

TWO INTERESTING AND UNKNOWN SPECIES FOR TURKISH CLYTRINAE (CHRYSOMELIDAE) WITH ZOOGEOGRAPHICAL REMARKS

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ABSTRACT: Two species, *Tituboea arabica* (Olivier, 1808) and *Smaragdina salicina* (Scopoli, 1763), are recorded for the first time to Turkey. For each taxon, the paper includes zoogeographical remarks and chorotype information.

KEY WORDS: *Tituboea arabica*, *Smaragdina salicina*, new record, Clytrinae, Chrysomelidae, Turkey.

The members of subfamily Clytrinae is commonly characterized by serrate antennae. In the subfamily Clytrinae there are 62 genera, of which 38 are distributed in the Palearctic Region (Seeno & Wilcox, 1982). In Turkey it is represented by eight genera (Kasap, 1987a,b). Turkish Clytrinae has been represented by approximately 70 species. The various authors who are both Turkish and foreign researchers made important contributions to the Turkish Clytrinae. However, the previous works were densely made in Central Anatolian Region, Aegean Region, East Anatolian Region and Mediterranean Region (Central parts) of Turkey respectively. Nevertheless, it is impossible to say that the fauna of Turkey completely investigated. Since Turkey appears a continental property changeable in very short distances in terms of climatical features and field structures, besides the number of studies are not enough for the complete fauna.

In the present text, two species which are the new records to Turkish Clytrinae fauna are presented. *Smaragdina salicina* (Scopoli, 1763) is the member of the subgenus *Monrosia* Medvedev, 1971.

Information in the present text is given in following order:

The data, Names, Material examined, Range, Remarks and Chorotype under the title for each species is given.

Names. In these parts, as possible as the whole other names including all infraspecific names are provided.

Material examined. Material examined covers the original records for Turkey. The material is deposited in Gazi University (Ankara).

Range. In these parts, the whole distribution area in the world is provided for each taxon.

Remarks. In these parts, general distribution range is given in Turkey chiefly.

Chorotype. The present zoogeographical characterization is based on the chorotype classification of Anatolian fauna, recently proposed by Vigna Taglianti et al. (1999). In the text, one chorotype description identified for each taxon.

Maps. The maps are given in the plate I. For each taxon, a map showing distribution patterns in the provinces of Turkey is used. The maps were prepared by used ArcView GIS Version 3.1.

Photos. All photos in the plate II were captured by using a Leica type MZ-16 stereomicroscope.

Tituboea Lacordaire, 1848

[Type species: *Antipa illigeri* Lacordaire, 1848]

***Tituboea arabica* (Olivier, 1808)**

Names: *arabica* Olivier, 1808 (*Antipa*); ? *sericea* Olivier, 1808; ab. *lacordairei* Pic, 1925.

Material examined: Kahramanmaraş prov.: Pazarcık, SE Kısıkobasi, 12540m, 13.07.2006, leg. A. Y. Okutaner, 1 specimen; Hatay prov.: near Belen, 16.05.1990, leg. A. Warchalowski, 1 specimen (see remarks).

Range: Egypt, Arabia (Winkler, 1924-1932); Distributed in Egypt, Middle East and Arabia (Warchalowski, 2003); Egypt, Middle East and Arabia (Borowiec, 2006).

Remarks: New to Turkey. It may be distributed in S Turkey. As seen above, the species mainly distributes from Egypt, Arabian Peninsula and Middle East (Israel) and also occurs in Southern Iran (Warchalowski pers. comm.). The record of Turkey is indicated the most northeast point of known range. Warchalowski (pers. comm.) stated that "*The species is poorly studied, reported from Egypt, Sinai, Israel and Arabian Peninsula (old data and Medvedev, 1992). I found a so damaged specimen in Hatay, near Belen, 16.V.1990, but after determining not conserved the crushed "specimen" in the collection. In my collection I have two specimens only (one from Israel, another from southern Iran). It seems, the species is broadly distributed, but probably rare. In my book is reproduced a very dark aberration, with spots on pronotum and large band in hind part of elytra. Forma typica, after Lefevre (1872) has two small spots on pronotum. Paler form with 4 spots on elytra was described by Pic (1925) as ab. lacordairei. Your specimens belong to relatively pale form without spots on pronotum*". Warchalowski (pers. comm.) also mentioned that "*I am persuaded, that subabbreviata is conspecific with arabica, but this supposition would to be confirmed by examining of Pic's type (if exists). Therefore in my book the both species are discussed separately*".

Chorotype: This species has the NE African-Sindian chorotype.

***Smaragdina* Chevrolat, 1837**

[Type species: *Clytra menetriesi* Faldermann, 1837 (= *unipunctata* Olivier, 1808)]

***Smaragdina (Monrosia) salicina* (Scopoli, 1763)**

Names: *salicina* Scopoli, 1763 (*Buprestis*); *cyanea* Fabricius, 1775 (*Cryptocephalus*); ab. *notaticollis* Roubal, 1922.

Material examined: Karabük prov.: Safranbolu, Hızır Yanı place, 740m, 14.05.2003, leg. H. Özdikmen, 2 specimens; Safranbolu, Bulak village, Mağaradüzü district, 21.05.2004, leg. H. Özdikmen, 2 specimens; Sinop prov.: 35 m, 17.06.2003, leg. H. Özdikmen, 1 specimen.

Range: Distributed in Central and S Europe from N Spain and Denmark to basin of Volga and Caucasian countries (Warchalowski, 2003); From N Spain and Denmark to basin of Volga and Caucasus (Gruev, 2004); Europe, Caucasus (Borowiec, 2006).

Remarks: New to Turkey. It may be distributed only in N Turkey.

Chorotype: This species has the European chorotype.

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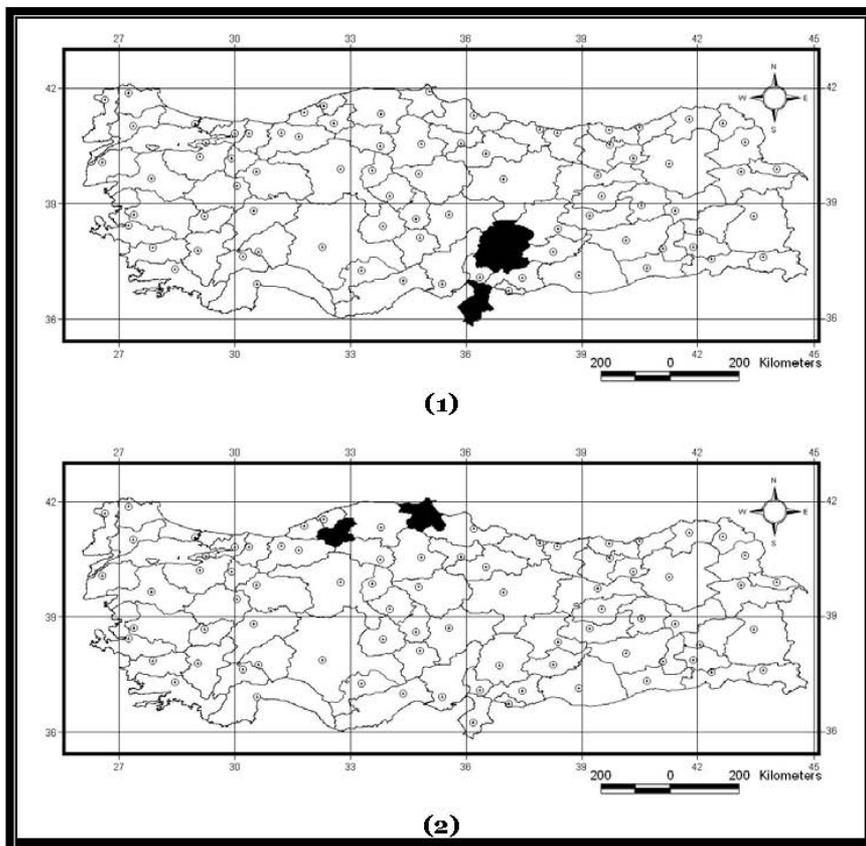


Plate I: Maps 1-2. Distribution patterns in Turkey of (1) *T. arabica*, (2) *S. salicina*.

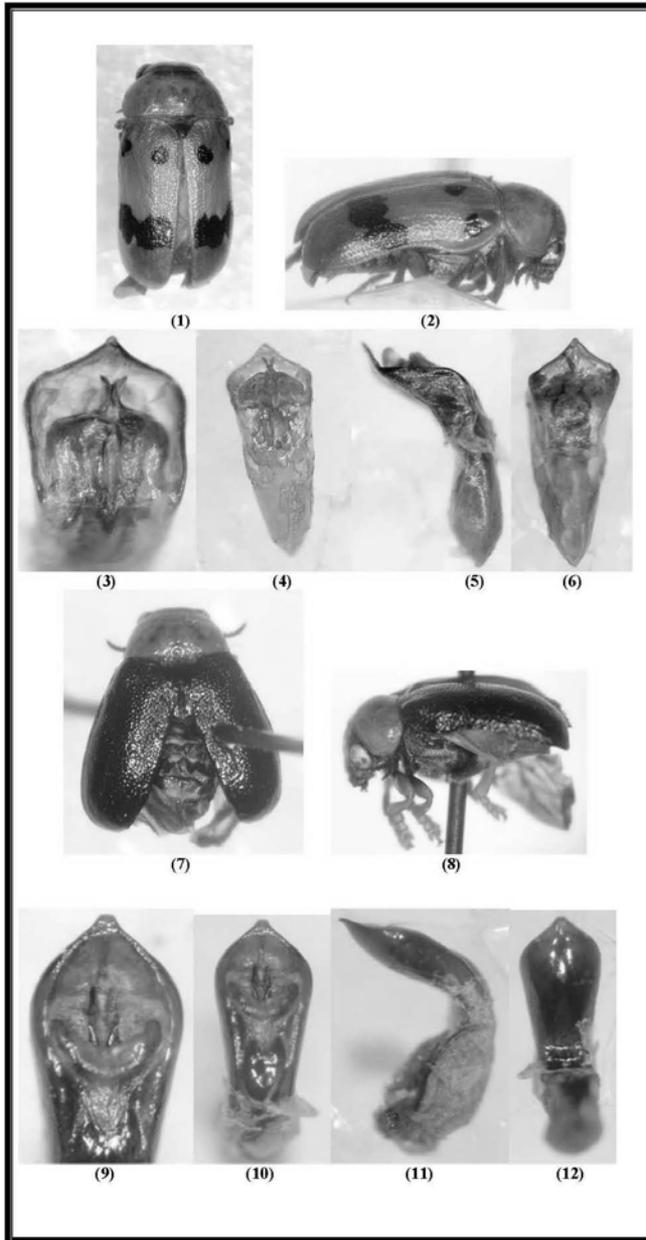


Plate II: Figures 1-12. (1) Dorsal view of *T. arabica*, (2) Lateral view of *T. arabica*, (3-6) Aedeagus of *T. arabica*: Dorsal view of apex, Dorsal, Lateral, Ventral view respectively (7) Dorsal view of *Smaragdina salicina*, (8) Lateral view of *Smaragdina salicina*, (9-12) Aedeagus of *Smaragdina salicina*: Dorsal view of apex, Dorsal, Lateral, Ventral view respectively.