

TACHINIDAE (DIPTERA) FROM MT. HERMON, WITH THE DESCRIPTION
OF SIX NEW SPECIES*

J. Kugler

Department of Zoology, The George S. Wise Center
for Life Sciences, Tel Aviv University, Israel

A B S T R A C T

Seventy three species of Tachinidae from Mt. Hermon are recorded with their collecting data and general distribution. The following new species are described: *Cylindromyia hermonensis* n. sp., *C. theodori* n. sp., *C. montana* n. sp., *Bithia pauciseta* n. sp., *Graphoqaster parvipalpis* n. sp. and *Chaetina longicauda* n. sp.

INTRODUCTION

Mount Hermon, at the junction of Lebanon, Syria and Israel, is one of the highest mountains of the Eastern Mediterranean, rising to 2814 m, it is more than twice as high as the highest mountain of the Northern Galilee, Mt. Meron (1208 m). During winter, a great part of the Hermon is covered with snow, patches of which may remain until late summer. Three vegetational zones are recognized:

1. Forest of *Quercus calliprinos* (300-1400 m).
2. Montane forest (1400-1800 m).
3. Tragacanthic communities (above 1800) (Shmida, Zohari and Danin, 1972).

The tree line is about 1800 m, but even in the belt of the montane forest the tree cover is poor. The tragacanthic vegetation consists of an alpine flora, which belongs to the Iranoturanian element, in spite of the great distance which separates Mt. Hermon from the high mountains of Iran. Mt. Hermon is built mainly of jurassic limestone and is rich in karstic phenomena. There are many dolinas with terra-rosa at their bottom, covered with flowering plants in the summer. Here, probably because of the protection from winds, many insects are found. The Diptera, Hymenoptera and Rhopalocera are best represented.

* This work was partially supported by a grant from the Fauna Palaestine Committee of the Israel Academy of Sciences and Humanities.

Since 1967 scientists from Israel have had the possibility to study the southern shoulder of the Hermon, up to 2000 m. In spite of the fact that the accessible area is only a small part of Mt. Hermon (Fig. 1), many interesting observations have been made. The flora and fauna was found to be different in many ways from that of Israel west of the Jordan. From 1000 identified plant species, 180 do not occur in Israel (Shmida et al., 1972). Some common palaeartic animal species reach the Hermon, but are not found west of the Jordan. In addition, new species were recorded, which may be endemic to the Hermon. Fishelson (1969) described two new species of *Chorthippus* (Acrididae), Schweiger (1970) - two new species of *Carabus* (Carabidae), Freidberg (1974) - a new species of *Urophora* (Tephritidae). Freidberg (1974a) also gives a list of 35 species of Tephritidae collected on the Hermon. Kugler has described two new species of tachinids, *Rhinotachina golanensis* (1971) and *Palmonia hermonensis* (1972). The latter belongs to a new genus.

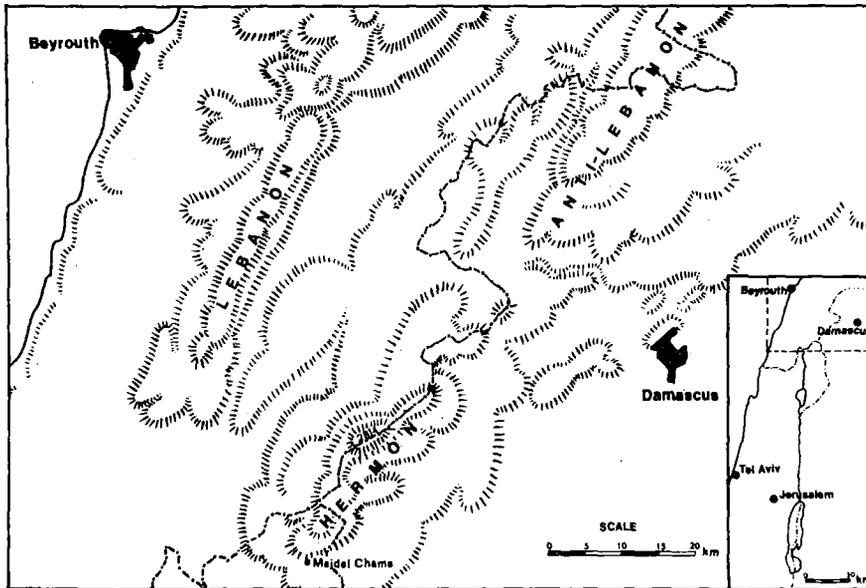


Fig. 1. Map of Mt. Hermon.

This paper contains a list of 73 species of Tachinidae, collected on Mt. Hermon between 1967-1973. Sixteen of the species are not known from Israel west of the Jordan, and only five of them are known from other countries in the Palearctic region. In addition to the two already described species, six are described in this paper: *Cylindromyia hermonensis* n. sp., *C. theodori* n. sp., *C. montana* n. sp., *Bithia pauciseta* n. sp., *Graphogaster parvipalpis* n. sp. and *Chaetina longicauda* n. sp., Two species, *Spallanzania* sp. near *multisetosa* Rondani and a species possibly belonging to a new genus near *Nulea* R.D., will be described later.

All the enumerated specimens were collected with a sweeping net during day-time, mostly on the flowers of the following plants:

- Eryngium billardieri* Laroche (Umbelliferae)
Ferulago frigida Boiss. (Umbelliferae)
Pyrethrum tenuilobum Boiss. (Compositae)
Anthemis sp. (Compositae)
Euphorbia erinacea Boiss. et Ky. (Euphorbiaceae)
Scrophularia libanotica Boiss. (Scrophulariaceae).

LIST OF SPECIES

P H A S I I N I

Clytiomyia sola (Rondani, 1861)

Majdel Chams, 1200 m, 2.V.1968, 1 ♂; Jabal Ru'us, 1200 m, 20.IV.1972, 1 ♂.

Gen. Dist.: S. Europe, N. Africa, Israel.

Clytiomyia dupuisi Kugler, 1971

Majdel Chams, 1200 m, 11.V.1968, 1 ♀.

Gen. Dist.: Israel, Cyprus.

Ectophasia rubra (Girschner, 1888) sensu Dupuis (1963)

(= *crassipennis* auct. partim) Majdel Chams, 1200 m, 11.V.1968, 1 ♂; 2000 m, 8.VIII.1973, 2 ♂♂, 2 ♀♀ and 13.VIII.1973, 1 ♂, 2 ♀♀.

Gen. Dist.: C. and S. Europe, Turkey, Caucasus, S. Siberia, Cyprus, Syria, Israel.

Gymnosoma clavatum Rhodendorf, 1947

Collected at all altitudes, from April to August.

Gen. Dist.: C. and S. Europe, Caucasus, C. Asia, Cyprus, Israel.

Helomyia lateralis (Meigen, 1824)

Collected at all altitudes, from April to August.

Gen. Dist.: Warmer parts of C. Europe, S. Europe, N. Africa, Cyprus, Israel.

Allophora subcoleoptrata (Linnaeus, 1767)

Collected at all altitudes, mainly in May and June, rarely in July and August.

Gen. Dist.: Europe from S. Sweden to Italy, Ukraine, Kazakhstan, Tadzhikistan, S. Siberia, Asia Minor, Syria, Iraq, Iran, Morocco, Israel.

Allophora pusilla (Meigen, 1824)

2000 m, 18.VII.1972, 1 ♂ and 13.VIII.1973, 1 ♂, 1 ♀.

Gen. Dist.: The whole Palaearctic region from England to Japan, Israel.

Leucostoma crassa Kugler, 1966

Collected at all altitudes, from June to October.

Gen. Dist.: Israel.

Leucostoma engeddense Kugler, 1966

1900 m, 28.VII.1971, 1 ♀.

Gen. Dist.: Israel.

Dionaea aurifrons (Meigen, 1824)

1900 m, 28.VII.1971, 1 ♂; 2000 m, 8.IX.1971, 1 ♂.

Gen. Dist.: England, C. and S. Europe, Ukraine, Algeria, Israel.

Dionaea setifacies (Rondani, 1861)

Majdel Chams, 1200 m, 18.VII.1967, 1 ♂; 1900 m, 28.VII.1971, 1 ♂.

Gen. Dist.: C. and S. Europe, Canary Islands, Israel.

Clairvillia biguttata (Meigen, 1824)

Majdel Chams, 1200 m, 11.V.1968, 1 ♂.

Gen. Dist.: Warmer parts of C. Europe, S. Europe, Ukraine, Israel.

Clairvillia pninae Kugler, 1971
Majdel Chams, 1200 m, 11.V.1968, 1 ♀.
Gen. Dist.: Israel.

Cylindromyia brassicaria (Fabricius, 1775)
Collected at all altitudes, from June to September.
Gen. Dist.: The whole Palaearctic region from England
to Japan, Israel.

Cylindromyia pusilla (Meigen, 1824)
Majdel Chams, 1200 m, 11.V.1968, 1 ♀.
Gen. Dist.: Europe as far north as C. Norway and Sweden,
Caucasus, Israel.

Cylindromyia hermonensis n. sp.
1650 m, 8.VIII.1973, 1 ♂, 1 ♀; 1750 m, 22.VI.1973, 1 ♀.
Gen. Dist.: Mt. Hermon.

Cylindromyia theodori n. sp.
1650 m, 8.VIII.1973, 3 ♀♀; 2000 m, 13.VIII.1973, 2 ♂♂,
1 ♀.
Gen. Dist.: Mt. Hermon.

Cylindromyia montana n. sp.
2000 m, 28.VI.1971, 1 ♀.
Gen. Dist.: Mt. Hermon.

Besseria anthophila (Loew, 1871)
1700 m, 22.VI.1973, 1 ♂.
Gen. Dist.: C. and S. Europe, mountains of C. Asia, Israel.

D E X I I N I

Billaea pectinata (Meigen, 1826)
1600-2000 m, from June to September.
Gen. Dist.: C. and S. Europe, Ukraine, S. Russia, Israel.

Billaea subrotundata (Rondani, 1862)
1650 m, 22.VI.1973, 1 ♂; 2000 m, 8.VIII.1973, 1 ♂ and
13.VIII.1973, 1 ♀.
Gen. Dist.: C. and S. Europe, Ukraine, Caucasus,
Turkmenia, Israel.

Myxodexia biserialis (Portschinsky, 1882)
Majdel Chams, 1200 m, 11.V.1968, 2 ♀♀ and 9.V.1970, 1 ♂.
Gen. Dist.: Caucasus, Tadzhikistan, Turkey, Syria, Israel.

Zeuxia cinerea Meigen, 1826

Collected at all altitudes, from June to August.

Gen. Dist.: C. and S. Europe, Ukraine, Armenia, Israel.

V O R I I N I

Cyrtophleba ruricola (Meigen, 1824)

1650, 8.VIII.1973, 1 ♀.

Gen. Dist.: Europe as far north as S. England, C. Sweden and Finland, C. Asia, Israel.

Wagneria cunctans (Meigen, 1824)

2000 m, 22.V.1973, 1 ♀.

Gen. Dist.: S. and C. Europe, N. Africa, Israel.

Periscepsia nigrans (Meigen, 1826)

2000 m, from May to September.

Gen. Dist.: Europe, Africa, Israel.

Periscepsia plorans (Rondani, 1861)

1750 m, 22.VI.1973, 1 ♂, 1 ♀; 2000 m, 22.VI.1973, 1 ♀.

Gen. Dist.: S. and C. Europe, Israel.

Periscepsia prunicia (Herting, 1969)

2000 m, 23.IX.1972, 1 ♂ and 8.VIII.1973, 1 ♂.

Gen. Dist.: Spain, Switzerland.

Eriothrix latifrons (Brauer, 1898)

1400-1650 m, from June to August.

Gen. Dist.: C. and S. Europe, Ukraine, Caucasus, Turkey, Kazakhstan.

Stomina angustifrons Kugler, 1968

Majdel Chams, 1200 m, 11.V.1968, 2 ♂♂, 3 ♀♀ and 9.V.1970, 1 ♂; 2000 m, 22.V.1973, 3 ♂♂, 2 ♀♀.

Gen. Dist.: Israel, Algeria.

Stomina sp.

Majdel Chams, 1200 m, 11.V.1968, 1 ♂, 1 ♀ 1650 m, 8.VIII.1973, 1 ♂.

Gen. Dist.: Israel.

Stomina iners (Meigen, 1838) (=varians Villeneuve, 1930)

Majdel Chams, 1200 m, 11.V.1968, 1 ♂; 1600 m, 22.VI.1971, 2 ♂♂.

Gen. Dist.: S. Europe, Ukraine, S. Russia, Israel.

Dufouria nigrita (Fallen, 1810)

Majdel Chams, 1200 m, 11.V.1969, 1 ♀ and 9.V.1970, 4 ♂♂.
Gen. Dist.: Europe as far north as Scotland, C. Sweden
and Finland, Israel.

T A C H I N I N I

Tachina vernalis (Robineau-Desvoidy, 1830) (= *magnicornis*
Zettersted, 1844)

Collected at all altitudes, from May to June.

Gen. Dist.: Most of the Palaearctic region from England
to Japan, N. Africa, Cyprus, Israel.

Peletieria rubescens (Robineau-Desvoidy, 1830)

1600 m, 23.IX.1972, 1 ♀ and 27.X.1972, 1 ♀; 1650 m,
8.VIII.1973, 1 ♀.

Gen. Dist.: Most of the Palaearctic region from S. England,
Middle Sweden and Finland to E. Siberia, N.
Africa, Israel.

Linnaemyia vulpina (Fallén, 1810)

Majdel Chams, 1200 m, 9.V.1970, 1 ♂.

Gen. dist.: Europe, C. Asia, Siberia. Mongolia, Israel.

Linnaemyia soror Zimin, 1954

2000 m, 22.V.1973, 1 ♀.

Gen. Dist.: S. Europe, C. Asia, Cyprus, Israel.

Macquartia tessellum (Meigen, 1824)

Collected at all altitudes, from May to June.

Gen. Dist.: From S. England to N. Africa, Israel.

Istoglossa puella Rondani, 1861

1650 m, 8.VIII.1973, 6♂♂; 2000 m, 13.VIII.1973, 1♂, 4♀♀.

Gen. Dist.: S. Europe.

Bithia (Rhinotachina) modesta (Meigen, 1824)

1650 m, 8.VIII.1973, 1 ♂, 1 ♀; 2000 m, 8.IX.1971, 1 ♀
and 13.VIII.1973, 1 ♀.

Gen. Dist.: S. Europe; Ukraine.

Bithia (Sesiophaga) setulosa (Kugler, 1968)

1650-2000 m, from August to September.

Gen. Dist.: Israel.

Bithia (Rhinotachina) golanensis (Kugler, 1971)

1000 m, 8.VIII.1973, 1 ♀; 1100 m, 11.V.1968, 1 ♂.

Gen. Dist.: Mt. Hermon.

Bithia pauciseta n. sp.

1650-2000 m, from June to August.

Gen. Dist.: Mt. Hermon.

Aphria longirostris (Meigen, 1824)

2000 m, 22.VI.1973, 1 ♀.

Gen. Dist.: Europe, Caucasus, Israel.

Mintho rufiventris (Fallen, 1816)

1300-1400 m, from May to September.

Gen. Dist.: Europe, Caucasus, C. Asia, Israel.

Palmonia hermonensis Kugler, 1972

1400 m, 21.VI.1971, 1 ♂, 1 ♀.

Gen. Dist.: Mt. Hermon.

Zimonia masiceraeformis (Portschinsky, 1881)

1650, 8.VIII.1973, 1 ♂; 2000 m, 13.VIII.1973, 1 ♂.

Gen. Dist.: Switzerland, Caucasus, Tadzhikistan, Israel.

Pseudomintho diversipes (Strobl, 1899)

1500 m, 21.IV.1969, 1 ♀.

Gen. Dist.: Spain, N. Africa, Israel.

Pseudomintho pentheri Bischof, 1906 (= *ater* Kugler, 1970)

1650 m, 22.VI.1973, 1 ♀.

Gen. Dist.: Turkey, Golan Heights.

Neaera atra Robineau-Desvoidy, 1850

1400-1700 m, June.

Gen. Dist.: S. Europe, Asia Minor, Israel.

Heraultia albipennis Villeneuve, 1920

1600-2000 m, from June to August.

Gen. Dist.: S. France, Spain.

Graphogaster vestita Rondani, 1868

1400-1700 m, June (rarely September).

Gen. Dist.: S. Europe, N. Africa, Caucasus, Israel.

Graphogaster parvipalpis n. sp.

1650 m, 22.VI.1973, 1 ♂.

Gen. Dist.: Mt. Hermon.

Trichaetia pictiventris (Zettersted, 1853)

1200 m, 20.IV.1972, 1 ♀.

Gen. Dist.: Europe, Syria, Israel.

Exorista segregata (Rondani, 1859)

Collected at all altitudes, from June to August.
Gen. Dist.: S. Europe, N. Africa, Cyprus, Israel.

Exorista kugleri Mesnil, 1960

2000 m, 13.VIII.1973, 1 ♀.
Gen. Dist.: Israel, Tunisia.

Exorista aberrans (Strobl, 1893)

Collected up to 1750 m. from June to October.
Gen. Dist.: S. Europe, N. Africa, Cyprus, Israel.

Exorista sp.

1400 m, 21.VI.1971, 1 ♂.
Gen. Dist.: Mt. Hermon.

Chaetogena (=Spoggosia) *acuminata* (Rondani, 1859)

Madjel Chams, 1200 m, 11.V.1968, 1 ♀; 2000 m, 22.V.1973,
1 ♀.

Gen. Dist.: S. Europe, N. Africa, Cyprus, Israel.

Chaetogena media (Rondani, 1859)

1300 m, 22.V.1973, 1 ♂.
Gen. Dist.: S. Europe, Israel.

Chaetogena siciliensis (Villeneuve, 1924)

Majdel Chams, 1200 m, 9.V.1970, 2 ♂♂, 1 ♀.
Gen. Dist.: Sicily, N. Africa, Cyprus, Israel.

Ligeria angusticornis (Loew, 1847)

1650 m, 8.VIII.1973, 1 ♂.
Gen. Dist.: Europe, Israel.

Compsilura concinnata (Meigen, 1824)

1650 m, 8.VIII.1973, 1 ♀.
Gen. Dist.: From Europe to Japan, Israel.

Lomacantha parra Rondani, 1859

Collected at 1400 m, in June.
Gen. Dist.: C. and S. Europe, Syria, Israel.

G O N I I N I

Nemorilla maculosa (Meigen, 1824)

1650 m, 22.V.1973, 1 ♀; 1900 m, 28.VII.1971, 4 ♂♂; 2000 m,
28.VI.1971, 1 ♂, 1 ♀ and 13.VIII.1973, 1 ♀.
Gen. Dist.: Europe, N. Africa, Asia, Cyprus, Syria, Israel.

Gonia sicula (Robineau-Desvoidy, 1830)

1800 m, 23.IV.1973, 1 ♀.

Gen. Dist.: Europe, Israel.

Spallanzania sp. nr. *multisetosa* (Rondani, 1859)

2000 m, 28.VI.1971, 1 ♂, 1 ♀ and 13.VIII.1973, 1 ♀.

Gen. Dist.: Mt. Hermon.

Drino (*Palexorista*) *zonata* (Curran, 1927)

1650 m, 8.VIII.1973, 1 ♂; 2000 m, 13.VIII.1973, 1 ♂.

Gen. Dist.: Uganda, Kenya, Sudan, Egypt, Arabia, Syria,
Israel.

Clemelis pullata (Meigen, 1824)

2000 m, 13.VIII.1973, 2 ♂♂.

Gen. Dist.: Europe, Caucasus, W. Siberia, Cyprus, Israel.

Nilea trisetata (Villeneuve, 1922)

2000 m, 18.VII.1972, 1 ♂.

Gen. Dist.: S. Europe, Israel.

Prosopaea nigricans (Egger, 1861)

Collected up to 1600 m, from May to June.

Gen. Dist.: C. and S. Europe, Ukraine, Caucasus, Israel.

Chaetina longicauda n. sp.

2000 m, 13.VIII.1973, 1 ♀.

Gen. Dist.: Mt. Hermon.

Nov. genus (near *Nilea* Robineau-Desvoidy) n.sp.

2000m, 22.VI.1973, 1 ♂.

Gen. Dist.: Mt. Hermon.

ES¹ DESCRIPTION OF NEW SPECIES

Cylindromyia hermonensis n. sp.

Female

Length 8 mm.

Color. Thorax and legs black; anterior border and distal part of abdomen shiny black, segment 2 mainly red, segment 3 red, segment 4 red in the anterior dorsal side and the whole ventral side; frontal stripe dark red; parafacials yellow, white pollinose; antennae black, segment 3 yellow in inner side of base; wings infumated; halteres brown.

Head (Fig. 2). Occiput with white hairs and a few black bristles behind the occipital row; occipital dilatation with black hairs and bristles; frontal stripe in the middle twice as wide as one parafrontal; seven frontal bristles on each side, 2 *oe* of different strength and a fine prevertical bristle; great vibrissae strong, with one or a few very fine hairs above; segment 3 of antenna $1\frac{1}{2}$ as long as segment 2; palps absent.

Thorax. 3 + 3 dorsocentral bristles, 1 + 1 sternopleurals, 3 - 5 hypopleurals; scutellum with two pairs of marginal bristles.

Wings (Fig. 3). Three setulae at base of r_{4+5} ; bend of *m* with a short appendage; apical cross-vein sinuate; posterior cross-vein slightly sigmoid; *r-m* approximately in line with end of r_1 .

Legs. Femur₂ with two bristles in the middle of the anterior side; femur₃ without a strong posterior bristle in the middle; tibia₁ with 2 small posteroventral bristles in the middle and a strong one near the tip; tibia₃ with 2 anterodorsal, 2 posterodorsal, 2 anteroventral and one posteroventral bristle near the middle; claws of forelegs shorter than segment 5 of tarsus.

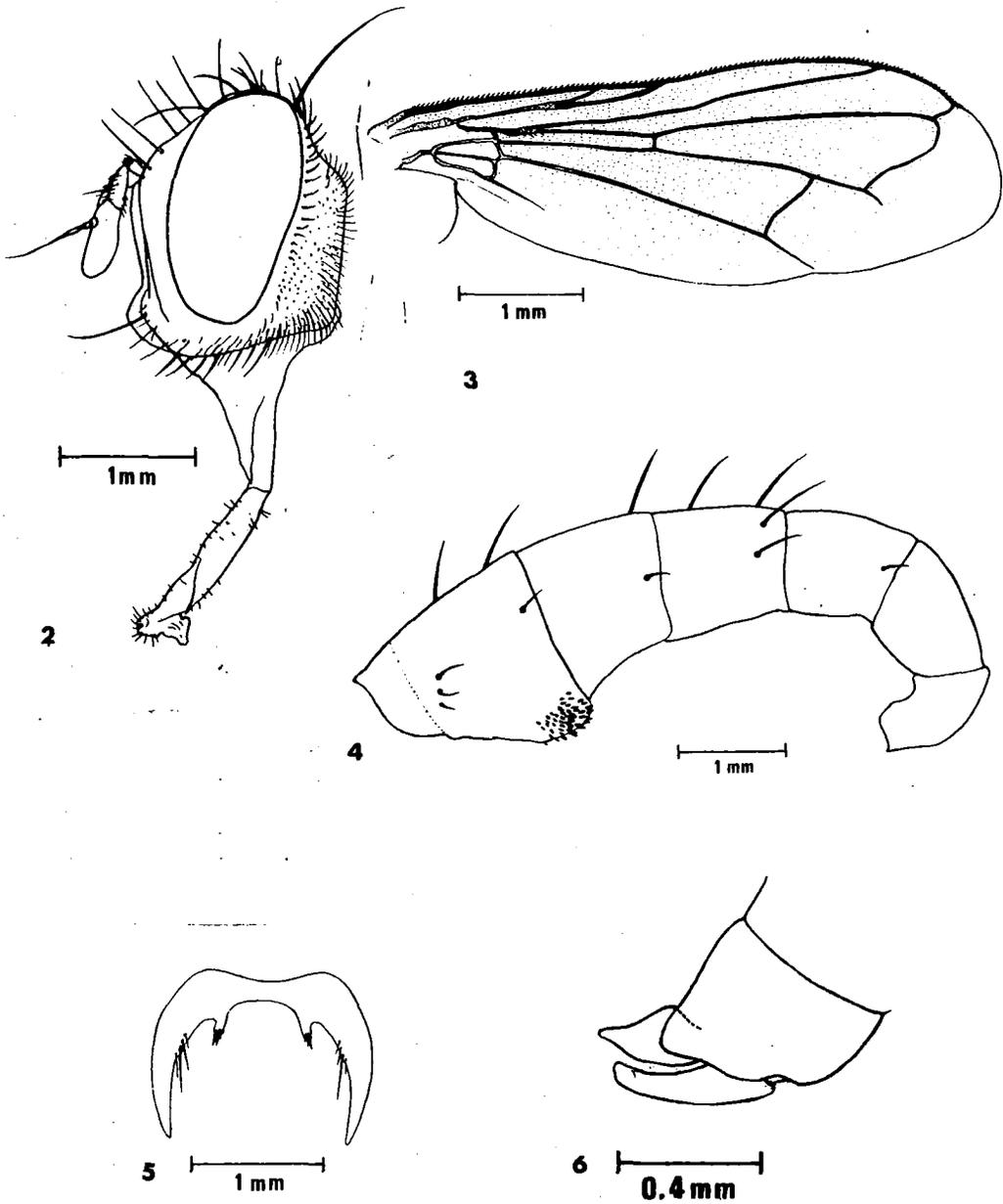
Abdomen (Fig. 4). Segment 2 and 3 with a pair of dorsal marginal bristles, segment 4 with a row of marginals; of the two examined females one has no discals, the other has discals on segment 2 and 4; on the ventral distal part of tergite 2, an area of strong spinulae; segment 7 truncated, only slightly clefted, without finger or hook-like processes as in other species of *Cylindromyia*.

Male

Without *oe* and prevertical bristles; claws of forelegs much longer than fifth tarsal segment; tergite 2 and 3 with a pair of marginals and a pair of discals, segment 4 and 5 with a row of marginals and a pair of discal bristles; sternite 5 (Fig. 5) arched, with a pair of bristles - bearing lobes near the middle and a group of longer bristles on the arms.

Male genitalia - Fig. 6.

Cylindromyia hermonensis is similar to *C. auriceps* (Meigen) by having two pairs of marginal bristles on the scutellum, by the short antennae and by having an area with spinulae on the ventral side of the second abdominal segment of the female. The main differences between the two species



Figs. 2 - 6. *Cylindromyia hermonensis* n.sp.: 2, female, head; 3, wing; 4, female, abdomen; 5, male, sternite 5; 6, male, paralobe and mesolobe in profile.

are: in *C. hermonensis* the end of the abdomen is clefted into two very short truncated arms, while in *C. auriceps* the arms are long and pointed. The male of *C. auriceps* does not possess the lobes on sternite 5, and tergite 9 has a finger-like distal process which *C. hermonensis* lacks.

Holotype ♀ and allotype ♂ collected at Mt. Hermon, 1650 m, 8.VIII.1973. 1 ♀ paratype, Mt. Hermon, 1750 m, 22.VI.1973. The holotype, allotype and the other paratype are preserved in the entomological collection of the Department of Zoology, Tel Aviv University.

Cylindromyia theodori n. sp.

Female

Length. 10 mm.

Color. Mainly black; the ventral side and two dorsal spots at the hind margin of segment 2 of the abdomen and anterior part of segment 3 red; frontal stripe dark red; parafacials red; parafrontals, parafacials and peristome silvery pollinose; antennae black, inner distal margin of segment 2 and inner base of segment 3 yellow; wings (Fig. 8) strongly infuscate, anterior margin black, base partly yellow; halteres black-brown.

Head (Fig. 7). Occiput with white hairs; in the middle, in addition, few black hairs or bristles; occipital dilatation with white hairs; frontal stripe more than twice as wide as one parafrontal; four to five frontal setae on each side, two *oe* and a fine prevertical bristle; great vibrissae very fine, with only few fine hairs above; antennae long and narrow, segment 3 three times as long as segment 2; palps very short, 1-2 times as long as wide.

Thorax. 2+2 dorsocentral bristles, 1 sternopleural, 2 hypopleurals; scutellum with 3 pairs of marginal bristles.

Wings (Fig. 8) 3-6 setulae at base of r_{4+5} ; bend of *m* rectangular, with or without a small appendage; apical cross-vein sinuate; posterior cross-vein slightly sigmoid; r_1 passing considerably *r-m*.

Legs. Femur₂ with only one bristle in the middle of the anterior side; femur₃ without a posterior bristle in the middle; tibia₁ with two small posteroventral bristles; tibia₃ near the middle with two anterodorsal, two posterodorsal and two anteroventral bristles; claws of forelegs shorter than segment 5 of tarsus.

Abdomen (Fig. 9) Long, narrow, with very few bristles; segment 2 with lateral bristles only, segments 3 and 4 without marginals and discals, segment 5 with a pair of erect dorsal bristles near the base and a row of short marginals; hooks of urite 7 long, digitiform.

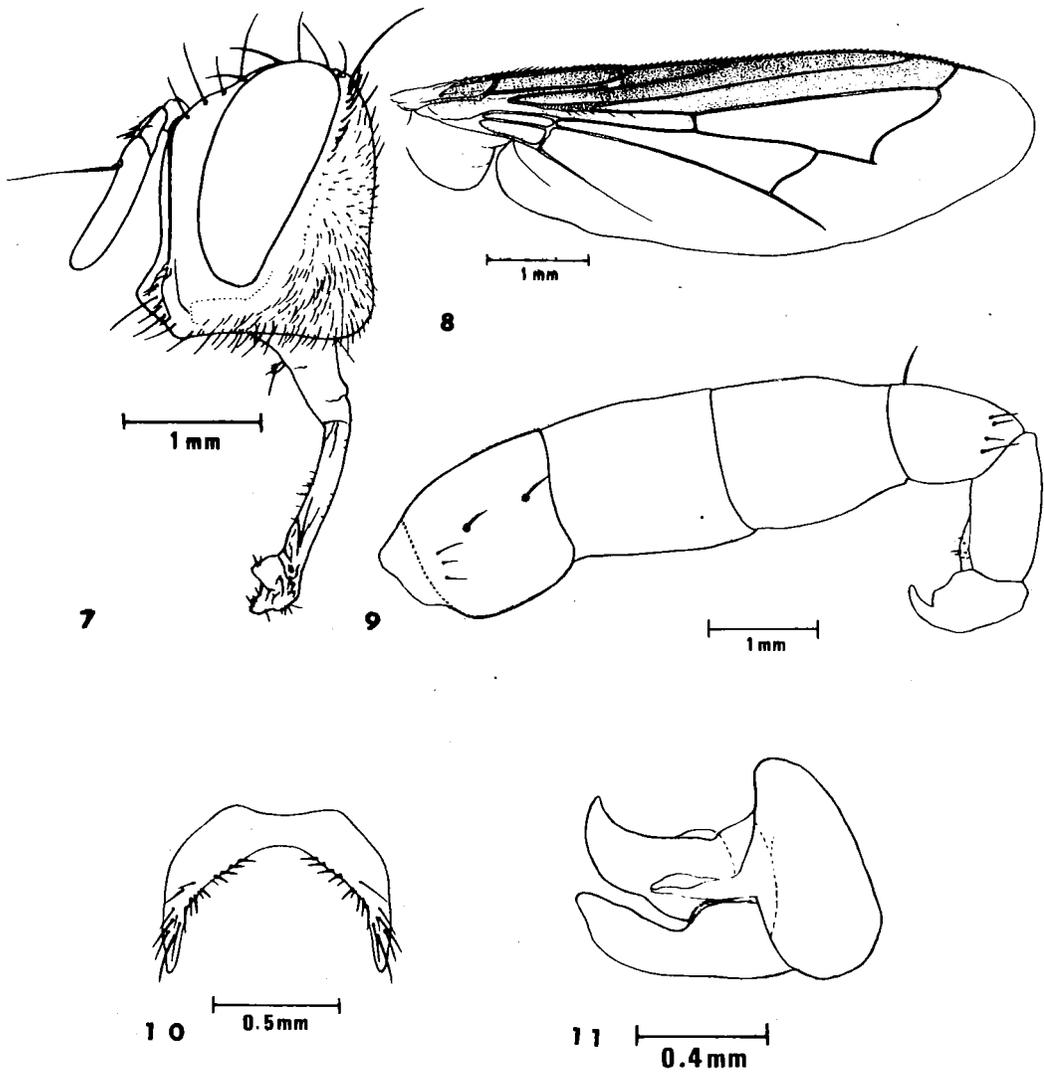
Male

Less black in color than female; segment 2 of abdomen red with a black median dorsal stripe, segment 3 and anterior part of segment 4 red; wings less infusate; frontal stripe at most as wide as one parafrontal; no *oe* and no prevertical bristle; segment 3 of abdomen with or without a pair of marginal bristles, segment 4 and 5 with a row of marginals; no discals; sternite 5 (Fig. 10) arched, with many bristles on the arms of the arch; claws of forelegs much longer than segment 5 of tarsus.

Male genitalia - Fig. 11

Cylindromyia theodori is distinct from most other species of *Cylindromyia* by having only one sternopleural bristle. The palaeartic *C. (Ocypterulla) pusilla* (Meigen) also has one sternopleural, but has only one pair of marginal bristles on the scutellum, and the end of the male's arista is lanciolate, while *C. theodori* has three pairs of marginals on the scutellum, and the end of the male's arista is filiform. The ethiopian species *C. deserta* (Villeneuve) and *C. marginalis* (Wiedeman) also have only 1 sternopleural bristle, but these species have only one postsutural dorso-central bristle, instead of two. The abdomen of *C. deserta* is mostly red, and in the wing the bend of *m* is strongly obtuse, while the abdomen of the female of *C. theodori* is mainly black, and the bend of *m* is rectangular. In *C. marginalis* there are no apical bristles on the scutellum.

Holotype ♀ and 2 ♂♂ paratypes collected at Mt. Hermon, 1650 m, 8.VIII.1973; 2 ♂♂, 1 ♀ Mt. Hermon, 2000 m, 13.VIII.1973. The holotype and the paratypes are preserved in the entomological collection of the Department of Zoology, Tel Aviv University.



Figs. 7-11. *Cyndromyia theodori* n.sp.: 7, female, head; 8, female, wing; 9, female, abdomen; 10, male, sternite 5; 11, male, paralobe and mesolobe in profile.

Cylindromyia montana n. sp.

Female

Length. 11 mm.

Color. Mainly black; ventral and lateral sides of segment 2 of abdomen, segment 3 and a narrow stripe on anterior margin of segment 4 red; anterior margin of segment 3 and 4 with a narrow stripe of white pollinosity; thorax behind suture mostly shiny black, partly with light grey pollinosity; frontal stripe dark red; antennae black.

Head (Fig. 12). Occiput with white hairs behind the occipital row; occipital dilatation with white hairs; several bristles and hairs above the great vibrissae; segment 3 of antenna twice as long as segment 2; palps four times as long as wide, about as long as width of segment 3 of antenna.

Thorax. 3+3 dorsocentral bristles, 1+1 sternopleurals; scutellum with 3 pairs of marginal bristles.

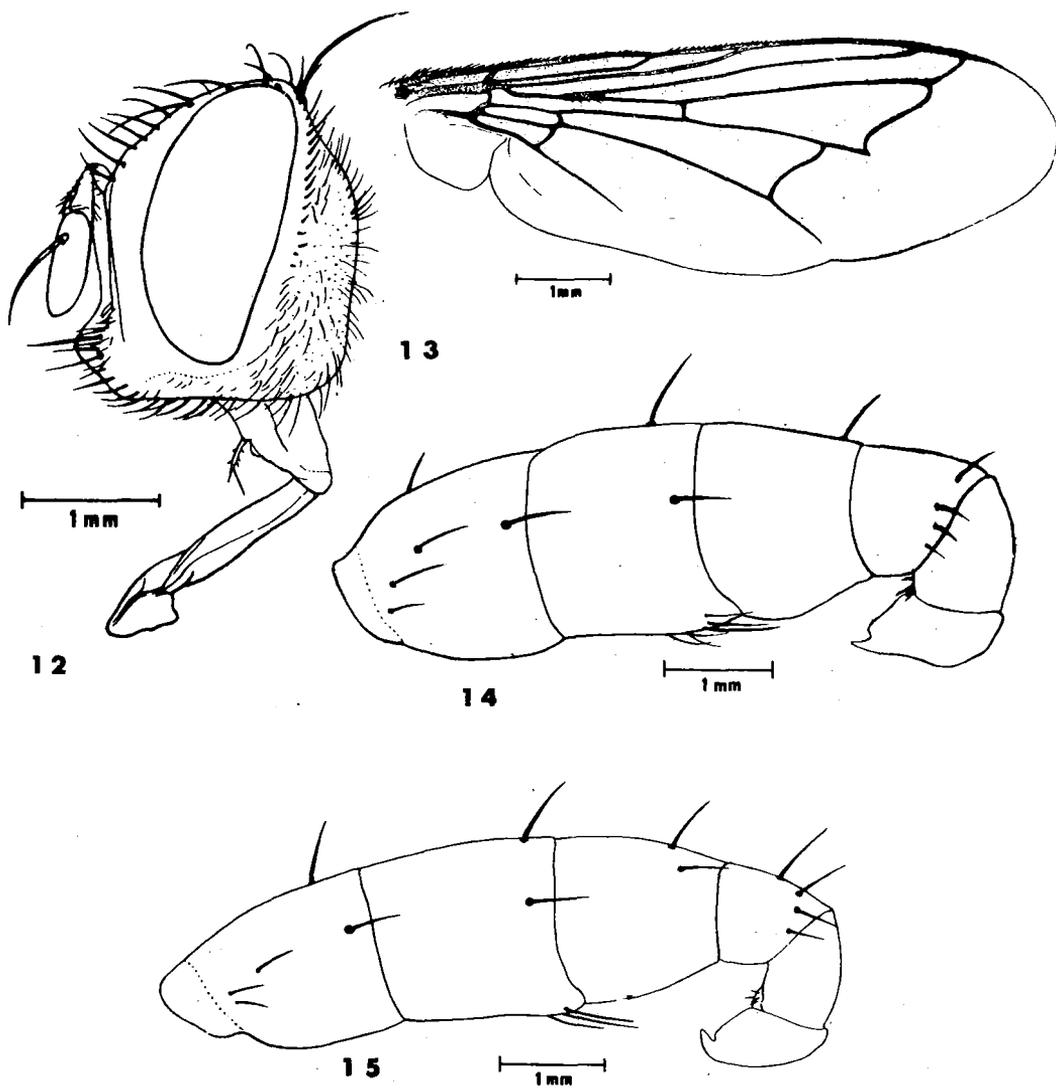
Wings (Fig. 13). r_1 much exceeding level of $r-m$; 4 setulae at base of r_{4+5} ; bend of m rectangular; apical cross-vein sinuate; posterior cross-vein sigmoid.

Legs. Femur₂ with two bristles in the middle of the anterior side; tarsal segments short and wide, segment 4 of foretarsus wider than long.

Abdomen (Fig. 14). One pair of dorsal bristles on segment 2 anterior to the middle of the segment; segment 3 with a pair of marginals and no discals; segment 4 with a row of marginals and no discals; segment 5 with a row of short marginals; hooks of urite 7 short and straight.

The female of *Cylindromyia montana* is similar to *C. brassicaria* (Fabricius) and *C. pilipes* (Loew) by having three pairs of marginal bristles on the scutellum, by the absence of discals on segments 3 and 4 of the abdomen and by the length of the antennae. The main difference between the species is the form of the hooks of urite 7, which are short and straight in *C. montana* (Fig. 14), strongly bent in *C. brassicaria* (Fig. 15), and straight but longer and digitiform in *C. pilipes*. In addition, the dorsal bristles on segment 2 of the abdomen in *C. montana* are closer to the anterior margin, while in *C. brassicaria* and *C. pilipes* they are closer to the hind margin of the segment. The marginals of segment 5 are weak and in a row in *C. montana*; in *C. brassicaria* and *C. pilipes* they are stronger, and the middle, discal-like pair is far from the hind margin of the segment.

The holotype ♀, collected on Mt. Hermon, 2000 m, on 28.VI.1971, is preserved in the entomological collection of the Department of Zoology, Tel Aviv University.



Figs. 12-14. *Cylindromyia montana* n.sp., female: 12, head; 13, wing; 14, abdomen.

Fig. 15. *Cylindromyia brassicaria* Fabricius, female, abdomen.

Bithia pauciseta n. sp.

Male.

Length. 7-8 mm.

Color. Black, with dense grey-yellow pollinosity; viewed in a certain angle, a black interrupted median line appears along the abdomen; frontal stripe light brown; antennae black, segments 1 and 2 yellow; palps yellow; distal part of scutellum yellow; legs black, the tibiae and part of the femura yellow.

Head (Fig. 16). Occiput with white hairs and a few black hairs behind the occipital row; seen from above frons $\frac{3}{4}$ as wide as one eye; ocellar bristles bent forward and outward; frontal stripe in the middle as wide as one parafrontal; frontal setae slightly pass the level of end of segment 1 of antenna; parafrontals with fine hairs near the frontal setae; segment 3 of antenna nearly twice as long as segment 2; arista with fine hairs.

Thorax. 2+3 acrostichals, 3+3 dorsocentrals, 0+3 intraalars, 2+1 sternopleurals; scutellum with three pairs of marginals, strong basals and fine semierect apicals.

Wings. R_5 open; a row of bristles on r_{4+5} nearly reaching $r-m$.

Legs. Claws and pulvilli of forelegs longer than segment five of tarsus.

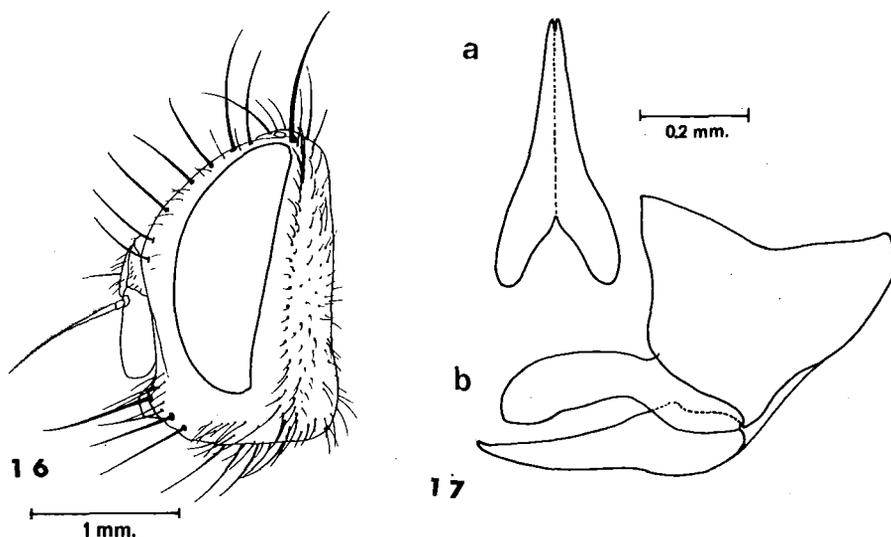
Abdomen. Excavation of segment 2 reaching hind margin of segment; segment 5 with erect hairs; segment 2 without, segment 3 with a pair, segment 4 and 5 with a row of marginal bristles; no discal bristles.

Male genitalia (Figs. 17a,b). Mesolobes united almost to tip.

Female. Sides of segment 2 and 3 of abdomen more or less yellow; frons seen from above as wide as one eye; parafrontals with one outward bent prevertical and two proclinate ocellar bristles; frontal stripe in the middle narrower than one parafrontal; claws and pulvilli of forelegs shorter than segment 5 of tarsus.

B. pauciseta is included in the genus *Bithia* Robineau-Desvoidy, as interpreted by Mesnil (1973), who suppressed the genera *Rhinotachina*, *Pseudodemoticus*, *Sesiophaga* erected by Brauer and Bergenstamm, and included the species belonging to these genera in *Bithia*. *B. pauciseta* differs from the other species of the genus by the absence of discal setae on the abdomen. It is, however, close to *B. glirina* (Rondani) and *B. setulosa* (Kugler) by having a row of bristles on r_{4+5} which almost reach $r-m$; it differs from them by the long claws and pulvilli and by having three dorsocentral bristles behind the suture, instead of two.

Holotype ♂ and paratypes 2 ♂♂, 10 ♀♀ collected on Mt. Hermon, 1650 m, 8.VIII.1973. 1 ♀ Mt. Hermon, 2000 m, 22.VI.1973; 1 ♂, 4 ♀♀ Mt. Hermon, 2000 m, 13.VIII.1973. The holotype and the paratypes are preserved in the entomological collection of the Department of Zoology, Tel Aviv University.



Figs. 16-17. *Bithia pauciseta* n.sp., male: 16, head; 17a, mesolobes; 17b, paralobe and mesolobe in profile.

Graphogaster parvipalpis n. sp.

Male.

Length. 4.5 mm.

Color. Black, thorax slightly grey pollinose; anterior part of segment 3 of abdomen grey pollinose, segment 4 entirely pollinose, segment 5 only in its anterior part; palps brown-black.

Head (Fig. 18). Frons very narrow, in its narrowest part a little wider than the anterior ocellus; parafrontals separated along the whole length by the frontal stripe; frontal setae slightly pass the level of end of segment 1 of antenna; segment 3 of antenna less than twice as long as segment 2; palps very short, shorter than width of third antennal segment.

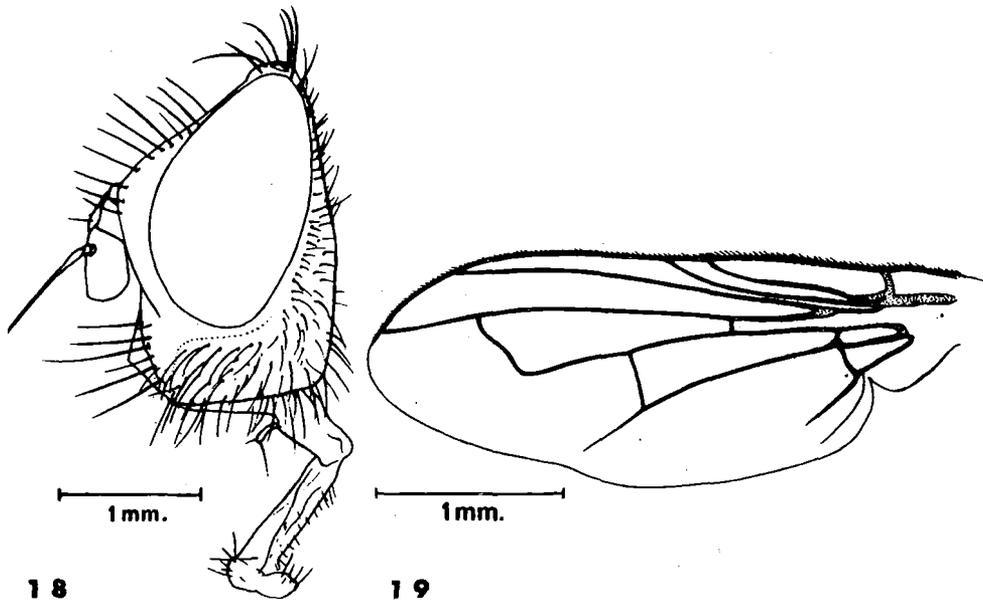
Thorax. 2+3 dorsocentrals, no downward bent substigmatal bristle.

Wings (Fig. 19). No prominent costal spine; Petiole of R_5 longer than apical cross-vein; base of r_{4+5} without hairs or setulae.

Abdomen. Segment 4 with a row of discal and a row of marginal bristles.

G. parvipalpis differs from all other species of *Graphogaster* by its very short palps.

The holotype ♂, collected on Mt. Hermon, 1650 m, 22.VI. 1973, is preserved in the entomological collection of the Department of Zoology, Tel Aviv University.



Figs. 18-19. *Graphogaster parvipalpis* n. sp., male: 18, head; 19, wing.

Chaetina longicauda n. sp.

Female.

Length. 6 mm.

Color. Black; thorax densely grey pollinose; anterior half of segment 3 and 4 of abdomen grey pollinose; frontal stripe red; antennae black; palps brown-black, with yellow tip.

Head (Fig. 20). Occiput concave, without black hairs behind

the occipital row; frons seen from above slightly wider than one eye; frontal stripe in the middle narrower than one parafrontal; parafacials in the middle narrower than segment 3 of antenna; two *oi*, the anterior one stronger; frontal setae curved backward, descending to level of base of arista; parafrontals with two strong *oe* and sparse fine hairs; parafacials bare below the frontal setae; occipital dilatation occupies nearly the whole width of the peristome; mouth margin protruding in profile between the vibrissae; only a few bristles and hairs above the great vibrissae; antennal segment 3 twice as long as segment 2; arista incrassate $3/4$ of its length; eyes bare.

Thorax. 3 humerals in a straight row; 3+3 acrostichals, 3+4 dorsocentrals, 1+3 intraalar, third supraalar as strong as prealar; 2+2 sternopleurals, scutellum with four pairs of marginal bristles, the apicals erected, half as long as the subapicals; preapicals absent.

Wings. R_5 narrowly open; apical cross-vein oblique, straight; only one strong bristle at base of r_{4+5} on the dorsal side, and a fine one on the ventral side; $m-m$ slightly sigmoid, reaching m_{1+2} a little nearer to the bend of m than to $r-m$.

Legs. Tibia₂ with two strong anterodorsal bristles; tibia₃ with a row of bristles of different strength; claws and pulvilli very short.

Abdomen. Excavation of segment 2 reaching hind margin of segment; segment 5 conical, 1.6 times as long as segment 4; segment 2 with a pair of marginal bristles, segment 4 with a row of marginals and a pair of discals, segment 5 with several rows of bristles.

C. longicauda is included here in the genus *Chaetina* because most characters are similar to those of *C. setigena* (Rondani). However, the differences in the form of the abdomen, the fifth segment being conical, 1.6 times longer than segment 4, instead of being truncate and nearly as long as segment 4, and the bare parafacials, raise the question as to whether a new genus has to be erected for it.

The holotype ♀, collected on Mt. Hermon, 2000 m, on 13.VIII.1973, is preserved in the entomological collection of the Department of Zoology, Tel Aviv University.

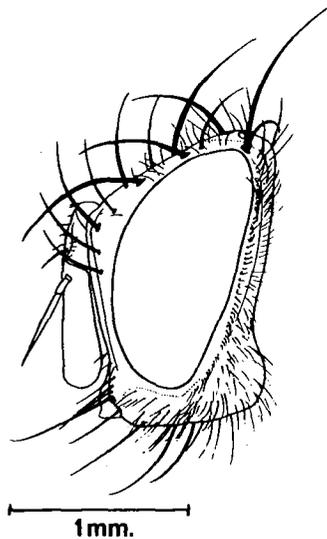


Fig. 20. *Chaetina longicauda* n.sp., female, head.

ACKNOWLEDGEMENTS

The author wishes to thank Mr. A. Freidberg, Mr. D. Furth, Mr. M. Kaplan and Mrs. F. Kaplan for help in collecting tachinids, and Mr. W. Ferguson for drawing the figures.

REFERENCES

- Fishelson, L. 1969. Two new species of the genus *Chorthippus* (Acridinae) from Israel. *Israel J. Entomol.* 4: 235-242.
- Freidberg, A. 1974. Descriptions of new Tephritidae (Diptera) from Israel, I. *J. Ent. Soc. Southern Africa*, 37: 49-62.
- Freidberg, A. 1974. Tephritidae (Diptera) from Mt. Hermon. *Israel J. Entomol.* 9: 133-139.
- Kugler, J. 1971. Tachinidae of Israel IV. Description of ten new species. *Israel J. Zool.* 20: 71-88.

- Kugler, J. 1972. Tachinidae of Israel V. *Mesnilomyia* and *Palmonia*, two new genera of Tachinidae (Diptera). *Israel J. Zool.* 21: 103-112.
- Mensil, L.P. 1973. Larvaevorinae (Tachinidae). In: *Die Fliegen der Palaearktischen Region*. E. Lindner, ed., Lief. 298, pp. 1113-1168.
- Schweiger, H. 1970. The genus *Carabus* in Israel. *Israel J. Entomol.* 5: 21-55.
- Shmida, A., Zohari, M. and Danin, A. 1972. Flora and vegetation in Mount Hermon. *Sal'it*, 1:100-111 (in Hebrew).