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## A faunal study of the subfamily Doryctinae in Turkey (Hymenoptera: Braconidae)

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**Abstract:** From the serial studies of the Braconidae fauna of Turkey, the subfamily Doryctinae was treated. Adult specimens were collected from various habitats of Turkey between 1979 and 2013. In total, 58 species belonging 25 genera were reported for the studied region, among which 52 species were recorded for the first time from Turkey. The numbers of species of each genus are as follows: *Clinocentrus* Haliday, 1833: 1; *Coeloides* Wesmael, 1838: 1; *Colastes* Haliday, 1833: 6; *Dendrosoter* Wesmael, 1838: 1; *Dendrosotinus* Telenga, 1941: 1; *Dolopsidea* Hincks, 1944: 2; *Doryctes* Haliday, 1836: 4; *Ecphylyus* Förster, 1862: 1; *Hecabalodes* Wilkinson, 1929: 1; *Hellenius* Tobias, 1982: 1; *Heterospilus* Haliday, 1836: 7; *Hormius* Nees, 1819: 2; *Leluthia* Cameron, 1887: 4; *Oncophanes* Förster, 1862: 1; *Ontsira* Cameron, 1900: 2; *Pachystigmus* Hellén, 1927: 1; *Pambolus* Haliday, 1836: 1; *Polystenus* Förster, 1862: 1; *Pseudohormius* Tobias & Alexeev, 1973: 1; *Rhaconotus* Ruthe, 1854: 6; *Rhoptrocentrus* Marshall, 1897: 1; *Rhysipolis* Förster, 1862: 4; *Rhyssalus* Haliday, 1833: 1; *Spathiomorpha* Tobias, 1976: 1; and *Spathius* Nees, 1819: 6. The known hosts of each species are given.

**Key words:** Braconidae, Doryctinae, fauna, new records, Turkey

### 1. Introduction

The Doryctinae species differ from other cyclostome braconids by the presence of a row of short spines on the anterior edge of the fore tibia, by a flange on the apicolateral edges of the propleuron, and by the apex of the ovipositor with a double node dorsally (Quicke et al., 1992; Marsh, 1993).

Doryctinae is one of the most diversified subfamilies in Braconidae (Shenefelt and Marsh, 1976). More than 1300 doryctine species have been described in 187 recognized genera belonging to 16 tribes, most of which are restricted to tropical and subtropical regions (Belokoblyskij, 1992; Yu et al., 2012).

Doryctinae shows a wide range of biological habits, perhaps one of the most diverse in the family Braconidae. Most species for which the biology is known are idiobiont ectoparasitoids of mostly wood-boring beetle larvae in the families Anobiidae, Bostrichidae, Buprestidae, Cerambycidae, Colydiidae, Curculionidae, Eucnemidae, Mordellidae, and Scolitidae (Coleoptera); a few stem-boring lepidopterous larvae in the families Crambidae, Gelechiidae, Gracillariidae, Lyonetiidae, Momphidae, Cosmopterigidae, Bostrichidae, Buccalatricidae, Coleophoridae, Elachistidae, Lymantriidae, Micropterigidae, Nepticulidae, Pyralidae, Tineidae, Tischeriidae, Tortricidae, and Sesiidae (Lepidoptera);

certain sawfly larvae of Cephidae, Tenthredinidae, and Xiphydriidae (Hymenoptera); and Oligochaeta (Lumbricidae) and Aranea (Theridiidae) (Marsh, 1997; Yu et al., 2012). Although many doryctines attack beetle larvae in seeds, a few species are now known to be phytophagous in seeds or to be gall inducers in various tropical plants (Wharton and Hanson, 2005).

Many taxonomic studies have recently dealt with Doryctinae throughout the world (Fischer, 1970, 1980; Shenefelt and Marsh, 1976; Shaw and Edgerly, 1985; Quicke, 1987, 1997; Belokoblyskij, 1990, 1993, 1994a, 1994b, 1995, 1998, 2003, 2004a, 2004b; Ramirez and Marsh, 1996; Marsh, 1997, 2002; Barbalho et al., 1999; Marsh and Melo, 1999; Belokoblyskij and Quicke, 2000; van Achterberg, 2003; Belokoblyskij and Chen, 2004, 2006; Belokoblyskij et al., 2004a, 2004b, 2012; Belokoblyskij and Maeto, 2006, 2008, 2009; Gomes and Penteado-Dias, 2007; Belokoblyskij and Žikić, 2009; Ghahari, 2009; Kula, 2009; Loni et al., 2012; Martinez and Zaldivar-Riverón, 2013; Tang et al., 2013).

The subfamily Doryctinae is not common in Turkey. The fauna of the Turkish Doryctinae has been poorly studied until recently and only 9 species were recorded so far: *Dendrosoter* (*Caenopachys*) *hartigii* (Ratzeburg) by Mancini et al. (2003), *Dendrosoter* (*D.*) *middendorffii* (Ratzeburg) by Schimitschek (1941, 1944), *Dendrosoter*

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(*D. protuberans* (Nees) by Schimitschek (1939, 1941; Zaldivar-Riverón et al., 2008), *Spathius* (*S.*) *curvicaudis* Ratzeburg by Schimitschek (1944) and Hedqvist (1976), *Spathius* (*S.*) *rubidus* (Rossi) by Belokobylskij (2001), *Pambolus* (*Phaenodus*) *pallipes* (Förster) by Belokobylskij (1986), *Hormius propodealis* (Belokobylskij) by Belokobylskij (2001), and *Dolopsidea indagator* (Haliday) and *Dolopsidea tatianae* (Telenga) by Beyarslan and Aydogdu (2013).

*D. (C.) hartigii* (Ratzeburg), *D. (D.) middendorffii* (Ratzeburg), and *H. propodealis* (Belokobylskij) could not be determined in this study.

Adult braconids were collected from various parts of Turkey between 1979 and 2013 and the Doryctinae specimens from this material are studied in this contribution. In total, 58 species belonging to 25 genera are reported for the studied regions of Turkey. Of these, 40 species are distributed in Anatolia (Asian Turkey) and 2 species are distributed only in Thrace (European Turkey), while 16 species occur in both.

## 2. Materials and methods

Adult specimens of Doryctinae were collected from various habitats of Turkey using Malaise and light traps and sweeping nets. The material is kept in the museum of Bitlis Eren University in Bitlis.

Publications consulted for distribution data include those of Matthews (1970), Belokobylskij and Quicke (2000), van Achterberg (2003), Zaldivar-Riverón and Belokobylskij (2009), and Rastegar et al. (2012).

Relevant literature was used for taxonomical examination of the material. The specimens were identified mostly using the keys of Belokobylskij (1992, 2001, 2003), Belokobylskij and Samartsev (2011), and Tobias (1986). The species of Doryctinae are ectoparasitoids of forest and agricultural pests. Parasitoid doryctine species lay their eggs on the body of the host, which is then used as food for developing larvae. The host is ultimately killed. Hence, a list host species was arranged and is provided in the present study.

Information on parasitoids, hosts, general distributions (in terms of zoogeographical region), and parasitoids of the species determined are given according to Yu et al. (2012). The genera and species are tabulated alphabetically therein.

The terminology and measurements follow van Achterberg (1993). All specimens are deposited in the collection of the Department of Entomology, Bitlis Eren University, Bitlis, Turkey. An asterisk (\*) is used within the text for the species that were previously recorded from Turkey.

## 3. Results

### 3.1. Genus *Clinocentrus* Haliday, 1833

#### *Clinocentrus vestigator* (Haliday, 1836)

**Material examined:** Erzurum-Olur (39°54'35"N, 41°16'32"E), 1853 m. 12.09.2012, 8♀♀, 3♂♂.

**Distribution:** Western Palearctic.

**Hosts:** **Lepidoptera**, **Epermeniidae:** *Epermenia chaerophylella* Goeze 1783; *E. illigerella* (Hübner, 1813). **Ypsolophidae:** *Ypsolopha vittella* (Linnaeus, 1758).

### 3.2. Genus *Coeloides* Wesmael, 1838

#### *Coeloides forsteri* Haeselbarth, 1967

**Material examined:** Artvin-Merkez (41°36'37"N, 041°35'58"E), 32 m. 06.06.2011 (*Ips sexdentatus*), 1♀.

**Distribution:** Western Palearctic.

**Hosts:** **Coleoptera**, **Scolytinae:** *Ips typographus* (Linnaeus, 1758). **Curculionidae:** *Pissodes notatus*; *P. (P.) piceae* (Illiger, 1807); *P. (P.) piniphilus* (Herbst 1797).

### 3.3. Genus *Colastes* Haliday, 1833

#### *Colastes (Colastes) braconius* Haliday, 1833

**Material examined:** Bolu-Aladağ-Çepni Yaylası (40°44'0"N, 31°36'0"E), 1470 m. 27.08.2003, 1♀; -Karacasu-Gölcük (40°44'0"N, 31°36'0"E), 1470 m. 26.08.2002, 1♀; Kastamonu-Daday-Ballıdağ (41°28'0"N, 33°25'0"E), 1750 m. 01.07.2001, 5♀♀; Kırklareli-Yeniceköy (41°44'11"N, 27°38'8"E), 500 m. 02.06.1993, 1♀; -Pınarhisar-Sarpdere (41°52'00"N, 27°35'03"E), 192 m. 03.06.1993, 1♀; Trabzon-Maçka-Sümela (40°41'59"N, 39°39'26"E), 1073 m. 03.07.2004, 1♀; 05.08.2005, 1♀; Zonguldak-Devrek-Davulga (41°13'30"N, 31°57'34"E), 800 m. 29.06.2001, 6♀♀.

**Distribution:** Palearctic. Introduced to USA-Delaware; USA-New Jersey; USA-Pennsylvania (Hendrickson and Barth, 1979).

**Hosts:** **Coleoptera**, **Curculionidae:** *Cryptorhynchus lapathi* (Linnaeus, 1758); *Rynchaenus avellanae* (Donovan, 1797); *R. fagi* (Linnaeus 1758). **Diptera**, **Agromyzidae:** *Agromyza albitarsis* (Meigen, 1830); *A. frontella* (Rondani, 1875); *A. nana* (Meigen, 1830); *Amauromyza verbasci* (Bouche, 1847); *A. verbasci* (Bouche, 1847); *Aulagromyza cornigera* (Griffiths, 1973); *A. hendeliana* (Hering, 1926); *Chromatomyia aprilina*; (Goureaux, 1851); *C. loniceriae* (Robineau-Desvoidy, 1851); *L. approximata* (Hendel, 1920); *L. lutea* (Meigen, 1830); *L. pusilla* (Meigen, 1830); *Phytoliriomyza melampyga* (Loew, 1869); *P. variegata* (Meigen, 1830); *Phytomyza aconiti* (Hendel, 1920); *P. affinis* (Fallén, 1823); *P. albiceps* (Meigen, 1830); *P. chaerophylli* (Kaltenbach, 1856); *P. leucanthemii* (Hering, 1935); *P. ranunculi* (Schränk, 1803); *P. xylostei* (Kaltenbach, 1862). **Hymenoptera**, **Tenthredinidae:** *Fenusa ulmi* (Sundevall, 1844); *Heterarthrus vagans* (Fallén, 1808); *Messa hortulana* (Klug, 1818); *Pontania bella* (Zaddach, 1876); *P. pedunculi* (Hartig, 1837); *P. proxima* (Serville, 1823). **Lepidoptera**, **Coleophoridae:** *Coleophora gryphipennella* (Hübner,

1796). **Cosmopterigidae:** *Cosmopterix scribaiella* (Zeller, 1850). **Elachistidae:** *Elachista humilis* (Zeller, 1850). **Eriocraniidae:** *Dyseriocrania subpurpurella* (Haworth, 1828). **Gracillariidae:** *Cameraria ohridella* (Deschka & Dimic, 1986). *Parornix betulae* (Stainton, 1854); *Phyllonorycter acerifoliella* (Zeller, 1839); *P. blancardella* (Fabricius, 1781); *P. cavella* (Zeller, 1846); *P. comparella* (Duponchel, 1843); *P. coryli* (Nicelli, 1851); *P. dubitella* (Herrich-Schäffer, 1855); *P. emberizaepennella* (Bouche, 1834); *P. esperella* (Goeze, 1783); *P. fitchella* (Clemens, 1860); *P. froelichiella* (Zeller, 1839); *P. geniculella* (Ragonot, 1874); *P. harrisella* (Linnaeus, 1761); *P. heegeriella* (Zeller, 1846); *P. insignitella* (Zeller, 1846); *P. lantanella* (Schrank, 1802); *P. lautella* (Zeller, 1846); *P. leucographella* (Zeller, 1850); *P. maestingella* (Müller, 1764); *P. messaniella* (Zeller, 1846); *P. nicellii* (Stainton, 1851); *P. nigrescentella* (Logan, 1851); *P. oxyacanthae* (Frey, 1856); *P. platani* (Staudinger, 1870); *P. platanoidella* (Joannis, 1920); *P. pomonella* (Herrich-Schäffer 1855); *P. populifoliella* (Treitschke, 1833); *P. pyrifoliella* (Gerasimov, 1933); *P. quercifoliella* (Zeller, 1839); *P. quinmata* (Geoffroy, 1785); *P. quinqueguttella* (Stainton, 1851); *P. robiniella* (Clemens, 1859); *P. roboris* (Zeller, 1839); *P. salicicolella* (Sircom, 1848); *P. salictella* (Zeller, 1846); *P. saportella* (Zeller, 1839); *P. schreberella* (Fabricius, 1781); *P. sorbi* (Frey, 1855); *P. spinicolella* (Zeller, 1846); *P. stettinensis* (Nicelli, 1852); *P. strigulatella* (Lienig & Zeller, 1846); *P. tenerella* (Joannis, 1915); *P. trifasciella* (Haworth, 1828); *P. Tristrigella* Haworth, 1928; *P. ulmifoliella* (Hubner, 1817); *Antispila treitschkiella* (Fischer von Röslerstamm, 1843); *Heliozela betulae* (Sorhagen, 1885); *Lampides boeticus* (Linnaeus, 1767); *Lyonetia rajella* (Linnaeus 1758); *Mompha epilobiella* (Denis & Schiffermüller, 1775); *Mompha raschkiella* (Zeller, 1839). **Nepticulidae:** *Ectoedemia septembrella* (Stainton, 1849); *Stigmella anomalella* (Goeze, 1783); *S. hemargyrella* (Kollar, 1832); *S. microtheriella* (Stainton, 1854); *S. nylandriella* (Tengström, 1848); *S. plagicolella* (Stainton, 1854); *S. ruficapitella* (Haworth, 1828); *Stigmella sorbi* (Stainton, 1861); *Stigmella splendidissimella* (Herrich-Schäffer, 1855); *Stigmella tityrella* (Stainton, 1854). **Pyralidae:** *Pempeliella dilutella* (Denis & Schiffermüller, 1775). **Tischeriidae:** *Emmetia gaunacella* (Duponchel, 1843); *Emmetia heinemann* (Wocke, 1871); *Emmetia marginea* (Haworth, 1828); *Tischeria dodonaea* (Stainton, 1858); *Tischeria ekebladella* (Bjerkander, 1795); *Selania leplastriana* (Curtis, 1831); *Tortrix viridana* (Linnaeus, 1758); *Ypsolopha dentella* (Fabricius, 1775).

***Colastes (Colastes) vividus* Papp, 1975**

**Material examined:** Çorum-Dodurga-Osmaniye (40°40'28"N, 34°55'01"E), 1028 m. 28.06.2004, 4♀♀.

**Distribution:** Western Palearctic.

**Hosts:** **Lepidoptera, Gracillariidae:** *Cameraria ohridella* Deschka & Dimic, 1986; *Phyllonorycter spinicolella*

(Zeller, 1846). **Tischeriidae:** *Emmetia heinemanni* (Wocke, 1871).

***Colastes (Fungivenator) aciculatus* Tobias, 1986**

**Material examined:** Erzincan-Üzümlü-Demirpınar (39°37'38"N, 39°47'34"E), 1200 m. 24.08.2008, 1♂.

**Distribution:** Western Palearctic.

***Colastes (Shawiana) catenator* (Haliday, 1836)**

**Material examined:** Ordu-Mesudiye (40°26'45"N, 37°46'42"E), 1330 m. 06.07.2004, 3♀♀.

**Distribution:** Palearctic.

**Hosts:** **Hymenoptera, Tenthredinidae:** *Fenusa dohrni* (Tischbein, 1846); *F. pumila* Leach, 1817; *F. pusilla* (Lepelletier, 1823); *F. rubi* Boie, 1848; *F. ulmi* Sundevall, 1844; *Heterarthrus aceris* (Kaltenbach, 1856); *H. vagans* (Fallén, 1808); *Messa herticulana* (Klug, 1818); *M. nana* (Klug, 1818); *Metallus albipes* (Cameron, 1875); *M. pumilus* (Klug, 1816); *Profenusa pygmaea* (Klug 1816); *Scolioneura betuleti* (Klug, 1816). **Lepidoptera, Gracillariidae:** *Parna tenella* (Klug, 1816); *Phyllonorycter quercifoliella* (Zeller, 1846). **Micropterigidae:** *Eriocrania semipurpurella* (Stephens, 1835).

***Colastes (Shawiana) laevis* (Thomson, 1892)**

**Material examined:** Kars-Sarıkamış-Kayak Tesisi-Birinci Etap (40°20'17"N, 42°34'23"E), 2102 m. 19.09.2012, 3♀♀.

**Distribution:** Palearctic and Oriental.

**Hosts:** **Hymenoptera, Tenthredinidae:** *Euura atra* (Jurine 1807); *Euura mucronata* Hartig, 1837; *Fenusa dohrnii* (Tischbein); *Heterarthrus aceris* (Kaltenbach, 1856); *H. microcephalus* (Klug, 1818); *H. vagans* (Fallén, 1808); *Phyllotoma wuestneii* Konow, 1905; *Pontania bella* (Zaddach 1876); *Pontania vesicator* (Breimi-Wolf, 1849); *Tenthredo betuleti* Klug, 1816; *Scolioneura vicina* (Konow, 1894).

***Colastes (Xenarcha) lustrator* (Haliday, 1836)**

**Material examined:** Aksaray-Ihlara-Yaprakhisar (38°13'18"N, 34°17'14"E), 1354 m. 11.09.2006, 1♀; Ardahan-Posof (41°30'30"N, 42°44'03"E), 1445 m. 21.08.2013, 2♀♀; Amasya-Taşova-Keçiyağı (40°48'49"N, 36°09'41"E), 1066 m. 08.07.2003, 1♀; Bilecik-Küplü (40°05'50"N, 30°00'16"E), 500 m. 20.09.1992, 1♀; Bilecik-Başköy (40°5'32"N, 30°0'22"E), 62 m. 20.09.1992, 1♀; Bolu-Aladağ-Kökez (40°43'50"N, 31°36'34"E), 1000 m. 27.08.2002, 1♀; Bursa-İnegöl (40°4'59"N, 29°30'59"E), 400 m. 06.06.2011, 1♀; Erzurum-İspir-Çamlıkaya (40°37'49"N, 41°10'52"E), 950 m. 16.08.2013, 1♀; İspir-Yeşilyurt köyü (40°31'29"N, 41°04'55"E), 1570 m. 26.06.2013, 1♀, 1♂; -Olur (39°54'35"N, 41°16'32"E), 1853 m. 12.09.2012, 1♀; -Şenkaya-Gözalın (40°44'36"N, 42°17'40"E), 1500 m. 13.09.2012, 2♀♀; Kastamonu-İlgaz Dağı (41°06'49"N, 33°55'08"E), 920 m. 30.08.2002, 2♀♀; -Akkaya (41°13'37"N, 33°28'7"E), 110 m. 31.08.2002,

1♀; Bolu-Aladağ-Kökeç (40°43'50"N, 31°36'34"E), 1000 m. 27.08.2002, 1♀; Samsun-Kavrak-Biçi (41°7'24"N, 36°8'32"E), 19 m. 02.07.2003, 1♀; -Salıpazarı (41°49'98"N, 36°49'35"E), 650 m. 03.07.2003, 1♀.

**Distribution:** Western Palearctic.

**Hosts: Hymenoptera, Tenthredinidae:** *Fenella nigrita* Westwood 1839; *Fenusa pumila* Leach, 1817; *F. pusilla* (Lepeletier, 1823); *F. (Kaliofenusa) ulmi* Sundevall 1844; *Metallus albipes* (Cameron, 1875); *M. pumilus* (Klug, 1816). **Lepidoptera, Coleophoridae:** *Coleophora*

### 3.4. Genus *Dendrosoter* Wesmael, 1838

\**Dendrosoter (Dendrosoter) protuberans* (Nees, 1834)

**Material examined:** Edirne Trakya Üniv. Kampüs (41°38'20"N, 26°36'53"E), 41 m. 24.07.1989, 1♀; Erzincan (40°01'28"N, 40°10'23"E), 1185 m. 26.08.2008, 1♀; İstanbul-Sarıyer-Bilezikçi çiftliği (41°10'53"N, 29°2'18"E), 35 m. 14.06.2001, 1♀; Sivas-Koyulhisar (40°17'11"N, 37°49'05"E), 694 m. 01.07.2004, 1♀; Sivas-Ulaş-Yağdonduran (39°20'28"N, 37°08'43"E), 1630 m. 01.06.2007, 1♀.

**Distribution:** Holarctic.

**Hosts: Coleoptera, Buprestidae:** *Agrilus sulcicollis* Lacordaire, 1835; *Anthaxia hackeri* Frivaldszki, 1884. **Cerambycidae:** *Exocentrus lusitanus* (Linnaeus, 1767); *Phymatodes testaceus* (Linnaeus, 1758); *Pyrrhidium sanguineum* (Linné, 1758); *Stromatium fulvum* Linsley & Chemsak, 1997; *S. unicolor* (Olivier, 1795). **Chrysomelidae:** *Agelastica alni* (Linnaeus, 1758). **Curculionidae:** *Dendroctonus minor* Hartig 1834; *Blastophagus piniperda* (Linnaeus, 1758); *Ceutorhynchus quadridens* Panzer, 1795; *Chaetoptelius vestitus* (Mulsant & Rey, 1860); *C. vestitus* Fuchs, 1913; *Dryocoetes villosus* (Fabricius 1792); *D. villosus* (Fabricius, 1792); *Hylesinus crenatus* (Fabricius, 1787); *Bostrichus fraxini* Panzer, 1779; *B. suturalis* Gyllenhal, 1827; *Hylesinus fraxini* (Panzer, 1779); *H. oleiperda* Fabricius, 1801; *Ips sexdentatus* (Börner, 1767); *I. typographus* (Linnaeus, 1758); *Leperisinus varius* (Fabricius, 1775); *Phloeosinus armatus* Reitter, 1887; *P. aubei* (Perris, 1855); *P. bicolor* (Brulle, 1832); *P. thujae* (Perris, 1855); *Phloeotribus scarabaeoides* (Bernard, 1788); *Pityogenes bidentatus* (Herbst, 1784); *P. quadridens* (Hartig, 1834); *Pteleobius kraatzi* (Eichhoff, 1864); *Scolytus aceris* Knotek, 1892b; *Scolytus amygdali* Guerin, 1847; *S. carpini* (Ratzeburg, 1837); *S. intricatus* (Ratzeburg, 1837); *S. kirschi* Skalitzky, 1876; *S. koenigi* Schevyrew 1890; *S. multistriatus* (Marshall, 1882); *S. pygmaeus* (Fabricius, 1787); *S. ratzeburgi* Janson, 1856; *S. rugulosus* (Mueller, 1818); *S. scotylus* (Fabricius 1775); *Xyleborus dispar* (Fabricius, 1792); *X. dryographus* (Ratzeburg, 1837).

### 3.5. Genus *Dendrosotinus* Telenga, 1941

*Dendrosotinus ferrugineus* (Marshall, 1888)

**Material examined:** Ardahan-Altaş (41°9'50"N, 42°52'45"E), 1800 m. 14.09.2012, 1♀; Balıkesir-Kuş Cenneti (40°2'47"N, 27°58'11"E), 15 m. 11.05.1991, 1♀; Bartın-Amasra-Kalaycı (41°47'03"N, 32°31'47"E), 15 m. 27.05.2007, 2♀♀; Erzincan-Tercan-Mercan (39°46'08"N, 40°18'21"E), 1398 m. 24.08.2008, 1♀; Erzurum-İspir-Yeşilyurt köyü (40°31'29"N, 41°04'55"E), 1570 m. 26.06.2013, 1♀; Iğdır-Karakoyun-Gökçeli (39°59'09"N, 44°10'16"E), 850 m. 21.06.2013, 1♀; Iğdır-Tuzluca-Gaziler (40°06'36"N, 43°25'31"E), 1035 m. 27.06.2012, 1♀; Kars-Sarıkamuş-Şht. Kr. Alb. F. Sungur Tplm. Güzergahı (40°21'44"N, 42°32'32"E), 2530 m. 25.06.2013, 1♂; Kayseri-Erciyes (38°36'56"N, 35°30'59"E), 1701 m. 25.06.2009, 1♀; Konya-Çumra-Avdul (37°25'26"N, 32°44'51"E), 1073 m. 27.06.2009, 1♀; Muğla-Milas-Sarıçay (37°18'36"N, 27°46'48"E), 50 m. 30.07.1997, 1♀.

**Distribution:** Western Palearctic.

**Hosts: Coleoptera, Cerambycidae:** *Scobicia chevrieri* (Villa & Villa, 1835); *Sinoxylon sexdentatum* (Olivier, 1790). **Curculionidae:** *Phloeotribus scarabaeoides* (Bernard 1788). **Scolytidae:** *Chaetoptelius vestitus* (Mulsant & Rey 1860).

### 3.6. Genus *Dolopsidea* Hincks, 1944

\**Dolopsidea indagator* (Haliday, 1836)

**Material examined:** Erzurum-İspir-Çamlıkaya (40°37'49"N, 41°10'52"E), 950 m. 16.08.2013, 1♂; -İlica (39°56'23"N, 41°06'05"E), 1895 m. 19.06.2012, 1♀; -Şenkaya-İkizpınar (40°36'28"N, 42°21'00"E), 1700 m. 27.06.2013, 1♂; -Tortum-Serdarlı (40°28'0"N, 41°18'0"E), 1685 m. 19.06.2012, 1♀; Iğdır-Tuzluca (40°02'51"N, 43°42'54"E), 1038 m. 23.08.2013, 1♂; Sivas-Zara-Bulakbaşı (39°52'46"N, 37°33'31"E), 1297 m. 21.05.2007, 1♀.

**Distribution:** Palearctic.

**Hosts: Coleoptera, Anobiidae:** *Dorcatoma chrysomelina* Sturm, 1837; *D. dresdensis* Herbst, 1792; **Ceranbicydae:** *Pogonocherus hispidus* (Linné, 1758).

\**Dolopsidea tatianae* (Telenga, 1941)

**Material examined:** Sivas-Gürün (38°46'05"N, 37°06'03"E), 1621 m. 05.06.2002, 2♀♀.

**Distribution:** Western Palearctic.

### 3.7. Genus *Doryctes* Haliday, 1836

*Doryctes (Doryctes) leucogaster* (Nees, 1834)

**Material examined:** Adana-Yumurtalık (36°45'59"N, 35°46'59"E), 13 m. 19.03.2007, 1♀; Amasya-Gümüş-Hacıköy (40°53'25"N, 35°12'07"E), 849 m. 07.04.2004, 1♀; Artvin-Varziya (41°10'54"N, 41°49'11"E), 345 m. 03.09.2004, 1♀; -Yusufeli-Küplüce (40°56'06"N, 40°30'23"E), 828 m. 04.09.2004, 1♀; Aydın-Germencik (37°52'19"N, 27°36'6"E), 70 m. 04.07.2000, 1♀;

Çanakale-Anzak Mezarlığı (40°15'41"N, 26°16'51"E), 73 m. 06.05.1993, 1♀; -Ayyacık (39°36'4"N, 26°24'16"E), 350 m. 23.07.1989, 1♀; Çorum-Kargı (41°13'44"N, 34°48'72"E), 110 m. 31.08.2002, 1♀; Denizli-Buharkent (*H. griseus*) (37°57'42"N, 28°44'32"E), 173 m. 11.09.2000, 2♀♀; -Kale-Alanyurt (37°20'29"N, 28°48'30"E), 490 m. 08.04.1998, 1♂; Edirne-Lalapaşa-Hacidanişment (41°54'35"N, 26°49'17"E), 210 m. 05.07.1997, 1♀; Elazığ-Keban-Aşgören (38°47'38"N, 38°44'30"E), 780 m. 04.06.2007, 1♀; Erzincan-Kemaliye-Yuva (39°15'12"N, 38°30'10"E), 830 m. 26.08.2008, 1♀; Erzurum-Aşkale (39°55'17"N, 40°42'24"E), 1670 m. 18.8.2013, 1♀; Eskişehir-A.Ü. Hatıra Ormanı (39°43'09"N, 30°40'37"E), 907 m. 10.07.2007, 1♀; -Sivrihisar-Babatat (39°31'42"N, 31°37'36"E), 868 m. 10.07.2007, 1♀, 3♂♂; -Bilecik yolu 26 km (39°55'50"N, 30°16'32"E), 839 m. 07.07.2007, 2♀♀, 11♂♂; Isparta-Yalvaç (38°17'44"N, 31°10'48"E), 1150 m. 10.07.2002, 1♀; Kars-Kağızman-Aydıncavak (40°09'11"N, 43°19'14"E), 1115 m. 20.09.2012, 1♀; Kastamonu-Araç-Akgeçit (41°13'13"N, 33°12'25"E), 400 m. 28.06.2002, 1♀; Kırklareli-Demirköy-Balaban (41°49'40"N, 27°40'44"E), 390 m. 15.9.1999, 1♂; -Dereköy (41°56'4"N, 27°21'57"E), 500 m. 18.06.1986, 1♀; Rize-Ayder Yaylası (40°57'12"N, 41°06'05"E), 1260 m. 02.09.2004, 1♀; Sivas-Koyulhisar (40°17'11"N, 37°49'05"E), 694 m. 01.07.2004, 1♀; -Suşehri-Yaygınsöğüt (40°16'10"N, 38°09'15"E), 834 m. 20.08.2004, 1♀; Şanlıurfa-Bozova-Yaslıca mey. (37°26'21"N, 38°23'10"E), 519 m. 16.06.2007, 1♀, 1♀; 30.04.2006, 2♀♀; -Hilvan-Faik (37°35'19"N, 38°57'19"E), 585 m. 14.06.2007, 3♀♀; Tekirdağ-Işıklar-Bakıncak (40°48'54"N, 27°22'50"E), 300 m. 25.08.2000, 1♀; -Uçmakdere (40°47'51"N, 27°21'56"E), 110 m. 24.08.2000, 1♀; Yozgat-Kuşçuköy (39°39'15"N, 34°43'14"E), 1202 m. 29.05.2007, 3♂♂.

**Distribution:** Palearctic, Oriental.

**Hosts:** Coleoptera, Anobiidae: *Coelostethus pertinax* LeConte, 1861; *Anobium punctatum* (De Geer, 1774); *Anthaxia* sp. **Bostrichidae:** *Bostrichus capucinus* (Linnaeus, 1758). **Buprestidae:** *Agrilus* (*Anambus*) *biguttatus* (Fabricius, 1777); *Buprestis aurulenta* Linnaeus, 1767 (syn. *Anthaxia aurulenta*); *Anthaxia* (*Anthaxia*) *manca* (Linnaeus, 1767); *Lampira mirifica* Kraatz, 1880. **Cerambycidae:** *Acanthocinus aedilis* (Linnaeus, 1758); *Acanthoderes cinereus* Fabricius; *Chlorophorus pilosus* (Forster, 1771); *Chrysobothris salieri* Castelnau & Gory, 1893; *Exocentrus lusitanus* Linnaeus 1767; *Hesperophanes cinereus* Aurivillius, 1912; *Hylotrupes bajulus* (Linnaeus, 1758); *Penichroa fasciata* (Stephens, 1831); *Phymatodes testaceus* (Linnaeus, 1758); *Plagionotus arcuatus* (Linnaeus, 1758); *Rhagium* (*Hagrium*) *bifasciatum* Fabricius, 1775; *Rhagium* (*Rhagium*) *inquisitor* (Linnaeus, 1758); *Rhagium mordax* (De Geer, 1775); *Tetropium castaneum* (Linnaeus, 1758). **Chrysomelidae:** *Agelastica alni* (Linnaeus, 1758).

**Crambidae:** *Loxostege sticticalis* (Linnaeus, 1761). **Lepidoptera, Lymantriidae:** *Lymantria dispar* Linnaeus, 1758. **Aranaea: Theridiidae:** *Opilo domesticus* (Sturm, 1837).

**Doryctes** (*Doryctes*) **molorchi** Fischer, 1971

**Material examined:** Eskişehir-Sündiken Dağı-Karakütük (39°58'00"N, 31°06'00"E), 788 m. 05.09.2006, 1♀.

**Distribution:** Western Palearctic.

**Hosts:** Coleoptera, **Cerambycidae:** *Molorchus umbellatarum* (Schreber, 1759).

**Doryctes** (*Doryctes*) **striatellus** (Nees, 1834)

**Material examined:** Elazığ- Keban-Piran (38°47'38"N, 38°44'30"E), 780 m. 11.06.2008, 5♀♀.

**Distribution:** Palearctic.

**Hosts:** Coleoptera, Anobiidae: *Anobium abietis* (Fabricius, 1792); *Dorcatoma dresdensis* Herbst, 1792; *Ernobius mollis* (Linnaeus, 1758). **Buprestidae:** *Anthaxia tuerki* Ganglbauer, 1886; *Agrilus biguttatus* (Fabricius, 1777). **Cerambycidae:** *Callidium violaceum* (Linné, 1758); *C. abdominale* (Olivier, 1795); *Obrium brunneum* (Fabricius, 1792); *Pogonocherus hispidus* (Linnaeus, 1758); *Pyrrhidium sanguineum* (Linnaeus, 1758); *Saperda similis* (Laicharting, 1784); *Tetropium castaneum* (Linné, 1758). **Curculionidae:** *Hylurgus ligniperda* (Fabricius, 1787); *Magdalis* (*Magdalis*) *violacea* (Linnaeus, 1758); *M. rufa* Germar, 1824; *Pissodes notatus* Fabricius, 1787. **Scolytidae:** *Hylurgops palliatus* (Gyllenhal, 1813); *Ips typographus* (Linnaeus, 1758); *S. ratzeburgi* Janson, 1856; *Tetropium fuscum* (Fabricius, 1787); *T. gabrieli* Weise, 1905. **Hymenoptera, Xiphidriidae:** *Xiphidria camelus* (Linne, 1758); *Xiphidria prolongata* (Geoffroy, 1785). **Lepidoptera, Tortricidae:** *Cydia pomonella* (Linnaeus, 1758).

**Doryctes** (*Doryctes*) **undulatus** (Ratzeburg, 1852)

**Material examined:** Gümüşhane-Şiran-Yeşilbük (40°13'55"N, 38°58'47"E), 1434 m. 29.08.2004, 1♀.

**Distribution:** Palearctic.

**Host:** Coleoptera, **Buprestidae:** *Agrilus convexicollis* Redtenbacher, 1849; *A. cuprescens* (Ménétriés, 1832); *A. mendax* (Mannerheim, 1837); *A. viridis* (Linnaeus, 1758); *Anthaxia tuerki* Ganglbauer 1886; *Axinopalpis gracilis* (Krynicky, 1832); *Grammoptera ruficornis* (Fabricius, 1781); *Magdalis armigera* (Fourcroy, 1785); *M. ruficornis* (Linnaeus, 1758). **Cerambycidae:** *Molorchus umbellatarum* (Schreber, 1759); *M. kiesenwetteri* (Mulsant & Rey, 1861); *Pogonocherus decoratus* Fairmaire, 1855; *P. fasciculatus* (De Geer, 1775); *P. hispidulus* (Piller & Mitterpacher, 1783); *P. hispidus* (Linnaeus, 1758); *Tetrops praeustus* (Linnaeus, 1758). **Scolytinae:** *Pityogenes bidentatus* (Herbst, 1783).

**3.8. Genus *Ecphylus* Förster, 1862*****Ecphylus (Ecphylus) silesiacus* (Ratzeburg, 1848)**

**Material examined:** Balıkesir-Havran (39°33'30"N, 27°5'53"E), 44 m. 20.09.2004, 1♀; Elazığ-Baskil-Canbeyler (38°33'24"N, 38°49'00"E), 1116 m. 03.06.2007, 1♂; -Baskil-Hacımustafa (38°38'34"N, 38°51'07"E), 1436 m. 16.07.2007, 1♂; Tekirdağ-Ganos (40°47'00"N, 27°16'00"E), 550–640 m. 14.07.1986, 1♂; Ankara (40°1'15"N, 32°49'51"E), 870 m. 08.08.2010, 1♀; Malatya-Tekev (38°21'18"N, 38°18'34"E), 977 m. 04.08.1997, 1♀.

**Distribution:** Palearctic.

**Hosts: Coleoptera; Bostrichidae:** *Bostrichus laricis* Fabricius, 1792. **Curculionidae:** *Blastophagus minor* (Hartig, 1834); *Bostrichus binodulus* Ratzeburg, 1837; *Carphoborus minimus* (Fabricius 1798); *Ceutorhynchus pallidactylus* (Marsham 1802); *C. quadridens* Panzer, 1795; *Chaetoptelius vestitus* (Mulsant & Rey 1860); *Cryphalus abietis* (Ratzeburg, 1837); *Ernoporus tilliae* (Panzer, 1793); *Tomicus minor* (Hartig, 1834); *Trypophloeus asperatus asperatus* (Gyllenhal, 1813); *Cryphalus binodulus* (Ratzeburg, 1837); *C. piceae* (Ratzeburg, 1837); *C. cinereus* (Herbst, 1793); *Dryocoetes alni* (Georg, 1856); *D. villosus* (Fabricius, 1792); *Ernoporicus fagi* (Fabricius, 1798); *Hylesinus crenatus* (Fabricius, 1787); *H. fraxini* (Panzer 1779); *H. spartii* Noerdlinger, 1847; *Ips acuminatus* (Gyllenhal, 1827); *I. typographus* (Linnaeus, 1758); *Liparthrum colchicum* Semenov, 1903; *Magdalis (Odontomagdalis) armigera* (Geoffroy, 1785); *M. (Porrothus) cerasi* (Linnaeus, 1758); *M. (Edo) ruficornis* (Linnaeus, 1758); *Miarus graminis* (Gyllenhal, 1813); *Orthotomicus laricis* (Fabricius, 1792); *Phloeotribus caucasicus* Reitter, 1891; *P. hercegovinensis* (Seitner, 1920); *P. rhododactylus rhododactylus* (Marsham, 1802); *P. scarabaeoides* (Bernard, 1788); *P. spinulosus* (Rey, 1883). **Scolytinae:** *Pityogenes bidentatus* (Herbst, 1784); *P. bistridentatus* (Eichhoff, 1878); *P. calcaratus* (Eichhoff, 1878); *P. chalcographus* (Linnaeus, 1761); *P. quadridens* (Hartig, 1834); *P. spinidens* (Reitter, 1894); *P. vorontzovi* (Jacobson, 1895); *Pityophthorus micrographus* (Linnaeus, 1758); *P. pityographus* (Ratzeburg, 1837); *Polygraphus poligraphus* (Linnaeus, 1758); *P. subopacus* Thomson, 1871; *Pteleobius kraatzi* (Eichhoff, 1864); *P. vittatus* (Fabricius, 1787); *Scolytus* sp.; *S. carpini* (Ratzeburg, 1837); *S. ensifer* Eichhoff, 1881; *S. intricatus* (Ratz., 1837); *S. kirschi* Skalitzky, 1876; *S. laevis* Chapuis, 1869; *S. mali* (Bechstein, 1805); *S. multistriatus* (Marsham, 1802); *S. pygmaeus* (Fabricius, 1787); *S. rugulosus* (Müller, 1818); *S. scolytus* (Fabricius, 1775). **Curculionidae:** *Trypodendron domesticum* (Linnaeus, 1758); *Trypophloeus asperatus asperatus* (Gyllenhal, 1813); *Xyleborinus saxeseni* (Ratzeburg, 1837); *X. pilosus* (Scopoli, 1763).

**3.9. Genus *Hecabalodes* Wilkinson, 1929*****Hecabalodes radialis* Tobias, 1962**

**Material examined:** Ankara-Temelli-Alagöz (39°45'18"N, 32°26'42"E), 803 m. 10.07.2007, 2♀♀; Aydın-Adnan Menderes Üniv.-Ziraat Fak. (37°50'39"N, 27°50'44"E), 70 m. 18.09.1996, 1♀; Edirne-Trakya Üniv.-Güllapoğlu (41°38'20"N, 26°36'53"E), 41 m. 03.10.2001, 1Tuzağı, 1♀; Elazığ-Keban-İbolar (38°49'03"N, 38°52'16"E), 888 m. 10. 07.2007, 1♀; -Keban-Ulupınar (38°44'59"N, 38°51'57"E), 1229 m. 11.06.2008, 1♂; -Merkez (38°40'15"N, 39°11'16"E), 1067 m. 30.05.2003, 4♀♀; Erzincan-İliç-Bağışdaş (39°26'46"N, 38°29'38"E), 1090 m. 26.08.2008, 1♀; -Kemah-Soğukpınar (39°36'06"N, 39°02'17"E), 1040 m. 26.08.2008, 1♀; Eskişehir-A.Ü-Hatıra Ormanı (39°43'09"N, 30°40'37"E), 907 m. 10.07.2007, 1♂; Iğdır-Tigem (39°47'10"N, 44°37'05"E), 850 m. 22.06.2013, 1♂; Karabük-Bostanbükü (41°12'53"N, 32°41'21"E), 290 m. 13.06.2002, 1♀; Malatya-Sultansuyu Harası (38°20'36"N, 38°03'35"E), 881 m. 14.07.2007, 1♀; Mardin-Merkez (37°18'44"N, 40°44'6"E), 1083 m. (Buprestidae host), 10.05.2004, 2♀♀, 1♂; Muğla-Yatağan-Dipsiz (37°25'00"N, 28°06'00"E), 376 m. 31.07.1997, 1♀; Nevşehir-Avanos-Saruhan (38°42'47"N, 34°54'47"E), 958 m. 06.06.2007, 1♀; Samsun-Havza-Mismiliğaç (40°59'51"N, 35°41'49"E), 610 m. 02.07.2003, 1♀; Vezirköprü-Erduası (41°21'27"N, 35°03'06"E), 110 m. 02.07.2003, 1♀; Sinop-Ayancık-B.Zaviye (41°56'49"N, 34°35'30"E), 16 m. 06.09.2001, 1♀; -Yeniçam (41°96'5"N, 34°85'6"E), 30 m. 02.07.2001, 1♀. Tekirdağ-Muratlı (41°10'26"N, 27°30'31"E), 60 m. 26.08.1992, 1♀; Çanakkale-Tigem (40°9'19"N, 26°24'50"E), 10 m. 06.07.1996, 1♀; Yozgat-Şefaathı-Karanlıkdere (39°34'28"N, 34°38'48"E), 840 m. 29.05.2007, 1♀.

**Distribution:** Palearctic, Oriental.

**Hosts: Coleoptera, Buprestidae:** *Acmaeodera* sp.; *Acmaeoderella glasunovi* (Semenov, 1895); *Anthaxia* sp.; *Anthaxia judinae* Stepanov, 1954; *Magdalis egregia* Faust, 1885; *M. myochroa* Reichardt, 1928; *Scolytus gretschkini* Sokanovskii, 1956; *Turanium scabrum* (Kraatz, 1882).

**3.10. Genus *Hellenius* Tobias, 1982*****Hellenius (Hellenius) semiruber* (Hellén, 1958)**

**Material examined:** Sivas-Gürün-İncesu (38°46'05"N, 37°06'03"E), 1621 m. 23.06.2009, 1♀.

**Distribution:** Western Palearctic.

**3.11. Genus *Heterospilus* Haliday, 1836*****Heterospilus (Heterospilus) cephi* Rohwer, 1925**

**Material examined:** Ankara-Temelli-Alagöz (39°45'18"N, 32°26'42"E), 803 m. 17.07.2007, 1♀; Aydın-Söke-Sarikemer (37°33'42"N, 27°22'8"E), 38 m. 31.07.1997, 1♀; Edirne-Budak-Doğanca (41°45'40"N, 26°20'26"E), 45 m. 30.05.1993, 1♀; -Lalapaşa (41°50'24"N, 26°43'48"E), 560 m. 24.05.1992, 1♀; -Suakacağı (41°50'25"N, 26°35'18"E), 210 m. 05.07.1997, 1♀; Elazığ-Aydınlar

(38°48'04"N, 38°53'40"E), 985 m. 10.07.2007, 1♀; -Baskil-Canbeyler (38°33'24"N, 38°49'00"E), 1116 m. 03.06.2007, 1♀; -Keban-İbolar (38°49'03"N, 38°52'16"E), 888 m. 10.07.2007, 1♀; -Eskişehir-Mihallicik-Çatacık (39°58'07"N, 31°10'38"E), 1332 m. 06.09.2006, 1♀; -Gümüşhane-Kelkit-Köycük (40°9'1"N, 39°25'19"E), 1450 m. 08.08.2005, 1♀; -İstanbul-Bahçeköy-Bilezikçi Çiftliği (41°11'33"N, 28°59'53"E), 30 m. 24.06.1993, 1♀; -Malatya-Akçadağ-Darıca (38°20'39"N, 37°40'22"E), 1540 m. 05.06.2007, 1♀; -Akçadağ-Kürecik (38°20'49"N, 37°46'10"E), 1749 m. 07.07.2008, 1♀; -Hekimhan (38°49'44"N, 37°55'00"E), 1094 m. 01.06.2007, 1♀; -Sultansuyu Harası (38°20'36"N, 38°03'35"E), 881 m. 14.07.2007, 1♀; -Muğla-Ula-Yaylasöğüt (37°9'43"N, 28°33'49"E), 700 m. 30.07.1997, 1♀; -Yatağan (37°20'26"N, 28°8'25"E), 419 m. 31.07.1997, 1♀; -Tekirdağ-Işıklar-Bakıncak (40°48'54"N, 27°22'50"E), 300 m. 25.08.2000, 1♀.

**Distribution:** Holarctic.

**Hosts:** Hymenoptera, Cephidae: *Cephus pygmeus* Latreille, 1803; *Trachelus tabidus* (Fabricius, 1775).

***Heterospilus (Heterospilus) genalis* Tobias, 1976**

**Material examined:** Malatya-Sultansuyu Harası (38°20'36"N, 38°03'35"E), 881 m. 14.07.2007, 1♀.

**Distribution:** Western Palearctic.

***Heterospilus (Heterospilus) hemipterus* (Thomson, 1892)**

**Material examined:** Tekirdağ-Ganos Dağı (40°47'00"N, 27°16'00"E), 640 m. 14.07.1986, 1♀.

**Distribution:** Palearctic.

***Heterospilus (Heterospilus) leptosoma* Fischer, 1960**

**Material examined:** Adapazarı-Hendek-Hüseyinşeyh (37°20'26"N, 28°8'25"E), 240 m. 27.06.2001, 1♀; Antalya-Merkez-Pathıcan (36°30'46"N, 32°5'9"E), 48 m. 09.11.1995, 1♀; İstanbul-Sarıyer-Bahçeköy (41°11'33"N, 28°59'53"E), 120 m. 14.07.2002, 1♀; Karabük-Bostanbükü (41°12'53"N, 32°41'21"E), 290 m. 28.08.2002, 2♀♀; -E.Pazar-Ortaköy (40°55'6"N, 32°34'30"E), 870 m. 28.08.2002, 1♀.

**Distribution:** Palearctic, Oriental.

***Heterospilus (Heterospilus) rubicola* Fischer, 1968**

**Material examined:** Artvin-Yusufeli-Küplüce (40°56'06"N, 40°30'23"E), 828 m. 01.07.2005, 1♀; -Yusufeli-Küplüce (40°56'06"N, 40°30'23"E), 828 m. 01.07.2005, 1♀; Bartın-Merkez (41°38'4"N, 32°20'15"E), 10 m. 09.06.2002, 1♀; -Merkez (41°38'4"N, 32°20'15"E), 10 m. 09.06.2002, 1♀; Bilecik-Çakırpınar (40°25'11"N, 29°15'20"E), 795 m. 09.07.1993, 1♀; Gümüşhane-Kelkit-Yeniköy (39°59'36"N, 39°23'6"E), 1800 m. 2♀♀; Kırklareli-Dereköy (41°93'45"N, 27°36'60"E), 450 m. 06.08.1995, 1♀; Siirt-Merkez (37°55'12"N, 41°56'23"E), 925 m. 30.07.2009 8♀♀, 4♂♂.

**Distribution:** Palearctic.

***Heterospilus (Heterospilus) tadzhicus* Belokobylskij, 1983**

**Material examined:** Siirt-Merkez (37°55'31"N, 41°55'32"E), 880 m. 01.07.2009, 2♀♀; 22.07.2009, 1♀; (Fıstık) 22.07.2009, 1♀; Zonguldak-Çaycuma-Kayıkçılar (41°25'12"N, 32°04'47"E), 20 m. 30.06.2001, 1♀.

**Distribution:** Eastern Palearctic.

***Heterospilus (Heterospilus) tauricus* Telenga, 1941**

**Material examined:** Adana-Balcalı (37°03'26"N, 35°21'43"E), 138 m. 15.05.1983, 1♀; Adapazarı-Emirdağ-Mezarlık (40°49'37"N, 30°23'16"E), 150 m. 12.09.1992, 1♀; -Hendek-Hüseyinşeyh (37°20'26"N, 28°8'25"E), 240 m. 27.06.2001, 3♀♀; -TİGEM (40°47'19"N, 30°24'21"E), 62 m. 06.07.1996, 1♀; Ankara-Temelli-Alagöz (39°44'25"N, 32°22'40"E), 803 m. 10.07.2007, 2♀♀; Aydın-Adanan Menderes Üniversitesi Ziraat Fakültesi (37°50'39"N, 27°50'44"E), 70 m. 18.09.1995, 1♀; Bartın-Merkez (41°38'4"N, 32°20'15"E), 10 m. 09.06.2002, 2♀♀; -Çamlık (41°32'45"N, 32°27'18"E), 60 m. 30.06.2001, 1♀; Edirne-Güllapoğlu (41°38'20"N, 26°36'53"E), 41 m. 03.10.2001, 1♀; -Hacımur (Gece) (41°43'02"N, 26°47'16"E), 50 m. 27.06.1991, 1♀; -Suakacağı (41°50'25"N, 26°35'18"E), 210 m. 29.05.1993, 1♀; Elazığ-Keban-İbolar (37°28'54"N, 38°19'3"E), 888 m. 16.10.2007, 1♀; Erzincan-İliç-Bağışdaş (39°26'46"N, 38°29'38"E), 1090 m. 26.08.2008, 1♀; -Kemah-Soğukpınar (39°36'06"N, 39°02'17"E), 1040 m. 26.08.2008, 1♀; Karabük-Bostanbükü (41°12'53"N, 32°41'21"E), 290 m. 28.08.2002, 1♀; -Safranbolu-İnceçay-Sarıçiçek Dağı (41°26'55"N, 32°45'13"E), 1000 m. 29.06.2001, 1♀; -Bostanbükü (41°12'53"N, 32°41'21"E), 290 m. 13.06.2002, 1♀; Kastamonu-Araç-Akgeçit (41°13'13"N, 33°12'25"E), 400 m. 28.06.2002, 1♀; -Azdavay-Kiraz Dağı (41°42'00"N, 33°23'00"E), 914 m. 05.08.2001, 1♀; -Azdavay-Mehmetçelebi (41°38'26"N, 33°17'53"E), 730 m. 05.09.2001, 1♀; -Doğanyurt-Denizbükü (41°59'31"N, 33°29'33"E), 200 m. 10.06.2002, 1♀; -Küre-Ersizlerdere (41°50'38"N, 33°43'38"E), 1560 m. 12.06.2002, 1♀; -Küre-Ersizlerdere-İpsizler (41°50'38"N, 33°43'38"E), 1910 m. 12.06.2002, 1♀; Kırklareli-İnce-Paşayeri (41°40'40"N, 27°4'8"E), 150 m. 02.08.2000, 2♀♀; Muğla-Yatağan-Dipsiz (37°25'00"N, 28°06'00"E), 376 m. 31.07.1997, 1♀; Nevşehir-Avanos-Saruhan (38°42'47"N, 34°54'47"E), 958 m. 06.06.2007, 1♀; Samsun-Havsa, Mismilağaç (40°59'51"N, 35°41'49"E), 610 m. 02.07.2003, 1♀; -Vezirköprü-Erduası (41°21'27"N, 35°03'06"E), 110 m. 02.07.2003, 1♀; -Vezirköprü-İncesu (41°9'46"N, 35°19'31"E), 240 m. 28.08.2003, 2♀♀; Sinop-A-B.Zaviye (41°52'52"N, 34°32'8"E), 16 m. 06.09.2001, 1♀; -Yeniçam (41°96'5"N, 34°85'6"E), 30 m. 02.07.2001, 1♀; Sivas-Merkez (39°44'24"N, 37°00'35"E), 1273 m. 17.07.1990, 1♀; Tekirdağ-Kınıklar (40°53'8"N, 26°54'49"E), 110 m.



26.06.2003, 1♀; -Muratlı (41°10'26"N, 27°30'31"E), 60 m.  
 28.08.1992, 1♀; -Naipköy (40°50'49"N, 27°26'48"E), 20 m.  
 24.06.2003, 1♀; -Şarköy (40°36'48"N, 27°6'48"E), 120 m.  
 25.06.2003, 1♀; -Yazırköy (40°54'26"N, 27°28'7"E), 60 m.  
 23.08.2000, 1♀; Tokat-Pazar-Ballıca (40°13'29"N, 36°17'34"E), 1020 m.  
 07.07.2003, 1♀; -Taşlıçiftlik (40°19'19"N, 36°28'13"E), 550 m.  
 06.07.2003, 1♀; Zonguldak-Çukurören (41°27'23"N, 31°47'55"E), 70 m.  
 29.06.2001, 1♀.

**Distribution:** Palearctic.

**Host:** Coleoptera, Mordellidae: *Mordellistena* (*Mordellistena*) *pentas* Mulsant 1856.

### 3.12. Genus *Hormius* Nees, 1819

#### *Hormius moniliatus* (Nees, 1811)

**Material examined:** Adıyaman-Merkez (37°45'51"N, 38°16'34"E), 676 m. 25.05.2009, 5♀♀; -Besni-Sofraz (37°38'16"N, 37°54'21"E), 696 m. 17.10.2005, 1♀; -Gölbaşı-Çöplü (37°46'9"N, 37°42'4"E), 1030 m. 15.09.2004, 1♂; Aksaray-Ihlara (38°15'27"N, 34°17'43"E), 1212 m. 11.09.2006, 1♂; -Ihlara-Yaprakhisar (38°13'18"N, 34°17'14"E), 1354 m. 11.09.2006, 2♂♂; Amasya-Taşova-Keçiyatağı (40°48'49"N, 36°09'41"E), 1066 m. 08.07.2003, 1♀; Ankara-Elmadag (39°55'15"N, 33°13'50"E), 1165 m. 16.09.2006, 1♀; -Haymana-Balçikhisar (39°14'46"N, 32°45'00"E), 1080 m. 10.07.2007, 1♀; -Kalecik-Elmapınar (40°16'47"N, 33°28'04"E), 912 m. 28.05.2007, 1♂; -Kazan-Aydın (40°09'56"N, 32°40'09"E), 872 m. 17.09.2006, 6♀♀; -Kızılcahamam-Pazar (40°20'01"N, 32°42'04"E), 959 m. 17.09.2006, 1♀, 2♂♂; -Yenikent-İlyakut (40°04'19"N, 32°28'16"E), 969 m. 08.06.2007, 1♀; Ardahan-Çamlıçatak (41°07'18"N, 42°50'19"E), 1850 m. 15.09.2012, 1♀; -Çıldır-Eskibeyrehatun Köyü (41°07'47"N, 42°54'32"E), 1950 m. 22.08.2013, 1♀; Artvin-Yusufuli-Sarıgöl (40°57'22"N, 41°29'47"E), 842 m. 04.07.2004, 1♀; Aydın-Kuyucak-Pamukören (37°55'23"N, 28°32'30"E), 140 m. 19.06.1996, 1♀; Balıkesir-Merkez-Ovaköy (39°38'00"N, 28°00'00"E), 95 m. 17.09.1992, 2♀♀; Bartın-Kurucaşile (41°50'35"N, 32°42'49"E), 129 m. 27.05.2007, 1♀; Bilecik-Başköy (40°5'32"N, 30°0'22"E), 62 m. 20.09.1992, 1♂; Çanakkale-Küçükkuşu (39°32'57"N, 26°36'34"E), 142 m. 04.11.2004, 1♀; Çankırı-Korgun (40°44'00"N, 33°31'25"E), 898 m. 28.05.2007, 1♀; Denizli-Buldan-Kadıköy (38°9'43"N, 28°45'32"E), 580 m. 19.09.1996, 2♀♀; Diyarbakır-Çermik-Kızılzabuk köprüsü (38°8'13"N, 39°27'3"E), 845 m. 04.07.2010, 1♀; Devegeçidi (38°06'34"N, 40°12'46"E), 602 m. 04.07.2010, 9, 1♀; -Ergani (38°15'59"N, 39°45'59"E), 872 m. 26.06.2007, 4♀♀; -Ergani-Pınarkaya (38°14'46"N, 39°41'10"E), 935 m. 21.06.2007, 1♂; Düzce-Akçakoca-Dadalı (41°03'18"N, 31°11'35"E), 96 m. 26.05.2007, 1♀; Edirne-Trakya Üniv.-Güllapoğlu yerleşkesi (41°38'20"N, 26°36'53"E), 41 m. 25.04.2001, 1♂; Elazığ-Aydınlı (38°48'04"N, 38°53'40"E), 985 m. 16.07.2007, 1♀; -Baskil-Canbeyler

(38°33'24"N, 38°49'00"E), 1116 m. 03.06.2007, 2♂; -Baskil-Hacımustafa (38°38'34"N, 38°51'07"E), 1436 m. 16.07.2007, 5♀♀; -Baskil-Yalıdam (38°34'26"N, 38°43'55"E), 1400 m. 10.06.2008, 1♂; -Karaçavuş (38°40'36"N, 38°56'08"E), 1424 m. 12.06.2008, 2♂♂; -Keban-Aşgören (38°47'38"N, 38°44'30"E), 780 m. 04.06.2007, 3♀♀; -Keban-İbolar (38°49'03"N, 38°52'16"E), 888 m. 16.07.2007, 3♀♀, 1♂; -Keban-Ulupınar (38°44'59"N, 38°51'57"E), 1229 m. 11.06.2008, 1♀; -Kovancılar-Pınartepe (38°42'37"N, 39°53'06"E), 916 m. 29.08.2008, 1♀; Erzincan-Eğın-Yuva Köyü (39°15'12"N, 38°30'10"E), 830 m. 26.08.2008, 1♀; -Kemah-Soğukpınar (39°36'06"N, 39°02'17"E), 1040 m. 26.08.2008, 3♀♀; -Refahiye-Salur (39°55'37"N, 38°31'37"E), 1610 m. 22.08.2008, 1♂; -Üzümlü-Demirpınar (39°37'38"N, 39°47'34"E), 1200 m. 24.08.2008, 6♀♀; -Üzümlü-Geyikli (39°43'36"N, 39°40'00"E), 1391 m. 23.08.2008, 2♀♀; -Aşkale (39°55'17"N, 40°42'24"E), 1670 m. 18.8.2013, 1♂; Erzurum-Aziziye-Eskipolat (40°04'08"N, 40°56'00"E), 1860 m. 16.08.2013, 1♂; -Horasan-Orman İşletme Müd. (40°02'06"N, 42°10'41"E), 1585 m. 25.08.2013, 1♂; -İspir-Çamlıkaya (40°37'49"N, 41°10'52"E), 950 m. 16.08.2013, 2♀♀, 1♂; -İspir-Köprüköy (40°25'36"N, 40°58'27"E), 1465 m. 11.09.2012, 2♂; -Oltu-Güzelsu (40°37'19"N, 42°1'2"E), 1605 m. 12.09.2012, 1♂; -Olur (39°54'35"N, 41°16'32"E), 1.853 m. 12.09.2012, 1♀, 1♂; -Palandöken Kayak Merk. (39°50'57"N, 41°16'59"E), 2455 m. 18.08.2013, 1♀; -Şenkaya-Değirmenlidere köyü (40°43'53"N, 42°31'09"E), 1820 m. 20.08.2013, 1♂; -Şenkaya-Gazialan (40°33'59"N, 42°20'59"E), 915 m. 13.09.2012, 1♀; Eskişehir'e 26 km kala (39°77'93"N, 30°50'79"E), 793 m. 04.09.2006, 2♀♀, 1♂; -Alpu-Sündiken dağları (39°58'36"N, 31°06'22"E), 1469 m. 05.09.2006, 1♂; -Yörükhırka (39°36'00"N, 30°25'12"E), 862 m. 08.07.2007, 2♀♀; Gümüşhane-Şiran-Arıtış (40°09'43"N, 39°01'40"E), 1300 m. 02.07.2004, 1♀; Iğdır-Tuzluca-Gaziler (40°06'36"N, 43°25'31"E), 1035 m. 21.0.2012, 1♀; 1♀; -Tuzluca-Köprübaşı (40°3'6"N, 43°43'31"E), 1035 m. 20.09.2012, 1♀, 1♂; 2♂♂; Isparta-Eğirdir (38°1'25"N, 30°52'22"E), 969 m. 09.08.1980, 1♂; -Keçiborlu (37°56'53"N, 30°18'21"E), 866 m. 31.05.2002, 1♂; İzmit-Sapanca-İst. Üniv. Tesisi (40°11'40"N, 30°31'13"E), 222 m. 16.08.1994, 1♀; Karabük-Safranbolu-İnceçay-Sarıçiçek Dağı (41°26'55"N, 32°45'13"E), 1000 m. 29.06.2001, 1♀; Kars-Arpaçay-Çanaksu (41°00'51"N, 43°18'14"E), 1975 m. 22.08.2013, 1♀; -Kağızman-Aydıncavak (40°09'11"N, 43°19'14"E), 1115 m. 20.09.2012, 2♀; 1♂; -Kağızman-Yalnızagaç (40°13'49"N, 42°59'05"E), 1405 m. 23.08.2013, 1♀, 1♂; Sarıkamış Orm. (40°16'50"N, 42°39'01"E), 2045 m. 24.08.2013, 1♂; -Sarıkamış-Bayraktepe (40°17'28"N, 42°36'00"E), 2644 m. 19.09.2012, 1♂; 24.06.2013, 1♂; -Sarıkamış-Horasan Yolu (40°19'54"N, 42°35'42"E), 2102 m. 21.09.2012, 1♂; -Sarıkamış-Karakurt (40°10'03"N,

42°36'36"E), 1475 m. 24.08.2013, 1♀; -Sarıkamış-Söğütluçeşme (40°16'58"N, 42°34'18"E), 2350 m. 24.06.2013, 1♂; -Susuz-İncesu (40°06'36"N, 43°25'31"E), 1057 m. 17.09.2012, 1♀; Kayseri-Bağpınar (38°49'12"N, 35°37'56"E), 1097 m. 14.09.2006, 1♂; -Bünyan-Ekrek (38°39'42"N, 36°03'30"E), 1424 m. 12.07.2007, 1♂; -Bünyan-Erkek (38°39'42"N, 36°03'30"E), 1424 m. 12.07.2007, 1♀; 22.06.2009, 1♂; -Bünyan (38°50'53"N, 35°51'36"E), 1350 m. 14.09.2006, 3♂♂; -Gömeç (38°52'17"N, 35°39'43"E), 1094 m. 14.09.2006, 3♂♂; -İncesu-Örenşehir (38°41'28"N, 35°14'37"E), 1058 m. 14.09.2006, 1♂; -Pınarbaşı-Aşağıkızılçevik (38°51'56"N, 36°33'28"E), 1520 m. 13.07.2007, 1♂; -Yahalı-M.Beyli (38°5'59"N, 35°21'38"E), 1210 m. 15.09.2006, 1♀, 1♂; -Yeşilhisar-Kuşçu (38°15'01"N, 35°08'56"E), 1056 m. 15.09.2006, 1♀, 1♂; Kırklareli-Demirköy-Boztaş (41°54'55"N, 27°38'49"E), 350 m. 06.07.1997, 1♂; Kırşehir-Özbağ (39°14'32"N, 34°07'43"E), 1036 m. 16.09.2006, 1♂; -Özbağ (39°14'32"N, 34°07'43"E), 1036 m. 16.09.2006, 2♀♀; -Özbağ (39°14'32"N, 34°07'43"E), 1036 m. 16.09.2006, 2♀♀; -Özbağ (39°14'32"N, 34°07'43"E), 1036 m. 16.09.2006, 1♀; -Özbağ (39°14'32"N, 34°07'43"E), 1036 m. 16.09.2006, 2♀♀, 3♂; Konya-Akşehir-Ulupınar (38°26'24"N, 31°19'51"E), 978 m. 07.9.2006, 2♂♂; -Altınapa Barajı (37°52'46"N, 32°19'44"E), 1280 m. 09.08.2006, 2♂♂; -Beyşehir-Çukurağıl (37°53'21"N, 31°54'20"E), 1228 m. 09.09.2006, 1♀; -Beyşehir-Çukurağıl (37°53'21"N, 31°54'20"E), 1228 m. 09.09.2006, 1♀, 1♂; -Seydişehir (37°28'20"N, 31°49'30"E), 1130 m. 09.09.2006, 2♂; Kütahya-Çavdaralan (39°25'12"N, 29°58'48"E), 1400 m. 29.07.1997, 1♂; Malatya-Akçadağ-Darıca (38°20'39"N, 37°40'22"E), 1540 m. 05.06.2007, 2♂♂; -Akçadağ-Kürecik (38°20'49"N, 37°46'10"E), 1749 m. 23.06.2009, 1♂; -Çiftlik (38°20'01"N, 38°27'31"E), 909 m. 05.06.2007, 1♀; -Darende (38°33'10"N, 37°30'13"E), 1033 m. 13.07.2007, 4♀♀; -Darende-Gümüşdere (38°35'52"N, 37°27'50"E), 1377 m. 30.08.2008, 1♀; -Doğanşehir-Reşadiye (37°59'01"N, 38°00'50"E), 1346 m. 14.07.2007, 1♀; -Doğanşehir-Takaz (38°00'35"N, 37°59'28"E), 1286 m. 08.06.2008, 1♀; -Hekimhan (38°49'44"N, 37°55'00"E), 1094 m. 09.06.2008, 1♀; -Yazlıhan-Surur (38°31'56"N, 38°15'13"E), 710 m. 08.06.2008, 1♀; Muğla-Milas-Konucuk Köyü (37°17'55"N, 27°54'42"E), 650 m. 24.06.1998, 1♀; Nevşehir-Avanos-Saruhan (38°42'47"N, 34°54'47"E), 958 m. 13.09.2006, 2♂♂; -Avanos-Saruhan (38°42'47"N, 34°54'47"E), 958 m. 13.09.2006, 1♂; -Çalış (38°59'31"N, 34°51'46"E), 1233 m. 05.06.2008, 2♀♀; -Gülşehir-Gülyeri (38°44'55"N, 34°40'27"E), 910 m. 12.09.2006, 4♀♀, 5♂♂; -Gülşehir-Gümüşkent (38°51'12"N, 34°33'44"E), 1286 m. 07.06.2007, 1♂; -Ürgüp (38°36'33"N, 34°54'46"E), 1082 m. 13.09.2006, 1♂; Ordu-Ünye-İnkur (41°2'19"N, 37°12'56"E), 380 m. 05.07.2003, 1♀; Samsun-Vezirköprü-İncesu (41°9'6"N,

35°19'31"E), 240 m. 28.08.2003, 1♀; Siirt-Merkez (37°55'31"N, 41°55'32"E), 880 m. 28.08.2009, 4♀♀; Sivas-Gürün-Gökpınar (38°39'26"N, 37°18'15"E), 1472 m. 13.07.2007, 1♂; -Gürün-İncesu (38°45'36"N, 37°6'30"E), 1735 m. 13.07.2007, 1♀; -Kangal-Yeşildere (39°08'33"N, 37°30'00"E), 1600 m. 01.06.2007, 1♀; -Zara-Ağalıkçay (39°32'11"N, 37°45'39"E), 1427 m. 31.05.2007, 1♂; Tokat-Niksar-Çamiçi (40°35'25"N, 36°57'12"E), 1120 m. 05.07.2003, 1♀; -Pazar-Balıca (40°13'29"N, 36°17'34"E), 1020 m. 07.07.2003, 2♀♀; -Reşadiye (41°21'46"N, 37°25'48"E), 520 m. 28.08.2004, 1♀; Tunceli Merkez-Aktuluk (39°3'38"N, 39°25'36"E), 941 m. 27.08.2008, 13♀♀, 2♂♂; -Pertek-Beydamı (38°57'07"N, 39°27'59"E), 1267 m. 28.08.2008, 1♀; -Pülümür-Hiver (39°29'12"N, 39°53'56"E), 1831 m. 27.08.2008, 1♀; -Pülümür-Kangallı (39°29'0"N, 39°54'10"E), 1343 m. 27.08.2008, 1♀; Yozgat-Akdağmadeni-Gökdere (39°41'38"N, 35°42'02"E), 1194 m. 30.07.2007, 1♀; -Mahmatlı (39°41'51"N, 35°22'45"E), 1080 m. 21.08.2008, 1♀; -Şefaati-Karanlıkdere (39°34'28"N, 34°38'48"E), 840 m. 29.05.2007, 1♀.

**Distribution:** Holarctic, Nearctic, Oceanic, Oriental.

**Hosts:** **Lepidoptera**, **Crambidae:** *Achyra nudalis* (Hübner, 1796); *Hellula undalis* (Fabricius, 1781); *Paratalanta hyalinalis* (Hübner, 1796); *Pyrausta aurata* (Scopoli, 1763); *P.purpuralis* (Linnaeus, 1758); *P.sanguinalis* (Linnaeus, 1767). **Coleophoridae:** *Coleophora trifariella* (Zeller, 1849). **Elachistidae:** *Agonopterix assimilella* (Treitschke, 1832). **Gelechiidae:** *Dichomeris marginella* (Fabricius, 1781). **Oecophoridae:** *Agonopterix adpersella* (Kollar, 1832); *Depressaria pulcherrimella* (Stainton, 1849); *Pexicopia malvella* (Hübner, 1805). **Scythrididae:** *Scythris inspersella* (Hübner 1817). **Tortricidae:** *Archips crataegana* (Hübner, 1799).

**Tortricidae:** *Pandemis corylana* (Fabricius, 1794).

**Hormius similis Szépligeti, 1896**

**Material examined:** Adana-Feke-Efkeli (37°49'11.712"N, 35°54'44.9388"E), 279 m. 02.10.1979, 1♀; Amasya-Taşova-Keçiyatağı (40°48'49"N, 36°09'41"E), 1066 m. 08.07.2003, 1♀; Balıkesir-Burhaniye-Pelitköy (39°26'36.258"N, 26°54'4.824"E), 50 m. 22.06.1998, 1♀; Kırklareli-İğneada (41°53'3.3288"N, 27°59'7.1484"E), 10 m. 27.07.1986, 1♀; -Demirköy-Boztaş (41°54'55.7604"N, 27°38'49.9524"E), 350 m. 06.07.1997, 1♀; Tokat-Kemalpaşa (40°21'50"N, 36°30'21"E), 665 m. 30.06.2004, 1♀.

**Distribution:** Palearctic, Oriental.

### 3.13. Genus *Leluthia* Cameron, 1887

*Leluthia (Euhecabolodes) asiatica* (Tobias, 1980)

**Material examined:** Mardin-Derik-Zeytin (37°21'56"N, 40°16'10"E), 620 m. 15.05.2011, 1♀.

**Distribution:** Eastern Palearctic.

**Host:** **Coleoptera**, **Curculionidae:** *Scolytus schevyrewi* Semenov, 1902.

***Leluthia (Euhecabolodes) ruguloscolyti* (Fischer, 1962)**

**Material examined:** Ankara (40°1'15"N, 32°49'51"E), 870 m. 08.08.2010, 1♀; Diyarbakır-Ergani-Şeftali (8°15'59"N, 39°45'59"E), 872 m. 10.06.1998, 1♀; Elazığ-Kayısı (38°40'51"N, 39°13'35"E), 1043 m. 10.06.1998, 12♀♀; Diyarbakır-Ergani (38°15'59"N, 39°45'59"E), 872 m. 02.06.1998, 1♀; Malatya-Tekevler (38°21'18"N, 38°18'34"E), 977 m. 15.08.1997, 2♀♀.

**Distribution:** Eastern Palearctic.

**Hosts:** Coleoptera, Curculionidae: *Phloeosinus bicolor* (Brulle, 1832); *Scolytus rugulosus* (Mueller, 1818).

***Leluthia (Euhecabolodes) transcaucasica* (Tobias, 1976)**

**Material examined:** Siirt-Merkez (37°55'31"N, 41°55'32"E), 880 m. 30.07.2009, 1♀.

**Distribution:** Palearctic.

**Hosts:** Coleoptera, Curculionidae: *Phloeosinus bicolor* (Brulle, 1832); *Scolytus butovitschi* Eggers, 1942c; *S. japonicus* Chapuis, 1869.

***Leluthia (Leluthia) paradoxa* (Picard, 1938)**

**Material examined:** Tokat-Çamağzı (40°24'44"N, 36°41'08"E), 692 m. 01.07.2004, 1♂.

**Distribution:** Western Palearctic.

**Hosts:** Coleoptera, Curculionidae: *Pissodes piceae* (Illiger, 1807); *Trypodendron signatum* (Fabricius, 1787). Scolytidae: *Scolytus multistriatus* (Marsham, 1802).

**3.14. Genus *Oncophanes* Förster, 1862*****Oncophanes (Oncophanes) minutus* (Wesmael, 1838)**

**Material examined:** Artvin-Borçka-Cankurtaran (41°24'01"N, 41°31'10"E), 595 m. 30.06.2005, 1♀; Bolu-Aladağ-Kökeç (40°43'50"N, 31°36'34"E), 1000 m. 27.08.2002, 1♀; İstanbul-Bahçeköy-Bilezikçi Çiftliği (41°11'33"N, 28°59'53"E), 30 m. 24.06.1993, 1♀; Kırklareli-Dereköy (41°56'4"N, 27°21'57"E), 500 m. 17.07.2001, 1♀; Samsun-Salıpazarı-Derbentalı (41°4'49"N, 36°49'35"E), 970 m. 03.07.2003, 1♀.

**Distribution:** Palearctic.

**3.15. Genus *Ontsira* Cameron, 1900*****Ontsira antica* (Wollaston, 1858)**

**Material examined:** Artvin-Varlık (41°13'16"N, 41°52'02"E), 673 m. 03.09.2004, 1♀; Edirne-Binevler (41°40'12"N, 26°33'02"E), 41 m. 07.06.1986, 1♀; 07.06.1986, 1♀; 09.06.1991, 1♀; Erzurum-Olur (39°54'35"N, 41°16'32"E), 1853 m. 12.09.2012, 1♀.

**Distribution:** Holarctic, Oceanic.

**Hosts:** Coleoptera, Anobiidae: *Ptilinus pectinicornis* (Linnaeus, 1758). Buprestidae: *Agrilus viridis* (Linnaeus, 1758); *Chrysobothris (Chrysobothris) igniventris* Reitter, 1895. Cerambycidae: *Clytus arietis* (Linnaeus, 1758); *Ernobius mollis* (Linnaeus, 1758); *Exocentrus punctipennis* Mulsant & Guillebeau, 1856; *Phymatodes testaceus* (Linné, 1758); *Plagionotus arcuatus* (Linnaeus, 1758); *Plagionotus floralis* (Pallas, 1773); *Pogonocherus*

*hispidulus* (Piller & Mitterpacher, 1783); *Pyrrhidium sanguineum* (Linnaeus, 1758). Curculionidae: *Blastophagus piniperda* (Linnaeus, 1758); *Magdalis (Magdalis) frontalis* (Gyllenhal 1827). Eucnemidae: *Melasis buprestoides* (Linnaeus, 1761). Scolytinae: *Ips acuminatus* (Gyllenhal 1827); *Scolytus pygmaeus* (Fabricius, 1787); *S. rugulosus* (Müller, 1818).

***Ontsira imperator* (Haliday, 1836)**

**Material examined:** Bolu-Çaydurt (40°44'22"N, 31°36'41"E), 720 m. 28.06.2001, 1♂; Isparta-Merkez (37°45'53"N, 30°33'23"E), 1031 m. 15.06.2003, 1♀, 1♂; Kastamonu-Çatören (41°08'00"N, 33°48'00"E), 950 m. 30.08.2002, 1♀; Kırklareli-Demirköy-Karacadağ (41°57'16"N, 27°40'37"E), 285 m. 03.06.1993, 1♀; Nevşehir-Gülhisar-Açıksaray (38°44'16"N, 34°39'55"E), 1000 m. 12.09.2006, 1♀.

**Distribution:** Holarctic, Oriental.

**Hosts:** Coleoptera, Buprestidae: *Buprestis strigosa* (Gebler, 1830). Bostrichidae: *Bostrichus capucinus* (Linnaeus, 1758). Depressariidae: *Dicerea berlinensis* (Herbst, 1779). Cerambycidae: *Acanthocinus aedilis* (Linnaeus, 1758); *A. griseus* (Fabricius, 1792); *Anisarthron barbipes* (Schrank, 1781); *Hylotrupes bajulus* (Linnaeus, 1758); *Leiopus nebulosus* (Linnaeus, 1758); *Leptura rubra* (Linnaeus, 1758); *Pogonocherus hispidus* (Linnaeus, 1758); *P. fasciculatus* (De Geer, 1775); *Rhagium bifasciatum* (Fabricius 1775); *Scotylus scotylus* (Fabricius 1775); *Stromatium fulvum* (Linsley & Chemsak, 1997); *Tetropium castaneum* (Linnaeus, 1758). Curculionidae: *Blastophagus piniperda* (Linnaeus 1758). Scolitidae: *Blastophagus minor* (Hartig, 1834).

**3.16. Genus *Pachystigmus* Hellén, 1927*****Pachystigmus nitidulus* Hellén, 1927**

**Material examined:** Aksaray-Ihlara-Yaprakhisar (38°13'18"N, 34°17'14"E), 1354 m. 11.09.2006, 1♀, 1♂; Eskişehir-Anadolu Üniversitesi Hatıra Ormanı (39°43'09"N, 30°40'37"E), 907 m. 10.07.2007, 2♀♀; -Sivrihisar-Babatat (39°31'42"N, 31°37'36"E), 868 m. 10.07.2007, 4♀♀; Malatya-Doğanşehir-Kemaliye (37°16'45"N, 38°0'17"E), 1345 m. 02.06.2007, 1♂.

**Distribution:** Western Palearctic.

**3.17. Genus *Pambolus* Haliday, 1836****\**Pambolus (Phaenodus) pallipes* (Förster, 1862)**

**Material examined:** Nevşehir-Amanos-Saruhan (38°42'47"N, 34°54'47"E), 958 m. 13.09.2006, 1♀; Rize-Ardeşen-Duygulu (47°07'02"N, 41°02'45"E), 132 m. 27.06.2005, 1♂.

**Distribution:** Palearctic.

**3.18. Genus *Polystenus* Förster, 1862*****Polystenus rugosus* Förster, 1862**

**Material examined:** Nevşehir-Avanos-Saruhan (38°42'47"N, 34°54'47"E), 958 m. 13.09.2006, 1♀.

**Distribution:** Palearctic, Oriental.

**Hosts:** Coleoptera, Buprestidae: *Agrilus* sp.; *Agrilus angustulus* (Illiger, 1803); *A. auricollis* (Kiesenwetter, 1857); *A. sulcicollis* Lacordaire, 1835; *A. viridis* (Linnaeus, 1758); *Anthaxia manca* (Linnaeus, 1767); *Coraebus florentinus* (Herbst, 1801) syn. *C. bifasciatus* Olivier; *Sinoxylon sexdentatum*; (Olivier, 1790).

### 3.19. Genus *Pseudohormius* Tobias & Alexeev, 1973

#### *Pseudohormius turkmenus* Tobias & Alexeev, 1973

**Material examined:** Elazığ-Baskil-Yalındam (38°34'26"N, 38°43'55"E), 1400 m. 10.06.2008, 2♀♀; 1♂; Erzincan-Refahiye-Salur (39°55'37"N, 38°31'37"E), 1610 m. 22.08.2008, 1♀; Eskişehir-Kaymaz (39°50'57"N, 31°10'06"E), 449 m. 10.07.2007, 1♀; Kars-Sarıkamış-Erzurum Yolu 10 km (40°15'03"N, 42°39'11"E), 2016 m. 23.06.2013, 1♂; Kayseri-Gömeç (38°52'17"N, 35°39'43"E), 1094 m. 14.09.2006, 1♂; Malatya-Darende-Gümüşdere (38°35'52"N, 37°27'50"E), 1377 m. 30.08.2008, 1♀; -Doğuşehir-Takaz (38°00'35"N, 37°59'28"E), 1286 m. 14.07.2007, 1♂; Sivas-Gürün-İncesu (38°45'36"N, 37°6'30"E), 1735 m. 13.07.2007, 1♀; Tunceli-Merkez-Aktuluk (39°02'29"N, 39°30'25"E), 941 m. 27.08.2008, 1♀; Yozgat-Şefaati-Karanlıkdere (39°34'28"N, 34°38'48"E), 840 m. 29.05.2007, 1♂.

**Distribution:** Palearctic.

**Host:** Lepidoptera, Buccalatricidae: *Buccalatrix crataegi* Zeller, 1839.

### 3.20. Genus *Rhaconotus* Ruthe, 1854

#### *Rhaconotus (Rhaconotus) aciculatus* Ruthe, 1854

**Material examined:** Amasya-Yıldızköy (40°34'14"N, 35°42'54"E), 420 m. 23.06.2004, 2♀♀; Ankara-Temelli-Alagöz (39°45'18"N, 32°26'42"E), 803 m. 10.07.2007, 1♀; Diyarbakır-Devegeçidi barj. Yol ayr. (38°06'34"N, 40°12'46"E), 602 m. 04.07.2010, 3♀♀; Edirne-Havsa-Köseömer (41°35'14"N, 26°54'15"E), 115 m. 30.08.1992, 1♀; Erzincan-Üzümlü-Demirpınar (39°37'38"N, 39°47'34"E), 1200 m. 24.08.2008, 1♀; Erzurum-İspir-Ardıçlı (40°33'59"N, 41°14'0"E), 1560 m. 19.06.2012, 1♀; Iğdır-Karakoyunlu-Taşburun (39°58'55"N, 44°12'03"E), 839 m. 26.06.2012, 2♀♀; Iğdır-Tigem (39°47'10"N, 44°37'05"E), 850 m. 26.06.2012, 8♀♀; Iğdır-Tuzluca-Gaziler (40°06'36"N, 43°25'31"E), 1035 m. 27.0.2012, 1♀; Malatya-Hekimhan-Yazılı (38°42'46"N, 38°05'06"E), 1176 m. 09.08.2008, 1♀; Muğla-Yatağan-Dipsiz (37°25'00"N, 28°06'00"E), 376 m. 31.07.1997, 1♀; Sivas-Kangal-Yeşildere (39°08'33"N, 37°30'00"E), 1600 m. 01.06.2007, 2♀♀; Tekirdağ-Yazırköy (40°54'26"N, 27°28'7"E), 60 m. 23.08.2000, 2♀♀.

**Distribution:** Palearctic, Oriental.

**Hosts:** Coleoptera, Buprestidae: *Agrilus viridis* (Linnaeus, 1758); *Anthaxia lgoeckii* Obenberger, 1917; *Caryedon* sp. Chrysomelidae: *Caryedon serratus* (Olivier, 1790); *Lixus glaucopterus lukjanovitschi* Putschkov, 1975.

#### *Rhaconotus (Rhaconotus) asiaticus* Belokobylskij, 1990

**Material examined:** Afyon-Emirdağ-Kırkpınar (39°12'24"N, 31°01'56"E), 911 m. 07.07.2006, 1♂; Amasya-Merzifon-Tavşan D.-Esenköy Y. (41°00'37"N, 35°17'23"E, Ankara-Temelli-Alagöz (39°45'18"N, 32°26'42"E), 803 m. 10.07.2007, 1♀; Antakya-*Prosopis forcta* (36°12'0"N, 36°10'34"E), 86 m. 10.10.2001, 1♀; Artvin-Dereçi (41°28'52"N, 41°31'34"E), 1018 m. 01.07.2005, 1♀; Aydın-Germencik-Moralı (37°53'23"N, 27°30'16"E), 100 m. 24.06.1998, 1♀; Bartın-Kuruca-Şile-Danişment (41°49'37"N, 32°41'23"E), 126 m. 09.06.2002, 1♀; Bayburt-Merkez (40°14'51"N, 40°13'46"E), 1562 m. 07.08.2005, 1♀; Denizli-Buldan-Kadıköy (38°9'43"N, 28°45'32"E), 580 m. 19.09.1996, 1♀; Diyarbakır (37°54'51"N, 40°13'50"E), 641 m. 05.05.2006, 1♀; Edirne-Enez-Sultaniçi (40°37'37"N, 26°9'29"E), 20 m. 22.08.1991, 1♀; -Üzünköprü-Kırcasalih (41°23'57"N, 26°48'36"E), 100 m. 01.08.1992, 1♀; Erzincan-Üzümlü (39°41'04"N, 39°39'32"E), 1162 m. 23.08.2008, 1♀; -Kemah-Soğukpınar (39°36'06"N, 39°02'17"E), 1040 m. 26.08.2008, 1♀; -Tercan-Elmalı (39°34'17"N, 40°08'35"E), 1350 m. 24.08.2008, 1♂; -Üzümlü-Geyikli (39°43'36"N, 39°40'00"E), 1391 m. 15.06.2008, 1♀; Erzurum (39°54'15"N, 41°16'4"E), 1889 m. 29.07.1994, 1♀; Eskişehir-Türkmendağı-Kavacık (39°31'59"N, 30°20'28"E), 1230 m. 08.07.2007, 1♀; Gökçeada-TİGEM (40°11'49"N, 25°55'4"E), 35 m. 06.07.1996, 1♀; Kastamonu-Azday-Mehmetçelebi (41°38'26"N, 33°17'53"E), 730 m. 05.09.2001, 1♀; Kayseri-Bünyan (38°50'53"N, 35°51'36"E), 1350 m. 12.07.2007, 1♀; Malatya-Doğuşehir-Takaz (38°00'35"N, 37°59'28"E), 1286 m. 14.07.2007, 1♀; Nevşehir-Hacıbektaş (38°57'43"N, 34°33'29"E), 1255 m. 07.06.2007, 1♀; Sinop-Boyabat-Çangal Dağı-Kozcağız (41°27'36"N, 34°46'48"E), 333 m. 1♂; Sivas-Zara (39°53'42"N, 37°45'11"E), 1010 m. 31.05.2007, 1♀.

**Distribution:** Eastern Palearctic.

**Host:** Coleoptera, Curcurioniae: *Lixus (Eulixus) kiritshenkoi* Ter-Minasyan 1985.

#### *Rhaconotus (Rhaconotus) elegans* (Förster, 1862)

**Material examined:** Ankara-Yeniterminal (40°07'41"N, 32°59'42"E), 952 m. 27.10.2001, 1♀.

**Distribution:** Palearctic.

#### *Rhaconotus (Rhaconotus) kerzhneri* Belokobylskij, 1985

**Material examined:** Antakya-*Prosopis forcta* (36°12'0"N, 36°10'34"E), 86 m. October 2001, 1♀; İçel-Erdemli (36°36'05"N, 34°18'1"E), 15 m. 06.07.1983, 1♂.

**Distribution:** Eastern Palearctic.

#### *Rhaconotus (Rhaconotus) longulus* Belokobylskij, 1994

**Material examined:** Bozcaada-Merkez (39°49'23"N, 26°1'57"E), 8 m. 08.07.1996, 1♀; Çanakkale-Eceabat

(40°11'1"N, 26°21'22"E), 9 m. 15.07.1986, 1♀; Iğdır-Karakoyunlu-Taşburun (39°58'55"N, 44°12'03"E), 839 m. 1♂; Tekirdağ-Işıklar (40°48'54"N, 27°22'50"E), 400 m. 14.07.1986, 1♀.

**Distribution:** Eastern Palearctic.

***Rhaconotus (Rhaconotus) pictipennis* (Reinhard, 1885)**

**Material examined:** Balıkesir-Burhaniye-Pelitköy (39°26'36"N, 26°54'4"E), 50 m. 22.06.1998, 1♂; Bartın-Merkez (41°38'4"N, 32°20'15"E), 10 m. 09.06.2002, 1♀; Elazığ-Kovancılar-Konakalmaz (38°40'44"N, 39°42'59"E), 1161 m. 29.08.2008, 1♂; Eskişehir (26kmkale) (39°46'48"N, 30°30'36"E), 793 m. 04.09.2006, 1♀; Kastamonu-Araç-Toprakcuma (41°23'56"N, 33°46'46"E), 350 m. 13.06.2002 1♀; -Hanönü (41°37'33"N, 34°27'43"E), 450 m. 02.07.2001, 1♀; Tunceli-Merkez-Aktuluk (39°3'38"N, 39°25'36"E), 941 m. 27.08.2008, 1♀; Zonguldak-Çaycuma-Kayıklar (41°25'12"N, 32°04'47"E), 20 m. 30.06.2001, 1♀, 1♂; Zonguldak-Karadeniz Ereğlisi (41°17'21"N, 31°25'5"E), 40 m. 08.06.2002, 1♀.

**Distribution:** Palearctic.

### 3.21. Genus *Rhoptrocentrus* Marshall, 1897

#### *Rhoptrocentrus piceus* Marshall, 1897

**Material examined:** Amasya-Yıldızköy (40°34'14"N, 35°42'54"E), 420 m. 23.06.2004, 1♀; Edirne-Trakya Üniv. Merkez Kampüsü-(Zooloji Lab.) (41°38'20"N, 26°36'53"E), 41 m. 16.10.1989, 1♀.

**Distribution:** Palearctic.

### 3.22. Genus *Rhysipolis* Förster, 1862

#### *Rhysipolis decorata* (Haliday, 1836)

**Material examined:** Afyon-Çay (38°35'33"N, 31°03'03"E), 1004 m. 07.07.2006, 1♀; Aksaray-Ihlara (38°15'27"N, 34°17'43"E), 1212 m. 11.09.2006, 1♀; Yaprakhisar (38°13'18"N, 34°17'14"E), 1354 m. 11.09.2006, 1♀; Amasya-Taşova-Boraboy köyü (40°48'35"N, 36°12'07"E), 551 m. 08.07.2003, 1♀; Ankara-Kızılcahamam-Özbekler (40°32'32"N, 32°36'29"E), 970 m. 17.09.2006, 1♀; -Yenikent-Ilyakut (40°04'19"N, 32°28'16"E), 969 m. 08.06.2007, 1♀; Ardahan-Kent Ormanı (41°6'37"N, 42°42'7"E), 1810 m. 15.09.2012, 2♀♀; Artvin-Yusufeli-Küplüce (40°56'06"N, 40°30'23"E), 828 m. 04.09.2004, 1♀; Bayburt-Konursu (40°23'39"N, 40°14'54"E), 1522 m. 30.08.2004, 1♀; -Merkez (40°14'51"N, 40°13'46"E), 1562 m. 07.08.2005, 1♀; Çankırı-Korgun (40°44'00"N, 33°31'25"E), 898 m. 28.05.2007, 2♀♀; Denizli-Buldan-Kadıköy (38°9'43"N, 28°45'32"E), 580 m. 19.09.1996, 1♀; Elazığ-Aydınlı (38°48'04"N, 38°53'40"E), 985 m. 16.07.2007, 1♀; -Baskil-Hacımustafta (38°38'34"N, 38°51'07"E), 1436 m. 23.07.1985, 1♀; Erzincan-Üzümlü (39°41'04"N, 39°39'32"E), 1162 m. 23.08.2008, 4♀♀; -Üzümlü-Geyikli (39°43'36"N, 39°40'00"E), 1391 m. 23.08.2008, 1♀; Eskişehir-A.Ü-Hatıra Ormanı (39°43'09"N, 30°40'37"E),

907 m. 10.07.2007, 1♀; -Kaymaz (39°50'57"N, 31°10'06"E), 449 m. 10.07.2007, 2♀♀; Gümüşhane-Kelkit-Köycük (40°9'1"N, 39°25'19"E), 1450 m. 08.08.2005, 1♀; Kastamonu-Azdavay-Mehmetçelebi (41°38'26"N, 33°17'53"E), 730 m. 05.09.2001, 1♀; -Daday-Ballıdağ (41°28'0"N, 33°25'0"E), 1750 m. 01.07.2001, 1♀; Kayseri-Bağpınar (38°49'12"N, 35°37'56"E), 1097 m. 14.09.2006, 8♀♀, 2♂♂; -Gömeç (38°52'17"N, 35°39'43"E), 1094 m. 14.09.2006, 1♀; -Yemliha (38°52'02"N, 35°14'32"E), 992 m. 15.09.2006, 3♀♀, 1♂; -Yeşilhisar-Araplı (38°14'05"N, 35°03'13"E), 1349 m. 18.07.2007, 3♀♀; Kırıkkale-Karakeçili (39°34'35"N, 33°21'25"E), 839 m. 11.07.2007, 2♀♀; Kırşehir-Mucur-Kurugöl (39°01'54"N, 34°26'41"E), 1046 m. 07.06.2007, 1♀; Malatya-Akçadağ-Darıca (38°20'39"N, 37°40'22"E), 1540 m. 05.06.2007, 1♀; -Çiftlik (38°20'01"N, 38°27'31"E), 909 m. 18.07.2007, 1♀; Muğla-Yatağan-Dipsiz (37°25'00"N, 28°06'00"E), 376 m. 31.07.1997, 1♀; Nevşehir-Avanos-Saruhan (38°42'47"N, 34°54'47"E), 958 m. 13.09.2006, 2♀♀; -Ürgüp (38°36'33"N, 34°54'46"E), 1082 m. 13.09.2006, 2♀♀, 1♂; Sivas-Kampüs (39°44'51"N, 37°1'43"E), 1285 m. 24.08.2002, 1♀; Tokat-Erbaa (40°40'09"N, 36°38'06"E), 234 m. 28.08.2004, 1♀; -Pazar-Balıca (40°13'29"N, 36°17'34"E), 1020 m. 07.07.2003, 1♀; -Turhal-Doğanlı Çiftliği (40°18'14"N, 36°19'29"E), 554 m. 30.06.2004, 2♂♂; Trabzon-Akçabat-Akat (40°59'01"N, 39°33'06"E), 77 m. 04.08.2005, 1♀; Tunceli-Pülümür-Kangallı (39°27'10"N, 39°51'43"E), 1343 m. 27.08.2008, 1♀.

**Distribution:** Holarctic.

**Hosts:** Lepidoptera, Crambidae: *Loxostege sticticalis* (Linnaeus, 1761). Gelechiidae: *Scrobipalpa atriplicella* (Röslerstamm, 1841); *Synopacma coronillella* (Treitschke, 1833). Gracillariidae: *Acrocercops brongniardella* (Fabricius, 1798); *Caloptilia* sp.; *Caloptilia alchimiella* (Scopoli, 1763); *C. anthobaphes* (Meyrick, 1921); *C. betulicola* (M. Hering, 1928); *C. robustella* Jäckh, 1972; *Choreutis pariana* (Clerck, 1759); *Parornix alta* (Braun, 1925); *P. geminatella* (Packard, 1869); *Phyllonorycter* sp.; *Phyllonorycter harrisella* (Linnaeus, 1761); *P. ostryaefoliella* (Clemens, 1859); *P. propinquella* (Braun, 1908); *P. ulmifoliella* (Hübner, 1817). Lyonetiidae: *Leucoptera malifoliella* (Costa, 1836). Momphidae: *Mompha raschkiella* (Zeller, 1839). Diptera, Anthomyiidae: *Pegomya hyoscyami* (Panzer, 1809). Tephritidae: *Euphranta (Euphranta) connexa* (Fabricius 1794); *Plioreocepta poeciloptera* (Schrank, 1776); *Tachydromia connexa* Meigen, 1822.

#### *Rhysipolis enukidzei* Tobias, 1976

**Material examined:** Ardahan-Çıldır-Eskibeyrehatun köyü (41°07'7"N, 42°54'32"E), 1950 m. 22.08.2013, 1♀; Elağzı-Palu-Seydili (38°41'36"N, 39°52'51"E), 880 m. 29.08.2008, 1♀; Iğdır-Tuzluca (40°02'51"N, 43°42'54"E), 1038 m. 23.08.2013, 1♀; -Tuzluca-İncesu (40°06'36"N,

43°25'31"E), 1057 m. 23.06.2013, 2♀♀; Kars-Kağızman-Morpet (40°15'16"N, 42°58'36"E), 1486 m. 23.08.2013, 1♀; -Kağızman-Yalnızagaç (40°13'49"N, 42°59'05"E), 1405 m. 23.08.2013, 1♀; -Sarıkamış-Büyükumru (40°25'14"N, 42°30'52"E), 2102 m. 25.06.2013, 2♀♀; -Sarıkamış-Karakurt (40°10'03"N, 42°36'36"E), 1475 m. 23.06.2013, 1♂.

**Distribution:** Palearctic.

***Rhysipolis hariolator* (Haliday, 1836)**

**Material examined:** Aksaray-Ihlara (38°15'27"N, 34°17'43"E), 1212 m. 11.09.2006, 1♀; Ardahan-Çıldır (41°3'28"N, 43°12'41"E), 1920 m. 16.09.2012, 1♀, 1♂; -Göle-Yiğitkonağı köyü (40°55'36"N, 42°35'35"E), 1015 m. 22.06.2012, 1♀, 1♂; -Merkez-Tepeler (41°6'37"N, 42°42'7"E), 1835 m. 22.06.2012, 1♀; -Posof (41°30'30"N, 42°44'03"E), 1445 m. 21.08.2013, 1♀; 14.09.2012, 1♀; Aydın-Sultanhisar-Salavatlı (37°53'34"N, 28°6'17"E), 80 m. 19.09.1996, 1♀; Denizli-Buldan-Kadıköy (38°9'43"N, 28°45'32"E), 580 m. 19.09.1996, 1♂; Erzincan-Kemah-Soğukpınar (39°36'06"N, 39°02'17"E), 1040 m. 26.08.2008, 1♀; Erzurum-Oltu-Orçuk (40°31'30"N, 41°48'23"E), 1270 m. 13.09.2012, 2♂♂; -Olur (39°54'35"N, 41°16'32"E), 1853 m. 12.09.2012, 4♀♀; -Şenkaya-Değirmenlidere (40°43'53"N, 42°31'09"E), 1820 m. 21.06.2012, 1♀; -Şenkaya-Gözalın (40°44'36"N, 42°17'40.0992"E), 1500 m. 13.09.2012, 1♀; -Tortum-Enlem (40°8'00"N, 41°5'58"E), 1515 m. 12.09.2012, 1♂; Eskişehir-Sivrihisar-Babatat (39°31'42"N, 31°37'36"E), 868 m. 10.07.2007, 1♀; Gümüşhane-Kelkit-Yeniköy (40°19'26"N, 39°29'33"E), 1474 m. 29.08.2004, 1♀; Iğdır-Tuzluca-Gaziler (40°06'36"N, 43°25'31"E), 1035 m. 27.06.2012, 1♀, 1♂; 21.09.2012, 3♀♀; -Tuzluca-Köprübaşı köyü (40°3'6"N, 43°43'31"E), 1035 m. 25.06.2012, 2♀♀; 20.09.2012, 1♀; Kars-Kağızman (40°9'27"N, 43°7'23"E), 1078 m. 27.06.2012, 1♀; -Kağızman-Aydıncavak (40°09'11"N, 43°19'14"E), 1115 m. 24.08.2013, 3♀♀; 20.09.2012, 3♀♀, 1♂; -Kağızman-Morpet (40°15'16"N, 42°58'36"E), 1486 m. 23.08.2013, 1♀; 20.09.2012, 1♀; -Sarıkamış-Horasan yolu (40°19'54"N, 42°35'42"E), 2102 m. 27.06.2012, 1♀; Kayseri-Bağpınar (38°49'12"N, 35°37'56"E), 1097 m. 14.09.2006, 1♀; -Yemliha (38°52'02"N, 35°14'32"E), 992 m. 15.09.2006, 3♀♀; -Yeşilhisar-Araplı (38°14'05"N, 35°03'13"E), 1349 m. 18.07.2007, 2♂♂; Kırşehir-Daman-Darıözü (39°30'21"N, 33°47'08"E), 902 m. 16.09.2006, 1♀; Konya-Direksarayı (37°24'21"N, 32°36'29"E), 1030 m. 09.09.2006, 1♀; Malatya-Darende-Gümüşdere (38°35'52"N, 37°27'50"E), 1377 m. 30.08.2008, 2♀♀; -Hekimhan (38°49'44"N, 37°55'00"E), 1094 m. 09.06.2008, 2♀♀; Sinop-Yeniçam (41°9'6"5"N, 34°85'6"E), 30 m. 06.09.2001, 1♀, 1♂; Sivas-Gürün-Suçatı (38°43'17"N, 37°20'45"E), 1266 m. 02.06.2008, 1♀; Tokat-Pazar-Balıca (40°13'29"N, 36°17'34"E), 1020 m. 07.07.2003, 1♀; Tunceli-Pertek-Beydamı (38°56'40"N, 39°28'22"E), 1267

m. 28.08.2008, 2♂♂; -Pülümür-Kangallı (39°27'10"N, 39°51'43"E), 1343 m. 27.08.2008, 1♀.

**Distribution:** Palearctic.

**Hosts: Lepidoptera, Cosmopterigidae:** *Cosmopterix zieglerella* Hübner, 1810. **Gracillariidae:** *Caloptilia alchimiella* (Scopoli, 1763); *C. elongella* (Linnaeus, 1761); *Parornix betulae* (Stainton, 1854); *P. devoniella* (Stainton, 1850); *P. fagivora* (Frey, 1861); *P. petiolella* (Frey, 1863); *P. scoticella* (Stainton, 1850); *P. torquillella* (Zeller, 1850); *Phyllonorycter coryli* (Nicelli, 1851); *P. froelichiella* (Zeller, 1839); *P. heegeriella* (Zeller, 1846); *P. kleemannella* (Fabricius, 1781); *P. nicellii* (Stainton, 1851); *P. quercifoliella* (Zeller, 1839).

***Rhysipolis mediator* (Haliday, 1836)**

**Material examined:** Aksaray-Ihlara (38°15'27"N, 34°17'43"E), 1212 m. 11.09.2006, 1♀; -Ihlara-Yaprakhisar (38°13'18"N, 34°17'14"E), 1354 m. 11.09.2006, 1♂; Amasya-Yolyanı (40°34'22"N, 36°06'38"E), 700 m. 30.06.2004, 1♀; Aydın-Kuyucak-Pamukören (37°55'23"N, 28°32'30"E), 140 m. 19.06.1996, 1♀; -Kuyucak-Pamukören (37°55'23"N, 28°32'30"E), 140 m. 19.09.1996, 1♀, 1♂; -Sultanhisar-Salavatlı (37°53'34"N, 28°6'17"E), 80 m. 19.09.1996, 1♀; Ziraat Fak. (37°50'39.8328"N, 27°50'44.88"E), 47 m. 18.09.1996, 2♀♀; Denizli-Buldan-Kadıköy (38°9'43"N, 28°45'32"E), 580 m. 19.09.1996, 1♂; Edirne-Lalapaşa (41°50'24"N, 26°43'48"E), 560 m. 06.06.1987, 1♀; Elazığ-Baskil-Hacımustafa Köyü (38°38'34"N, 38°51'07"E), 1436 m. 08.08.1990, 1♀; -Keban-Sağdıçlar (38°46'19"N, 38°50'45"E), 1221 m. 11.06.2008, 1♀; Erzincan-Kemah-Soğukpınar (39°36'06"N, 39°02'17"E), 1040 m. 26.08.2008, 1♂; -Reşadiye-Salur (39°55'37"N, 38°31'37"E), 1610 m. 2.08.2008, 1♀; -Üzümlü-Geyikli (39°43'36"N, 39°40'00"E), 1391 m. 23.08.2008, 1♀; Erzurum-Oltu-Orçuk (40°31'30"N, 41°48'23"E), 1270 m. 13.09.2012, 2♀♀, 2♂♂; -Olur (39°54'35"N, 41°16'32"E), 1853 m. 12.09.2012, 1♀, 1♂; -Şenkaya-Değirmenlidere (40°43'53"N, 42°31'09"E), 1820 m. 21.06.2012, 1♀; -Şenkaya-Gözalın (40°44'36"N, 42°17'40"E), 1500 m. 13.09.2012, 1♀; Eskişehir-Sivrihisar-Babatat (39°31'42"N, 31°37'36"E), 868 m. 10.07.2007, 1♀; -Yörükhırka (39°36'00"N, 30°25'12"E), 862 m. 08.07.2007, 1♀; Iğdır-Tuzluca-Köprübaşı (40°3'6.354"N, 43°43'31.476"E), 1035 m. 20.09.2012, 2♀♀; Kars-Boğazköy (40°42'07"N, 43°06'57"E), 1705 m. 17.09.2012, 1♀; -Kağızman-Aydıncavak (40°09'11"N, 43°19'14"E), 1115 m. 20.09.2012, 2♀♀; -Kağızman-Morpet (40°15'16"N, 42°58'36"E), 1486 m. 20.09.2012, 1♀; -Sarıkamış-Bayraktepe (40°17'28"N, 42°36'00"E), 2644 m. 24.06.2013, 2♂♂; Kayseri-Bağpınar (38°49'12"N, 35°37'56"E), 1097 m. 14.09.2006, 11♀, 7♂♂; -Gömeç (38°52'17"N, 35°39'43"E), 1094 m. 14.09.2006, 2♀♀, 1♂; -Pınarbaşı-Kızıldere (38°40'20"N, 36°15'27"E), 1457 m. 06.06.2007,

1♀; -Yemliha (38°52'02"N, 35°14'32"E), 992 m. 15.09.2006, 3♀♀, 2♂♂; -Yeşilhisar-Araplı (38°14'05"N, 35°03'13"E), 1349 m. 18.07.2007, 3♀♀, 2♂♂; Kırıkkale-Karakeçili (39°35'39"N, 33°22'46"E), 551 m. 11.07.2007, 1♀; -İncepaşayeri (41°40'40"N, 27°4'8"E), 150 m. 02.08.2000, 1♀; -Kızılcadere (41°41'33"N, 27°18'48"E), 162 m. 02.06.1993, 1♀; Kırşehir-Kaman-Darıözü (39°30'21"N, 33°47'08"E), 902 m. 16.09.2006, 1♂; Nevşehir-Avanos-Saruhan (38°42'47"N, 34°54'47"E), 958 m. 06.06.2007, 2♀♀, 1♂; -Gülşehir-Gülyeri (38°44'55"N, 34°40'27"E), 910 m. 12.09.2006, 3♂♂; Niğde-Çiftlik (38°10'14"N, 34°29'17"E), 1562 m. 18.07.2007, 1♀; Sivas-Kızılkavraz (39°46'20"N, 37°10'36"E), 1250 m. 27.05.2001, 1♀; -Merkez-Tepeönü (39°39'32"N, 37°08'01"E), 1306 m. 01.06.2007, 2♀♀; Tekirdağ-Çorlu (41°10'28"N, 27°48'20"E), 70 m. 12.08.1993, 1♀; Tokat-Almus-Gümeleönü (40°18'40"N, 37°7'10"E), 740 m. 02.09.2003, 2♀♀; Tunceli-Pülümür-Kangallı (39°27'10"N, 39°51'43"E), 1343 m. 27.08.2008, 1♀, 1♂.

**Distribution:** Palearctic, Oriental.

**Hosts:** Coleoptera, Gasterophilidae: *Magdalinus* sp. **Diptera**, Anthomyiidae: *Pegomya hyoscyami* (Panzer 1809). **Tephritidae:** *Euphranta connexa* (Fabricius, 1794). **Lepidoptera**, Crambidae: *Loxostege sticticalis* (Linnaeus, 1761). **Elachistidae:** *Elachista* sp.; **Gelechiidae:** *Scrobipalpa atriplicella* (Fischer von Röslerstamm, 1841); *Syncopacma coronillella* (Treitschke, 1833); *Teleiodes luculella* (Hübner, 1813). **Gracillariidae:** *Acrocercops brongniardella* (Fabricius, 1798); *Caloptilia alchimiella* (Stainton, 1850); *C. robustella* Jäckh, 1972; *C. rufipennella* (Hübner, 1796); *Gracillaria syringella* (Fabricius, 1794); *Parornix* sp.; *Phyllonorycter* sp.; *Phyllonorycter emberizaepennella* (Bouché, 1834); *P. ilicifoliella* (Duponchel, 1843); *P. nigrescentella* (Logan, 1851); *P. quercifoliella* (Zeller, 1839); *P. roboris* (Zeller, 1839). **Lyonetiidae:** *Leucoptera laburnella* (Stainton, 1851). **Momphidae:** *Mompha raschkiella* (Zeller, 1839); *Mompha terminella* (Humphreys & Westwood, 1845). **Tineidae:** *Agnathosia mendicella* (Denis & Schiffermüller, 1775). **Tischeriidae:** *Emmetia gaunacella* (Duponchel, 1843). **Tortricidae:** *Ancylis mitterbacheriana* (Denis & Schiffermüller, 1775); *Caloptilia betulicola* (M Hering, 1928); *Cydia cosmophorana* (Treitschke, 1835).

### 3.23. Genus *Rhyssalus* Haliday, 1833

*Rhyssalus clavator* Haliday, 1833

**Material examined:** Giresun-Duruoğlu (40°14'05"N, 38°7'00"E), 80 m. 05.07.2004, 1♀, 1♂.

**Distribution:** Western Palearctic.

### 3.24. Genus *Spathiomorpha* Tobias, 1976

*Spathiomorpha varinervis* Tobias, 1976

**Material examined:** Samsun-Salıpazarı-Derbentaltı (41°4'49"N, 36°49'35"E), 970 m. 03.07.2003, 2♂♂.

### 3.25. Genus *Spathius* Nees, 1819

\**Spathius (Spathius) curvicaudis* Ratzeburg, 1844

**Material examined:** Adana-Osmaniye (36°59'59"N, 35°19'27"E), 26 m. 11.05.2000, 1♀; Denizli-Buharkent (37°57'42"N, 28°44'32"E), 173 m. 11.05.2000, 2♀♀; Kırklareli-İğneada (41°53'33"N, 27°59'71"E), 10 m. 17.06.1987, 2♀♀; Sinop-Kabalı (41°52'42"N, 35°07'04"E), 70 m. 03.07.2001, 1♀.

**Distribution:** Western Palearctic.

**Hosts:** Coleoptera, Anobiidae: *Hedobia pubescens* (Olivier 1790); *Xestobium plumbeum* (Illiger, 1801). **Buprestidae:** *Agrilus biguttatus* (Fabricius, 1776); *A. pannonicus* (Piller & Mitterpacher, 1783); *A. roberti* (Chevrolat, 1837); *A. subauratus* (Gebler, 1833); *A. sulcicollis* (Lacordaire, 1835). **Cerambycidae:** *Callidium aeneum* (De Geer, 1775); *Obrium cantharinum* (Linnaeus, 1767); *Phymatodes pusillus* (Fabricius, 1787); *P. testaceus* (Linnaeus, 1758); *Pyrrhidium sanguineum* (Linnaeus, 1758). **Curculionidae:** *Magdalis carbonaria* (Linnaeus, 1758); *Scolytus intricatus* (Ratzeburg, 1837). **Hymenoptera**, **Argidae:** *Xiphidria camelus* (Linnaeus, 1758); *X. longicollis* (Geoffroy, 1785); *X. prolongata* (Geoffroy 1785); *X. pantherinus* (Savenius, 1825).

*Spathius (Spathius) erythrocephalus* Wesmael, 1838

**Material examined:** Samsun-Salıpazarı-Derbentli (41°4'49"N, 36°49'35"E), 970 m. 03.07.2003, 1♂.

**Distribution:** Western Palearctic.

**Hosts:** Coleoptera, Anobiidae: *Ochina ptinoides* (Marsham, 1802). **Buprestidae:** *Capnodis tenebrionis* (Linnaeus, 1758). **Cerambycidae:** *Callidiellum rufipenne* (Motschulsky, 1860); *Callidium aeneum* (De Geer, 1775); *Phymatodes testaceus* (Linnaeus, 1758). **Curculionidae:** *Crypturgus cinereus* (Herbst 1793); *Scolytus mali* (Bechstein & Scharfenberg, 1805). **Lepidoptera**, **Tineidae:** *Opogona* sp. **Sesiidae:** *Synanthedon vespiformis* (Linnaeus, 1761). **Hymenoptera**, **Xiphidriidae:** *Xiphidria longicollis* (Geoffroy, 1785).

*Spathius (Spathius) exarator* (Linnaeus, 1758)

**Material examined:** Zonguldak-Devrek-Davulga (41°13'30"N, 31°57'34"E), 800 m. 29.06.2001, 2♂♂.

**Distribution:** Holarctic, Oceanic, Oriental.

**Hosts:** Coleoptera, Anobiidae: *Anobium inexpectatum* (Lohse, 1954); *A. punctatum* (DeGeer, 1774); *Dendrobium pertinax* (Mulsant & Rey, 1863); *Dorcatoma (Pilosodorcatoma) setosella setosella* (Mulsant & Rey 1864); *D. dresdensis* (Herbst, 1792); *Ernobius mollis* (Linnaeus, 1758); *E. nigrinus* (Sturm, 1837); *Grynobius planus* (Fabricius, 1787); *Ochina ptinoides* (Marsham, 1802); *Ptilinus pectinicornis* (Linnaeus, 1758); *P. pectinicornis* (Linnaeus, 1758); *Ptinus (Ptinus) fur* (Linnaeus, 1758); *Scolytus fagi* Walsh 1867; *Stegobium paniceum* (Linnaeus 1761); *Xestobium rufovillosum* (De Geer, 1774); *X. rufovillosum* (De Geer, 1774). **Buprestidae:**

*Agrilus ater* (Linnaeus, 1767); *Anthaxia godeti* (Laporte de Castelnau & Gory, 1847); *A. quadripunctata* (Linnaeus, 1758); *Melanophila cyanea* (Fabricius, 1775); *M. guttulata* (Gebler, 1830). **Cerambycidae:** *Acanthocinus aedilis* (Linnaeus, 1758); *Callidium abdominale* (Fabricius, 1787); *C. aeneum* (De Geer, 1775); *C. violaceum* (Linnaeus, 1758); *Clytus tropicus* (Panzer, 1795); *Exocentrus lusitanus* (Linnaeus, 1767); *Molorchus (Molorchus) minor* (Linnaeus, 1758); *Monochamus galloprovincialis* (Olivier, 1795); *Phymatodes pusillus pusillus* (Fabricius, 1787); *P. testaceus* (Linnaeus, 1758); *Pogonocherus hispidus* (Linnaeus, 1758); *Rhagium inquisitor* (Linnaeus, 1758); *Semanotus undatus* (Linnaeus, 1758); *Stenostola ferrea* (Schrank, 1776); *S. ferrea* (Schrank, 1776); *Tetropium castaneum* (Linnaeus, 1758); *T. fuscum* (Fabricius, 1787); *T. gabrieli* (Weise, 1905); *T. gracilicorne* (Reitter, 1889). **Chrysomelidae:** *Chrysomela alni* (Linnaeus, 1758). **Curculionidae:** *Blastophagus piniperda* (Linnaeus, 1758); *Cryphalus tiliae* (sensu C.G. Thomson, 1865); *C. tibialis* (Lea, 1898); *Ernoporus fagi* (Fabricius, 1798); *Hylesinus fraxini* (Panzer, 1779); *Ips cembrae* (Heer, 1836); *I. sexdentatus* (Börner, 1767); *I. subelongatus* (Motchulsky, 1860); *I. typographus* (Linnaeus, 1758); *Magdalis (Magdalis) violacea* (Linnaeus, 1758); *Pentarthrum huttoni* (Wollaston, 1854); *Phloeosinus serrifer* (Wichmann, 1916); *Pissodes harcyniae* (Herbst, 1795); *P. nitidus* (Roelofs, 1874); *P. notatus* (Fabricius, 1787); *Pityogenes bidentatus* (Herbst, 1784); *P. bidentatus* (Herbst, 1784); *Pityophthorus micrographus* (Linnaeus, 1758); *Polygraphus subopacus* (Thomson, 1871); *Rhyncolus culinaris* (Hustache, 1931); *Rhynchaenus fagi* (Linnaeus, 1758); *R. pilosus* (Fabricius, 1781); *R. quercus* (Linnaeus, 1758); *R. salicis* (Linnaeus, 1758); *R. testaceus* (Mueller, 1776); *Scolytus multistriatus* (Marsham, 1802); *S. rugulosus* (Mueller, 1818); *S. scotylus* (Fabricius, 1775). **Tephritidae:** *Trupanea stellata* (Fuesslin, 1775). **Tortricidae:** *Cydia funebrana* (Treitschke, 1835); *C. strobilella* (Linnaeus, 1758). **Xiphydriidae:** *Xiphydria camelus* (Linnaeus, 1758); *X. prolongata* (Geoffroy 1785); *Xyela julii* (Brebisson 1818).

***Spathius (Spathius) polonicus* Niezabitowski, 1910**

**Material examined:** Diyarbakır-Ergani-Çukurdere Köyü (38°5'42"N, 39°13'46"E), 1145 m. (Kuşburnu), 06.06.2007, 1♀; Diyarbakır-Ergani (38°16'09"N, 39°45'42"E), 872 m. 06.06.2007, 1♀.

**Distribution:** Western Palearctic.

**Hosts: Coleoptera, Buprestidae:** *Agrilus constantini* (Obenberger, 1927); *Agrilus viridis* (Linnaeus, 1758); *Anthaxia* sp.; *Coraebus florentinus* (Herbst, 1801); *Lampra mirifica* (Obenberger 1934); *Melanophila decastigma* (Fabricius, 1787); *M. Melanophila picta* (Pallas, 1773); *Sphenoptera davatchii* (Descarpentries, 1960); *Sphenoptera kaznakovi* (Jakovlev, 1899).

***Spathius (Spathius) radzayanus* Ratzeburg, 1848**

**Material examined:** Adana-Osmaniye (36°59'59"N, 35°19'27"E), 26 m. 21.07.1980, 1♀; Adapazarı-Karasu

Harası (38°20'36"N, 38°03'35"E), 881 m. 08.07.1993, 1♀; Ankara-Elmadağ (39°55'15"N, 33°13'50"E), 1165 m. 16.09.2006, 1♀; Bursa-Cumalıkızlık (40°30'40"N, 29°18'38"E), 253 m. 18.09.1992, 1♀; Çanakkale-Küçükkuyu (39°32'57"N, 26°36'34"E), 142 m. 04.11.2004, 1♀; Denizli-Buldan-Kadıköy (38°9'43"N, 28°45'32"E), 580 m. 19.09.1996, 1♀; Samsun-Salıpazarı-Astepe mevkii (41°4'49"N, 36°49'35"E), 600 m. 03.07.2003, 1♀.

**Distribution:** Palearctic, Oriental.

**Hosts: Coleoptera, Buprestidae:** *Agrilus auricollis* (Kiesenwetter, 1857); *A. biguttatus* (Fabricius, 1776); *A. viridis* (Linnaeus, 1758). **Anobiidae:** *Anobium abietis* (Fabricius 1792); *Ernobius nigrinus* (Sturm, 1837). **Cerambycidae:** *Exocentrus lusitanus* (Linnaeus, 1767); *Rhagium inquisitor* (Linnaeus, 1758). **Curculionidae:** *Hypothenemus obscurus* (Fabricius, 1801; syn. *Pissodes obscurus*); *Rhinocyllus conicus* (Frölich, 1792). **Scolitidae:** *Blastophagus piniperda* (Linnaeus, 1758). **Sesiidae:** *Synanthedon conopiformis* (Esper, 1782); *Synanthedon vespiformis* (Linnaeus, 1761). **Oligochaeta, Lumbricidae:** *Rhinocyllus depressicornis* (Smith, 1827).

**\**Spathius (Spathius) rubidus* (Rossi, 1794)**

**Material examined:** Çanakkale-Küçükkuyu (39°32'57"N, 26°36'34"E), 14 m. 26.10.2010, 1♀; Erzurum-Pasinler-Övenler (39°59'16"N, 41°34'38"E), 1740 m. 17.08.2013, 1♀; Hatay-Dörtyol (36°50'43"N, 36°13'22"E), 71 m. 30.07.1983, 1♀; İstanbul-Sarıyer Bilezik Çiçiftliği (41°10'53"N, 29°21'18"E), 35 m. 14.06.2001, 1♀; İzmir-İlişli (38°47'41"N, 26°58'13"E), 10 m. 02.06.2002, 1♀; Kastamonu-Tosya-Ekinci (41°1'6.64"N, 34°22'14"E), 1000 m. 31.08.2002, 1♀; Kırklareli-Dereköy-Kösayası (41°56'43"N, 27°21'57"E), 500 m. 29.07.1987, 1♀; Tokat-Almus-Gömelönü (40°18'40"N, 37°7'10"E), 740 m. 02.09.2003, 1♂; Trabzon-Maçka-Dikkaya (40°42'15"N, 39°29'53"E), 1016 m. 05.08.2005, 1♂; Tokat-Niksar (40°35'12"N, 36°57'72"E), 339 m. 05.07.2003, 1♀.

**Distribution:** Holarctic.

**Hosts: Coleoptera, Anobiidae:** *Anobium punctatum* (DeGeer, 1774); *A. (Hadrobregmus) rufipes* Fabricius, 1792; *Ernobius longicornis* Sturm, 1837; *Hedobia imperialis* (Linnaeus, 1767); *Ochina ptinoides* (Marsham, 1802). **Bostrichidae:** *Scobicia chevrieri* (Villa & Villa, 1835); *Sinoxylon exdentatum* (Olivier, 1790); *Xylopertha praeusta* (Germar, 1817); *X. retusa* (Olivier, 1790). **Buprestidae:** *Agrilus angustulus* (Illiger, 1803); *A. auricollis* Kiesenwetter, 1857; *A. laticornis* (Illiger, 1803); *A. viridis* (Linnaeus, 1758); *A. biguttatus* (Fabricius, 1776); *A. convexicollis* Redtenbacher 1849; *Melanophila picta* (Pallas, 1773). **Cerambycidae:** *Leiopus nebulosus* (Linnaeus, 1758); *Phymatodes testaceus* (Linnaeus, 1758); *Pogonocherus fasciculatus* (DeGeer, 1775); *Pyrrhidium sanguineum* (Linnaeus, 1758); *Saperda populnea* (Linnaeus, 1758); *Tetrops praeustus* (Linnaeus 1758); *T. starki* Chevrolat,



1859. **Chrysomelidae:** *Agelastica alni* (Linnaeus, 1758).  
**Colydiidae:** *Synchita mediolanensis* Villa & Villa 1833.  
**Curculionidae:** *Blastophagus minor* (Hartig, 1834); *Carphoborus minimus* (Fabricius, 1798); *Ceutorhynchus quadridens* Panzer, 1795; *Conophthorus coniperda* (Schwarz, 1895); *Cryphalops tiliae* (Panzer, 1793); *Crypturgus cinereus* (Herbst, 1793); *Hylesinus fraxini* (Panzer 1779); *Ips acuminatus* (Gyllenhal, 1827); *I. latidens* (LeConte, 1874); *I. lecontei* Swaine, 1924; *I. subelongatus* Motchulsky, 1860; *I. lecontei* Swaine, 1924; *Lixus (Eulixus) bidens* Capiomont, 1874; *Magdalis carbonaria* Stephens, 1831; *M. cerasi* (Linnaeus, 1758); *Magdalis (Magdalis) frontalis* (Gyllenhal, 1827); *M. (M.s.) rufa* Germar, 1824; *M. ruficornis* (Linnaeus, 1758); *Phloeosinus bicolor* (Brulle, 1832); *P. thujae* (Perris, 1855); *P. scarabaeoides* (Bernard, 1788); *Pissodes castaneus* (De Geer, 1775); *P. Pissodes notatus* Fabricius, 1787; *P. Pissodes validirostris* (Sahlberg, 1834); *Pityogenes bidentatus* (Herbst, 1784); *P. calcaratus* (Eichhoff, 1878); *P. chalcographus* (Linnaeus, 1761); *P. quadridens* (Hartig, 1834); *Pityophthorus puberulus* (LeConte, 1868); *Rynchaenus (R.) quercus* (Linnaeus, 1758); *Scolytus intricatus* (Ratzeburg, 1837); *S. multistriatus* (Marsham, 1802); *S. opacus* Blackman, 1934; *S. pygmaeus* (Fabricius, 1787); *S. rugulosus* (Müller, 1818); *S. scotylus* (Fabricius 1775). **Hymenoptera, Xiphydriidae:** *Xiphydria longicollis* (Geoffroy, 1785); *X. prolongata* (Geoffroy, 1785).

#### 4. Discussion

The present study on the Doryctinae fauna of Turkey revealed the existence of 58 species belonging to 25 genera, of which 52 species and 20 genera are recorded for the first time from Turkey. The present study is the first summary of all recorded species of the subfamily Doryctinae in Turkey. Previous studies were conducted in forest parts of Turkey and 7 species were recorded.

The most common species is *Hormius moniliatus* (Nees) and it was collected from 125 localities. *H. moniliatus* (Nees) has been recorded from Holarctic, Nearctic, Oceanic, and Oriental regions and is known to have 15 host species (forest pests). The second common species, *Rhysipolis mediator* (Haliday), which was

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- collected from 44 localities, is distributed in Palearctic and Oriental regions. Each of 21 species was recorded from 1 locality. They can therefore be considered as rare species.
- Doryctine species are parasitoids of bark beetles, which are very important forest pests. They are important population regulatory factors of species of Coleoptera, Diptera, Lepidoptera, Hymenoptera, and Diptera (Shaw and Huddleston, 1991).
- The following doryctine species are known to have more host species: the number of host species of *Spathius (S.) exarator* (Linnaeus) is 72, of *S. (S.) rubidus* (Rossi) 62, and of *Ecphyllus (E.) silesiacus* (Ratzeburg, 1848) is 63. One of the 60 host species of *Doryctes (D.) leucogaster* (Nees) is *Opilo domesticus* (Sturm) (Aranaea, Theridiidae). *Rhinocyllus depressicornis* (Smith) (Oligochaeta, Lumbricidae) is a host of *Spathius (Spathius) polonicus* Niezabitowski.
- The zoogeographical distributions of species of Doryctinae are as follows: 45 species are recorded only from Palearctic (5 species from the Eastern Palearctic, 17 species from the Western Palearctic); 8 species from Palearctic and Oriental; 2 species from Holarctic, Oceanic, and Oriental; 1 species from Holarctic and Oriental; and 1 species from Holarctic, Neotropic, and Oriental regions.
- The distribution area of *Colastes (Colastes) braconius* Haliday is the Palearctic region. It was introduced into many parts of America to be used in biological control of forest pests (USA-Delaware; USA-New Jersey; USA-Pennsylvania) (Hendrickson and Barth, 1979).
- Coeloides forsteri* Haeselbarth was obtained for the first time from an *Ips sexdentatus* larvae host.

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