

**DIVING BEETLES (COLEOPTERA: DYTISCIDAE,  
NOTERIDAE) OF THE SOUTHWESTERN ANATOLIAN  
REGION OF TURKEY**

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**ABSTRACT:** Thirty species of Dytiscidae and one species of Noteridae were collected from 80 sampling stations in various aquatic habitats of the southwestern Anatolian region of Turkey (provinces of Antalya, Aydın, Afyon, Burdur, Denizli, Isparta and Muğla) between 2000 and 2002. Species distributions within Turkey are presented as a catalogue of provincial records. Seventeen species are here recorded for the first time from the southwestern Anatolian region. The presence of the three following species in Turkey is confirmed: *Dytiscus semisulcatus* MULLER, *Eretes griseus* (FABRICIUS), *Hydaticus ponticus* SHARP. Several species known previously from only a few localities in Turkey have been shown to have much wider distributions in the country. In accordance with the present study and literature data 49 species of Dytiscidae and 3 species of Noteridae are known from the southwestern Anatolian region.

**KEY WORDS:** Coleoptera, diving beetles, Dytiscidae, Noteridae, faunistics, Turkey

The Dytiscidae and Noteridae water beetles are commonly called the diving beetles, since their hind legs are usually highly modified for swimming. Both families are cosmopolitan in distribution; although in contrast to the latter occur primarily in the tropical regions of the world (Zalat et. al., 1999).

Thirtytwo species of Dytiscidae and three species of Noteridae have been recorded from the studied region in the following published works: Balfour-Browne (1963), Guéorguiev (1968, 1981), Fery (1991), Fery & Nilsson (1993), Shaverdo (2004), Barclay et al. (2001), and Fery et al. (2001, 2005).

The purpose of this paper is to present a checklist of the diving beetles of the southwestern Anatolian region of Turkey, combining literature data and the results of our collecting trips between 2000-2002.

**MATERIALS AND METHOD**

This study is based on 208 specimens of adult dytiscids and noterids collected in the southwestern Anatolian region of Turkey (Fig. 1;

Antalya, Aydın, Afyon, Burdur, Denizli, Isparta and Muğla) between 2000 and 2002. Specimens were collected from various aquatic habitats, using a ladle or dip net having a 1 mm mesh size. The beetles were killed in 70 % ethanol and in the laboratory were cleaned of debris with a small paintbrush. Aedeagophore was dissected under the stereomicroscope and left in 10 % KOH solution for about 1–2 hours. Samples were identified using keys by Zaitzev (1972), Franciscolo (1979) and Nilsson & Holmen (1995). Materials have been deposited in the Zoological Museum of the Gazi University (=GUZM), Ankara, Turkey.

In the checklist nomenclature is based on Nilsson (2005, 2006).

**Family NOTERIDAE**  
**Subfamily Noterinae Thomson, 1860**  
**Tribe Noterini Thomson, 1860**

***Canthydrus diophthalmus* (Reiche & Saulcy, 1855)**

**Literature records from Turkey:** Antalya (Barclay et al., 2001).

***Noterus clavicornis* (De Geer, 1774)**

**Material examined:** Antalya: 1 ex. Kalkan (Yeşilköy), 36° 17' N 29° 19' E, 8 m, 27.05.2001; Aydın: 1 ex. Söke (Avşar-Azap Lake), 37° 35' N 27° 26' E, 37 m, 23.06.2001.

**Literature records from Turkey:** Aksaray, Ankara, Balıkesir, Bilecik, Bolu, Isparta, İzmir, Kayseri, Konya, Manisa (Balfour-Browne, 1963; Guéorguiev, 1968, 1981; Darılmaz & Kiyak, 2006).

**Remarks:** New to Antalya and Aydın.

***Noterus crassicornis* (O.F.Müller, 1776)**

**Literature records from Turkey:** Adana, Isparta (Guéorguiev, 1981).

**Family DYTISCIDAE**  
**Subfamily Agabinae Thomson, 1867**  
**Tribe Agabini Thomson, 1867**

***Agabus (Acatodes) congener* (Thunberg, 1794)**

**Material examined:** Antalya: 1 ex., Beşkonak (Köprü river), 37° 07' N 31° 12' E, 112 m, 25.06.2000; Denizli: 1 ex., Çameli (Güre Mountain, vicinity of Kınıkyeri), 37° 11' N 29° 25' E, 1580 m, 27.06.2001.

**Literature records from Turkey:** Kars (Guéorguiev, 1981).

**Remarks:** This species is new to the south and west Anatolia regions.

***Agabus (Agabus) zimmermanni* Scholz, 1920**

**Literature records from Turkey:** Aydın (Guéorguiev, 1981).

***Agabus (Gaurodytes) biguttatus* (Olivier, 1795)**

**Literature records from Turkey:** Adana, Aksaray, Ankara, Bilecik, Bursa, Çankırı, Elazığ, Gaziantep, Gümüşhane, Isparta, İzmir, Kastamonu, Sakarya, Trabzon, Yozgat (Guéorguiev, 1981; Darılmaz & Kiyak, 2006).

***Agabus (Gaurodytes) bipustulatus (Linnaeus, 1767)***

**Material examined:** Antalya: 1 ex., Korkuteli, (vicinity of Söğütçük), 37° 02' N 30° 24' E, 904 m, 26.05.2002; Denizli: 1 ex., Çivril (Gökgöl), 38° 11' N 30° 03' E, 835 m, 20.04.2002; Isparta: 1 ex., Aksu (Anamas plateau, waterbed), 37° 49' N 31° 13' E, 1896 m, 14.07.2000; 1 ex., Yalvaç (Sultan mountains-brook), 38° 15' N 31° 22' E, 1565 m, 15.09.2000; 1 ex., Sütçüler (between İncidere and Kasımlar, spring water), 37° 34' N 31° 07' E, 1450 m, 23.08.2001; Muğla: 2 ex., between Yeniköy and Makıköy, 37° 02' N 27° 42' E, 350 m, 17.04.2000; 12 ex., Köyceğiz (Yayla village, Gölge Mountains), 37° 03' N 28° 47' E, 1730 m, 17.07.2000; 1 ex., Ula (Gölcük town, accumulation of brook), 37° 07' N 28° 31' E, 690 m, 18.07.2000.

**Literature records from Turkey:** Adana, Ankara, Bursa, Isparta, İzmir, Kars, Kastamonu, Kayseri, Konya, Trabzon, Van (Guéorguiev, 1968, 1981).

**Remarks:** New to Antalya, Denizli and Muğla.

***Agabus (Gaurodytes) conspersus (Marsham, 1802)***

**Material examined:** Afyon: 1 ex., Başmakçı (Akpınar, the brook flows to Acıgöl), 37° 50' N 29° 59' E, 850 m, 20.06.2002; Antalya: 3 ex., Korkuteli (the brook flows to Korkuteli dam), 37° 05' N 30° 08' E, 1074 m, 22.04.2001; 2 ex., Elmalı (Armutlu village, brook), 36° 33' N 29° 43' E, 1130 m, 22.04.2001; Burdur: 1 ex., Karamanlı dam and its around), 37° 25' N 29° 49' E, 1200 m, 20.06.2002; 1 ex., Çavdır (Kozagaç), 37° 07' N 29° 41' E, 1035 m, 22.06.2002; Denizli: 1 ex., Buldan (Süleymanlı lake), 38° 03' N 28° 46' E, 1175 m, 19.05.2001; 1 ex., Çameli (Güre mountain, vicinity of Kınıkyeri), 37° 11' N 29° 25' E, 1580 m, 27.06.2001; Isparta: 1 ex., Yalvaç (Sultan Mountains, between Bağkonak and Cankurtaran, the brook flows to Akşehir lake), 38° 14' N 31° 21' E, 1657 m, 27.06.2000; 1 ex., between Aksu and Yenişarbademli, 37° 43' N 31° 16' E, 1753 m, 14.07.2000; 2 ex., between Gelendost and Afşar (the brook flows Eğridir lake), 38° 07' N 30° 59' E, 65 m, 20.06.2001.

**Literature records from Turkey:** Adana, Bursa, Isparta, İzmir, Konya (Guéorguiev, 1968, 1981).

**Remarks:** New to Afyon, Antalya, Burdur and Denizli.

***Agabus (Gaurodytes) didymus (Olivier, 1795)***

**Material examined:** Antalya: 1 ex., Korkuteli (the brook flows to Korkuteli dam), 37° 05' N 30° 08' E, 1074 m, 22.04.2001; Isparta: 1 ex., between Aksu and Karağı (Aksu stream and dam lake), 37° 47' N 31° 06' E, 1305 m, 28.06.2001.

**Literature records from Turkey:** Afyon, Balıkesir, İzmir, Manisa (Guéorguiev, 1981).

**Remarks:** New to Antalya and Isparta.

***Agabus (Gaurodytes) dilatatus (Brullé, 1832)***

**Literature records from Turkey:** Adana, Ankara, Bursa, Gümüşhane, Isparta, İzmir, İzmit, Konya, Rize, Trabzon, Van (Balfour-Browne, 1963; Guéorguiev, 1968, 1981).

***Agabus (Gaurodytes) faldermanni Zaitzev, 1927***

**Material examined:** Isparta: 1 ex., Yalvaç (Sultan Mountains, between Bağkonak and Cankurtaran, the brook flows to Akşehir lake), 38° 14' N 31° 21' E, 1657 m, 27.06.2000; 1 ex., Muğla: Milas (between Taşlı and Kızılağaç), 37° 18' N 27° 39' E, 50 m, 17.04.2000.

**Literature records from Turkey:** Diyarbakır, Konya, Nevşehir (Guéorguiev, 1968, 1981; Nilsson, 1992).

**Remarks:** This species is new to the south and west Anatolia regions.

***Agabus (Gaurodytes) guttatus guttatus* (Paykull, 1798)**

**Material examined:** Antalya: 1 ex., Korkuteli (Öküzcü I dam), 36° 53' N 30° 02' E, 1200 m, 22.04.2001; 2 ex., Elmalı (vicinity of Çobanisa village), 36° 52' N 30° 01' E, 1170 m, 26.05.2002; Denizli: 2 ex., Çameli (Güre mountain, vicinity of Kınkyeri), 37° 11' N 29° 25' E, 1580 m, 27.06.2001.

**Literature records from Turkey:** Bolu, Kastamonu (Guéorguiev, 1981).

**Remarks:** This species is new to the south and west Anatolia regions.

***Agabus (Gaurodytes) nebulosus* (Forster, 1771)**

**Material examined:** Afyon: 1 ex., Dinar (Elmalı village, Pınarbaşı lake), 38° 04' N 30° 16' E, 1113 m, 22.06.2000; Antalya: 1 ex., Elmalı (Gölarla, Avlan lake), 37° 35' N 29° 57' E, 1200 m, 26.05.2002; Aydın: 1 ex., Söke (Yenidoğan road), 37° 37' N 27° 22' E, 15.04.2000; Burdur: 3 ex., Bucak (Onaç dam), 37° 39' N 30° 34' E, 831 m, 25.05.2002; Denizli: 1 ex., Çivril (between İnceköy and Seraserli), 38° 15' N 29° 47' E, 845m, 28.05.2002; Muğla: 8 ex., Yatağan (vicinity of Bozarmut, Alişar brook), 37° 17' N 28° 10' E, 400 m, 27.05.2002.

**Literature records from Turkey:** Adana, Bursa, Isparta, İstanbul, İzmir, Sinop, Trabzon (Guéorguiev, 1981).

**Remarks:** New to Afyon, Antalya, Aydın, Burdur, Denizli and Muğla.

***Ilybius fuliginosus fuliginosus* (Fabricius, 1792)**

**Material examined:** Isparta: 2 ex., Aksu (between Aksu and Yılanlı), 37° 48' N 31° 00' E, 1215 m, 28.06.2001; Konya: 2 ex., Taşkent (Belpınarı), 36° 54' N 32° 20' E, 1738 m, 25.05.2001.

**Literature records from Turkey:** Bingöl, Kars, Mersin (Guéorguiev, 1981).

**Remarks:** New to the southwestern Anatolian region.

***Ilybius jaechi* (Fery & Nilsson, 1993)**

**Literature records from Turkey:** Aydın, Tekirdağ (Fery & Nilsson, 1993).

***Platambus maculatus* (Linnaeus, 1758)**

**Material examined:** Burdur: 2 ex., Karamanlı (vicinity of Kılavuz village, the brook flows to Karataş lake), 37° 22' N 29° 52' E, 1062 m, 23.06.2000; Muğla: 2 ex., Fethiye (south of Karahasan, Esen brook), 36° 56' N 29° 38' E, 1390 m, 20.08.2001; 3 ex., Fethiye (vicinity of Seki, Esen brook), 36° 49' N 29° 33' E, 1130 m, 20.08.2001; 10 ex., Kemer (Seki brook), 36° 50' N 29° 34' E, 1150 m, 13.09.2001.

**Literature records from Turkey:** Adana, Bilecik, Kars (Guéorguiev, 1981).

**Remarks:** New to the southwestern Anatolian region.

**Subfamily Colymbetinae Erichson, 1837**

**Tribe Colymbetini Erichson, 1837**

***Colymbetes fuscus* (Linnaeus, 1758)**

**Material examined:** Aydın: 2 ex., Söke (Yenidoğan road), 37° 37' N 27° 22' E, 15.04.2000; 1 ex., Söke (Büyük Menderes river), 37° 30' N 27° 20' E, 19 m, 23.06.2002; Burdur: 1 ex., Yeşilova (Bayındır village), 37° 39' N 29° 45' E, 1030

m, 20.06.2002; Konya: 1 ex., between Taşkent and Alanya (20 km), 36° 51' N 32° 31' E, 1740 m, 20.04.2001.

**Literature records from Turkey:** Afyon, Aksaray, Erzurum, İzmir, Nevşehir (Guéorguiev, 1981; Darılmaz & Kiyak, 2006).

**Remarks:** New to Aydın, Burdur and Konya.

### **Subfamily Dytiscinae Leach, 1815** **Tribe Aciliini Thomson, 1867**

#### ***Graphoderus cinereus* (Linnaeus, 1758)**

**Material examined:** Afyon: 2 ex., Dinar (vicinity of Elmalı village, Pınarbaşı lake), 38° 04' N 30° 16' E, 1113 m, 22.06.2000; 1 ex., Dinar (Elderesi, Pınarbaşı lake), 38° 04' N 30° 16' E 1020 m 28.05.2002.

**Literature records from Turkey:** Ağrı Mountain (Guéorguiev, 1981).

**Remarks:** This species is new to the south and west Anatolia regions.

### **Tribe Cybistrini Sharp, 1882**

#### ***Cybister (Cybister) tripunctatus lateralis* (Fabricius, 1798)**

**Material examined:** Aydın: 1 ex., Söke (Avşar, Azap lake), 37° 35' N 27° 26' E, 37 m, 23.06.2001.

**Literature records from Turkey:** Adana, İzmir, Mersin (Guéorguiev, 1981).

**Remarks:** New to the southwestern Anatolian region.

#### ***Cybister (Scaphinectes) lateralimarginalis torquatus* (Fischer von Waldheim, 1829)**

**Material examined:** Denizli: 4 ex., Çivril (vicinity of Beydilli village, Işıklı lake), 38° 11' N 30° 03' E, 920 m, 22.06.2000; 1 ex., Çivril (Bucak, Işıklı lake), 38° 14' N 29° 51' E, 838 m, 26.06.2001; 1 ex., Çardak (Gemiş, Acıgöl), 37° 46' N 29° 50' E, 860 m, 20.06.2002; Burdur: 2 ex., Yazır lake, 36° 59' N 29° 44' E, 1515 m, 23.06.2000.

**Literature records from Turkey:** Adana, Eskişehir, İzmir, Konya, Mersin, Van (Guéorguiev, 1981).

**Remarks:** New to the southwestern Anatolian region.

### **Tribe Dytiscini Leach, 1815**

#### ***Dytiscus circumflexus* Fabricius, 1801**

**Material examined:** Aydın: 1 ex., Söke (Yenidoğan road), 37° 37' N 27° 22' E, 15.04.2000.

**Literature records from Turkey:** Adana, Balıkesir, Iğdır, Isparta, Kars, Kütahya (Guéorguiev, 1981).

**Remarks:** New to Aydın.

#### ***Dytiscus dimidiatus* Bergsträsser, 1778**

**Literature records from Turkey:** Manisa (Guéorguiev, 1981).

**Remarks:** This species is also known in Samsun province (ponds near the village of Çarşamba, 11.07.1992, 2 specimens, leg. M. Toledo) from Turkey (pers. comm.).

***Dytiscus marginalis marginalis* Linnaeus, 1758**

**Material examined:** Antalya: 1 ex., Beşkonak (between Çaltepe and Değirmenözü, Kanlı brook), 37° 20' N 31° 13' E, 492 m, 26.06.2000; 1 ex., Alanya (Güney village, Zeytinbükü brook), 36° 40' N 31° 53' E, 125 m, 11.07.2000; Denizli: 2 ex., Çivril (Gökgöl), 38° 11' N 30° 03' E, 835 m, 20.04.2002; Isparta: 4 ex., Yalvaç (Sultan mountains), 38° 15' N 31° 22' E, 1565 m, 15.09.2000; Konya: 1 ex., Hadim (vicinity of Ardıçınarı fountain), 36° 53' N 32° 23' E, 1930 m, 11.07.2001; Muğla: 3 ex., Ula (Gölcük), 37° 07' N 28° 31' E, 690 m, 18.07.2000.

**Literature records from Turkey:** Adapazarı, Ankara, Iğdır, Kars, Kayseri, Nevşehir (Guéorguiev, 1968, 1981).

**Remarks:** This species is new to the south and west Anatolia regions.

***Dytiscus semisulcatus* O.F. Müller, 1776**

**Material examined:** Isparta: 1 ex., Aksu (Karağı village), 37° 45' N 31° 07' E, 1210 m, 10.08.2000; Muğla: 2 ex., Köyceğiz (Yayla village, Gölgeci mountains), 37° 03' N 28° 47' E, 1730 m, 17.07.2000.

**Literature records from Turkey:** Without detailed locality data (Guéorguiev, 1981; Nilsson, 2005).

**Remarks:** This species is confirmed for Turkey and the first detailed records are given.

**Tribe Eretini Crotch, 1873*****Eretes griseus* (Fabricius, 1781)**

**Material examined:** Antalya: 1 ex., Serik (Kırbaş village, water accumulation), 37° 09' N 30° 49' E, 57 m, 19.08.2001.

**Literature records from Turkey:** Without detailed locality data (Miller, 2002; Nilsson, 2005).

**Remarks:** This species is confirmed for Turkey and the first detailed records are given.

**Tribe Hydaticini Sharp, 1882*****Hydaticus (Guignotites) ponticus* Sharp, 1882**

**Material examined:** Aydın: 1 ex., Nazilli (Esenköy, Akçay), 37° 47' N 28° 18' E, 75 m, 12.09.2001; Burdur: 1 ex., Çavdır (Yamadı village), 37° 07' N 29° 36' E, 960 m, 22.06.2002.

**Literature records from Turkey:** Without detailed locality data (Guéorguiev, 1981; Nilsson, 2005).

**Remarks:** This species is confirmed for Turkey and the first detailed records are given.

***Hydaticus (Hydaticus) transversalis laevisculptus* Zaitzev, 1910**

**Material examined:** Denizli: 1 ex., Acıpayam (Yeniköy, water channel), 37° 22' N 29° 25' E, 863 m, 07.08.2000.

**Literature records from Turkey:** Adana, Kütahya (Guéorguiev, 1981).

**Remarks:** New to the southwestern Anatolian region.

**Subfamily Hydroporinae Aubé, 1836**  
**Tribe Bidessini Sharp, 1882**

***Bidessus anatolicus anatolicus* Wewalka, 1972**

**Literature records from Turkey:** Adana, Antalya (Guéorguiev, 1981; Biström, 1987).

***Bidessus calabricus* Guignot, 1957**

**Literature records from Turkey:** Ankara, Antalya, Çanakkale, İstanbul, İzmir, İzmit, Muğla (Fery, 1991).

***Bidessus delicatulus* (Schaum, 1844)**

**Literature records from Turkey:** Ankara, Muğla, İzmir (Guéorguiev, 1981; Fery, 1991).

***Bidessus nasutus* Sharp, 1887**

**Literature records from Turkey:** Konya, Isparta (Guéorguiev, 1981).

***Hydroglyphus geminus* (Fabricius, 1792)**

**Material examined:** Muğla: 4 ex., border of Muğla (Gazeller, Akçay), 37° 20' N 28° 43' E, 440 m, 22.06.2001.

**Literature records from Turkey:** Adana, Aksaray, Ankara, Antalya, Aydın, Balıkesir, Bolu, Bursa, Edirne, Gümüşhane, İçel, İzmir, Kastamonu, Kayseri, Kilis, Konya, Manisa, Nevşehir, Tuz Gölü, Trabzon (Guéorguiev, 1981; Darılmaz & Kiyak, 2006).

**Remarks:** New to Muğla.

**Tribe Hydroporini Aubé, 1836**

***Deronectes parvicollis* (Schaum, 1864)**

**Material examined:** Isparta: 1 ex., Yalvaç (the northwest of Sultan mountains), 38° 15' N 31° 18' E, 1438 m, 19.07.2001.

**Literature records from Turkey:** Adana, Bilecik, Erzurum, Niğde, Yozgat (Guéorguiev, 1981; Fery et. al., 2001).

**Remarks:** New to the southwestern Anatolian region.

***Deronectes sahlbergi* Zimmermann, 1932**

**Literature records from Turkey:** İzmir, Bilecik, Muğla (Guéorguiev, 1981; Fery et. al., 2001).

***Deronectes wittmeri* Wewalka, 1971**

**Literature records from Turkey:** Antalya (Guéorguiev, 1981).

***Graptodytes veterator behningi* Zaitzev, 1927**

**Literature records from Turkey:** Afyon, Ankara, Balıkesir, Bingöl, Bursa, Erzurum, Konya, İzmir (Guéorguiev, 1981).

***Hydroporus bodemeyeri* Ganglbauer, 1900**

**Literature records from Turkey:** Adana, Adapazarı, Anlara, Bilecik, Bolu, Isparta, İzmir, Muğla (Guéorguiev, 1981).

***Hydroporus kozlovskii* Zaitzev, 1927**

**Literature records from Turkey:** Antalya, Artvin, Bingöl, Erzincan, Gümüşhane, Kars, Muş, Rize (Guéorguiev, 1981; Shaverdo, 2004).

***Hydroporus marginatus* (Duftschmid, 1805)**

**Material examined:** Muğla: 1 ex., Köyceğiz (Yayla village, Gölgeli mountains), 37° 03' N 28° 47' E, 1730 m, 17.07.2000.

**Literature records from Turkey:** Ankara, Kars, Konya, Sivas, Trabzon (Guéorguiev, 1981).

**Remarks:** This species is new to the south and west Anatolia regions.

***Hydroporus planus* (Fabricius, 1781)**

**Material examined:** Antalya: 1 ex., Elmalı (Armutlu village), 36° 33' N 29° 43' E, 1130 m, 22.04.2001.

**Literature records from Turkey:** Adana, Balıkesir, Bursa, Erzincan, İstanbul, Kars, Trabzon (Guéorguiev, 1981).

**Remarks:** New to the southwestern Anatolian region.

***Hydroporus pubescens* (Gyllenhal, 1808)**

**Literature records from Turkey:** Adana, Aksaray, Antalya, Bilecik, Bursa, Erzincan, Gümüşhane, İzmir, Manisa, Niğde, Ordu, Sakarya, Trabzon (Guéorguiev, 1981; Darılmaz & Kiyak, 2006).

***Nebrioporus (Nebrioporus) suavis* (Sharp, 1882)**

**Material examined:** Antalya: 6 ex., İbradı (Ürünlü village, Altınbeşik cave), 37° 02' N 31° 36' E, 800 m, 03.08.2000; 1 ex., Kaş (exit road of Gömbe) 36° 30' N 29° 35' E, 1275 m, 05.08.2000; Isparta: 1 ex., Yalvaç (Sultan mountains, Bağkonak), 38° 13' N 31° 17' E, 1260 m, 19.07.2001; Muğla: 1 ex., Dalaman (between Yanıklar and İlice), 22.05.2000.

**Literature records from Turkey:** Adana, Amasya, Ankara, Antalya, Balıkesir, Bilecik, Bursa, Eskişehir, Gümüşhane, İstanbul, İzmir, Konya, Ordu, Sakarya, Sinop, Trabzon (Guéorguiev, 1981).

**Remarks:** New to Isparta and Muğla.

***Nebrioporus (Nebrioporus) turca* (Seidlitz, 1887)**

**Material examined:** Antalya: 1 ex., Finike (between Yazır and Kıltepe, Akçay), 36° 34' N 29° 57' E, 21.05.2000; 1 ex., between Bağluğaç village and Kayadibi village, 22.05.2000; Isparta: 1 ex., Centrum, (vicinity of Güneyce) 37° 39' N 30° 43' E, 666 m, 23.08.2001; Konya: 1 ex., Hadim (vicinity of Ardıçınarı fountain), 36° 53' N 32° 23' E, 1930 m, 11.07.2001

**Literature records from Turkey:** Adana, Antalya, Elazığ, İzmir, Trabzon (Guéorguiev, 1968, 1981).

**Remarks:** New to Isparta and Konya.

***Oreodytes davisii davisii* (Curtis, 1831)**

**Material examined:** Antalya: 2 ex., Elmalı (Akçay, exit road of Avşar village), 36° 33' N 29° 43' E, 1116 m, 21.05.2000.

**Literature records from Turkey:** Erzurum (Erman & Erman, 2002).

**Remarks:** The first record of *O. davisii davisii* from Turkey was given by Erman & Erman (2002). In this study the second record is given for Turkey. Also this species is new to the south and west Anatolia regions.



***Scarodytes halensis halensis* (Fabricius, 1787)**

**Material examined:** Antalya: 4 ex., Alanya (Yeşilöz brook), 36° 22' N 32° 11' E, 20 m, 26.05.2001; 7 ex., between Gazipaşa and Kocadere, 36° 15' N 32° 19' E, 30 m, 26.05.2001; 1 ex., Alanya (Demirtaş, Serde stream), 36° 24' N 32° 10' E, 10 m, 27.06.2002; 8 ex., Gazipaşa (Gazipaşa stream), 36° 15' N 32° 19' E, 25 m, 27.06.2002; Isparta: 1 ex., Sütçüler (the south of Sipahiler), 37° 38' N 30° 58' E, 1209 m, 26.06.2000; 1 ex., Sütçüler (Sipahiler, Taşlıkkar brook), 37° 38' N 30° 59' E, 1185 m, 15.07.2000; 6 ex., Yenişarbademli (Gedikli, edge of Beyşehir lake), 37° 56' N 31° 18' E, 1140 m, 02.08.2000; 3 ex., Aksu (Karağı village, brook), 37° 45' N 31° 07' E, 1220 m, 14.09.2000.

**Literature records from Turkey:** Afyon, Aksaray, Ankara, Bursa, Eskişehir, Gümüşhane, Isparta, İçel, İzmir, Kayseri, Van, Yozgat (Guéorguiev, 1968, 1981; Darılmaz & Kıyak, 2006).

**Remarks:** New to Antalya.

**Tribe Hydrovatini Sharp, 1882*****Hydrovatus cuspidatus* (Kunze, 1818)**

**Literature records from Turkey:** Afyon, Adana (Guéorguiev, 1981).

**Tribe Hygrotini Portevin, 1929*****Hygrotus (Coelambus) confluens* (Fabricius, 1787)**

**Literature records from Turkey:** Adana, Ankara, Bolu, Eskişehir, Isparta, İzmir, Kayseri, Konya, Mersin, Nevşehir (Guéorguiev, 1981).

***Hygrotus (Coelambus) lernaeus* (Schaum, 1857)**

**Literature records from Turkey:** Adana, Afyon, Ankara, Antalya, Aydın, Diyarbakır, Elazığ, Erzurum, Eskişehir, Kayseri, Kocaeli, Konya, Muğla, Niğde, Samsun, Sivas, Van, Yozgat (Guéorguiev, 1968, 1981; Fery et. al., 2005).

***Hygrotus (Hygrotus) inaequalis* (Fabricius, 1777)**

**Literature records from Turkey:** Bolu, Erzurum, Isparta, Konya, Manisa, Nevşehir (Balfour-Browne, 1963; Guéorguiev, 1981).

**Subfamily Laccophilinae Gistel, 1856****Tribe Laccophilini Gistel, 1856*****Laccophilus hyalinus hyalinus* (De Geer, 1774)**

**Material examined:** Antalya: 1 ex., Finike (between Yazır and Kıltepe, Akçay), 36° 34' N 29° 57' E, 21.05.2000; 5 ex., Elmalı (Akçay, exit road of Avşar village), 36° 33' N 29° 43' E, 1116 m, 21.05.2000; 4 ex., Manavgat (Boztepe, Alara stream), 36° 39' N 31° 39' E, 20 m, 21.04.2001; 1 ex., Alanya (Yeşilöz stream), 36° 22' N 32° 11' E 20 m, 26.05.2001; 1 ex., Konyaaltı (Boğaz stream), 36° 51' N 30° 37' E, 15 m, 26.05.2001; 1 ex., Kalkan (Yeşilköy), 36° 17' N 29° 19' E, 8 m, 27.05.2001; 1 ex., Korkuteli (Söğütçük village), 37° 01' N 30° 20' E, 930 m, 26.06.2002; 1 ex., Manavgat (Hocalar village, Sarısu), 36° 52' N 31° 15' E, 22 m, 26.06.2002; Burdur: 2 ex., Karamanlı (Kılavuz village), 37° 22' N 29° 52' E, 1062 m, 23.06.2000; 4 ex., Gölhisar (Gölhisar lake), 37° 07' N 29° 36' E, 960 m, 13.09.2001; Isparta: 1 ex., Aksu (Karağı village, brook), 37° 45' N 31° 07' E, 1220 m, 14.09.2000; Konya: 1 ex., between Taşkent and Alanya (20km), 36° 51' N 32° 31' E, 1740 m, 20.04.2001.

**Literature records from Turkey:** Adana, Afyon, Aksaray, Aydın, Bolu, Isparta, İzmir, Kırşehir, Kilis, Manisa, Sakarya (Guéorguiev, 1981; Darılmaz & Kıyak, 2006).

**Remarks:** New to Antalya, Burdur and Konya.

***Laccophilus minutus* (Linnaeus, 1758)**

**Material examined:** Antalya: 1 ex., between Bağlağaç village and Kayadibi village, 22.05.2000; 1 ex., Manavgat (Boztepe, Alara stream), 36° 39' N 31° 39' E, 20 m, 21.04.2001; 1 ex., between Gazipaşa and Kocadere 36° 15' N 32° 19' E, 30 m, 26.05.2001; Aydın: 1 ex., Söke (Avşar, Azap lake), 37° 35' N 27° 26' E, 37 m, 23.06.2001; Burdur: 2 ex., Karamanlı (Karamanlı dam), 37° 24' N 29° 49' E, 1206 m, 27.06.2001; 1 ex., Gölhisar (Gölhisar lake), 37° 07' N 29° 36' E, 960 m, 20.08.2001; Denizli: 1 ex., Buldan (Süleymanlı lake), 38° 03' N 28° 46' E, 1175 m, 19.05.2001; Isparta: 1 ex., Eğridir (Kovada dam), 37° 20' N 30° 52' E, 920 m, 21.06.2001; 1 ex., Gölcük lake, 37° 43' N 30° 30' E, 1410 m, 28.06.2001.

**Literature records from Turkey:** Adana, Afyon, Aksaray, Ankara, Aydın, Balıkesir, Bolu, Bursa, Gümüşhane, Isparta, İzmir, Kayseri, Konya, Manisa, Sinop, Sivas, Trabzon (Guéorguiev, 1981; Darılmaz & Kıyak, 2006).

**Remarks:** New to Antalya, Burdur and Denizli.

***Laccophilus poecilus* Klug, 1834**

**Material examined:** Antalya: 1 ex., Kalkan (Yeşilköy), 36° 17' N 29° 19' E, 8 m, 27.05.2001; Aydın: 1 ex., Söke (Avşar, Azap lake), 37° 35' N 27° 26' E, 37 m, 23.06.2001.

**Literature records from Turkey:** Adana, Antalya, Aydın, Bolu, Isparta, İzmir, Konya, Manisa, Nevşehir (Guéorguiev, 1981).

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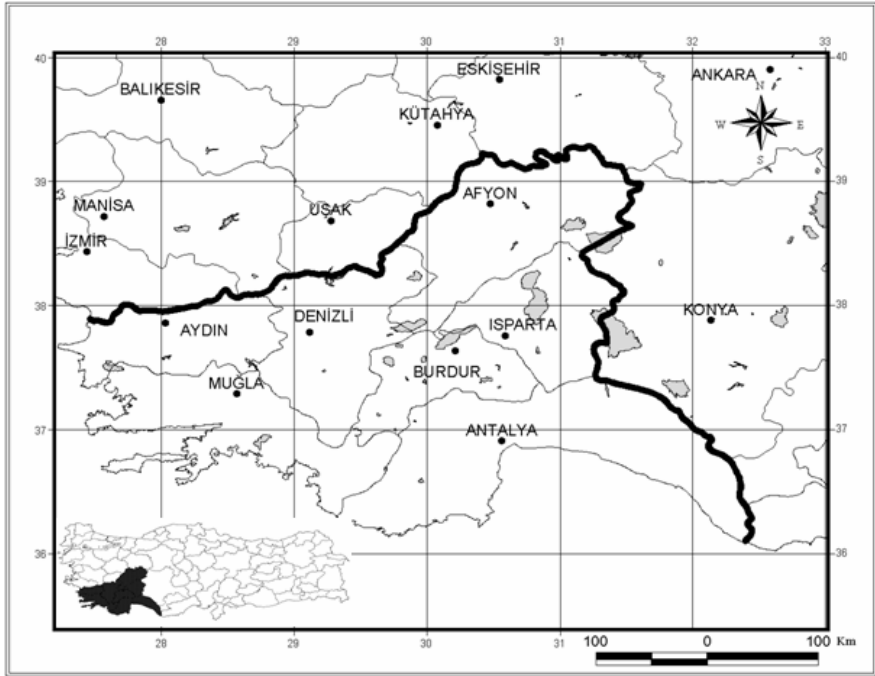
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**Fig. 1.** Map of the southwestern Anatolian region of Turkey (delimited by bold line).