

New records of lichen-moths from the Nanling Mts., Guangdong, South China, with descriptions of new genera and species (Lepidoptera, Arctiidae: Lithosiinae)

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Abstract 41 species are recorded from Guangdong; they were collected in Nanling Mts. including 12 new species and one subspecies: *Katha nankushanica* sp. nov., *K. magnata nanlingica* ssp. nov., *Dolgoma nigrocribrata* sp. nov., *Wittia yazakii* sp. nov., *Gampola sinica* sp. nov., *Miltochrista obscuripostica* sp. nov., *Cyclomilta fangchenglaiae* sp. nov., *Nudaria debilis* sp. nov. and *N. vernalis* sp. nov., *Microolithosia nanlingica* sp. nov., as well as three new species of the new genus *Danielithosia* gen. nov. (type species *Tigrioides aureolata* Daniel, 1954: *D. fuscipennis* sp. nov., *D. consimilis* sp. nov., *D. difficilis* sp. nov. *Tigrioides limayca* Daniel, 1954, *T. pallens* Inoue, 1980 and *T. immaculata* (Butler, 1880) are transferred into *Danielithosia*. Several species are transferred into another genera: *Eilema stigma* Fang, 2000 and *Oeonistis subnigra* Leech, 1899 into *Asiapistosisia* gen. nov., *Lithosia conformis* Walker, 1854, *L. chekiangica* Daniel, 1954, *L. magnata* Matsumura, 1927 – into *Katha* Moore, 1878, *Lithosia nigripars* Walker, 1856 and *Ilema tecta* Wileman, 1910 – into *Ghoria* Moore, 1878, *Lithosia japonica* Leech, [1889], *L. hunanica* Daniel, 1954 – into *Manulea* Wallengren, 1863, *Systropha klapperichi* Daniel, 1954 – into *Wittia* de Freina, 1980, *Eilema umbripuncta* (de Joannis, 1928) – into *Microolithosia* Daniel, 1954, *Eugoa roseivena* Hampson, 1894 – into *Planovalvata* gen. nov., *Miltochrista dimidiata* Fang, 1991, *M. compar* Fang, 1991, *M. sinuata* Fang, 1991 and *M. longstriga* Fang, 1991 – into *Barsine* Walker, 1854. *Paraona* Moore, 1878 is restored in the generic status from a synonym of *Ghoria* Moore, 1878. *Stictane rectilinea chinesica* Draudt, 1931 is raised to the specific status.

Nanling Shan and Wutai Shan are mountain ranges separating the Yangste Jiang River basin and the Southern Chinese Coast. Situating in the northern extremity of the Oriental Region, adjoining to a transitional territory to the Palearctic Region, they have a complicated fauna consisting of the Oriental, Palearctic and endemic elements (Dubatolov, 2007; Dubatolov et al., 2008). Concerning lichen-moths (Lithosiinae), the southern slopes of the Nanling Mts within Guangdong are still insufficiently studied. In the first review of Lithosiinae from this region (Kishida, 2011), 41 species have been determined. During determination of a set of Lithosiinae specimens that were collected in 2000-th in Guangdong, Nanling Mts, Shaoguan by Yasunori Kishida from Tokyo and Wang Min from the South China Agricultural University in Guangzhou, several additional species were found. Annotated list of them is given below. New species for Guangdong are marked with an asterisk (*).

Genus *Teulisna* Walker

Teulisna Walker, 1862, *J. Proc. Linn. Soc. (Zool.)* 6: 109.

Type species: *Teulisna plagiata* Walker, 1862.

**Teulisna bipectinis* Fang (Fig. 1)

Teulisna bipectinis Fang, 2000, *Fauna Sinica (Insecta)* 19: 231-232, 542-543, fig. 152 (genitalia), pl. 11, fig. 20. Type locality: “Yunnan Pingbian, Daweishan, 1500m” [China].

Material. Nanling, Shaoguan: 4 ♀, 26-30. III. 2006; 1 ♂, 16-20. V. 2009; 1 ♀, 9-15. VII. 2010, 1 ♀, 2-5. VII. 2011.

Male genitalia (Fig. 61).



Figs 1-15. Lithosiinae moths. 1: *Teulisna bipectinis* Fang, Nanling. 2: *Asiapistosis stigma* (Fang), Nanling. 3: *Asiapistosis subnigra* (Leech), Nanling. 4: *Katha conformis* (Walker), Nanling. 5-6: *Katha magnata* (Matsumura), Taiwan. 7: *Katha nankunshanica* sp. nov., holotype. 8-9: *Katha magnata nanlingica* ssp. nov., Nanling, holotype (8) and paratype (9). 10: *Ghoria gigantea* (Oberthür), Kunashir. 11: *Ghoria collitoides* (Butler), Kunashir. 12: *Ghoria nigripars* (Walker), Nanling. 13: *Ghoria tecta* (Wileman), Taiwan. 14: *Ghoria albocinerea* Moore, Nepal. 15: *Macrobrochis gigas* (Walker), Nepal. 15 – by courtesy of V. Zolotuhin. 6, 9 – females, others – males.

Distribution. China: Yunnan, Guangxi, Hainan (Fang, 2000), and Guangdong.

Genus *Asiapistosis* Dubatolov et Kishida, **gen. nov.**

Type species: *Eilema stigma* Fang, 2000.

Description. Wing and a body habitus like in the *Pelosia* Hübner, [1819] species. Forewing yellow or brown, with a dark spot on costa near discal vein, and a darker shadow behind it and cell.

Male genitalia (Figs 55-56). Uncus slender. Valve with a saccular process not long and slightly curved downwards. Aedeagus short, stout, apically with two sclerotized bands covered with spines. Vesica with a sclerotized plate.



Figs 16-33. Lithosiinae moths. 16: *Paraona splendens* (Butler), Myanmar. 17: *Manulea hunanica* (Daniel), Nanling. 18: *Prabhasa venosa* Moore, Nanling. 19: *Dolgoma nigarocribrata* sp. nov., Nanling, holotype. 20: *Wittia klapperichi* (Daniel), Nanling. 21: *Wittia yazakii* sp. nov., Nanling, holotype. 22: *Gampola sinica* sp. nov., Nanling, paratype. 23: *Planovalvata roseivena* (Hampson), Nanling. 24: *Miltochrista jucunda* Fang, Nanling. 25: *Miltochrista ziczac* (Walker), Nanling. 26: *Miltochrista obscuripostica* sp. nov., Nanling, holotype. 27: *Barsine aberrans* (Butler), Nanling. 28-29: *Barsine compar* (Fang), Nanling. 30: *Barsine longstriga* (Fang), Nanling. 31: *Barsine dimidiata* (Fang), Nanling. 32: *Barsine sinuata* (Fang), Nanling. 33: *Asuridia nigriradiata* (Hampson), Nanling. 16 – by courtesy of V. Zolotuhin. 26, 29 – females, others – males.

Remarks. Species of the genus are not congeneric with *Apistosia* Hübner, 1818, because its type species *Apistosia judas* Hübner, 1818 occurs in Brazil (Watson et al., 1980), in quite a different zoogeographical region.

Asiapistosia stigma* (Fang), **comb. nov. (Fig. 2)

Eilema stigma Fang, 2000, *Fauna Sinica* (Insecta) **19**: 261-262, 540-541, pl. XII, fig. 21, genitalia: fig. 181. Type locality: “[Sichuan, Emeishan 1 800-1 900m]” [China].

Material. Nanling, Shaoguan: 2 ♂, 29. VII. 2002; 1 ♀, 18-21. V. 2004; 1 ♂, 22-26. VII. 2004; 2 ♀, 16-20. V. 2008; 1 ♀, 22-27. VII. 2008; 1 ♀, 16-20. V. 2009; 1 ♀, 6-10. VI. 2010.

Male genitalia (Fig. 55).

Distribution. China: Sichuan, Shaanxi, Hubei (Fang, 2000), and Guangdong.

Asiapistosia subnigra* (Leech), **comb. nov. (Fig. 3)

Oeonistis subnigra Leech, 1899, *Trans. ent. Soc. Lond.* **1899**: 179. Type locality: “Wa-shan” [China: Sichuan].

Apistosia subnigra: Hampson, 1900, *Cat. Lepid. Phal. Br. Mus.* **2**: 227, pl. 24, fig. 22; Seitz, 1910, *Groß-Schmett. Erde* **2**: 64, fig. 12e; Strand, 1922, *Lepid. Cat.* **26**: 627; Fang, 2000, *Fauna Sinica* (Insecta) **19**: 196, pl. IX, fig. 31.

Material. Nanling, Shaoguan: 1 ♀, 16-20. V. 2009.

Male genitalia (Fig. 56).

Distribution. China: Shaanxi, Zhejiang, Fujian, Hubei, Hunan, Sichuan, Yunnan (Fang, 2000), and Guangdong.

Genus *Katha* Moore

Katha Moore, 1878, *Proc. zool. Soc. Lond.* **1878**: 16.

Type species: *Bombyx helvola* Hübner, [1803] 1796 (= *deplana* Esper, 1787).

Remarks. The genus was established for a number of species from South-Eastern Asia, and *Lithosia helvola* Hb. from Europe. Hampson (1900) designated the latter (but cited as *Noctua depressa* Esper, 1782) as the type species of the genus, but during the rest part of XX century the genus was considered as a synonym of *Eilema* Hübner, [1819] 1816, *sensu lato*. Dubatolov & Zolotuhin (2011) revised the species groups of the latter and recovered *Katha* Moore as a good genus.

**Katha conformis* (Walker) (Fig. 4)

Lithosia conformis Walker, 1854, *List Specimens lepid. Insects Colln Br. Mus.* **2**: 509. Type locality: “North India”.

Lithosia nigrifrons Moore, 1878, *Proc. zool. Soc. Lond.* **1878**: 17. Type locality: “N. India”.

Eilema chekiangica, Kishida, 2011, *Moths of Guangdong Nanling National Nature Reserve*: 219, pl. 25, fig. 15.

Material. Nanling, Shaoguan: 2 ♀, 22-27. VII. 2008; 5 ♀, 16-20. V. 2009; 1 ♀, 9-15. VII. 2010.

Distribution. India (Walker, 1854), Thailand (Cerny & Pinratana, 2008), China: Shanxi, Zhejiang, Fujian, Jiangxi, Hunan, Guangxi, Sichuan, Guizhou, Hubei, Yunnan (Fang, 2000), and Guangdong.

Male genitalia (Fig. 57).

Remarks. Formerly was recorded from Nanling as *Eilema chekiangica* (Daniel, 1954) by Kishida (2011); however, vesica of such specimens have two strong cornuti in addition to a dentate sclerotized plate, while *Katha chekiangica* (Daniel), **comb. nov.** has a single cornutus, and the same plate also.

****Katha magnata*** (Matsumura) (Figs 5-6)

Lithosia magnata Matsumura, 1927, *J. Coll. Agr. Hokkaido Imp. Univ.* **19** (1): 63, pl. IV, fig. 37 (*Lithosia magnata*). Type locality: "Formosa; ... at Baibara, ... at Horisha" [Taiwan].

Katha magnata nanlingica Dubatolov, Kishida et Wang, **ssp. nov.** (Figs 8-9)

Material. Holotype – , China, Guangdong, Shaoguan, 900-1 400 m, 16-20. V. 2009, Y. Kishida and Wang M. leg. Preserved in South China Agricultural University, Guangdong. Paratypes: 4 ♂ 3 ♀, the same labels as in the holotype.

Description. Forewing length 21-23 mm in males, 23.5-24 mm in females. Male forewing yellow with a greyish tint, external part of forewing pure yellow. Hindwing lighter than forewing. Female wings pure yellow.

Male genitalia (Fig. 60). Not differs from the nominotypical one from Taiwan (Fig. 59).

Remarks. The new subspecies differs from the nominotypical specimens from Taiwan mainly by the presence of a lighter yellowish tint of external part of forewing in males, while in the nominotypical subspecies forewing is unicolorous.

Katha nankunshanica Dubatolov, Kishida et Wang, **sp. nov.** (Fig. 7)

Material. Holotype – , China, Guangdong, Huizhou, Nankunshan, 30. III. 2006, Y. Kishida leg. Preserved in South China Agricultural University, Guangdong. Paratypes: 2 ♂, the same labels as in the holotype.

Description. Forewing length 15 mm. Antennae long, more than 2/3 of the forewing costa. Male forewing narrow, but with noticeably convex hind edge in basal half, greyish-yellow. Hindwing pure yellow.

Male genitalia (Fig. 58). Uncus short, not thin, with a narrow tip. Valve broad. Apical process of saccus short, hook-like, noticeably curved upwards. Saccus short, V-shaped. Aedeagus short, stout, without additional sclerotization. Vesica basally with a short stout spine-like cornutus, apical part of vesica long, cylindrical, apically with the second short stout spine-like cornutus; lacks other sclerotizations.

Remarks. By the wing shape, the new species differs from similar species, like *K. conformis* Wlk., by a noticeably convex hind edge in the basal half of forewings. The only East Asian *Katha* species with two short stout spine-like cornuti is *K. conformis* Wlk., but the vesica of this species bears an additional dentate sclerotized plate.

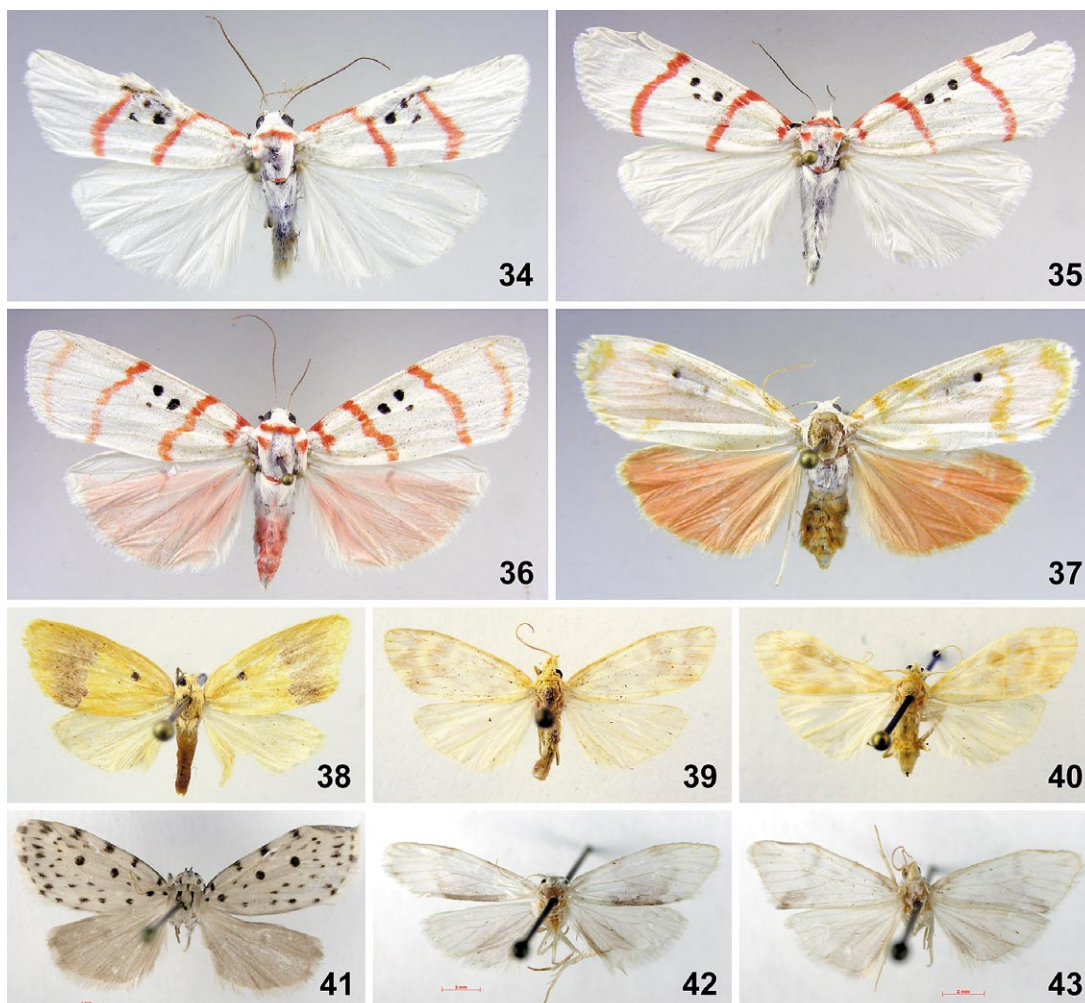
Genus ***Ghoria*** Moore

Ghoria Moore, 1878, *Proc. zool. Soc. Lond.* **1878**: 12.

Type species: *Ghoria albocinerea* Moore, 1878 (Figs 14, 68).

Male genitalia (Figs 62-65, 68). Uncus long, slightly curved. Valve with a cucullus covered with strong hair-like chaetas apically. Saccular part of valve narrower than cucullus, with a curved apical process. Saccus very short. Aedeagus short, stout, without additional sclerotizations and spines. Vesica with a group of closely located stout spines forming a one or two plates of different shape.

Remarks. Several East Asian species belong to this genus: *G. gigantea* (Oberthür, 1879) (Fig. 10), *G. collitoides* Butler, 1885 (Fig. 11), *G. nigripars* (Walker, 1856), **comb. nov.** (Fig. 12) (described in *Lithosia*), and *G. tecta* (Wileman, 1910), **comb. nov.** (Fig. 13) (described in *Ilema*). All they have similar male genitalia. *Macrobrochis* Herrich-Schäffer, 1855 species (its type species is a synonym of *M. gigas* (Walker, 1854)) have broad forewings (Fig. 15), the cucullus without strong hair-like chaetas apically, saccus is often long, the vesica with a field of sclerotized spiniculi and often with a finger-like lobe (Fig. 67). *Paraona* Moore, 1878, **stat. rev.**, with the type species *P. splendens* (Butler, 1877)



Figs 34-43. Lithosiinae moths. 34: *Cyana adita* Moore, Nanling. 35: *Cyana signa* Walker, Nanling. 36: *Cyana distincta* Rothschild, Nanling. 37: *Cyana interrogationis* Poujade, Nanling. 38: *Cyclomilta fangchenglaiae* sp. nov., Nanling, holotype. 39-40: *Hemipsilia grahami* Schaus, Nanling. 41: *Aemene punctigera* Leech, Nanling. 42: *Nudaria vernalis* sp. nov., Nanling, holotype. 43: *Nudaria nanlingica* sp. nov., Nanling, holotype. 35, 36, 37, 40, 42 – females, others – males.

(Fig. 16) is not a synonym of *Macrobrochis* H.-S.; its male genitalia are very different (Fig. 66), the valve broad, with a broad saccular part terminating into a short and broad triangular process, with a sclerotized part on ventral edge and a strong spinulose process at the base. Cucullus not covered with strong hair-like chetae apically but with a sclerotized hind apical angle. The vesica of *P. splendens* Btl. is small, with one small spine-like cornutus.

Ghoria nigripars* (Walker, 1856), **comb. nov. (Fig. 12)

Lithosia nigripars Walker, 1856, *List Specimens lepid. Insects Colln Br. Mus.* 7: 1779. Type locality: "Hindostan" [India].

Material. Nanling, Shaoguan: 4 ♀, 2 ♂, 16-20. V. 2009.

Male genitalia (Fig. 64).

Distribution. East India (Walker, 1856); China: Shaanxi, Zhejiang, Fujian (Fang, 2000), and



Figs 44-54. Lithosiinae moths. 44: *Danielithosia fuscipennis* sp. nov., Nanling, holotype. 45: *Danielithosia consimilis* sp. nov., Nanling, holotype. 46: *Danielithosia difficilis* sp. nov., Nanling, holotype. 47: *Microlithosia nanlingica* sp. nov., Nanling, holotype. 48: *Miltochrista koshunica* Strand, syntype, photo by Dr. H. Inoue. 49: *Miltochrista koshunica* Strand, Taiwan. 50: *Microlithosia umbripuncta* (de Joannis), Thailand. 51: *Schistophleps lofaushanensis* Daniel, Nanling. 52: *Stictane chinesica* Draudt, Nanling. 53-54: *Stigmatophora hainanensis* Fang, Nanling. 54– female, others – males.

Guangdong.

Genus *Manulea* Wallengren

Manulea Wallengren, 1863, *Wien. ent. Monatschr.* 7: 145, 146.

Type species: *Lithosia gilveola* Ochsenheimer, 1810 (= *palliatella* Scopoli, 1763, = *unita* [Denis et Schiffmüller, 1775]).

Remarks. The genus *Eilema* Hübner, [1819] was divided into several genera based on the male genitalia structure by Dubatolov & Zolotuhin (2011).

Manulea hunanica (Daniel) (Fig. 17)

Lithosia hunanica Daniel, 1954, *Bonn. zool. Beitr.* 5 (1-2): 104, genitalia: Abb. 60. Type locality: "Fukien: Kuantun, 2300 m" [China: Fujian].

Material. Nanling, Shaoguan: 1 ♂, 18-22. VI. 2003; 2 ♀, 22-27. VII. 2008; 1 ♀, 16-20. V. 2009; 2 ♀, 9-15. VII. 2010; 4 ♂, 2-5. VII. 2011.

Male genitalia (Fig. 71).

Distribution. China: Fujian, Hunan (Daniel, 1954; Fang, 2000), Guangdong (Kishida, 2011).

Remarks. The species belongs to the same subgenus as *Manulea (Agenjoa) lurideola* ([Zincken], 1817) (Dubatolov & Zolotuhin, 2011).

Genus *Prabhasa* Moore

Prabhasa Moore, 1878, *Proc. zool. Soc. Lond.* **1878**: 25.

Type species *Prabhasa venosa* Moore, 1878.

Remarks. Although Cerny & Pinratana, 2008 have combined in the genus *Prabhasa* Moore a number of species from *Zadadra* Moore, 1878, this is not correct. Fang, 2000 and Dubatolov & Zolotuhin (2011) have shown that the members of these genera have quite different male genitalia; *P. venosa* Moore has the valve bases fused to each other, and not so in *Zadadra* Moore species.

**Prabhasa venosa* Moore (Fig. 18)

Prabhasa venosa Moore, 1878, *Proc. zool. Soc. Lond.* **1878**: 26, pl. 2, fig. 16. Type locality: "Darjiling" [India: West Bengal].

Material. Nanling, Shaoguan: 8 ♀, 16-20. V. 2009.

Male genitalia (Fig. 72).

Distribution. East India: West Bengal, Sikkim, Assam; Myanmar (Burma); Thailand (Cerny & Pinratana, 2009); China: Zhejiang, Fujian, Jiangxi, Hunan, Hubei, Sichuan (Fang, 2000), Guangdong, Taiwan.

Genus *Dolgoma* Moore

Dolgoma Moore, 1878, *Proc. zool. Soc. Lond.* **1878**: 20.

Type species: *Lithosia reticulata* Moore, 1878.

Dolgoma nigrocribrata Dubatolov, Kishida et Wang, **sp. nov.** (Fig. 19)

Dolgoma cribrata: Kishida, 2011, *Moths of Guangdong Nanling National Nature Reserve*: 220, pl. 25, fig. 18.

Material. Holotype – ♀, China, Guangdong, Shaoguan, Nanling, 22-27.VII 2008, Y. Kishida leg. Preserved in South China Agricultural University, Guangdong. Paratypes: 2 ♀, the same locality, 900-1,400 m, 27-31. VII. 2008, Y. Kishida, M. Wang leg.; 1 ♂, 29. VII. – 1. VIII. 2002, Y. Kishida leg.

Description. Forewing length 11 mm. Forewing bright yellow with a numerous diffuse and irregular blackish spots and small strokes between veins. Fringe with black spots at veins apices. There is a trace of a narrow postdiscal band angled at M_3 . Hindwing yellow but often vastly covered with black scales; only a dash beyond discal cell; discal vein, tornal angle and fringe yellow. A head, thorax and patagiae yellow, tegulae with dark spots at base and apex. Abdomen grey with a yellow apex.

Male genitalia (Fig. 73). Uncus straight, broad, terminating in an apical spine. Valve straining, slightly broadened to apex. Sacculus with a straight ventral edge; the latter terminating into a bulb covered with spall spines. Juxta wide without arming. Aedeagus small stout, vesica without cornuti.

Remarks. The species is very similar to *Dolgoma cribrata* (Staudinger, 1887), but forewing of the new species has a more or less visible narrow and diffuse postdiscal transversal band that is bent

outwards in its medial part. Hindwing of the new species often is suffused with dark scales, and only in some specimens it is entirely yellow, while in *D. cribrata* Stgr. the hindwing is always entirely yellow. In the male genitalia, ventral edge of valves is straight, while in *D. cribrata* Stgr. it is significantly curved upwards near apex.

For a long time *D. cribrata* Stgr. was attributed to *Lithosia* Hb. or *Eilema* Hb.; however, Kirby (1892) correctly placed it in *Dolgoma* Moore. This is affirmed by similar male genitalia structure of *D. reticulata* Moore and *D. cribrata* Stgr. (Dubatolov & Zolotuhin, 2011).

Genus *Wittia* de Freina

Wittia de Freina, 1980, *Nachr. Bayer. Ent.* **29**: 80. Replacement name pro *Systropha* Hübner, [1819].

Systropha Hübner, [1819] 1816, *Verz. bekannter Schmett.*: 166; nec Illiger, 1806, *Magazin Insektenk.* **5**: 145 – Insecta, Hymenoptera.

Strytopha Arora et Chaudhury, 1982, *Technical Monograph* **6**: 27-28, replacement name for *Systropha* Hübner, [1819] 1816.

Type species: *Bombyx aureola* Hübner, [1803] 1796

Wittia klapperichi* (Daniel), **comb. n. (Fig. 20)

Systropha klapperichi Daniel, 1954, *Bonn. zool. Beitr.* **5** (1-2): 129-130, genitalia: Abb. 90, pl. 3, fig. 73. Type locality: "Fukien: Kuantun ... Chekiang: West-Tien-Mu-Shan" [China: Fujian, Zhejiang].

Material. Nanling, Shaoguan: 1 ♂, 19-22. VII. 2005; 1 ♀, 26-30. III. 2006; 1 ♂, 22-27. VII. 2008; 1 ♀, 9-15. VI. 2010; 1 ♀, 2-5. VII. 2011.

Male genitalia (Fig. 69).

Distribution. China: Zhejiang, Fujian, Sichuan, Yunnan (Fang, 2000), Guangdong.

Remarks. *W. klapperichi* Dan. has a wide sacculus with the apex covered with small spines. This is characteristic for *Dolgoma* species. However, the uncus is narrow, long and curved, with a sclerotized superscapium that is typical to *Wittia* de Freina (Fig. 74).

Wittia yazakii Dubatolov, Kishida et Wang, **sp. nov.** (Fig. 21)

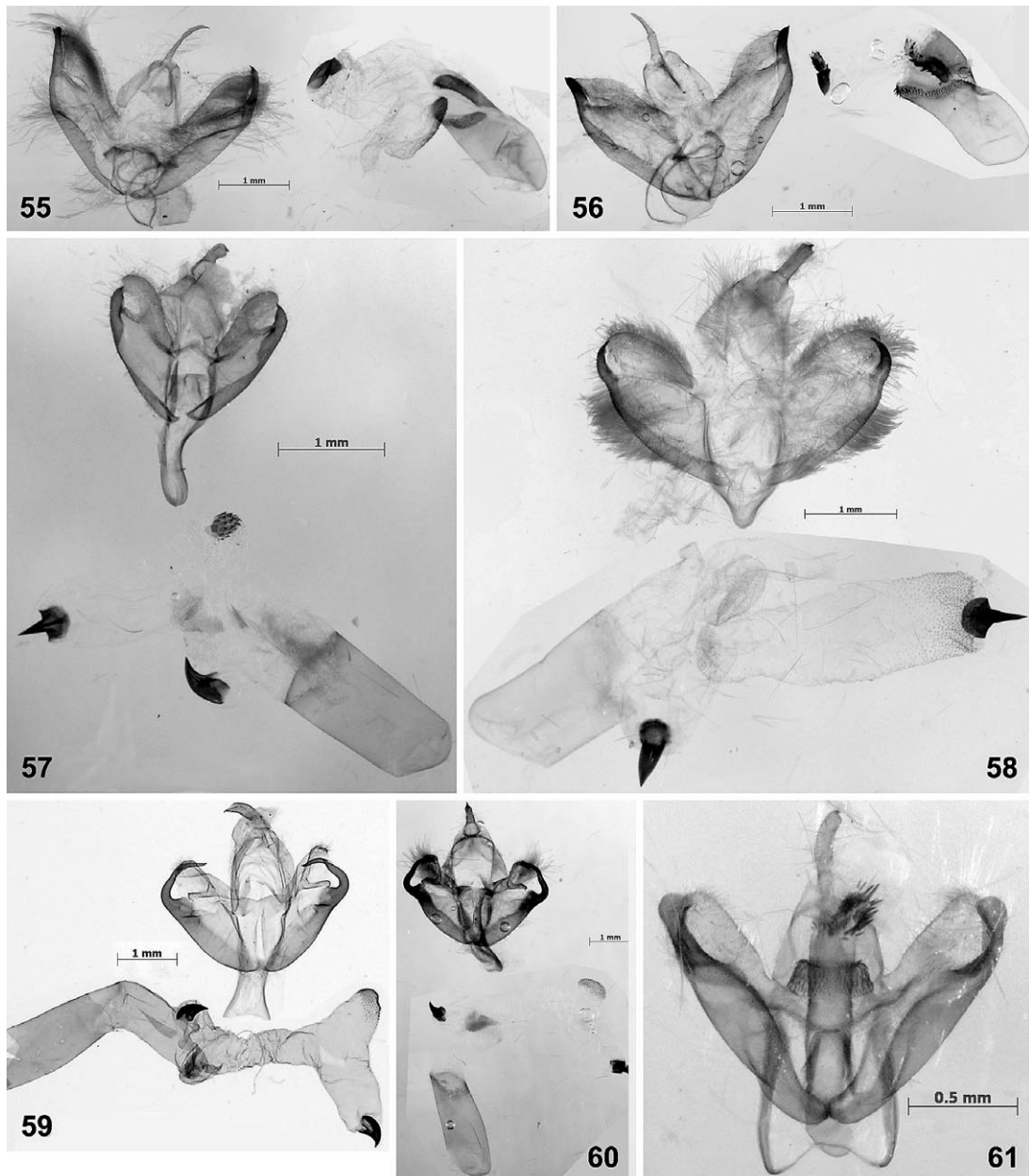
Material. Holotype – ♂, China, Guangdong, Shaoguan, Nanling, 900-1 400 m, 16-20. V. 2009, Y. Kishida and Wang M. leg. Preserved in South China Agricultural University, Guangdong. Paratypes: 3 ♀, the same locality and data as in the holotype.

Description. Forewing length 10 in male, 11-12 in females. Forewing narrow, costal edge slightly convex, unicolorously bright yellow. Hindwing yellow without other pattern. Female forewing slightly narrower, of the same colouration like in male.

Male genitalia (Fig. 70). Uncus slender, long, curved downwards, with a subuncal sclerotized process. Valve with cucullus part pointing downwards apically. Sacculus apically covered with small spines and sharply curved upwards into a long process. From 2/3 of valve base, there is long process directed basally, with spines apically. Saccus small. Aedeagus short, stout, slightly better sclerotized apically. Vesica globular, without cornuti.

Remarks. The new species differs significantly from the type species of *Wittia* de Freina: *W. sororcula* (Hufnagel, 1766) (Fig. 74). The most noticeable common characters are: long and narrow uncus; sacculus strongly curved upwards (sharply in the new species and roundly in *W. sororcula* Hfn.); saccular process directed basally in the new species that looks to be homologous to the small triangular enlargement in the same place of *W. sororcula* Hfn. Most probably, both species belong to different subgenera, but the new species looks to be more related to *Wittia* de Freina than to any other Lithosiinae genus.

The new species is named in honor of Mr K. Yazaki, Tokyo, Japan.



Figs 55-61. Male genitalia of Lithosiinae species. 55: *Asiapistosa stigma* (Fang), Nanling. 56: *Asiapistosa subnigra* (Leech), Nanling. 57: *Katha conformis* (Walker), Nanling. 58: *Katha nankunshanica* sp. nov., holotype. 59: *Katha magnata* (Matsumura), Taiwan. 60: *Katha magnata nanlingica* ssp. nov., Nanling, paratype. 61: *Teulisna bipectinis* Fang, Nanling. 59– by courtesy of V. Zolotuhin.

Genus *Gampola* Moore, 1878

Gampola Moore, 1878, *Proc. zool. Soc. Lond.* **1878**: 26.

Type species *Gampola fasciata* Moore, 1878.

Gampola sinica Dubatolov, Kishida et Wang, **sp. nov.** (Fig. 22)

Gampola fasciata: Cerny & Pinratana, 2009, *Moths Thailand* 6: 153-154, pl. 31, fig. 310a, 310b.

Material. Holotype – , China, Guangdong, Huizhou, Nankunshan, 23. VII. 2005, Y. Kishida leg. Preserved in South China Agricultural University, Guangdong. Paratypes: 5 , the same labels as in the holotype; 1 , 30. III. 2006, Y. Kishida leg.; 2 , China, Guangdong, Yingde, Shimentai, 180 m, 21. V. 2009, Y. Kishida leg.

Description. Forewing length 14 mm. Forewing broad, with a costal margin strongly curved before apex and a long costal fold longer than half of the forewing costa length. Hing edge with a broad but shallow incision in a terminal 1/3. Forewing brown with a strong diffuse darkening in centre of postdiscal part. Hind margin with a dark brown spot at middle. Hindwing broad, very light brown.

Male genitalia (Fig. 76). Uncus long, broad, with an S-like curving at apex and small apical spine. Valve very broad; costal edge with two long osculate processes at base. Saccular edge with a strong but even curving. Juxta triangular, terminating into a point. Saccus small. Aedeagus long, straight, with an apical process directed anteriorly. Vesical small, without strong cornuti.

Remarks. The new species differs from the type species of the genus, *Gampola fasciata* Moore, 1878 occurring in Sri Lanka, by presence of a diffuse dark shadow spot at the middle part of the forewing hind margin; there is no such spot in *G. fasciata* Moore. Costal fold in the new species is long, about 1/2 of the forewing costa, while in the type species of the genus it is short, according to the original description (Moore, 1878). The new species was incorrectly reported from Hong Kong (Kendrick, 2003: pl. 30, fig. 6) and Thailand (Cerny & Pinratana, 2009: pl. 31, fig. 310a, 310b) as *Gampola fasciata*.

Genus *Danielithosia* Dubatolov et Kishida, **gen. nov.**

Type species: *Tigrioides aureolata* Daniel, 1954.

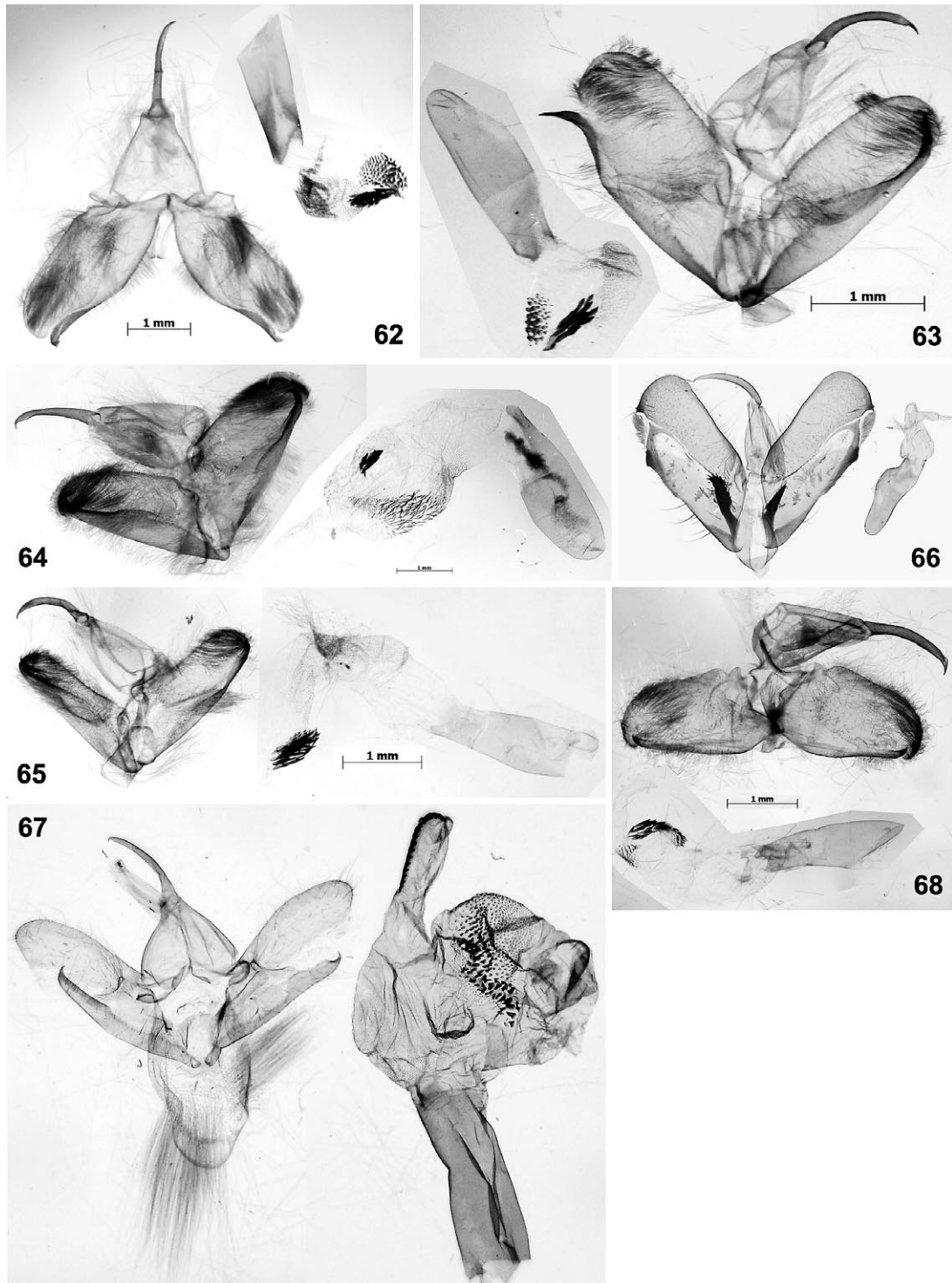
Description. By external characters, species of the new genus look like some *Eilema* Hb. *sensu lato* species but without a contrasted light costal margin.

Male genitalia (Figs 91-98). The genus is mainly characterized by the male genitalia characters. Uncus more or less stout, with a small spine at apex. Valve consists of two parts: cucullus simple, pointed apically; sacculus with a ventral subapical broadening, ventral edge with a ledge. Juxta apically with a long sclerotized bifurcated process. Aedeagus short, stout; vesica with few large cone-like cornuti and a series of smaller cornuti or spiniculi fields.

Remarks. The new genus is characterized by the remarkable autapomorphic characters: a very long apical process of juxta that is bifurcated at apex, and a peculiar broadening of the apical part of the sacculus. Species of the new genus were treated within the genus *Tigrioides* Butler, 1887 (Daniel, 1954), with the type species *Setina alterna* Walker, 1854 from Australia (Watson et al., 1980). Holloway (2001) cited that “*Tigrioides alterna* has typically lithosiine divided valves in the male genitalia, with a ridge running from the centre of the dorsal part towards the saccular part. The small aedeagus has a single, massive cornutus in the vesica.” This is quite a different genitalia structure.

Apart from the type and new species that are described in this article, the new genus also includes: *D. aureolata* (Daniel, 1954), **comb. nov.** from Eastern China, *D. limayca* (Daniel, 1954), **comb. nov.** from South China. The male genitalia of all these species were figured by Daniel (1954) and herewith (Figs 94-95). The same male genitalia structure has two species figured by Inoue (1980); so they are also members of *Danielithosia* gen. nov.: *D. immaculata* (Butler, 1880), **comb. nov.** (Fig. 92) from Japan and *D. pallens* Inoue, 1980 (Fig. 94) from Ryukyu Islands (Japan).

Daniel (1954) figured one more species with similar male genitalia (Fig. 98), but incorrectly identified it as *Tigrioides immaculata* Btlr. from Hunan, Hoeng Shan. Inoue (1980) considered that it is a distinct species. Most probably, it was a new one; its description will appear in another article after specimen studying.



Figs 62-68. Male genitalia of *Ghoria* and related genera. 62: *Ghoria gigantea* (Oberthür), Kunashir. 63: *Ghoria collitoides* (Butler), Kunashir. 64: *Ghoria nigripars* (Walker), Nanling. 65: *Ghoria tecta* (Wileman), Taiwan. 66: *Paraona splendens* (Butler), Myanmar. 67: *Macrobrochis gigas* (Walker), Nepal. 68: *Ghoria albocinerea* Moore, Nepal. 66,67 – by courtesy of V. Zolotuhin.

***Danielithosia fuscipennis* Dubatolov, Kishida et Wang, sp. nov.** (Fig. 44)

Material. Holotype – , China, Guangdong, Shaoguan, Nanling, 1,000 m, 2-5. VII. 2011, Y. Kishida leg. Preserved in South China Agricultural University, Guangdong. Paratypes: 2 , the same data as for the holotype.

Description. Forewing length 10 mm in male, 11-12 mm in females. Forewing narrow, with a skewed outer edge; they are light buff with a diffuse lightening along costal margin at basal 1/3. Hindwing with an acute apex, noticeably lighter than forewing, with darker apical and external margins.

Male genitalia (Fig. 91). Cucullus narrow, tapering towards apex, the left one with a costal edge slightly convex, and right one straight. Sacculus strongly asymmetrical: the left one with a rounded triangular broadening before apex, ventral edge with a ledge, and a straight apical process; the right one with a rounded rectangular subapical broadening and curved apical process. Apical process of juxta also asymmetrical: the right branch of a bifurcation is very small, narrow and dislocated at middle part of this process; the left branch is stout, long, truncated, and curved outwards apically. Aedeagus stout, without processes and arming; vesica with two cone-like cornuti and a field of sclerotized spiniculi.

Remarks. By a noticeable asymmetry of valves and an apical process of the juxta, the new species strongly differs from nearly all other species of the genus; the single similar species is *D. immaculata* Btl. (Fig. 92), but it has about 7 cone-like cornuti, while the new one – only two.

***Danielithosia consimilis* Dubatolov, Kishida et Wang, sp. nov.** (Fig. 45)

Material. Holotype – China, Guangdong, Yingde, Shimentai, 200 m, 6-7. VI. 2011, Y. Kishida leg. Preserved in South China Agricultural University, Guangdong.

Description. Forewing length 10 mm. Forewing narrow, with skewed outer edge; they are unicolorly light yellow. Hindwing with an acute apex, slightly darker than forewing, with darker apical and external margins.

Male genitalia (Fig. 95). Cucullus narrow, tapering towards apex. Sacculus with a typical for the genus subapical broadening and a rounded apex. Apical process of juxta stout; apical bifurcation asymmetrical: the left branch twice wider and longer than the right one. The left branch also significantly curved outwards, while the right branch straight. Aedeagus short, stout, with a strong widening in proximal part; vesica with two cone-like cornuti.

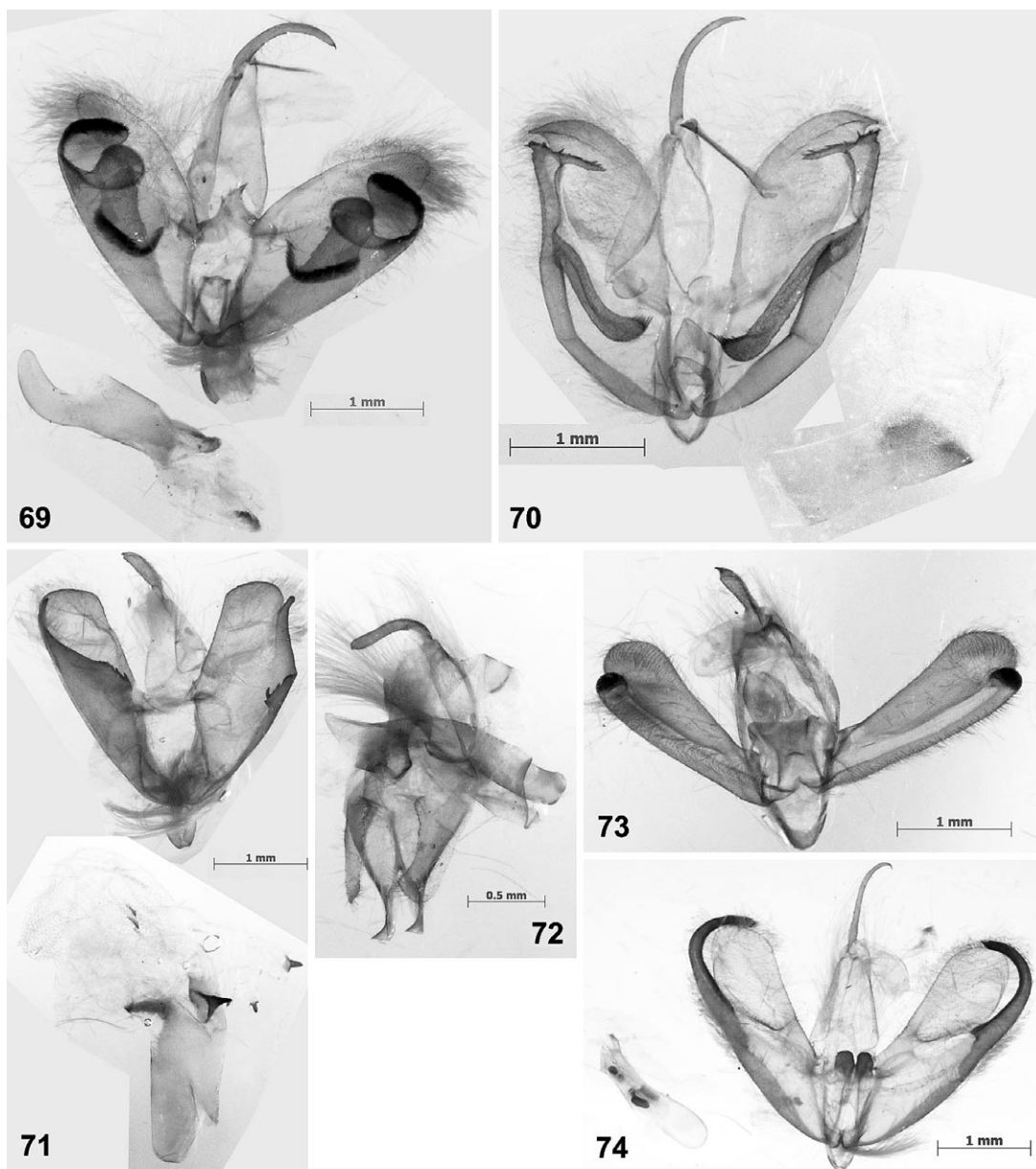
Remarks. The new species is very similar to *D. aureolata* (Daniel, 1954) and *D. limayca* (Daniel, 1954) by the external coloration, but the hindwings look darker than forewings. In two species by Daniel, the hindwings are slightly lighter than forewings. The sacculus shape of the new species is very similar to *D. aureolata* Dan. (Fig. 96) and less similar to *D. limayca* Dan. (Fig. 97) The apical process of juxta is very different of all these species: it is symmetrically bifurcated in *D. aureolata* Dan. (the process long, thin, with long apical branches) and *D. immaculata* Btl. (the process short, stout, with very short branches), and asymmetrical with longer left branch in *D. limayca* Dan. and *D. consimilis* sp. nov. However, the apical bifurcation is much shorter in *D. limayca* Dan.: its right branch is reduced to an acute angle, while the entire process is very thin; in the new species the right branch is not reduced and the entire process is stout. A number of cone-like cornuti is different in these pair of species: two in the new one and three in *D. limayca* Dan.

***Danielithosia difficilis* Dubatolov, Kishida et Wang, sp. nov.** (Fig. 46)

Eilema japonica: Kishida, 2011, *Moths of Guangdong Nanling National Nature Reserve*: 219-220, pl. 25, fig. 17.

Material. Holotype – , China, Guangdong, Shaoguan, Nanling, 22-27. VII. 2008, Y. Kishida leg. Preserved in South China Agricultural University, Guangdong. Paratype: 1 , the same data as in the holotype.

Description. Forewing length 11 mm. Forewing narrow, with a skewed outer edge; they are buff with



Figs 69-74. Male genitalia of Lithosiinae species. 69: *Wittia klapperichi* (Daniel), Nanling. 70: *Wittia yazakii* sp. nov., Nanling, holotype. 71: *Manulea hunanica* (Daniel), Nanling. 72: *Prabhasa venosa* Moore, Nanling. 73: *Dolgoma nigrocribrata* sp. nov., Nanling, holotype. 74: *Wittia sororcula* (Hufnagel), France.

diffuse yellow costal margin. Hindwing lighter than forewing, without any darkening. In the female, hindwing is lighter than in male.

Male genitalia (Fig. 93). Cucullus narrow, slightly extending towards apex, here with a small tooth. Sacculus with a typical for the genus subapical broadening and rounded apex. Apical process of juxta narrow; apical bifurcation asymmetrical: the left branch is three times longer than the right one. The left branch significantly curved outwards, while right branch straight. Aedeagus short, stout, with a strong widening in proximal part; vesica with one dentate plate and one short spine on wide

sclerotized base fused with sclerotized band.

Remarks. The new species differs from others by the cornuti structure: one cornutus is transformed into a dentate sclerotized plate; the other cornutus is spine-like, with a wide base fused with the sclerotized band.

Genus *Microlithosia* Daniel

Microlithosia Daniel, 1954, *Bonn. zool. Beitr.* **5** (1-2): 135.

Type species: *Microlithosia shaowuica* Daniel, 1954.

Remarks. Daniel (1954) described the genus *Microlithosia* Dan. for a single type species from Fujian: Shaowu. However, at least one more species, *Eilema umbripuncta* de Joannis, 1928 from Vietnam and Thailand (Cerny & Pinratana, 2009) should be transferred into this genus as *Microlithosia umbripuncta* (de Joannis, 1928), **comb. nov.**; it has very similar wing pattern (Fig. 50) and male genitalia structure for the type species (Fig. 99).

Microlithosia nanlingica Dubatolov, Kishida et Wang, **sp. nov.** (Fig. 47)

Microlithosia shaowuica (part.): Fang, 2000, *Fauna Sinica* (Insecta) **19**: 287-288, fig. 202 (male genitalia), pl. XIII, fig. 23.

Material. Holotype – , China, Guangdong, Yingde, Shimentai, 200 m, 6-7. VII. 2011, Y. Kishida leg. Preserved in South China Agricultural University, Guangdong. Paratypes: 3 ♂ 5 ♀, the same label as in the holotype.

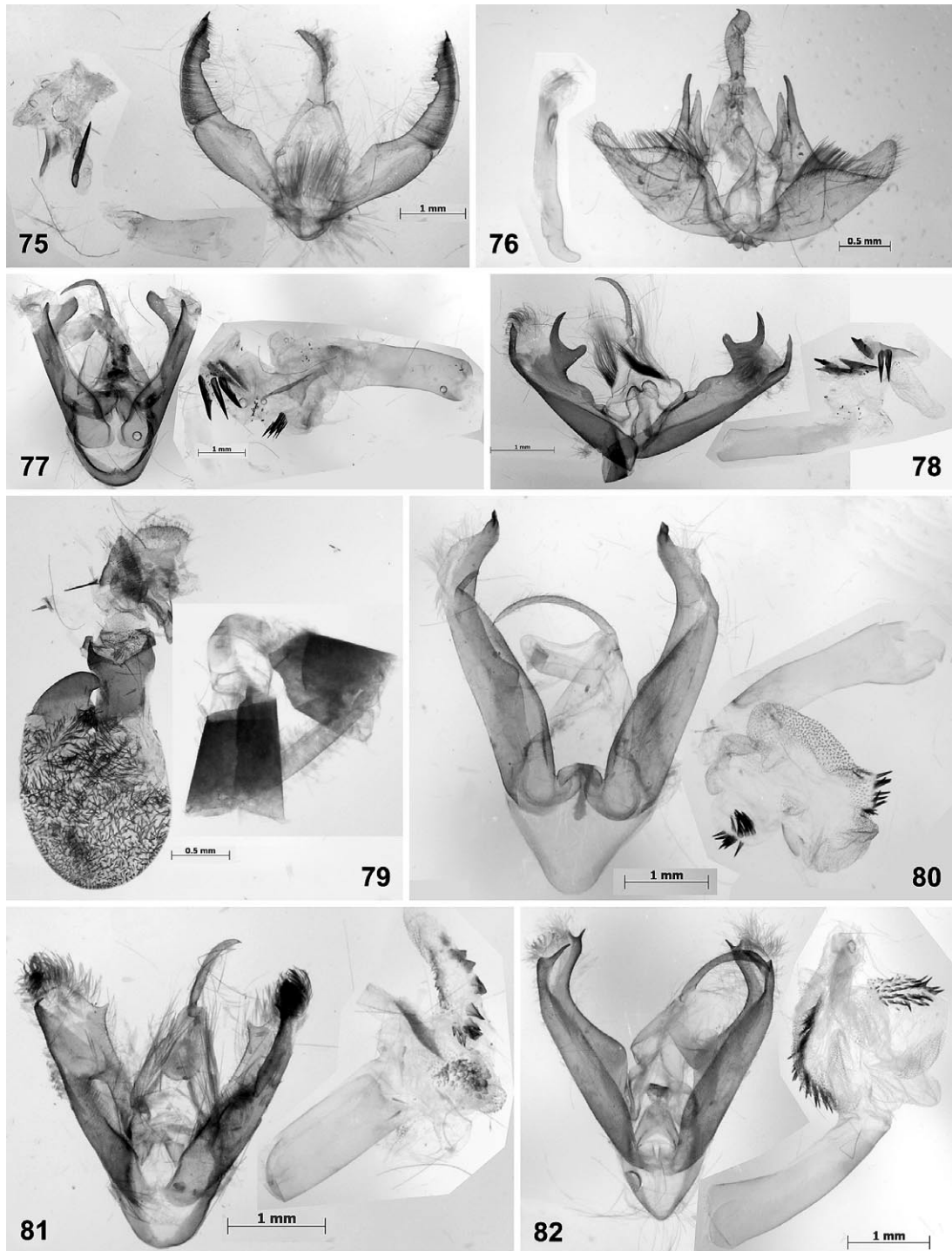
Description. Forewing length 9-10 mm in males, 9-11.5 in females. Forewing dark yellow with the darkest place at distal part of discal cell. Hindwing yellow. Body yellow.

Male genitalia (Fig. 99). Uncus narrow, strongly curved ventrally. Valve oval, with a light hollow on ventral margin near apex. Sacculus asymmetrical; consist of two sclerotized branches. Basal branch of the left sacculus long, covered with small teeth, terminating in two spines. Distal branch of the left sacculus strongly curved inwards, bearing two strong teeth at curving place. Basal branch of the right sacculus also covered with small teeth, it is short, not longer than base of distal branch. The latter also strongly curved and bearing a pair of closely located strong teeth at curving place. Saccus small. Aedeagus short, broad, with a long and curved sclerotized process covered with strong hair-like spines at 1/3 from the apex.

Remarks. The wing pattern is nearly identical to other species of the genus. The male genitalia of all species differ noticeably. The new species has the sacculus structure more similar to the type species than to *M. umbripuncta* de Joan., but with significant differences: basal branches of the left and right sacculi are noticeably wider (Fig. 99), distal branch of the left sacculus bears two strong spines at its middle, while *M. shaowuica* Dan. has here a spinulose zone (Fig. 100); the distal branch of right sacculus bears a pair of closely located spines, while the type species of the genus – only one. A long process of the aedeagus is covered by strong hair-like spines in the new species but is probably naked in *M. shaowuica* Dan. In *M. umbripuncta* de Joan. (Fig. 101) the basal branches of both sacculi are much shorter: even on the left sacculus it is not longer than the base of the distal branch; on the right sacculus the basal branch is only a half as long as the distance to the base of the distal branch. The latter in *M. umbripuncta* de Joan. is very different from the Chinese species: it has three equal spines at the apex of the right sacculus and a short broad process at the base and a spinulose apical part on the left sacculus. The aedeagus of *M. umbripuncta* de Joan. also differs from the Chinese species, the sclerotized process is equal in length to the aedeagus, while in the other species it is 1.5-2 times longer.

Genus *Planovalvata* Dubatolov et Kishida, **gen. nov.**

Type species: *Eugoa roseivena* Hampson, 1894.



Figs 75-82. Genitalia of Lithosiinae species. 75: *Planovalvata roseivena* (Hampson), Nanling. 76: *Gampola sinica* sp. nov., Nanling, paratype. 77: *Miltochrista jucunda* Fang, Nanling. 78: *Miltochrista ziczac* (Walker), Nanling. 79: *Miltochrista obscuripostica* sp. nov., Nanling, holotype. 80: *Barsine aberrans* (Butler), Nanling. 81: *Barsine compar* (Fang), Nanling. 82: *Barsine sinuata* (Fang), Nanling. 79 – female, others – males.

Description. The genus belongs to the series of *Miltochrista*-like genera without remarkable external characters.

Male genitalia (Fig. 75). Uncus long hook-like. Valve with a reduced saccular part and a long flat cucullus bearing some dents apically. Vesica with a single spine-like cornutus and an additional sclerotized band.

Remarks. The type species has the male genitalia very different from any *Stigmatophora* Stgr. (to which it formerly was attributed) species with a long and narrow apical process on the sacculus, a conspicuous harpe near the valve base and a series of stout cornuti on vesica.

****Planovalvata roseivena* (Hampson), comb. nov.** (Fig. 23)

Eugoa roseivena Hampson, 1894, *Fauna Br. India* (Moths) **2**: 99. Type locality: "Momeit, Burma" [Myanmar].

Stigmatophora roseivena: Hampson, 1900, *Cat. Lepid. Phal. Br. Mus.* **2**: 550, 551, pl. 34, fig. 17; Seitz, 1914, *Die Groß-Schmett. Erde* **10**: 121, fig. 13d; Strand, 1922, *Lepid. Cat.* **26**: 860; Fang, 2000, *Fauna Sinica* (Insecta) **19**: 38, pl. I, fig. 12; Cerny & Pinratana, 2009, *Moths Thailand* **6**: 16, pl. 2, fig. 20.

Material. Nanling, Shaoguan: 6 2, 16-20. V. 2009.

Male genitalia (Fig. 75).

Distribution. Myanmar (Burma), Thailand, China (Jiangxi, Fujian, Hunan, Guangxi, Guangdong (!), Hainan, Yunnan).

Genus *Miltochrista* Hübner

Miltochrista Hübner, [1819] 1816, *Verz. bekannter Schmett.*: 166.

Type species: *Noctua rubicunda* [Denis et Schiffermüller], 1775 (= *miniata* Forster, 1771).

****Miltochrista jucunda* Fang** (Fig. 24)

Miltochrista jucunda Fang, 1991, *Sinozoologia* **8** (5): 385, 390, 396, fig. 6. Type locality: "Miaoershan Guangxi, 1100 m" [China].

Material. Nanling, Shaoguan: 1, 22-26. VII. 2004; 4 1, 22-27. VII. 2008; 5, 9-15. V. 2010.

Male genitalia (Fig. 77).

Distribution. China: Guangxi, Jiangxi (Fang, 1991, 2000), Guangdong.

Remarks. The valve has an upcurved cucullus, the vesica with several strong spine cornuti; these characters are typical for *Miltochrista* s.str.

***Miltochrista ziczac* (Walker)** (Fig. 25)

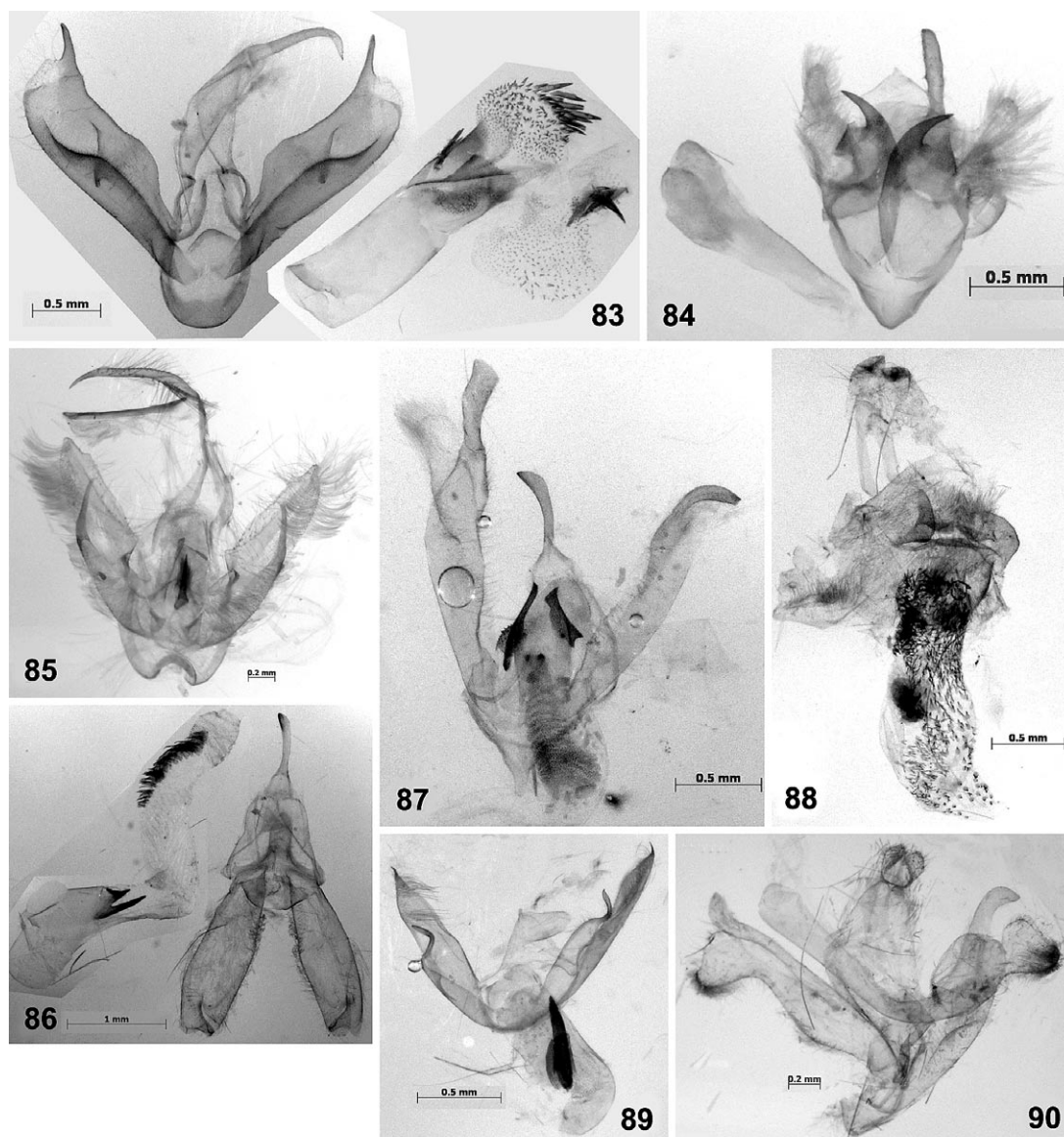
Hypoprepia ziczac Walker, 1856, *List Specimens lepid. Insects Colln Br. Mus.* **7**: 1681. Type locality: "China".

Material. Nanling, Shaoguan: 1 1, 22-27. VII. 2008; 1 1, 16-20. V. 2009.

Male genitalia (Fig. 78).

Distribution. China: Shanxi, Shaanxi, Henan, Jiangsu, Hubei, Zhejiang, Jiangxi, Hunan, Fujian, Guangdong, Guangxi, Sichuan, Yunnan (Fang, 2000), Guangdong (Kishida, 2011), Taiwan; Japan: Amamioshima Is., Tokunoshima Is.

Remarks. The apical cucullus process is bifid and upcurved; the vesica bears several strong spine cornuti; these characters are typical for *Miltochrista* s.str.



Figs 83-90. Genitalia of Lithosiinae species. 83: *Asuridia nigriradiata* (Hampson), Nanling. 84: *Cyclomilta fangchenglaiae* sp. nov., Nanling, holotype. 85: *Aemene punctigera* Leech, Nanling. 86: *Hemipsilia grahami* Schaus, Nanling. 87: *Nudaria nanlingica* sp. nov., Nanling, holotype. 88: *Nudaria vernalis* sp. nov., Nanling, holotype. 89: *Stictane chinesica* Draudt, Guangdong, Yingde. 90: *Schistophleps lofaushanensis* Daniel, Guangdong, Yingde. 88 – female, others – males.

***Miltochrista obscuripostica* Dubatolov, Kishida et Wang, sp. nov.** (Fig. 26)

Material. Holotype – 1 ♂, China, Guangdong, Shaoguan, 6-10. VI. 2010, Y. Kishida leg. Preserved in South China Agricultural University, Guangdong.

Description. Female forewing length 8 mm. Forewing yellow suffused with grey, outer margin and apical half of costal margin rosy. Subbasal band round, between it and forewing base there are grey markings: a dot at wing base, an elongate triangular patch going from hind margin towards discal cell, and a diffuse stroke along costal margin. Antemedial band nearly straight, slightly concave

inwards. The hind vein of discal cell with a grey stroke at apex adjoining to discal vein. Postdiscal band zigzag-like; a submarginal one consists of grey strokes along veins that are adjoining to rose external margin. Fringe with some dark spots. Hindwing bicolorous, yellow in anterior, central and external parts, and grey from anal edge to vein CuP; there is a small grey diffuse spot on the discal vein. Abdomen grey.

Female genitalia (Fig. 79).

Remarks. The new species is closely related to *M. koshunica* Strand, 1917 (Figs 48-49), but the hindwing of the latter species is yellow with a light darkening along the external margin, better visible at the apex; the forewing pattern is much more contrasted; the dark stroke near the forewing base is noticeably narrower; the dark marginal line is contiguous. *M. obscuripostica* sp. nov. could be clearly distinguished from other similar species by a bicolorous hindwing with a dark anal part; no such species were cited by Fang (2000). The single similar species *M. inscripta* (Walker, 1854) (= *erubescens* Butler, 1877) has the hindwing entirely dark brown, only the costa and base acquiring a scarlet tint. There is one more female collected at 29-31.VII.2002 by Y. Kishida; it has the forewing like in the *M. obscuripostica* sp. nov. holotype, but the grey colour on the hindwings is wide, occupying the most part of the wing except for the yellowish fore and external margins. It has the sclerotized appendix of the bursa not curved and a slightly more extant part without sclerotized spines; so it might belong to another species.

Genus *Barsine* Walker

Barsine Walker, 1854, *List Specimens lepid. Insects Colln Br. Mus.* 2: 546.

Type species: *Barsine defecta* Walker, 1854.

Barsine aberrans (Butler) (Fig. 27)

Mitochondria aberrans Butler, 1877, *Ann. Mag. nat. Hist.* (4) 20: 397. Type locality: "Yokohama" [Japan].

Material. Nanling, Shaoguan: 1, 16-20. V. 2009; 1, 9-15. VII. 2010.

Male genitalia: (Fig. 80).

Distribution. SE Russia: Khabarovsk vic., Primorskii Krai; Korea; China: Heilongjiang, Jilin, Beijing, Shaanxi, Henan, Jiangsu, Zhejiang, Jiangxi, Fujian, Hubei, Hunan, Sichuan, Guangxi, Guangdong, Hainan; Japan.

Barsine dimidiata (Fang), **comb. nov.** (Fig. 31)

Mitochondria dimidiata Fang, 1991, *Sinozoologia* 8 (5): 384, 389, 395, fig. 4. Type locality: "Hendong, Hunan" [China].

Material. Nanling, Shaoguan: 1, 27-31. VII. 2008.

Male genitalia (Fig. 102).

Distribution. China (Hunan, Jiangxi, Guangxi (Fang, 2000), Guangdong!).

Barsine compar* (Fang), **comb. nov. (Figs 28-29)

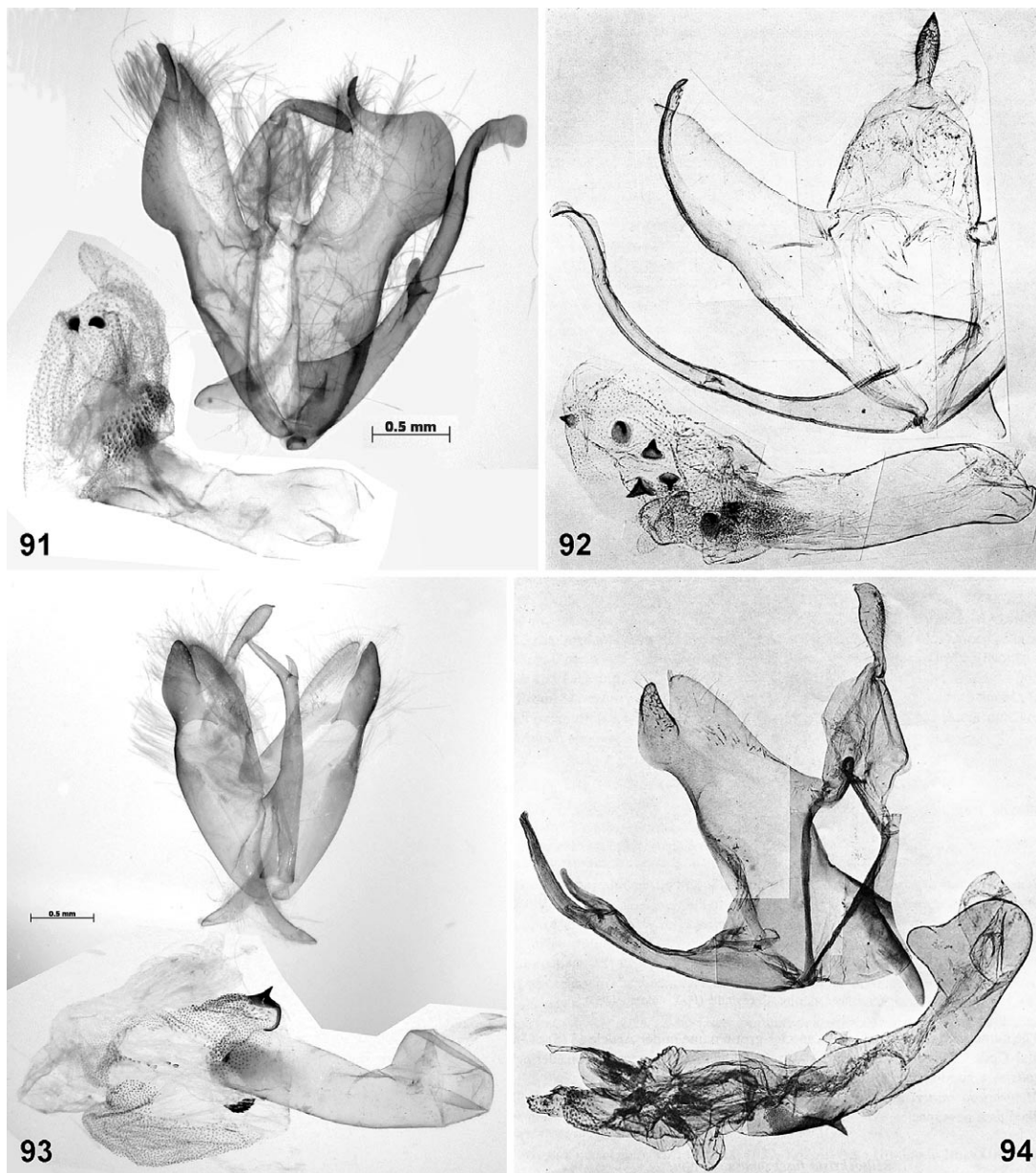
Mitochondria compar Fang, 1991, *Sinozoologia* 8 (5): 383, 387, 395, fig. 2. Type locality: "Yichun, Jiangxi" [China].

Material. Nanling, Shaoguan: 7, 4, 6-10. VI. 2010; 4, 2-5. VII. 2011.

Male genitalia (Fig. 81).

Distribution. China (Jiangxi, Hunan, Guangdong (!), Sichuan).

Remarks. By the male genitalia structure, this species belongs to the genus *Barsine* Wlk.



Figs 91-94. Male genitalia of *Danielithosia*. 91: *Danielithosia fuscipennis* sp. nov., Nanling, holotype. 92: *Danielithosia immaculata* (Butler), Japan. 93: *Danielithosia difficilis* sp. nov., Nanling, holotype. 94: *Danielithosia pallens* (Inoue), Japan, Ryukyu. 92, 94 from Inoue, 1980.

****Barsine conformis* (Fang)**

Mitochrista conformis Fang, 1991, *Sinozoologia* **8** (5): 383, 389, 395, fig. 3. Type locality: "Longsheng, Guangxi, 1150 m" [China].

Material. Nanling, Shaoguan: 1 ♂, 9-10. VII. 2010; 1 ♀, 2-5. VII. 2011.

Distribution. China (Hubei, Jiangxi, Guangxi (Fang, 2000), Guangdong!).

****Barsine sinuata*** (Fang), **comb. nov.** (Fig. 32)

Miltochrista sinuata Fang, 1991, *Sinozoologia* **8** (5): 386, 393, 397, fig. 12. Type locality: “Longsheng, Guangxi, 900 m” [China].

Material. Nanling, Shaoguan: 1 , 6-10. V. 2010.

Male genitalia (Fig. 82).

Distribution. China (Guangxi, Guangdong).

Remarks. The vesica bears two bands of small cornuti, so this species is a member of *Barsine* Wlk.

Barsine longstriga (Fang), **comb. nov.** (Fig. 30)

Miltochrista longstriga Fang, 1991, *Sinozoologia* **8** (5): 385, 390, 396, fig. 7. Type locality: “Qinling, Shaanxi” [China].

Material. Nanling, Shaoguan: 3 , 9-15. VII. 2010; 1 1 , 2-5. VII. 2011.

Male genitalia (Fig. 103). Uncus narrow, hook-like. Valvi oval, cucullus on the costal edge with a spine at 1/3 from the apex; its inner surface with small hook-like harpe; sacculus narrow, apically curved upwards. Aedeagus straight, with a broad apical process. Vesica bag-like, with two fields of cornuti: one of small spine-like, another – cone like.

Distribution. China: Shaanxi, Hubei, Hunan, Yunnan (Fang, 2000), Guangdong (Kishida, 2011).

Remarks. According to the male genitalia structure (Fang, 2000: 87, fig. 54), there is a field of small cornuti on the vesica; this is one of the main characters of *Barsine* species (Holloway, 2001).

Genus *Asuridia* Hampson

Asuridia Hampson, 1900, *Cat. Lepid. Phal. Br. Mus.* **2**: vi, 89, 412.

Type species *Ammatho carnipicta* Butler, 1877.

****Asuridia nigriradiata*** (Hampson) (Fig. 33)

Miltochrista nigriradiata Hampson, 1896, *Fauna Br. India* (Moths) **4**: 501. Type locality: “Bhután”.

Material. Nanling, Shaoguan: 1 , 22-27. VII. 2008; 1 , 2-5. VII. 2011.

Male genitalia (Fig. 83).

Distribution. Bhutan, China (Guangdong, Hunan, Guangxi, Yunnan).

Genus *Stigmatophora* Staudinger

Stigmatophora Staudinger, 1881, *Stett. Ent. Ztg.* **42**: 399.

Type species: *Setina micans* Bremer et Grey, 1853.

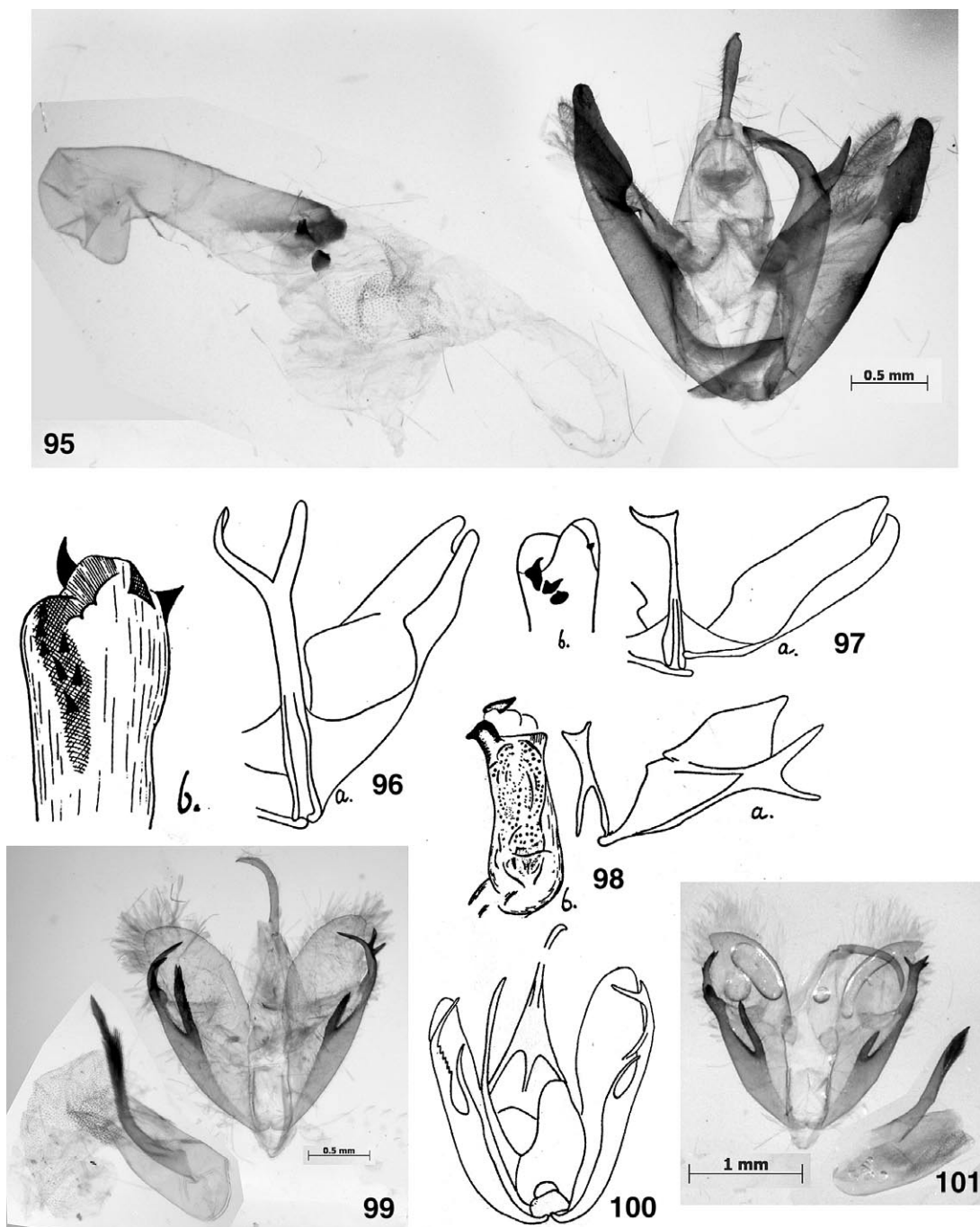
****Stigmatophora hainanensis*** Fang (Figs 53-54)

Stigmatophora hainanensis Fang, 1991, *Sinozoologia* **8** (5): 377, 378, 379, 381, fig. 1. Type locality: “Hainan Province” [China].

Material: 1 , Shaoguan, Nanling, 6-10. VI. 2010; 1 , Yingde, Shimentai, 200 m, 6-7. VII. 2011.

Distribution. China: Hainan Is. (Fang, 1991, 2000), Guangdong!; Thailand (Cerny & Pinratana, 2009).

Remarks. This species belongs to the *S. palmata* Moore, 1878 group. Three species of this group occur in Nanling Mts: *S. palmata* Moore and *S. chekiangensis* Daniel, 1951 were reordered by



Figs 95-101. Male genitalia of *Danielithosia* and *Microlithosia* species. 95: *Danielithosia consimilis* sp. nov., holotype. 96: *Danielithosia aureolata* (Daniel), China, Fujian, West Tien-Mu-Shan. 97: *Danielithosia limayca* (Daniel), South China, Limay, holotype. 98: *Danielithosia* sp. (= *immaculata* sensu Daniel, 1954), China, Hunan, Hoeng Shan. 99: *Microlithosia nanlingica* sp. nov., holotype. 100: *Microlithosia shaowuica* Daniel, China, Fujian, Shaowu, holotype. 101: *Microlithosia umbripuncta* (de Joan.), Thailand. 96, 97, 98, 100 from Daniel, 1954. A – juxta and right valve, b – aedeagus.

Kishida (2011). All these similar species differ significantly from each other by the male genitalia structure (Figs 104-106).

Genus *Cyana* Walker

Cyana Walker, 1854, *List Specimens lepid. Insects Colln Br. Mus.* **2**: 528.

Type species: *Cyana detrita* Walker, 1854.

**Cyana adita* (Moore) (Fig. 34)

Bizone adita Moore, 1859, *Cat. Lepid. Ins. Mus. nat. Hist. East Ind. Co*: 306, pl. VIIa, fig. 11. Type locality: “N. India”.

Material. Nanling, Shaoguan: 4 ♀, 16-20. V. 2009.

Distribution. Himalayas, Nepal; China: Hubei, Fujian, Sichuan, Yunnan, Tibet (Fang, 2000), Guangdong; Thailand (Cerny & Pinratana, 2009); Vietnam.

**Cyana distincta* (Rothschild) (Fig. 36)

Chionaema distincta Rothschild, 1912, *Novit. zool.* **19**: 245. Type locality: “East Pegu, Burma, 4000-5000 ft.” [Myanmar].

Material. Nanling, Shaoguan: 3 ♀, 16-20. V. 2009.

Distribution. China: Fujian, Sichuan, Yunnan (Fang, 2000), Guangdong; Burma; Thailand; Vietnam.

**Cyana interrogationis* (Poujade) (Fig. 37)

Bizone interrogationis Poujade, 1886, *Bull. Soc. ent. Fr.* (6) **6**: CXXV. Type locality: TL: “Moupin (Thibet)” [China: Sichuan].

Material. Nanling, Shaoguan: 1 ♀, 22-27. VII. 2008.

Distribution. China: Jiangsu, Zhejiang, Jiangxi, Hubei, Hunan, Fujian, Guangxi, Hainan, Sichuan (Fang, 2000), Guangdong; Thailand; Vietnam.

**Cyana signa* (Walker) (Fig. 35)

Bizone signa Walker, 1854, *List Specimens lepid. Insects Colln Br. Mus.* **2**: 550. Type locality: “Silhet” [Bangladesh].

Material. Nanling, Shaoguan: 1 ♀, 16-20. V. 2009.

Distribution. India; China: Fujian, Yunnan, Tibet (Fang, 2000), Guangdong; Thailand; Vietnam.

Genus *Cyclomilta* Hampson

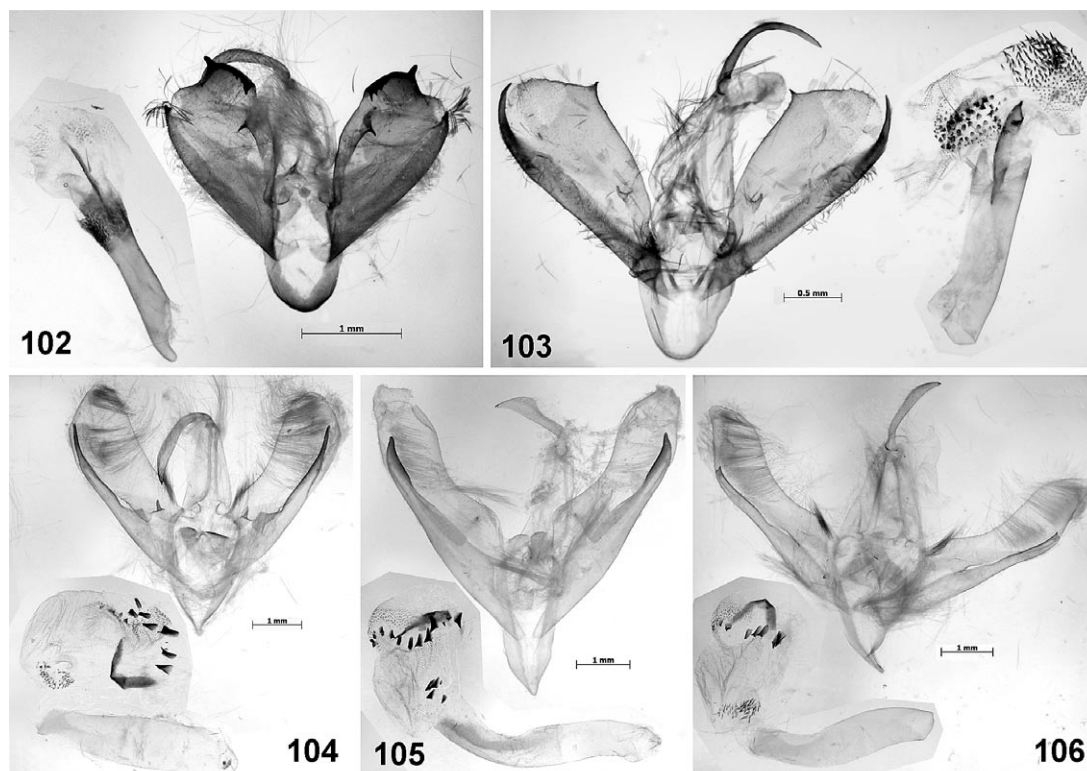
Cyclomilta Hampson, 1900, *Cat. Lepid. Phal. Br. Mus.* **2**: xix, 87, 512.

Type species *Miltochrista melanolepia* Hampson in Dudgeon, 1899.

Remarks. Watson & al. (1980) and later Cerny & Pinratana (2009) attributed authority of this species to Dudgeon, 1899. However, in the article (Dudgeon, 1899) the species name was cited only once in legends to the plate II (p. 85), with a clear authorship: “*Miltochrista melanolepia*, Hampson, ”. In the article title, Sir George F. Hampson was mentioned as an author of additions to the text.

Cyclomilta fangchenglaiae Dubatolov, Kishida et Wang, **sp. nov.** (Fig. 38)

Material. Holotype – ♀, China, Guangdong, Shaoguan, Nanling, 900-1,400 m, 16-20. V. 2009, Y.



Figs 102-106. Male genitalia of *Barsine* and *Stigmatophora*. 102: *Barsine dimidiata* (Fang), Nanling, holotype. 103: *Barsine longstriga* (Fang), Nanling. 104: *Stigmatophora palmata* Moore, Nanling. 105: *Stigmatophora hainanensis* Fang, Guangdong, Yingde. 106: *Stigmatophora chekiangensis* Daniel, Nanling.

Kishida, Wang M. leg. Preserved in South China Agricultural University, Guangdong. Paratype – 1, the same locality and data.

Description. Forewing length 10 mm. Forewing yellow with a black spot proximally of middle of the discal cell, and a brownish band in wing external part. This band is diffuse near outer margin but more contrasted along proximal margin; it begins at 1/2 of costa and directed towards dorsal margin at 1/4 from tornal angle.

Male genitalia (Fig. 84). Uncus straight and not thin. Cucullus membranous, covered with long thin hair-like chaetae. Sacculus well sclerotized, with apical part like an upturned hook. Aedeagus apically with two sclerotized lateral plates.

Remarks. The new species is similar to *C. melanolepia* Hampson in Dudgeon, 1899 from Sikkim (*J. Bombay nat. Hist. Soc.* **13**: 85, pl. 2, fig. 14), but this species has the forewing darkening space much wider, its proximal edge begins from before the middle of costa and directed towards 1/3 of the hind edge from the base; probably the specimen from Thailand (Cerny & Pinratana, 2009: pl. 12, fig. 115) is a correctly determined specimen. The new species was recorded from Hong Kong as “*Lithosiinae* sp. C” (Kendrick, 2003).

The new species is named in honor of Prof. Fang Chenglai (Beijing, China).

Genus *Aemene* Walker

Aemene Walker, 1854, *List Specimens lepid. Insects Colln Br. Mus.* **2**: 541.

Type species: *Aemene taprobanis* Walker, 1854.

**Aemene punctigera* Leech (Fig. 41)

Aemene punctigera Leech, 1899, *Trans. ent. Soc. Lond.* **1899**: 188. Type locality: “Wa-shan, Pu-tsu-fong, Chia-ting-fu, and Ichang” [China].

Material. Nanling, Shaoguan: 1, 22-27. VII. 2008; 4, 1, 16-20. V. 2009.

Male genitalia (Fig. 85).

Distribution. China: Zhejiang, Sichuan, Yunnan (Fang, 2000), Guangdong; Taiwan; Thailand.

Genus *Eugoa* Walker

Eugoa Walker, [1858] 1857, *List Specimens lepid. Insects Colln Br. Mus.* **12**: 768.

Type species: *Eugoa aequalis* Walker, [1858] 1857, by monotypy.

**Eugoa ? grisea* Butler, 1877

Eugoa grisea Butler, 1877, *Ann. Mag. nat. Hist.* (4) **20**: 399. Type locality: “Yokohama”.

Material. Nanling, Shaoguan: 1, 16-20. V. 2009; 2, 2-5. VII. 2011.

Distribution. China: Zhejiang, Fujian, Jiangxi, Hunan, Sichuan, Guangxi, Yunnan, Tibet (Fang, 2000), Guangdong; Taiwan; Japan: Honshu, Shikoku, Kyushu, Tsushima; Korea.

Genus *Stictane* Hampson

Stictane Hampson, 1900, *Cat. Lepid. Phal. Br. Mus.* **2**: xiii, 88, 258.

Type species: *Pitane fractilinea* Snellen, [1880], by original designation.

Stictane chinesica Draudt, **stat. nov.** (Fig. 52)

Stictane rectilinea ab. 1: Hampson, 1900, *Cat. Lepid. Phal. Br. Mus.* **2**: 259.

Stictane rectilinea ab. *chinesica* Strand, 1922, *Lepid. Cat.* **26**: 645.

Manoba rectilinea form *chinesica* Draudt, 1931, in Seitz, A., *Macrolepid. World* **2** (Suppl.): 69. Type locality: “Shanghai”.

Manoba rectilinea [ssp.] *chinesica* Inoue, 1976, *Bull. Fac. domest. Sci. Otsu Univ.* **12**: 166-167, pl. 1, fig. 32, pl. 7, fig. 102.

Manoba rectilinea: Fang, 2000, *Fauna Sinica* (Insecta) **19**: 187-188, pl. V, fig. 26.

Material. China, Guangdong: 1, Yingde, Shimentai, 200 m, 6-7. VII. 2011, Y. Kishida leg.

Distribution. China: Shanghai, Guangdong!, Fujian, Guangxi (Fang, 2000).

Description. Forewing length 4.5 mm. Forewing grey. Basal 2/5 are light, with two black dots of a transversal row adjoining to cell. Medial band dark grey, darker proximally and lighter and diffuse distally, its inner margin contrasted and straight. External part of forewing dark grey; it contains a postdiscal row of black dots, a subapical dark grey spot on costa and a row of black marginal dots. Fringe unicolorously grey. Hindwing unicolorously light grey.

Male genitalia (Fig. 89). Uncus probably is cut off in the holotype. Valve narrow, straight, cucullus apically tapering into a spike; sacculus short, apically with a narrow sickle-like process. Aedeagus with a single stout spine-like cornutus that is fused laterally with an oval plate.

Remarks. The genus *Stictane* Hmps. was separated from *Manoba* Walker, [1863] 1864 by Holloway (2001). He stated that the genus needs in a revision. Many species of the genus are local, restricted to different islands of Sundaland; many of them were described from Borneo (Holloway, 2001). Moreover, no species was described from China until now. Two species cited by Fang (2000) from

China as *Manoba*, and Cerny & Pinratana (2009) from Thailand as *Stictane*, were described from Sundaland: *S. fractilinea* (Snellen, 1880) from Sumatra, and *S. rectilinea* (Snellen, 1879) from Sulawesi. In the wing pattern, the new species is more similar to *S. rectilinea* by a broad medial band on the forewing. So, the specimen from Nanling should represent a good species (Sulawesi has a species set quite different from South China); it differs from all species with figured genitalia (Holloway, 2001).

Genus *Hemipsilia* Hampson

Hemipsilia Hampson, 1900, *Cat. Lepid. Phal. Br. Mus.* 2: xix, 91, 532.

Type species: *Nudaria coavestis* Hampson, 1894.

**Hemipsilia grahami* Schaus (Figs 39-40)

Hemipsilia grahami Schaus, 1925, *Proc. U. S. nat. Mus.* 65 art. 7: 28. Type locality: "Shin Kai Si, Szechuen, China".

Material. Nanling, Shaoguan: 1 ♂, ♀, 22-27. VII. 2008.

Male genitalia (Fig. 86).

Distribution. China: Shaanxi, Zhejiang, Fujian, Sichuan, Yunnan, Hainan (Fang, 2000), Guangdong.

Genus *Schistophleps* Hampson

Schistophleps Hampson, 1891, *Illust. typical Specimens Lepid. Heterocera Colln Br. Mus.* 8: 5, 53.

Type species: *Schistophleps bipuncta* Hampson, 1891, by monotypy.

Schistophleps lofaushanensis Daniel (Fig. 51)

Schistophleps lofaushanensis Daniel, 1951, *Bonn. zool. Beitr.* 2 (3-4): 301. Type locality: "Südchina: Lofaushan" [China, Guangdong: Loh Fau Mt., or Luofu Mt.].

Material. 1 ♂, ♀, Yingde, Shimentai, 200 m, 6-7. VII. 2011, Y. Kishida leg.

Male genitalia (Fig. 90).

Distribution. China (Guangdong).

Genus *Nudaria* Haworth

Nudaria Haworth, [1809] 1803, *Lepid. Br.*: 156.

Type species: *Phalaena mundana* Linnaeus, 1761.

Nudaria nanlingica* Dubatolov, Kishida et Wang, **sp. nov. (Fig. 43)

Material. Holotype – ♂, ♀, China, Guangdong, Shaoguan, 22-27. VII. 2009. Preserved in South China Agricultural University, Guangdong. Paratype – 1 ♂, ♀, the same label and data.

Description. Forewing length 5.5 mm. Wings transparent. Forewing costa with a light incision before apex. Forewing with a grey shadow spot at tornal angle and light grey shadow of a narrow band from 2/3 of costa towards tornal spot.

Male genitalia (Fig. 87). Uncus long, slightly curved downwards. Cucullus sclerotized, curved, stumped at apex. Valve bases with elongate sclerotized process, also stumped at apex; presence of such process is typical for *Nudaria* Hw.

Remarks. Very similar to *N. ranruna* Matsumura, 1927 from Taiwan but the forewing almost without

a dark spot on the hind vein of the discal cell.

Nudaria vernalis* Dubatolov, Kishida et Wang, **sp. nov. (Fig. 42)

Material. Holotype – , China, Guangdong, Shaoguan, 26-30. III. 2006, Y. Kishida leg. Preserved in South China Agricultural University, Guangdong. Paratype – 1 , the same label and data as the holotype.

Description. Forewing length 7 mm. All wings transparent. Forewing elongate, constricted towards apex; costal edge convex. Forewing hind edge with a broad darkening at middle part; this darkening weakens towards the discal cell, and disappear there. Hindwings without any pattern.

Female genitalia (Fig. 88).

Remarks. Similar to *N. fumidisca* Hampson, 1896, but the forewings of the latter species have a brownish, not greyish pattern. Moreover, the dark pattern occupies the most part of the forewing in *N. fumidisca* Hmps., while in the new species it is presented only in the medial part of the wing beyond the discal cell.

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