

**FAUNISTIC STUDIES ON STAPHYLININAE  
(COLEOPTERA: STAPHYLINIDAE) IN KAZDAĞLARI  
(BALIKESİR PROVINCE) IN TURKEY**

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**ABSTRACT:** In this study, determination of Staphylininae fauna of Kazdağları (Balikesir province) in Turkey has been aimed. Materials have been collected from 61 localities by two weeks' intervals during the months of February to November in 2008-2010. As a result of the study, 36 species of 24 genera and subgenera have been determined. Among them, 2 species, *Quedius unicolor* Kiesenwetter, 1847 and *Q. henroti* Coiffait, 1970 have been reported as new records for Turkish fauna. All evaluated species in the study have been reported as the first records for Kazdağları (Balikesir province) fauna.

**KEY WORDS:** Staphylininae, Staphylinidae, Kazdağları, Balikesir, Turkey, new record.

The family Staphylinidae also known as "rove beetles" belong to the suborder Polyphaga of the order Coleoptera. Total number of 45.707 species and subspecies are registered for 3845 genera in 32 subfamilies belonging to Staphylinidae family worldwide. 1600 species and subspecies of 246 genera connected to 22 subfamilies are registered in Turkey. Staphylininae is one of the largest subfamilies of Staphylinidae with more than 6.500 described species in approximately 282 genera worldwide (Herman, 2001). In Turkey, 346 species and subspecies belonging to 39 genera and subgenera of Staphylininae were recorded until now (Anlaş, 2009).

Species of subfamily Staphylininae is common in almost all types of ecosystems throughout the world even though they are generally adapted to live on the ground or in the soil of cool and humid biotopes. Mature insects can live in habitats that are humid and humus rich, like as in loose soils, on and under fallen foliage, in caves, around creek biotopes, under the stones, in tidal zones, under the barks of fallen trees, dead logs and many more. Some species of this subfamily live as saprophagous around decomposing organic matter including animal carcass or droppings. Phytophagous feeder species are rarely observed. These feed on fresh leaves, pollens or flowers of plants. However none of these species cause loss on economic level. Also some species do live as mycetophagous inside decomposing or live mushrooms. Rove beetles are classified generally according to their behavior type as a predator or a parasite. Termitophilic and myrmecophilic species living with ants or termites in the same nest parasitically or neutrally are known as well (Lodos, 1989).

Early detailed morphologic data regarding Staphylinidae species are provided by Blackwelder (1936), Smetana (1958), Lohse (1964), Coiffait (1972), Tikhomirova (1973), Naomi (1987,1987a) and Newton (1990). Staphylinidae

larvae were studied morphologically by Paulian (1941), Pototskaya (1967), Topp (1978) and Boháč (1982). First catalog of family Staphylinidae was prepared by Bernhauer & Schubert (1910, 1911, 1912, 1914, 1916) in five volumes. This was followed by catalogs that were prepared by Bernhauer & Scheerpeltz (1926), Scheerpeltz (1933, 1934) and Lohse (1964). Moreover, Coiffait (1972, 1974, 1978) in his study about subfamily Staphylininae which is widespread in Palaearctic region also provided systematical and faunistical information about a great number of species living in Turkey along with many identification keys. Works of German scientist Assing has become well known in the last ten years concerning Staphylinidae fauna in the world. He made contributions to Turkish fauna during his journeys to Turkey. Furthermore, studies of Sahlberg (1912-1913), Herman (2001), Löbl & Smetana (2004), Bordoni (2003), Coiffait (1972, 1974, 1978) are among the significant publications in the world. The first investigations about Staphylinidae fauna in Turkey conducted by Ganglbauer (1905), Bordoni (1971, 1973, 1973a, 1973b), Smetana (1967, 1967a, 1968, 1968a, 1977), Sahlberg (1912-1913), Bernhauer (1927, 1935, 1936). Some of the publications regarding Staphylinidae fauna in the world today belongs to Staniec (1999, 1999a, 2002, 2004), Staniec & Pietrykowska-Tudruj (2008, 2009), Solodovnikov (2004, 2005), Schillhammer (2007, 2008, 2009), Khachikov (2005, 2006, 2007). Major studies of Staphylinidae fauna in Turkey were carried out by Bordoni (1999, 2000), Tezcan & Amiryan (2003), Anlaş (2007, 2009), Schillhammer et al. (2007) and Assing (2009, 2009a, 2009b, 2009c, 2010, 2010a, 2010b, 2010c).

Kazdağı Mountain range ( $38.50\text{-}40.50^{\circ}$  N /  $25.00\text{-}28.50^{\circ}$  E) which occupies 258.000 hectares is located in Northwest Anatolia and forms a boundary between Marmara and Aegean Regions. This mountain range consisting of Dede Mountain in the west, main Kazdağı in the center, Eybek Mountain in the east, Gürgen, Kocakatran and Susuz (Sakar) Mountains in the northeast makes the highest formation of Biga Peninsula. South side of the Kazdağılar starting from Zeytinli Rivulet covering all the region to the west of Altınoluk settlement (Damla Hill) and 21.450 hectares of heights that exist above these locations are declared as a National Park in 1993 with a legislation via Ministry Cabinet. Because Kazdağılar is sheltering 800 plant species in which 70 of them are endemic, aside from Kazdağılar fir [*Abies nordmanniana* ssp. *equi-trojani* (Asch. & Sint.) Coode & Cullen (Pinaceae)] only specific to this area, it is selected as a pilot region of the World Bank supported "Protection of Plant Gene Resources in Place" project and conservation of this plant and animal diversity was initiated. This study aims to determine existing members of Staphylininae subfamily, their biological diversity and their occurrence, contribute data to the regional zoogeographic distribution of species belonging to Staphylininae in Kazdağılar which has significant characteristics.

This article has been prepared in order to give some additional information after the completion of a doctoral research dissertation project of the first author on the fauna of Kazdağılar.

## **MATERIAL AND METHODS**

The research was carried out in 61 localities located in Kazdağılar during the months of February-November in 2008-2010. Detailed information regarding these localities are shown in Table 1. Study area was investigated by dividing into sections because of its large size. In 2008, National Park section; in 2009, National Park, South, Southeast and West; in 2010, North, Northeast, East of the Kazdağılar were studied to determine the best locations for Staphylininae with

two weeks' sampling intervals. Map regarding research localities is displayed in Figure 1.

According to Boháć (2007), methods used for collection of Staphylinidae species vary in efficiency. In respective order sifting and knock down has 32.63% - 19.27% efficiency, also collected by hand, pitfall trap and bait trap with hibernation trap-band has corresponding efficiency of 15.66%, 6.02% and 4.42%, respectively. Sampling was carried out via suitable method for each habitat type and vegetation cover with these differences in consideration. Therefore, specimens located in and around soil, pebble, detritus and fallen foliage were obtained by sifting, samples on bushes, and leaves, flowers of short nonwoody plants were collected with sweeping net, especially collected by hand from in stream biotopes whether found under a stone or underneath dead tree barks, through pitfall and bait traps in fir, *Quercus* sp., *Pinus brutia*, *Pinus nigra* and *Abies nordmanniana* ssp. *equi-trojani* biotopes. Labels of gathered specimens include respectively material collection locality, date, subject biotop or collection method, number of specimens collected and total specimen number. All of the specimens were collected and determined by first author of this article. Materials have been deposited in the Balıkesir University Zoological Museum, Balıkesir, Turkey.

Classification and nomenclature of the subfamily Staphylininae suggested by Löbl & Smetana (2004) have been followed in this study. Worldwide and in Turkey distributions of identified species are given in an alphabetical order, the information about material examined are indicated according to locality numbers.

Countries have been coded as follows after Löbl & Smetana (2004):

**E - Europe:** AB Azerbaijan, AL Albania, AN Andorra, AR Armenia, AU Austria, AZ Azores, BE Belgium, BH Bosnia Hercegovina, BU Bulgaria, BY Byelorussia, CR Croatia, CZ Czech Republic, DE Denmark, EN Estonia, FA Faeroe Islands, FI Finland, FR France, GB Great Britain, GE Germany, GG Georgia, GR Greece, HU Hungary, IC Iceland, IR Ireland, IT Italy, KZ Kazakhstan, LA Latvia, LS Liechtenstein, LT Lithuania, LU Luxembourg, MA Malta, MC Macedonia, MD Moldavia, NL The Netherlands, NR Norway, PL Poland, PO Portugal, RO Romania, RU Russia (CT Central European Territory, NT North European Territory, ST South European Territory), SK Slovakia, SL Slovenia, SP Spain, SR Svalbard, SV Sweden, SZ Switzerland, TR Turkey, UK Ukraine, YU Yugoslavia.

**N - North Africa:** AG Algeria, CI Canary Islands, EG Egypt (except Sinai), LB Libya, MO Morocco, MR Madeira Archipelago, TU Tunisia.

**A - Asia:** AE Arab Emirates, AF Afghanistan, AP Arunachal Pradesh, BA Bahrain, BT Bhutan, CH China [CE Central Territory (ANH Anhui, HUB Hubei, HUN Hunan, JIA Jiangsu, JIX Jiangxi, SHG Shanghai, ZHE Zhejiang), NE Northeastern Territory (HEI Heilongjiang, JIL Jilin, LIA Liaoning), NO Northern Territory (BEI Beijing, GAN Gansu, HEB Hebei, HEN Henan, NIN Ningxia, NMO Nei Mongol, SHA Shaanxi, SHN Shandong, SHX Shanxi, TIA Tianjin), NW Northwestern Territory (GAN Gansu, NMO Nei Mongol, XIN Xinjiang), SE Southeastern Territory (FUJ Fujian, GUA Guangdong, GUX Guangxi, HAI Hainan, HKG Hong Kong, MAC Macao, TAI Taiwan), SW Southwestern Territory (GUI Guizhou, SCH Sichuan, YUN Yunnan), WP Western Plateau (QIN Qinghai, XIZ Xizang)], CY Cyprus, HP Himachal Pradesh, IN Iran, IQ Iraq, IS Israel, JA Japan, JO Jordan, KA Kashmir, KI Kyrgyzstan, KU Kuwait, KZ Kazakhstan, LE Lebanon, MG Mongolia, NP Nepal, NC North Korea, OM Oman, PA Pakistan, QA Qatar, RU Russia (ES East Siberia, FE Far East, WS West Siberia), SA Saudi Arabia, SC South Korea, SD Sikkim, Darjeeling, SI Sinai (Egyptian part), SY Syria, TD Tadzhikistan, TM Turkmenistan, TR Turkey, UP Uttar Pradesh, UZ Uzbekistan, YE Yemen.

**AFR** Afrotropical region, **AUR** Australian region, **NAR** Nearctic region, **NTR** Neotropical region, **ORR** Oriental region.

## RESULTS

### **Family Staphylinidae Latreille, 1802**

#### **Subfamily Staphylininae Latreille, 1802**

##### **Tribe Othiini Thomson, 1859**

##### **Genus *Othius* Stephens, 1829**

###### ***Othius laeviusculus* Stephens, 1833**

**Material examined:** Kavaklıdere, 23.X.2010, *Pinus nigra*, *Suillus* sp., aspirator, (2♂♂). Totally 2 specimens. **Distribution in the world:** E: AB AU BH BU CR CZ FR GB GE GR HU IR IT MC NL PL PT SK SL SP ST SZ N: AG MO TU A: CY IN SY TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Adiyaman, Ankara, Antalya, Ardahan, Aydın, Bursa, İstanbul, İzmir, Manisa, Mersin (Çamlıayyla), Muğla, Rize, Samsun, Tunceli (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

### **Tribe Staphylinini Latreille, 1802**

#### **Subtribe Philonthina Kirby, 1837**

##### **Genus *Gabrius* Stephens, 1829**

###### ***Gabrius anatolicus* Smetana, 1953**

**Material examined:** Sarıkız Hill, 10.V.2009, *Pinus nigra*, pitfall trap, (1♀); Çam Çeşme Stream, 06.IX.2009, stream bed, under stone, (3♂♂ 3♀♀); Çeşme Stream, 27.VI.2010, stream bed, under stone, (5♂♂ 2♀♀); Şahmelik Stream, 06.IX.2009, stream bed, under stone (3♀♀); Eğrisu Stream, 24.V.2009, stream bed, under stone, (1♂); Boz Stream, 27.VI.2010, stream bed, under stone, (7♂♂ 3♀♀); Domuz Çukuru Road 2, 21.VI.2009, stream bed, under stone, (1♂ 1♀); Domuz Çukuru Road 3, 21.VI.2009, stream bed, under stone, (2♂♂); Küçük Stream 1, 01.VIII.2010, stream bed, under stone, (1♂ 2♀♀); Gelin Rivulet, 16.X.2010, stream bed, under stone, (1♂ 1♀). Totally 37 specimens. **Distribution in the world:** A: TR (Löbl & Smetana, 2004). **Distribution in Turkey:** İzmir (Bozdağları), Mersin (Yeniköy-Toros) (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

###### ***Gabrius astutus* (Erichson, 1840)**

**Material examined:** Çam Çeşme Stream, 21.VI.2010, stream bed, under stone, (1♂); Ayı Stream 1, 26.IV.2008, *Quercus* sp., bait trap, (1♂); Şahmelik Area, 21.VI.2009, stream bed, under stone, (1♂); Küçük Stream 2, 17.VII.2010, stream bed, sifting, (1♀). Totally 4 specimens. **Distribution in the world:** E: AR AU BE BH BU CR CZ FR GE GR HU IT NL PL RO SK SP ST SZ UK A: ES FE LE TM TR UZ WS (Löbl & Smetana, 2004). **Distribution in Turkey:** Adana (Bürücek-Toros), Konya (Karapınar) (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

### **Genus *Philonthus* Stephens, 1829**

#### **Subgenus *Philonthus* Stephens, 1829**

##### ***Philonthus (Philonthus) cognatus* Stephens, 1832**

**Material examined:** Naneköy Hill, 04.VI.2009, (1♂), 02.VIII.2009, (6♂♂ 4♀♀), *Sideritis trojana*, pitfall trap; Beypınarı 1, 05.VII.2008, (1♂), 04.VII.2009, (4♂♂ 1♀), 19.VII.2009, (4♂♂ 2♀♀), *Pinus nigra*, *Vicia villosa*, pitfall trap; Beypınarı 2, 21.VI.2009, (1♂), 04.VII.2009, (1♂ 1♀), 19.VII.2009, (4♂♂ 2♀♀), *Phaseolus vulgaris*, *Lycopersicon esculentum*, *Capsicum annuum*, pitfall trap; Koçere Stream 1, 19.VII.2009, stream bed, pitfall trap, (2♂♂); Altıparmak, 02.VI.2009, (3♂♂ 1♀), 21.VI.2009, (1♂ 1♀), 04.VII.2009, (2♂♂ 1♀), *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, aspirator, pitfall trap; Yedikardeşler, 05.VII.2008, (19♂♂ 14♀♀), 14.VI.2008, (1♂), 31.VI.2008, (1♂), *Abies equi-trojani*, *Pinus nigra*, aspirator, pitfall trap. Totally 78 specimens. **Distribution in the world:** E: AL AU BE BH BU BY CR CT CZ DE EN FI FR GB GE HU IR IT LA LT LU MO NL NR NT PL PT RO SK SL SP ST SV SZ UK YU N: AG TU A: ES IN JIL KA KI KZ NP PA TD TR WS NAR (Löbl & Smetana, 2004). **Distribution in Turkey:** Mersin (Yeniköy), Trabzon (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

***Philonthus (Philonthus) concinnus*** (Gravenhorst, 1802)

**Material examined:** Nanekir Hill, 04.VII.2009, rocky field, *Sideritis trojana*, sweeping net, (1♀); 02.VIII.2009, rocky field, *Sideritis trojana*, pitfall trap, (2♂♂ 1♀); Sarıkız Road, 31.V.2008, stream bed, under stone, (3♂♂), 10.V.2009, *Pinus nigra*, pitfall trap, (2♂♂); Levent Boğazı, 06. IX. 2009, *Quercus* sp., stream bed, under stone, (1♂ 1♀); Beypınarı 1, 14.VI.2008, (3♂♂ 4♀♀), 05.VII.2008, (2♂♂ 1♀), 04.VII.2009, (3♀♀), 19.VII.2009, (1♂ 2♀♀), *Pinus nigra*, *Vicia villosa*, pitfall trap, 04.VII.2009, *Pinus nigra*, *Vicia villosa*, under stone, (2♂♂ 1♀); Beypınarı 2, 04.VII.2009, (1♀), 19.VII.2009, (2♂♂), 18.X.2009, (1♂), *Phaseolus vulgaris*, *Lycopersicon esculentum*, *Capsicum annum*, pitfall trap; Koçere Stream, 21.VI.2009, (4♂♂ 5♀♀), 19.VII.2009, (1♀), stream bed, pitfall, 21.VI.2009, (5♂♂ 2♀♀), 27.VI.2009, (1♀), 19.VII.2009, (2♂♂ 2♀♀), 06.IX.2009, (1♀), stream bed, under stone; Büyük Rahat Stream, 21.VI.2009, stream bed, under stone, (9♂♂ 16♀♀); Koçere Stream 2, 06.IX.2009, *Abies equi-trojani*, *Fagus orientalis*, under stone, (3♂♂ 5♀♀); Altiparmak, 02.VI.2009, (2♂♂ 6♀♀), 06.VI.2009, (11♀♀), 06.VI.2009, (8♂♂ 2♀♀), 21.VI.2009, (7♂♂ 6♀♀), 04.VII.2009, (1♂), 02.VIII.2009, (1♂), *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, under stone, 21.VI.2009, (1♂ 4♀♀), 19.VII.2009, (1♂ 1♀), 04.VII.2009, (2♂♂ 3♀♀), 02.VIII.2009, (1♀), 18.X.2009, (1♀), *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, pitfall trap; Kırlangıç Stream 1, 04.VII.2009, stream bed, *Quercus* sp., under stone, (2♂♂ 7♀♀); Çamçeşme, 21.VI.2009, *Pinus brutia*, *Fagus orientalis*, *Castanea sativa*, under stone, (1♂ 5♀♀); Şahmelik, 21.VI.2009, (8♂♂ 20♀♀), 06.IX.2009, (1♂ 2♀♀), stream bed, under stone; Eğrişu Stream, 24.V.2009, (5♂♂ 11♀♀), 19.VII.2009, (3♂♂), stream bed, under stone, Gıldırdağ Stream, 27.VI.2010, stream bed, under stone, (1♂ 5♀♀); Bozdere, 19.VII.2009, *Centaurea* sp., aspirator, (1♀); Çamçeşme Stream, 21.VI.2009, (12♂♂ 11♀♀), 06.IX.2009, (1♂ 1♀), 27.VI.2010, (1♀), stream bed, under stone; Şahmelik Area, 21.VI.2009, stream bed, under stone, (5♂♂); Domuz Çukuru Road 1, 21.VI.2009, stream bed, under stone, (1♂); Yedikardeşler, 05.VII.2008, *Abies equi-trojani*, *Pinus nigra*, pitfall trap (3♂♂ 2♀♀); Kırlangıç Stream 1, 17.VII.2010, stream bed, sifting, (2♀♀); Kapanca Stream, 21.VI.2009, stream bed, under stone, (2♂♂ 2♀♀); Hanlar Üstü, 16.X.2010, meadow, cow dung, aspirator, (4♀♀). Totally 267 specimens.

**Distribution in the world:** E: AL AR AU AZ BE BH BU CR CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LT LU MC NL NR NT PL PT RO SK SL SP ST SV SZ UK YU N: AG CI LB MO MR TU A: AF CY ES FE IN IS KZ LE MG TD TR UZ WS NAR (Löbl & Smetana, 2004). **Distribution in Turkey:** Adana, Ankara, Bolu (Kaynaşlı), Kayseri (Erciyes Mountain), Konya, Manisa, Mersin (Yeniköy), Mersin-Karaman, Tunceli (Anlaş, 2009).

**Remarks:** This species is the first record for Balıkesir fauna.

***Philonthus (Philonthus) coprophilus*** Jarrige, 1949

**Material examined:** Hanlar Üstü, 16.X.2010, meadow, cow dung, aspirator, (1♂ 1♀). Totally 2 specimens. **Distribution in the world:** E: AU BE BU CZ FR GB GE HU IT LA LT LU SK ST N: "Nordafrika" A: WS (Löbl & Smetana, 2004). **Distribution in Turkey:** Erzurum (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

***Philonthus (Philonthus) corruscus*** (Gravenhorst, 1802)

**Material examined:** Nanekir Hill, 02.VIII.2009, rocky field, *Sideritis trojana*, pitfall trap, (1♂ 1♀); Sarıkız Road, 05.VII.2008, *Pinus nigra*, pitfall trap, (1♀), 04.VII.2009, *Pinus nigra*, under stone, (3♂♂ 8♀♀); Beypınarı 1, 14.VI.2008, (1♀), 19.VII.2009, (1♂), *Pinus nigra*, *Vicia villosa*, pitfall trap; Beypınarı 2, 21.VI.2009, (1♂), *Phaseolus vulgaris*, *Lycopersicon esculentum*, *Capsicum annum*, pitfall trap; Koçere Stream, 21.VI.2009, stream bed, under stone, (1♂); Koçere Stream, 06.IX.2009, stream bed, pitfall trap, (2♂♂ 4♀♀); Büyük Rahat Stream, 21.VI.2009, stream bed, under stone, (1♂); Altiparmak, 06.VI.2009, *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, under stone, Ayı Stream 2, 14.VI.2008, *Pinus brutia*, *Moenchia mantica* subsp. *mantica*, pitfall trap, (1♀); Ayı Stream 2, 14.VI.2008, *Pinus brutia*, *Moenchia mantica* subsp. *mantica*, pitfall trap, (1♂); Söbüyurt, 04.VII.2009, nonwoody plants, under stone, (1♂); Şahmelik Area, 24.V.2009, stream bed, under stone, (1♂); Eybek Observation Tower 1, 16.X.2010, *Hydnium repandum*, aspirator, (1♀). Totally 30 specimens. **Distribution in the world:** E: AR AU BE BU CZ DE EN FR GB GE GG GR HU IR IT LT LU NL PL RO SK SP ST SV SZ UK N: AG A: AF IS LE TM TR UZ WS (Löbl & Smetana, 2004). **Distribution in Turkey:** Adana (Bürükçük,

Suluhan-Toros), Ankara (Çamlıdere-İşık Mountain), İzmir, Mersin [Tarsus (=Tarsous), Caramania] (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### *Philonthus (Philonthus) cruentatus* (Gmelin, 1790)

**Material examined:** Nanekiri Hill, 06.VI.2009, rocky field, *Sideritis trojana*, sweeping net, (1♀); Altıparmak, 02.VI.2009, (1♂), 06.VI.2009, (1♀), *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, under stone; Hanlar Üstü, 16.X.2010, meadow, cow dung, aspirator, (1♀). Totally 4 specimens. **Distribution in the world:** E: AL AR AU BE BH BU BY CR CT CZ DE EN FI FR GB GE GG GR GU IR IT LA LT LU MC NL NR NT PL PT RO SK SL SP ST SV SZ UK YU N: AG CI MO A: AF ES FE IN KI KZ LE MG TD TR UP UZ WS NAR (Löbl & Smetana, 2004). **Distribution in Turkey:** Denizli (Babadağı), İstanbul (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### *Philonthus (Philonthus) debilis* (Gravenhorst, 1802)

**Material examined:** Nanekiri Hill, 06.VI.2009, rocky field, *Sideritis trojana*, sweeping net, (3♂ 6♀), 04.VII.2009, rocky field, *Sideritis trojana*, under stone, (1♂); Beypınarı 1, 14.VI.2008, (1♂), 06.VI.2009, (2♂), *Pinus nigra*, *Vicia villosa*, pitfall trap; Koçere Stream 1, 21.VI.2009, (2♂), 06.IX.2009, (1♂), stream bed, pitfall trap; Büyük Rahat Stream, 21.VI.2009, stream bed, under stone, (14♂ 13♀); Altıparmak, 02.VI.2009, stream bed, under stone, (1♂); Şahmelik, 24.V.2009, (11♂ 20♀), 06.IX.2009, (1♂), stream bed, under stone; Eğrişu Stream, 24.V.2009, stream bed, sifting, (3♂); Kırlangıç Stream 2, 04.VII.2009, stream bed, sifting, (1♂). Totally 80 specimens. **Distribution in the world:** E: AB AL AR AU BE BH BU CR CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LT LU MC NL NR NT PL PT RO SK SL SP ST SV SZ UK YU N: AG CI EG MO MR TU A: AF ES FE IN IS JA JIL LE KZ MG TM TR UZ WS ZHE NAR (Löbl & Smetana, 2004). **Distribution in Turkey:** Adana (Suluhan-Toros), Ankara (Çankaya), Denizli, Sarayköy, Meandros, Mersin [Tarsus (=Tarsous), Caramania] (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### *Philonthus (Philonthus) intermedius* (Lacordaire, 1835)

**Material examined:** Beypınarı 1, 06.VI.2009, (1♀), 04.VII.2009, (1♀), *Pinus nigra*, *Vicia villosa*, pitfall trap; Beypınarı 2, 09.XI.2008, (1♀), 04.VII.2009, (1♂), *Phaseolus vulgaris*, *Lycopersicon esculentum*, *Capsicum annuum*, pitfall trap; Koçere Stream 1, 21.VI.2009, (1♂ 1♀), 19.VII.2009, (1♀), stream bed, pitfall trap; Büyük Rahat Stream, 21.VI.2009, stream bed, under stone, (1♀); Altıparmak, 02.VI.2009, (8♂ 3♀), 06.VI. 2009, (2♂ 1♀), stream bed, under stone; Altıparmak, 21.VI.2009, *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, pitfall trap, (2♂ 2♀); Şahmelik, 21.VI.2009, stream bed, under stone, (1♂); Hanlar Üstü, 16.X.2010, (1♂), 07.XI.2010, (4♂ 2♀), meadow, cow dung, aspirator. Totally 34 specimens. **Distribution in the world:** E: AB AL AR AU BE BH BU CR CZ DE EN FR GB GE GG GR HU IR IT LA LT LU NL PL PT RO SK ST SV SZ UK YU N: AG MO TU A: CY IN IQ LE TM TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Ankara, Denizli (Babadağı), İzmir, Kahramanmaraş, Mersin (Tarsus) (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### *Philonthus (Philonthus) nitidicollis* (Lacordaire, 1835)

**Material examined:** Nanekiri Hill, 06.VI.2009, rocky field, *Sideritis trojana*, sweeping net, (5♂); Nanekiri Hill, 02.VIII.2009, (3♂ 5♀), 04.VII.2009, (3♂ 5♀), rocky field, *Sideritis trojana*, pitfall trap; Beypınarı 1, 14.VI.2008, (1♀), 05.VII.2008, (1♂ 4♀), 06.VI.2009, (2♀), 21.VI.2009, (2♀), 04.VII.2009, (4♂ 2♀), 18.X.2009, (1♀), *Pinus nigra*, *Vicia villosa*, pitfall trap; Beypınarı 2, 06.VI.2009, (1♂), 21.VI.2009, (3♂ 7♀), 04.VII.2009, (1♀), 19.VII.2009, (1♂), *Phaseolus vulgaris*, *Lycopersicon esculentum*, *Capsicum annuum*, pitfall trap; Koçere Stream 1, 06.IX.2009, stream bed, sifting, (1♀); Büyük Rahat Stream, 21.VI.2009, stream bed, under stone, (2♂ 3♀); Koçere Stream 2, 19.VII.2009, *Abies equi-trojani*, *Fagus orientalis*, pitfall trap, (2♂); Altıparmak, 02.VI.2009, (5♂ 9♀), 06.VI.2009, (5♂ 7♀), 04.VII.2009, (1♂ 1♀), 19.VII.2009, (1♀), *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, sifting; Şahmelik, 21.VI.2009, (1♀), 24.V.2009, (1♀), stream bed, sifting; Küçük Stream 2, 01.VIII.2010, stream bed, sifting, (1♂); Hacımevlüt Çeşmesi Road, 27.VI.2010, stream bed, sifting, (1♂ 1♀); Yedikardeşler,

05.VII.2008, *Abies equi-trojani*, *Pinus nigra*, pitfall trap, (2♂ 1♀); Kirlangış Stream, 17.VII.2010, stream bed, sifting, (1♂); Karayaprak Stream, 16.X.2010, stream bed, sifting, (1♂); Hanlar Üstü, 07.XI.2010, meadow, cow dung, aspirator, (1♀). Totally 99 specimens. **Distribution in the world:** E: AR AU BE BH BÜ CR CT CZ DE EN FR GB GE GG GR HU IR IT NL PL PT RO SK SL SP ST SV SZ UK YU N: AG LB MO TU A: AF CY IN IQ IS KZ LE TD TM TR UZ WS (Löbl & Smetana, 2004). **Distribution in Turkey:** Adana (Bürücek, Suluhan-Toros), Ankara (Çamlıdere-Işık Mountain), Gaziantep, İzmir, Konya (Karapınar) (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### *Philonthus (Philonthus) rufimanus* Heer, 1839

**Material examined:** Altıparmak, 02.VIII.2009, *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, under stone, (2♂♂). Totally 2 specimens. **Distribution in the world:** E: AB AL AU BH BU CZ CR FR GE GG GR HU IT MC RO SK SL SP ST SZ UK YU A: AF CY IS LE SY TR UZ (Löbl & Smetana, 2004). **Distribution in Turkey:** Aydın, Bayburt, İzmir, Kilis, Manisa, Mersin [Tarsus (=Tarsous), Caramania] (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### Subtribe Quediina Kraatz, 1857

##### Genus *Quedius* Stephens, 1829

###### Subgenus *Microsaurus* Dejean, 1833

###### *Quedius (Microsaurus) brevis* Erichson, 1840

**Material examined:** Eybek Observation Tower 1, 16.X.2010, *Hydnellum repandum*, aspirator, (1♂). Totally 1 specimen. **Distribution in the world:** E: AU BE CR CZ DE FI FI FR GB GE HU IR IT LA LT NL NR NT PL RO SK SL ST SP SV SZ UK YU N: MO (Löbl & Smetana, 2004) A: TR (Anlaş, 2009). **Distribution in Turkey:** Kastamonu (İlgaz Mountains) (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

###### *Quedius (Microsaurus) cruentus* (Olivier, 1795)

**Material examined:** Sarıkız Road, 06.IV.2008, (1♂), 26.IV.2008, (2♀♀), *Pinus nigra*, bait trap, 31.V.2008, (1♀), 19.VII.2008, (1♀), *Abies equi-trojani*, bait trap. Totally 5 specimens. **Distribution in the world:** E: AL AU BE BH BU CR CT CZ DE FI FR GB GE GR HU IR IT LA LT LU NL NR NT PL PT RO SK SP ST SZ SV UK YU N: AG MO TU A: TR NAR (Löbl & Smetana, 2004). **Distribution in Turkey:** Manisa (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

###### *Quedius (Microsaurus) fissus* Gridelli, 1938

**Material examined:** Eybek Observation Tower 1, 16.X.2010, *Hydnellum repandum*, aspirator, (1♂); Musa Hill, 07.XI.2010, *Suillus* sp., aspirator, (1♂ 3♀♀). Totally 5 specimens. **Distribution in the world:** E: GR (Lésvos; Ródhos) A: TR (Löbl & Smetana, 2004). **Distribution in Turkey:** İzmir (Monti Salbak, Karish Taurus) (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

###### *Quedius (Microsaurus) lateralis* (Gravenhorst, 1802)

**Material examined:** Beypinari 1, 23.X.2010, *Pinus nigra*, *Vicia villosa*, under stone, (1♀); Şahmelik Area, 21.VI.2009, stream bed, under stone, (1♂). Totally 2 specimens. **Distribution in the world:** E: AL AU BE BH BU CR CZ DE FR GB GE GR HU IT MC NL PL PT RO SK SL SP SV SZ UK YU A: TR (Löbl & Smetana, 2004). **Distribution in Turkey:** İzmir [Yamanlar Mountain (=Jamanlar Dagh)] (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

###### Subgenus *Quedius* Stephens, 1829

###### *Quedius (Quedius) levicollis* (Brullé, 1832)

**Material examined:** Nanekiri Hill, 04.VII.2009, (3♂♂ 1♀), 02.VIII.2009, (3♂♂ 1♀), 06.IX.2009, (1♂), rocky field, *Sideritis trojana*, pitfall trap; Sarıkız Road, 10.V.2009, *Pinus nigra*, pitfall trap, (1♂ 1♀); Beypinari 1, 04.VII.2009, (1♀), 18.X.2009, (4♂♂), *Pinus nigra*, *Vicia villosa*, pitfall trap; Beypinari 2, 21.VI.2009, (1♀), 04.VII.2009, (1♂), 06.IX.2009, (1♂), *Phaseolus vulgaris*, *Lycopersicon esculentum*, *Capsicum annuum*, pitfall trap, 23.X.2010, *Phaseolus vulgaris*, *Lycopersicon esculentum*, *Capsicum annuum*, under stone, (5♂♂ 7♀♀); Koçere Stream 1, 19.VII.2009, (2♂♂), 21.VI.2009, (2♂♂ 2♀♀), stream bed,

pitfall trap, 21.VI.2009, stream bed, under stone, (2♂♂); Büyük Rahat Stream, 21.VI.2009, stream bed, under stone, (2♀♀); *Abies equi-trojani* Natural Reserve, 18.X.2009, *Abies equi-trojani*, *Digitaria sanguinalis*, pitfall trap, (1♂); Koçere Stream 2, 06.IX.2009, *Abies equi-trojani*, *Fagus orientalis*, sifting, (5♂♂ 1♀), 06.IX.2009, *Abies equi-trojani*, *Fagus orientalis*, pitfall trap, (1♀), 19.VII.2009, stream bed, under stone, (2♀♀); Altıparmak, 06.VI.2009, *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, under stone, (1♂), 21.VI.2009, (2♂♂), 04.VII.2009, (5♂♂ 1♀), 02.VIII.2009, (1♂), 18.X.2009, (2♂♂), *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, pitfall trap; Kırlangıç Stream 1, 17.VI.2010, stream bed, *Quercus* sp., pitfall trap, (1♀); Şahmelik, 21.VI.2009, stream bed, under stone, (4♂♂ 2♀♀); Eğrisu Stream, 24.V.2009, stream bed, under stone, (1♂); Söbüyürt 1, 04.VII.2009, (1♂), 02.VIII.2009, (1♀), nonwoody plants, pitfall trap; Daridere, 01.VIII.2010, *Quercus* sp., under bark, aspirator, (1♀); Daridere Road 2, 18.X.2009, stream bed, under stone, (1♂); Köprü Stream, 11.VII.2010, stream bed, under stone, (1♀); Kırlangıç Stream 2, 11.VII.2010, stream bed, sifting, (5♂♂ 12♀♀); Kırlangıç Stream 1, 17.VII.2010, stream bed, sifting, (1♂ 2♀♀); Ayı Stream Road, 24.V.2009, *Matricaria* sp., aspirator, (1♀); Ayı Stream 3, 31.V.2008, *Pleurotus* sp., aspirator, (1♂); Gelin Rivulet, 16.X.2010, stream bed, under stone, (1♂); Eybek Observation Tower 2, 16.X.2010, *Hydnellum repandum*, aspirator, (1♂); Tahta Köprü Stream, 07.XI.2010, stream bed, under stone, (1♀); Şefin Çeşmesi, 07.XI.2010, on the ground, (1♂). Totally 103 specimens. **Distribution in the world:** E: AL AU BE BH BU CR CZ DE FR GB GE GG GR HU IR IT LA LT LU MC NL NR PL PT RO SK SL SP ST SV SZ UK N: AG MR TU A: CY IN IS LE SY TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Adana (Börücek-Toros), Ankara, Manisa (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### *Quedius (Quedius) unicolor* Kiesenwetter, 1847

**Material examined:** Koçere Stream 1, 21.VI.2009, stream bed, pitfall trap, (1♂). Totally 1 specimen. **Distribution in the world:** E: AU CZ FR GE IT PL SK SZ UK (Löbl & Smetana, 2004). **Distribution in Turkey:** This species was not known from Turkey. **Remarks:** The species is here reported from Turkey for the first time.

#### Subgenus *Raphirus* Stephens, 1829

##### *Quedius (Raphirus) acuminatus* Hochhuth, 1849

**Material examined:** Bozdere (Kirse Area 3), 27.VI.2010, stream bed, sifting, (1♀); Daridere, 01.VIII.2010, wood chips, sifting, (1♂ 1♀); Daridere Road 2, 17.VII.2010, stream bed, under stone, (1♂). Totally 4 specimens. **Distribution in the world:** E: AR AU BH CR FR GE HU ST A: IN LE TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Ağrı Mountain (=Mont Ararat), Giresun (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

##### *Quedius (Raphirus) gemellus* Eppelsheim, 1889

**Material examined:** Söbüyürt 1, 02.VIII.2009, stream bed, sifting, (5♂♂); Köprü Stream, 11.VII.2010, stream bed, sifting, (1♀); Söbüyürt 2, 19.VII.2009, *Macrolepiota* sp., aspirator, (1♀). Totally 7 specimens. **Distribution in the world:** E: GG ST (Kavkaz) A: TR (Löbl & Smetana, 2004). **Distribution in Turkey:** The exact locality of this species has not been cited by previous studies (Coiffait, 1978). **Remarks:** This new and exact locality is registered for the first time from Turkey with this study.

##### *Quedius (Raphirus) henroti* Coiffait, 1970

**Material examined:** Altıparmak, 06.IX.2009, *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, pitfall trap, (1♂); Karaçam Observation Tower, 07.XI.2010, *Pinus nigra*, *Verbascum* sp., under stone, (1♀). Totally 2 specimens. **Distribution in the world:** E: GR (Lésvos) (Löbl & Smetana, 2004). **Distribution in Turkey:** This species was not known from Turkey. **Remarks:** The species is here reported from Turkey for the first time.

##### *Quedius (Raphirus) nemoralis nemoralis* Baudi di Selve, 1848

**Material examined:** Altıparmak, 18.X.2009, *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, pitfall trap, (1♂); Eybek Observation Tower 2, 16.X.2010, *Hydnellum repandum*,

aspirator, (1♂). Totally 2 specimens. **Distribution in the world:** E: AU BE BH BU BY CR CZ DE EN FI FR GB GG GR HU IT LT MC NL NT PL PT RO SK SP ST SV SZ UK YU A: CY IN TR (Löbl & Smetana, 2004). **Distribution in Turkey:** The exact locality of this species has not been cited by previous studies (Anlaş, 2009). **Remarks:** This new and exact locality is registered for the first time from Turkey with this study.

#### *Quedius (Raphirus) semiobscurus* (Marsham, 1802)

**Material examined:** Sarıkız Hill, 10.V.2009, rocky field, under stone, (1♂); Beypınarı 1, 14.VI.2008, *Pinus nigra*, *Vicia villosa*, pitfall trap, (1♀); Koçere Stream 2, 21.VI.2009, *Abies equi-trojani*, *Fagus orientalis*, pitfall trap, (1♂), 21.VI.2009, *Abies equi-trojani*, *Fagus orientalis*, under stone (1♀). Totally 4 specimens. **Distribution in the world:** E: AB AU BE BH CR DE FR GB GE GG GR HU IR IT LU NL PL PT SL SP ST SV SZ N: AG CI (La Palma) MO TU A: CY IN SY TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Bursa (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### Genus *Velleius* Leach, 1819

##### *Velleius dilatatus* Fabricius, 1787

**Material examined:** Ayı Stream, 14.VI.2008, (1♀), 05.VII.2008, (2♀♀), *Quercus* sp., bait trap; Ayı Stream 2, 05.VII.2008, *Pinus brutia*, bait trap (1♀). Totally 4 specimens.

**Distribution in the world:** E: AU BE CR CT CZ DE EN FI FR GB GE HU IT LA LU NL NT PL PT RO SK ST SV SZ UK YU A: JA LIA SC TR WS (Löbl & Smetana, 2004).

**Distribution in Turkey:** Samsun, Tunceli (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### Subtribe Staphylinina Latreille, 1802

##### Genus *Creophilus* Leach, 1819

###### *Creophilus maxillosus* (Linnaeus, 1758)

**Material examined:** Dalak Suyu Area, 12.V.2010, *Fagus orientalis*, animal carcass, (1♂ 2♀♀). Totally 3 specimens. **Distribution in the world:** E: AL AR AU AZ BE BH BU BY CR CT CZ DE EN FA FI FR GB GE GG GR HU IC IR IT LA LT LU MC NL NR NT PL PT RO SK SL SP ST SV SZ UK YU N: AG CI EG LB MO MR TU A: AF BEI BT CY ES FE HEI HKG HP IN JA JIL KA KI KZ LE LIA NC MG NP PA SC SCH SD SHA SY TD TM TR UP WS YUN NAR ORR (Löbl & Smetana, 2004). **Distribution in Turkey:** Adana (Börücek-Toros), Gaziantep, Hatay, İzmir, Kayseri [Erciyes Mountain (=Erdschias-Gebiet)], Manisa, Mersin [Tarsus (=Tarsous), Caramania] (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### Genus *Ocypterus* Leach, 1819

##### Subgenus *Matidus* Motschulsky, 1860

###### *Ocypterus (Matidus) nitens* (Schrank, 1781)

**Material examined:** *Abies equi-trojani* Natural Reserve, 18.X.2009, *Abies equi-trojani*, *Digitaria sanguinalis*, pitfall trap, (1♀); Ayı Stream 2, 19.VII.2008, *Pinus brutia*, *Moenchia mantica* subsp. *mantica*, pitfall trap, (1♂). Totally 2 specimens. **Distribution in the world:** E: AL AR AU BE BH BU CR CT DE EN FI FR GB GE GG GR HU IR IT LA LT LU MC NL NR NT PL PT RO SK SL SP ST SV SZ UK YU A: IN TR NAR (Löbl & Smetana, 2004). **Distribution in Turkey:** The exact locality of this species has not been cited by previous studies (Anlaş, 2009). **Remarks:** This new and exact locality is registered for the first time from Turkey with this study.

#### Subgenus *Ocypterus* Leach, 1819

##### *Ocypterus (Ocypterus) curtipennis* Motschulsky, 1849

**Material examined:** Beypınarı 1, 14.VI.2008, (1♂), 02.VIII.2008, (3♂♂), 31.VIII.2008, (3♂♂ 2♀♀), 13.IX.2008, (2♂♂ 2♀♀), 19.IX.2008, (1♂ 2♀♀), 09.XI.2008, (2♂♂ 1♀), 19.VII.2009, (3♂♂ 1♀), 18.X.2009, (5♂♂ 7♀♀), 27.VI.2010, (1♂), *Pinus nigra*, *Vicia villosa*, pitfall trap; Beypınarı 2, 13.IX.2008, (3♂♂ 6♀♀), 06.IX.2009 (2♂♂ 3♀♀), *Phaseolus vulgaris*, *Lycopersicon esculentum*, *Capsicum annuum*, pitfall trap; Altiparmak, 04.VII.2009, (1♂), 02.VIII.2009, (3♂♂), 06.IX.2009, (7♂♂ 5♀♀), 18.X.2009, (8♂♂ 5♀♀), *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, pitfall trap, 02.VIII.2009, *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, under stone, (1♀); Padişah Pınarı,

11.VII.2010, *Mentha pulegium*, stream bed, under stone, (3♂♂); Gelin Çayı, 16.X.2010, *Pinus nigra*, stream bed, under stone, (2♀♀); Hanilar Üstü, 16.X.2010, meadow, cow dung, aspirator, (1♂); Yaşyer 1, 16.X.2010, stream bed, under stone, (1♂); Yaşyer 2, 16.X.2010, stream bed, under stone, (3♂♂); Yaşyer 3, 16.X.2010, *Pinus nigra*, *Agaricus* sp., aspirator, (1♀); Yaşyer Stream 4, 07.XI.2010, stream bed, *Agaricus* sp., aspirator, (1♀); Musa Hill, 07.XI.2010, *Lycoperdon perlatum*, aspirator, (1♂); Havran, Kalabak Village, 01.VII.2010, on the ground, aspirator, (1♂). Totally 94 specimens. **Distribution in the world:** E: AB BU GG GR MC ST TR UK A: CY IN IQ LE SY TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Bursa, İstanbul, İzmir (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

### **Subgenus *Pseudocypus* Mulsant & Rey, 1876**

#### ***Ocyptus (Pseudocypus) mus* (Brullé, 1832)**

**Material examined:** Dereçati 1, 17.VII.2010, *Platanus orientalis*, *Quercus* sp., stream bed, under stone, (1♂); Dereçati 2, 17.VII.2010, *Platanus orientalis*, *Quercus* sp., stream bed, under stone, (1♀); Gelin Rivulet, 16.X.2010, stream bed, under stone, (1♂); Eybek Observation Tower 2, 16.X.2010, *Hydnellum repandum*, aspirator, (1♂). Totally 4 specimens. **Distribution in the world:** E: AB AU BH BU CR CZ GR HU IT MC RO SK TR UK YU A: CY IN IQ IS LE SY TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Ankara, İzmir, Manisa, Mersin [Bolkar Mountains (=Bulghar Dagh)], Muğla, Şanlıurfa, Trabzon (=Trapezunt) (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### ***Ocyptus (Pseudocypus) orientis* Smetana & Davies, 2000**

**Material examined:** Beypinari 1, 09.XI.2008, (1♂), 21.VI.2009, (1♂), *Pinus nigra*, *Vicia villosa*, pitfall trap; Koçere Stream 1, 19.VII.2009, stream bed, pitfall trap, (1♂); *Abies equi-trojani* Natural Reserve, 18.X.2009, *Abies equi-trojani*, *Digitaria sanguinalis*, pitfall trap, (3♂♂); Koçere Stream 2, 06.IX.2009, (2♂♂), 27.VI.2010, (1♂), *Abies equi-trojani*, *Fagus orientalis*, under stone; Altıparmak, 21.VI.2009, *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, pitfall trap, (1♂); Yedikardeşler, 05.VII.2008, *Abies equi-trojani*, *Pinus nigra*, pitfall trap, (1♂). Totally 11 specimens. **Distribution in the world:** E: GR A: CY IS LE SY TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Manisa (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### ***Ocyptus (Pseudocypus) sericeicollis* (Ménétrier, 1832)**

**Material examined:** Nanekuri Hill, 06.VI.2009, rocky field, *Sideritis trojana*, aspirator, (1♀), 04.VII.2009, (11♂♂ 13♀♀), 06.IX.2009, (1♂), rocky field, *Sideritis trojana*, pitfall trap; Sarıkız Road, 14.VI.2008, (2♂♂), 05.VII.2008, (1♀), 06.VI.2009, (3♂♂), *Pinus nigra*, pitfall trap, 06.VI.2009, (1♀), 04.VII.2009, (3♂♂ 3♀♀), *Pinus nigra*, under stone; Ceyiz Stream, 31.V.2008, (1♂), 14.VI.2008, (1♂ 1♀), *Abies equi-trojani*, pitfall trap, 31.V.2008, *Abies equi-trojani*, sweeping net, (1♀), 05.VII.2008, *Abies equi-trojani*, bait trap, (1♂); Beypinari 1, 14.VI.2008, (1♂ 3♀♀), 05.VII.2008, (1♂), 31.VIII.2008, (1♀), 06.VI.2009, (2♂♂ 3♀♀), 21.VI.2009, (9♂♂ 3♀♀), 04.VII.2009, (1♂), 06.IX.2009, (1♀), 18.X.2009, (1♂ 1♀), 23.X.2010, (3♂♂ 3♀♀), *Pinus nigra*, *Vicia villosa*, aspirator; Beypinari 2, 06.VI.2009, (4♂♂ 1♀), 21.VI.2009, (8♂♂ 3♀♀), *Phaseolus vulgaris*, *Lycopersicon esculentum*, *Capsicum annuum*, pitfall trap; Koçere Stream 1, 21.VI.2009, (2♀♀), 19.VII.2009, (2♂♂ 2♀♀), 06.IX.2009, (4♂♂ 1♀), 18.X.2009, (1♂), 27.VI.2010, (1♀), stream bed, under stone, 27.VI.2010, stream bed, pitfall trap, (3♂♂ 1♀); Büyük Rahat Stream, 21.VI.2009, stream bed, under stone, (1♀); Altıparmak, 02.VI.2009, (3♂♂ 2♀♀), 06.VI.2009, (2♀♀), 21.VI.2009, (3♂♂), *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, under stone, 21.VI.2009, (1♂ 1♀), 04.VII.2009, (1♂), *Pinus nigra*, *Anthriscus nemorosa*, *Mentha pulegium*, pitfall trap; Kırlangış Stream 1, 04.VII.2009, *Quercus* sp., stream bed, sifting, (1♂); Eşek Stream, 18.X.2009, stream bed, under stone, (1♂); Ayı Stream Bridge, 06.IX.2009, *Heracleum platytaenium*, *Urtica urens*, aspirator, (1♂ 1♀); Ayı Stream 2, 09.XI.2008, *Pinus brutia*, *Moenchia mantica* subsp. *mantica*, pitfall trap, (1♀); Yedikardeşler, 31.V.2008, (3♂♂), 31.VIII.2008, (2♀♀), *Abies equi-trojani*, *Pinus nigra*, aspirator, 05.VII.2008, *Abies equi-trojani*, pitfall trap, (5♂♂ 3♀♀); Köprü Stream, 11.VII.2010, stream bed, under stone, (1♀); Kırlangış Stream 2, 11.VII.2010, stream bed, sifting, (1♂); Havran, Kalabak Village, 10.V.2010, on the ground, aspirator, (1♀). Totally 145

specimens. **Distribution in the world:** E: AB AL AR BE BU FR GB GG GR IT TR A: CY IN SY TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Ankara, İzmir, Manisa, Şanlıurfa (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### Genus *Platydracus* Thomson, 1858

##### Subgenus *Platydracus* Thomson, 1858

###### *Platydracus (Platydracus) stercorarius* (Olivier, 1795)

**Material examined:** Beypinarı 1, 13.VIII.2008, (1♀), 06.IX.2009, (3♂♂), *Pinus nigra*, *Vicia villosa*, pitfall trap. Totally 4 specimens. **Distribution in the world:** E: AB AR AU BE BH BU CR CT CZ DE EN FI FR GB GE GG HU IT LA LT LU MC NL NR NT PL PT RO SK SL SP ST SV SZ UK YU A: ES IN KI TM TR WS (Löbl & Smetana, 2004). **Distribution in Turkey:** Rize (İkizdere), Trabzon (Of) (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### Genus *Tasgius* Stephens, 1829

##### Subgenus *Rayacheila* Motschulsky, 1845

###### *Tasgius (Rayacheila) morsitans* (Rossi, 1790)

**Material examined:** *Abies equi-trojani* Natural Reserve, 18.X.2009, *Abies equi-trojani*, *Digitaria sanguinalis*, pitfall trap, (1♂); Çam Çeşme, 06.IX.2009, *Pinus brutia*, *Fagus orientalis*, *Castanea sativa*, pitfall trap, (2♂♂). Totally 3 specimens. **Distribution in the world:** E: AU BE BH BU CR CZ DE FR GB GE GR HU IR IT NL NR PL RO SK SP SV SZ UK YU A: SY TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Sakarya [Sapanca Lake (=Sabandja)] (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### Tribe Xantholinini Erichson, 1839

##### Genus *Gauropterus* Thomson, 1860

###### *Gauropterus sanguinipennis* (Kolenati, 1846)

**Material examined:** Koçere Stream 1, 19.VII.2009, stream bed, under stone, (1♂). Totally 1 specimen. **Distribution in the world:** E: AB AR GG GR ST A: IN TM TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Adana, Amasya, Ankara, Antalya, Batman, Bayburt, Bilecik, Bingöl, Bitlis, Bursa, Erzurum, Eskişehir, Gaziantep, Hakkari, Hatay, İsparta, İzmir, Kars, Kastamonu, Konya, Malatya, Manisa, Mersin (Bolkar Mountains, Namrun=Çamlıayla), Muğla, Niğde, Sakarya (Gök Hill), Siirt, Şırnak, Tunceli, Van, Zonguldak (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### Genus *Gyrohypnus* Leach, 1819

##### Subgenus *Gyrohypnus* Leach, 1819

###### *Gyrohypnus (Gyrohypnus) angustatus* Stephens, 1833

**Material examined:** Ayı Stream 3, 23.X.2010, *Pleurotus* sp., aspirator, (1♂). Totally 1 specimen. **Distribution in the world:** E: AR AU BE BH BU CR CT CZ DE EN FI FR GB GE GG GR HU IC IR IT LA LT MA NL NR PL PT RO SK SL SP ST SV SZ UK YU N: MO MR A: ES TD TR WS NAR (Löbl & Smetana, 2004). **Distribution in Turkey:** Amasya, Ankara, Artvin, Aydın, Bayburt, Bitlis, Bolu, Bursa, Erzurum, Giresun, İsparta, İstanbul, İzmir, Kastamonu, Konya, Kütahya, Manisa, Mersin, Ordu, Osmaniye, Rize, Sinop, Zonguldak (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### Genus *Megalinus* Mulsant & Rey, 1877

##### *Megalinus scutellaris* (Fauvel, 1900)

**Material examined:** Havran, Kalabak Village, 05.XI.2009, on the ground, aspirator, (4♂♂ 3♀♀), Ebek Observation Tower 1, 16.X.2010, *Hydnnum repandum*, aspirator, (1♂). Totally 8 specimens. **Distribution in the world:** A: TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Adana, Ankara, Antalya, Çanakkale, Denizli, İzmir, Manisa, Mersin (Anlaş, 2009). **Remarks:** This species is the first record for Balıkesir fauna.

#### Genus *Xantholinus* Dejean, 1821

##### Subgenus *Calolinus* Coiffait, 1956

***Xantholinus (Calolinus) rufipennis*** Erichson, 1839

**Material examined:** Havran, Kalabak Village, 05.XI.2009, (5♂♂), 10.V.2010, (1♂), on the ground, aspirator. Totally 6 specimens. **Distribution in the world:** E: AL BH CR GR IT RO A: CY IS LE SY TR (Löbl & Smetana, 2004). **Distribution in Turkey:** Antalya, Bilecik, Bursa, Çanakkale, Diyarbakır, Gaziantep, Hatay, İstanbul, İzmir, Kahramanmaraş, Kilis, Mardin, Manisa, Mersin, Muğla, Zonguldak (Ereğli, Amaçlar Cave) (Anlaş, 2009).

**Remarks:** This species is the first record for Balıkesir fauna.

## RESULTS

Among the specimens of subfamily Staphylininae, 36 species were identified as belonging to 24 genera and subgenera of 3 tribes. One of them is in tribe Othiini, 31 of them are in tribe Staphylinini, 4 of them are in Xantholinini tribe. Also among the members of tribe Staphylinini, 11 species are in Philonthina, 12 are in Quediina, and 8 are in Staphylinina subtribe. Comparative quantitative distribution of identified species according to tribe and subtribe of Staphylininae subfamily present in Turkey is shown in Table 2, as a result of this study.

Among those, *Q. unicolor* and *Q. henroti* are new records for Turkish fauna. The exact localities of *Q. gemellus*, *Q. nemoralis nemoralis* and *Ocyphus nitens* are given for the first time from Turkey with this study. All of the identified species are also reported for the first time concerning Balıkesir and Kazdağları regional fauna.

The most common and abundant species of the research area are determined as *Ph. concinnus* (267 individuals), *O. sericeicollis* (145 individuals), *Q. levicollis* (103 individuals), *Ph. nitidicollis* (99 individuals), *O. curtipennis* (94 individuals), *Ph. debilis* (80 individuals) and *Ph. cognatus* (78 individuals). Only one specimen was collected from the species *Q. brevis*, *Q. unicolor* and *G. sanguinipennis*.

During the study respectively 42.03 % (446 individual) of the samples were collected by hand under the stones; 41.94 % (445 individual) by pitfall trap; 7.63 % (81 individual) by sifting; 1.60 % (17 individual) by sweeping net and 1.03 % (11 individuals) by bait traps. Additionally 5.77 % (61 individuals) of the specimens were collected from under barks, vegetation surfaces, carcasses, cow dung and decomposing mushrooms. Hibernation traps were found to be unsuccessful in collecting samples.

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Table 1. Detailed information of sampling localities.

| No | Locality                                     | Coordinate                  | Altitude | No | Locality  | Coordinate                  | Altitude |
|----|--|-----------------------------|----------|----|---|-----------------------------|----------|
| 1  | Sarıkız Hill                                 | 26° 52'28" E / 39° 41'30" N | 1720 m.  | 17 | Eşek Stream   | 26° 57'09" E / 39° 40'39" N | 520 m.   |
| 2  | Nanekuri Hill                                | 26° 52'52" E / 39° 42'03" N | 1649 m.  | 18 | Ayı Stream Bridge   | 26° 56'15" E / 39° 41'17" N | 580 m.   |
| 3  | Sarıkız Road<br>(Çeyiz Stream)               | 26° 53'07" E / 39° 42'12" N | 1576 m.  | 19 | Ayı Stream 2  | 26° 56'29" E / 39° 41'32" N | 588 m.   |
| 4  | Levent Boğazı                                | 26° 52'09" E / 39° 43'28" N | 1367 m.  | 20 | Eğrisu Stream   | 26° 58'20" E / 39° 40'25" N | 231 m.   |
| 5  | Beypinarı 1                                  | 26° 54'37" E / 39° 44'29" N | 1300 m.  | 21 | Gıldurdak Stream<br>(Kirse Area 1)                        | 26° 59'03" E / 39° 41'26" N | 525 m.   |
| 6  | Beypinarı 2                                  | 26° 54'36" E / 39° 44'27" N | 1294 m.  | 22 | Bozdere<br>(Kirse Area 2)                                 | 26° 59'28" E / 39° 41'55" N | 479 m.   |
| 7  | Koçdere Stream 1                             | 26° 56'42" E / 39° 45'55" N | 1252 m.  | 23 | Bozdere<br>(Kirse Area 3)                                 | 26° 59'37" E / 39° 42'02" N | 497 m.   |
| 8  | Büyük Rahat<br>Stream (Kocarahat<br>Stream)  | 26° 55'29" E / 39° 44'06" N | 1243 m.  | 24 | Çamçeşme Stream   | 26° 59'42" E / 39° 42'11" N | 500 m.   |
| 9  | <i>Abies equi-trojani</i><br>Natural Reserve | 26° 57'12" E / 39° 45'47" N | 1376 m.  | 25 | Söbüyurt 1  | 26° 54'12" E / 39° 42'48" N | 1220 m.  |
| 10 | Koçdere Stream 2                             | 26° 56'36" E / 39° 45'16" N | 1218 m.  | 26 | Şahmelik Area   | 26° 59'06" E / 39° 43'35" N | 1140 m.  |
| 11 | Altıparmak<br>(Pazareğrek)                   | 26° 53'59" E / 39° 44'06" N | 1146 m.  | 27 | Darıdere  | 26° 41'35" E / 39° 38'30" N | 633 m.   |
| 12 | Kırlangış Stream 1                           | 26° 45'42" E / 39° 39'50" N | 1120 m.  | 28 | Darıdere Road<br>2. Stream                                | 26° 41'17" E / 39° 38'17" N | 621 m.   |
| 13 | Çamçeşme                                     | 26° 57'37" E / 39° 43'56" N | 996 m.   | 29 | Domuz Çukuru<br>Road 1                                    | 26° 42'21" E / 39° 40'07" N | 652 m.   |
| 14 | Çamçeşme Stream                              | 26° 57'29" E / 39° 43'51" N | 949 m.   | 30 | Domuz Çukuru Road<br>2 (Karababa Stream)                  | 26° 43'35" E / 39° 41'02" N | 822 m.   |
| 15 | Şahmelik                                     | 26° 58'10" E / 39° 43'42" N | 941 m.   | 31 | Domuz Çukuru<br>Road 3                                    | 26° 44'01" E / 39° 41'35" N | 883 m.   |
| 16 | Ayı Stream 1                                 | 26° 56'29" E / 39° 41'28" N | 582 m.   | 32 | Küçük Stream 1<br>(Between Kırlangış<br>and Domuz Çukuru) | 26° 44'19" E / 39° 40'17" N | 851 m.   |

Table 1. Continued.

| No | Locality   | Coordinate                     | Altitude | No | Locality                                  | Coordinate                     | Altitude |
|----|--|--------------------------------|----------|----|---|--------------------------------|----------|
| 33 | Küçük Stream 2<br>(Between Kırlangıç and Domuz Çukuru) | 26° 44'27" E /<br>39° 40'56" N | 851 m.   | 48 | Gelin Rivulet<br>(Hacıarslanlar-Dereyurt) | 27° 09'09" E /<br>39° 41'31" N | 685 m.   |
| 34 | Hacimevlüt Çeşmesi Road                                | 26° 45'03" E /<br>39° 42'19" N | 1002 m.  | 49 | Eybek Observation Tower 1                 | 27° 08'36" E /<br>39° 41'43" N | 762 m.   |
| 35 | Yedikardeşler  | 26° 57'09" E /<br>39° 46'29" N | 1300 m.  | 50 | Eybek Observation Tower 2                 | 27° 08'36" E /<br>39° 41'35" N | 743 m.   |
| 36 | Köprü Stream<br>(Avcılar-Kızılıtaş)                    | 26° 48'53" E /<br>39° 40'51" N | 1116 m.  | 51 | Hanlar Üstü                               | 27° 09'37" E /<br>39° 42'02" N | 800 m.   |
| 37 | Padişah Pınarı   | 26° 48'45" E /<br>39° 41'27" N | 1203 m.  | 52 | Yaşıyer 1                                 | 27° 04'20" E /<br>39° 40'10" N | 322 m.   |
| 38 | Kırlangıç Stream 2                                     | 26° 46'78" E /<br>39° 41'50" N | 1205 m.  | 53 | Yaşıyer 2                                 | 27° 04'03" E /<br>39° 40'22" N | 396 m.   |
| 39 | Dereçatu 1<br>(Çatal Oluk)                             | 26° 46'24" E /<br>39° 38'92" N | 600 m.   | 54 | Yaşıyer 3                                 | 27° 03'57" E /<br>39° 40'23" N | 446 m.   |
| 40 | Dereçatu 2<br>(Drinking water)                         | 26° 46'58" E /<br>39° 38'76" N | 745 m.   | 55 | Yaşıyer Stream 4                          | 27° 03'41" E /<br>39° 40'31" N | 453 m.   |
| 41 | Kırlangıç Stream 1                                     | 26° 46'84" E /<br>39° 41'23" N | 1161 m.  | 56 | Musa Hill                                 | 27° 02'12" E /<br>39° 40'14" N | 455 m.   |
| 42 | Ayı Stream Road  | 26° 55'44" E /<br>39° 42'07" N | 785 m.   | 57 | Tahta Köprü Stream                        | 27° 01'32" E /<br>39° 40'07" N | 287 m.   |
| 43 | Ayı Stream 3   | 26° 55'22" E /<br>39° 42'48" N | 790 m.   | 58 | Şefin Çeşmesi                             | 27° 00'53" E /<br>39° 39'59" N | 297 m.   |
| 44 | Söbüyurt 2   | 26° 54'40" E /<br>39° 43'08" N | 1130 m.  | 59 | Dalak Suyu Area                           | 26° 58'15" E /<br>39° 46'16" N | 1325 m.  |
| 45 | Kavaklıdere  | 26° 54'59" E /<br>39° 42'53" N | 1134 m.  | 60 | Karaçam Observation Tower                 | 26° 43'59" E /<br>39° 39'12" N | 1237 m.  |
| 46 | Karayaprak Stream<br>(Eybek Hill)                      | 27° 06'00" E /<br>39° 40'19" N | 381 m.   | 61 | Havran - Kalabak Village                  | 27° 12'25" E /<br>39° 60'39" N | 215 m.   |
| 47 | Kapanca Stream   | 27° 09'49" E /<br>39° 41'17" N | 688 m.   |    |   |                                |          |

Table 2. Comparative quantitative distribution of identified species according to tribe and subtribe of Staphylininae present in Turkey with the completion of this study (Anlaş, 2009).

| Tribe / Subtribe                              | Number of species<br>in Turkey | Number of species<br>collected in this study |
|---|--------------------------------|--|
| <i>Diochini</i> Casey, 1906                   | 2                              | -  |
| <i>Othiini</i> Thomson, 1859                  | 10                             | 1  |
| <i>Platyprosopini</i> Lynch Arribálzaga, 1884 | 1                              | -  |
| <i>Staphylinini</i> Latreille, 1802           | (272)                          | (31)   |
| <i>Philonthina</i> Kirby, 1837                | 115                            | 11   |
| <i>Quediina</i> Kraatz, 1857                  | 90                             | 12   |
| <i>Staphylinina</i> Latreille, 1802           | 67                             | 8  |
| <i>Xantholinini</i> Erichson, 1839            | 61                             | 4  |
| <b>Total</b>                                  | <b>346</b>                     | <b>36</b>                                    |

Table 3. The status of collecting material for the years 2008-2010.

| Tribe / Subtribe                   | Species                            | 2008      | 2009      | 2010      |
|------------------------------------|------------------------------------|-----------|-----------|-----------|
| <i>Xantholinini</i>                | <i>Xantholinus rufipennis</i>      | -         | +         | +         |
|                                    | <i>Gyrohypnus angustatus</i>       | -         | -         | +         |
|                                    | <i>Megalinus scutellaris</i>       | -         | +         | +         |
|                                    | <i>Gauropterus sanguinipennis</i>  | -         | +         | -         |
| <i>Othiini</i>                     | <i>Othius laeviusculus</i>         | -         | -         | +         |
| <i>Staphylinini / Philonthina</i>  | <i>Gabrius anatolicus</i>          | -         | +         | +         |
|                                    | <i>Gabrius astutus</i>             | +         | +         | +         |
|                                    | <i>Philonthus cognatus</i>         | +         | +         | -         |
|                                    | <i>Philonthus concinnus</i>        | +         | +         | +         |
|                                    | <i>Philonthus coprophilus</i>      | -         | -         | +         |
|                                    | <i>Philonthus corruscus</i>        | +         | +         | +         |
|                                    | <i>Philonthus cruentatus</i>       | -         | +         | +         |
|                                    | <i>Philonthus debilis</i>          | +         | +         | -         |
|                                    | <i>Philonthus intermedius</i>      | +         | +         | +         |
|                                    | <i>Philonthus nitidicollis</i>     | +         | +         | +         |
|                                    | <i>Philonthus rufimanus</i>        | -         | +         | -         |
| <i>Staphylinini / Quediina</i>     | <i>Quedius levicollis</i>          | +         | +         | +         |
|                                    | <i>Quedius unicolor</i>            | -         | +         | -         |
|                                    | <i>Quedius brevis</i>              | -         | -         | +         |
|                                    | <i>Quedius cruentus</i>            | +         | -         | -         |
|                                    | <i>Quedius fissus</i>              | -         | -         | +         |
|                                    | <i>Quedius lateralis</i>           | -         | +         | +         |
|                                    | <i>Quedius acuminatus</i>          | -         | -         | +         |
|                                    | <i>Quedius gemellus</i>            | -         | +         | +         |
|                                    | <i>Quedius henroti</i>             | -         | +         | +         |
|                                    | <i>Quedius nemoralis nemoralis</i> | -         | +         | +         |
|                                    | <i>Quedius semiobscurus</i>        | +         | +         | -         |
|                                    | <i>Velleius dilatatus</i>          | +         | -         | -         |
| <i>Staphylinini / Staphylinina</i> | <i>Creophilus maxillosus</i>       | -         | -         | +         |
|                                    | <i>Platydracus stercorarius</i>    | +         | +         | -         |
|                                    | <i>Tasgius morsitans</i>           | -         | +         | -         |
|                                    | <i>Ocyphus nitens</i>              | +         | +         | -         |
|                                    | <i>Ocyphus mus</i>                 | -         | -         | +         |
|                                    | <i>Ocyphus orientis</i>            | +         | +         | +         |
|                                    | <i>Ocyphus sericeicollis</i>       | +         | +         | +         |
|                                    | <i>Ocyphus curtipennis</i>         | +         | +         | +         |
|                                    | <b>Total number of species</b>     | <b>16</b> | <b>26</b> | <b>25</b> |

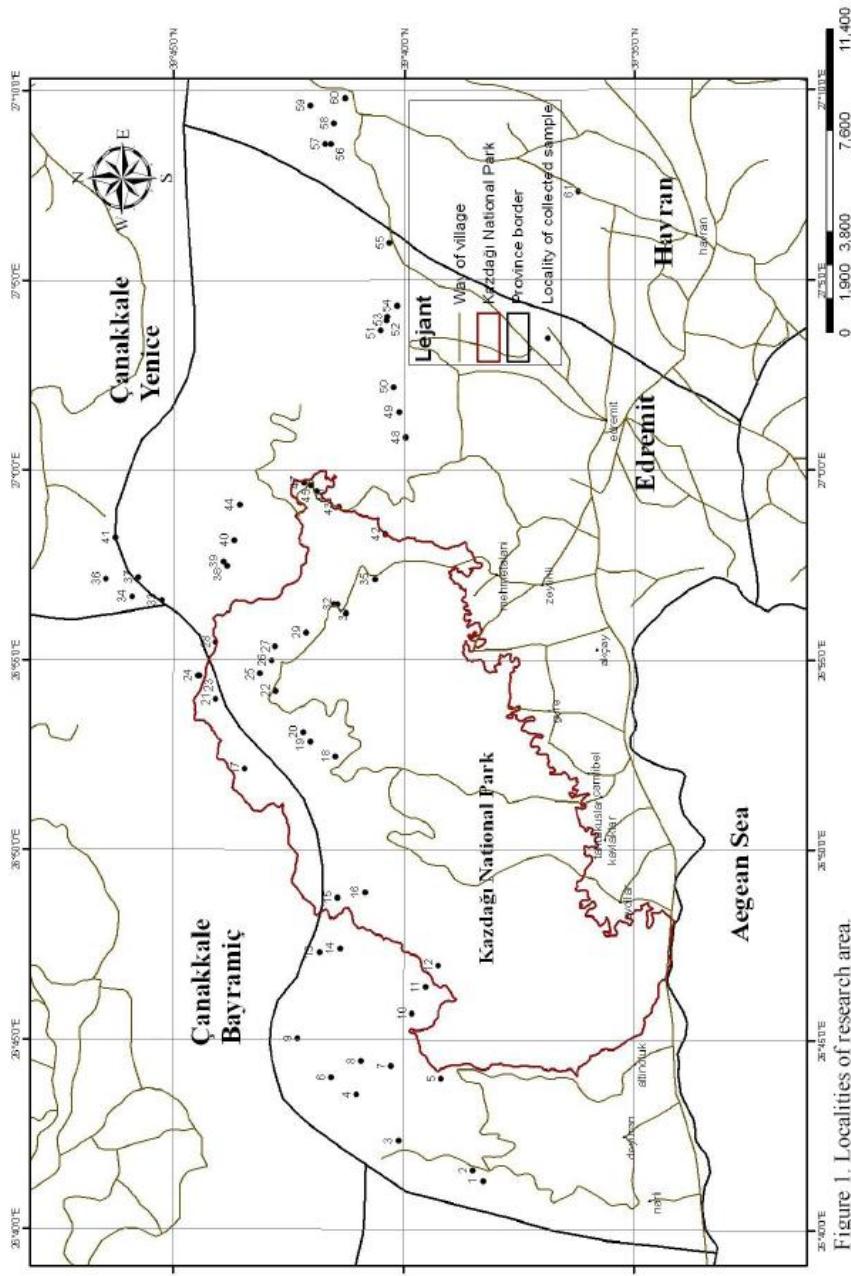


Figure 1. Localities of research area.