

New species of bucculatricid moths from Nepal (Lepidoptera: Bucculatricidae)

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Baryshnikova, S.V. 2001. New species of bucculatricid moths from Nepal (Lepidoptera: Bucculatricidae). *Zoosystematica Rossica*, 10(1): 167-170.

Four new species of the genus *Bucculatrix* Z. (*B. longispiralis* sp. n., *B. tubulosa* sp. n., *B. nepalica* sp. n., and *B. acuta* sp. n.) are described.

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Among the Microlepidoptera material from Nepal borrowed by my colleague A.L. Lvovsky for study from the Zoologische Staatssammlung, München, Germany, four new species of bucculatricid moths were found. They are described below.

South Asian bucculatricids are poorly known. A number of species of the genus *Bucculatrix* Z. were described from the region by Meyrick (1912-1916, 1916-1923, 1930-1936), but their descriptions, based on external characters, are insufficient for reliable comparison. Depositories of type specimens were clarified only for several Meyrick's species (Clarke, 1955), the latter were never revised. Location of others is unknown.

The new moths were collected in the lower Himalaya of Nepal at altitudes 730-1800 m. The morphological terms in the descriptions follow Seksyaeva (1993, 1994). The holotypes and most paratypes are deposited in the Zoologische Staatssammlung München. Several paratypes of *Bucculatrix nepalica* sp. n. are kept in the Zoological Institute, Russian Academy of Sciences, St.Petersburg.

Bucculatrix longispiralis sp. n.

(Figs 1, 2)

Holotype. ♂, Nepal, Prov. No. 3, East Jubing, 1600 m, 11.V.1964, leg. W. Dierl, Staatssl. München.

Paratype. ♀, Nepal, Kathmandu, Valley Godavari, 1600-1800 m, 3.VIII.1967, leg. Dierl & Schacht, Staatssl. München.

Description. Wingspan 7 mm. Head tuft ochreous. Eye caps whitish; antennae fuscous. Forewings dark brown with lighter golden brown middle area incorporating irregular pale

dorsal blotch; two short oblique whitish streaks on costal margin, and a white dot on fold. Hindwings brown; fringes of both wings golden grey.

Male genitalia (Fig. 1). Annulus fused with valvae; tegminal lobes triangular, linked dorsally with thin membrane. Aedeagus extremely long, snake-shaped, slightly widened to apex and somewhat swollen at base, with very long internal coil. Valvae broad, fused ventrally, with triangular, slightly bent apices; basal processes comparatively long and thin.

Female genitalia (Fig. 2). Papillae anales moderately sclerotized, with rather short apophyses. Segment VIII membranous. Ostium folded, opened at segment VII forming a lobe on its sternal side. Ductus bursae coiled proximally, longitudinally folded distally. Bursa copulatrix ovate-oblong, with signum situated on its upper third. Ductus seminalis attached at border of folded and coiled portions of ductus bursae.

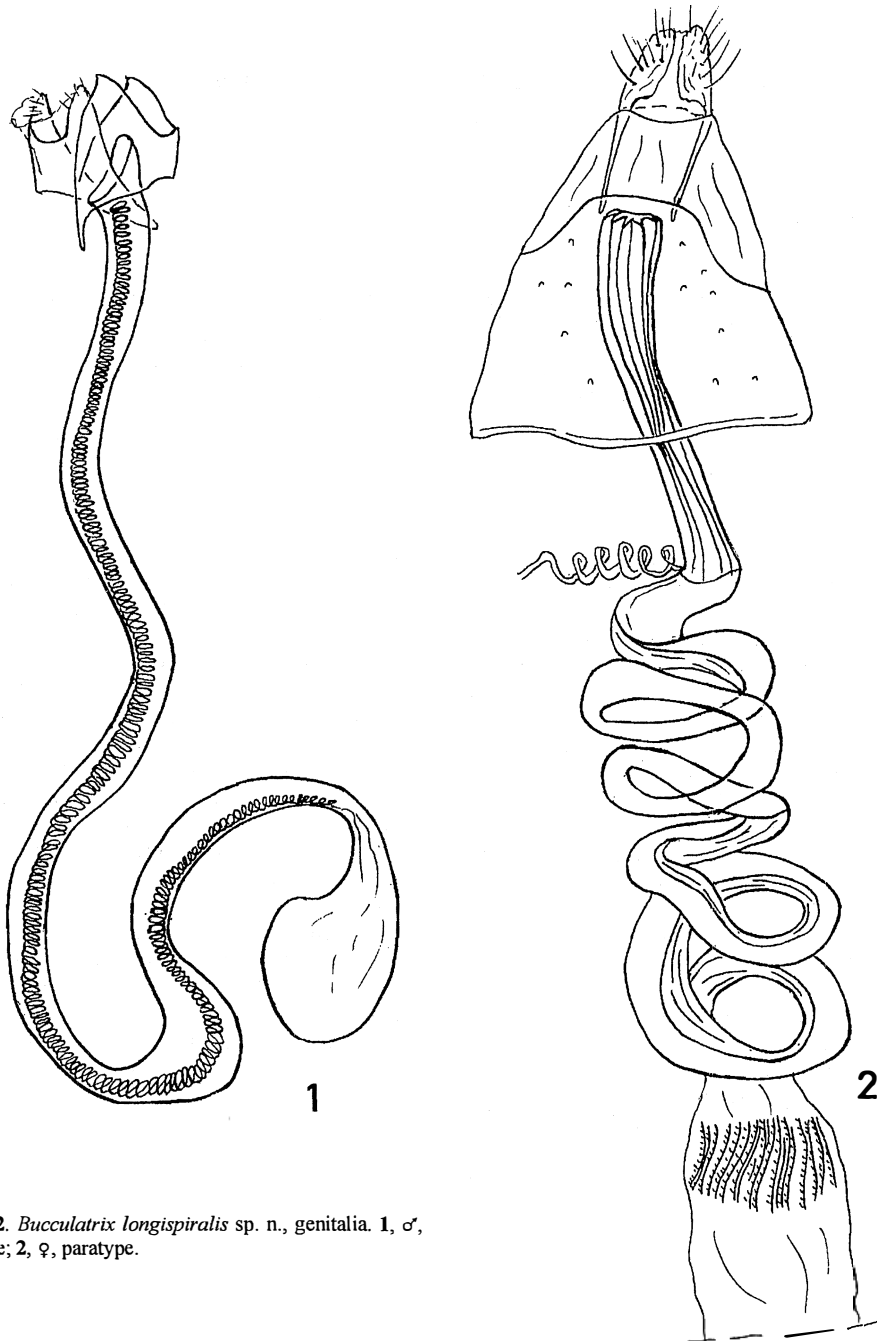
Comparison. The new species is easily recognizable from any other known species of the family by the unique snake-shaped aedeagus more than 10 times as long as valva. In characters of the valvae and tegumen, it slightly resembles *B. ulmella* Z. Females demonstrate very long coiled ductus bursae comparable in length with that of the Nearctic *B. ainsliella* Murtfeldt, but distinguished from the latter by its spring forming numerous regular curls.

Bucculatrix tubulosa sp. n.

(Fig. 3)

Holotype. ♂, Nepal, Prov. No. 3, East Jubing, 1600 m, 20-23.VII.1964, leg. W. Dierl, Staatssl. München.

Paratype. ♂, same data as holotype.

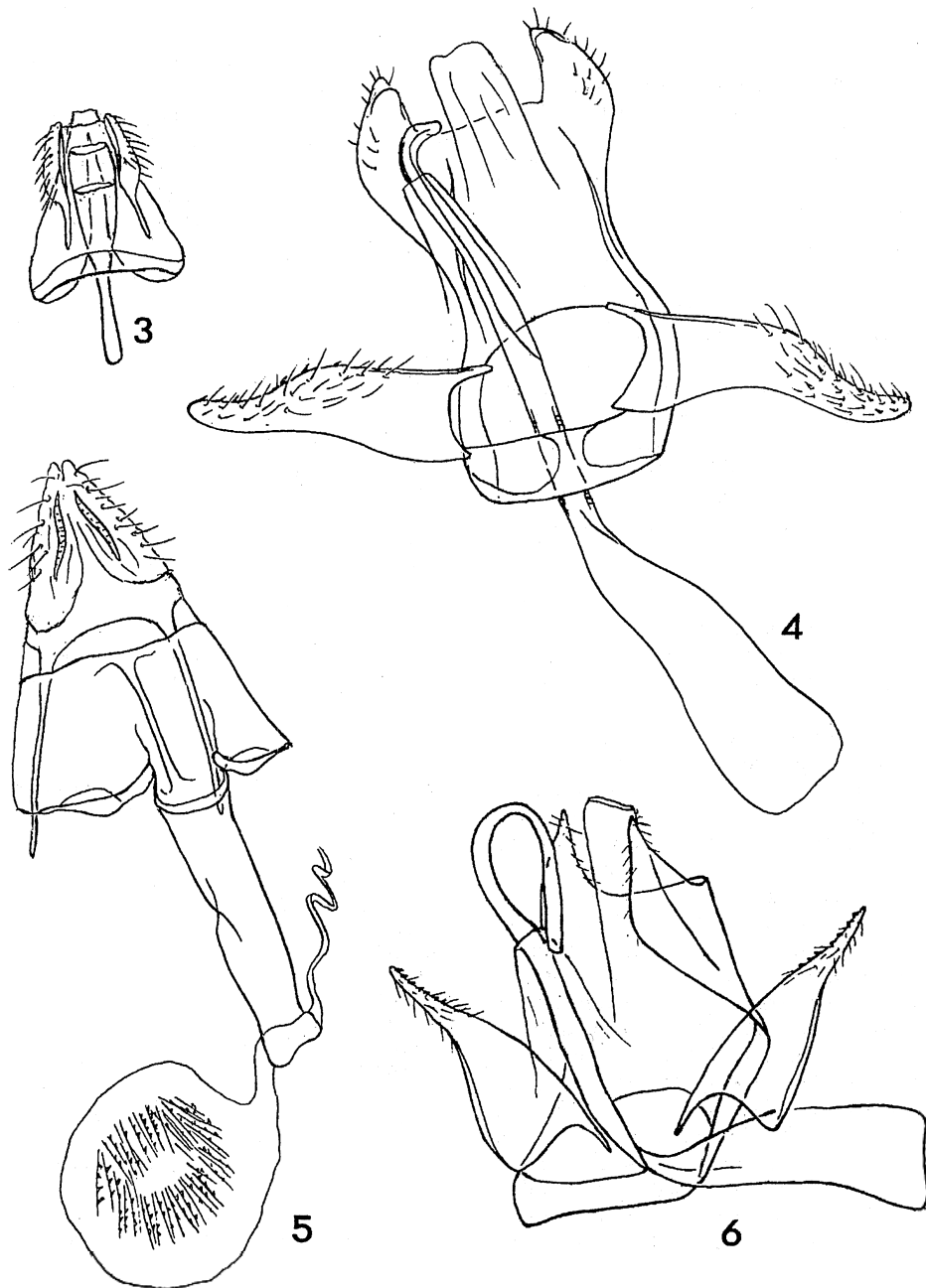


Figs 1-2. *Bucculatrix longispiralis* sp. n., genitalia. 1, ♂, holotype; 2, ♀, paratype.

Description. Wingspan 7 mm. Head tuft ochreous in centre, greyish around. Eye caps greyish. Antennae golden grey. Forewings greyish, golden in central part, with unclear blotch before middle of costal margin, indistinct oblique streak running from apical third of costal margin towards tornus, and diffused

fuscous spot in middle of dorsal margin. Hindwings and fringes of both wings golden-grey.

Male genitalia (Fig. 3). Annulus strongly modified, tube-shaped, fused with valvae, not clearly showing tegumen and vinculum. Tergite IX forming two broad rounded lobes anteriorly. Aedeagus approximately 3 times as long



Figs 3-6. *Bucculatrix* spp. n., genitalia. 3, *B. tubulosa* sp. n., ♂, holotype; 4, 5, *B. nepalica* sp. n. (4, ♂, holotype; 5, ♀, paratype); 6, *B. acuta* sp. n., ♂, holotype.

as valva, with widened membranous distal portion exceeding valva in length, funnel-shaped apically. Valvae partly fused longitudinally, with slight allusion of lobes; thin basal processes half as long as valvae.

Comparison. In the general shape and size of the male genitalia, the new species is comparable with the members of the *B. crataegi* group (Seksyaeva, 1994), in particular with *B. pomi-foliella* Clemens (Braun, 1963).

***Bucculatrix nepalica* sp. n.**

(Figs 4, 5)

Holotype. ♂, Nepal, Prov. Chisapani Garhi, Bhainse Dobhan, 730 m, 16-20.VII.1967, leg. Dierl & Schacht, Staatsslg. München.

Paratypes. Nepal: 12 ♂ and ♀ with same data as holotype; 1 ♂, Kathmandu – Chauni, 1400 m, 17-20.IV.1967, leg. Dierl, Forster & Schacht, Staatsslg. München.

Description. Wingspan 7.5 mm. Head tuft white, sometimes with several golden hairs; eye caps white. Forewings shining white, yellowish along costal margin and at fold, sometimes darkened with sparse golden brown scales; oblique streak from costal margin towards tornus; large dorsal blotch more distinct near wing middle gradually diffusing to tornus. Hindwings and fringes of both wings golden.

Male genitalia (Fig. 4). Tegumen with moderate triangular tegminal lobes and small accessory processes. Vinculum rather short, band-shaped. Aedeagus 3 times as long as valva, slightly widened to base, twice curved: in basal third and near apex. Upper edge of valva slightly bent in its middle part, with base only 3 times exceeding apical part in breadth.

Female genitalia (Fig. 5). Posterior apophyses long and rather stout; rasping rods well developed; a depressed area of sternite VIII with sclerotized oval plate on each side of ostium; ostium wide, situated on posterior edge of segment VIII. Sclerotized portion of ductus bursae long, membranous one short, slender. Ductus seminalis attached at the border between two parts of ductus bursae. Bursa copulatrix with obliquely disposed circular signum.

Comparison. This and the following species are typical members of the *B. gnaphaliella* group (Seksyaeva, 1994); they can be also attributed to the section II (subdivision B) of Braun (1963). The new species is closely related to *B. sparsa* Seks. (Seksyaeva, 1992) both in the male and female genitalia, differing in the coloration of moths and in the longer aedeagus and differently shaped tegminal lobes in males. Females of the new species demonstrate longer ductus bursae with more prominent sclerotized portion.

***Bucculatrix acuta* sp. n.**

(Fig. 6)

Holotype. ♂, Nepal, Prov. Chisapani Garhi, Bhainse Dobhan, 730 m, 16-20.VII.1967, leg. Dierl & Schacht, Staatsslg. München.

Description. Wingspan 6.5 mm. Head tuft and eye caps yellowish. Forewings brownish grey, darkened with sparse fuscous scales.

Hindwings and fringes of both wings of the same colour as forewings. The single specimen is in rather poor condition and does not demonstrate more details of coloration and pattern.

Male genitalia (Fig. 6). Tegumen with sharply pointed, triangular tegminal lobes. Vinculum short and broad, band-shaped. Aedeagus slightly widened to base, angular in basal third, forming an oval loop near apex. Valvae rather broad at base, sharply pointed to apex.

Comparison. In the male genitalia, the new species resembles *B. varia* Seks. (Seksyaeva, 1992), differing in the absence of the accessory processes under tegminal lobes, the latter being more acute. The aedeagus of the new species clearly differs from that of *B. varia* in the apex curved like a large loop.

Acknowledgements

I am very obliged to Dr. A. Hausmann (Zoologische Staatssammlung München) for the material used in this study. I would like to thank Dr. S.Yu. Sinev (St.Petersburg) for consultations. The work was financially supported by the State Scientific and Technical Program "Biodiversity" and by the Russian Foundation for Basic Research, projects nos. 98-04-49818 and 01-04-49637.

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Received 4 December 2000