

**Tortricidae (Lepidoptera) from Vietnam in the collection of the  
Berlin Museum.**

**4. *Choristoneura*, *Homona* and *Meridemis***

JÓZEF RAZOWSKI

Institute of Systematics and Evolution of Animals PAS, Sławkowska 17, 31-016 Kraków,  
Poland, e-mail: Razowski@isez.pan.krakow.pl

**ABSTRACT.** Ten species of *Choristoneura*, *Homona* and *Meridemis* are recorded from Vietnam. The following species are described as new: *Choristoneura chapana* sp.n., *Homona baolocana* sp. n., *H. parvanima* sp.n., *H. polystriana* sp. n., *M. validana* sp.n.

**KEY WORDS:** Tortricidae, *Choristoneura*, *Homona*, *Meridemis*, new species, Vietnam.

---

INTRODUCTION

This paper is a continuation of the series of articles devoted to the Tortricidae of Vietnam. Some general data are in part one of the series (RAZOWSKI 2003).

**Material and method**

The specimens have been collected during several trips and probably pinned only during the field work. The examples for the photographs have been relaxed and set recently thus often they are of a rather medium quality. The numbering of genitalia slides is provisional and certainly will be replaced by own numbering of the Museum. The collection is housed in the Museum für Naturkunde der Humboldt Universität, Berlin and a few spare specimens were kindly donated to ISEZ. The collecting data are presented in the text in a shortened form; the supplementary data are in the list of localities, when available.

**Localities**

The names of localities are in their original spelling copied from the labels.

Bach Ma, National Park - S Vietnam, 16°10'n 107°54'E  
Bao Lok - S Vietnam  
Dac Glei - S Vietnam  
Fan Si Pan, Fan Si Pang Mts - N Vietnam, NW Sa Pa, 21°034'N 105°020'E  
Kon Tum, Con Tum - S Vietnam, near Dac Glei  
Mai Chau - N Vietnam, 40 km Moc-chau, 20°0N50'N 104°050'E  
NgocLinh, NgocLinh Mt - S Vietnam  
Sa Pa, Sa-pa Mt, Cha-pa, Sapa - N Vietnam  
Tam Dao, Tam dao - N Vietnam, 600 km NW Hanoi, 21°034'N 105°020'E  
Tuan Glao - N Vietnam

#### Abbreviations and notes

GS - genitalia slide, ISEZ - Institute of Systematics and Evolution of Animals, PAS. Numbers included in descriptions of the labial palpi refer to the proportion of their total length to the horizontal diameter of the compound eye.

#### Acknowledgements

The author is thankful to Dr. W. MEY, the Berlin Musum for providing the material for study, Mr. W. ZAJDA, Cracow for dissecting the specimens and Mr. M. KOPEĆ and Mr. K. FIOŁEK, Cracow for photographs and digital arrangement of the plates.

### SYSTEMATICS

#### *Choristoneura chapana* sp. n.

(Fig. 13)

#### Diagnosis

Close to Palearctic *Ch. evanidana* (KENNEL, 1901) from the Russian Far East but *chapana* with uncus not tapering posteriorly, cornutus very long, and aedeagus with ventroterminal spine.

#### Description

Male. Wing span 22 mm. Head brown, labial palpus ca 1,3; median part of thorax greyish brown, tegula brown. Forewing broad; costa convex to before middle, somewhat concave before apex; termen weakly oblique and convex. No costal fold. Ground colour dark grey with brownish admixture, sprinkled, strigulated, and partly suffused rust and purple rust. Markings diffuse consisting of median trace of postbasal blotch, costal and median parts of median fascia and long, slender subapical blotch. Cilia brownish grey, creamer in dorsal third, tinged rust in costal portion.

Female not known.

Male genitalia (Figs 1, 2). Uncus very broad, tapering from middle posteriorly; socius rudimentary; arm of gnathos large; valva tapering terminally; sacculus long, weakly concave postbasally, with distinct free termination; transtilla broadest medially; aedeagus proportionally long, weakly bent, with reduced ventral process; cornuti a bunch of long spines; caulis small.

### Etymology

The specific name refers to the older name of the type locality, Cha-pa = Sa Pa.

### Material examined

Holotype male: Fan Si Pan, 1600 m, primary forest, 1. - 7. XI. 1995, SINIAEV & AFONIN; GS 49 Wiet. Pratypes 22 males labelled as above and (three) from Sa Pa, Fan Si Pang Mts, 25 - 30. III. 1995, MEY; Mt. Fan Si Pan, 2400 m, 28. X. 1994, SINIAEV; same locality, 1600-1800 m, 10. VI. - 6. VII. 1994, SINIAEV; same locality, 25 - 30. III. 1995, MEY; 4 males from Bach Ma National Park, 1200 m, 26. VII. - 6. VIII. 1996, SINIAEV & AFONIN (one dissected).

### *Homona nakaoui* YASUDA, 1962

### Material examined

Two males from Sa Pa, Fan Si Pan, north exposition, 1600 m, 28. X. - 3. XI. 1994, SINIAEV; one male from same locality, 1600 m, 1 - 7. XI. 1995, SINIAEV & AFONIN.

### Remarks

This species was described from Nepal. Redescription is by DIAKONOFF (1976) on basis of additional material from same country. The specimens from Vietnam do not differ from the Nepalan population. LIU & LI (2002) mention it from China. Probably more widely distributed in the Oriental region.

### *Homona baolocana* sp. n.

(Fig. 14)

### Diagnosis

This species is closely related and similar to *nakaoui* but differs from it in rounded uncus, longer sacculus with small postbasal concavity, and slender aedeagus without ventro-terminal thorn.

### Description

Male. Wing span 17 mm. Head brownish, labial palpus ca 1,2; thorax creamish brown. Forewing costa curved basally, then weakly so, termen moderately oblique and convex; costal fold very broad, rounded, to before 1/3. Ground colour brownish tinged ferruginous grey; suffusions at base of wing and trace of median fascia rust; costal remnant of this last in form of blackish spot; subapical blotch reduced. Cilia creamer than ground colour. Hindwing brownish, cilia paler.

Male genitalia (Figs 3, 4). Uncus proportionally short, broadest medially; gnathos arm slender; sacculus long, slender, concave postbasally, provided with two terminal thorns; aedeagus long, slender, with simple terminal part.

### Etymology

The name refers to the type locality.

### Material examined

Holotype male: Bao Loc, 1600 m, 10 - 20. XI. 1992, SINIAEV; GS 96 Wiet.

### *Homona parvanima* sp. n.

(Figs 15, 16)

### Diagnosis

Close to *nakaoui* and *baolocana* but *parvanima* with gently concave sacculus, single terminal process of sacculus, and small ventroterminal thorn of aedeagus.

### Description

Male. Wing span 16 mm. Head and thorax cream brown; labial palpus 1,3. Forewing costa slightly convex from beyond base to apex; apex very short; termen slightly convex, weakly oblique. Costal fold to 1/3. Ground colour cream slightly mixed brown, with brownish and ochreous suffusions; markings slightly darker. Median fascia diffuse, represented by blackish spot at costa and postmedian suffusion; subapical blotch concave proximally reaching apex of wing and mid-termen. Cilia cream, brownish cream at apex. Hindwing pale brownish cream, cilia similar.

Female. Wing span 25 -26 mm. Head and median part of thorax creamish brown, tegula creamer. Costa of forewing slightly concave before apex; apex rather short; termen weakly oblique. Ground colour pale ochreous cream with small brownish admixture; lines and strigulae brownish rust. Costa suffused ochreous. Hindwing cream ochreous, cilia similar.

Male genitalia (Figs 5, 6). Uncus broadest subterminally; concavity of sacculus long, shallow, subterminal part broad, rounded, terminal process rounded; aedeagus slender, long, with small terminal thorn; cornuti long.

Female genitalia (Fig. 11). Postostial sterigma delicate, with very slender lateral arms; anteostial sterigma short, rounded laterally; colliculum bulbous with elongate median sclerite; ductus bursae and cestum long; signum slender.

#### **Etymology**

The name refers to small size of moth in comparison to another species of this genus, *magnanima*; Latin: parva - small.

#### **Material examined**

Holotype male: Sa Pa, Fan Si Pan (N exposition), 1600 m, 28. X. - 3. XI. 1994, SINIAEV ; GS 98 Wiet. Paratypes 2 males and 10 females (one with GS 311 Wiet.): identical label as of holotype; Tan Dao, 950 m, 17. X. 1995, SINIAEV; Tuan Glao, 1200 m, 5 - 10. XI. 1994, SINIAEV.

### ***Homona spargotis* MEYRICK, 1910**

#### **Material examined**

15 males from Fan Si Pan, 1600 m, primary forest, 1 - 7.XI. 1995, SINIAEV & AFONIN; Sa Pa, Fan Si Pan, 1600 m, July 1994, SINIAEV; Tam dao, 950 m, 17. X. 1995, SINIAEV; Kon Tum, Dac Glei, 700 m, 8. VIII. 1996, SINIAEV & AFONIN.

#### **Remarks**

This species often treated as a synonym of *Homona coffearia* (NIETNER, 1861) was recorded under that name from Vietnam (RAZOWSKI 1992). The differences between these species are very slight and the discussion about their status is by WHITTLE et al. (1987).

### ***Homona magnanima* DIAKONOFF, 1948**

#### **Material examined**

45 specimens from: Fan Si Pan, 1600 m, primary forest, 1 - 7.XI. 1995, SINIAEV & AFONIN; Sa Pa, Fan Si Pan, 1600 m, 2. X. - 3. XI. 1994, SINIAEV; Sa Pa, Mt Fan Si Pan, 1600 m, primary forest, 28. X. - 3. XI. 1994, SINIAEV; Tam Dao, 1900 m, 27. IV. - 5. V. 1993, SINIAEV & SIMONOV; Bac Loc, 1600 m, 10 - 20. XII. 1992, SINIAEV; Tuan Glao, 1200 m, 5 - 10. XI. 1994, SINIAEV.

***Homona polystriana* sp. n.**

(Fig. 17)

**Diagnosis**

Closely related to *magnanima* and *issikii* but *polystriana* with markings of forewing reduced to its dark edges and aedeagus long, slender, with long ventral termination.

**Description**

Male. Wing span 23 mm. Head and thorax brownish cream, labial palpus ca 1,3, browner, vertex creamish; end of tegula creamish. Forewing costa beyond 1/3 almost straight, slightly concave before apex; termen convex, weakly oblique. Ground colour cream with small brownish admixture and indistinct pinkish hue; costal fold to 1/3, ochreous brown. Strigulation and oblique lines dark brown; costal remnant of median fascia consisting of two dark brown strigulae. Cilia paler than ground colour. Hindwing grey in apical area cream orange.

Variation. In one specimen fragments of lines broadening, fusing with one another; median fascia better developed, edged brown, suffused grey-brown in dorsal part.

Male genitalia (Figs 7, 8). Uncus gently expanding posteriorly, almost straight terminally; socii reduced; valva short; sacculus with median thorn and slender free termination; median part of transtilla slender; aedeagus long, slender, bent before middle, with long ventral process.

Female not known.

**Etymology**

The name refers to markings of the forewing; Greek: poly - numerous; Latin: striana - striated.

**Material examined**

Holotype male: Sa pa, Fan Si Pan (N exposition), 1600 m, 28. X. - 3. XI. 1994, SINIAEV; GS 97. Paratypes, 2 males labelled as above.

***Homona difficilis* (MEYRICK, 1928)****Material examined**

Six specimens (3 males) from Bach-Ma N.P., 1200 m, 26.VII. - 6. VIII. 1996, SINIAEV & AFONIN; Mt NgocLinh, 900 - 1400 m, 10 - 25. VIII. 1996, same collectors; Bao Loc, 1600 m, 10 - 20. XII. 1992, SINIAEV; same locality (as Bao Lok), 1600 m, 20 - 26. IV. 1993, SINIAEV & SIMONOV.

### Remarks

There are some doubts concerning identification of this species and its generic position. I am following the identification by DIAKONOFF (1967). KUZNETZOV (2000) recorded it from Vietnam. Distribution of *difficilis* requires re-consideration.

### *Meridemis validana* sp. n.

(Figs 18, 19)

### Diagnosis

Close to *M. bathymorpha* Diakonoff, 1976 from Nepal but *validana* with broader uncus and shorter cestum; it also could be compared with *vietorum* but this new species has broader uncus, postbasal thorn of sacculus, bulbous antrum and long cestum almost reaching middle of ductus bursae.

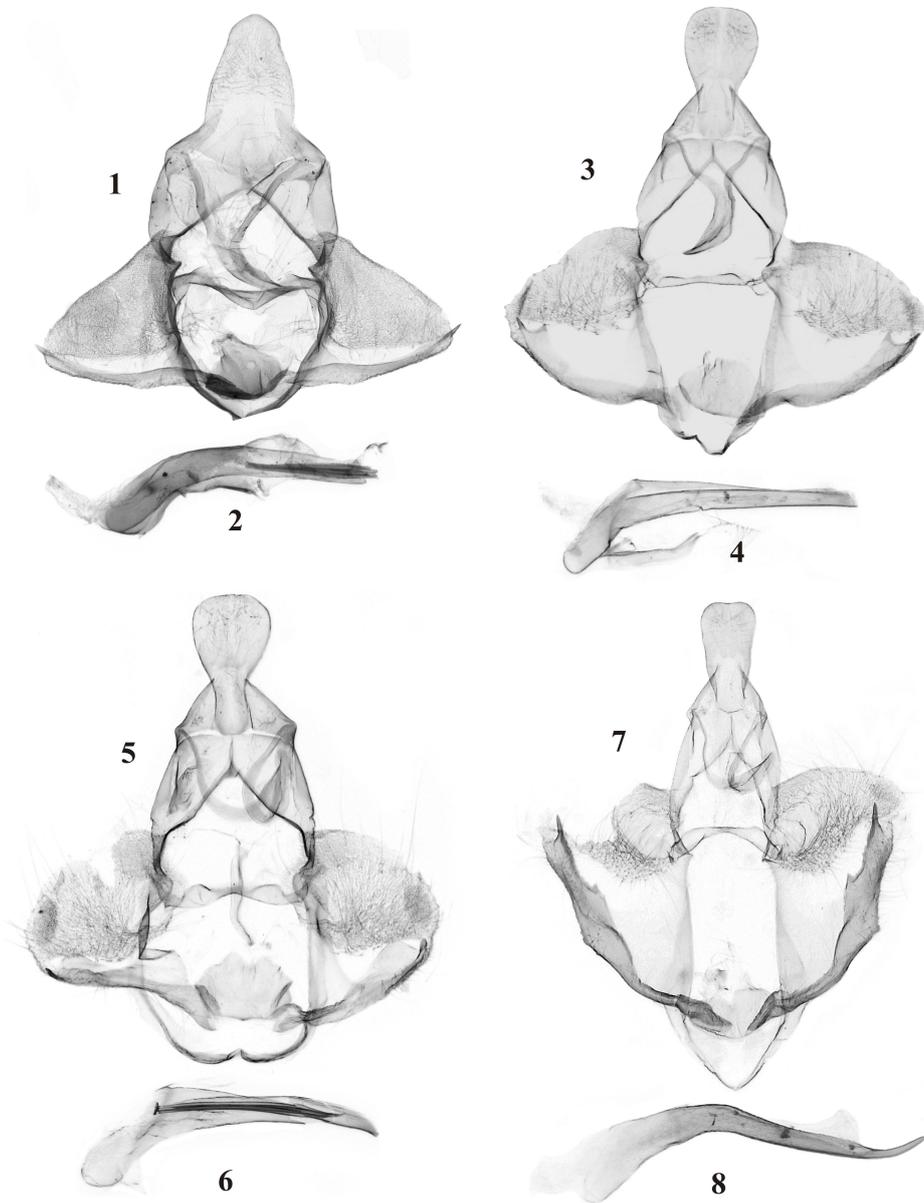
### Description

Male. Wing span 13 mm. Head grey, labial palpus ca 1,5; thorax brownish grey. Forewing almost straight beyond basal curvature, termen not oblique; costal fold slender, reaching 1/3. Ground colour whitish slightly mixed cream along costa, with brownish basally and dorsally; fold and markings brownish grey; costal remnant of median fascia marked black; subapical blotch usually reaching apex; black dots subterminally or also in costal area. Cilia cream, in apical half brown terminally. Hindwing creamish, greyish in anal area, with some subapical grey dots; cilia cream tinged brownish at apex.

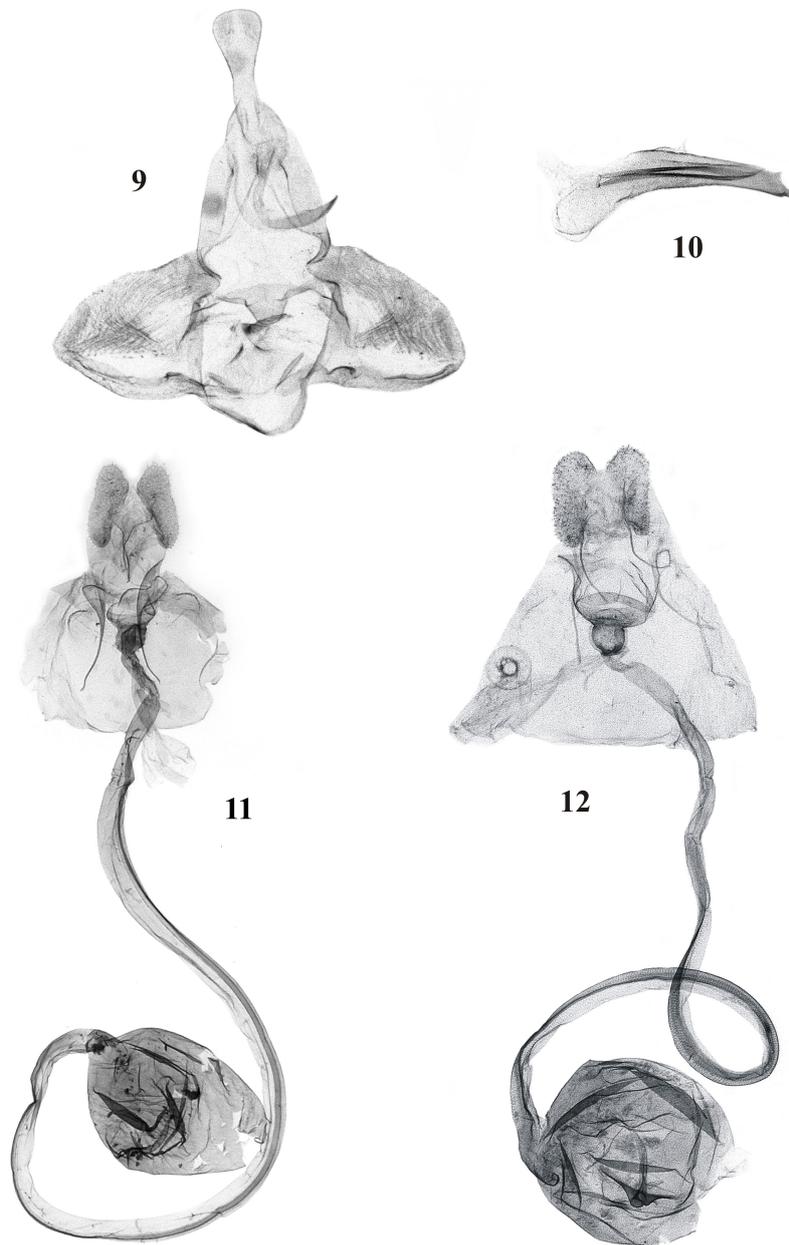
Female. Wing span 19 mm. Head and proximal part of thorax pale brownish grey; median part of thorax paler. Forewing costa hardly concave postmedially; apex longer than in male; termen gently sinuate postapically. Ground colour greyish or cream white; dorsum suffused brownish; spots or strigulae brownish or grey. Markings brownish grey reduced to elongate costal trace of subapical blotch. Cilia concolorous with ground colour, brown in apical half terminally. Hindwing cream slightly mixed ochreous and dotted brownish at apex, greyish in anal area; cilia yellowish cream with some brownish terminations at apex of wing.

Variation. Paler and darker specimen with variably preserved suffusions and dots. Males with markings brown-grey to blackish, females often with strongly reduced brownish grey pattern.

Male genitalia (Figs 9, 10). Uncus broad terminally; dorsobasal part of valva broad; sacculus long with dorsopostbasal thorn; aedeus rather broad with two small subterminal thorns and short ventroterminal process.



**Figs 1-8.** Male genitalia of *Choristoneura* LEDERER and *Homona* WALKER: 1, 2 – *Ch. chapana* sp.n., holotype; 3, 4 – *H. baolocana* sp. n., holotype; 5, 6 – *H. parvanima* sp.n., holotype; 7, 8 – *H. polystriana* sp. n., holotype.



**Figs 9-12.** Male and female genitalia of *Homona* WALKER and *Meridemis* DIAKONOFF: 9, 10 – *M. validana* sp. n., holotype; 11 – *H. parvanima* sp. n., paratype; 12 – *M. validana* sp. n., paratype.



**Figs 13-19.** Adults: 13 - *Choristoneura chapana* sp. n., paratype, SA PA; 14 - *Homona baolocana* sp. n., holotype; 15, 16 - *H. parvanima* sp. n., paratype; 17 - *H. polystriana* sp. n., holotype; 18 - *Meridemis validana* sp. n., paratype, male, SA PA; 19 - *M. validana* sp. n., holotype, female.

Female genitalia (Fig. 12). Sterigma broad, rounded proximally; antrum broad, rounded, with inner sclerite; ductus bursae long; cestum reaching before middle of this last; signum moderate.

### Etymology

The name refers to female genitalia; Latin: validana - strong.

### Material examined

Holotype male: Mai-Chau, 1400 m, primary forest, 7 - 15. IV. 1995, SINIAEV. Paratypes, 16 males and 25 females: same label as the holotype; Fan Si Pan, 1600 m, primary forest, 1 - 7. XI. 1995, SINIAEV & AFONIN; Sa Pan, Fan Si Pang Mts, 15 - 30. III. 1995, Mey; Tuan Glao, 1200 m, 5 - 10. XI. 1994, SINIAEV; Tam dao, 950 m, 17. X. 1995, SINIAEV.

### *Meridemis vietorum* RAZOWSKI, 1989

### Material examined

Three males from Tam dao, 950 m, 17. X. 1995, SINIAEV.

### Remarks

Described from Tam Dao, N Vietnam; found also in Korea.

### REFERENCES

- DIAKONOFF A. 1967. Microlepidoptera of the Philippine Islands. U. S. Natn. Mus., Bull., **257**, 484 pp.  
DIAKONOFF A. 1976. Tortricoidea from Nepal, 2. Zool. Verh. Leiden, **144**, 145 pp, 14 pls.  
LIU Y., LI G. 2002. Tortricidae [in:] Fauna Sinica, Insecta Vol. 27, Lepidoptera, Beijing, 436 pp, 136 pls.  
KUZNETZOV, V. I. 2000. Annotated list of Tortricidae recorded from Vietnam (Lepidoptera). Zoosyst. Rossica, **8**: 337 - 348.  
RAZOWSKI, J. 2003. Tortricidae (Lepidoptera) from Vietnam in the collection of the Berlin Museum. 1. Tortricini. Polskie Pismo entomol., **72**: 161 - 175.  
WHITTLE C. P., BELLAS T. E., HORAK M., PINESE B. 1987. The sex pheromone and taxonomic status of *Homona spargotis* Meyrick sp. rev., an Australian pest species of the *coffearia* group (Lepidoptera: Tortricidae: Tortricinae). J. Aust. ent. Soc., **26**: 169-179.

Received: July 18, 2008

Accepted: August 08, 2008