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Contribution to the Knowledge of Click-Beetles Fauna of Turkey (Coleoptera: Elateridae)

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Abstract

The study is based upon material collected from different localities of Turkey, mainly in the eastern part of the country, between 1952-2005. In this work, 65 species of Elateridae belonging to 25 genera and 6 subfamilies are recorded.

Zusammenfassung

Die Arbeit behandelt Ausbeuten von Schnellkäfern (Elateridae), die an verschiedenen Fundorten in der Türkei, vor allem im Osten des Landes, zwischen 1952-2005 gesammelt wurden. Es werden 65 Arten nachgewiesen.

Introduction

Turkey is a big country with a small part called "Thrace" in Europe and a larger part called "Anatolia" in Asia. The two continents are separated by the Marmara Sea, the Straits of Bosphorus, and the Dardanelles. The Black Sea to the north, the Aegean to the west, and the Mediterranean to the south surround the large peninsula of Anatolia. Turkey is divided into seven geographical regions. The Eastern Anatolia Region is the largest and most mountainous region of Anatolia. The average altitude is 1500–2000 m. The distribution of species of flora and fauna along a north-south axis during the glacial periods shifted to an east-west axis during temperate intervals. This further increased the biological diversity. The topographic and climatic structure gives the country the opportunity to inhabit a rich and diverse fauna and flora.

Elateridae are a large family with about 400 genera and 9.000 species (BOOTH et al. 1990). They have a characteristic pronotum and an elongate-oval shape. The beetles are capable of righting themselves from an overturned position by arching their body and then explosively straightening out, a process which hurls the beetle into the air with a chance of landing on its feet, hence their common name "click beetles". Adult elaterids may be found crawling on plants, hiding in litter at the base of plants, and under stones, logs, etc. The larvae, called wireworms, live in the soil, leaf litter, or rotting wood. They feed on plant material, especially roots and tubers, or are predacious on other soil and wood inhabiting insects. Some can be serious pests but these occur mainly in temperate regions.

Some faunal studies on the click beetles of Turkey have been made by FAIRMAIRE (1866), BODEMEYER (1900), SCHENKLING (1925-1927), YÜKSEL (1970), LODOS (1998), CATE & PLATIA (1997), GUGLIELMI & PLATIA (1985), MERTLIK (2000), PLATIA (1998, 2003a, b, 2004a, b, c), PLATIA & GUDENZI (1996, 1998a, b, 1999, 2000a, b, 2002, 2004), PLATIA & MERTLIK (1996), PLATIA & SCHIMMEL (1991, 1992, 1993, 1994), PLATIA & TARNAWSKI (1998), WURST (1995) and WURST & SCHIMMEL (1995). These studies include many descriptions of new taxa from Turkey.

The material of the family Elateridae was collected in different localities of Turkey in 1952-2005. This is a contribution to the Turkish fauna of these important groups of insects based on the material collected predominantly in eastern Anatolia. The material is deposited in the Entomology Museum, Erzurum, Turkey (EMET) and in the collection of G. PLATIA. All taxa are listed in subfamilies and tribes according to SANCHEZ-RUIZ (1996). The recorded material is arranged in alphabetic order by the provinces' names.

Results

In this study, 65 species of 25 genera belonging to 6 subfamilies of Elateridae are reported for Turkey.

Subfamily Agrypninae CANDÈZE, 1857 Tribe Chalcolepidiini CANDÈZE, 1857

Genus *Calais* ESCHSCHOLTZ, 1829

Calais parreysii (STEVEN, 1830): Isparta: Sütçüler, 04.VI.1990, 1 ♀, leg. A. ÖZMEN. İçel: Tarsus, 18.X.1995, 1 ♂, leg. B. KARA.

Tribe Agrypnini CANDÈZE, 1857

Genus *Agrypnus* ESCHSCHOLTZ, 1829

Agrypnus crenicollis (MÉNÉTRIES, 1832): Ardahan: Posof, Aşıkzülali, 1890 m, 26.VII.2005, under stone, 1 ♀, 3 ♂♂, leg. M. KESDEK; Ilgar Pass, 1960 m, 26.VII.2005, under stone, 3 ♀♀, 4 ♂♂, leg. M. KESDEK. Artvin: Şavşat, Düzenli, 1710 m, 11.VI.2005, under stone, 1 ♂, leg. M. KESDEK; Yavuzköy, 1680 m, 11.VI.2005, under stone, 1 ♀, 1 ♂, leg. M. KESDEK. Erzurum: Çat, Çirişli Pass, 2100 m, 13.X.2005, under stone, 1 ♀, 1 ♂, leg. M. KESDEK; İspir, Madenköprübaşı, 1570 m, 07.VII.1996, on the ground, 1 ♀, leg. E. YILDIRIM; Şenkaya, Turnalı, 1800 m, 05.IX.1990; 1 ♀, 2 ♂♂, leg. E. YILDIRIM; Tortum, 1800 m, 25.VII.2004, under stone, 1 ♂, leg. M. KESDEK; Uzundere, Yayla Pass, 2450 m, 13.VI.2005, under stone, 1 ♀, leg. M. KESDEK.

Genus *Lacon* LAPORTE, 1838

- Lacon lepidopterus* (PANZER, 1801): Artvin: Genya Mountain, 2150 m, 12.VII.2004, *Pinus* sp., 3 ♀♀, 1 ♂, leg. M. KESDEK.
Lacon punctatus (HERBST, 1779): Artvin: Atilla valley, 2120 m, 12.VII.2004, *Pinus* sp., 6 ♀♀, 8 ♂♂, and 1976 m, 06.VIII.2005, under stone, 1 ♀, 2 ♂♂, leg. M. KESDEK; Madenler, 2110 m, 06.VIII.2005, *Pinus* sp., 1 ♀, 1 ♂, leg. M. KESDEK.

Tribe Oophorini GISTEL, 1856

Genus *Aeolosomus* DOLIN, 1982

- Aeolosomus rossii* (GERMAR, 1844): Adana: 12.VIII.1972, 1 ♀, 1 ♂, leg. H. YÜKSEL. Ankara: 22.VII.1953, 4 ♀♀, 8 ♂♂, leg. H. YÜKSEL; Hacıkadın, 25.VI.1953, 4 ♀♀, 2 ♂♂, leg. H. YÜKSEL. Erzurum: Umudum plateau, 2100 m, 25.VI.2003, under stone, 1 ♀, and 26.VII.2003, under stone, 1 ♀, leg. M. KESDEK. Karaman: 1017 m, 13.VII.1995, 5 ♂♂, leg. O. ONAT. Kayseri: 13.VI.1978, 1 ♀, 1 ♂, leg. A. TUNA. Konya: Güneysınır, Gurağaç, 1017 m, 23.VI.1999, 1 ♀, 3 ♂♂, and 19.VII.1999, 4 ♂♂, leg. M. KESDEK. Kütahya: 08.VII.1953, 1 ♀, 3 ♂♂, leg. N. LODOS. Yozgat: 18.VIII.1969, 1 ♀, 1 ♂, leg. H. AKÇAL.

Genus *Drasterius* ESCHSCHOLTZ, 1829

- Drasterius bimaculatus* (ROSSI, 1790): Adana: Kozan, Bağtepe, 29.V.1983, on the ground, 1 ♀, 1 ♂, leg. İ. BOLAT. Ankara: 21.VI.1953, *Eleagnus* sp., 2 ♀♀, 2 ♂♂, and 12.VIII.1953, 1 ♀, leg. H. YÜKSEL; Ayaş, 07.VII.1953, *Beta vulgaris*, 3 ♂♂, leg. H. YÜKSEL; Kocatepe, on the grass, 3 ♀♀, 6 ♂♂, leg. H. YÜKSEL. Erzurum: Horasan, 1850 m, 26.IX.2000, under stone, 1 ♀, 1 ♂, leg. M. KESDEK; Köprüköy, 1600 m, 18.05.2005, under stone, 2 ♀♀, 1 ♂, leg. M. KESDEK; Oltu, 1383 m, 12.VII.2004, under stone, 1 ♀, leg. E. YILDIRIM. Eskişehir: 23.VI.1953, *Beta vulgaris*, 3 ♀♀, 2 ♂♂, leg. H. YÜKSEL. Hatay: Erzin, 11.VIII.1995, 1 ♀, leg. İ. ÖZDAĞ. Iğdır: 850 m, 16.VII.2005, in the garden, 1 ♀, 1 ♂, leg. M. KESDEK; Suveren, 1150 m, 17.V.2005, under stone, 1 ♀, leg. M. KESDEK; Tuzluca, Çincevat, 1050 m, 17.V.2005, under stone, 1 ♀, leg. M. KESDEK. Kırıkkale: 13.VII.1968, *Beta vulgaris*, 1 ♂, leg. M. GÖK. Konya: Güneysınır, Gurağaç, 1017 m, 23.VI.1999, 1 ♂, and 04.VII.2000, 1 ♂, leg. M. KESDEK. Muğla: 15.VI.1953, 2 ♀♀, 5 ♂♂, leg. H. YÜKSEL. Yozgat: 15.VIII.1963, 1 ♂, leg. A. KOÇAK.

Subfamily Cardiophorinae CANDÈZE, 1859

Tribe Cardiophorini CANDÈZE, 1859

Genus *Cardiophorus* (ESCHSCHOLTZ, 1829)

- Cardiophorus analis* SCHWARZ, 1892: Bilecik: 600 m, 15.VI.1995, 1 ♀, 1 ♂, leg. E. YILDIRIM. Erzurum: Oltu, Sütkans, 1750 m, 25.VI.1996, 1 ♀, 1 ♂, leg. E. YILDIRIM; Palandöken Mountain, 2150 m, 01.VI.1996, 1 ♀, leg. E. YILDIRIM; University field, 1850 m, 25.VI.1996, 1 ♂, leg. E. YILDIRIM; 26.VI.1996, under stone, 2 ♀♀, 1 ♂, leg. E. YILDIRIM; Uzundere, waterfall, 17.VI.1996, 1 ♀, 1 ♂, leg. G. TOZLU. Konya: Beyşehir, 26.V.1997, on the ground, 1 ♀, leg. E. YILDIRIM.
Cardiophorus discicollis (HERBST, 1806): Ankara: 06.VII.1954, 1 ♀, leg. H. YÜKSEL. Eskişehir: 26.VI.1953, 2 ♀♀, and 17.IV.1954, *Prunus amygdali*, 1 ♀, 1 ♂, leg. H. YÜKSEL. Tokat: 13.X.1995, *Sinapis arvensis*, 5 ♀♀, 4 ♂♂, leg. N. LODOS. Yozgat: 15.VIII.

- 1963, *Malus domestica*, 2 ♀♀, 5 ♂♂, leg. A. KOÇAK.
- Cardiophorus megathorax* (FALDERMAN, 1835): Ankara: Hacıkadın, 08.VII.1953, *Cydonia vulgaris*, *Ulmus* sp., 3 ♀♀, 1 ♂, leg. H. YÜKSEL; Polatlı, 24.VI.1953, 1 ♂, leg. H. YÜKSEL. Artvin: Yusufeli, 950 m, 15.VIII.1997, 1 ♂, leg. Ş. AYDEMİR; İŖhan, 950 m, 20.V.1997, 7 ♀♀, 13 ♂♂, leg. L. GÜLTEKİN; Kınalıçam, 1800 m, 20.V.1997, 1 ♂, leg. L. GÜLTEKİN. Bilecik: 600 m, 15.VI.1995, 1 ♀, 1 ♂, leg. E. YILDIRIM. Erzincan: Tercan, 1150 m, 26.VI.1990, 1 ♂, leg. E. YILDIRIM. Erzurum: İspir, Madenköprübaşı, 1670 m, 07.VIII.1996, 1 ♂, leg. E. YILDIRIM; Oltu, 1750 m, 12.VI.1996, 1 ♂, leg. E. YILDIRIM; Ŗenkaya, Turnalı, 1800 m, 25.VII.1996, 2 ♀♀, 1 ♂, leg. E. YILDIRIM. EskiŖehir: 26.VI.1953, *Prunus amygdali*, *P. domestica*, *Triticum* sp., 7 ♀♀, 1 ♂, leg. H. YÜKSEL. Konya: Güneysınır, Gurağaç, 1017 m, 21.VI.1999, *Euphorbia* sp., 2 ♀♀, 4 ♂♂, leg. M. KESDEK; Sille, 1350 m, 10.VIII.1999, 1 ♂, leg. E. YILDIRIM. Sivas: Hisar, 22.VII.1953, 1 ♂, leg. H. YÜKSEL.
- Cardiophorus nigratissimus* BUYSSON, 1891: Ankara: 08.VII.1953, *Corylus avellana*, 1 ♀, leg. H. YÜKSEL; Hacıkadın, 08.VII.1953, *Ulmus* sp., 1 ♂, leg. H. YÜKSEL; Nallıhan, 22.VII.1953, 1 ♂, leg. H. YÜKSEL; Polatlı, 24.VI.1953, 2 ♂♂, leg. H. YÜKSEL. Diyarbakır: Silvan, 17.IV.1999, 1 ♀, leg. E. YILDIRIM. Erzincan: Tercan, 26.VI.1990, *Lens esculanta*, 1 ♀, leg. E. YILDIRIM. EskiŖehir: 26.VI.1953, *Prunus amygdali*, 2 ♀♀, 1 ♂, leg. H. YÜKSEL. Konya: Güneysınır, Gurağaç, 1017 m, *Euphorbia* sp., 1 ♀, leg. M. KESDEK.
- Cardiophorus parvulus* PLATIA & GUDENZI, 2000: Ankara: 16.VII.1953, 1 ♂, leg. H. YÜKSEL. Artvin: Yusufeli, İŖhan, 1430 m, 1 ♂, leg. L. GÜLTEKİN. Bilecik: 600 m, 15.VI.1995, 1 ♀, leg. E. YILDIRIM. EskiŖehir: 24.VI.1953, 1 ♀, 2 ♂♂, and 26.VI.1953, *Prunus amygdali*, 2 ♂♂, leg. H. YÜKSEL.
- Cardiophorus sacratus* ERICHSON, 1840: Erzurum: Ilıca, Atlıkonak, 1900 m, 11.VI.2000, on the ground, 1 ♀, 4 ♂♂, leg. M. KESDEK; Pasinler, 1800 m, 10.VII.1983, 1 ♀, 1 ♂, leg. A. TURAN. EskiŖehir: 26.VI.1963, *Prunus amygdali*, 1 ♂, leg. H. YÜKSEL. Kars: Digor, Yeniköy, 1695 m, 04.IX.2004, under stone, 1 ♀, leg. M. KESDEK; Kağızman, 1920 m, 16.V.1978, 1 ♂, leg. H. ÖZBEK; SarıkamıŖ, Karakurt, 1900 m, 27.V.2003, under stone, 1 ♀, leg. M. KESDEK; 1775 m, 18.V.2005, under stone, 1 ♀, 3 ♂♂, leg. M. KESDEK. Konya: Güneysınır, Gurağaç, 1017 m, 23.VI.1999, on the ground, 1 ♂, leg. M. KESDEK.
- Cardiophorus syriacus* (LINNAEUS, 1758): Erzincan: Tercan, Demirkapı, 1330 m, 25.V.2005, *Quercus* sp., 1 ♂, leg. M. KESDEK.
- Cardiophorus vestigialis* ERICHSON, 1840: Ankara: 24.VII.1967, 1 ♀, leg. H. YÜKSEL. Artvin: Atilla valley, 1976 m, 06.VIII.2005, under stone, 1 ♂, leg. M. KESDEK. Erzurum: AŖkale, Kop Pass, 2250 m, 14.X.2004, under stone, 1 ♂, leg. M. KESDEK; Pınarkapan, 1750 m, 27.V.2004, under stone, 1 ♀, leg. M. KESDEK; Pasinler, Çalıyazı, 1800 m, 10.VII.1997, on the ground, 1 ♀, leg. E. YILDIRIM; Ŗenkaya, Turnalı, 1750 m, 25.VII.1997, 1 ♂, leg. E. YILDIRIM; University field, 1850 m, 11.V.2000, under stone, 3 ♀♀, 2 ♂♂, leg. M. KESDEK; Yumaklı, 1850 m, 18.V.1999, 1 ♀, leg. L. GÜLTEKİN. İçel: Tarsus, 18.X.1995, 1 ♀, leg. B. KARA.
- Genus *Dicronychus* BRULLÉ, 1832
- Dicronychus rubripes* (GERMAR, 1824): Artvin: Atilla valley, 1976 m, 06.VIII.2005, under stone, 1 ♀, leg. M. KESDEK. Kars: SarıkamıŖ, Karakurt, 1775 m, 18.V.2005, under stone, 1 ♂, leg. M. KESDEK.

Subfamily Dendrometrinae GISTEL, 1856
Tribe Dendrometrini GISTEL, 1856

Genus *Athous* ESCHSCHOLTZ, 1829

- Athous haemorrhoidalis* (FABRICIUS, 1801): Ankara: 21.VI.1964, 1 ♂, leg. H. YÜKSEL. Erzurum: Şenkaya, Çakırbaba Pass, 2450 m, 09.VII.2003, under stone, 1 ♀, leg. M. KESDEK; İçmesu, 1600 m, 29.V.1999, 2 ♂♂, leg. L. GÜLTEKİN; Turnalı, 1750 m, 25.VI.1991, 1 ♀, 1 ♂, leg. E. YILDIRIM.
- Athous subfuscus* (O. F. MÜLLER, 1764): Artvin: Genya Mountain, 1782 m, 10.VI.2005, under stone, 1 ♂, leg. M. KESDEK; Madenler, 2110 m, under stone, 1 ♂, leg. M. KESDEK. Erzurum: 15.VI.1994, 1 ♀, 1 ♂, leg. E. YILDIRIM.
- Athous vittatus* (GMELIN, 1790): Erzurum: Aşkale, Tepebaşı, 1900 m, 08.VII.1997, 1 ♂, leg. L. GÜLTEKİN; Tortum, Söğütlü, 1700 m, 09.VII.1997, 1 ♂, leg. E. YILDIRIM; University field, 1850 m, 11.V.2000, under stone, 1 ♂, leg. M. KESDEK.

Genus *Elathous* REITTER, 1890

- Elathous nigricans* PLATIA & SCHIMMEL, 1991: Antalya: Turunçova, 19.VIII.1995, 1 ♂, leg. M. F. DÖNMEZ. Artvin: Ardanuç, Ferhatlı, 1920 m, 13.V.2000, in the forest, 2 ♂♂, leg. Ö. ÇALMAŞUR. Erzurum: Oltu, Sütkans, 1750 m, 17.VI.1996, 1 ♂, leg. G. TOZLU. Kahramanmaraş: Pazarcık, 1650 m, 25.VII.1990, on the ground, 1 ♀, leg. E. YILDIRIM.

Genus *Hemicrepidius* GERMAR, 1839

- Hemicrepidius hirtus* (HERBST, 1784): Kütahya: 09.VII.1963, 1 ♀, 2 ♂♂, leg. H. YÜKSEL.
- Hemicrepidius nigrutilus* (REITTER, 1890): Artvin: Atilla valley, 2120 m, 12.VII.2004, 1 ♀, leg. M. KESDEK; Genya Mountain, 2150 m, 12.VII.2004, *Pinus* sp., 1 ♂, and 1900 m, 05.VII.2005, under stone, 5 ♂♂, leg. M. KESDEK.
- Hemicrepidius schneideri* (KIESENWETTER, 1877): Ardahan: Çıldır, 1720 m, 13.VII.1996, 1 ♀, 2 ♂♂, leg. M. ŞİRİN; Posof, Ilgar Pass, 2450 m, 25.VII.2005, under stone, 1 ♀, 2 ♂♂, leg. M. KESDEK. Erzurum: Şenkaya, Çakırbaba Pass, 2450 m, 23.VIII.2004, under stone, 1 ♀, leg. M. KESDEK.
- Hemicrepidius vulpeculus* (REITTER, 1890): Ardahan: Çıldır, 1720 m, 13.VII.1996, 1 ♀, 2 ♂♂, leg. M. ŞİRİN. Erzurum: Nenehatun, 1900 m, 21.IV.2002, under stone, 1 ♀, leg. M. KESDEK; Pasinler, 1800 m, 02.VII.1983, 1 ♂, leg. S. CEYLAN; Umudum plateau, 2100 m, 25.VII.2003, under stone, 1 ♀, 2 ♂♂, leg. M. KESDEK; University field, 1850 m, 02.VII.1983, 1 ♂, leg. E. YILDIRIM. Gümüşhane: 1800 m, 07.V.1970, on the ground, 1 ♀, leg. H. ÖZBEK. Konya: Güneysınır, Gurağaç, 1017 m, 19.VII.1999, on the ground, 1 ♂, leg. M. KESDEK.

Genus *Stenagostus* THOMSON, 1859

- Stenagostus zurcheri* (REITTER, 1909): Adana: 02.VI.1972, 320 m, 2 ♀♀, 4 ♂♂, leg. H. YÜKSEL.

Tribe Prosternini GISTEL, 1856

Genus *Anostirus* THOMSON, 1859

- Anostirus ataturki* PLATIA & GUDENZI, 2000: Ardahan: Göle, 2100 m, 25.VII.2005, under stone, 1 ♀, leg. M. KESDEK. Artvin: Atilla valley, 1976 m, 06.VIII.2005, under stone, 1 ♀, leg. M. KESDEK. Erzurum: Olur, Süngübayır, 1750 m, 26.VII.1992, 1 ♀, 2 ♂♂, leg.

- İ. ASLAN; Pasinler, Hamamderesi, 1850 m, 26.X.2005, under stone, 1 ♂, leg. M. KESDEK. Kars: Digor, Bostanlı, 1115 m, 23.VII.2005, under stone, 1 ♀, leg. M. KESDEK. Yozgat: 15.VIII.1963, 1 ♀, leg. A. KOÇAK.
- Anostirus eschscholtzi* (FALDERMAN, 1835): Artvin: Atilla valley, 1976 m, *Pinus* sp., 1 ♀, leg. M. KESDEK.
- Anostirus gracilicollis* (STIERLIN, 1896): Erzurum: Şenkaya, Turnalı, 1800 m, weeds, 1 ♂, leg. E. YILDIRIM.
- Genus *Ctenicera* LATREILLE, 1829
- Ctenicera pectinicornis* (LINNAEUS, 1758): Artvin: Genya Mountain, 2150 m, 12.VII.2004, 1 ♀, leg. M. KESDEK.
- Genus *Prosternon* LATREILLE, 1834
- Prosternon syriacum* (BUYSSON, 1891): Erzurum: Oltu, Sütkans, 25.VI.1996, 1 ♂, leg. E. YILDIRIM.
- Prosternon tessellatum* (LINNAEUS, 1837): Erzurum: Şenkaya, Turnalı, 25.VII.1996, *Beta* sp., 2 ♀♀, 1 ♂, leg. E. YILDIRIM. Kars: Sarıkamış, 2300 m, 27.VI.1996, 1 ♀, leg. G. TOZLU.
- Genus *Selatosomus* STEPHENS, 1830
- Selatosomus amplicolis* (GERMAR, 1843): Ardahan: Posof, Aşıkzülali, 1960 m, 26.VII.2005, under stone, 1 ♀, leg. M. KESDEK.
- Selatosomus gravidus* (GERMAR, 1843): Bitlis: 03.VI.1972, 2 ♂♂, leg. M. DOĞANLAR. Erzurum: University field, 1850 m, 29.IV.2000, under stone, 1 ♀, leg. M. KESDEK. Iğdır: Aralık, 02.VIII.1997, on the ground, 1 ♂, leg. B. GÜL. Kars: Kağızman, Değirmendere, 1150 m, 17.V.2005, under stone, 1 ♂, leg. M. KESDEK.
- Selatosomus melancholicus alpestris* (MÉNÉTRIES, 1832): Erzurum: Şenkaya, 1800 m, 15.VI.1993, 1 ♀, leg. E. YILDIRIM.

Subfamily Elaterinae LEACH, 1815
Tribe Agriotini CHAMPION, 1896

- Genus *Agriotes* ESCHSCHOLTZ, 1829
- Agriotes gurgistanus* (FALDERMANN, 1835): Rize: 06.IX.1990, 1 ♀, leg. İ. BİRİNCİ. Trabzon: Araklı, Yalıboya, 1500 m, 09.VII.1997, 1 ♂, leg. S. SARAÇ; Vakfikebir, Kirazlı, 1480 m, 14.V.2004, 1 ♂, leg. E. CIHAN.
- Agriotes leinfesti* PLATIA & GUDENZI, 1998: Konya: Güneysınır, Gurağaç, 1017 m, 19.VII.1995, under stone, 1 ♀, leg. M. KESDEK.
- Agriotes lineatus* (LINNAEUS, 1767): Erzurum: Narman, 1950 m, 21.VII.1999, under stone, 1 ♂, leg. M. KESDEK; Şenkaya, Turnalı, 1850 m, 03.VI.1999, 1 ♀, leg. E. YILDIRIM.
- Agriotes nigropubens* REITTER, 1904: Muğla: Pişi, 15.V.1954, 3 ♀♀, 4 ♂♂, leg. H. YÜKSEL.
- Agriotes obscurus* (LINNAEUS, 1758): Erzurum: Şenkaya, Turnalı, 1800 m, 03.VI.1999, 1 ♂, leg. E. YILDIRIM. Konya: Güneysınır, Gurağaç, 1020 m, 10.VI.2001, under stone, 1 ♀, leg. M. KESDEK.
- Agriotes paludum* KIESENWETTER, 1859: Bingöl: 16.VI.1974, on the ground, 1 ♂, leg. M. DOĞANLAR. Erzincan: Üzümlü, Avcılar, 1330 m, 25.V.2005, under stone, 1 ♂, leg. M.

- KESDEK. Erzurum: Palandöken Mountain, 2100 m, 17.VII.1988, 1 ♂, leg. E. YILDIRIM; Pasinler, 1800 m, 12.VI.1996, under stone, 1 ♀, leg. M. KESDEK; Şenkaya, Turnalı, 1750 m, 25.VII.96, 1 ♀, leg. E. YILDIRIM; 1800 m, 03.VI.1997, 1 ♀, leg. E. YILDIRIM; Tortum, Kireçli Mountain, 2100 m, 25.VI.1996, 1 ♂, leg. E. YILDIRIM; University field, 1850 m, 02.VII.1993, on the ground, 1 ♂, leg. E. YILDIRIM, and 11.V.2000, under stone, 1 ♀, leg. M. KESDEK; Uzundere, waterfall, 1000 m, 09.VI.1996, 1 ♀, leg. E. YILDIRIM. Eskişehir: 26.VI.1953, *Cydonia vulgaris*, 1 ♂, leg. H. YÜKSEL. Kırıkkale: 13.VII.1968, 1 ♀, 1 ♂, leg. M. GÖK.
- Agriotes pilosellus* (SCHÖNHERR, 1817): Konya: Güneysınır, Gurağaç, 1020 m, 07.VI.2003, under stone, 1 ♂, leg. M. KESDEK.
- Agriotes proximus* (SCHWARZ, 1891): Ankara: 20.V.1954, 1 ♂, leg. H. YÜKSEL; Hacıkadın, 08.VII.1953, 1 ♂, and 29.VI.1953, *Cydonia vulgaris*, 1 ♀, leg. H. YÜKSEL. Bayburt: Yukarı Kop, Kop Pass, 2450 m, 05.VII.2005, under stone, 1 ♂, leg. M. KESDEK. Bilecik: 15.VI.1995, 1 ♂, leg. E. YILDIRIM. Erzurum: 11.VI.1971, 1 ♂, leg. H. ÖZBEK; Tortum, Güzelyayla Pass, 2128 m, 05.VII.2005, under stone, 1 ♀, leg. M. KESDEK. Konya: Güneysınır, Örenboyalı, 1020 m, 28.II.2002, under stone, 1 ♀, leg. M. KESDEK.
- Agriotes rufipalpis* (BRULLÉ, 1832): Adana: 29.V.1953, 1 ♂, and 08.VII.1972, 1 ♀, 3 ♂♂, leg. H. YÜKSEL. Ankara: 20.V.1954, *Eleagnus* sp., 1 ♂, leg. H. YÜKSEL. Erzurum: 08.VII.1972, 1 ♀, leg. H. ÖZBEK. Kütahya: 09.VII.1963, 1 ♀, 2 ♂♂, leg. H. YÜKSEL.
- Agriotes sputator* (LINNAEUS, 1758): Adana: 29.VI.1953, 1 ♂, leg. H. YÜKSEL. Ankara: 20.V.1953, 5 ♀♀, 13 ♂♂, and 15.VI.1953, 2 ♀♀, 3 ♂♂, and 03.VII.1953, *Prunus domestica*, 2 ♀♀, 4 ♂♂, leg. H. YÜKSEL; Ayaş, 15.VI.1953, 3 ♂♂, and 31.VI.1953, *Eleagnus* sp., 1 ♀, leg. H. YÜKSEL; Hacıkadın, 08.VII.1953, *Cydonia vulgaris*, 2 ♀♀, 3 ♂♂, leg. H. YÜKSEL. Diyarbakır: 15.V.1954, 1 ♀, leg. H. YÜKSEL. Erzincan: Tercan, Demirkapı, 1330 m, 25.V.2005, under stone, 1 ♂, leg. M. KESDEK. Erzurum: 02.VII.1968, 1 ♀, leg. H. YÜKSEL; Dumlu, 1800 m, 17.IV.2005, under stone, 1 ♀; Narman, 1900 m, 21.VII.1999, under stone, 1 ♂, leg. M. KESDEK; Pasinler, 1800 m, 13.VI.1996, on the ground 1 ♀, leg. E. YILDIRIM; Tekederesi, Palandöken Pond, 2150 m, 12.VI.2005, under stone, 1 ♂, leg. M. KESDEK; Tortum, Güzelyayla Pass, 2128 m, 05.VII.2005, under stone, 1 ♂, leg. M. KESDEK; Kireçli Mountain, 1950 m, 25.VI.1996, on the ground, 1 ♂, leg. E. YILDIRIM; Umudum plateau, 2100 m, 26.VII.2003, under stone, 1 ♀, leg. M. KESDEK; University field, 1850 m, 29.IV.2000, under stone, 1 ♂, leg. M. KESDEK. Eskişehir: 26.VI.1953, 1 ♀, and 17.IV.1954, 1 ♂, leg. H. YÜKSEL. Kars: Digor, Bostanlı, 1115 m, 23.VII.2005, under stone, 1 ♀, leg. M. KESDEK. Konya: Güneysınır, Gurağaç, 1020 m, 10.VI.2001, 1 ♀, and 18.VIII.2003, 1 ♂, leg. M. KESDEK. Muğla: 15.V.1954, 1 ♀, leg. H. YÜKSEL. Niğde: 26.V.1955, 1 ♀, 6 ♂♂, leg. H. YÜKSEL. Sivas: Sarkışla, 14.VI.1955, on the ground, 5 ♀♀, 3 ♂♂, leg. H. YÜKSEL. Yozgat: 15.VIII.1963, on the ground, 2 ♂♂, leg. A. KOÇAK.
- Agriotes tristiculus* REITTER, 1906: Isparta: Eğirdir, 22.VI.1997, 1 ♂, leg. T. Yaylalı.
- Agriotes ustulatus* (SCHALLER, 1783): Iğdır: 850 m, 16.VII.2005, in the garden, 1 ♂, leg. M. KESDEK.

Tribe Ampedini GISTEL, 1856

Genus *Ampedus* DEJEAN, 1833

- Ampedus cinnaberinus* (ESCHSCHOLTZ, 1829): Artvin: Genya Mountain, Madenler, 2110 m, 06.VIII.2005, *Pinus* sp., 1 ♀, 1 ♂, leg. M. KESDEK. Bingöl: 02.VI.1972, 1 ♂, and 16.V.1974, on the ground, 1 ♂, leg. M. DOĞANLAR. Erzurum: Oltu, Sütkans, 1900 m,

- 25.VI.1996, under stone, 1 ♀, leg. E. YILDIRIM; Şenkaya, Turnalı, 1800 m, 05.IX.1990, 1 ♀, 1 ♂, and 25.VI.1991, 1 ♀, 1 ♂, leg. E. YILDIRIM. Gümüşhane: 07.V.1990, on the ground, 1 ♀, 2 ♂♂, leg. H. ÖZBEK.
- Ampedus circassicus* (REITTER, 1887): Artvin: Genya Mountain, 1990m, 05.VII.2005, *Pinus* sp., 1 ♂, leg. M. KESDEK; Madenler, 2100 m, 06.VII.2005, *Pinus* sp., 1 ♀, leg. M. KESDEK.
- Ampedus decumanus* GURJEVA, 1977: Artvin: Atilla valley, 2120 m, 12.VII.2004, *Pinus* sp., 1 ♂, leg. M. KESDEK. Erzurum: Oltu, Sütkans, 1900 m, 25.VI.1997, 1 ♀, leg. E. YILDIRIM; Şenkaya, Turnalı, 1800 m, 25.VI.1991, *Beta* sp., 1 ♀, leg. E. YILDIRIM.
- Ampedus elegantulus* (SCHÖNHERR, 1817): Ankara: Hacıkadın, 25.VII.1953, *Salix* sp., 1 ♀, 1 ♂, leg. H. YÜKSEL. Yozgat: 18.VIII.1963, 1 ♂, leg. A. AKÇAL.
- Ampedus ochropterus* GERMAR, 1844: Artvin: Atilla valley, 2120 m, 12.VII.2004, *Pinus* sp., 1 ♀, leg. M. KESDEK; Genya Mountain, 1990 m, 05.VII.2005, *Pinus* sp., 1 ♂, leg. M. KESDEK. Kars: Sarıkamış, 1650 m, *Pinus* sp., 1 ♂, leg. M. KESDEK.
- Ampedus sinuatus* GERMAR, 1844: Artvin: Atilla valley, 2120 m, 12.VII.2004, under stone, 1 ♀, leg. M. KESDEK.
- Ampedus wachtangi* DOLIN, 1970: Artvin: Genya Mountain, 1990 m, 05.VIII.2005, on the ground, 1 ♀; Madenler, 2110 m, 05.VIII.2005, on the ground, 1 ♂, leg. M. KESDEK.

Tribe Elaterini LEACH, 1815

Genus *Mulsanteus* GOZIS, 1875

- Mulsanteus guillebelli* (MULSANT & GODART, 1853): Adana: Kozan, 26.VIII.1995, on the ground, 1 ♂, leg. M. TÜFEKLI. Ankara: 29.VI.1953, *Corylus* sp., 1 ♀, leg. H. YÜKSEL. Erzurum: Tortum, Alapınar, 1850 m, 19.VI.2003, under stone, 1 ♂, leg. E. YILDIRIM; Şenkaya, Turnalı, 1750 m, 25.VI.1991, on the ground, 1 ♂, leg. E. YILDIRIM. Konya: Beyşehir, Gökçimen, 25.VII.1997, 1 ♀, leg. F. AYDIN. Rize: 06.IX.1990, 1 ♀, and 07. IX.1990, on the ground, 2 ♂♂, leg. İ. BİRİNCİ.
- Mulsanteus schauumi* (CANDEZE, 1881): Antalya: Serik, 03.X.1993, on the ground, 1 ♀, leg. A. LÖKÇÜ.

Genus *Pittonotus* KIESENWETTER, 1859

- Pittonotus theseus* (GERMAR, 1817): Adana: 18.VI.1993, 2 ♀♀, 1 ♂, leg. Z. GÖKSUN; Balcalı, 15.VII.1993, 1 ♂, leg. İ. BOLAT; Kozan, Bağtepe, 29.V.1983, 2 ♀♀, 8 ♂♂, leg. İ. BOLAT. Ankara: 19.VII.1952, 1 ♀, leg. H. YÜKSEL; Gölbaşı, 21.VI.1976, 1 ♂, leg. H. YÜKSEL. Antalya: Gazipaşa, 17.VIII.1996, 1 ♀, 1 ♂, leg. M. ÇAKMAK; Manavgat, 30. VII.1996, 1 ♀, leg. Z. KURT; Serik, 10.IX.1993, 1 ♀, 1 ♂, leg. G. GÖKER. Aksaray: 15.VII.2002, 1 ♀, leg. A. TARIM. Burdur: Bucak, Çamlık, 11.VII.1996, 1 ♀, 1 ♂, leg. B. GÜL. Elazığ: 1067 m, 28.VII.1995, 1 ♀, 1 ♂, leg. C. PEKER. Erzincan: Kemaliye, 20.V. 1997, 1 ♀, leg. E. YILDIRIM. Gaziantep: Nizip, 06.VI.2002, 1 ♂, leg. A. EROĞLU. Hatay: Erzincan, 11.VII.1995, 1 ♀, 1 ♂, leg. İ. ÖZDAĞ; İskenderun, 02.VIII.1997, 1 ♀, 3 ♂♂, leg. R. GÖKÇE; Kuşlak, 06.VIII.1997, 1 ♀, 1 ♂, leg. S. ÇEKİÇ. Isparta: Atabey, 10.VII. 1993, 1 ♂, leg. H. KARAPINAR; Eğirdir, Ağıl, 22.VIII.1991, 1 ♀, leg. M. DİKMEN. İçel: Sazlıyayla, 05.IX.1993, 1 ♀, 5 ♂♂, leg. K. AKKOCA; Silifke, Balandız, 20.VI.1992, 1 ♀, leg. K. AKKOCA; Tarsus, 05.VII.1995, 1 ♀, 2 ♂♂, leg. E. SANAL. İzmir: Seferihisar, 21. VII.1998, 2 ♂♂, leg. R. GÖKÇE. Kahramanmaraş: 06.VII.1991, 1 ♂, leg. C. GÖZÜAÇIK. Konya: Beyşehir, Gökçimen, 25.VIII.1997, 1 ♂, leg. F. AYDIN; Güneysınır, Gurağaç,

1020 m, 10.VI.2001, under stone, 1 ♀, 2 ♂♂, leg. M. KESDEK. Mardin: Midyat, Haberli, 20.VIII.1973, 1 ♀, leg. V. KOCATEPE. Osmaniye: 23.VII.1993, 2 ♀♀, 3 ♂♂, leg. H. KARAPINAR. Rize: Fındıklı, 21.VIII.1997, 1 ♀, 1 ♂, leg. V. İMAMOĞLU. Şanlıurfa: 06.VI.1954, 1 ♂, leg. Ö. LAÇIN; Beykapı, 06.VI.1954, 1 ♂, leg. A. AYVALI; Halfeli, 25.VI.1991, 1 ♀, leg. Ö. LAÇIN.

Tribe Megapenthini GURJEVA, 1973

Genus *Prokraerus* REITTER, 1905

Prokraerus carinifrons (DESBROCHERS DES LOGES, 1875): Antalya: Gazipaşa, 17.VIII.1996, 1 ♀, leg. M. ÇAKMAK. Artvin: 15.IX.1997, on the ground, 1 ♂, leg. Ş. AYDEMİR; Yusufeli, Altıparmak Mountain, 1900 m, 12.VI.1997, 1 ♂, leg. L. GÜLTEKİN. Erzurum: Oltu, 1750 m, 08.VI.1988, 3 ♂♂, leg. H. ÖZBEK; Pasinler, 1800 m, 12.VII.1983, under stone, 1 ♂, leg. A. TURAN. Konya: Güneysınır, Gurağaç, 1017 m, 19.VII.1999, under stone, 1 ♀, leg. M. KESDEK.

Tribe Synaptini GISTEL, 1856

Genus *Adrastus* ESCHSCHOLTZ, 1829

Adrastus anatolicus PLATIA & SCHIMMEL, 1991: Adana: 10.VII.1974, 1 ♂, leg. M. DOĞANLAR, and 23.VIII.1993, 1 ♂, leg. Z. GÖKSUN; Ankara: 21.VII.1953, *Corylus avellanae*, 7 ♀♀, 9 ♂♂, leg. H. YÜKSEL; Ayaş, 07.VII.1953, *Corylus* sp., 1 ♀, 1 ♂, leg. H. YÜKSEL; Gölbaşı, 21.VI.1976, *Corylus avellanae*, *Eleagnus* sp., 2 ♀♀, 2 ♂♂, leg. H. YÜKSEL; Polatlı, 24.VI.1953, 3 ♀♀, 1 ♂, leg. H. YÜKSEL. Artvin: Yusufeli, Altıparmak Mountain, 1950 m, 12.VI.1997, 2 ♀♀, leg. L. GÜLTEKİN. Erzurum: Narman, 1900 m, 06.X.1990, on the ground, 1 ♀, 1 ♂, leg. E. YILDIRIM; Oltu, 1750 m, 25.VII.1971, 1 ♀, 1 ♂, and 08.VI.1988, 7 ♀♀, 6 ♂♂, and 28.VI.1988, 2 ♀♀, 3 ♂♂, leg. H. ÖZBEK, and 30.VI.1989, 3 ♀♀, 2 ♂♂, leg. E. YILDIRIM; Şenkaya, Turnalı, 1800 m, *Beta* sp., 1 ♀, leg. E. YILDIRIM; University field, 1850 m, 13. VI.1988, 2 ♂♂, and 21.VII.1999, *Beta saccharifera*, 1 ♀, 2 ♂♂, leg. E. YILDIRIM; Uzundere, 09.VI.1996, on the ground, 1 ♀, leg. E. YILDIRIM. Eskişehir: 24.VI.1953, 1 ♀, 1 ♂, leg. H. YÜKSEL. İçel: Erdemli, Doğulu, 3 m, 12.VII.1988, on the ground, 1 ♂, leg. Ş. DEMİR. Kütahya: 09.VII.1963, on the ground, 1 ♂, leg. H. YÜKSEL. Malatya: 30.IX.1984, 1 ♀, 1 ♂, leg. M. ERKOÇ. Sivas: Hisar, 22.VII.1953, 2 ♂♂, leg. H. YÜKSEL.

Genus *Peripontius* GURJEVA, 1979

Peripontius omissus (BUYSSON, 1889): Adana: 04.VIII.1995, on the ground, 2 ♀♀, 1 ♂, leg. İ. ÖZDAĞ. Ankara: 22.VI.1953, 1 ♀, and 21.VI.1964, *Ribes rubrum*, *Corylus avellane*, 2 ♀♀, 2 ♂♂, leg. H. YÜKSEL; Hacıkadın, 08.VII.1953, *Corylus avellane*, 2 ♂♂, leg. H. YÜKSEL. Antalya: 07.VIII.1994, 1 ♂, leg. A. ÜNLÜ. Artvin: Şavşat, Yavuzköy, 1680 m, 11.VI.2005, under stone, 1 ♀, leg. M. KESDEK; Yusufeli, Altıparmak Mountain, 1900 m, 12.VI.1997, under stone, 1 ♀, leg. L. GÜLTEKİN. Erzurum: Narman, 21.VII.1999, 1 ♀, leg. M. KESDEK; Şenkaya, İçmesu, 1600 m, 29.V.1999, 1 ♂, leg. L. GÜLTEKİN; Uzundere, Çamlıyamaç, 1200 m, 21.VI.1998, on the ground, 1 ♀, leg. E. YILDIRIM, and 09.VI.1996, under stone, 1 ♀, 1 ♂, leg. G. TOZLU. Yozgat: 18.VIII.1963, 4 ♀♀, 5 ♂♂, leg. A. AKÇAL.

Genus *Synaptus* ESCHSCHOLTZ, 1829

Synaptus filiformis (FABRICIUS, 1781): Ankara: 06.VII.1954, *Prunus amygdali*, *Salix* sp., 3 ♀♀, 1 ♂, and 08.VII.1972, *Eleagnus* sp., 1 ♀, leg. H. YÜKSEL; Hacıkadın, 08.VII.1953, *Eleagnus* sp., 1 ♂, leg. H. YÜKSEL; Mamak, 15.VII.1953, *Prunus amygdali*, *Salix* sp., *Malus communis*, 3 ♀♀, 1 ♂, leg. H. YÜKSEL; Nallıhan, 22.VII.1993, *Eleagnus* sp., 2 ♀♀, 2 ♂♂, leg. H. YÜKSEL; Yenimahalle, 17.VII.1995, on the ground, 1 ♀, leg. H. YÜKSEL. Antalya: Gazipaşa, 17.VIII.1996, 1 ♀, leg. M. ÇAKMAK. Ardahan: 10.V.1972, on the ground, 1 ♂, leg. M. DOĞANLAR. Artvin: Şavşat, Yavuzköy, 1680 m, 11.VI.2005, under stone, 1 ♀, leg. M. KESDEK; Yusufeli, Altıparmak Mountain, 1900 m, 12.VII.1997, 1 ♀, leg. L. GÜLTEKİN; Sarıgöl, 05.VII.1994, 1 ♂, leg. G. TOZLU. Aydın: Çine, 29.VII.1994, 1 ♀, leg. G. İNCİ. Bingöl: Solhan, Yenibaşak, 2120 m, 25.VI.2000, under stone, 1 ♀, leg. M. KESDEK. Erzurum: Narman, 06.10.1996, *Beta* sp., 1 ♀, leg. K. AKGÜN; Oltu, 25.VII.1971, 1 ♂, leg. H. ÖZBEK; Pasinler, 1800 m, 02.VII.1983, *Beta vulgaris* var. *rapa*, 1 ♂, leg. A. TURAN; Şenkaya, Turnalı, 1750 m, 25.VII.1996, 1 ♂, leg. E. YILDIRIM; Tortum, 1750 m, 06.VI.1979, *Malus* sp., 4 ♀♀, 10 ♂♂, leg. Ö. ALA-OĞLU; Alapınar, 1650 m, 19.VI.2003, 2 ♂♂, leg. E. YILDIRIM; Uzundere, 02.VII.1980, 1 ♂, leg. M. DOĞANLAR, and 07.VI.1996, 1 ♀, 1 ♂, leg. E. YILDIRIM and 11.VII.1999, 1 ♀, leg. M. KESDEK. Eskişehir: Bozan, Beylikhisar, 25.VI.1953, 3 ♀♀, 4 ♂♂, leg. H. YÜKSEL. Hatay: Erzin, 11.V.1995, on the ground, 1 ♀, leg. İ. ÖZDAĞ. Kars: Sarıkamış, Karakurt, 5 km S, 1780 m, 16.V.2005, under stone, 1 ♀, leg. M. KESDEK. Konya: Beyşehir, Gökçimen, 21.VII.1997, 1 ♀, 1 ♂, leg. F. AYDIN. Kütahya: 09.VII.1953, *Eleagnus* sp., *Vicia fabae*, 3 ♀♀, 3 ♂♂, leg. H. YÜKSEL.

Subfamily Melanotinae CANDÈZE, 1859
Tribe Melanotini

Genus *Melanotus* ESCHSCHOLTZ, 1829

Melanotus bajulus ERICHSON, 1841: Adana: 13.VII.1954, 1 ♀, leg. H. YÜKSEL. Ankara: 12.VIII.1953, 1 ♀, 1 ♂, leg. H. YÜKSEL; Hacıkadın, 08.VII.1953, *Eleagnus* sp., 1 ♀, 1 ♂, leg. H. YÜKSEL. Antalya: Turunçova, 19.VII.1995, 1 ♀, leg. M. F. DÖNMEZ.

Melanotus brunnipes (GERMAR, 1824): Erzurum: Hınıs, Söylemez, 1750 m, 28.VII.2005, under stone, 1 ♂, leg. M. KESDEK; Palandöken Mountain, 2150 m, 03.VIII.1995, 1 ♂, leg. E. YILDIRIM.

Melanotus fusciceps (GYLLENHAL, 1817): Adana: 16.VII.1993, 2 ♀♀, 2 ♂♂, leg. C. ARIKAN, and 12.V.1995, on the ground, 2 ♀♀, 1 ♂, leg. Y. SAYGILI; Balcalı, 15.VII.1993, 1 ♀, leg. İ. BOLAT; Ceyhan, Tatarlı, 08.IX.1995, 1 ♀, leg. C. ARIKAN; Kozan, Bağtepe, 29.V.1983, 5 ♀♀, 4 ♂♂, leg. İ. BOLAT, and 05.IV.1995, 1 ♀, leg. M. TÜFEKLI. Adıyaman: Besni, 22.VIII.1993, 1 ♂, leg. Ü. G. ZARARSIZ. Ankara: 19.VII.1952, 5 ♀♀, 4 ♂♂, and 16.VII.1953, 7 ♀♀, 11 ♂♂, leg. H. YÜKSEL and 23.VIII.1993, 1 ♀, leg. G. GÖKER, and 24.VII.1997, *Eleagnus* sp., *Corylus* sp., 2 ♂♂, leg. E. BALTA; Keçiören, 02.VII.1986, 2 ♂♂, leg. S. BEKTAŞ; Şereflikoçhisar, 10.VII.1953, 1 ♂, leg. H. YÜKSEL. Antalya: Gazipaşa, 13.VIII.1996, 1 ♂, leg. M. ÇAKMAK, and 27.VIII.1996, 1 ♂, leg. M. F. DÖNMEZ; Kumluca, 05.IX.1993, 1 ♂, leg. M. TORUNOĞLU; Manavgat, 30.VII.1996, 1 ♀, 1 ♂, leg. G. GÖKER; Serik, 10.IX.1993, 1 ♀, 3 ♂♂, leg. G. GÖKER; Turunçova, 19.VIII.1995, 2 ♀♀, 4 ♂♂, leg. M. F. DÖNMEZ. Aydın: Yenihisar, 28.VIII.1996, on the ground, 1 ♀, 2 ♂♂, leg. N. SEVINÇ. Çankırı: Kentbağ, 09.VIII.1991, light trap, 1 ♂, leg. Z. ŞİMŞEK. Denizli: Baldan, 09.IX.1994, on the ground, 1 ♂, leg. M. KANTAR. Elazığ:

- 1067 m, 28.VII.1996, 1 ♂, leg. C. PEKER. Erzincan: Kemaliye, 20.V.1979, 1 ♀, leg. H. ÖZİŞİK. Erzurum: 1850 m, 25.VII.1974, 1 ♀, leg. H. ÖZBEK; Ilıca, Eğerti, 1750 m, 15.VII.1999, under stone, 1 ♂, leg. M. KESDEK. Hatay: İskenderun, 15.VII.1990, 1 ♂, and 02.VII.1992, under stone, 1 ♀, 1 ♂, leg. H. YILMAZ; Kuşlak, 06.VIII.1997, 1 ♀, 2 ♂♂, leg. S. ÇEKİÇ. Isparta: Eğirdir, Serpil, 1017 m, 22.VII.1997, 1 ♀, leg. A. ÖZTOP; Sütçüler, 04.VI.1997, 1 ♀, leg. H. KÜRKÇÜ; 07.VI.1990, on the ground, 1 ♀, leg. M. KOÇAK. İçel: Çamlıyayla, 05.IX.1993, 1 ♀, 1 ♂, leg. A. AKKOCA; Erdemli, 20.VII.1963, 1 ♂, leg. Y. BÜLBÜL, and 15.VII.1996, on the ground, 1 ♀, 2 ♂♂, leg. H. MACIT; Silifke, 14.VII.1997, 1 ♂, leg. O. GÜMÜŞ; Balandız, 20.VIII.1992, 1 ♂, leg. A. TOPUZ; Tarsus, 03.VIII.1994, 1 ♀, leg. A. MACIT. İstanbul: 02.VII.1983, 2 ♀♀, 1 ♂, leg. H. ÖZBEK. İzmir: Seferihisar, 2 m, 14.VIII.1998, 1 ♀, and 21.X.1998, 1 ♀, leg. R. GÖKÇE. Kahramanmaraş: Afşin, 06.VII.1991, 1 ♂, and 19.VII.1991, 1 ♀, leg. C. EKEN; Elbistan, 1050 m, 15.VIII.1998, on the ground, 1 ♀, 1 ♂, leg. S. ÇAL. Kars: Sarıkamış, Sünnetçi, 1490 m, 16.VII.2005, under stone, 1 ♂, leg. M. KESDEK. Kilis: 21.VII.1994, 1 ♂, leg. G. ÇENGEL. Konya: Çumra, 16.VII.2000, in the orchard, 1 ♂, leg. M. KESDEK; Güneysınır, Gurağaç, 1017 m, 09.VII.1995, 1 ♀, and 11.VIII.1999, 1 ♀, 1 ♂, and 10.VI.2001, *Cyperus rotundus*, 2 ♀♀, 3 ♂♂, leg. M. KESDEK. Kütahya: 09.VII.1963, 1 ♀, 1 ♂, leg. H. YÜKSEL. Malatya: 12.VII.1994, 1 ♀, and 30.IX.1994, 1 ♀, 1 ♂, leg. M. ERKOÇ; Dam province, 08.VII.1955, 1 ♂, leg. H. YÜKSEL. Mardin: Midyat, Haberli, 20.VIII.1973, on the ground, 1 ♂, leg. V. KOCAGIL. Muğla: 15.VII.1958, 1 ♀, 2 ♂♂, leg. H. YÜKSEL, and 08.VII.1983, 2 ♀♀, 3 ♂♂, leg. H. BADEM; Datça, Kızlan, 04.VII.1997, 3 ♀♀, 1 ♂, leg. V. ÜZER. Muş: 12.VII.1996, on the ground, 2 ♀♀, 1 ♂, leg. F. AKMAN. Niğde: Bor, 21.VIII.1990, 1 ♀, leg. Ş. A. YÜCEL. Osmaniye: 13.VIII.1983, 1 ♀, 2 ♂♂, leg. A. ATAK, and 03.VIII.1991, 3 ♂♂, leg. N. KAMER, and 09.VI.1993, 1 ♂, and 23.VII.1993, on the ground, 1 ♂, leg. A. KOLÇAK; Kabayar, 17.VII.1997, 1 ♀, leg. S. AŞAR. Şanlıurfa: Halfeti, 25.VI.1991, on the ground, 1 ♂, leg. Ö. LAÇIN.
- Melanotus monticola* (MÉNÉTRIES, 1832): Erzurum: Dumlu, 1800 m, 17.IV.2005, under stone, 1 ♂, leg. M. KESDEK; Oltu, Başaklı, 1750 m, 15.VI.1994, 1 ♀, leg. H. ÖZBEK.
- Melanotus villosus* (GEOFFROY in FOURCROY, 1785): Ankara: 29.VI.1953, *Ribes rubrum*, 1 ♀, 2 ♂♂, and 08.VII.1953, *Corylus* sp., *Quercus* sp., *Eleagnus* sp., 1 ♀, 2 ♂♂, and 12.VII.1953, *Corylus avellana*, *Ribes rubrum*, 3 ♀♀, 3 ♂♂, leg. H. YÜKSEL. Antalya: Serik, 03.X.1993, 1 ♀, 1 ♂, leg. A. LÖKÇÜ. Artvin: Atilla valley, 2120 m, 11.VI.2005, *Pinus* sp., 1 ♀, 3 ♂♂, and 1976m, 06.VIII.2005, *Pinus* sp., 3 ♀♀, 2 ♂♂, leg. M. KESDEK; Genya Mountain, 2150 m, 11.VI.2005, *Pinus* sp., 2 ♀♀, 1 ♂, and 1990 m, 05.VIII.2005, *Pinus* sp., 6 ♂♂, leg. M. KESDEK; Madenler, 2110m, 06.VIII.2005, *Pinus* sp., 3 ♀♀, 1 ♂, leg. M. KESDEK. Erzurum: 08.VII.1972, on the ground, 1 ♀, leg. H. ÖZBEK; Ilıca, Eğerti, 1750 m, 26.VI.1997, under stone, 1 ♂, leg. İ. ASLAN; Oltu, Sarısaz, 1750 m, 28.V.1997, 1 ♂, leg. E. KILIÇ; Palandöken, 2200 m, 03.VIII.1995, under stone, 1 ♀, leg. E. YILDIRIM; Şenkaya, Turnalı, 1800 m, 05.IX.1990, 1 ♀, and 25.VI.1991, 2 ♀♀, 3 ♂♂, leg. E. YILDIRIM. İçel: Erdemli, Doğulu, 3 m, 12.VII.1998, under stone, 1 ♀, leg. Ş. DEMİR. Konya: Beyşehir, Gökçimen, 1000m, 25.VII.1997, 1 ♀, 2 ♂♂, leg. F. AYDIN; Güneysınır, Gurağaç, 1017 m, 23.VI.1999, weeds, 1 ♀, ♂♂, and 19.VII.1999, weeds, 2 ♀♀, 6 ♂♂, and 1020 m, 07.VI.2003, *Cyperus rotundus*, 1 ♀, leg. M. KESDEK. Muğla: Datça, Kızlan, 03.VII.1997, 1 ♀, leg. V. ÜZER. Rize: Kaçgar Mountain, 11.IX.1983, 1 ♀, leg. Y. YANAR.

Subfamily Negastrinae NAKANE & KISHII, 1956

Genus *Quasimus* GOZIS, 1886

Quasimus minutissimus (GERMAR, 1822): Ankara: 04.VII.1953, *Salix* sp., *Prunus domestica*, 13 ♀♀, 17 ♂♂, and 08.VII.1953, *Malus* sp., 1 ♀, and 15.VII.1953, *Prunus domestica*, *Vicia fabae*, *Salix* sp., 4 ♀♀, 7 ♂♂, leg. H. YÜKSEL, and 24.VII.1997, *Ribes* sp., 1 ♂, leg. S. AŞAR; Ayaş, 07.VII.1953, *Ribes* sp., 1 ♀, 1 ♂, leg. H. YÜKSEL. Konya: Güneysınır, Gurağaç, 1020 m, 04.VII.2003, weeds, 7 ♀♀, 10 ♂♂, leg. M. KESDEK; Çumra, 1017 m, 17.VII.2000, 9 ♀♀, 12 ♂♂, leg. M. KESDEK.

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Literaturbesprechung

LEHMAN, S.M. & FLEAGLE, J.G. (eds.) 2006: Primate Biogeography. Progress and Prospects. - Springer Sciences+Business, New York. 535 S.

Nachdem das Fachgebiet "Biogeographie" mit Gustav de Lattin in Deutschland eine herausragende Persönlichkeit hatte, ist es heute leider etwas ins Abseits geraten. Dieses Buch macht jedoch besonders deutlich, dass dies schade ist, denn gerade die Biogeographie leistet einen enormen Beitrag zum Verständnis artbildender Prozesse, evolutiver, ökologischer und verhaltensbiologischer Anpassungen. Primaten sind hierfür natürlich ideale Studienobjekte; ihre Systematik ist gut bekannt (und unterliegt fortschreitender Revision), Primaten sind meist relativ groß, gut gefärbt, laut, vielfach tagaktiv und meist leicht zu lokalisieren und identifizieren. Auch liegen zahlreiche fossile Funde in den meisten Regionen vor, so dass ihre evolutive Historie einigermaßen gut bekannt ist. Abgesehen vom ersten Kapitel ("Biogeography and Primates: A Review") und der Schlusssektion, sind die übrigen 11 Beiträge geographisch geordnet: Neotropis, Afrika, Madagaskar und Asien. Ein paar Beiträge seien beispielhaft genannt: "Nested distribution patterns and the historical biogeography of the primates of Guyana", "Ecological biogeography of primates in Guyana", "Geographic variation in Savanna Baboon ecology and its taxonomic and evolutionary implication", "Biogeography and evolution of the *Cercocebes-Mandrillus* clade: evidence from the face", "Lemur biogeography", "Primate biogeography and ecology on the Sunda Shelf Islands". Die Schlusssektion befasst sich mit der evolutionären Vergangenheit und betrachtet die Primatenbiogeographie und Phylogenie der letzten 55 Millionen Jahre, z.B. "Continental palaeobiogeography as phylogenetic evidence".

Eine herausragende und empfehlenswerte Darstellung für Primatologen, Biographen, Zoologen, Ökologen und Evolutionsforscher. R. GERSTMEIER

REBEL, B. 2006: Ungezähmt. Tiere der Wildnis. - F.A. Herbig Verlagsbuchhandlung, München. 176 S.

In diesem fantastischen Bildband zeigt der im Iran geborene Benny REBEL seine international prämierten Fotos. Meist sind dies spektakuläre Nahaufnahmen, die vielfach unter Lebensgefahr entstanden. Leider weiht uns der Fotograf so gut wie garnicht in seine Techniken und Geheimnisse ein, außer, dass man ihn in etwa 2 m Entfernung von einem Geparden (am Riss) mit einer "Stange" als Hilfsmittel fotografieren sieht oder er die Kamera zum fotografieren eines Kapborstenhörnchen halb in den Boden eingraben musste. Der Schwerpunkt seiner Motive liegt klar in Afrika, aber auch andere Regionen (Galapagos) wurden bereist. Die breite Palette von Bildern zeigt das biologische Einfühlungsvermögen und die besondere Kreativität des Fotografen.

Ein Genuss der besonderen Art, den sich kein Naturliebhaber entgehen lassen sollte.

R. GERSTMEIER

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