

Contributions to the Turkish Tachinidae (Diptera) Fauna

Kenan KARA^{1,*}, Sadi AKSU²

¹Gaziosmanpaşa University, Agriculture Faculty, Plant Protection Department, Tokat - TURKEY

²Osmangazi University, Faculty of Arts and Science, Biology Department, Eskişehir - TURKEY

Received: 22.03.2007

Abstract: Two tachinid species, *Leskia erevanica* Richter, 1974 and *Tachina grossa* (Linnaeus, 1758) (Diptera: Tachinidae), are recorded for the first time from Turkey.

Key Words: *Leskia erevanica*, *Tachina grossa*, Tachinidae, Diptera, Turkey

Türkiye Tachinidae (Diptera) Faunasına Katkılar

Özet: Tachinidae (Diptera) familyasına ait 2 tür, *Leskia erevanica* Richter, 1974 ve *Tachina grossa* (Linnaeus, 1758) (Diptera: Tachinidae) Türkiye'den ilk kez kaydedilmektedir.

Anahtar Sözcükler: *Leskia erevanica*, *Tachina grossa*, Tachinidae, Diptera, Türkiye

The Tachinidae is the largest family of Diptera (among the suborder Brachycera). This family includes approximately 10,000 species worldwide, of which about 1650 are found in the Palaearctic region (Herting and Dely-Draskowits, 1993). The larvae live as endoparasites in insects (Lepidoptera, Hymenoptera, Coleoptera, Heteroptera, Orthoptera, and a few others) (Tschorsnig and Bartak, 2001). Because of their role as natural enemies of pests in agricultural and forest ecosystems, some species of tachinids have been the focus of applied biological control studies (Greiner, 1988). Tachinidae is the one of the important families of entomophagous parasitoids. They are comparable to the parasitoid families of Hymenoptera and are the fourth important family after Aphelinidae, Encyrtidae, and Braconidae (Hym.), in descending order, in biological control (Greathead, 1986). Adult tachinids range from 2 mm to over 20 mm in length and vary widely in shapes and colour. They can be distinguished from other flies by their well developed subscutellum (postscutellum), and a row of setae on the meron (hypopleuron) (O'Hara, 2003).

The Tachinidae fauna of Turkey has been studied to a certain extent.

Before this study, approximately 196 Tachinidae species were known in Turkey (Öncüer, 1991; Kara, 2001; Tschorsnig and Kara, 2002; Efil and Kara, 2004; Sertkaya and Bayram, 2005; Kara et al., 2007). This number probably will increase in future. Detailed studies should be done on this family. This study was carried out in 2003. The material was collected by sweeping a net from weeds in the Eskişehir province of Turkey. Specimens were killed and pinned for identification. Identification were done using Mesnil (1944-1975), Tschorsnig and Herting (1994), and Tschorsnig and Richter (1998). Specimens were deposited at the Entomology Laboratory in Gaziosmanpaşa University, Agricultural Faculty, Plant Protection Department, Tokat, Turkey.

Subfamily: Tachininae

Tribe: Leskiini

Leskia erevanica Richter

*E-mail: kkara@gop.edu.tr

Material Examined: 1♂; 24/07/03; Balıkdami, Eskişehir; 41°16' N, 32°41' E.

Diagnosis: Abdomen brown-red to tip with a black central longitudinal stripe and without discal bristles; tergite 2 hollowed dorsally to the posterior edge and with 1 lateral seta; vibrissa at level of mouth edge; 1st and 2nd antennal segment yellow, 3rd antennal segment black-brown (except interior parts); dusting of parafrofrontalia grey-white; tegula and basicosta yellow; fore tibia with 2 hind bristles, middle tibia with 2 ad (antero dorsal), hind tibia with 4 pd (postero dorsal) bristles.

Distribution: Armenia (Herting, 1984).

Biology: Unknown.

Tribe: Tachinini

Tachina grossa (Linnaeus)

Material Examined: 1♂; 23.08.2003; Doğançay-Eskişehir; 40°37.8' N, 30°21.0' E.

Diagnosis: Yellow head; thorax with only the normal short black hairs; calypterae blackish; black undusted and large species 14 mm in length.

Distribution: Europe including Europe northwards to Ireland, Scotland, South Norway, middle Sweden and Leningrad; Transcaucasia: Kazakhstan, Kirgizia, South Siberia, Mongolia (Herting, 1984).

Biology: Tschorsnig and Herting (1994) stated that this species is found in thin woodland areas of heath during the end of June to early September and has 1 generation a year (in Southern Europe possibly 2 generations).

Hosts: *Macrothylacia rubi* L. and *Lasiocampa quercus* L. (Lasiocampidae). It was reared in a few other Lasiocampidae and Lymantriidae (Tschorsnig and Herting, 1994).

Acknowledgements

We are grateful to Dr. Joachim ZIEGLER (Humboldt Universität zu Berlin, Germany) for his valuable help in identifying of the species of the genus *Leskia*.

References

- Efil, L. and Kara, K. 2004. Tachinid parasitoids (Diptera:Tachinidae) of *Spodoptera exigua* (Lepidoptera: Noctuidae) in cotton fields in Diyarbakir, Turkey *Phytoparasitica* 34: 363-366.
- Greathead, D.J. 1986. Parasitoids in classical biological control. In: *Insect parasitoids* (eds: J. Waage and D. Greathead) Academic Press, London, pp. 289-318.
- Greiner, S. 1988. Applied Biological Control with Tachinid Flies (Diptera: Tachinidae). A review. *Anz. Schädlingskde. Pflanzenschutz, Umweltschutz* 61: 49-56.
- Herting, B. 1984. Catalogue of Palearctic Tachinidae (Diptera), Stuttg. Beitr. Naturk., No: 369, Stuttgart.
- Herting, B. and Dely-Draskowits, A. 1993. Family Tachinidae. In: *Catalogue of Palearctic Diptera. Anthomyiidae-Tachinidae* (eds: A. Soós and L. Papp), Mottó Printing Co. Ltd. Budapest, pp. 118-458.
- Kara, K. 2001. Additions to the fauna of Turkish Tachinidae (Insecta, Diptera). *Zoology in the Middle East* 23: 85-88.
- Kara, K., Gözüaçık, C. and Mart, C. 2007. Tachinid Parasitoids (Diptera: Tachinidae) of *Mythimna (Acantholeucania) loreyi* in the Southeast Anatolian Region of Turkey. *Phytoparasitica* 35: 136-139.
- Mesnil, L. 1944-1975. 64g. Larvaevorinae (Tachininae): In: *Die Fliegen der paläarktischen Region* (ed: E. Lindner), 10(1-3): 1-1435.
- O'Hara, J. E. 2003. General information about tachinid flies. Internet address: <http://www.nadsdiptera.org/Tach/Gen/tachintr.htm>.
- Öncüer, C. 1991. A Catalogue of the Parasitoids and Predators of Insect Pests of Turkey. Ege University, Agricultural Faculty Papers, İzmir, No: 505, pp. 354.
- Sertkaya, E. and Bayram, A. 2005. Parasitoid community of the Loreyi Leaf Worm *Mythimna (Acantholeucania) loreyi*: Novel host-parasitoid associations and their efficiency in the Eastern Mediterranean region of Turkey. *Phytoparasitica* 33: 441-449.
- Tschorsnig, H.P. and Herting, B. 1994. Die Raupenfliegen (Diptera: Tachinidae) Mitteleuropas: Bestimmungstabellen und Angaben zur Verbreitung und Ökologie der einzelnen Arten. Stuttg. Beitr. Naturk., Stuttgart, No: 506, pp. 170.
- Tschorsnig, H.P. and Richter, V.A. 1998. Family Tachinidae. In: *Contributions to a Manual of Palearctic Diptera* (eds: L. Papp and B. Darvas), Science Herald, Budapest, pp. 691-827.
- Tschorsnig, H.P. and Barták, M. 2001. Tachinidae. *Folia Fac. Sci. Nat. Univ. Masaryk. Brun., Biol.* 105: 497-505.
- Tschorsnig, H.P. and Kara, K. 2002. A new species of *Bithia* (Diptera: Tachinidae) from Turkey. *Stuttg. Beitr. Naturk.*, No: 644: 1-4.