

Ichneumonidae (Hymenoptera) Established from Northeastern Turkey

Janko Kolarov¹ and Saliha Çoruh²

¹ Faculty of Pedagogie, University of Plovdiv, 24 Tsar Assen Str., 4000, Plovdiv, Bulgaria; E-mail: jkolarov@uni-plovdiv.bg

² Atatürk University, Faculty of Agriculture, Department of Plant Protection, 25240, Erzurum, Turkey; E-mail: spekel@atauni.edu.tr

Abstract: Faunistic data of 19 Tryphoninae species from Turkey are reported. Six species are new records for Turkish fauna.

Key words: Ichneumonidae, fauna, Turkey, new records, zoogeography

Introduction

Turkish Ichneumonidae fauna is not enough studied. Mostly of the known species were reported from European and Western part of the country. In the catalogue of KOLAROV (1995) 383 species of this family were listed from Turkey. Later many authors (KOLAROV, 1997; KOLAROV *et al.*, 1997a; KOLAROV *et al.*, 1997b; KOLAROV *et al.*, 1999; KOLAROV *et al.*, 2002; ÇORUH *et al.*, 2002; KOLAROV & GÜRBÜZ, 2004; GÜRBÜZ, 2005; YURTCAN & BEYARSLAN, 2005; YURTCAN & BEYARSLAN, 2006; ÇORUH & ÖZBEK, 2008; RIEDEL *et al.*, 2010; ÇORUH & KOLAROV, 2010, etc.) have made contributions to Turkish fauna. In the present paper unpublished data for 19 species of subfamily Tryphoninae from Northeastern Turkey are listed. Six species marked by an asterisk are new records for Turkish fauna.

Material and Methods

Materials were collected by sweeping net and Malaise traps. Generally the taxonomical works of KASPARYAN (1973, 1981) and KASPARYAN & TOLKANITZ (1999) were used. The materials are preserved in the Entomology Museum of Atatürk University of Erzurum, Turkey.

Results

List of species

Aderaeon hamatum KASPARYAN, 1971

Material examined: Erzurum: Güngörmez, Dumlubaba, 01. VI. 2010, 1 ♂, leg. E. Yıldırım; Şenkaya, Gaziler, Çakırbaba, 2450 m, 22. VII. 2004, 1 ♂, 2 ♀♀, leg. S. Çoruh.

Distribution: Ukraine, Azerbaijan, Georgia, Armenia, Turkey and Russia (Volgograd region).

Cosmoconus (Cosmoconus) ceratophorus (THOMSON, 1888)

Material examined: Artvin, Genya Mt., 1860 m, 28.VII.2004, 1 ♀, leg. S. Çoruh; Erzurum, Tortum, Esendurak, 1500 m, 11. IX. 2001, 1 ♀, leg. Ö. Çalmaşur.

Distribution: Palaearctic region.

Cosmoconus (Cosmoconus) elongator (FABRICIUS, 1775)

Material examined: Erzurum: Pazaryolu, Rizekent, 15. VIII. 2000, 1 ♂, leg. S. Çoruh.

Distribution: Palaearctic region.

* *Cosmoconus (Cosmoconus) meridionator* AUBERT, 1963

Material examined: Ardahan: Posof, Ilgar Mt., 2050 m, 08. VIII. 2004, 1 ♂, leg. S. Çoruh; Erzurum: Tortum, Esendurak, 1500 m, 11. IX. 2001, 1 ♂, leg.

Ö. Çalmaşur; Oltu, Subatik, 2000 m, 09.VIII.2000, 1 ♂, leg. H. Özbek; Kars, Sarıkamış, 05.IX.2003, 1 ♀, leg. S. Çoruh.

Distribution: Europe, Armenia, Siberia, Mongolia and China (Xinjiang).

* *Ctenochira pratensis* (GRAVENHORST, 1829)

Material examined: Kars, Sarıkamış, Karakurt, TCK Fountain, 1500 m, 12. VI. 2003, 2 ♂♂, leg. S. Çoruh.

Distribution: Europe, Azerbaijan and Mongolia.

* *Erromenus punctulatus* HOLMGREN, 1857

Material examined: Erzurum, Pasinler, Köprüküy, Kayabaşı, 1600 m, 14. VI. 2004, 1 ♀, leg. S. Çoruh.

Distribution: Holarctic region.

Monoblastus brachyacanthus (GMELIN, 1790)

Material examined: Ankara, Şereflikoçhisar, 18. VIII. 2003, 1 ♂, leg. C. Güçlü. Erzurum, Atatürk Univ. Field, 1850 m, 07. VI. 2003, 1 ♂, leg. H. Özbek; Arıbahçe, 2200 m, 20. VII. 2001, 1 ♂, leg. E. Yıldırım; Karagöbek, 27. VI. 2001, 1 ♂, leg. S. Çoruh; İspir, Madenköprübaşı, 1450 m, 17. VII. 2003, 1 ♂, leg. S. Çoruh; Tekman, 8. VII. 2004, 1 ♂, leg. H. Özbek.

Distribution: Algeria, Europe, Azerbaijan, Turkey, Kazakhstan and Siberia.

Monoblastus marginellus (GRAVENHORST, 1829)

Material examined: Erzurum, Köprüküy, Yağan, 1600 m, 28. VI. 2005, 2 ♀♀, leg. E. Yıldırım.

Distribution: Europe and Turkey.

Otoblastus luteomarginatus (GRAVENHORST, 1829)

Material examined: Erzurum, Oltu, Sarısaz, 1450 m, 21. VI. 2000, 21. VI. 2000, 1 ♀, leg. S. Çoruh.

Distribution: Palaearctic region.

* *Polyblastus (Polyblastus) varitarsus* (GRAVENHORST, 1829)

Material examined: Artvin, Yusufeli, İshan, 21. IX. 2000, 1 ♀, leg. H. Özbek. Erzurum, Çat, 25 km E, 2000 m, 11. VII. 2002, 1 ♂, leg. Ö. Çalmaşur; Tortum, Derekapı, 20. IX. 2000, 1 ♂, leg. H. Özbek.

Distribution: Holarctic region.

Tryphon (Tryphon) abditus KASPARYAN, 1969

Material examined: Bayburt, Kop Mt., 2300 m, 25. VI. 2004, 1 ♂, leg. S. Çoruh. Erzurum, Yeşilyayla, Radar Road, 2200 m, 2 ♂♂, 30. VI.

2001, leg. H. Özbek; Çat, 25 km E, 2200 m, 11. VII. 2002, 1 ♂, leg. Ö. Çalmaşur. Malatya, SE Arapgir, 1250 m, 19 km, 16. V. 2002, 1 ♂, leg. H. Özbek.

Distribution: Palaearctic region.

Tryphon (Tryphon) atriceps STEPHENS, 1835

Material examined: Artvin, 16. V. 2005, 1 ♀, leg. C. Güçlü. Bayburt, Kop Mt., 2300 m, 25. VI. 2004, 1 ♂, leg. S. Çoruh. Diyarbakır, NE 8 km, 700 m, 08. VI. 2002, 1 ♂, leg. H. Özbek. Erzincan, Bahçeli, 1350 m, 26. V. 2001, 2 ♀♀, leg. Ö. Çalmaşur. Erzurum: Atatürk Univ. Field, 1850 m, 1 ♂, 11. VI. 2004, leg. S. Çoruh, 4. Kuyu, 31. V. 2001, 8 ♂♂, 13 ♀♀, leg. Ö. Çalmaşur; Köprüküy, 1700 m, 18. V. 2005, 2 ♂♂, leg. S. Çoruh; Aşkale, Aşağı Kop., 1900 m, 5 ♂♂, 1 ♀, 29.V. 2001, leg. C. Güçlü, Çayköy, 29. V. 2001, 1 ♂, 1 ♀, leg. C. Güçlü, Pınakapan, 1750 m, 29. V. 2001, 1 ♂, leg. C. Güçlü; Ilıca, Atlıkonak, 1750 m, 11. VI. 2000, 1 ♂, 20. V. 2001, 1 ♂, 08. VI. 2001, 8 ♂♂, 4 ♀♀, 13. VI. 2002, 4 ♀♀, leg. Ö. Çalmaşur, 21. VI. 2004, 1 ♂, leg. C. Güçlü; Köprüküy, 1700 m, 18. V. 2005, 1 ♂, leg. S. Çoruh; Horasan, 5 km W, 1650 m, 18. V. 2005, 1 ♀, leg. C. Güçlü; Şenkaya, Soğanlı Mt., 2450 m, 12. VII. 2005, 1 ♀, Leg. C. Güçlü. Isparta, Dere Mah., 1150 m, 1 ♂, 1 ♀, 24. V. 2004, leg. H. Özbek. Kars, Sarıkamış, Akkurt, 18. V. 2003, ♀, leg. Ö. Çalmaşur.

Distribution: Europe, Azerbaijan, Georgia, Turkey, Iran and Afghanistan.

Tryphon (Tryphon) caucasicus KASPARYAN, 1969

Material examined: Ardahan, Çıldır, 20. VIII. 1996, 1 ♀, leg. M. Şirin. Erzurum, Aşkale, Pınakapan, 1750 m, 26. V. 2001, 1 ♀, leg. C. Güçlü.

Distribution: Azerbaijan, Georgia, Turkey, Armenia and Russia (Krasnodar, Stavropolskiy kray and Karachayevo-Cherkesskaya Oblast).

* *Tryphon (Tryphon) relator* (THUNBERG, 1822)

Material examined: Erzurum, Çat, Çirişli, 2000 m, 01. VII. 2002, 1 ♂, leg. H. Özbek.

Distribution: Europe, Azerbaijan, Georgia and Siberia.

Tryphon (Tryphon) rutilator (LINNAEUS, 1761)

Material examined: Artvin, Şavşat, Yavuzköy, 1490 m, 11. VII. 2005, 1 ♂, leg. C. Güçlü. Bayburt, Aydıntepe, Arpalı, 1550 m, 17. VI. 2010, 1 ♂, 1 ♀, leg. E. Yıldırım; Çalidere, 17. VI. 2010, 1700 m, 1 ♂, 1 ♀, leg. S. Çoruh. Bingöl, Çobantaşı, 1400 m, 02. VI. 2001, 2 ♀♀ leg. Ö. Çalmaşur. Erzincan, Bahçeli, 1350 m, 26. V. 2001, 4 ♀♀, leg. Ö. Çalmaşur; BKAE,

1250 m, 25. V. 2001, 1 ♀. Erzurum, Atatürk Univ. Field, 1850 m, 07.VI.2003, 1 ♂, leg. H. Özbek, 12. VI.- 2. VII. 2004 (MLST), 1 ♂, leg. S. Çoruh, 9. VI. 2005, 16. VII. 2007, 1 ♂, leg. H. Özbek; Çirişli, 2000 m, 1 ♂; Ilica, Atlıkonak, 2000 m, 27. V. 2001, 1 ♂, 13. VI. 2002, leg. Ö. Çalmaşur, 21. VI. 2004, 1 ♂, leg. C. Güçlü; Hınıs, 40 km SE, 1800 m, 14. VI. 2002, 4 ♂♂, Tekman, 8. VII. 2004, 2 ♂♂, leg. Ö. Çalmaşur. Gümüşhane: SE 35 km Vauk Geçidi, 1850 m, 21. VI. 2001, 2 ♂♂, leg. Ö. Çalmaşur. Kars: Aras Valley, 1500 m, 23. V. 2001, 1 ♂, leg. Ö. Çalmaşur, Sarıkamış, TCK fountain, 1500 m, 27. V. 2003, 2 ♂♂, leg. S. Çoruh.

Distribution: Europe, Georgia, Turkey, Syria, Iran and Siberia.

Tryphon (Tryphon) signator GRAVENHORST, 1829

Material examined: Bayburt, Kop Mt., 2300 m, 21. V. 2001, 1 ♀, 25. VI. 2004, 1 ♀, leg. S. Çoruh. Erzincan, Bahçeli, 1350 m, 26. V. 2001, 1 ♂, leg. Ö. Çalmaşur. Erzurum, Atatürk Univ. Field, 1850 m, 1 ♀, 07. VI. 2003, leg. S. Çoruh; Aşkale, Aşağı Kop Mt., 2350 m, 13. VII. 2005, 1 ♀, leg. S. Çoruh; Çat, Çirişli, 2000 m, 01. VII. 2002, 1 ♀, leg. H. Özbek; Hınıs, 40 km SE, 1800 m, 14. VI. 2002, 2 ♀♀, leg. Ö. Çalmaşur; Ilica, Atlıkonak, 2100 m, 4 ♀♀, 29. VI. 1999, 21. VI. 2004, 2 ♀♀, leg. Ö. Çalmaşur; Pasinler, Köprüköy, Kayabaşı, 1600 m, 14. VI. 2004, 1 ♂, 1 ♀, leg. S. Çoruh; Tekman, 8. VII. 2004, 1 ♀, leg. H. Özbek. Kars, Karakurt, 1500 m, 15. VI. 2001, 1 ♀, leg. S. Çoruh, Şeytangeçmez, 1550 m, 23. VI. 2005, 1 ♀, leg. E. Yıldırım. Şanlıurfa, Siverek, Karabahçe, 800 m, 9. V. 2002, 1 ♂, leg. H. Özbek.

Distribution: Europe, Azerbaijan, Turkey and Siberia.

* ***Tryphon (Tryphon) talitzkii*** TELENGA, 1930

Material examined: Erzurum, Aşkale, Aşağı Kop Mt., 1900 m, 29. V. 2001, 1 ♂, 1 ♀, leg. S. Çoruh, Pınakapan, 1750 m, 29. V. 2001, 1 ♂, leg. S. Çoruh; Ilica, Atlıkonak, 2300 m, 20. V. 2001, 2 ♀♀, leg. S. Çoruh. Kars, Sarıkamış, Akkurt, Aras Valley, 1500 m, 18. V. 2002, 1 ♂, leg. Ö. Çalmaşur.

Distribution: Bulgaria, Ukraine, Azerbaijan and Russia (Dagestan and Volgograd region).

Tryphon (Tryphon) thomsoni ROMAN, 1939

Material examined: Adıyaman, E. Fidanlık, 800 m, 11. V. 2002, 2 ♂♂, leg. H. Özbek. Bayburt, Çalidere, 1700 m, 17. VI. 2010, 1 ♂, leg. S. Çoruh. Bingöl, Çobantaşı, 1400 m, 02. VI. 2001, 2 ♂♂, 4 ♀♀, leg. Ö. Çalmaşur. Diyarbakır, NE 8 km, 700 m,

08. VI. 2002, 3 ♂♂, 1 ♀, leg. H. Özbek. Erzincan: Avcılar, 1330 m, 25. V. 2003, 1 ♀, leg. S. Çoruh; Kemah, 1200 m, 25. V. 2001, 1 ♀, leg. H. Özbek. Erzurum, Ilica, Atlıkonak, 1750 m, 29. VI. 1999, 2 ♀♀, İspir, Fısırik, 2300 m, 12. VII. 2001, 1 ♀, leg. S. Çoruh; Oltu, Başaklı, Near R. Çelik fountain, 1600 m, 16. VI. 2001, 1 ♂, leg. H. Özbek. Gümüşhane, SE 35 km Vauk Geçidi, 1850 m, 21. VI. 2001, 4 ♂♂, leg. S. Çoruh. Isparta, Dere Mah., 1150 m, 1 ♂, 24. V. 2004, leg. H. Özbek. Malatya, SE Arapgir 19 km, 1250 m, 16.V.2002, 5 ♂♂, leg. H. Özbek. Şanlıurfa, Siverek, Karabahçe, 800 m, 09. V. 2002, 3 ♂♂, 2 ♀♀, leg. H. Özbek. Kars, Sarıkamış, 1900 m, 23. VI. 2005, 1 ♀, leg. S. Çoruh.

Distribution: Europe, Azerbaijan, Georgia, Turkey, Armenia, Israel, Tajikistan and Siberia.

Tryphon (Tryphon) zavreli GREGOR, 1939

Material examined: Diyarbakır, Dicle Univ. Field, 700 m, 01. VI. 2002, 1 ♀; NE 6 km, 700 m, 1 ♂, 08. V. 2002, 3 ♂♂, 1 ♀, leg. H. Özbek. Erzurum, Ilica, Atlıkonak, 1750 m, 29. VI. 1999, 1 ♂, 2 ♀♀, leg. Ö. Çalmaşur; Hınıs, 40 km SE, 1800 m, 14. VI. 2002, 1 ♂, Kars, Sarıkamış, TCK fountain, 1500 m, 18. V. 2002, 2 ♂♂, leg. Ö. Çalmaşur.

Distribution: Middle and Eastern Europe, Azerbaijan, Georgia, Turkey, Armenia and Siberia.

Zoogeographical characterisation

The zoogeographical characterisation follows mainly the chorotype classification proposed by TAGLIANTI *et al.* (1999). After investigation of the current geographic distribution of the species listed above, they could be divided into following groups:

Holarctic ranges (2 species) – *Erromenus punctulatus* and *Polyblastus (Polyblastus) varitarsus*.

Palaeartic chorotype (4 species) – *Cosmoconus (Cosmoconus) elongator*, *C. (C.) ceratophorus*, *Otoblastus luteomarginatus* and *Tryphon (Tryphon) abditus*.

Sibero-European chorotype (7 species) – *Cosmoconus (Cosmoconus) meridionator*, *Monoblastus brachyacanthus*, *Tryphon (Tryphon) relator*, *T. (T.) rutilator*, *T. (T.) signator*, *T. (T.) thomsoni* and *T. (T.) zavreli*.

Centralasiatic-European range (1 species) – *Ctenochira pratensis*.

Turano-European range (1 species) - *Tryphon (Tryphon) atriceps*.

European chorotype (1 species) - *Monoblastus marginalis*.

Caucasian chorotype (1 species) – *Tryphon (Tryphon) caucasicus*.

Ponto-Steppian chorotype (2 species) – *Aderaeon hamatum* and *Tryphon (Tryphon) talitzkii*.

Acknowledgements: The preparing of this article was supported from the Project Nr. 2010/51 and we are very thankful for it. We are indebted to Dr. E. Yıldırım, Dr. H. Özbek, Dr. C. Güçlü and Dr. Ö. Çalmaşur (Atatürk University-Erzurum, Turkey) for collecting some specimens.

References

- CORUH S., H. ÖZBEK 2008. A faunistic and systematic study on Pimplinae (Hymenoptera: Ichneumonidae) in Eastern and Northeastern parts of Turkey. – *Linzer biol. Beitr.*, **40** (1): 419-462.
- CORUH S., H. ÖZBEK and J. KOLAROV 2002. New and rare taxa of Ichneumonidae (Hymenoptera) from Turkey. – *Journal of the Entomological Research Society*, **4** (1): 1-4.
- CORUH S., J. KOLAROV 2010. Ichneumonidae (Hymenoptera) from Northeastern Turkey. I. – *Bulletin of the Natural History Museum*, **3**: 177-186.
- GÜRBÜZ M. F. 2005. A survey of the Ichneumonidae (Hymenoptera) of Isparta in Turkey. – *Linzer biol. Beitr.* **37** (2): 1809-1817.
- KASPARYAN D. R. 1973. Fauna of the USSR Hymenoptera Vol. III Number 1. Ichneumonidae (Subfamily Tryphoninae) Tribe Tryphonini. Nauka Publishers, Leningrad. [Translated from Russian. Amerind Publishing Co. Ltd., New Delhi, 1981. 414 p.]
- KASPARYAN D. R. 1981. A guide to the insects of the European part of the USSR. Hymenoptera, Ichneumonidae. *Opredeliteli Faune SSSR*. **3** (3): 1-688. (In Russian).
- KASPARYAN D. R. & V. I. TOLKANITZ 1999. Ichneumonidae subfamily Tryphoninae: tribes Sphinctini, Phytodietini, Oedemopsini, Tryphonini (Addendum), Idiogrammatini. Subfamilies Eucerotinae, Adelognathinae (addendum), Townesioninae. Fauna of Russia and Neighbouring Countries. Insecta Hymenoptera. Vol. III. N 3. Saint Petersburg. Nauka. 404 p.
- KOLAROV J. A. 1995. A catalogue of the Turkish Ichneumonidae (Hymenoptera). – *Entomofauna*. **16** (7): 137-188.
- KOLAROV J., M. YURTCAN & A. BEYARSLAN 1997a. New and rare Ichneumonidae (Hymenoptera) from Turkey. I. Pimplinae, Tryphoninae, Phygadeuontinae, Banchinae and Ctenopelmatinae. – *Acta Entomologica Bulgarica*. **3-4**: 10-12.
- KOLAROV, J. A. BEYARSLAN & M. YURTCAN 1997b. Ichneumonidae (Hymenoptera) from the Gokceada and Bozcaada Islands – Turkey. – *Acta Entomologica Bulgarica*. **3-4**: 13-15.
- KOLAROV J., H. ÖZBEK & E. YILDIRIM 1999. New distributional data of the Turkish Ichneumonidae (Hymenoptera). 1. Pimplinae and Tryphoninae. – *Journal of the Entomological Research Society*. **1** (2): 9-15.
- RIEDEL M., S. ÇORUH & H. ÖZBEK 2010. Contribution to the Ichneumoninae (Hymenoptera, Ichneumonidae) fauna of Turkey, with description of three new species. – *Türk. entomol. derg.*, 2010, **34** (2): 133-156.
- KOLAROV J., H. ÖZBEK & E. YILDIRIM 1999. New distributional data of the Turkish Ichneumonidae (Hymenoptera). 1. Pimplinae and Tryphoninae. *Journal of the – Entomological Research Society*. **1** (2): 9-15.
- KOLAROV J., M. YURTCAN & A. BEYARSLAN 2002. Ichneumonidae species of the Turkish Aegean region. In: MELIKA, GEORGE; THURÓCZY, CSABA (Eds). Parasitic wasps: evolution, systematics, biodiversity and biological control. International Symposium: 'Parasitic Hymenoptera: Taxonomy and Biological Control' (14-17 May 2001, Koszeg, Hungary). Agroinform Kiado & Nyomda Kft., Budapest. 2002: i-xx, 1-480. Chapter pagination: 299-305.
- KOLAROV J. & M. F. GÜRBÜZ 2004. A study of the Turkish Ichneumonidae (Hymenoptera) I. Pimplinae. – *Linzer biol. Beitr.* **36** (2): 841-845.
- RIEDEL M., S. ÇORUH & H. ÖZBEK 2010. Contribution to the Ichneumoninae (Hymenoptera, Ichneumonidae) fauna of Turkey, with description of three new species. – *Türk. entomol. derg.*, 2010, **34** (2): 133-156.
- TAGLIANTI A.V., P. A. AUDISIO, M. BIONDI, M. A. BOLOGNA, G. M. CARPANETO, A. DE BIASE, S. FATTORINI, E. PIATTELLA, R. SINDACO, A. VRNCHI & M. ZAPPAROLI 1999. A proposal for a chorotype classification of the Near East fauna, in the framework of the Western Palearctic region. – *Biogeographia*, **XX**: 31-59.
- YURTCAN M. & A. BEYARSLAN 2005. Polysphinctini and Pimplini (Hymenoptera: Ichneumonidae: Pimplinae) from the Thrace region of Turkey. – *Fragmenta Faunistica* (Warsaw). **48** (1): 63-72.
- YURTCAN M. & A. BEYARSLAN 2006. Six new Ichneumonidae species from Turkey with special reference to the rare species *Zabrachypus tenuiabdominalis* (UCHIDA, 1941) (Hymenoptera: Ichneumonidae). – *Entomol. News*, **117** (5): 540-544.

Received: 23.03.2011
Accepted: 16.12.2011