P O L I S H J O U R N A L O F E N T O M O L O G Y
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Tortricines in the fauna of Nepal (Lepidoptera: Tortricidae)

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ABSTRACT. Five species of Tortricini and one Polyorthini are reported from Nepal. *Acleris ganesia*, *A. gothena* and *Sociosa nesima* are described as new. The hitherto unknown female genitalia of *A. monagma* DIAKONOFF are described, and data on the external variation in some species are provided.

KEY WORDS: Lepidoptera, Tortricidae, Tortricini, Polyorthini, Nepal.

INTRODUCTION

The Tortricidae of Nepal were worked up by A. DIAKONOFF (1964, 1976) and YASUDA (1969). The most complete work, including some historical data, is that by DIAKONOFF (1976), which was supplemented by RAZOWSKI & WOJTUSIAK (2009), who added some notes and colour illustrations of the adults.

The material studied was collected by Dr Michael Fibiger of Copenhagen in the Central North Province and is preserved in the collection of the Zoological Museum, University of Copenhagen. The moths were collected in October at altitudes of 1050-3700 m. They belong to Tortricini (five species) and Polyorthini (one species).

Tortricini is one of the best known tribes of the family (RAZOWSKI 1966 and several following papers). The species of *Acleris* HÜBNER examined here are closest to the Oriental representatives belonging to the groups of *A. loxoscia* MEYRICK, 1907 and *A. laterana* (FABRICIUS, 1794) (distributed in the Oriental and Palaearctic regions respectively), which confirms the data from DIAKONOFF's monograph. The other species and *Transita* DIAKONOFF, 1976) are most probably endemic to Nepal.

There is only one representative of Polyorthini. This is a second species of the genus *Sociosa* DIAKONOFF, 1959, hitherto known from Burma and originally described in the tortricine genus *Peronea* CURTIS, 1834 (now synonymy of *Acleris*).

Acknowledgements

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SYSTEMATICS

Tortricini

Transita exaesia (DIAKONOFF, 1976)

(Fig. 11)

Material examined

Five specimens from Ganesh Himal: Khurpudanda Pass W slope, 3700 m, 18 X 1995 and Mailung Khola, 1050 m, 24 X 1995.

Remarks

T. exaesia was described from Province Nr. 3 East (Jubing, 1600 m, May). The specimens examined hardly vary; they are monochrome brownish, except one that has three darker costal spots on the forewing and another with traces of a paler ground colour.

Acleris monagma DIAKONOFF, 1976

(Figs 6, 12-15)

Material examined

35 specimens from Ganesh Himal (Kathmandu 1300 m, 27 X 1995; above Godlang, 3050 m, 14 X 1995; Gholjong, 2420 m, 14 X 1995; Nesim, 2200 m, 23 X 1995; Gothen, 1350 m, 20 X 1995; Mallung Khola, 1050 m, 24 X 1995; Khurpudanda Pass W slope, 3700 m, 18 X 1995).

Description

Facies. This species is variable in colour; there are a few specimens with a brownish forewing (concolorous with the holotype); some examples are ferruginous brown, monochrome or with rudimentary dark brown markings; in others the ground colour is yellowish, brownish yellow or cream with a ferruginous admixture; reticulation brown, if present. Markings brown or blackish variably developed. Cilia brown to rust with yellow or

orange yellow part beneath apex. Hindwing cream or whitish greyer at apex.

Female genitalia (Fig. 6, not known until now). Sterigma subsquare with distinct, sharp proximal lobes; cup-shaped part short, sclerotized; ductus bursae broad; corpus bursae with postmedian sack; signum stellate.

Acleris fistularis DIAKONOFF, 1976

(Figs 7, 16, 17, 18)

Material examined

16 specimens from Ganesh Himal (Kathmandu, 1300 m, 27 X 1995; Khurpudanda Pass W slope, 3700 m, 18 X 1995; Gothen, 1350 m, 20 X 1996).

Description

Facies somewhat variable. The males as described originally. Females more narrow-winged with brownish, whitish and white-grey ground colour of forewing, often strigulated brown. Markings brown to chestnut brown, variably developed. One example with ground colour greyish white and large brown costal blotch.

Female genitalia (Fig. 7, insufficiently illustrated originally). Sterigma subsquare with distinct proximal lobes and rather short medioproximal part; antrum bulbous, somewhat asymmetric, built of strong membrane; ductus bursae moderately long, slender; ductus seminalis postmedian; signum absent.

Acleris ganeshia sp. n.

(Figs 1, 2, 8, 19, 20)

Diagnosis

In facies *A. ganeshia* is somewhat similar to the Palaearctic *A. abietana* (HÜBNER, [1822]) but this species has less remarkable scales extending from the forewing costa. Male genitalia similar to *A. formosae* RAZOWSKI, 1964 from Taiwan but *formosae* with shorter socius, shorter and deeper ventral incision of sacculus, and distinct proximal projection from spined termination. In female genitalia *ganeshia* differs from *formosae* in having a large, bulbous antrum.

Description

Wing span 32.5 mm. Head and thorax grey-brown, scaled brown, black transverse fascia beyond collar. Forewing expanding terminally; costa almost straight; apex rounded; termen oblique, straight. Ground colour brownish grey with olive admixture and weak ferruginous suffusion in median cell and terminal area; strigulae, dots and incomplete lines black. Cilia grey-brown. Hindwing transparent brownish with similar cilia and browner strigulae.

Variation. Female wing span 24 mm. Forewing slenderer than in male with costa weakly concave medially. Ground colour brownish with ferruginous or dark grey hues; strigulation, lines and punctation black. Markings typical of the genus, more or less complete, dark brown or blackish.

Male genitalia (Figs 1, 2). Socius large; tuba analis short, with small ventral process; ventral incision of sacculus large; proximal angle of spined termination weak; brachiola large; aedeagus short; one cornutus.

Female genitalia (Fig. 8). Sterigma fairly large with sharp, laterally convex proximal processes, ostium bursae protected by a short sclerite; antrum sack-shaped, with rather weak sclerites; ductus bursae slender; signum absent.

Material examined

Holotype male: "Nepal, Centr. N, Ganesh Himal, Khurpudanda Pass W Slope, 3700 m, 16-18 X 1995, leg. M. Fibiger"; GS Zajda 04. Paratypes 5 identically labelled females, one with GS Zajda 05. Zoological Museum, University of Copenhagen.

Etymology

The specific epithet refers to the type locality.

Acleris gothena sp. n.

(Figs 9, 21)

Diagnosis

In facies *gothena* resembles *A. medea* DIAKONOFF, 1976 from Thodung, Nepal, which is known from a single male; in *gothena* the forewing ground colour is white and hindwing veins M3-Cu1a are stalked, which in *medea* are connate.

Description

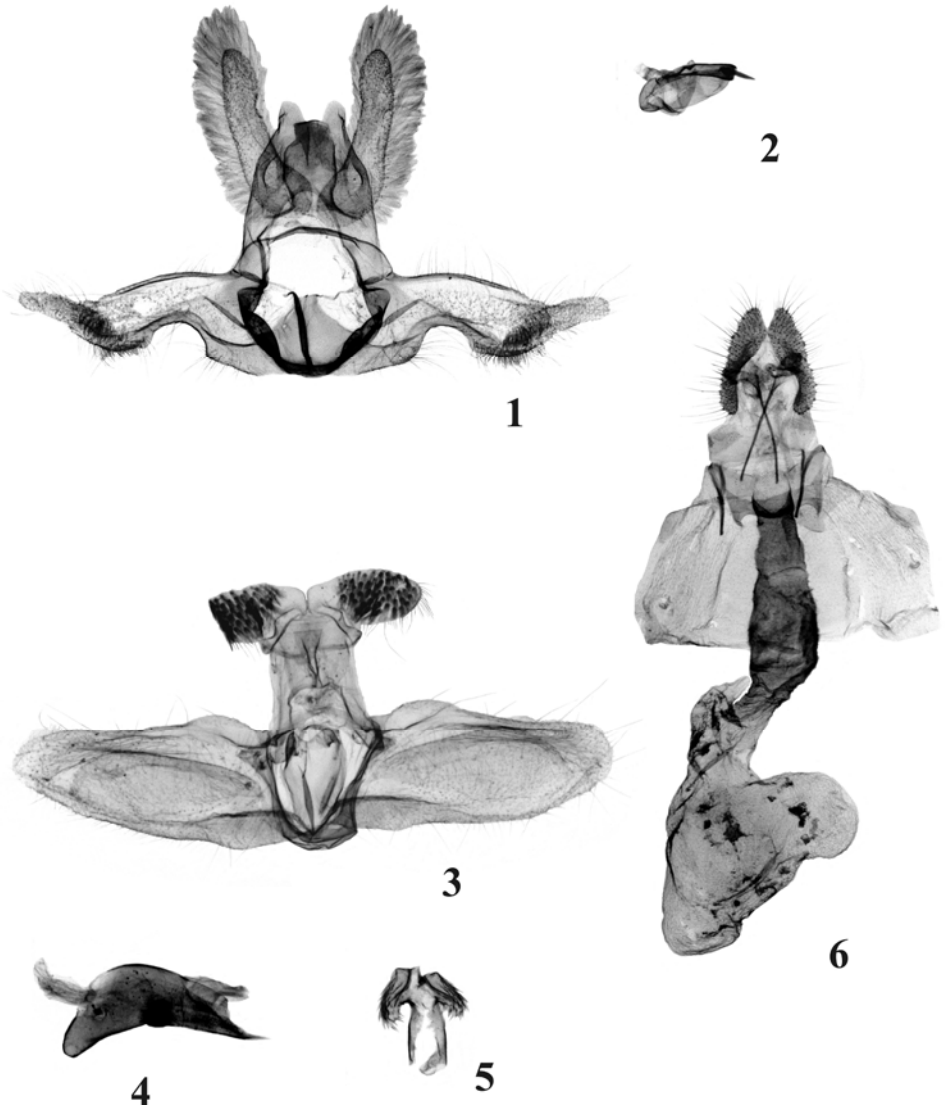
Wing span 26 mm. Head white, labial palpus black to middle; thorax black proximally and to middle, otherwise white. Forewing not expanding terminad; costa slightly depressed beyond 1/3 (extending scales); termen weakly oblique, sinuate. Ground colour white; three basal spots, costal and terminal spots, subtornal spots and edges of costal blotch black; the latter greyish and ferruginous inside. Cilia white with a few black scales. Hindwing transparent brownish grey; cilia paler.

Male not known.

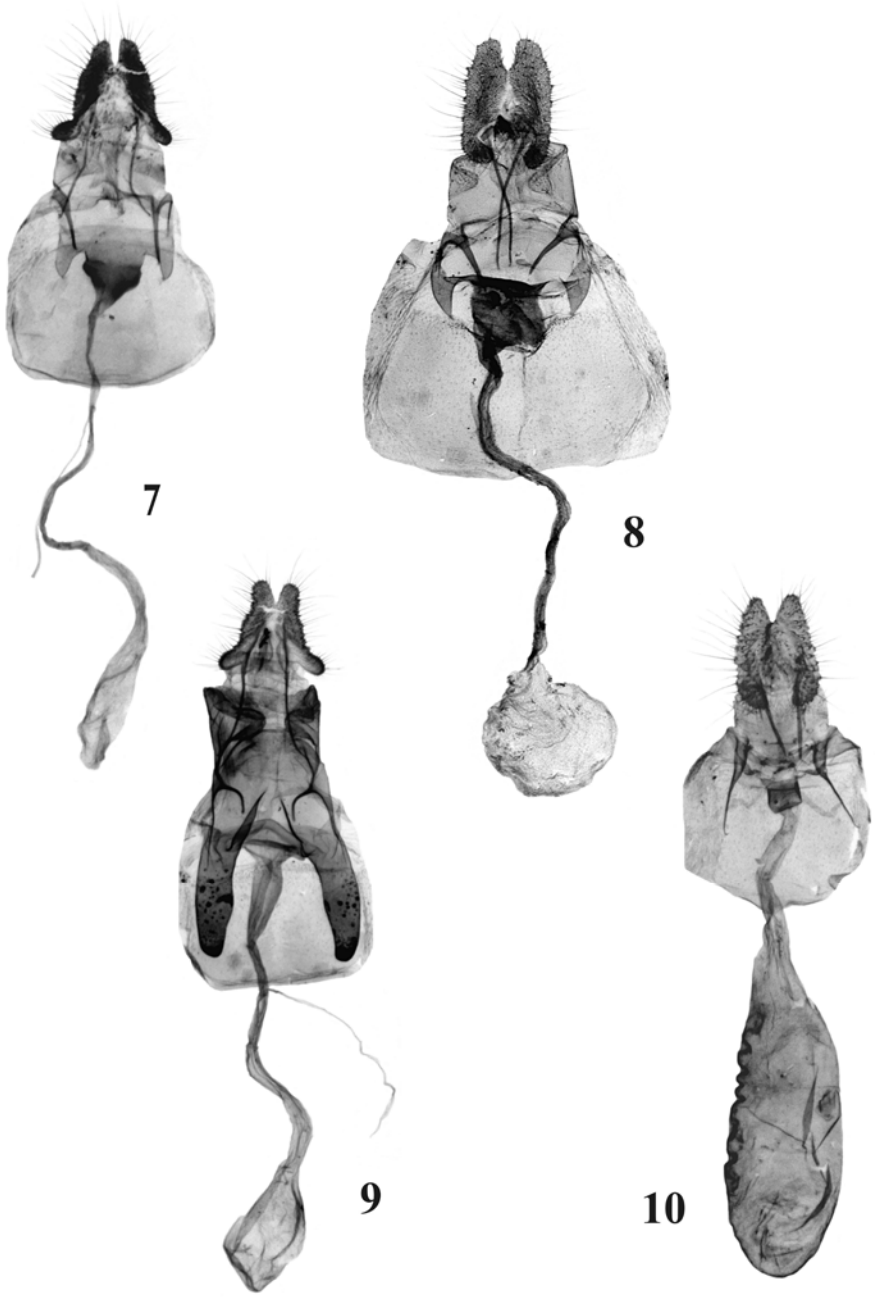
Female genitalia (Fig. 9). Eighth tergite fairly long, apophyses anteriores short; sterigma large, convex posteriorly; proximal lobes very large, rounded apically; sclerite protecting ostium bursae short; antrum membranous; ductus bursae slender; ductus seminalis median; signum absent.

Material examined

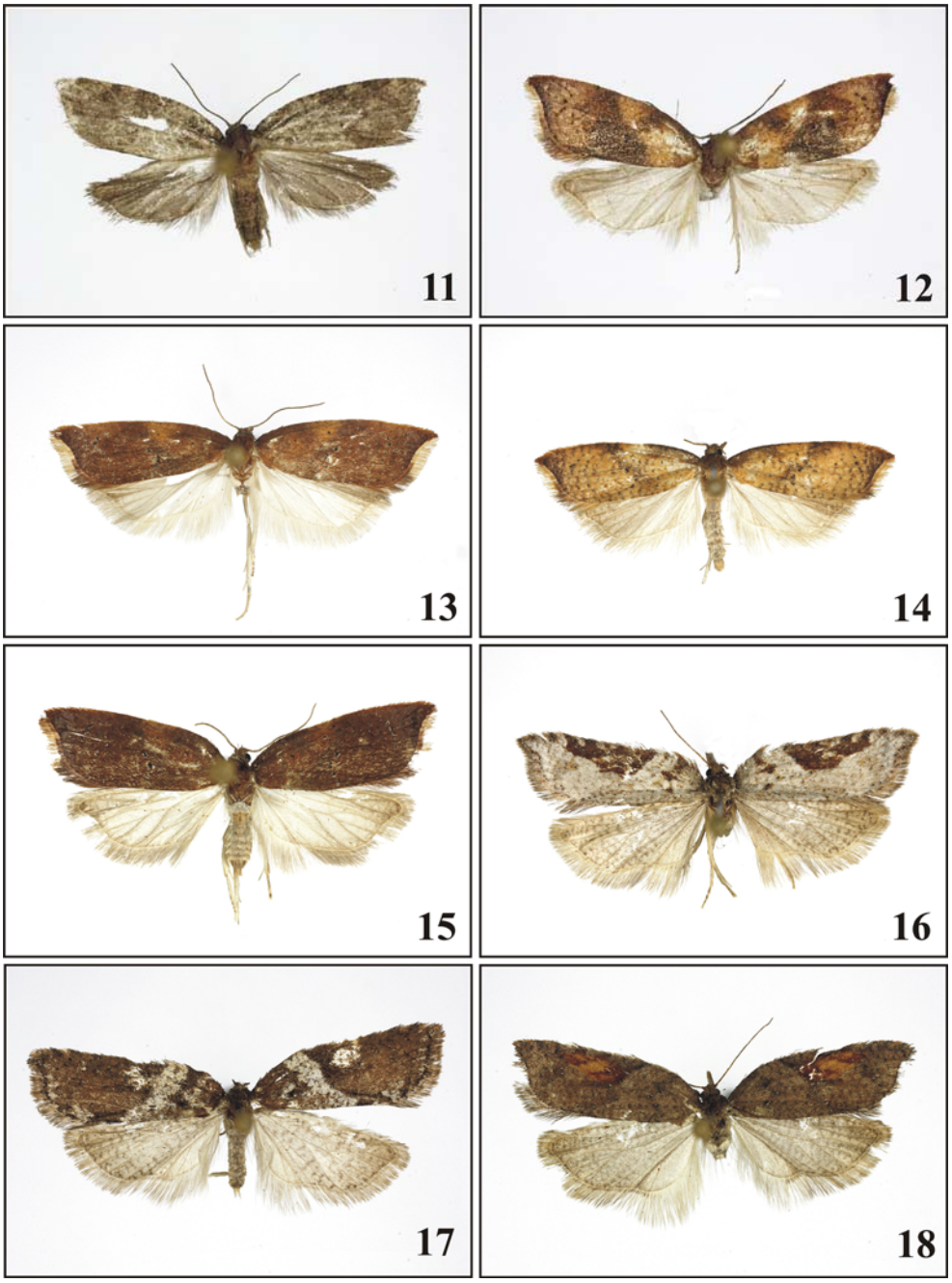
Holotype male: "Nepal, Centr. N., Ganesh Himal, Gothen, 3150 m, 15-16 X 1995, leg. M. Fibiger"; GS Zajda 012. Zoological Museum, University of Copenhagen.



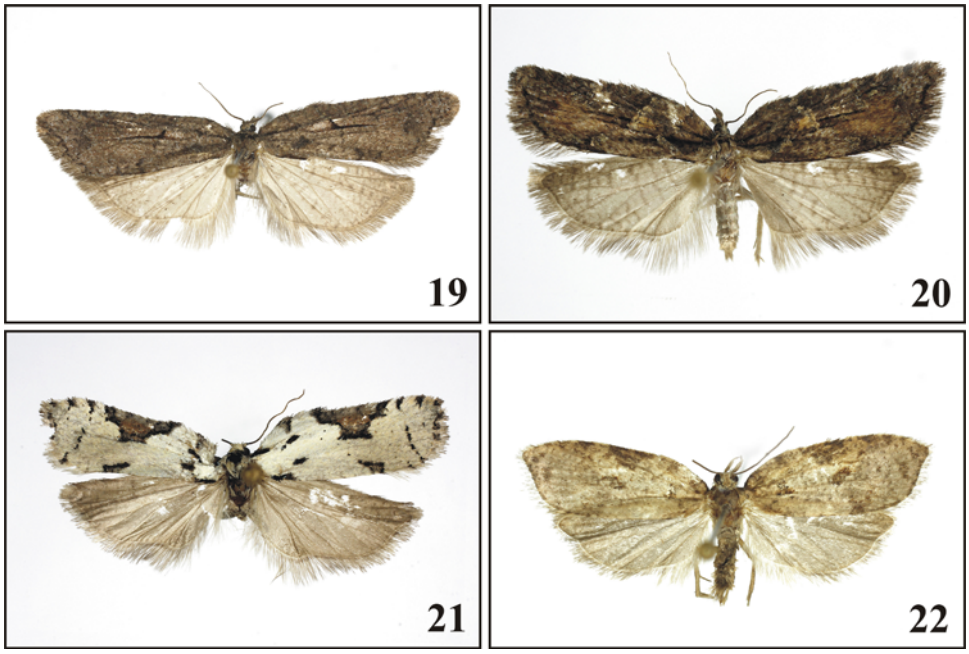
Figs 1-6. Male and female genitalia: 1, 2 – *Acleris ganeshia* sp. n., holotype 3-5 – *Sociosa nesima* sp. n., holotype (5 – anellus), 6 – *Acleris monagma* DIAKONOFF, Kathmandu.



Figs 7-10. Female genitalia: 7 – *Acleris fistularis* DIAKONOFF, Kathmandu, 8 – *Acleris ganeshia* sp. n., paratype, 9 – *Acleris gothena* sp. n., holotype, 10 – *Sociosa nesima* sp. n., paratype.



Figs 11-18. Adults: 11 – *Transita exaesia* DIAKONOFF, Ganesh Himal, 12-15 – *Acleris monagma* DIAKONOFF, Kathmandu, 16-18 – *Acleris fistularis* DIAKONOFF, Kathmandu.



Figs 19-22. Adults: 19 – *Acleris ganeshia* sp. n., holotype, 20 – *Acleris ganeshia* sp. n., paratype, 21 – *Acleris gothena* sp. n., holotype, 22 – *Sociosa nesima* sp. n., holotype.

Polyorthini

Sociosa nesima sp. n.

(Figs 3-5, 10, 22)

Diagnosis

Sociosa nesima differs from Myanmar *S. macrographa* DIAKONOFF, 1959 chiefly in having a well-developed terminal plate of the gnathos, a reduced uncus, and extending thorny lobes of the dorsal part of the anellus.

Description

Wing span 25 mm. Head brownish cream, labial palpus whiter, brownish terminally; thorax cream brown. Forewing not expanding terminally; costa uniformly convex; apex pointed; termen weakly oblique, sinuate. Ground colour brownish cream; suffusions, strigulation and dots brownish. Markings brown: basal blotch indistinct; median fascia interrupted subcostally and subdorsally; subapical blotch slender followed by three spots. Cilia cream scaled brownish. Hindwing greyish brown, rather transparent; cilia similar.

Variation. Female wing span 25 mm. Forewing somewhat slenderer than in male, ground colour paler, markings browner, better developed.

Male genitalia (Figs 3-5). Uncus reduced; socius elongate-oval densely bristled (transformed furcate setae); gnathos arm slender, terminal plate broad; costa of valva convex postbasally; dorsal slit long; sacculus broad proximally, simple; anellus with strong, thorny dorsal lobes; aedeagus stout, with ventroterminal spine.

Female genitalia (Fig. 10). Papilla analis slender; apophyses moderate; sterigma short with short ventral projections; sclerite of antrum subsquare; ductus bursae shorter than corpus bursae; ductus seminalis originating near antrum; signum a long undulate belt.

Material examined

Holotype male: "Nepal, Centr. N, Ganesh Himal, Nesim 2200 m, 23 X 1995, leg. M. Fibiger"; not dissected. Paratypes 2 males and 3 females labelled as above (male with GS Zajda 03, female Zajda 02), one from Ghol Himal, 12 X 1995 (GS Zajda 01), two from above Godlang, 2560 m, 12 X 1996; GS Zajda 01. Zoological Museum, University of Copenhagen.

Etymology

The specific name refers to the type locality.

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