

# Additions to the knowledge of the Pterophoridae (Lepidoptera) of the Galápagos archipelago, Ecuador, with descriptions of two new species

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Key words: Lepidoptera; Pterophoridae; Galápagos Islands; new species; new distribution records; new hostplant records.

Two new species of Pterophoridae (*Platyptilia vilema* spec. nov. and *Stenoptilodes gielisi* spec. nov.) are described from the Galápagos Islands. *Exelastis pumilio* (Zeller) is reported from the archipelago for the first time. Seven hostplant records (six of them new) are given for five of the 15 species now found in the Galápagos. Twenty-three new island records are given for species already mentioned from the archipelago.

Se describen dos especies nuevas de Pterophoridae (*Platyptilia vilema* spec. nov. y *Stenoptilodes gielisi* spec. nov.) para las islas Galápagos. *Exelastis pumilio* (Zeller) se cita por primera vez para el archipiélago. Se dan siete registros de plantas hospederas, de las cuales seis son nuevos, para cinco de las 15 especies conocidas. Se presentan 23 nuevos registros de distribución dentro del archipiélago, por especies previamente mencionadas.

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## Introduction

I have undertaken a study and analysis of the moth fauna of the Galápagos Islands. The Pterophoridae of the archipelago were revised recently by Landry & Gielis (1992). That publication was a result of my survey work on the islands from January to March 1989. I was subsequently presented with a second opportunity to go to the Galápagos from March to June 1992 with Dr Stewart Peck, of Carleton University, Ottawa, which allowed me to continue my field work at a different time of the year. It also gave me the opportunity to see the archipelago in an El Niño year and to study several additional islands. With regards to the Pterophoridae, our investigations in 1992 resulted in numerous new distribution records (including one new Galápagos record), new hostplant information and the discovery of two new species; all presented below.

## Material and methods

In 1992, I was able to collect a total of 295 specimens of Pterophoridae from early March to the beginning of June on the Galápagos Islands of Española, Floreana, Genovesa, Isabela, Marchena, Pinta, Rábida, Santa Cruz, Santa Fé, and Santiago. We visited the islands of Genovesa, Marchena and Pinta from March 10 to 27, Rábida on April 3, Santiago on March 28 and from April 4 to 14, Floreana on April 21 and 22,

Española from April 23 to May 2, Isabela from May 13 to 25, Santa Fé on May 28 and Santa Cruz from the beginning of March to the end of May, between trips to other islands.

Most moths were collected and processed in the way explained in Landry and Gielis (1992). In addition, I succeeded in rearing five species from larvae or pupae. Potential hostplants were searched for immature stages. These were placed with hostplant leaves in plastic vials covered with netting or in plastic bags with toilet paper to avoid condensation. Larvae or pupae were usually left in the same vial or bag until emergence of adults. In all cases, upon discovery of immature stages some were preserved in 70% alcohol with hostplant remnants.

Holotypes of newly described species and preserved immature stages are deposited in the Canadian National Collection of insects, in Ottawa, Canada. Some of the other specimens are in my personal collection (BLC), or will be distributed to the following institutions: the Canadian National Collection (CNC), the Charles Darwin Research Station (CDRS), Isla Santa Cruz, the Museo Ecuatoriano de Ciencias Naturales (MECN) in Quito, Ecuador, the Cees Gielis Collection (CGC) in Lexmond, The Netherlands (to be eventually transferred to the Nationaal Natuurhistorisch Museum, Leiden, The Netherlands), and the Natural History Museum (NHM), in London, England.

In the following treatments of species, the synonymy is mentioned only for *E. pumilio*. For the other species, the synonymy can be found in Landry and Gielis (1992).

### Records and descriptions

#### *Megalorhipida defectalis* (Walker, 1864)

This widespread species was reported from the Galápagos Islands of Baltra, Isabela, Santa Cruz and Santiago (Landry & Gielis, 1992). In 1992, I found it again on these islands (except on Baltra) and also on six more islands. It was very abundant on Santa Cruz at the Darwin Station, where its larvae were infesting *Boerhavia caribea* Jacq. and *Commicarpus tuberosus* (Lam.) Standl. (both Nyctaginaceae) growing along the trails. From caterpillars feeding on *B. caribea* I reared two adults. On Isabela, I collected adults on the slope of Volcán Darwin from 100 to 300 m. On Santiago, I collected a small series of adults at four different localities at elevations from sea level to 520 m.

New island records are from Española, Floreana, Genovesa, Marchena, Pinta and Rábida. At these localities moths were found in low numbers at or near sea level.

#### *Lantanophaga pusillidactyla* (Walker, 1864)

The Lantana plume-moth was previously known from the Galápagos from only one specimen (Landry & Gielis, 1992). This specimen was collected on Santa Cruz at Conway Bay on April 1, 1923. Since I did not collect this species in 1989, we suspected that it was not attracted to light or that I was there at the wrong time of the year.

While the second reason may still be plausible, in 1992 I collected this species at light. Indeed, in addition to a single specimen collected on Santa Cruz (C.D.R.S., March 7), I collected small series of adults on Genovesa and Marchena in early and late March, and a larger series of 43 specimens on Isabela from sea level at Tagus Cove up to the rim of Volcán Darwin at 1240 m from May 13 to 21. I suspect that on all these islands the species feeds on *Lantana peduncularis* Anderss. (Verbenaceae), the endemic species of *Lantana*, because the pest species *Lantana camara* L. (on which the caterpillar is known to feed) does not occur on Genovesa, Isabela at Volcán Darwin and Marchena. I tried to verify this hypothesis in the field. Although I collected a few specimens at night flying near *L. peduncularis* or sitting on its leaves, I never saw feeding damage and was not able to rear the moth.

***Platyptilia vilema* spec. nov.**

(figs. 1, 4)

Material.— Deposited in the Canadian National Collection, except as noted. Holotype: ♂, Ecuador, Galápagos Islands, Isla Isabela, Volcán Darwin, 1000 m elevation, 18.v.1992, MVL, leg. B. Landry (CNC no. 21687). Paratypes: 9 ♂♂: 4 ♂♂, same data as holotype except for the following: (one with genitalia on slide BL 314, one is in BLC, another in MECN), 630 m elev., 16.v.1992; 3 ♂♂ (one is in CGC, one in NHM, one in CDRS), 630 m elev., 17.v.1992; 1 ♂, Isla Isabela, ± 15 km N Pto Villamil, 25.v.1992, MVL, leg. B. Landry; 1 ♂ (BL slide 353), Isla Pinta, 17.iii.1992, 400 m elev., MVL, leg. B. Landry.

Diagnosis.— This species is the largest of all Galápagos Pterophoridae with a wingspan reaching 21 mm. Its predominant black colouration is another prominent diagnostic feature.

Description (fig. 1).— Wingspan 16-21 mm (holotype 21 mm). Labial palpus porrect, 1.25 × diameter of eye, without scale tuft on second segment apically, mostly dark brown with white scales ventrally on first segment and at apex of third. Antennal flagellomeres each with white scales apically and dark-brown scales basally except towards apex of antenna, all scales greyish brown. Head with most scales dark brown apically and paler basally, also with some white scales; frons rounded, not extended much beyond eye, with a short, blunt scale tuft; occipital fringe bifid. Thorax mostly dark brown anteriorly with scales paler at base, white in middle of mesoscutellum and laterally on metascutum, with black bands at base of metascutum and anteriorly in middle of mesoscutellum, scales of tegula base mostly beige with brown apex but entirely greyish brown at tegula apex. Foreleg outer side mostly dark brown with scattered white scales, white on inner side of tibia (except at apical tuft) and first two tarsomeres, other tarsomeres greyish brown. Midleg similar to foreleg except for mostly white coxa; tibial white markings forming incomplete rings subapically and medially; tarsomeres white only on inner side of first, otherwise greyish brown. Hindleg mostly dark brown except for few scattered white scales and tarsomeres II and III mostly white except for greyish-brown apex. All tibial spurs rather short, about as long as or shorter than third tarsomere. Forewing with white and more or less dark-brown scales, latter paler at base; with darker brown areas subbasally on costa and on inner margin, from before middle almost to base of cleft on inner margin, as a definite large triangle from costa to slightly below cleft, and in

middle of first lobe; white at base, in middle as a wide diffuse longitudinal band, as a broken transverse band from costa to slightly below cleft, and as a thin transverse broken band on both lobes subapically; fringe at outer margin of lobes with row of mostly dark-brown short spatulate scales and row of long linear white scales, dark brown at angles of both lobes, otherwise with alternating patches of white and dark-brown scales on inner margins and costal margin of second lobe. Hindwing mostly greyish brown with concolorous fringe, except for third lobe: with dark-brown and white scales on dorsal surface and in inner margin fringe, also with conspicuous dark-brown scale tuft between two-fifths and three-fifths of length, and with small apical dark brown scale tuft. Abdomen dark brown dorsally, white laterally, and mostly dark brown ventrally with small apical white patches on each side of midline.

Variation.— Some variation was found in the proportion of white versus dark brown scales and in the intensity of the brown on the scales of the forewing, head and thorax.

Male genitalia (fig. 4).— Uncus well sclerotized, downcurved, moderately long (about as long as height of tegumen), apically rounded, with short setae on basal half. Tegumen large, apically cleft. Valvae simple, symmetrical, elongate, without modifications. Arms of juxta bifid, with few setae: basal projection short, well sclerotized, directed posteriorly; apical projection slender, extended twice the length of basal projection and directed ventroposteriorly. Sternite IX short, apex with two short, slightly pointed lateral projections and a shorter rounded median projection. Aedeagus moderately sclerotized, strongly downcurved; vesica with small scobinations; ventral process as long as coecum penis, concave and with small lateral rounded extensions; coecum penis bulbous.

Female genitalia.— Unknown.

Geographical distribution.— This species is known from the Galápagos islands of Isabela and Santa Cruz.

Natural history.— Unknown except that the moths are attracted to light and their habitat is apparently restricted to higher elevations on the islands.

Phenology.— In the Galápagos archipelago, the moths were collected in the middle of March and the second half of May.

Etymology.— The species' name is derived from the name of my friend, Señor Eduardo Vilema, the best guide in the Galápagos.

Remarks.— The following modification to the "Key to the Galápagos Pterophoridae based on external structures" (Landry & Gielis, 1992: 5-6) will help to separate this species. The second part of couplet 4 should lead to a new couplet (no. 13), as follows:

13. Forewing with yellowish-brown scales; scale tuft on inner margin of third hindwing lobe small, not triangular ..... *Stenoptilodes juanfermandicus*  
 - Forewing without yellowish-brown scales; scale tuft on inner margin of third hindwing lobe large, triangular ..... *Platyptilia vilema*

#### ***Platyptilia* (?) *nigroapicalis* Landry & Gielis, 1992**

In the Galápagos archipelago, this species was known from Santa Cruz and San Cristóbal and had been collected from late January to mid-April (Landry & Gielis,

1992). In 1992, I collected it again on Santa Cruz near Bella Vista (April 1) and at Los Gemelos (May 27), but I found it also on Isabela at Tagus Cove and on the slope of Volcán Darwin at 100, 300, 630, 1000 and 1240 m from May 13 to 21. The moths were attracted to a mercury-vapor lamp.

#### ***Postplatyptilia huigraica* Landry & Gielis, 1992**

This species was described from a series a specimens from Brazil, continental Ecuador, and the Galápagos island of Isabela (Landry & Gielis, 1992). In 1992, I collected it again only on the Island of Isabela, on the slope of Volcán Darwin at an elevation of 630 m. Two specimens were attracted to the mercury-vapor lamp on April 16 and 17. I also reared four adults from pupae found on *Hyptis spicigera* Lam. (Lamiaceae). The plant, usually no more than 20 cm in height, grew with ferns on rocky outcrops or directly on volcanic ash. Several larvae were found at night, feeding on the leaves of the plant. A few larvae and pupae were collected and preserved in alcohol.

#### ***Postplatyptilia minima* Landry & Gielis, 1992**

The smallest species of Galápagos Pterophoridae was described and known only from Isabela (Landry & Gielis, 1992). I collected one male at 400 m on Pinta with the mercury-vapor lamp, on March 17. The same night, I also collected one female of this species that was referred to as *Postplatyptilia* species 1 in Landry & Gielis (1992). These new records support the hypothesis that *Postplatyptilia* species 1 is in fact the female of *P. minima*.

#### ***Stenoptilodes brevipennis* (Zeller, 1874)**

I collected one specimen of this species at the Charles Darwin Research Station on Santa Cruz Island with an ultraviolet light on March 7. It is only the second specimen of this species collected on Santa Cruz and the fifth in the whole archipelago. The other records are all from Isabela (see Landry & Gielis, 1992).

#### ***Stenoptilodes gielisi* spec. nov. (figs. 2, 6)**

Material.— Holotype, ♀, Ecuador, Galápagos Islands, Isla Isabela, Volcán Darwin, 300 m elevation 20.v.1992, MVL, leg. B. Landry (CNC no. 21688), genitalia on slide no. BL 316.

Diagnosis.— This species is most similar in wing pattern and colour to *S. brevipennis*, *P. huigraica*, *P. minima*, and *L. pusillidactyla*. However, apart from obvious differences in genitalia, it lacks the additional apical scale tuft on the third hindwing lobe of *P. huigraica*, lacks scales on the costa of the third hindwing lobe as in *L. pusillidactyla*, is distinctly larger than *P. minima* (which has a maximal wingspan of 10.

mm), and is distinctly different in colour from *S. brevipennis* (see Remarks below).

Description (fig. 2).— Wingspan 15 mm (holotype). Labial palpus porrect, about  $1.20 \times$  vertical diameter of eye, with shortly produced scaling dorsally and ventrally at apex of second segment, with a mixture of dark-brown, whitish-brown, yellowish-brown and white scales, but second segment mostly dark brown laterally and third segment paler. Scales of most antennal flagellomeres dark brown, greyish brown towards apex. Head unicolorous with brown scales paler at base, without frontal projection or scale tuft; occipital fringe scales apically bifid and trifid. Anterior part of thorax brown up to middle of tegula with scales basally paler, more greyish brown on tegula, apex of tegula with unicolorous yellowish-brown scales, mesoscutellum and base of metascutum darker brown, most of metascutum white, metascutellum dark brown. Foreleg coxa dark brown on outer side, white on inner side; femur, tibia and first tarsomere with dark brown and white longitudinal stripes; tarsomeres II and III half white, half greyish-brown (apically); last two tarsomeres greyish brown. Midleg coxa mottled with white, dark brown and yellowish-brown scales; femur and tibia with longitudinal dark brown and white stripes, except at dark-brown tibial tufts; tarsomeres I-III with whitish scales at base, otherwise greyish brown as in other two tarsomeres. Hindleg coxa and femur mostly mottled with dark brown and white scales; tibia mostly dark greyish brown mottled with white scales dorsally on basal half and mostly whitish dorsally beyond middle until mid-length between positions of spurs, otherwise dark greyish brown; tarsomere I mostly dark greyish brown except for white base; other tarsomeres mostly whitish, but greyish brown apically. Forewing mostly mottled with white, yellowish-brown and dark-brown scales but with a concentration of white scales as a longitudinal band in middle basally and as a thin broken transverse band in middle of both lobes; dark-brown scales form more conspicuous patches before cleft from costa almost to cleft, and as a triangle in middle of first lobe from costa to below median line. Hindwing first two lobes with tiny greyish-brown scales showing reddish-brown hue in certain angles of light and with concolorous fringe; third lobe with larger brown, dark-brown and white scales, former more conspicuous apically, latter forming a small patch at middle; fringe scale colour as in other lobes, with dark-brown and a few white scales all along inner margin but with a tiny dark-brown patch subapically. Abdominal colouration not recorded.

Male genitalia.— Unknown.

Female genitalia (fig. 6).— Papillae anales weakly sclerotized, short and rounded; setation of medium length, rather dense. Posterior apophyses straight, extended nearly to base of tergite VIII, apically pointed. Sternite VIII a small rounded lobe extended slightly beyond margin of tergite. Anterior apophyses short, straight and pointed. Apical margin of sternite VII with pair of short lateral, slightly pointed lobes and a large median lobe, slightly clefted apically, and extended beyond margin of tergite VIII. Ostium on right side at base of median and right lateral lobes. Antrum of ductus well sclerotized, of same width as ductus. Ductus bursae long, coiled four times. Ductus seminalis slender, connected near corpus bursae. Corpus bursae circular, slightly elongate, covered with tiny spicules, with pair of long, heavily sclerotized, slender, pointed and straight signa.

Geographical distribution.— Known only from the Galápagos island of Isabela.

Natural history.— Unknown except that it is apparently attracted to light.

Phenology.— The only specimen was collected in mid May.

Etymology.— This species is dedicated to my friend and colleague Mr Cees Gielis, who kindly indicated that the species was new.

Remarks.— The generic assignment of this species remains unclear because the male is unknown; it could also be a member of *Postplatyptilia* Gielis (Cees Gielis, personal communication).

The following modification to the "Key to the Galápagos Pterophoridae based on external structures" (Landry & Gielis, 1992) will help to recognize this species. The second part of couplet 7 should lead to a new couplet (no. 14), as follows:

14. Third hindwing lobe dorsal surface brown, except for darker apex; hind tarsomere I mostly pale whitish brown with darker scales at apex .....  
 ..... *Stenoptilodes brevipennis*  
 - Third hindwing lobe dorsal surface with mixture of white, brown and dark brown scales; hind tarsomere I mostly dark brown but white at base .....  
 ..... *Stenoptilodes gielisi*

#### ***Exelastis cervinicolor* (Barnes & McDunnough, 1913)**

This species might be the most widespread of all Pterophoridae of the Galápagos. In Landry & Gielis (1992), it is reported from the islands of Baltra, Isabela, San Cristóbal and Santa Cruz, from mid-February to late April. In 1992, I collected it on the islands of Española, Floreana, Genovesa, Isabela (from sea level to the top of Volcán Darwin), Marchena, Pinta, Santa Cruz, Santa Fé, and Santiago. This adds seven new island records. There is no doubt that it occurs on most of the other islands. Since I collected it until the end of May (on Isabela and Santa Fé), these records also extend the flight period of the species in the archipelago by one month. I was also fortunate to discover the hostplant of this species. Eggs, larvae and pupae were found on the leaves of *Rhynchosia minima* (L.) DC. (Fabaceae) on the island of Pinta. The plant, which has tiny leaves and yellow flowers, creeps on lava rock. It can be found on most islands of the archipelago according to Wiggins & Porter (1971).

#### ***Exelastis pumilio* (Zeller, 1873) (figs. 3, 5, 7)**

*Mimeseoptilus pumilio* Zeller, 1873: 324.

*Marasmarcha liophanes* Meyrick, 1886: 19.

*Mimaeseoptilus gilvidorsis* Hedemann, 1896: 8.

*Leioptilus* (?) *griseodactylus* Pagenstecher, 1900: 240.

This species has not been reported before in the Galápagos. It is pantropical in distribution (Clarke 1986). Two males were collected on the ocean surface with a tow net between Volcán Ecuador on Isabela and Fernandina between 7 h 30 and 9 h 30 on May 12 by Stewart B. Peck. I also collected a female on Rábida, April 3, with a mercury-vapor lamp. Three males and four females were collected with the same method on the south-west slope of Volcán Darwin, on Isabela, and at Tagus Cove at the base of that volcano. Specimens were taken at sea level, 100 m, 630 m, and 1240

m from April 13 to 21. In addition, I was fortunate to discover larvae of this species on the leaves of *Desmodium glabrum* (Mill.) DC. (Fabaceae) at Tagus Cove and on the south-west slope of Volcán Darwin at 300 m. The plant occurs on most Galápagos islands (Wiggins and Porter 1971).

Diagnosis.— This beige species is almost identical to *E. cervinicolor* in size, colour and wing markings. Externally, it can mostly be differentiated from *E. cervinicolor* by the absence of elongate and apically enlarged dark brown and sometimes beige scales on the inner margin of the third hindwing lobe and by the more angular shape of the first forewing lobe (fig. 3). The male (fig. 5) and female (fig. 7) genitalia are also different from those of *E. cervinicolor*.

Remarks.— It is interesting to note that *E. pumilio* was first discovered on the sea surface of the channel between Isabela and Fernandina and on the west coast of Isabela where the cold waters of the Humboldt current first hit the archipelago. Thus, I think that the species dispersed to the Galápagos by natural means, perhaps rather recently because it has apparently spread only to Rábida.

#### *Adaina ambrosiae* (Murtfeldt, 1880)

In the Galápagos, this species was previously known only from the island of Santa Cruz (Landry & Gielis, 1992). In 1992 I collected it again on Santa Cruz at Los Gemelos (May 25) and near Bella Vista (April 1). I also collected it on the islands of Pinta and Isabela and discovered two of its hostplants.

On Pinta, moths were attracted to the mercury-vapor lamp from sea level to 400 m in elevation, from March 13 to 21. I also collected a few moths at night in the arid zone on the leaves of the local species of scalesia, *Scalesia incisa* Hook f. (Asteraceae), and discovered larvae and pupae on its leaves. Larvae of various stages were found resting on the upper surface of leaves, towards the apex and directly on the median vein in a concavity created by their own feeding activity. Evidence of feeding was also found elsewhere on the upper surface of the leaves where random patches were eaten. I reared one adult from the immature stages collected.

On the island of Isabela, I collected a small series of adults from May 16 to 21 on the slope of Volcán Darwin from 100 to 1240 m. Moths also came to the mercury-vapor lamp in the transition forest, approximately 15 km north of Puerto Villamil on May 25. It was at 600 m on the slope of Volcán Darwin that I discovered larvae of this species for the second time. At that locality, they were found on the leaves of *Scalesia microcephala* Robins., behaving in the same manner as on Pinta. From a few collected larvae and pupae, I reared two adults.

#### *Oidaematophorus nephogenes* (Meyrick, 1926)

This endemic species is known from the islands of Floreana, Isabela and Santa Cruz (Landry & Gielis, 1992). In 1992, I collected only three specimens (1 ♂ and 2 ♀♀) on Isabela, at about 100 m of elevation near Tagus Cove, and at 300 m on the slope of Volcán Darwin, on April 21 and 20 respectively. The moths were attracted to the mercury-vapor lamp

***Oidaematophorus cristobalis* Landry & Gielis, 1992**

A long series of this *Oidaematophorus* was collected on the south-west slope of Volcán Darwin, on the island of Isabela, the only island along with San Cristóbal where the species was known from (Landry & Gielis, 1992). The moths were attracted to the mercury-vapor lamp at elevations of 100, 300, 630, 1000, and 1240 m: hence, from nearly sea level to the rim of the crater. I also collected this species on two new islands: on Pinta, a single specimen at 400 m, March 17; and, on Santiago, two specimens at the site of Camp Central, 700 m, April 9 and 10, and one other moth at Bahía Espumilla on April 4.

Table 1. Summary of the occurrence of Pterophoridae species on the Galápagos Islands. The numbers (1-14) refer to the islands and are in order of the number of times I collected on each (in parentheses): 1. Santa Cruz (20); 2. Isabela (18); 3. Santiago (9); 4. Pinta (9); 5. San Cristóbal (8); 6. Española (5); 7. Genovesa (3); 8. Marchena (2); 9. Floreana (2); 10. Seymour Norte (2); 11. Fernandina (1); 12. Rábida (1); 13. Santa Fé (1); 14. Baltra (1).

Species:	Island:	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Megalorhipida defectalis</i> (Walker, 1864)		+	+	+	+		+	+	+	+			+		+
<i>Lantanophaga pusillidactyla</i> (Walker, 1864)		+	+						+	+					
<i>Platyptilia vilema</i> spec. nov.				+		+									
<i>Platyptilia</i> (?) <i>nigroapicalis</i> Landry & Gielis, 1992		+	+			+									
<i>Postplatyptilia huigraica</i> Landry & Gielis, 1992			+												
<i>Postplatyptilia minima</i> Landry & Gielis, 1992			+		+										
<i>Stenoptilodes juanfernandicus</i> Landry & Gielis, 1992			+												
<i>Stenoptilodes brevipennis</i> (Zeller, 1874)		+	+												
<i>Stenoptilodes gielisi</i> spec. nov.			+												
<i>Exelastis cervinicolor</i> (Barnes & McDunnough, 1913)		+	+	+	+	+	+	+	+	+				+	+
<i>Exelastis pumilio</i> (Zeller, 1873)			+										+		
<i>Adaina ambrosiae</i> (Murtfeldt, 1880)		+	+		+										
<i>Oidaematophorus nephogenes</i> (Meyrick, 1926)		+	+							+					
<i>Oidaematophorus cristobalis</i> Landry & Gielis, 1992		+	+	+	+										
<i>Oidaematophorus devriesi</i> Landry & Gielis, 1992			+												

### Conclusions

This account of new information on the Pterophoridae of the Galápagos archipelago brings the total number of species from 12 to 15. Table 1 summarizes the known distribution of all the species in the archipelago. This shows clearly that *Megalorhipida defectalis* and *Exelastis cervinicolor* are the most widely distributed species and that all species can be found on Isabela, the largest island of the Galápagos and also the most likely to receive new immigrants from the mainland. There is no doubt that a few more species will be discovered in the years to come. More collecting is necessary to enhance our knowledge of the distribution pattern of the species, to find their full range of hostplant(s) and to discover the undescribed sex of three of the species.

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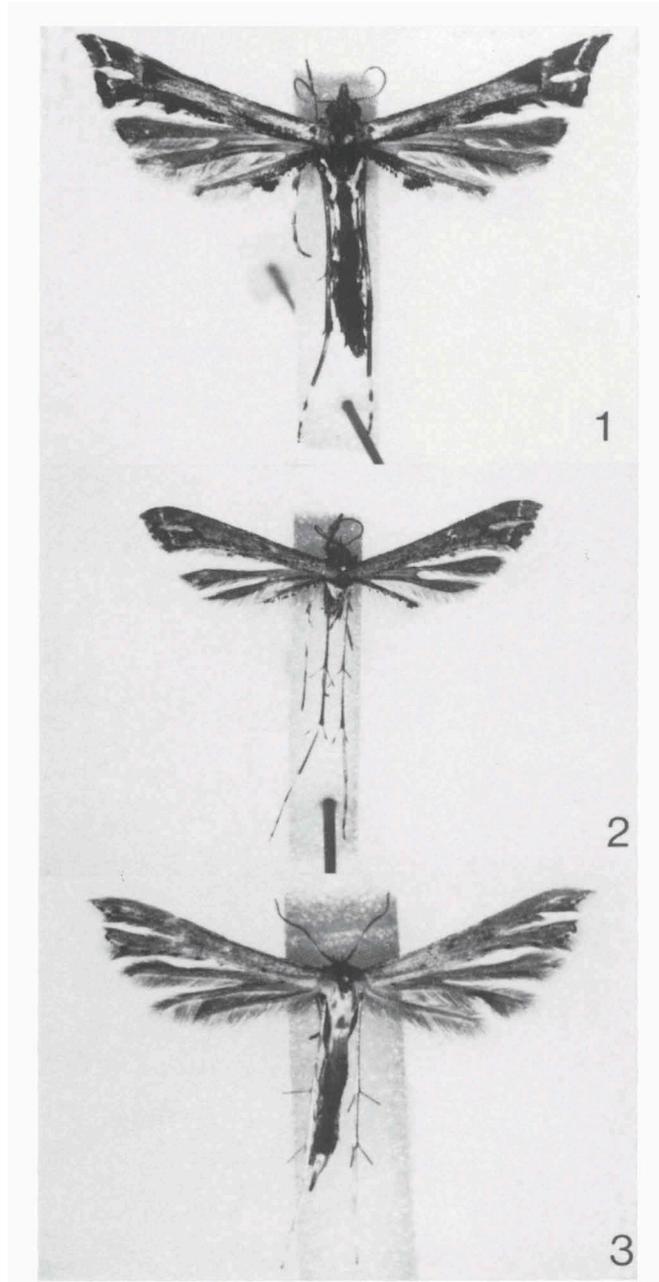
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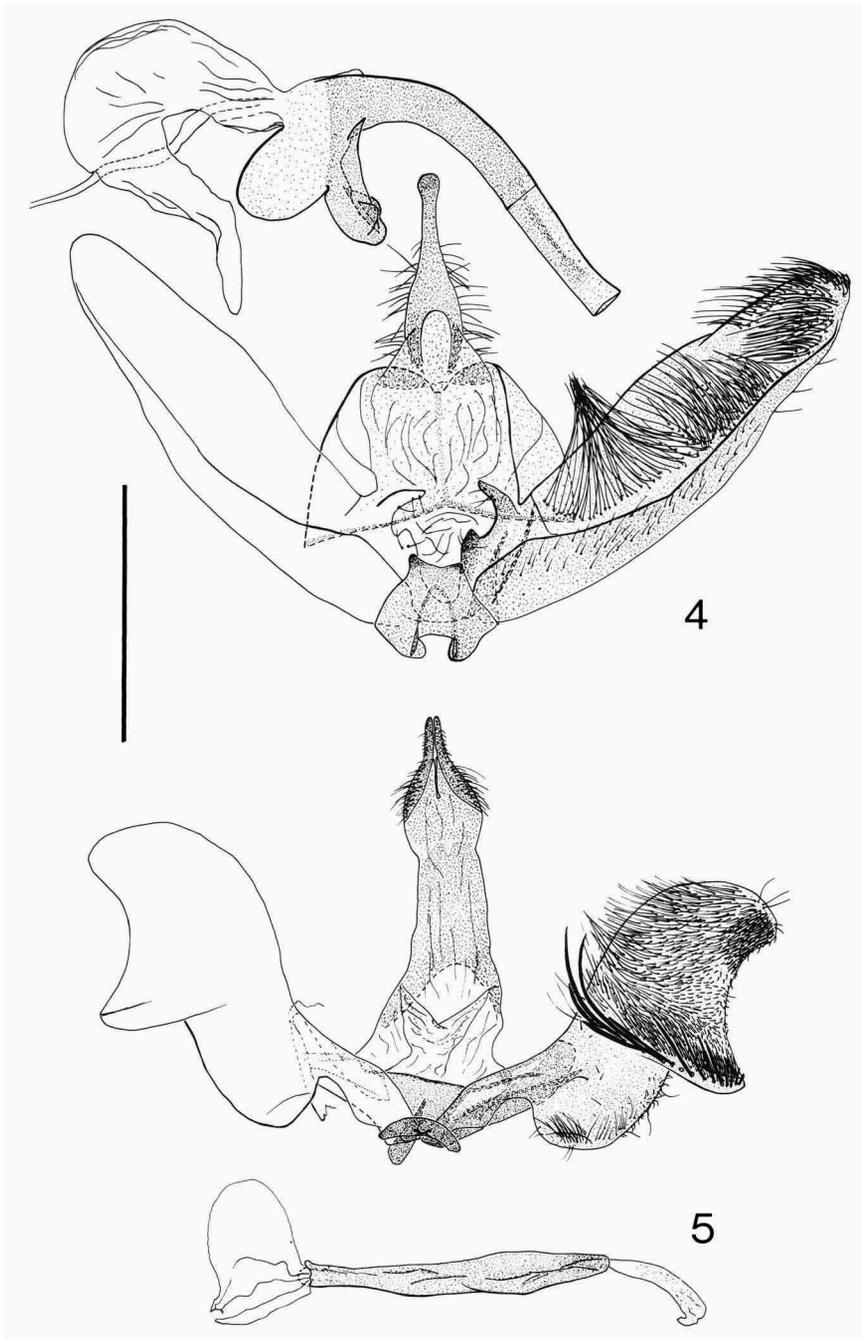
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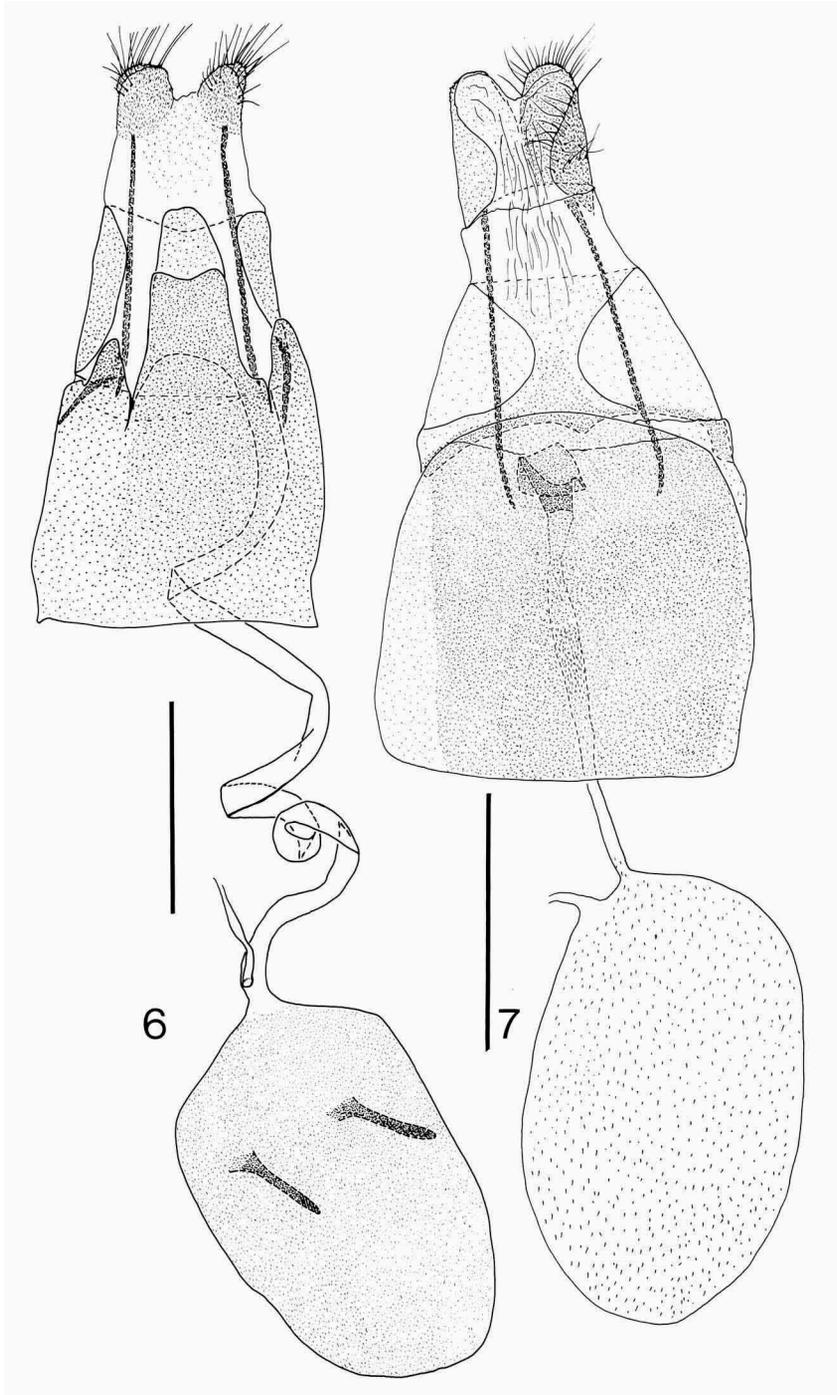
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Figs. 1-3. Dorsal views of adult Pterophoridae. 1. *Platyptilia vilema*, holotype ♂ (Isabela Island, CNC, wingspan = 21 mm). 2. *Stenoptilodes gielisi*, holotype ♀ (Isabela Island, CNC, wingspan = 15 mm). 3. *Exelastis pumilio*, ♂ (Isabela Island, BLC, wingspan = 13 mm).



Figs. 4-5. Male genitalia of Pterophoridae in posterior view with aedeagus removed. 4. *Platyptilia vilema*, paratype, slide no. BL 353. 5. *Exelastis pumilio*, slide no. BL 352. Scale bar = 0.25 mm.



Figs. 6-7. Female genitalia of Pterophoridae in ventral view. 6. *Stenoptilodes gielisi*, holotype, slide no. BL 316. 7. *Exelastis pumilio*, slide no. 375. Scale bars = 0.25 mm.