



Zoology in the Middle East

ISSN: 0939-7140 (Print) 2326-2680 (Online) Journal homepage: https://www.tandfonline.com/loi/tzme20

A new species of weevil of the genus Rhytideres (Coleoptera: Entiminae: Alophini) from Inner Anatolia (Turkey)

Mahmut Erbey

To cite this article: Mahmut Erbey (2015) A new species of weevil of the genus Rhytideres (Coleoptera: Entiminae: Alophini) from Inner Anatolia (Turkey), Zoology in the Middle East, 61:3, 241-245, DOI: 10.1080/09397140.2015.1069239

To link to this article: <u>https://doi.org/10.1080/09397140.2015.1069239</u>



Published online: 24 Jul 2015.



🖉 Submit your article to this journal 🗗





View related articles



View Crossmark data 🗹



A new species of weevil of the genus *Rhytideres* (Coleoptera: Entiminae: Alophini) from Inner Anatolia (Turkey)

Mahmut Erbey*

Department of Biology, Faculty of Arts and Sciences, Ahi Evran University, Kırşehir, Turkey

(Received 14 January 2015; accepted 23 May 2015; first published online 24 July 2015)

A new species, *Rhytideres evrani* Erbey sp. n., is described from Inner Anatolia (Turkey), which is closely related to *R. plicatus* Olivier, 1790.

http://www.zoobank.org/urn:lsid:zoobank.org:pub: AF936EEE-D6F2-4830-9D42-35CEF250E066

Keywords: Coleoptera; Curculionidae; Alophini; *Rhytideres*; taxonomy; new species; Turkey

Introduction

The genus *Rhytideres* Schoenherr, 1823 (Entiminae: Alophini) consists of a single species, *Rhytideres plicatus* Olivier, 1790. Hoffmann (1954) illustrated some of its characters. It is distributed in Central and Southern Europe and North Africa (Hoffmann, 1954; Alonso-Zarazaga & Lyal, 2002). Mifsud and Colonnelli (2010) provided some information on host plants; it lives among the roots of Resedaceae and various Brassicaceae (Hoffmann, 1954; Delbol, 2013). In Inner Anatolia I found some weevil beetles which show all the characters of the genus *Rhytideres* (see key by Hoffmann 1954), but not all the characters of *Rh. plicatus*. They are described here as a new species.

Material and Methods

Genitalia were prepared first by softening the abdomen in 10% KOH for 24 h at 30°C. Thereafter, tissues were carefully removed and genitalia were placed in glycerine. Photographs were taken with a digital camera (DP26 Digi-CAM) attached to the microscope. The holotype and paratypes are deposited at the Zoology Museum of Ahi Evran University, Kırşehir, Turkey (AEZMU Ent.). Structural terminology of the female genitalia follows Pajni, Singal, & Bhateja (1977) and Sert (1997).

Comparative Material. 10 specimens $(4^{\circ}, 6^{\circ})$ of *R. plicatus* (deposited in AEZMU Ent.) were used for comparison. $1^{\circ}, 1^{\circ}$, AEZMU Ent., 01.xi.2013, Pinarbaşı, Kayseri, Turkey (1432 m, 38° 88' N, 36° 57' E); 2° , AEZMU Ent., 15.viii.2012, Kaman, Kırşehir, Turkey (931 m, 39° 22' N, 33° 68' E); $1^{\circ}_{\circ}, 3^{\circ}_{\circ}$, AEZMU Ent., 30.v.2013, Gözne, Mersin, Turkey (103 m, 37° 02' N, 34° 57' E); 2°_{\circ} , AEZMU Ent., 4.v.2012, Alanya, Antalya, Turkey (30 m, 36° 35' N, 31° 56' E). $-1^{\circ}_{\circ}, 1^{\circ}_{\circ}, AEZMU$, 51614 and 51613, Israel, HaBesor, 12.ii.2009, leg. T. Assmann (det. L. Friedman 2014).

Rhytideres evrani sp. n. (Figures 1–3)

Material. Holotype: \bigcirc , AEZMU Ent. (Figure 1a), 18.xi.2014, Ahi Evran University, Bağbaşı Campus, Kırşehir, Turkey (1074 m, 39°14'N, 34°12'E); M. Erbey leg. – Paratypes: $7\bigcirc$, AEZMU Ent., same locality and date as holotype.

^{*}Email: merbey023@gmail.com

^{© 2015} Taylor & Francis



Figure 1. Comparison of *Rhytideres evrani* sp. n. with *Rhytideres plicatus* (Left side *R. evrani*, right side *R. plicatus*). a-b; dorsal view, c-d; eyes, e-f; posterior spots, g-h; abdomen (ventral view).



Figure 2. Comparison of the female genitalia of *Rhytideres evrani* sp. n. with *Rhytideres plicatus* (Upper row *R. evrani* (a-c), lower row *R. plicatus* (d-f)): a; Spermatheca, b; Ovipositor, c; 8th abdominal sternum, d; Spermatheca, e; Ovipositor, f; 8th abdominal sternum.

Description. Body length (pronotum + elytra): Holotype (\bigcirc); 11 mm (paratypes 9–14 mm). Body parallel-sided, black, covered with whitish-brown or black scales and short bristles (Figure 1a); head oval in lateral view, densely covered with scales; frons straight, with a longitudinal sulcus (Figure 1a, c), eyes elliptic and clearly depressed (Figure 1c). Rostrum elongated, apically broad, with a deep median sulcus and one adjacent short sulcus on each side; only the median sulcus extending to the end of rostrum, surface of rostrum densely covered with scales and setae (Figure 1c). Scrobe deep and reaching margin of eye, end of scrobe angled in apical part (Figure 1c). Antenna (Figure 3a) black, covered with brown hairs, scape short and slightly claviform, not reaching margin of eye; first and second segments of funicule elongated, first segment clearly longer than second.

Pronotum (Figure 1a) rectangular in dorsal view, parallel-sided along most of its length, but narrowed before the apical constriction. Disc with a deep median sulcus which is widened basally and has irregularly longitudinal folds; surface of pronotum covered with scales and short setae, postorbital lobe strongly developed.

Elytra parallel-sided, posteriorly narrowed, contours of pronotum and elytra separately concave, humeral prominences completely flattened, striae deep, intervals convex, disc of elytra covered with brown or black scales and suberect setae; basal spots longitudinal with whitish-brown scales (Figure 1a); posterior spot transverse, rather wide and wing-shaped (Figures 1a, e); elytral suture distinct, with a small black spot on each side; first and second abdominal sterna wide, third and fourth sterna constricted, first sternum is cornered between metacoxae, the basal edge straight, surfaces of all sterna covered with scales (Figure 1g).

Legs (Figure 3b) moderate in length, black and densely covered with whitish-brown scales; femora untoothed and apically claviform, the ends of tibiae distinctly wide, first and second segments of tarsi elongate, all claws free.

Spermatheca hook-like, well sclerotised; cornu wide, apical part narrowed; ramus long, gradually narrowed; nodule thin and tube-like (Figure 2a); ovipositor short and

<i>R. evrani</i> sp. n.	R. plicatus Olivier, 1790
Eyes elliptical (Figure 1c)	Eyes rectangular to oval (Figure 1d)
Scrobe angled basally (Figure 1c)	Apical end of scrobe curved (Figure 1d)
1 st segment of funicule clearly longer than 2 nd (Figure 3a)	1st and 2 nd segments of funicule equally long (Figure 1d)
Pronotum parallel-sided (Figure 1a)	Pronotum subconical (Figure 1b)
Median sulcus deep, with the appearance of a channel (Figure 1a)	Median sulcus rather wide (Figure 1b)
Basal spots longitudinal (Figure 1a)	Basal spot elongate and slightly transverse (Figure 1b)
Posterior spot widening, resembling a wing (Figure 1e)	Posterior spot "M"-shaped and serrated (Fig- ure 1f)
First abdominal sternum angular between metacoxae and the basal edge straight (Figure 1g)	First abdominal sternum oval between meta- coxae and the basal edge concave (Figure 1h)
Spermatheca: cornu wide, ramus long and wide basally, nodule long and cylindrical (Figure 2a)	Spermatheca: cornu long and cylindrical, ramus short, tube-like, nodule absent or very short (Figure 2d)

Table 1. Comparison of characters between *Rhytideres evrani* sp. n., and *R. plicatus* (AEZMU Ent.).

wide, stylus absent (Figure 2b); spiculum long, rod-like, strongly sclerotised; 8th abdominal sternum shaped like a wide plate (Figure 2c).

Diagnosis. *Rhytideres evrani* sp. n. is related to *R. plicatus* Olivier, 1790. It differs from it primarily by the apex of the scrobe, funicule segments, eyes, form of pronotum and median sulcus, spots on disc of elytra, pattern of abdominal sternum, and spermathecae (Figures 1a-h). In *R. evrani* sp. n. the spermatheca in particular is clearly distinct from that of the *R. plicatus* (Figures 2a, d), and the ovipositor, spiculum and 8th abdominal sternum are different between the two species (Figures 2b-c (*R. evrani* sp. n.), 2e-f (*R. plicatus*)).

Derivation of name. The species is named for Ahi Evran who is a famous individual in business ethics in Kırşehir (Turkey).

Habitat. All specimens were collected on Resedaceae or underground.

Key to the species of the genus *Rhytideres*



Figure 3. Rhytideres evrani sp. n.: a; Antenna, b; hind leg.

Acknowledgements

I would like to thank Yury Genrikh'vich Arzanov (Institute of Arid Zones of RAS, Russia) for his helpful comments on the diagnosis of material, and Laibale Friedman (Department of Zoology, Tel Aviv University, Israel) for providing samples of *R. plicatus*.

Disclosure Statement

No potential conflict of interest was reported by the author.

References

- Alonso-Zarazaga, R. S. & Lyal, C. H. C. (2002): Addenda and corrigenda to 'A world catalogue of families and genera of Curculionoidea (Insecta: Coleoptera)'. Zootaxa, 63, 1–37.
- Delbol, M. (2013): Catalogue des Curculionoidea de Belgique (Coleoptera : Polyphaga). Belgian Journal of Entomology, 13, 1–95.
- Hoffmann, A. (1954): Faune de France, Coléoptères, Curculionides. Deuxième partie. Volume 59, pp. 487–1208. Paris.
- Mifsud, D., & Colonnelli, E. (2010): The Curculionoidea of the Maltese Islands (Central Mediterranean) (Coleoptera). *Bulletin of the Entomological Society of Malta*, *3*, 55–143.
- Pajni, H. R., Singal, S. K. & Bhateja, B. R. (1977): A study of female genitalia in the families Curculionidae, Brentidae and Attelabidae (Coleoptera: Curculionidae). *Research Bulletin* (Sci.), Panjab University, 28, 69–83.
- Sert, O. (1997): Investigation on the female genital organ structure in Cleoninae (Coleoptera: Curculionidae). *Turkish Journal of Entomology*, 21, 147–159.