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Three new species of Yponomeutinae (Lepidoptera: Yponomeutidae) from China with faunistic supplements and an updated list of the Chinese species of the subfamily

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Three new species of Yponomeutinae (Lepidoptera: Yponomeutidae) from China with faunistic supplements and an updated list of the Chinese species of the subfamily

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To improve our understanding of the Yponomeutinae of China, the specimens of three institutional collections were examined to discover new taxa and all previous records were reviewed. As a result, we recognize a total of 71 species of Chinese Yponomeutinae, including three new species: *Cedestis leucopterostigmatis* n. sp., *Euhyponomeutoides spadix* n. sp., and *Yponomeuta zebra* n. sp., and a new record of *Zelleria japonicella* Moriuti from China. Unavailability of three species names in the most recent list: *Yponomeuta hebeiensis* Liu, 1984, *Yponomeuta nigrofasciatus* Yang, 1979, and *Yponomeuta ulingensis* Yang, 1979, is suggested. Photos of adults and genitalia are provided for all species described.

Keywords: checklist; China; *Cedestis*; *Euhyponomeutoides*; fauna; new species; *Yponomeuta*; Yponomeutinae; *Zelleria*

Introduction

Yponomeutinae is one of the six yponomeutid subfamilies as defined by Kyrki (1990). It has been regarded as the core group of Yponomeutidae, including most genera of the family, but its monophyly remains untested. Dugdale et al. (1998) presumed it to be most likely paraphyletic. This uncertainty stems from Kyrki's (1984) concept of Yponomeutinae, "Yponomeuta group" in his paper, based on improperly inferred synapomorphies for the clade. He mentioned two possible synapomorphies for Yponomeutinae, i.e. spinose abdominal terga and phallus with a basal scape. However, the former character is actually plesiomorphic and the latter is shared with Saridoscelinae (Dugdale et al. 1998). Another alleged synapomorphy for yponomeutines – the uniform melanization of male abdominal sterna VII and VIII – is not always reliable to separate them exclusively from others (Dugdale et al. 1998).

Heterogeneity of Yponomeutinae is best observed from the diverse habitus of the adult moths including very small to medium-sized species with variable colouration, and also from the larval biology ranging from needle-leaf borers to communal or solitary external feeders (Friese 1960; Gershenson and Ulenberg 1998). Interestingly, in spite of this bewildering diversity, their genitalia, especially the elongate, unscaled socii and prominent saccus in males, are less variable (Friese 1960) and often serve to

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recognize the subfamily. However, the phylogenetic values of those characteristics are still questionable because they are not exclusive to the group. Studies to search for features to better define yponomeutines and new taxa possible to fill morphological gaps are necessary.

East Asia is one region where high species diversity of Yponomeutinae is known. Currently, 98 species are known from the region (Dr Jon Lewis pers. comm.), comprising about 25% of the world fauna. It is noteworthy that *Yponomeuta*, the type genus of Yponomeutinae, is remarkably speciose in East Asia, harbouring almost 40% (30 spp.) of the entire diversity of the group. However, the yponomeutine fauna of East Asia still remains poorly understood. This may be the result of less systematic work on this group in China, in which comprises a major proportion of the region. Considering the high biodiversity for the country (Williams 2001), discovery of many new species of Yponomeutinae from China can be expected.

In the latest catalogue of the Chinese Lepidoptera (Hua 2005), a total of 64 species was listed under the family Yponomeutidae; these are assigned to two families, Yponomeutidae and Argyresthiidae auct., in the list. However, this figure is not accurate, with many misplaced species or other mistakes included and a few previous records ignored. Furthermore, since this publication, several comprehensive studies of the Chinese Yponomeutidae have appeared that proposed new taxa (Yu and Li 2004; Li and Fan 2007; Jin and Wang 2008; Fan et al. 2008). Therefore, an updated list of Yponomeutidae from China, reflecting recent changes and additions in taxonomy, is necessary.

The aims of this study are to describe three new species of Yponomeutinae from China and to compile a complete catalogue of the subfamily for the country. We believe that this will reflect a more accurate assessment of the diversity of this subfamily for China.

Taxonomic accounts

Descriptions of new species

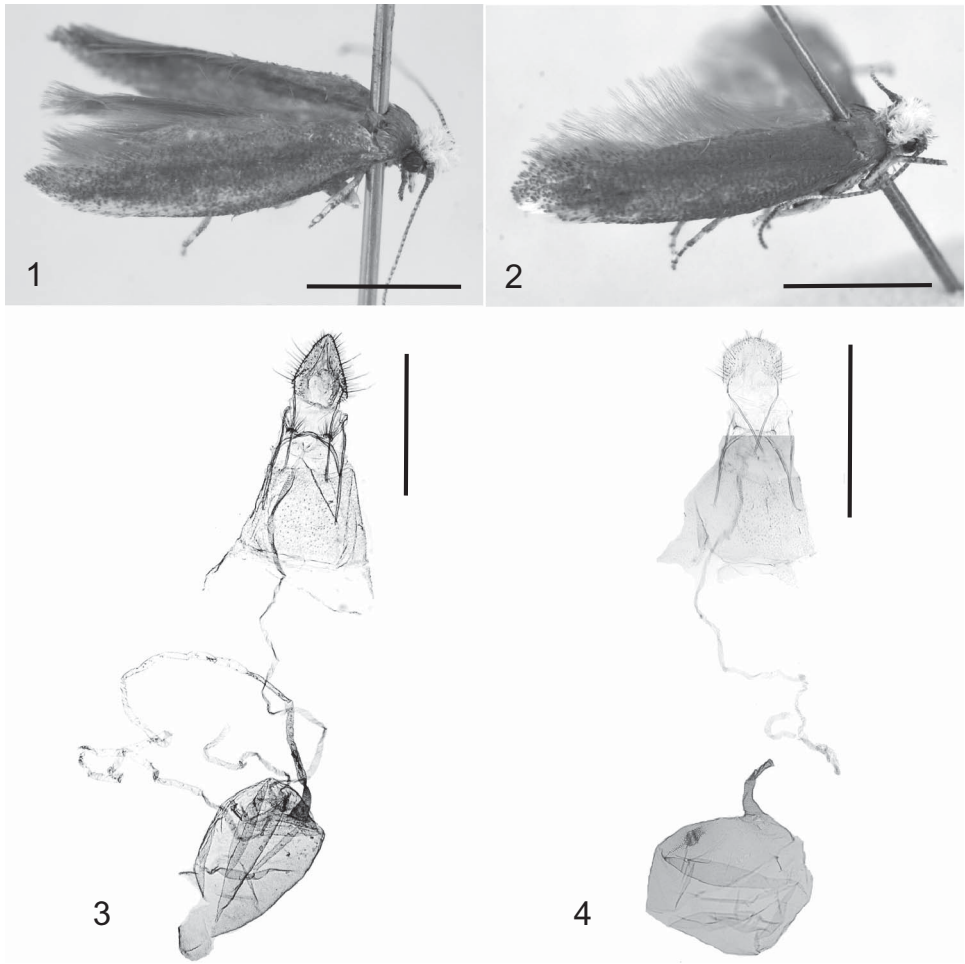
Cedestis leucopterostigmatis Sohn and Wu, n. sp. (Figures 1, 3)

Type. HOLOTYPE: 1 ♀, alt. 1100m, Mt. Lushan, Jiangxi Prov., China, 10 VII 1975 (YQ Liu), genitalia slide no. IOZ-09035.

Holotype is deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing, China.

Diagnosis. This new species is closely related to *Cedestis exiguata* Moriuti, 1977 (Figure 2) which occurs in Japan and Korea (Sohn 2009). Both species are superficially very similar but differ from each other by the broader white marking around the forewing pterostigma in *C. leucopterostigmatis*. The former is also distinguished from the latter by the female genitalia: ductus bursae 1.5 times longer and signum placed closer to junction with ductus bursae (Figures 3 and 4).

Description. *Head.* Vertex rough with long, white piliform scales, tipped with grayish brown near frontoclypeus; frons dark brown. Antenna filiform, half as long as forewing;



Figures 1–4. (1) Adult of *Cedestis leucopterostigmatis* Sohn and Wu, n. sp. Note: Scale bar = 3 mm, (2) Adult of *Cedestis exiguata*. Note: Scale bar = 3 mm, (3) Female genitalia of *Cedestis leucopterostigmatis* Sohn and Wu, n. sp. Note: Scale bar = 1 mm, (4) Female genitalia of *Cedestis exiguata* Note: Scale bar = 1 mm.

scape with scales dark brown on distal two-thirds, white on basal third, pectens dark brown, tipped with white; each of basal eight flagellomeres with two whorls of dark brown scales white basally, remainder of segments with a white basal and a dark brown distal whorl of scales on each flagellomere. Labial palpus nearly straight, two times longer than eye diameter, white dorsally, dark brown ventrally; third segment as long as second, with slightly dense scale tufts distally.

Thorax and abdomen. Patagium orange-white; tegula and mesonotum purplish brown. Fore- and midleg with coxa to tibia white, intermixed with dark brown; tarsi white, with a dark brown ring on the distal end of each segment. Hindleg with coxa to tibia dark grayish brown dorsally, white ventrally; tarsomeres white dorsally and basally, dark brown ventrally on distal two-thirds. Forewing length 6.3 mm ($n = 1$),

costa broadly curved, subtriangular terminally, lustrous purplish brown, intermixed with white broadly spread from discal cell to apex; fringes white before apex, grayish brown after apex. Hindwing dark brown, tinged with gray on anal areas; fringes yellow-brownish gray. Abdomen dark gray dorsally, pale gray ventrally.

Female genitalia (Figure 3). Papilla analis subtriangular, setose, as long as eighth abdominal segment; inter-segmental membrane after eighth segment short; a pair of small setose humps on eighth sternite; apophysis anterioris as long as apophysis posterioris plus Y branches. Ostium bursae small; antrum incompletely surrounding base of ostium. Ductus bursae narrow, tubular, with granules except at entrance, denser near corpus, nine times longer than corpus bursae, sinuate. Corpus bursae oval; signum near to cervix, elongate rhomboid, scobinate.

Distribution. China (southeast).

Etymology. The species epithet, *leucopterostigmatis*, is derived from the genitive of a Greek noun, *pterostigma*, combined with the Greek root, *leuco*, meaning “white”, and refers to a white pterostigma on forewings of the new species.

***Euhyponomeutoides spadix* Sohn and Wu, n. sp.**
(Figures 5, 7)

Type. HOLOTYPE: 1 ♀, Wulong (alt. 1900m), Sichuan Prov., China, 14 VIII 1980 (YQ Liu). PARATYPES: 8 ♀, same data as holotype, genitalia slide no. IOZ-09030, wing slide no. IOZ-09031; 1 ♀, same locality as holotype, 30 VI 1980 (YQ Liu). All types examined are deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing, China.

Diagnosis. This new species is similar to the European species *Euhyponomeutoidea albithoracellus* Gaj, 1954 in forewing colouration, but can be distinguished from the latter by the orange head (white in *E. albithoracellus*) and paler hindwing. Both species also have several differences in their female genitalia, including a unique modification of the lamella postvaginalis, broader ductus bursae and tubular corpus bursae in *E. spadix*.

Description. *Head.* Vertex rough with mixture of orange and orange-white piliform scales; frons grayish brown, tinged with orange marginally; compound eye with purplish luster. Antennae filiform, half as long as forewing; scape dark brown dorsally, pale gray ventrally, with dark brown pectens; flagellomeres gray with yellowish luster. Labial palpus porrect, obtuse apically, with no scale tufts, dark brown dorsally, pale gray intermixed with brown ventrally, brownish white terminally; second segment as long as third.

Thorax and abdomen. Patagium and tegula dark brown; mesonotum brownish white intermixed with orange, tinged with grayish brown near mesoscutellum. Fore-, mid- and hindleg dark brown dorsally, silvery brownish white ventrally. Forewing length 7.8–10.7 mm ($n = 4$), elongate, narrow, costa broadly curved, with narrowly

rounded apex separating evenly between costal and dorsal area; background brown, tinged with reddish brown on dorsum; median line blurred, dark brown, oblique; caudal area of base tinged with orange-white; fringes brown, reddish brown around tornus. Hindwing gray, paler to base; fringes yellowish gray. Abdomen grayish orange dorsally, fuscous intermixed with whitish orange ventrally.

Female genitalia (Figure 7). Papilla analis semielliptical, setose, longer than ninth abdominal segment; apophysis posterioris as long as apophysis anterioris; ventromedial area of intersegmental membrane between ninth and tenth segments emarginated; lamella postvaginalis subtriangular, setose. Ostium bursae surrounded with rectangular emargination; antrum long, cyathiform. Ductus bursae tubular, membranous, narrower near ostium, broadened to corpus. Corpus bursae elongate, as long as ductus bursae, slightly broadened to distal end.

Distribution. China (mid-south).

Etymology. The species epithet, *spadix*, is the Greek adjective meaning “chestnut-coloured” and refers to brown forewings of the new species.

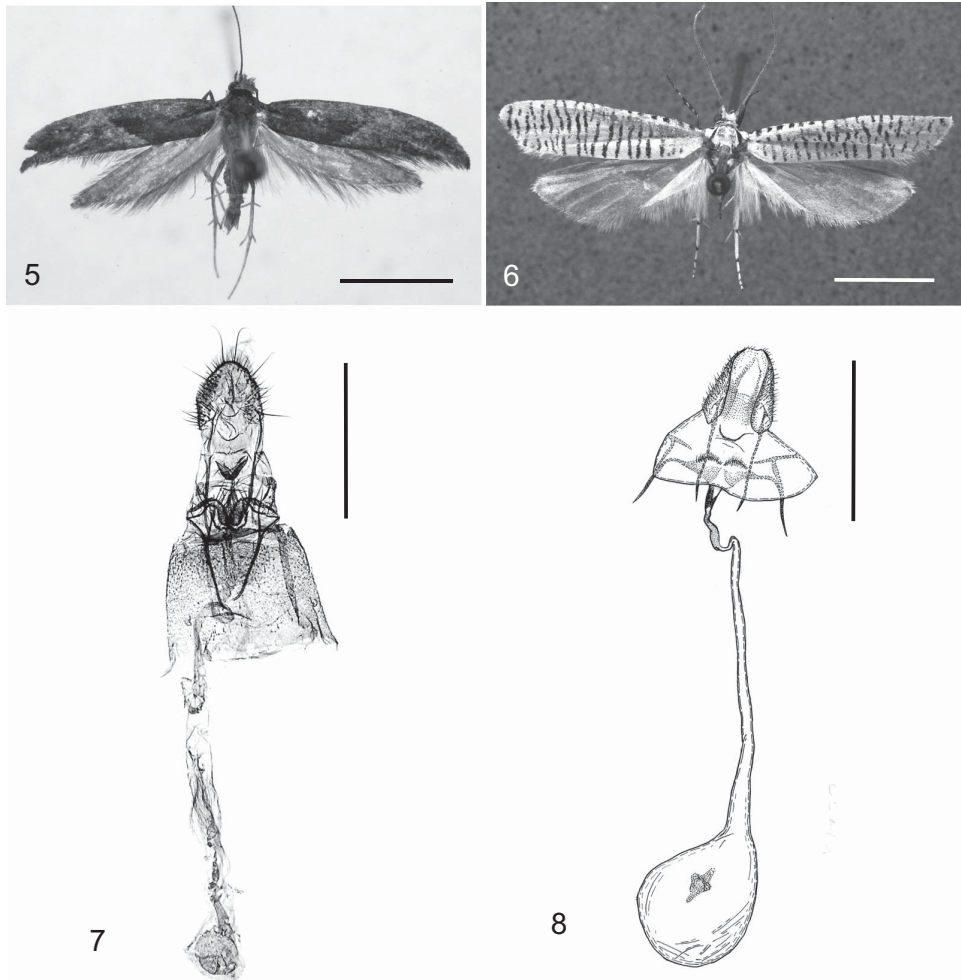
Yponomeuta zebra Sohn and Wu, n. sp.
(Figures 6, 8)

Type. HOLOTYPE: 1 ♀, Zhangmukoan [= Zhu Feng Nature Reserve], Tibet Autonomous Region, China, 12 VIII 1981 (SC Hu), genitalia slide no. IOZ-85-022 (attached to specimen). Holotype is deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing, China.

Diagnosis. The new species shows closer affinity to *Yponomeuta* than two other similar genera, *Teinoptilia* and *Ptiloteina* by lack of a denticulated conical emargination on the signum of the female genitalia. *Y. zebra* n. sp. is the only species of *Yponomeuta* which has multiple black strips, instead of black dots, on the forewings.

Description. Head. Vertex rough with white piliform scales; frons white; chaetosema absent. Antenna filiform, 3/5 length of forewing; scape with white scales and pecten; flagellomeres white. Labial palpus upcurved, obtuse apically, white, with no scale tufts; second segment as long as third.

Thorax. Tegula white, with a black spot basally; mesonotum white, with a pair of black spots anteriorly, a pair of broad black transverse bars in middle. Foreleg with coxa white, with a black spot basally; femur white, with a broad black ring basally; tibia white, with a black spot medially, a black ring terminally; tarsi white, with a black ring on the distal end of each segment. Midleg with coxa white; femur white, with a black area basally; tibia white, with three black rings, each present basally, medially and terminally; tarsi white, with a black ring on the distal end of each segment. Hindleg with coxa white; femur white, with a black area basally; tibia white,



Figures 5–8. (5) Adult of *Euhyponomeutoides spadix* Sohn and Wu, n. sp. Note: Scale bar = 5 mm, (6) Adult of *Yponomeuta zebra* Sohn and Wu, n. sp. Note: Scale bar = 5 mm, (7) Female genitalia of *Euhyponomeutoides spadix* Sohn and Wu, n. sp. Note: Scale bar = 1 mm, (8) Female genitalia *Yponomeuta zebra* Sohn and Wu, n. sp. Note: Scale bar = 2 mm.

with three black bands, each on base, basal third, termina; tibial tufts absent; tarsi white, with a black ring on the distal end of each segment. Forewing length 14.2 mm ($n = 1$), very elongate, moderately narrow, triangular, with a round apex and oblique termen; 18 longitudinal streaks extending from costa to dorsum, almost evenly spaced, irregularly disrupted by strigulae; fringes white, slightly tinged with gray on tornus. Hindwing slightly wider than forewing, gray, with a transparent, elliptical window near base, anal area lustrous white; fringes dark gray on costa, white along termen, yellowish gray on anal area.

Female genitalia (Figure 8). Papilla analis elongate, subtriangular, setose, longer than ninth abdominal segment; apophysis posterioris two times longer than apophysis anterioris; ventromedial area below papilla analis emarginated; lamella postvaginalis

shallow, lobate, setose. Ostium bursae small; antrum long, cup-shaped. Ductus bursae tubular, enlarged to corpus, five times longer than corpus bursae. Corpus bursae oval; signum rhomboid, denticulated laterally and medially.

Distribution. China (southwest).

Etymology. The species epithet, *zebra*, is a noun in apposition, meaning the African horse with black stripe, which the forewing pattern of the new species resembles.

Supplementary or new records of the Chinese Yponomeutinae

Six additional species belonging to the subfamily Yponomeutinae were recognized from this study. Of them, *Zelleria japonicella* Moriuti is new to the Chinese fauna. Abbreviations for the specimen deposition are as follows: IZCAS, the Institute of Zoology, Chinese Academy of Sciences, Beijing, China; LT, the “Leptree” project collection, University of Maryland, College Park, Maryland, USA; USNM, the National Museum of Natural History, Washington DC, USA.

***Swammerdamia zhangi* Li and Fan, 2007**

Material examined. [IZCAS] 1♂1♀, Mt. Xishan [Western Mt.], Qinghai Prov., 9-10 VII 1981, geni. slide no. IOZ-09034 (♀); 3♂3♀, Yuedu, Qinghai Prov., 8-9 VII 1974.

Distribution. China (endemic: Gansu and Qinghai).

***Swammerdamia caesiella* Hübner, 1796**

- = *heroldella* Hübner, 1825
- = *nubeculella* Tengström, 1848
- = *griseocapitella* Stainton, 1851
- = *castanae* Busck, 1914
- = *cuprescens* Braun, 1918

Material examined. [LT] 2 ♀, Mt. Baihuashan, Menton, Beijing, 17-18 VII 2008 (JC Sohn).

Distribution. China (east), Japan, Russia, Europe, and USA.

***Xyrosaris lichneuta* Meyrick, 1918**

- = *melanopsamma* Meyrick, 1931

Material examined. [IZCAS] 1♂, Xishuangbanna, Yunnan, IX 1978; 1♂, Jingbohu, Heilongjiang Prov., 12 VII 1983; 1♂1♀, Mt. Baihuashan, Beijing, 26 VIII 1973; 1♂, Mt. Tianmushan, Zhejiang Prov., 30 VII 1972; 1♂, Mt. Lushan, Jiangxi Prov., 10

VIII 1975; 1 ♂, Dayu, Jiangxi Prov., 23 VI 1973, geni. slide no. IOZ-09036; 1 ♂, Jianfengling, Hainan Prov., 7 V 1978; 1 ♂ 1 ♀, Liuyang, Hunan Prov., 13 VI 1985.

Distribution. China (mainland and Taiwan), Japan, Korea and India.

Yponomeuta catharotis (Meyrick, 1935)

Material examined. [USNM] 1 ♀, Nanking [=Nanjing], Jiangsu, V 1933 (Höne), abdomen missing.

Distribution. China (south) and Russia (Far East).

Yponomeuta cinefacta (Meyrick, 1935)

Material examined. [USNM] 1 ♂, Mt. Tienmushan, Zhejiang, IV 1902 (Höne).

Distribution. China (southeast) and Russia (Far East).

Yponomeuta zagulajevi Gershenson, 1977

Material examined. [LT] 2 ♂, Mt. Baihuashan, Menton, Beijing, 17-18 VII 2008 (JC Sohn).

Distribution. China (north) and Russia (Far East).

Host plant. *Euonymus alatus* Sieb. [Celastraceae] (Gershenson and Ulenberg, 1998).

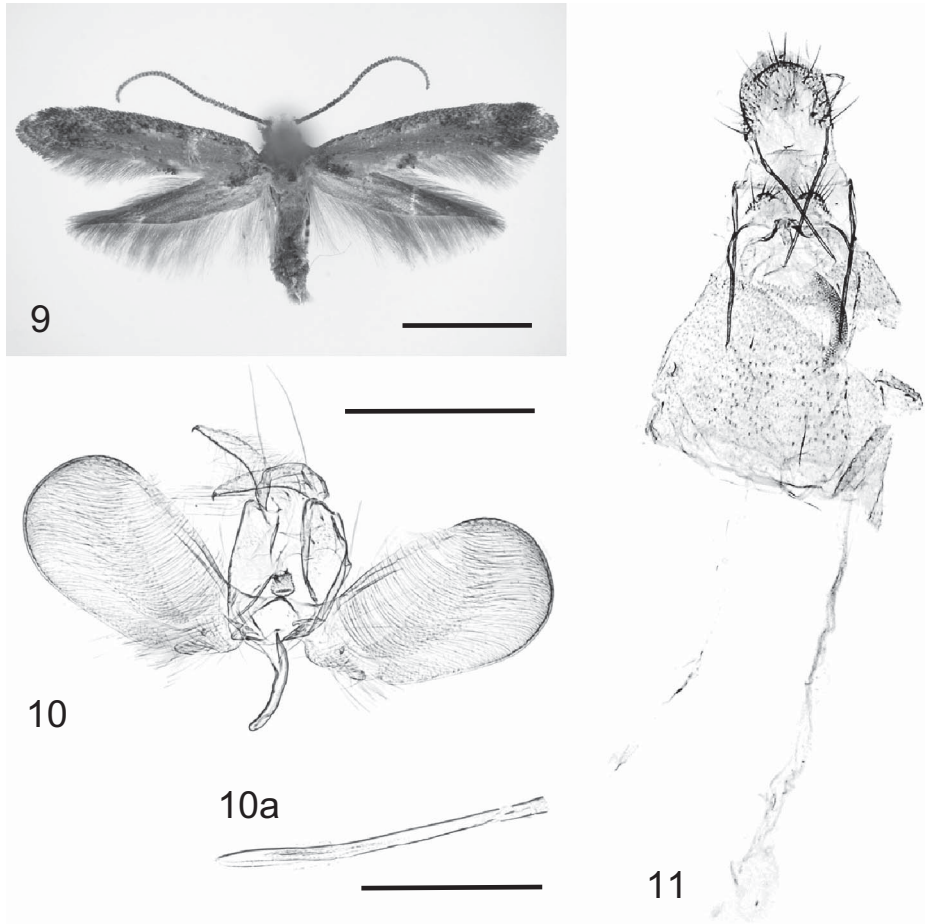
Remarks. Gershenson and Ulenberg (1998) included “China” in the distributional range of *Y. zagulajevi* without providing any evidence. Comparing external features, we determined that our specimens are *Y. zagulajevi*, reconfirming the record of the species from China.

Zelleria japonicella Moriuti, 1977, new to China
(Figures 9–11)

Material examined. [IZCAS] 5 ♂ 5 ♀, Wuying, Heilongjiang Prov., 15-20 VI 1981 (JW Bai); 3 ♂ 6 ♀, Dailing, Heilongjiang Prov., 17 VI 1963 (JW Bai), geni. slide no. SJC-09032 (♂), 09033 (♀), reared by *Syringa persica* L.

Distribution. China (northeast) and Japan.

Host plant. The larvae are known to feed on *Ligustrum tschonoskii* Decaisne var. *glabrescens* Koidzumi of Oleaceae (Moriuti 1977). *Syringa persica* L., which belongs to the same plant family, is added as a new host as a result of this study.



Figures 9–11. (9) Adult of *Zelleria japonicella* Moriuti. Notes: Scale bar = 3 mm, (10) Male genitalia and aedeagus (a) of *Zelleria japonicella* Moriuti. Note: Scale bar = 0.5 mm, (11) Female genitalia of *Zelleria japonicella* Moriuti. Note: Scale bar = 1 mm.

Remarks. Prior to this study, this species was regarded as endemic to Japan. Our new find of *Z. japonicella* from China indicates that its distributional range may be much broader than previously thought.

An updated checklist of the Chinese Yponomeitinae

A total of 71 species are listed here. Three invalid names are recognized in Hua (2005) and their deletion is suggested. Provincial distribution of each species in China is provided in parentheses. For species ranging over four provinces, their larger distribution is noted.

Family YPONOMEUTIDAE

Subfamily YPONOMEUTINAE

Cedestis gysselinella Duponchel, 1839 [mid-northern to northwestern provinces]

Cedestis leucopterostigmatis Sohn and Wu, n. sp. [Jiangxi]

“*Euhyponomeutoides*” *leucotoma* (Meyrick, 1935) [Hunan]

Euhyponomeutoides trachydeltus (Meyrick, 1931) [Jiangxi]

= *Euhyponomeutoides lushanensis* Gozmany, 1960

Euhyponomeutoides spadix Sohn and Wu, n. sp. [Sichuan]

Kessleria calculosa (Meyrick, 1914) [Zhejiang]

Kessleria insulella Moriuti, 1977 [Taiwan]

Kessleria nivosa Meyrick, 1938 [Yunnan]

= *Zelleria nuosa* (sic)

Metanomeuta fulvicrinis Meyrick, 1935 [middle to southern provinces]

Metanomeuta yuexiensis Jin and Wang, 2008 [Anhui]

Metanomeuta spinisparsula Jin and Wang, 2008 [Hunan]

Niphonympha longispina Yu and Li, 2002 [Guizhou]

Niphonympha varivera Yu and Li, 2002 [middle to southern provinces]

Liu (1992) misidentified this as *Niphonympha vera*.

Ocnerostoma piniariellum Zeller, 1847 [Zhejiang]

Swammerdamia caesiella (Hübner, 1796) [Beijing, Hebei, Shanxi]

Li and Fan (2007) recorded this species as new to China, but Caradja (1939) already made its first Chinese record under the name *Swammerdamia heroldella*.

Swammerdamia caudinigra Li and Fan, 2007 [Guizhou]

Swammerdamia pyrella (de Villers, 1789) [Henan]

Swammerdamia zhangi Li and Fan, 2007 [mid-northern provinces]

Teinoptilia antistatica (Meyrick, 1931) [Guizhou]

Teinoptilia bolidias (Meyrick, 1913) [southern provinces]

= *Choutinea shaanxiensis* Huang, 1982

Teinoptilia brunnescens (Moore, 1888) [Yunnan]

Teinoptilia guttella Moriuti, 1977 [Taiwan]

Teinoptilia clavata Jin, Wang and Li, 2009 [Guangxi]

Thecobathra acrivolvata Fan, Jin and Li, 2008 [Guizhou]

- Thecobathra albana* Liu, 1980 [Jiangxi, Hainan]
Thecobathra anas (Stringer, 1930) [southern provinces]
Thecobathra argophenes (Meyrick, 1907) [Yunnan, Zhejiang]
Thecobathra badagongshana Fan, Jin and Li, 2008 [Hunan]
Thecobathra basilobata Fan, Jin and Li, 2008 [Taiwan]
Thecobathra bidentata Liu, 1980 [Jiangxi]
Thecobathra chiona Liu, 1980 [Yunnan]
Thecobathra delias (Meyrick, 1913) [southern provinces]
Thecobathra eta Moriuti, 1963 [Zhejiang]
Thecibathra flavida Yu and Li, 2001 [Hubei]
Thecibathra kappa (Moriuti) [Taiwan]
Thecobathra lambda (Moriuti) [southern provinces]
Thecobathra latibasis Fan, Jin and Li, 2008 [Guangxi]
Thecobathra longisaccata Fan, Jin and Li, 2008 [Yunnan]
Thecobathra microsignata Liu, 1980 [Yunnan]
Thecobathra ovata Liu, 1980 [Jiangxi]
Thecobathra paranas Fan, Jin and Li, 2008 [Yunnan]
Thecobathra partinuda Fan, Jin and Li, 2008 [Taiwan]
Thecobathra sororiata Moriuti [southeastern provinces]
Liu (1980) misidentified this as *Thecobathra nivialis*.
Thecobathra tetragona Liu, 1983 [Sichuan]
Thecobathra yasudai (Moriuti, 1965) [Yunnan]
Thecobathra yunnana Liu, 1984 [Yunnan]
Xyrosaris lichneuta Meyrick, 1918 [northeastern to southern provinces]
Xyrosaris lirinopa Meyrick, 1922 [Shanghai]
Yponomeuta anatolicus Stringer, 1930 [Heilongjiang, Jilin, Zhejiang]
Yponomeuta bipunctellus Matsumura, 1931 [Shaanxi, Sichuan]
Yponomeuta catharotis (Meyrick, 1935) [Hunan, Jiangsu, Henan]
“*Yponomeuta*” *chalcocoma* Meyrick, 1938 [Yunnan]
Yponomeuta cinefactus Meyrick, 1935 [Jiangsu, Zhejiang, Hebei]
Yponomeuta eurinellus Zagulajev, 1969 [eastern provinces]

This species has been known as *Yponomeuta solitariellus* in the latest Chinese list (Hua, 2005).

Yponomeuta evonymellus (Linnaeus, 1758) [northern to south-eastern provinces]

Note: Gershenson (1993) distinguished *Y. refrigeratus* Meyrick, 1931 from *Y. evonymellus* and found populations from Far East Russia and northern Japan that belonged to the former. It is very possible that some previous records of *evonymellus* from China have been confused with *refrigeratus*.

Yponomeuta griseatus Moriuti, 1977 [mid- to south-eastern provinces]

Yponomeuta kanaiellus Matsumura, 1931 [eastern provinces]

Yponomeuta meguronis Matsumura, 1931 [Taiwan]

Yponomeuta orientalis Zagulajev, 1969 [northern provinces]

Note. In previous Chinese literature, two *Yponomeuta* species, *malinellus* Zeller, 1838 and *padellus* (Linnaeus, 1758), which are well-known pests on rosaceous fruit trees, have frequently been cited (Yang 1979; Hua 2005). Gershenson and Ulenberg (1998) reported that those two species are restricted to Europe and the Caucasus regions and all records of *malinellus* or *padellus* from East Asia have been confused with *orientalis*. According to their confusions, both *Y. malinellus* and *Y. padellus* are excluded from this list. *Y. padellus* illustrated in Liu (1983) is more likely *Y. spodocrossus* Meyrick, but to confirm this, re-examination of the material figured is required.

Yponomeuta polystictus Butler, 1879 [mid- to south-eastern provinces]

Yponomeuta polystigmellus Felder and Felder, 1862 [eastern provinces]

Yponomeuta rorellus Hübner, 1795 [Hebei]

Yponomeuta sociatus Moriuti, 1972 [eastern provinces]

Yponomeuta spodocrossus Meyrick, 1935 [Shaanxi, Henan]

Yponomeuta tokyonellus Matsumura, 1931 [northern provinces]

Wu (1938) used the name *Hyponomeuta minuella*, a synonym of *Y. tokyonellus*.

Yponomeuta sedellus Treitschke, 1832 [eastern provinces]

Liu and Huang (1996) reported this species under the name *Yponomeuta vigintipunctatus*.

Yponomeuta zagulajevi Gershenson, 1977 [Beijing]

Yponomeuta zebra Sohn and Wu, n. sp. [Tibet]

Zelleria coniostrepta Meyrick, 1938 [Yunnan]

Zelleria japonicella Moriuti, 1977 [Heilongjiang]

Zelleria strophaea Meyrick, 1914 [Yunnan]

The following three *Yponomeuta* species are listed in Hua (2005). Apparently, this must be an error, because no descriptions under the species name and the authorship have been published. Regulated by the IUZN's rule (article 13), all the names are invalid.

Yponomeuta hebeiensis Liu, 1984; in Hua, 2005, *nomen nudum*

Yponomeuta nigrofasciatus Yang, 1979; in Hua, 2005, *nomen nudum*

Yponomeuta ulingensis Yang, 1979; in Hua, 2005, *nomen nudum*

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