

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

Murat ÖZKAN, Hakan ÇALIŞKAN

*Eskişehir Osmangazi University, Faculty of Science and Art, Department of Biology,
Eskişehir, Turkey.*

Abstract

This study was carried out to determine subfamily Syrphinae (Diptera: Syrphidae) in Eskişehir Province, during 2004 and 2005. As a result, 14 species belonging to Syrphinae subfamily were determined. Some drawings from the taxonomic body parts of the species were performed.

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

ESKİŞEHİR SYRPHINAE FAUNASI ÜZERİNE BİR ARAŞTIRMA (Diptera: Syrphidae)

Özet

Bu çalışma 2004 ve 2005 yıllarında Syrphinae (Diptera: Syrphidae) alt familyasını tespit etmek için yapılmıştır. Sonuç olarak Syrphinae altfamilyasına ait 14 tür tespit edilmiştir. Ergin sineklerin taksonomik vücut kısımlarının çizimleri verilmiştir.

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

1. Introduction

Syrphids are important members of terrestrial ecosystems. Because of their yellow or orange patterns on abdomen. many of them can seem as to bees or wasps. The species of this family are abundant everywhere except in arid areas, subantarktic islands and Antarctic. They are known as pollinators due to feeding on nectar and pollen. Their maggots are important predators of pests. The family Syrphidae contains more than 6,000 described species (1)

Up to date from Turkey, approximately 150 species belonging to Syrphiane subfamily have been recorded by the following researchers, Bischof (2), Sack (3), Gadeau De Kerville (4), Bodenheimer (5), Tuatay et. al. (6), Atak (7), Soydanbay and Tunçyürek (8), Soylu and Ürer (9), Düzgüneş et al. (10), Erkin (11), Zeren and Düzgü-

neş (12), Hurkmans (13, 14), Özgür (15, 16, 17), Claussen and Lucas (18), Peck (19), Hayat and Alaoğlu (20 and 21), Aktaş and Sarıbiyık (22), Sarıbiyık (23), Hurkmans and Hayat (24), Claussen and Hayat (25, 26), Hayat (27), Hurkmans et. al., (28), Sarıbiyık (29, 30, 31, 32, 33), Sarıbiyık and Özgür (34), Özgür and Sarıbiyık (35), Sarıbiyık and Hasbenli (36, 37), Hayat and Bayrak (38), Sarıbiyık (39, 40, 41, 42), Candemir and Kara (43), Aslan and Uygun (44).

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 - 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 Sarıbiyık (23, 45, 29). 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, Abd.: Abdomen.

3. Results

In the present work, 14 species belonging to Syrphinae subfamily of Syrphidae were recorded for the first time for Eskişehir province.

1. *Chrysotoxum intermedium* Meigen, 1822 (Fig. 1-2)

Examined material: 6 males, 1 female in Eskişehir, Mihallıççık T., Meşelik (Centre), 22 August 2004 and 20 April 2005.

Distribution in Turkey: Erciyes Dağı (2), Küçük Asya (3), İzmir (4), Hatay, Adana, Mersin and Antalya (17), Anadolu (18), Kayseri and Kastamonu (22), Erciyes Dağı (23), Ilgaz and Işık Dağları, (45), Kahramanmaraş (33), Tokat (43), Aksaray, Konya and Niğde (32).

2. *Dasysyrphus albostratus* (Fallen, 1817) (Fig. 3)

Examined material: 10 males in Eskişehir, Meşelik (centre), between 20 April-10 October 2004.

Distribution in Turkey: Anadolu (18), Kastamonu (36), Ilgaz and Işık Dağları (45), Ballıdağ (41).

3. *Episyrphus balteatus* (De Geer, 1776) (Fig. 4-5)

Examined material: 66 male, 10 females in Eskişehir, Karabayırbağları (centre), Meşelik (centre), İnönü T., Çukurhisar V., Bozdağ V., Seyitgazi T., Mihalgazi T. between 14 April–20 October 2004 and 20 April–29 May 2004.

Distribution in Turkey: İzmir (4), Adana and Ankara (6), Marmara Bölgesi (7), İzmir (8), Güney Anadolu (9), Ankara (10), İzmir (11), Çukurova (12), Hatay, Adana, Ankara and Antalya (15), Anadolu (18), Erzurum (20), Kayseri, Kahramanmaraş and Kastamonu (22) Erciyes Dağı (23), Ilgaz and Işık Dağları (45), Bartın, Bolu, Karabük, Sinop and Zonguldak (29), Artvin, Erzincan, Ordu, Niğde and Şanlıurfa (38), Ballıdağ (41), Tokat (43), Aksaray and Konya (32).

4. *Eupeodes corollae* (Fabricius, 1794) (Fig. 8-9)

Examined material: 21 male, 20 female in Eskişehir, Meşelik (centre), Çukurhisar V., Alpu T., Mihalgazi T., Beylikova V., Bozan V. /Alpu T., and Mihalıççık T., between 20 April–16 October 2004 and 20 April–29 May 2005.

Distribution in Turkey: Küçük Asya (3), İzmir (4), Ankara (6), Marmara Bölgesi (7), İzmir (8), Ankara (10), İzmir (11), Çukurova (12), Hatay, Adana, Mersin and Antalya (15), Anadolu (18), Erzurum (20), Kayseri, Kahramanmaraş and Kastamonu (22), Erciyes Dağı (23), Ilgaz and Işık Dağları (29), Tokat (43), Aksaray and Konya, (32), Adıyaman, Diyarbakır, İçel, İskenderun, Kırıkkale, Mardin, Niğde, Osmaniye and Siirt (44).

5. *Melanostoma mellinum* (Linnaeus, 1758) (Fig. 6)

Examined material: 1 female in Eskişehir, Meşelik (Centre), 20 April, 2005.

Distribution in Turkey: Çukurova (12), Hatay, Adana, Mersin and Antalya (16), Anadolu (18), Erzurum (20), Kayseri and Kahramanmaraş (22), Erciyes Dağı (23), Ilgaz and Işık Dağları (45), Bolu, Kastamonu, Sinop and Zonguldak (29), Aksaray, Ankara and Konya (32), Tokat (43), İçel, Şanlıurfa and Diyarbakır (44), Artvin, Erzincan, Iğdır and Kars (38), Ballıdağ (41).

6. *Meliscaeva auricollis* (Meigen, 1822) (Fig. 7)

Examined material: 4 males in Eskişehir, Meşelik (Centre), 9 May–21 May 2004.

Distribution in Turkey: Adana (6), İzmir (11), Çukurova (12), Hatay, Adana, Mersin ve Antalya (15), Anadolu (18), Kayseri (22), Erciyes Dağı (23), Ilgaz ve Işık Dağları (45), Kahramanmaraş (33), Ankara (32), İçel, Niğde, Şanlıurfa and Diyarbakır, (43), Ballıdağ (41).

7. *Paragus quadrifasciatus* (Meigen, 1822) (Fig. 10)

Examined material: 1 male in Eskisehir, Mihalgazi T., 14 August 2004.

Distribution in Turkey: Ankara (4), İzmir (46), Anadolu (18), Ilgaz and Işık Dağları (45), Tokat (43), Konya (32), Kahramanmaraş (45).

8. *Platycheirus ambiguus* (Fallen, 1817) (Fig. 11)

Examined material: 7 males in Eskişehir, Karabayırbağları (centre), Meşelik (centre), between 14 April–20 April 2004.

Distribution in Turkey: Ilgaz ve Işık Dağları (45), Kastamonu, Konya (39).

9. *Scaeva pyrastris* (Linnaeus, 1758) (Fig. 12-13)

Examined material: 6 male 4 female in Eskişehir, Meşelik (centre), Alpu T., Mihaliçcik T., between 3 August–16 October 2004.

Distribution in Turkey: İzmir (4), Adana and Ankara (6), Marmara Bölgesi (7), İzmir (8), Adana (9), Ankara (10), İzmir (11), Çukurova (12), Hatay, Adana, Mersin and Antalya (15), Anadolu (18), Erzurum (20), Kayseri and Kastamonu (22), Erciyes Dağı (23), Ilgaz and Işık Dağları (45), Bartın, Bolu, Karabük, Kastamonu, Sinop and Zonguldak (29), Tokat (43), Kahramanmaraş (33), Ballıdağ (41).

10. *Scaeva selenitica* (Meigen, 1822) (Fig 14-15)

Examined material: 3 male in Eskişehir, Meşelik (centre), Mihaliçcik T., 22 August–20 October 2004.

Distribution in Turkey: Küçük Asya (3), İzmir (4,11), Ankara (10), Akdeniz Bölgesi (15), Ilgaz ve Işık Dağları (45), Tokat (43), Kahramanmaraş, İçel, Şanlıurfa and Diyarbakır (44), Ballıdağ (41).

11. *Sphaerophoria scripta* (Linnaeus, 1758) (Fig. 16-18).

Examined material: 37 male 29 female in Eskişehir, Meşelik (centre), Beylikova T., Çukurhisar V., İnönü T., Mihalgazi T., Mihaliçcik T., Musaözüz V., Muttalip V., Seyitgazi T., and Sarıcakaya T., 20 – 22 October 2004.

Distribution in Turkey: Erciyes Dağı (2), Küçük Asya (3), Ankara and İzmir (4), Marmara Bölgesi (7), Çukurova (12), Hatay, Adana, Mersin and Antalya (15), Anadolu (18), Kayseri, Kahramanmaraş and Kastamonu (22), Erciyes Dağı (23), Ilgaz and Işık Dağları (45), Bartın, Bolu, Karabük, Sinop and Zonguldak (29), Tokat (43), Aksaray (41), Diyarbakır, İçel, Kırklareli, Konya, Şanlıurfa and Tekirdağ (44), Artvin, Ordu, Çankırı, Niğde and Çukurova (38), Ballıdağ (41).

12. *Spazigaster ambulans* (Fabricius, 1798) (Fig. 19-21).

Examined material: 2 males, 2 females in Eskişehir, Mihaliççık T., 22 August 2004.

Distribution in Turkey: Erzurum (20), Kayseri (22), Erciyes Dağı (23), Ilgaz and Işık Dağları (45), Kahramanmaraş (33), Aksaray (32), Ballıdağ (41).

13. *Syrphus vitripennis* Meigen, 1822 (Fig. 22-23)

Examined material: 21 male 24 female in Eskişehir, Karabayırbağları (Centre), Meşelik (Centre), Mihaliççık T., between 14 April–20 October and 20 April 2005.

Distribution in Turkey: Ankara (10), İzmir (7), Adana, Mersin (15), Anadolu (18), Ilgaz and Işık Dağları (45), Kahramanmaraş (33), Kayseri (32), Ballıdağ (41)

14. *Xanthogramma pedissequum* (Harris, 1776) (Fig.24-25)

Examined material: 10 male 4 female in Eskişehir, Alpu T., Musaözü T., Mihaliççık T., İnönü T., between 29 May–22 August 2004.

Distribution in Turkey: Mersin (15), Kayseri (22), Ilgaz and Işık Dağları (45), Aksaray, Ankara (33), Ballıdağ (41).

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4. References

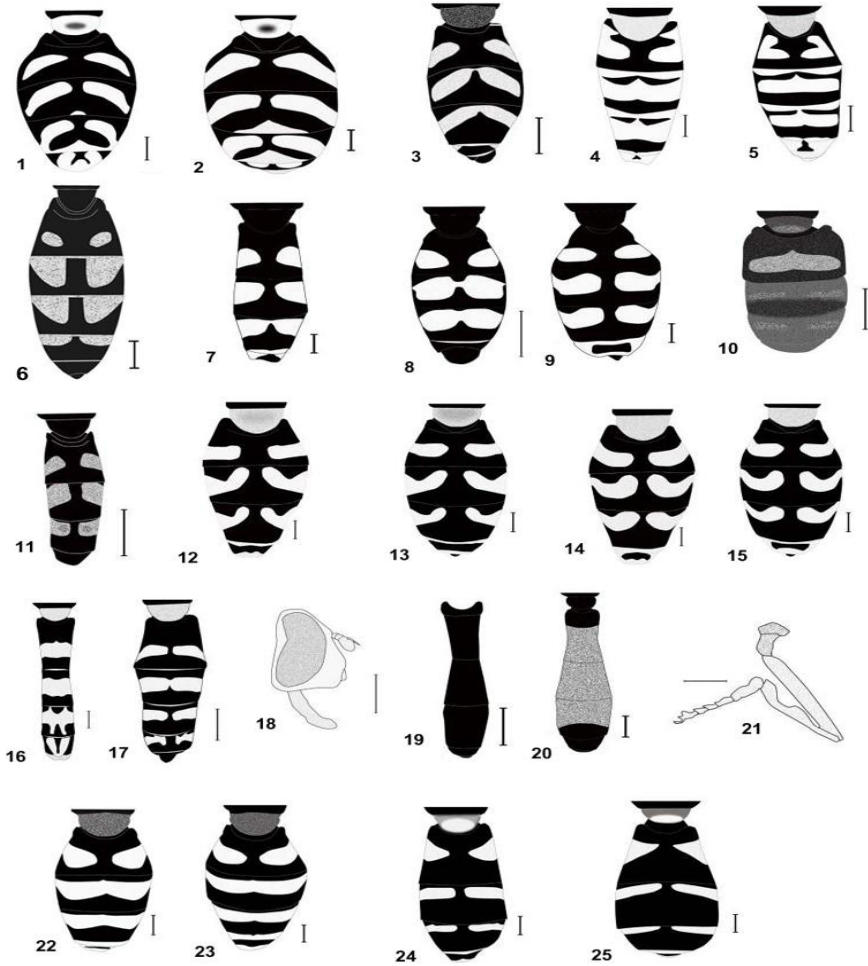
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Şekil 1-2 *Chrysotoxum intermedium* 1: male abdomen, 2: female abdomen; 3: *Dasyrphus salbostriatus* 3: female abd.; 4-5: *Episyrrhus balteatus* 4- male abd., 5- female abd.; 6: *Melanostonum mellinum* 6- female abd.; 7: *Melisaeva auricollis* 7- male abd.; 8-9: *Eupeodes corollae* 8- male abd., 9- female abd.; 10: *Paragus quadrifasciatus* 10- male abd.; 11: *Platycheirus ambiguus* 11- male abd.; 12-13: *Scaeva pyrastris* 12- male abd., 13- female abd.; 14-15: *Scaeva selenitica* 14- male abd., 15- female abd.; 16-18: *Sphaerophoria scripta* 16- male abd., 17- female abd. 18- female head right side; 19-21: *Spazigaster ambulans* 19: male abd., 20- female abd., 21- male 3. leg; 22-23: *Syrphus vitripennis* 22- male abd., 23- female abd., 24-25: *Xanthogramma pedisequum* 24- male abd., 25- female abd., (scale 1 mm).