

Revision of *Anthaxia salicis* Species Complex in Romania, with the First Record of *Anthaxia suzannae* (Coleoptera: Buprestidae)

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Received: February 12, 2018; Accepted: April 18, 2018; Available online: May 10, 2018; Printed: June 30, 2018

Abstract. One specimen of *Anthaxia (Anthaxia) suzannae* Théry, 1942 was collected on a meadow, near Cluj-Napoca, Romania. Although this species is widely distributed in Europe, this is the first record of its presence in Romania. A short description of the species, and some considerations about the biology and zoogeography are given.

Key words: *Anthaxia salicis* complex, *Anthaxia suzannae*, Buprestidae, new record, Romania.

INTRODUCTION

One small specimen of *Anthaxia salicis* complex has been collected in “Pădurea de stejari pufos de la Hoia” Site of Community Importance (ROSCI0146) close to Cluj-Napoca, on 9.V.2015. After a detailed examination of the specimen, it was identified as *Anthaxia (Anthaxia) suzannae* Théry, 1942, the first record of this species in the Romanian fauna¹. In Romania, only two species of the *Anthaxia salicis* complex are known: *Anthaxia (Anthaxia) salicis* (Fabricius, 1777) and *A. (A.) semicuprea* Küster, 1851 (Ruicănescu, 2013; Panin et al., 2015). The species belonging to the *Anthaxia (Anthaxia) salicis* (Fabricius, 1777) species complex are characterized by specific pronotal microsculpture, consisting of fine concentric ripples on its disc, reminding of a heart design (Fig. 1). This particular structure of the pronotum may be a convergence rather than a close relation. We don't have any information on the utility of this structure for the insects, but it also appears in the *Anthaxia (Anthaxia) plicata* (Kiesenwetter, 1859) species group, the *Anthaxia (Melanthaxia) morio* (Fabricius, 1792) and recently, the newly described species complexes *Anthaxia (Anthaxia) midas* Kiesenwetter, 1857 and *Anthaxia (Anthaxia) brevis* Gory & Laporte, 1839 (Baiocchi & Magnani, 2018).

The members of *Anthaxia (Anthaxia) salicis* (Fabricius, 1777) species complex can be recognised from the middle-sized body (3–6 mm length), head and pronotum usually green or blueish, with or without two dark blue markings, but without touching the other marginal marks. The scutellar spot is triangular or semi-circular; the entire anterior third of the elytra, including scutellum, is green or blueish, the rest of elytra

¹*A. suzannae* is mentioned from Romania in the Catalogue of Palearctic Coleoptera (Löbl & Löbl, 2016 - cited from Löbl & Smetana, 2006), but there is no published paper indicating the locality or the collecting period.



Fig. 1 – The concentric rippled microstructure of the pronotum of *Anthaxia salicis* (photo: A. Ruicănescu).

being copper-red with or without a posterior darker nebulous spot, but never a well outlined dark pattern.

The pronotum structure displays two distinct concentric ripple areas: a basal, large one, anterior to the scutellum, and another, smaller one, behind the anterior margin, in contrast to the *Anthaxia (Anthaxia) midas* Kiesenwetter, 1857 species complex, where there is an altered cell-based structure and *Anthaxia (Anthaxia) brevis* Gory & Laporte, 1839 species complex, where the ripples form an “X” marking (Baiocchi & Magnani, 2018).

MATERIALS AND METHODS

The above-mentioned specimen was collected from a meadow with *Crataegus monogyna* and *Rosa canina* bushes. No other specimen was found in that area during the next years.

We checked and revised all the *Anthaxia salicis* material stored in the collections of the largest museums of natural history in Romania, “Grigore Antipa” National Museum of Natural History, Bucharest (MGAB) and Brukenthal National Museum, the Museum of Natural History, Sibiu (BNM) as well as in Adrian Ruicănescu’s collection. 159 specimens of the *Anthaxia salicis* complex, from the collection of MGAB, were examined: 150 specimens of *A. salicis*, eight specimens of *A. semicuprea* and one of *A. suzanna*. 86 specimens were examined from the collections of BNM, identified as *Anthaxia salicis* (82 specimens), *A. semicuprea* (two specimens) and *A. suzanna* (two specimens). Photographs of every species are given. Additionally, 37 specimens were examined in Adrian Ruicănescu’s collection; eight specimens of *Anthaxia semicuprea*, three specimens of *A. suzanna* (two specimens from Bulgaria, used just for reference) and 26 specimens of *A. salicis*.

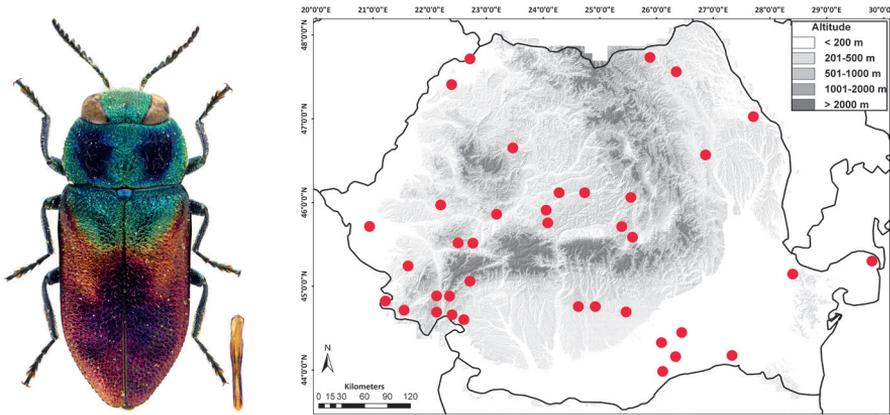


Fig. 2 – *Anthaxia salicis* (F.) and its distribution in Romania (photo: A. Ruicănescu).

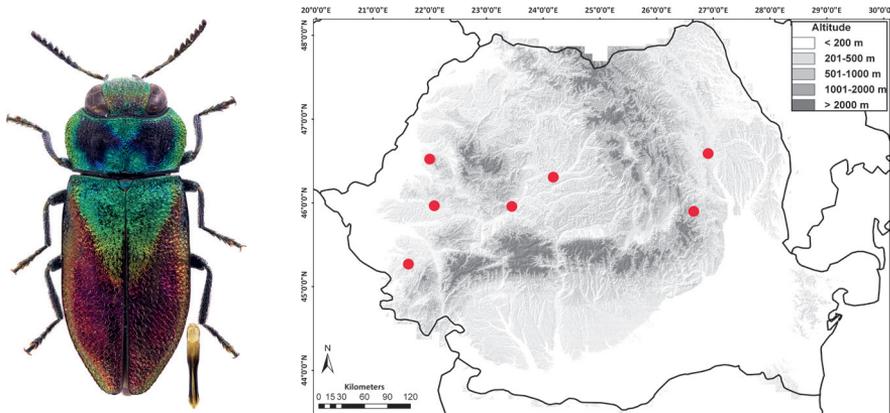


Fig. 3 – *Anthaxia semicuprea* Kust and its distribution in Romania (photo: A. Ruicănescu).

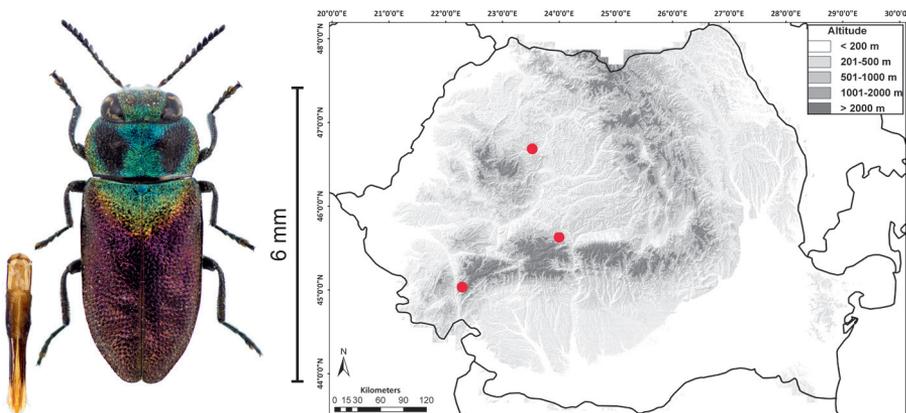


Fig. 4 – *Anthaxia suzannae* Théry and its distribution in Romania (photo: A. Ruicănescu).

RESULTS AND DISCUSSIONS

To date, two species are known in the insect fauna of Romania: *Anthaxia (Anthaxia) salicis* and *Anthaxia (Anthaxia) semicuprea*. The third species, belonging to this complex, was recently recorded in Romania for the first time: *Anthaxia (Anthaxia) suzannae* Théry, 1942, found and identified by Adrian Ruicănescu in “Pădurea de stejar pufoș de la Hoia-Baciu” protected area, near Cluj-Napoca, on 9.V.2015 (leg/coll. A. Ruicănescu). Based on this record, we have checked if other specimens were collected in Romania, so all material belonging to the *Anthaxia salicis* complex, preserved in the collections of the two natural history museums of Romania were analysed.

As a result of this study, three other specimens of *Anthaxia suzannae* were found: Dumbrava Sibiului, V.1924, coll. Worell (coll. BNM); Băile Herculane, VI.1929, coll. Worell (coll. BNM); Băile Herculane, 18.V.1965, leg. Nicolae Săvulescu (coll. MGAB), all erroneously identified as *Anthaxia croesus*, *A. salicis* or *A. semicuprea*.

The *Anthaxia salicis* complex consists of 20 species, distributed in Europe (except the Scandinavian Peninsula and the British Islands), from southern Central European Russia, Iran, surroundings of the Mediterranean Sea to the Iberian Peninsula, and Algeria and Morocco.

Nowadays, three species are known from Romania: *Anthaxia salicis*, *A. semicuprea* and *A. suzannae*.

Anthaxia (Anthaxia) salicis salicis (Fabricius, 1777) is the most common species, being distributed everywhere in Romania, under 800 m altitude (fig. 2). It is a Maghrebo-Sibero-European element, with a vast distribution, developing in *Acer obtusatum*, *Castanea sativa*, *Quercus pubescens*, *Q. sp.*, *Salix sp.*, *Malus sp.*, *Pyrus sp.*, *Prunus sp.*, *Sorbus sp.*, *Cydonia oblonga*. The adults can be found on flowers (Ruicănescu, 2013; Sakalian, 2003). *Anthaxia (Anthaxia) semicuprea* Kuster, 1851 is much rarer, distributed in the hilly or lower mountain areas (fig. 3). This species is a Maghrebo-Sibero-European element (Ruicănescu, 2013), with also a vast distribution. It develops in *Acer pseudoplatanus*, *Crataegus sp.*, *Cydonia oblonga*, *Malus domestica*, *Pyrus communis*, *Quercus cerris*, *Sorbus domestica*, *Cornus mas*, *Ulmus sp.* The adults occur on yellow flowers (Ruicănescu, 2013; Sakalian, 2003). *Anthaxia (Anthaxia) suzannae* Théry, 1942 is known only in Banat and in Transylvania now (Fig. 4). Globally, it is distributed on a vast territory (Austria, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, France, Germany, Hungary, Italy, Macedonia, Montenegro,

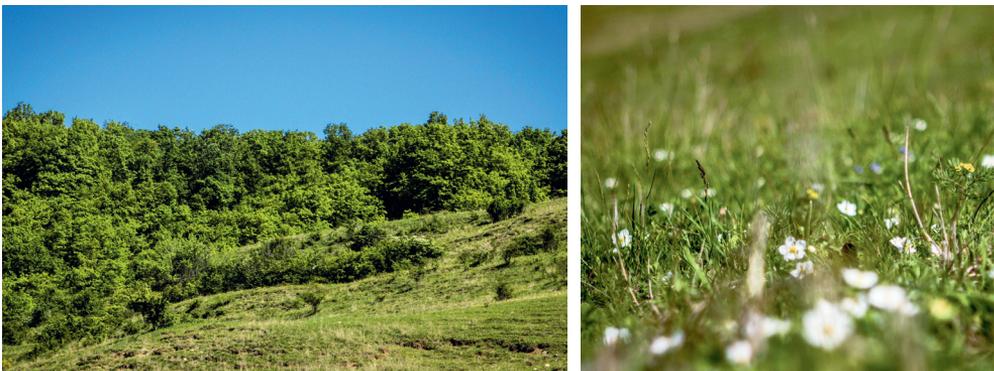


Fig. 5 – The habitat and micro biotope of *A. suzannae* at Pădurea de stejar pufoș de la Hoia-Baciu (photo: A. Ruicănescu).

Serbia, Slovakia, Spain, Switzerland, Turkey, Ukraine) (Löbl & Löbl, 2016). Despite its wide distribution, it is a rare species, sporadically found in all countries where it was recorded. It develops in *Malus domestica*, *Pirus communis*, *Sorbus sp.*, *Prunus sp.*, *Crataegus sp.* (www.anthaxia.eu). The adults can be found on flowers. The senior author found the specimen on flowers of *Fragaria vesca* in a meadow with scarce shrubs of *Crataegus monogyna* and *Rosa canina* (Fig. 5).

ACKNOWLEDGEMENTS

This study was funded by the Romanian Ministry of Education within the research program PN 09-360201/2009 and by the Ministry of Research and Innovation within the National Research Program 30N/18180301, Biodivers 2.

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- *** *Anthaxia* from Western Palearctic and Middle East Region (<http://www.anthaxia.eu>)