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Orijinal araştırma (Original article)

On the subgenus *Eurysunius* Reitter in Turkey III. A new species from western Anatolia and additional records (Coleoptera: Staphylinidae, Paederinae, *Astenus*) [1]

Türkiye'deki *Eurysunius* Reitter türleri III. Batı Anadolu'dan yeni bir tür ve ek kayıtlar (Coleoptera: Staphylinidae: Paederinae, *Astenus*)

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Summary

Astenus (*Eurysunius*) *ilgazi* sp. n. from Afyonkarahisar province is described, figured and distinguished from related species of the subgenus. Additional records of five species are also reported. Amongst them, *Astenus rhodicus* Assing, 2013 is recorded for the first time from Turkey.

Keywords: Coleoptera, Staphylinidae, Paederinae, *Astenus*, *Eurysunius*, Turkey, new species, additional records

Özet

Astenus (Eurysunius) ilgazi sp. n. türü Afyonkarahisar ilinden tanımlanmış, şekillendirilmiş ve bu altcinsin benzer türlerinden farklılıkları gösterilmiştir. Ayrıca, beş türe ait kayıtlar verilmiştir. Bunlardan, *Astenus rhodicus* Assing, 2013 türü Türkiye için yeni kayıttır.

Anahtar sözcükler: Coleoptera, Staphylinidae, Paederinae, *Astenus*, *Eurysunius*, Türkiye, yeni tür, ek kayıtlar

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Introduction

The subgenus *Eurysunius* Reitter comprises 58 species in the Palaearctic region, which are distributed mainly in the Mediterranean countries (Assing, 2015; Anlaş, 2015; Schülke & Smetana, 2015). Twelve of them are from Turkey and that represents more than 20 % of *Eurysunius* of the Palaearctic fauna. All these species seem to be endemic to Anatolia.

There is limited studies on the Paederinae of Turkey. Therefore, a research project on the diversity and biogeography of the Paederinae was carried out in the Aegean Region of Turkey. These research activities yielded new data on the subgenus *Eurysunius* in western Anatolia (Anlaş, 2014, 2015).

In this study, a new species and additional records are reported from Turkey, resulting 14 species of the subgenus known from the country. Amongst them, 13 species are endemic to Turkey.

Material and Methods

Insect samples were collected from fields in western Anatolia, in spring 2015. The terminology used in this paper follows Coiffait (1984) and Assing (2002). The study was conducted using a Stemi 2000-C microscope (Zeiss, Germany), combined with a digital camera (Zeiss Axiocam ERC5s) for the photographs. The reference specimens of this study are deposited in the collection of the Alaşehir Zoological Museum, Manisa (AZMM) of the Celal Bayar University.

Head length was measured from the anterior margin of the frons to the posterior margin of the head, length of pronotum was measured along the median line, elytral length was measured at the suture from the apex of the scutellum to the posterior margin of the elytra. The length of the median lobe of the aedeagus was measured from the apex of the ventral process to the base of the capsule.

Results

Taxonomy

Description of the new species

***Astenus* (*Eurysunius*) *ilgazi* sp. n.** (Figures 1A-G)

Type Material Holotype: TURKEY: ♂ "TR – Afyonkarahisar province, Ahır Mountains, Büyükhacet Hill, 1908 m, 38°40'30"N, 30°06'25"E, 02.V.2015, leg. Yağmur, Örgel & Altın / Holotypus ♂ *Astenus* (*Eurysunius*) *ilgazi* sp. n. det. S. Anlaş 2015" (AZMM). Paratypes: TURKEY: 1♂, 5♀, same data as holotype (AZMM); 3♂, 3♀, 02.V.2015, Afyonkarahisar province, Ahır Mountains, Büyükkavşak Hill, 38°43'08"N, 30°03'48"E, 1810 m, leg. Yağmur, Örgel & Altın (AZMM).

Etymology. The specific epithet honors Dr. Çetin Ilgaz, İzmir, a specialist on herpetology, who has carried out important zoological researches in Turkey.

Description. Habitus (Fig. 1A), body length 4.2-4.8 mm. Coloration: head and pronotum blackish or dark brown, anterior half of elytra blackish, with the posterior area reddish-yellow; abdomen blackish with narrow posterior margins of tergites and apex somewhat reddish, antennae rufous, legs reddish.

Head transverse, approximately 1.20 times as wide as long (Figs. 1A-B); dorsal surface convex, with very dense and average sized, but rather shallow punctures; interstices reduced to narrow ridges; pubescence short, yellowish. Eyes relatively small, in dorsal view distinctly shorter than postocular region. Antennae moderately slender, 1 mm long, antennomere III approximately 2.2 times as long as wide; antennomeres V–X elongate.

Pronotum slightly transverse, 1.18 times as wide as long (Figs. 1A-B), widest at anterior angles, slightly narrowed posteriorly; anterior and posterior angles each with a long setae of slightly more than half of length of lateral margin of pronotum; posterior margin convex; dorsal surface with well-defined impressions; microsculpture absent; punctation similar to that of head, but denser, surface somewhat glossier than that of head; pubescence of similar length as that of head, but more conspicuous.

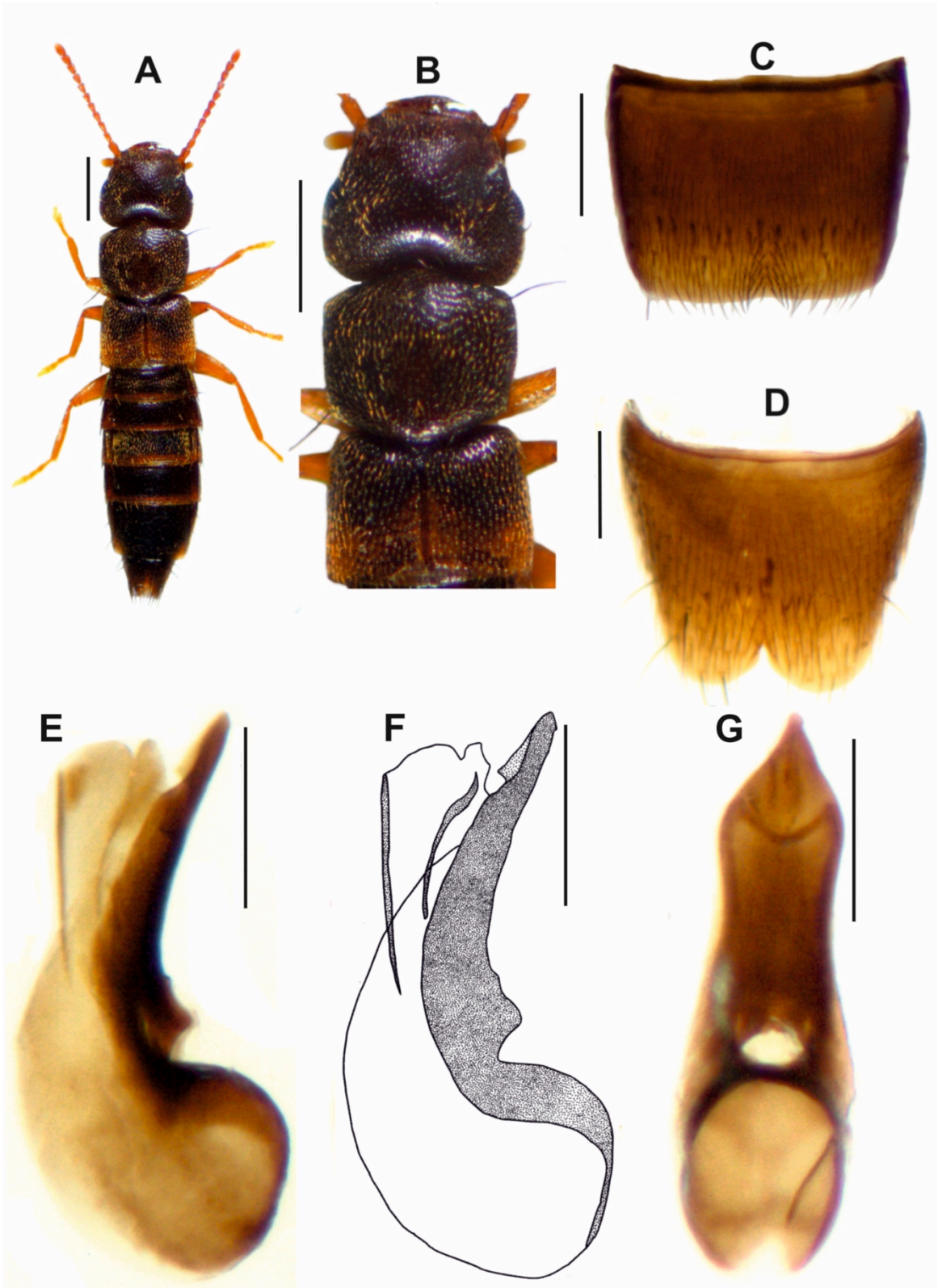

Figure 1. Details of A*stenus ilgazi* sp. n. (A)—habitus; (B)— forebody; (C)—male sternite VII; (D)—male sternite VIII; (E-F) — aedeagus, lateral view; (G)—aedeagus, ventral view; Scale bars: 1.0 mm (A); 0.5 mm (B); 0.2 mm (C-G).

Elytra transverse and short (Figs. 1A-B), approximately 1.60 times as wide as long and 0.70-0.75 times as long as pronotum; microsculpture absent; punctation very dense and distinctly granulose, distance between punctures slightly narrower than diameter of punctures; pubescence reddish-yellow, more distinct than that of head and pronotum; posterior margin of each elytron with 6-7 long black setae. Hind wings totally reduced.

Abdomen wider than elytra (Fig. 1B), approximately 1.15 times as wide as elytra, widest at segment V, segments III–VI moderately transverse, tergites III–V approximately twice as wide as long; punctation very dense and very fine; space bewteen puncures with distinct fine microsculpture; pubescence yellowish, sometimes reddish-yellow; posterior margin of tergite VII with palisade fringe.

♂: sternite VII in posterior median area slightly depressed and with some modified dark stout setae, posterior margin weakly concave (Fig. 1C); sternite VIII deeply and acutely incised posteriorly, pubescence unmodified (Fig. 1D); aedeagus approximately 0.65 mm long (Figs. 1E-G).

Comparative notes. The species is separated from all its consubgeners by the male sexual characters, especially by the ventral process of the aedeagus which is of different shape, particularly in lateral view. For illustrations of the male sexual characters of these species in Turkey see the figures in Assing (2002, 2007, 2010, 2011, 2015) and Anlaş (2014, 2015).

Based on the similar morphology of the male primary and secondary sexual characters, the new species is closely related to *Astenus sandiklicus* Anlaş, 2014 (Afyonkarahisar province) and *Astenus kumlutasi* Anlaş, 2015 (Afyonkarahisar and Uşak province), but distinguished as follows: from *A. sandiklicus* Anlaş by the different coloration (*A. sandiklicus*: head, pronotum and elytra reddish brown, abdomen blackish brown with the narrow posterior margins of the tergites and the apex somewhat paler), by the different shape of the apical portion of ventral process of the aedeagus in lateral process (*A. sandiklicus*: apical portion of ventral process shorter and weakly roundish shaped in lateral view); from *A. kumlutasi* Anlaş by the different coloration (in *A. kumlutasi*: forebody completely blackish, antennae rufous, legs reddish brown, with the femora slightly darker), by the much shorter antennae (in *A. kumlutasi*: antennae average 1.1 mm long), by the slightly narrower incision of the posterior margin of the male sternite VIII and by the different shape of the ventral process of the aedeagus in lateral view (in *A. kumlutasi*: apical portion of ventral process with more distinct protruding-shaped in lateral view). For descriptions and illustrations of the species are above (see Figures 2A, C) and the respective references.

Distribution and bionomics. The new species was collected in two localities in the Ahır Mountains, in Afyonkarahisar province, in grassland at an altitude of about 1800-1900 m. All specimens were collected in the nests of *Tetramorium* sp. (Hymenoptera: Formicidae: Myrmicinae). This species is most probably endemic to the Ahır Mountains.

Faunistic records

***Astenus* (*Eurysunius*) *sandiklicus* Anlaş, 2014** (Figure 2A)

Material examined: Afyonkarahisar: 3♀♀, 01.V.2015, Dinar, Karakuş Mountains, Şablalı Hill, 38°09'42"N, 30°26'11"E, 1960 m, leg. Yağmur, Örgel & Altın; 2♀♀, 31.V.2015, Karakuş Mountains, Şablalı Hill, 38°09'48"N, 30°26'19"E, 1990 m, leg. Yağmur & Örgel.

Distribution and Comments: The recently described species was known from Sandıklı Mountains, Afyonkarahisar province of Turkey (Anlaş, 2014, 2015). This species is recorded again from the surroundings of Sandıklı Mountains. Assing (2015) remarks that the “The illustrations provided in the original description do not reveal any differences whatsoever between the aedeagus of *Astenus sandiklicus* and that of the geographically close *Astenus sultanicus* Assing, 2010 suggesting that *A. sandiklicus* may represent a junior synonym”. *A. sandiklicus* seperated from *A. sultanicus* by the different coloration (in *A. sandiklicus*: head, pronotum and elytra reddish brown, abdomen blackish brown with the narrow posterior margins of the tergites and the apex somewhat paler; in *A. sultanicus*: head, pronotum, and abdomen blackish, elytra yellowish, with the anterior margin and the scutellar area narrowly, diffusely, and weakly infuscate), by the much longer and thinner body (in *A. sultanicus*: body broad and compact), more shorter antennae and by the different shape of the apical portion of ventral process of the aedeagus in lateral process (see Figs 2A-B).

Figure 2. Details of A*stenus sandiklicus* Anlaş (A), *A. sultanicus* Assing (B), *A. kumlutasi* Anlaş (C), *A. rhodicus* Assing (D-G): (A-D)— aedeagus, lateral view; (E)— aedeagus, ventral view; (F)— male sternite VII; (G)— male sternite VIII; Scale bars: 0.2 mm (A-G).

***Astenus* (*Eurysunius*) *sultanicus* Assing, 2010** (Figure 2B)

Material examined: Afyonkarahisar**:** 1♂, 4♀♀, 09.V.2015, Emir Mountains, 38°55'38"N, 31°12'43"E, 1586 m, leg. Yağmur & Örgel; 1♂, 09.V.2015, Emir Mountains, 38°54'59"N, 31°12'36"E, 1722 m, leg. Yağmur & Örgel.

Distribution: This species is known from Sultan Mountains in Konya province and Emir Mountains in Afyonkarahisar of Turkey (Assing, 2010; Anlaş, 2015).

***Astenus* (*Eurysunius*) *kumlutasi* Anlaş, 2015** (Figure 2C)

Material examined: Kütahya: 1♀, 11.V.2015, Emet, Eğrigöz Mountain, 39°22'57"N, 29°06'45"E, 1900 m, leg. Yağmur & Örgel. Uşak: 2♂♂, 3♀♀, 24.V.2015, Gediz, Murat Mountain, 38°56'58"N, 29°40'18"E, 2191 m, leg. Yağmur & Örgel.

Distribution. The very recently described species was reported in some localities from the Akdağlar and Murat Mountains, in the provinces of Kütahya and Uşak, central-western Anatolia. This species is recorded again from the surroundings of Akdağlar and Murat Mountains.

***Astenus* (*Eurysunius*) *rhodicus* Assing, 2013** (Figures 2D-G)

Material examined: Muğla: 2♂, 30.V.2015, Köyceğiz, Çiçekbaba Mountain, 37°03'13"N, 28°47'46"E, 1785 m, leg. Yağmur & Örgel.

Distribution: The recently described species was known only from the type locality on the Island Rhodos, Greece (Assing, 2013). New record for Turkey. For illustrations of the habitus and male sexual characters of this species see the figures 2D-G and Assing (2013: Figs. 7-13).

***Astenus* (*Eurysunius*) *honazicus* Anlaş, 2015**

Material examined: Denizli: 2♂, 3♀, 19.IV.2015, Ortaca Mountain, 37°41'48"N, 29°08'35"E, 1300 m, leg. Anlaş, Yağmur, Örgel & Altın.

Distribution. *A. honazicus* was known only from Honaz Dağı in Denizli province (Anlaş, 2015). This species is recorded again from the surroundings of the type locality. For illustrations of the species, see Anlaş (2015: Figs. 25-32 and 36).

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