The family Conopidae (Diptera) in Egypt and Saudi Arabia

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Abstract

Background

The present study is one in a series of planned studies aiming to catalogue the whole order Diptera in both Egypt and Saudi Arabia.

New information

All known Egyptian and Saudi Arabian conopid taxa are systematically catalogued in the present study. Three species are recorded herein for the first time from Saudi Arabia: Conops (Asiconops) elegans Meigen, 1804 and Thecophora atra (Fabricius, 1775) (Al-Baha region, south-western of Saudi Arabia), and Conops (Conops) quadrifasciatus De Geer, 1776 (Tabuk region, north-western of Saudi Arabia). Physoscephala variegata (Meigen, 1924) is also recorded for the first time from Gebel Elba, the south-eastern triangle of Egypt. Considering that Gebel Elba in Egypt and Al-Baha in Saudi Arabia are affiliated to the Afrotropical Region, this is the first time Physoscephala variegata and Thecophora atra have been recorded from the Afrotropical Region. An updated taxonomy,
world and local distributions, dates of collection and some coloured photographs are provided.

**Keywords**

thick-headed flies, local distribution, dates of collection, new records

**Introduction**

The Conopidae, commonly known as thick-headed flies, are an interesting brachycerous family of usually large-sized wasp-like flies. Many conopids are most frequently found at flowers feeding on nectar using their long proboscis and considered as important pollinators. The majority of conopid larvae are obligatory endoparasitoids of adult Hymenoptera, such as bees and wasps. Adult conopid females aggressively intercept their hymenopterous hosts in the field to deposit their eggs (Freeman (1966), Gibson and Skevington (2013), Pape et al. (2011), Stuke (2017), Azmy et al. (2016)). The family Conopidae is represented by 808 valid species assigned to 57 genera worldwide (Stuke 2017). Conopids are found in all parts of the world, except Antarctica and the Pacific Islands (Gibson et al. 2013).

Egypt and Saudi Arabia are two neighbouring Middle Eastern countries, separated by the Gulf of Aqaba and the Red Sea (Fig. 1). Both countries are located at the junction of the Palaearctic and the Afrotropical Regions and the faunal affiliation of them is mainly Palaearctic, except Gebel Elba, the south-eastern triangle of Egypt and the south-western part of Saudi Arabia, south to the Tropic of Cancer, which are considered as Afrotropical (Hölzel 1998, Wallace 1876, El-Hawagry and Gilbert 2014, El-Hawagry et al. 2020).

Some previous studies have been carried out in Egypt on the taxonomy and faunistics of the family Conopidae, including Kröber (1924), Kröber (1925), Kröber (1927), Kröber (1929), Steyskal and El-Bialy (1967), Mohammed and Negm (1991), Azmy (2016) and Azmy et al. (2016), in addition to some miscellaneous studies which described some new species from Egypt as Kröber (1915a), Wiedemann (1830), Macquart (1835) and Rondani (1850). On the other hand, no previous faunistic or taxonomic studies on the family Conopidae have been carried out before in Saudi Arabia and only a few species have been described or recorded there amid some miscellaneous studies, such as Macquart (1851), Kröber (1915a), Zimina (1963), Walker and Pittaway (1987), Abu-Zoherah et al. (1993), Stuke and Clements (2008), El-Hawagry et al. (2016) and El-Hawagry et al. (2017).

The abundance and diversity of conopid species in both Egypt and Saudi Arabia seem to be low (17 species in Egypt and 12 species in Saudi Arabia) comparable with the total number of species known from the Palaearctic Region (173 species) and from the Afrotropical Region (187 species) (Stuke 2017). However, this should be taken with caution, since the family Conopidae seems to lack sampling efforts, especially in Saudi Arabia. This is most likely due to the fact that documentation of biological diversity in Saudi
Arabia began in the second half of the 1960s and no systematic studies on the Conopidae have been previously conducted in this country. We think that the faunistic data of these flies in Egypt and Saudi Arabia is still scanty and more efforts would be highly required.

The taxonomy of Conopidae in both Egypt and Saudi Arabia is updated in the present study. Twenty species assigned to five genera and three subfamilies (Conopinae, Myopinae and Zodioninae) are treated (Table 1). Three species, Conops (Asiconops) elegans Meigen, 1804, Conops (Conops) quadrifasciatus De Geer, 1776 and Thecophora atra (Fabricius, 1775), are recorded for the first time from Saudi Arabia.

Table 1.
Conopid species treated in the present study as recorded from Egypt and Saudi Arabia (* = recorded, - = not recorded).

| Species                           | Egypt | Saudi Arabia   |
|-----------------------------------|-------|----------------|
| **Subfamily CONOPINAE**           |       |                |
| **Tribe CONOPINI**                |       |                |
| *Conops (Asiconops) elegans* Meigen, 1804 | *     | * (new record) |
| *Conops (Asiconops) flavifrons* Meigen, 1804 | *     | -              |
| *Conops (Asiconops) nubeculipennis* Bezzi, 1901 | *     | *              |
| *Conops (Conops) flavicauda* (Bigot, 1880) | *     | -              |
| *Conops (Conops) quadrifasciatus* De Geer, 1776 | -     | * (new record) |
Physcocephala variegata (Meigen) is recorded for the first time from Gebel Elba, the south-eastern triangle of Egypt and Thecophora atra (Fabricius) is recorded for the first time from the south-western part of Saudi Arabia. Considering that Gebel Elba in Egypt and the south-western part in Saudi Arabia including Al-Baha Region are affiliated to the Afrotropical Region, this is the first time that these two species from the Afrotropical Region have been recorded.

Walker (1871) described Conops auratus from "Hor Tamanib" which belonged to Egypt at the time of description; however, it lies now in Sudan. Steyskal and El-Bialy (1967) inaccurately listed this species as an Egyptian species, based mainly on the misleading type locality. Thus, this species is excluded from the Egyptian list in the present study.

This study is one in a series of taxonomic studies on different Egyptian and Saudi Arabian dipteran taxa aiming to catalogue the whole order Diptera in the two countries.
Materials and methods

Data sources. Data of the present study are obtained from three main sources: 1. Specimens preserved in the Egyptian and Saudi Arabian insect collections and museums, namely: Efflatoun Bey’s collection, Cairo University, Egypt (EFC); Collection of Entomological Society of Egypt (ESEC); King Saud University Museum of Arthropods, Saudi Arabia (KSMA) and Personal collection M. El-Hawagry (MSHC). 2. Material collected by the authors and their co-workers. 3. Previous studies on the Egyptian and Saudi Arabian Conopidae. The majority of specimens preserved in EFC and ESEC were determined by Dr. Otto Kröber. However, all identifications have been rechecked by the first author using Kröber (1927), Stuke and Clements (2008), Azmy (2016) and Azmy et al. (2016). Photos of Thecophora atra have been checked by Dr. Jens-Hermann Stuke (personal communication).

Study area. Ecologists divide Egypt into eight ecological zones: the Coastal Strip (= Mediterranean Coastal Strip), Lower Nile Valley and Delta, Upper Nile Valley, Fayoum, Eastern Desert, Western Desert, Sinai and Gebel Elba (El-Hawagry and Gilbert 2014). These ecological zones are used in the present study in the sections of local distribution. However, Saudi Arabia is not divided into ecological zones by ecologists, so the administrative divisions (also called regions, provinces or emirates) are used instead, namely: Makkah, Riyadh, Eastern Province, Asir, Jazan, Al-Madinah, Al-Qaseem, Tabuk, Hail, Najran, Al-Jawf, Al-Baha and Northern Frontier (Fig. 1) (El-Hawagry et al. 2020).

Classification. The classification and nomenclature in the present study basically follows that used in Stuke (2017), in addition to the tribal arrangement suggested by Gibson and Skevington (2013). Full lists of synonyms for genera and species are not given in the present study as they are already listed in world and regional catalogues; however, we listed only the synonyms of species that have been mentioned in previous Egyptian and Saudi Arabian literature.

World distribution. Stuke (2017) has collected all sources of world distribution of species and it is used here as our basic source. The additional sources, if any, are given between parentheses after each record.

Local distribution and dates of collection. Localities within each Egyptian ecological zone or each Saudi Arabian administrative region are arranged alphabetically and written after a colon following each zone or region, followed by the dates of collection between parentheses. Sources for the local distribution of each species in each country are given between square brackets at the end of the section. Coordinates of Egyptian and Saudi Arabian localities of the family Conopidae are listed (Table 2). Local distribution maps of species based on all available records are given, using SimpleMappr (Shorthouse 2010).
Abbreviations used:

- **AF**, Afrotropical.
- **EFC**, Efflatoun Bey’s collection, Department of Entomology, Faculty of Science, Cairo University, Egypt.
- **ESEC**, Collection of Entomological Society of Egypt, Cairo, Egypt.
- **KSMA**, King Saud University Museum of Arthropods, Riyadh, Saudi Arabia.
- **MSHC**, Personal collection M. El-Hawagry.
- **OR**, Oriental.
- **PA**, Palearctic.

Table 2.
A gazetteer of some Egyptian and Saudi Arabian localities of the family Conopidae.

| Country        | Locality  | Governorate | Ecological zone or Region | Latitude (N) / Longitude (E) |
|----------------|-----------|-------------|---------------------------|------------------------------|
| Egypt          | Abu-Kir   | Alexandria  | Coastal Strip             | 31.22429, 29.94664          |
|                | Abu-Rawash| Giza        | Lower Nile Valley and Delta| 30.0438, 31.0929            |
|                | Abu-Sueir | Ismailia    | Eastern Desert            | 30.5766, 32.1076            |
|                | Amria     | Alexandria  | Coastal Strip             | 31.0037, 29.7983            |
|                | Ashmoun   | Menofiya    | Lower Nile Valley and Delta| 30.29414, 30.96941         |
|                | Aswan, south | Aswan     | Upper Nile Valley         | 22.6651, 31.7943            |
|                | Balteem   | Kafr Al-Sheikh | Coastal Strip             | 31.53811, 31.19606         |
|                | Barrage   | Qalyoubia   | Lower Nile Valley and Delta| 30.1835, 31.1107           |
|                | Behig     | Alexandria  | Coastal Strip             | 30.931, 29.5988             |
|                | Burg      | Alexandria  | Coastal Strip             | 30.9081, 29.5464           |
|                | Burgash   | Giza        | Lower Nile Valley and Delta| 30.1636, 31.0379           |
|                | Cairo     | Cairo       | Lower Nile Valley and Delta| 30.0861, 31.2856           |
|                | Cairo-Suez Road | Cairo  | Eastern Desert            | 30.0849, 32.0542           |
|                | Dahshour  | Giza        | Lower Nile Valley and Delta| 29.7539, 31.2431           |
|                | Dakhla    | New Valley  | Western Desert            | 25.5, 29.1667              |
| Country       | Locality    | Governorate | Ecological zone or Region        | Latitude (N) / Longitude (E) |
|--------------|-------------|-------------|----------------------------------|-----------------------------|
| Dekhela      | Alexandria  | Coastal Strip |                                 | 31.12098, 29.81563         |
| Edfina       | Al-Behaira  | Lower Nile Valley and Delta |                           | 31.2922, 30.51599         |
| Ein Gedeirat | North Sinai | Sinai        |                                 | 30.65, 34.4333            |
| Ein Moussa   | South Sinai | Sinai        |                                 | 29.8667, 32.65            |
| El-Arish     | North Sinai | Sinai        |                                 | 31.1442, 33.8056          |
| El-Gebel El-Asfar | Qalyoubia | Lower Nile Valley and Delta |                           | 30.201416, 31.356162      |
| El-Katta     | Giza        | Lower Nile Valley and Delta |                           | 30.2191, 30.9678          |
| El-Magadlah  | Giza        | Lower Nile Valley and Delta |                           | 30.03986, 31.1046         |
| El-Mallah East | Cairo    | Eastern Desert |                                 | 30.8167, 32.1            |
| El-Wasfia    | Ismailia    | Eastern Desert |                                 | 30.58076, 32.17235       |
| Esna         | Qena        | Upper Nile Valley |                                 | 25.2919, 32.5532         |
| Ezbat Nakhl  | Qalyoubia   | Lower Nile Valley and Delta |                           | 31.1111, 32.1625         |
| Fayed        | Ismailia    | Eastern Desert |                                 | 30.32382, 32.30079       |
| Fayoum       | Fayoum      | Fayoum       |                                 | 29.32061, 30.818         |
| Gebel Elba   | Red Sea     | Gebel Elba   |                                 | 22.2008, 36.3331         |
| Geneifa      | Suez        | Eastern Desert |                                 | 30.1516, 32.429          |
| Gezira       | Cairo       | Lower Nile Valley and Delta |                           | 30.04596, 31.22435       |
| Girza        | Fayoum      | Fayoum       |                                 | 29.49968, 31.0738        |
| Giza         | Giza        | Lower Nile Valley and Delta |                           | 30.0135, 31.21127        |
| Halaib       | Red Sea     | Eastern Desert |                                 | 22.2203, 36.6427         |
| Hawamdia     | Giza        | Lower Nile Valley and Delta |                           | 29.9092, 31.2615         |
| Helwan       | Cairo       | Lower Nile Valley and Delta |                           | 29.85, 31.3333           |
| Ismailia     | Ismailia    | Eastern Desert |                                 | 30.59428, 32.26026       |
| Country      | Locality | Governorate | Ecological zone or Region | Latitude (N) / Longitude (E) |
|-------------|----------|-------------|----------------------------|-----------------------------|
| Kafr Ghatati | Giza     | Lower Nile Valley and Delta | 30.00415, 31.12157          |
| Kafr Hakim  | Giza     | Lower Nile Valley and Delta | 30.0808, 31.1164            |
| Kerdassa    | Giza     | Lower Nile Valley and Delta | 30.0297, 31.1061            |
| Kom Ombo    | Aswan    | Upper Nile Valley            | 24.4761, 32.9483            |
| Kom Osheem  | Fayoum   | Fayoum                  | 29.5564, 30.8669            |
| Kubba       | Cairo    | Lower Nile Valley and Delta | 30.0876, 31.2854            |
| Maadi       | Cairo    | Lower Nile Valley and Delta | 29.95772, 31.25054          |
| Madinet El-Sadat | Menofiya | Western Desert         | 30.35108, 30.51109          |
| Madinet Badr | Cairo   | Lower Nile Valley and Delta | 30.153, 31.7103             |
| Mansouriah  | Giza     | Lower Nile Valley and Delta | 30.1236, 31.0725            |
| Mariout     | Alexandria | Coastal Strip       | 31.0172, 29.76              |
| Mazghouna   | Giza     | Lower Nile Valley and Delta | 29.7457, 31.2633            |
| Mersa Matrouh | Matrouh | Coastal Strip       | 29.5696, 26.4194            |
| Orman       | Giza     | Lower Nile Valley and Delta | 30.02912, 31.21271          |
| Pyramids    | Giza     | Lower Nile Valley and Delta | 29.9816, 31.1337            |
| Rafah       | North Sinai | Sinai              | 31.2667, 34.2333            |
| Salloum     | Matrouh  | Coastal Strip       | 31.5888, 25.1026            |
| Saqqara     | Giza     | Lower Nile Valley and Delta | 29.84955, 31.21641          |
| Sennouris   | Fayoum   | Fayoum              | 29.40662, 30.86602          |
| Sentris     | Menofiya | Lower Nile Valley and Delta | 30.31122, 31.0577          |
| Siwa Oasis  | Matrouh  | Western Desert      | 29.20427, 25.51928          |
| Country     | Locality      | Governorate | Ecological zone or Region | Latitude (N) / Longitude (E) |
|-------------|---------------|-------------|---------------------------|------------------------------|
| Suez        | Suez          | Eastern Desert |                            | 29.95278, 32.56582          |
| Tamiya      | Fayoum        | Fayoum      |                            | 29.475479, 30.95228         |
| Turah       | Cairo         | Lower Nile Valley and Delta |      | 29.9467, 31.2728           |
| W. Asal     | Red Sea       | Eastern Desert |                            | 25.9497, 34.383             |
| W. Dar El-Maskhara | Cairo | Eastern Desert |                            | 29.7833, 31.4167           |
| W. Digla    | Cairo         | Eastern Desert |                            | 29.9578, 31.3348           |
| W. El-Arbaein | South Sinai  | Sinai       |                            | 28.5469, 33.953             |
| W. El-Daiqa | North Sinai   | Sinai       |                            | 30.8278, 34.1401           |
| W. El-Lega  | South Sinai   | Sinai       |                            | 28.5469, 33.953             |
| W. El-Natroun | Al-Behaira  | Western Desert |                          | 30.3814, 30.3441           |
| W. El-Rahba | South Sinai   | Sinai       |                            | 28.82, 33.6419              |
| W. Firan    | South Sinai   | Sinai       |                            | 28.7092, 33.3222           |
| W. Garawi   | Cairo         | Eastern Desert |                            | 29.7833, 31.3167           |
| W. Gedeirat | North Sinai   | Sinai       |                            | 30.6511, 34.4321           |
| W. Gharagid | Cairo         | Eastern Desert |                            | 28.955, 31.4822            |
| W. Hoff     | Cairo         | Eastern Desert |                            | 29.8821, 31.311            |
| W. Ibib     | Red Sea       | Gebel Elba  |                            | 22.83333, 35.76667         |
| W. Isla     | South Sinai   | Sinai       |                            | 28.201, 34.244             |
| W. Morrah   | Cairo         | Eastern Desert |                            | 22.35, 33.75               |
| W. Rishrash | Giza          | Eastern Desert |                            | 29.4642, 31.3672           |
| W. Um Elek  | Cairo         | Eastern Desert |                            | 29.8833, 31.5167           |
| W. Zohleiga | Cairo         | Eastern Desert |                            | 26.1333, 33.75             |

**Saudi Arabia**

| Locality | Governorate | Latitude (N) / Longitude (E) |
|-----------|-------------|------------------------------|
| Abu-Arish | Jazan       | 16.9821, 42.8389             |
| Al-Aqiq   | Al-Aqiq     | 20.2866, 41.6312             |
| Al-Mekhwa | Al-Mekhwa   | 19.8429, 41.3115             |
| Ghabet Shahba | Al-Baha | 20.02723, 41.28565         |
| Jabal Shada al-A'la Nature Reserve | Al-Mekhwa | 19.8388, 41.3101 |
| Jazan     | Jazan       | 16.90245, 42.5705            |
| Country             | Locality         | Governorate      | Ecological zone or Region | Latitude (N) / Longitude (E) |
|---------------------|------------------|------------------|---------------------------|------------------------------|
| Jeddah              | Jeddah           | Makka Al-Mukarramah |                        | 21.5922, 39.2631             |
| Marabah             | Marabah          | Asir             |                          | 18.0426, 42.3739             |
| Najran              | Najran           | Najran           |                          | 17.4833, 44.1166             |
| Raydah Nature Reserve | Abha             | Asir             |                          | 18.20525, 42.41011           |
| Tabouk              | Tabouk           | Tabouk           |                          | 28.36661, 36.629747          |
| Unayzah             | Unayzah          | Al-Qassim        |                          | 26.08548, 43.9768            |

The catalogue

Family CONOPIDAE

Subfamily CONOPINAE

Tribe CONOPINI

Genus *Conops* Linnaeus

- GBIF [https://www.gbif.org/species/1444664](https://www.gbif.org/species/1444664)

  Nomenclature:

  *Conops* Linnaeus, 1758: 604. Type species: *Conops flavipes* Linnaeus, by subsequent designation of Curtis (1831).

Subgenus *Asiconops* Chen

  Nomenclature:

  *Asiconops* Chen, 1939: 171. Type species: *Conops aureomaculatus* Kröber, by original designation.

*Conops (Asiconops) elegans* Meigen, 1804

- GBIF [https://www.gbif.org/species/5076777](https://www.gbif.org/species/5076777)

  Nomenclature:

  *Conops elegans* Meigen, 1804: 275. Type locality: France (Marseille).

  *Conops elegans* var. *fuscipennis* Macquart 1849: 472. Type locality: Algeria.
Conops algerus Macquart 1849: 473. Type locality: Algeria (environs du Cercle de Lacalle).

Conopaeus aegyptiacus Rondani, 1850: 167. Type locality: Egypt.

Conops fuscanipennis Bigot, 1887: 32. Type locality: Italy (Sicily).

Conops elegans var. minutus Kröber, 1916: 48. Type locality: Not given (Cyprus, Limassol in Kröber 1939).

Materials

a. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Fayid; decimalLatitude: 30.323823; decimalLongitude: 32.30079; samplingProtocol: Sweeping; eventDate: 03-16-1959; sex: 2 males, 1 female; lifeStage: adult; recordedBy: Aly; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

b. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: W. Garawi; decimalLatitude: 29.7833; decimalLongitude: 31.3167; samplingProtocol: Sweeping; eventDate: 05-06-1927; sex: 1 female; lifeStage: adult; recordedBy: Farag; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

c. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Girza; decimalLatitude: 29.499684; decimalLongitude: 31.07380; samplingProtocol: Sweeping; eventDate: 05-16-1952; sex: 1 male, 1 female; lifeStage: adult; recordedBy: Shafik & Str.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

d. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Tameyah; decimalLatitude: 29.475479; decimalLongitude: 30.95228; samplingProtocol: Sweeping; eventDate: 07-25-1948; sex: 1 male; lifeStage: adult; recordedBy: Str. & Sh.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

e. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Abu-Rawash; decimalLatitude: 30.043845; decimalLongitude: 31.0929; samplingProtocol: Sweeping; eventDate: 05-17-1925; sex: 1 male; lifeStage: adult; recordedBy: Tewfik; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

f. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Abu-Rawash; decimalLatitude: 30.043845; decimalLongitude: 31.0929; samplingProtocol: Sweeping; eventDate: 09-16-1925; sex: 2 males; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

g. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Abu-Rawash; decimalLatitude: 30.043845; decimalLongitude: 31.0929; samplingProtocol: Sweeping; eventDate: 10-13-1926; sex: 1 female; lifeStage:
adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

h. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Edfina; decimalLatitude: 31.29252; decimalLongitude: 30.51322; samplingProtocol: Sweeping; eventDate: 06-08-1914; sex: 2 males, 1 female; lifeStage: adult; recordedBy: Mistikawi; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

i. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Ezbet-Naghil; decimalLatitude: 31.1111; decimalLongitude: 32.1625; samplingProtocol: Sweeping; eventDate: 04-13-1922; sex: 1 female; lifeStage: adult; recordedBy: Efflatoun; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

j. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Ghezirah; decimalLatitude: 32.121606; decimalLongitude: 31.21200; samplingProtocol: Sweeping; eventDate: 06-06-1926; sex: 1 female; lifeStage: adult; recordedBy: Tewfik; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

k. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Helwan; decimalLatitude: 29.8500; decimalLongitude: 31.3333; samplingProtocol: Sweeping; eventDate: 04-21-1934; sex: 1 male; lifeStage: adult; recordedBy: Farag; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

l. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Kafr Hakim; decimalLatitude: 29.8500; decimalLongitude: 31.3333; samplingProtocol: Sweeping; eventDate: 04-28-1934; sex: 1 male; lifeStage: adult; recordedBy: Farag; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

m. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Helwan; decimalLatitude: 29.8500; decimalLongitude: 31.3333; samplingProtocol: Sweeping; eventDate: 05-26-1934; sex: 1 female; lifeStage: adult; recordedBy: Farag; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

n. scientificName: Conops elegans; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Kafr Hakim; decimalLatitude: 31.1164; decimalLongitude: 30.0808; samplingProtocol: Sweeping; eventDate: 10-17-1925; sex: 1 male; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC
The family Conopidae (Diptera) in Egypt and Saudi Arabia

p. scientificName: *Conops elegans*; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Kafr Hakim; decimalLatitude: 30.0808; decimalLongitude: 31.1164; samplingProtocol: Sweeping; eventDate: 06-08-1927; sex: 1 female; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

q. scientificName: *Conops elegans*; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Maadi; decimalLatitude: 29.957721; decimalLongitude: 31.25054; samplingProtocol: Sweeping; eventDate: 06-20-12; sex: 2 males; lifeStage: adult; recordedBy: L.H.G; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

r. scientificName: *Conops elegans*; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Kerdassa; decimalLatitude: 30.0297; decimalLongitude: 31.1061; samplingProtocol: Sweeping; eventDate: 06-10-1925; sex: 1 female; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

s. scientificName: *Conops elegans*; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Kerdassa; decimalLatitude: 30.0297; decimalLongitude: 31.1061; samplingProtocol: Sweeping; eventDate: 10-09-1926; sex: 1 female; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

t. scientificName: *Conops elegans*; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Kerdassa; decimalLatitude: 30.0297; decimalLongitude: 31.1061; samplingProtocol: Sweeping; eventDate: 10-30-1926; sex: 1 female; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

u. scientificName: *Conops elegans*; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Kerdassa; decimalLatitude: 30.0297; decimalLongitude: 31.1061; samplingProtocol: Sweeping; eventDate: 05-07-1927; sex: 1 male, 1 female; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

v. scientificName: *Conops elegans*; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Mansouriah; decimalLatitude: 30.1236; decimalLongitude: 31.0725; samplingProtocol: Sweeping; eventDate: 08-22-1925; sex: 1 male; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

w. scientificName: *Conops elegans*; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Mansouriah; decimalLatitude: 30.1236; decimalLongitude: 31.0725; samplingProtocol: Sweeping; eventDate: 05-12-1926; sex: 1 female; lifeStage: adult; recordedBy: Farag; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

x. scientificName: *Conops elegans*; taxonID: https://www.gbif.org/species/5076777; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
**Conops elegans**

**Distribution:** AF: Democratic Republic of the Congo, Ethiopia, Gabon, Guinea, Guinea-Bissau, Malawi, Mozambique, Namibia, Nigeria, Saudi Arabia [as “South-western part”] (first record), South Africa, Tanzania, Yemen. PA: Algeria, Bulgaria, Cyprus, Egypt, France, Israel, Italy, Morocco, Romania, Spain, Syria, Tunisia, Turkey.

**Local distribution and dates of collection** (Fig. 2): EGYPT: Coastal Strip: Balteem, Burg (March to August); Eastern Desert: Abu-Sueir, El-Mallah (= Mallah East), Fayed, Suez, Wadi Garawi, Wadi Hoff, Wadi Morrah, Wadi Rishrash, Wadi Um-Elek, Wadi Zohleiga (March to August); Fayoum: Fayoum City, Kom Osheem, Tamiya (May to November); Lower Nile Valley and Delta: Abu-Rawash, Barrage, Edfina, El-Gebel El-Asfar, El-Magadlah, Ezbet El-Nakhil, Gezira, Giza, Helwan, Kafr Ghatahi, Kafr Hakim, Kerdassa, Maadi, Mansouriah, Orman, Pyramids, Sentris (throughout the year); Sinai: Rafaf (August); Western Desert: Saqqara, Madinet El-Sadat, Wadi El-Natroun (June and October) [Sources: Kröber (1927), Azmy (2016) and museum material in EFC and ESEC]. SAUDI ARABIA: Al-Baha: Al-Mekhwa (March) [Sources: collected material].

**Notes:** This species (Fig. 12a) is recorded herein for the first time from Saudi Arabia.
Conops (Asiconops) flavifrons Meigen, 1804

- GBIF [https://www.gbif.org/species/5076765](https://www.gbif.org/species/5076765)

**Nomenclature:**

*Conops flavifrons* Meigen, 1804: 281. Type locality: France (Lyon).

*Physoscephala pugioniformis* Becker, 1913: 611. Type locality: Iran.
Conops minor Becker, 1922: 201. Type locality: Russia, Italy, Hungary & Greece.

Conops kroeberi var. immaculata Paramonov, 1927: 4. Type locality: Armenia.

Conops kroeberi Paramonov, 1927: 4. Type locality: Armenia.

Distribution: AF: Yemen. PA: Albania, Armenia, Austria, ?Belgium, Bulgaria, ?China, Croatia, Czech Republic, Egypt, France, ?Germany, Greece, Hungary, Iran, Italy, Poland, Russia, Serbia, Spain, Syria, Tunisia, Turkey.

Notes: This species was listed by Steyskal and El-Bialy (1967), Chvála and Smith (1988), Azmy (2016) as recorded from Egypt, but these records could not be verified and require confirmation as no specimens have been collected or preserved in Egyptian museums.

Figure 4. doi
Local distribution map of Conops (Conops) rufiventris Macquart and Conops (Conops) tomentosus Kröber in Egypt and Saudi Arabia.

Figure 5. doi
Local distribution map of Physocephala antiqua (Wiedemann) in Egypt and Saudi Arabia.
Conops (Asiconops) nubeculipennis Bezzi, 1901

- GBIF https://www.gbif.org/species/5076815

Nomenclature:

Conops nubeculipennis Bezzi, 1901: 21. Type locality: Eritrea.

Conops atrogonius Séguy 1930: 134. Type locality: Morocco.

Materials

a. **scientificName**: Conops nubeculipennis; **taxonID**: https://www.gbif.org/species/5076815; **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Saudi Arabia; **stateProvince**: Al-Qassim; **locality**: Unayzah; **decimalLatitude**: 26.085478; **decimalLongitude**: 43.9768123; **samplingProtocol**: Malaise trap; **eventDate**: 05-01-2018; **sex**: 1 male; **lifeStage**: adult; **recordedBy**: Aldhafer H.M. et al.; **identifiedBy**: M. El-Hawagry; **dateIdentified**: May 2020; **institutionCode**: KSMA

b. **scientificName**: Conops nubeculipennis; **taxonID**: https://www.gbif.org/species/5076815; **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Saudi Arabia; **stateProvince**: Asir; **locality**: Garf Raydah Nature Reserve; **decimalLatitude**: 18.194917; **decimalLongitude**: 42.396967; **samplingProtocol**: Malaise trap; **eventDate**: 05-08-2015; **sex**: 1 female; **lifeStage**: adult; **recordedBy**: Aldhafer H.M. et al.; **identifiedBy**: M. El-Hawagry; **dateIdentified**: May 2020; **institutionCode**: KSMA

Distribution: AF: Cameroon, Ethiopia, Guinea-Bissau, Mozambique, Nigeria, Saudi Arabia [as “South-western part”] (El-Hawagry et al. 2017), Yemen, Zambia. PA: Egypt, Israel, Morocco.

Local distribution and dates of collection (Fig. 2): EGYPT: Upper Nile Valley: South Aswan (as “Nubien”) [Source: Kröber (1915b)]. SAUDI ARABIA: Al-Qassim: Unayzah (May); Asir: Raydah Nature Reserve (May and June); South-western part of Saudi Arabia including Jazan and Najran (September and October) [Sources: Walker and Pittaway (1987), El-Hawagry et al. (2017)) and collected material].

Notes: This species was listed by Kröber (1915b), Steyskal and El-Bialy (1967), Azmy (2016), Stuke (2017) as recorded from Egypt, but no specimens have been collected or preserved in Egyptian museums.

Subgenus Conops Linnaeus

Conops (Conops) flavicauda (Bigot, 1880)

- GBIF https://www.gbif.org/species/5076720

Nomenclature:

Sphixosoma flavicauda Bigot, 1880: 149. Type locality: Iran (Northern Iran and Caucasus).

Conops euzonatus Bigot, 1887: 33. Type locality: Caucasus Mountains.
Conops superbus Röder, 1889: 6. Type locality: Lebanon (Beirut) [as “Beyrut, Syria (Asia minor)”].

Conops cypris Janssens, 1955: 2. Type locality: Cyprus (Akrotiri Bay, Yermdoyia & Erimi).

Distribution: AF: Uganda. PA: Afghanistan, Armenia, Cyprus, Egypt, Greece, Iran, Israel, Lebanon, Syria, Turkey.

Local distribution and dates of collection (Fig. 3): EGYPT: Sinai: Wadi Isla (August) [Sources: Zalat et al. 2008].

Figure 6. doi
Local distribution map of Physocephala chrysorrhoea (Meigen) and Physocephala pusilla (Meigen) in Egypt and Saudi Arabia.

Figure 7. doi
Local distribution map of Physocephala variegata (Meigen) and Physocephala vittata (Fabricius) in Egypt and Saudi Arabia.
**Conops (Conops) quadrifasciatus** De Geer, 1776

- **GBIF** [https://www.gbif.org/species/5076797](https://www.gbif.org/species/5076797)

**Nomenclature:**

*Conops 4-fasciata* De Geer, 1776: 261. Type locality: Presumably Sweden.

**Material**

a. `scientificName`: *Conops quadrifasciatus*; `taxonID`: [https://www.gbif.org/species/5076797](https://www.gbif.org/species/5076797); `kingdom`: Animalia; `phylum`: Arthropoda; `class`: Insecta; `order`: Diptera; `family`: Conopidae; `country`: Saudi Arabia; `stateProvince`: Tabouk; `locality`: Tabouk; `decimalLatitude`:
28.36661; decimalLongitude: 36.629747; samplingProtocol: Malaise trap; eventDate: 10-27-2014; sex: 1 male; lifeStage: adult; recordedBy: El-Hawagry; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: MSHC

**Distribution:** PA: Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Iran, Ireland, Italy, Kazakhstan, Latvia, Lithuania, Netherlands, Norway, Poland, Romania, Russia, Saudi Arabia (first record), Slovakia, Spain, Sweden, Switzerland, Turkey, Ukraine.

**Local distribution and dates of collection** (Fig. 3): SAUDI ARABIA: Tabouk (October) [Source: collected material].

**Notes:** This species is recorded herein for the first time from Saudi Arabia.

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**Figure 10.** [doi](#)

Local distribution map of *Thecophora atra* (Fabricius) and *Thecophora fulvipes* (Robineau-Desvoidy) in Egypt and Saudi Arabia.

**Figure 11.** [doi](#)

Local distribution map of *Zodion cinereum* (Fabricius) and *Zodion erythrurum* Rondani in Egypt and Saudi Arabia.
Conops (Conops) rufiventris Macquart, 1849

- GBIF https://www.gbif.org/species/5076705

**Nomenclature:**

*Conops rufiventris* Macquart, 1849: 474. Type locality: Algeria (Constantine).
Material

a. scientificName: *Conops rufiventris*; taxonID: [https://www.gbif.org/species/5076705](https://www.gbif.org/species/5076705); kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Salloum; decimalLatitude: 31.588751; decimalLongitude: 25.102649; samplingProtocol: Sweeping; eventDate: 05-14-1917; sex: 1 male; lifeStage: adult; recordedBy: Willson; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

Distribution: Algeria, Egypt, Tunisia.

Local distribution and dates of collection (Fig. 4): EGYPT: Coastal Strip: Salloum (April and May) [Azmy (2016) and museum material in EFC].

*Conops (Conops) tomentosus* Kröber, 1916

- GBIF [https://www.gbif.org/species/5076849](https://www.gbif.org/species/5076849)

Nomenclature:

*Conops tomentosus* Kröber, 1916: 45. Type locality: Turkmenistan.

Distribution: AF: Saudi Arabia [as “South-western part”]. PA: Iraq, Tajikistan, Turkey, Turkmenistan.

Local distribution and dates of collection (Fig. 4): SAUDI ARABIA: Jazan: Abu-Arish (March) [Source: Stuke et al. (2008)].

Tribe PHYSOCEPHALINI

Genus *Physocephala* Schiner

- GBIF [https://www.gbif.org/species/1568868](https://www.gbif.org/species/1568868)

Nomenclature:

*Physocephala* Schiner, 1861: 138. Type species: *Conops rufipes* Fabricius, by original designation.

*Physocephala antiqua* (Wiedemann, 1830)

- GBIF [https://www.gbif.org/species/1569080](https://www.gbif.org/species/1569080)

Nomenclature:

*Conops antiqua* Wiedemann, 1830: 239. Type locality: Egypt.

*Conops arabica* Macquart, 1851: 134. Type locality: Saudi Arabia (Jeddah).

*Physocephala furax* Becker, 1913: 612. Type locality: Iran.
**Physcocephala syriaca** Kröber, 1915: 72. Type locality: Egypt (Cairo) & Palestinian West Bank (Jericho).

**Physcocephala obscurifacies** Kröber, 1924: 67. Type locality: Egypt (Wadi Hoff).

**Materials**

a. scientificName: *Physcocephala antiqua*; taxonID: [https://www.gbif.org/species/1569080](https://www.gbif.org/species/1569080);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Abu-Sueir; decimalLatitude: 30.5766; decimalLongitude: 32.107622; samplingProtocol: Sweeping; eventDate: 05-17-1925; sex: 1 female; lifeStage: adult; recordedBy: Tewfik; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

b. scientificName: *Physcocephala antiqua*; taxonID: [https://www.gbif.org/species/1569080](https://www.gbif.org/species/1569080);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Dar El-Maskhara; decimalLatitude: 29.7833; decimalLongitude: 31.4167; samplingProtocol: Sweeping; eventDate: 04-11-1927; sex: 1 female; lifeStage: adult; recordedBy: H.C.E & M.T.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; collectionCode: EFC

c. scientificName: *Physcocephala antiqua*; taxonID: [https://www.gbif.org/species/1569080](https://www.gbif.org/species/1569080);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: El-Mallah; decimalLatitude: 30.8167; decimalLongitude: 32.1000; samplingProtocol: Sweeping; eventDate: 04-29-1927; sex: 1 male; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

d. scientificName: *Physcocephala antiqua*; taxonID: [https://www.gbif.org/species/1569080](https://www.gbif.org/species/1569080);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: W. Garawi; decimalLatitude: 30.7833; decimalLongitude: 31.3167; samplingProtocol: Sweeping; eventDate: 05-15-1927; sex: 1 male; lifeStage: adult; recordedBy: H.C.E & M.T.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

e. scientificName: *Physcocephala antiqua*; taxonID: [https://www.gbif.org/species/1569080](https://www.gbif.org/species/1569080);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Wadi Digla; decimalLatitude: 29.9578; decimalLongitude: 31.3348; samplingProtocol: Sweeping; eventDate: 09-03-1926; sex: 1 male; lifeStage: adult; recordedBy: Farag; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

f. scientificName: *Physcocephala antiqua*; taxonID: [https://www.gbif.org/species/1569080](https://www.gbif.org/species/1569080);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Wadi Rishrash; decimalLatitude: 29.4642; decimalLongitude: 31.3672; samplingProtocol: Sweeping; eventDate: 06-17-1932; sex: 1 male; lifeStage: adult; recordedBy: Tewfik; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

g. scientificName: *Physcocephala antiqua*; taxonID: [https://www.gbif.org/species/1569080](https://www.gbif.org/species/1569080);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Abu-Rawash; decimalLatitude: 30.043845; decimalLongitude: 31.092932; samplingProtocol: Sweeping; eventDate: 08-15-1925; sex: 1 male; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

h. scientificName: *Physcocephala antiqua*; taxonID: [https://www.gbif.org/species/1569080](https://www.gbif.org/species/1569080);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
country: Egypt; locality: Abu-Rawash; decimalLatitude: 30.043845; decimalLongitude: 31.092932; samplingProtocol: Sweeping; eventDate: 07-18-1925; sex: 2 males; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

i. scientificName: Physocephala antiqua; taxonID: https://www.gbif.org/species/1569080; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Abu-Rawash; decimalLatitude: 30.043845; decimalLongitude: 31.092932; samplingProtocol: Sweeping; eventDate: 06-06-1925; sex: 1 male; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

j. scientificName: Physocephala antiqua; taxonID: https://www.gbif.org/species/1569080; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Helwan; decimalLatitude: 29.8500; decimalLongitude: 31.3333; samplingProtocol: Sweeping; eventDate: 04-23-1935; sex: 1 male; lifeStage: adult; recordedBy: Farag; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

k. scientificName: Physocephala antiqua; taxonID: https://www.gbif.org/species/1569080; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Kerdassa; decimalLatitude: 30.0297; decimalLongitude: 31.1061; samplingProtocol: Sweeping; eventDate: 04-17-1926; sex: 2 males; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

l. scientificName: Physocephala antiqua; taxonID: https://www.gbif.org/species/1569080; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Mansouriah; decimalLatitude: 30.1236; decimalLongitude: 31.07246; samplingProtocol: Sweeping; eventDate: 09-02-1925; sex: 2 males; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: EFC

m. scientificName: Physocephala antiqua; taxonID: https://www.gbif.org/species/1569080; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Saudi Arabia; stateProvince: Al-Baha; locality: Al-Mekhwa; decimalLatitude: 19.8429; decimalLongitude: 41.3115; samplingProtocol: Sweeping; eventDate: 03-17-2012; sex: 1 male; lifeStage: adult; recordedBy: El-Hawagry; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: MSHC

n. scientificName: Physocephala antiqua; taxonID: https://www.gbif.org/species/1569080; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Saudi Arabia; stateProvince: Jazan; locality: Jazan; decimalLatitude: 16.902448; decimalLongitude: 42.570516; samplingProtocol: Malaise trap; eventDate: 05-12-2019; sex: 1 male; lifeStage: adult; recordedBy: Aldhafer H.M. et al.; identifiedBy: M. El-Hawagry; dateIdentified: May 2020; institutionCode: KSMA

Distribution: AF: Egypt [as “Gebel Elba”], Saudi Arabia [as “South-western part”], United Arab Emirates, Yemen. PA: Afghanistan, Algeria, China, Cyprus, Egypt, Greece, Iran, Iraq, Israel, Italy, Jordan, Kazakhstan, Kyrgyzstan, Mongolia, Palestinian Territories, Russia, Saudi Arabia (Jeddah), Syria, Tunisia, Turkey, Turkmenistan.

Local distribution and dates of collection (Fig. 5): EGYPT: Coastal Strip: Abu-Kir, Dekhela, Mariout (April to August); Eastern Desert: Abu Sueir, Cairo-Suez Road, El-Mallah, Geneifa, Ismailia, Wadi Asal (30 km S. Kosseir), Wadi Digla, Wadi El-Maskhara, Wadi Garawi, Wadi Gharagid, Wadi Hoff, Wadi Ibtadi, Wadi Rishrash
The family Conopidae (Diptera) in Egypt and Saudi Arabia

(February to September); Fayoum: Kom Osheem (May, August and November); Gebel Elba: locality unknown (January); Lower Nile Valley and Delta: Abu-Rawash, Barrage, Burgash, Cairo, El-Katta, El-Magadlah, El-Nakhel, Helwan, Kaf Hikim, Kerdessa, Maadi, Mansouriah, Pyramids, Turah (April to October); Sinai: Wadi Gedeirat (June and July); Upper Nile Valley: Kom Ombo (January); Western Desert: Dahshour, Dakhla Oasis (Balat, Ewina & Rashda), Saqqara, Siwa Oasis (March to December) [Sources: Kröber (1915a), Kröber (1924), Kröber (1927), Stuke and Clements (2008), Stuke (2014), Azmy (2016) and museum material in EFC and ESEC]. SAUDI ARABIA: Al-Baha: Al-Mekhwa (March); Asir: Marabah (April); Jazan: Abu-Arish Road (Al-Mahdag and Arada), Jazan City (March to May); Makka Al-Mukarramah: Jeddah (date unknown) [Sources: Kröber (1915a), Stuke and Clements (2008) and collected material].

**Physocephala chrysorrhoea** (Meigen, 1824)

- GBIF [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093)

**Nomenclature:**

*Conops chrysorrhoea* Meigen, 1824: 128. Type locality: Austria.

*Conops pallasi* Meigen, 1824: 128. Type locality: Russia.

*Conops serpylleti* Zeller, 1842: 837. Type locality: Germany.

*Physocephala zarudnyi* Becker, 1913: 614. Type locality: Iran.

*Physocephala truncata* var. *pseudomaculigera* Kröber, 1915: 72. Type locality: Egypt & Tunisia.

**Materials**

a. **scientificName:** *Physocephala chrysorrhoea*; **taxonID:** [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom:** Animalia; **phylum:** Arthropoda; **class:** Insecta; **order:** Diptera; **family:** Conopidae; **country:** Egypt; **locality:** Burg; **decimalLatitude:** 30.9081; **decimalLongitude:** 29.5464; **samplingProtocol:** Sweeping; **eventDate:** 03-25-1927; **sex:** 1 female; **lifeStage:** adult; **recordedBy:** H.C.E & M.T.; **identifiedBy:** M. El-Hawagry; **dateIdentified:** June 2020; **institutionCode:** EFC

b. **scientificName:** *Physocephala chrysorrhoea*; **taxonID:** [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom:** Animalia; **phylum:** Arthropoda; **class:** Insecta; **order:** Diptera; **family:** Conopidae; **country:** Egypt; **locality:** Burg; **decimalLatitude:** 30.9081; **decimalLongitude:** 29.5464; **samplingProtocol:** Sweeping; **eventDate:** 05-10-1927; **sex:** 1 male, 1 female; **lifeStage:** adult; **recordedBy:** Tewfik; **identifiedBy:** M. El-Hawagry; **dateIdentified:** June 2020; **institutionCode:** EFC

c. **scientificName:** *Physocephala chrysorrhoea*; **taxonID:** [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom:** Animalia; **phylum:** Arthropoda; **class:** Insecta; **order:** Diptera; **family:** Conopidae; **country:** Egypt; **locality:** Ein Moussa; **decimalLatitude:** 29.8667; **decimalLongitude:** 32.6500; **samplingProtocol:** Sweeping; **eventDate:** 02-07-1928; **sex:** 1 male; **lifeStage:** adult; **recordedBy:** Selim; **identifiedBy:** M. El-Hawagry; **dateIdentified:** June 2020; **institutionCode:** ESEC
d. **scientificName**: *Physocophala chrysorrhoea*; **taxonID**: [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: W. Dar El-Maskhara; **decimalLatitude**: 29.7833; **decimalLongitude**: 31.4167; **samplingProtocol**: Sweeping; **eventDate**: 03-21-1927; **sex**: 1; **lifeStage**: adult; **recordedBy**: Farag; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

e. **scientificName**: *Physocophala chrysorrhoea*; **taxonID**: [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: W. Garawi; **decimalLatitude**: 29.7833; **decimalLongitude**: 31.3167; **samplingProtocol**: Sweeping; **eventDate**: 03-25-1932; **sex**: 1; **lifeStage**: adult; **recordedBy**: H.C.E & M.T.; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

f. **scientificName**: *Physocophala chrysorrhoea*; **taxonID**: [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: W. Morrah; **decimalLatitude**: 22.3500; **decimalLongitude**: 33.7500; **samplingProtocol**: Sweeping; **eventDate**: 03-01-1925; **sex**: 2; **lifeStage**: adult; **recordedBy**: H.C.E & M.T.; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

g. **scientificName**: *Physocophala chrysorrhoea*; **taxonID**: [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Wadi Hoff; **decimalLatitude**: 29.8820558; **decimalLongitude**: 31.3109855; **samplingProtocol**: Sweeping; **eventDate**: 03-04-1927; **sex**: 1; **lifeStage**: adult; **recordedBy**: Farag; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

h. **scientificName**: *Physocophala chrysorrhoea*; **taxonID**: [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Wadi Um-Elek; **decimalLatitude**: 29.8833; **decimalLongitude**: 31.5167; **samplingProtocol**: Sweeping; **eventDate**: 03-12-1924; **sex**: 1; **lifeStage**: adult; **recordedBy**: Efflatoun; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

i. **scientificName**: *Physocophala chrysorrhoea*; **taxonID**: [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Wadi Um-Elek; **decimalLatitude**: 29.8833; **decimalLongitude**: 31.5167; **samplingProtocol**: Sweeping; **eventDate**: 03-13-1930; **sex**: 1; **lifeStage**: adult; **recordedBy**: Farag; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

j. **scientificName**: *Physocophala chrysorrhoea*; **taxonID**: [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Girza; **decimalLatitude**: 29.499684; **decimalLongitude**: 31.073799; **samplingProtocol**: Sweeping; **eventDate**: 03-05-1950; **sex**: 1; **lifeStage**: adult; **recordedBy**: Shaﬁk & Str.EFC; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

k. **scientificName**: *Physocophala chrysorrhoea*; **taxonID**: [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Abu-Rawash; **decimalLatitude**: 30.043845; **decimalLongitude**: 31.092932; **samplingProtocol**: Sweeping; **eventDate**: 05-05-1926; **sex**: 1; **lifeStage**: adult; **recordedBy**: Farag; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

l. **scientificName**: *Physocophala chrysorrhoea*; **taxonID**: [https://www.gbif.org/species/1569093](https://www.gbif.org/species/1569093); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Wadi Um-Elek; **decimalLatitude**: 29.7833; **decimalLongitude**: 31.3109855; **samplingProtocol**: Sweeping; **eventDate**: 03-04-1927; **sex**: 1; **lifeStage**: adult; **recordedBy**: Farag; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC
Conopidae; country: Egypt; locality: Abu-Rawash; decimalLatitude: 30.043845; decimalLongitude: 31.092932; samplingProtocol: Sweeping; eventDate: 04-03-1926; sex: 1 female; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

m. scientificName: Physocephala chrysorrhoea; taxonID: https://www.gbif.org/species/1569093; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Helwan; decimalLatitude: 29.8500; decimalLongitude: 31.3333; samplingProtocol: Sweeping; eventDate: 04-28-1934; sex: 1 male, 2 females; lifeStage: adult; recordedBy: Farag; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

n. scientificName: Physocephala chrysorrhoea; taxonID: https://www.gbif.org/species/1569093; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Ein Gedeirat; decimalLatitude: 30.6500; decimalLongitude: 34.4333; samplingProtocol: Sweeping; eventDate: 5/24-29/1938; sex: 3 males, 3 females; lifeStage: adult; recordedBy: Shafik; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

p. scientificName: Physocephala chrysorrhoea; taxonID: https://www.gbif.org/species/1569093; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: W. El-Arbaein (Sinai); decimalLatitude: 28.5469; decimalLongitude: 33.9530; samplingProtocol: Sweeping; eventDate: 4/19-27/1939; sex: 2 males, 1 female; lifeStage: adult; recordedBy: H.C.E & M.T.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

Distribution: AF: Saudi Arabia [as “South-western part”]. PA: Algeria, Armenia, Austria, Belgium, Bulgaria, China, Croatia, Czech, Egypt, France, Germany, Greece, Hungary, Iran, Italy, Kyrgyzstan, Lithuania, Mongolia, Morocco, Netherlands, Poland, Romania, Russia, Serbia, Slovakia, Spain, Switzerland, Turkey, Turkmenistan, Ukraine.

Local distribution and dates of collection (Fig. 6): EGYPT: Coastal Strip: Burg El-Arab, Mariout (February to May); Eastern Desert: Bir El-Fahm, Ougret El-Sheikh, Wadi El-Mallah, Wadi El-Maskhara, Wadi Garawi, Wadi Hoff, Wadi Morrah, Wadi Um-Elek, Wadi Zohleiga (March and April); Fayoum: Girza, Sennouris (January to March); Gebel Elba: locality unknown (January); Lower Nile Valley and Delta: Abu-Rawash, Barrage, Ezbet El-Nakhl, Hawamdiya, Helwan, Karf Hakim, Kubba, Maadi, Mansouriah, Mazghouna (February to August); Sinai: Ein Gedeirat, Ein Moussa, Wadi El-Arbaein, Wadi El-Rabba (February to May); Western Desert: Dahshour (April) [Sources: Azmy (2016) and museum material in EFC and ESEC]. SAUDI ARABIA: locality and date unknown [Sources: Stuke (2017)].
**Physocephala pusilla** (Meigen, 1804)

- GBIF [https://www.gbif.org/species/1568897](https://www.gbif.org/species/1568897)

**Nomenclature:**

*Conops pusilla* Meigen, 1824: 280. Type locality: Germany (Frankreich).

*Conops lacera* Meigen, 1824: 130. Type locality: Austria.

*Conops pumila* Macquart, 1835: 26. Type locality: France.

*Conops persica* Becker, 1913: 609. Type locality: Iran.

*Conops punctithorax* Becker, 1913: 611. Type locality: Iran.

**Materials**

a. **scientificName**: *Physocephala pusilla*; taxonID: [https://www.gbif.org/species/1568897](https://www.gbif.org/species/1568897);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Abu-Rawash; decimalLatitude: 30.043845; decimalLongitude: 31.092932;
   samplingProtocol: Sweeping; eventDate: 05-26-1926; sex: 1 male; lifeStage: adult;
   recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020;
   institutionCode: EFC

b. **scientificName**: *Physocephala pusilla*; taxonID: [https://www.gbif.org/species/1568897](https://www.gbif.org/species/1568897);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Abu-Rawash; decimalLatitude: 30.043845; decimalLongitude: 31.092932;
   samplingProtocol: Sweeping; eventDate: 07-18-1925; sex: 1 male; lifeStage: adult;
   recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020;
   institutionCode: EFC

c. **scientificName**: *Physocephala pusilla*; taxonID: [https://www.gbif.org/species/1568897](https://www.gbif.org/species/1568897);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Ezbet-Naghl; decimalLatitude: 32.1111; decimalLongitude: 32.1625;
   samplingProtocol: Sweeping; eventDate: 05-06-1916; sex: 1 female; lifeStage: adult;
   recordedBy: Bdair; identifiedBy: M. El-Hawagry; dateIdentified: June 2020;
   institutionCode: EFC

d. **scientificName**: *Physocephala pusilla*; taxonID: [https://www.gbif.org/species/1568897](https://www.gbif.org/species/1568897);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Kafr Hakim; decimalLatitude: 30.0808; decimalLongitude: 31.1164;
   samplingProtocol: Sweeping; eventDate: 05-20-1930; sex: 1 male; lifeStage: adult;
   recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020;
   institutionCode: EFC

**Distribution:** PA: Afghanistan, China, Egypt, Europe (widespread), Kazakhstan, Mongolia, Morocco, Saudi Arabia, Syria, Tunisia, Turkmenistan.

**Local distribution and dates of collection** (Fig. 6): EGYPT: Eastern Desert: Cairo-Suez Road, El-Wasafia, Geneifa, Wadi Digla, Wadi Gharagid (April to September); Fayoum: Fayoum City, Kom Osheem (March to October); Lower Nile Valley and Delta: Abu-Rawash, Ashmoun, Ezbet El-Nakhl, Kafr Hakim, Maadi, Mansouriah, Pyramids (April to October); Sinai: Wadi El-Lega, Wadi El-Rabba, Wadi Firan, Wadi Isla, Wadi Khoshbi (April to August); Western Desert: Madinet El-Sadat, Siwa Oasis (July to October) [Sources: Zalat et al. (2008), Azmy (2016) and museum material in EFC and...
The family Conopidae (Diptera) in Egypt and Saudi Arabia

ESEC]. SAUDI ARABIA: locality and date unknown [Source: Abu-Zoherah et al. (1993) as Conops lacera].

**Physocephala variegata** (Meigen, 1824)

- GBIF [https://www.gbif.org/species/1569101](https://www.gbif.org/species/1569101)

**Nomenclature:**
*Conops variegata* Meigen, 1824: 132. Type locality: Austria & France.

**Materials**

a. **scientificName**: *Physocephala variegata*; **taxonID**: [https://www.gbif.org/species/1569101](https://www.gbif.org/species/1569101); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Dar El-Maskhara; **decimalLatitude**: 29.7833; **decimalLongitude**: 31.4167; **samplingProtocol**: Sweeping; **eventDate**: 04-29-1925; **sex**: 1 male; **lifeStage**: adult; **recordedBy**: H.C.E & M.T.; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

b. **scientificName**: *Physocephala variegata*; **taxonID**: [https://www.gbif.org/species/1569101](https://www.gbif.org/species/1569101); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Wadi Digla; **decimalLatitude**: 29.9578; **decimalLongitude**: 31.3348; **samplingProtocol**: Sweeping; **eventDate**: 07-25-1926; **sex**: 1 male; **lifeStage**: adult; **recordedBy**: Efflatoun; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

c. **scientificName**: *Physocephala variegata*; **taxonID**: [https://www.gbif.org/species/1569101](https://www.gbif.org/species/1569101); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Wadi Gharagid; **decimalLatitude**: 28.9550; **decimalLongitude**: 31.4822; **samplingProtocol**: Sweeping; **eventDate**: 08-24-1925; **sex**: 1 male; **lifeStage**: adult; **recordedBy**: Kassem; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

d. **scientificName**: *Physocephala variegata*; **taxonID**: [https://www.gbif.org/species/1569101](https://www.gbif.org/species/1569101); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Wadi Hoff; **decimalLatitude**: 29.8820558; **decimalLongitude**: 31.3109855; **samplingProtocol**: Sweeping; **eventDate**: 05-17-1928; **sex**: 1 female; **lifeStage**: adult; **recordedBy**: Farag; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

e. **scientificName**: *Physocephala variegata*; **taxonID**: [https://www.gbif.org/species/1569101](https://www.gbif.org/species/1569101); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Wadi Hoff; **decimalLatitude**: 29.8820558; **decimalLongitude**: 31.3109855; **samplingProtocol**: Sweeping; **eventDate**: 06-06-1927; **sex**: 1 female; **lifeStage**: adult; **recordedBy**: Tewfik; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

f. **scientificName**: *Physocephala variegata*; **taxonID**: [https://www.gbif.org/species/1569101](https://www.gbif.org/species/1569101); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Halaib; **decimalLatitude**: 22.2203; **decimalLongitude**: 36.6427; **samplingProtocol**: Sweeping; **eventDate**: 01-12-1929; **sex**: 1 female; **lifeStage**: adult; **recordedBy**: Efflatoun; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC

g. **scientificName**: *Physocephala variegata*; **taxonID**: [https://www.gbif.org/species/1569101](https://www.gbif.org/species/1569101); **kingdom**: Animalia; **phylum**: Arthropoda; **class**: Insecta; **order**: Diptera; **family**: Conopidae; **country**: Egypt; **locality**: Wadi Hoff; **decimalLatitude**: 29.8820558; **decimalLongitude**: 31.3109855; **samplingProtocol**: Sweeping; **eventDate**: 06-06-1927; **sex**: 1 female; **lifeStage**: adult; **recordedBy**: Tewfik; **identifiedBy**: M. El-Hawagry; **dateIdentified**: June 2020; **institutionCode**: EFC
country: Egypt; locality: W. Ibib; decimalLatitude: 22.83333; decimalLongitude: 35.76667; samplingProtocol: Sweeping; eventDate: 03-11-1928; sex: 1 male; lifeStage: adult; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

scientificName: Physocephala variegata; taxonID: https://www.gbif.org/species/1569101; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Kafr Katati; decimalLatitude: 30.004146; decimalLongitude: 31.121566; samplingProtocol: Sweeping; eventDate: 05-25-1927; sex: 1 male; lifeStage: adult; recordedBy: R.M.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

scientificName: Physocephala variegata; taxonID: https://www.gbif.org/species/1569101; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Ein Gedeirat; decimalLatitude: 30.6500; decimalLongitude: 34.4333; samplingProtocol: Sweeping; eventDate: 06-25-1934; sex: 1 male, 1 female; lifeStage: adult; recordedBy: Sh.M.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

Distribution: AF: Egypt [as “Gebel Elba”]. PA: Austria, Bulgaria, Egypt, France, Greece, Hungary, Iran, Kazakhstan, Kyrgyzstan, Mongolia, Romania, Russia, Saudi Arabia, Serbia, Turkey, Turkmenistan, Ukraine.

Local distribution and dates of collection (Fig. 7): EGYPT: Coastal Strip: Mariout, Salloum (May to August); Eastern Desert: Abu Sueir, Geneifa, Wadi Digla, Wadi Dir El-Maskhara, Wadi Garrariyat, Wadi Gharagid, Wadi Hoff, Wadi Ibtadi, Wadi Rishrash, Wadi Um-Eleik (April to August); Gebel Elba: Mersa Halaib, Wadi Edeib, Wadi Ibib (January to March); Lower Nile Valley and Delta: Abu-Rawash, Kafr Ghatati (May to July); Sinai: El-Arish, Wadi El-Daiqa, Wadi El-Rabba, Wadi Firan, Wadi Gedeirat (April to August) [Sources: Kröber (1927), Kröber (1929), Azmy (2016) and museum material in EFC and ESEC]. SAUDI ARABIA: locality and date unknown [Source: Zimina (1963), Stuke (2017)].

Physocephala vittata (Fabricius, 1794)

- GBIF https://www.gbif.org/species/1569046

Nomenclature:
Conops vittata Fabricius, 1794: 392. Type locality: Germany (Kiel).
Conops dorsalis Wiedemann in Meigen, 1824: 133. Type locality: Austria.
Conops solaefornis Gimmerthal, 1842: 672. Type locality: Latvia.
Conops semiatrata Costa, 1844: 89. Type locality: Italy.
Conops fraternus Loew, 1847: 18. Type locality: Turkey, Greece, Croatia & Italy.
Conops truncata Loew, 1847: 21. Type locality: Italy (Sicily).
Physocephala detecta Becker, 1913: 615. Type locality: Iran.
Physocephala vittata var. abdominalis Kröber, 1915: 57. Type locality: Turkey, Syria & Cyprus.
Physcocephala vittata var. semirufa Kröber, 1915: 58. Type locality: Israel.

Physcocephala truncata var. maculigera Kröber, 1915: 71. Type locality: Egypt, Tunisia, Algeria & Syria.

Physcocephala vittata var. immaculata Kröber, 1939: 365. Type locality: Cyprus.

**Distribution:** AF: Ethiopia, Kenya, Yemen. PA: Afghanistan, Algeria, Armenia, Austria, Belarus, Belgium, Bulgaria, China, Croatia, Cyprus, Czech Republic, Egypt, France, Germany, Hungary, Iran, Israel, Italy, Lithuania, Malta, Mongolia, Morocco, Netherlands, Norway, Palestinian Territories, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Sweden, Switzerland, Syria, Tunisia, Turkey, Turkmenistan, Ukraine, Uzbekistan.

Local distribution and dates of collection (Fig. 7): EGYPT: Coastal Strip: El-Burg, Mariout (May); Sinai: locality and date unknown; Upper Nile Valley: locality and date unknown [Sources: Kröber (1915a), Kröber (1927), Azmy (2016)].

Subfamily MYOPINAE

Tribe MYOPINI

Genus *Myopa* Fabricius

- **GBIF** https://www.gbif.org/species/1568357

**Nomenclature:**

*Myopa* Fabricius, 1775: 798. Type species: *Conops buccata* Linnaeus, by subsequent designation of Curtis (1831).

*Myopa dorsalis* Fabricius, 1794

- **GBIF** https://www.gbif.org/species/1568413

**Nomenclature:**

*Myopa dorsalis* Fabricius, 1794: 397. Type locality: Germany.

*Myopa ferruginea* Panzer, 1794: 24. Type locality: Germany.

*Myopa grandis* Meigen, 1804: 284. Type locality: Germany.

*Myopa dorsalis* var. *nigrifacies* Becker, 1922: 289. Type locality: Not given.

**Materials**

a. **scientificName:** *Myopa dorsalis*; **taxonID:** https://www.gbif.org/species/1568413; **kingdom:** Animalia; **phylum:** Arthropoda; **class:** Insecta; **order:** Diptera; **family:** Conopidae; **country:** Egypt; **locality:** Behig; **decimalLatitude:** 30.9310; **decimalLongitude:** 29.5988; **samplingProtocol:** Sweeping; **eventDate:** 02-28-1927; **sex:** 1 male; **lifeStage:** adult;
Distribution: OR: India. PA: Albania, Algeria, Armenia, Austria, Belarus, Belgium, Bulgaria, China, Croatia, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Hungary, Iran, Italy, Kazakhstan, Luxembourg, Morocco, Netherlands, Norway, Poland, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Syria, Tunisia, Turkey, Turkmenistan, Ukraine.

Local distribution and dates of collection (Fig. 8): EGYPT: Coastal Strip: Behig, Burg El-Arab, Mariout (February and March); Lower Nile Valley and Delta: Madinet Badr (January); Sinai: Wadi El-Rabba (April) [Sources: Azmy et al. (2016) and museum material in EFC and ESEC].

Myopa picta Panzer, 1798

- GBIF [https://www.gbif.org/species/1568425](https://www.gbif.org/species/1568425)

Nomenclature:

*Myopa picta* Panzer, 1798: 22. Type locality: Austria.

*Myopa varia* Wiedemann, 1830: 242. Type locality: Egypt.

*Myopa meridionalis* Macquart, 1835: 34. Type locality: Egypt.

Materials

a. scientificName: *Myopa picta*; taxonID: [https://www.gbif.org/species/1568425](https://www.gbif.org/species/1568425); kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Behig; decimalLatitude: 30.9310; decimalLongitude: 29.5988; samplingProtocol: Sweeping; eventDate: 02-28-1927; sex: 1 male, 1 female; lifeStage: adult; recordedBy: Tewfik; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

b. scientificName: *Myopa picta*; taxonID: [https://www.gbif.org/species/1568425](https://www.gbif.org/species/1568425); kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Burg; decimalLatitude: 30.908084; decimalLongitude: 29.546389; samplingProtocol: Sweeping; eventDate: 02-25-1932; sex: 1 male; lifeStage: adult; recordedBy: H.C.E & M.T.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

c. scientificName: *Myopa picta*; taxonID: [https://www.gbif.org/species/1568425](https://www.gbif.org/species/1568425); kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Burg El-Arab; decimalLatitude: 30.908084; decimalLongitude: 29.546389; samplingProtocol: Sweeping; eventDate: 02-10-1926; sex: 1 male, 1 female; lifeStage: adult;
The family Conopidae (Diptera) in Egypt and Saudi Arabia

adult; recordedBy: Tewfik; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

d. scientificName: Myopa picta; taxonID: https://www.gbif.org/species/1568425; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Mersa Matrouh; decimalLatitude: 29.5696; decimalLongitude: 26.4194; samplingProtocol: Sweeping; eventDate: March 1920; sex: 1 male; lifeStage: adult; recordedBy: Willson; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

Distribution: AF: Ethiopia. OR: India, Pakistan. PA: Afghanistan, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, China, Croatia, Czech Republic, Egypt, France, Germany, Greece, Iran, Italy, Kyrgyzstan, Morocco, Poland, Romania, Russia, Slovakia, Spain, Switzerland, Tunisia, Turkey, Turkmenistan, Ukraine.

Local distribution and dates of collection (Fig. 8): EGYPT: Coastal Strip: Amria, Behig, Burg El-Arab, Mariout, Mersa Matrouh (February to May); Sinai: Ein Gedeirat (June) [Sources: Kröber (1925), Azmy et al. (2016) and museum material in EFC and ESEC].

Myopa stigma Meigen, 1824

- GBIF https://www.gbif.org/species/1568382

Nomenclature:

Myopa stigma Meigen, 1824: 148. Type locality: Austria.

Myopa arabica Macquart 1851: 138. Type locality: Saudi Arabia (Jeddah).

Distribution: AF: Ethiopia. PA: Afghanistan, Algeria, Austria, Belarus, Bulgaria, Cyprus, Czech Republic, France, Germany, Greece, Hungary, Italy, Kazakhstan, Morocco, Poland, Portugal, Romania, Russia, Saudi Arabia (Jeddah), Slovakia, Spain, Switzerland, Tunisia, Turkey, Ukraine.

Local distribution and dates of collection (Fig. 9): SAUDI ARABIA: Makka Al-Mukarramah: Jeddah (date unknown) [Source: original description of M. arabica Macquart and Stuke and Clements 2008].

Myopa testacea (Linnaeus, 1767)

- GBIF https://www.gbif.org/species/1568398

Nomenclature:

Conops testacea Linnaeus, 1767: 1006. Type locality: "Europa australis Ascanius".

Myopa longirostris Robineau-Desvoidy, 1830: 243. Type locality: Not given.

Myopa pictipennis Robineau-Desvoidy, 1830: 243. Type locality: Not given.

Myopa umbripennis Robineau-Desvoidy, 1830: 243. Type locality: Not given.
Myopa testacea var. japonica Kröber, 1916: 89. Type locality: Japan.

Materials

a. scientificName: *Myopa testacea*; taxonID: https://www.gbif.org/species/1568398; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Burg; decimalLatitude: 30.9310; decimalLongitude: 29.5988; samplingProtocol: Sweeping; eventDate: 02-25-1926; sex: 1 male, 1 female; lifeStage: adult; recordedBy: H.C.E & M.T.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

b. scientificName: *Myopa testacea*; taxonID: https://www.gbif.org/species/1568398; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Burg El-Arab; decimalLatitude: 30.908084; decimalLongitude: 29.546389; samplingProtocol: Sweeping; eventDate: 02-10-1926; sex: 1 female; lifeStage: adult; recordedBy: Tewfik; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

c. scientificName: *Myopa testacea*; taxonID: https://www.gbif.org/species/1568398; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Kubba; decimalLatitude: 30.0876; decimalLongitude: 31.2854; samplingProtocol: Sweeping; eventDate: 02-20-1921; sex: 1 male; lifeStage: adult; recordedBy: H.C.E & M.T.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: ESEC

Distribution: OR: India. PA: Afghanistan, Austria, Belarus, Belgium, Bulgaria, China, Croatia, Czech Republic, Denmark, Egypt, Finland, France, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Japan, Kazakhstan, Kyrgyzstan, Lithuania, Luxembourg, Malta, Mongolia, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Tunisia, Turkey, Turkmenistan, Ukraine.

Local distribution and dates of collection (Fig. 9): EGYPT: Coastal Strip: Amria, Burg El-Arab, Mariout (February to June); Lower Nile Valley and Delta: Kubba (February) [Sources: Azmy et al. (2016) and museum material in EFC and ESEC].

Tribe THECOPHORINI

Genus Thecophora Rondani

Nomenclature:

*Thecophora* Rondani, 1845: 15. Type species: *Myopa atra* Fabricius, by monotypy.

*Thecophora atra* (Fabricius, 1775)

- GBIF https://www.gbif.org/species/1569366

Nomenclature:

*Myopa atra* Fabricius, 1775: 799. Type locality: Denmark (Copenhagen).

*Myopa annulata* Fabricius, 1794: 399. Type locality: Italy.
Myopa maculata Meigen, 1804: 287. Type locality: France.
Myopa micans Meigen, 1804: 288. Type locality: France.
Myopa femorata Fabricius, 1805: 181. Type locality: Germany.
Occemya fulvifrons Robineau-Desvoidy, 1853: 134. Type locality: France.
Occemya meigeni Robineau-Desvoidy, 1853: 135. Type locality: France.
Occemya grisea Robineau-Desvoidy, 1853: 137. Type locality: France.
Occemya lamarckii Robineau-Desvoidy, 1853: 140. Type locality: France.
Occemya guerini Robineau-Desvoidy, 1853: 141. Type locality: France.
Occemya bigoti Robineau-Desvoidy, 1853: 142. Type locality: France.
Occemya brunipes Robineau-Desvoidy, 1853: 143. Type locality: France.
Occemya lucasi Robineau-Desvoidy, 1853: 144. Type locality: France.

Materials

a. scientificName: Thecophora atra; taxonID: https://www.gbif.org/species/1569366; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Ezbet El-Nakhl; decimalLatitude: 32.1111; decimalLongitude: 32.1625; samplingProtocol: Sweeping; eventDate: 04-25-1924; sex: 1 male; lifeStage: adult; recordedBy: Efflatoun; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

b. scientificName: Thecophora atra; taxonID: https://www.gbif.org/species/1569366; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Hawamdia; decimalLatitude: 29.9092; decimalLongitude: 31.2615; samplingProtocol: Sweeping; eventDate: August.1925; sex: 1 female; lifeStage: adult; recordedBy: Efflatoun; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

c. scientificName: Thecophora atra; taxonID: https://www.gbif.org/species/1569366; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Egypt; locality: Helwan; decimalLatitude: 29.8500; decimalLongitude: 31.3333; samplingProtocol: Sweeping; eventDate: 12-11-1934; sex: 1 female; lifeStage: adult; recordedBy: Farag; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

d. scientificName: Thecophora atra; taxonID: https://www.gbif.org/species/1569366; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Saudi Arabia; locality: Al-Aqiq; samplingProtocol: Sweeping; eventDate: 4-20-2011; sex: 1 female; lifeStage: adult; recordedBy: El-Hawagry; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: MSHC

Distribution: AF: Saudi Arabia [as "South-western part"] (first record). OR: India, Sri Lanka. PA: Afghanistan, Albania, Algeria, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, China, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Finland, France, Germany, Great Britain, Greece, Hungary, Iran, Ireland, Italy, Japan, Kyrgyzstan, Lithuania, Luxembourg, Macedonia, Malta, Mongolia, Montenegro, Morocco, Netherlands, North Korea, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Sweden, Switzerland, Tunisia, Turkey, Turkmenistan, Ukraine.
Local distribution and dates of collection (Fig. 10): EGYPT: Coastal Strip: Mariout (April and May); Lower Nile Valley and Delta: Ezbet El-Nakhil, Hawamdia, Helwan, Kafr Hakim, Mazghouna (March to December) [Sources: Azmy et al. 2016 and museum material in EFC and ESEC]. SAUDI ARABIA: Al-Baha: Al-Aqiq (April) [Source: collected material].

Notes: This species (Fig. 12b) is recorded herein for the first time from Saudi Arabia and this is the first record in the Afrotropical Region considering the south-western part of Saudi Arabia to be affiliated with the Afrotropical Region.

*Thecophora* fulvipes (Robineau-Desvoidy, 1830)

- GBIF [https://www.gbif.org/species/1569429](https://www.gbif.org/species/1569429)

Nomenclature:

*Myopa fulvipes* Robineau-Desvoidy, 1830: 246. Type locality: France (Paris).

*Myopa sundewalli* Zetterstedt, 1844: 942. Type locality: Sweden.

Material

a. scientificName: *Thecophora fulvipes*; taxonID: [https://www.gbif.org/species/1569429](https://www.gbif.org/species/1569429); kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Saudi Arabia; stateProvince: Asir; locality: Garf Raydah Nature Reserve; decimalLatitude: 18.194917; decimalLongitude: 42.4072; samplingProtocol: Malaise trap; eventDate: 06-07-2014; sex: 1 female; lifeStage: adult; recordedBy: Aldhafer H.M. et al.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: KSMA

Distribution: AF: Saudi Arabia [as “South-western part”] (El-Hawagry et al. 2017-2018). PA: Austria, Belgium, Bulgaria, China, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Hungary, Iran, Ireland, Italy, Latvia, Lithuania, Mongolia, Netherlands, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Sweden, Switzerland, Turkey, Ukraine.

Local distribution and dates of collection (Fig. 10): EGYPT: Fayoum: Kom Osheem (June); Lower Nile Valley and Delta: Helwan (December) [Sources: Azmy 2016]. SAUDI ARABIA: Asir: Raydah Nature Reserve (June) [Source: El-Hawagry et al. 2017 and collected material].

Subfamily ZODIONINAE

Genus *Zodion* Latreille

- GBIF [https://www.gbif.org/species/1568754](https://www.gbif.org/species/1568754)

Nomenclature:

*Zodion* Latreille, 1797: 162. Type species: *Myopa cinerea* Fabricius, by Subsequent monotypy of Latreille (1802).
**Zodion cinereum** (Fabricius, 1794)

- GBIF [https://www.gbif.org/species/1568846](https://www.gbif.org/species/1568846)

**Nomenclature:**

*Myopa cinerea* Fabricius, 1794: 399. Type locality: Italy.

*Myopa notata* Meigen, 1804: 288. Type locality: France.

*Myopa tibialis* Fabricius, 1805: 182. Type locality: Europe.

*Zodion conoposoides* Latreille, 1809: 337. Type locality: France.

*Zodion pedicillatum* Robineau-Desvoidy, 1830: 252. Type locality: Not given.

*Zodion fuliginosum* Robineau-Desvoidy, 1853: 156. Type locality: France.

*Zodion fulvicorne* Robineau-Desvoidy, 1853: 158. Type locality: France.

*Zodion cinereum* var. *rubescens* Szilády, 1925: 223. Type locality: Hungary.

*Zodion cinereum* var. *kerteszi* Szilády, 1926: 589. Type locality: Hungary.

**Materials**

a. scientificName: *Zodion cinereum*; taxonID: [https://www.gbif.org/species/1568846](https://www.gbif.org/species/1568846);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Behig; decimalLatitude: 30.9310; decimalLongitude: 29.5988;
   samplingProtocol: Sweeping; eventDate: 02-28-1927; sex: 1 male, 1 female; lifeStage: adult;
   recordedBy: Tewfik; identifiedBy: M. El-Hawagry; dateIdentified: June 2020;
   institutionCode: EFC

b. scientificName: *Zodion cinereum*; taxonID: [https://www.gbif.org/species/1568846](https://www.gbif.org/species/1568846);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Burg; decimalLatitude: 30.908084; decimalLongitude: 29.546389;
   samplingProtocol: Sweeping; eventDate: 03-05-1930; sex: 1 male, 1 female; lifeStage: adult;
   recordedBy: H.C.E & M.T.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020;
   institutionCode: EFC

c. scientificName: *Zodion cinereum*; taxonID: [https://www.gbif.org/species/1568846](https://www.gbif.org/species/1568846);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Burg; decimalLatitude: 30.908084; decimalLongitude: 29.546389;
   samplingProtocol: Sweeping; eventDate: 02-25-1932; sex: 1 male; lifeStage: adult;
   recordedBy: H.C.E & M.T.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020;
   institutionCode: EFC

d. scientificName: *Zodion cinereum*; taxonID: [https://www.gbif.org/species/1568846](https://www.gbif.org/species/1568846);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Mariout; decimalLatitude: 31.017186; decimalLongitude: 29.759966;
   samplingProtocol: Sweeping; eventDate: 02-15-1923; sex: 1 male; lifeStage: adult;
   recordedBy: Efflatoun; identifiedBy: M. El-Hawagry; dateIdentified: June 2020;
   institutionCode: EFC

e. scientificName: *Zodion cinereum*; taxonID: [https://www.gbif.org/species/1568846](https://www.gbif.org/species/1568846);
   kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae;
   country: Egypt; locality: Mariout: El-Burg; decimalLatitude: 30.908084; decimalLongitude: 29.546389;
   samplingProtocol: Sweeping; eventDate: 06-16-1929; sex: 1 male; lifeStage:
adult; recordedBy: H.C.E & M.T.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: EFC

f. scientificName: Zodion cinereum; taxonID: https://www.gbif.org/species/1568846; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Saudi Arabia; stateProvince: Al-Baha; locality: Ghabet Shahba; decimalLatitude: 20.02723; decimalLongitude: 41.28565; samplingProtocol: Sweeping; eventDate: 05-06-2012; sex: 1 male, 1 female; lifeStage: adult; recordedBy: El-Hawagry; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: MSHC

g. scientificName: Zodion cinereum; taxonID: https://www.gbif.org/species/1568846; kingdom: Animalia; phylum: Arthropoda; class: Insecta; order: Diptera; family: Conopidae; country: Saudi Arabia; stateProvince: Al-Baha; locality: Jabal Shada al-A’la Nature Reserve; decimalLatitude: 19.8388; decimalLongitude: 41.3101; samplingProtocol: Malaise trap; eventDate: 05-05-2015; sex: 1 female; lifeStage: adult; recordedBy: Aldhafer H.M. et al.; identifiedBy: M. El-Hawagry; dateIdentified: June 2020; institutionCode: KSMA

Distribution: AF: Central African Republic, Saudi Arabia [as “South-western part”] (El-Hawagry et al. 2016, United Arabian Emirates. OR: India. PA: Afghanistan, Albania, Algeria, Armenia, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, China, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Iran, Ireland, Italy, Japan, Kazakhstan, Kyrgyzstan, Latvia, Lebanon, Lithuania, Luxembourg, Macedonia, Moldova, Mongolia, Montenegro, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Sweden, Switzerland, Tunisia, Turkey, Turkmenistan, Ukraine.

Local distribution and dates of collection (Fig. 11): EGYPT: Coastal Strip: Behig, Burg El-Arab, Mariout (February and March); Sinai: Wadi El-Lega, Wadi El-Rabba (April, August and September) [Sources: Azmy (2016) and museum material in EFC]. SAUDI ARABIA: Al-Baha: Ghabet Shahba (Al-Baha City) (May and June 2012), Jabal Shada al-A’la Nature Reserve (May) [Source: Stuke (2008), El-Hawagry et al. (2016) and collected material].

Zodion erythrurum Rondani, 1865

• GBIF https://www.gbif.org/species/1568759

Nomenclature:
Zodion erythrurum Rondani, 1865: 146. Type locality: Italy (Etruria).
Zodion pulchrum Loew, 1868: 384. Type locality: Italy.
Zodion vittipes Strobl, 1906: 331. Type locality: Spain.

Distribution: PA: Algeria, Bulgaria, Egypt, France, Hungary, Israel, Italy, Kazakhstan, Kyrgyzstan, Morocco, Poland, Romania, Russia, Serbia, Spain, Tunisia, Turkey, Turkmenistan, Ukraine.

Local distribution and dates of collection (Fig. 11): EGYPT: Coastal Strip: Burg El-Arab, Mariout (February to April); Eastern Desert: Wadi Digla (July and August); Gebel
Elba: locality and unknown (April and May); Upper Nile Valley: Esna (January) [Sources: Kröber (1927), Azmy (2016) and museum material in ESEC].

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