

AN INVESTIGATION ON MILESIINAE FAUNA IN ESKİŞEHİR (DIPTERA: SYRPHIDAE)

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Abstract

In this study, subfamily Milesiinae (Syrphidae) was investigated in Eskişehir province of Turkey, during the period of 2004 and 2005. 12 species belonging to seven genus of subfamily Milesiinae were determined. Some drawings from the taxonomic body parts of the species were performed.

Keywords: Diptera, Syrphidae, Milesiinae, Fauna, Eskişehir, Turkey.

ESKİŞEHİR MILESIINAE FAUNASI ÜZERİNE BİR ARAŞTIRMA (DIPTERA: SYRPHIDAE)

Özet

Eskişehir ilinde yapılan bu çalışmada ile 2004 ve 2005 yıllarında Milesiinae altfamilyasına dahil yedi cinsine ait 12 tür tespit edilmiştir. Belirlenen türlerin bazı taksonomik vücut kısımlarının çizimleri verilmiştir.

Anahtar Kelimeler: Diptera, Syrphidae, Milesiinae, Fauna, Eskişehir, Türkiye.

1. INTRODUCTION

Syrphidae family is a large and diverse group of insects. The species of this family are distributed almost the all of the world. The adults feed on pollen and nectars of plants. They can inhabit various types of biotopes, including saline ecosystems. The larvae of many species are predators on aphids and other pests (1, 2, 3). Some species such as *Eristalis arbustorum*, *Eristalis tenax* and *Helophilus trivittatus* are known to migrate between short distances. It appears *Eristalinus sepulchralis*, *Eristalinus aeneus*, *Eristalis arbustorum*, *Eristalis similis*, *Eristalis tenax*, *Helophilus trivittatus*, *Myathropa florea* and *Syrpitta pipiens* hibernate at the adult stages (4, 5, 6).

Up to date from Turkey, approximately 176 species belonging to Milesiinae subfamily have been recorded by the following researchers, Bischof (7), Sack (8), Gade-

au De Kerville (9), Bodenheimer (10), Tuatay et. al. (11), Hurkmans (12, 13), Özgür (14, 15, 16), Claussen and Lucas (17), Peck (18), Hayat and Alaoğlu (19, 20), Aktaş and Sarıbyık (21), Sarıbyık (22), Hurkmans and Hayat (23), Claussen and Hayat (24, 25), Hayat (26), Hurkmans et. al., (27), Sarıbyık (28, 29, 30, 2, 31, 32, 33, 24, 35,36), Sarıbyık and Özgür (37), Özgür and Sarıbyık (38), Sarıbyık and Hasbenli (39, 40).

2. MATERIALS AND METHODS

The specimens were collected by the entomological net from 14 different localities of Eskişehir; Alpu (N 39° 46'-E 30° 57', 778 m), Beylikova (N 39° 42'-E 31° 12', 786 m), Bozdağ (N39° 55'-E 30° 35', 1050 m), Çukurhisar (N 39° 49'-E 30° 15', 825 m), İnönü (N 39° 49'-E 30° 10', 834 m), Meşelik (N 39° 44'-E 30° 29', 827 m), Mihalgazi (N 40° 02'-E 30° 35', 275 m), Mihallıççık (N 39° 52'-E 31° 30', 910 m), Musaözü (N 39° 43'-E 30° 20', 894 m), Muttalip (N 39° 50'-E 30° 32', 794 m), Sarıcakaya (N 42° 03'-E 30° 38', 270 m), Seyitgazi (N 39° 27'-E 30° 41', 925 m), Karabayırbağları (N 39° 45'-E 30° 28', 808 m) in 2004 and 2005.

The flies were killed and pinned. Drawings were performed from the taxonomic body parts of the adults specimens and the identifications of them were performed according to Sarıbyık (41, 5, 28). The species were listed alphabetically. Collected specimens are kept in the ZMESOGU (Zoological Museum of Eskişehir Osmangazi University, Eskişehir, Turkey).

Abbreviations: T.: Town, V.: Village.

3. RESULTS

In the present work, 12 species belonging to Milesiinae subfamily of Syrphidae were recorded for the first time for Eskişehir province.

1. *Eristalinus aeneus* (Scopoli, 1763)

Examined material: 8 males, 8 females in Eskişehir, Muttalip V., Alpu T. and Musaözü V. between 5 May-5 August 2004.

Distribution in Turkey: Ankara (11), Hatay, Adana, Mersin and Antalya (15), Anatolia (17), Kayseri, Kastamonu (21), Erciyes Mountain (41), Ilgaz and Işık Mountains (28), Tokat (1), Aksaray, Ankara and Konya, (2).

2. *Eristalis arbustorum* (Linnaeus, 1758)

Examined material: 25 males, 17 females in Eskişehir, Meşelik (centre), Çukurhisar V., Muttalip V., Musaözü V., Seyitgazi T., Alpu T., Sarıcakaya T., Beylikova T. between 4 April-13 August and 20 April 2005

Distribution in Turkey: Ankara (9, 11), Hatay, Adana, Mersin and Antalya (15), Anatolia (17), Erzurum (20), Kayseri, Kahramanmaraş, Kastamonu (21), Erciyes Mo-

untain (41), Ilgaz and Işık Mountains (28), Tokat (1) Aksaray, Ankara and Konya (2).

3. *Eristalinus sepulchralis* (Linnaeus, 1758)

Examined material: 3 males in Eskişehir, Meşelik (Centre), Alpu T., and Beylikova T. between 31 July-21 August 2004.

Distribution in Turkey: Ankara (9, 11), Hatay and Adana (15), Kayseri and Kastamonu (21), Erciyes Mountain (41), Ilgaz and Işık Mountains (28), Aksaray, Ankara and Konya (2).

4. *Eristalis similis* (Fallen, 1817)

Examined material: 60 males, 47 females in Eskişehir, Meşeli (centre), Karabarıbağları (centre), Çukurhisar V., Bozdağ T., İnönü T., Muttalip V., Alpu T., Musaözü V. and Beylikova T. between 9 April-10 October 2004 and between 20 April-29 May 2005.

Distribution in Turkey: Hatay, Adana, Mersin and Antalya (15), Anatolia (17), Kayseri (21), Erciyes Mountain (41), Ilgaz and Işık Mountains (28), Kastamonu and Ballıdağ (35).

5. *Eristalis tenax* (Linnaeus, 1758)

Examined material: 74 males, 12 females in Eskişehir, Meşelik (centre), Karabarıbağları (centre), Çukurhisar V., Bozdağ V., Alpu T., Musaözü V., Seyitgazi T. and Mihalgazi T. between 14 April – 14 August 2004 and 20 April 2005.

Distribution in Turkey: Erciyes Mountain (7, 41), İzmir (9), Ankara (11), Hatay, Adana, Mersin and Antalya (15), Anatolia (17), Turkey (18), Erzurum (20), Kayseri, Kahramanmaraş and Kastamonu (21), Ilgaz and Işık Mountains (28), Tokat (1); Aksaray, Ankara and Konya (2) Kastamonu and Ballıdağ (35).

6. *Helophilus trivittatus* (Fabricius, 1805)

Examined material: 1 male, 2 females in Eskişehir, Alpu T., between 03 August – 16 October 2004.

Distribution in Turkey: Ankara (9), Adana, and Antalya (15), Kayseri, (22), Erciyes Mountain (41), Ilgaz and Işık Mountains (28), Aksaray, Ankara, and Konya (2).

7. *Merodon avidus* (Rossi, 1790)

Examined material: 15 males, 4 females in Eskişehir, Meşelik (Centre), Çukurhisar V., Bozdağ T., İnönü T., between 22 May–13 Augusts 2004.

Distribution in Turkey: Erciyes Mountain (7,41), Asia Minor (8), Adana (14), Kayseri (21), Ilgaz and Işık Mountains (28), Aksaray, Ankara, Konya, Kayseri and Nigde (2).

8. *Merodon loewi* Van Der Goot, 1964

Examined material: 2 males in Eskişehir, Çukurhisar V., 5 May 2004.

Distribution in Turkey: Asia Minor (8), Kars (13), Kayseri (21), Erzurum (23), Erciyes Mountain (41), Ilgaz and Işık Mountains (28), Aksaray, Ankara (2), Kastamonu and Ballıdağ (35).

9. *Merodon nanus* Sack, 1931

Examined material: 3 males in Eskişehir, Çukurhisar V., 23 May 2004.

Distribution in Turkey: Mersin (14), Turkey (18), Kayseri (21), Erzurum (23), Erciyes Mountain (41), Ilgaz and Işık Mountains (28), Aksaray and Ankara (2).

10. *Myathropa florea* (Linnaeus, 1758)

Examined material: 4 male, 1 female in Eskişehir, Musaözü V., Mihalgazi T., between 5 August–14 August 2004.

Distribution in Turkey: Ankara (11), Hatay, Adana, and Antalya (15), Anatolia (17), Kayseri, Kastamonu and Kahramanmaraş (21), Ilgaz and Işık Mountains (28), Tokat (1).

11. *Syritta pipiens* (Linnaeus, 1758)

Examined material: 38 males, 26 females in Eskişehir Meşelik (centre), İnönü T., Çukurhisar V., Muttalip V., Alpu T., Musaözü V., Seyitgazi T., Sarıcakaya T., Mihalgazi T. and Beylikova T. between 27 May–21 August 2004 and 4 April 2005.

Distribution in Turkey: İzmir (18), Ankara (11), Hatay, Adana, Mersin and Antalya (16), Anatolia (17), Erzurum (20), Kayseri, Kahramanmaraş and Kastamonu (21), Erciyes Mountain (41), Ilgaz and Işık Mountains (28), Tokat (1), Aksaray, Ankara and Konya (2), Kastamonu and Ballıdağ (35).

12. *Volucella zonaria* (Poda, 1761)

Examined material: 1 male in Eskişehir, Meşelik 8 June 2005.

Distribution in Turkey: Erciyes Mountain (7; 41), Ankara (11), Adana, Mersin and Antalya (16), Anatolia (17), Erzurum (20), Kayseri (21), Ilgaz and Işık Mountains (28), Kastamonu and Ballıdağ (35).

4. ACKNOWLEDGEMENTS

We would like to thank Dr. Süleyman Sarıbyık from Education Faculty of Kastamonu University for giving precious information concerning the identification of specimens of Syrphidae.

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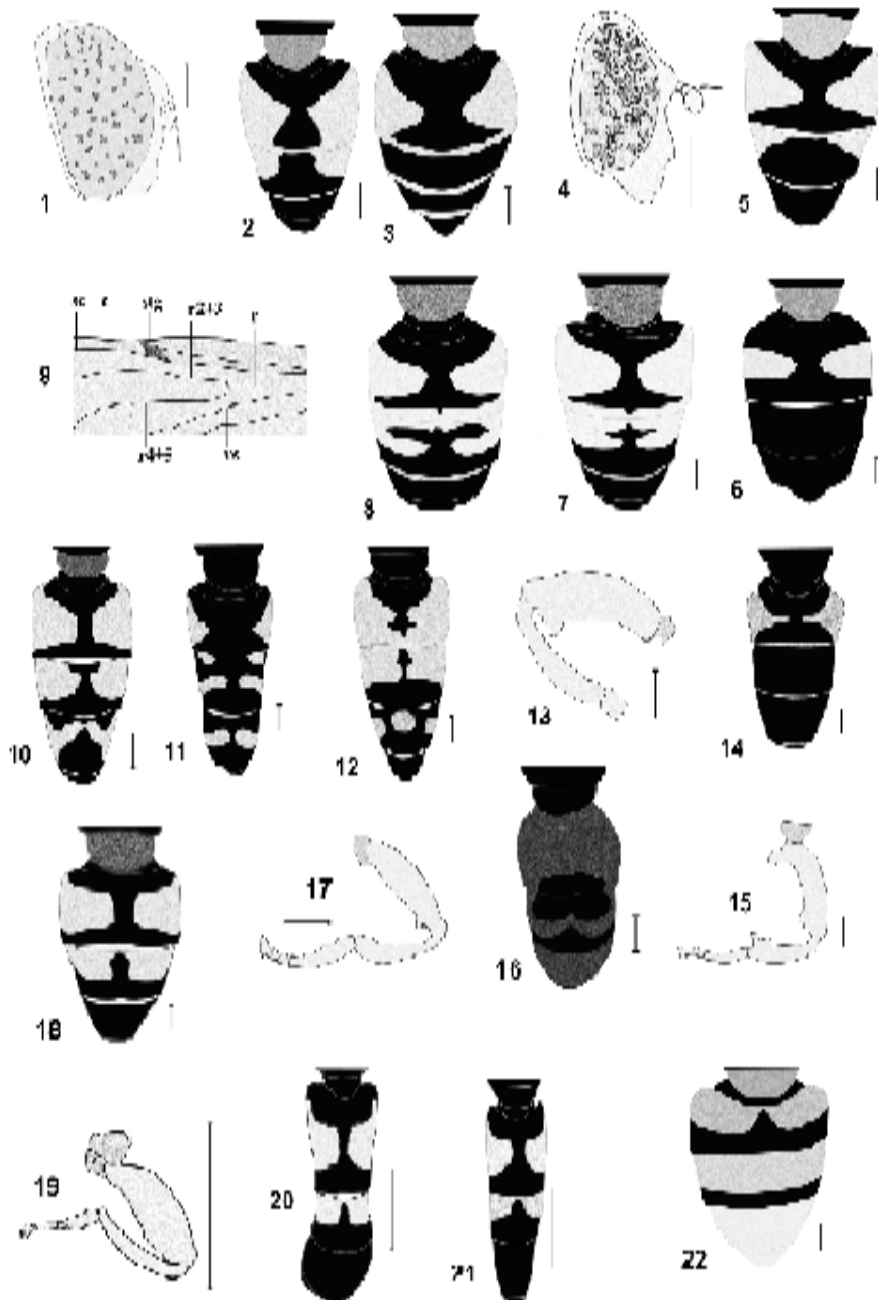


Figure: 1: *Eristalinus aeneus* 1-male head. 2-3: *Eristalis arbustorum* 2-male abdomen, 3-female abdomen. 4: *Eristalinus sepulchralis* 4-male head. 5-6: *Eristalis similis* 5-male abdomen, 6-female abdomen. 7-9: *Eristalis tenax* 7-male abdomen, 8-female abdomen, 9-left wing stigma.10: *Helophilus trivittatus* 10-male abdomen, 11-13: *Merodon avidus* 11-male abdomen, 12-female abdomen, 13-male 3th leg. 14-15: *Merodon loewi* 1964, 14-male abdomen, 15-male 3th leg. 16-17: *Merodon nanus* 16-male abdomen, 17- male 3th leg. 18: *Myathropa florea* 18-male abdomen, 19-21: *Syrirta pipiens* 19- male 3th leg, 20-male abdomen, 21-female abdomen.22. *Vollucella zonaria* 22-male abdomen (scale 1mm).