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A new species of *Westralianus* Boucek 1988 (Hymenoptera: Torymidae: Megastigminae) from Turkey

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Abstract: A new species of the Australian genus *Westralianus* Boucek (Hymenoptera: Chalcidoidea, Torymidae) is described from Altınözü, Hatay, Turkey. Some new diagnostic characters of the genus are provided by inclusion of a second species in the genus. The new species, *W. altinoezus* n.sp., is compared with the type species, *W. microstigma* Boucek 1988. The new species was recorded as a parasitoid of caterpillars of an unknown species of Lepidoptera living in galls of *Gymnosporangium confusum* (Uredinales: Pucciniaceae) on shoots of *Crataegus monogyna* Jacq. A description of the new species is provided and its diagnostic characters are photographed.

Key words: *Westralianus*, new species, diagnosis, description, biology

Türkiye'de bulunan yeni bir *Westralianus* Boucek 1988 (Hymenoptera: Torymidae: Megastigminae) türünün tanımlanması

Özet: Altınözü, Hatay, Türkiye'den yeni bir *Westralianus* (Hymenoptera: Chalcidoidea, Torymidae) türü, bu zamana kadar Avustralya cinsi olarak bilinen bu cinsin Palearktik Bölge için yeni kayıdı olarak bulunmuştur. Cins için bazı yeni ayırt edici karakterler daha önceden bu cinsin yazarı tarafından verilen karakterlere eklenmiştir. *Westralianus altinoezus* cinsin tek türü olan *W. microstigma* Boucek 1988 ile mukayese edilmiş ve bu türleri birbirinden ayırt eden karakterler oluşturulmuştur. Yeni tür alıç, *Crataegus monogyna* Jacq., dallarında *Gymnosporangium confusum* (Uredinales: Pucciniaceae) tarafından oluşturulan galler içinde beslenen bir Lepidoptera türünün tırtıllarının parazitoiti olarak belirlenmiştir. Bu yeni tür tanımlanmış, ayırt edici karakterlerinin resimleri verilmiştir.

Anahtar sözcükler: *Westralianus*, yeni tür, teşhis, tanım, biyoloji

Introduction

Westralianus was erected by Boucek (1988) as a new monotypic genus of the subfamily Megastigminae (Hymenoptera: Chalcidoidea, Torymidae) to accommodate the type species *W. microstigma* Boucek. The diagnostic characters of *Westralianus* were provided, and the genus was keyed out in the subfamily Megastigminae (Boucek, 1988).

Grissell (1999) and Noyes (2009) presented the Australian distribution and literature lists on the species of *Westralianus*.

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Here, I reanalyze the diagnostic characters of the genus *Westralianus* and its species and compare the 2 species.

Materials and methods

The specimen of the new species was reared from the cynipid galls on *Crateagus monogyna* collected from Altıözü, Hatay, Turkey, by the author. In order to compare the specimens of *Bootanomyia synophri* Mayr with the new species, the types of *B. synophri* were borrowed from the Australian National History Museum, Vienna, Austria.

Morphological terminology follows Boucek (1988) and Roques and Skrzypczynska (2003), and the following abbreviations were used: OOCC: space between hind ocellus and occipital carina, Odia: diameter of hind ocellus, TO: space between upper margin of toruli and lower margin of median ocellus, TCly: space between lower margin of toruli and tip of teeth of clypeus, Teye: space between lower margin of toruli and lower margin of eyes.

The holotype was deposited in the collection of the Insect Museum of Plant Protection Department, Agriculture Faculty, Mustafa Kemal University, Antakya, Hatay, Turkey. Photographs of diagnostic characters of the new species were taken using a digital camera attached to a stereo-microscope.

Results and discussion

***Westralianus* Boucek, 1988** (Figures 1a-c; 2a-f)

Westralianus Boucek, 1988: 130. Type species: *Westralianus microstigma* Boucek, 1988; by original designation and monotypy. Described from West Australia, its biology and male is unknown.

Westralianus: Grissell, 1999: 51

Distribution: PALEARCTIC: Turkey, West Australia.

Biology: The species of the genus from Turkey is parasitoid of caterpillars of an unknown species of Lepidoptera living in galls of *Gymnosporangium confusum* (Uredinales: Pucciniaceae) on shoots of *Crateagus monogyna*.

Diagnosis: In Megastigminae the diagnostic characters of the genus given by Boucek (1988) were provided from its type species. By studying another species of the genus the diagnosis of *Westralianus* should be arranged as follows: body with metallic tinge on head and thorax; clypeal margin 2-toothed; antennae inserted in center of face; axillae separated by some pits from each other, with median ridge as the only part of scutellum reaching scutum; scutellum (Figure 2f) separated from axillae by a line of coarse deep pits, and with irregular deep median groove ending at frenal cross-groove; gaster on narrow subquadrate smooth petiole.

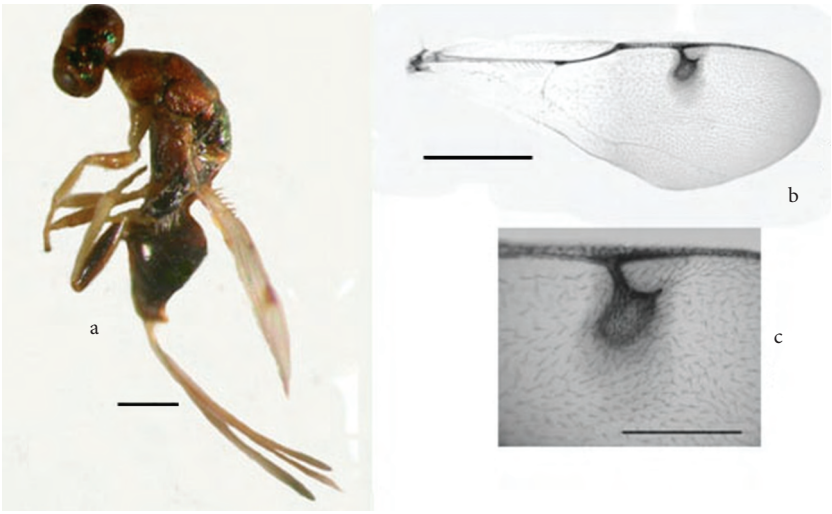

Figure 1. *Westalianus altınoezus* n.sp., a, body (scale bar = 0.25 mm); b, forewing (scale bar = 0.5 mm); c, forewing stigma (scale bar = 0.25 mm).

***Westralianus altinoezus* n.sp.**

(Figures 1a-c; 2a- f)

Etymology. The name is derived from the name of the town, Altınözü, where the specimens were obtained.

Type material: Holotype, female, Altınözü, Hatay, Turkey, 36°00′N; 36°10′E, 618 m, collected in November, 1993 and reared in February, 1994, from the *Gymnosporangium confusum* gall on shoots of *Crataegus monogyna,* M. Doğanlar. Left antenna and left forewing were mounted in slides with Canada balsam, deposited in the Insect Museum of Plant Protection Department of MKU, Agriculture Faculty, Antakya-Hatay.

Description:

Female: 5.0 mm (plus upturned ovipositor 3.7 mm). Body (Figure 1a) with head and thorax reddish brown except vertex with W-shaped 5 metallic green

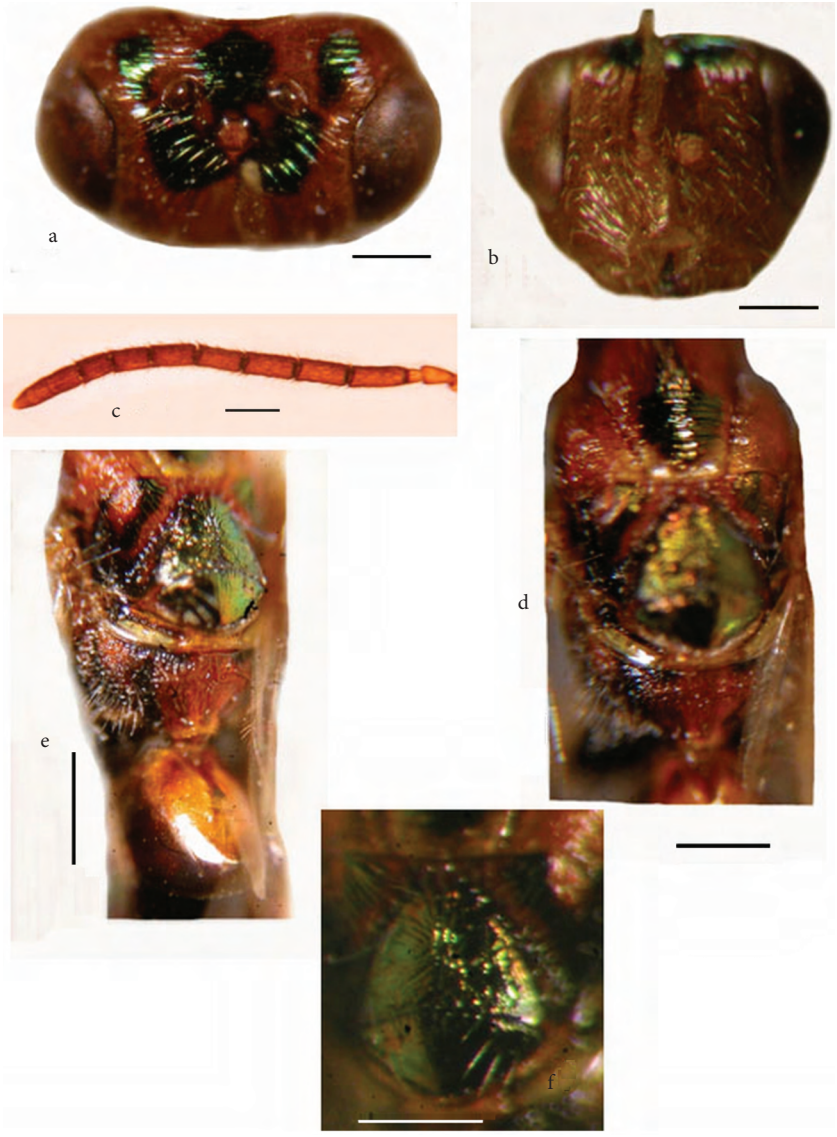

Figure 2. *Westalianus altinoezus* n.sp.: a, b, head, a, in dorsal view, b, in frontal view; c, antenna; d, mesosoma, excluding pronotum; e, scutellum, propodeum and basal part of metasoma; e, basal 2/3 of scutellum (scale bar = 0.250 mm).

maculae (Figure 2a), midlobe of meascutum medially, scutellum and lateral parts of axillae metallic green, propodeum laterally, hind femora dorsally black. Metasoma brown except base and apical parts reddish brown, ovipositor sheaths black, but at base shortly pale. Wings hyaline, veins brown, stigma with infumation.

Pilosity of body pale. Head (Figure 2a,b) with face having distinct radiating striation up to upper part of frons and transverse striations on vertex. Antennae inserted distinctly above level of lower ocular line, at about center of face (Figure 2b); temples rounded, 0.44× as long as dorsal length of eye. Relative measurements: head width 45, height 38, dorsal length 26, frons width 27; OOL 7, POL 9, OOCC 7, Odia 3, eye 22:18, malar space 10; TO 15, TCly 15, Teye 3, flagellum with pedicel 64.

Antennae (Figure 2c) slightly filiform, flagellum with pedicellus 1.45× as long as width of head and 3.86× transverse diameter of eye. Scape not reaching the front ocellus, nearly cylindrical, as long as transverse diameter of eye. Relative measurements of antenna (l:w): scape 18:3, pedicel 4:2.5, anellus 1.7:2, F_1 8:2.2, F_2 7:2.3, F_3 7:2.3, F_4 6:2.3, F_5 6:2.3, F_6 5:3, F_7 5:3, club 10:3 (C_1 5, C_2 3, C_3 2). Longitudinal sensillae on flagellum small, dense with 3-4 rows. Club as long as 2 preceding segments combined, 3.33× as long as broad.

Mesosoma (Figures 1a, 2d) 1.86× as long as mesoscutum broad, slightly broader than height (43:40); pronotum about 0.78× as long as broad, with distinct, coarse striation, having 14 rows of transverse striae; mesonotum about 1.72× as broad as long, with strong striation, 6 rows of erect, long hairs, notauli deep; scutellum (Figure 2e,f) separated from axillae by a line of coarse deep pits, from scutum by 4 pits, with distinct deep median groove ending at distinct frenal cross-groove, some radiating striation starting from median groove, between striation with fine reticulation in 2/3 basal part, slightly longer than broad (27:24), freal area almost smooth, with very fine longitudinal striation, about 0.40× length of scutellum, scutellum with 6 setae, 3 of them in frenum, on each side. Forewing (Figures 1b,c) 2.6× as long as broad, speculum narrow, closed below, basal cell closed with some setae. Relative measurements of fore wing: costal cell 65: 6 parastigma 22, marginal vein 22, post-marginal vein 38, stigmal vein 5, stigma (l:w) 7:8, uncus 3.

Hind wing 3.33× as long as broad.

Propodeum (Figures 2e) 0.59× as long as scutellum, 0.61× as long as distance between inner edges of spiracles, with arched transverse keel at basal one-third, median carina irregularly indicated, spiracles separated by their own length from posterior margin of metanotum.

Metasoma (Figure 1a) about 0.8× as long as mesosoma, not compressed, almost 2.0× as long as broad, its dorsal surface smooth. Ovipositor sheath 1.74× longer than metasoma, 2.26× as long as hind tibia.

Host: caterpillar of an unknown species of Lepidoptera living in galls of *Gymnosporangium confusum* (Uredinales: Pucciniaceae) on shoots of *Crataegus monogyna*.

Comments: *Westralianus altinoezus* n.sp. is similar to the type species of the genus, *W. microstigma*, in having diagnostic characters of the genus, and to *Bootanomyia synophri* Mayr in having a bigger body and almost the same coloration. However, it differs from *B. synophri* in having scutellum with distinct median groove (in *B. synophri* scutellum without median groove); scutellum reaching the scutum by a median ridge (in *B. synophri* scutellum reaching the scutum widely). The new species differs from *W. microstigma* in having ovipositor (Figure 1a) almost as long as gaster and thorax combined, and 0.74× as long as body [in *W. microsigma* ovipositor hardly longer than gaster, and 0.45× as long as body (Boucek, 1988)]; axillae separated by 4 pits (in *W. microsigma* with axillae separated by double pits); scutellum (Figure 2f) with some radiating striation starting from median groove, between striation with fine reticulation in 2/3 basal part, and with 12 setae in 2 rows, 3 of them on frenum [in *W. microsigma* with scutellum and frenum smooth and bare as in Fig. 159 of Boucek (1988) and scutellum one pair of setae on basal part].

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