



REVIEW ARTICLE

**The fauna of Ichneumonidae (Hymenoptera) of eastern Turkey  
with zoogeographical remarks and host data**

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**Abstract:** Faunistic and sistematics studies on the family Ichneumonidae (Hymenoptera) were reviwed occuring in eastern Turkey for over 20 years. In this study, 8 Acaenitinae, 16 Anomaloninae, 33 Banchinae, 26 Campopleginae, 1 Collyriinae, 23 Cremastinae, 29 Cryptinae, 9 Ctenopelmatinae, 1 Cylloceriinae, 6 Diplazontinae, 142 Ichneumoninae, 23 Mesochorinae, 30 Metopiinae, 15 Ophioninae, 2 Orthocentrinae, 2 Orthopelmatinae, 66 Pimplinae, 1 Stilbobinae, 13 Tersilochinae and 41 Tryphoninae species were recorded. So far, totally, 487 species with 186 genera and 20 subfamilies are recognized. With present knowledge, among them, *Colpotrochia triclitor* (Aubert, 1979), *Exochus protuberans* Kolarov & Çoruh, 2009 and *Coelichneumon nigritor* Riedel, Çoruh & Özbek, 2010 are endemic to Anatolia. The species composition, collected biogeographical regions, altitudinal distribution, seasonal dynamics, individual diversity and available host data of species in the region were reviewed.

**Key words:** Ichneumonidae, distribution, diversity, zoogeography, host, eastern Turkey.

## Introduction

Ichneumonidae is the largest hymenopteran family with 51 generally recognized subfamilies, 1579 genera and 24281 described species (Yu *et al.* 2012). The number of species Ichneumonidae increases rapidly in the world. The inverse gradient of for Ichneumonidae richness was suggested by Owen & Owen 1974; Janzen 1981; Skillen *et al.* 2000, etc. Nevertheless, some recent studies have suggested that this impression may largely follow from inadequate sampling and lack of taxonomic knowledge of tropical species (Sääksjääarvi *et al.* 2004; Santos & Quicke 2011; Quicke 2012; Veijalainen *et al.* 2012, 2013).

Most of the members of ichneumonids are parasitoids of holometabolous insects. A few species or groups of species parasitize spiders (egg sacs, spiderlings, or adults) or egg sacs of pseudoscorpions. No identified Ichneumonidae are known to be primary parasites of

paurometabolous insects (Clancy & Pierce 1966). The Ichneumonidae play an essential role in the functioning of most ecosystems. In recent years they have been used successfully as biocontrol agents and given the largely undocumented fauna there is surely a huge potential for their utilisation in managed biocontrol programs (Gupta 1991)

As such, they play a large role in the regulation of potential pest species, and in maintaining the equilibrium of ecosystems in general. Because of their highly specialized life histories, they may also be particularly vulnerable to ecological disturbances (LaSalle & Gauld 1991; Shaw & Hochberg 2001). However, despite their abundance and ecological importance, the Ichneumonidae remain relatively unstudied (Shaw & Hochberg 2001).

Turkey is located both Europe and Asia continental. Because, Thrace Peninsula in continental Europe, Anatolian peninsula in continental Asia. Turkey is a bridge that connects different large geographical regions. In short, Turkey has importance topographic and climatic structure with its position that located center of Asia, Africa and Europe. With this aspect of Turkey is one of the most interesting countries for Hymenoptera diversity, taxonomy and biogeography investigations.

Eastern part of Turkey is the most mountainous district with high elevations and narrow and deep valleys could be accepted the most attractive landscapes of the Anatolia. Because of these structures the region is characterized by high plant and animal diversity.

The Ichneumonidae fauna of Turkey was not well studied till 1990s. In the catalogue of Kolarov (1995), 383 species were listed from Turkey. But, many studies have been conducted in eastern part of Turkey since the end of 1990s in the Plant Protection Department of Atatürk University (Çoruh (Pekel) *et al.* 2002; Çoruh *et al.* 2004, 2005a,b; Çoruh & Özbek 2005; Çoruh 2011; Çoruh *et al.* 2007; Çoruh 2008; Çoruh & Kesdek 2008; Çoruh & Özbek 2008; Çoruh 2009; Çoruh 2010; Çoruh & Kolarov 2010a,b; Çoruh & Özbek 2011; Çoruh *et al.* 2011; Çoruh & Kolarov 2012a,b; Çoruh & Khalaim 2012; Çoruh & Özbek 2013; Çoruh & Kolarov 2013; Çoruh *et al.* 2013; Çoruh *et al.* 2014; Kolarov *et al.* 1999; Kolarov *et al.* 2000; Kolarov *et al.* 2002a,b; Kolarov & Çoruh 2008; Kolarov *et al.* 2009; Kolarov & Çoruh 2012a,b; Kolarov *et al.* 2014; Özbek *et al.* 2000; Özbek *et al.* 2003; Pekel 1999; Pekel & Özbek 2000; Pekel *et al.* 2000; Riedel *et al.* 2010; Riedel *et al.* 2011; Riedel *et al.* 2014).

The aim of the present review is to evaluate seasonal dynamics, altitudinal distributions, individual diversities, biogeographical positions and host of the species based upon the material in the family Ichneumonidae have been collected from different localities in eastern part of (Fig. 1) Turkey in the period of 1994-2014 and published in various local and international journals.

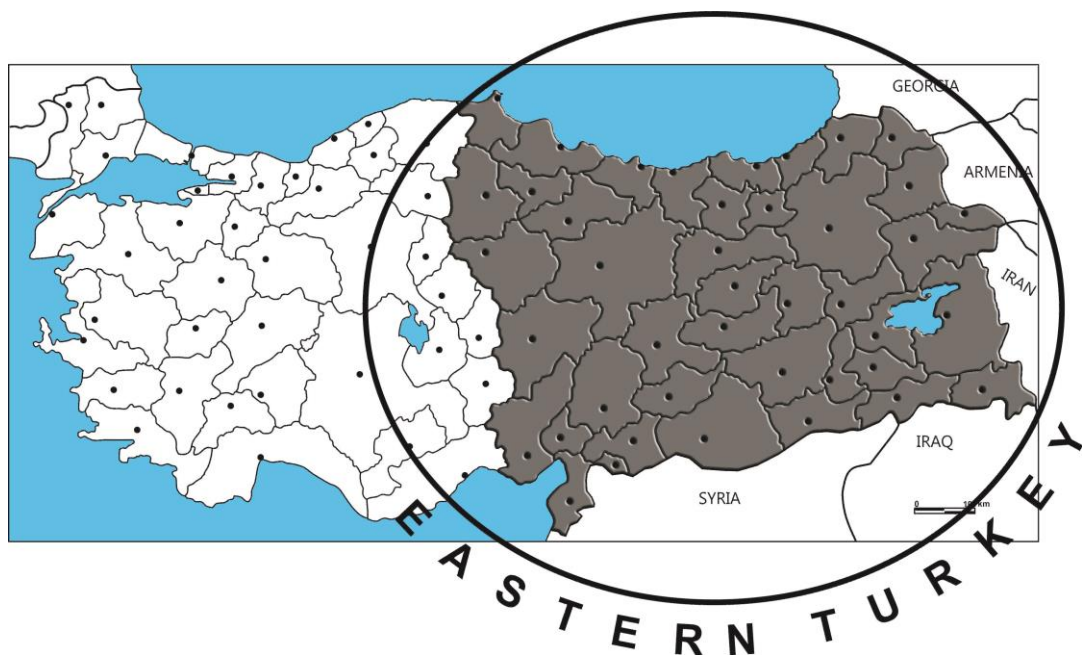
Collecting of the material various methods were applied: 1) sweeping vegetation, especially flowering plants, with insect net; 2) Malaise traps were used in several locations; 3) immature stages of holometabolous insects were collected and reared in laboratory conditions to obtain adults and parasitoids if available; 4) in the late fall and early spring, overwintering adults were collected under stones, logs and similar places.

Collected species were evaluated at 5 different scale (Table 1):

1. **Collecting geographical regions (CGR):** SA: Southeastern Anatolia, EA: East Anatolia, BS: Black Sea, CA: Central Anatolia, MD: Mediterranean.
2. **Endemic species (E):** Endemic to Turkey.
3. **Altitudinal distribution (AD):** This scale shows the altitudes where species were collected.  
low altitude: 0-1250 m  
high altitude: 1250-2500 m

4. **Seasonal dynamics (SD):** Seasonal dynamics shows the months collected of species.  
 \*3.-5. months (March, April, May: Spring season)  
 \*6.-10. months (June, July, August: summer season and, September-October: autumn season)
5. **Individual numbers (ID):** This scale shows the number of individuals of the species collected.  
 \*♂: One male individual was collected.  
 \*♀: One female individual was collected.  
 \*1 over: number of individual is greater than the one.

Shannon H' Log Base 10 diversity index and Simpsons Diversity (1/D) index were used as the alpha-diversity indices.



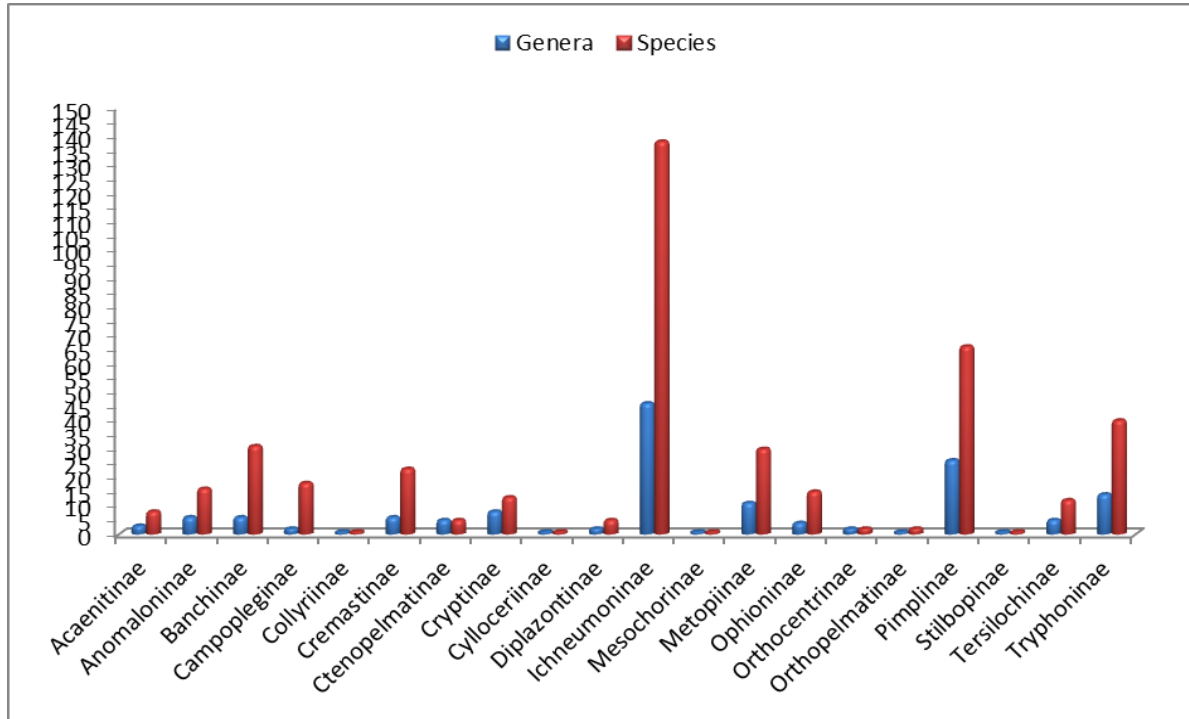
**Figure 1.** Map of study area of Ichneumonidae in Turkey.

## Discussion

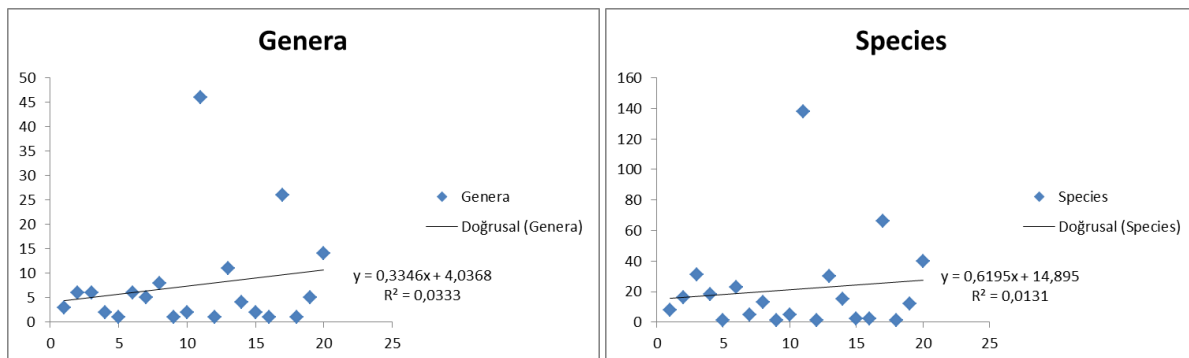
Kolarov (1995) listed in his catalogue 383 ichneumonid species occurring in Turkey. Since than many studies have been conducted by present paper's authors as well as some others and, currently 980 species in 282 genera were recognized. Of these species, *Cymodusa yildirimi* Kolarov & Çoruh, 2008; *Exochus protuberans* Kolarov & Çoruh, 2009; *Coelichneumon nigritor* Riedel, Çoruh & Özbek, 2010; *Coelichneumon problematicus* Riedel, Çoruh & Özbek, 2010; *Ichneumon sexcinctoides* Riedel, Çoruh & Özbek, 2010 and *Phaenolobus trochanteralis* Çoruh & Kolarov, 2013 were recently described as new species for science (Kolarov & Çoruh 2008; Kolarov *et al.* 2009; Riedel *et al.* 2010). Additionally, males of four known species, namely *Phaenolobus cornutus* (Victorov), *Ophion internigrans* Kokujev, *Eucremastus priebei* Kolarov and *Scallama triclitor* Aubert were described (Kolarov *et al.* 2002; Çoruh & Kolarov 2012; Kolarov *et al.* 2002b; Kolarov & Özbek 1998).

Ichneumonid species were collected in eastern Turkey for last 20 years. When we evaluated our past studies, the obtained results are totally 487 species of 186 genera in 20 subfamilies.

Subfamily Ichneumoninae is the most species rich subfamily in eastern half of Turkey, and Pimplinae and Tryphoninae follow it (Fig. 2). Genera and species densities are shown in the graph (Fig. 3).



**Figure 2.** Comparison of the number of species of the subfamilies recorded in eastern Turkey.



**Figure 3.** Density of species Ichneumonidae families recorded in eastern Turkey.

According to Shannon and Simpsons diversity index, eastern Turkey appeared to have the higher diversity values (Table 2). *Lissonota flavovariegata* and *Exeristes roborator* are the dominant species in eastern Turkey.

It is remarkable to note that more than 50% of the species have large distribution areas and many species were recorded from eastern Turkey for the first time (Table 1).

Notwithstanding, many ichneumonid species were collected from flowering plants. Whereas, *Diplazon scutatorius* and *Orthocentrus radialis* were collected on tea plants (Çoruh 2009). Also, *Trogus lapidator*, *Diphyus montivagans*, *Meringopus cyanator*, *Pimpla rufipes*, *Agrypon varitarsum*, *Barylypa uniguttata* and *Spilichneumon occisorius* were taken from under stones (Çoruh & Kesdek 2008). The last one was collected on March 29<sup>th</sup>, 2002. These findings indicate that these species overwinter as adult stage in the protected places.

Among the recorded 34 species in the subfamilies Pimplinae, Cryptinae, Campopleginae, Orthopelmatinae, Ichneumoninae and Diplazontinae were obtained from different hosts belonging to the orders Lepidoptera, Coleoptera, Hymenoptera and Diptera (Table 3).

The subfamily Pimplinae includes one of the most spectacular of all Ichneumonidae. These large conspicuous wasps, the females of which have very long ovipositors and may exceed 200 mm in length. This subfamily are idiobiont ectoparasitoids of holometabola often the pupae of Lepidoptera (Oehlke 1967). *Paraperithous gnathaulax*, *Dolichomitus populneus* and *D. tuberculatus* were obtained from small poplar longhorn beetle, *Saperda populnea* (L.) (Cerambycidae). *Dolichomitus populneus* was the most numerous of the parasitoids and accounted for 55% of all parasitoids reared (Özbek *et al.* 2009).

*Ephialtes manifestator* and *Liotryphon crassisetus* were reared from *Bembecia scopigera* (Scopoli) (Sessidae), which is an important pest of sainfoin, *Onobrychis viciifolia*. *Liotryphon crassisetus* was a new parasitoid of *B. scopigera* (Çoruh & Özbek 2008a). *Exeristes roborator* was one of the most common and abundant species occurring in research area. As hosts of this species, in literature many species in various families in the orders Coleoptera, Lepidoptera and Hymenoptera were indicated (Thompson 1957; Kolarov 1997). In our studies, 14 specimens were reared from *Lixus bardanae* F. (Curculionidae); three specimens from *Malacosoma neustria* L. (Lasiocampidae); four specimens from *M. franconica* Denis & Schiffermüller; 21 specimens from *Rhyacionia pinicolana* Doub. (Tortricidae); about 100 specimens from *Diplolepis fructuum* (Rübsaamen) (Cynipidae) (Çoruh & Özbek 2008a) and three specimens from larvae and pupae in the cocoon (gall) made by *Cynaeda gigantea* Wocke (Crambidae). It was a new host for this parasitoid species (Tozlu & Çoruh 2011).

*Gregopimpla inquisitor*, *G. malacosomae* and *Itopectis viduata* were reared from the larvae of *M. neustria* (Çoruh & Özbek 2008a). Many species in different orders (Coleoptera, Lepidoptera and Hymenoptera) were indicated as hosts of *G. inquisitor* (Thompson 1957; Kolarov 1997).

*Endromopoda detritus*, *E. phragmitidis* and *Tromatobia ornata* were obtained from different hosts: *Endromopoda detritus* reared from *Archips rosana* L. (Tortricidae) as new parasitoid. Also, *E. phragmitidis* and *T. ornata* from *M. neustria*, which was a new host for *E. phragmitidis* (Çoruh & Özbek 2008a).

Although *S. brevicornis* has many hosts in the orders of Coleoptera, Lepidoptera, Diptera and Hymenoptera, this species was reared from *Acleris rhombana* D. & S (Tortricidae) as a new parasitoid (Çoruh & Özbek 2008a). Also *S. brevicornis* was reared from *Cnaemidophorus rhodadactyla* (Denis & Schiffermüller) (Pterophoridae) feeding on *Rosa* spp. in Erzurum (Özbek 2008). Similarly, various species in the orders of Coleoptera, Lepidoptera, Diptera and Hymenoptera were listed by Thompson (1957) as hosts of *I. alternans* and *Scambus calobatus*. Both of them were reared from *A. rosana* as new parasitoids. *Scambus nigricans* was reared from both *A. rhombana* and *M. neustria*, which were new hosts for *S. nigricans* (Çoruh & Özbek 2008a). Additionally, *Agapanthia osmanlis* was recorded as new host for *Scambus sagax* (Çoruh & Tozlu 2008).

*Itopectis maculator* was obtained from three different hosts, namely *A. rosana*, *A. rhombana* and *Hyponomeuta evonymella*. Of which, *A. rhombana* was recorded a new host for *I. maculator*. *Itopectis tunetana* was obtained from *H. evonymella*, which was a new host for *I. tunetana* (Çoruh & Özbek 2008a).

*Pimpla contemplator* was obtained from *Vanessa urticae* L. (Nymphalidae). *Pimpla illecebrator* and *P. spuria* were obtained from both *M. franconica* and *H. evonymella*. *Hyponomeuta evonymella* was recorded as a new host for both *P. illecebrator* and *P. spuria*. *Pimpla rufipes* and *Pimpla turionellae* were reared from both *M. neustria* and *M. franconica* (Çoruh & Özbek 2008a).

The subfamily Cryptinae is the largest subfamily of Ichneumonidae and may be encountered in virtually all terrestrial habitats. The most common hosts of Cryptinae are endopterygote pupae or prepupae enclosed in cocoons or plant tissue (Goulet & Hubert 1993). In this subfamily, *Gambrus opacus* was reared from both *M. neustria* and *M. franconica*. *Meringopus cyanator* was reared from both *M. neustria* and *Lymantria dispar* L. (Lymantriidae) (Çoruh & Özbek 2005).

Campopleginae are koinobiont endoparasitoids mainly of Lepidoptera and Symphyta but also of Coleoptera Raphidiidae. A laterally compressed abdomen is one of the key traits of this subfamily. *Alcima pictor* was obtained from the larvae of *M. castrensis*. *Diadegma apostatum* and *D. eucerophaga* were reared from the larvae of *Chloroclystis rectangulata* (Geometridae), and *Plutella xylostella* (L.) (Plutellidae) respectively (Doğanlar 1987; Avcı & Özbek 1990). *Venturia canescens* was obtained from *Plodia interpunctella* (Hbn.) (Pyralidae) (Doğanlar 1982). *Sinophorus turionus* (Ratz.) was reared from *Cnaemidophorus rhodadactyla* (Denis & Schiffermüller) (Pterophoridae) feeding on *Rosa* spp. in Erzurum (Özbek 2008).

*Orthopelma mediator* (Orthopelmatinae) was reared from galls of *Diplolepis mayri* (Özbek et al. 1999). *Thyrateles camelinus* (Ichneumoninae) from *Arctia hebe* (L.) (Arctiidae) (Riedel et al. 2010) and *Cratichneumon fabricator* F. (Ichneumoninae) was obtained from *Abraxas pantaria* (L.) (Geometridae) as new larva-pupa parasitoid in Kars (Özbek & Çalmaşur 2010). *Diplazon laetatorius* (Diplazontinae) was reared from the pupae of *Episyrrhus balteatus* (De Geer) (Syrpidae) (Avcı & Özbek 1991).

Plant-insect relationships are of great importance to ecosystem (Petanidou & Lamborn 2005). In Turkey, 21 ichneumonid species were found associated with 5 species of Umbelliferae plants in Palandöken Mountains (Erzurum) (Çoruh & Çoruh 2008) (Table 5). Among the 5 plant species, *Seselis libanotis* and *Carum carvi* were more attractive for ichneumonid species. All of these plant species could be popular food sources for ichneumonid species due to the fact that ichneumonids feed largely on the nectar of the flowers of these plants (Çoruh & Çoruh 2008).

Of the total number of 487 species, 453 species are distributed in East Anatolia, 65 species in Black Sea Region, 18 species per Central Anatolia and Mediterranean regions and 14 species in southeastern Anatolia (Table 1). Three species *Colpotrochia triclitor* (Aubert, 1979), *Exochus protuberans* Kolarov & Çoruh, 2009 and *Coelichneumon nigritor* Riedel, Çoruh & Özbek, 2010 are endemic to Anatolia. According to altitudinal distribution data, 130 species reflect vertical distribution between 0-1250 m and 436 species between 1250-2500 m (Table 1). As for seasonal dynamics of eastern Turkish ichneumonid, 451 species were collected in summer and autumn seasons, and 82 species in spring season. On the other hand, individual numbers of species are variable, some species are abundant and represented in more than 20 samples (Table 4), certain species are rare and represented by single specimen (Table 1).

**Table 1.** Ichneumonidae material examined from eastern Turkey: **Geographical regions (GR): SA-** Southeastern Anatolia, **EA-** Eastern Anatolia, **BS-** Black Sea, **CA-** Central Anatolia, **MD-** Mediterranean, **E-** Endemic species, **AD-** Altitudinal distribution, **SD-** Seasonal dynamics, **IN:** Individual numbers.

Name of taxa	Geographical regions (GR)					E	Altitudinal distribution (meters) (AD)		Seasonal dynamics (months) (SD)		Individual Numbers (IN)		
	SA	EA	BS	CA	MD		0-1250	1250-2500	3-5	6-10	1 ♂	1 ♀	1 over
<b>ACAENITINAE</b>													
<i>Acaenitus dubitator</i> (Panzer, 1800)		+						+	+				+
<i>Phaenolobus areolator</i> (Cons. & Cons., 1968)	+	+						+	+	+			+
<i>Phaenolobus cornutus</i> (Victorov, 1962)	+							+	+				+
<i>Phaenolobus fulvicornis</i> (Gravenhorst, 1829)		+	+					+	+	+			+
<i>Phaenolobus saltans</i> (Gravenhorst, 1829)		+						+	+	+			+
<i>Phaenolobus terebrator</i> (Scopoli, 1763)		+						+	+	+			+
<i>Phaenolobus trochanteralis</i> Çoruh & Kolarov, 2013		+						+	+	+			+
<i>Procinetus decimator</i> Gravenhorst, 1829		+						+	+	+			+
<b>ANOMALONINAE</b>													
<i>Agrypon flexorium</i> (Thunberg, 1822)		+							+	+			+
<i>Agrypon gracilipes</i> (Curtis, 1839)		+							+	+			+
<i>Agrypon varitarsum</i> (Wesmeal, 1849)		+						+	+	+	+		+
<i>Anomalon cruentatum</i> (Geoffroy, 1785)	+	+			+			+	+	+			+
<i>Barylypa amabilis</i> (Tosquinet, 1900)		+	+					+	+	+			+
<i>Barylypa delictor</i> (Thunberg, 1822)		+							+	+			+
<i>Barylypa insidiator</i> (Foerster, 1878)			+					+	+	+			+
<i>Barylypa torquata</i> Atanasov, 1975		+						+	+	+			+
<i>Barylypa uniguttata</i> Gravenhorst, 1829		+						+	+	+			+
<i>Erigorgus cerinops</i> Gravenhorst, 1829		+							+	+			+
<i>Erigorgus cubitator</i> (Aubert, 1960)		+							+	+		+	+
<i>Erigorgus melanobatus</i> (Gravenhorst, 1829)		+							+	+			+
<i>Parania geniculata</i> (Holmgren, 1857)		+							+	+			+
<i>Therion circumflexum</i> (Linnaeus, 1758)		+							+	+			+
<i>Therion tarsatum</i> (Shestakov, 1923)		+							+	+			+
<i>Therion brevicome</i> Gravenhorst, 1829		+							+	+	+		+
<b>BANCHINAE</b>													
<i>Alloplasta tomentosa</i> (Gravenhorst, 1829)		+						+		+	+		+
<i>Banchopsis crassicornis</i> Rudow 1886		+							+	+			+
<i>Banchus falcatorius</i> Fabricius, 1775		+							+	+			+
<i>Banchus palpalis</i> Ruthe, 1859		+							+	+			+
<i>Exatastes adpressorius</i> Thunberg, 1824		+							+	+			+
<i>Exatastes alpius</i> (Heinrich, 1952)		+							+	+			+
<i>Exatastes crassus</i> Gravenhorst, 1829		+							+	+		+	+
<i>Exatastes fornicator</i> (Fabricius, 1781)		+	+						+	+			+
<i>Exatastes illusor</i> Gravenhorst, 1829		+							+	+			+
<i>Exatastes inquisitor</i> Gravenhorst, 1829		+							+	+	+		+
<i>Exatastes laevigator</i> (Villers, 1789)		+							+	+			+
<i>Exatastes nigripes</i> Gravenhorst, 1829		+							+	+			+
<i>Exatastes robustus</i> Gravenhorst, 1829		+							+	+		+	+
<i>Exatastes rufipes</i> (Gmelin, 1790)		+							+	+			+
<i>Exatastes segmentarius</i> Perez, 1895		+							+	+			+
<i>Glypta (Diblastomorpha) cylindrator</i> (Fabricius, 1787)		+							+	+	+		+
<i>Glypta (Glypta) bifoveolata</i> Gravenhorst, 1829		+							+	+	+		+
<i>Glypta (Glypta) haesitator</i> Gravenhorst, 1829		+							+	+	+		+
<i>Glypta (Glypta) mensurator</i> (Fabricius, 1775)		+							+	+	+		+
<i>Glypta (Glypta) salicis</i> Thomson, 1889		+							+	+	+		+
<i>Glypta (Glypta) salsolicola</i> Schmiedeknecht, 1907		+							+	+	+		+
<i>Glypta (Glypta) similis</i> Bridgman, 1886		+							+	+	+		+
<i>Lissonota bivittata</i> Gravenhorst, 1829		+							+	+	+		+
<i>Lissonota cruentator</i> (Panzer, 1809)		+							+	+	+		+
<i>Lissonota culiciformis</i> (Gravenhorst, 1829)		+							+	+	+		+
<i>Lissonota fundator</i> (Thunberg, 1824)		+							+	+	+		+
<i>Lissonota flavovariegata</i> Lucas, 1849		+	+	+					+	+	+		+
<i>Lissonota histrio</i> (Fabricius, 1798)		+							+	+	+		+
<i>Lissonota mediterranea</i> Seyrig, 1927		+							+	+	+		+
<i>Lissonota (Lissonota) accusator</i> (Fabricius, 1793)		+							+	+	+		+
<i>Lissonota quadrinotata</i> Gravenhorst, 1829		+							+	+	+		+
<i>Lissonota variabilis</i> Holmgren, 1860		+							+	+	+		+

<i>Szezeuctus irrisorius</i> Rossi, 1794		+						+		+		+	
<b>CAMPOPLEGINAE</b>													
<i>Alcima orbitale</i> (Gravenhorst, 1829)		+						+		+			+
<i>Alcima pictor</i> Aubert, 1971		+						+		+			+
<i>Bathyplectes anurus</i> Thomson, 1887		+						+		+		+	
<i>Campoletis cognata</i> Tschek, 1871		+						+		+	+		
<i>Campoletis latrator</i> (Gravenhorst, 1829)		+						+	+	+			+
<i>Campoletis viennensis</i> Gravenhorst, 1829		+						+		+		+	
<i>Chrops cantator</i> De Geer, 1778		+					+			+		+	
<i>Chromoplex picticollis</i> Thomson, 1887			+				+			+	+	+	
<i>Cymodusa (Cymodusa) longiterebra</i> Dbar, 1985		+					+			+			+
<i>Cymodusa (C.) yildirimi</i> Kolarov & Çoruh 2008		+						+		+			+
<i>Diadegma consumptor</i> Gravenhorst, 1829		+						+		+		+	
<i>Diadegma elishae</i> Bridgman, 1884		+						+		+		+	
<i>Diadegma fenestralis</i> (Holmgren, 1860)		+						+		+		+	
<i>Diadegma mediterraneum</i> Constantineanu, 1930		+						+		+		+	
<i>Diadegma semiclausum</i> (Helen, 1949)		+						+		+			+
<i>Diadegma (N.) eucerothaga</i> Horstmann, 1969		+						+		+			+
<i>Dusona contumax</i> Foerster, 1868		+						+		+			+
<i>Dusona nidulator</i> (Fabricius, 1804)		+					+		+		+		
<i>Dusona ucranica</i> Hinz, 1972		+						+		+		+	
<i>Hyposoter ebeninus</i> (Gravenhorst, 1829)		+						+		+			+
<i>Nemerites stenura</i> Thomson, 1887		+						+		+		+	
<i>Meloboris collector</i> (Thunberg, 1822)		+						+		+	+		
<i>Olesicampe fulviventris</i> (Gmelin, 1790)		+					+			+		+	
<i>Olesicampe proterva</i> (Brischke, 1880)		+						+		+	+		
<i>Olesicampe radiella</i> (Thomson, 1885)		+						+		+	+		
<i>Venturia canescens</i> (Gravenhorst, 1829)		+			+		+	+		+			+
<b>COLLYRIINAE</b>													
<i>Collyria coxator</i> Villers, 1789		+						+	+	+			+
<b>CREMASTINAE</b>													
<i>Cremastrus geminus</i> Gravenhorst, 1829		+						+		+			+
<i>Cramastus gigas</i> Heinrich, 1953		+						+		+			+
<i>Cremastrus pungens</i> Gravenhorst, 1829		+						+		+		+	
<i>Dimophora robusta</i> Brischke, 1880		+						+		+			+
<i>Eucremastus priebei</i> Kolarov, 1999		+						+	+		+		
<i>Eucremastoides angelovi</i> Kolarov, 1980		+						+		+	+		
<i>Pristomerus armatus</i> (Lucas, 1849)		+						+		+			+
<i>Pristomerus pallidus</i> Thopson, 1890		+						+		+			+
<i>Pristomerus rivalis</i> Narolysky, 1987		+						+		+			+
<i>Pristomerus vulnerator</i> (Panzer, 1799)		+						+		+			+
<i>Temelucha anatolica</i> (Sedivy, 1959)		+						+		+	+		
<i>Temelucha annulata</i> (Szepligeti, 1900)		+						+		+			+
<i>Temelucha arenosa</i> (Szepligeti, 1900)		+						+		+			+
<i>Temelucha caudata</i> (Szepligeti, 1900)		+						+		+			+
<i>Temelucha confluens</i> Gravenhorst, 1829		+						+	+	+			+
<i>Temelucha decorata</i> Gravenhorst, 1829		+						+		+			+
<i>Temelucha discoidalis</i> (Szepligeti, 1990)		+						+		+			+
<i>Temelucha interruptor</i> (Gravenhorst, 1829)		+						+		+			+
<i>Temelucha lucida</i> (Szepligeti, 1900)		+						+		+			+
<i>Temelucha pseudocaudata</i> (Kolarov, 1982)		+						+		+		+	
<i>Temelucha variipes</i> Szepligeti, 1899		+						+		+			+
<i>Temelucha genalis</i> Szepligeti, 1899		+			+			+	+			+	
<i>Temelucha turcata</i> Kolarov & Beyarslan, 1999	+	+					+	+	+				+
<b>CRYPTINAE</b>													
<i>Acroricnus seductor elegans</i> Mocsary, 1883		+						+		+		+	
<i>Agrotherutes fumipennis</i> (Gravenhorst, 1829)		+						+		+	+	+	
<i>Aptesis nigrocincta</i> (Gravenhorst, 1815)		+						+		+	+		
<i>Aptesis senicula</i> (Kriechbaumer, 1893)		+					+		+				+
<i>Buathra tarsoleucos</i> (Schränk, 1781)		+						+	+	+		+	
<i>Cryptus moschator</i> (Fabricius, 1787)		+					+		+		+		
<i>Cryptus spiralis</i> (Geoffroy, 1785)		+						+		+			+
<i>Cryptus viduatorius</i> Fabricius, 1804		+					+	+		+			+
<i>Gambrus opacus</i> Szepligeti, 1916		+						+	+	+			+
<i>Glyphicnemis profligator</i> (Fabricius, 1775)		+						+		+			+
<i>Hoplocryptus femoralis</i> (Gravenhorst, 1829)		+	+				+	+		+			+
<i>Hoplocryptus fugitivus</i> (Gravenhorst, 1829)		+						+	+	+			+
<i>Idiolispa analis</i> (Gravenhorst, 1807)		+					+		+				+
<i>Ischnus inquisitorius</i> (Müller, 1776)		+						+		+	+		
<i>Latibulus argiolus</i> (Rossi, 1790)		+						+	+		+	+	
<i>Lysibia nana</i> (Gravenhorst, 1829)		+						+		+			+
<i>Meringopus calescens calescens</i> (Gravenhorst, 1829)		+						+		+			+
<i>Meringopus calescens persicus</i> Heinrich, 1937		+						+		+		+	
<i>Meringopus cyanator</i> (Gravenhorst, 1829)		+						+		+			+
<i>Meringopus nigerrimus</i> (Fonscolombe, 1850)		+						+		+		+	
<i>Meringopus pseudonymus</i> (Tschek, 1872)		+						+		+		+	
<i>Meringopus titillator</i> (Linnaeus, 1758)		+						+		+			+



<i>Mesoleptus laevigatus</i> (Gravenhorst, 1820)			+						+		+			+
<i>Myrmeleonostenus italicus</i> (Gravenhorst, 1829)			+					+		+	+			+
<i>Pleolophus brachypterus</i> (Gravenhorst, 1815)			+					+			+	+		
<i>Trychosis legator</i> (Thunberg, 1822)			+					+	+		+			+
<i>Trychosis pauper</i> (Tschek, 1871)			+					+			+			+
<i>Trychosis tristator</i> (Tschek, 1871)			+					+			+			+
<i>Xylophrurus augustus</i> (Dalman, 1823)			+					+			+	+		+
<b>CTENOPELMATINAE</b>														
<i>Absyrtus vernalis</i> Bauer, 1961					+					+		+		+
<i>Barytarbes superbus</i> Schmicdeknecht, 1913			+							+		+		+
<i>Hadrodactylus flavofacialis</i> Horstmann, 2000			+						+		+		+	
<i>Hadrodactylus fugax</i> (Gravenhorst, 1829)			+						+		+	+	+	
<i>Lagarotis semicaligata</i> (Gravenhorst, 1820)			+						+		+		+	
<i>Perilissus variator</i> (Müller, 1776)			+						+		+			+
<i>Pion fortipes</i> (Gravenhorst, 1829)			+						+		+		+	
<i>Scolobates auriculatus</i> (Fabricius, 1804)			+						+		+		+	
<i>Trematopygus triangulator</i> Aubert, 1981			+						+		+		+	
<b>CYLLOCERIINAE</b>														
<i>Colloceria melancholica</i> (Gravenhorst, 1820)			+							+		+	+	
<b>DIPLAZONTINAE</b>														
<i>Diplazon annulatus</i> (Gravenhorst, 1829)			+							+		+	+	
<i>Diplazon laetatorius</i> (Fabricius, 1781)	+	+	+						+	+	+	+		+
<i>Diplazon scutatorius</i> Teunissen, 1943				+							+	+	+	
<i>Diplazon tibiatorius</i> (Thunberg, 1824)			+						+	+		+		+
<i>Promethes sulcator</i> (Gravenhorst, 1829)			+							+		+		+
<i>Syrphophilus bizonarius</i> (Gravenhorst, 1829)			+							+		+		+
<b>ICHNEUMONINAE</b>														
<i>Amblyjoppa fuscipennis</i> (Wesmael, 1844)			+	+					+	+		+		+
<i>Anisobas brombacheri</i> Heinrich, 1933			+	+					+	+		+		+
<i>Anisobas cingulatorius</i> Gravenhorst, 1820			+							+		+		+
<i>Anisobas hostilis</i> (Gravenhorst, 1820)			+							+		+		+
<i>Anisobas rebellis</i> Wesmael, 1845			+		+				+	+		+		+
<i>Anisobas seyrigi</i> Heinrich, 1934			+						+		+		+	
<i>Aoplus castaneus</i> (Gravenhorst, 1820)			+							+		+		+
<i>Apaeleticus bellicosus</i> Wesmael, 1845			+							+	+	+		+
<i>Apaeleticus inimicus</i> (Gravenhorst, 1820)			+							+		+		+
<i>Baranisobas ridibundus</i> (Gravenhorst, 1829)			+							+		+		+
<i>Barichneumon albicaudatus</i> (Fonscolombe, 1847)			+							+		+		+
<i>Barichneumon bilunulatus</i> (Gravenhorst, 1829)			+							+	+	+		+
<i>Barichneumon chionomus</i> (Wesmael, 1845)			+							+		+	+	
<i>Barichneumon plagarius</i> (Wesmael, 1848)			+							+		+		+
<i>Callajoppa cirrogaster</i> (Schrank, 1781)			+							+		+	+	
<i>Catadelphus arrogator</i> (Fabricius, 1781)			+								+	+	+	
<i>Coelichneumon bohemani</i> (Holmgren, 1864)			+							+		+		+
<i>Coelichneumon comitator</i> (Linnaeus, 1758)			+		+					+	+	+		+
<i>Coelichneumon dorsosignatus</i> (Berth. & Eversm.1894)			+							+	+	+		+
<i>Coelichneumon fasciatus</i> (Gmelin 1790)			+							+		+		+
<i>Coelichneumon erythromerus</i> (Rudow, 1888)			+							+		+		+
<i>Coelichneumon (C.) lacrymator</i> (Fonscoombe, 1847)			+							+		+		+
<i>Coelichneumon leucocerus</i> (Gravenhorst, 1820)			+							+		+		+
<i>Coelichneumon nigerrimus</i> (Stephens, 1893)				+						+		+		+
<i>Coelichneumon nigricornis</i> (Wesmael, 1845)			+							+		+		+
<i>Coelichneumon nigritor</i> Riedel, Çoruh & Özbek, 2010			+				+			+	+	+		+
<i>Coelichneumon nudicoxator</i> Aubert, 1966			+							+		+		+
<i>Coelichneumon orbitator</i> (Thunberg, 1822)			+							+		+		+
<i>Coelichneumon problematicus</i> Riedel, Çoruh & Özbek, 2010			+							+		+		+
<i>Colpognathus armatus</i> Thomson, 1891			+		+					+	+	+		+
<i>Cratichneumon fugitivus</i> (Gravenhorst, 1829)			+							+	+		+	
<i>Cratichneumon fabricator</i> F.			+							+	+	+		+
<i>Ctenichneumon castigator</i> (Fabricius, 1793)			+							+	+	+		+
<i>Ctenichneumon divisorius</i> (Gravenhorst, 1820)			+			+				+	+	+		+
<i>Ctenichneumon funereus</i> (Geoffroy, 1785)			+							+		+	+	
<i>Ctenichneumon inspector</i> (Wesmael, 1845)			+							+	+	+		+
<i>Ctenichneumon melanocastanus</i> Gravenhorst, 1829			+							+		+		+
<i>Ctenichneumon nitens</i> (Christ, 1791)			+							+		+		+
<i>Ctenichneumon panzeri</i> (Wesmael, 1845)			+							+	+	+		+
<i>Ctenichneumon repentinus</i> (Gravenhorst, 1820)			+							+		+		+
<i>Cyclolabus pactor</i> (Wesmael, 1845)			+							+		+		+
<i>Diadromus collaris</i> (Gravenhorst, 1829)			+							+		+		+
<i>Diadromus subtilicornis</i> (Gravenhorst, 1829)			+							+		+		+
<i>Dicaelotus (Gnathichneumon) mandibulator</i> (Aubert, 1958)			+							+		+		+
<i>Diphyus amatorius</i> (Müller, 1776)			+	+						+	+	+		+
<i>Diphyus fossorius</i> (Linnaeus, 1758)			+							+	+	+	+	
<i>Diphyus inopinus</i> Heinrich, 1972			+							+		+		+
<i>Diphyus longimanus</i> (Wesmael, 1857)			+							+		+		+
<i>Diphyus mercatorius mercatorius</i> (Fabricius, 1793)			+							+	+	+		+
<i>Diphyus montivagans</i> Berthoumieu, 1987			+							+		+		+
<i>Diphyus ochromelas</i> (Christ, 1790)			+							+		+		+

<i>Diphyus palliatorius</i> (Gravenhorst, 1829)		+						+		+		+
<i>Diphyus pseudomercator</i> s.str. Heinrich, 1978		+						+	+		+	+
<i>Diphyus pseudomercator hexaleucus</i> Heinrich, 1978		+							+	+		+
<i>Diphyus septemguttatus</i> (Gravenhorst, 1829)		+							+		+	
<i>Diphyus quadripunctorius</i> (Müller, 1776)		+						+	+	+	+	+
<i>Eurylabus larvatus</i> (Christ, 1791)		+							+		+	
<i>Eutanyacra glaucatoria</i> (Fabricius, 1793)		+							+		+	
<i>Eutanyacra picta</i> (Schrank, 1776)		+							+		+	
<i>Eutanyacra ruficornis</i> (Berthoumieu, 1894)		+							+		+	
<i>Exephanes ischioxanthus</i> (Gravenhorst, 1829)		+							+		+	
<i>Exephanes ulbrichti</i> Hinz, 1957		+							+	+		+
<i>Heterischnus anomalus</i> (Wesmael, 1857)				+					+	+	+	+
<i>Heterischnus thoracicus</i> (Gravenhorst, 1829)		+							+		+	+
<i>Heterischnus truncator</i> (Fabricius, 1798)		+							+		+	+
<i>Hepiopolmus melanogaster</i> (Gmelin, 1790)		+							+		+	+
<i>Homotherus locutor</i> (Thunberg, 1824)		+							+		+	+
<i>Hoplismenus axillatorius</i> (Thunberg, 1822)		+						+		+	+	+
<i>Hoplismenus bidentatus</i> (Gmelin, 1790)		+							+		+	+
<i>Ichneumon balteatus</i> Wesmael, 1845		+							+		+	+
<i>Ichneumon bucculentus</i> Wesmael, 1845		+							+		+	+
<i>Ichneumon cf. caedator</i> Gravenhorst, 1829				+				+			+	+
<i>Ichneumon cessator</i> Müller, 1776		+							+		+	+
<i>Ichneumon confusor</i> Gravenhorst, 1820		+							+		+	+
<i>Ichneumon coniger</i> Tischbein, 1876		+							+		+	+
<i>Ichneumon curtulus</i> Kriechbaumer, 1882		+							+		+	+
<i>Ichneumon erythromerus</i> Wesmael, 1857		+							+		+	+
<i>Ichneumon exilicornis</i> Wesmael, 1857		+							+		+	+
<i>Ichneumon extensorius</i> Linnaeus, 1758		+							+		+	+
<i>Ichneumon fulvicornis</i> Gravenhorst, 1829		+							+	+	+	+
<i>Ichneumon gracilicornis</i> Gravenhorst, 1829		+							+		+	+
<i>Ichneumon gratus</i> Wesmael, 1855		+							+		+	+
<i>Ichneumon haematofemur</i> Heinrich, 1980		+							+		+	+
<i>Ichneumon ignobilis</i> Wesmael, 1855		+							+		+	+
<i>Ichneumon languidus</i> Wesmael, 1845		+							+		+	+
<i>Ichneumon lautatorius</i> Desvignes, 1856		+		+				+	+	+	+	+
<i>Ichneumon minorius</i> Desvignes, 1856		+							+		+	+
<i>Ichneumon ostentator</i> Heinrich, 1978		+							+	+	+	+
<i>Ichneumon phaeostigmus</i> Wesmael, 1857		+							+		+	+
<i>Ichneumon primatorius</i> Forster, 1771		+							+		+	+
<i>Ichneumon proletarius</i> Wesmael, 1848		+							+		+	+
<i>Ichneumon quaesitorius</i> Linnaeus, 1761		+							+		+	+
<i>Ichneumon sarcitorius</i> s.str. Linnaeus, 1758		+							+	+	+	+
<i>Ichneumon sarcitorius</i> ssp. <i>caucasicus</i> Meyer, 1926		+							+		+	+
<i>Ichneumon sexcinctus</i> Gravenhorst, 1829		+							+		+	+
<i>Ichneumon sexcinctoides</i> Riedel, Çoruh & Özbek, 2010		+							+		+	+
<i>Ichneumon stramentarius</i> Gravenhorst, 1820		+							+		+	+
<i>Ichneumon suspiciosus</i> Wesmael, 1845		+							+		+	+
<i>Ichneumon terminatorius</i> Gravenhorst, 1820		+							+		+	+
<i>Ichneumon tuberculipes</i> Wesmael, 1848				+					+		+	+
<i>Ichneumon vafer meridionalis</i> Heinrich, 1929		+							+		+	+
<i>Ichneumon xanthorius xanthorius</i> Foerster, 1771				+					+	+	+	+
<i>Linyces exhortator</i> (Fabricius, 1793)		+							+		+	+
<i>Limerodops subsericans</i> (Gravenhorst, 1820)		+							+		+	+
<i>Listrodromus nyctemerus</i> (Gravenhorst, 1820)		+							+		+	+
<i>Melanichneumon glaucatoriops</i> Heinrich, 1972		+							+		+	+
<i>Neotypus corensis</i> Uchida, 1930		+							+		+	+
<i>Neotypus nobilitator</i> (Gravenhorst, 1807)		+							+		+	+
<i>Obtusodonta equitatoria</i> (Panzer, 1786)		+							+		+	+
<i>Platylabus humilis</i> (Wesmael, 1857)		+							+		+	+
<i>Platylabus iridipennis</i> (Gravenhorst, 1829)		+							+	+	+	+
<i>Platylabus neglectus</i> (Fonscolombe, 1847)		+							+	+	+	+
<i>Platylabus oehlkei</i> (Heinrich, 1972)		+							+		+	+
<i>Platylabus tricingulatus</i> (Gravenhorst, 1820)				+					+		+	+
<i>Platylabus vibratorius</i> (Thunberg, 1824)		+							+		+	+
<i>Probolus crassulus</i> Horstmann, 2000		+		+					+		+	+
<i>Protichneumon coqueberti</i> (Wesmael, 1848)		+							+		+	+
<i>Protichneumon fusorius</i> (Linnaeus, 1761)		+		+					+		+	+
<i>Pseudoamblyteles homocerus</i> (Wesmael, 1857)		+							+		+	+
<i>Pseudoplatylabus violentus</i> (Gravenhorst, 1829)		+							+		+	+
<i>Rictichneumon lombardi</i> (Berthoumieu, 1897)		+							+		+	+
<i>Spilichneumon ammonius</i> (Gravenhorst, 1820)		+							+		+	+
<i>Spilichneumon limophilus</i> (Thomson, 1888)		+							+	+	+	+
<i>Spilichneumon occisorius</i> (Fabricius, 1793)		+	+		+				+	+	+	+
<i>Spilothyrates illuminatorius</i> (Gravenhorst, 1820)		+							+	+	+	+
<i>Spilothyrates nuptatorius</i> (Fabricius, 1793)		+							+	+	+	+
<i>Stenichneumon culpator</i> (Schrank, 1802)		+							+		+	+
<i>Syspasis carinator</i> (Fabricius, 1798)		+							+		+	+
<i>Syspasis scutellator</i> (Gravenhorst, 1829)		+							+		+	+
<i>Thyrates camelinus</i> (Wesmael, 1845)		+							+		+	+
<i>Thyrates tardus</i> (Berthoumieu, 1897)		+							+		+	+
<i>Triptognathus atripes</i> (Gravenhorst, 1829)		+							+	+	+	+

<i>Triptognathus cf. fumigator</i> (Gravenhorst, 1820)		+							+		+				+
<i>Triptognathus unifasciatus</i> (Spinola, 1843)		+							+		+				+
<i>Trogus lapidator</i> (Fabricius, 1787)		+							+		+				+
<i>Virgichneumon albosignatus</i> (Gravenhorst, 1829)		+							+		+				+
<i>Virgichneumon callicerus</i> (Gravenhorst, 1820)		+							+	+	+				+
<i>Virgichneumon digrammus</i> (Gravenhorst, 1820)		+							+		+				+
<i>Virgichneumon maculicauda</i> (Perkins, 1953)		+							+		+				+
<i>Vulgichneumon deceptor</i> (Scopoli, 1763)		+							+		+				+
<i>Vulgichneumon saturatorius</i> (Linnaeus, 1758)		+							+	+	+				+
<i>Vulgichneumon suavis</i> (Gravenhorst, 1820)		+							+		+	+			+
<b>MESOCHORINAE</b>															
<i>Astiphronma splenium</i> (Curtis, 1833)		+							+		+				+
<i>Astiphronma varipes</i> (Holmgren, 1860)			+					+	+		+				+
<i>Cidaphus alarius</i> (Gravenhorst, 1829)		+							+		+				+
<i>Cidaphus areolatus</i> (Boie, 1850)			+						+		+				+
<i>Mesochorella nigriceps</i> (Brischke, 1880)															
<i>Mesochorus arenarius</i> (Haliday, 1838)	+	+		+	+			+	+	+	+				+
<i>Mesochorus cimbicis</i> Ratzeburg, 1844			+					+			+				
<i>Mesochorus discitergus</i> (Say, 1835)		+							+		+				+
<i>Mesochorus fulgurans</i> (Curtis, 1833)			+						+		+				+
<i>Mesochorus giberius</i> (Thunberg, 1824)			+						+		+				+
<i>Mesochorus laricis</i> Hartig, 1838		+	+						+	+	+				+
<i>Mesochorus nuncupator</i> (Panzer, 1800)		+							+		+				+
<i>Mesochorus olerum</i> Curtis, 1833		+							+	+					+
<i>Mesochorus punctiplexis</i> Thomson, 1886			+							+	+	+	+	+	+
<i>Mesochorus rubeculus</i> Hartig, 1838		+								+	+	+	+	+	+
<i>Mesochorus salicis</i> Thomson, 1886					+			+			+				+
<i>Mesochorus semirufus</i> Holmgren, 1860			+					+			+	+			
<i>Mesochorus stigmator</i> (Thunberg, 1824)		+							+		+				+
<i>Mesochorus temporalis</i> Thomson, 1886	+			+	+			+	+	+	+				+
<i>Mesochorus testaceus</i> Gravenhorst, 1829			+						+		+				+
<i>Mesochorus vitticollis</i> Holmgren, 1860		+	+						+	+	+				+
<i>Stictopisthus bilineatus</i> (Thomson, 1886)	+				+				+		+				+
<i>Stictopisthus maroccanus</i> Schwenke, 1999	+				+				+		+				+
<b>METOPINIINAE</b>															
<i>Bremiella pulchella</i> (Kriechbaumer, 1890)		+							+		+				+
<i>Colpotrochia cincta</i> (Scopoli, 1763)		+	+					+	+		+				+
<i>Colpotrochia triclitor</i> (Aubert, 1979)		+					+		+		+				+
<i>Chorinaeus funebris</i> (Gravenhorst, 1829)		+							+		+				+
<i>Drepanoctonus tricoloratus</i> (Sedivy, 1971)		+							+		+				+
<i>Exochus albicinctus</i> Holmgren, 1873		+							+		+				+
<i>Exochus bolivari</i> Seyrig, 1927			+						+		+				+
<i>Exochus britannicus</i> Morley, 1911		+		+				+	+		+				+
<i>Exochus castaniventris</i> Brauns, 1896		+		+					+		+				+
<i>Exochus consimilis</i> Holmgren, 1858		+	+						+	+	+				+
<i>Exochus erythronotus</i> (Gravenhorst, 1829)		+							+	+		+			
<i>Exochus foveolatus</i> Schmiedeknecht, 1924		+							+		+	+			
<i>Exochus ferus</i> Tolkanitz, 1993			+						+		+	+			
<i>Exochus flavifrons</i> Boheman, 1863		+							+		+	+			
<i>Exochus lictor</i> Holiday, 1838		+	+					+	+	+	+				+
<i>Exochus marklini</i> Holmgren, 1858		+							+		+				+
<i>Exochus mitratus</i> Gravenhorst, 1829		+	+					+	+	+	+				+
<i>Exochus protuberans</i> Kolarov & Çoruh, 2009		+					+		+		+				+
<i>Exochus suborbitalis</i> Schmiedeknecht, 1924		+	+						+	+	+				+
<i>Exochus thomsoni</i> Schmiedeknecht, 1924		+						+	+		+				+
<i>Exochus vafer</i> Holmgren, 1873		+						+	+	+	+				+
<i>Hypsicera femoralis</i> (Geoffroy, 1785)		+							+		+				+
<i>Metopius (Peltastes) pinatorius</i> Brullé, 1846		+							+		+				+
<i>Metopius (Peltocarus) dentatus</i> (Fabricius, 1779)		+							+		+				+
<i>Scallama triclitor</i> Aubert, 1979		+							+		+	+			
<i>Spudaeus scaber</i> (Gravenhorst, 1829)		+							+		+				+
<i>Triclistus areolatus</i> Thomson, 1887		+							+	+	+		+		
<i>Triclistus longicalcor</i> Thomson, 1887		+	+						+		+				+
<i>Triclistus podagricus</i> (Gravenhorst, 1829)		+							+	+	+				+
<i>Tricees tricarinatus</i> (Holmgren, 1858)		+							+		+				+
<b>OPHIONINAE</b>															
<i>Barytocephalus mocsaryi</i> (Brauns, 1895)		+							+		+				+
<i>Enicospilus cruciator</i> Victorov, 1957		+		+				+	+		+				+
<i>Enicospilus inflexus</i> (Ratzeburg, 1848)		+							+		+	+			
<i>Enicospilus ramidulus</i> (Linnaeus, 1758)		+	+	+				+	+		+				+
<i>Enicospilus repentinus</i> (Holmgren, 1868)		+							+	+	+				+
<i>Enicospilus tourmieri</i> (Snell Van Vollenhoven, 1879)		+		+	+				+		+				+
<i>Helwigiella dichromoptera</i> (Costa, 1886)		+							+		+			+	
<i>Ophion brevicornis</i> Morley, 1915		+							+	+	+				+
<i>Ophion costatus</i> Tarzeburg, 1848		+							+		+				+
<i>Ophion internigrans</i> Kokujev, 1906		+							+		+				+
<i>Ophion luteus</i> (Linnaeus, 1758)		+							+		+				+
<i>Ophion mocsaryi</i> Brauns, 1889		+							+	+	+				+
<i>Ophion obscuratus</i> Fabricius, 1798		+							+	+	+	+			+

<i>Ophion parvulus</i> Kriechbaumer, 1879		+							+		+				+
<i>Ophion pteridis</i> Kriechbeumer, 1879		+							+		+				+
<b>ORTHOCENTRINAE</b>															
<i>Megastylus flavopictus</i> (Gravenhorst, 1829)		+							+		+				+
<i>Orthocentrus radialis</i> Thomson, 1897			+						+		+				+
<b>ORTHOPELMATINAE</b>															
<i>Orthopelma mediator</i> (Thunberg, 1824)			+	+					+	+					+
<i>Orthopelma brevicorne</i> Morley, 1907			+						+		+				+
<b>PIMPLINAE</b>															
<i>Acrodactyla quadrisculpta</i> (Gravenhorst, 1820)		+						+				+	+		
<i>Acropimpla pictipes</i> Gravenhorst, 1829		+							+		+	+			
<i>Clistopyga rufator</i> Holmgren, 1854		+							+		+				+
<i>Delomerista mandibularis</i> Gravenhorst, 1829		+							+		+				+
<i>Dolichomitus populneus</i> (Ratzeburg, 1848)		+							+	+	+				+
<i>Dolichomitus tuberculatus</i> Geoffroy, 1785		+						+	+		+				+
<i>Endromopoda arundinator</i> (Fabricius, 1804)		+							+		+				+
<i>Endromopoda detrita</i> (Holmgren, 1860)		+	+						+	+	+				+
<i>Endromopoda phragmitidis</i> Perkins, 1957		+							+		+				+
<i>Ephialtes manifestator</i> Linnaeus, 1758		+						+	+		+				+
<i>Exeristes arundinis</i> Kriechbaumer, 1887		+							+	+	+				+
<i>Exeristes roborator</i> Fabricius, 1973	+	+	+	+				+	+	+	+				+
<i>Gregopimpla inquisitor</i> (Scopoli, 1763)		+							+		+				+
<i>Gregopimpla malacosomae</i> (Seyrig, 1827)		+							+		+	+			+
<i>Hybomischos septemcinctorius</i> (Thunberg, 1822)		+							+		+	+			+
<i>Iseropus stercorator</i> (Fabricius, 1793)		+							+		+				+
<i>Itopectis alternans</i> (Gravenhorst, 1829)		+							+		+				+
<i>Itopectis aterrima</i> Jussila, 1965		+							+	+	+				+
<i>Itopectis maculator</i> (Fabricius, 1775)		+	+						+	+	+				+
<i>Itopectis tunetana</i> (Schmiedeknecht, 1914)		+							+		+				+
<i>Itopectis viduata</i> Gravenhorst, 1829		+						+	+		+				+
<i>Liotryphon crassisetus</i> (Thomson, 1877)		+							+	+	+	+			+
<i>Liotryphon punctulatus</i> (Ratzeburg, 1848)		+							+		+	+			+
<i>Megarhyssa perlata</i> (Christ, 1791)		+							+		+			+	+
<i>Paraperithous gnathaulax</i> (Thomson, 1877)		+			+				+	+	+	+			+
<i>Perithous divinator</i> Rossius, 1790		+							+	+	+	+			+
<i>Perithous scurra</i> Panzer, 1822		+							+	+	+	+			+
<i>Perithous septemcinctorius</i> (Thunberg, 1824)		+							+	+	+	+			+
<i>Pimpla aquilonia</i> Cresson, 1870		+							+	+	+	+			+
<i>Pimpla arcadica</i> Kasparyan, 1973		+							+		+	+			+
<i>Pimpla artemonis</i> Kasparyan, 1973		+	+			+			+	+	+	+			+
<i>Pimpla caucasica</i> Kasparyan, 1974		+							+	+	+	+			+
<i>Pimpla contemplator</i> (Muller, 1776)		+							+		+	+			+
<i>Pimpla coxalis</i> Habermehl, 1917		+							+		+	+		+	+
<i>Pimpla hypochondriaca</i> Retzius, 1783		+							+	+	+	+			+
<i>Pimpla illecebrator</i> (Villers, 1789)		+	+						+	+	+	+			+
<i>Pimpla insignatoria</i> Gravenhorst, 1807		+							+		+	+	+		+
<i>Pimpla rufipes</i> Brullé, 1846		+							+	+	+	+			+
<i>Pimpla sodalis</i> Ruthe, 1859		+							+	+	+	+			+
<i>Pimpla spuria</i> Gravenhorst, 1829		+	+	+					+	+	+	+			+
<i>Pimpla turionellae</i> Linnaeus, 1758		+							+		+	+			+
<i>Polysphincta tuberosa</i> Gravenhorst, 1829		+							+	+	+	+			+
<i>Rhyssa persuasoria</i> (Linnaeus, 1758)			+						+	+	+	+			+
<i>Scambus brevicornis</i> (Gravenhorst, 1829)		+	+	+					+	+	+	+			+
<i>Scambus buolianae</i> (Hartig, 1838)		+							+	+	+	+			+
<i>Scambus calobatus</i> Gravenhorst, 1829		+		+					+	+	+	+			+
<i>Scambus detritus</i> (Holmgren, 1860)		+							+		+	+		+	+
<i>Scambus foliae</i> (Cushman, 1938)		+							+		+	+			+
<i>Scambus nigricans</i> (Thomson, 1877)		+	+						+	+	+	+			+
<i>Scambus planatus</i> Hartig, 1838		+							+		+	+			+
<i>Scambus sagax</i> Hartig, 1838		+							+	+	+	+			+
<i>Scambus signatus</i> Pfeffer, 1913		+							+	+	+	+			+
<i>Scambus sitrobilorum</i> Ratzeburg, 1848			+						+		+	+	+		+
<i>Scambus vesicarius</i> (Ratzeburg, 1844)		+							+		+	+			+
<i>Schizopyga (Schizopyga) circulator</i> (Panzer, 1800)		+							+		+	+			+
<i>Schizopyga podagrica</i> Gravenhorst, 1829		+							+	+	+	+			+
<i>Strongylopsis belua</i> Kuzin, 1950		+							+	+	+	+			+
<i>Tromatobia oculatoria</i> (Fabricius, 1798)		+							+	+	+	+			+
<i>Tromatobia ornata</i> (Gravenhorst, 1829)		+							+	+	+	+			+
<i>Tromatobia ovivora</i> (Boheman, 1821)		+	+						+		+	+			+
<i>Tromatobia variabilis</i> (Holmgren, 1856)		+							+		+	+			+
<i>Zabrachypus primus</i> Cushman, 1920		+							+	+	+	+			+
<i>Zaglyptus multicolor</i> (Gravenhorst, 1829)		+							+	+	+	+			+
<i>Zaglyptus varipes</i> (Gravenhorst, 1829)		+	+						+	+	+	+			+
<i>Zatypota bohemani</i> (Holmgren, 1854)		+							+		+	+			+
<i>Zatypota percontatoria</i> Müller, 1776		+							+		+	+			+
<b>STILBOPINAE</b>															
<i>Stilbops (Stilbops) ruficornis</i> (Gravenhorst, 1829)		+							+		+	+			+

TERSILOCHINAE													
<i>Barycnemis alpina</i> (Strobl, 1901)			+						+		+		+
<i>Barycnemis harpura</i> (Schrank, 1802)			+	+					+			+	+
<i>Diaparsis (Nanodiaparsis) aperta</i> (Thomson, 1889)				+					+		+		+
<i>Diaparsis (Diaparsis) multiplicator</i> Aubert, 1969			+						+		+		+
<i>Diaparsis (Diaparsis) nitida</i> Horstmann, 1981			+						+		+		+
<i>Heterocola (H.) longipalpis</i> Kolarov & Beyarslan, 1994			+						+		+		+
<i>Probles (M.) anatolicus</i> Horstmann, 1981				+					+		+		+
<i>Probles (M.) caudiculatus</i> Khalaim, 2007			+						+		+		+
<i>Probles (M.) microcephalus</i> (Gravenhorst, 1829)				+					+		+	+	
<i>Tersilochus (G.) caudatus</i> (Holmgren, 1860)			+						+	+			+
<i>Tersilochus (G.) nitens</i> Horstmann & Kolarov, 1988			+						+	+			+
<i>Tersilochus (T.) obscurator</i> (Aubert, 1959)			+						+		+		+
<i>Tersilochus (T.) tripartitus</i> (Brischke, 1880)			+						+	+			+
TRYPHONINAE													
<i>Acrotomus lucidulus</i> Gravenhorst, 1829				+					+	+		+	+
<i>Acrotomus succinctus</i> (Gravenhorst, 1829)			+						+		+	+	
<i>Aderaeon hamatum</i> Kasparyan, 1971			+						+		+		+
<i>Cosmoconus (C.) ceratophorus</i> (Thomson, 1888)			+	+					+		+		+
<i>Cosmoconus (C.) elongator</i> (Fabricius, 1775)			+						+		+	+	
<i>Cosmoconus (C.) meridianator</i> Aubert, 1963			+						+		+		+
<i>Ctenochira pratensis</i> (Gravenhorst, 1829)			+						+		+		+
<i>Cycasis rubiginosa</i> Gravenhorst, 1829			+						+	+			+
<i>Eridolius pictus</i> (Gravenhorst, 1829)			+						+				+
<i>Erromenus bibulus</i> Kasparyan, 1973			+						+		+	+	
<i>Erromenus junior</i> Thunberg, 1822			+						+		+		+
<i>Erromenus (Aderaeon) hamatus</i> Kasparyan, 1971			+						+		+		+
<i>Erromenus punctulatus</i> Holmgren, 1857			+						+		+		+
<i>Exyston sponsorius</i> Fabricius, 1781			+						+	+		+	+
<i>Kristotomus laetus laetus</i> (Gravenhorst, 1829)			+						+		+	+	
<i>Monoblastus brachyacanthus</i> Gmelin, 1790			+						+	+	+		+
<i>Monoblastus marginellus</i> (Gravenhorst, 1829)			+		+				+	+	+		+
<i>Monoblastus fulvescens</i> Fonscolombe, 1849			+						+		+		+
<i>Netelia (Netelia) dilatata</i> (Thomson, 1888)			+						+	+	+		+
<i>Netelia (Netelia) fuscicornis</i> Holmgren, 1860			+		+	+			+	+	+		+
<i>Netelia (Netelia) valvator</i> Aubert, 1968			+	+					+	+	+		+
<i>Netelia (Paropheltes) elevator</i> Aubert, 1971			+						+		+	+	
<i>Netelia (Paropheltes) nomas</i> Kokujev, 1899			+						+	+		+	
<i>Netelia (Prosthodods) japonica</i> Uchida, 1928			+						+		+	+	
<i>Netelia (Paropheltes) maculiventris</i> Kokujev, 1915			+						+		+	+	
<i>Netelia (Paropheltes) turanicus</i> (Kokujev, 1899)			+						+		+		+
<i>Oedemopsis scabricula</i> Gravenhorst, 1829			+						+		+		+
<i>Otoblastus luteomarginatus</i> (Gravenhorst, 1829)			+						+		+		+
<i>Polyblastus (P.) cothurnatus</i> Gravenhorst, 1829			+	+					+	+	+		+
<i>Polyblastus (P.) varitarsus</i> (Gravenhorst, 1829)			+	+					+	+	+		+
<i>Tryphon (Tryphon) abditus</i> Kasparyan, 1969			+						+		+		+
<i>Tryphon (Tryphon) atriceps</i> Stephens, 1835			+	+	+		+		+	+	+	+	+
<i>Tryphon (Tryphon) caucasicus</i> Kasparyan, 1969			+	+					+	+	+		+
<i>Tryphon (Tryphon) psilosagator</i> Aubert, 1966			+						+		+	+	
<i>Tryphon (Tryphon) relator</i> (Thunberg, 1822)			+						+		+	+	
<i>Tryphon (Tryphon) rutilator</i> Linnaeus, 1761			+	+					+	+	+		+
<i>Tryphon (Tryphon) signator</i> Gravenhorst, 1829			+	+					+	+	+		+
<i>Tryphon (Tryphon) talitzkii</i> Telenga, 1930			+						+	+	+		+
<i>Tryphon (Tryphon) thomsoni</i> Roman, 1939			+	+	+		+		+	+	+	+	+
<i>Tryphon (Tryphon) zavreli</i> Gregor, 1939			+	+					+	+	+	+	+
<i>Tryphon (Stenocrotaphon) subsulcatus</i> Holmgren, 1857			+						+		+		+

**Table 2.** The results of the diversity index for eastern Turkey Ichneumonidae species.

Index	SA	EA	BS	CA	MD
<b>Shannon H' Log Base 10,</b>	0,772	2,088	1,389	0,992	1,089
<b>Simpsons Diversity (1/D)</b>	4,125	55,164	11,172	6,888	34

Table 3. Parasitoids obtained from different hosts from eastern Turkey.

Name of Parasitoids	Name of Hosts	Order and Family of Host	Reference (s)
<b>PIMPLINAE</b>			
<i>Dolichomitus populneus</i>	<i>Saperda populnea</i>	Coleoptera:Cerambycidae	Özbek et al. (2009)
<i>Paraperithous gnathaulax</i>	<i>Saperda populnea</i>	Coleoptera:Cerambycidae	Özbek et al. (2009)
<i>Dolichomitus tuberculatus</i>	<i>Saperda populnea</i>	Coleoptera:Cerambycidae	Özbek et al. (2009)
<i>Scambus sagax</i>	<i>Agapanthia osmanlis</i>	Coleoptera:Cerambycidae	Çoruh & Tozlu (2008)
<i>Ephialtes manifestator</i>	<i>Bembecia scopigera</i>	Lepidoptera:Sessidae	Çoruh & Özbek (2008a)
<i>Liotryphon crassisetus</i>	<i>Bembecia scopigera</i>	Lepidoptera:Sessidae	Çoruh & Özbek (2008a)
<i>Exeristes roborator</i>	<i>Lixus bardanae</i>	Coleoptera:Curculionidae	Çoruh & Özbek (2008a)
	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
	<i>Malacosoma franconica</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
	<i>Rhyaciona pinicolona</i>	Lepidoptera:Tortricidae	Çoruh & Özbek (2008a)
	<i>Diplolepis fructuum</i>	Hymenoptera:Cynipidae	Çoruh & Özbek (2008a)
<i>Cynaeda gigantea</i>	Lepidoptera:Crambidae	Tozlu & Çoruh (2011)	
<i>Gregopimpla inquisitor</i>	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
<i>Gregopimpla malacosomae</i>	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
<i>Itopectis viduata</i>	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
<i>Endromopoda detritus</i>	<i>Archips rosana</i>	Lepidoptera: Tortricidae	Çoruh & Özbek (2008a)
<i>Endromopoda phragmitidis</i>	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
<i>Tromatobia ornata</i>	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
<i>Scambus brevicornis</i>	<i>Acleris rhombana</i>	Lepidoptera: Tortricidae	Çoruh & Özbek (2008a)
	<i>Cnaemidophorus rhodadactyla</i>	Lepidoptera: Pterophoridae	Özbek (2008)
<i>Scambus calobatus</i>	<i>Archips rosana</i>	Lepidoptera: Tortricidae	Çoruh & Özbek (2008a)
<i>Itopectis alternans</i>	<i>Archips rosana</i>	Lepidoptera: Tortricidae	Çoruh & Özbek (2008a)
<i>Scambus nigricans</i>	<i>Acleris rhombana</i>	Lepidoptera: Tortricidae	Çoruh & Özbek (2008a)
	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
<i>Itopectis maculator</i>	<i>Archips rosana</i>	Lepidoptera: Tortricidae	Çoruh & Özbek (2008a)
	<i>Acleris rhombana</i>	Lepidoptera: Tortricidae	Çoruh & Özbek (2008a)
	<i>Hyponomeuta evonymella</i>	Lepidoptera:Hyponomeutidae	Çoruh & Özbek (2008a)
<i>Itopectis tunetana</i>	<i>Hyponomeuta evonymella</i>	Lepidoptera:Hyponomeutidae	Çoruh & Özbek (2008a)
<i>Pimpla illecebrator</i>	<i>Malacosoma franconica</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
	<i>Hyponomeuta evonymella</i>	Lepidoptera:Hyponomeutidae	Çoruh & Özbek (2008a)
<i>Pimpla spuria</i>	<i>Malacosoma franconica</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
	<i>Hyponomeuta evonymella</i>	Lepidoptera: Hyponomeutidae	Çoruh & Özbek (2008a)
<i>Pimpla contemplator</i>	<i>Vanessa urticae</i>	Lepidoptera: Nymphalidae	Çoruh & Özbek (2008a)
<i>Pimpla rufipes</i>	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
	<i>Malacosoma franconica</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
<i>Pimpla turionellae</i>	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
	<i>Malacosoma franconica</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2008a)
<b>CRYPTINAE</b>			
<i>Lysibia nana</i>	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Özbek & Çoruh (2012)
<i>Gambrus opacus</i>	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2005)
	<i>Malacosoma franconica</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2005)
<i>Meringopus cyanator</i>	<i>Malacosoma neustria</i>	Lepidoptera:Lasiocampidae	Çoruh & Özbek (2005)
	<i>Lymantria dispar</i>	Lepidoptera:Lymantriidae	Çoruh & Özbek (2005)
<b>CAMPOPLEGINAE</b>			
<i>Alcima pictor</i>	<i>Malacosoma castrensis</i>	Lepidoptera:Lasiocampidae	Özbek et al. (2000)
<i>Diadegma (N.) eucerothaga</i>	<i>Plutella xylostella</i>	Lepidoptera:Plutellidae	Avcı & Özbek (1990)
<i>Diadegma apostatum</i>	<i>Chloroclystis rectangulata</i>	Lepidoptera:Geometridae	Doğanlar (1987) Özbek et al. (2000)
<i>Venturia canescens</i>	<i>Plodia interpunctella</i>	Lepidoptera:Pyralidae	Doğanlar (1982) Özbek et al. (2000)
<i>Sinophorus turionus</i>	<i>Cnaemidophorus rhodadactyla</i>	Lepidoptera:Pterophoridae	Özbek (2008)
<b>DIPLAZONTINAE</b>			

<i>Diplazon laetatorius</i>	<i>Episyrphus balteatus</i>	Diptera:Syrphidae	Avcı & Özbek (1991)
<b>ICHNEUMONINAE</b>			
<i>Thyrateles camelinus</i>	<i>Arctia hebe</i>	Lepidoptera: Arctiidae	Riedel <i>et al.</i> (2010)
<i>Cratichneumon fabricator</i>	<i>Abraxas pantaria</i>	Lepidoptera: Geometridae	Özbek & Çalmaşur (2010)
<b>ORTHOPELMATINAE</b>			
<i>Orthopelma mediator</i>	<i>Diplolepis mayri</i>	Hymenoptera Cynipoidea	Özbek <i>et al.</i> (1999) Çoruh <i>et al.</i> (2004) Özbek <i>et al.</i> (1999) Çoruh <i>et al.</i> (2004)

**Table 4.** Abundance of the Ichneumonidae species in eastern Turkey.

Names of dominant species	Individual numbers
<b>ACAENITINAE</b>	
<i>Phaenolobus saltans</i>	29
<b>ANOMALONINAE</b>	
<i>Anomalon cruentatum</i>	90
<b>BANCHINAE</b>	
<i>Exatastes fornicator</i>	152
<i>Lissonota cruentator</i>	26
<i>Lissonota flavovariegata</i>	215
<i>Lissonota quadrinotata</i>	27
<b>CAMPOPLEGINAE</b>	
<i>Diadegma (Nhyhobia) eucerophaga</i>	123
<b>CREMASTINAE</b>	
<i>Temelucha interruptor</i>	22
<b>CRYPTINAE</b>	
<i>Cryptus spiralis</i> (Geoffroy, 1785)	21
<i>Lysibia nana</i>	24
<i>Meringopus calescens calescens</i>	140
<b>ICHNEUMONINAE</b>	
<i>Amblyjoppa fuscipennis</i>	93
<i>Coelichneumon leucocerus</i>	44
<i>Diphyus mercatorius mercatorius</i>	41
<i>Diphyus pseudomercator</i> s.str.	33
<i>Protichneumon coqueberti</i>	22
<i>Rictichneumon lombardi</i>	23
<i>Triptognathus atripes</i>	35
<i>Virgichneumon maculicauda</i>	37
<b>METOPINAE</b>	
<i>Exochus mitratus</i>	49
<i>Exochus suborbitalis</i>	26
<b>OPHIONINAE</b>	
<i>Ophion mocsaryi</i>	28
<i>Enicospilus cruciator</i>	62
<i>Enicospilus ramidulus</i>	54
<i>Enicospilus tournieri</i>	58
<b>ORTHOPELMATINAE</b>	
<i>Orthopelma mediator</i>	33
<b>PIMPLINAE</b>	
<i>Endromopoda detritus</i>	25
<i>Exeristes roborator</i>	242
<i>Itoplectis maculator</i>	23
<i>Pimpla illecebrator</i>	20
<i>Pimpla rufipes</i>	139
<i>Pimpla spuria</i>	22
<i>Scambus brevicornis</i>	42
<i>Scambus nigricans</i>	70
<i>Tromatobia ornata</i>	16
<b>TRYPHONINAE</b>	
<i>Tryphon (Tryphon) atriceps</i>	88
<i>Tryphon (Tryphon) rutilator</i>	42
<i>Tryphon (Tryphon) signator</i>	50
<i>Tryphon (Tryphon) thomsoni</i>	46

**Table 5.** Food plants association of Ichneumonidae species in eastern Turkey.

Plant species	Insect species	Reference (s)
<i>Carum carvi</i> Linnaeus	<i>Enicospilus ramidulus</i>	Çoruh & Çoruh (2008)
	<i>Glyphicnemis vagabunda</i>	
	<i>Meringopus calescens</i>	
	<i>Meringopus cyanator</i>	
	<i>Meringopus titillator</i>	
	<i>Ophion mocsaryi</i>	
	<i>Ophion pteridis</i>	
	<i>Pimpla hypochondriaca</i>	
<i>Daucus carota</i> L.	<i>Aritranis femoralis</i> [1]	Çoruh & Çoruh (2008)
	<i>Cryptus spiralis</i>	
	<i>Cryptus viduatorius</i>	
	<i>Pimpla hypochondriaca</i>	
<i>Ferula communis</i> L.	<i>Coelichneumon leucocerus</i>	Çoruh & Çoruh (2008)
	<i>Cryptus spiralis</i>	
	<i>Cryptus viduatorius</i>	
	<i>Pimpla hypochondriaca</i>	
	<i>Protichneumon coqueberti</i>	
	<i>Protichneumon fusorius</i>	
<i>Pimpinella tragium</i> Vill.	<i>Exetastes fornicator</i>	Çoruh & Çoruh (2008)
	<i>Mesostenus albinotatus</i>	
	<i>Mesostenus transfuga</i>	
<i>Seselis libanotis</i> (L.) W. Koch	<i>Amblyjoppa fuscipennis</i>	Çoruh & Çoruh (2008)
	<i>Coelichneumon leucocerus</i>	
	<i>Enicospilus ramidulus</i>	
	<i>Glyphicnemis vagabunda</i>	
	<i>Mesostenus transfuga</i>	
	<i>Meringopus titillator</i>	
	<i>Ophion brevicornis</i>	
	<i>Ophion mocsaryi</i>	
	<i>Ophion pteridis</i>	
	<i>Ophion slaviceki</i>	
	<i>Pimpla hypochondriaca</i>	
	<i>Protichneumon coqueberti</i>	
	<i>Protichneumon fusorius</i>	

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