

Neotropical Pterophoridae 14: the species complex *Platyptilia thyellopa* Meyrick, 1926 (Lepidoptera)

C. GIELIS

GIELIS, C., 1997. NEOTROPICAL PTEROPHORIDAE 14: THE SPECIES COMPLEX *PLATYPTILIA THYELLOPA* MEYRICK, 1926 (LEPIDOPTERA). – *ENT. BER., AMST.* 57 (3): 38-41.

Abstract: The species *Platyptilia thyellopa* Meyrick, 1926 is redescribed and its genital structure is illustrated. Differences with a newly described sister species, *Platyptilia anniei* spec. nov., are given.

C. Gielis, Mr. Haafkensstraat 36, 4128 CJ Lexmond, The Netherlands.

Introduction

When identifying a large series of specimens resembling *Platyptilia thyellopa* Meyrick from numerous localities in the Andes mountains, ranging from Venezuela to Peru and Bolivia, a certain variation in the wing shape and size was noticed. It was not until the male genitalia were examined that an undescribed species was found. In the female genitalia the structures did not reveal diagnostic characters. Although the species could easily be distinguished by differences in the male genital structures, finding additional characters was difficult. One of the original observations was on the difference in size. The majority of the moths had a somewhat smaller wing span and the fore wings were more slenderly built. The larger-sized specimens had broader fore wings. This corresponded with the differences in the male genitalia. In the female genitalia no additional differentiating structures could be noticed. The fact that the bigger species flies on average at a higher altitude is not a true diagnostic feature, as the wing span may be ecologically influenced by the altitude.

Platyptilia thyellopa Meyrick, 1926 (figs 1-2)

Platyptilia thyellopa Meyrick, 1926: 298.

Material

Lectotype: ♂, Colombia, Mt. Tolina, 12500 ft (= 3800 m),

vii.1920 (BMNH). Paralectotypes: 2 ♀, same data as lectotype (BMNH). Bolivia: 1 ♀, Songotal, Cuticucho, 3700 m, 4.xii.1953 (W. Forster), gent CG 3572 (ZSM). Ecuador: 1 ♂, Carchi, 12.5 km N El Angel, 3500 m, 12.i.1985 (N. Venedictoff), gent CG 3555 (AME); 1 ♀, Napo, road Cosanga - Tena 5.5 km, 2170 m, 18.i.1983 (N. Venedictoff & C. Lemaire), gent CG 3567 (AME); 1 ♂, Pichincha, San Juan, 3500 m, 18.iii.1982 (N. Venedictoff), gent CG 3570 (AME).

Diagnosis

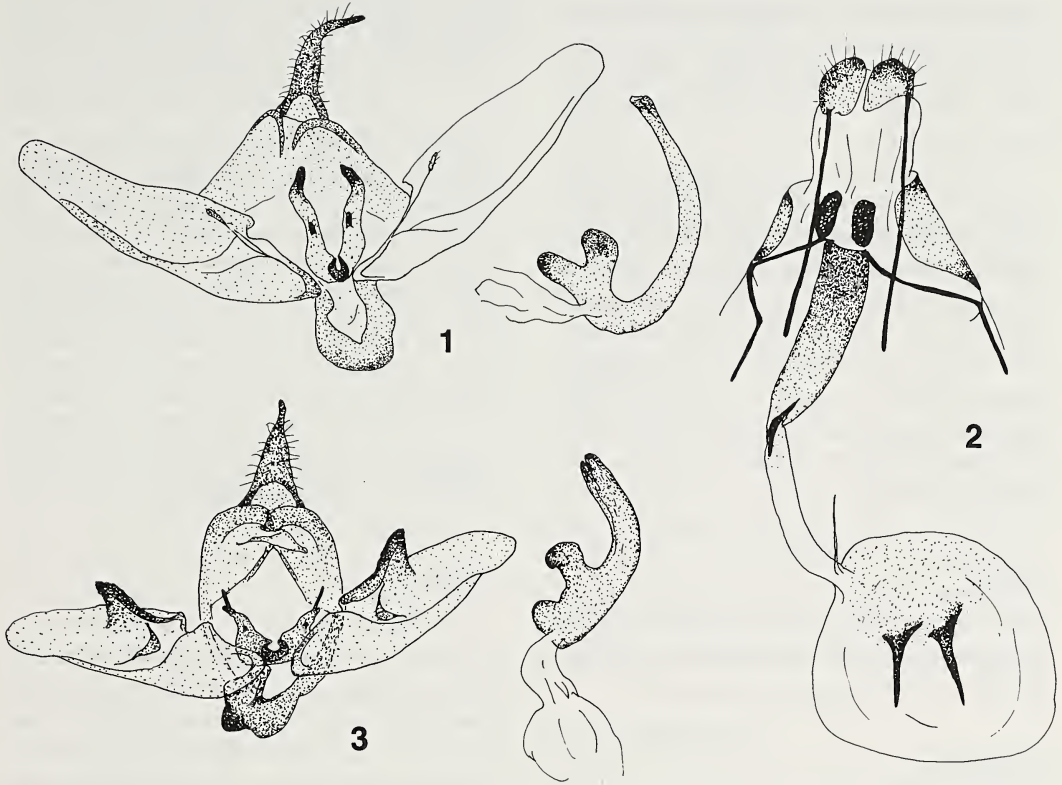
The species is characterized by the generally larger wingspan and somewhat broader fore wings, which distinguishes the species from *Platyptilia anniei* Gielis spec. nov., combined with the costal triangular spot which proceeds into the second forewing lobe, towards the anal angle.

Redescription

Male, female. Wingspan 22-28 mm.

Head appressedly scaled, pale ferruginous, with some erect scales at the collar. Frons pale ferruginous, rounded. Palpae two and a half times eye diameter, first segment and basal half of second segment ferruginous, distal half of second and third segment and upper surface ferruginous white; second segment thickened with pronounced scales. Antennae shortly ciliated; faintly ringed brown and dark brown.

Thorax ferruginous brown. Tegulae brown. Mesothorax grey-white, speckled brown. Fore legs: femur dark brown, tibiae and tarsi ochre-



Figs 1-3. *Platyptilia thyellopa* Meyrick and *P. anniei* spec. nov. 1, *P. thyellopa*, male genitalia. Ecuador, Pichincha, San Juan, 3500 m, 18.ii.1982 (N. Venedictoff), gent. CG 3570 (AME); 2, *P. thyellopa*/*P. anniei* spec. nov., female genitalia. Ecuador, Napo, Road Cosange - Mena 6.5 km, 2200 m, 22.xii.1984 (N. Venedictoff), gent. CG 3547 (AME). 3, *P. anniei* spec. nov., male genitalia. Ecuador, Pichincha, Road Quito - Chiriboga km 40, 2480 m, 22.ii.1982 (N. Venedictoff), gent. CG 3569 (AME).

ous with brown scales near joints. Mid legs ochreous with brown scales around the joints. Hind legs with two pairs of spurs; outer spur of proximal pair shorter than inner spur, distal pair of equal length, ochreous gradually darkening brown towards spur pairs and towards end of tarsal segments. Fore wings cleft from 4/5, ochreous brown. Markings dark brown, all poorly defined, a costal spot at 1/3, a costal triangle which progresses obliquely into the second lobe to mid-dorsal; dorsal spots at 1/4 and at half the dorsum. The first lobe distal from the triangular spot and the second lobe distal from the oblique extension bright ochreous yellow. A subterminal ochreous white line in both lobes, margined dark brown. Fringes greyish with a dark basal line at the termen; dark brown patches at the apex and anal angle

of both lobes and at half and 3/4 of the dorsum. Underside dark brown, with ochreous white spots in both lobes; a large central spot in the first lobe interrupted by brown scales on the veins and a subterminal line in both lobes. Hind wings grey brown, near apex of first lobe ochreous white. Fringes brown-grey. At the dorsum of the third lobe a central black scale tooth. Underside dark brown, in the first lobe mixed ochreous, at apex condensed to subterminal spot. Venous scales bright ferruginous, in a double row, the costal row longer than the dorsal row.

Abdomen pale brown, with a lateral dark brown spot on third segment.

Male genitalia (fig. 1): Valve symmetrical, lanceolate. The sacculus gradually narrowing to the apex. A small cucullar patch. Vinculum

arched, rather wide. Tegumen simple, with well-developed uncus. Anellus arms up to half the tegumen, moderately thick, with small caulis. Aedeagus curved, coecum well-developed. No cornuti.

Female genitalia (fig. 2): Ostium slightly excavated. Antrum four times longer than wide; gradually narrowing; the distal part sclerotised. Ductus bursae as long as antrum. At the junction of the antrum and ductus bursae a small sclerite. Vesica seminalis at the junction of the ductus bursae and the bursa copulatrix. Bursa copulatrix vesicular, with a pair of horn-like signa. Apophyses anteriores slender, well developed. Apophyses posteriores three times the papillae anales.

Ecology

The moths fly from October to February. The specimens were collected at altitudes of 2170 to 3800 m. The hostplant is unknown.

Distribution

Bolivia: Songo Valley; Colombia: Mt Tolima; Ecuador: Carchi, Napo, Pichincha.

Remarks

The species is extremely difficult to separate from *Platyptilia anniei* Gielis. The size of the species seems in a different range, although there is overlap. In the male genitalia the species are well distinguished; the female genitalia, however, are of no help so far. An additional problem is the presence of some variation in the female genitalia.

Platyptilia anniei spec. nov (figs 2-3)

Material

Holotype: ♂, Ecuador, Pichincha, Rd Quito/ Chiriboga k40, 2480 m, 22.iii.1982 (N. Venedictoff), gent CG 3569 (AME). Paratypes: Bolivia: 9♂, Yungas de Corani, 2500 m, 29.ix.1953, 1.x.1953, 3.x.1953 (W. Forster), gent CG 3563, 3564 (ZSM, CG). Ecuador: 5♂, Pichincha, Rd Quito/Chiriboga k34, 2750 m, 6.vi.1977 (N. Venedictoff),

gent CG 3548, 3552 (AME, CG); 1♂, Pichincha, Rd Quito/Chiriboga k33, 2750 m, 20.xi.1984 (N. Venedictoff) (AME); 6♂, Pichincha, Nono/Nanegal km 3.6, 2810 m, 14.v.1982 (N. Venedictoff), gent CG 3571 (AME, CG); 1♂, Lumbaqui, 25.ix.1975 (N. Venedictoff) (AME); 3♂, Napo, Santa Elena/Guacama + 2.7k, 1730 m, 14.xii.1984 (N. Venedictoff), gent CG 3568 (AME, CG); 1♂, Napo, Rd Cosanga/Tena 6.5k, 2200 m, 14.iv.1985 (N. Venedictoff) (AME); 1♂, Napo, Papallacta + 10km, 2750 m, 11.xii.1984 (N. Venedictoff) (AME); 1♂, Napo, San Francisco de Borja, 15.v.1975 (Spangler, Gurney, Langley & Cohen), gent CG 3448 (USNM); 1♂, Carchi, des El Carmelo k15, 3250 m, 7.i.1983 (N. Venedictoff) (AME). Peru: 1♀, Huanaco, 25 km NE Huanaco, Cordillera Carpish, Pattrail 2600 m., 8-10.ii.1987 (O. Karsholt, sta. 15), gent. CG 4170 (ZMUC). Venezuela: 2♂, Merida, Mucuy Fish Hatchery, 7 km E Tabay, 6600' (= 2000 m), 10-13.ii.1978 (J.B. Heppner), gent CG 3464 (USNM, CG); 2♂, Merida, 4 km S Santo Domingo, 19-23.ii.1976 (C.M. & O.S. Flint), gent CG 3458 (USNM, CG).

Diagnosis

The species is characterized by the generally smaller wingspan and more slender fore wing shape, which distinguishes the species from *Platyptilia thyellopa* Meyrick, combined with the costal triangular spot which proceeds into the second forewing lobe, towards the anal angle.

Description

Male, female. Wingspan 19-24 mm.

Head appressedly scaled, with some erect scales at collar, grey-white. Palpi three times eye diameter, protruding, pale brown, upper parts whitish. Third segment slender, as long as second. Antennae grey-white and brown ringed, shortly ciliated.

Thorax and tegulae brown-grey. Mesothorax ferruginous white. Legs brown-grey. Hindlegs with two pairs of spurs of equal length. Forewings cleft from 3/4, colour ferruginous. Markings dark brown, consisting of a costal triangle; from the base of the cleft this triangle continues in an oblique dash in the second lobe which reaches the anal angle. Some irregular dark scaling at the dorsum at half the wing length, diffuse along the costa. In both lobes a pale subterminal line; a pale dash in the first lobe between this line and the

costal triangle. Fringes grey, at the anal angles dark. At the dorsum at 1/2 and 3/4 a small scale tooth. Underside brown with pale markings in both lobes, as above.

Hindwings grey-brown, near apex of first lobe a subterminal pale spot, as in the forewing lobes. Fringes grey. At the mid-dorsum of the third segment a scale tooth, and along the entire dorsum isolated dark scales in the fringe. Underside brown. Venous scales orange, in a double row. The dorsal row longer and extending into the second lobe.

Abdomen pale brown, with a lateral dark brown spot at third segment.

Male genitalia (fig. 3): Valve symmetrical. The sacculus gradually narrowing towards 3/4 of the valve. A well developed triangular cucullar process at mid-valve, and basal of this a small cucullar patch. Vinculum longitudinal with a saccus tooth. Tegumen simple and a stout uncus. Anellus arms slender, 1/3 of tegumen, with small caulus. Aedeagus curved, stout. Top bifurcate, coecum well developed.

Female genitalia: For description and illustration, see *Platyptilia thyellopa* Meyrick (fig. 2).

Ecology

The moths were collected in September, October, December, February, May and June; at altitudes of 1730-2810 m. The hostplants are unknown.

Distribution

Ecuador: Napo, Pichincha; Venezuela: Meri-

da; Peru: Huanaco; Bolivia: Yungas de Corani.

Remarks

The species is in its appearance hardly distinguishable from *P. thyellopa* Meyrick. Only the smaller size and the genital structure in the male are diagnostic.

Abbreviations

AME: Allyn Museum of Entomology, Sarasota, Florida, U.S.A.; BMNH: British Museum of Natural History, London, England; CG: C. Gielis, Lexmond, the Netherlands; USNM: National Museum of Natural History, Washington, D.C., U.S.A.; ZMUC: Zoologisk Museum, University of Copenhagen, Denmark; ZSM: Zoologische Staatssammlung, München, Germany.

Acknowledgements

I wish to express my thanks to Dr W. Dierl (München, Germany), Mr O. Karsholt (Copenhagen, Denmark), Dr J.Y. and L.D. Miller (Sarasota, Florida, U.S.A.), Mr M. Shaffer (London, Great Britain) and Dr A. Solis (Washington, D.C., U.S.A.) for the loans of material, and Mr H.W. van der Wolf for his linguistic support.

References

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Accepted 25.xi.1996.