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Orijinal araştırma (Original article)

New and little known species of Tersilochinae (Hymenoptera: Ichneumonidae) from Turkey[1]

Türkiye'den yeni ve az bilinen Tersilochinae (Hymenoptera: Ichneumonidae) türleri

Saliha ÇORUH [2]* **Andrey Ivanovich KHALAIM [3,4]**

Summary

The present study is based on material of Ichneumonidae collected from north-eastern Turkey. A total of 11 species of Tersilochinae have been determined. Among them, *Diaparsis multiplicator* Aubert and *Probles caudiculatus* Khalaim are new records from Turkey. New data on distribution of previously known 9 species are given.

Key words: Ichneumonidae, Tersilochinae, new records, distribution, Turkey

Özet

Bu çalışmada, Türkiye'nin Kuzey Doğusundan toplanan Ichneumonidae türleri değerlendirilmiştir. Tersilochinae'ye ait 11 tür belirlenmiştir. Bunlardan, *Diaparsis multiplicator* Aubert and *Probles caudiculatus* Khalaim Türkiye için yeni kayıt durumundadır. Önceden bilinen 9 türün dağılımına yeni veriler eklenmiştir.

Anahtar sözcükler: Ichneumonidae, Tersilochinae, yeni kayıt, dağılım, Türkiye

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[2] Atatürk University, Faculty of Agriculture, Department of Plant Protection 25240 Erzurum, TURKEY
[3] Zoological Institute of the Russian Academy of Sciences, Universitetskaya nab. 1, St. Petersburg 199034 - RUSSIA
[4] División de Estudios de Postgrado e Investigación, Facultad de Ingeniería y Ciencias, Universidad Autónoma de Tamaulipas, Cd. Victoria 87149 - MEXICO
*Sorumlu yazar (Corresponding author) e-mail: spekel@atauni.edu.tr

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Introduction

Tersilochinae is a medium-sized cosmopolitan ichneumonid subfamily with over 330 described species in the World fauna. The subfamily is best represented in the Holarctic region whereas tropical faunas are still poorly studied. About 160 species from 13 genera occur in Europe (Horstmann, 1971, 1981; Khalaim, 2002, 2004a, 2004b, 2005; Khalaim et al., 2009).

Tersilochines occur in all terrestrial biotopes in Europe from steppes and wet forests to alpine meadows and tundra, but usually are more abundant in humid forests. Most of species are rather small and have body length 3.0-7.0 mm, but some samples may exceed 10 mm. Species of this subfamily may easily be recognized by their characteristic forewing venation lack of areolet, thickened intercubitus, first and second abscissae of radius angled about 90˚, and a large pterostigma and with maxillary and labial palpi 4 and 3 segmented, respectively.

Almost all Tersilochinae are larval koinobiont endoparasitoids of various Coleoptera, but species of *Gelanes* Horstmann parasitize xyelid larvae in male pine cones (Khalaim & Blank, 2011), and two species of *Tersilochus* Förster were reared from leaf mines of Eriocraniidae (Lepidoptera) on Betula (Jordan, 1998). Some species are used in biological control of pests. In particular, two species of *Diaparsis* were introduced from Europe to U.S.A. for control of *Oulema melanopus* L. (Chrysomelidae) (Dysart et al., 1973), and two species of *Stethantyx* were introduced from South America to U.S.A. and Australia for control of the vegetable weevil (Curculionidae, genus *Listroderes*) (Kerich, 1961).

The Tersilochinae fauna of Turkey comprises 35 species belonging to genera *Aneuclis* Förster (3 species), *Barycnemis* Förster (2 species), *Diaparsis* Förster (7 species), *Heterocola* Förster (2 species), *Phradis* Förster (6 species), *Probles* Förster (7 species, including one unidentified species of the subgenus *Rugodiaparsis*) and *Tersilochus* Förster (8 species) (Khalaim & Yurtcan, 2011). Twenty species (57%) of them were recorded for the first time by Khalaim and Yurtcan (2011). Only two species were described from Turkey: *Heterocola longipalpis* Kolarov and Beyarslan is known only from Turkey, and *Probles anatolicus* Horstmann is also widely distributed in Caucasus. All other species occur in Europe.

Material and Methods

Forty nine specimens of Tersilochinae were collected by sweeping on flowering plants in the north-eastern Turkish provinces Ardahan, Artvin, Erzincan, Erzurum, Kars and Rize during 2000-2004. All examined material is deposited in the collection of the Entomology Museum Erzurum, Turkey, except for the specimen of *Heterocola longipalpis* which is kept in the Zoological Institute RAS, St. Petersburg, Russia. The genera, species and Turkish provinces are listed in the alphabetic order. New records of species and Turkish provinces are marked by an asterisk (*). The distributional records and hosts are given mainly after Khalaim & Yurtcan (2011).

Results and Discussion

***Barycnemis harpura* (Schrank 1802)**

Material examined: Ardahan: Posof, Ilgar Mountain, 2050 m, 18.VIII.2004, 1 ♀, 1 ♂, Leg. S. Çoruh; Artvin: Genya Mountain, 1860 m, 28.VII.2004, 1 ♂, Leg. S. Çoruh; Erzurum: Konaklı, 2000–2400 m, 22.VII.2000, 3 ♀♀, Leg. E. Yıldırım; Oltu, Başaklı, 1850 m, 4.VII.2004, 1 ♀, Leg. H. Özbek; 2100 m, 4.VII.2004, 1 ♂, Leg. H. Özbek; Çamlıbel, 1600 m, 26.VII.2000, 1 ♀, Leg. H. Özbek; İnanmış, 1700 m, 26.VII.2000, 1 ♀, Leg. H. Özbek; Şenkaya, Gaziler, Çakırbaba Pass, 2450 m, 9.VIII.2003, 1 ♀, Leg. S. Çoruh, 22.VII.2004, 1 ♂, Leg. S. Çoruh; Uzundere, 1000 m, 21.VII.2000, 2 ♀♀, Leg. H. Özbek; Rize: Ovit Mountain, 2300 m, 11.VII.2000, 2 ♀♀, Leg. E. Yıldırım.

General distribution: Widely distributed, abundant Holarctic species.

Distribution in Turkey: Ardahan, Artvin, Edremit, Erzurum, Rize, Van.

***Diaparsis (Nanodiaparsis) aperta* (Thomson, 1889)**

Material examined: Artvin: Kafkasör, 1300 m, 27.VII.2004, 1 ♀, Leg. S. Çoruh.

General distribution: Transpalaearctic species.

Distribution in Turkey: “West Turkey” (Horstmann, 1971), *Artvin.

Hosts: *Anthaxia tuerki* Ganglbauer (Buprestidae), *Molorchus umbellatarum* (Schreber) (Cerambycidae).

***Diaparsis (D.) multiplicator* Aubert, 1969**

Material examined: Erzincan: Kemah, 1200 m, 25.V.2001, 1 ♂, Leg. R. Hayat.

General distribution: Europe.

Distribution in Turkey: Erzincan.

Host: *Curculio villosus* F. (Curculionidae) (Horstmann, 1981).

***Diaparsis (D.) nitida* Horstmann, 1981**

Material examined: Kars: Sarıkamış, Karakurt, 1450 m, 15.VI.2001, 1 ♀, Leg. S. Çoruh.

General distribution: Europe.

Distribution in Turkey: *Kars, Samsun.

***Heterocola (H.) longipalpis* Kolarov & Beyarslan, 1994**

Material examined: Erzurum: Ilıca, Atlıkonak, 2000 m, 29.VI.1999, 1 ♀, Leg. E. Yıldırım.

General distribution: Turkey (Erzurum).

***Probles (Microdiaparsis) anatolicus* Horstmann, 1981**

Material examined: Rize: Ayder, Çamlıhemşin, 1200–1550 m, 30.VII.2000, 2 ♂♂, Leg. Ö. Çalmaşur.

General distribution: Turkey and Caucasus.

Distribution in Turkey: *Rize, Trabzon, Tekirdağ.

***Probles (Microdiaparsis) caudiculatus* Khalaim, 2007**

Material examined: Erzurum: Aşkale, Pırnakapan, 1950 m, 14.X.2004, 1 ♀, Leg. S. Çoruh.

General distribution: Widely distributed Transpalaearctic species.

Distribution in Turkey: Erzurum.

***Tersilochus (Gonolochus) caudatus* (Holmgren, 1860)**

Material examined: Erzurum: Oltu, Kaleboğazı, 1500–1600 m, 17.V.2003, 1 ♀, Leg. H. Özbek; Sarısaz, 1350 m, 17.V.2003, 1 ♀, Leg. S. Çoruh.

General distribution: Widely distributed, abundant Transpalaearctic species.

Distribution in Turkey: Edirne, *Erzurum.

Host: *Lema erichsoni* Suffrian (Chrysomelidae); *Ceutorhynchus pleurostigma* (Marsham), *Dorytomus taeniatus* (F.) (Curculionidae); *Orchesia micans* (Panzer) (Melandryidae).

Tersilochus (Gonolochus) nitens **Horstmann & Kolarov, 1988**

Material examined: Erzincan: Mercan, Demirkapı, 1375 m, 24.V.2004, 1 ♀, Leg. S. Çoruh.

General distribution: Middle and South Europe.

Distribution in Turkey: *Erzincan, Kastamonu.

Tersilochus (T.) obscurator **(Aubert, 1959)**

Material examined: Erzurum: Atatürk University, 1850 m, 6.V.2001, 1 ♀, Leg. S. Çoruh.

General distribution: Europe.

Distribution in Turkey: Ankara, Edirne, *Erzurum.

Hosts: *Ceutorhynchus napi* Gyllenhal, *C. pallidactylus* (Marsh.), *C. quadridens* Germar (Curculionidae), *Psylliodes chrysocephala* L. (Chrysomelidae).

Tersilochus (T.) tripartitus **(Brischke, 1880)**

Material examined: Erzurum: Oltu, Subatık, 1350 m, 17.V.2003, 2 ♀♀, Leg. H. Özbek.

General distribution: Europe.

Distribution in Turkey: Edirne, *Erzurum.

Host: *Psylliodes chrysocephala* L. (Chrysomelidae).

Eleven species of Tersilochinae are identified in this study. Two species, *Diaparsis multiplicator* Aubert and *Probles caudiculatus* Khalaim, are recorded from Turkey for the first time. Although present study increases the known Turkish Tersilochinae to 37 species (including one unidentified species of the subgenus *Rugodiaparsis*, genus *Probles*), it is only a piece of the real Turkish fauna of this subfamily, and more European genera and species may be found here in future.

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