

# New Pterophoridae from Nepal (Lepidoptera)

Cees Gielis

**Abstract.** The material collected by Mr. M. Fibiger in Nepal in the summer of 1996 contained three species of Pterophoridae new to science: *Amblyptilia fibigeri* sp. n., *A. skoui* sp. n. and *Platyptilia gandaki* sp. n. These species are described and figured.

**Samenvatting.** Nieuwe Pterophoridae uit Nepal (Lepidoptera)

Onder de insecten verzameld door de heer M. Fibiger in Nepal in de zomer van 1996, bevonden zich een drietal niet eerder beschreven Pterophoridae: *Amblyptilia fibigeri* sp. n., *A. skoui* sp. n. en *Platyptilia gandaki* sp. n. Deze soorten worden beschreven en afgebeeld.

**Résumé.** Pterophoridae nouveaux du Népal (Lepidoptera)

Les insectes collectionnés par Mr. M. Fibiger au Népal durant l'été de 1996 contenaient trois espèces de Pterophoridae non-décrites: *Amblyptilia fibigeri* sp. n., *A. skoui* sp. n. et *Platyptilia gandaki* sp. n. Ces espèces sont décrites et figurées.

**Key words:** Lepidoptera – Pterophoridae – new species – Palaearctic region – Nepal.

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

## Introduction

In the summer of 1996, Mr. Michael Fibiger undertook an expedition to the highlands of Nepal. His main purpose was to find species of Noctuidae. This area is a link between the South-East Palaearctic and the Oriental regions. An additional factor is the presence of high valleys, separated from the neighbouring regions by very high mountain ranges. This isolated region seems potentially to present the appropriate conditions for the formation of new species.

Apart from Noctuidae other Lepidopterous families were collected. The Pterophoridae among these were available for study by the author. Arenberger (1991) had already worked on material from Nepal, but he had restricted himself to the former subfamily Oidaematophorinae. In the present study specimens from the genera *Platyptilia* and *Amblyptilia* are dealt with. Three new species are recognised and described below.

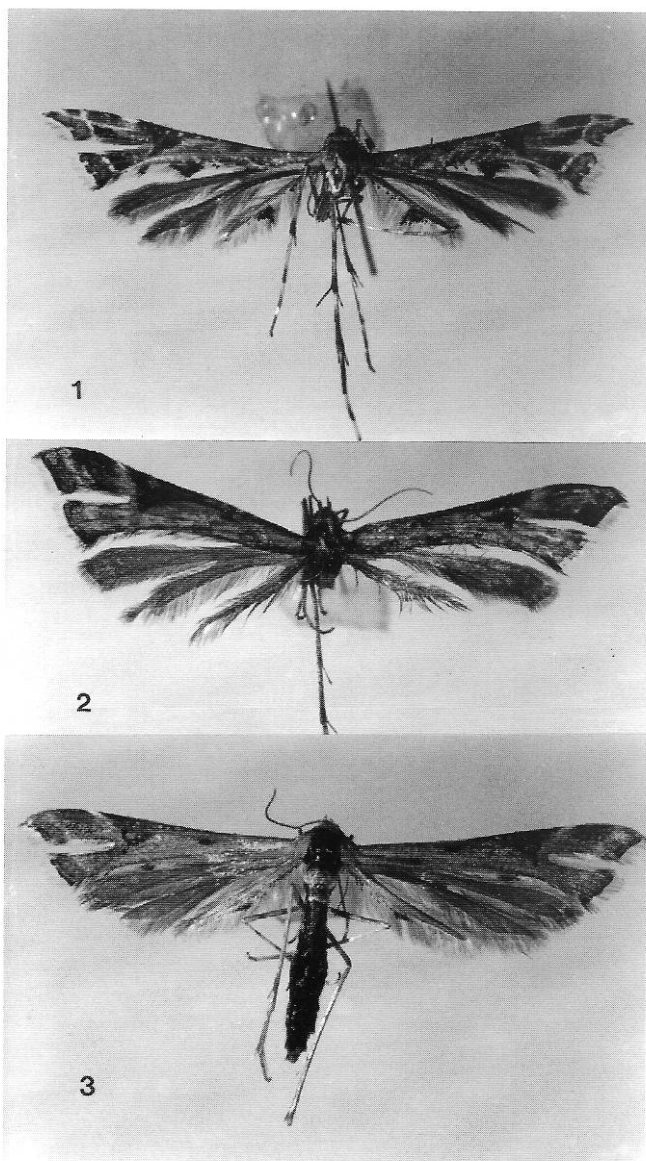
### *Amblyptilia fibigeri* sp. n.

**Type material:** Holotype ♂: Nepal, Gandaki, Keketani, 2600 m, 3–4.VIII.1996 (M. Fibiger), gent. CG 2728 (CG).

**Diagnosis.** The species is characterised by the shape of the male genitalia. These differ from known species in the shape of the valve, saccus and aedeagus.

**Description.** Male. Wingspan 19 mm. Head appressedly scaled, dark brown: collar with some erect scales; above the eye a white line; frons conical, 3/4th of eye-diameter, dark brown, baso-lateral a white line. Palps protruding, twice eye-diameter, basal segment dark brown with ventrally white drooping scales, second segment dark brown with ventral white line and dorsally some white scales, third segment short. Antennae laterally dark brown, dorsally alternating dark brown and brown-white; shortly ciliated. Thorax dark brown. Tegulae brown, mixed with white scales. Mesothorax white, centrally mixed with brown scales. Hindlegs grey-white, at the end of the segments and at the base of the spurs dark brown. Spur pairs of equal length, basally and at tip dark brown, centrally grey-white.

Forewings cleft from 5/8th, pale brown, apex of first lobe extended. Dark brown spots and scales at: costa; in discus; as a costal triangle at the base of the cleft; in first lobe dorsally and before the subterminal line and in the second lobe subterminally.



Figs. 1–3. Imago. 1. *Amblyptilia fibigeri* sp. n. Holotype ♂: Nepal, Gandaki, Koketani, 2600 m, 3–4.VIII.1996 (M. Fibiger), gent. CG 2728 (CG). 2. *Amblyptilia skoui* sp. n. Holotype ♂: Nepal, Gandaki, Tukuhe, 2650 m, 5.VIII.1996 (M. Fibiger), gent. CG 2726 (CG). 3. *Platyptilia gandaki* sp. n. Paratype ♂: Nepal, Gandaki, Ghasa, 2050 m, 2.VIII.1996 (M. Fibiger) gent. CG 2725 (CG).

Dispersed white scales along the costa and more grouped along the dorsum; a subterminal line in both lobes; an oblique longitudinal line in the first lobe crossing the subterminal line; an oblique line in the second lobe below the base of the cleft and a spot at the costa beyond the base of the cleft. Fringes terminally white with basally a black row of scales, interrupted once in the first lobe and twice in the second lobe; at the dorsum and in the cleft greyish, with black dorsal scale teeth: a large one at the mid-dorsum and smaller ones at 3/4th and 5/6th. Underside dark brown, gradually paler towards the termen; a white subterminal line in both lobes; scattered white scales in the first lobe and a white costal spot beyond the base of the cleft.

Hindwings dark grey-brown. Fringes grey-brown. A black scale tooth at the mid-dorsum of the third lobe. Underside dark brown; a small white spot subterminally in the first lobe; some white scales basally in the first lobe and terminally in the third lobe. Venous scales very dark ferruginous, in a double row, the costal row the longer.

Male genitalia: Valves symmetrical. Distal part of valve with bird-head shape, tip stout. Saccus with central indentation and a fold at 3/5th. A small cucullar ridge centrally in valve at 1/3rd. Tegumen bilobed. Uncus stout. Anellus arms moderately wide, up to 2/3rd of tegumen. Saccus wide, flattened end covered with dense setal bristle. Aedeagus curved, coecum rather small, distal 1/3rd laterally with serrate margin. Cornutus in shape of an Arabian dagger.

Female genitalia: Unknown.

**Ecology:** The moth was found in August above 2500 m. The hostplant is unknown.

**Distribution:** Nepal, Gandaki.

**Remarks:** The species is named after its collector, Mr. Michael Fibiger, a very active collector and worker on Noctuidae, though not neglecting other groups of insects.

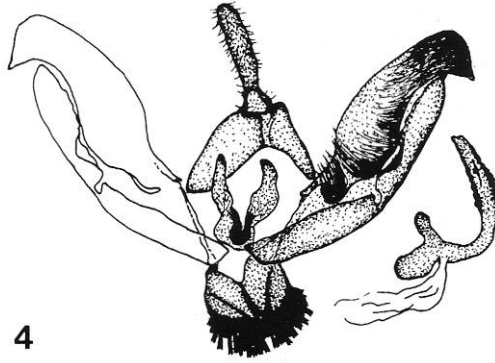
### *Amblyptilia skoui* sp. n.

**Type material:** Holotype ♂: Nepal, Gandaki, Tukuche, 2650 m, 5.VIII.1996 (M. Fibiger), gent. CG 2726 (CG). Paratype ♂: Nepal, NW Pokhara, Phalante, 2250 m, 31.VII.1996 (M. Fibiger), gent. CG 2727 (CG).

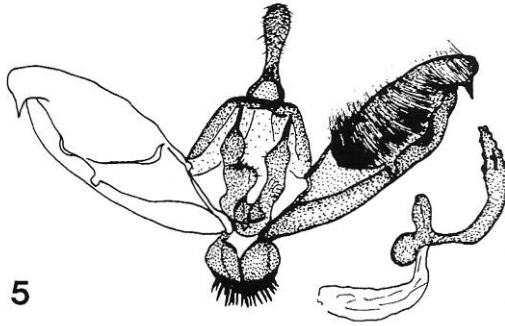
**Diagnosis.** The species is characterised by the shape of the male genitalia. These differ from known species in the shape of the valve, saccus and the aedeagus.

**Description.** Male. Wingspan 20 mm. Head appressedly scaled, dark brown. Frons minimally protruding. Palps dark brown, protruding, second segment distally widened. Antennae faintly ringed grey-white and dark brown, shortly ciliated. Thorax dark brown. Tegulae and mesothorax brown, mixed with numerous whitish scales. Hindlegs dark brown, mixed with some white scales; tarsal segments proximally white and distally dark brown. Spurs medially a little longer than lateral; white with dark tip.

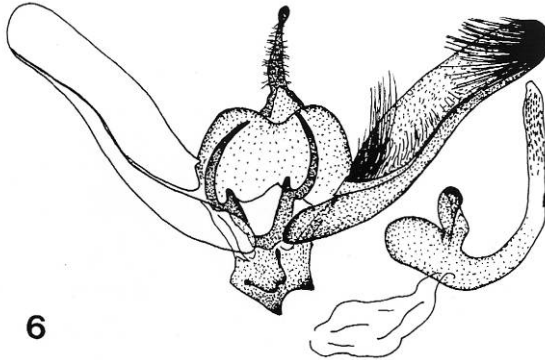
Forewings cleft from 2/3rd, grey-brown. Dark brown scales and spots at: the costa; the discus; the costal triangle just before the base of the cleft and a central band in the first lobe. Diffusely scattered white scales in the dorsal half of the wing, subterminally in the first lobe and subterminal lines in both lobes. A ferruginous costal spot just beyond the base of the cleft. Fringes terminally white with a basal black row of scales; in the cleft and dorsally greyish tinged, with small black scale teeth at the dorsum at 1/2nd, 3/4th and at the anal angle of the second lobe. Underside dark brown with a white subterminal line in both lobes; a costal spot beyond the base of the cleft and some scattered scales subterminally in both lobes.



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Figs. 4–6. Male genitalia. 4. *Amblyptilia fibigeri* sp. n. Holotype: Nepal, Gandaki, Koketani, 2600 m, 3–4.VIII.1996 (M. Fibiger), gent. CG 2728 (CG). 5. *Amblyptilia skoui* sp. n. Holotype: Nepal, Gandaki, Tukucho, 2650 m, 5.VIII.1996 (M. Fibiger), gent. CG 2726 (CG). 6. *Platyptilia gandaki* sp. n. Holotype: Nepal, Gandaki, Ghasa, 2050 m, 2.VIII.1996 (M. Fibiger), gent. CG 2725 (CG).

Hindwings grey-brown. Fringes dark grey; at the mid-dorsum of the third lobe a black, poorly developed scale tooth. Underside dark brown, with some white scales in the subtermen of the first lobe. Venous scales ferruginous, in a double row, the costal row the longer.

Male genitalia: Valves symmetrical. Distal part of valve with bird-head shape, tip acute, margin before tip irregularly indented. Sacculus with a fold at 3/5th. A small cucullar ridge centrally in valve at 2/5th. Tegumen bilobed. Uncus stout, with numerous setae, spoon-shaped. Anellus arms wide, pointed, as long as tegumen. Saccus wide, rounded end covered with loose setal bristle. Aedeagus curved, coecum rather small, distal 1/3rd laterally with serrate margin. Cornutus in shape of an Arabian dagger.

Female genitalia: Unknown.

**Ecology:** The specimens were found in July and August above 2000 meters. The hostplant is unknown.

**Distribution:** Nepal: Gandaki, NW Pokhara.

**Remarks:** The species is named after Mr. Peder Skou, collector of Geometridae, publisher and author of books on Lepidoptera, to honor his efforts to popularise entomology.

### *Platyptilia gandaki* sp. n.

**Type material:** Holotype ♂: Nepal, Gandaki, Ghasa, 2050 m, 2.VIII.1996 (M. Fibiger), gent. CG 2725 (CG). Paratypes: 3♂, 2♀, same locality and date, gent. CG 2724 (♀) (CG), 1♂ India, Kukti, NW Himalayas, 2000 ft., 1892 (Leech), gent. BM 20944 (teste Arenberger) (BMNH).

**Diagnosis.** The species is characterised by the brown-grey appearance, the poor markings, the shape of the valves and saccus in the male genitalia and the shape of the apophyses anteriores in the female genitalia.

**Description.** Male, female. Wingspan 20–25 mm. Head appressedly scaled, beige mixed pale brown. Frons with protrusion 3/4th of eye-diameter. Palps protruding, twice eye-diameter, basally whitish and distally more brown. Thorax and tegulae beige. Mesothorax grey-white. Abdomen beige-brown, dorsally on segments 2, 3, 4 and 5 small black scale groups. Hindlegs beige, proximal spur pair of equal length, the inner spur of the distal pair the longer.

Forewings cleft from 2/3rd, dark grey-brown. Markings blackish: a discal spot; a triangular spot just before the base of the cleft, this spot near the cleft very well marked; diffuse darkening of a transverse band in the first lobe. A pale brown colour: at the dorsal parts of the wing; terminally bordering the triangular spot and as a subterminal line in both lobes. Fringes terminally grey-white, with a continuous, basal row of black scales; in cleft and at dorsum greyish; at dorsum small black scale teeth at 2/3rd and a smaller one at 3/4th. Underside dark brown, gradually getting paler at termen; with white subterminal lines as above.

Hindwings and fringes grey-brown. At dorsum of the third lobe a central, black scale tooth; between the scale tooth and wingbase isolated, pronounced black scales. Underside brown-grey, with a white, oblique subterminal spot in the first lobe. Venous scales dark ferruginous, in a double row, the costal row the longer.

Male genitalia: Valves symmetrical, with almost parallel margins, slightly "S" shaped. Sacculus basally wide, gradually narrowing, reaching up close to the tip. Tegumen bilobed, wide. Uncus basally wide, distally moderate; tip club-like. Anellus arms as long as tegumen, bi-furcated; basal fork at 1/3rd succeeded by a long, slender,

arched distal part. Saccus excavated, tip angles approximately  $75^\circ$ . Aedeagus curved; coecum well-developed. Cornuti in shape of a sclerotised ridge at 3/4th and a distal row of sclerotised spiculae.

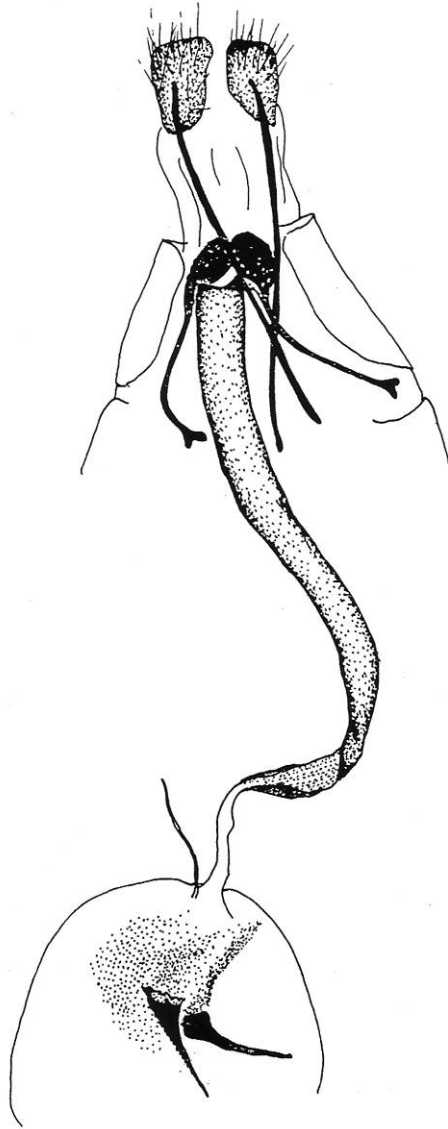


Fig. 7. Female genitalia. 7. *Platyptilia gandaki* sp. n. Paratype: Nepal, Gandaki, Ghasa, 2050 m, 2.VIII.1996 (M. Fibiger), gent. CG 2724 (CG).

Female genitalia: Ostium flat. Antrum long and curved, in shape of an “*ι*”. Ductus bursae short, weakly sclerotised. Vesica seminalis narrow, originating from junction between ductus bursae and bursa copulatrix. Bursa copulatrix vesicular, with a pair of horn-like signa. Apophyses anteriores one and a half times papillae anales, with distinctly forked tip and sclerotised plates on both sides of the antrum. Apophyses posteriores twice papillae anales.

Ecology: The moth flies in August, at altitudes of 600–2100 m. The hostplant is unknown.

Distribution: Nepal, Gandaki; India, NW Himalaya.

Remarks: The species is named after the province of Gandaki, where it was collected.

### **Acknowledgements**

I wish to thank Mr. M. Fibiger for donating these Nepal Pterophoridae, Mr. E. Arenberger for his discussions on the species occurring in Central and South-East Asia, and Mr. H. W. van der Wolf for his linguistic help.

### **Reference**

Arenberger, E., 1991. Pterophorinae aus Nepal. — *NachrBl.bayer.Ent.* 40: 12–19.