

A New Record for the Turkish Fauna: *Lamellovertex caelatus* (Berlese, 1895) (Acari, Oribatida, Scutoverticidae)

Nusret AYYILDIZ

Erciyes University, Faculty of Arts and Sciences, Department of Biology, 38039 Kayseri - TURKEY

Sedat PER

Fevzi Çakmak, Yeşilirmak Str., Mimarşinan Apartment. No:1/17 38020 Kocasinan, Kayseri - TURKEY

Ayşe TOLUK

Erciyes University, Faculty of Arts and Sciences, Department of Biology, 38039 Kayseri - TURKEY

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Abstract: The characters and distribution of *Lamellovertex caelatus* (Berlese, 1895), which is a new record for the Turkish fauna, are given.

Key Words: *Lamellovertex caelatus*, Acari, systematics, new record, Turkey

Türkiye Faunası İçin Yeni Bir Kayıt: *Lamellovertex caelatus* (Berlese, 1895) (Acari, Oribatida, Scutoverticidae)

Özet: Türkiye faunası için yeni kayıt olarak belirlenen *Lamellovertex caelatus* (Berlese, 1895)'un tanıtıcı özellikleri ve dağılımı verilmiştir.

Anahtar Sözcükler: *Lamellovertex caelatus*, Acari, sistematik, yeni kayıt, Türkiye

Introduction

The genus *Lamellovertex* was described by Bernini in 1976 with the type-species *Scutovertex caelatus* Berlese, 1895. His description and drawings are good enough to represent the significant features of the genus and the species well. This genus is represented by one species and is only distributed in the Palaearctic region. On the basis of material collected from Kayseri, it is important to repeat the description of this species, which is a new record for the fauna of Turkey.

Materials and Methods

Mites were sampled in moss collected from Ali Mountain in Kayseri and preserved in 70% ethanol. They were cleared in lactic acid before mounting in Hoyer's medium. An Olympus compound microscope and scanning electron microscope were used for examinations. Specimens were measured with an ocular micrometer. Measurements are given in micrometre.

The terminology follows Balogh and Balogh (1992). The examined materials are deposited at the Acarology Laboratory of Erciyes University (Kayseri).

Results

Family: Scutoverticidae Grandjean, 1954

Genus: *Lamellovertex* Bernini, 1976

Type-species: *Lamellovertex caelatus* (Berlese, 1895)

Lamellae well developed and enlarged at the apex, interlamellar and exobothridial setae lacking, dorsosejugal suture present, notogaster with 10 pairs of setae and little humeral projections, lenticule and porous areas on notogaster lacking, notogaster with network-like sculpture, legs monodactyle.

Lamellovertex caelatus (Berlese, 1895)

Measurements - Length: 450 (420-510), width: 239 (220-260) (n = 10).

Colour - Dark-brown.

Prodorsum (Figures 1, 2) - The rostrum with a large laminate tectum. The rostral hairs situated on the lateral borders, thin, smooth and directed medially. The lamellae convergent anteriorly and connected by a translamella. The lamellar hairs inserted in a faint depression in front of lamellae, bent medially and barbed unilaterally. Interlamellar and exobothridial setae absent. The bothridium (bo) simple and cup-shaped. The sensilli (ss) composed of a short thin stalk and a dark flat club covered with spines and as long as the stalk.

Notogaster (Figures 3, 4) - The notogaster oval and its surface with network-like sculpture. The dorsosejugal suture evident. The humeral tubercles acute. Ten pairs of short and spiniform notogastral setae present. Lenticule or clear mark, porous areas and respiratory pores on notogaster absent.

Ano-genital region (Figures 5, 6) - Three pairs of adanal setae ($ad_{1,3}$), 2 pairs of anal setae ($an_{1,2}$), 6 pairs of genital setae and 1 pair of aggenital setae present on ano-genital region. All setae in ano-genital region smooth. The lyrifissures *iad* located in adanal position.

Coxisternal region - Epimeral setal formula 3-1-2-2.

Gnathosoma - The infracapitulum diarthric. Three pairs of infracapitular setae present: *h*, *m* and *a*. The genae and rutelli large.

Chelicera - The chelicerae with 2 pairs of setae (*cha* and *chb*).

Palp - The palps consist of 5 joints. The chaetotaxy of the palp is represented by the formula 0-2-1-3-9.

Legs - All legs monodactyl. The chaetotaxy of the legs (I-IV) is as follows: trochanters, 1-1-2-1; femora, 4-4-3-

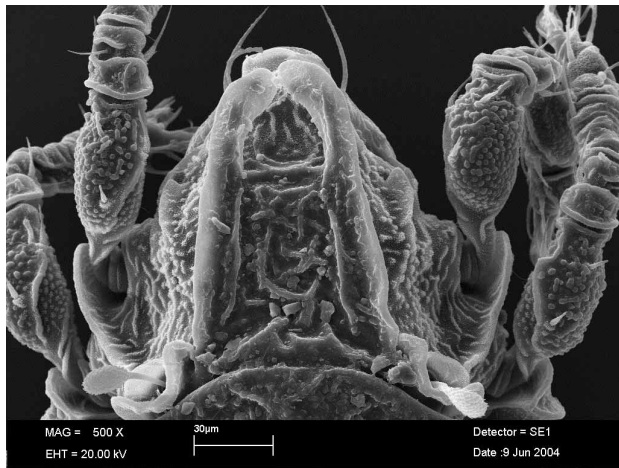


Figure 1. *Lamellovertex caelatus* (Berlese, 1895): (A) prodorsum (B) lateral view of sensillar region.

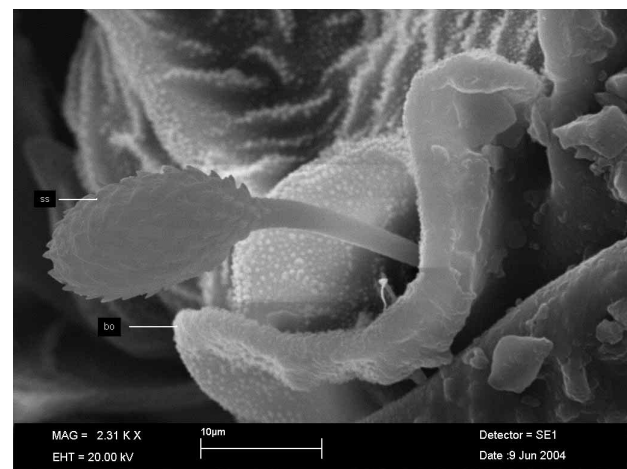
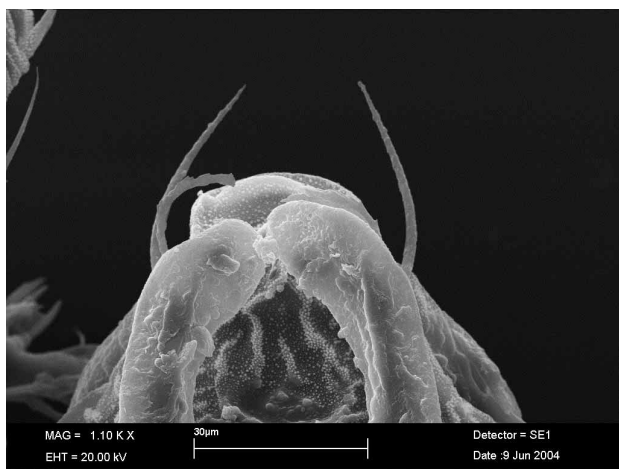


Figure 2. *Lamellovertex caelatus* (Berlese, 1895): (A) rostrum and the apex of the lamellae, (B) sensillus.

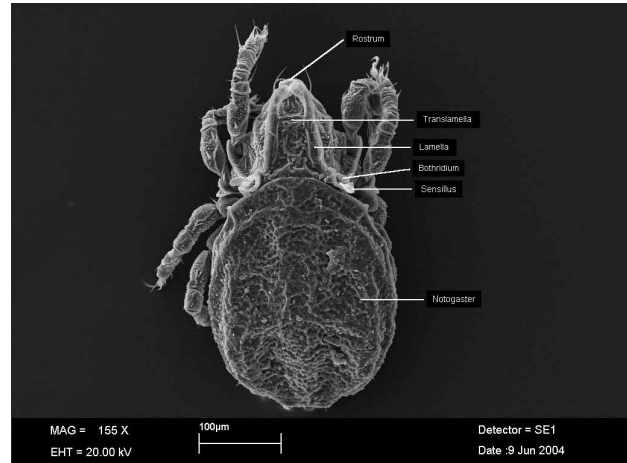
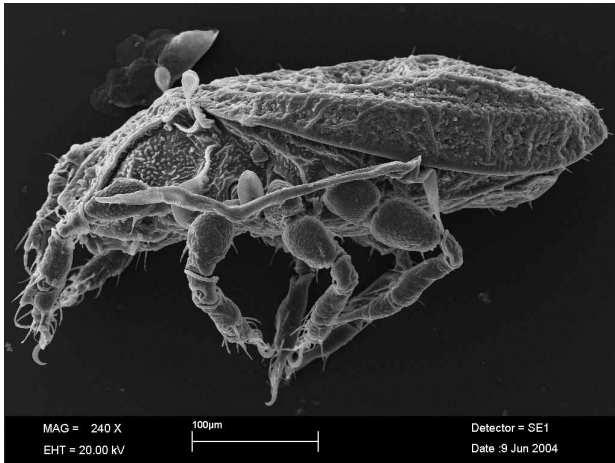


Figure 3. *Lamellovertex caelatus* (Berlese, 1895): (A) lateral view, (B) dorsal view.

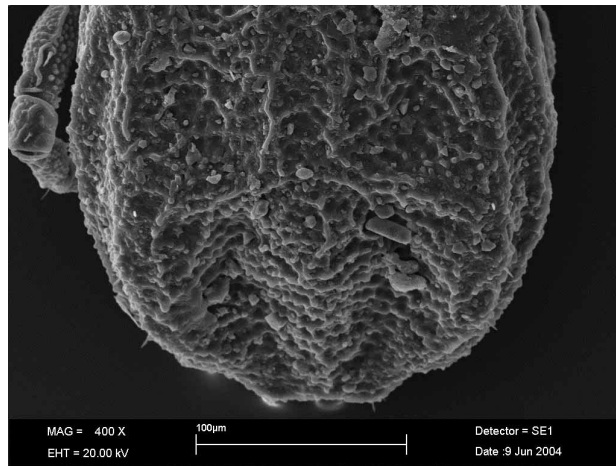


Figure 4. *Lamellovertex caelatus* (Berlese, 1895): Notogastral ornamentation.

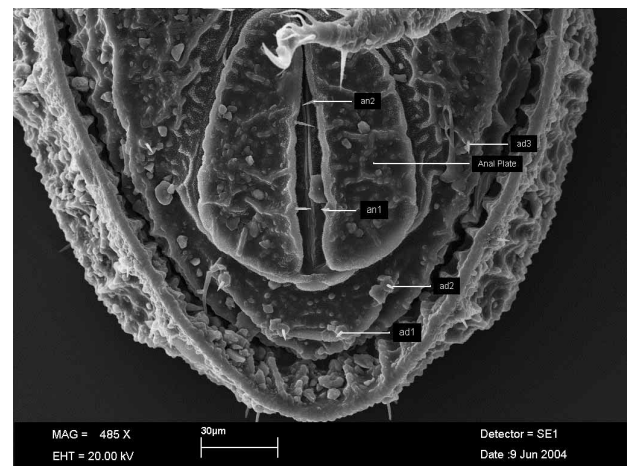
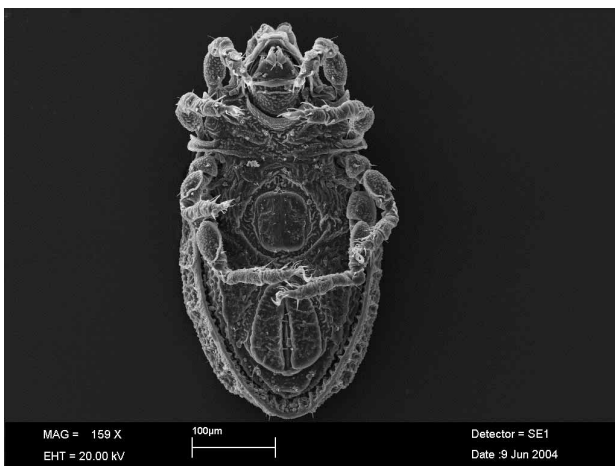


Figure 5. *Lamellovertex caelatus* (Berlese, 1895): (A) ventral view, (B) anal region.

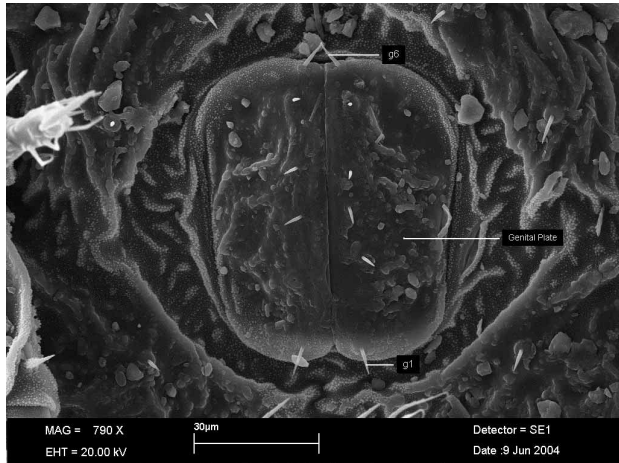


Figure 6. *Lamellovertex caelatus* (Berlese, 1895): Genital region.

2; genua, 3(1)-3(1)-1(1)-2(0); tibiae, 4(2)-4(1)-3(1)-3(1); tarsi, 18(2)-15(2)-15(0)-12(0).

Material examined - 31 adult specimens, Ali Mountain, Kayseri, N 38° 40,131', E 035° 33,002', 1660 m. 23.08.2003. Berlese sample from moss on stone.

Distribution (Figure 7) - This species so far is only known from Switzerland, Italy, England, Austria and

Russia (Bernini, 1976; Mahunka and Mahunka-Papp, 1995; Krisper et al., 2002; Shtanchaeva and Netujulin, 2003).

This is the first record of this species in Turkey (Özkan et al., 1988, 1994).

Discussion and Conclusion

Turkish specimens exhibit all the characters of the type species. However, its body length is greater than that of previous known specimens. It has been understood from the records of various authors and our findings that the habitat of *L. caelatus* is temporarily extremely dry mosses and lichens (Bernini, 1976; Mahunka and Mahunka-Papp, 1995; Krisper et al., 2002; Shtanchaeva and Netujulin, 2003). *L. caelatus* is found rarely and is distributed in Europe.

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Figure 7. Distribution of *Lamellovertex caelatus* (Berlese, 1895) in Europe .

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