



A new species of *Psorodonotus* (Orthoptera, Tettigoniidae) from Anatolia, Turkey

MEHMET SAİT TAYLAN¹, ABBAS MOL² & DENİZ ŞİRİN^{3,4}

¹The Society of Anatolian Speleology Group (ASPEG), Serpil Sk., Yıldız Apt. 14/A, Kavacık, Beykoz, İstanbul, Turkey.

E-mail: msaittaylan@yahoo.com

²Guzelyurt Vocational School, Aksaray University, Guzelyurt, Aksaray, Turkey. E-mail: abbasmol19@gmail.com

³Department of Biology, Faculty of Art & Science, Namik Kemal University 59030 Tekirdag, Turkey. Tel: +90 282 250 26 33, Fax: +90 282 293 41 49. E-mail: denizsirin19@gmail.com

⁴Corresponding author

Abstract

Descriptions of a new species of Tettigoniinae; *Psorodonotus suphani* sp. n. from Turkey were given. The relationships between the new species and closest taxa (morphologically and geographically) were evaluated by using morphological characters. Ultimately, some remarkable points of the distribution pattern of the species were presented.

Key words: Orthoptera, Tettigoniidae, Tettigoniinae, *Psorodonotus suphani*, Anatolia

Introduction

The genus *Psorodonotus* Brunner von Wattenwyl 1862 (Orthoptera, Tettigoniidae) is distributed in Southern Europe, Balkans, Anatolia, Caucasia, Transcaucasia, and is represented by 11 species and 9 subspecies (OSF, Eades *et al.* 2013). These are *P. specularis* (Fischer von Waldheim, 1839); *P. caucasicus caucasicus* (Fischer von Waldheim, 1846); *P. caucasicus anatolicus* Karabağ, 1952; *P. fieberi fieberi* (Fieber, 1853); *P. fieberi illyricus* Ebner, 1923; *P. fieberi macedonicus* Ramme, 1931; *P. pancici* Brunner von Wattenwyl 1861; *P. inflatus* Uvarov, 1912; *P. venosus venosus* (Fischer von Waldheim, 1839); *P. venosus brunneri* Stshelkanovtzev, 1914; *P. venosus cryptus* Stolyarov, 1983; *P. venosus zangezuri* Stolyarov, 1983; *P. ebneri* Karabağ, 1952; *P. rugulosus* Karabağ, 1952; *P. davisii* Karabağ 1956; *P. salmani* Ünal, 2013 and *P. soganli* Ünal, 2013 (Ramme 1951; Karabağ 1952; Karabağ 1956; Salman 1978; Stolyarov 1983; Ünal 2013)

Among these taxa eight species (five endemic species) are distributed in different regions of Turkey; *P. caucasicus caucasicus*, *P. venosus* and *P. specularis* occur in the North eastern Anatolia (also in Caucasia), *P. caucasicus anatolicus* is endemic to Manisa province, *P. rugulosus* is endemic to the North eastern Anatolia, *P. ebneri* is endemic to Antalya, Tahtalidag, *P. davisii* is endemic to the Eastern Black Sea region, *P. salmani* is endemic to Adana and *P. soganli* is endemic to Gümüşhane and Rize provinces (Karabağ 1952; Karabağ 1956; Stolyarov 1983; Tazegül & Önder 2012; Ünal 2013; Eades *et al.* 2013 (OSF))

During the 2013 field studies, we collected the specimens belonging to the *Psorodonotus* from the Eastern and Northern Anatolia. After taxonomic evaluation of the collected specimens, a new morpho-species was established by authors, and presented here. The specimens were brought together by D. Şirin, M.S. Taylan and A. Mol who performed this joint study, and deposition in Namik Kemal University, Biology Department, Museum of Entomology (NKUEM).

Material and methods

During field studies in 2013, members of *Psorodonotus* Brunner von Wattenwyl, 1861 were encountered in five different localities (Fig. 1, Table 1). The collected specimens were prepared as museum materials displays by

References

- Acarlar, M., Bilgin, E., Elibol, E., Erkal., T., Gedik, İ., Güner, E., Hakyemez, Y., Şen, A.M., Oğuz, M.F. & Umut, M. (1991) *Van Gölü Doğu ve Kuzeyinin Jeolojisi. MTA Genel Müd. Jeoloji Etüt Dairesi Yayını*, Rapor No: 9469, 94 s.
- Eades, D.C., Otte, D., Cigliano, M.M. & Braun, H. (2013) Orthoptera Species File Online (OSF). Version 2.0/4.0. Available from: <http://Orthoptera.SpeciesFile.org> (accessed 1 September 2013)
- Innocenti, F., Mazzuoli, R., Pasquare', G, Serri, G. & Villari, L. (1980) Geology of the volcanic area north of Lake Van (Turkey). *Geologische Rundschau*, 69 (1), 292–323.
<http://dx.doi.org/10.1007/bf01869038>
- Karabağ, T. (1952) Six new Decticinae (Orthoptera: Tettigoniidae) from Turkey. *Proceedings of the Royal Entomological Society of London* (B), 21, 27–34.
<http://dx.doi.org/10.1111/j.1365-3113.1952.tb01034.x>
- Karabağ, T. (1956) Some new and less known Tettigoniidae (Orthoptera) from Turkey. *Communications de la Faculté des Sciences de l' Université d' Ankara Ser. C. Sciences naturelles*, 5, 1–19.
- Karabağ, T. (1958) Türkiye'nin Orthoptera faunası (The Orthoptera Fauna of Turkey). Ankara Üniversitesi Fen Fakültesi yayınları, 81, 1–198.
- Ramme, W. (1951) Zur Systematik Faunistik und Biologie der Orthopteren von Südost Europa und Vorderasien. *Mitteilungen aus dem Zoologie Museum in Berlin*, 27, 1–431.
- Salman, S. (1978) Ağrı, Kars ve Artvin illerinin Orthoptera (Insecta) Faunası Üzerine Taksonomik Araştırmalar. Atatürk Üniversitesi Yayınları. 490, Fen-Fakültesi Yayınları. 82, 184 pp.
- Stolyarov, M.V. (1983) New data on the Orthoptera of the Caucasus and Turkey. *Entomologicheskoe Obozrenie*, 62 (3), 501–511. [in Russian]
- Tazegül, E. & Önder, F. (2012) Systematical studies on the species of Tettigoniidae (Orthoptera) family in İzmir (Turkey). *Türkiye entomoloji bülteni*, 2 (2), 109–123
- Ternek, Z. (1953) Van Gölü güneydoğu bölgesinin jeolojisi. *Türkiye Jeoloji Kurumu Bülteni*, 4 (2), 1–27.
- Ünal, M. (2006) Tettigoniidae (Orthoptera) from Turkey and the Middle East. *Transactions of the American Entomological Society* (1890-), 132, No. 1/2 (Mar. June 2006), 157–203.
- Ünal, M. (2013) Four New Species of Tettigoniidae (Orthoptera) from Turkey. *Far Eastern Entomologist*, 256, 1–16.
- Wattenwyl, B. von. (1861) *Verh. der Zoologisch-Botanischen Gesellsch*, 11, 290–291.