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An Annotated Checklist of Macro Moths in Mid- to High-Mountain Ranges of Taiwan (Lepidoptera: Macroheterocera)

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ABSTRACT

The aim of the present study was to provide an annotated checklist of Macroheterocera (macro moths) in mid- to high-elevation regions (>2000 m above sea level) of Taiwan. Although such faunistic studies were conducted extensively in the region during the first decade of the early 20th century, there are a few new taxa, taxonomic revisions, misidentifications, and misspellings, which should be documented. We examined 1,276 species in 652 genera, 59 subfamilies, and 15 families. We propose 4 new combinations, namely *Arichanna refracta* Inoue, 1978 **stat. nov.**; *Psyra matsumurai* Bastelberger, 1909 **stat. nov.**; *Olene baibarana* (Matsumura, 1927) **comb. nov.**; and *Cerynia usuguronis* (Matsumura, 1927) **comb. nov.**. The noctuid *Blepharita alpestris* Chang, 1991 is regarded as a junior synonym of *Mamestra brassicae* (Linnaeus, 1758) (**syn. nov.**). The geometrids *Palaseomystis falcataria* (Moore, 1867 [1868]), *Venusia megaspilata* (Warren, 1895), and *Gandaritis whitelyi* (Butler, 1878) and the erebid *Ericeia elongata* Prout, 1929 are newly recorded in the fauna of Taiwan. Female specimens and genitalia of *Lobogonodes shiushioui* Wu & Chang, 2018 and *Lomographa chinhuaiwangi* Wu, 2018 are illustrated for the first time. The results of the present study could facilitate further large-scale ecological research in high mountainous areas in Taiwan as well as the common name initiative, which warrants the updating of scientific names.

Key words: subtropics, cloud forest, Oriental region

Introduction

Over the past 2 decades, numerous faunistic studies focusing largely on macro moths in high mountain ranges (>2,000 m above sea level [a.s.l.]) have been published; these region include the Anmashan area (2,000-2,500 m a.s.l.) (Fu & Tzuoo, 2002; 2004), Meifeng area

(approximately 2,100 m a.s.l.) (Chen, 2011), and Hehuanshan area (2,350-3,422 m a.s.l.) (Fu *et al.*, 2013a). In total, 631 genera (56% of the Taiwanese genera) and 1,204 species (43% of the Taiwanese species) are included in the references. Because considerable taxonomic perspectives, taxonomic revisions, misidentification, and misspellings associated with the taxa have been proposed after 2013, the aim of the present study was to generate a complete faunistic checklist, propose new taxonomic revisions based on reliable evidence, and identify misidentifications and misspellings in current publications.

Materials and Methods

Specimen examination

All the available Taiwanese specimens in the following museums were examined:

ASIZ - Institute of Zoology, Academia Sinica, Taipei
CCMF - Collection of Chien-Ming Fu, Taichung
ESRI - Endemic Species Research Institute, Nantou
HNHM - Hungarian Nature History Museum, Budapest
HUFA - Faculty of Agriculture, Hokkaido University, Sapporo
IZCAS - Institute of Zoology, Chinese Academy of Sciences, Beijing
MWM - Museum Witt, Munich
NHMUK - Natural History Museum, London (formerly BMNH)
NMNS - National Museum of Natural Science, Taichung
NSMT - National Science Museum, Tsukuba (previously Tokyo)
TFRI - Taiwan Forestry Research Institute, Taipei

Adoption of higher classification and sorting of checklist

The family levels are according to Van Nieukerken *et al.* (2011), the subfamily placement of Geometridae species is according to Murillo-Ramos *et al*. (2019), of Notodontidae, whereas the subfamily placement of Noctuidae, Nolidae, and Erebidae species is according to Kobayashi and Nonaka (2016), Zahiri *et al.* (2012a, b), and Zahiri *et al.* (2013), respectively. Other subfamily placements are according to Fu *et al.* (2013a) or other references or notes. Sorting of higher classification and species is according to DearLep (2020). The subgenus information, if available in the reference, is only provided in the synonyms list.

Species names

The published species names are according to TaiCOL (2020). To double-check the identities of species recorded or illustrated in the publications, we directly examined the specimens or discussed them with the authors or the curators of the associated collections. Considerable misidentification of *Eupithecia* Curtis species is preliminarily found in Chang (1990a), we have skipped this part tentatively and are awaiting further clarification on the species of this genus, which has the most geometrid species globally. Species identified as "sp." at the specific level are currently regarded as unidentified species under evaluation or undescribed new species. Species marked with "#" are newly documented in the faunistic checklist in Fu and Tzuoo (2002, 2004), Chen (2011), and Fu *et al.* (2013a). If we propose a taxonomic treatment, the corresponding information in the note section of the species is provided.

List of synonyms and their references

Most of the synonyms and corresponding references of the species included have been provided in Fu and Tzuoo (2002, 2004) and Fu *et al.* (2013a). If not yet provided, they are provided herein. All misidentifications and misspellings are inidcated. All available taxonomic revisions and corresponding references after 2013 are cited for the included species.

Illustrations of species and their genitalia

Species within the elevation range targeted in the present study that have not been illustrated in Fu and Tzuoo (2002, 2004), Chen (2011) or Fu et al (2013a), or described after 2013, if available, are illustrated herein (Figs 1-7). Type materials of species related to the present taxonomic treatments are illustrated in Fig. 8. Genitalia of species illustrated or applied in taxonomic treatments for the first time are given in Figs 9 and 10.

Results

In total, 1,276 species (45% of macro moths of Taiwan) in 652 genera, 59 subfamilies, and 15 families are included in the present faunistic checklist. Eight new combinations are proposed, namely *Arichanna refracta* Inoue, 1978 **stat. nov.**; *Psyra matsumurai* Bastelberger, 1909 **stat. nov.**; *Olene baibarana* (Matsumura, 1927) **comb. nov.**; and *Cerynia usuguronis* (Matsumura, 1927) **comb. nov.**. The noctuid *Blepharita alpestris* Chang, 1991 is regarded as a junior synonym of *Mamestra brassicae* (Linnaeus, 1758) (**syn. nov.**). The geometrids *Palaeomystis falcataria* (Moore, 1867 [1868]) and *Venusia megaspilata* (Warren, 1895), and erebid *Ericeia elongata* Prout, 1929 are newly recorded in the fauna of Taiwan. In addition, the female specimens and genitalia of *Lobogonodes shiushioui* Wu & Chang, 2018 and *Lomographa chinhuaiwangi* Wu, 2018 are illustrated for the first time.

An annotated checklist of Macroheterocera (macro moths) in mid- to high-elevation ranges in Taiwan (>2,000 m a.s.l.) are provided as follows.

Family BRAHMAEIDAE

Brahmaea wallichii insulata Inoue, 1984

Brahmaea wallichii insulata: Hsu & Hsu, 2017: 56, figs; Kitching *et al.*, 2018: suppl.

Family EUPTEROTIDAE

Apha arisana Matsumura, 1927

Apha arisana: Kitching *et al.*, 2018: suppl.

Apha horishana Matsumura, 1927 # (Fig. 1a)

Apha horishana Matsumura, 1927, *Journal of the College of Agriculture, Hokkaido Imperial University* 19 (1): 49, pl. 2, fig. 19; Hsu & Hsu, 2017: 57, figs; Kitching *et al.*, 2018: suppl.

Specimen examined: Taiwan. 1 male, Miaoli County, Guanwu, 2,000 m, 29. VI. 2011, leg. S. Wu & W. C. Chang, slide TFRI146377 (TFRI).

Ganisa formosicola Matsumura, 1931

Ganisa formosicola: Hsu & Hsu, 2017: 58, figs.

Palirisa cervina formosana Matsumura, 1931

Palirisa cervina formosana: Kitching *et al.*, 2018: suppl.

Apona fuliginosa Kishida, 1993

Apona fuliginosa: Kitching *et al.* 2018: suppl.

Family SATURNIIDAE

Subfamily SATURNIINAE

Actias neidhoeferi Ong & Yu, 1968

Actias neidhoeferi: Shang & Hsu, 2015: 78, fig.; Kitching *et al.* 2018: suppl.

Rhodinia verecunda Inoue, 1984

Rhodinia verecunda: Kitching *et al.* 2018: suppl.

Antheraea formosana Sonan, 1937

Antheraea formosana: Hsu & Hsu, 2017: 53, figs; Kitching *et al.* 2018: suppl.

Antheraea pernyi (Guérin-Méneville, 1855)

Antheraea pernyi: Kitching *et al.* 2018: suppl.

Antheraea superba Inoue, 1964 [1965]

Antheraea yamamai superba Inoue, 1964 [1965], *Tyoˆto Ga* 15 (3): 56, fig. 3: Fu & Tzuoo, 2004: 77, pl. 44: 1, 2; Chen, 2011: 28, figs; Lin *et al.*, 2013: 247, pl. 22: 2.

Antheraea superba: Naumann & Lourens, 2008: 68, figs 5, 10; Kitching *et al.* 2018: suppl.

Note. The actual publishing year of *Antheraea yamamai superba* Inoue should be 1965.

Saturnia fukudai (Sonan, 1937)

Caligula jonasii fukudai: Fu & Tzuoo, 2004: 77, pl. 43: 4; 59: 2; Chen, 2011: 32, fig.

Saturnia jonasii fukudai: Lin *et al.*, 2013: 247, pl. 20: 7, 8.

Saturnia fukudai: Kitching *et al.*, 2018: suppl.

Saturnia japonica arisana (Shiraki, 1913)

Caligula japonica arisana: Fu & Tzuoo, 2004: 77, pl. 45: 1, 3; Kitching *et al.*, 2018: suppl.

Saturnia thibeta okurai (Okano, 1960)

Caligula thibeta okurai: Fu & Tzuoo, 2004: 77, pl. 43: 5. Chen, 2011: 32, figs.

Saturnia thibeta okurai: Hsu & Hsu, 2017: 54, figs; Kitching *et al.*, 2018: suppl.

Loepa formosensis Mell, 1938

Loepa katinka: Chen & Chen, 1989: 27, fig., *nec* Westwood, 1848

Loepa katinka formosensis: Wang, 1994a:

60, figs.

Loepa megacore formosensis: Fu & Tzuoo, 2004: 79, pl. 43: 3; 59: 3; Chen, 2011: 32, figs.

Loepa formosensis: Hsu & Hsu, 2017: 55, figs; Kitching *et al.*, 2018: suppl.

Loepa mirandula Yen, Naessig, Naumann & Brechlin, 2000

Loepa miranda: Wang, 1994a: 58, figs; Chen, 2011: 32, fig., *nec* Moore, 1865.

Loepa mirandula: Shang & Hsu, 2015: 50, fig.; Kitching *et al.*, 2018: suppl.

Samia formosana Matsumura, 1931

Samia watsoni formosana: Fu & Tzuoo, 2004: 79, pl. 45: 2, 4; 59: 4.

Samia formosana: Naumann *et al*. 2014: 107, figs 7, 8-12; Kitching *et al.*, 2018: suppl.

Family BOMBYCIDAE

Triuncina brunnea (Wileman, 1911)

Triuncina brunnea: Kitching *et al.*, 2018: suppl.

Rotunda rotundapex (Miyata & Kishida, 1990) # (Fig. 1b)

Bombyx rotundapex Miyata & Kishida, 1990, *Japan Heterocerists' J*. 158: 142; Wang, 1995a: 24, figs.

Bombyx shini Park & Sohn, 2002, *Tinea* 17(2): 67.

Rotunda rotundapex: Wang *et al.*, 2015: 20, figs 6A-H; Kitching *et al.*, 2018: suppl.

Specimen examined: Taiwan. 1 male, Hualien, Ci'en, 2,039 m, 21. VI. 2009, leg. L. C. Shih & S. F. Shih (ESRI).

Distribution. Taiwan, China, Korea and Myanmar (Wang *et al*., 2015).

Family ENDROMIDAE

Smerkata fusca (Kishida, 1993)

Mustilia fusca: Fu & Tzuoo, 2004: 72, pl. 42: 12, 13; 58: 8. Chen, 2011: 50, fig.

Mustilia (*Smerkata*) *fusca*: Wu *et al.*, 2013f: 242, pl. 19: 12, 13; 21: 12.

Smerkata fusca: Wang *et al.*, 2015: 90, figs 33A-33H, 35A, 35G-35H; Kitching *et al.*, 2018: suppl.

Note. The taxon *Smerkata* Zolotuhin, 2007 is originally erected as a subgenus of *Mustilia* in Zolotuhin (2007) and later separated as a distinct genus (type: *Mus. phaeopera* Hampson, 1910, type locality: Assam, India).

Distribution. Taiwan and China (Jiangxi, Hunan, Guangdong) (Wang *et al.*, 2015).

Comparmustilia gerontica (West, 1932)

Mustilia gerontica West, 1932, *Novit. Zool.*, 37: 216; Fu & Tzuoo, 2004: 72, pl. 42: 9, 10; Chen, 2011: 50, figs.

Mustilia (*Mustilia*) *sphingiformis gerontica*: Wu *et al.*, 2013f: 242, pl. 19: 10, 11; 21: 11.

Comparmustilia gerontica: Wang *et al.*, 2015: 85, figs 30E-30F, 31A-31D, 32D, 32G-32H; Kitching *et al.*, 2018: suppl.

Note. Wang *et al.* (2015) established the genus *Comparmustilia* Wang & Zolotuhin, 2015 based on the type species *Mustilia sphingiformis* Moore, 1879.

Andraca yauichui Wu & Chang, 2016

Andraca yauichui Wu & Chang, 2016, *Zootaxa*, 4200 (4): 518, figs 7-9, 15, 20, 21, 25, 26, 32, 33; Huang, 2018: 158, fig.

Andraca theae: Fu & Tzuoo, 2004: 74, pl. 42: 11, 14; Chen, 2011: 52, figs; Wu *et al.*, 2013f: 244, pl. 19: 14, 15, *nec* Matsumura, 1909

Oberthueria formosibia Matsumura, 1927

Oberthueria formosibia: Kitching *et al.*, 2018: suppl.

Prismosticta fenestrata Butler, 1880

Prismosticta fenestrata: Kitching *et al.*, 2018: suppl.

Family SPHINGIDAE

Subfamily SPHINGINAE

Sphinx formosana (Riotte, 1970)

Sphinx formosana: Kitching *et al.*, 2018: suppl.

Notonagemia analis gressitti (Clark, 1937)

Meganoton analis gressitti Clark, 1937, *Proc. New Engl. zool. Club* 16: 27; Fu & Tzuoo, 2004: 87, pl. 46: 1; Fu *et al.*, 2013q: 249, pl. 23: 5; Kitching *et al.*, 2018: suppl.

Notonagemia analis gressitti: Zolotuhin & Ryabov, 2012: 197.

Psilogramma increta (Walker, 1865)

Psilogramma increta: Hsu & Hsu, 2017: 23, figs; Kitching *et al.*, 2018: suppl.

Agrius convolvuli (Linnaeus, 1758)

Agrius convolvuli: Hsu & Hsu, 2017: 22, figs; Kitching *et al.*, 2018: suppl.

Acherontia lachesis (Fabricius, 1798)

Acherontia lachesis: Hsu & Hsu, 2017: 49, figs; Kitching *et al.*, 2018: suppl.

Acherontia styx (Westwood, 1847)

Acherontia styx medusa: Fu & Tzuoo, 2004: 88, pl. 47: 2.

Acherontia styx: Kitching *et al.*, 2018: suppl.

Note. The full synonymous list has been given in Fu & Tzuoo (2004), Kitching *et al*. (2018) treated all subspecies as junior synonyms of Sphinx styx Westwood, 1847.

Pentateucha inouei Owada & Brechlin, 1997

Pentateucha inoue: Kitching *et al.*, 2018: suppl.

Subfamily SMERINTHINAE

Langia zenzeroides formosana Clark, 1936

Langia zenzeroides formosana: Hsu & Hsu, 2017: 24, figs; Kitching *et al.*, 2018: suppl.

Parum colligata (Walker, 1856)

Parum colligata: Hsu & Hsu, 2017: 30, figs; Kitching *et al.*, 2018: suppl.

Marumba gaschkewitschii gressitti Clark, 1937

Marumba gaschkewitschii gressitti: Hsu & Hsu, 2017: 34, figs; Kitching *et al.*, 2018: suppl.

Marumba cristata bukaiana Clark, 1937

Marumba cristata bukaiana: Hsu & Hsu, 2017: 33, figs.

Marumba saishiuana formosana Matsumura, 1927

Marumba saishiuana formosana: Kitching *et al.*, 2018: suppl.

Marumba sperchius sperchius (Menetries, 1857)

Marumba sperchius horiana: Chen, 2011: 38, fig.; Kitching *et al.*, 2018: suppl.

Cypa enodis Jordan, 1931

Cypa enodis: Kitching *et al.*, 2018: suppl.

Smerinthulus mirabilis mirabilis (Rothschild, 1894)

Cypa mirabilis Rothschild, 1894, *Novit. zool.* 1: 542, 664.

Degmaptera mirabilis: Fu & Tzuoo, 2004: 84, pl. 46: 6; 59: 7.

Smerinthulus mirabilis mirabilis: Kitching *et al.*, 2018: suppl.

Smerinthulus perversa flavomaculatus Inoue, 1990

Smerinthulus perversa flavomaculatus: Kitching *et al.*, 2018: suppl.

Phyllosphingia dissimilis dissimilis (Bremer, 1861)

Phyllosphingia dissimilis hoenei: Chen, 2011: 36, fig.

Phyllosphingia dissimilis dissimilis: Kitching *et al.*, 2018: suppl.

Ambulyx semiplacida Inoue, 1990

Ambulyx semiplacida: Kitching *et al.*, 2018: suppl.

Ambulyx japonica angustifasciata (Okano, 1959) # (Fig. 1c)

Oxyambulyx japonica angustifasciata Okano, 1959, *Rep. Gakigei Fac. Iwate Univ.* 14: 40.

Ambulyx japonica angustifasciata: Chang, 1989a: 23, figs; Kitching *et al.*, 2018: suppl.

Ambulyx joponica angustipennis [sic]: Wang, 1995a: 192.

Specimen examined: Taiwan. 1 female, Nantou County, Tseuifeng, 2,250 m, 29. VII. 2012, leg. S. Wu & W. C. Chang (TFRI).

Subfamily MACROGLOSSINAE

Daphnis hypothous crameri Eitschberger & Melichar, 2010

Daphnis hypothous hypothous: Fu *et al.*, 2013q: 250, pl. 24: 1, *nec* Cramer, 1780

Daphnis hypothous: Chang, 1989a: 27, fig.; Fu & Tzuoo, 2004: 89, pl. 47: 3, *nec* Cramer, 1780

Daphnis hypothous crameri: Kitching *et al.*, 2018: suppl.

Dahira taiwana (Brechlin, 1998) # (Fig. 1d)

Gehlenia taiwana Brechlin, 1998, *Nachr. entomol. Ver. Apollo (N.F.)* 19: 36; Heppner, 2012: 21.

Lepchina taiwana: Brechlin, 2000: 231; Yen *et al.*, 2003: 303.

Dahira taiwana: Brechlin & Melichar, 2006: 27: 210; Kitching *et al.*, 2018: suppl.

Specimens examined. Taiwan. 1 male, Nantou County, Meifeng, 2,100 m, 11. III. 2013, leg. S. Wu (TFRI); 1 male, Kaohsiung, Tianchi, 2,082 m, 18. III. 2015, leg. H. H. Lin & Y. H. Lin (ESRI).

Acosmeryx naga naga (Moore, [1858])

Acosmeryx naga naga: Hsu & Hsu, 2017:

37, figs; Kitching *et al.*, 2018: suppl.
Acosmeryx naga: Jia & Yu, 2018: 133, figs.

Acosmeryx formosana (Matsumura, 1927)
Acosmeryx formosana: Kitching *et al.*, 2018: suppl.

Angonyx testacea (Walker, 1856)
Angonyx testacea: Kitching *et al.*, 2018: suppl.

Macroglossum neotroglodytus Kitching & Cadiou, 2000
Macroglossum neotroglodytus: Kitching *et al.*, 2018: suppl.

Macroglossum saga Butler, 1878
Macroglossum saga: Hsu & Hsu, 2017: 43, figs; Kitching *et al.*, 2018: suppl.

Macroglossum corythus corythus Walker, 1856 # (Fig. 1e)
Macroglossum corythus Walker, 1856b, *List Spec. Lepid. Insects Colln. Br. Mus.* 8: 92;
Macroglossum arcuatum Moore, 1858, *Tribe II. Sphinges* 262, nomen nudum.
Macroglossum luteata Butler, 1875a, *Proc. zool. Soc. Lond.* 1875: 241.
Macroglossum proxima Butler, 1875b, *Proc. zool. Soc. Lond.* 1875: 4, pl. 1, f. 1.
Macroglossum platyxanthum Rothschild & Jordan, 1903, *Novit Zool (Suppl)* 9: 660.
Macroglossum iwasakii Matsumura, 1921, *Thousand insects of Japan* 754.
Macroglossum palauensis Matsumura, 1930c, *Trans. Sapporo Nat. Hist. Soc.* 11: 120.
Macroglossum corythus luteatum: Hsu & Hsu, 2017: 40, figs.
Macroglossum corythus corythus: Kitching *et al.*, 2018: suppl.
Specimen examined: Taiwan. 1 male, Nantou County, Shihshan, 2,500 m, 1. XI. 2011, S. Wu & W. C. Chang (TFRI).

Macroglossum mitchellii imperator Butler, 1875
Macroglossum mitchelli imperator: Chen, 2011: 42, fig., misspelling.
Macroglossum imperator: Jia & Yu, 2018: 136, figs.
Macroglossum mitchellii imperator: Kitching *et al.*, 2018: suppl.

Hippotion velox (Fabricius, 1793)
Hippotion velox: Kitching *et al.*, 2018: suppl.

Hippotion rosetta (Swinhoe, 1892)

Theretra nessus nessus (Drury, 1773)
Theretra nessus: Hsu & Hsu, 2017: 27, figs.
Theretra nessus nessus: Kitching *et al.*, 2018: suppl.
Distribution. The nominate subspecies is distributed widely in the Indo-Australian region, the type locality of subspecies *albata* Fukuda, 2003 is Fiji and also known in Vanuatu and New Caledonia.

Theretra tibetiana Vaglia & Haxaire, 2010
Theretra tibetiana Vaglia & Haxaire, 2010, *in* Vaglia, Haxaire, Kitching & Liyous, 2010, *Eur. Entomologist* 3 (1): 21; Hsu & Hsu, 2017: 29, figs; Kitching *et al.*, 2018: suppl.
Theretra clotho clotho: Fu & Tzuoo, 2004: 91, pl. 47: 6, *nec* Drury, 1773
Theretra clotho: Fu *et al.*, 2013r: 252, pl. 24: 3, *nec* Drury, 1773

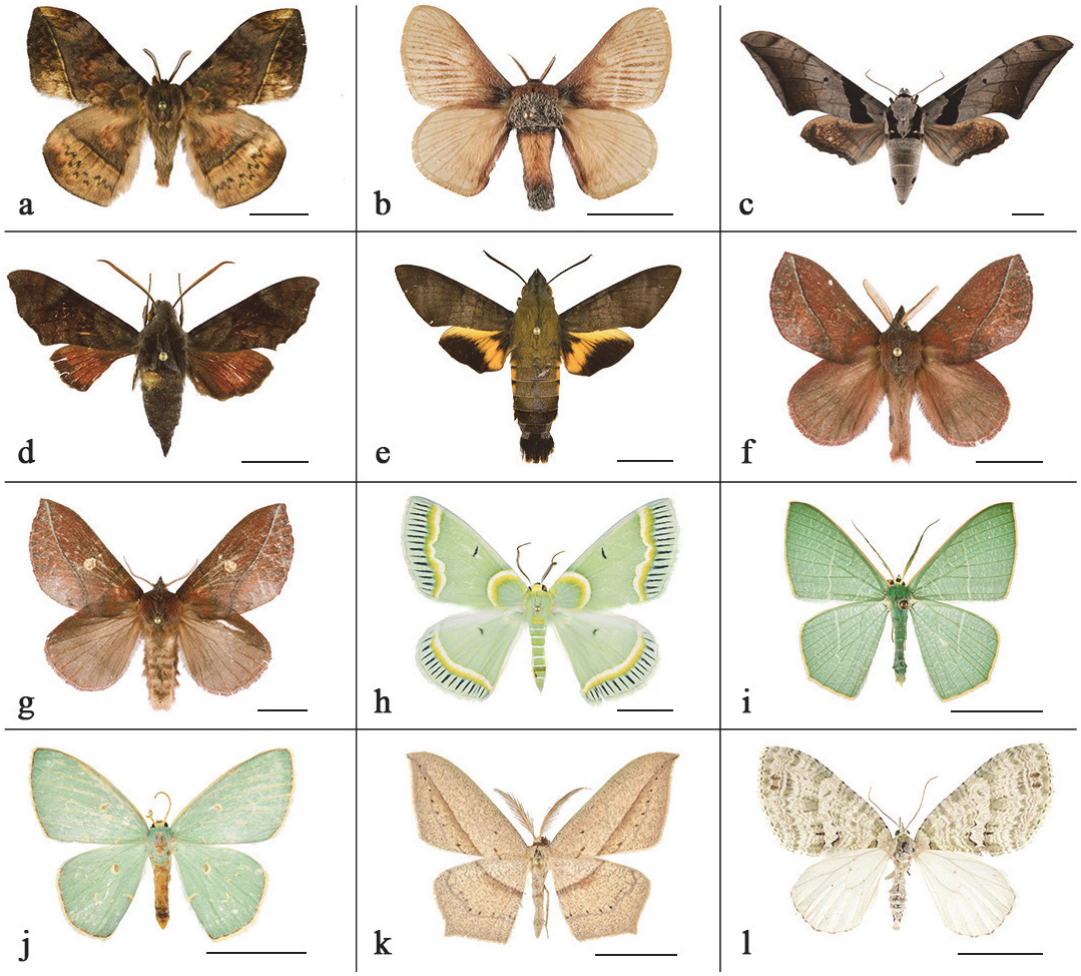
Pergesa acteus (Cramer, 1779)
Pergesa actea: Chen, 2011: 40, fig.; Hsu & Hsu, 2017: 26, figs.
Pergesa acteus: Jia & Yu, 2018: 137, figs; Kitching *et al.*, 2018: suppl.

Rhagastis castor formosana Clark, 1925
Rhagastis castor formosana: Kitching *et al.*, 2018: suppl.

Rhagastis binoculata Matsumura, 1909
Rhagastis binoculata: Hsu & Hsu, 2017: 38, figs; Jia & Yu, 2018: 143, figs; Kitching *et al.*, 2018: suppl.

Cechetra minor (Butler, 1875)
Cechenena minor: Fu & Tzuoo, 2004: 91, pl. 48: 7; Chen, 2011: 40, fig.; Yu & Jia, 2018: 141, figs.
Cechetra minor: Zolotuhin & Ryabov, 2012: 206; Kitching *et al.*, 2018: suppl.
Note. All the previous *Cechenena* Rothschild & Jordan, 1903 species in Taiwan have been transferred into the genus *Cechetra* Zolotuhin & Ryabov, 2012 in Zolotuhin and Ryabov (2012).

Cechetra lineosa (Walker, 1856)
Cechenena lineosa: Fu & Tzuoo, 2004: 91, pl. 48: 8; Chen, 2011: 40, figs; Fu *et al.*, 2013r: 252, pl. 24: 4.



圖一　臺灣產大異角類。a. *Apha horishana* Matsumura, 1927 ♂；b. *Rotunda rotundapex* (Miyata & Kishida, 1990) ♂；c. *Ambulyx japonica angustifasciata* (Okano, 1959) ♀；d. *Dahira taiwana* (Brechlin, 1998) ♂；e. *Macroglossum corythus* Walker, 1856 ♂；f. *Euthrix orboy occasialis* Zolotuhin, 2001 ♂；g. 同上 ♀；h. *Iotaphora admirabilis* (Oberthür, 1884) ♂；i. *Orothalassodes pervulgatus* Inoue, 2005 ♂；j. *Comostola satoi* Inoue, 1986 ♀；k. *Timandra stueningi* Cui, Xue & Jiang, 2019 ♂，副模式標本；l. *Trichopterigia yazakii* Wu, Fu & Nakajima, 2014。館藏出處：林業試驗所昆蟲標本館 (a-k)；自然科學博物館，台中 (l)。比例尺=10 mm。拍攝：吳士緯。

Fig. 1. Macroheterocera of Taiwan. a. *Apha horishana* Matsumura, 1927 ♂; b. *Rotunda rotundapex* (Miyata & Kishida, 1990) ♂; c. *Ambulyx japonica angustifasciata* (Okano, 1959) ♀; d. *Dahira taiwana* (Brechlin, 1998) ♂; e. *Macroglossum corythus* Walker, 1856 ♂; f. *Euthrix orboy occasialis* Zolotuhin, 2001 ♂; g. *Ditto* ♀; h. *Iotaphora admirabilis* (Oberthür, 1884) ♂; i. *Orothalassodes pervulgatus* Inoue, 2005 ♂; j. *Comostola satoi* Inoue, 1986 ♀; k. *Timandra stueningi* Cui, Xue & Jiang, 2019 ♂; l. *Trichopterigia yazakii* Wu, Fu & Nakajima, 2014. Sources of specimens: TFRI (a-k); NSMT (l). Scale bar = 10 mm. Photograph by Shipher Wu.

Cechetra lineosa: Zolotuhin & Ryabov, 2012: 206; Kitching *et al.*, 2018: suppl.

Cechetra subangustata (Rothschild, 1920)

Cechenena subangustata: Chen, 2011: 40, fig.; Fu *et al.*, 2013r: 252, pl. 24: 2.

Cechetra subangustata: Zolotuhin & Ryabov, 2012: 206; Kitching *et al.*, 2018: suppl.

Family LASIOCAMPIDAE

Subfamily LASIOCAMPINAE

Gastropacha pardale formosana Tams, 1935

Gastropacha pardalis formosana: Kishida, 1992: 154; Wang, 1995: 122, figs; Chen, 2011: 50, fig., misspelling.

Gastropacha insularis Zolotuhin, 2005

Gastropacha sikkima: Fu & Tzuoo, 2004: 58, pl. 40: 7, *nec* Moore, 1879

Paradoxopla sinuata taiwana (Wileman, 1915)

Euthrix ochreipuncta (Wileman, 1910)

Euthrix tamahonis (Matsumura, 1927)

Euthrix orboy occasialis Zolotuhin, 2001 #

(Figs 1f, g; 8a, b)

Euthrix orboy occasialis Zolotuhin, 2001, *Atalanta* 32 (3/4): 459, pl. 22, fig. 8.

Euthrix ochreipuncta: Fu & Tzuoo, 2004: 59, pl. 40: 10, 13; Fu *et al.*, 2013q: 231, pl. 17: 6, *nec* Wileman, 1910

Note. Kishida (1992) listed "*Cosmotriche formosana* Matsumura, 1927" as the junior synonym of *Euthrix nigropuncta* (Wileman, 1910), also there is one male specimen (Fig. 8a) in HUFA bearing the labels "Type, Matsumura [red rectangle label]\Formosa, Matsumura\Cosmotriche formosana Matsu." (Fig. 8b). However, there is no reference includes such a taxon, therefore herein we regard this name as a *nomen nudum*. The HUFA specimen is conspecific with *Eut. orboy occasialis*.

Cosmotriche discitincta discitincta Wileman, 1914

Distribution. Taiwan (type locality), China (Fujian) (Liu and Wu, 2006).

Dendrolimus punctatus (Walker, 1855)

Dendrolimus arizana (Wileman, 1910)

Dendrolimus taiwana (Matsumura, 1932)

Kunugia undans metanastroides (Strand, 1915)

Dendrolimus punctatus: Chen, 2011: 48, fig, *nec* Walker, 1855

Kunugia undans metanastroides: Hsu & Hsu, 2017: 118, figs.

Kunugia brunnea (Wileman, 1915)

Pachypasoides albisparsa (Wileman, 1910)

Metanastria albisparsa Wileman, 1910, *Entomologist* 43: 137.

Pachypasoides albinotum Matsumura, 1927, *J. Coll. Agric. Hokkaido imp. Univ*. 19: 19, pl. 5, fig. 43.

*Pachypasoides albisparsu*s: Kishida, 1992: 155; Fu & Tzuoo, 2004: 65, pl. 41: 1; 58: 5; Fu *et al.*, 2013q: 235, pl. 18: 7, 8.

Distribution: Endemic to Taiwan.

Bharetta owadai Kishida, 1986

Distribution. Taiwan, Vietnam and China (Guangdong, Nanling mountain region) (Kishida and Wang, 2011).

Somadasys catocoides (Strand, 1915)

Radhica flavovittata taiwanensis (Matsumura, 1932)

Takanea excisa excisa (Wileman, 1910)

Takanea excisa: Fu & Tzuoo, 2004: 66, pl. 41: 7; 58: 7.

Syrastrenopsis kawabei Kishida, 1991

Trabala vishnou guttata (Matsumura, 1909)

Trabala vishnou guttata: Hsu & Hsu, 2017: 189, figs.

Lebeda nobilis Walker, 1855

Lebeda nobilis: Hsu & Hsu, 2017: 119, figs.

Paralebeda femorata mirabilis Zolotuhin, 1996

Paralebeda femorata mirabilis: Hsu & Hsu, 2017: 121, figs.

Malacosoma neustria formosana Matsumura, 1932

Pyrosis ni (Wang & Fan, 1995)

Pyrosis wangi Zolotuhin & Witt, 2007

Family DREPANIDAE

Subfamily CYCLIDINAE

Cyclidia substigmaria substigmaria (Hübner, [1831])

Cyclidia substigmaria: Chen, 2011: 98, figs.

Subfamily DREPANINAE

Auzatellodes arizana (Wileman, 1911)

Distribution. Taiwan and S. China (Yazaki and Xin, 2011).

Auzata simpliciata Warren, 1897

Callidrepana patrana (Moore, [1866])

Callidrepana hirayamai Nagano, 1918

Canucha miranda formosicola Matsumura, 1931

Deroca hidda ampla Inoue, 1988

Ditrigona conflexaria micronioides (Strand, [1917])

Ditrigona triangularia (Moore, 1867 [1868])

Drepana pallida nigromaculata Okano, 1959

Leucoblepsis fenestraria (Moore, 1867 [1868])

Drepanodes fenestraria Moore, 1867 [1868], *Proc. zool. Soc. Lond.*, 1867: 618.

Leucobrepsis fenestraria: Fu & Tzuoo, 2004: 38, pl. 38: 22, 23, misspelling.

Note. Fu & Tzuoo (2004) incorrectly presented the original combination of this species as "*Drepana fenestraria*", the correct combination is given herein.

Leucoblepsis taiwanensis Buchsbaum & Miller, 2003

Leucobrepsis excisa: Fu & Tzuoo, 2004: 38, pl. 38: 21, *nec* Hampson, 1892
Leucobrepsis taiwanensis: Chen, 2011: 90, figs; Hsu & Hsu, 2017: 94, figs, misspelling.

Macrauzata fenestraria insulata Inoue, 1988

Macrocilix mysticata flavotincta Inoue, 1988

Sewa taiwana (Wileman, 1911)

Microblepsis manleyi formosensis Inoue, 1988

Microblepsis violacea (Butler, 1889)

Nordstromia semililacina Inoue, 1992
Nordstromia semililacina: Hsu & Hsu, 2017: 89, figs

Tridrepana unispina Watson, 1957

Leucodrepana serratilinea Wileman, 1917
Zusidava serratilinea: Hsu & Hsu, 2017: 63, figs.

Oreta brunnea Wileman, 1911
Oreta extensa: Fu & Tzuoo, 2004: 40, pl. 38: 26, 27; Wu *et al.*, 2013e: pl. 1: 37, *nec* Walker, 1855

Oreta extensa Walker, 1855
Oreta extensa: Hsu & Hsu, 2017: 90, figs.

Oreta fuscopurpurea Inoue, 1956

Oreta loochooana Swinhoe, 1902
Oreta loochooana: Hsu & Hsu, 2017: 92, figs.

Oreta insignis (Butler, 1877)
Oreta insignis: Hsu & Hsu, 2017: 91, figs.

Subfamily THYATIRINAE

Habrosyne albipuncta (Wileman, 1910)
Habrosyne albipuncta: Zhuang *et al*., 2018: 20.
Note. *Habrosyne angulifera* (Gaede, 1930) (type locality: Myanmar) was upgraded from a subspecies of *H. albipuncta* by Zhuang *et al*. (2018) based on differences in genitalia, although without illustration. The genitalia of the 2 taxa were illustrated in László *et al*. (2007: figs 154, 155). Marked differences in cornuti of males and ductus bursae of females support the treatment above.
Distribution. Zhao (2004) stated *Hab. albipuncta albipuncta* in Taiwan and China (Fujian, Wuyishan), László *et al*. (2007) regarded this taxon is endemic to Taiwan.

Habrosyne indica formosana Werny, 1966
Habrosyne indica formosana: Hsu & Hsu, 2017: 116, figs.

Habrosyne pterographa (Poujade, 1887)

Horipsestis mushana mushana (Matsumura, 1931)
Horipsestis mushana: Fu & Tzuoo, 2004: 51, pl. 39: 22.

Horithyatira decorata takamukui (Matsumura, 1921)

Tethea consimilis c-album (Matsumura, 1931)

Tethea oberthueri taiwana (Matsumura, 1931)

Thyatira batis formosicola Matsumura, 1933
Thyatira batis formosicola: Hsu & Hsu, 2017: 117, figs.

Nothoploca endoi Yoshimoto, 1983

Parapsestis argenteopicta taiwana (Wileman, 1911)
Parapsestis taiwana: Fu & Tzuoo, 2004: 51, pl. 39: 23. Chen, 2011: 102, figs.

Parapsestis tomponis tomponis (Matsumura, 1933)

Neotogaria saitonis saitonis Matsumura, 1931
Neotogaria saitonis: Fu & Tzuoo, 2004: 51, pl. 39: 24.

Psidopala pennata (Wileman, 1914)

Psidopala shirakii (Matsumura, 1931)

Macrothyatira arizana arizana (Wileman, 1910)

Macrothyatira flavida flavida(Butler, 1885)

Macrothyatira conspicua (Leech, 1900)
Thyatira conspicua Leech, 1900: 12.
Melanocraspes conspicua: Houlbert, 1921: 19, fig. 31.
Macrothyatira consipicua: Werny, 1966: 219, pl. 6, fig. 120, fig. 285; Yoshimoto, 1985: 75, fig. 2.
Note. Yoshimoto (1985) recorded *Mac. flavida flavida* and *Mac. conspicua* from Nantou County without providing exact locality, and speculated that only one specimen of *Mac. conspicua* had been obtained from the alpine region of Central Taiwan. Ronkay, G. *et al*. (2013a) listed *M. flavida flavida* in the list of the Hehuanshan region >2500 m a.s.l. based on Yoshimoto's (1985) record. Herein we

listed *Mac. conspicua*, and further investigations of this species in Taiwan are required.

Demopsestis formosana Yoshimoto, 1983

Wernya rufifasciata Yoshimoto, 1987

Takapsestis wilemaniella wilemaniella Matsumura, 1933

Epipsestis bilineata pallida Yoshimoto, 1984

Epipsestis cortigera Yoshimoto, 1995

Epipsestis dubia chengshinglini László & Ronkay, 1999

Epipsestis manmiaoyangi László & Ronkay, 1999

Epipsestis meilingchani László & Ronkay, 1999

Epipsestis nikkoensis (Matsumura, 1921)

Epipsestis nikkoens: Fu & Tzuoo, 2004: 49, pl. 39: 18, 19, misspelling.

Family URANIIDAE

Subfamily EPIPLEMINAE

Chundana emarginata (Hampson, 1891)

Dysaethria suisharyonis (Strand, 1916)

Epiplema arcuata Warren, 1896

Oroplema oyamana (Walker, 1866)

Orplema oyamana: Fu & Tzuoo, 2004: 57, pl. 40: 3, misspelling.

Pterotosoma castanea (Warren, 1896)

Family GEOMETRIDAE

Subfamily OENOCHROMINAE

Sarcinodes yeni Sommerer, 1996

Sarcinodes yeni: Shang & Hsu, 2015: 52, fig.

Sarcinodes carnearia Guenée, 1857

Subfamily GEOMETRINAE

Herochroma supraviridaria Inoue, 1999

Archaeobalbis viridaria: Chang, 1990: 16, figs; Wang, 1997: 30, figs, *nec* Moore, 1867 [1868].

Herochroma ochreipicta (Swinhoe, 1905)

Pingasa secreta Inoue, 1986

Pingasa alba alba Swinhoe, 1891

Pachyodes subtrita (Prout, 1914)

Lophophelma iterans onerosus (Inoue, 1970)

Lophophelma taiwana (Wileman, 1912)

Pachyodes taiwana: Fu & Tzuoo, 2002: 39, pl. 9: 18.

Dindica taiwana Wileman, 1914

Dindica kishidai Inoue, 1986

Metallolophia opalina (Warren, 1893)

Agathia magnificentia Inoue, 1978

Dooabia alia Yazaki, 1997

Dooabia lunifera: Chang, 1990a: 45, fig., Wang, 1997: 50, figs, *nec* Moore, 1888.

Chlorodontopera discospilata (Moore, 1867)

Chlorodontopera taiwana (Wileman, 1911) #

Episothalma taiwana Wileman, 1911a, *Entomologist* 44: 297.

Chlorodontopera taiwana: Prout, 1912 (1912-1916): 250; Chang, 1990a: 48, figs; Inoue, 1992b: 120; Wang, 1997: 52, figs; Parsons *et al*., 1999: 148.

Specimens examined. Taiwan. 2 males, Miaoli County, Guanwu, 2,000 m, 7. X. 2016, leg. H. Y. Huang & P. H. Chen (TFRI).

Note. The species can be frequently found in lower mountain range below 1,000 m. We provide 2 voucher specimens collected above 2,000 m.

Aracima serrata Wileman, 1911

Timandromorpha discolor (Warren, 1896)

Tanaorhinus formosana Okano, 1959

Tanaorhinus formosanus: Chen, 2011: 218, fig.

Tanaorhinus viridiluteata (Walker, 1861)

Tanaorhinus viridiluteatus: Chen, 2011: 218, figs.

Tanaorhinus kina flavinfra Inoue, 1978

Neohipparchus vallata (Butler, 1878)

Iotaphora admirabilis (Oberthür, 1884) # (Fig. 1h)

Metrocampa admirabilis Oberthür, 1883, *Bull. Soc. ent. Fr.* (6) 3: 84.

Comibaena subdelicata Inoue, 1985

Comibaena pictipennis pictipennis Butler, 1880

Comibaena pictipennis: Fu & Tzuoo, 2002: 40, pl. 10: 13; 33: 3. Chen, 2011: 216, figs.

Eucyclodes gavissima aphrodite (Prout, 1933)

Eucyclodes lalashana (Inoue, 1986)

Orothalassodes pervulgatus Inoue, 2005 # (Fig. 1i)

Orothalassodes pervulgatus Inoue, 2005, *Trans. lepid. Soc. Japan* 56 (4): 284, figs 5-6, 13, 18; Han & Xue, 2011: 32, figs 8, 27, 46, 63, 89; Han *et al*., 2019: 43.

Pelagodes proquadraria: Fu & Tzuoo,

2002: 41, pl. 10: 12, *nec* Inoue, 1976.

Pelagodes proquadrarius: Chen, 2011: 216, fig., *nec* Inoue, 1976.

Specimens examined. Taiwan. 1 male, Nantou County, Hueysun Forest, 9-10. X. 2004, leg. W. T. Yang, slide NMNS 4735-216 (NMNS); 3 males, Nantou County, Lianhuachi, 600 m, 8. XII. 2018, leg. S. Wu & L. C. Shih, slide TFRI167488 (TFRI); 1 male, Nantou County, Meifeng, 2,100 m, 20. VII. 2015, leg. S. Wu, slide TFRI178897 (TFRI); 1 male 1female, Ilan County, Cilan, 420 m, 4. V. 2018, S. Wu, (TFRI); 1 female, Ilan County, Fushan, 750 m, 12. V. 2015, leg. S. Wu & M, Owada, slide TFRI207437 (TFRI).

Distribution. Taiwan, the Philippines (Luzon), China (Hainan, Guangxi, Sichuan, Yunnan, Tibet), Vietnam, Thailand, NE India, Nepal, Pakistan (Han and Xue, 2011).

Jodis rantaizanensis (Wileman, 1916)

Maxates thetydaria (Guenée, 1857)

Maxates glaucaria (Walker, 1866)

Maxates sinuolata (Inoue, 1989)

Hemithea tritonaria (Walker, 1862 [1863])

Hemithea pallidimunda: Fu & Tzuoo, 2002: 41, pl. 10: 8, *nec* Inoue, 1986.

Chlorissa arcana Yazaki, 1993

Hemistola kezukai Inoue, 1978

Hemistola piceacola Chang & Wu, 2013

Hemistola fui Chang & Wu, 2013

Hemistola monotona Inoue, 1983

Hemistola taiwanensis Chang & Wu, 2013

Comostola ocellulata Prout, 1920

Comostola enodata Inoue, 1986

Comostola laesaria (Walker, 1861)

Comostola satoi Inoue, 1986 # (Fig. 1j)

Comostola satoi Inoue, 1986, *Bull. Fac. domest. Sci. Otsuma Wom. Univ*. 22: 222, figs 13B, 14B, 15B; Wang, 1997: 117, fig.

Comostola subtiliaria demeritaria: Fu & Tzuoo, 2002: 42, pl. 11: 3, *nec* Prout, 1917

Specimens examined: Taiwan. 3 females, Hualien County, Chin-ma Tunnel, 2,450 m, 7. VI. 2012, leg. S. Wu & W. C. Chang (TFRI).

Subfamily STERRHINAE

Rhodostrophia bisinuata wilemani Prout, 1938

Discoglypha locupletata Prout, 1917

Organopoda carnearia carnearia (Walker, 1861)

Organopoda carnearia : Chen, 2011: 212, figs; Yazaki & Wang, 2011: 86, pl. 14: 3.

Organopoda carnearia carnearia: Kaneko, 2011: 227, pl. 46: 13, 14; Cui *et al*., 2019a: 435, figs 1, 10, 18.

Distribution: According to Kaneko (2011) and Cui *et al*. (2019a), the nominate subspecies is distributed in Japan, Korean peninsula, Taiwan, China, the Philippines, India (part), Sri Lanka (type locality), Indonesia, the subspecies *himalaica* Prout, 1938 is distributed in NE India.

Timandra stueningi Cui, Xue & Jiang, 2019 # (Fig. 1k)

Timandra stueningi Cui, Xue & Jiang, 2019b, *ZooKeys* 829: 70, figs 19, 37, 60, 74.

Synegiodes ornata (Bastelberger, 1909)

Synegiodes histrionaria ornata: Fu & Tzuoo, 2002: 42, pl. 11: 9; Fu *et al.*, 2013o: 136, pl. 6: 36.

Synegiodes histrionarius ornatus: Chen, 2011: 214, figs.

Synegiodes ornata: Cui *et al.*, 2018: 264, figs 6-7, 19, 29, 39.

Distribution: Endemic to Taiwan (Cui *et al*., 2018).

Cyclophora intermixtaria intermixtaria (Swinhoe, 1892)

Cyclophora intermixtaria: Fu & Tzuoo, 2002: 42, pl. 11: 5.

Perixera absconditaria (Walker, 1862 [1863])

Anisodes absconditaria Walker, 1862 [1863], *List Spec. Lepid. Insects Colln. Br. Mus.* 26: 1580; Chang, 1990a: 139, figs; Inoue, 1992b: 123; Wang, 1997: 145, figs.

Perixera absconditaria: Holloway, 1997: 56, pl. 2: 17, 18, figs 140, 141; Parsons *et al*., 1999: 715; Chen, 2011: 212, figs; Fu & Tzuoo, 2002: 42, pl. 11: 15; Kaneko, 2011: 227, pl. 46: 15, 16; Jia & Yu, 2018: 87, figs.

Perixera absconditaria absconditaria: Fu *et al*., 2013q: 136, pl. 6: 37.

Note. Fu *et al*. (2013q) treated the Taiwanese population as the nominate subspecies (type locality: India); however, Holloway (1997) synonymized all

subspecific taxa. We follow the treatment applied by Holloway (1997).

Problepsis albidior matsumurai Prout, 1938

Problepsis albidior matsumurai: Prout, 1938 (1920-1941), *in* Seitz, *Macrolepid. World.* 12: 188; Hsu & Hsu, 2017: 59, figs.

Problepsis albidior: Cui *et al*., 2018: 103, figs 1, 31, 52, 73, 92.

Note. Xue *et al*. (2018) reviewed the Chinese and Taiwanese *Problepsis*; however, the taxon *Pro. albidior matsumurai* Prout, 1938 was omitted. Further studies are required to assess its status.

Distribution. According to Xue *et al*. (2018), the species is distributed in Taiwan, China (Gansu, Anhui, Zhejiang, Hubei, Hunan, Fujian, Guangdong, Hainan, Guangxi, Sichuan, Yunnan, Tibet), Japan, India, Indonesia.

Problepsis crassinotata Prout, 1917

Problepsis crassinotata Prout, 1917, *Novit. zool.*, 24: 310; Cui *et al*., 2018: 118, figs 18, 44, 65, 85, 102.

Distribution. Taiwan, China, India (Cui *et al*., 2018).

Traminda aventiaria (Guenée, 1857)

Traminda aventiaria: Hsu & Hsu, 2017: 77, figs; Jia & Yu, 2018: 85, figs.

Scopula kagiata (Bastelberger, 1909)

Scopula rantaizanensis (Wileman, 1915)

Ptychopoda rantaizanensis Wileman, 1915, *Entomologist* 48: 82.

Scopula rantaizanensis Wang, 1997: 173, figs; Parsons *et al*., 1999: 861; Fu & Tzuoo, 2002: 42, pl. 11: 16; Fu & Tzuoo, 2004: 168.

Scopula formosana Prout, 1934

Scopula moorei orientalis Prout, 1914, *Ent. Mitt*. 3 (7/8): 241, a junior secondary homonym of *Acidalia orientalis* Alphéraky, 1876.

Scopula formosana Prout, 1934 (1934-1935), *Lepid. Cat.* 63: 225, a replacement name for *orientalis* Prout, 1914; Chang, 1990a: 162, fig.; Wang, 1997: 181, figs; Parsons *et al*., 1999: 848; Fu & Tzuoo, 2002: 43, pl. 11: 13.

Scopula anatreces Prout, 1920

Scopula anatreces Prout, 1920, *Novit. zool*. 27: 287; Chang, 1990a: 161, figs; Wang, 1997: 182, figs; Parsons *et al*., 1999: 841; Fu & Tzuoo, 2002: 43, pl. 11: 14.

Scopula yamanei Inoue, 1978

Scopula yamanei Inoue, 1978, *Bull. Fac. domest. Sci. Otsuma Wom. Univ.* 14: 219, figs 30, 33; Chang, 1990a: 164, figs; Wang, 1997: 190, figs; Parsons *et al*., 1999: 868; Fu & Tzuoo, 2002: 43, pl. 11: 17.

Scopula punctatissima (Bastelberger, 1911) #

Acidalia punctatissima Bastelberger, 1911, *Entl. Rdsch.* 28 (3): 23.

Acidalia quadrimacula Wileman, 1915, *Entomologist* 48: 80.

Scopula punctatissima: Inoue, 1992b: 124; Wang, 1997: 183, figs; Parsons *et al*., 1999: 361.

Scopula sp. 1

Scopula personata: Fu *et al*., 2002: 42, pl. 11: 11, *nec* Prout, 1913

Scopula sp. 2

Scopul nigropunctata subcandidata: Fu *et al*., 2013o: 138, pl. 6: 42, *nec* Walker, 1862.

Idaea sugillata (Bastelberger, 1911)

Idaea taiwana (Wileman & South, 1917)

Lophophleps informis (Warren, 1897)

Strophoptila informis Warren, 1897, *Novit. zool.* 4: 225.

Ptychopoda sinuata Wileman & South, 1917, *Entomologist* 50: 57.

Sterrha informis sinuata: Inoue, 1965: 29.

Idaea informis: Inoue, 1992b: 124; Wang, 1997: 202, figs.

Lophophleps informis: Holloway, 1997: 95; Parsons *et al*., 1999: 556; Fu & Tzuoo, 2002: 43, pl. 11: 6.

Subfamily LARENTIINAE

Inurois fumosa (Inoue, [1944])

Inurois fumosa: Nakajima & Kobayashi, 2017: 67.

Docirava flavilinata Wileman, 1915

Acasis viretata himalayica Prout, 1958

Trichopteryx fusconotata Hashimoto, 1983

Trichopteryx fastuosa Inoue, 1958

Trichopteryx terranea (Bultler, 1878)

Trichopteryx fui Yazaki, 2002

Esakiopteryx venusta Yazaki, 1986

Trichopterigia rubripuncta Wileman, 1916

Trichopterigia kishidai Yazaki, 1987
Trichopterigia adorabilis Yazaki, 1987
Trichopterigia rufinotata (Butler, 1889)
Trichopterigia yoshimotoi Yazaki, 1987
Trichopterigia sanguinipunctata (Warren, 1893)
Trichopterigia nivocellata (Bastelberger, 1911)
Trichopterigia yazakii Wu, Fu & Nakajima, 2014 # (Fig. 1l)
Trichopterigia yazakii Wu, Fu & Nakajima, 2014, *Tinea* 22 (5): 293, figs 1-5.
Specimen examined. Taiwan. 1 female, Nantou County, Rayyen, 2,184 m, 20. XII. 2018, leg. C. H. Wang & W. C. Liao (ESRI).
Distribution: Endemic to Taiwan (Wu *et al*., 2014).
Archaeocasis micradelpha (Prout, 1958)
Brabira artemidora pallida Moore, 1888
Brabira artemidora: Fu & Tzuoo, 2004: 170, pl. 11: 19, *nec* Oberthür, 1884.
Brabira costimacula Wileman, 1915
Tristeirometa decussata moltrechti (Prout, 1958)
Hypocometa clauda Warren, 1896
Pseudocollix hyperythra catalalia (Prout, 1958)
Epilobophora venipicta (Wileman, 1914)
Naxidia punctata (Butler, 1880)
Carige scutilimbata Prout, 1936 # (Fig. 2a)
Carige scutilimbata Prout, 1936, *in* Seitz , *Macrolepid. World.* 4 (Suppl.): 94, pl. 9: g; Chang, 1990a: 202, figs; Inoue, 1992b: 125; Wang, 1997: 227, figs; Parsons *et al*., 1999: 106.
Specimens examined. Taiwan. 1 male, Miaoli County, Guanwu, 2,000 m, 25. VI. 2016, leg. H. Y. Huang & P. H. Chen (TFRI); 1 male, same collecting locality, 7. IX. 2016, leg. H. Y. Huang & P. H. Chen (TFRI).
Lobogonia aculeata Wileman, 1911
Lobogonia formosana (Bastelberger, 1909)
Lobogonia sphagnata Bastelberger, 1911
Heterophleps variegata (Wileman, 1911)
Heterophleps taiwana (Wileman, 1911)
Hastina subfalcaria caeruleolineata Moore, 1888
Tyloptera bella ogatai (Inoue, 1966)
Phthonoloba viridifasciata (Inoue, 1963)
Xanthorhoe saturata (Guenée, 1857)
Xanthorhoe mediofascia (Wileman, 1915)
Xanthorhoe cybele Prout, 1931
Xanthorhoe curcumata (Moore, 1888)
Xanthorhoe taiwana (Wileman, 1914)
Piercia viridiplana (Bastelberger, 1911)
Piercia yui Inoue, 1970
Amoebotricha hiemalis Inoue, 1989
Protonebula altera (Bastelberger, 1911)
Protonebula egregia Inoue, 1986
Electrophaes moltrechti Prout, 1940
Electrophaes zaphenges Prout, 1940
Electrophaes taiwana Inoue, 1986
Gonanticlea ochreivittata (Bastelberger, 1909)
Gonanticlea subfalcata Wileman, 1914
Idiotephria nakatomii Inoue, 1978
Triphosa lugens Bastelberger, 1909
Triphosa praesumtiosa Prout, 1941
Triphosa rantaizanensis Wileman, 1916
Triphosa rubrifusa Bastelberger, 1909
Triphosa rotundata Inoue, 2004
Triphosa atrifascia Inoue, 2004
Triphosa sericata sericata (Butler, 1879)
Triphosa umbraria (Leech, 1891)
Triphosa taiwana Wu & Chang, 2013
Trichoplites ingressa Prout, 1939
Trichoplites albimaculosa Inoue, 1978
Rheumaptera nengkaoensis Inoue, 1986
Rheumaptera albofasciata Inoue, 1986
Rheumaptera affinis Xue & Meng, 1992
Rheumaptera marmoraria (Leech, 1897)
Photoscotosia miniosata (Walker, 1862)
Photoscotosia insularis Bastelberger, 1909
Photoscotosia atrostrigata (Bremer, 1864)
Telenomeuta punctimarginaria (Leech, 1891)
Hysterura protagma agaura Prout, 1940
Callabraxas fabiolaria candida (Inoue, 1989)
Chartographa fabiolaria candida Inoue, 1989, *Tinea* 12 (19): 178, fig. 1c; Chang, 1990a: 224, figs; Inoue, 1992b: 126; Wang, 1997: 284, figs; Xue & Zhu, 1999: 479, pl. 13: 19, figs 562, 569; Parsons *et al*., 1999: 123; Fu & Tzuoo, 2002: 58, pl. 14: 14; Fu *et al*., 2013o: 123, pl. 6: 1.
Callabraxas fabiolaria candida: Choi, 2001: 33, fig 1: 12.
Distribution. China, Korea (ssp.

fabiolaria Oberthür, 1884); Taiwan (ssp. *candida* Inoue).

Gandaritis octoscripta (Wileman, 1912) # (Fig. 2b)

Obeidia octoscripta Wileman, 1912a, *Entomologist* 45: 169.

Eucosmabraxas octoscripta: Prout, 1937 (1934-1939): 107; Inoue, 1992b: 126; Wang, 1997: 281, fig.; Xue & Zhu, 1999: 543; Parsons *et al*., 1999: 307.

Euryobeidia largeteaui: Chang, 1990b: 42, figs, misidentification.

Gandaritis octoscripta: Choi, 2001: 31, fig. 1: 8; Stüning & Fu, 2019: 179, figs 5-9, 35, 41.

Distribution. Endemic to Taiwan.

Gandaritis whitelyi (Butler, 1878) # (Figs 2c; 10a)

Abraxas whitelyi Butler, 1878b, *Ill. Typical Specimens Lepid. Het. Colln. Br. Mus.*, 2: 52, pl. 37: 4; Herz, 1905: 353.

Calleulype whitelyi: Inoue, 1946: 32.

Cidaria whitelyi: Doi, 1938: 6.

Calleulype whitelyi whitelyi: Xue & Zhu, 1999: 467, pl. 13: 14.

Gandaritis whitelyi whitelyi: Nakajima & Yazaki, 2011: 269, pl. -57: -33, 34.

Calleulype whitelyi leechi Bryk, 1949, *Ark. Zool.*, 41(A) 1: 169.

Gandaritis whitelyi leechi: Nakajima & Yazaki, 2011: 269, pl. -57: -31, 32.

Gandaritis whitelyi: Choi, 2001: 31; Choi, 2012a: 62, figs 44, 124, 204, 283; Stüning & Fu, 2019: 182, figs 27, 28, 37.

Specimen examined. Taiwan. 1 female, Kaohsiung County, Taoyuan, Tianchi, 2,350 m, 1. VI. 2016, leg. C. M. Fu & W. H. Cheng (CCMF).

Note. There is no consistency in the separation of different populations into 2 biogeographic subspecies. Recently, Nakajima and Yazaki (2011) retained the populations outside Hokkaido as subspecies *leechi*. Choi (2012a) did not follow the separation. The single female specimen obtained from Taiwan has fewer dark patches on both wings than specimens from Hokkaido and other localities but there is no difference in genitalia compared with the Korean specimen illustrated in Choi (2012a). We tentatively identify it as *Gan. Whitelyi* before more material are obtained.

Distribution. Korea, Japan, Russian Far East (Choi, 2012a); China (Xue & Zhu, 1999); Taiwan (new record).

Lampropteryx synthetica Prout, 1922

Lampropteryx nishizawai Sato, 1990

Lampropteryx argentilineata nitidaria (Leech, 1897)

Lampropteryx chalybearia (Moore, 1867 [1868])

Evecliptopera illitata acreta (Prout, 1940)

Cidaria illitata Wileman, 1911b, *Trans. Ent. Soc. Lond.* 1911: 324, pl. 31: 9.

Ecliptopera excurrens Prout, 1930, *Novit. zool.* 35: 302.

Ecliptopera insurgens Prout, 1930, *Novit. zool.* 35: 302.

Ecliptopera decurrens acreta Prout, 1940, *in* Seitz, *Gross-Schmett. Erde* 12: 303.

Evecliptopera decurrens acreta: Inoue, 1982, 1: 484, 2: 281, pl. 72: 6, 7; Chang, 1990a: 256, fig.; Inoue, 1992b: 127; Wang, 1997: 292, figs; Xue & Zhu, 1999: 645, pl. 17: 31, figs 775-776; Parsons *et al.*, 1999: 387; Fu & Tzuoo, 2002: 58, pl. 14: 5; Fu *et al.*, 2013o: 125, pl. 6: 11.

Evecliptopera illitata acreta: Choi, 2001: 30; Nakajima & Yazaki, 2011: 273, pl. 59: 4, -5; Choi, 2012: 46, figs. 31, 111, 191, 270.

Note. Prout (1940) described the Taiwanese taxon as *Ecliptopera decurrens acreta*. Choi (2001: 30) upgraded *Cidaria illitata* Wileman, 1911 to full specific status and placed *acreta* at the subspecific level and as endemic to Taiwan. Distribution. The nominate subspecies is distributed in Japan, Korea, and Russia Far East, whereas the subspecies *acreta* in only distributed in Taiwan.

Ecliptopera benigna (Prout, 1940)

Ecliptopera recordans Prout, 1940

Ecliptopera umbrosaria stathera Prout, 1940

Ecliptopera umbrosaria stathera: Hsu & Hsu, 2017: 74, figs.

Ecliptopera dimita dimita (Prout, 1938)

Ecliptopera delecta (Butler, 1880)

Ecliptopera muscicolor allobathra Prout,

1931

Ecliptopera fervidaria (Leech, 1897)

Eustroma changi Inoue, 1986

Eustroma contortum (Warren, 1900)

Eustroma contorta: Chen, 2011: 206, figs.

Eustroma melancholica interrupta (Wileman, 1911)

Lobogonodes taiwana (Wileman & South, 1917)

Lobogonodes permarmorata (Bastelberger, 1909)

Lobogonodes shiushioui Wu & Chang, 2018 # (Figs 2d; 10b)

Lobogonodes shiushioui Wu & Chang, 2018, *Zootaxa* 4433 (3): 436, figs 3, 4, 17, 25, 40; Huang, 2018: 158, fig.

Specimens examined. 1 female, Taitung County, Xiangyang, 2,320 m, 4. VIII. 2015, leg. C. M. Fu & W. H. Cheng (CCMF); 1 female, Kaohsiung, Taoyuan, Kuaigu, 2,487 m, 26. VIII. 2014, leg., leg. C. M. Fu & W. H. Cheng (CCMF).

Note. The female and its genitalia are recorded first in the present study.

Sibatania arizana arizana (Wileman, 1911)

Cidaria arizana Wileman, 1911a, *Entomologist* 44: 61.

Cidaria mactata: Bastelberger, 1909a: 169, *nec* C. & R. Felder, 1875

Sibatania mactata arizana: Prout, 1958: 426.

Sibatania arizana: Inoue, 1977; Hsu & Hsu, 2017: 75, figs; Fu & Tzuoo, 2002: 59, pl. 14: 10.

Sibatania arizana arizana: Hiramatsu, 1978: 139, figs 2, 4-6; Chang, 1990a: 257, figs; Wang, 1997: 308, figs; Xue and Zhu, 1999: 643.

Distribution. The nominate subspecies is distributed in Taiwan; the subspecies *fluctigena* Hiramatsu, 1978 is distributed in Japan (Ryukyu Islands); the subspecies *placata* (Prout, 1929) is distributed in China (Xue and Zhu, 1999).

Dysstroma cinereata cinereata (Moore, 1867 [1868])

Dysstroma cinereata: Fu & Tzuoo, 2002: 59, pl. 14: 15; Fu & Tzuoo, 2004: 183.

Dysstroma fumata (Bastelberger, 1911)

Dysstroma calamistrata scalata (Bastelberger, 1911)

Dysstroma sikkimensis Heydemann, 1932

Dysstroma dentifera (Warren, 1896)

Pennithera fuliginosa Yazaki, 2002

Pennithera subcomis (Inoue, 1978)

Pennithera manifesta Inoue, 1986

Pennithera lugubris Inoue, 1986

Pennithera subalpina Inoue, 1986

Heterothera incerta (Inoue, 1986)

Heterothera sororcula (Bastelberger, 1909)

Xenortholitha corioidea (Bastelberger, 1911)

Xenortholitha latifusata latifusata (Walker, 1862)

Operophtera brunnea Nakajima, 1991

Operophtera brunnea: Nakajima & Kobayashi, 2017: 68.

Epirrita faenaria (Bastelberger, 1911)

Palaeomystis falcataria (Moore, 1867 [1868]) # (Figs 2e; 9g; 10d)

Ourapteryx falcataria Moore, 1867 [1868], *Proc. Zool. Soc. Lond.*, 1867 (3): 613.

Metrocampa unio Oberthür, 1886, *Études ent.*, 11: 32, pl. 6: 43.

Palaeomystis falcataria: Shin, 1983: 194; Choi, 2012b: 45, figs 33, 82, 130, 177.

Specimens examined. Taiwan. 1 female, Nantou County, Shanlinxi, 1,600 m, 29. VI. 2015, leg. C. M. Fu & W. H. Chang (CCMF); 1 male, Xitou, 1,050 m, 19. X. 2019, leg. S. Wu, slide TFRI209050 (TFRI); 1 female, Kaohsiung, Tengchih, 2,000-2,200 m, 17-18. X. 2002, leg. M. Owada & C. I. Li, slide NSMT-SW432 (NSMT); 1 male, Kaohisung, Tianchi, 2,280 m, 6. IX. 2016, leg. C. M. Fu & W. H. Chang (CCMF); China. 1 male, 1 female, Sichuan, Jiajingshan, 2,612 m, 30. VI. 2017, leg. S. Wu (IZCAS).

Note. The genitalia of individuals from Korea (Choi, 2012b: figs 82, 130, 177), China (Sichuan), and Taiwan have no differences. Herein, we record the species as new in the Taiwanese fauna.

Distribution. India (type locality), China, Japan; Taiwan (new record).

Apithecia viridata wilemani Prout, 1931

Atopophysa opulens Prout, 1914

Atopophysa indistincta: Chang, 1990a: 281, figs, *nec* Butler, 1889

Atopophysa opulens Prout, 1914, *Ent. Mitt.*, 3 (7/8): 247; Wang, 1997: 324, figs;

Fu & Tzuoo, 2002: 47, pl. 12: 28; Fu *et al*., 2013o: 80, pl. 3: 51.

Atopophysa candidula Inoue, 1986

Atopophysa candidula Inoue, 1986, *Bull. Fac. domest. Sci. Otsuma Wom. Univ*. 22: 241, figs 36, 37; Inoue, 1992b: 127; Wang, 1997: 325, fig.; Xue & Zhu, 1999: 768, fig. 938, pl. 20: 27; Parsons *et al*., 1999: 76; Fu *et al*., 2013o: 80, pl. 3: 52.

Venusia lineata Wileman, 1916

Venusia megaspilata (Warren, 1895) # (Figs 2f; 9a; 10c)

Discoloxia megaspilata Warren, 1895, *Novit. Zool.* 2: 105.

Venusia megaspilata: Parsons *et al*., 1999: 957; Choi, 2002: 57, figs 1, 3, 4; Nakajima & Yazaki, 2011: 282, pl. -62: -15, 16; Choi, 2012b: 56, figs 43, 92, 140, 186.

Specimen examined. Taiwan. 1 male, Nantou County, Tatajia, 2,350 m, 15. II. 2018, leg. B. Benedek (HNHM)

Distribution. Japan and Korea (Choi, 2012b); Taiwan (new record).

Note. The appearance and male genitalia of the Taiwanese specimens and that illustrated in Choi (2002, 2012b) have no remarkable difference.

Hydrelia bicolorata (Moore, 1867 [1868])

Hydrelia arizana (Wileman, 1911)

Hydrelia rubrivena Wileman, 1911

Hydrelia ulula Bastelberger, 1911

Hydrelia bicauliata Prout, 1914

Laciniodes umbrosus Inoue, 1983

Palpoctenidia phoenicosoma semilauta Prout, 1939

Phoenissa brephos albofascia Inoue, 1970

Chalyboclydon marginata Warren, 1893

Asthena melanosticta Wehrli, 1924

Acolutha pictaria imbecilla Warren, 1905

Perizoma costata (Wileman, 1911)

Martania albofasciata Moore, 1888

Perizoma rantaizanensis: Fu & Tzuoo, 2002: 55, pl. 13: 16.

Martania seriata (Moore, 1888)

Martania taiwana (Wileman, 1911)

Perizoma simulatum: Fu & Tzuoo, 2002: 55, pl. 13: 15.

Martania denigrata Inoue, 2004

Martania sugii (Inoue, 1998)

Martania obscurata (Bastelberger, 1909)

Gagitodes omnifasciaria (Inoue, 1998)

Perizoma omnifasciaria: Fu & Tzuoo, 2002: 56, pl. 13: 19; 32: 4.

Calluga costalis Moore, 1887

Chloroclystis blanda (Bastelberger, 1911)

Chloroclystis rubroviridis (Warren, 1896)

Syncosmia patinata (Warren, 1897)

Pasiphila palpata (Walker, 1862)

Mnesiloba dentifascia (Hampson, 1891)

Ziridava kanshireiensis Prout, 1958

Melanthia catenaria mesozona Prout, 1939

Melanthia procellata szechuanensis (Wehrili, 1941)

Horisme macularia (Leech, 1897)

Eupithecia albigutta Prout, 1958

Eupithecia lini Mironov & Galsworthy, 2007

Eupithecia blandula Mironov & Galsworthy, 2007

Eupithecia blandula Mironov & Galsworthy, 2007, *Trans. lepid. Soc. Japan* 58 (3): 347, figs 4, 18, 21; Mironov & Galsworthy, 2013: 199, pl. 6: 133, male fig. 133, female fig. 133.

Eupithecia toshimai: Inoue, 1988: 354; Inoue, 1992b: 129; *nec* Inoue, 1980.

Eupithecia ryukyuensis: Inoue, 1988: 354; Inoue, 1992b: 129, *nec* Inoue, 1971.

Note. The species *Eupithecia toshimai* Inoue, 1980 (type locality: Japan) was first recorded in Taiwan by Inoue (1988). According to Inoue (2000), the species *Eup. toshimai* "from Japan and Taiwan" should be a junior synonym of *Eup. Tenuisquama* Warren, 1896 (type locality: Darjeeling), which was adopted by Nakajima and Yazaki (2011: 303). Subsequently, Taiwanese *toshimai* sensu Inoue (1988) and *tenuisquama* sensu Inoue (2000) were considered misidentifications and described as species endemic to Taiwan, i.e. *Eup. blandula*. The image of non-Taiwanese, NHMUK specimen of "*Eup. toshimai*" in Fu *et al*. (2013o: 77, pl. 3: 31) was requested by the second author in the present study, and was provided by Sir Anthony Galsworthy. The specimen image captioned "*Eupithecia toshimai* Inoue" in Chang (1990a: 310) should be a misidentification based on the wing

pattern. Whether the correct *Eup. tenuisquama* is distributed in Taiwan requires further investigation.

Eupithecia megaproterva Inoue, 1988

Eupithecia clavifera Inoue, 1955

Eupithecia convexa Inoue, 1988

Eupithecia hashimotoi Inoue, 1988

Eupithecia acutipapillata Inoue, 1988

Eupithecia yoshimotoi Inoue, 1988

Eupithecia interpunctaria Inoue, 1979

Eupithecia nuceistrigata Bastelberger, 1911

Eupithecia flexicornuta Inoue, 1988

Eupithecia taiwana Wileman & South, 1917

Eupithecia assulata Bastelberger, 1911

Eupithecia alishana Inoue, 1970

Eupithecia quadripunctata Warren, 1888

Eupithecia dolichoptera Galsworthy & Mironov, 2013

Eupithecia longipennata Inoue, 1988a, *Bull. Fac. domest. Sci. Otsuma Wom. Univ.* 24: 354, figs 19a-d; Inoue, 1992b: 129; Wang, 1997: 373, fig.; Parsons *et al*., 1999: 352; Fu & Tzuoo, 2002: 45, pl. 12: 9; Mironov & Galsworthy, 2007: 356, figs 8, 26, 26a; Fu *et al*., 2013o: 77, pl. 3: 32, junior secondary homonym of *Eucymatoge longipennata* Warren, 1904

Eupithecia dolichoptera Galsworthy & Mironov, 2013: 164, pl. 5: 105, male fig. 105, female fig. 105.

Distribution. Endemic to Taiwan.

Eupithecia daemionata Dietze, 1903

Eupithecia kudoi Inoue, 1983

Eupithecia exrubicunda Inoue, 1988

Eupithecia karapinensis Wileman & South, 1917

Eupithecia masculina Inoue, 1988

Eupithecia stataria Inoue, 1988

Eupithecia astricta Inoue, 1988

Eupithecia costimacularia Leech, 1897

Eupithecia flavoapicaria Inoue, 1979

Eupithecia mantissa: Fu & Tzuoo, 2002: 45, pl. 12: 3.

Eupithecia aritai Inoue, 1977 #

Eupithecia aritai Inoue, 1977, *Bull. Fac. domest. Sci. Otsuma Wom. Univ.* 13: 321, fig. 44; Mironov & Galsworthy, 2013: 90, pl. 2: 52, male fig. 52, female fig. 52.

Note. It was recorded for the first time from Taiwan by Mironov & Galsworthy (2013).

Distribution. Japan, Taiwan (Mironov & Galsworthy, 2013).

Eupithecia robiginascens flexicornuta Inoue, 1988 # (Fig. 2g)

Eupithecia flexicornuta Inoue, 1988a, *Bull. Fac. domest. Sci. Otsuma Wom. Univ.* 24: 345, figs 15a-f; Chang, 1990a: 306, fig.; Inoue, 1992b: 128; Wang, 1997: 368, fig.; Parsons *et al*., 1999: 342; Mironov & Galsworthy, 2007: 362.

Eupithecia robiginascens flexicornuta: Mironov & Galsworthy, 2013: 277, pl. 8: 186a, male fig. 185, female fig. 185.

Distribution. India, Nepal, Bhutan, Myanmar, China (ssp. *robiginascens* Prout, 1926); Taiwan (ssp. *flexicornuta*).

Eupithecia luctuosa Mironov & Galsworthy, 2004 #

Eupithecia luctuosa Mironov & Galsworthy, 2004, *Trans. Lipid. Soc. Japan* 55 (1): 53, figs 10, 28, 29; Mironov & Galsworthy, 2013: 277, pl. 8: 187, male fig. 187, female fig. 187.

Note. It was recorded for the first time from Taiwan by Mironov & Galsworthy (2013).

Distribution. China (Fujian), Taiwan.

Eupithecia likiangi pedisequa Mironov & Galsworthy, 2013 #

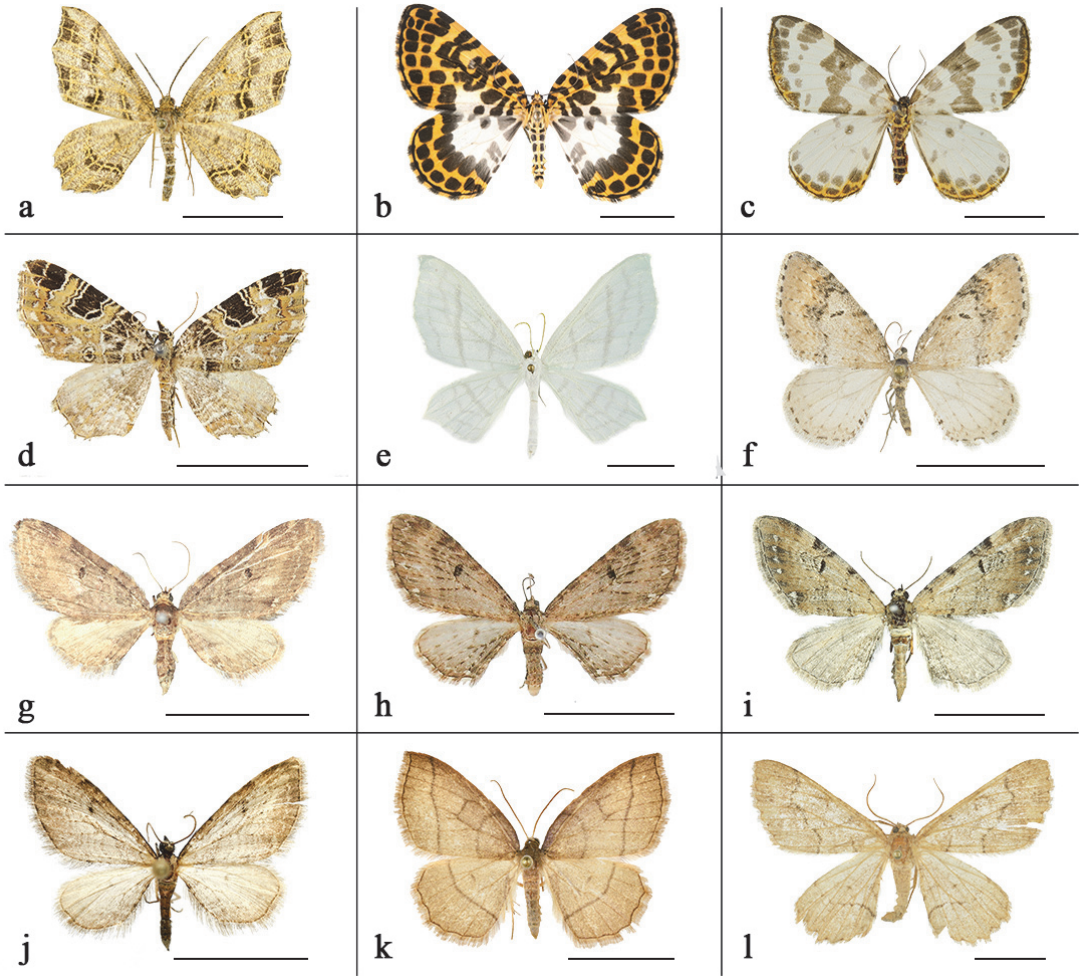
Eupithecia likiangi pedisequa Mironov & Galsworthy, 2013, *The Eupithecia of China*: 41, pl. 1: 17a, male fig. 17a, female fig. 17a.

Note. The type series were collected from Meifeng, ca. 2,300 m.

Distribution. Nepal, India, China (ssp. *likiangi* Vojnits, 1976); Taiwan (ssp. *pedisequa*) (Mironov & Galsworthy, 2013).

Eupithecia kuroshio Inoue, 1980 #

Eupithecia kuroshio Inoue, 1980, *Bull. Fac. domest. Sci. Otsuma Wom. Univ.* 16: 178, figs 46a, 47r,s, 48a, 49f, 53e, 59b; Inoue, 1988: 354; Chang, 1990: 311, fig.; Inoue, 1992b: 129; Wang, 1997: 372, fig.; Parsons *et al*., 1999: 350; Mironov & Galsworthy, 2007: 362; Nakajima & Yazaki, 2011: 303, pl. 65: 43, 44; Mironov & Galsworthy, 2013, *The Eupithecia of China*: 51, pl. 1: 24, male fig. 24, female fig. 24.



圖二　臺灣產大異角類。a. *Carige scutilimbata* Prout, 1936 ♂；b. *Gandaritis octoscripta* (Wileman, 1912) ♀；c. *Gandaritis whitelyi* (Butler, 1878) ♀；d. *Lobogonodes shiushioui* Wu & Chang, 2018 ♀；e. *Palaeomystis falcataria* (Moore, 1868) ♂；f. *Venusia megaspilata* (Warren, 1895) ♂；g. *Eupithecia robiginascens flexicornuta* Inoue, 1988 ♀；h. *Eup. concava* Mironov & Galsworthy, 2007 ♀；i. *Eup. pellicata* Mironov & Galsworthy, 2007 ♀；j. *Eup. chui* Inoue, 1970 ♀；k. *Pseudepione nakajimai* Wu, 2018 ♂，正模；l. *Paradarisa hehuana* László & Stüning, 2015 ♂。館藏出處：林業試驗所昆蟲標本館 (a、b、e、l)；傅建明收藏 (c、d、g-i)；匈牙利自然史博物館 (f)；自然科學博物館，筑波 (j)；中央研究院動物標本館 (k)。比例尺=10 mm。拍攝：吳士緯 (a-f、j-l)；傅建明 (g-i)。

Fig. 2.　Macroheterocera of Taiwan. a. *Carige scutilimbata* Prout, 1936 ♂; b. *Gandaritis octoscripta* (Wileman, 1912) ♀; c. *Gandaritis whitelyi* (Butler, 1878) ♀; d. *Lobogonodes shiushioui* Wu & Chang, 2018 ♀; e. *Palaeomystis falcataria* (Moore, 1868) ♂; f. *Venusia megaspilata* (Warren, 1895) ♂; g. *Eupithecia robiginascens flexicornuta* Inoue, 1988 ♀; h. *Eup. concava* Mironov & Galsworthy, 2007 ♀; i. *Eup. pellicata* Mironov & Galsworthy, 2007 ♀; j. *Eup. chui* Inoue, 1970 ♀; k. *Pseudepione nakajimai* Wu, 2018 ♂, holotype; l. *Paradarisa hehuana* László & Stüning, 2015 ♂. Sources of specimens: TFRI (a, b, e, l); CCMF (c, d, g-i); HNHM (f); NSMT (j); ASIZ (k). Scale bar = 10 mm. Photograph by Shipher Wu (a-f, j-l); Chien-Ming Fu (g-i).

Note. The species is on the wing in sp ring. It was recorded for the first time from Taiwan in Inoue (1988). One of the recorded localities in Inoue (1988) is Lishan, central Taiwan (ca. 2,000 m).

Distribution. Japan, Taiwan.

Eupithecia concava Mironov & Galsworthy, 2007 # (Fig. 2h)

Eupithecia concava Mironov & Galsworthy, 2007, *Trans. lepid. Soc. Japan* 58 (3): 342, figs 1, 13, 20; Mironov & Galsworthy, 2013: 88, pl. 2: 51, male fig. 51, female fig. 51.

Note. The species is on the wing in late winter to mid spring. Mironov and Galsworthy (2013) recorded this species above 2,000 m in Meifeng (ca. 2,150 m), central Taiwan.

Eupithecia pellicata Mironov & Galsworthy, 2007 # (Fig. 2i)

Eupithecia pellicata Mironov & Galsworthy, 2007, *Trans. lepid. Soc. Japan* 58 (3): 354, figs 7, 17; Mironov & Galsworthy, 2013: 239, pl. 7: 161, male fig. 161.

Note. The holotype locality is Meifeng (ca. 2,150 m), central Taiwan.

Distribution. Taiwan.

Eupithecia yazakii Inoue, 1988 #

Eupithecia yazakii Inoue, 1988, *Bull. Fac. domest. Sci. Otsuma Wom. Univ.* 24: 343, figs 13a-e; Inoue, 1992b: 128; Wang, 1997: 366, fig.; Parsons *et al*., 1999: 378; Mironov & Galsworthy, 2007: 362; Mironov & Galsworthy, 2013: 302, pl. 8: 206, male fig. 206.

Note. The known specimen localities include Alishan (ca. 2,200 m) and Meifeng (ca. 2,150 m).

Distribution. Taiwan.

Eupithecia chui Inoue, 1970 # (Fig. 2j)

Eupithecia chui Inoue, 1970, *Bull. Fac. domest. Sci. Otsuma Wom. Univ.* 6: 3, pl. 1: 3, 4; pl. 2: 14, 15; pl. 3: 19-22; Inoue, 1988: 360, figs 23a-e; Inoue, 1992b: 129; Wang, 1997: 374, fig.; Parsons *et al*., 1999: 335; Mironov & Galsworthy, 2007: 361; Mironov & Galsworthy, 2013: 423, pl. 12: 283, male fig 283, female fig. 283.

Note. The locality, Alishan (ca. 2,150 m) represents the only occurrence region in the references.

Distribution. Taiwan.

Eupithecia nishizawai Inoue, 1988 #

Eupithecia nishizawai Inoue, 1988, *Bull. Fac. domest. Sci. Otsuma Wom. Univ.* 24: 364, figs 24a-e; Inoue, 1992b: 129; Wang, 1997: 376, fig.; Parsons *et al*., 1999: 357; Mironov & Galsworthy, 2007: 358, fig. 27; Mironov & Galsworthy, 2013: 426, pl. 12: 286, male fig 286, female fig. 286.

Note. The species is on the wing from early August to late September. All specimens examined in the references are observed from 3,000-3,500 m a.s.l.

Distribution. Taiwan.

Mesoptila melanolopha (Swinhoe, 1895)

Eupithecia melanolopha: Fu & Tzuoo, 2002: 46, pl. 12: 5.

Subfamily ENNOMINAE

Naxa textilis Walker, 1856

Naxa textiles: Chen, 2011: 182, fig., misspelling

Note. We place this taxa in subfamily Ennominae rather than Orthostixinae according to Sihvonen *et al.* (2011).

Pseudepione nakajimai Wu, 2018 # (Fig. 2k)

Pseudepione nakajimai Wu, 2018b, *Zootaxa* 4486 (1): 96, figs 1, 2, 7, 10.

Paracalicha psittacata (Bastelberger, 1909)

Satoblephara owadai (Inoue, 1978)

Agriopis dira (Butler, 1878)

Agriopis dira: Nakajima & Kobayashi, 2017: 56.

Erannis golda Djakonov, 1929

Erannis golda: Nakajima & Kobayashi, 2017: 57.

Larerannis montana Nakajima, Wu & Chang, 2013

Phigalia verecundaria (Leech, 1897)

Phigalia verecundaria: Nakajima & Kobayashi, 2017: 59.

Rhynchobapta eburnivena (Warren, 1896)

Heterosteganiа lunulosa (Moore, 1888)

Menophra nakajimai Sato, 1984

Cryptochorina polychroia (Wehrli, 1941)

Psyra matsumurai Bastelberger, 1909 **stat. rev.** (Fig. 10e)

Psyra matsumurai Bastelberger, 1909b, *Ent. Z., Frankf. a. M.* 23 (8): 39; Chang, 1990b: 428, figs.

Psyra cuneata matsumurai: Inoue, 1992b: 117; Wang, 1998: 297, figs; Parsons *et al*., 1999: 806; Chen, 2011: 166, figs; Fu & Tzuoo, 2002: 34, pl. 8: 14; Liu *et al*. 2013: 465, figs 8, 56; Fu *et al*., 2013e: 203, pl. 16: 2.

Specimens examined: Taiwan. 1 male, Taichung County, Jiayang, 11. XII. 1989, leg. Y. B. Fan (TFRI); 1 male, Xiaoxueshan, 15. X. 1960, leg. Y. Z. Zhang (TFRI); 1 male, Nantou County, Biluxi, 29. XI. 1986, leg. Y. B. Fan, slide TFRI19357 (TFRI); 1 female, Nantou County, Dongpu Lodge, 2,560 m, 6. VII. 2011, leg. S. Wu & W. C. Chang (TFRI); 1 female, Meifeng, 13. VII. 1991, leg. Y. B. Fan (TFRI); 1 female, Nantou County, Xitou, 27. I. 2002, J. T. Chao (TFRI); 1 female, Chiayi County, Alishan, 24. III.

1993, leg. Y. B. Fan, slide TFRI19235 (TFRI).

Note. The present study illustrated the genitalia of the Taiwanese specimens and the Taiwanese taxon is different from *Psy. cuneata* Walker, 1860 (type locality: India, North Hindostan; see Liu *et al*., 2013: Figs 6, 7, 28, 42, 55, and 66) based on the lack of a hindwing medial band; a hooked valval apex rather than a digitiform apex, an anteriorly inflated ductus bursae rather than a slender one; therefore, we treat the taxon as a bona species.

Psyra conferta Inoue, 1983

Psyra conferta Inoue, 1983, *Tinea* 11 (16): 153, figs 22a, b, 23, 24; Liu *et al*., 2013: 466, figs 14, 32, 45, 59.

Psyra spurcataria (Walker, 1862 [1863])

Psyra spurcataria Walker, 1862 [1863], *List Specimens lepid. Insects Colln Brit. Mus.*, 26: 1498; Liu *et al*., 2013: 469, figs 18-19, 36, 49, 62, 71, 73.

Zethenia florida Bastelberger, 1911, *Ent. Rdsch*. 28: 22.

Proteostrenia eumimeta Wehrli, 1936

Orthobrachia simpliciata Yazaki, 2002

Loxaspilates arrizanaria Bastelberger, 1909

Loxaspilates densihastigera Inoue, 1983

Loxaspilates montuosa Inoue, 1983

Loxaspilates nakajimai Inoue, 1983

Loxaspilates biformata Inoue, 1983

Tanaoctenia haliaria (Walker, 1861)

Nothomiza flavicosta Prout, 1914

Nothomiza flavicosta: Hsu & Hsu, 2017: 86, figs.

Aplochlora viridis Warren, 1893

Aplochlora costipicta (Wileman, 1915)

Abraxas consputa Bastelberger, 1909

Abraxas placata Inoue, 1984

Abraxas antinebulosa Inoue, 1984

Abraxas wilemani Inoue, 1984

Abraxas fletcheri: Fu & Tzuoo, 2002: 21, pl. 3: 16., *nec* Inoue, 1984.

Abraxas fletcheri Inoue, 1984

Abraxas tenellula Inoue, 1984

Abraxas persimplex Inoue, 1984

Abraxas stictotaenia Wehrli, 1932

Abraxas taiwanensis Inoue, 1984

Abraxas submartiaria Wehrili, 1932

Abraxas parvimiranda Inoue, 1984

Abraxas adilluminata Inoue, 1984

Lomographa inamata (Walker, 1861)

Lomographa platyleucata marginata (Wileman, 1914)

Lomographa margarita (Moore, 1867 [1868])

Lomographa anoxys (Wehrli, 1936)

Lomographa guttulata Yazaki, 1994

Lomographa chinhuaiwangi Wu, 2018 # (Figs 3a; 10f)

Lomographa chinhuaiwangi Wu, 2018a, *Tinea* 24(2): 86, figs 1-3, 5, 7, 8.

Specimen examined. Taiwan. 1 female, Zhongzhiguan, 1,930 m, 9. III. 2016, leg. C. M. Fu & W. H. Cheng (CCMF).

Note. The female and its genitalia are illustrated for the first time in the present study. Wu (2018a) additionally described 3 new endemic *Lomographa* species in Taiwan, and 2 are listed herein. To date, the third species, *Lom. siyuanensis* Wu, 2018 (Wu, 2018, *Tinea* 24 (2): 89, figs 11, 15.) (Fig. 3c), is distributed only in Siyuanyako, Ilan County (1900 m a.s.l.).

Lomographa jhonjhihguanensis Wu, 2018 # (Fig. 3b)

Lomographa jhonjhihguanensis Wu, 2018a, *Tinea* 24(2): 87, figs 10, 14.

Nadagara subnubila Inoue, 1967

Euchristophia cumulata meridionalis Inoue, 1986

Micronidia intermedia Yazaki, 1992

Myrteta angelica Butler, 1881

Orthocabera sericea sericea (Butler, 1879)

Orthocabera sericea: Fu & Tzuoo, 2002: 21, pl. 3: 3. Chen, 2011: 188, figs.

Cabera niveopicta Inoue, 1986

Parabapta unifasciata Inoue, 1986

Parabapta obliqua Yazaki, 1989

Synegia esther Butler, 1881

Synegia estherodes Sato, 1990

Yashmakia suffusa (Warren, 1893)

Parasynegia suffusa Warren, 1893, *Proc. Zool. Soc. Lond.* 1893 (2): 414; Chen, 2011: 202, fig.

Platycerota homoema Prout, 1926

Crypsicometa homoema Prout, 1926, *J. Bombay nat. Hist. Soc.* 31 (3): 788; Wehrli, 1939: 304, pl.23: d; Inoue, 1986: 250, fig. 47; Inoue, 1992b: 112; Yazaki, 1992: 26, pl. 7: 22; Parsons *et al*.,

1999:198; Fu & Tzuoo, 2002: 19, pl. 1: 26.
Platycerota homoema: Stüning, 2000: 109.

Platycerota particolor (Warren, 1896)
Orthobrachia particolor Warren, 1896, *Novit. zool.* 3: 128.
Crypsicometa ochracea Inoue, 1971: 167, pl. 1: 16, pl. 5: 47; Yazaki, 1991: 264, fig.; Inoue, 1992b: 112; Parsons *et al*., 1999: 198; Fu & Tzuoo, 2002: 19, pl. 1: 25, pl. 30: 7; Fu & Tzuoo, 2004: 154.
Crypsicometa homoema: Chang, 1990b: 90, figs; Wang, 1998: 74, figs, misidentification.
Platycerota particolor: Stüning, 2000: 109; Sato, 2011: 146, pl. 13: 18, 19.

Monocerotesa conjuncta (Wileman, 1912)
Monocerotesa coalescens (Bastelberger, 1909)
Monocerotesa flavescens Inoue, 1998
Krananda semihyalina Moore, 1867
Krananda oliveomarginata Swinhoe, 1894
Luxiaria mitorrhaphes Prout, 1925
Luxiaria amasa amasa (Butler, 1878)
Luxiaria costinota Inoue, 1978
Calletaera basipuncta Wileman, 1916
Oxymacaria temeraria temeraria Swinhoe, 1891
Oxymacaria temeraria: Fu & Tzuoo, 2002: 22, pl. 3: 12.

Oxymacaria deformis (Inoue, 1986)
Oxymacaria normata arisana (Wehrli, 1932)
Oxymacaria truncaria truncaria (Leech, 1897)
Chiasmia monticolaria notia (Wehrli, 1940)
Epobeidia tigrata maxima Inoue, 1986
Obeidia tigrata maxima Inoue, 1986, *Bull. Fac. Domest. Sci., Otsuma Wom. Univ.* 22: 243; Chen, 2011: 176, figs.

Epobeidia lucifera extranigricans (Wehrli, 1933)
Obeidia lucifera extranigricans: Chen, 2011: 174, figs.

Parobeidia gigantearia marginifascia Prout, 1914
Praobeidia gigantearia marginifascia: Fu & Tzuoo, 2004: 163, pl. 7: 8, misspelling.
Obeidia gigantearia marginifascia: Chen, 2011: 174, figs.

Euryobeidia languidata (Walker, 1862)
Xenoplia trivialis (Yazaki, 1987)
Percnia longitermen Prout, 1914
Antipercnia cordiforma (Inoue, 1978)
Pogonopygia pavida pavida (Bastelberger, 1912)
Pogonopygia pavidus pavidus: Chen, 2011: 156, figs.

Dilophodes elegans khasiana Swinhoe, 1892
Metabraxas rubrotincta Inoue, 1986
Metabrasxas rubrotincta: Chen, 2011: 182, figs, misspelling.

Arichanna pryeraria Leech, 1891
Arichanna albomacularia Leech, 1891
Arichanna postflava Wileman, 1914
Arichanna refracta Inoue, 1978 **stat. nov.** (Figs 9d; 10h)
Arichanna himalayensis refracta Inoue, 1978, *Bull. Fac. domest. Sci. Otsuma Wom. Univ.* 14: 233, fig. 73; Chang, 1990b: 15, figs; Inoue, 1992b: 114.
Arichanna sinica refracta: Sato, 1994, *Tinea 14* (Suppl. 1): 41, pl. 73: 3; Wang, 1998: 147, figs, part *nec* Wehrli, 1933; Parsons *et al*., 1999: 66; Fu & Tzuoo, 2002: 31, pl. 7: 2.
Distribution. Endemic to Taiwan.
Note. Li *et al.* (2018) revised the subgenus *Epicterodes* Wehrli, 1933 of the genus *Arichanna* Moore, 1867 [1868]. In the section of "*Arichanna* (*Epicterodes*) *sinica* Wehrli, 1933" in Li *et al.* (2018: 507), the difference between *Ari. sinica refracta* and the nominate continental subspecies has been mentioned as the "absence of signum" in the latter in comparison to the large distinct signum in the former, and the Taiwanese taxon has been regarded as the species *Ari. flavinigra* Hampson, 1907. However, in the "*Arichanna* (*Epicterodes*) *flavinigra* Hampson, 1907" section in Li *et al.* (2018: 506), Taiwan is not included in the distribution range and no synonymous relationship between *refracta* and *flavinigra* is reported. After contacting the corresponding author, Dr Hong-Xiang Han, of Li *et al*. (2018), the author re-examined the female genitalia of *Ari. sinica* and observed one extremely small signum on the corupus bursae of *Ari. sinica* (Fig. 10i). Herein, we treat the Taiwanese population as a distinct

endemic species named *Ari. refracta* **stat. nov.**. The species can be distinguished from its allopatric siblings based on the concave apex of uncus in *Ar. refracta* (Fig. 9d) and *Ari. sinica* (Fig. 9e), and a protruding apex of uncus in *Ari. flavnigra* (Fig. 9f); the apex of the diverging part of aedeagus at the posterior part is sharp and straight in *Ari. refracta* rather than curved and hooked as in *Ari. sinica* and *Ari. flavinigra*; a distinct signum in *Ari. refracta* (Fig. 10h) and *Ari. flavinigra* (see Li *et al.*, 2018: Fig. 51) compared with an extremely small one in *Ari. sinica*.

Arichanna ochrivena Wileman, 1915
Arichanna olivescens Wileman & South, 1917
Arichanna maculosa Wileman, 1912
Arichanna picaria Wileman, 1910
Arichanna marginata Warren, 1893
Arichanna vernalis Fu & Sato, 2010
Arichanna vernalis: Shang & Hsu, 2015: 54, fig.
Harutaea flavizona Sato, 2000
Harutalcis fumigata (Bastelberger, 1909)
Alcis hyberniata Bastelberger, 1909
Alcis tayulina Sato, 1990
Alcis arizana Wileman, 1911 # (Figs 3d, e; 9b; 10g)
Alcis arizana Wileman, 1911a, *Entomologist* 44: 271.
Specimens examined: Taiwan. 1 male, Miaoli County, Guanwu, 2,000 m, 25. VI. 2015, leg. H. Y. Huang & P. H. Chen (TFRI); 1 female, same collecting locality, 9. IV. 2015, leg. H. Y. Huang & P. H. Chen (TFRI); 2 males, Nantou County, Wangxiang, 2,300 m, 28. V. 2013, leg. T. Y. Hsieh (ESRI); 1 male, *ditto*, 9. VIII. 2014, leg. T. Y. Hsieh (ESRI).
Note. The genitalia of male (Fig. 9b) and female (Fig. 10g) are first illustrated.
Alcis subpunctata Wileman, 1911
Alcis scortea (Bastelberger, 1909)
Alcis postlurida Inoue, 1978
Alcis pallens Inoue, 1978
Alcis taiwanensis Inoue, 1978
Alcis semiusta (Bastelberger, 1909)
Alcis rubicunda Bastelberger, 1909
Alcis plebeia Wileman, 1912
Alcis nubeculosa (Bastelberger, 1909)
Alcis taiwanovariegata Sato, 2008
Alcis variegata subochrearia: Fu & Tzuoo, 2002: 27, pl. 6: 6, *nec* Wileman & South, 1917.
Alcis admissaria undularia Wileman, 1911
Alcis maculata taiwanica (Bastelberger, 1909)
Alcis anmashanensis Sato, 1999
Rikiosatoa fucataria (Wileman, 1911)
Psilalcis nigrifasciata (Wileman, 1912)
Psilalcis albibasis (Hampson, 1895)
Psilalcis fui Sato, 2002
Psilalcis pulveraria (Wileman, 1912)
Lophobates ochrolaria (Bastelberger, 1909)
Lophobates corticea (Bastelberger, 1911)
Hypomecis corticea: Fu *et al.*, 2013g: 186, pl. 13: 7, 8.
Lophobates corticea: Sato, 2017: 325, figs 11, 12.
Protoboarmia amabilis Inoue, 1983
Hypomecis formosana (Wileman, 1912)
Hypomecis obliquisigna (Wileman, 1912)
Hypomecis monotona (Inoue, 1978)
Hypomecis nudicosta Inoue, 1983
Hypomecis brevifasciata (Wileman, 1911)
Microcalicha melanosticta (Hampson, 1895)
Microcalicha fumosaria fulvifusa Sato, 1981
Deileptenia rimosaria (Wileman, 1911)
Cleora fraterna (Moore, 1888)
Cleora fraterna: Hsu & Hsu, 2017: 78, figs.
Cleora insolita (Butler, 1878)
Cleora leucophaea taiwanensis Sato, 2002
Gasterocome pannosaria orta (Bastelberger, 1911)
Racotis boarmiaria (Guenée, 1857)
Paradarisa comparataria rantaizanensis Wileman, 1911
Paradarisa hehuana László & Stüning, 2015 # (Fig. 2l)
Paradarisa hehuana László & Stüning, 2015, *Tinea* 23(2): 118, figs 1, 2, 7, 10.
Specimens examined. Taiwan. 1 male, Hualien County, Tayuling, 2,560 m, 16. IV. 2013, leg. S. Wu, slide TFRI160988 (TFRI); 1 female, Miaoli County, 18. I. 2020, leg. S. Wu.
Note. This study represents the first record of the species after the original

description.

Aethalura duplicata (Wileman, 1911)

Myrioblephara simplaria simplaria (Swinhoe, 1894)

Myrioblephara simplaria: Fu & Tzuoo, 2002: 30, pl. 6: 1.

Myrioblephara fenchihuana Sato, 1987

Myrioblephara cilicornaria (Püngeler, 1903)

Prochasma squalida (Wileman, 1915)

Boarmia squalida Wileman, 1915, *Entomologist* 48: 282.

Prochasma dentilinea: Prout, 1927: 943; Inoue, 1965: 34; Chang, 1990b: 399, fig.; Wang, 1998: 221 (part); Inoue, 1992b: 116; Fu & Tzuoo, 2002: 30, pl. 6: 12, *nec* Warren, 1893.

Prochasma dentilinea squalida: Heppner, 2012: 22.

Prochasma squalida: Sato, 2019: 144, figs 17-21, 34, 35, 41, 42.

Calicha griseoviridata (Wileman, 1911)

Jankowskia taiwanensis Sato, 1980

Note. The common name follows Wang (1998: 228).

Ectropis arizanensis Wileman, 1915

Ectropis bhurmitra: Fu & Tzuoo, 2002: 24, pl. 4: 17; Chen, 2011: 186, figs, *nec* Walker, 1860

Ramobia anmashana Sato, 2002

Anectropis fumigata Sato, 1991

Anectropis semifascia (Bastelberger, 1909)

Parectropis nigrosparsa (Wileman & South, 1917)

Parectropis nigrosparsa: Sato, 2018: 25, pl. 8: 6.

Distribution. Taiwan (type locality), Russian Far East, Korea, S. China (Sato, 2018).

Parectropis subflava (Bastelberger, 1909)

Abaciscus tristis tristis Butler, 1889

Abaciscus alishanensis Inoue, 1978

Uliura infausta (Prout, 1958)

Lassaba parvalbidaria parvalbidaria (Inoue, 1978)

Lassaba tayulingensis (Sato, 1986)

Lassaba brevipennis (Inoue, 1978)

Lassaba hsuhonglini Fu & Sato, 2010

Hirasa punctivenaria taiwana (Wileman, 1912)

Gnophos caenosa (Bastelberger, 1911)

Gnophos ainuaria Bastelberger, 1909

Duliophyle agitata taiwana Sato, 2002

Duliophyle majuscularia (Leech, 1897) # (Fig. 3f)

Boarmia majuscularia Leech, 1897: 420.

Xandrames (*Duliophyle*) *majuscularia*: Prout, 1915: 381, pl. 23, line a.

Duliophyle majuscularia: Inoue, 1982: 550, pl. 97: 6-9; Shin, 1996: 106; Parsons *et al*., 1999: 244; Sato, 2011: 173, pl. 25: 5, 6; Fu, 2019: 344, figs 1-8.

Distribution. Japan, Korea, Taiwan (Fu, 2019).

Xandrames dholaria Moore, 1867 [1868]

Xandrames dholaria: Yazaki & Wang, 2011: 54, pl. 5: 8; Hsu & Hsu, 2017: 76, figs.

Amblychia moltrechti (Bastelberger, 1909)

Blepharoctenucha virescens kawabei Inoue, 1986

Scionomia sinuosa (Wileman, 1910)

Scionomia sinuosa: Yazaki & Wang, 2011: 109, pl. 17: 13.

Scionomia praeditaria (Leech, 1897)

Thinopteryx crocoptera assamensis Swinhoe, 1916

Thinopteryx nebulosa Butler, 1883

Biston regalis comitatus (Warren, 1899)

Biston robustum subrobustum Inoue, 1964

Biston robustus subrobustus: Chen, 2011: 170, figs

Mesastrape fulguraria fulguraria Walker, 1860

Mesastrape fulguraria: Fu & Tzuoo, 2002: 34, pl. 8: 12. Chen, 2011: 176, figs.

Descoreba simplex Butler, 1878

Descoreba albolutea Sato, Stüning & Fu, 2011

Descoreba alboviridis Sato, Stüning & Fu, 2011

Descoreba alboviridis: Huang, 2018: 158.

Acrodontis fumosa (Prout, 1930)

Acrodontis aenigma (Prout, 1914)

Acrodontis mystica Kobayashi, 1998

Odontopera albiguttulata Bastelberger, 1909

Odontopera bilinearia subarida Inoue, 1986

Odontopera insulata insulata Bastelberger, 1909

Odontopera insulata: Fu & Tzuoo, 2002: 36, pl. 9: 2.

Odontopera hehuanshana Sato, Fu & Shih,

2013
Xerodes crenulata Wileman, 1915
Xerodes albonotaria aritai (Inoue, 1971)
Xerodes contiguaria Leech, 1897
Hyposidra talaca talaca (Walker, 1860)
Auaxa cesadaria Walker, 1860
Auaxa cesadaria: Yazaki & Wang, 2011: 1, pl. 15: 34.
Auaxa mimosina Inoue, 1992
Opisthograptis punctilineata Wileman, 1910
Opisthograptis moelleri Warren, 1893
Pareclipsis serrulata (Wehrli, 1937)
Fascellina chromataria Walker, 1860
Fascellina chromataria: Yazaki & Wang, 2011: 1, pl. 15: 34; Hsu & Hsu, 2017: 73, figs.
Garaeus apicata formosanus Bastelberger, 1911
Garaeus argillacea (Butler, 1889)
Garaeus specularis specularis Moore, 1867 [1868]
Garaeus specularis: Fu & Tzuoo, 2002: 14, pl. 1: 12; 30: 5. Chen, 2011: 172, fig.
Pseudomiza leucogonia (Hampson, 1895)
Pseudomiza aurata Wileman, 1915
Pseudomiza flavitincta (Wileman, 1915)
Pseudomiza obliquaria (Leech, 1897)
Polyscia argentilinea changi (Wang, 1998)
Pseudomiza argentilinea changi Wang, 1998, *Geometer Moths of Taiwan and It's allied Species from the neighboring countries* 2: 352, figs; Fu & Tzuoo, 2002: 37, pl. 9: 11.
Leptomiza calcearia calcearia (Walker, 1860)
Plagodis reticulata Warren, 1893
Celenna festivaria formosensis (Inoue, 1964)
Hypochrosis baenzigeri Inoue, 1982
Hypochrosis baenzigeri: Yazaki & Wang, 2011: 96, pl. 15: 19; Hsu & Hsu, 2017: 66, figs.
Hypochrosis insularis (Bastelberger, 1909)
Achrosis rufescens (Butler, 1880)
Pagrasa rufescens Butler, 1880, *Ann. Mag. nat. Hist.* (5) **6**: 224.
Hypochrosis rufescens: Hampson, 1895: 174; Inoue, 1978: 254, fig. 127; Chang, 1990b: 175, figs; Inoue, 1992b: 119; Yazaki, 1992: 39, pl. 12: 14; Yazaki, 1994: 30; Wang, 1998: 361, figs; Parsons *et al*., 1999: 469; Fu & Tzuoo, 2002: 13, pl. 1: 4; Fu *et al*, 2013g: 147, pl. 8: 1.
Achrosis rufescens: Stüning, 2000: 97; Yazaki & Wang, 2011: 97, pl. 15: 20.
Distribution. India, Nepal, China, Taiwan.
Seleniopsis evanescens (Butler, 1881)
Mimochroa olivescens (Wileman, 1914)
Heterolocha arizana Wileman, 1910
Heterolocha marginata Wileman, 1910
Heterolocha biplagiata Bastelberger, 1909
Heterolocha coccinea Inoue, 1976
Heterolocha lilacina (Bastelberger, 1909)
Apoheterolocha patalata (Felder & Rogenhofer, 1875)
Heterolocha patalata: Fu *et al.*, 2013g: 149, pl. 8: 10, 11.
Meteima mediorufa mediorufa (Bastelberger, 1911)
Meteima mediorufa: Fu & Tzuoo, 2002: 20, pl. 1: 24; 30: 8.
Trotocraspeda divaricata (Moore, 1888)
Corymica spatiosa Prout, 1925
Corymica spatiosa: Hsu & Hsu, 2017: 82, figs.
Ourapteryx inspersa Wileman, 1912
Ourapteryx pallidula Inoue, 1985
Ourapteryx monticola Inoue, 1985
Ourapteryx sciticaudaria: Fu & Tzuoo, 2002: 15, pl. 2: 5; pl. 33: 4, *nec* Walker, 1862.
Ourapteryx changi Inoue, 1985
Ourapteryx changi: Hsu & Hsu, 2017: 62, figs.
Ourapteryx sciticaudaria Walker, 1862
Ourapteryx taiwana Wileman, 1910
Ourapteryx ramosa (Wileman, 1910)
Ourapteryx venusta Inoue, 1985
Ourapteryx flavovirens Inoue, 1985
Ourapteryx variolaria Inoue, 1985
Ourapteryx caecata (Bastelberger, 1911)
Ourapteryx similaria horishana (Matsumura, 1910)
Ourapteryx clara formosana Matsumura, 1910
Ourapteryx nigrociliaris magnifica Inoue, 1985
Tristrophis rectifascia rectifascia (Wileman, 1912)
Tristrophis rectifascia: Fu & Tzuoo, 2002: 17, pl. 2: 6; Chen, 2011: 198, figs.

Family NOTODONTIDAE

Subfamily DUDUSINAE

Dudusa nobilis Walker, 1865

Dudusa nobilis: Hsu & Hsu, 2017: 113, figs.

Dudusa sphingiformis Moore, 1872

Tarsolepis taiwana Wileman, 1910

Euhampsonia formosana (Matsumura, 1925)

Zaranga pannosa necopinatus Schintlmeister, 2008

Zaranga pannosa neciponatus: Wu *et al.*, 2013h: 254, pl. 25: 5, misspelling.

Subfamily THAUMETOPOEINAE

Gazalina purificata Sugi, 1993

Subfamily PERIERGOSINAE

Ellida arcuata (Alphéraky, 1897)

Hupodonta corticalis Butler, 1877

Hupodonta lignea Matsumura, 1919

Hupodonta corticalis: Chen, 2011: 59, left fig., *nec* Butler, 1877

Periergos antennae Schintlmeister, 2005

Rachia lineata (Matsumura, 1925)

Subfamily HETEROCAMPINAE

Fentonia macroparabolica Nakamura, 1973

Neopheosia fasciata fasciata (Moore, 1888)

Neopheosia fasciata: Jia & Yu, 2018: 165, figs.

Subfamily SPATALIINAE

Ginshachia elongata Matsumura, 1929

Togaritensha curvilinea curvilinea (Wileman, 1911)

Togaritensha curvilinea: Fu & Tzuoo, 2004: 97, pl. 49: 4; 60: 3. Chen, 2011: 58, figs.

Besaia inconspicua (Wileman, 1914)

Besaia nebulosa (Wileman, 1914)

Besaia sordida (Wileman, 1914)

Curuzza ronkayorum (Schintlmeister, 2005)

Curuzza bryki: Wu *et al.*, 2013h: 258, pl. 24: 12, 13, *nec* Schintlmeister, 1997

Cutuza formosana (Nakamura, 1973)

Torigea formosana: Fu & Tzuoo, 2004: 98, pl. 49: 12.

Bireta formosana: Wu *et al.*, 2013h: 260, pl. 25: 3, 4.

Cutuza formosana: Wu & Lai, 2018: 112.

Eushachia aurata auripennis Matsumura, 1925

Eushachia acyptera insido (Schintlmeister, 1989)

Ceira sp. near *guanyin*: Fu & Tzuoo, 2004: 97, pl. 49: 13.

Mimopydna kishidai kishidai Schintlmeister, 1989

Besaia (*Mimopydna*) *sikkima kishidai*: Fu & Tzuoo, 2004: 96, pl. 49: 9.

Besaia sikkima kishidai: Chen, 2011: 60, figs.

Mimopydna kishidai: Wu *et al.*, 2013h: 257, pl. 24: 11.

Subfamily NOTODONTINAE

Pheosia rimosa taiwanognoma Nakamura, 1973

Pseudosomera noctuiformis yunwu Schintlmeister & Fang, 2001

Cerura erminea formosana (Matsumura, 1929)

Liparopsis postalbida Hampson, [1893]

Harpyia formosicola (Matsumura, 1929)

Harpyia longipennis formosicola: Fu & Tzuoo, 2004: 104, pl. 50: 12. Chen, 2011: 64, figs.

Harpyia microsticta baibarana (Matsumura, 1927)

Acmeshachia gigantea (Elwes, 1890)

Lophocosma amplificans Schintlmeister, 2005

Lophocosma nigrilinea geniculatum: Wu *et al.*, 2013h: 267, pl. 26: 9, *nec* Matsumura, 1929

Notodonta griseotincta Wileman, 1910

Nephodonta taiwanensis Schintlmeister, 2005

Nephodonta cognata Schintlmeister & Witt, 2014

Nephodonta sp.: Wu *et al.*, 2013h: 265, pl. 26: 4.

Peridea moorei ochreipennis Nakamura, 1973

Peridea sikkima ochreipennis: Fu & Tzuoo, 2004: 108, pl. 49: 16 16; Chen, 2011: 64, fig.

Rachiades lichenicolor albimaculata (Okano, 1958)

Rachiades lichenicolor albimaculata: Hsu & Hsu, 2017: 115, figs.

Phalerodonta manleyi formosana Okano, 1970

Phalerodonta inclusa formosana: Fu & Tzuoo, 2004: 116, pl. 51: 17, 18; Chen, 2011: 62, figs.

Pheosiopsis lusciniola (Nakamura, 1973)

Pheosiopsis alishanensis Kishida, 1990

Pheosiopsis cinerea formosana (Okano, 1959)

Pheosiopsis linus Schintlmeister, 2005 #

(Fig. 3g)

Pheosiopsis linus Schintlmeister, 2005, *Nachr. entomol. Ver. Apollo (N. F.)* 26 (2): 109, figs 21, 28; Schintlmeister, 2008: 283, figs.

Note. Only one female was taken from Xiangyang, Taitung County (2,320 m) as the holotype (Schintlmeister, 2005). Its generic placement needs further investigation probably until the availability of male material.

Hexafrenum leucodera yamamotoi (Nakamura, 1978)

Hexafrenum maculifer (Matsumura, 1925)

Hexafrenum maculifer maculifer: Fu & Tzuoo, 2004: 116, pl. 51: 15.

Metriaeschra apatela elegans Nakamura, 1973

Microphalera grisea yoshimotoi Kishida, 1984

Ptilodon saturata (Walker, 1865)

Ptilophora rufula Kobayashi, 1994

Himeropteryx yui Okano, 1969

Formofentonia orbifer rotundata Matsumura, 1925

Netria multispinae multispinae Schintlmeister 2006

Netria viridescens: Chang, 1989b: 206, figs; Wang, 1995b: 104, fig., *nec* Walker, 1855

Netria sp. cf *viridescens*: Fu & Tzuoo, 2004: 94, pl. 49: 6, 8.

Netria multispinae multispinae Schintlmeister, 2006, *Nachr. entomol. Ver. Apollo* (*N. F.*) 27 (1/2): 81, pl. 5: 1-5, 10, pl. 9: 5, pl. 10: 8; Schintlmeister, 2008: 182, figs

Benbowia takamukuanus (Matsumura, 1925)

Benbowia takamukuana: Chen, 2011: 62, figs

Stauropus (*Benbowia*) *takamukuana*: Wu *et al.*, 2013h: 263, pl. 25: 14.

Stauropus sikkimensis lushanus Okano, 1960

Syntypistis comatus (Leech, 1889)

Syntypistis comata: Wu *et al.*, 2013h: 264, pl. 25: 17, 18.

Syntypistis lineata (Okano, 1960)

Syntypistis nigribasalis nigribasalis (Wileman, 1910)

Syntypistis perdix perdix (Moore, 1879)

Syntypistis perdix confusa: Fu & Tzuoo, 2004: 102, pl. 50: 8, 9; Chen, 2011: 64, figs

Syntypistis pryeri (Leech, 1889)

Syntypistis umbrosa (Matsumura, 1927)

Mesophalera stigmatoides Kiriakoff, 1963 #

Mesophalera stigmatoides Kiriakoff, 1963, *Bonn. zool. Beitr.* 261; fig. 17, 18; photo 16; Schintlmeister, 2008: 247, figs 1155, 1156, pl. 25: 418, 419.

Mesophalera sigmata: Fu & Tzuoo, 2004: 109, pl. 51: 1., *nec* Butler, 1877

Methodioptera speratus (Schintlmeister, 2005)

Mesophalera speratus Schintlmeister, 2005 *Nachr. entomol. Ver. Apollo, N.F.* 26 (3): 108, figs 17, 18, 32; Schintlmeister, 2008: 249, figs 1163, 1170, pl. 25: 423; Wu *et al.*, 2013h: 268, pl. 26: 10, 11.

Metrioptera speratus: Kobayashi & Nonaka, 2016: 26.

Mesophalera libera Schintlmeister, 2008, *Notodontidae. Palaearctic Macrolepidoptera. Vol. 1*: 248, fig. 1166, pl. 25: 422.

Methodioptera separatus: Kobayashi & Wang, 2020: 88.

Pheosiopsis speratus Schintlmeister: sensu Fu & Tzuoo, 2004: 110, pl. 50: 22, 23.

Disparia wilemani Matsumura, 1925

Pseudofentonia (*Mimus*) *nigrofasciata*: Fu & Tzuoo, 2004: 111, pl. 51: 4, 5, *nec* Wileman, 1910

Disparia (*Lanna*) *nigrofasciata*: Wu *et al.*, 2013h: 269, pl. 26: 8.

Disparia nigrofasciata (Wileman, 1910)

Pseudofentonia (*Mimus*) *medioalbida*: Fu & Tzuoo, 2004: 111, pl. 51: 2, 3.

Disparia (*Polystictina*) *medioalbida*: Fu & Tzuoo, 2004: 111, pl. 51: 2, 3.

Disparia maculata (Moore, 1879)

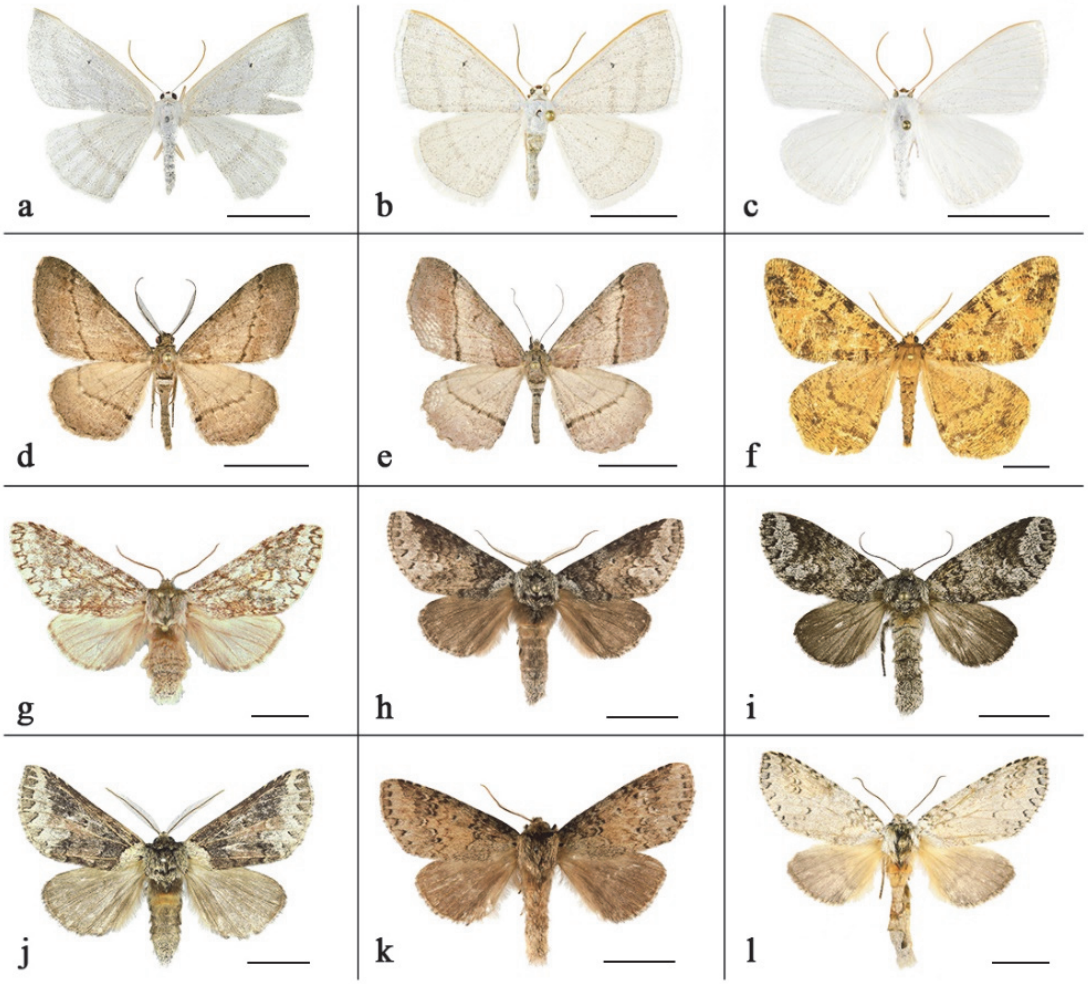
Disparia maculata: Wu, 2015: 221, figs 37-40, 45, 57, 66, 73.

Disparia kobayashii Wu, 2015

Disparia kobayashii Wu, 2015, *Zootaxa* 3918(2): 221, figs 35, 36, 46, 55, 56, 68, 75; Huang, 2018: 158, fig.

Pseudofentonia (*Disparia*) *diluta variegata*: Fu & Tzuoo, 2004: 111, pl. 51: 6, *nec* Wileman, 1910

Neodrymonia comes Schintlmeister, 1989 #



圖三　臺灣產大異角類。a. *Lomographa chinhuaiwangi* Wu, 2018 ♀；b. *Lom. jhonjhihguanensis* Wu, 2018 ♂，正模；c. *Lom. siyuanensis* Wu, 2018 ♂，正模；d. *Alcis arizana* Wileman, 1911 ♂；e. 同上 ♀；f. *Duliophyle majuscularia* (Leech, 1897) ♂；g. *Pheosiopsis linus* Schintlmeister, 2005 ♀，正模；h. *Neodrymonia comes* Schintlmeister, 1989 ♂；i. *Ditto* ♀；j. *Neodrymonia cretata* Kobayashi & Fu, 2019 ♂，正模；k. *Neo. taiwana* Kobayashi, 2005 ♂；l. *Pseudofentonia argentifera argentifera* (Moore, 1866) ♀。館藏出處：傅建明收藏 (a, f)；林業試驗所昆蟲標本館 (b-e, h, i, k, l)；威特博物館 (g)、自然科學博物館，臺中 (j)。比例尺=10 mm。拍攝：吳士緯 (a-e, h, i, k, l)、傅建明 (f, j)、Alexander Schintlmeister (g)。

Fig. 3. Macroheterocera of Taiwan. a. *Lomographa chinhuaiwangi* Wu, 2018 ♀; b. *Lom. jhonjhihguanensis* Wu, 2018 ♂, holotype; c. *Lom. siyuanensis* Wu, 2018 ♂, holotype; d. *Alcis arizana* Wileman, 1911 ♂; e. *Ditto* ♀; f. *Duliophyle majuscularia* (Leech, 1897) ♂; g. *Pheosiopsis linus* Schintlmeister, 2005 ♀, holotype; h. *Neodrymonia comes* Schintlmeister, 1989 ♂; i. *Ditto* ♀; j. *Neodrymonia cretata* Kobayashi & Fu, 2019 ♂, Holotype; k. *Neo. taiwana* Kobayashi, 2005 ♂; l. *Pseudofentonia argentifera argentifera* (Moore, 1866) ♀. Sources of specimens: CCMF (a, f); TFRI (b-e, h, i, k, l); MWM (g), NMNS (j). Scale bar = 10 mm. Photograph by Shipher Wu (a-e, h, i, k, l), Chien-Ming Fu (f, j), Alexander Schintlmeister (g).

(Figs 3h, i; 10j)

Neodrymonia comes Schintlmeister, 1989, *Nachr. entomol. Ver. Apollo, N.F.* 25: 110; Kobayashi & Fu, 2019: 254, figs 21-23.

Pseudofentonia nakamurai Sugi, 1990 *sensu* Sugi, 1992b: 162, nomen nudum.

Neodrymonia griseus Schintlmeister, 1997, *Entomofauna Suppl.*: 116, fig. 115, pl. 27: 1.

Specimen examined: Taiwan. 1 male, Miaoli County, Guanwu, 2,000 m, 28. V. 2010, leg. S. Wu & W. C. Chang (TFRI); 1 female, Ilan County, Fushan Botanical Garden, 750 m, 7. X. 2012, leg. S. Wu & W. C. Chang, slide TFRI 149928 (TFRI).

Note. The female genitalia of the Taiwanese population are first illustrated (Fig. 10j).

Distribution. China, Taiwan and N.

Vietnam (Schintlmeister, 2008).

Neodrymonia cretata Kobayashi & Fu, 2019 # (Fig. 3j)

Neodrymonia cretata Kobayashi & Fu, 2019, *Tinea* 24 (4): 253, fig 1-5.

Distribution. Endemis to Taiwan.

Neodrymonia taiwana Kobayashi, 2005 # (Fig. 3k)

Neodrymonia taiwana Kobayashi, 2005, *Trans. lepid. Soc. Japan* 56(4): 330, figs 1, 2; Schintlmeister, 2008: 267, figs.

Specimens examined: Holotype. Male, Taiwan, Taichung, Mt. Shüehshan, Chika-Shanchuang, 2,460 m, 29. VI. 1989, leg. M. Owada (NSMT). Additional material examined. Taiwan. 2 males, Nantou County, Biluxi, 2,000 m, 18. VII. 1987, leg. Y. C. Sen (TFRI).

Note. This study represents the first record of the species after the original description.

Libido bipunctata (Okano, 1960)

Neodrymonia (*Pantherinus*) *bipunctata bipunctata*: Fu & Tzuoo, 2004: 113, pl. 51: 10.

Pseudofentonia terminalis anmashanensis (Kishida, 1994)

Neodrymonia (*Epistauropus*) *terminalis* Fu & Tzuoo, 2004: 112, pl. 51: 9.

Pseudofentonia argentifera argentifera (Moore, 1866) # (Fig. 3l)

Heterocampa argentifera Moore, 1866, *Proc. Zool. Soc. Lond.* 1866: 813.

Pseudofentonia (*Formotensha*) *kezukai* Nakamura, 1973, *Tyoˆto Ga* 24: 57; pl.10: 21-25, pl. 11: 21-25.

Pseudofentonia (*Pseudofentonia*) *argentifera*: Schintlmeister, 1992: 125.

Pseudofentonia (*Pseudofentonia*) *argentifera argentifera*: Wu & Fang, 2003: 510, fig. 308, pl. VI: 3.

Pseudofentonia argentifera: Wang, 1995: 161, fig.

Specimen examined: Taiwan. 1 male, Hualien County, Bilushenmu, 2,350 m, 24. VII. 2011, leg. S. Wu & W. C. Chang (TFRI).

Megaceramis clara clara Kobayashi, 2012

Megaceramis clara: Wu *et al.*, 2013h: 273, pl. 26: 16, 17.

Subfamily PYGAERINAE

Clostera anachoreta ([Denis & Schiffermüller], 1775)

Family EUTELIIDAE

Subfamily EUTELIINAE

Eutelia geyeri (Felder & Rogenhofer, 1874)

Eutelia geyeri: Jia & Yu, 2018: 242, figs.

Eutelia adulatricoides (Mell, 1943)

Eutelia adulatricoides: Eda, 2018e: 51, pl. 13: 13.

Targalla silvicola Watabiki & Yoshimatsu, 2014

Targalla silvicola Watabiki & Yoshimatsu, 2014, *Lepid. Sci.* 65(4): 169, figs 17-20, 44-46, 58; Eda, 2018e: 52, pl. 13: 21.

Targalla delatrix: Ronkay, L., Ronkay, G. *et al.*, 2013: 291, pl. 28: 7, *nec* Guenée, 1852

Targalla subocellata: Wang & Kishida, 2011: 245, pl. 64: 2, *nec* Walker, 1862 [1863]

Anuga lunulata Moore, 1867

Anuga lunulata: Eda, 2018e: 51, pl. 13: 19.

Anuga wantsungyangi Ronkay, Ronkay, Fu & Wu, 2013

Penicillaria simplex (Walker, 1865)

Penicillaria simplex: Eda, 2018e: 51, pl. 13: 16.

Penicillaria maculata Butler, 1889

Phalga clarirena (Sugi, 1982)

Paectes cristatrix (Guenée, 1852)

Subfamily Stictopterinae

Lophoptera longipennis (Moore, 1882)

Lophoptera longipennis: Eda, 2018j: 52, pl. 13: 23.

Lophoptera squammigera Guenée, 1852

Lophoptera squammigera: Jia & Yu, 2018: 241, figs.

Sigmuncus albigrisea (Warren, 1914)

Stictoptera cucullioides Guenée, 1852

Family NOLIDAE

Subfamily SARROTHRIPINAE

Eligma narcissus (Cramer, 1775)

Eligma narcissus: Hsu & Hsu, 2017: 107, figs; Jia & Yu, 2018: 249, figs.

Macrobarasa xantholopha (Hampson, 1896)

Gadirtha inexacta (Walker, 1858)

Iscadia inexacta: Fu & Tzuoo, 2002: 74,

pl. 22: 9.

Gadirtha inexacta: Hsu & Hsu, 2017: 111, figs.

Gadirtha impingens uniformis Inoue & Sugi, 1958

Iscadia uniformis: Fu & Tzuoo, 2002: 74, pl. 22: 12.

Siglophora ferreilutea Hampson, 1895

Subfamily CHLOEPHORINAE

Tympanistes fusimargo Prout, 1935

Tympanistes sp.

Tympanistes sp.: Fu & Tzuoo, 2002: 74, pl. 22: 16; Fu *et al.*, 2013h: 285, pl. 27: 25.

Note. The specimens illustrated in Fu and Tzuoo (2002), Fu *et al.* (2013h) and Wang (1994c: 333, figs) are conspecific. Wang (1994c) recognized the single Wileman's specimen from Natural History Museum, United Kingdom as "*Tympanistes rubidorsalis* Strand, 1917", however, *Tym. rubidorsalis* was described by Moore (1888: 405). In addition, the Taiwanese specimens are quite different to that of the Indian *Tym. rubidorsalis* (type locality: Kangra). Further investigation is needed.

Hylophilodes rara Fukushima, 1943

Hylophilodes tsukusensis: Fu & Tzuoo, 2002: 74, pl. 22: 23, *nec* Nagano, 1918

Tyana falcata (Walker, 1866)

Clethrophora distincta (Leech, 1889)

Kerala lentiginosa Wileman, 1914

Carea varipes Walker, [1857]

Carea internifusca Hampson, 1912

Narangodes argyrostrigatus Sugi, 1990

Narangodes confluens Sugi, 1990

Narangodes confluens: Jia & Yu, 2018: 245, figs.

Note. Jia & Yu (2018) recorded this species in Taiwan, China (Huanan region) and Thailand.

Narangodes flavibasis Sugi, 1990

Gelastocera exusta Butler, 1877

Gelastocera exusta: Eda, 2018j: 42, pl. 24: 13.

Subfamily NOLINAE

Nola formosalesa (Wileman & West, 1928)

Celama formosalesa Wileman & West, 1928, *Entomologist* **61**: 275.

Nola formosalesa: Inoue, 1992c: 187; László *et al.*, 2014b: 220, pl. 50, figs 1-2; gen. figs 72-73.

Nola chienmingfui László, Ronkay & Ronkay, 2014 # (Fig. 4a)

Nola chienmingfui László, Ronkay & Ronkay, 2014b, *Fibigeriana Supplement. Book series of Taxonomy and Faunestics. Vol. 2*: 212, pl. 46, figs 5-6; gen. figs 44-45.

Specimens examined. Taiwan. 1 male, Miaoli County, Guanwu, 2,000 m, 27. II. 2011, leg. S. Wu & W. C. Chang (TFRI); 1 female, Nantou County, Rayyen, 2,184 m, 19. III. 2012, leg. S. Wu & W. C. Chang (TFRI).

Distribution. Endemic to Taiwan (László *et al.*, 2014b).

Nola shipherwui László, Ronkay & Ronkay, 2014 # (Fig. 4b)

Nola shipherwui László, Ronkay & Ronkay, 2014b, *Fibigeriana Supplement. Book series of Taxonomy and Faunestics. Vol. 2*: 220, pl. 50, figs 3-4; gen. figs 74-75.

Specimen examined. Taiwan. 1 female, Hualien County, Tayuling, 2,560 m, 16. IV. 2013, leg. S. Wu (TFRI).

Distribution. Endemic to Taiwan (László *et al.*, 2014b).

Nola danii László, Ronkay & Ronkay, 2014 # (Fig. 4c)

Nola danii László, Ronkay & Ronkay, 2014b, *Fibigeriana Supplement. Book series of Taxonomy and Faunestics. Vol. 2*: 221, pl. 50, figs 7-8; gen. figs 78-79.

Specimens examined. Taiwan. 1 female, Nantou County, Shihshan, 2,400 m, 7. VII. 2011, leg. S. Wu & W. C. Chang (TFRI); 1 male, Miaoli County, Guanwu, 2,000 m, 17. VI. 2015, leg. S. Wu & M. Owada (TFRI).

Distribution. Nepal and Taiwan (László *et al.*, 2014b).

Nola tripuncta Wileman, 1910 # (Fig. 4d)

Nola (?) tripuncta Wileman, 1910, *Entomologist* 43 (567): 222.

Nola tripuncta: Poole, 1989: 702; Inoue, 1992c: 187; Wang, 1995d: 212, fig.

Note. The type locality is Arizan [=Alishan], 7300 ft, Chiayi County.

Distribution: Endemic to Taiwan.

Meganola simplex (Wileman & West, 1929) #

Nola simplex Wileman & West, 1929; *Ann. Mag. nat. Hist.* (10) 3 (14): 189; Poole, 1989: 700.

Meganola simplex: Inoue, 1992c: 188; Wang, 1996b: 35, fig.

Note. The type locality is Rantaizan [=Luandashan], 7000 ft, Chiayi County.

Distribution: Endemic to Taiwan.

Manoba tristicta (Hampson, 1900) #

Nola tristicta Hampson, 1900, *Trans. Ent. Soc. Lond.* 1900: 37, pl. 19: 4.

Manoba tristicta: László *et al*. 2010: 35, pl. 5: 9, 10; Kononenko & Pinratana, 2013: 171, pl.. 23, gs 37, 38; László *et al.*, 2014a: 81-82.

Specimens examined. Taiwan. 1 male, Miaoli County, Guanwu, 2,000 m, 29. IV. 2011, leg. S. Wu & W. C. Chang (TFRI); 1 female, Nantou County, Meifeng, 2,100 m, 25. IV. 2012, leg. S. Wu & W. C. Chang (TFRI).

Distribution. India, Nepal, Philippines, Taiwan, Thailand (Kononenko & Pinratana, 2013).

Subfamily WESTERMANNINAE

Westermannia elliptica elliptica Bryk, 1913

Westermannia elliptica elliptica: Hsu & Hsu, 2017: 106, figs.

Subfamily BLENINAE

Blenina quinaria Moore, 1882

Blenina quinaria: Jia & Yu, 2018: 250, figs.

Blenina senex (Butler, 1878)

Blenina senex: Jia & Yu, 2018: 250, figs.

Blenina angulipennis (Moore, 1882)

Amrella angulipennis Moore, 1882, *Descriptions of new Indian Lepidopterous Insects from the Collection of the late Mr W S. Atkinson. Heterocera. Part 2*: 158, pl. 5, fig. 6.

Subfamily RISOBINAE

Risoba yanagitai Nakao, Fukuda & Hayashi, 2016 #

Risoba yanagitai Nakao, Fukuda & Hayashi, 2016, *Tinea* 23 (4): 205, figs 1, 2, 9, 10; Eda, 2018j: 43, pl. 24: 22.*Risoba prominens*: Fu & Tzuoo, 2002: 74, pl. 22: 10; Fu *et al.*, 2013h: 283, pl. 27: 13, 14, *nec* Moore, 1881

Family EREBIDAE

Subfamily LYMANTRIINAE

Medama diplaga (Hampson, 1910)

Somena scintillans (Walker, 1856)

Somena scintillans Walker, 1856a, *List Spec. Lepid. Insects Colln Br. Mus.* 7: 1734; Yao & Luo, 2011: 82, fig.

Euproctis scintillans: Chen, 2011: 82, figs.

Euproctis croceola Strand, 1918

"*Euproctis*" *croceola*: Wu *et al.*, 2013g: 307, pl. 29: 10.

Euproctis croceola: Hsu & Hsu, 2017: 160, figs.

Euproctis marginata insulata Wileman, 1910

Euproctis insulata: Fu & Tzuoo, 2004: 127, pl. 53: 12. Chen, 2011: 84, figs.

"*Euproctis*" *marginata insulata*: Wu *et al.*, 2013g: 307, pl. 29: 17, 18.

Euproctis purpureofasciata Wileman, 1914

"*Euproctis*" *purpureofasciata*: Wu *et al.*, 2013g: 308, pl. 29: 14.

Euproctis sparsa Wileman, 1910

Euproctis sparsa Wileman, 1910, *Entom*ologist 43: 285; Wang, 1993: 93, fig.

Euproctis pulverea: Fu & Tzuoo, 2004: 127, pl. 53: 15. Chen, 2011: 80, figs, *nec* Leech, 1888

Euproctis sericea Wileman, 1910

Euproctis staudingeri (Leech, 1889)

Lymantria mathura subpallida Okano, 1960

Lymantria mathura subpallida: Hsu & Hsu, 2017: 167, figs.

Lymantria concolor concolor Walker, 1855

Lymantria (*Lymantria*) *concolor concolor*: Wu *et al.*, 2013g: 297, pl. 29: 1, 2.

Lymantria concolor: Fu & Tzuoo, 2004: 121, pl. 52: 1, 2; 60: 5. Chen, 2011: 76, figs.

Lymantria umbrifera Wileman, 1910

Lymantria (*Lymantria*) *umbrifera*: Wu *et al.*, 2013g: 298, pl. 28: 29, 30.

Lymantria grisea Moore, 1879

Lymantria (*Collenetria*) *grisea*: Wu *et al.*, 2013g: 301, pl. 29: 21, 22.

Lymantria grisea kosemponis: Fu & Tzuoo, 2004: 122, pl. 52: 6,7. Chen, 2011: 74, figs.

Lymantria pulverea Pogue, 2007

Lymantria nebulosa: Fu & Tzuoo, 2004:

122, pl. 52: 9, *nec* Wileman, 1910

Lymantria monacha (Linnaeus, 1758)

Lymnatria (*Lymantria*) *monacha*: Wu *et al.*, 2013g: 300, pl. 29: 19, 20; figs 56, 57, misspelling.

Lymantria sugii: Fu & Tzuoo, 2004: 122, pl. 52: 3, 8, *nec* Kishida, 1986

Calliteara angulata (Hampson, 1891)

Calliteara angulata: Trofimova *et al*., 2016: 95, color fig. 99, gen figs 123-133, 219; Jia & Yu, 2018: 145, figs.

Calliteara arizana (Wileman, 1910)

Dasychira arizana Wileman, 1910, *Entomologist* 43: 311.

Calliteara arizana: Kishida, 1992: 164, erroneous publishing year given as 1911; Wang, 1993: 9, part, figs; Wu *et al.*, 2013g: 301, fig. 29: 4, 5; figs 58, 59; Trofimova *et al*., 2016: 91, color fig. 93, gen figs 118, 214.

Dasychira kikuchii Matsumura, 1927, *J. Coll. Agr. Hokkaido Imp. Univ.* 19: 29, pl. 2: 4.

Calliteara kikuchii: Kishida, 1992: 164; Wang, 1993: 13, fig.; Fu & Tzuoo, 2004: 124, pl. 52: 15, 18; Chen, 2011: 72, figs.

Dasychira albibasalis Matsumura, 1931, *6000 illustrated insects of the Japan-Empire. Tokyo*: 696.

Dasychira albibasis: Kishida, 1992: 164, misspelling.

Dasychira matsumurae Bryk, 1935: replacement name for *Dasychira albibasalis* Matsumura, 1931

Note. Wu *et al*. (2013) first synonymized *Calliteara likuchii* with *Cal. arizana*, Trofimova *et al*. (2016) did the same treatment. The female specimen illustrated in Wang (1993: 9) is *Cal. postfusca*.

Calliteara contexta kezukai Kishida, 1998

Calliteara lunulata takamukuana: Fu & Tzuoo, 2004: 124, pl. 52: 19, 20; Chen, 2011: 70, lower fig.; 71, fig., part, *nec* Matsumura, 1927

Calliteara contexta kezukai: Trofimova *et al*., 2016: 76, color fig. 76, gen figs 90, 199.

Calliteara horishanella (Matsumura, 1927)

Dasychira horishanella Matsumura, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.* 19 (1): 29, pl. 2, fig. 12.

Dasychira atomariana Matsumura, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.*19 (1): 33, pl. 2, fig. 3.

Calliteara grotei horishanella: Wang, 1993: 10, figs; Hsu & Hsu, 2017: 103, figs.

Calliteara horsfieldii: Fu & Tzuoo, 2004: 123, pl. 52: 12, 13; Chen, 2011: 72, figs, *nec* Saunders, 1851

Calliteara saitonis: Wang, 1993: 11, figs, *nec* Matsumura, 1927

Calliteara horishanella: Trofimova *et al*., 2016: 37, color fig. 21, gen figs 31, 172.

Note. The comparative study of Trofimova *et al*. (2016) reported the separation of the Taiwanese *Cal. horishanella,* the continental *Cal. grotei* (Moore, 1859), and the Indonesian *Cal. horsfieldii* (Saunders, 1851).

Distribution: Endemic to Taiwan (Trofimova *et al*., 2016).

Calliteara saitonis (Matsumura, 1927) # (Figs 4e, f)

Dasychira saitonis Matsumura, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.*19 (1): 28, pl. 2, fig. 2.

Dasychira saitonella Matsumura, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.*19 (1): 30, pl. 2, fig. 9.

Calliteara saitonis: Kishida, 1992: 164; Trofimova *et al*., 2016: 26, color fig. 7, gen figs 7, 158.

Note. The type locality of this species is Horisha (= Puli, Nantou County). Trofimova *et al*. (2016) recorded this species above 2,000 m in Taiwan as "♂, Taiwan, Prov. Tai-Tung, Hsiangyang, 07. Vii. 1997, leg. S. T. Kovács (coll. MWM)" in fig 7b.

Distribution: Endemic to Taiwan (Trofimova *et al*., 2016).

Calliteara lunulata takamukuana (Matsumura, 1927)

Calliteara lunulata takamukuana: Chen, 2011: 70, upper fig.; Trofimova *et al*., 2016: 70, color fig. 68, gen figs 80, 193.

Calliteara postfusca (Swinhoe, 1895)

Calliteara postfusca: Trofimova *et al*., 2016: 66, color fig. 68, gen figs 74, 186.

Calliteara taiwana (Wileman, 1910)

Calliteara taiwana: Trofimova *et al*., 2016: 90, color fig. 92, gen figs 116, 117, 213.

Laelia striata Wileman, 1910

Ilema wilemani Wu & Fu, 2013

Olene suisharyonis (Strand, 1914)

Olene dudgeoni: Wu *et al.*, 2013g: 301, pl. 30: 3, 4. Fu & Tzuoo, 2004: 123, pl. 52: 10, 11, *nec* Swinhoe, 1907

Olene baibarana (Matsumura, 1927) **comb. nov.** (Figs 9h; 10k)

Dasychira baibarana Matsumuta, 1927, *J. Coll. Agric. Hokkaido Imp. Univ*. 19 (1): 55, pl. 2, fig 6 ♂.

Dasychira baibarana: Chao, 2003: 103.

Calliteara baibarana: Kishida, 1992: 164; Wang, 1993: 17, fig.; Fu & Tzuoo, 2004: 124, pl. 53: 3, 6.

Olene sp.: Fu & Tzuoo, 2004: 123, pl. 52: 14.

Specimens examined: Taiwan. 1 male, Taoyuan County, Xicun, 1,090 m, 21. I. 2013, leg. S. Wu & W. C. Chang slide TFRI156016 (TFRI); 1 female, Nantou County, Meifeng, 2,100 m, 22. XI. 2011, leg. S. Wu & W. C. Chang, slide TFRI138458 (TFRI); 2 males, same collecting locality, 14. II. 2012, leg. S. Wu & W. C. Chang (TFRI).

Note. The male genitalia of this species (Figs 9h) matches well with the generic definition of *Olene* Hübner, 1823 by having short, squarish uncus, bifurcate valves, therefore a new combination is proposed. The female genitalia are first illustrated in Fig. 10k.

Distribution: Taiwan and China (Fujian) (Chao, 2003).

Pida decolorata maculosa Matsumura, 1911

Pida postalba Wileman, 1910

Arctornis sp.

Arctornis cygna: Fu & Tzuoo, 2004: 127, pl. 53: 19, 20, *nec* Moore, 1879

Arctornis kanazawai: Chen, 2011: 44, figs, *nec* Inoue, 1982

Subfamily ARCTIINAE

Utetheisa inconstans (Butler, 1880)

Utetheisa pulchelloides vaga Jordan, 1939

Nyctemera adversata (Schaller, 1788)

Nyctemera adversata: Hsu & Hsu, 2017: 154, figs.

Nyctemera arctata albofasciata (Wileman, 1911)

Nyctemera carissima formosana (Swinhoe, 1908)

Nyctemera carissima formosana: Vos, 2002, *Nachr. entomol. Ver. Apollo, N.F.* 23 (1/2): 8, figs 1-2, 41a-c, 48 a-b.

Nyctemera formosana: Fu & Tzuoo, 2004: 137, pl. 55: 3; Hsu & Hsu, 2017: 153, figs.

Nikaea matsumurai Kishida, 1983 # (Fig. 4g)

Nikaea longipennis: Chang, 1989b: 223, *nec* Walker, 1855

Nikaea longipennis matsumurai: Wang, 1994b: 28, figs.

Nikaea matsumurai: Kishida, 2015: 61, pl. 6: 1, 2.

Specimens examined: Taiwan. 1 female, Nantou, Tatajia-anbu, [ca. 2,560 m], 4. VIII. 1968, leg. B. S. Chang (NMNS); 1 female, Taiwan, Hualien County, Bilu-shan, 2,500 m, 26. VI. 1989, leg. M. Owada (NSMT).

Distribution: Taiwan and Japan (Ishigaki-jima and Iriomote-jima).

Taicallimorpha albipuncta (Wileman, 1910)

Callimorpha albipuncta: Fu & Tzuoo, 2004: 138, pl. 55: 4. Chen, 2011: 110, figs

Taicallimorpha albipuncta: Kishida, 2015: 57, pl. 3: 16, 17.

Euleechia arisana (Matsumura, 1911) #

Nikaea arisana Matsumura, 1911, *Thous. Ins. Japan (Suppl.)* 3: 26, pl. 32, f. 3.

Nikaeoides arisanus: Inoue & Kishida, 1992: 170; Koda & Kishida, 1995: 197, figs.

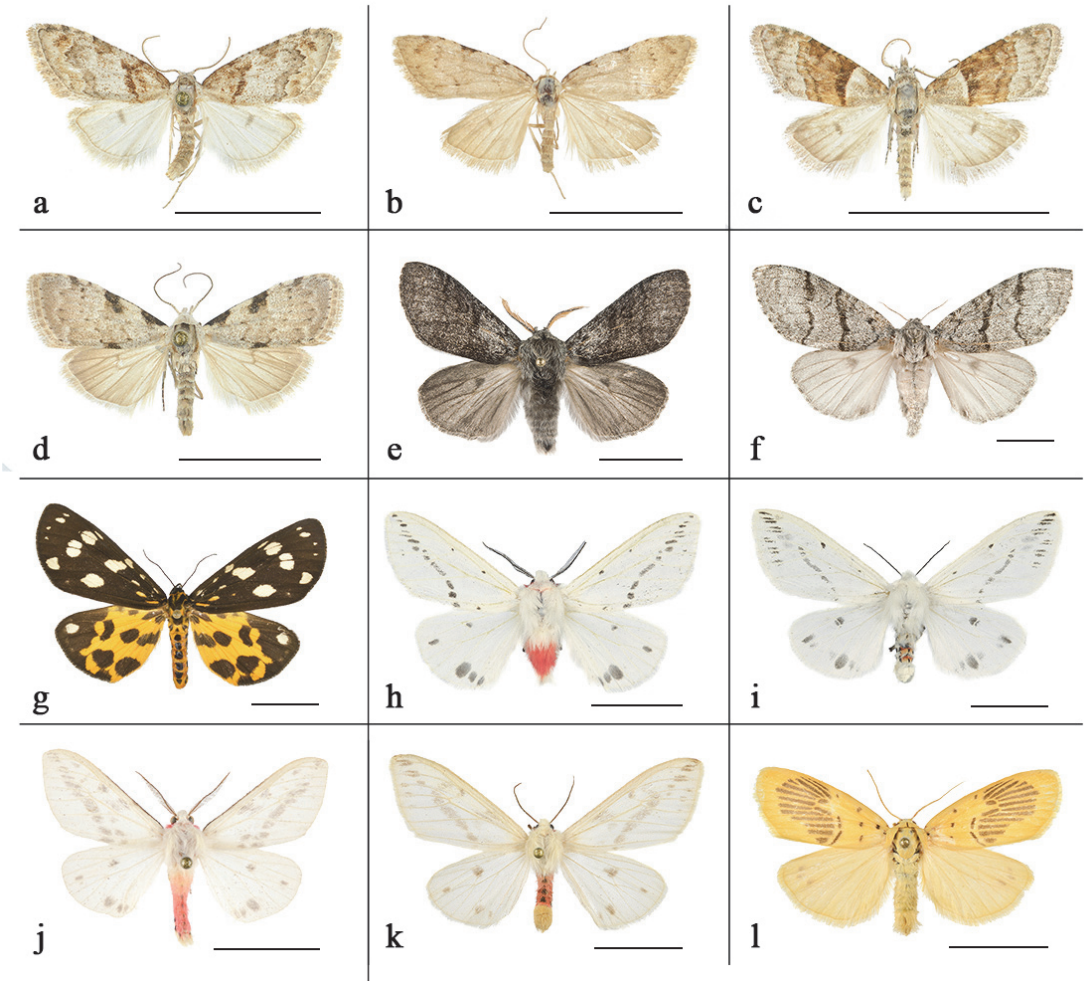
Euleechia arisana: Kishida, 2004: 19, fig.; Dubatolov, 2010: 6; Kishida, 2015: 62, fig., pl. 6: 8, 9.

Note. The type locality of this species is Alishan, Chiayi County (ca. 2,200 m).

Distribution. Endemic to Taiwan (Kishida, 2015).

Lemyra rhodophilodes (Hampson, 1909) (Figs 4h, i)

Note. Wu *et al.* (2013b: 330) correctly listed the species in Hehuanshan area but incorrectly illustrated the male *Lemyra nigricosta* Thomas, 1990 with a caption of *Lem. rhodophilodes* (Wu *et al.*, 2013b: pl. 31: 1). Herein, the correct *Lem. rhodophilodes* specimens are illustrated (Fig. 4j as male; Fig. 3k as female). The Taiwanese endemic species *Lem.*



圖四　臺灣產夜蛾總科。a. *Nola chienmingfui* László, Ronkay & Ronkay, 2014 ♂；b. *Nol. shipherwui* László, Ronkay & Ronkay, 2014 ♀；c. *Nol. danii* László, Ronkay & Ronkay, 2014 ♂；d. *Manoba tristicta* (Hampson, 1900) ♂；e. *Calliteara saitonis* (Matsumura, 1927) ♂；f. 同上，♀；g. *Nikaea matsumurai* Kishida, 1983 ♀；h. *Lemyra rhodophilodes* (Hampson, 1909) ♂；i. 同上，♀；j. *Lem. nigricosta* Thomas, 1990 ♂；k. 同上，♀；l. *Stigmatophora karenkonis* (Matsumura, 1930) ♂。館藏出處：林業試驗所昆蟲標本館 (a-g、j-l)、傅建明收藏 (h, i)。比例尺=10 mm。拍攝：吳士緯 (a-g、j-l)、傅建明 (h、i)。

Fig. 4.　Noctuoidea of Taiwan. a. *Nola chienmingfui* László, Ronkay & Ronkay, 2014 ♂; b. *Nol. shipherwui* László, Ronkay & Ronkay, 2014 ♀; c. *Nol. danii* László, Ronkay & Ronkay, 2014 ♂; d. *Manoba tristicta* (Hampson, 1900) ♂; e. *Calliteara saitonis* (Matsumura, 1927) ♂; f. *Ditto*, ♀; g. *Nikaea matsumurai* Kishida, 1983 ♀; h. *Lemyra rhodophilodes* (Hampson, 1909) ♂; i. *Ditto,* ♀; j. *Lem. nigricosta* Thomas, 1990 ♂; k. *Ditto*, ♀; l. *Stigmatophora karenkonis* (Matsumura, 1930) ♂. Sources of specimens: TFRI (a-g, j-l); CCMF (h, i). Scale bar = 10 mm. Photograph by Shipher Wu (a-g, j-l), Chien-Ming Fu (h, i).

nigricosta is distributed at elevations under 2,000 m a.s.l. The larvae illustrated in Wang (1994b) belong to *Spilarctia*.

Lemyra fallaciosa (Matsumura, 1930)

Lemyra wernerthomasi Inoue, 1993

Eospilarctia formosana (Rothschild, 1933)

Eospilarctia lewisii formosana: Fu & Tzuoo, 2004: 143, pl. 55: 15. Chen, 2011: 106, figs; Kishida, 2015: 92, pl. 42: 7-9.

Eospilarctia nehallenia baibarensis (Matsumura, 1930)

Eospilarctia nehallenia baibarensis: Kishida, 2015: 93, pl. 42: 21, 22.

Eospilarctia neurographa (Hampson, 1909)

Paraspilarctia magna (Wileman, 1910)

Paraspilarctia magna: Kishida, 2015: 82, pl. 35: 6-9.

Spilosoma fumida (Wileman, 1910)

Spilarctia fumida: Chen, 2011: 114, figs.

Spilarctia clava (Wileman, 1910)

Spilarctia clava: Kishida, 2015: 99, pl. 46: 10.

Spilarctia wilemani (Rothschild, 1914)

Spilarctia rubida (Leech, 1890)

Argyractia [sic] *fuscobasalis*: Chen, 2011: 114, fig., part, *nec* Matsumura, 1930

Spilarctia rubida: Kishida, 2015: 98, pl. 45: 19.

Argyarctia fuscobasalis (Matsumura, 1930)

Argyrarctia fuscobasalis: Fu & Tzuoo, 2004: 141, pl. 55: 11, 12; 60: 7, misspelling.

Argyractia fuscobasalis: Chen, 2011: 114, figs, misspelling.

Argyarctia fuscobasalis: Kishida, 2015: 91, pl. 41: 1, 2.

Argyarctia reikoae (Kishida, 1984)

Argyrarctia reikoae: Fu & Tzuoo, 2004: 142, pl. 55: 14; Kishida, 2015: 91, pl. 41: 3, 4.

Amata wilemani Rothschild, 1911

Paraona staudingeri formosana Okano, 1960

Eilema pulverea Wileman, 1910

Eilema rubrescens (Hampson, 1909)

Eilema taiwana Wileman, 1910

Eilema karenkona (Matsumura, 1930) # (Figs 5a; 8c, d; 9i)

Lithosia karenkona Matsumura, 1930a, *Ins. Matsum.* 5 (1-2): 37.

Eilema karenkona: Inoue & Sugi, 1992: 166.

Specimens examined. Holotype, male, "Lithosia karenkona Mats. 1930 -type [red rectangle label]\Formosa, Karenko, -19. VII 20-VIII4. T. Okuni, J. Sonan, K. Miy., M. Yosh\L. karenkona n. sp." (HUFA). Additional material examined. Taiwan. 1 male, Ilan County, Siyuanyako, 1,950 m, 18. VIII. 2011, leg. S. Wu & W. C. Chang, slide TFRI147459; 1 male, Hsinchu County, Guanwu, 2,000 m, 28. VII. 2011, leg. S. Wu & W. C. Chang, slide TFRI182210 (TFRI); 2 males, Guanyuan, 2,500 m, 22. VII. 2015, leg. S. Wu, slide ASIZHX111060 & 111061 (ASIZ).

Note. The male genitalia of the holotype of *karenkona* is illustrated in Fig. 9i. The generic placement of the species is retained within *Eilema* since the male genitalia could not match the definition of each of the broad-sense *Eilema* genera in Dubatolov and Zolotuhin (2011) and Bucsek (2012).

Eilema sp. 1

Tigrioides immaculata: Wu *et al.*, 2013b: 308, pl. 30: 9, *nec* Butler, 1880

Eilema sp. 2

Eilema usuguronis: Fu & Tzuoo, 2004: 133, pl. 54: 18, *nec* Matsumura, 1927

Cernyia arizana (Wileman, 1910) # (Figs 5b; 8c-j; 9j)

Ilema arizana Wileman, 1910, *Entom*ologist 43: 220.

Eilema arizana: Inoue & Kishida, 1992: 166; Wang, 1994b: 77, figs.

Cernyia arizana: Dubatolov & Bucsek, 2013: 279, figs 36, 37.

Specimens examined: Lectotype, herein designated, male, "Type [red circle label]\ ♂, Arizan, Formosa. 7,500 ft., 12. IX. 1908., A. E. Wileman\Ilema arizana sp. n. Type ♂, Lith. 11\753F.\Wileman Coll., B.M.1929-261" (Fig. 6a, 6b) (NHMUK); paralectotype, herein designated, female, "Type [red circle label]\ ♀, Arizan, Formosa. 7,500 ft., 16. IX. 1908., A. E. Wileman\Ilema arizana sp. n. Type ♀, Lith. 11\753♀\Wileman Coll., B.M.1929-261" (Fig. 6d, 6c) (NHMUK); 1 male, Nantou County, Nanzixianzi, 20. VI. 2007, leg. Y. M. Chen, slide TFRI113613 (TFRI); 1 male, same collecting locality, 6. VI. 2008, leg. Y. M. Chen (TFRI); 1 male, same collecting locality, 1. IX. 2008, leg. Y. M. Chen (TFRI); 1 female, Hualien County, Guanyuan, 2,400 m, 19. VII. 2012, leg. S. Wu & W. C. Chang (TFRI); 1 female, Hualien, Tayuling, 2,560 m, 19. VII. 2012, leg. S. Wu & W. C. Chang, slide TFRI149745 (TFRI).

Note. The lectotype and paralectotype are designated herein. The male and female genitalia of specimens collected near type locality are illustrated in Fig. 9j. Dubatolov and Bucsek (2013) transferred the species into the genus *Cernyia* Bucsek, 2012; however the male genitalia captioned "*Cernyia arizana*" are identical with those (Fig. 9k) of the holotype of *Lithosia usuguronis* Matsumura, 1927 (Figs 8k, l). Therefore, we transferred *usuguronis* into *Cerynia*

(**comb. nov.**). *Cer. usuguronis* is endemic to Taiwan and is distributed below 1,500 m a.s.l. Its male specimen and male genitalia are illustrated in Fig. 5c and Fig. 9l, respectively. In addition, the male genitalia of *arizana* are distinct from those of broad-sense *Eilema* generic groups proposed in Dubatolov & Zolotuhin (2011), Bucsek (2012), and Dubatolov and Bucsek (2013). We retain the treatment until further studies are conducted.

Katha magnata magnata (Matsumura, 1927)

Lithosia magnata Matsumura, 1927, *J. Coll. Agr. Hokkaido Imp. Univ.* 19 (1): 63, pl. IV, fig. 37.

Eilema magnata: Fu & Tzuoo, 2004: 133, pl. 54: 17.

Katha magnata magnata: Dubatolov *et al.*, 2012: 29, figs 5, 6.

Note. Dubatolov *et al*. (2012) transferred *magnata* into the genus *Katha*, however the male genitalia with 2 robust cornute is not corresponded to the generic definition of Dubatolov and Zolotuhin (2011), therefore further study is needed.

Distribution. The nominate subspecies occurs in Taiwan, the subspecies *nanlingica* Dubatolov, Kishida & Wang, 2012 occurs in Mt. Nanling, S. China (Dubatolov *et al.*, 2012).

Chrysorabdia vilemani Hampson, 1911

Chrysorabdia taiwana Wileman, 1910

Hesudra divisa Moore, 1878

Agylla divisa: Chen, 2011: 120, fig.

Hesudra divisa: Jia & Yu, 2018: 161, figs.

Vamuna alboluteora (Rothschild, 1912)

Vamuna virilis: Fu & Tzuoo, 2004: 129, pl. 54: 2, 3; Chen, 2011: 126, figs.

Vamura alboluteora: Wu *et al.*, 2013b: 311, pl. 30: 15, misspelling.

Churinga virago (Rothschild, 1913)

Agylla pulchristriata Kishida 1984

Teulisna tumida (Walker, 1862)

Mithuna arizana Wileman, 1911

Eugoa grisea Butler, 1877

Eugoa sinuata Wileman, 1914

Miltochrista acteola (Swinhoe, 1903)

Asura acteola Swinhoe, 1903; *Ann. Mag. Nat. Hist.* (7) 11 (65): 501; Hampson, 1914: 772, pl. 40, f. 17; Inoue & Kishida, 1992: 168; Wang, 1994b: 133, figs.

Lyclene acteola: Holloway, 2001: 347; Wu *et al.* 2013b: 323, figs 68, 69.

Miltochrista acteola: Volynkin & Huang, 2019: 81.

Distribution. Thailand (type locality); India and Taiwan (Wang, 1994b); China (Hong Kong) (Kendrick, 2002).

Miltochrista mediobliqua (Wu, Fu & Chang, 2013)

Lyclene mediobliqua Wu, Fu & Chang, *in* Wu *et al*. 2013b, *Moths of Hehuashan*: 321, pl. 30: 30, 31; figs 63, 64.

Miltochrista mediobliqua: Volynkin & Huang, 2019: 83.

Miltochrista yimingcheni (Wu, Fu & Chang, 2013)

Lyclene yimingcheni Wu, Fu & Chang, 2013, *in* Wu *et al.* 2013b, *Moths of Hehuashan*: 324, pl. 30: 32; fig. 65; Shang & Hsu, 2015: 58, fig.; Huang, 2018: 158, fig.

Miltochrista yimingcheni: Volynkin & Huang, 2019: 86.

Miltochrista wenchiyehi (Wu, Fu & Chang, 2013)

Lyclene wenchiyehi Wu, Fu & Chang, 2013, *in* Wu *et al.* 2013b, *Moths of Hehuashan*: 325, pl. 30: 33; figs 66, 67; Shang & Hsu, 2015: 58, fig.

Lyclene acteola: Fu & Tzuoo, 2004: 135, pl. 54: 28, *nec* Swinhoe, 1903

Miltochrista wenchiyehi: Volynkin & Huang, 2019: 86.

Miltochrista alikangiae alikangiae (Strand, 1917)

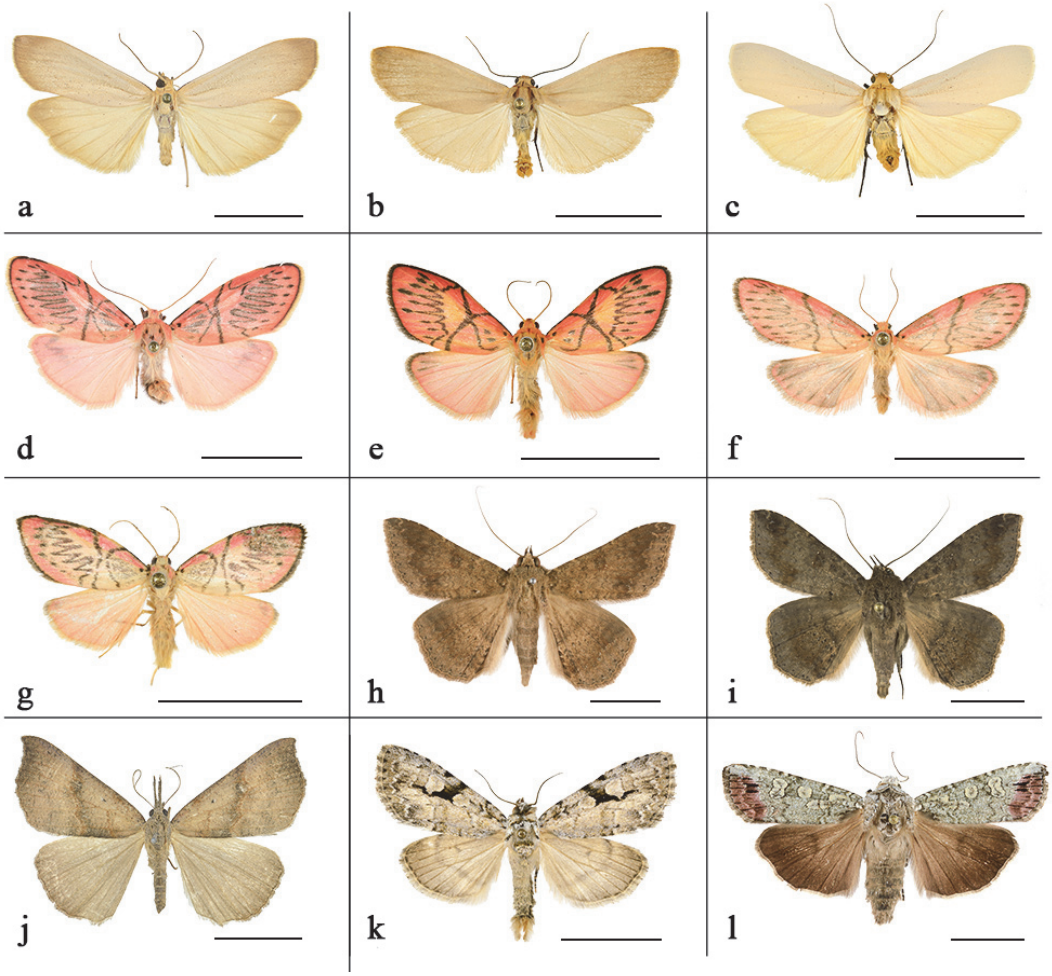
Asura obsoleta f. (?) *alikangiae* Strand, 1917, *Arch. Naturgesch.* 82 A (3): 124.

Asura alikangiae: Inoue & Kishida, 1992: 168; Wang, 1994b: 135, figs; Kendrick, 2002: 357, pl. 29: 27.

Lyclene alikangiae: Chen, 2011: 120, fig.; Kishida, 2011b: 159, pl. -22: -38, 39.

Miltochrista alikangiae alikangiae: Volynkin & Huang, 2019: 81.

Distribution. The nominate species occurs in Taiwan, the subspecies *intermedia* (Marumo, 1923) occurs in Yakushima Island and Ryukyu Islands (Kishida, 2011b). Kendrick (2002) recorded this species in Hong Kong



圖五　臺灣產夜蛾總科。a. *Eilema karenkona* (Matsumura, 1930) ♂；b. *Cernyia arizana* (Wileman, 1910) ♂；c. *Cer. usuguronis* (Matsumura, 1927) comb. nov. ♂；d. *Miltochrista yueh* Wu & Kishida, 2020 ♂，正模；e. *Ammatho shiou* Wu & Kishida, 2020 ♂，正模；f. *Sesapsa koshunica* (Strand 1917) ♂；g. *Ses. kishidai* Wu, 2019 ♂，正模；h. *Ericeia subcinerea* (Snellen, 1880) ♂；i. *Eri. elongata* Prout, 1929 ♂；j. *Hypena proboscidalis* Linnaeus, 1758 ♀；k. *Subleuconycta calonesiota* Kiss, Wu & Matov, 2017 ♂，副模；l. *Actebia praecurrens* (Staudinger, 1888) ♂。館藏出處：林業試驗所昆蟲標本館 (a-k)、中央研究院動物標本館 (g)、自然科學博物館，臺中 (l)。比例尺=10 mm。拍攝：吳士緯。

Fig. 5.　Noctuoidea of Taiwan. a. *Eilema karenkona* (Matsumura, 1930) ♂; b. *Cernyia arizana* (Wileman, 1910) ♂; c. *Cer. usuguronis* (Matsumura, 1927) comb. nov. ♂; d. *Miltochrista yueh* Wu & Kishida, 2020 ♂, holotype; e. *Ammatho shiou* Wu & Kishida, 2020 ♂, holotype; f. *Sesapsa koshunica* (Strand 1917) ♂; g. *Ses. kishidai* Wu, 2019 ♂, holotype; h. *Ericeia subcinerea* (Snellen, 1880) ♂; i. *Eri. elongata* Prout, 1929 ♂; j. *Hypena proboscidalis* Linnaeus, 1758 ♀; k. *Subleuconycta calonesiota* Kiss, Wu & Matov, 2017 ♂, paratype; l. *Actebia praecurrens* (Staudinger, 1888) ♂. Sources of specimens: TFRI (a-k), ASIZ (g); NMNS (l). Scale bar = 10 mm. Photograph by Shipher Wu.

without designating the subspecific status.

Miltochrista yueh Wu & Kishida, 2020 # (Fig. 5d)

Miltochrista yueh Wu & Kishida, *Japan Heterocerists' J.* 293: 450, figs 1, 2, 10, 16.

Miltochrista detifascia: Chen, 2011: 120, fig., *nec* Hampson, 1894

Ammatho karenkensis karenkensis (Matsumura, 1930)

Miltochrista karenkenis Matsumura, 1930, *Ins. Matsum.* 5: 38, pl. 1, f. 17; Wu & Kishida, 2018: 134, figs 22, 23.

Miltochrista karenkonis: Fu & Tzuoo, 2002: 135, pl. 54: 32, *nec* Matsumura, 1930

Barsine karenkensis karenkensis: Volynkin *et al.*, 2019a: 23, figs 94, 95, 194, 249.

Ammatho karenkensis karenkensis: Volynkin & Huang, 2019: 71.

Ammatho shiou Wu & Kishida, 2020 # (Fig. 5e)

Ammatho shiou Wu & Kishida, *Japan Heterocerists' J.* 293: 452, figs 4, 5, 12, 17.
Asura connexa: Chen, 2011: 120, fig., *nec* Wileman, 1910

Ovipennis connexa (Wileman, 1910)
Miltochrista connexa Wileman, 1910, *Entomologist* 43: 223, fig. 40.
Asura connexa: Inoue, 1988b: 114; Inoue & Kishida, 1992: 168.
Barsine connexa: Wu *et al.*, 2013b: 319, pl. 30: 35; figs 139, 140.
Ovipennis connexa: Volynkin & Huang, 2019: 73.

Sesapsa koshunica (Strand, 1917) # (Fig. 5f)
Miltochrista koshunica Strand, 1917, *Arch. Naturgesch.* 82 A (3): 127; Volynkin, 2019: 96, figs 4, 15.
Miltochrista aberans [sic, should be *aberrans*]: Chen, 2011: 120, fig., *nec* Butler, 1877
Sesapsa koshunica: Wu, 2019: 80, figs 4-8, 12-14, 17, 18, 21, 22; Volynkin & Huang, 2019: 80.
Distribution. Endemic to Taiwan (Wu, 2019).

Sesapa kishidai Wu, 2019 # (Fig. 5g)
Sesapa kishidai Wu, 2019, *Tinea* 25 (Suppl. 1): 77, figs 2, 11, 19; Volynkin & Huang, 2019: 80.
Specimens examined: Taiwan. 2 females, Hualien County, Ci'en, 2,039 m, 21-22. VII. 2015, leg. S. Wu (ASIZ).
Distribution. Endemic to Taiwan (Wu, 2019).

Barsine sauteri (Strand, 1917)
Barsine sauteri: Fu & Tzuoo, 2004: 135, pl. 54: 30; Volynkin & Haung, 2019: 68.

Barsine fuscozonata (Matsumura, 1931)
Barsine fuscozonata: Volynkin & Haung, 2019: 67.

Barsine ponlai Wu, Fu & Chang, 2013
Barsine ponlai: Huang, 2018: 158; Volynkin & Haung, 2019: 68.

Barsine callorufa Wu, Fu & Chang, 2013
Barsine callorufa: Huang, 2018: 158; Volynkin & Haung, 2019: 67.

Barsura albidorsalis (Wileman, 1914)
Asura albidorsalis: Fu & Tzuoo, 2004: 135, pl. 54: 22.
Barsine albidorsalis: Wu *et al*., 2013b: 321, pl. 30: 24; figs 72, 73.
Barsura (*Tenebrasura*) *albidorsalis*: Volynkin & Huang, 2019: 29.

Matsumursine horishanella (Matsumura, 1927)
Asura horishella Matsumura, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.*, 19: 69, pl. 5: 2; Matsumura, 1930b: 85; Matsumura, 1931: 947, fig.
Barsine horishanella: Wu *et al*., 2013b: 320, pl. 30: 36; figs 141, 142.
Matsumursine horishanella: Volynkin and Huang, 2019: 31.

Asuridia kishidai Wu & Fu, 2013
*Asuridia kishida*i Wu & Fu, 2013, *Zootaxa* 3737 (5): 598, figs 7, 8, 13, 14, 16; Volynkin & Huang, 2019: 73.
Asuridia rubripennis: Fu & Tzuoo, 2004: 134, pl. 54: 21 *nec* Inoue, 1988

Nanarsine semilutea (Wileman, 1911)
Nudaria semilutea Wileman, 1911a, *Entomologist* 44: 110.
Ovipennis postalba Fang, 1986, *Sinozoologia* 4: 178.
Gymunasura [sic] *semilutea*: Chang, 1989b: 73, fig.
Gymnasura semilutea: Hampson, 1914: 742; Matsumura, 1930b: 84; Inoue & Kishida, 1992: 168; Wang, 1994b: 132, fig.; Fu *et al*., 1995: 58.
Idopterum semilutea: Fang, 2000: 142, pl. 4: 4; Fu & Tzuoo, 2004: 135, pl. 54: 27.
Nanarsine semilutea: Volynkin & Huang, 2019: 63.

Stigmatophora karenkonis (Matsumura, 1930) # (Fig. 4l)
Miltochrista karenkonis Matsumura, 1930, *Ins. Matsum.* 5: 39, pl. 1, f. 15.
Stigmatophora palmata: Inoue & Kishida, 1992: 169, *nec* Walker, 1878
Stigmatophora karenkonis: Wu & Kishida, 2018: 131, figs 1-6, 13, 14, 18, 19.
Note. The species was for long misidentified as *Sti. palmata* (Walker, 1878). Wu & Kishida (2018) elucidated the related taxonomic problem.

Cyana formosana (Hampson, 1909)

Cyana hamata hamata (Walker, 1854)
Cyana hamata: Fu & Tzuoo, 2004: 134, pl. 54: 23, 24; Chen, 2011: 118, figs; Jia & Yu, 2018: 158, figs

Cyana subalba (Wileman, 1910)

Hemipsilia coavestis (Hampson, 1894)
Chamaita hirta Wileman, 1911
Chamaita ranruna (Matsumura, 1927)
Chamaita ranruna: Chang, 1989b: 56, fig.; Wang, 1994b: 154, fig.; Fang, 2000: 72, pl. 1-35; Wu *et al.*, 2013b: 327, pl. 30: 23.
Ghoria subpurpurea (Matsumura, 1927)
Ghoria collitoides subpurpurea: Fu & Tzuoo, 2004: 129, pl. 54: 6. Chen, 2011: 121, left fig.
Ghoria bani Kishida, 2006
Ghoria collitoides subpurpurea: Fu & Tzuoo, 2004: 129, pl. 54: 6. Chen, 2011: 121, right fig., *nec* Matsumura, 1927
Ghoria tecta (Wileman, 1910)
Eilema tecta: Fu & Tzuoo, 2004: 132, pl. 54: 15.

Subfamily SCOLIOPTERYGINAE

Scoliopteryx libatrix (Linnaeus, 1758)
Rusicada privata (Walker, 1865)
Anomis nigritarsis: Fu & Tzuoo, 2002: 67, pl. 18: 10, *nec* Walker, 1857 [1858]
Rusicada fulvida (Guenée, 1852)
Anomis privata: Fu & Tzuoo, 2002: 67, pl. 18: 19, *nec* Walker, 1865
Rusicada privata: Kishida, 2018a: 55, pl. 15: 11, *nec* Walker, 1865
Rusicada fulvida: Kishida, 2018a: 56.
Rusicada fulavida [sic]: Kishida, 2018a: pl. 15: 12.
Rusicada combinans Walker, [1858] 1857
Anomis macronephra: Fu & Tzuoo, 2002: 68, pl. 18: 11.
Cosmophila flava (Fabricius, 1775)
Anomis flava: Fu & Tzuoo, 2002: 67, pl. 18: 5; Jia & Yu, 2018: 208, figs.
Cosmophila flava: Kishida, 2018a: 55, pl. 15: 9.
Goniocraspidum pryeri (Leech, 1889)

Subfamily RIVULIINAE

Oglasa mediopallens Wileman & South, 1917

Subfamily PANGRAPTINAE

Pangrapta squamea (Leech, 1901)
Zethes squamea Leech, 1900, *Trans. Em. Soc. London.* 1900: 60l.
Pangrapta squamea: Warren, 1913 (1909-1913): 407, pl. 74d; Chen, 1999: 1236, pl. 64: 32; Poole, 1989: 763.
Eutrogia morosa (Moore, 1882)

Subfamily CALPINAE

Eudocima salaminia (Cramer, 1777)
Eudocima salaminia: Jia & Yu, 2018: 209, figs.
Eudocima homaena (Hübner, [1827] 1816)
Othreis homaena: Fu & Tzuoo, 2002: 67, pl. 17: 5, 6.
Eudocima homaena: Hsu & Hsu, 2017: 146, figs; Jia & Yu, 2018: 210, figs.
Eudocima phalonia (Linnaeus, 1763)
Othreis fullonia: Fu & Tzuoo, 2002: 67, pl. 18: 2, 4.
Eudocima phalonia: Jia & Yu, 2018: 210, figs.
Eudocima tyrannus (Guenée, 1852)
Adris tyrannus: Fu & Tzuoo, 2002: 67, pl. 18: 1.
Eudocima tyrannus: Jia & Yu, 2018: 210, figs.
Eudocima okurai (Okano, 1964)
Adris okurai: Fu & Tzuoo, 2002: 67, pl. 18: 3; Chen, 2011: 128, figs.
Plusiodonta coelonota (Kollar, 1844)
Calyptra fletcheri (Berio, 1955)
Oraesia excavata (Butler, 1878)
Oraesia excavata: Jia & Yu, 2018: 206, figs; Kishida, 2018a: 54, pl. 15: 4.
Dinumma deponens Walker, 1858
Dinumma deponens: Jia & Yu, 2018: 236, figs.

Subfamily HYPOCALINAE

Hypocala deflorata deflorata (Fabricius, 1794)
Noctua deflorata Fabricius, 1794, *Ent. Syst.* 3 (2): 127.
Hypocala angulipalpis Guenée, 1852, in Boisduval & Guenée, Hist. nat. Ins., Spec. gén. Lépid. 7 (Noct. 3): 77.
Hypocala moorei Butler, 1892, *Ann. Mag. nat. Hist.* (6) 10: 21; Kishida, 1980, *Gekkan-Mushi* 108: 29, fig. 13.
Hypocala deflorata: Sugi, 1992c: 179; Wang, 1994: 219, figs; Chen, 1999: 1184, pl. 42: 19; Fu & Tzuoo, 2002: 67, pl. 16: 20; Kononenko & Pinratana, 2005: 37, pl. 9: 11-13; Holloway, 2005: 168, pl. 11: 1, figs 257, 259; Kishida *et al*., 2011a: 241, pl. 50: 13; Fu *et al*., 2013d: 365, pl. 32: 8; Hsu & Hsu, 2017: 147, figs; Jia & Yu, 2018: 202, figs; Kishida, 2018a: 55, pl. 15: 6.
Distribution. Africa, Indian Subregion,

China, Taiwan, Borneo, Japan (ssp. deflorata); Queensland, Vanuatu, New Caledonia, Rotuma, Fiji, Samoa and vagrant to Norfolk I. and New Zealand (ssp. *Australiae* Butler, 1892) (Holloway, 2005).

Hypocala subsatura Guenée, 1852

Hypocala substura: Jia & Yu, 2018: 202, figs.

Subfamily TAXOCAMPINAE

Lygephila yoshimotoi Kinoshita, 1989

Lygephila dorsigera (Walker, 1865)

Lygephila (*Lygephila*) *kishidai*: Fu *et al.*, 2013f: 367, pl. 32: 14.

Lygephila kishidai: Fu & Tzuoo, 2002: 68, pl. 18: 14.

Lygephila dorsigera: Pekarsky, 2016: 554, figs 9, 10, 15, 16, 26-30.

Perinaenia mingchyrica Babics & Ronkay, 2011

Perinaenia accipiter: Fu & Tzuoo, 2002: 68, pl. 19: 1, *nec* Felder & Rogenhofer, 1874

Note. According to Babics and Ronkay (2011), the *Perinaenia* population in Taiwan is *mingchyrica* Babics & Ronkay, 2011, therefore the distribution of *accipitor* Felder & Rogenhofer, 1874 in Taiwan stated by Kishida (2018a: 57) is incorrected.

Subfamily BOLETOBIINAE

Diomea discoinsigna (Strand, 1920)

Tamba taiwana Yoshimoto, 2002

Parolulis renalis (Moore, [1885])

Dunira diplogramma: Fu *et al.*, 2013c: 366, pl. 32: 11., *nec* Hampson, 1912

Subfamily AVENTIINAE

Oruza brunnea (Leech, 1900)

Oruza glaucotorna Hampson, 1910

Sophta olivata (Hampson, 1902)

Lophoruza albicostalis (Leech, 1889)

Corgatha costimacula (Staudinger, 1892)

Subfamily EREBINAE

Sympis rufibasis Guenée, 1852

Sympis rufibasis: Jia & Yu, 2018: 212, figs; Kishida, 2018a: 54, pl. 14: 7.

Hypospila bolinoides Guenée, 1852

Hypospila bolinoides: Jia & Yu, 2018: 213, figs; Kishida, 2018a: 55, pl. 15: 7.

Daddala lucilla (Butler, 1881)

Sypna diversa Wileman & South, 1917

Sypna chloronebula Ronkay, Ronkay, Wu & Fu, 2013

Sypnoides hampsoni (Wileman & South, 1917)

Sypnoides pannosa (Moore, 1882)

Sypnoides pannosa: Kishida, 2018a: 62, pl. 18: 2.

Sypnoides chinensis Berio, 1958

Hypersypnoides formosensis (Hampson, 1926)

Hypersypnoides submarginata (Walker, 1865)

Erebus gemmans (Guenée, 1852)

Erebus albicincta obscurata (Wileman, 1923)

Erebus pilosa (Leech, 1900)

Catocala nivea asahinaorum Owada, 1986

Catocala formosana Okano, 1958

Catocala pataloides Mell, 1931

Catocala intacta taiwana Sugi, 1965

Catocala dejeani owadai Ishizuka, 2002

Catocala shirozui Sugi, 1982

Catocala armandi shirozui: Fu & Tzuoo, 2004: 185, pl. 21: 6.

Catocala wushensis Okano, 1964

Catocala macula (Hampson, 1891)

Catocala macula: Jia &Yu, 2018: 179, figs.

Ommatophora luminosa (Cramer, 1780)

Ischyja manlia (Cramer, 1776)

Ischyja manlia: Hsu & Hsu, 2017: 95, figs; Jia & Yu, 2018: 198, figs; Kishida, 2018a: 53, pl. 14: 9.

Anisoneura salebrosa Guenée, 1852

Anisoneura salebrosa: Jia & Yu, 2018: 196, figs; Kishida, 2018a: 54, pl. 15: 1.

Anisoneura aluco (Fabricius, 1775)

Anisoneura aluco: Jia & Yu, 2018: 196, figs.

Ercheia umbrosa Butler, 1881

Ercheia umbrosa: Jia & Yu, 2018: 190, figs.

Ercheia cyllaria (Cramer, 1779)

Ercheia cyllaria: Hsu & Hsu, 2017: 148, figs; Jia & Yu, 2018: 190, figs; Kishida, 2018a: 57, pl. 15: 20.

Hulodes caranea (Cramer, 1780)

Hulodes caranea: Jia & Yu, 192, figs; Kishida, 2018a: 60, pl. 17: 11.

Ericeia subcinerea (Snellen, 1880) # (Fig. 5h)

Ericeia pertendens: Fu & Tzuoo, 2002: 66, pl. 16: 16, *nec* Walker, 1858

Ericeia inangulata inangulata: Fu *et al.*, 2013i: 380, pl. 35: 3, *nec* Guenée, 1852

Ericeia subcinerea: Galsworthy, 1997: 135, fig. 13b; Jia & Yu, 2018: 193, figs.

Specimens examined. Taiwan. 1 male, Nantou County, Hohuanshan, 3,003 m, 14. IX.2009, leg. L. C. Shih, slide A12-20090914-010 (ESRI); 1 female, Hualien County, Chin-ma Tunnel, 2,408 m, 23. IX. 2009, leg. L. C. Shih, slide A09-20090923-022 (ESRI); 1 female, Taichung County, Anmashan, 2,100 m, 13. IX. 1996, leg. C. M. Fu, dissected (CCMF); 1 female, Taichung County, Anmashan, 2,275 m, 19. VIII. 1996, leg. C. M. Fu, dissected (CCMF).

Note. Externally, *Eri. subcinerea* and *Eri. inangulata* (Guenée, 1852) are difficult to separate; however, Galsworthy (1997) and Holloway (2005) provided clear diagnoses and illustrations of male genitalia. After dissecting the specimens, considering the similar appearances of the 2 species with those recorded in Fu and Tzuoo (2002) and Fu *et al*. (2013i), all specimens are the former species. To the best of our knowledge, *Eri. inangulata* was first recorded by Sugi (1992c). Whether the species is actually distributed in Taiwan requires further investigations.

Ericeia elongata Prout, 1929 # (Fig. 5i)

Ericeia elongata Prout, 1929, *Bull. Hill Mus. Witley* 3: 117.

Ericeia elongata fuscipuncta Prout, 1929, *Bull. Hill Mus. Witley* 3: 118.

Ericeia elongata nauarchia Prout, 1929, *Bull. Hill Mus. Witley* 3: 118

Ericeia acutangula Roepke, 1932, *Mém. Mus. r. Hist. nat. Belg. IV, 6* (hors série): 91; Galsworthy, 1997: 135, fig. 13a.

Ericeia elongate [sic]: Jia & Yu, 2018: 193, figs, misspelling.

Ericeia sp.: Fu *et al.*, 2013i: 380, pl. 35: 3.

Ericeia sp. 1: Kishida *et al*., 2011b: 263, pl. 61: 15~18.

Ericeia sp. 2: Kishida *et al*., 2011b: 264, pl. 61: 19, 20.

Ericeia subcinerea: Fu & Hsu, 2009: 55, pl. 8: 7, *nec* Snellen, 1880

Specimens examined. Taiwan. 1 male, Nantou County, Hohuanshan, 3,002 m, 2. X. 2007, leg. H. H. Lin, dissected (ESRI); 1 female, Taitung County, Green Island, Around Island Highway 5 km, 50 m, 10. III. 2008, leg. C. M. Fu, dissected (CCMF); 1 female, Taitung County, Green Island, Fire-Burned Hill, 185 m, 12. III. 2008, leg. C. M. Fu, dissected (CCMF).

Note. The examined male genitalia of specimens match those of *Eri. elongata* in Holloway (2005). Herein, we record the species in Taiwan for the first time. In *Eri. subcinerea* and *Eri. elongata* females, the wing shapes and genitalia are similar, and the dorsal wing patterns vary among individuals. Both sexes in the 2 species can be distinguished externally based on the obvious color boundaries inside and outside the ventral submarginal area in *Eri subcinerea*, while the boundary is not obvious in *Eri. elongata*.

Distribution. Indo-Australian tropics to New Guinea, Queensland (Holloway, 2005); Taiwan, including Green Island (new record).

Serrodes campana Guenée, 1852

Avatha chinensis (Warren, 1913)

Pindara illibata (Fabricius, 1775)

Pindara illibata: Hsu & Hsu, 2017: 102, figs.

Bastilla acuta acuta (Moore, 1883)

Bastilla joviana joviana (Stoll, 1782)

Bastilla maturata (Walker, 1858)

Achaea janata (Linnaeus, 1758)

Artena dotata (Fabricius, 1794)

Artena dotata: Hsu & Hsu, 2017: 150, figs; Jia & Yu, 2018: 179, figs.

Thyas juno (Dalman, 1823)

Thyas coronata (Fabricius, 1775)

Thyas coronata: Hsu & Hsu, 2017: 149, figs; Jia & Yu, 2018: 180, figs; Kishida, 2018a: pl. 16: 6.

Ophiusa tirhaca (Cramer, 1777)

Ophiusa tirhaca: Kishida, 2018a: 57, pl. 16: 1.

Lacera procellosa Butler, 1879

Polydesma boarmoides Guenée, 1852

Polydesma boarmoides: Jia & Yu, 2018: 191, figs.

Pilipectus taiwanus Wileman, 1915

Avitta puncta Wileman, 1911

Avitta taiwana Wileman, 1915
Batracharta divisa Wileman, 1914
Blasticorhinus bifasciata (Wileman, 1914)
Scedopla umbrosa (Wileman, 1916)
Scedopla umbrosa: Jia & Yu, 2018: 224, figs.

Subfamily AGANAINAE

Asota heliconia zebrina (Butler, 1877)
Asota heliconia zebrina: Hsu & Hsu, 2017: 155, figs.
Asota plana lacteata (Butler, 1881)
Asota plana lacteata: Hsu & Hsu, 2017: 156, figs.
Asota egens confinis Rothschild, 1897
Asota egens confinis Rothschild, 1897*, in* Rothschild & Jordan, *Novit. Zool.* 4: 320; Kishida, 2011a: 168, pl. 28: 8, 9.
Asota egens indica: Chang, 1989b: 138, fig. 1; Inoue, 1992a: 171; Wang, 1994: 7, figs; Fu & Tzuoo, 2002: 63, pl. 15: 2; Fu & Hsu, 2009: 57, pl. 9: 3; Fu *et al.*, 2013b: 292, pl. 28: 9, *nec* Jordan, 1897
Distribution. Indonesia (New Guinea) (ssp. *Egens* Walker, 1854), Borneo (ssp. *Nebulosi* Butler, 1876); India, Nepal, Thailand, China (ssp. *Indica* Rothschild, 1897); the Phillipines, Taiwan, Japan (ssp. *confinis*) (Kishida, 2011a).
Asota tortuosa (Moore, 1872)
Mecodina subcostalis (Walker, 1865)
Mecodina sp. near *subcostalis*: Fu & Tzuoo, 2002: 66, pl. 16: 18.
Mecodina subcostalis: Hsu & Hsu, 2017: 80, figs.
"*Mecodina*" sp.
Mecodina sp.: Fu & Tzuoo, 2002: 66, pl. 16: 24.

Subfamily HYPENINAE

Itmaharela basalis (Moore, 1882)
Anoratha sinuosa Wileman, 1916
Latirostrum bisacutum Hampson, 1895
Perciana marmorea Walker, 1865
Perciana taiwana Wileman, 1911
Perciana taiwana: Kishida, 2018a: 56, pl. 15: 14.
Distribution. Taiwan (type locality), S. China (Kishida, 2018a).
Gonoglasa contigua (Wileman, 1915)
Lophomilia sp.: Fu & Tzuoo, 2002: 65, pl. 16: 11.
Hypena proboscidalis Linnaeus, 1758 # (Fig. 5j)
Hypena proboscidalis Linnaeus, 1758, *System Naturae.* 1: 533, no. 228; Wang, 1994c: 349, figs; Heppner, 2012: 37.
Hypena cervinalis Moore, 1867, *Proc. Zool. Soc. Lond.* 1867 [1868]: 83; Wang, 1994c: 348, figs; Fu & Tzuoo, 2002: 64, pl. 15: 15 (female).
Hypena sp.: Fu & Tzuoo, 2002: 64, pl. 15: 15 (male).
Hypena iconicalis Walker, [1859]
Hypena furva Wileman, 1911
Hypena perspicua (Leech, 1900)
Hypena taiwana (Wileman, 1915)
Hypena zillana: Fu *et al.*, 2013e: 295, pl. 28: 20.
Hypena narratalis Walker, [1859]
Hypena tristalis Lederer, 1853
Hypena uncipennis Swinhoe, 1895
Hypena longipennis Walker, [1866]
Hypena longipennis: Kishida, 2018b: 47, pl. 12: 19.
Hypena lignealis Walker, 1866
Hypena ophiusoides Moore, 1882
Hypena ophiusoides: Jia & Yu, 2018: 233, figs.
Hypena sinuosa Wileman, 1911
Hypena sinuosa: Kishida, 2018b: 47, pl. 12: 17.
Note. The above 2 taxa are potentially synonymous and need further study.
Hypena tenebralis Moore, 1867

Subfamily HERMINIINAE

Orthozona curvilineata Wileman, 1915
Paracolax angulata Wileman, 1915
Hadennia montana Wu, Fu & Owada, 2013
Hadennia sp.
Hadennia incongruens: Fu & Tzuoo, 2002: 63, pl. 15: 5, *nec* Butler, 1878
Note. Based on the study by the first author, *Hadennia incongruens* (Butler, 1878) does not occur in Taiwan, the specimen illustrated in Fu & Tuoo (2002) represents an undescribed species.
Cidariplura bilineata Wileman & South, 1919
Mosopia subnubila (Leech, 1900)
Mosopia subnubila: Owada & Wu, 2018: 45, pl. 12: 5.
Bertula bisectalis (Wileman, 1915)
Bertula terminalis (Wileman, 1915)

Bertula sp.
Bertula bidentata: Wu *et al.*, 2013a: 333, pl. 31: 14, *nec* Wileman, 1915
Hydrillodes torsivena Hampson, 1895
Hydrillodes wilemani Owada, 1992
Hydrillodes flavimacula Wu, Fu & Owada, 2013
Hydrillodes sp.
Hydrillodes sp.: Fu & Tzuoo, 2002: 63, pl. 15: 10.
Simplicia niphona (Butler, 1878)
Simplicia niphona: Jia & Yu, 2018: 175, figs.
Simplicia rhyal Wu, Fu & Owada, 2013
Simplicia rhyal: Owada & Wu, 2018: 46, pl. 12: 13.
Zanclognatha meifengensis Wu, Fu & Owada, 2013
Treitschkendia insipidalis (Wileman, 1915)
Zanclognatha helva: Fu & Tzuoo, 2004: 185, pl. 56: 18, *nec* Butler, 1879
Sinarella takasago Wu, Fu & Owada, 2013
Sinarella formosensis Wu, Fu & Owada, 2013
Sinarella formosensis: Huang, 2018: 158.

Family NOCTUIDAE
Subfamily ACRONICTINAE
Acronicta gigasa Chang, 1991
Acronicta denticulata pernivea Chang, 1991
Acronicta hercules (Felder & Rogenhofer, 1874)
Harmandicrania harmandi (Poujade, 1898)
Craniophora harmandi: Fu & Tzuoo, 2002: 77, pl. 23: 33; Fu *et al.*, 2013j: 402, pl. 38: 4; Eda, 2018a: 70, pl. 20: 1.
Harmandicrania harmandi: Kiss, 2017: 34, figs 49, 50, 67, 77, 85, 93.
Fascionycta fasciata (Moore, [1884])
Craniophora fasciata: Fu & Tzuoo, 2002: 77, pl. 24: 5; Jia & Yu, 2018: 258, figs.
Fascionycta fasciata: Kiss, 2017: 56, Figs 129, 130, 137, 141, 145, 149; Hsu & Hsu, 2017: 104, figs.
Subleuconycta calonesiota Kiss, Wu & Matov, 2017 # (Fig. 5k)
Subleuconycta calonesiota Kiss, Wu & Matov, 2017, *Zootaxa* 4237 (3): 593, figs 1-4, 9-12, 21, 24, 25; Huang, 2018: 158, fig.
Subleuconycta palshkovi: Fu & Tzuoo, 2002: 77, pl. 23: 20; 36: 3, *nec* Filipjev, 1937
Lophonycta neoconfusa Chang, 1991
Subfamily DYOPSINAE
Arcte coerula (Guenée, 1852)
Arcte coerula: Hsu & Hsu, 2017: 135, figs.
Subfamily PANTHEINAE
Trisuloides sericea Butler, 1881 (Fig. 6a)
Trisuloides sericea: Hsu & Hsu, 2017: 140, figs; Eda, 2018i: 68, pl. 19: 5.
Trisuloides taiwana Sugi, 1976 (Fig. 6b)
Note. Wu *et al.* (2013d) stated the species *Tri. taiwana* is distributed from 750 m to 1950 m. The further study by Wu and Shih (2018) proved the lower montane population is another endemic species *Tri. sugii* Wu & Shih, 2018 (Wu & Shih, 2018, *Tinea* 24 (2): 11, figs 1-4, 13, 16, 19, 20) (Fig. 6c).
Disepholcia caerulea (Butler, 1889)
Trisuloides caerulea: Fu & Tzuoo, 2002: 76, pl. 23: 12.
Tambana subflava (Wileman, 1911)
Trisuloides subflava: Fu & Tzuoo, 2002: 76, pl. 23: 19.
Anacronicta nitida (Butler, 1878)
Anacronicta caliginea (Butler, 1881)
Panthea grisea Wileman, 1910
Trichosea champa (Moore, 1879)
Trichosea champa: Eda, 2018i: 69, pl. 19: 11.
Trichosea diffusa Sugi, 1986
Subfamily BRYOPHILINAE
Cryphia basichlora Kononenko, 1998
Cryphia herczigi Hreblay & Ronkay, 2000
Cryphia hohuana Hreblay & Ronkay, 2000
Stenoloba pulla Ronkay, 2001
Stenoloba olivacea (Wileman, 1914)
Stenoloba nigrabasalis Chang, 1991
Bryomoia melachlora (Staudinger, 1892)
Subfamily ERIOPINAE
Callopistria repleta Walker, 1858
Callopistria repleta: Hsu & Hsu, 2017: 138, figs; Eda, 2018d: 76, pl. 21: 6.
Callopistria maillardi maillardi (Guenée, 1862)
Callopistria maillardi: Fu & Tzuoo, 2002: 89, pl. 25: 25. Chen, 2011: 136, figs; Wu *et al.*, 2013c: 422, pl. 38: 18.
Callopistria maillardi maillardi: Hsu & Hsu, 2017: 137, figs.
Callopistria phaeogona (Hampson, 1908)

Callopistria nigrescens (Wileman, 1915)
Callopistria delicata Chang, 1991

Subfamily AGARISTINAE

Sarbanissa cirrha (Jordan, 1912)
Seudyra cirha Jordan, *in* Seitz, 1912, *Gross-Schmett. Erde* 11: 27.
Maikona yazakii Kishida, 1987
Maikona jezoensis yazakii: Fu & Tzuoo, 2002: 79, pl. 23: 31; 33: 7.
Maikona yazakii: Owada *et al*., 2003: 194, figs 3, 10, 13; Eda & Wang, 2019: 74.

Subfamily AMPHIPYRINAE

Amphipyra averna Hreblay & Ronkay, 1997
Amphipyra surnia Felder & Rogenhofer, 1874
Amphipyrinae monolitha surnia: Eda, 2018b: 70, pl. 19: 15.
Amphipyra tarokoensis Wu, Ronkay, Owada & Fu, 2013
Amphipyra fuscusa Chang, 1991
Amphipyra shyrshana Chang, 1991
Amphipyra deletaiwana Hreblay & Ronkay, 1998
Amphipyra formosana Hreblay & Ronkay, 1998
Callyna contracta Warren, 1913
Callyna contracta: Jia & Yu, 2018: 265, figs.
Callyna semivitta Moore, 1882
Callyna semivitta: Hsu & Hsu, 2017: 136, figs; Jia & Yu, 2018: 265, figs; Eda, 2018b: 70, pl. 19: 17.

Subfamily PLUSIINAE

Macdunnoughia crassisigna (Warren, 1913)
Sclerogenia jessica (Butler, 1878)
Sclerogenia jessica: Kobayashi & Eda, 2018: 66, pl. 24: 27.
Antoculeora yoshimotoi Ronkay, 1997
Abrostola anophioides Moore, 1882
Abrostola suisharyonis suisharyonis Strand, 1920
Abrostola triplasia (Linnaeus, 1758)
Trichoplusia ni (Hübner, 1803)
Thysanoplusia intermixta (Warren, 1913)
Thysanoplusia orichalcea: Chen, 2011: 146, figs, part, *nec* Fabricius, 1775
Thysanoplusia (*Thysanoplusia*) *intermixta*: Fu *et al.*, 2013m: 389, pl. 36: 5.
Thysanoplusia intermixta: Kobayashi & Eda, 2018: 65, pl. 23: 19.
Note. Chen (2011: 146, 147) illustrated 2 larval and 4 adult images captioned as "*Thysanoplusia orichalcea*". After reconfirmaiton with the author, it proves that only the right-bottom image of page 147 is *Thysanoplusia orichalcea* and the remain adults and 2 forms of larvae are actually *Thysanoplusia intermixta.*
Thysanoplusia orichalcea (Fabricius, 1775)
Thysanoplusia orichalcea: Hsu & Hsu, 2017: 139, figs.
Thysanoplusia reticulata (Moore, 1882)
Thysanoplusia reticulata: Jia & Yu, 2018: 254, figs.
Ctenoplusia limbirena (Guenée, 1852)
Ctenoplusia albostriata (Bremer & Grey, 1852)
Ctenoplusia albostriata: Jia & Yu, 2018: 256, figs.
Ctenoplusia placida (Moore, 1884)
Ctenoplusia furcifera (Walker, 1857)
Ctenoplusia kosemponensis (Strand, 1920)
Ctenoplusia sumbawana Behounek & Ronkay, 1999
Ctenoplusia adiaphora (Dufay, 1974)
Ctenoplusia mutans (Walker, 1865)
Plusia mutans Walker, 1865, *List Spec. Lepid. Insects Colln Br. Mus.* 33: 839.
Dactyloplusia mutans: Kobayashi & Eda, 2018: 65, pl. 23: 17.
Ctenoplusia agnata (Staudinger, 1892)
Chrysodeixis eriosoma (Doubleday, 1843)
Chrysodeixis minutus Dufay, 1970
Chrysodeixis taiwani Dufay, 1974
Chrysodeixis heberachis (Strand, 1920)
Plusiopalpa adrasta shisa Strand, 1920
Stigmoctenoplusia aeneofusa (Hampson, 1894)
Specimen examined. Taiwan. 1 female, Nantou County, Tatajia, 2,610 m, 1. XI. 2011, leg. S. Wu & W. C. Chang (TFRI).
Note. According to Fu *et al.* (2013m: 393), in Taiwan, the species mostly occurs in low-altitude areas (300-750 m a.s.l.), and only a few localities are known from higher altitudes, 1,200-2,000 m a.s.l., in Central Taiwan. Here we add one record >2,000 m a.s.l.
Extremoplusia megaloba (Hampson, 1912)
Anadevidia peponis (Fabricius, 1775)

Subfamily HELIOTHINAE

Helicoverpa armigera (Hübner, 1808)
Heliothis armigera: Fu & Tzuoo, 2002:

124, pl. 29: 13.

Herlicoverpa armigera: Jia & Yu, 2018: 257, figs; Eda, 2018g, 75, pl. 21: 2.

Subfamily AEDIINAE

Chytonix variegata Wileman, 1914

Chytonix conjuncta (Wileman, 1914)

Subfamily CONDICINAE

Condica illecta (Walker, 1865)

Condica illecta: Eda, 2018c, 74, pl. 20: 24.

Condica dolorosa (Walker, 1866)

Subfamily NOCTUINAE

Apsarasa radians (Westwood, 1848)

Apsarasa radians: Jia & Yu, 2018: 266, figs; Shikata & Eda, 2018: 84, pl. 23: 5.

Note. The higher classification placement of this species is still unclear, we tentatively follows Holloway (2011) to tentatively place it in the Noctuinae.

Agrotis segetum (Denis & Schiffermüller, 1775)

Agrotis segetum: Eda, 2018h: 87, pl. 24: 5.

Agrotis ipsilon (Hufnagel, 1766)

Agrotis ipsilon: Jia & Yu, 2018: 272, figs.

Agrotis taiwana Chang, 1991

Albocosta triangularis (Moore, 1867)

Actebia praecurrens (Staudinger, 1888) # (Fig. 5-l)

Agrotis praecurrens Staudinger, 1888, *Stettiner Entomol. Zeitung* 49: 248.

Ochropleura praecox: Sugi, 1992e: 201, *nec* Linnaeus, 1758

Actebia praecurrens: Ronkay, G. *et al.*, 2013b: 17, pl. 1, figs 3-4; pl. 21, figs 7-12; gen. figs 3-4.

Specimen examined: Taiwan. 1 male, Nantou County, Meifeng, [ca. 2,100 m], VI. 1988, leg. C. S. Lin (NMNS).

Sineugraphe elkalandozta Ronkay, Ronkay, Fu & Wu, 2013

Sineugraphe rhytidoprocta: Fu & Tzuoo, 2002: 119, pl. 29: 5, *nec* Boursin, 1954

Cerastis griseiorbis Hreblay & Ronkay, 1997

Peridroma saucia (Hübner, 1808)

Diarsia yoshimotoi Plante, 1994

Diarsia unica Plante, 1994

Diarsia nigrosigna (Moore, 1881)

Diarsia canescens (Butler, 1878)

Diarsia carnipennis Chang, 1991

Diarsia subtincta Chang, 1991

Diarsia arenosoides Poole, 1989

Diarsia nigrafasciata Chang, 1991

Diarsia cia (Strand, 1919)

Diarsia sinuosa (Wileman, 1912)

Diarsia formosensis (Hampson, 1914)

Diarsia formosana Boursin, 1948

Diarsia macrodactyla: Fu & Tzuoo, 2002: 120, pl. 29: 17, *nec* Boursin, 1954

Diarsia taidactyla Varga & Ronkay, 2007

Diarsia formosana: Fu & Tzuoo, 2002: 121, pl. 29: 21, *nec* Boursin, 1948

Pseudohermonassa owadai Ronkay, Ronkay, Fu & Wu, 2013

Xestia csoevarii Hreblay & Ronkay, 2000

Xestia fuscostigma csoevarii: Fu & Tzuoo, 2002: 122, pl. 29: 25.

Xestia tamsi (Wileman & West, 1929)

Xestia supravidua Ronkay, Ronkay, Fu & Wu, 2013

Xestia yamanei Chang, 1991

Xestia flavilinea (Wileman, 1912)

Xestia enyachangae Wu, Fu, Ronkay & Ronkay, 2013

Xestia efflorescens: Fu & Tzuoo, 2002: 123, pl. 29: 28; 35: 7; Fu & Tzuoo, 2004: 197, *nec* Butler, 1879

Xestia semiherbida (Walker, 1857)

Xestia kollari (Lederer, 1853)

Xestia kollari: Eda, 2018h: 87, pl. 24: 6.

Anaplectoides fuscivirens Sugi, 1995

Anaplectoides inouei Plante, 1987

Anaplectoides semivirens Ronkay & Ronkay, 1999

Note. The only 2 male specimens designated as the type specimens were collected from Taipingshan area (below 2,000 m a.s.l.), Ilan County, and Karenko (the old locality name of Hualien in the era of Japanese occupation), respectively. One observation event was recorded by the first author when conducting ecological survey by light trap in Guanyuan (2,300 m), Taroko National Park on 20th August, 2015, without a voucher image or specimen. Further investigations are required to confirm the altitudinal range of the rare endemic species.

Himachalia formosana Hreblay & Ronkay, 1998

Hermonassa hemicyclia Plante, 1994

Hermonassa formontana Hreblay & Ronkay,

1997

Hermonassa plantei Hreblay & Ronkay, 1997

Hermonassa inconstans Wileman, 1912

Hermonassa legraini Plante, 1994

Axylia putris triseriata Moore, 1888

Axylia putris: Fu & Tzuoo, 2002: 119, pl. 29: 29.

Tiracola aureata Holloway, 1989

Tiracola aureata Holloway, 1989: 94-95, figs 77, 83, pl. 1: 24; Sugi, 1989: 63; Chang, 1991: 115-117; Sugi, 1992: 199; Wang, 1996: 146; Fu & Hsu, 2009: 59, part; Sugi & Tominaga, 2001: 218; Yoshimatsu, 2011: 372, pl. 98: 1; Watabiki & Yoshimatsu, 2013: 125-126, figs 3-4, 7.

Tiracola plagiata: Fu & Tzuoo, 2002: 114-115, pl. 27-30; Fu *et al*., 2013l: 505, pl. 43: 30; Hsu & Hsu, 2017: 134, figs, *nec* Walker, 1857

Triacola [sic] *plagiata*: Chen, 2011: 148, figs, misspelling, *nec* Walker, 1857

Note. Owada and Fu (2020) elucidated the taxonomic problems and distributions of the *Tiracola* populations in the Nanheng mountain range, southern Taiwan, as well as Green Island and Lanyu. They confirmed that *Tir. plagiata* is mainly a lowland flyer in Taiwan and *Tir. aureata* is mainly a montane species.

Perigrapha nigrocincta Hreblay & Ronkay, 1997

Orthosia atriluna Ronkay & Ronkay, 1999

Orthosia perfusca Sugi, 1986

Orthosia alishana Sugi, 1986

Orthosia lushana Sugi, 1986

Orthosia castanea Sugi, 1986

Orthosia limbata limbata (Butler, 1879)

Orthosia limbata: Fu *et al.*, 2013l: 498, pl. 43: 9.

Orthosia limbata limbata: Kobayashi *et al*., 2016: 100, pl. 44: 93.

Orthosia reticulata fuscovestita Hreblay & Ronkay, 1998

Orthosia kurosawai Sugi, 1986

Orthosia carnipennis (Butler, 1878)

Orthosia carnipennis: Kobayashi *et al*., 2016: 99, pl. 43: 92.

Anorthoa changi Ronkay & Ronkay, 2001

Anorthoa fabiani (Hrebley & Ronkay, 1998)

Anorthoa plumbeata (Hreblay & Ronkay, 1998)

Anorthoa munda plumbeata: Fu & Tzuoo, 2002: 111, pl. 27: 29; 35: 2; Fu *et al.*, 2013l: 499, pl. 43: 16.

Anorthoa plumbeata: Owada *et al.*, 2015: 171, figs 1, 2, 5-8, 10, 12, 14.

Egira acronyctoides (Wileman, 1914)

Lithopolia confusa confusa (Wileman, 1914)

Lithopolia confusa: Fu & Tzuoo, 2002: 108, pl. 27: 11.

Lithopolia albistigma Hreblay & Ronkay, 1998

Lithopolia tadaokanoi Wu & Yen, 2019 # (Fig. 6d)

Lithopolia tadaokanoi Wu & Yen, 2019, *Zootaxa* 4555 (3): 427, figs 7-8, 16, 22.

Distribution. Endemic to Taiwan.

Nepalopolia contaminata (Chang, 1991)

Egira contaminata: Fu & Tzuoo, 2002: 108, pl. 27: 7.

Pseudopanolis lala Owada, 1994

Pseudopanolis flavimacula (Wileman, 1912)

Clavipalpula aurariae formosana Ronkay, Ronkay, Gyulai & Hacker, 2010

Clavipalpula aurariae: Fu & Tzuoo, 2002: 110, pl. 27: 21; Chen, 2011: 138, figs.

Houlberthosia ornatissima ornatissima (Wileman, 1911)

Gaurenopsis ornatissima: Fu & Tzuoo, 2002: 111, pl. 27: 28; 36: 6; Fu & Tzuoo, 2004: 195; Chen, 2011: 144, figs.

Apospasta rantaizanensis (Wileman, 1915)

Panolis pinicortex exornata Hreblay & Ronkay, 1997

Panolis pinicortex exornata: Benedek & Babics, 2017: 584.

Panolis variegatoides Poole, 1989

Panolis variegatoides: Benedek & Babics, 2017: 584, figs 5, 11, 15.

Sideridis honeyi (Yoshimoto, 1989)

Sideridis (*Aneda*) *honeyi*: Fu & Tzuoo, 2002: 107, pl. 27: 27; Fu *et al.*, 2013l: 503, pl. 43: 26.

Mythimna martoni Yoshimatsu & Legrain, 2001

Mythimna (*Analetia*) *martoni*: Fu & Tzuoo, 2002: 117, pl. 28: 18; Fu *et al.*, 2013l: 509, pl. 44: 14.

Mythimna sinuosa (Moore, 1882)

Mythimna (*Mythimna*) *sinuosa*: Fu *et al.*, 2013l: 506, pl. 44: 3.

Mythimna radiata (Bremer, 1861)

Mythimna (*Mythimna*) *radiata*: Fu *et al.*, 2013l: 506, pl. 44: 4.

Mythimna guanyuana (Chang, 1991)

Mythimna (*Mythimna*) *guanyuana*: Fu *et al.*, 2013l: 506, pl. 44: 5.

Mythimna intertexta (Chang, 1991)

Mythimna taiwana (Wileman, 1912)

Mythimna (*Mythimna*) *taiwana*: Fu *et al.*, 2013l: 507, pl. 44: 6.

Mythimna polysticha (Turner, 1902)

Leucania substriata: Fu & Tzuoo, 2002: 118, pl. 28: 29.

Mythimna (*Mythimna*) *polysticha*: Fu *et al.*, 2013l: 507, pl. 44: 7.

Mythimna polysticha: Jia & Yu, 2018: 278, figs.

Mythimna subplacida (Sugi, 1977)

Mythimna lishana (Chang, 1991)

Mythimna (*Mythimna*) *lishana*: Fu *et al.*, 2013l: 505, pl. 44: 1.

Mythimna albomarginata rubea Yoshimatsu, 1994

Mythimna (*Mythimna*) *albomarginata rubea*: Fu *et al.*, 2013l: 506, pl. 44: 2.

Mythimna plantei Hreblay & Yoshimatsu, 1996

Mythimna hannemanni (Yoshimatsu, 1991)

Mythimna bistrigata (Moore, 1881)

Mythimna (*Hyphilare*) *bistrigata*: Fu *et al.*, 2013l: 507, pl. 44: 8.

Mythimna changi (Sugi, 1992)

Mythimna (*Hyphilare*) *lineatissima*: Fu *et al.*, 2013l: 508, pl. 44: 9, *nec* Warren, 1912

Note. Fu *et al.* (2013l: 508) incorrectly listed *Mythimna changi as Mythimna lineatissima* but gave the right caption for the illustration (Fu *et al.*, 2013l: pl. 44: 9).

Mythimna purpurpatagis (Chang, 1991)

Mythimna (*Hyphilare*) *purpurpatagis*: Fu *et al.*, 2013l: 508, pl. 44: 10.

Mythimna arizanensis (Wileman, 1915)

Mythimna (*Sablia*) *arizanensis*: Fu *et al.*, 2013l: 508, pl. 44: 11.

Mythimna separata (Walker, 1865)

Mythimna (*Pseudaletia*) *separata*: Fu & Tzuoo, 2002: 118, pl. 28: 27; Fu *et al.*, 2013l: 508, pl. 44: 12.

Mythimna pallidicosta (Hampson, 1894)

Mythimna (*Pseudaletia*) *pallidicosta*: Fu & Tzuoo, 2002: 118, pl. 28: 28; Fu *et al.*, 2013l: 508, pl. 44: 13.

Mythimna formosana (Butler, 1880) # (Fig. 6e)

Aletia formosana Butler, 1880, *Proc. Zool. Soc. Lond.* 1880: 675.

Mythimna formosana: Jia & Yu, 2018: 275, figs.

Specimen examined: Taiwan. 1 female, Miaoli County, Guanwu, 2,000 m, 10. II. 2010, leg. S. Wu & W. C. Chang, genitalia slide TFRI140132 (TFRI).

Note. Jia and Yu (2018) stated the distribution of this species in China (Guangdong), Taiwan, Indonesia to Sundaland, Philippines.

Polia gigantea gigantean Varga, G. Ronkay, Gyulai, Kiss & L. Ronkay, 2020

Polia (Polia) gigantea gigantean Varga, G. Ronkay, Gyulai, Kiss & L. Ronkay, 2020, *A Taxonomic Atlas of the Eurasian and North African Noctuoidea. Vol. 11*: 95, pl. 29, figs 7-8; pl. 53, figs 9-13; gen. fig. 110.

Polia goliath: Wang, 1996a: 128; Fu & Tzuoo, 2002: 107, pl. 27: 9; Fu *et al.*, 2013l: 502, pl. 43: 22, *nec* Oberthür, 1880

Note. Varga et al. (2020) elucidated the taxonomic issues of the nominate subgenus of *Polia* Ochsenheimer, 1816 and regarded the populations of Taiwan and Western China as a bona species, *Pol. gigantea*, rather than *Pol. goliath* (Oberthür, 1880). The population of Taiwan was regarded as the nominate subspecies and that of the Werstern China was described as a separated subspecies, *Pol. gigantea continentalis* Varga, G. Ronkay, Gyulai, Kiss & L. Ronkay, 2020.

Polia mortua caeca Hreblay & Ronkay, 1997

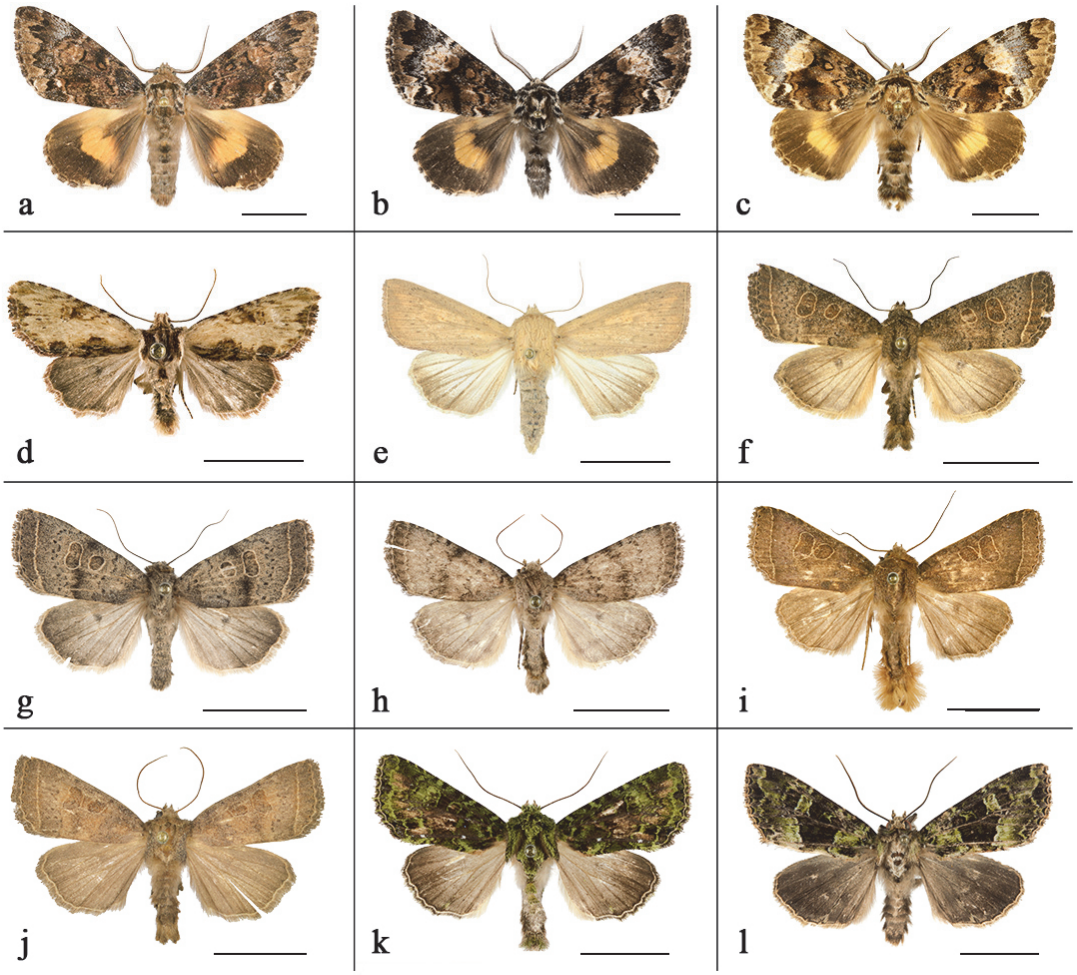
Mamestra brassicae (Linnaeus, 1758) (Fig. 7i)

Phalaena (*Noctua*) *brassicae* Linnaeus, 1758: *Syst. Nat. (Edn 10)* 1: 516.

Phalaena omicron Geoffr0y, 1785: 295.

Noctua albidilinea Haworth, 1809: 191.

Mamestra brassicae var. andalusica



圖六　臺灣產夜蛾總科。a. *Trisuloides sericea* Butler, 1881 ♂；b. *Tri. taiwana* Sugi, 1976 ♂；c. *Tri. sugii* Wu & Shih, 2018 ♂，正模；d. *Lithopolia tadaokanoi* Wu & Yen, 2019 ♂，正模；e. *Mythimna formosana* (Butler, 1880) ♀；f. *Hoplodrina implacata* Wileman & West, 1929 ♂；g. *Hop. cienensis* Wu & Owada, 2018 ♀，副模；h. *Hop. obscura* Wu & Owada, 2018 ♂，正模；i. *Hop. bunun* Wu & Owada, 2018 ♂，正模；j. *Hop. kononenkoi* Wu & Owada, 2018 ♂，正模；k. *Trachea delica* Kovács & Ronkay, 2013 ♂，副模；l. *Atrovirensis taiwani* Gyulai, Ronkay & Wu, 2013 ♂，正模。館藏出處：林業試驗所昆蟲標本館 (a-h、j、k)、科學博物館，筑波 (i)、自然科學博物館，臺中 (l)。比例尺=10 mm。拍攝：吳士緯。

Fig. 6. Noctuoidea of Taiwan. a. *Trisuloides sericea* Butler, 1881 ♂; b. *Tri. taiwana* Sugi, 1976 ♂; c. *Tri. sugii* Wu & Shih, 2018 ♂, holotype; d. *Lithopolia tadaokanoi* Wu & Yen, 2019 ♂, holotype; e. *Mythimna formosana* (Butler, 1880) ♀; f. *Hoplodrina implacata* Wileman & West, 1929 ♂; g. *Hop. cienensis* Wu & Owada, 2018 ♀, paratype; h. *Hop. obscura* Wu & Owada, 2018 ♂, holotype; i. *Hop. bunun* Wu & Owada, 2018 ♂, holotype; j. *Hop. kononenkoi* Wu & Owada, 2018 ♂, holotype; k. *Trachea delica* Kovács & Ronkay, 2013 ♂, paratype; l. *Atrovirensis taiwani* Gyulai, Ronkay & Wu, 2013 ♂, holotype. Sources of specimens. TFRI (a-h, j, k); NSMT (i); NMNS (l). Scale bar = 10 mm. Photograph by Shipher Wu.

Staudinger, 1871: 90.

Mamestra brassicae var. decolorata Staudinger, 1889: 34.

Hybobarathra unicolor Marumo, 1917: 26, f. 3.

Blepharita alpestris Chang, 1991, *Illustrations of mot hs in Taiwan* 5: 186. **syn. nov.**

Specimen examined. Taiwan. 1 female, holotype of *Blepharita alpestris* Chang, 1991, “Type (red circle label)\Mar 24 1991, Tianchyr 2300 m, Kaohsiung Hsien, H. Y. Wang\Blepharita alpestris Chang 166\1282-42705” (NMNS) (Fig. 7i).

Note. This species represents one of the most widespread noctuid species in the Old World. The 2 examined paratypes of *Blepharita alpestris* (Figs 7j, k) are *Mniotype aulombardi* Plante, 1994. We

list the specimens in the *Mni. Aulombardi* section.

Mamestra tayulingensis Yoshimoto, 1989

Dictyestra dissectus (Walker, 1865)

Heliophobus dissectus Walker, 1865, *List Specimens lepid. Insects Colln. Br. Mus.* 32: 656.

Dictyestra dissecta: Fu *et al.*, 2013l: 504, pl. 43: 27.

Dictyestra dissectus: Jia & Yu, 2018: 280, figs; Eda, 2018f: 85, pl. 23: 9.

Note. Fu *et al.* (2013l) incorrectly gave the original combination of this species as "*Heliophobus dissecta* Walker, 1865".

Xylopolia fulvireniforma Chang, 1991

Orthopolia tayal (Yoshimoto, 1994)

Odontestra laszlogabi Hreblay & Ronkay, 2000

Spodoptera mauritia acronyctoides Guenée, 1852

Spodoptera litura (Fabricius, 1775)

Spodoptera litura: Hsu & Hsu, 2017: 133, figs; Jia & Yu, 2018: 267, figs; Shikata & Eda, 2018: 83, pl. 22: 23.

Spodoptera exigua (Hübner, 1808)

Hoplodrina implacata Wileman & West, 1929 # (Fig. 6f)

Athetis implacata Wileman & West, 1929, *Novit Zool* 35: 6.

Hoplodrina implacata: Sugi, 1982, 1: 769 (part), 2: 371, pl. 355: 15 (holotype); Poole, 1989: 513; Sugi, 1992a: 195; Wang, 1996a: 69, fig; Kononenko, 1997: 291 (part), figs 1, 6, 11; Wu & Owada, 2018: 572, figs 1-3, 6, 16, 24, 25.

Hoplodrina euryptera: Sugi, 1960: 26 (part), *nec* Boursin, 1937.

Note. In total, 6 *Hoplodrina* species are distributed in Taiwan and have been reviewed by Wu and Owada (2018). Five of them are listed herein. The other species, *Hop. cienensis* Wu & Owada, 2018 (Wu & Owada, 2018, *Zootaxa* 4455(3): 574, figs 4, 5, 17, 26, 31) (Fig. 6g), is distributed only in Ci'en (1,995 m a.s.l.) in Hualien County.

Distribution. Endemic to Taiwan.

Hoplodrina obscura Wu & Owada, 2018 # (Fig. 6h)

Hoplodrina obscura Wu & Owada, 2018, *Zootaxa* 4455 (3): 576, figs 7, 8, 18, 32; Huang, 2018: 158.

Hoplodrina persequora Ronkay, Ronkay, Fu & Wu, 2013

Hoplodrina bunun Wu & Owada, 2018 # (Fig. 6i)

Hoplodrina bunun Wu & Owada, 2018, *Zootaxa* 4455 (3): 579, figs 13-15, 20, 28, 34.

Hoplodrina kononenkoi Wu & Owada, 2018 # (Fig. 6j)

Hoplodrina implacata Fu & Tzuoo, 2002: 87, pl. 25: 6, *nec* Wileman & West, 1929

Hoplodrina kononenkoi Wu & Owada, 2018, *Zootaxa* 4455 (3): 576, figs 10, 11, 19, 27, 33; Huang, 2018: 158.

Athetis stellata (Moore, 1882)

Athetis stellata: Jia & Yu, 2018: 263, figs; Shikata & Eda, 2018: 77, pl. 21: 11.

Athetis brunneolineosa Kononenko, 2005

Athetis lineosa: Fu & Tzuoo, 2002: 87, pl. 25: 3, *nec* Moore, 1881

Athetis thoracica (Moore, [1884])

Athetis thoracica: Jia & Yu, 2018: 264, figs.

Athetis taiwanensis Kononenko, 2005 # (Fig. 7a)

Athetis taiwanensis Kononenko, 2005, *Mitt. internat. entomol. Ver., Frankfurt a. M.* 30 (1/2): 16, pls 4, 5, figs. 1,5,8.

Athetis speideli: Ronkay, L. *et al*., 2013a: 427, pl. 38: 33., *nec* Kononenko, 2005

Specimens examined. Taiwan. 1 male & 1 female, Miaoli County, Guanwu, 2,000 m, 9. III. 2012, leg. S. Wu & W. C. Chang, slide TFRI149711♂ & 179712♀ (TFRI); 3♀, Hualien, Bilyushenmu, 2,150 m, 2. IV. 2004, leg. C. M. Fu (CCMF).

Distribution. Endemic to Taiwan.

Note. Ronkay, L. *et al*. (2013a) recorded 3 females >2,000 m a.s.l. on page 427, and illustrated one female in plate 38: 33 of the species *Ath. speideli* Kononenko, 2005. The re-examination in the present study confirms that the recorded species is *Ath. Taiwanensis* and the illustrated one is an undescribed species in Ronkay, L. *et al*. (2013a). The latter species was also recorded and illustrated in Fu and Tzuoo (2002). The upper range limit of *Ath. speideli* is about 1,400 m.

Athetis sp.

Athetis sp.: Fu & Tzuoo, 2002: 87, pl. 25: 4.

Cosmia unicolor (Staudinger, 1892)

Cosmia hanrongtzuooi Ronkay & Ronkay, 1999 # (Fig. 7b)

Cosmia hanrongtzuooi: Ronkay & Ronkay, 1999, *Bull. Nat. Mus. Nat. Sci.* 12: 109, figs 32, 33; Heppner, 2012: 47.

Specimen examined: Taiwan. 1 male, Nantou County, Tatajia, 2,610 m, 1. XI. 2011, leg. S. Wu & W. C. Chang (TFRI).

Cosmia restituta Walker, 1856 [1857] # (Fig. 7c)

Cosmia restituta Walker, 1856 [1857], *List Spec. Lepid. Insects Colln Br. Mus.*: 490; Sugi *et al.*, 1992: 196.

Specimen examined. Taiwan. 1 male, Nantou County, Meifeng, 2,100 m, 29. VI. 2012, leg. S. Wu & W. C. Chang, TFRI138569 (TFRI).

Note. The common name follows Chang (1991).

Cosmia achatina Butler, 1879 # (Fig. 7d)

Cosmia achatina Butler, 1879, *Ann. Mag. nat. Hist*. (5) 4: 365; Poole, 1989: 277; Sugi, 1992a: 196.

Specimen examined. Taiwan. 1 male, Nantou County, Meifeng, 2,100 m, 29. VI. 2012, leg. S. Wu & W. C. Chang, TFRI138362 (TFRI).

Cosmia moderata (Staudinger, 1888) # (Fig. 7e)

Calymnia moderata Staudinger, 1888, *Stettin. Ent. Zeit. (Szczesin)* 49: 257.

Cosmia moderata: Poole, 1989: 277; Sugi, 1992a: 196.

Specimen examined. Taiwan. 1 male, Hualien County, Guanyuan, 2,300 m, 23. VII. 2015, leg. S. Wu, ASIZHX111563 (ASIZ).

Note. The common name follows Chen (1999).

Taiwanacosmia poecila Hreblay & Ronkay, 1997

Cosmia poecila Hreblay & Ronkay, 1997, *Acta. Zool. Hung.* 43(1): 63, 66, figs 93, 94, 98, 146.

Taiwanacosmia poecila: Heppner, 2012: 47.

Ipimorpha guanyuana Chang, 1991

Dipterygina cupreotincta Sugi, 1954

Dipterygina indica: Fu & Tzuoo, 2002: 87, pl. 24: 28, *nec* Moore, 1867

Dypterygia subfusca (Wileman, 1912)

Feliniopsis tripunctata (Chang, 1991)

Feliniopsis rubrofusa Ronkay, Ronkay, Fu & Wu, 2013

Feliniopsis rubrofusa sensu Fu & Tzuoo, 2002: 87, pl. 24: 26.

Note. The species name presented in Fu and Tzuoo (2002) is a nomen nudum.

Olivenebula oberthueri (Staudinger, 1892)

Olivenebula monticola Kishida & Yoshimoto, 1977

Plexiphleps stellifera (Moore, 1882)

Taeneremina scripta Ronkay & Ronkay, 2001

Trachea auriplena auriplena (Walker, 1857)

Trachea auriplena auriplena: Hsu & Hsu, 2017: 173, figs.

Trachea auriplena: Jia & Yu, 2018: 267, figs; Shikata & Eda, 2018: 82, pl. 22: 19.

Trachea punkikonis Matsumura, 1929

Trachea delica Kovács & Ronkay, 2013 # (Fig. 6k)

Trachea delica Kovács & Ronkay, 2013, *Fibigeriana Suppl. Vol. 1*: 140, pl. 40, figs 1-8; gen. figs 7-8, 16-17; Huang, 2018: 158, fig.; Shikata & Eda, 2018: 82, pl. 22: 20.

Specimens examined: Paratypes. Taiwan. 1 male, Miaoli County, Guanwu, 2,000 m, 9. III. 2012, leg. S. Wu & W. C. Chang (TFRI); 1 male, Nantou County, Tatajia, 2,610 m, 22. III. 2012, leg. S. Wu & W. C. Chang (TFRI); 1 male, Nantou County, Dongpu Lodge, 2,560 m, 6. VII. 2011, leg. S. Wu & W.C. Chang (TFRI); 1 male, Hualien County, Guanyuan, 2,400 m, 29. VII. 2012, leg. S. Wu & W.C. Chang (TFRI).

Triphaenopsis jezoensis Sugi, 1962

Euplexidia angusta Yoshimoto, 1987

Euplexidia pallidivirens Yoshimoto, 1987

Euplexidia exotica Yoshimoto, 1987

Xenotrachea irrorata Yoshimoto, 1992

Gortyna flavina Hreblay & Ronkay, 1997

Gortyna plumbitincta Hreblay & Ronkay, 1997

Chortodes cornutifera Hreblay & Ronkay, 1997

Apamea aquila substriata Hreblay &

Ronkay, 1997
Apamea lieni Hreblay, 1998
Apamea taiwana (Wileman, 1914)
Apamea sp. near *taiwana*: Fu & Tzuoo, 2002: 81, pl. 23: 27.
Apamea changi Zilli, Varga, Ronkay & Ronkay, 2009
Apamea ikerfasciata Zilli, Varga, Ronkay & Ronkay, 2009
Apamea herczigi Zilli, Varga, Ronkay & Ronkay, 2009
Apamea sodalis (Butler, 1878)
Apamea crenata (Hufnagel, 1766)
Loxopamea rufus (Chang, 1991)
Apamea rufus: Fu & Tzuoo, 2002: 81, pl. 24: 4.
Loxopamea rufus: Gyulai & Saldaitis, 2015: 349, figs 5, 6, 10, 16.
Loscopia scotoptera insularis Zilli, Varga, Ronkay & Ronkay, 2011
Globia punctilinea (Wileman, 1912)
Sesamia nigropunctata (Wileman, 1912)
Nonagria nigropunctata: Fu & Tzuoo, 2002: 82, pl. 24: 13.
Atrachea viridinigra (Hreblay & Ronkay, 1997)
Atrachea ochrotica (Hampson, 1910)
Atrovirensis taiwani Gyulai, Ronkay & Wu, 2013 # (Fig. 6l)
Atrovirensis taiwani Gyulai, Ronkay & Wu, 2013, *Fibigeriana Suppl. Vol.* 1.: 128, pl. 39, fig. 17; gen. figs 9-10.
Specimen examined. Taiwan. 1 male, Nantou county, Meifeng, 2,100 m, 21. VII. 2015, leg. S. Wu (TFRI).
Leucapamea formosensis (Hampson, 1910)
Leucapamea feketeanyaka Zilli, Varga, Ronkay & Ronkay, 2009
Leucapamea tsueyluana Chang, 1991
Leucapamea chienmingfui Ronkay & Ronkay, 1999
Leucapamea chienmingfui: Huang, 2018: 158, fig.
Virgo major Kishida & Yoshimoto, 1991
Virgo major: Shikata & Eda, 2018: 77, pl. 21: 15.
Auchmis inextricata (Moore, 1881)
Chandata aglaja (Kishida & Yoshimoto, 1978)
Chandata taiwana Yoshimoto, 1982
Conservula indica (Moore, 1867)
Conservula indica: Shikata & Eda, 2018: 84, pl. 22: 30.
Euplexia albirena Wileman, 1914
Euplexia chlorerythra Swinhoe, 1895
Euplexia chlorerythra: Shikata & Eda, 2018: 83, pl. 22: 24.
Euplexia pali Hreblay & Ronkay, 1998
Karana gemmifera (Walker, 1858)
Karana hoenei marcida Hreblay & Ronkay, 2000
Magusa tenebrosa (Moore, 1867)
Sasunaga tenebrosa: Jia & Yu, 2018: 269, figs
Magusa tenebrosa: Shikata & Eda, 2018: 83, pl. 22: 25.
Magusa interrupta (Warren, 1912)
Magusa interrupta: Shikata & Eda, 2018: 83, pl. 22: 26.
Oroplexia variegata Hreblay & Ronkay, 1997
Oroplexia variegata: Volynkin *et al.*, 2019b: 134, figs 8, 16.
Oroplexia erinacea erinacea Ronkay, Ronkay, Wu & Fu, 2013
Oroplexia erinacea Ronkay L., Fu, Wu & Ronkay G., *in* Ronkay, L., Fu, C. M. *et al.*, 2013, *Moths of Hehuanshan*: 449, pl. 40: 5, 6, 7; figs 115, 116.
Oroplexia erinacea erinacea: Volynkin *et al.*, 2019b: 135, figs 11, 12, 18.
Distribution. The nominate subspecies is distributed in Taiwan; the subspecies *cunicula* Saldaitis, Volynkin & Gyulai, 2019 is distributed in Sichuan, W. China (Volynkin *et al*, 2019b).
Oroplexia fortunata fortunata Hreblay & Ronkay, 1997
Oroplexia fortunata Hreblay & Ronkay, 1997, *Acta Zoologica Aca-demiae Scientiarum Hungaricae* 43 (1): 62, figs 97, 176.
Oroplexia fortunata fortunata: Volynkin *et al.*, 2019b: 134, figs 1, 2, 14.
Distribution. The nominate subspecies is distributed in Taiwan; the subspecies *siranga* Volynkin, Saldaitis & Gyulai, 2019 is distributed in Sichuan, W. China (Volynkin *et al*, 2019b).
Phlogophora clava (Wileman, 1912)
Phlogophora albovittata (Moore, 1867)
Phlogophora albovittata: Shikata & Eda,

2018: 83, pl. 22: 28.

Phlogophora conservuloides (Hampson, 1898)

Phlogophora conservuloides: Shikata & Eda, 2018: 84, pl. 22: 29.

Tiliacea tatachana (Chang, 1991)

Xanthia tatachana: Fu & Tzuoo, 2002: 104, pl. 27: 5; Fu & Tzuoo, 2004: 194.

Tiliacea opipara (Chang, 1991)

Tiliacea melonina opipara: Fu & Tzuoo, 2002: 105, pl. 27: 6.

Agrocholorta taiwanawae Ronkay, Ronkay, Shikata, Gyulai & Varga, 2017 #

Agrochola nawae: Fu & Tzuoo, 2002: 102, pl. 26: 27, *nec* Matsumura, 1926

Agrocholorta (*Semirenorta*) *taiwanawae* Ronkay, Ronkay, Shikata, Gyulai & Varga, 2017, *in* Ronkay, Ronkay, Gyulai & Varga (eds.). Xyleninae I. The *Agrochola* generic complex. A taxonomic atlas of the Eurasian and North African Noctuoidea. Vol. 9: 93, pl. 25, figs 3, 4; pl. 48, figs 1-12; gen. fig. 96.

Agrocholorta albirena chihtuana (Chang, 1991)

Agrochola albirena chihtuana: Fu & Tzuoo, 2002: 101, pl. 26: 26; Ronkay, L., Fu, C. M. 2013: 482, pl. 42: 15.

Agrocholorta (*Agrocholorta*) *albirena chihtuana*: Ronkay, Ronkay, Gyulai & Varga, 2017: 78, pl. 19, figs 7, 8; pl. 45, figs 37-40; gen. fig. 71.

Agrocholorta atrifusa (Hreblay & Kobayashi, 1997)

Telorta atrifusa: Fu & Tzuoo, 2002: 101, pl. 26: 24; Ronkay, L., Fu C. M. *et al*., 2013: 484, pl. 42: 19.

Agrocholorta (*Mimicotelorta*) *atrifusa*: Ronkay, Ronkay, Gyulai & Varga, 2017: 84, pl. 22, figs 1, 2; pl. 46, figs 37-41; gen. fig. 81.

Hyalobole changae Owada, 1994

Hyalobole taiwanensis Hreblay & Ronkay, 1998

Hyalobole kononenkoi Hreblay & Ronkay, 1997

Conistra takasago Kishida & Yoshimoto, 1979

Conistra anonyma Hreblay & Ronkay, 1998

Rhynchaglaea taiwana Sugi, 1980

Rhynchaglaea hemixantha hemixantha Sugi, 1980

Rhynchaglaea perscitula Kobayachi & Owada, [2007] 2006

Rhynchaglaea scitula: Fu & Tzuoo, 2002: 102, pl. 27: 1; 34: 5.

Hemiglaea eupompa Ronkay & Ronkay, 1999

Hemiglaea radiata Hreblay & Ronkay, 2000

Hemiglaea albolineata Owada, 1993

Hemiglaea albolineata: Shikata & Eda, 2018: 81, pl. 22: 17.

Distribution. Taiwan (type locality) and S. China (Shikata and Eda, 2018).

Hemiglaea horiei Owada, 1993

Hemiglaea costalis (Butler, 1879)

Hemiglaea costalis costalis: Fu & Tzuoo, 2004: 194, pl. 27: 4; 34: 6; Kobayashi *et al*., 2016: 71, pl. 18: 39.

Teratoglaea hohuanshanensis Wu, 2013

Lithophane trimorpha Hreblay & Ronkay, 1997

Lithophane venusta yazakii Yoshimoto, 1988

Lithophane remota Hreblay & Ronkay, 1998

Lithophane remota: Kobayashi *et al*., 2016: 65, pl. 13: 26.

Xylena plumbeopaca Hreblay & Ronkay, 2000

Xylena tatajiana tatajiana Chang, 1991

Xylena tatajiana: Fu & Tzuoo, 2002: 92, pl. 26: 1; 33: 8; Ronkay L. *et al.*, 2013a: 467, pl. 41: 10, 11.

Xylena tanabei Owada, 1993

Xylena changi Horie, 1993

Xylena changi: Kobayashi *et al*., 2016: 59, pl. 7; Shikata & Eda, 2018: 78, pl. 21: 20.

Xylena sugii Kobayashi, 1993

Xylena sugii: Shikata & Eda, 2018: 78, pl. 21: 21.

Eupsilia virescens Yoshimoto, 1985

Eupsilia strigifera Butler, 1879

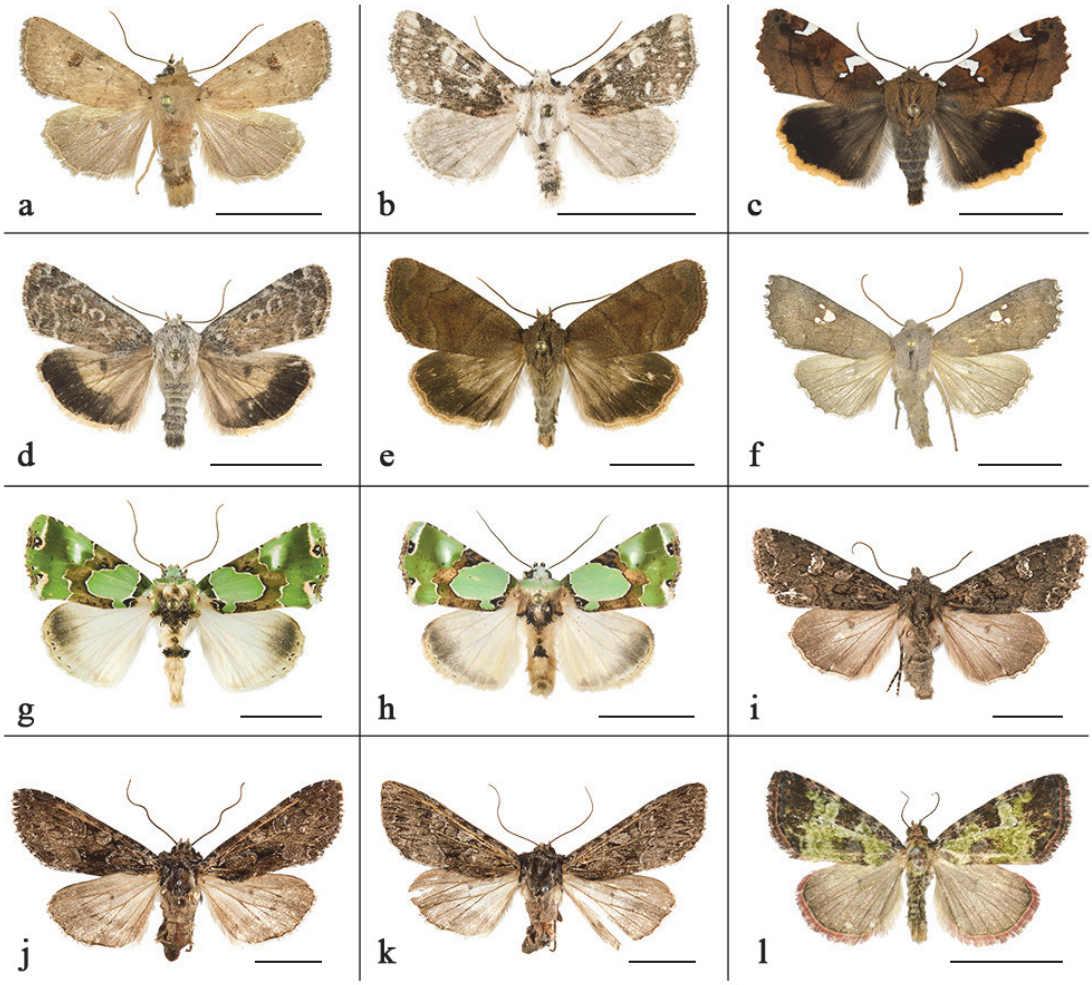
Eupsilia strigifera: Shikata & Eda, 2018: 78, pl. 21: 24.

Eupsilia shyu Chang, 1991

Eupsilia tripunctata Butler, 1878 # (Fig. 7f)

Eupsilia tripunctata Butler, 1878a, *Ann. Mag. nat. Hist.* 5, 1: 168; Owada *et al.*, 2008: fig. 5; Kobayashi *et al*., 2016: 69, pl. 15.

Specimens examined: Taiwan. 1 male, Miaoli County, 2,000 m, 6. III. 2016, leg.



圖七　臺灣產夜蛾亞科。a. *Athetis taiwanensis* Kononenko, 2005 ♂；b. *Cosmia hanrongtzuooi* Ronkay & Ronkay, 1999 ♂；c. *Cos. restituta* Walker, 1856 [1857] ♂；d. *Cos. achatina* Butler, 1879 ♂；e. *Cos. moderata* (Staudinger, 1888) ♂；f. *Eupsilia tripunctata* Butler, 1878 ♂；g. *Nacna buschmannferenci* Ronkay, Ronkay & Varg, 2019 ♀，副模；k. *Nac. splendens* (Moore, 1888) ♂；i. *Mamestra brassicae* (Linnaeus, 1758) ♀，*Blepharita alpestris* Chang, 1991 之正模；j. *Mniotype aulombardi* Plante, 1994 ♀，*Ble. alpestris* 之副模；k. 同上 ♀，*Ble. alpestris* 之副模；l. *Koyaga viriditincta* (Wileman, 1915) ♂。館藏出處：林業試驗所昆蟲標本館 (a-h、l)、自然科學博物館，臺中 (i-k)。比例尺=10 mm (j)。拍攝：吳士緯。

Fig. 7. Noctuinae of Taiwan. a. *Athetis taiwanensis* Kononenko, 2005 ♂; b. *Cosmia hanrongtzuooi* Ronkay & Ronkay, 1999 ♂; c. *Cos. restituta* Walker, 1856 [1857] ♂; d. *Cos. achatina* Butler, 1879 ♂; e. *Cos. moderata* (Staudinger, 1888) ♂; f. *Eupsilia tripunctata* Butler, 1878 ♂; g. *Nacna buschmannferenci* Ronkay, Ronkay & Varg, 2019 ♀, paratype; h. *Nac. splendens* (Moore, 1888) ♂; i. *Mamestra brassicae* (Linnaeus, 1758) ♀, holotype of *Blepharita alpestris* Chang, 1991; j. *Mniotype aulombardi* Plante, 1994 ♀, paratype of *Ble. alpestris*; k. *Ditto*, ♀; k. l. *Koyaga viriditincta* (Wileman, 1915) ♂. Sources of specimens. TFRI (a-h, l); NMNS (i-k). Scale bar = 10 mm (j). Photograph by Shipher Wu.

H. Y. Huang & P. H. Chen (TFRI); 1 female, same collecting locality, 4. II. 2017, leg. H. Y. Huang & P. H. Cheng (TFRI); 1 male, Nantou County, Tsuifeng [=Tsueifeng], 2,390 m, Genit. Slide No. NSMT 2658 (NSMT); 1 male, same collecting locality, 9. II. 1989, leg. S. T. Tei, ex H. Kobayashi collection (NSMT).

Eupsilia confusa Owada & Kobayashi, 1993

Eupsilia baoshinchangi Fu, Tsuoo & Owada, 2008

Nyctycia adnivis Kobayashi & Owada, 1998

Nyctycia adnivis: Shikata & Eda, 2018: 80, pl. 20: 2.

Nyctycia hoenei simonyi Hreblay, 1998

Nyctycia simonyii: Fu & Tzuoo, 2002: 99, pl. 26: 3.

Nyctycia hoenei simonyi: Shikata & Eda, 2018: 80, pl. 22: 3.

Distribution. The nominate *honei*

Boursin, 1958 subspecies was described from Japan; the subspecies simonyi was described from Taiwan. Shikata and Eda (2018) recorded the latter in S. China.

Nyctycia strigidisca nigridorsi Kobayashi, 1998

Nyctycia mesomelana formosana Kobayashi & Hreblay, 1998

Nyctycia endoi endoi (Owada, 1983)

Nyctycia endoi: Shikata & Eda, 2018: 80, pl. 22: 4.

Distribution. Taiwan and S. China (Shikata and Eda, 2018).

Antivaleria viridentata Hreblay & Ronkay, 1997

Elwesia sugii yoshimotoi Hreblay & Ronkay, 1998

Estagrotis tibori Hreblay & Ronkay, 1997

Himalistra soluta Hreblay & Ronkay, 1997

Fabiania pulla Hreblay & Ronkay, 2000

Potnyctycia cristifera Hreblay & Ronkay, 1997

Potnyctycia taiwana (Chang, 1991)

Potnyctycia nemesi Ronkay & Ronkay, 2001

Pygopteryx fulva Chang, 1991

Sugitania chengshinglini Owada & Tzuoo, 2010

Sugitania chengshinglini: Shikata & Eda, 2018: 82, pl. 22: 16.

Specimen examined. Taiwan. 1 female, Miaoli County, Guanwu, 2,000 m, 11. I. 2015, H. Y. Huang (TFRI).

Taivaleria rubrifasciata Hreblay & Ronkay, 2000

Taivaleria rubrifasciata: Shikata & Eda, 2018: 82, pl. 22: 18.

Specimen examined. Taiwan. 1 male, Miaoli County, Guanwu, 2,000 m, 27. II. 2011, S. Wu & W. C. Chang, slide TFRI140106 (TFRI); 1 female, Nantou County, Tsueifeng, 2,050 m, 27. I. 2015 leg. S. Wu & W. C. Chang, slide TFRI177493 (TFRI).

Note. The monotypic genus *Taivaleria* Hreblay & Ronkay, 2000 is so far endemic to Taiwan, Shikata and Eda (2018) recorded the species in S. China.

Distribution. Taiwan and S. China (Shikata & Eda, 2018).

Telorta shenhornyeni Ronkay & Kobayashi, 1997

Telorta (*Acuminorta*) *shenhornyeni*: Ronkay, Ronkay, Gyulai & Varga, 2017: 98, pl. 27, figs 7, 8; pl. 49, figs 18-27; gen. fig. 106.

Telorta yazakii Yoshimoto, 1987

Telorta (*Telorta*) *yazakii*: Ronkay, Ronkay, Gyulai & Varga, 2017: 98, pl. 27, figs 3, 4; pl. 48, figs 37-44; gen. fig. 104.

Telorta obscura Yoshimoto, 1987

Telorta (*Telorta*) *obsura*: Ronkay, Ronkay, Gyulai & Varga, 2017: 98, pl. 27, figs 1, 2; pl. 48, figs 33-36; gen. fig. 103.

Dryobotodes formosanus Hreblay & Ronkay, 1997

Blepharita nigrogrisea Hreblay & Ronkay, 1998

Bornolis flavistigma (Moore, 1867)

Mniotype aulombardi Plante, 1994 (Fis. 7j, k)

Specimen examined. Taiwan. 1 female, paratype of *Blepharita alpestris* Chang, 1991, "Paratype (red circle label)\AUG 14 1983, 關原 B-S Chang\♀\1282-42431" (NMNS); 1 female, paratype of *Blepharita alpestris* Chang, 1991, "Paratype (red circle label)\JUN 22 1984, 梅峰 B-S Chang\♂\1282-42904" (NMNS).

Note. Both of two examined paratypes of *Blepharita alpestris* Chang, 1991 (Fis. 7j, k) are females, we regard them as misidentifications.

Nyctyciomorpha plagiogramma (Hampson, 1906)

Asidemia albovitta Hreblay & Ronkay, 2000

Aplexiphleps smaragdistis Ronkay, Ronkay, Wu & Fu, 2013

Xylostola indistincta (Moore, 1882)

Checupa stegeri Hreblay & Thoeny, 1995

Checupa stegeri: Hsu & Hsu, 2017: 179, figs

Mormo owadai Wu, 2013

Subfamily CUCULLIINAE

Cucullia pustulata fraterna Butler, 1878

Cucullia jungtaichaoi Ronkay & Ronkay, 1999

Cucullia jungtaichaoi: Shang & Hsu, 2015: 56, fig.

Subfamily PSAPHIDINAE

Meganephria weixleri Hreblay & Ronkay, 1997

Belosticta laxa (Kobayashi & Owada, 1996)

圖八　臺灣產大異角類。a. *Euthrix orboy occasialis* Zolotuhin, 2001 ♂；b. 同上，標籤；c. *Lithosia karenkona* Matsumura, 1930 ♀ 正模式；d. 同上，正模，標籤；e. *Ilema arizana* Wileman, 1910 ♂，選模；f. 同上，選模，標籤；g. 同上，♂，圖板；h. *Ile. arizana* ♀，副選模；i. 同上，副選模，標籤；j. 同上 ♀，圖板；k. *Lithosia usuguronis* Matsumura, 1927 ♂，正模；l. 同上，正模，標籤。館藏出處：北海道大學博物館 (a-d、k-l)；大英自然史博物館 (e-j)。比例尺=10 mm。拍攝：陳彥霖 (a、b、k、l)；吳士緯 (c-j)。

Fig. 8. Macroheterocera of Taiwan. a. *Euthrix orboy occasialis* Zolotuhin, 2001 ♂; b. Ditto, labels; c. *Lithosia karenkona* Matsumura, 1930 ♀ holotype; d. *Ditto*, holotype, labels; e. *Ilema arizana* Wileman, 1910 ♂ lectotype; f. *Ditto*, lectotype, labels; g. *Ditto* ♂, plate; h. *Ile. arizana* ♀, paralectotype; i. *Ditto*, paralectotype, labels; j. *Ditto* ♀, plate; k. *Lithosia usuguronis* Matsumura, 1927 ♂ holotype; l. *Ditto*, holotype, labels. Sources of materials. HUFA (a-d, k-l); NHMUK (e-j). Scale bar = 10 mm. Photograph by Yen-Ling Chen (a, b); Shipher Wu (a-f).

Belosticta crassa (Kobayashi & Owada, 1996)

Belosticta cinerea ilan (Kobayashi & Owada, 1996)

Meganephria cinerea ilan: Fu & Tzuoo, 2002: 90, pl. 26: 17.

Belosticta funesta (Leech , 1889)

Meganephria funesta: Fu & Tzuoo, 2002: 91, pl. 26: 13; Kobayashi *et al*., 2016: 56, pl. 3: 5.

Allophyes miaoli Hreblay & Kobayashi, 1997

Speidelia taiwana taiwana (Wileman, 1915)

Speidelia formosa Ronkay, 2000

Discibocome pulchra (Wileman, 1912)

Daseochaeta pulchra Wileman, 1912b, *Entomologist* 45: 132.

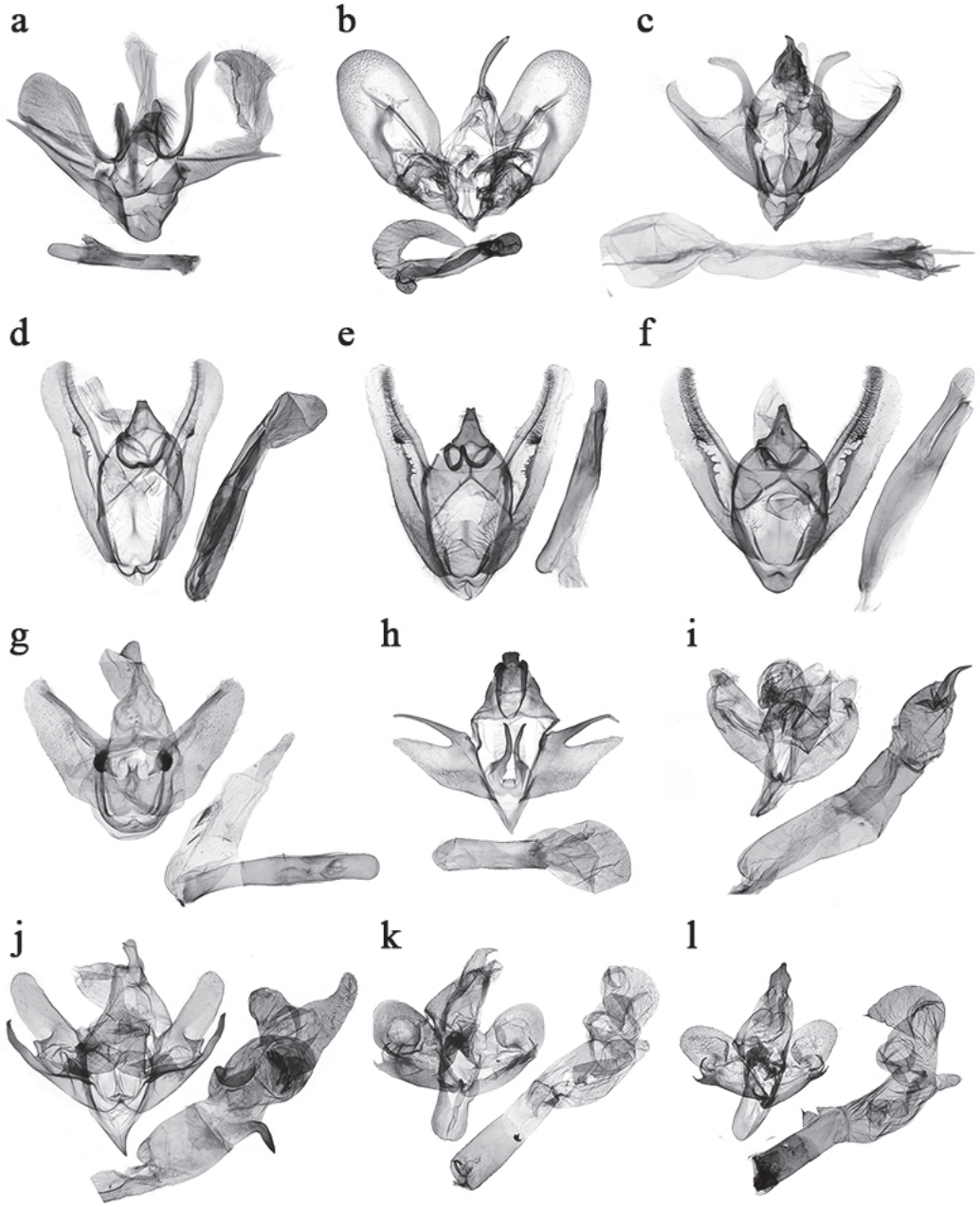
Diphthera taikoshonis Matsumura, 1929, *Ins Matsum* 3: 114.

Diphtherocome pulchra: Chang, 1991: 24, figs; Wang, 1995c: 191, figs; Fu & Tzuoo, 2002: 76, pl. 23: 28; Chen, 2011: 140, figs; Fu *et al*., 2013n: 421, pl. 38: 14.

Discibocome pulchra: Ronkay *et al*., 2019: 50, pl. 10, figs 3-4, pl. 34, figs 25-32; gen. g. 35.

Dstribution: Endemic to Taiwan.

Vigentinocome autumnalis (Chang, 1991)

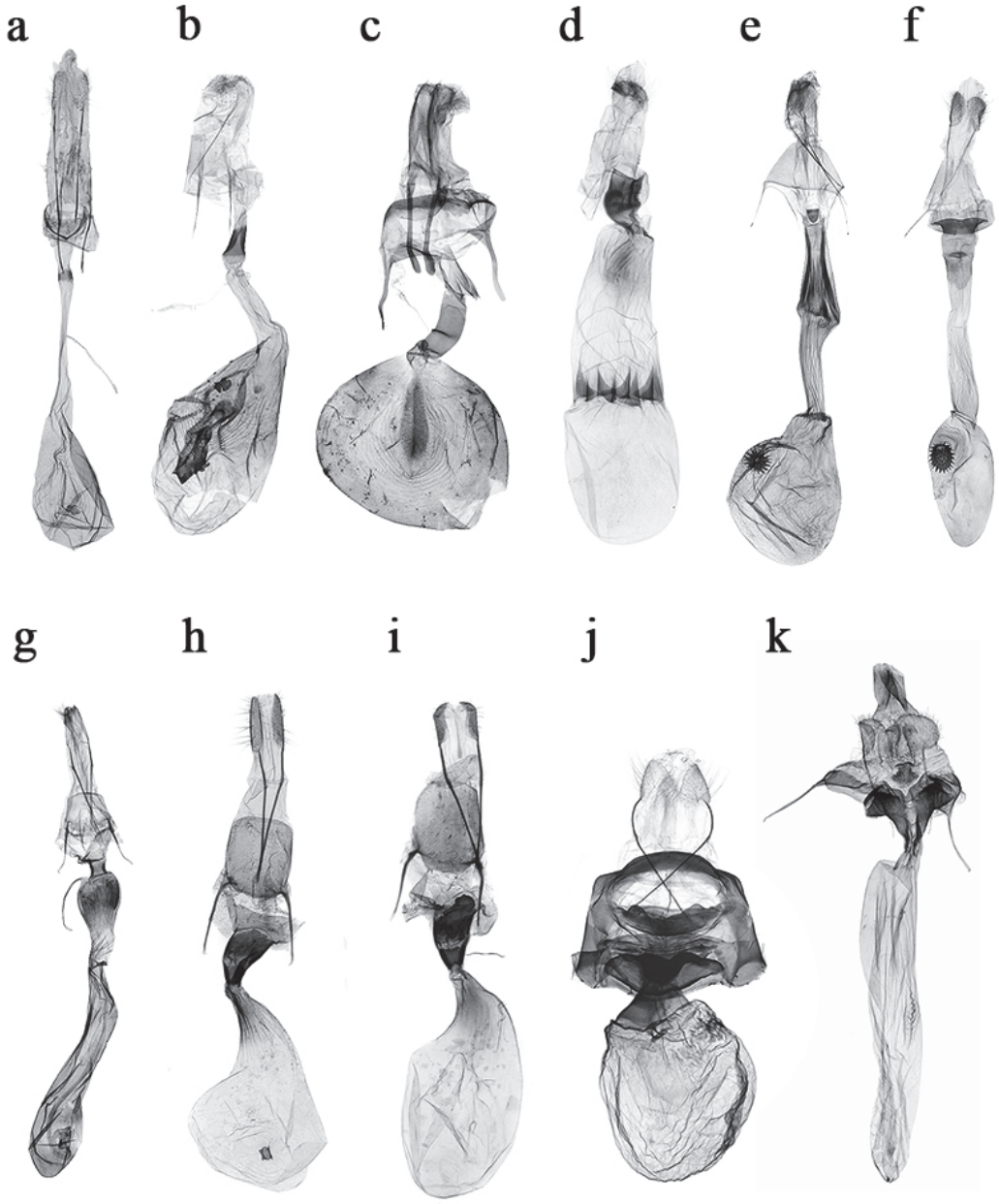


圖九　大異角類雄蟲生殖器。a. *Venusia megaspilata* (Warren, 1895)，臺灣；b. *Alcis arizana* Wileman, 1911，臺灣；c. *Psyra matsumurai* Bastelberger, 1909 新地位，臺灣；d. *Arichanna refracta* Inoue, 1978 新地位，臺灣；e. *Ari. sinica* Wehrli, 1933，中國；f. *Ari. flavinigra* ♂，中國；g. *Palaeomystis falcataria*（Moore, 1868），臺灣；h. *Olene baibarana* (Matsumura, 1927) 新組合，臺灣；i. *Eilema karenkona* (Matsumura, 1930)，正模，臺灣；j. *Cernyia arizana* (Wileman, 1910)，臺灣；k. *Cer. usuguronis* (Matsumura, 1927)，正模，臺灣；l. *Cer. usuguronis*，臺灣。館藏出處：匈牙利自然史博物館 (a)、林業試驗所昆蟲標本館 (b-d、g、h、j、l)、大英自然史博物館 (e、f)、北海道大學博物館 (i、k)。拍攝：吳士緯 (a-d, g-l)、韓紅香 (e、f)。

Fig. 9.　Male genitalia of Macroheterocera. a. *Venusia megaspilata* (Warren, 1895), Taiwan; b. *Alcis arizana* Wileman, 1911, Taiwan; c. *Psyra matsumurai* Bastelberger, 1909 stat. rev., Taiwan; d. *Arichanna refracta* Inoue, 1978 stat. nov., Taiwan; e. *Ari. sinica* Wehrli, 1933, China; f. *Ari. flavinigra* ♂, China; g. *Palaeomystis falcataria* (Moore, 1868), Taiwan; h. *Olene baibarana* (Matsumura, 1927) comb. nov., Taiwan; i. *Eilema karenkona* (Matsumura, 1930), holotype, Taiwan; j. *Cernyia arizana* (Wileman, 1910), Taiwan; k. *Cer. usuguronis* (Matsumura, 1927), holotype, Taiwan; l. *Cer. usuguronis*, Taiwan. Sources of specimen: HNHM (a), TFRI (b-d, g, h, j, l), NHMUK (e, f), HUFA (i, k). Photograph by Shipher Wu (a-d, g-l), Hong-Xiang Han (e, f).

Daseochaeta autumnalis Chang, 1991, *Illustrations of Moths in Taiwan* 5: 21, g. 15; Sugi, 1992d: 197; Wang, 1995d: 207, fi gs.

Diphtherocome autumnalis: Hreblay *et al*., 1998: 110; Hreblay& Ronkay, 1999:



圖十　大異角類雄蟲生殖器。a. *Gandaritis whitelyi* (Butler, 1878)，臺灣；b. *Lobogonodes shiushioui* Wu & Chang, 2018，臺灣；c. *Venusia megaspilata* (Warren, 1895)，臺灣；d. *Palaeomystis falcataria* (Moore, 1868)，臺灣；e. *Psyra matsumurai* Bastelberger, 1909 新地位，臺灣；f. *Lomographa chinhuaiwangi* Wu, 2018，臺灣；g. *Alcis arizana* Wileman, 1911，臺灣；h. *Arichanna refracta* Inoue, 1978 新地位，臺灣； i. *Ari. sinica* Wehrli, 1933 ♀，中國；j. *Neodrymonia comes* Schintlmeister, 1989 ♀，臺灣；k. *Olene baibarana* 新組合，臺灣。館藏出處：傅建明收藏 (a, b, f)、林業試驗所昆蟲標本館 (c、e、g、h、j、k)、科學博物館，筑波 (d)、大英自然史博物館 (i)。拍攝：吳士緯 (a-h、j-l)、韓紅香 (i)。

Fig. 10.　Female genitalia of Macroheterocera. a. *Gandaritis whitelyi* (Butler, 1878), Taiwan; b. *Lobogonodes shiushioui* Wu & Chang, 2018, Taiwan; c. *Venusia megaspilata* (Warren, 1895), Taiwan; d. *Palaeomystis falcataria* (Moore, 1868), Taiwan; e. *Psyra matsumurai* Bastelberger, 1909 stat. rev., Taiwan; f. *Lomographa chinhuaiwangi* Wu, 2018, Taiwan; g. *Alcis arizana* Wileman, 1911, Taiwan; h. *Arichanna refracta* Inoue, 1978 stat. nov., Taiwan; i. *Ari. sinica* Wehrli, 1933, China; j. *Neodrymonia comes* Schintlmeister, 1989 ♀, Taiwan; k. *Olene baibarana* comb. nov., Taiwan. Sources of specimen: CCMF (a, b, f), TFRI (c, e, g, h, j, k), NSMT (d), NHMUK (i). Photograph by Shipher Wu (a-h, j-l), Hong-Xiang Han(i).

563; Hreblay & Kononenko, 1999: 670; Fu & Tzuoo, 2002: 77, pl. 23: 16; Yanagita, 2009: 13, figs; Shikata, 2011: 311, pl. -76: -11, 12; ; Fu *et al*., 2013n: 421, pl. 38: 15; Kobayashi *et al*., 2016: 57, pl. 5: 9.

Vigentinocome (*Criocome*) *autumnalis*: Ronkay *et al*., 2019: 45, pl. 9, figs 5-6, pl. 33, figs 44-50; gen. g. 32.

Dstribution: Taiwan and Japan (Okinawa-jima and Amami-oshima Islands) (Yanagita, 2009).

Nacna buschmannferenci Ronkay, Ronkay & Varg, 2019 # (Fig. 7g)

Nacna buschmannferenci Ronkay, Ronkay & Varga, 2019, *in* Pekarsky *et al*., *A Taxonomic Atlas of the Eurasian and North African Noctuoidea* 10: 55, pl. 11, figs 5-8, pl. 35, figs 25-36; gen. g. 40.

Nacna malachitis: Chang, 1991: 28, figs; Wang, 1995c: 172, figs; Fu & Tzuoo, 2002: 77, pl. 23: 14; 36: 5; Chen, 2011: 140, figs; Fu *et al*., 2013n: 402, pl. 38: 2, *nec* Oberthür, 1880

Note. Hitherto, only one *Nacna* species, *N. malachitis* (Oberthür, 1880), is known from Tawan. Ronkay *et al*. (2019) confirmed the species is not distributed in Taiwan but in the Russian Far East, the Korean peninsula, Japan and China, and the Taiwanese taxa are 2 species, *Nac. buschmannferenci* and *Nac. splendens* (Moore, 1888) (Fig. 7h). *Nac. splendens* (Moore, 1888) is distributed <2,000 m a.s.l. and primarily around 1,000 m a.s.l.

Distribution. Endemic to Taiwan. This species is primarily distributed in mid to high-elevation primary broad-leaved forests. The adults occur in the whole year but fewer in Janurary and December.

Subfamily BAGISARINAE

Amyna stellata Butler, 1878

Amyna apoda (Strand, 1920)

Xanthoptera [sic] *apoda* Strand, 1920, *Archiv für Naturgeschichte* 84A (12): 111.

Amyna apoda: Fu & Tzuoo, 2002: 76, pl. 23: 13.

Gen., sp. 6, unid..: Kononenko & Pinratana 2005: pl. 43: 17.

Amyna apoda: Kononenko & Pinratana, 2013: 261, pl. 35, fig. 37

Subfamily EUSTROTIINAE

Maliattha volodia Ronkay & Sohn, 2004

Maliattha vialis: Fu & Tzuoo, 2002: 76, pl. 23: 6.

Pseudodeltote coenia (Swinhoe, 1901)

Pseudodeltote formosana (Hampson, 1910)

Koyaga viriditincta (Wileman, 1915) # (Fig. 7l)

Lithacodia viriditincta Wileman, 1915, *Entomologist* 48: 160.

Koyaga viriditincta: Ueda, 1987: 44, figs 51, 87-C.

Specimen examined: Taiwan. 1 male, Miaoli County, Guanwu, 2,000 m, 17. VI. 2015, leg. S. Wu & M. Owada (TFRI).

Koyaga sp.

Koyaga sp.: Fu *et al*., 2013k: 398, pl. 36: 25.

Chorsia mollicula (Graeser, 1888 [1889])

Erastria mollicula Graeser, 1888 [1889], *Berliner Entom. Zeitschrift* 32: 398, pl. 5, fig. 11.

Bryophilina blandula Staudinger, 1892, *in* Romanoff (ed.) *Memoirés sur les Lepidoptéres* 6: 398, pl. 5: 11.

Bryophilina mollicula: Poole, 1989: 178; Wang, 1995c:118 figs; Kononenko & Han, 2007: 82, pl. 76, fig. 1 (male genitalia), pl. 227, fig. 7 (female genitalia); Hayashi, 2009: 31, figs 10-12; Kishida, 2011c: 287, pl. 67: -20, 21; Kishida, 2018b: 67, pl. 18: 25.

Chorsia mollicula: Kononenko, 1998: 168; Kononenko & Pinratana, 2013: 139, pl. 18, figs 27, 28; Leley, 2016: 421.

Specimen examined: Taiwan. 1 male, Kaohsiung, Tianchi-2, 2,234 m, 10. XI. 2015, leg. L. C. Shih (ESRI).

Distribution. Japan, Taiwan, Russian Far East, Korea, China, Vietnam, Thailand, Indonesia, India, Nepal (Kononenko and Pinratana, 2013).

Discussion

The present study represents the results of at least 35 years of fundamental surveys of montane moths >2,000 m a.s.l. and subsequent data on species management from related systematic studies. The integrated data provide a foundation for further faunistic or biological studies at high mountain ranges, where the species are more vulernable to climate change (Chen *et al*., 2009), as well as for proposing appropriate common names under updated

classifications. By contrast, the fauna at lower altitudes in Taiwan require further investigations or documentation, in addition to more comparative studies with taxa in neighboring subtropical and tropical regions, to achieve the current level of knowledge associated with high altitude fauna.

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摘　要

本研究目的為針對臺灣產中高海拔（2,000 公尺以上）大異角類（大蛾）提供註解式名錄，此區域的生物相研究在 20 世紀初的前 10 年左右有相當豐碩的成果，然而後續仍有相當多的分類群新增、分類處理、誤鑑定與誤拼需要被指出。本研究共計收錄 15 科 59 亞科 652 屬 1,276 物種。共計 4 個組合名處理如下：臺灣產 *Arichanna refracta* Inoue, 1978（新地位）、*Psyra matsumurai* Bastelberger, 1909（新地位）、裳蛾科 *Olene baibarana* (Matsumura, 1927)（新組合名）、*Cerynia usuguronis* (Matsumura, 1927)（新組合名）。夜蛾科 *Blepharita alpestris* Chang, 1991 視為 *Mamestra brassicae* (Linnaeus, 1758) 的次同物異名。尺蛾科 *Palaeomystis falcataria* (Moore, 1868)、*Venusia megaspilata* (Warren, 1895)、*Gandaritis whitelyi* (Butler, 1878) 與裳蛾科 *Ericeia elongata* Prout, 1929 首次記錄於臺灣。*Lobogonodes shiushioui* Wu & Chang, 2018 與 *Lomographa chinhuaiwangi* Wu, 2018 首次有雌蟲標本紀錄與生殖器圖示。本研究有助於中高海拔山區巨觀尺度的生態學研究，也為需考量科學名稱更新的俗名倡議做出貢獻。

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