) incorrectly gave the host plant of *P. marikae* as *Dryopteris* sp.

The type material of the new species is deposited in the National Collection of Arachnida, Biosystematics Division, Plant Protection Research Institute, Pretoria, South Africa.

*Platyseiella* Muma, 1961

*Platyseiella* Muma, 1961:280; Chant, 1965:370; Muma and Denmark, 1970:56. Chant and Yoshida-Shaul, 1986:2812 (description). *Amblysei* (*Platyseiella*) Van der Merwe, 1968:168 (status emendation). *Phytoseius* (*Platyseiella*) Wainstein, 1970:1726 (status emendation). *Amblysei* (*Paraphytoseius*) Ueckermann and Loots, 1987:221-222. In part. (status emendation). Type-species: *Phytoseius* (*Dubininellus*) *platypilis* Chant, 1959.

*Platyseiella* resembles the genus *Phytoseius* Ribaga in all respects, except that setae z3 are absent. Setae J2 and R1 can be absent or present.

KEY TO THE SPECIES OF THE GENUS *PLATYSEIELLA* (FEMALES)

1. Setae J2 and R1 present ..... 2  
— Setae J2 and R1 absent..... *P. platypilis* (Chant)
2. Setae z2 and z4 minute; seta Z4 long, broad and serrated . . . . *P. marikae* Ueckermann  
— Setae z2 and z4 longer, broad and serrated; seta Z4 shorter, broad and smooth .....  
..... *P. eliahui* n.sp.

*Platyseiella platypilis* (Chant, 1959)

*Phytoseius platypilis* Chant, 1959:107; Chant and Athias-Henriot, 1960:224.

*Platyseiella platypilis* (Chant); Muma, 1961:280; Muma and Denmark, 1970:56; Chant and Yoshida-Shaul, 1986:2813.

*Typhlodromus platypilis* (Chant); Hirschmann, 1962:16.

*Typhlodromus (Phytoseius) platypilis* (Chant); Westerboer and Bernhard, 1963:730.

*Amblyseius (Platyseiella) platypilis* (Chant); Van der Merwe, 1968:168.

*Amblyseius (Paraphytoseius) platypilis* Chant; Ueckermann and Loots, 1987:221–222.

This species can be distinguished by the many long, extremely broad and strongly serrated dorsal setae and the absence of setae J2 and R1. The spermatheca of the female has a funnel-shaped cervix, whereas the spermadactyl of the male terminates into a footlike structure. The ventro-anal shield of the male bears 3 pairs of pre-anal setae in contrast to the 2 pairs in the female.

TYPE DATA. Coral Gables, Florida, U.S.A., 17.ii.1953, *Lantana* sp., O.D.Link (2 ♀♀; USNM).

The male was collected from *Persea* sp., from Florida, U.S.A.

*Platyseiella marikae* Ueckermann, 1990

*Platyseiella marikae* Ueckermann, 1990:19.

This species differs from *P. platypilis* by the presence of setae J2 and R1, shorter peritremes and 4 macrosetae (instead of 3) on leg IV. It can be distinguished from *P. eliahui* by setae z2 and z4, which are minute, Z4 which are long and serrated, and 2 pairs (instead of 1 pair) of pre-anal setae on the ventro-anal shield.

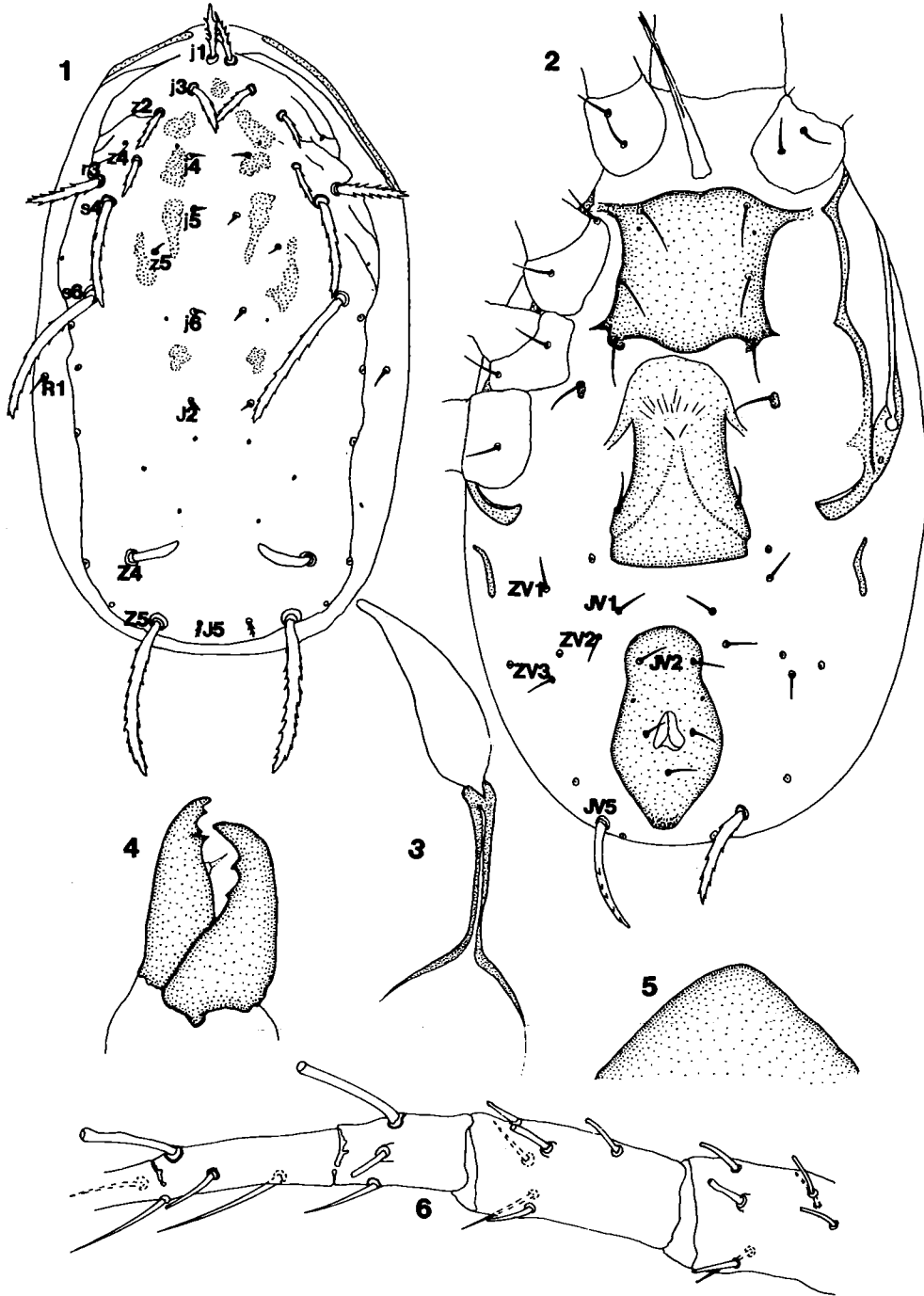
MATERIAL EXAMINED. Outeniqua Pass, near George, Cape Province, South Africa, 24.viii.1988, *Peridium aquilinum*, E.A. Ueckermann (holotype ♀, 3 paratype ♀♀ and 1 paratype deutonymph, National Collection of Arachnida, Plant Protection Research Institute, Pretoria, South Africa).

*Platyseiella eliahui* n.sp.

(Figs. 1–6)

*Distinguishing characters*: Setae z2 and z4 short, broad and serrated; seta Z4 short, broad and smooth; ventro-anal shield with one pair of pre-anal setae.

*Female* (measurements of paratype in parentheses): Dorsal shield (Fig. 1) 308  $\mu\text{m}$  (293) long and 162  $\mu\text{m}$  (154) wide; smooth except for rugose patches dorsomedially; incised opposite setae r3; setae j1, j3, z2, z4, s4, s6, r3 and Z5 broad and serrated; seta Z4 broad and smooth; setae j4, j5, j6, J2, J5 and z5 minute and smooth except for seta J5 which is serrated; length of setae: j1 31  $\mu\text{m}$  (31); j3, z2 and z4 26  $\mu\text{m}$  (23); j4 and J5 11  $\mu\text{m}$  (8); j5, j6, J2 and z5 8  $\mu\text{m}$  (8); Z4 34  $\mu\text{m}$  (26); Z5 95  $\mu\text{m}$  (77); s4 57  $\mu\text{m}$  (51); s6 80  $\mu\text{m}$  (77); r3 42  $\mu\text{m}$  (39); seta R1 12  $\mu\text{m}$  (12) smooth and situated on the interscutal membrane; in addition to the setae the shield also bears 12 pairs of small pores; the peritremes reach anterolateral to seta j1. Venter (Fig. 2): sternal shield 82  $\mu\text{m}$  (?) long and 76  $\mu\text{m}$  wide, bears 3 pairs of setae and 2 pairs of pores; posterior margin convex medially; fourth pair of sternal setae on small metasternal shields. Genital shield 77  $\mu\text{m}$  (69) wide, truncated posteriorly with one pair of setae. Ventro-anal shield slender, vase-like, 100  $\mu\text{m}$  (92) long and 59  $\mu\text{m}$  (54) wide, with one pair of pre-anal setae (JV2), a pair of small pores near lateral margins and 3 circum-anal setae; para-anal setae in line with middle of anal opening. Opisthogasteric cuticle: with 5 pairs of setae viz. ZV1, ZV2, ZV3, JV1 and JV5; latter longest, 62  $\mu\text{m}$  (54), broad and serrated; the cuticle bears 5 pairs of small platelets and a pair of slender metapodal shields. Spermatheca (Fig. 3): similar to that of *P. marikae*; major duct broad and spindle-shaped,



Figs. 1-6. *Platysiella eliahui* n. sp. Female. 1. Dorsal shield. 2. Venter. 3. Spermatheca. 4. Chelicerae. 5. Anterior margin of tectum. 6. Leg IV.

distal half of cervix slender but proximal half strongly flared. Gnathosoma: fixed cheliceral digit with 3 teeth and a pilus dentilus and movable digit with 2 teeth (Fig. 4); anterior margin of tectum triangular (Fig. 5). Legs (Fig. 6): leg chaetotaxy normal except for genu III bearing 6 setae (1-2/0, 2/0-1); leg IV with 4 knobbed macrosetae: genu 14  $\mu\text{m}$  (11), tibia 19  $\mu\text{m}$  (11), basitarsus 39  $\mu\text{m}$  (31) and telotarsus 31  $\mu\text{m}$  (23).

*Male*: Unknown.

MATERIAL EXAMINED. Holotype ♀, South Africa, Louis Trichardt, Transvaal, 28.xii.1982, on *Pteridium aquilinum*, E. van den Berg (National Collection of Arachnida, Plant Protection Research Institute, Pretoria). Paratype ♀, Maanhaarrand, Transvaal, 27.x.1985, on *Pteridium aquilinum*, S. Nesar (National Collection of Arachnida, Plant Protection Research Institute, Pretoria).

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