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NEW TAXA OF TACHINIDAE (DIPTERA) WITH A LIST OF THE
SPECIES FROM ISRAEL AND ADJACENT TERRITORIES

JEHOSHUA KUGLER

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

ABSTRACT

A new genus, *Ramona* and a new subgenus *Crassicornia* of the genus *Exorista* Melgen are erected. Nine species are described: *Exorista (Crassicornia) pilosa* n.sp., *Exorista longicercus* n.sp., *Chaetogena cercosa* n.sp., *Ptesiomyia longicornis* n.sp., *Cestonionerva punctata* n.sp., *Pales latifrons* n.sp., *Ramona mesniii* n.sp., *Germaria hermonensis* n.sp., *Prodemoticus moderatus* n.sp. The difference between the female and male of *Prodemoticus orientalis* Villeneuve 1919 is given for the first time.

A list of 286 tachinids from Israel, the West Bank, the Golan Heights, Mt. Hermon and Sinai is given. Sixty three hosts from the area and the tachinids reared from them are also listed.

INTRODUCTION

In the "Prodromus Faunae Palaestinae" (Bodenheimer, 1935) 55 species are listed as Tachinidae. Only 27 of them are Tachinidae according to the modern interpretation of the family, the others belong to the Calliphoridae, Sarcophagidae and Rhinophoridae. Kugler (1963) presented a list containing 164 species. Since then many additional species were collected, part of them on Mt. Hermon, the Golan Heights and Sinai. Most of the new species were described by Draber-Monko (1965), Herting (1966, 1973, 1975), Kugler (1967, 1968, 1971, 1972, 1974, 1977, 1978 a and b) and Mesnil (1970, 1974, 1975, 1980). A list of 73 species of Tachinidae from Mt. Hermon was published by Kugler (1974).

In the following, one new genus, 1 new subgenus and 9 new species are described. *Prodemoticus orientalis* Villeneuve (1919) was known only from the male. A male and female of this species were collected in Sinai and the differences between the sexes are given here. The types of the new species are deposited in the Entomological Collection of the Department of Zoology, Tel Aviv University.

A list of 286 species of Tachinidae which are today known from Israel, the West Bank, the Golan Heights, Mt. Hermon and Sinai is given. The names used in the list are in accordance with the revision of the types made by Herting (1969, 1972, 1974, 1976, 1978). Ten species are identified only to the genus level, they are probably new species. The number of known hosts from the area has also increased. In 1963 Kugler gave a list of 45 hosts known from the area, at present 63 hosts are known. A list of the hosts and the tachinids reared from them is given. Besides additional hosts the new list contains additional tachinids of hosts mentioned in the previous list.

DESCRIPTIONS OF NEW TAXA

Exorista (Crassicornia) n. subgen.

A detailed description of the genus *Exorista* Meigen was given by Mesnil (1956, p. 560, 1960, p. 561). The new subgenus *Exorista (Crassicornia)* differs from all other species of the genus by the hairy barett and by the nearly entirely incrassate arista. At the known *Exorista* species, the barett is bare and the arista is incrassate at most in its basal half.

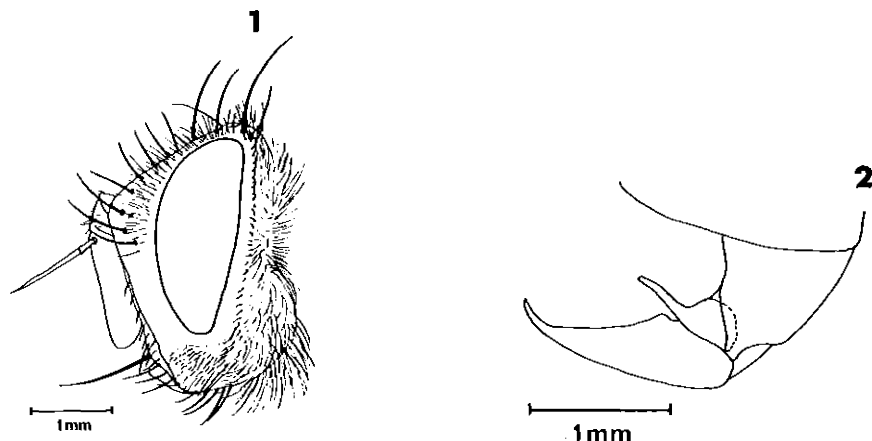
Type-species: *Exorista (Crassicornia) pilosa* n.sp.

Exorista (Crassicornia) pilosa n.sp. (Figs.1,2)

Male.

Length. 11 mm.

Color. Black; posterior 1/3 of 5th abdominal tergite and hypopygium yellow; tergites 3-5 densely grey pollinose, dorsally with a black stripe along the middle; on tergites 3 and 4 the pollinosity reaches nearly the hind margin; thorax densely grey pollinose with 4 longitudinal black stripes; scutellum mainly yellow. Parafrontalia, parafacialia, face and peristome densely white-grey pollinose; frontal stripe red; antennae black, 2nd segment yellow.



Figs. 1-2. *Exorista (Crassiocornia) pilosa* n.sp. ♂. 1 - head.
2 - cercus and paralobus.

Head. (Fig. 1). *Frons* seen from above as wide as an eye; frontal stripe in the middle nearly as wide as 1 parafrontal; 7-8 frontal setae, the lowest slightly lower than the base of arista; *vi* strong, *ve* absent; parafrontalia hairy with 2 *oi*; ocellar setae fine and bent forward; parafacialia in the middle wider than the 3rd antennal segment; fine short setae ascend above the great vibrissae till the middle of the facial ridges; 3rd antennal segment more than 3 times as long as segment 2; arista incrassate nearly to distal tip; 2nd segment 3 times as long as wide; eyes bare.

Thorax. Barett hairy; prealar seta a little shorter than the 1st postsutural *ia*; 3+4 *dc*; the apical setae of the scutellum fine, cruciate slightly erected.

Legs. Claws of forelegs longer than 5th tarsal segment; mid-tibia with 3 *ad* setae.

Wings. No visible costal spine; *R*₅ open; bent of *m* rectangular with a fold; apical crossvein concave; *m-m* more than twice as wide from *r-m* as from bent of *m*; 4-5 setulae at base of *r*₄₊₅.

Abdomen. Tergite 2 without marginal median setae; 3rd tergite with a pair, 4th with a row of marginal setae; on the posterior ½ of tergite 5 many setae of different length. Mesolobes united, forming distally a narrow hook; paralobes very short, very narrow distally (Fig. 2).

Female. Unknown.

MATERIAL EXAMINED. Holotype ♂, Israel, Hazeva (Arava valley), 27.IV.1970. Paratypes, 2 ♂♂, same data as holotype; 1 ♂, Israel, Nahal Hiyyon (Arava valley), 1.IV.1974; 1 ♂, Ethiopia, Avash, 29.XII.1971.

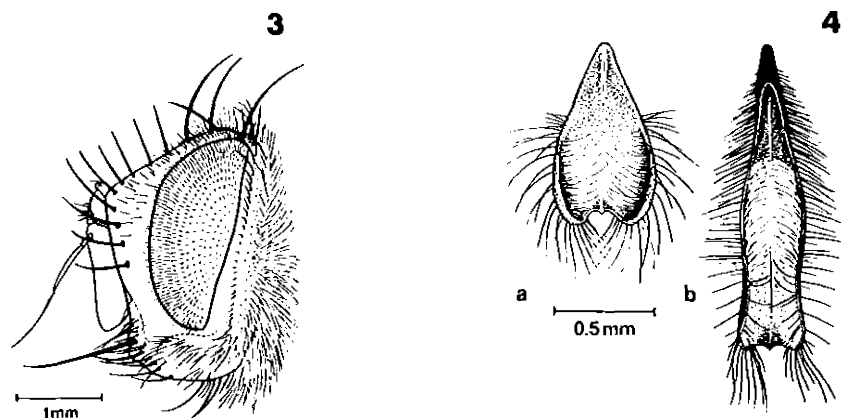


Fig. 3. *Exorista longicercus* n.sp. ♂. - head.

Fig. 4. *Exorista* spp. a - *E. sorbillans* (Wiedemann), ♂ cercus.
b. - *E. longicercus* n.sp., ♂ cercus.

Exorista (Podotachina) longicercus n.sp. (Figs. 3, 4)

Male. With the help of Mesnil's key for the identification of the palaearctic species of the genus *Exorista* Meigen (Mesnil, 1960), one arrives with this species to *Exorista (Podotachina) sorbillans* (Wiedemann). In *E. longicercus* as in *E. sorbillans* the eyes are hairy; the 3rd antennal segment is 2.5-3 as long as the 2nd segment; the sensillae on the 2nd antennal segment are arranged in a row; the arista is incrassate in its basal $\frac{1}{2}$; the 2nd segment is twice as long as wide; the frontal setae descend till the middle of the parafacialia or a little lower (Fig. 3); the palps are yellow; the labella are large; thorax with 3+4 *dc* setae; the posterior $\frac{1}{3}$ of the scutellum is yellow-brown; the hind-tibiae have a dense comb of short *ad* setae of equal length, between them 1 stronger seta; the costal spine of the wing is very short; the abdomen is covered with grey pollinosity with a black dorsal stripe along the middle and black bands at the posterior margin of the tergites; the cercus (the united mesolobes) is hollowed dorsally, the hollow is filled with fine golden-yellow cruciate hairs.

Contrary to *Exorista sorbillans* the cercus of *Exorista longicercus* (Fig. 4b) is very narrow, and very long. The tip is only slightly bent, the dorsal hollow reaches nearly the tip; the lateral sides of the cercus especially in its distal part are with long black bristle-like hairs.

The type of *E. sorbillans* was collected on the Canary Islands. Thanks to the kindness of Dr. R.W. Crosskey from the British Museum, the author had the possibility to examine a male of *Exorista sorbillans* from the Canary Islands. The cercus of this male (Fig. 4a) differs from that of *E. longicercus*. It is shorter, oval, the lateral sides are distally bare and the tip is strongly bent. According to Dr. Crosskey (personal communication), this is the only form of "*E. sorbillans*" occurring in the Canary Islands, therefore, it is the real *Exorista sorbillans* (Wiedemann) and *E. longicercus* with the different cercus is a new species.

Female. Unknown.

MATERIAL EXAMINED. Holotype ♂, Israel, En-Gedi (Dead Sea Area), 18.IX.1979. Paratype, 1 ♂, Israel, En-Gedi, 14.X.1969.

Dr. B. Herting from the Staatliches Museum für Naturkunde in Stuttgart (branch in Ludwigsburg) who examined the types informed me that a male of *E. longicercus* is preserved in the Museum collection. It is from Shiraz (Iran) and was reared from a caterpillar of *Leucoma wiltshirei* Coll. (Lymantriidae).

Chaetogena cercosa n.sp. (Figs. 5, 6, 7)

Herting (1973) proved that *Chaetogena Rondani* (1856) is identical with *Spoggosia Rondani* (1859). For this reason one has to abandon the name *Spoggosia* which was usually used for the genus in the literature.

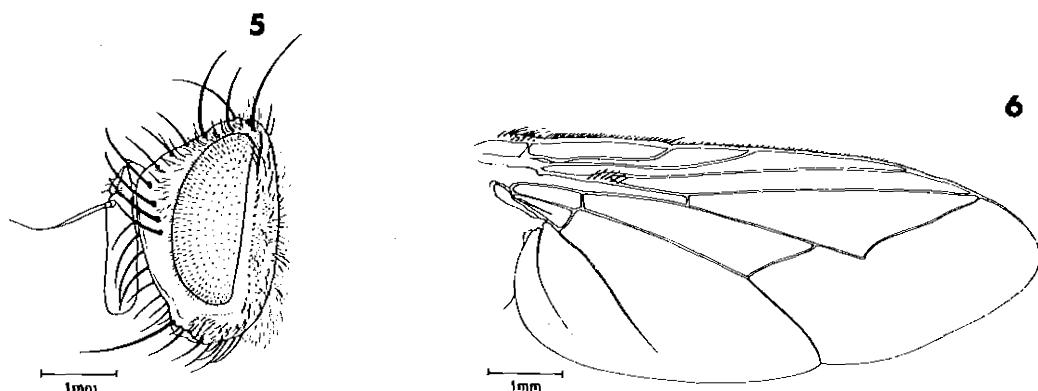
Male.

Length. 10-12 mm.

Color. Black grey pollinose. Frontal stripe red-brown; parafrontalia, parafacialia and face with dense white pollinosity; 2nd antennal segment partly yellow; palps yellow; thorax with 5 longitudinal stripes; scutellum brown-yellow, black along the

anterior border; epaulette and basicosta black; 2nd abdominal segment, posterior $1/4$ - $1/3$ of 3rd, 4th and $1/2$ of 5th segment shiny black; hairs of cercus golden-yellow.

Head. (Fig. 5). Frons seen from above as wide as 1 eye; frontal stripe in the middle as wide as 1 parafrontal; vi developed, ve absent; the frontal setae descend in an oblique line on the parafacialia, the last 2 lower than the base of arista, the lowest seta is much nearer to the eye than to the facial ridge; parafrontalia with fine long hairs; parafacialia in the middle $1\frac{1}{2}$ as wide as 3rd antennal segment; a row of strong vibrissae ascend to level of penultimate frontal setae; antennae long, 3rd segment 4 times as long as 2nd; peristome as wide as $1/4$ of large diameter of eye. Eyes hairy.



Figs. 5-6. *Chaetogena cercosa* n.sp. ♂. 5 - head. 6 - wing.

Thorax. 3+3 *acr.* 3+4 *dc*, 1+3 *ia*; 2+1 sternopleural setae; pteropleural seta stronger than the lower sternopleural seta; upper surface of scutellum with bristle-like hairs; subapical and basal setae strong; lateral and apical setae fine; apicals cruciate and erected; the distance between subapicals is slightly larger than the distance between one subapical and the basal seta of the same side; preapicals fine.

Legs. Claws of fore-legs 1.7 as long as 5th tarsal segment; fore-tibia with a row of short *ad* setae on its proximal half; mid-tibia with 3 *ad* setae of different length; hind-tibia with a comb of *ad* setae of different length and with 1 very strong seta in the middle.

Wings. (Fig. 6). Costal spine as long as $r-m$; 4th part of costa shorter than 6th part; r_{4+5} with a row of 5-6 setulae between base

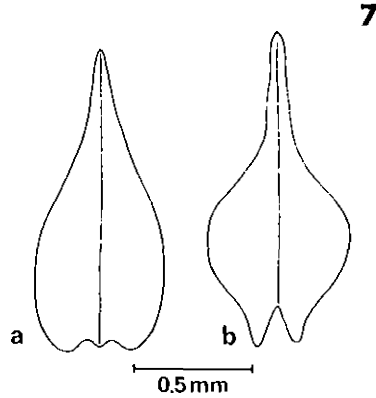


Fig. 7. *Chaetogena* spp. a - *C. repanda* Mesnil, ♂ cercus.
b - *C. cercosa* n.sp., ♂ cercus.

and half way to $r-m$; bent of m more than twice as wide from wing border as from $m-m$; $m-m$ more than twice as wide from $r-m$ as from bent of m .

Abdomen. Hairs adjacent; 2nd and 3rd tergites with 2 median marginal setae; 4th and 5th tergites with a row of marginal setae; 5th tergite also with irregular setae on its posterior half; no discals on tergites 3 and 4; cercus (Fig. 7b) wide at base forming distally a long narrow arched hook; the distal excavation of the cercus filled with dense long brown hairs.

Female. Similar to male. Frons seen from above 1.25 as wide as 1 eye; parafrofrontalia with 2 *oe* setae, the anterior much stronger than the posterior; *ve* developed; claws of fore-legs as long as 5th tarsal segment.

Affinities. *Chaetogena cercosa* is close to *Ch. media* Rondani and *Ch. repanda* (Mesnil). Like in the 2 mentioned species the peristome is at most 1/4 as wide as large diameter of the eye; the thorax has 2 posthumeral setae and 1+3 *ia*; $m-m$ is much more distant from $r-m$ than from the bent of m ; r_{4+5} with a row of setulae, from base to half the distance to $r-m$; 3rd and 4th abdominal segments without discal setae.

The above mentioned species of *Chaetogena* can be separated by the following key:

1. Hairs of abdomen erect, 3+3 *dc* (Seldom 3+4).
Space between subapical setae of scutellum,
equal to space between 1 subapical seta and
basal of the same side; costal spine un-
conspicuous; cercus of ♂, dorsally with long
brown-yellow hairs. *Chaetogena media* Rondani
- Hairs of abdomen adjacent; 3+4 *dc*. Space
between apicals wider than the distance of
1 subapical to the basal of the same side;
costal spine as long as *r-m* 2
2. The frontal setae do not descend to level of
upper vibrissae; ♂, cercus narrowing gradually
to the tip (Fig. 7a); dorsal side of cercus
with black hairs *Chaetogena repanda* Mesnil
- The frontal setae descend below the level of
upper vibrissae; ♂, cercus suddenly narrowing
distally (Fig. 7b); dorsal hairs of cercus brown
. *Chaetogena cercosa* n.sp.

MATERIAL EXAMINED. Holotype ♂, Israel, Elat, 25.III.1970.
Allotype ♀, paratypes 3 ♂♂, same data as holotype; paratype
1 ♂, Sinai, Sarabit el Khadem, 8.IV. 1969.

Ptesiomyia longicornis n.sp. (Fig.8)

Male.

Length. 7 mm.

Color. Black with slight grey pollinosity; tip of abdomen
brownish; frontal stripe and antennae black-brown; palps brown-
yellow; most of the peristome face and part of parafacialia red.

Head. (Fig. 8). Occiput with a row of black microchaetae behind
postocular setae; frons seen from above, wider than 1 eye;
ocellar setae strong, bend forward; 2 *oi* setae; frontal setae
descend till level of base of arista; parafrontalia and half of
parafacialia pilose; frontal stripe widening backwards; para-
facialia in the middle twice as wide as 3rd antennal segment;

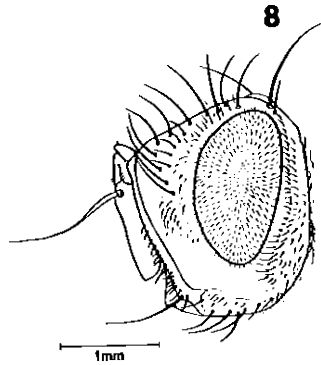


Fig. 8. *Ptesiomyia longicornis* n.sp. ♂. - head.

peristome as wide as $1/3$ of large diameter of the eye; occipital dilation narrow, covering only $2/5$ of width of peristome; lower $1/2$ of facial ridges concave in profile, with vibrissae; 3rd antennal segment 4 times as long as 2nd; basal $1/3$ of arista thickened; 2nd segment of arista twice as long as wide. Eyes hairy.

Thorax. Five humeral setae, the 2 anteriors weak, the middle basal much anterior than the lateral basals; 3+3 *acr*, 3+4 *dc*, 1+3 *ia*, 3 strong supraalar setae; 2+1 sternopleurals; 1+3 hairs at the anterior part of the barett; scutellum with 4 pairs of marginal setae; the apicals strong.

Legs. Claws of fore-legs as long as 5th tarsal segment; mid-tibia with 3 *ad*, hind-tibia with a row of *ad* setae of different length and 2 dorsal setae at distal tip (*d* and *ad*).

Wings. No conspicuous costal spine; base of r_{4+5} with 2 setulae; R_5 narrowly open; bent of *m* forming a right angle; apical cross-vein concave.

Abdomen. With long erect hairs; excavation of 2nd tergite not reaching hind border of segment; 2nd and 3rd tergites with a pair of strong median marginal setae, 4th tergite with a row of strong marginal, and a pair of weak discal setae; 5th tergite with irregular setae; ventral side of abdomen densely hairy in the posterior part, the hairs are long and bristle-like.

Female. Unknown.

Affinities. The genus *Ptesiomyia* Brauer and Bergenstamm (1893) includes the following species: *P. microstoma* Brauer and

Bergenstamm (1893), *P. alacris* (Meigen, 1824) and *P. longicornis* n.sp. The male of *P. longicornis* differs from the males of the other species, by the longer antennae, the 3rd antennal segment is 4 times as long as the 2nd, in the other species the 3rd segment is at most 2.5 times as long as the 2nd. The hind-tibia of *P. longicornis* has 2 apical dorsal setae (*d* and *ad*), the other species have 3 apical dorsal setae.

MATERIAL EXAMINED. Holotype ♂, Israel, Petah Tiqwa, 27.I.1956.

Cestonionerva punctata n.sp. (Figs. 9, 10, 11)

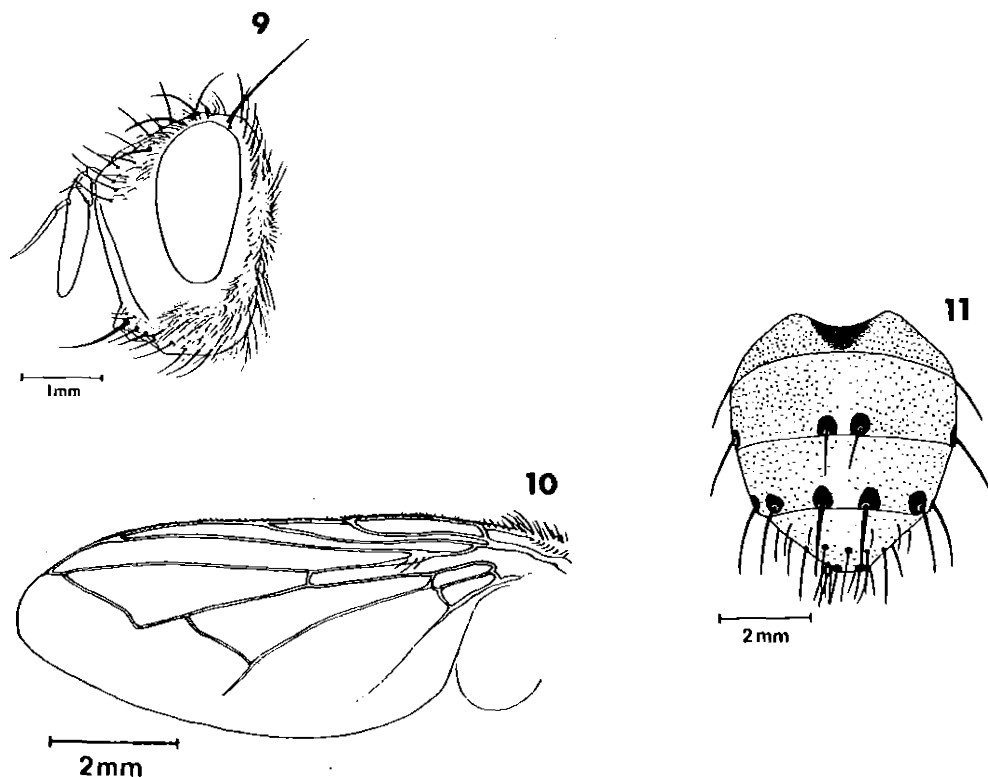
Female.

Length. 10 mm.

Color. Black, with dense grey pollinosity; at the base of the marginal setae on 3rd and 4th abdominal tergites a large shiny spot (Fig. 11), the lateral sides of 3rd tergite, partly red; thorax with 4 longitudinal stripes; distal part of scutellum yellow-red; frontal stripe and a great part of face and peristome red-brown; 1st, 2nd and base of 3rd antennal segments, palps, epaulette and basicosta yellow; haltera yellow to yellow-brown.

Head. (Fig.9). Occiput without black microchaetae behind postocular setae; frons seen from above twice as wide as 1 eye; frontal stripe widening backwards, its anterior border narrower than 1 parafrontal; 1 *oi* seta; ocellar setae as strong as *oi*; *vi* and *ve* present; the frontal setae descend till level of lower end of 2nd antennal segment; parafrontalia fine pilose with 2 *oe*; parafacialia in the middle as wide as face; only 3-4 fine bristles above the great vibrissae; antennae narrow, 3rd segment 3.3 times as long as 2nd segment; arista incrassate nearly to tip, 2nd segment twice as long as wide; peristome $\frac{3}{8}$ as wide as large diameter of eye; eyes bare; proboscis short.

Thorax. Prealar setae stronger than the 1st postsutural *ia*, 2+3 *acr*, 3+4 *dc*, 0+3 *ia*; 3 strong humeral setae nearly in a straight line; 2+1 sternopleural setae, pteropleural seta strong; scutellum with 4 pairs of marginal setae, basal and subapicals strong, apical fine and cruciate; the distance between the subapicals equal to the distance between 1 subapical and the basal of the same side.



Figs. 9-11. *Cestonionerva punctata* n.sp. ♀. 9 - head. 10 - wing. 11 - abdomen.

Legs. Fore-tibia with 2 posterior setae and a row of short *ad* setae in its basal half; mid-tibia with 2 strong *ad* setae, and a 3rd fine seta above them; 2 posterior setae and 1 ventral.

Wings. (Fig. 10). R_5 petiolate, petiole as long as *r-m*; costal spine smaller than *r-m*; at base of r_{4+5} 3 setulae.

Abdomen. (Fig. 11). Broad oval, truncated at distal end; the excavation of 2nd tergite reaches the posterior margin of the segment; 2nd tergite without median marginal setae, 3rd with a pair, 4th tergite with a row of 6 strong marginals, 5th tergite with 2 rows of setae.

Male. Unknown.

Affinities. The female of *Cestonionerva punctata* is similar to *C. latigena* Villeneuve (1939), which was redescribed in detail

by Mesnil (1953). Both species have a very wide frons, twice as wide as 1 eye and very wide parafacialia, as wide as face; the arista is incrassate to the tip; the 2nd segment twice as long as wide; the distance between the subapical setae of the scutellum is equal to the distance of 1 subapical to the basal of the same side.

The females of the 2 species can be distinguished as follows:

1. Abdomen covered uniformly with dense white grey pollinosity; 1+3 ia; apical setae of scutellum parallel *Cestonionerva latigena* Villeneuve
- Abdomen with large shiny round black spots at base of marginal setae of 3rd and 4th tergites; 0+3 ia; apical setae of scutellum cruciate *Cestonionerva punctata* n.sp.

MATERIAL EXAMINED. Holotype ♀, Israel, Mishor Rotem (Central Negev), 2.IV.1967.

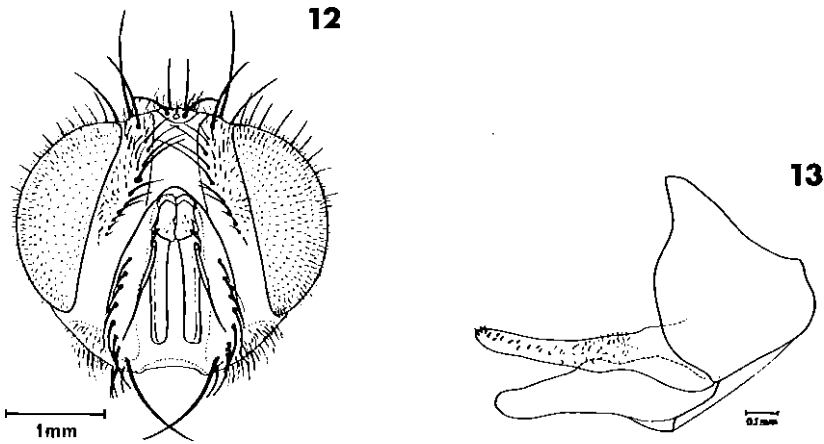
Pales latifrons n.sp. (Figs. 12, 13)

Male.

Length. 6-9 mm.

Color. Black grey pollinose, with slight blue metallic reflexes on the abdomen; mesothorax with 5 black longitudinal stripes; frontal stripe red-brown; parafrontalia, parafacialia, face and occipital dilation grey-white pollinose; parafacialia partly red; antennae black; palps brown-black; scutellum brown-yellow, anterior border black; legs brown-black, knees yellow; epaulette black; basicosta brown-black; squamae white.

Head. (Fig. 12). Occiput white pilose with black microchaetae behind postocular setae; frons seen from above as wide or nearly as wide as 1 eye; *ve* fine and short, $\frac{1}{2}$ as long as *vi*; 1 *oi*; ocellar setae nearly as strong as *oi*; frontal setae descend till level of base of arista; parafrontalia densely pilose, the hairs descend a little lower than the frontal setae; strong vibrissae ascend till the upper 1/3 of the facial ridges; parafacialia in the middle 1.4 as wide as 3rd antennal segment; antennae long, 3rd segment 4.5 times



Figs. 12-13. *Pales latifrons* n.sp. ♂. 12 - head. 13 - cercus and parolobus.

as long as 2nd segment; arista incrassate in its basal $\frac{1}{2}$; 1st and 2nd segments very short; peristome $\frac{1}{3}$ as wide as large diameter of eye; eyes hairy.

Thorax. The 3 basal humeral setae in a straight line; 3+3 *acr*, 3+4 *dc*, 1+3 *ia*; 2+1 sternopleural setae; scutellum with 4 pairs of marginal setae, the apicals cruciate, as strong as the laterals; the distance between the subapicals 1.5 times as large as the distance between 1 subapical to the basal of the same side.

Legs. Claws of fore-legs 1.2 as long as 5th tarsal segment; mid-tibia with 3 *ad* (rarely 2); 2 posterior setae and 1 strong ventral seta; hind-tibia with a regular comb of *ad* setae and 1 stronger seta between them.

Wings. Costal spine inconspicuous; r_{4+5} with 1-3 setulae on its base; R_5 narrowly open or closed; bent of *m* nearer to *m-m* than to wing margin; *m-m* more than twice as wide from *r-m* as from bent of *m*.

Abdomen. Hairs oblique; 2nd and 3rd tergites with a pair of fine short marginal setae, 4th tergite with a row of marginals; 5th tergite covered with setae of different length; 3rd and 4th tergites seldom with 1-3 fine discals; cercus with a strong keel (Fig. 13).

Female. Similar to male. Frons seen from above 1-1.3 as wide as 1 eye; parafrontalia with 2 strong oe setae; 3rd antennal segment 3.3 times as long as 2nd; claws of fore-legs shorter than 5th tarsal segment.

Affinities. By identifying this species with Mesnil's key (1951) to the species of the genus *Ctenophorocera* Brauer and Bergenstamm (= *Pales* Robineau-Desvoidy) one arrives to *C. coerulea* (= *Phorocera coerulea* Jaenicke, 1867). In *Pales latifrons* as in *P. coerulea* the 2nd abdominal tergite has marginal setae, the 3rd tergite without strong discals, the mid-tibia usually with 3 ad, scutellum black only at anterior border, abdomen with semi-erect hairs and regular slight pollinosity. By comparing our specimens with the type of *Phorocera coerulea* (In Senckenberg Museum, Frankfurt), we found that they are 2 different species. The frons of *P. coerulea* is much narrower than 1 eye; the 3rd antennal segment is less than 3 times as long as the 2nd segment.

MATERIAL EXAMINED. Holotype ♂, Israel, Shefech Zohar (Dead Sea area), 8.III.1972. Allotype ♀, Paratype ♀, and 7 paratypes ♂♂, same data as holotype. Additional paratypes: 1 ♀ Shefech Zohar, 12.XII.1972; 1 ♂, Jericho, 20.II.1971; 1 ♀ Wadi Kelt 17.XII.1941; 1 ♀ Kalia 8.III.1976; 1 ♂, En Tureiba, 24.XII.1974; 1 ♀, En Feshkha, 22.XI.1976; same locality also 1 ♂ 15.III.1977, 2 ♂♂ 22.II.1978, 1 ♀ 25.II.1979; 1 ♀, Ein Gedi, 13.II.1975 (All above mentioned localities at the Dead Sea area); 1 ♂ Hazeva (Arava Valley), 5.II.1970; 1 ♀ Wadi Sick (Central Negev) 4.IV.1962.

Ramona n.gen.

The new genus *Ramona* belongs to the Goninae, the prosternum has setulae on its borders, the prealar seta is stronger than the 1st postsutural ia, oi developed, chaetotaxy of the thorax complete. Within the Goninae it belongs to the tribus Gonini (sensu Mesnil, 1975). By dissecting a female, microtype eggs were found. Within the Gonini *Ramona* is close to *Eurysthaea* Robineau-Desvoidy. In *Ramona* as in *Eurysthaea* the abdomen is shiny black, the antennae are very long, there are only a few bristles above the great vibrissae, the ocellar setae are bent forwards, the apical setae of the scutellum are cruciate.

The genus *Ramona* differs from *Eurysthaea* by the absence of *oe* setae in the male, the parafrontalia with 1 *oi* instead of 2, hind-tibia with 2 apical dorsal setae instead of 3, R_5 petiolate instead of open, bent of *m* nearly in the same distance from end of apical crossvein as from *m-m* (Fig. 15). In *Eurysthaea* the bent of *m* is much nearer to end of apical crossvein than to *m-m*.

Type-species: *Ramona mesnili* n.sp.

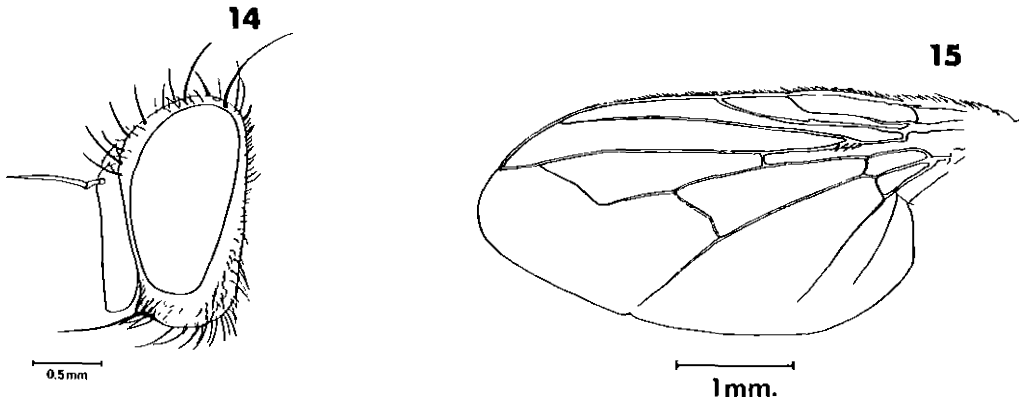
Ramona mesnili n.sp. (Figs. 14, 15)

Male.

Length. 4.5-6 mm.

Color. Shiny black; thorax partly grey pollinose with 4 longitudinal black stripes anterior to suture; frontal stripe black; parafrontalia and parafacialia white-grey pollinose; antennae black, 2nd segment brown-black; palps brown-black; epaulette black-brown; basicosta yellow, squamae white; haltera brown.

Head. (Fig. 14). Occiput with black microchaetae behind postocular setae; frons seen from above as wide as 1 eye; frontal stripe narrower than 1 parafrontal; *ve* not conspicuous, only 1 strong *oi*, *oe* absent; frontal setae descend to level of base of arista; parafacialia narrower than width of 3rd antennal segment; peristome as wide as $2/7$ of large diameter of eye, mostly covered by the occipital dilation; 3rd antennal segment 5 times as long as 2nd;



Figs. 14-15. *Ramona mesnili* n.sp. ♂. 14 - head. 15 - wing.

arista almost entirely incrassate, 2nd segment 3 times as long as wide; only a few bristles above the great vibrissae; eyes bare.

Thorax. Prosternum concave, with 2-3 setulae on each side; 3+3 *acr*, 3+4 *dc*, 1+3 *ia*, 3 humerals and 1+1 sternopleurals; pteropleural seta much finer than sternopleurals; scutellum with 4 pairs of marginal setae; apicals fine and cruciate; the distance between the subapicals smaller than the distance of 1 subapical and the basal of the same side.

Legs. Claws of fore-legs shorter than 5th tarsal segment; fore-tibia without *ad* setae, mid-tibia with 1, hind-tibia with a comb of *ad* of different length; hind-tibia at tip with 2 dorsal setae (*d* and *ad*).

Wings. (Fig. 15). Costal spine absent; R_5 petiolate; apical cross-vein slightly concave; r_{4+5} with 2-3 setulae.

Abdomen. Oviform with a keel at its distal end; hairs adjacent; 2nd tergite short, without median marginal setae; excavation reaching hind margin of segment; 3rd tergite with a pair of marginal setae, 4th with a row, 5th tergite irregularly covered with setae of different length; 3rd tergite without discals, 4th without or with 1-2 short discals.

Female. Similar to male with 1-2 *oe*.

MATERIAL EXAMINED. Holotype ♂, Israel, Ramon (Central Negev), 13.X.1970. Allotype ♀, paratypes 3 ♂♂ and 2 ♀♀, same data as holotype. Additional paratypes: 1 ♀, Israel, Nahal Mishmar, 25.II.1969; 1 ♂, Southern Sinai, Wadi Taibe, 25.V.1971; 3 ♀♀, Sinai Mountains, Wadi Watir, 1.IX.1970.

Germaria hermonensis n.sp. (Fig. 16)

Male.

Length. 8-9 mm.

Color. Black with grey pollinosity; posterior 1/4 of 3rd and 4th abdominal tergites and posterior 1/2 of 5th tergite shiny black; frontal stripe and parafacialia red; parafrontalia, parafacialia and face covered by grey-white pollinosity; antennae

black, 2nd segment partly yellow-brown; palps yellow; legs black.

Head. (Fig. 16). Frons seen from above 1.5 as wide as 1 eye; frontal stripe with parallel borders, in the middle 2-2.5 as wide as 1 parafrontal; $ve\ 2/3$ as long as vi ; ocellar setae bent outwards and forwards; 7-9 frontal setae, the last 3 descend on the parafacialia, the lowest lower than base of arista; a row of shorter setae parallel to the frontal setae; 1 short outwards bent prevertical seta; oe absent, parafacialia pilose, the hairs descend a little below frontal setae; parafacialia in the middle a little narrower than 3rd antennal segment; peristome as wide as $2/5$ of large diameter of eye; 1 row of fine vibrissae ascend till the middle of facial ridges; 3rd antennal segment 3 times as long as 2nd; arista incrassate in its whole length; 2nd segment $3/5-1$ as long as 3rd segment.

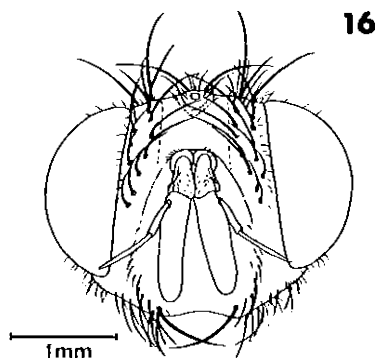


Fig. 16. *Germaria hermonensis* n.sp. ♂. - head.

Thorax. Three humeral setae, 3+2 *acr*, 3+3 *dc*, 1+2 *ia*, 3 sternopleural setae, 1 very strong pteropleural seta; scutellum with 4 pairs of marginal setae, the basals and subapicals strong, the laterals very short and fine, the apicals cruciate, $1/2$ as long as subapicals; between the apicals 2 long erect setae, anterior to them, between the preapicals, several fine setae; the distance between the subapicals nearly twice the distance between 1 subapical and the basal of the same side.

Legs. Claws of fore-legs a little longer than 5th tarsal segment; foretibia with a row of short *ad* setae; mid-tibia with 3-5 *ad* setae of different length.

Wings. Costal spine as long as *r-m*; R_5 closed without or with a short petiole; the petiole is shorter than *r-m*; bent of *m* rectangular, without or with a short appendage; r_1 with setulae on its basal half; upper side of r_{4+5} with a row of setulae which nearly reaches *r-m*, on the lower side only 3-5 setulae.

Abdomen. Second tergite without median marginal setae; 3rd tergite with a pair, 4th with a row of marginal setae, posterior $\frac{1}{2}$ of 5th tergite covered with setae; discal setae absent.

Female. Unknown.

Affinities. By the absence of *oe* setae and the forward direction of the ocellar setae, the males of *Germaria hermonensis* fit in the genus *Atractochaeta* Brauer and Bergenstamm (1889). Mesnil (1963, 1971) includes *Atractochaeta* as subgenus in the genus *Germaria* Robineau-Desvoidy (1830). To the subgenus *Atractochaeta* belong *Germaria angustata* Zetterstedt, *G. graeca* Brauer and Bergenstamm and *G. barbara* Mesnil. *G. hermonensis* differs from the other species of the subgenus by the much wider frontal stripe, in the middle 2-2.5 as wide as 1 parafrontal, instead of at most 1.3 as wide as 1 parafrontal.

MATERIAL EXAMINED. Holotype ♂, Golan heights, Mt. Hermon (altitude 1,300 m), 15.VIII. 1976; paratypes 4 ♂♂, same data as holotype.

Prodemoticus orientalis Villeneuve, 1919

From *Prodemoticus orientalis* only the ♂ was described by Villeneuve (1919). The species was redescribed in detail (also only the male) by Mesnil (1973). On the 15.VIII.1971 the author collected on Mt. Abas near the monastery St. Katherina (Sinai Mountains) a male and female of *P. orientalis*. The female is very similar to the male. It differs from the male mainly by the presence of *oe* setae on the parafrontalia and the shorter antennae. The 3rd segment of the female is 3 times as long as the 2nd, instead of 4-5 times in the male.

Prodemoticus moderatus n.sp. (Fig. 17)

Female.

Length. 9 mm.

Color. Black with dense grey yellow pollinosity; 2nd and 3rd abdominal tergites laterally yellow-red; thorax with 4 diffuse longitudinal stripes; frontal stripes brown; 1st and 2nd antennal segments brown, 3rd segment black; palps yellow; epaulette and basicosta black; haltera yellow-brown.

Head. (Fig. 17). Upper part of occiput with few black microchaetae behind the postocular row; frons seen from above a little wider than 1 eye; frontal stripe in the middle narrower than 1 parafrontal; last frontal seta before level of lower border of 2nd antennal segment; ocellar setae as strong as frontal setae, bent forwards and outwards; parafrontalia with 1 short, fine, backwards bent prevertical seta and 2 proclinate *oe*, *vi* and *ve* present; parafacialia bare, in the middle as wide as 3rd antennal segment; mouth margin protruding in profile; only 1 seta and a few hairs above the great vibrissa; 3rd antennal segment 2 times as long as 2nd; arista incrassate in 3/5 of its length; 2nd segment 1.5 as long as wide; proboscis short.

Thorax. Barett with few hairs; 3 humeral setae in a straight row; 2+3 *acr*, 3+3 *dc*, 0+3 *ia*, 2+1 sternopleural setae; scutellum with 3 pairs of marginal setae, strong basals and subapicals, fine cruciate apicals.

Legs. Mid-tibia with 3 strong *ad* setae, hind-tibia with a row of *ad* of different length; mid-femur with 2 setae in the middle of its anterior side.

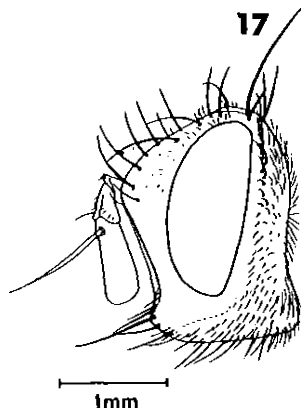


Fig. 17. *Prodemoticus moderatus* n.sp. ♀. - head.

Wings. Costal spine short, as long as $r-m$; 2nd part of costa $2/3$ as long as 3rd part; R_5 open; bent of m obtuse; r_{4+5} with 2 setulae at base.

Abdomen. Excavation of 2nd tergite reaches hind margin of segment; 2nd tergite without median marginal setae, 3rd tergite with a pair of marginals; 4th tergite with a row of marginals, and 1 pair of fine discals, 5th tergite with a row of discals.

Male. Unknown.

Affinities. The female of *Prodemoticus moderatus* can be distinguished from the female of *P. orientalis* Villeneuve as follows:

1. Third antennal segment 3 times as long as 2nd;
 $3/4$ of arista incrassate; parafacialia in the middle narrower than 3rd antennal segment; 2nd part of costa less than half as long as 3rd part *P. orientalis* Villeneuve
- Third antennal segment 2 times as long as 2nd;
 $3/5$ of arista incrassate; parafacialia in the middle as wide as 3rd antennal segment; 2nd part of costa as long as $2/3$ of 3rd part
 *Prodemoticus moderatus* n.sp.

MATERIAL EXAMINED. Holotype ♀, Israel, Ramot Naftali (Upper Galilee), 15.V.1971.

TACHINIDAE OF ISRAEL, THE WEST BANK, GOLAN HEIGHTS,
MT. HERMON AND SINAI¹

Subfamily: EXORISTINAE

Tribus: Exoristini

Exorista laryarum (Linnaeus)
Exorista segregata (Rondani)
Exorista sorbillans (Wiedemann)
Exorista longicercus Kugler n.sp.*
Exorista tessellans Mesnil [*albifrons* n.sp.]
Exorista deligata Pandellé [*aberrans* Strobl]
Exorista xanthaspis (Wiedemann) [*fallax* Meig.]
Exorista kugleri Mesnil
Exorista ebneri Villeneuve
Exorista rutilans Mesnil*
Exorista rustica (Fallén)
Exorista cuneata Herting*
Exorista mimula (Meigen)*
Exorista nympharum (Rondani)
Exorista nova (Rondani)
Exorista lacteipennis Mesnil*
Exorista pilosa Kugler n.sp.*
Chaetogena obliquata (Fallén) [*Spoggosia echmura* R.D.]
Chaetogena cercosa Kugler n.sp.*
Chaetogena repanda (Mesnil) [*Spoggosia*]
Chaetogena sinaica (Villeneuve) [*Spoggosia*]
Chaetogena aegyptiaca (Villeneuve) [*Spoggosia*]
Chaetogena siciliensis (Villeneuve) [*Spoggosia*]
Chaetogena acuminata (Rondani) [*Spoggosia*]
Maculosalla maculosa (Villeneuve)*
Phorocera grandis (Rondani) [*carnehitana* n.sp.]
Alloprosopaea efflatouni Villeneuve

Tribus: Blondellini

Meigenia mutabilis (Fallén)
Zaira cinerea (Fallén)*
Istochoeta cinerea (Macquart)*
Belida angelicae (Meigen)*
Lomacantha parva Rondani
Ligera angusticornis (Loew)*
Picconia incurva (Zetterstedt)
Erynniopsis antennata (Rondani)*
Rioteria submacula Herting*
Compsilura conchinata (Meigen)
Steleoneura sexmaculata Mesnil*

Tribus: Acemyiini

Acemyia fishelsoni Kugler [*pyrrhocera* Vill.]

1. The generic and specific names in brackets are the names of the respective species as listed in Kugler (1963).

* Not listed in Kugler (1963).

Ceracia uncinata Thomson**
Ceracia acuminata Becker [*Myothyria nigrita* n.sp.]
Metacemyia calloti (Segúy) [*Ceracia mucronifera* Rond.]
Thrixion sp.

Tribus: Ethillini

Ethilla aemula (Meigen)*
Paratryphera barbatula (Rondani)*
Paratryphera mesnili Herting*
Atylomyia loewi Brauer*
Atylomyia albifrons Villeneuve
Ammonia carmelitana Kugler*

Tribus: Winthemiini

Nemorilla maculosa (Meigen)

Tribus: Aplomyiini

Aplomyia confinis (Fallén)
Aplomyia laeviventris (Wulp)

Tribus: Eryciini

Ptesiomyia longicornis Kugler n.sp.
Eumeella perdives (Villeneuve)
Buquetia musca Robineau-Desvoidy
Phryxe vulgaris (Fallén)
Phryxe prima Brauer & Bergenstamm
Gymnophryxe nudigena Villeneuve [*Archiclops*]
Gymnophryxe theodori (Kugler) [*Archiclops*]
Gymnophryxe blaptis (Kugler)*
Pseudoperichaeta palesoidea (Robineau-Desvoidy)*
Sturmkopsis emdeni Mesnil
Lydella grisescens Robineau-Desvoidy*
Amphicestonia dispar Villeneuve*
Chaetina ambivia (Walker) [*setigena* Rond.]
Chaetina longicauda Kugler*
Cadurciella rufipalpis Villeneuve*
Drino atropivora (Robineau-Desvoidy)
Drino imberbis (Wiedemann)
Drino sp. [*Drino monosetosa* n.sp.]
Theliconychia solivaga Rondani
Phebellia tultschensis (Brauer and Bergenstamm)*
Phebellia sp. [*sharonensis* n.sp.]
Carcelia lucorum (Meigen)*
Carcelia amphion Robineau-Desvoidy
Carcelia phalenaria Rondani
Carcelita sp.*
Erycia fasciata Villeneuve [*hierosolymitana* n.sp.]
Erycesta caudigera (Rondani)*

** This species was recorded by Shulov (1952) as reared from *Tmethis pulchripennis asiaticus* Uv. The flies were identified by the late Dr. F.I. van Emden. The type locality of the species is Cape Town. The specimens of this record are lost thus it is impossible to verify the identification.

Cestonia cineraria Rondani
Cestonia canariensis Villeneuve
Simoma sp. [*Simoma grahami* Aldz.]
Alsomyia capillata (Rondani) [*Platymyia*]
Cestonionerva petiolata Villeneuve
Cestonionerva punctata Kugler n.sp.*
Nealsomyia triseriella (Villeneuve)*
Wardarina melancholica Mesnil

Tribus: Goniini

Playtymyia fimbriata (Meigen)*
Platymyia antennata (Brauer & Bergenstamm) [partly *tristis* Mesnil]
Clemelis pullata (Meigen)
Clemelis gymnops Herting*
Clemelis atricans Herting*
Ceratochaetops trisetus (Villeneuve) [*Nilea emdeni* n.sp.]
Pales pavidus (Meigen) [*Ctenophorocera*]
Pales latifrons Kugler n.sp.*
Schembria meridionalis Rondani*
Ocytata pallipes (Fallén) [*Rhacodineura*]
Parapexopsis cephalotes Mesnil
Mendelssohnia sinica Kugler*
Davia deserticola Richter*
Ramona mesnili Kugler n.sp.*
Elodia morio (Fallén)*
Sturmia bella (Meigen)
Sturmia pratehsis (Meigen)*
Dolichocolon paradoxum Brauer & Bergenstamm
Palesisa nudiculata Villeneuve*
Palesisa maculosa Villeneuve [*bodenheimeri* Mesnil]
Prosopea nigricans (Egger)
Gaedla sp.*
Baumhaueria gontaeformis (Meigen)
Brachychaeta petiolata Mesnil
Gonia himaculata Wiedemann
Gonia picea (Robineau-Desvoidy) [*sicula* R.D.]
Gonia ornata Meigen
Gonia foersteri Meigen
Gonia atrata Bischof*
Gonia maculipennis Egger
Gonia umbripennis Herting*
Gonia olgae Rhodendorf*
Isomera cinerascens Rondani
Rhynchogonia algerica Brauer & Bergenstamm
Spallanzania rectistylum (Macquart) [*alpestris* Rond.]
Spallanzania sp. [*multisetosa* Rond.]
Spallanzania sp. 2*

Subfamily: ECHINOMYIINAE
 Tribus: Echinomyiini

Echinomyia fera (Linnaeus)
Echinomyia magnicornis (Zetterstedt)

Echinomyia praeceps Meigen
Echinomyia lurida (Fabricius)*
Laufferiella elegans Villeneuve*
Peleteria rubescens (Robineau-Desvoidy) [*nigricornis* Meig.]
Peleteria meridionalis (Robineau-Desvoidy)*
Peleteria pyrrhogaster (Rondani) [*Cuphocera varia argyrocephala* Meig.]
Peleteria ruficornis (Macquart) [*Cuphocera*]
Linnaemyia latigena Kugler*
Linnaemyia soror Zimin
Linnaemyia vulpina (Fallen)*
Linnaemyia angulicornis (Spelser) [*neavel* CURR.]
Linnaemyia setifrons Zimin
Linnaemyia petiolata Kugler*
Linnaemyia frater (Rondani)*
Linnaemyia lithoslophaga (Rondani)*
Microceraphina planifacies Kugler*
Germaria ruficeps (Fallén)
Germaria hermonensis Kugler n.sp.
Ernestia longiventris Kugler*
Eurithla castellana (Strobl)
Erebiomima luteisquama Mesnil
Erebiomima hertingi Kugler*
Neoemdenia mirabilis Mesnil
Macquartia tenebricosa (Meigen)
Macquartia tessellum (Meigen) [*occlusa* Rond.]
Macquartia praefica (Meigen)
Trilathria setipennis (Fallén)*
Trichactia pictiventris (Zetterstedt) [*Trichaeta*]
Mesnilomyia achilleae Kugler*
Mesnilomyia longicornis Kugler*
Mesnilomia magnifica Kugler*
Plesina claripennis Mesnil
Plesina deserticola Kugler*

Neaera laticornis (Meigen)*
Neaera atra Robineau-Desvoidy
Heraultia albipennis Villeneuve*
Phytomyptera nigrina (Meigen) [*nitidiventris* Rond.]
Phytomyptera lacteipennis Villeneuve*
Graphogaster vestita Rondani*
Graphogaster parvipalpis Kugler*
Oestroloewia crassipes Mesnil

Tribus: Siphonini

Actia infantula (Zetterstedt)*
Peribaea tibialis (Robineau-Desvoidy) [*Strobliomyia*]
Peribaea aegyptia [*Strobliomyia*]
Peribaea palaestina (Villeneuve) [*Strobliomyia*]
Siphona maculata (Staeger)
Siphona efflatouni Mesnil*
Siphona sp.*

Tribus: Leskiini

Aphria longirostris (Meigen)
Bithia modesta (Meigen)*
Bithia golanensis (Kugler)*
Bithia setulosa (Kugler) [*Sestophaga*]
Bithia hermonensis Kugler*
Bithia pouciseta Kugler*
Prodemoticus orientalis Villeneuve*
Prodemoticus moderatus Kugler n.sp.*
Fischeria bicolor Robineau-Desvoidy
Clausicella suturata Rondani
Clausicella triangulifera Mesnil*
Istoglossa puella Rondani*

Tribus: Mintholni

Mintho compressa (Fabricius) [partly *isis* Wied.]
Mintho rufiventris (Fallén)
Pseudomintho diversipes (Strobl) [partly *microptera* Bezzi]
Pseudomintho ater Kugler*
Minthodes plicipennis Brauer & Bergenstamm*
Zimnia mascerataformis (Portschinsky)*
Palmonia hermonensis Kugler*

Subfamily: DEXIINAE

Tribus: Dexiini

Billaea pectinata (Meigen)*
Billaea adelpha (Loew)*
Billaea maritima Schiner [*microcera* Rond.]
Billaea intermedia (Portschinsky) [*fortis* Rond.]
Billaea biserialis (Portschinsky) [*Myxodexia*]
Billaea zimini Kolomyiets*
Billaea cinerea Mesnil*
Billaea asella Mesnil*
Estheria nigripes [*Dexiomorpha*]
Estheria murina Mesnil*
Trixicepes russea Mesnil*
Zeuxia cinerea Meigen
Zeuxia nigripes (Macquart)
Zeuxia subapennina Rondani [*Tapinomyia piliseta* B.B.]

Tribus: Voriini

Eriothrix rufomaculata (DeGeer)*
Eriothrix apennina (Rondani)*
Stomina tachinoides (Fallén)
Stomina iners (Meigen)*
Stomina calindrata Rondani
Stomina angustifrons Kugler
Stomina kugleri Mesnil*
Engeddia multisetosa Kugler*

Periscepsia carbonaria (Panzer) [*Wagneria*]
Periscepsia handlirschi Brauer & Bergenstamm*
Ramonda prunicia (Herting)*
Ramonda plorans Rondani [*cuculliae* R.D.]
Wagneria cunctans (Meigen)
Wagneria albifrons Kugler*
Wagneria dilatata Kugler*
Wagneria theodori Mesnil*
Athrycta trepida (Meigen) [*Blepharigena*]
Voria ruralis (Fallén)
Cyrtophleba ruricola (Meigen)
Hyleortis nudinerva (Villeneuve)*
Hypovoria hilaris Villeneuve
Hypovoria pillbasis (Villeneuve)*
Plagiomima sinatica (Villeneuve) [*Nanoplagia*]
Uclesia melancholica (Mesnil) [*Chaetovoria*]
Uclesia nigrescens (Mesnil) [*Nanoplagia*]
Uclesia simyrae Herting*

Tribus: Dufouriini

Dufouria chalybeata (Meigen)
Dufouria nigrita (Fallén)
Rondania insularis Bigot*
Pandelleia albipennis Villeneuve
Microsoma exigua (Meigen)*

Subfamily: PHASINAE

Tribus: Phasini

Clytiomyia dupuisi Kugler*
Clytiomyia helluo (Fabricius)
Clytiomyia mesnili Kugler
Clytiomyia sola (Rondani) [*Phasia*]
Ectophasia oblonga (Robineau-Desvoidy) [*Phasia crassipennis* F.]
Gymnosoma acrosterni Kugler [*rotundatum* L.]
Gymnosoma clavatum Rohdendorf
Elomyia lateralis (Meigen) [*Helomyia*]
Phasia subcoleoprata (Linnaeus)*
Phasia obesa Fabricius [*Allophora*]
Phasia pusilla Meigen [*Allophora*]
Phasia theodori (Draber-Monko)
Xysta holosericea (Fabricius)

Tribus: Clairvilliini

Dionaea aurifrons (Meigen)
Dionaea setifacies (Rondani)
Dionomelia hennigi Kugler*
Leucostoma maris-mortui Kugler*
Leucostoma edentatum Kugler*
Leucostoma crassum Kugler [*anale* Meig.]
Leucostoma abbreviatum Herting*

Leucostoma engeddense Kugler
Clairvillia biguttata (Meigen)*
Clairvillia pinnae Kugler*
Labigaster nitidula (Meigen) [Dionaea]
Weberia digramma Meigen*
Catharosia pygmaea (Fallén)
Catharosia flavicornis (Zetterstedt)*
Catharosia albisquama (Villeneuve)*
Catharosia claripennis Kugler*
Oblitoneura agromyzina Mesnil*

Tribus: Cylindromyini

Cylindromyia brassicaria (Fabricius) [Ocyptera]
Cylindromyia montana Kugler*
Cylindromyia pilipes (Loew)*
Cylindromyia crassa (Loew) [Ocyptera]
Cylindromyia rufifrons (Loew) [Exogaster]
Cylindromyia rubida (Loew) [Plesiocyptera bicolor Wied.]
Cylindromyia rufipes (Meigen) [Ocyptera]
Cylindromyia intermedia (Meigen) [Ocyptera]
Cylindromyia auriceps (Meigen) [Ocyptera]
Cylindromyia hermonensis Kugler*
Cylindromyia theodori Kugler*
Cylindromyia pusilla (Meigen) [Ocypterula]
Phanosoma lateritium (Meigen)
Besseria appendiculata (Perris)*
Besseria zonaria (Loew)*
Besseria nuditibla Kugler*
Besseria sp.*
Phania albisquama (Villeneuve) [Weberia]

LIST OF HOSTS, AND TACHINIDS REARED FROM THEM IN ISRAEL,
THE WEST BANK, GOLAN HEIGHTS, MT. HERMON AND SINAI

HOST	PARASITE
ORTHOPTERA	
ACRIDIDAE	
<i>Tmethis pulchripennis asiaticus</i> Uv.	<i>Ceracla uncinata</i> **
<i>Eremotmethis carinatus</i> Uv.	<i>Ceracia acuminata</i>
<i>Xerohippus savignyi</i> Uv.	<i>Acemyia fishelsoni</i>
<i>Anacridium aegyptum</i> (L.)	<i>Metacemyia calloti</i>
HETEROPTERA	
PENTATOMIDAE	
<i>Carpocoris maculicollis</i> (Dall.)	<i>Gymnosoma clavatum</i>
<i>Acrosternum millierei</i> (M.R.)	<i>Gymnosoma acrosterni</i>
RHOPALIDAE	
<i>Corizus hyosecyami</i> (L.)	<i>Dionaea setifacies</i>
LYGAEIDAE	
<i>Spilostethus pandurus</i> (Scop.)	<i>Leucostoma crassum</i>
COLEOPTERA	
CHRYSOMELIDAE	
<i>Colaphellus palaestinus</i> Ach.*	<i>Macquartia tessellum</i> *
<i>Blepharida sacra</i> Weiser*	<i>Melgenia mutabilis</i> *
TENEBRIONIDAE	
<i>Blaps sulcata</i> Cast.* ¹	<i>Gymnophryxe blaptis</i> *
<i>Blaps wiedemanni</i> Sol.* ¹	<i>Gymnophryxe blaptis</i> *

¹ The puparia (one or two in each beetle) of the tachinid were found in the cavity between the beetle's united elytra and the dorsal membrane of the body. None of the beetles was damaged neither were any maggots found in the body cavity. It is possible that the host of *G. blaptis* is another insect and that the full grown maggots enter the cavity beneath the elytrae of the beetle only for pupation.

*Not listed in Kugler (1963).

**See footnote in page 48.

HOST

LEPIDOPTERA

PAPILIONIDAE

Papilio machaon L.
Archon apollinus Hbst.

NYMPHALIDAE

Polygonia egea Cr.*
Vanessa cardui L.
Vanessa atalanta L.*
Melitaea trivia Schiff.

PIERIDAE

Pieris brassicae L.

Euchloe orientalis melisande Frühst.

HESPERIDAE

Carcharodes ramses Rev.

SPHINGIDAE

Acherontia atropos L.
Herse convolvuli L.

Deilephila lineata livornica Esp.
Berutana kotschyi syriaca Led.*

THAUMETOPOEIDAE

Thaumetopoea wilkinsoni Tams
Thaumetopoea solitaria Fr.

Thaumetopoea jordana Stgr.*

LYMANTRIIDAE

Lymantria lapidicola Herr.-Schaeff.

Lymantria dispar L.
Orgyia dubia Tausch.

Euproctis susanna Stgr.

LASIOCAMPIDAE

Eriogaster philippsi Bart.

PARASITE

Buquetia musca
Wardarina melancholica

*Sturmia bella**
Sturmia bella
*Sturmia bella**
Exorista segregata

Phryxe vulgaris
*Compsilura concinnata**
*Exorista segregata**
*Phryxe vulgaris**

Plagiomima sinatica

Drino atropivora
Drino atropivora

Drino imberbis
*Drino imberbis**
*Compsilura concinnata**

Exorista segregata
Compsilura concinnata
Drino imberbis
*Pales pavidus**
*Exorista sorbillans**
*Palesisa nudioculata**

Echinomyia fera
Echinomyia magnicornis
Carcella amphion
Exorista segregata
Immaemyia setifrons
Peribaea tibialis
Stomina angustifrons
Drino imberbis
*Exorista xanthaspis**
*Hyleorus nudinerva**

*Chaetogena obliquata**
*Batmhaueria gontaeformis**

HOST

Lasiocampa grandis Stgr.

Lasiocampa terreni H.S.

NOCTUIDAE

Spodoptera littoralis (Boisd.)*

Spodoptera exigua (Hbn.)*

Agrotis sp.

Acronicta rumicis (L.)

Acronicta aceris var. *judaea* Stgr.

Hyphillare lorey (Dup.)

Heliothis peltigera Schiff.

Heliothis armigera (Hbn.)*

Plusia chalcites (Esp.)

Earias insulana Boisd.

Simyra dentinosa Frr.*

Polytela cliens (Fldr. and Rgnhf.)*

GEOMETRIDAE

Zamacra flabellarla Hceg.

Boarmia selenaria Hb.*

SYNTOMIDIAE

Syntomis mestratii Bug.

ARCTIIDAE

Ocnogyna loewi Z.

Deiopeia pulchella L.*

ZYGAENIDAE

Zygaena grasilini Led.

PYRALIDAE

Phycita diaphana Stgr.

Alophia sp.

Myelois ceratoniae Z.

PARASITE

Exorista segregata
Peribaea tibialis
*Exorista segregata**

*Nemorilla maculosa**
*Exorista larvarum**
*Peribaea palaestina**
*Peribaea aegyptia**
*Exorista larvarum**
*Exorista segregata**
*Pales pavid**
*Peribaea tibialis**
*Peribaea palaestina**
Echinomyia magnicornis
Linnaemyia angulicornis
Exorista segregata
Chaetigena aegyptiaca
Linnaemyia angulicornis
Drino imberbis
*Isomera cinerascens**
Nemorilla maculosa
Drino imberbis
Sturmia bella
Voria ruralis
Drino imberbis
*Drino imberbis**
*Uclesia simyrae**
*Cestonionerva petiolata**

Drino imberbis
*Exorista sorbillans**
*Compsilura concinnata**

Carcelia phalenaria

Chaetigena aegyptiaca
*Alsomyia capillata**
*Baumhaueria gonaeformis**
*Gymnophryxe theodori**
*Exorista segregata**

Exorista nova
Alsomyia capillata

Fischeria bicolor
Fischeria bicolor
Clausicella suturata
*Mintho rufiventris**
*Phytomyptera nitidiventris**

HOST

Glyphodes unionalis Hb.
Constantia predotae Schawerda
Lepidogma tamaricolis Mn.*

Ephestia figulilella Greys.*

COSSIDAE

Phragmataecia castaneae Hb.*

YPONOMEUTIDAE

Prays citri Mill.

PSYCHIDAE

Amicta quadrangularis Chr.
Acantopsyche sp.

PARASITE

Pales pavidata
Rhynchogonia olgerica
*Nemorilla maculosa**
*Fischeria bicolor**
*Clausicella suturata**

*Sturmiopsis emdeni**

Nemorilla maculosa
Phytomyptera nigrina [nitidiventris]

Exorista ebneri
Clemelis pullata
Drino imberbis

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