

***Chloropterus versicolor* (Morawitz) in Turkey: Indigeneity Confirmed (Coleoptera: Chrysomelidae)**

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ABSTRACT

Chloropterus versicolor (Morawitz, 1860) is recorded from southwest Turkey after about a century since its first record as *C. versicolor* var. *infuscatus* Sahlberg 1913. In the recent catalogues *C. versicolor* was not listed from Turkey, but given as a synonym of *Bedelia insignis* Lefèvre, 1875. Actually, *Chloropterus versicolor infuscatus* is a new synonym of *Chloropterus versicolor*, but not a junior synonym of *Bedelia insignis*.

Key words: Chrysomelidae, Eumolpinae, *Chloropterus versicolor*, *Bedelia insignis*, taxonomy, Turkey.

INTRODUCTION

Eumolpinae represents one of the largest subfamilies of Chrysomelidae including more than 500 genera and about 7000 species (Jolivet and Verma, 2008). A total of 20 Eumolpinae species were listed from Turkey in the checklist study by Aslan *et al.* (1996). *Chloropterus infuscatus* Sahlberg, 1913 was also listed among them from Sarayköy province (Denizli) of Turkey. However, in the original paper of Sahlberg (1913) this species was in fact mentioned as *C. versicolor* var. *infuscatus*. Since Sahlberg did not expressly gave this taxon infrasubspecific rank, the International Code of Zoological Nomenclature rules, under article 45.6.4 that this taxon is to be treated as subspecific. Therefore we will use the trinomen *C. versicolor infuscatus*. This taxon is not listed in the Catalogus Coleopterorum regionis palaearticae (Winkler, 1930), or in the database of the Fauna Europaea project. Afterwards Özdikmen (2011) published a list of Chrysomelidae of Turkey including 9 genera and 20 species of Eumolpinae but *C. versicolor* was again not listed in this work. This was not astonishing because Özdikmen (2011) followed the recent Catalogue of the Palaearctic Coleoptera (Moseyko and Sprecher-Uebersax, 2010) where *C. versicolor infuscatus* was indicated as a synonym of *Bedelia insignis* Lefèvre, 1875.

On 25th May 2012, a single female specimen of a *Chloropterus* species was found during the field surveys performed in provinces of south-western Turkey. The specimen was identified to *C. versicolor* according to key in Warchałowski (2010). Because *C. versicolor* was not listed for Turkey in the recent catalogues by Moseyko and Sprecher-Uebersax (2010) and Özdikmen (2011), it became of high interest to learn more about this taxon.

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As a result of correspondence with the second author, we learned that he has two more specimens of *Chloropterus* from Turkey available in his private collection. The specimens, a male and a female, were collected from Ephesus (Efes, Izmir) on 11-23th June 1987 by K. Witzgall. Details about the collection locality or collecting conditions are unfortunately not known. The male specimen collected by Witzgall was dissected and the aedeagus studied (Fig. 1). It proved to be exactly identical with the drawing of the aedeagus of *C. versicolor* depicted by Lopatin (1984) and Warchałowski (2010). This drawing most probably was made of a male specimen from Central Asia. It can be concluded that the *Chloropterus*-specimens collected both from Izmir and Aydın provinces belong to *C. versicolor*.

The patterns on pronotum and elytra of *C. versicolor* are variable in male and females. The male specimen shows dark markings on pronotum and elytra (Fig. 2a); however, the females show both different pattern designs. The female from Aydın has a large and continuous dark spot on pronotum (Fig. 2b) while the other from Ephesus has a simple pronotum without any markings (Fig. 2c). Both of the females have unicoloured elytra with a distinctly broaden and dark elytral suture.

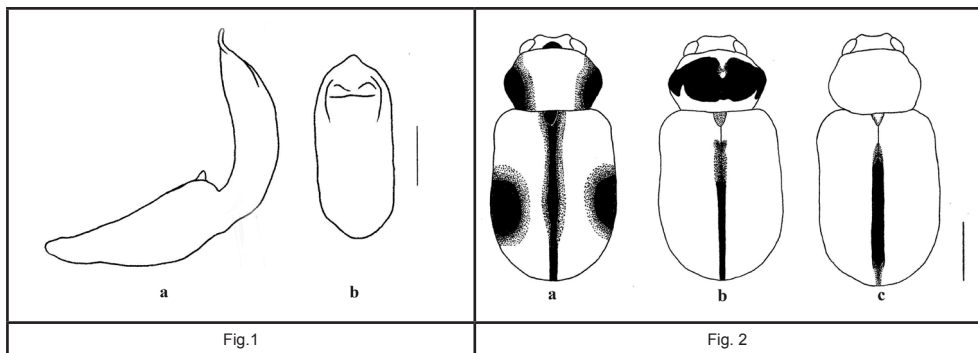


Fig. 1. *Chloropterus versicolor* (Morawitz), aedeagus: a) lateral view, b) ventral view. Scale bar = 0.5 mm.
 Fig. 2. Elytral and pronotal patterns of the specimens : a) male (from Ephesus), b) female (from Aydın), c) female (from Ephesus). Scale bar = 1 mm.

Chloropterus Morawitz and *Bedelia* Lefèvre

The genus *Bedelia* differs from *Chloropterus* by its clearly dentate claws. In *Chloropterus* the claws are simple or slightly cloven. The specimens from Izmir and Aydın all have simple claws without denticles. The photograph of *Chloropterus versicolor*

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infuscatus made available by the Finish Museum in the project “Europeana-Explore Europe’s cultural collections” is not very sharp for the claws but show that the claws of the right middle tarsus are simple (see <http://id.digitarium.fi/GZ.477/Image001>). Furthermore the habitus of the specimen on the photograph is similar to the habitus of the specimens from Izmir and Aydın, just the apical half of the elytra is in the variety *infuscatus* dark. From this it can be concluded that the specimens from south-western Turkey vary in the markings on pronotum and elytra, and belong to *Chloropterus versicolor*, but not *Bedelia insignis*.

Biology and Host Plant

The single female specimen of *C. versicolor* was collected from the Bafa Lake Natural Park (Aydın), near Denizli province where the first specimens of *C. versicolor infuscatus* have been collected. The collection site was grassland near the lake and the floral composition was primarily composed of species from Lamiaceae and Fabaceae accompanied by olive trees around. The specimen was collected from grass by sweeping, so the actual host plant of the species could not be determined.

There is little known about the food plants of *Chloropterus*-species. Jolivet and Hawkeswood (1995) mention *Tamarix*, *Limonium*, *Salicornia* and *Atriplex*. Lopatin (1984) mentions *C. versicolor* from salty habitats in Central Asia and Kazakhstan on *Statice* in June and July. Our single specimen from Aydın was collected in May while others from Izmir were found in June.

Conclusions

The genus *Chloropterus* is recorded from Africa, Europe, and Asia (Seeno and Wilcox, 1982). Moseyko and Sprecher-Uebersax (2010) list *Chloropterus versicolor* not for Turkey but for Ukraine, South European Russian territory, Azerbaijan, Kazakhstan and Turkmenistan. The occurrence of *Chloropterus versicolor* is here confirmed in Denizli, Aydın and Izmir provinces of Turkey. Since this species is recorded also from Caucasus, it might occur in North-eastern Turkey too. However, further records are needed to discuss the exact distributional range of this species in Turkey.

The motive to prepare the present paper was to clarify the confusing records of *Chloropterus* specimens in Turkey. Consequently, examinations on the morphology, genitalia and the structure of claws and comparison of other material revealed that: (1) *Chloropterus versicolor infuscatus* Sahlberg is really a colour variety of *Chloropterus versicolor* and has no subspecific status, (2) *Chloropterus versicolor infuscatus* Sahlberg is not to be regarded as a junior synonym of *Bedelia insignis* but is here synonymized with *Chloropterus versicolor*, (3) and the genus and species *Chloropterus versicolor* should be added again to the present Chrysomelidae list of Turkey.

ACKNOWLEDGEMENTS

Andrzej Warchałowski (Wroclaw) supported us with additional information concerning *Chloropterus versicolor*. We gratefully acknowledge him for his help.

The study was a part of the project 3313-YL2-12 supported by the Department of Scientific Research Project Management of Süleyman Demirel University (SDUBAP).

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Received: August 16, 2012

Accepted: May 28, 2013