Türk. entomol. derg., 2006, **30** (3): 201-207
ISSN 1010-6960

Four new records for the Turkish Tenthredinidae (Hymenoptera) fauna

Önder ÇALMAŞUR*

Summary

In this study, four species ***Aglaostigma fulvipes*** (Scopoli, 1763), ***Tenthredo campestris*** Linnaeus, 1758, ***Tenthredo ouralensis*** (André, 1881), ***Tenthredo korabica*** Taeger, 1985 have been determined from North Eastern of Anatolia belonging to Tenthredininae subfamily of Tenthredinidae (Hymenoptera) as the first records from Turkey. The number of the species of Turkish Tenthredinidae fauna have rised up to 222.

Key words: Hymenoptera, Tenthredinidae, fauna, new records, Turkey
Anahtar sözcükler: Hymenoptera, Tenthredinidae, fauna, yeni kayıt, Türkiye

Introduction

The topographic and climatic structures of Turkey give it a rich and diverse fauna and flora. The family Tenthredinidae (Hymenoptera) is called Sawflies; it is a large family, including more than seven-eighths of all members belonging to the suborder Symphyta (Chalastogastra) (Comstock, 1964). The larvae of Tenthredinidae are euriciform, mostly free-living, and most of them are external feeders on foliage, though some of them are extremely destructive pests. A few species are gall makers, and a few are leaf miners (Benson, 1952).

Tenthredinidae is the best represented in the North temperate regions; species richness tends to decrease from north to south. There are more than 6000 species in 360 genera in temperate regions of the northern hemisphere (Liston, 1995; Goulet & Huber, 1993; Taeger & Blank, 1998; Lacourt, 1999). More than

* Department of Plant Protection, Faculty of Agriculture, Atatürk University, 25240 Erzurum, Turkey
e-mail: calmasur@atauni.edu.tr
Alınış (Received): 28.11.2006

900 species occur in Europe (Liston, 1995). There is considerable disagreement over the composition of the various subordinate groups. Fitton et al. (1978) adopted the system proposed by Benson (1952, 1958). Gauld & Bolton (1988) recognized 7 subfamilies. More recently, Lacourt (1999) divided the family into 14 subfamilies in his catalog. Although various contributions have been conducted on their taxonomy, biology and distribution as well as the damage caused to agricultural and ornamental plants by sawflies in the Palearctic region (Benson, 1950, 1951, 1952, 1958, 1968; Zombori, 1972, 1973, 1974a, 1974b, 1977, 1985; Moczar & Zombori, 1973; Smith, 1982; Shaw, 1978; Vassilev, 1978; Cingovski, 1980, 1982; Schedl, 1981, 1991; Scobiola-Palade, 1981; Liston, 1983a, 1983b; Meitzner & Taeger, 1982; Viitasaari & Vikberg, 1985; Magis, 2002). The Turkish fauna is comparatively poorly studied despite its zoogeographic interest. The first comprehensive study on the sawfly fauna of Turkey was conducted by Guichard & Harvey (1967). Benson (1966, 1968) made a faunistical and systematical study on the Symphyta of Turkey, and described new taxa and constructed keys to some genera and species occurring in Turkey. Later, Wolf (1968) and Chevin & Chenon (1982) recorded some sawfly species from Turkey. Since Chevin & Chenon (1982) no additional faunistic study has been conducted, although some studies have appeared dealing with different sawfly pests on various cultivated, forested areas, and ornamental plants (Alkan, 1948; Özeren, 1970; Baş, 1973; Çalmaşur & Özbek, 2004a, 2004b, 2004c, 2006).

Material and Methods

The present paper is based on specimens collected during 1996-2002 in various localities of Turkey by the author. In addition, material housed since the 1970s in the Entomology Museum Erzurum, Turkey (EMET), was evaluated and included in this work. Although the specimens have been collected in different parts of the country, the majority of the sawfly samples were collected from eastern Turkey. The habitats were mainly alpine meadows, mountain tundra, roadsides, and uncultivated areas between cultivated lands, orchards and open areas in forests. Material collected by insect net. The materials mentioned in this study were deposited in EMET, Turkey. For determination of the material, Benson (1952) and Zhelochovtsev (1988) were used, and for the synonyms of taxa Lacourt (1999) was followed. Undetermined specimens were identified and others confirmed by Dr. David R. Smith (Systematic Entomology Laboratory, USDA, Beltsville, USA) and Dr. Lajos Zombori (Hungarian Natural History Museum, Department of Zoology, Budapest, Hungary). Species were treated in alphabetical order with in the family. All records were arranged in the following way: province: town, local place, geographic name and altitude if available, date of collecting, number of individuals as male and female.

Results

Aglaostigma fulvipes (Scopoli, 1763)

Material examined: Erzurum: Aşkale, 23.V.2000, 1700 m, 3 ♀♀; Oltu, 17.V.2000, 1400 m, 2 ♀♀.

Distribution in the world: Europe, Central Asia, Siberia (Zhelochovtsev, 1988; Liston, 1995; Lacourt, 1999).

Distribution in Turkey: New record for Turkish fauna.

Host plants: ***Galium aparine, G. molluga, G. verum*** (Zhelochovtsev,1988; Liston, 1995; Lacourt, 1999).

Tenthredo campestris Linnaeus, 1758

Material examined: Erzurum: Oltu, Sütkans, 1700 m, 25.VI.1996, 1♂, 27.VI.1999, 1♂, Uzundere, 950 m, 4.V.2002, 1♂. Kars: Sarıkamış, Karakurt, 1550 m, 2.VI.1999, 1♂, 4.VI.2000, 1♂.

Distribution in the world: Europe, Siberia, Balkans (Zhelochovtsev, 1988; Liston, 1995; Lacourt, 1999; Magis, 2003).

Distribution in Turkey: New record for Turkish fauna.

Host plant: ***Aegopodium podagraria*** (Liston, 1995; Lacourt, 1999; Magis, 2003).

Tenthredo ouralensis (André, 1881)

Material examined: Artvin: Şavşat, Karagöl, 1600 m, 15.VIII.1990, 1♀. Bingöl: Çirişli Geçidi, 2000 m, 03.VI.2001, 1♂. Rize: İkizdere, Ovit Dağı, 1600-2400 m, 29.VII.2000, 3♀♀, 1♂, Çamlık, 1600 m, 29.VII.2000, 3♀♀, 1♂.

Distribution in the world: USSR, Korea (Taeger, 1988).

Distribution in Turkey: New record for Turkish fauna.

Host plant: Unknown

Tenthredo korabica Taeger, 1985

Material examined: Erzurum: Olur, Salaçur, 2400 m, 10.07.2001, 2♀♀, 1♂. Rize: İkizdere, Ovit Dağı, 1600-2400 m, 1♀, 1♂.

Distribution in the world: Europe, Mongolia, Siberia (Lacourt, 1999).

Distribution in Turkey: New record for Turkish fauna.

Host plant: Unknown

Discussion

The Tenthredinidae were separated in the world wide. In generally, this family was the best represented in the North temperate regions; species richness tends to decrease from north to south. There are more than 6000 species in 360 genera in temperate regions of the northern hemisphere (Liston, 1995; Goulet & Huber, 1993; Taeger & Blank, 1998; Lacourt, 1999). But, this family has not been studied detail in Turkey. In addition, different study shown that there were 218 tenthredinid species from Turkish sawfly fauna, so far (Lacourt, 1999; Çalmaşur & Özbek, 2004a, 2004b, 2004c, 2006). In previous works, belonging to ***Aglaostigma*** genus was recorded only ***Aglaostigma aucupariae*** (Klug, 1814) and ***Aglaostigma langei*** (Konow, 1894) from Turkey (Benson, 1968). In addition, in this study was recorded ***A. fulvipes*** as new sawfly species from Turkey in this genus. The genus ***Tenthredo*** wide separated in Turkey. In previous study, 26 species were recorded from Turkey (Çalmaşur & Özbek, 2004a). In this present paper, four species are recorded for the first time from Turkey in this genus.

The objectives of this study are to contribute to the knowledge of the typical sawfly fauna of Turkey. In this study, four species were determined belonging to subfamily of Tenthredininae. In this way, the number of the species of Turkish sawfly fauna have rised up to 222.

Özet

Türkiye Tenthredinidae (Hymenoptera) faunası için dört yeni kayıt

Bu çalışmada, Türkiye Tenthredinidae (Hymenoptera) familyasına ait dört yeni kayıt ***Aglaostigma fulvipes*** (Scopoli, 1763), ***Tenthredo campestris*** Linnaeus, 1758, ***Tenthredo ouralensis*** (André, 1881), ***Tenthredo korabica*** Taeger, 1985 belirlenmiştir. Saptanan türlerin dağılışı Kuzeydoğu Anadoluyu kapsamaktadır. Bu çalışma sonucunda Türkiye Tenthredinidae familyasına bağlı türlerin sayısı 222'ye ulaşmıştır.

References

Alkan, B., 1948. Meyva destereli arıları (***Hoplocampa***'lar). **Mahs. Hek.**, **1** (5): 13-16.

Baş, R., 1973. Türkiye'de orman ağaçlarında zarar yapan zar kanatlılar (Hymenoptera) üzerinde araştırmalar. Orm. Bak. Orm.Gn.Md.Yay. No: 570, Seri No:23, 169 pp.

Benson, R. B. 1950. An introduction to the natural history of British sawflies (Hymenoptera, Symphyta). **Trans. Soc. Br. Ent., Bournemouth, 10**: 45-142.

Benson, R. B., 1951. Hymenoptera Symphyta. **Handbooks for the Identification of British Insects, 6** (2a): 1-50.

Benson, R. B., 1952. Hymenoptera (Symphyta). **Handbooks for the Identification of British Insects, 6** (2b): 51-138.

Benson, R. B., 1958. Hymenoptera (Symphyta). **Handbooks for the Identification of British Insects, 6** (2c): 139-252.

Benson, R. B., 1966. A new genus of the Lycaotini (Blennocampinae) in Turkey (Hymenoptera, Tenthredinidae). **Proc. R. Ent. Soc. Lond., (B) 35**: 75-77.

Benson, R. B., 1968. Hymenoptera from Turkey. **Symphyta. Bulletin of the British Museum (N.H.) Entomology, 22** (4): 4-207.

Chevin, H. & R. D. Chenon, 1982. Contribution a la faune des Hymenopteres Symphytes de Turquie. **Bull. Ent. France, 87**: 44-47.

Cingovski, J., 1980. Contribution to the knowledge on the fauna of sawflies on the mountain Galicica (Hymenoptera, Symphyta). **Fragmenta Balcanica, 10** (20): 175-189.

Cingovski, J., 1982. Symphyta aus der sammlung des Instituts für pflanzenschutz in Belgrad (Hym., Symphyta). **Fragmenta Balcanica, 9** (11): 97-110.

Comstock, C. H., 1964. An Introduction to Entomology. Comstock Publishing Comp., Binghampton, N. Y., 1064 pp.

Çalmaşur, Ö. & H. Özbek, 2004a. A contribution to the knowledge of the Tenthredinidae {Symphyta, Hymenoptera) Fauna of Turkey Part I: The Subfamily Tenthredininae. **Turkish Journal of Zoology, 28**: 37-54.

Çalmaşur, Ö. & H. Özbek, 2004b. A contribution to the knowledge of the Tenthredinidae (Symphyta, Hymenoptera) Fauna of Turkey Part II: The Subfamilies Blennocampinae, Dolerinae, Nematinae and Selandriinae. **Turkish Journal of Zoology, 28**: 55-71.

Çalmaşur, Ö. & H. Özbek, 2004c. ***Heterarthrus ochropoda*** (Klug) (Hymenoptera: Tenthredinidae), a New Record and a New Pest of ***Populus*** spp. (Salicaceae) in Turkey. **Proc.Entomol. Soc. Wash., 106** (3): 717-721.

Çalmaşur, Ö. & H. Özbek, 2006. A willow Sawfly, ***Nematus salicis*** (Linnaeus) (Hymenoptera: Tenthredinidae), A New Record And New Pest of ***Salix*** Spp. In Turkey. **Proc.Entomol. Soc. Wash., 108** (1): 139-144.

Fitton, M. G., M. W. R. de V. Graham, Z. R. J. Boucek, N. D. M. Fergusson, T. Huddleston, J. Quinlan & O. W. Richards, 1978. A Check List of British Insects. **Handbooks for the Identification of British Insects, 11**(4): 1-159.

Gauld, I. & B. Bolton, 1988. The Hymenoptera.Oxford University Press**,** 332 pp.

Goulet, H. & J. T. Huber, 1993. Hymenoptera of The World: An identification guide to families. Canada Communication Group-Publishing Ottawa, Canada KIA 0S9, 669 pp.

Guichard, K. M. & D. H. Harvey, 1967. Collecting in Turkey 1959, 1960 and 1962. **Bull. Br. Mus. Nat. Hist. (Ent.), 19**(4): 223-250.

Lacourt, P. J., 1999. Repertoire des Tenthredinidae ouest-palearctiques (Hymenoptera, Symphyta). Memories de la SEF, NO: 3, Societe entomologique de France, Juillet, Paris, 432 pp.

Liston, A. D., 1983a. Sawflies (Hymenoptera) from the Orkney Islands. **Entomologist's Gazette, 34**: 113-116.

Liston, A. D., 1983b. Some sawflies from Greece (Hym., Symphyta). **Entom. Gesellschaft Basel, 33** (3): 85-88.

Liston, A. D., 1995. Compendium of European Sawflies. Chalastos Forestry, Daibersdorf 6, D-84177 Gottfrieding, Germany, 200 pp.

Magis, N., 2002. Tenthredinidae recoltes en Bulgarie al'aide du "piege Malaise", sous les auspices du Musee d'Histoire Naturelle de Leiden. **Notes fauniques de Gembloux, 46**: 13-22.

Magis, N., 2003. Notes Faunistiques Sur Les Espèces Du Genre Tenthredo Linné, 1758 *Sensu Lato* Dans La Région Franco-Rhénane (Hymenoptera, Symphyta: Tenthredinidae, Tenthredininae). **Notes fauniques de Gembloux, 53**: 3-20

Meitzner, V. & A. Taeger, 1982. Beitrag zur Blattwespenfauna Bulgariens (Hymenoptera, Symphyta). **Entomologische Nachrichten und Berichte, 26**: 127-130.

Moczar, L. & L. Zombori, 1973. Lev.ldarazs-alkatuak Tenthredinoide I. Fauna Hungariae, Budapest. **111**: 128 pp.

Özeren, H., 1970. Ankara Bölgesinde bazı meyve ve orman ağaçları ile süs bitkilerine zarar veren Hymenoptera türleri, yayılışı ve taksonomileri üzerinde ön araştırmalar. A. Ü. Zir. Fak. Yay.: 396, B. A. Inc. 246, 73 pp.

Schedl, W., 1981. Die pflanzenwespen der Insel Kreta (Insecta: Hymenoptera, Symphyta). **Ber. nat. med. Ver. Innsbruck 68**: 145-157.

Schedl, W., 1991. Hymenoptera unterordnung Symphyta. Pflanzenwespen. **Handbuch der Zoologie, Walter de Gruyter, Berlin & New York 4** (31): 1-136.

Scobiola-Palade, X. G., 1981. Hymenoptera Symphyta Tenthredinoidea. **Fauna Republicii Socialiste Romania, Bucarest, 9** (9): 1-328.

Shaw, M. R., 1978. Some sawfly (Hym., Symphyta) records from Greater Manchester county. **Lameashire & Cheshire fauna committee, No: 73**: 13-14.

Smith, D. R., 1982. List of the Symphyta (Hymenoptera) of Israel, with description of four new species. **Israel J. Ent., 16**: 1-25.

Taeger, A., 1988. Dritter Beitrag zur Kenntnis der Blattwespengattung *Tenthredo* L. (Hymenoptera: Symphyta: Tenthredinidae). **Beitr. Ent., Berlin, 38** (2): 337-359.

Taeger, A. & S. M. Blank, 1998. Pflanzenwespen Deutschlands (Hymenoptera, Symphyta). Goecke und Evers, 364 pp.

Vassilev, I., 1978. Hymenoptera, Symphyta. **Fauna Bulgarica, Sofia, 8**: 1- 179.

Viitasaari, M. & V. Vikberg, 1985. A checklist of sawflies (Hymenoptera, Symphyta) of Finland. **Notulae Entomologicae, 65:** 1-17.

Wolf, F., 1968. Hymenopteres Symphytes de Turquie. Bull. Rech. Agron. **Gembloux, (N.S.) 3** (3): 562-565.

Zhelochovtsev, A. N., 1988. Symphyta, pp. 7-234. *In* Medvedjev, G.S., ed. Oprendeliatel Nasekomykyh Evropeiskoi Chasti SSSR. III. Perepondhatokrylye 6. Opredeliteli po faune SSSR 158. Nauka Leningrad. (1994, English translation, 27, Order Hymenoptera, Suborder Symphyta (Chalastogastra). *In* Medvedjev, G.S., ed. Keys to the Insects of the European Part of the USSR. Amerind Publishing Co., Pvt. Ltd., New Delhi. 387 pp.

Zhelochovtsev, A. N. & A. G. Zinovjev, 1996. A list of the Sawflies and Horntails (Hymenoptera, Symphyta) of the fauna of Russia and adjacent territories. **II. Entomologicheskoe Obozrenie, 75** (2): 357-378.

Zombori, L., 1972. Symphyta (Hymenoptera) from Mongolia, II. **Acta Z. Acad. Sci. Hungaricae, 18** (3-4): 435-448.

Zombori, L., 1973. Symphyta (Hymenoptera) from Mongolia III. **Acta Z. Acad. Sci. Hungaricae, 19** (3-4): 445-460.

Zombori, L., 1974a. Data to sawfly fauna of Yugoslavia (Hymenoptera: Symphyta). **Musei Macedonici Scientiarum Naturalium, 9** (18): 173-185.

Zombori, L., 1974b. Sawflies from Korea (Hymenoptera: Symphyta). **Acta Z. Acad. Sci. Hungaricae, 20** (3-4): 453-461.

Zombori, L., 1977. Two new sawfly species from Armenia (Hymenoptera: Symphyta). **Acta Z. Acad. Sci. Hungaricae, 24** (3-4): 451-454.

Zombori L., 1978. New sawfly species from Korea (Hymenoptera: Symphyta). **Acta Z. Acad. Sci. Hungaricae, 24** (1-2): 253-268.

Zombori, L., 1985. Sawflies from Nepal (Hymenoptera), I. **Acta Z. Acad. Sci. Hungaricae, 31** (1-3): 291-293.