

**First record of *Tettigometra (Eurychila) pantherina* Horváth, 1891
from Turkey (Hemiptera: Auchenorrhyncha: Tettigometridae)**

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Abstract – *Tettigometra (Eurychila) pantherina* Horváth, 1891 (Auchenorrhyncha: Fulgoromorpha: Tettigometridae) is recorded for the first time from Turkey based on one specimen from the Southeastern Anatolia Region. Lectotype is designated and a complementary description is given for the species.

Keywords – planthoppers, faunistics, distribution, new record, Palearctic Region, Gaziantep Province, pistachio

INTRODUCTION

A comprehensive faunistic study was conducted in the provinces of Kahramanmaraş, Gaziantep, and Adıyaman of Turkey to investigate the insect communities associated with pistachio (*Pistacia vera* L., Anacardiaceae). Pistachio, a perennial cultivated plant, is an agriculturally significant crop in Turkey with relatively high economic value. The cultivation of pistachio has a long history in Turkey, particularly in the Southeastern Anatolia Region, where more than 90% of the country's pistachio production takes place (ŞİMŞEK & BOLU 2017); currently Turkey is among the largest pistachio-producing countries in the world (KASKA 1995). Pest species negatively impact pistachio production in orchards by causing various damages to many parts of the tree,

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including flowers, fruits, roots, trunks, branches, and shoots. Numerous pest and beneficial insect species have been reported to be present in pistachio orchards, and some of these pests cause significant economic damage (BOLU 2002).

Tettigometridae (Hemiptera: Auchenorrhyncha: Fulgoromorpha: Fulgoroidea) is a small fulgoroid family comprising 96 valid species worldwide, distributed across the Afrotropical, Palaearctic and Oriental Regions; the genus *Tettigometra* Latreille, 1804 is the most diverse lineage of the family, with more than 50 described species (DMITRIEV *et al.* 2025, MOZAFFARIAN *et al.* 2018). A division of the genus into eight subgenera was proposed by EMELJANOV (1980).

Early records of Tettigometridae from Turkey were published by OSHANIN (1912), FAHRINGER (1922), DLABOLA (1957), BODENHEIMER (1958), and LINNAVUORI (1965). LODOS & KALKANDELEN (1980, 1988) revised the existing literature with available material and reported 19 species from Turkey. GÜÇLÜ (1997) added three new species to the Turkish fauna from the Erzurum Region along with new distributional records. Later, several faunistic studies reported new records of some tettigometrid species (DEMİR 2006*a, b*, 2007, 2008, DEMİR & DEMIRSOY 2009, DURSUN & FENT 2016, KARAVIN & ÖZGEN 2017), where DEMİR & DEMIRSOY (2009) reported *Tettigometra (Brachyceph) laeta* Herrich-Schäffer, 1835 new to the Turkish fauna. Prior to this study, 24 species of Tettigometridae were reported from Turkey, which is increased to 25 by the present study with the first records of *Tettigometra (Eurychila) pantherina* Horváth, 1891.

MATERIAL AND METHODS

Auchenorrhyncha specimens were collected from ten pistachio trees (pistachio orchards without any pesticide application) from three provinces in Turkey: Kahramanmaraş (Districts Onikişubat, Türkoğlu, Pazarcık), Gaziantep (Districts Araban, Karkamış, Yavuzeli), and Adıyaman (Districts Besni, Gölbaşı, Tut) every 15 days between March and November 2022–2024 using the four-sided impact method (50×50×50 cm) by the second author (Figs 1–2). The specimens were examined using a VEVOR 30×–90× stereomicroscope. Photographs of the specimens were taken by a Raynox Super Macro Conversion Lens DCR–250 adapter set attached to a Nikon D7200 digital camera. The voucher specimen is deposited in the Hemiptera Collection of the Hungarian Natural History Museum Public Collection Centre – Hungarian Natural History Museum, Budapest (HNHM).

Morphological terminology follows MOZAFFARIAN et al. (2018). For a comparison with the morphologically similar species *Tettigometra (Eurychila) decorata* Signoret, 1866 (Figs 11–14), the following material of the latter species was used: Algeria: Bou Berak, “*Tettigometra decorata* det. G. Horváth” (one male, HNHM); Algeria: Philippeville, “*Tettigometra decorata* det. G. Horváth” (one male, HNHM).



Figs 1–2. The collecting site of *Tettigometra (Eurychila) pantherina* Horváth, 1891, 1 = pistachio orchard in Gaziantep, 2 = collecting from the trees (photos by Mustafa Açıkgoz)

TAXONOMY

Genus *Tettigometra* Latreille, 1804

Subgenus *Eurychila* Signoret, 1866

Eurychila Signoret, 1866: 139. Type species: *Tettigometra (Eurychila) decorata* Signoret, 1866, by subsequent designation (BAKER 1924: 93).

Tettigometra (Eurychila) pantherina Horváth, 1891
(Figs 3–10)

Tettigometra pantherina Horváth, 1891: 81, correct original spelling fixed by Metcalf (1932: 44). Syntypes: two males, “vallée de l’Araxes aux environs d’Ordoubad” [now Azerbaijan (?): valley of Aras River near Ordubad]; HNHM.

Tettigometra panterina: HORVÁTH (1891: 74) (incorrect original spelling).

Eurychila pantherina: NAST (1972: 108).

Tettigometra (Eurychila) pantherina: EMELJANOV (1980: 55).

Type material examined – Lectotype (present designation): male, “Caucasus. Araxesthal. Leder Reitter”, “*Tettigometra pantherina* Horv.”, “*pantherina* Horv. [red underlining] Coll. Horváth”, “Lectotypus male, *Tettigometra (Eurychila) pantherina* Horváth, 1891 des. B. P. Schlitt, 2025”; specimen in good shape, card-mounted, deposited in the HNHM. Paralectotype: one specimen, with locality label and original type label as in the lectotype, “Paralectotypus *Tettigometra (Eurychila) pantherina* Horváth, 1891 des. B. P. Schlitt, 2025”; card-mounted, scutellum damaged, almost fallen off, wings disarranged, abdomen damaged, identification of the sex impossible; deposited in the HNHM.

Additional material examined – Turkmenistan(?): “Turcoman”, det. G. Horváth (one male, HNHM). Armenia: “Armenia, Aralich”, det. G. Horváth (one male, HNHM); Turkey: Gaziantep prov., Karkamış distr., Teketaşı vill., 36°56′00″N, 37°53′23″E, 460 m, 23.V.2023, leg. M. Açıkgöz on *Pistacia vera* L. (one male, HNHM).

Complementary description – Male.

Structure. Body broadly oval, slightly widening posteriorly; dorsoventrally flattened; surface densely and finely punctate. Head shorter than pronotum; vertex nearly uniform, medially only slightly longer than laterally near eyes; distance between eyes at base of vertex 2.5 times longer than length of vertex medially; vertex and frons joined at acute angle in lateral view (Figs 8–9); frons covered with fine setae, in lateral view slightly concave in anterior half; eyes small, subocular callus well developed, laterally broadened, its lateral corner thin, forming a disc-like structure around eyes, anteriorly ending close to a distinct ocellus (Figs 8–10); scape globular, as wide as pedicel posteriorly; pedicel large,

club-shaped with numerous sensillae in apical half. Pronotum in the widest part 2.9 times longer than medially, with incision between subocular callus, anterior margin convex, posterior margin concave, elevated above level of vertex in lateral view (Figs 8–9); scutellum triangular, anterior margin convex, slightly longer than length of vertex and pronotum together, its greatest width about 1.35 times as much as its medial length. Tegulae large. Tegmina broad, roof-like, apically not reaching terminalia, sometimes nor apex of pregenital abdomen (Figs 4, 6–7), lateral margins convex, with fine setae. Legs covered with fine setae, femora distinctly broader than tibiae, hind tibia 3.1 times longer than first tarsomere, second tarsomere almost half length of first tarsomere; claws small. Male genitalia (without the distal membranous part) were illustrated by EMELJANOV (1980).

Colour. Vertex mostly brownish to black with distinct whitish median vitta and a pair of whitish spots on lateral margins close to eyes; frons uniformly brownish to dark; subocular callus dark brown. Scape brown with a broad whitish ring apically; pedicel dark with whitish sensillae. Pronotum of same colour as vertex, with distinct whitish spots on anterior margin close to eyes, bearing butterfly-shaped whitish spots medially close to posterior margin; scutellum of same colour, bearing two small pairs of whitish spots close to lateral margins: one pair almost at middle of lateral margins and another close to apex of scutellum. Tegulae brownish. Ground colour of tegmina whitish, with individually highly variable markings generally composed of three transverse, undulating, more or less distinct brown fasciae, usually brown close to tegulae and apically (Figs 4–7).

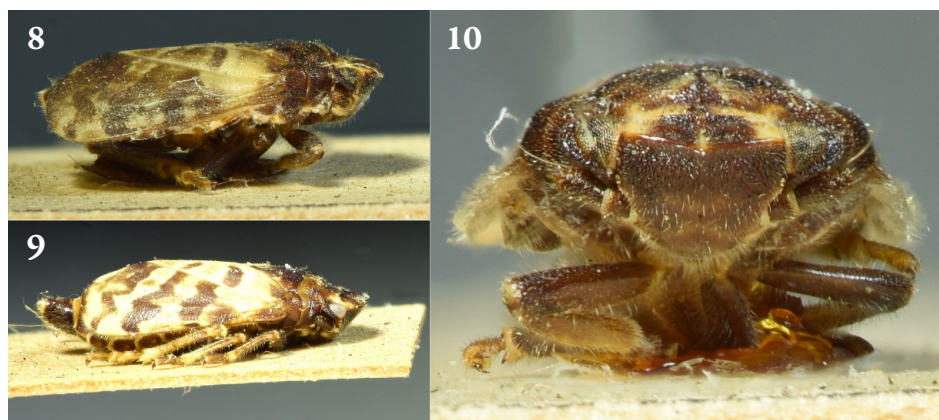
Distribution – Afghanistan, Armenia, Azerbaijan, Iran, Turkmenistan, Uzbekistan (DLABOLA 1981, 1984, MOZAFFARIAN *et al.* 2018), Turkey (new country record).



Fig. 3. The voucher specimen of *Tettigometra (Eurychila) pantherina* Horváth, 1891 from Turkey, Gaziantep province. Scale bar = 5 mm (photo by Bence Péter Schlitt)



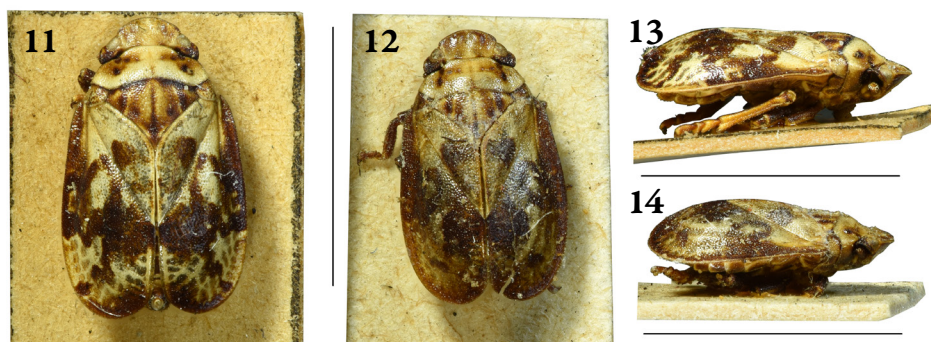
Figs 4–7. Specimens of *Tettigometra (Eurychila) pantherina* Horváth, 1891 deposited in the HNHM, and their labels, 4 = lectotype, 5 = paralectotype, 6 = a non-type male from “Turcoman”, 7 = a non-type male from Armenia. Scale bar = 5 mm (photos by Bence Péter Schlitt)



Figs 8–10. *Tettigometra (Eurychila) pantherina* Horváth, 1891, 8 = specimen from “Turcoman” in lateral view, 9 = lectotype in lateral view, 10 = specimen from “Turcoman” in frontal view. Not to scale (photos by Bence Péter Schlitt)

Remarks on identification – The species can be distinguished from its congeners by its broader tegmina not reaching terminalia or apex of abdomen, and the characteristic wing markings composed by usually three undulated dark bands. It is similar to *Tettigometra (Eurychila) decorata* Signoret, 1866, but the vertex of the latter species is broader, and the tegmina are of a different pattern (cf. Figs 11–14).

Notes – The species was described based on an unspecified number of male(s) from “vallée de l’Araxes aux environs d’Ordoubad” [= valley of Aras River near Ordubad] (HORVÁTH 1891), that time in Russian Armenia, now probably located in the present territory of Azerbaijan. Two males from this locality, both bearing Horváth’s original handwritten label, with a red underlining of the species name indicating their type status, are preserved in the Hemiptera Collection of the HNHM (Figs 4–5); they are to be considered as syntypes, and one of them (Fig. 4) is here designated as lectotype.



Figs 11–14. Specimens of *Tettigometra (Eurychila) decorata* Signoret, 1866 deposited in the HNHM, 11 = specimen from Bou Berak in dorsal view, 12 = specimen from Philippeville in dorsal view, 13 = specimen from Bou Berak in lateral view, 14 = specimen from Philippeville in lateral view. Scale bar = 5 mm (photos by Bence Péter Schlitt)

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