

Eumolpinae (Coleoptera, Chrysomelidae) of Turkey along with two new records

İrfan ASLAN*

Blagoy A. GRUEV**

Hikmet ÖZBEK*

Summary

In this study, existence of 20 species of the subfamily Eumolpinae (Chrysomelidae) have been found in Turkey. Six species were examined, other species were reviewed from literature. Among them *Colaspinella grandis* (Frivaldszky), *Macrocoma anatolica* (Pic), *M. delagrangei* (Pic), *M. korbi* (Pic) and *Pseudocolaspis fortidens* Berti et Rapilly are endemic species of the country. *Bedelia insignis* Lefevre and *Damasus albicans* Chapuis are new records for Turkish fauna.

Introduction

Eumolpinae is one of the larger subfamilies of the family Chrysomelidae, consisting of small to medium-sized, usually oval to elongate, convex species which are often metallic, and sometimes bear erect or decumbent pubescence or scales; the adults are oligofagous or polyphagous on a very wide range of Monocotyledons, Dicotyledons, and Coniferae (Gymnospermae), usually feeding on the foliage, but also sometimes on fruit; as a result of their polyfagy, they can be serious pests of various agricultural crops, and they have also been implicated in the transmission of various crop viruses (Booth et al., 1990).

* Atatürk University, Faculty of Agriculture, Department of Plant Protection, 25240 Erzurum, Turkey

** University of Plovdiv, Bulgaria

Alınış (Received): 29.05.1995

Although the Chrysomelidae fauna of Turkey is very rich (Kısmalı, 1989) there is not any study conducted by native researchers related to Eumolpinae. However, as foreign scientist, Sahlberg (1913), Medvedev (1970, 1975), Warchalowiski (1976), Gruev und Tomov (1979) and Gruev (1992) recorded some species occurring in Turkey.

In this study, the species which have been collected by authors and their colleagues and the ones that have been recorded by various researchers so far were treated.

The material was collected through the vegetation by sweeping net. The host plants, distribution and some remarks of the species were indicated. The genera and species were given in alphabetical order.

Results

Following is the account of the subfamily Eumolpinae thus far found in Turkey.

Genus: **Bedelia** Lefevre, 1875

B. angustata Lefevre, 1875

Literature data: Turkey (Warchalowiski, 1976).

Distribution: Armenia, Azerbaijan, Caucasus, Iran and Turkey (Warchalowiski, 1976).

Host plants: **Salix** sp. and **Populus** sp. (Lefevre, 1875).

B. insignis Lefevre, 1875

Material examined: The garden of Bahçe Kültürleri Araştırma Enstitüsü (Erzincan), 1300 m, 7.VII.1993, leg. İ. Aslan; ex coll. Atatürk University, Agricultural Faculty, Entomology Museum.

Distribution: Afghanistan, Azerbaijan and Iran (Lopatin, 1963).

Host plants: **Salix** sp., **Populus** sp. and **Tamarix** sp. (Lefevre, 1875).

New record for Turkish fauna.

Genus: **Choloropterus** Morawitz, 1861

C. infuscatus Sahlberg, 1913

Literature data: Denizli (Sahlberg, 1913).

Genus: **Chrysochares** Morawitz, 1861

C. asiaticus (Pallas, 1771)

Literature data: Turkey (Warchalowiski, 1976); Reyhanlı (Kars) (Tomov and Gruev, 1975).

Distribution: Azerbaijan, Caucasus, south-eastern parts of European Russia and Turkey (Warchalowiski, 1976).

Host plants: **Cynanchum** sp., **Apocynum** sp., **Calystegia** sp. and **Leucanthenum** sp. (Lopatin, 1977).

Genus: **Colaspinella** Weise, 1893

C. grandis (Frivaldszky, 1880)

Synonym: **Colaspidea grandis** Frivaldszky, 1880 (Gruev, 1992).

Material examined: Bursa, ex coll. B. Gruev; Side (Antalya), 3.VI.1991, leg. I. Rydh; ex coll. I. Rydh.

Literature data: Turkey (Clavareau, 1914; Winkler, 1929-1930; Warchalowiski, 1976), İstanbul (Weise, 1881-1893; Gruev, 1992).

Distribution: Turkey (Gruev, 1992).

Genus: **Crysochus** Chevrolat, 1837

C. asclepiadea (Pallas, 1776)

Synonym: **Chrysomela cyaneus** Olivier, 1791; **Cryptocephalus pretiosus** Schneider, 1791 (Lopatin, 1977).

Literature data: Asia Minor (Warchalowiski, 1971).

Distribution: Caucasus, central and southern parts of Europe, Kazakhstan and Turkey (Gruev, 1992).

Host plant: **Cynanchum** sp. (Gruev and Tomov, 1984).

Genus: **Damasus** Chapuis, 1874

D. albicans Chapuis, 1874

Material examined: Diyarbakır, 28.VI.1971, leg. Osella; ex coll. Museo Civico di Storia Naturale di Verona, Italy.

Distribution: Syria (Chapuis, 1874).

New record for Turkish fauna.

Genus: **Eupales** Lefevre, 1885

E. ulema (Germar 1813)

Synonym: *Colaphus ulema* Germar, 1813; *Pales ulema* Weise, 1882 (Gruev, 1992).

Literature data: Turkey (Clavareau, 1914; Warchalowiski, 1976).

Distribution: South-eastern parts of Europe and Turkey (Gruev, 1992).

Host plant: *Cornus mas*, *C. sanguinea* (Gruev and Tomov, 1984).

Genus: *Macrocoma* Chapuis, 1874

M. anatolica (Pic, 1898)

Material examined: Erdemli (İçel), 10.VI.1991, leg. I. Rydh; ex coll. I. Rydh.

Literature data: Izmir (Pic, 1898)

Distribution: Turkey (Pic, 1898)

M. delagrangi (Pic, 1898)

Literature data: Akbaşı, Anamur (Mersin) (Pic, 1898, erroneously: "Syria").

Distribution: Turkey (Pic, 1898).

M. korbi (Pic, 1901)

Literature data: Anatolia (Akşehir) (Clavareau, 1914), Asia Minor (Winkler, 1929-1930).

Distribution: Turkey (Winkler, 1929-1930).

M. rubripes (Schaufuss, 1862)

Synonym: *Pseudocolaspis rubripes* Schaufuss, 1862; *P. graeca* Lefevré, 1876; *Macrosoma rubripes* Clavareau, 1914 (Gruev, 1992).

Material examined: Kumluca (Antalya), 460 m, 19-26.V.1991; Kemer (Antalya), 18-31.V.1991; Başkonak (Antalya), 2.VI.1991, leg. I. Rydh; ex coll. I. Rydh; Pazaryolu (Erzurum), 1600 m, 23.VII.1991, on Walnut (*Juglans regia*), leg. İ. Aslan; ex coll. Atatürk University, Agricultural Faculty, Entomology Museum.

Literature data: "İllany-Dagh, Erdschias" (Ganglbauer, 1905), Yılanlı Dağ (Kay-seri) (Gruev und Tomov, 1979).

Distribution: Cyprus, Greece, Syria and Turkey (Gruev, 1992).

Genus: ***Pachnephorus*** Chevrolat, 1837

P. canus Weise, 1882

Literature data: Central part of Asia Minor (Weise, 1897); Yeşilköy (Apfelbeck, 1901, erroneously: "***P. ruficornis***"; Gruev, 1977), Yeşilköy (İstanbul) (Gruev, 1992).

Distribution: Caucasus, from Italy to the Balkans including European Turkey, south Russia and Turkey to Turkmenistan (Gruev, 1992).

P. cylindricus Lucas, 1849

Literature data: Adana (Medvedev, 1975), Turkey (Warchalowiski, 1976).

Distribution: Algeria, Balears, South France, South Italy, Malta, Morocco, Sardinia, Sicily and South Spain (Gruev, 1992).

Remarks: Questionable in South-East Europe (including Greece) and Turkey (see also Gruev, 1992).

Host plants: ***Limonium*** sp. (Lopatin, 1977).

P. robustus Desbrochers des Loges, 1870

Literature data: Akbaş (Reitter, 1901), Asia Minor (Clavareau, 1914; Winkler, 1929-1930).

Distribution: Turkey (Winkler, 1929-1930), South Russia (North Caucasus), Ukraine (Crimea) (Warchalowiski, 1976).

P. silvanae Daccordi, 1977

Literature data: Amanosdağı, Adapazarı, Akşehir (Konya), Sinop, Küçükkuyu (Balıkesir), Truva (Daccordi, 1977).

Distribution: Bulgaria, Crete, Greece, Cyprus, South Rumania and Turkey (Gruev, 1992).

Remarks: The taxonomic status of this form is not clear: ***P. silvanae*** seems to be a synonym of ***P. villosus*** (Duft.) (See also Gruev, 1992).

P. tesellatus (Duftschmid, 1825)

Synonym: ***Eumolpus tesellatus*** Redtenbacher, 1858 (Lopatin, 1977).

Literature data: Anadolu (Sahlberg, 1913).

Distribution: Caucasus, Central Asia, southern and eastern parts of Europe (Gruev, 1992), Turkey (Sahlberg, 1913).

P. villosus (Duftschmid, 1825)

Synonym: **Eumolpus villosus** Duftschmid, 1825 (Gruev, 1992).

Material examined: Finike (Antalya), 700 m, 21.V.1991; Sagirin (Antalya), 31.V.-6.VI.1992, leg. I, Rydh; ex coll. I. Rydh.

Literature data: Çarşamba (Samsun), Kadirli, Misis (Adana), Tarsus (İçel) (Medvedev, 1970); Karacabey (Bursa) (Tomov and Gruev, 1975).

Distribution: Caucasus, southern - mid and southern parts of Europe, Iran, Syria and Turkey (Gruev, 1992).

Host plant: **Cirsium** sp. (Gruev and Tomov, 1984).

Genus: **Pseudocolaspis** Laporte, 1833

P. fortidens Berti et Rapilly, 1973

Literature data: Akbaş, Erciş (Van) (Berti et Rapilly, 1973).

Distribution: Turkey (Berti et Rapilly, 1973).

P. substriata Weise, 1904

Literature data: Diyarbakır (Lopatin, 1985).

Distribution: Iran and Turkey (Lopatin, 1985).

Remarks: Erroneously consider as a member of the fauna of Iraq by Gruev (1995).

Acknowledgements

We thank Dr. M. Daccordi (Verona, Italy) and Dr. I. Rydh (Olofström, Sweden) for loan of specimens.

Özet

Türkiye'nin Eumolpinae (Coleoptera, Chrysomelidae) türleri

Bu çalışmada Türkiye'de Eumolpinae altfamilyasının şimdilik 20 türle temsil edildiği ortaya konmuştur. Bunlardan örnek temin edilebilen 6 tür incelenmiş, diğer türlere ait bilgiler ise literatürden alınmıştır.

Bunlar içinde, *Colaspinella grandis* (Frivaldszky), *Macrocoma anatolica* (Pic), *M. delagrangi* (Pic), *M. korbi* (Pic) ve *Pseudocolaspis fortidens* Berti et Rapilly'nin ülkemizin endemik türleri olduğu belirlenmiştir. *Bedelia insignis* Lefevre ve *Damasus albicans* Chapuis ise Türkiye faunası için yeni türlerdir.

Literatür

- Apfelbeck, V., 1901. Bericht über eine entomologische Forschungsreise nach der Türkei und Griechenland im Jahre 1900. **Wiessensh. Mitt. aus Bosn. und der Herz.**, 8: 447-469.
- Berti, N. et M. Rapilly, 1973. Contribution a la faune de l'Iran Voyages de M.M.R. Naviaux et M. Rapilly (Col. Chrysomelidae). **Ann. Soc. Ent. Fr. (N.S.)**, 9 (4): 861-894.
- Booth, R.G., M.L. Cox and R.B. Madge, 1990. CIE Guides to Insects of Importance to Man, 3. Coleoptera. **Printed in the UK at the University Press, Cambridge**, 384 p.
- Chapuis, F., 1874. In lacordaire, Histoire naturelle des insectes. **Genera des coleopteres, Famille des Phytophages, Paris, Vol. 10**, 455 p.
- Clavareau, H., 1914. Chrysomelidae, Eumolpinae in: Junk, W., Schenkling, S. **Coleopterorum Catalog, 's-Gravenhage (1911-1940), pars 59**: 1-215.
- Daccordi, M., 1977. Coleotteri crisomelidi dell'isola di Creta e descrizione di una nuova specie del genere *Pachnephorus* Redt. (Coleoptera-Chrysomelidae). **Boll. Mus. Civ. St. Nat. Verona**, 4: 81-93.
- Ganglbauer, K., 1905. Ergebnisse einer naturwissenschaftlichen Reise zum Erdschas Dag (Klein Asen). Ausgeführt Dr. A. Penther und Dr. E. Lederbauer. **Ann. Nat-Hist. Wien**, 20. **Coleoptera**, 246-290.
- Gruev, B.A., 1977. Neue Angaben über einige paläarktischen Blattkäfer und Beschreibung von zwei neuen Alticinae aus Bulgarien (Coleoptera, Chrysomelidae). **Acta Zool. Bulgarica**, 8: 65-73.
- Gruev, B.A. und V. Tomov, 1979. Zur Kennetis einiger in der Türkei, Jugoslawien und Griechenland Vorkommender Arten der Familie Chrysomelidae (Coleoptera) aus der Zoologischen Staatssammlung München. **Spixiana**, 2 (3): 259-267.
- Gruev, B.A. and V. Tomov, 1984. Fauna Bulgarica. 13, Coleoptera, Part I. **In Aedibus Scientiarum Bulgaricae**, 220 p.
- Gruev, B.A., 1992. Geographical distribution of the Leaf Beetle Subfamilies Lamprosomatinae, Eumolpinae, Chrysomelinae, Alticinae, Hispinae and Cassidinae (Coleoptera: Chrysomelidae) on the Balkan Peninsula. **Plovdiv University Press**, 512 p.
- Gruev, B.A., 1995. Check-list of Eumolpinae, Chrysomelinae, Alticinae and Cassidinae of Iraq (Coleoptera, Chrysomelidae). **Dtsch. Ent. Z., N.F.**, 42 (1): 175-186.
- Kısmalı, Ş., 1989. Preliminary list of Chrysomelidae with notes on distribution and importance of species in Turkey. I. Subfamily Hispinae Gemminger & Harold. **Türk. entomol. derg.**, 13 (2): 85-89.

- Lefevre, E., 1875. *Bedelia*, gen. nov.; *angustata*, *insignis* sp. nov., Coleoptera. **Ann. Soc. Ent. France, Bull.**, 10-12 (5): 5.
- Lopatin, I.K., 1963. Die Chrysomeliden (Coleoptera) Afghanistans auf Grund der Ergebnisse der Forschungsreise des Herrn J. Klapperich in den Jahren 1952-53. **Ann. Hist. Nat. Mus. Nat. Hungarici. Zool.**, 55: 349-378.
- Lopatin, I., 1977. Leaf-beetles (Chrysomelidae) of Middle Asia and Kazakhstan. **Nauka, Leningrad**, 268 p.
- Lopatin, I., 1985. Leaf-beetles (Coleoptera, Chrysomelidae) of Iran. Results of the Czechoslovak - Iranian expeditions of the 1973-1977. IV. **Rev. Ent. URSS**, 64 (4): 760-772.
- Medvedev, L.N., 1970. A list of Chrysomelidae collected by Dr. W. Wittmer in Turkey (Coleoptera). **Rev. Suis. Zool.**, 77, 2 (22): 309-319.
- Medvedev, L.N., 1975. Chrysomelidae collected by Dr. W. Wittmer in Turkey and Iran. **Mitt. Ent. Gesellsch. Basel**, 25 (1): 12-19.
- Pic, M., 1898. Coleopteres d'Anatolie et de Syrie. **Rev. Sc. Bourbonn.**, 9: 93-94.
- Reitter, E., 1901. Uebersicht der Arten der Coleopteren - Gattung *Pachnephorus* Redt. aus der palaearktischen Fauna. **Wien. Ent. Zeitung**, 20: 53-54.
- Sahlberg, J., 1913. Coleoptera mediterranea orientalia. Öfersigt of Finska Vetenskaps-Societetens Förhandlingar, 15, 19: 281 p.
- Tomov, V. and B. Gruev, 1975. Chrysomelidae (Coleoptera) collected by K.M. Guichard in Turkey, Greece and Yugoslavia. **Trav. Sci. Univ. Plovdiv, Bulgaria. Biol.**, 13 (4): 133-151.
- Warchalowski, A., 1971. Klucze do oznaczania owadów polski. Chrysomelidae. **Warszawa**, 19, 94a. 113 p.
- Warchalowski, A., 1976. Biogeographische Studien über die Blattkøfer der Pontischen Provinz (Coleoptera: Chrysomelidae). **Poliskie Pismo Entomologiczne Bulletin Entomologique de Pologne**, 46: 29-94.
- Weise, J., 1881-1893. Chrysomelidae, in: Naturgeschichte Insekten Deutschlands, Coleoptera, 6. Berlin. 1161 p.
- Weise, J., 1897. Chrysomelidae, in: Escherich K., Zoologische Ergebnisse einer von Dr. K. Escherich und Dr. L. Kathariner nach Cenral-Kleinasien unternommenen Reise. IV. Coleopteren. **Ent. Zeitung, Stettin**, 1-3 (58): 60-62.
- Winkler, A., 1929-1930. Chrysomelidae, in: Catalogus Coleopterorum Palaearcticae. **Wien**, 1127-1559.