

AQUATIC COLEOPTERA FAUNA (ADEPHAGA: DYTISCIDAE, HALIPLIDAE, NOTERIDAE) IN SIVAS, TURKEY

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ABSTRACT: It has been evaluated Dytiscidae, Haliplidae and Noteridae (Coleoptera: Adephaga) species that were collected in Sivas, Turkey in 2009-2010. In the research area, there have been determined; 25 species belonging to the family Dytiscidae, six species belonging to the family Haliplidae and one species belonging to the family Noteridae. In this species; *Haliphus ruficollis* (De Geer, 1774) and *Haliphus obliquus* (Fabricius, 1787) have been recorded for the first time from Central Anatolian Region. In Sivas province, 27 species have been recorded for the first time.

KEY WORDS: Dytiscidae, Noteridae, Haliplidae, Fauna, Sivas, Turkey.

Dytiscidae is the largest family into the suborder Adephaga. It includes about 4000 species in 175 genera in the world. 885 species known in Palearctic region. 137 species and nine subspecies known from Turkey (Balke et al. 2004; Jäch and Balke 2008; Darılmaz and Kıyak 2009; Taşar et al. 2012).

The family Noteridae has 250 species in the world. About 30 species known in Palearctic region. 3 species known from Turkey (Darılmaz and Kıyak 2009).

The family Haliplidae has 220 species in 5 Genera in the world. About 70 species known in Palearctic region. 16 species known from Turkey (Nardi 2001; Darılmaz and Kıyak 2009).

The purpose of this study is to make a contribution to Turkish aquatic Coleoptera fauna.

MATERIAL AND METHODS

The specimens were collected from freshwater habitats of Sivas province with sieves that having 3,15x1 mm mesh size, between June-September in 2009, 2010. The beetles were killed with ethyl acetate and were stored in small bottles until identification. Specimens were cleaned with brush before identification. Aedeagus of collected specimens were dissected under a stereo microscope in the laboratory. The identified species have been converted into museum material.

RESULTS

In the freshwater habitat of Sivas province, 32 aquatic beetle species belonging to Dytiscidae, Noteridae and Haliplidae were recorded. Two species belonging to Haliplidae are recorded from Central Anatolian Region for the first time. And 27 species are recorded from the Sivas province for the first time.

The aquatic beetle fauna of Turkey has not fully been presented; therefore, many studies are needed.

Dytiscidae

Agabus biguttatus (Olivier, 1795)

Material examined: Sivas, Ulaş, 39.26.46K 37.01.52 D, 27.07.2010, 1374 m, 1♂; Beypınar, 39.32.02K 37.44.19 D, 23.05.2010, 1384 m, 3♂♂.

Distribution in Turkey: Adana, Afyon, Aksaray, Ankara, Artvin, Bayburt, Bilecik, Bursa, Çankırı, Çorum, Erzincan, Erzurum, Gümüşhane, Isparta, İçel, İzmir, Kayseri, Kastamonu, Rize, Sakarya, Trabzon, Yozgat, Toros Dağları, Karaboğa Dağı (Elazığ or Bingöl) (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012; İncekara et al. 2010).

Remark: Newly recorded from Sivas.

Agabus bipustulatus (Linnaeus, 1767)

Material examined: Sivas, Ulaş, 39.26.46K 37.01.52 D, 27.07.2010, 1374 m, 1♂; Kaphıcalar Cıvarı, 39.16.47K 37.27.20 D, 28.07.2010, 1496 m, 2♂♂; Müsel, 39.05.47K 37.29.20 D, 23.05.2010, 1474 m, 4♂♂; Akıncılar Su Şehri, 40.06.43K 36.20.11 D, 14.09.2010, 869 m, 1♂. Ulaş-Aşağı ocak, 39.29.00K 37.00.39 D, 15.09.2010, 1316 m, 3♂♂ 2♀♀; Koyuncu, 39.31.35K 36.53.04 D, 31.07.2010, 1391 m, 1♂; Tecer, 39.25.12K 37.04.06 D, 23.05.2010, 1396 m, 5♂♂; Pusat Brj., 40.01.50K 37.27.12 D, 22.05.2010, 1510 m, 5♂♂; Gürün-Gökpınar Gölü, 38.39.23K 37.18.04 D, 06.01.2009, 1484 m, 1♂; Söğütçü köyü, 39.27.32K 36.46.10 D, 28.05.2009, 1386 m, 2♂♂; Karagömlek, 39.33.59K 36.57.37 D, 23.05.2010, 1412 m, 1♂; Beşpre, 39.49.22K 37.17.31 D, 22.05.2010, 1286 m, 1♂; Çukurbelen, 39.49.27K 37.10.19D, 27.07.2010, 1285 m, 1♂.

Distribution in Turkey: Afyon, Ankara, Antalya, Balıkesir, Çorum, Erzincan, Isparta, İzmir, Kayseri, Manisa, Yozgat (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012; İncekara et al. 2010; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

Agabus conspersus (Marsham, 1802)

Material examined: Sivas, İmranlı, Piredede, 39.51.48K 38.12.39 D, 23.07.2009, 1653 m, 1♂; Pusat Brj., 40.01.50K 37.27.12 D, 22.05.2010, 1510 m, 1♂; Keçili, 39.31.05K 36.51.52 D, 01.06.2009, 1373 m, 1♂; Tödürge Gölü, 39.52.16K 37.36.25 D, 21.05.2010, 1306 m, 1♂; Sarıdemir, 39.30.37K 36.50.24D, 28.05.2010, 1370 m, 1♂.

Distribution in Turkey: Afyon, Ankara, Antalya, Burdur, Bursa, Çorum, Denizli, Erzincan, Erzurum, Isparta, İzmir, Kayseri, Konya, Toros Dağları (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012; İncekara et al. 2010; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

Agabus labiatus (Brahm, 1790)

Material examined: Sivas, Kumarlı, 39.13.44K 37.11.03 D, 23.05.2010, 1527 m, 1♂; Akkaya, 39.32.33K 37.01.24 D, 23.05.2010, 1354 m, 1♂; Beypınar, 39.32.02K 37.44.19 D, 23.05.2010, 1384 m, 2♂♂; Zara, 39.50.56K 37.50.42 D, 28.05.2009, 1347 m, 2♂♂; Kovalı, 39.34.25K 37.09.57 D, 28.05.2009, 1310 m, 2♂♂; Yağdonduran, 39.21.08K 37.08.23 D, 23.05.2010, 1556 m, 6♂♂; Tecer, 39.25.12K 37.04.06 D, 23.05.2010, 1396 m, 1♂; Pusat Brj., 40.01.50K 37.27.12 D, 22.05.2010, 1510 m, 1♂; Durulmuş, 39.51.01K 37.21.33 D, 22.05.2010, 1312 m, 1♂; İmranlı, 39.50.54K 38.34.40 D, 28.05.2009, 1619 m, 6♂♂; Hafik, Çukurkelen, 39.49.26K 37.10.20 D, 28.05.2009, 1280 m, 1♂; Sucak, 39.50.56K 37.50.45 D, 21.05.2010, 1354 m, 1♂; İmranlı, 39.52.28K 38.05.03 D, 21.05.2010, 1594 m, 1♂; Ahmet Hacı, 39.54.29K 37.48.12 D, 23.05.2010, 1350 m, 1♂; İsafil gölü, 39.52.17K 37.23.12D, 22.05.2010, 1200 m, 2♂♂.

Distribution in Turkey: Çorum, İzmir, Kayseri (Darılmaz and Kıyak 2009; Darılmaz et al. 2010; İncekara et al. 2010).

Remark: Newly recorded from Sivas.

Agabus nebulosus (Forster, 1771)

Material examined: Sivas, Hafik Gölü, 39.50.59K 37.22.11 D, 28.05.2009, 1302 m, 1♂; Akkaya, 39.32.33K 37.01.24 D, 23.05.2010, 1354 m, 1♂; Kovalı, 39.34.25K 37.09.57 D, 28.05.2009, 1310 m, 2♂♂; Söğütçü, 39.27.32K 36.46.10 D, 28.05.2009, 1386 m, 2♂♂; Durulmuş, 39.51.01K 37.21.33 D, 22.05.2010, 1312 m, 1♂; Tödürge Gölü, 39.52.16K 37.36.25 D, 21.05.2010, 1306 m, 2♂♂.

Distribution in Turkey: Afyon, Ankara, Antalya, Aydın, Burdur, Bursa, Çorum, Denizli, Erzincan, İstanbul, İzmir, Kayseri, Muğla, Samsun, Sinop, Toros Dağları (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012; İncekara et al. 2010; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

Colymbetes fuscus (Linnaeus, 1758)

Material examined: Sivas, İmranlı, Piredede, 39.51.48K 38.12.39 D, 23.07.2009, 1653 m, 6♂♂ 2♀♀; Kaplıcalar Cıvarı, 39.16.47K 37.27.20 D, 28.07.2010, 1496 m, 4♂♂; Hafik Gölü, 39.52.08K 37.23.05 D, 23.07.2009, 1296 m, 1♂; Zara, 39.50.56K 37.50.42 D, 28.05.2009, 1347 m, 1♂; Kovalı, 39.34.25K 37.09.57 D, 28.05.2009, 1310 m, 1♂; Koyuncu, 39.31.35K 36.53.04 D, 31.07.2010, 1391 m, 7♂♂; Yağdonduran, 39.21.08K 37.08.23 D, 23.05.2010, 1556 m, 2♂♂; Pusat Brj., 40.01.50K 37.27.12 D, 22.05.2010, 1510 m, 2♂♂; Aşağıyıldız, 39.45.32K 36.46.19 D, 31.07.2010, 1270 m, 1♂; Durulmuş, 39.51.01K 37.21.33 D, 22.05.2010, 1312 m, 1♂; Sucak, 39.50.56K 37.50.45 D, 21.05.2010, 1354 m, 1♂; Ahmet Hacı, 39.54.29K 37.48.12 D, 23.05.2010, 1350 m, 1♂.

Distribution in Turkey: Afyon, Aksaray, Burdur, Çorum, Erzincan, Erzurum, İzmir, Kayseri, Konya, Samsun (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012; İncekara et al. 2010).

Remark: Newly recorded from Sivas.

Hygrotus impressopunctatus (Schaller, 1783)

Material examined: Sivas, Hafik Gölü, 39.52.08K 37.23.05 D, 23.07.2009, 1296 m, 1♂; Demiryurt, Tödürge Gölü, 39.52.24K 37.36.34 D, 23.07.2009, 1301 m, 3♂♂.

Distribution in Turkey: Afyon, Ankara, Çorum, Erzincan, Erzurum, Konya, Kütahya, Samsun, Tuz Gölü, Toros Dağları (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012).

Remark: Newly recorded from Sivas.

Hygrotus lernaeus (Schaum, 1857)

Material examined: Sivas, Ekinli:39.52.21K 37.40.34 D, 27.07.2010, 1320 m, 1♂; Kayapınar, 39.19.13K 36.20.29 D, 31.07.2010, 1221 m, 1♂; Hafik Gölü, 39.52.08K 37.23.05 D, 23.07.2009, 1296 m, 1♂; Göydün, 39.48.35K 37.12.34 D, 22.05.2010, 1269 m, 6♂♂; Akkaya, 39.32.33K 37.01.24 D, 23.05.2010, 1354 m, 1♂; Zara, 39.50.56K 37.50.42 D, 28.05.2009, 1347 m, 5♂♂; Kovalı, 39.34.25K 37.09.57 D, 28.05.2009, 1310 m, 2♂♂; Yağdonduran, 39.21.08K 37.08.23 D, 23.05.2010, 1556 m, 2♂♂; Pusat Brj., 40.01.50K 37.27.12 D, 22.05.2010, 1510 m, 1♂; Söğütçü, 39.27.32K 36.46.10 D, 28.05.2009, 1386 m, 2♂♂; Hafik'e yakın göl, 39.51.24K 37.26.41 D, 23.07.2009, 1292 m, 13♂♂; Hanlı, 39.27.28K 36.39.08 D, 31.07.2010, 1308 m, 1♂; Yarhisar Gölü, 39.51.27K 37.27.10 D, 24.07.2009, 1286 m, 4♂♂; Hanlı, 39.27.28K 36.39.08 D, 27.06.2010, 1304 m, 1♂; Sucak, 39.50.56K 37.50.45 D, 21.05.2010, 1354 m, 3♂♂; Karagömlük, 39.33.59K 36.57.37 D, 23.05.2010, 1412 m, 1♂; Alciören, Hoşik, 39.47.43K 37.27.31D, 24.07.2009, 1373 m, 6♂♂; Çukurbelen, 39.49.27K 37.10.19D, 27.07.2010, 1285 m, 3♂♂.

Distribution in Turkey: Adana, Ankara, Antalya, Aydın, Diyarbakır, Elazığ, Erzurum, Eskişehir, Muğla, Kayseri, Kocaeli, Konya, Niğde, Samsun, Sivas, Van, Yozgat (Darılmaz and Kıyak 2009).

Hygrotus saginatus (Schaum, 1857)

Material examined: Sivas, Hafik Gölü, 39.50.59K 37.22.11 D, 28.05.2009, 1302 m, 4♂♂ 2♀♀; Durulmuş, 39.51.01K 37.21.33 D, 22.05.2010, 1312 m, 2♂♂; İmranlı, 39.52.28K 38.05.03 D, 21.05.2010, 1594 m, 2♂♂; Çukurbelen, 39.49.27K 37.10.19D, 27.07.2010, 1285 m, 1♂.

Distribution in Turkey: Antalya, Hatay, İçel, Kayseri, Ordu, Toros Dağları (Darılmaz and Kıyak 2009; İncekara et al. 2010).

Remark: Newly recorded from Sivas.

Hygrotus inaequalis (Fabricius, 1777)

Material examined: Sivas, Ekinli, 39.52.21.K 37.40.34 D, 27.07.2010, 1320 m, 1♂; Zara, 39.50.56K 37.50.42 D, 28.05.2009, 1347 m, 1♂; Tecer, 39.25.12K 37.04.06 D, 23.05.2010, 1396 m, 7♂♂; Hanlı, 39.27.28K 36.39.08 D, 31.07.2010, 1308 m, 3♂♂; Sucak, 39.50.56K 37.50.45 D, 21.05.2010, 1354 m, 2♂♂.

Distribution in Turkey: Afyon, Ankara, Artvin, Bolu, Çorum, Erzincan, Erzurum, Isparta, Kayseri, Konya, Manisa, Samsun (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012; İncekara et al. 2010; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

Hydrovatus cuspidatus (Kunze, 1818)

Material examined: Sivas, Hanlı, 39.27.28K 36.39.08 D, 27.06.2010, 1304 m, 1♂; Demiryurt, Tödürge Gölü, 39.52.24K 37.36.34 D, 23.07.2009, 1301 m, 1♂.

Distribution in Turkey: Afyon, Ankara, Antalya, Kayseri, Samsun, Toros Dağları (Darılmaz and Kıyak 2009; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

Hydroglyphus geminus (Fabricius, 1792)

Material examined: Sivas, Ulaş, 39.26.46K 37.01.52 D, 27.07.2010, 1374 m, 1♂; Yıldızeli, Kumyurt, 39.43.01K 36.49.32 D, 31.07.2010, 1358 m, 6♂♂; Sarıkışla, Kayapınar, 39.19.13K 36.20.29 D, 31.07.2010, 1221 m, 7♂♂; Akıncılar Su Şehri, 40.06.43K 36.20.11 D, 14.09.2010, 869 m, 30♂♂; 10♀♀; Ulaş, Aşağı ocak, 39.29.00K 37.00.39 D, 15.09.2010, 1316 m, 7♂♂; Gürün, Gökpinar Göleti, 38.39.23K 37.18.04 D, 06.01.2009, 1484 m, 2♂♂; İmranlı, 39.50.54K 38.34.40 D, 28.05.2009, 1619 m, 5♂♂; Hanlı, 39.27.28K 36.39.08 D, 31.07.2010, 1308 m, 3♂♂; Hafik, Çukurkelen, 39.49.26K 37.10.20 D, 28.05.2009, 1280 m, 1♂; Sucak, 39.50.56K 37.50.45 D, 21.05.2010, 1354 m, 2♂♂; İmranlı, Kemreli, 39.51.07K 38.14.19D, 27.07.2010, 1633 m, 1♂; Gürün, İncesu, 38.46.07K 37.07.27D, 28.07.2010, 1600 m, 3♂♂; Çukurbelen, 39.49.27K 37.10.19D, 27.07.2010, 1285 m, 2♂♂; İkizel, Kılık, 39.48.06K 36.10.12D, 14.09.2010, 1214 m, 10♂♂ 5♀♀; Yenice, 39.41.09K 37.00.34D, 27.07.2010, 1256 m, 2♂♂; Ulaş, 39.27.35K 37.01.03D, 27.07.2010, 1374 m, 3♂♂; Gemerek, Karaağıl, 39.07.29K 36.05.16D, 24.07.2009, 1226 m, 1♂.

Distribution in Turkey: Adana, Afyon, Aksaray, Ankara, Antalya, Artvin, Aydın, Balıkesir, Bolu, Bursa, Çorum, Edirne, Erzincan, Erzurum, Eskişehir, Gümüşhane, Isparta, İçel, İzmir, Kastamonu, Kayseri, Konya, Kilis, Manisa, Muğla, Rize, Samsun, Trabzon, Yozgat (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012).

Remark: Newly recorded from Sivas.

Bidessus nasutus Sharp, 1887

Material examined: Sivas, Demiryurt, Tödürge Gölü, 39.52.24K 37.36.34 D, 23.07.2009, 1301 m, 1♂; Alciören, Hoşik, 39.47.43K 37.27.31D, 24.07.2009, 1373 m, 1♂; Tödürge Gölü, 39.52.15K 37.36.24D, 27.07.2010, 1304 m, 2♂♂.

Distribution in Turkey: Afyon, Kayseri, Konya, Samsun (Darılmaz and Kıyak 2009).

Remark: Newly recorded from Sivas.

Ilybius fuliginosus (Fabricius, 1792)

Material examined: Sivas, Yıldızeli, Kumyurt, 39.43.01K 36.49.32 D, 31.07.2010, 1358 m, 2♂♂; Kangal, Armağan, 39.15.47K 37.25.46 D, 28.07.2010, 1477 m, 1♂; Mançlık, 39.05.27K 37.14.05 D, 28.07.2010, 1505 m, 1♂; Müsel, 39.05.47K 37.29.20 D, 23.05.2010, 1474 m, 4♂♂; Tecer, 39.25.12K 37.04.06 D, 23.05.2010, 1396 m, 1♂; Pusat Brj., 40.01.50K 37.27.12 D, 22.05.2010, 1510 m, 2♂♂; Gürün, Gökpinar Göleti, 38.39.23K 37.18.04 D, 06.01.2009, 1484 m, 3♂♂; Aşağıyıldız, 39.45.32K 36.46.19 D, 31.07.2010, 1270 m, 2♂♂; Gürün, İncesu, 38.46.07K 37.07.27D, 28.07.2010, 1600 m, 1♂.

Distribution in Turkey: Ankara, Artvin, Çorum, Erzincan, Erzurum, Isparta, İçel, Kars, Kayseri, Konya, Rize, Trabzon, Yozgat, Karaboğa Dağı (Elazığ or Bingöl) (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012; İncekara et al. 2010; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

Rhantus suturalis (W.S. MacLeay, 1825)

Material examined: Sivas, Akıncılar, Su Şehri, 40.06.43K 36.20.11 D, 14.09.2010, 869 m, 4♂♂; Ulaş, Aşağıocak, 39.29.00K 37.00.39 D, 15.09.2010, 1316 m, 1♂; Tecer, 39.25.12K 37.04.06 D, 23.05.2010, 1396 m, 1♂.

Distribution in Turkey: Aksaray, Ankara, Çorum, Erzurum, Kayseri, Konya, Manisa, Rize, Trabzon (Darılmaz and Kıyak 2009; Darılmaz et al. 2010; İncekara et al. 2010; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

Graphoderus cinereus (Linnaeus, 1758)

Material examined: Sivas, Zara, 39.50.56K 37.50.42 D, 28.05.2009, 1347 m, 6♂♂; Söğütçü, 39.27.32K 36.46.10 D, 28.05.2009, 1386 m, 1♂.

Distribution in Turkey: Ankara, Afyon, Ağrı, Erzurum, Samsun (Darılmaz and Kıyak 2009; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

Graptodytes bilineatus (Sturm, 1835)

Material examined: Sivas, İsafile Gölü, 39.52.17K 37.23.12D, 22.05.2010, 1200 m, 1♂.

Distribution in Turkey: Erzurum, Rize (Darılmaz and Kıyak 2009).

Remark: Newly recorded from Sivas.

Graptodytes flavipes (Olivier, 1795)

Material examined: Sivas, Kangal, Armağan, 39.15.47K 37.25.46 D, 28.07.2010, 1477 m, 1♂; Tecer, 39.25.12K 37.04.06 D, 23.05.2010, 1396 m, 1♂; Gürün, Sularbaşı, 38.45.26K 37.17.24 D, 28.07.2010, 1618 m, 2♂♂; Gürün, 39.13.42K 37.23.06 D, 28.07.2010, 1545 m, 1♂; İmranlı, Kemreli, 39.51.07K 38.14.19D, 27.07.2010, 1633 m, 4♂♂.

Distribution in Turkey: İzmir, Kayseri, Manastır (most probably Trabzon) (Darılmaz and Kıyak 2009; İncekara et al. 2010).

Remark: Newly recorded from Sivas.

Scarodytes halensis (Fabricius, 1787)

Material examined: Sivas, Yıldızeli, Kumyurt, 39.43.01K 36.49.32 D, 31.07.2010, 1358 m, 1♂; Hafik Gölü, 39.50.59K 37.22.11 D, 28.05.2009, 1302 m, 1♂; Hanlı, 39.27.28K 36.39.08 D, 31.07.2010, 1308 m, 1♂; İmranlı yolu 16.km, 39.50.14K 38.16.29 D, 28.05.2009, 1717 m, 2♂♂; Atgeçmiş, 39.38.14K 37.47.16 D, 23.05.2010, 1547 m, 1♂; Beşprer, 39.49.22K 37.17.31 D, 22.05.2010, 1286 m, 1♂; Koşuldere, 39.51.14K 37.23.39D, 22.05.2010, 1321 m, 2♂♂.

Distribution in Turkey: Aksaray, Ankara, Antalya, Artvin, Bursa, Çorum, Erzincan, Erzurum, Eskişehir, Gümüşhane, Isparta, Içel, İzmir, Kayseri, Van, Trabzon, Yozgat (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012).

Remark: Newly recorded from Sivas.

Hydroporus marginatus (Duftschmid, 1805)

Material examined: Sivas, Kumarlı, 39.13.44K 37.11.03 D, 23.05.2010, 1527 m, 6♂♂ 4♀♀; Akkaya, 39.32.33K 37.01.24 D, 23.05.2010, 1354 m, 10♂♂; Kovalı, 39.34.25K 37.09.57 D, 28.05.2009, 1310 m, 1♂; Tecer, 39.25.12K 37.04.06 D, 23.05.2010, 1396 m, 2♂♂; Söğütçü, 39.27.32K 36.46.10 D, 28.05.2009, 1386 m, 4♂♂; Atgeçmiş, 39.38.14K 37.47.16 D, 23.05.2010, 1547 m, 2♂♂; Şarkışla, 39.23.51K 38.28.06 D, 28.05.2009, 1256 m, 4♂♂; Gürün, Erdoğan, 38.52.51K 36.52.44 D, 01.06.2009, 1853 m, 3♂♂; Gürün, İncesu, 38.46.07K 37.07.27D, 28.07.2010, 1600 m, 4♂♂.

Distribution in Turkey: Ankara, Çorum, Erzurum, Kars, Kayseri, Konya, Muğla, Samsun, Sivas, Trabzon (Darılmaz and Kıyak 2009; Darılmaz et al. 2010; İncekara et al. 2010).

Hydroporus palustris (Linnaeus, 1761)

Material examined: Sivas, Hanlı, 39.27.28K 36.39.08 D, 31.07.2010, 1308 m, 1♂; İsafile Gölü, 39.52.17K 37.23.12D, 22.05.2010, 1200 m, 1♂.

Distribution in Turkey: Ankara, Artvin, Çorum, Erzincan, Erzurum, Kayseri, Rize, Samsun, Trabzon, Yozgat (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012; İncekara et al. 2010; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

***Hydroporus planus* (Fabricius, 1782)**

Material examined: Sivas, Akıncılar, Su Şehri, 40.06.43K 36.20.11 D, 14.09.2010, 869 m, 2♂♂; Hafik Gölü, 39.50.59K 37.22.11 D, 28.05.2009, 1302 m, 10♂♂ 8♀♀; Göydiün, 39.48.35K 37.12.34 D, 22.05.2010, 1269 m, 8♂♂ 2♀♀; Yağdonduran, 39.21.08K 37.08.23 D, 23.05.2010, 1556 m, 2♂♂; Durulmuş, 39.51.01K 37.21.33 D, 22.05.2010, 1312 m, 6♂♂; Karagömlek, 39.33.59K 36.57.37 D, 23.05.2010, 1412 m, 3♂♂; Kızılkavraz, 39.47.44K 37.12.48 D, 22.05.2010, 1275 m, 6♂♂; Keşanlı, 39.46.35K 37.44.29D, 23.05.2010, 1375 m, 7♂♂.

Distribution in Turkey: Antalya, Artvin, Balıkesir, Bursa, Çorum, Erzincan, Erzurum, İstanbul, Kars, Kayseri, Rize, Samsun, Toros Dağları (Darılmaz and Kiyak 2009; Darılmaz et al. 2010; İncekara et al. 2010).

Remark: Newly recorded from Sivas.

***Hyphyrus ovatus* (Linnaeus, 1761)**

Material examined: Sivas, İmranlı: 39.52.28K 38.05.03 D, 21.05.2010, 1594 m, 1♂.

Distribution in Turkey: Amasya, Bolu, Çorum, Erzurum, Samsun (Darılmaz and Kiyak 2009; Darılmaz et al. 2010).

Remark: Newly recorded from Sivas.

***Laccophilus hyalinus* (De Geer, 1774)**

Material examined: Sivas, Mancılık, 39.05.27K 37.14.05 D, 28.07.2010, 1505 m, 6♂♂; Hafik Gölü, 39.52.08K 37.23.05 D, 23.07.2009, 1296 m, 1♂; Aysarören, 39.02.17K 37.14.45D, 28.07.2010, 1664 m, 2♂♂.

Distribution in Turkey: Adana, Ankara, Antalya, Artvin, Aydın, Bolu, Burdur, Çorum, Erzincan, Erzurum, Isparta, İçel, İzmir, Kars, Kayseri, Kırşehir, Kilis, Konya, Manisa, Trabzon (Darılmaz and Kiyak 2009; Darılmaz et al. 2010, 2012; İncekara et al. 2010; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

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

Material examined: Sivas, Ekinli, 39.52.21.K 37.40.34 D, 27.07.2010, 1320 m, 5♂♂ 4♀♀; Yıldızeli, Kumyurt, 39.43.01K 36.49.32 D, 31.07.2010, 1358 m, 1♂; Sarkışla, Kayapınar, 39.19.13K 36.20.29 D, 31.07.2010, 1221 m, 1♂; Kaplıcalar Cıvarı, 39.16.47K 37.27.20 D, 28.07.2010, 1496 m, 2♂♂; Akıncılar, Su Şehri, 40.06.43K 36.20.11 D, 14.09.2010, 869 m, 2♂♂; Zara, 39.50.56K 37.50.42 D, 28.05.2009, 1347 m, 1♂; Kovalı, 39.34.25K 37.09.57 D, 28.05.2009, 1310 m, 5♂♂; Yağdonduran, 39.21.08K 37.08.23 D, 23.05.2010, 1556 m, 1♂; Pusat Brj., 40.01.50K 37.27.12 D, 22.05.2010, 1510 m, 5♂♂; Gürün, Gökpinar Göleti, 38.39.23K 37.18.04 D, 06.01.2009, 1484 m, 5♂♂ 3♀♀; Aşağıyıldız, 39.45.32K 36.46.19 D, 31.07.2010, 1270 m, 3♂♂; Durulmuş, 39.51.01K 37.21.33 D, 22.05.2010, 1312 m, 2♂♂; Hafik'e yakın göl, 39.51.24K 37.26.41 D, 23.07.2009, 1292 m, 1♂; İmranlı, 39.50.54K 38.34.40 D, 28.05.2009, 1619 m, 1♂; Hanlı, 39.27.28K 36.39.08 D, 31.07.2010, 1308 m, 3♂♂; Yarhisar Gölü, 39.51.27K 37.27.10 D, 24.07.2009, 1286 m, 4♂♂; Kangal, Mancılık, 39.05.27K 37.14.05 D, 15.09.2010, 1501 m, 7♂♂ 2♀♀; Hanlı, 39.27.28K 36.39.08 D, 27.06.2010, 1304 m, 5♂♂ 5♀♀; Gürün, Hasköy, 38.45.57K 37.05.22 D, 28.07.2010, 1620 m, 4♂♂; Hafik, Çukurkelen, 39.49.26K 37.10.20 D, 28.05.2009, 1280 m, 1♂; İmranlı, 39.52.28K 38.05.03 D, 21.05.2010, 1594 m, 3♂♂; Gürün, Erdoğan, 38.52.51K 36.52.44 D, 01.06.2009, 1853 m, 1♂; İmranlı, Kemreli, 39.51.07K 38.14.19D, 27.07.2010, 1633 m, 1♂; Alciören, Hoşik, 39.47.43K 37.27.31D, 24.07.2009, 1373 m, 2♂♂; Çukurbelen, 39.49.27K 37.10.19D, 27.07.2010, 1285 m, 2♂♂; İkişel, Kılık, 39.48.06K 36.10.12D, 14.09.2010, 1214 m, 1♂; Tödürge Gölü, 39.52.15K 37.36.24D, 27.07.2010, 1304 m, 1♂.

Distribution in Turkey: Afyon, Aksaray, Ankara, Antalya, Artvin, Aydın, Balıkesir, Bolu, Burdur, Bursa, Çorum, Erzincan, Erzurum, Gümüşhane, Isparta, İzmir, Konya, Kayseri, Manisa, Rize, Samsun, Sinop, Sivas, Trabzon, Yozgat, Toros Dağları (Darılmaz and Kiyak 2009; Darılmaz et al. 2010, 2012).

Haliplidae

Haliphus heydeni Wehncke, 1875

Material examined: Sivas, Gürün, Gökpinar Göleti, 38.39.23K 37.18.04 D, 06.01.2009, 1484 m, 2♂♂; Yıldızeli, Kumyurt, 39.43.01K 36.49.32 D, 31.07.2010, 1349 m, 1♂.

Distribution in Turkey: Afyon, Ankara, Kütahya, Erzincan (Darılmaz and Kiyak, 2010; Darılmaz et al. 2012; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

Haliphus ruficollis (De Geer, 1774)

Material examined: Sivas, Durulmuş, 39.51.01K 37.21.33 D, 22.05.2010, 1312 m, 2♂♂ 2♀♀; Tecer, 39.25.12K 37.04.06 D, 23.05.2010, 1396 m, 4♂♂; Zara, Ekinli, 39.52.19K 37.40.39 D, 21.05.2010, 1305 m, 2♂♂; Zara, 39.50.56K 37.50.42 D, 28.05.2009, 1342 m, 2♂♂; Şarkışla, Hanlı, 39.27.31K 36.39.14 D, 15.09.2010, 1300 m, 1♂; Sucak, 39.50.56K 37.50.45 D, 21.05.2010, 1354 m, 1♂.

Distribution in Turkey: Samsun (Darılmaz and Kiyak 2009).

Remark: Newly recorded from Central Anatolian Region.

Haliphus lineatocollis (Marsham, 1802)

Material examined: Sivas, Beypınarı, 39.32.02K 37.44.19 D, 23.05.2010, 1384 m, 21♂♂ 2♀♀; Koşuldere, 39.55.14K 37.23.39 D, 22.05.2010, 1321 m, 1♂; Yıldızeli, Kallık, 39.48.06K 36.10.12 D, 14.09.2010, 1214 m, 1♂.

Distribution in Turkey: Afyon, Çorum, Erzincan, Gümüşhane, İzmir, Yozgat (Darılmaz and Kiyak 2009; Darılmaz et al. 2010, 2012).

Remark: Newly recorded from Sivas.

Haliphus obliquus (Fabricius, 1787)

Material examined: Sivas, Aşağıyıldız, 39.45.32K 36.46.19 D, 31.07.2010, 1270 m, 6♂♂ 2♀♀; Koşuldere, 39.55.14K 37.23.39 D, 22.05.2010, 1321 m, 1♂.

Distribution in Turkey: Erzincan, Basköy (most probably Eastern Anatolia) (Darılmaz and Kiyak 2009; Darılmaz et al. 2012).

Remark: Newly recorded from Central Anatolian Region.

Haliphus variegatus Sturm, 1834

Material examined: Sivas, Ahmet Hacı, 39.54.29K 37.48.12 D, 23.05.2010, 1350 m, 3♂♂; Hafik, Çukurbelen, 39.49.26K 37.10.20 D, 28.05.2009, 1280 m, 8♂♂ 2♀♀; Tödürge Gölü, 39.52.16K 37.36.25 D, 21.05.2010, 1306 m, 1♂; Söğütçü, 39.27.32K 36.46.10 D, 28.05.2009, 1368 m, 1♂; Ahmet Hacı, 39.54.29K 37.48.12 D, 23.05.2010, 1350 m, 1♂.

Distribution in Turkey: Adana, Bilecik, Isparta, Konya, Toros Dağları (Darılmaz and Kiyak 2009).

Remark: Newly recorded from Sivas.

Peltodytes caesus (Duftschmid, 1805)

Material examined: Sivas, Aşağıyıldız, 39.45.32K 36.46.19 D, 31.07.2010, 1270 m, 1♂; Yıldızeli, Kumyurt, 39.43.01K 36.49.32 D, 31.07.2010, 1349 m, 1♂.

Distribution in Turkey: Adana, Afyon, Aksaray, Ankara, Aydın, Balıkesir, Bolu, Çorum, Erzincan, Eskişehir, Isparta, İzmir, Kayseri, Konya, Samsun, Yozgat, Toros Dağları (Darılmaz and Kiyak 2009; Darılmaz et al. 2010, 2012; İncekara et al. 2010; Hızarcıoğlu et al. 2010).

Remark: Newly recorded from Sivas.

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

Material examined: Sivas, Hafik Gölü, 39.52.08K 37.23.05 D, 23.07.2009, 1296 m, 2♂♂; Zara, 39.50.56K 37.50.42 D, 28.05.2009, 1347 m, 13♂♂ 2♀♀; Tecer, 39.25.12K 37.04.06 D, 23.05.2010, 1396 m, 5♂♂; Hafik'e yakın göl, 39.51.24K 37.26.41 D, 23.07.2009, 1292 m, 4♂♂; Hanlı, 39.27.28K 36.39.08 D, 31.07.2010, 1308 m, 2♂♂; Tödürge Gölü, 39.52.16K 37.36.25 D, 21.05.2010, 1306 m, 1♂; Demiryurt, Tödürge Gölü, 39.52.24K 37.36.34 D, 23.07.2009, 1301 m, 1♂; Şarkışla, Hanlı, 39.27.31K 36.39.14D, 15.09.2010, 1300m, 3♂♂.

Distribution in Turkey: Aksaray, Ankara, Antalya, Aydın, Balıkesir, Bilecik, Bolu, Çorum, Erzincan, Isparta, İzmir, Kayseri, Konya, Manisa, Samsun, Trabzon (Darılmaz and Kıyak 2009; Darılmaz et al. 2010, 2012).

Remark: Newly recorded from Sivas.

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