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## Monograph

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# The genus *Lecithocera* (Lepidoptera: Lecithoceridae) from China, with descriptions of twenty-one new species

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**Abstract.** Twenty-one species of the genus *Lecithocera* Herrich-Schäffer, 1853 from China are described as new: *L. angustifolia* sp. nov., *L. asticta* sp. nov., *L. balteiformis* sp. nov., *L. bicornuta* sp. nov., *L. bigeminata* sp. nov., *L. duplicispinea* sp. nov., *L. flavalba* sp. nov., *L. flavistriata* sp. nov., *L. furvibasis* sp. nov., *L. laticuculla* sp. nov., *L. ligulacea* sp. nov., *L. margirecta* sp. nov., *L. medogensis* sp. nov., *L. nullisigna* sp. nov., *L. parviflava* sp. nov., *L. parvispinea* sp. nov., *L. serratiloba* sp. nov., *L. sichuanensis* sp. nov., *L. tenuextrema* sp. nov., *L. tumucuculla* sp. nov. and *L. yunnanensis* sp. nov. Seven species are newly recorded for China: *L. alpestra* Park, 2005, *L. alpina* Park, 2016, *L. chersitis* Meyrick, 1918, *L. haviensis* Park, 2016, *L. neosticta* Meyrick, 1918, *L. orbiculata* Park, 2010 and *L. rubigona* Park, 2006. The females of four species are described for the first time: *L. alpina*, *L. haviensis*, *L. neosticta* and *L. orbiculata*. Six new combinations are proposed: *Lecithocera platomona* (Wu, 1997) comb. nov. and *L. stimulata* (Wu, 1994) comb. nov. transferred from the genus *Quassitagma*; *L. frisilina* (Gozmány, 1978) comb. nov. transferred from the genus *Recontracta*; *L. baliocata* (Wu, 1994) comb. nov., *L. sarmenta* (Wu, 1994) comb. nov. and *L. stictata* (Wu, 1994) comb. nov. transferred from the genus *Galoxestis*. Images of adults and genitalia for all treated species are given, along with a checklist of all Chinese species of *Lecithocera*.

**Keywords.** Microlepidoptera, Lecithocerinae, new record, new combination.

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## Introduction

So far, the family Lecithoceridae Le Marchand, 1947 consists of more than 1430 species (Park *et al.* 2022) worldwide, distributed all over the world except the Neotropical and Nearctic regions. *Lecithocera* Herrich-Schäffer, 1853 is the largest genus of Lecithoceridae, which was established by Herrich-Schäffer (1853) with *Carcina luticornella* Zeller, 1839 initially as the type species in the family Oecophoridae. Subsequently, it was transferred to the family Gelechiidae by Le Marchand (1947), and

later to the family Timyridae by Clarke (1955). Timyridae was treated as a synonym of Lecithoceridae by Gozmány (1968).

Walker (1864) established the subgenus *Patouissa*, which was later synonymized by Meyrick (1910a). Gozmány (1978) resurrected the subgenus *Patouissa*, and Park (1999) again synonymized it with *Lecithocera*. Gozmány (1978) synonymized *Brachyerga* Meyrick, 1925, *Xanthocera* Amsel, 1953, *Xanthocerodes* Amsel, 1955, *Leviptera* Janse, 1954 and *Parrhasastris* Gozmány, 1972 with *Lecithocera*. Park (2000) treated *Quassitagma* Gozmány, 1978, *Recontracta* Gozmány, 1978, *Psammoris* Meyrick, 1906, *Nyctocyma* Gozmány, 1978 and *Galoxestis* Wu, 1994 as synonyms of *Lecithocera*, but he didn't transfer the species associated with these genera to *Lecithocera*. Following Park's treatment, we herein transfer the following species of the aforementioned genera to *Lecithocera* as formalized new combinations: *Lecithocera platomona* (Wu, 1997) comb. nov., *L. stimulata* (Wu, 1994) comb. nov. from the genus *Quassitagma*, *L. frisolina* (Gozmány, 1978) comb. nov. from the genus *Recontracta*, and *L. baliocata* (Wu, 1994) comb. nov., *L. sarmenta* (Wu, 1994) comb. nov. and *L. stictata* (Wu, 1994) comb. nov. from the genus *Galoxestis*. Park (1999) synonymized the genus *Sarisophora* Meyrick, 1904 with *Lecithocera*, which he later resurrected as a valid genus when taking into consideration the absence of  $M_2$  in the hindwing as a stable character to differ *Lecithocera* species (Park 2012).

Members of the genus *Lecithocera* are characterized by the forewing with all veins,  $R_3$  free or stalked with  $R_{4+5}$ ,  $CuA_1$  and  $CuA_2$  usually stalked; the hindwing with  $M_2$  present,  $M_3$  and  $CuA_1$  stalked or coincident; the abdomen lacking zones of spiniform setae; the male genitalia with a reduced uncus and a costal bar.

*Lecithocera* consists of more than 300 species worldwide (Park *et al.* 2022). Among these, 95 species were recorded in China prior to this study, including 16 species by Meyrick (1910a, 1914, 1918, 1931, 1932, 1934, 1935, 1938), 19 species by Gozmány (1973, 1978), 43 species by Liu & Wu (1992), Wu & Liu (1992, 1993) and Wu (1994, 1997, 2005), and 17 species described by Park (1999, 2018) and Park *et al.* (2013).

The aim of the present paper is to describe 21 new species, to report seven species for the first time occurring in China, to propose six new combinations, and to provide a list of all the species of *Lecithocera* in China.

## Material and methods

Specimens were collected in China using light traps. Wingspan was measured from the tip of the left forewing to the tip of the right forewing. Genitalia slides were prepared following the methods introduced by Li (2002). All images were captured with digital microscopes (Leica M205A and Leica DM750), coupled with the Leica Application Suite ver. 4.2 software. Terminology follows Gozmány (1978).

All the specimens examined, including the type series of the new species, are deposited in the Insect Collection of Nankai University, Tianjin, China (NKU).

## Abbreviations

IZCAS	=	Institute of Zoology, Chinese Academy of Science, Beijing, China
KNA	=	Korea National Arboretum, Pocheon, Korea
MGCL	=	McGuire Center for Lepidoptera and Biodiversity, Gainesville, Florida, USA
NHMUK	=	National History Museum, London, United Kingdom
NKU	=	Insect collection, College of Life Sciences, Nankai University, Tianjin, China
OPU	=	Osaka Prefecture University, Osaka, Japan
PC	=	Private collection of Dr K.T. Park

SDEI	=	Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany
TD	=	Type depository
TL	=	Type locality
USNM	=	National Museum of Natural History, Washington DC, USA
ZFMK	=	Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany
ZMHB	=	Zoologisches Museum, Humboldt Universität, Berlin, Germany
ZMUC	=	Zoological Museum, University of Copenhagen, Denmark
ZSM	=	Zoologische Sammlung des Bayerischen Staates, Munich, Germany

## Results

### *Taxonomy*

Class Insecta Linnaeus, 1758  
Order Lepidoptera Linnaeus, 1758  
Superfamily Gelechioidea Stainton, 1854  
Family Lecithoceridae Le Marchand, 1947  
Genus *Lecithocera* Herrich-Schäffer, 1853

*Lecithocera alpestra* Park, 2005

Figs 1A, 10A, 15A, 18A

*Lecithocera alpestra* Park, 2005: 234. TL: Thailand (Loei). TD: ZMUC.

### Material examined

CHINA – Yunnan Province • 5 ♂♂, 1 ♀; Xishuangbanna; 762 m a.s.l.; 25 May 2015; Z.G. Zhang leg.; slide nos YS19092♂, YS19093♀, YS19101♂; NKU.

### Short morphological characterization

ADULT (Fig. 1A). Wingspan 21.0–23.0 mm.

### Distribution

China (Yunnan), Thailand (Park 2005).

### Remarks

This species is newly recorded for China.

*Lecithocera alpina* Park, 2016

Figs 1B, 10B, 15B, 18B

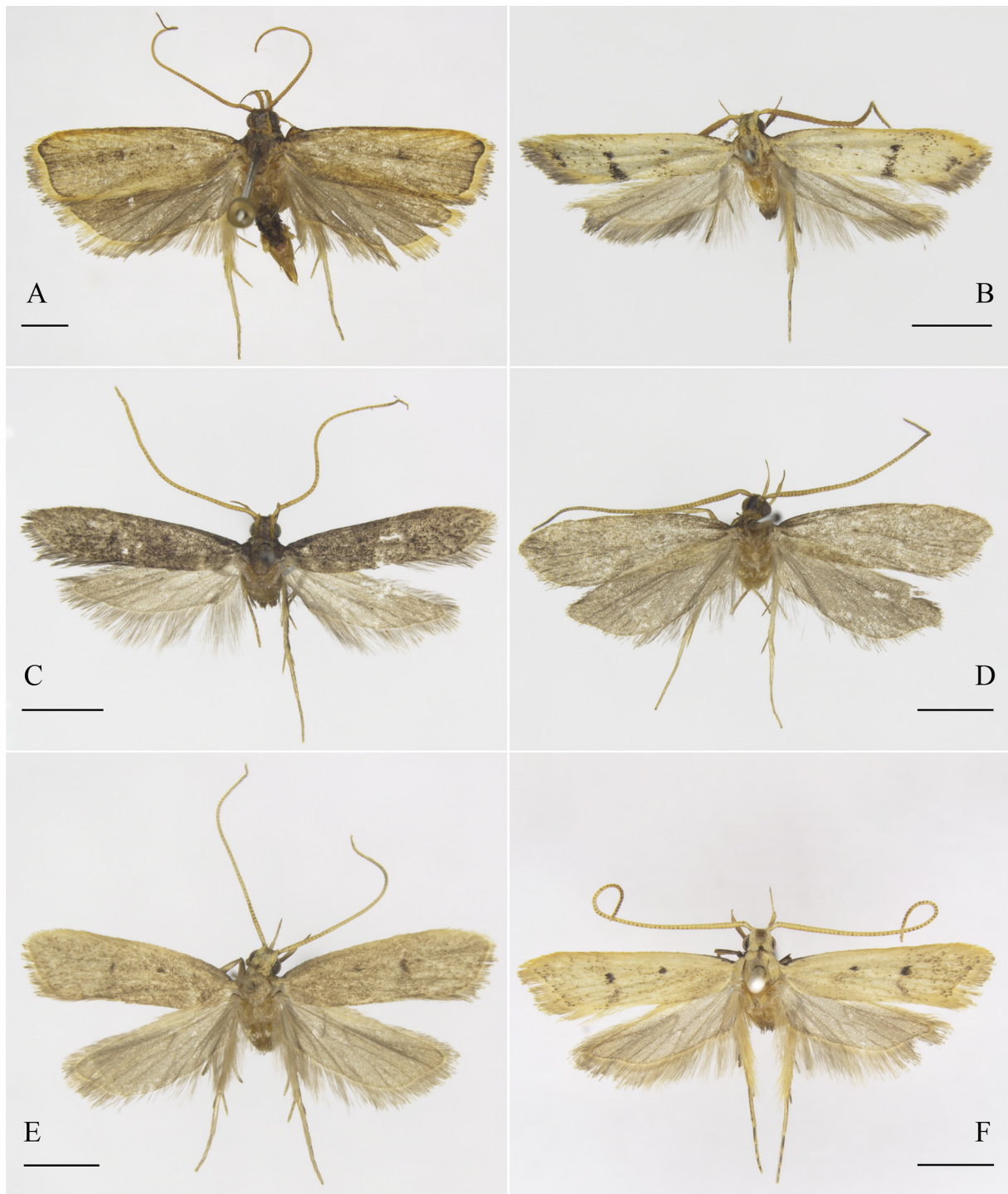
*Lecithocera alpina* Park in Park *et al.*, 2016: 303. TL: Vietnam (Thua Thien). TD: PC.

### Material examined

CHINA – Yunnan Province • 4 ♂♂, 3 ♀♀; Pu'er City, Taiyanghe; 1450 m a.s.l.; 16 May 2014; Z.G. Zhang leg.; slide nos YS19008♂, YS19009♀, YS19464♀, YS19615♂; NKU.

### Short morphological characterization

ADULT (Fig. 1B). Wingspan 11.0–12.5 mm.



**Fig. 1.** Adults of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU), dorsal view. **A.** *L. alpestra* Park, 2005, male. **B.** *L. alpina* Park, 2016, male. **C.** *L. angustifolia* sp. nov., holotype, male. **D.** *L. asticta* sp. nov., holotype, male. **E.** *L. balteiformis* sp. nov., holotype, male. **F.** *L. bicornuta* sp. nov., paratype, male. Scale bars=2.0 mm.



FEMALE GENITALIA (Fig. 18B). Eighth abdominal sternite concave at middle on posterior margin. Apophyses posteriores about twice as long as apophyses anteriores. Antrum cup-shaped, wider than long, spiculose. Ductus bursae broad, wrinkled, partly sclerotized in anterior  $\frac{2}{3}$ , slightly longer than corpus bursae; ductus seminalis broad, arising from about posterior  $\frac{1}{3}$  of ductus bursae. Corpus bursae ovate; signum at posterior  $\frac{1}{3}$ , elliptical.

### Distribution

China (Yunnan), Vietnam (Park *et al.* 2016).

### Remarks

This species is newly recorded for China and its female is described for the first time.

### *Lecithocera angustifolia* sp. nov.

[urn:lsid:zoobank.org:act:A6C9FABF-8D53-4F93-B76C-E485A4A82221](https://zoobank.org/urn:lsid:zoobank.org:act:A6C9FABF-8D53-4F93-B76C-E485A4A82221)

Figs 1C, 6A, 10C, 15C

### Diagnosis

The new species is similar to *L. montiatilis* Park, 2009 in appearance by sharing a narrowly elongate forewing with an extremely oblique termen. It can be distinguished from *L. montiatilis* by having the hindwing with  $M_3$  and  $CuA_1$  coincident, and in the male genitalia by the cucullus gradually narrowed to apex; whereas in *L. montiatilis*, the veins  $M_3$  and  $CuA_1$  are stalked in the hindwing, and the cucullus is broad in basal  $\frac{1}{3}$  and extremely narrow in distal  $\frac{1}{3}$  (Park 2009: 62, fig. 10).

### Etymology

The specific epithet is derived from the Latin “*angustifolius*”, referring to the narrowly elongate forewing.

### Type material

#### Holotype

CHINA – Yunnan Province • ♂; Gaoligongshan, Qinlangdang; 27°42' N, 98°16' E; 380 m a.s.l.; 28 May 2017; K.J. Teng *et al.* leg.; slide no. YS19607; NKU.

#### Paratype

CHINA – Yunnan Province • 1 ♂; same collection data as for holotype except 29 May 2017; slide no. YS19608; NKU.

### Description

ADULT (Figs 1C, 6A). Wingspan 11.5–12.0 mm. Head greyish brown, with pale orange scales laterally. Antenna pale orange; dorsally flagellum ringed with dark brown. Labial palpus pale orange; second palpomere mixed with dark brown scales on outer surface; third palpomere slightly shorter than second palpomere. Thorax and tegula greyish brown. Forewing narrowly elongate, costal margin slightly arched, apex blunt, termen extremely oblique; ground colour greyish brown, mixed with blackish brown scales; markings blackish brown: basal streak wide at base; discal stigma small; discocellular stigma larger, elliptical; fringe greyish brown;  $R_3$ ,  $R_4$  and  $R_5$  stalked,  $R_5$  to termen near apex,  $M_2$  and  $M_3$  subparallel,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe grey; fringe with orange white basal line;  $M_3$  and  $CuA_1$  coincident.

MALE GENITALIA (Fig. 10C). Uncus inverted subtrapezoidal, concave in broad V-shape on posterior margin; caudal lobe short digitiform, setose, rounded apically. Gnathos with basal plate trapezoidal;

median process wide at base, narrowed to distal  $\frac{1}{3}$  where it is curved, then slender to pointed apex. Valva broad basally, narrowed to cucullus; ventral margin arched; cucullus about half as long as valva, slightly narrowed to rounded apex, shallowly concave on costal margin, setose, with several bullet-shaped setae basally along ventral margin; costal bar narrow, gently angled at middle; sacculus wide at base, narrowed to middle, then uniform to cucullus. Vinculum broad; saccus not developed, blunt on anterior margin. Juxta shield-shaped, semicircularly concave on posterior margin, produced at middle on anterior margin; posterior lobe semioval basally, slender distally, extending outward. Aedeagus about  $\frac{5}{6}$  length of valva, tubular and arched, with two dorsal denticles of different sizes, with dense granules in vesica; cornuti consisting of row of spines at basal  $\frac{1}{3}$  and large sclerite bearing 2 denticles.

SEVENTH ABDOMINAL STERNITE (Fig. 15C). Anterolateral rib thin, forked basally, reaching before posterior margin of sixth abdominal sternite; posterolateral lobe weakly sclerotized, triangular.

#### Female

Unknown.

#### Distribution

China (Yunnan).

#### *Lecithocera asticta* sp. nov.

[urn:lsid:zoobank.org:act:50FACF21-AE59-47DD-8FBA-D2D8E885D032](https://zoobank.org/act:50FACF21-AE59-47DD-8FBA-D2D8E885D032)

Figs 1D, 6B, 10D, 15D

#### Diagnosis

The new species is superficially similar to *L. meyricki* Gozmány, 1978 in appearance by sharing a greyish brown forewing without maculation. It can be distinguished by having the forewing with  $R_3$  and  $R_{4+5}$  arising from the same point, and in the male genitalia by the cucullus widened medially; whereas in *L. meyricki*, the forewing has veins  $R_3$  and  $R_{4+5}$  stalked and the cucullus is narrowed from base to apex (Gozmány 1978: pl. 25 fig. 37).

#### Etymology

The specific epithet is derived from the Latin “*astictus*”, referring to the forewing without maculation.

#### Type material

##### Holotype

CHINA – Yunnan Province • ♂; Tengchong City, Xiaodifang; 24°52' N, 98°45' E; 2116 m a.s.l.; 12 Jul. 2014; K.J. Teng *et al.* leg.; slide no. YS19603; NKU.

##### Paratype

CHINA – Yunnan Province • 1 ♂; same collection data as for holotype; slide no. YS20005; NKU.

#### Description

ADULT (Figs 1D, 6B). Wingspan 12.0–13.0 mm. Head yellowish brown. Antenna pale orange; flagellum ringed with dark brown. Labial palpus pale yellow; third palpomere shorter than second palpomere. Thorax and tegula yellowish brown. Forewing widened distally, costal margin slightly arched, apex rounded, termen oblique; ground colour greyish brown; basal streak dark brown, distinct at base; fringe greyish brown, with pale yellow basal line;  $R_3$  and  $R_{4+5}$  arising from same point,  $R_4$  and  $R_5$  long-stalked,  $R_5$  to apex,  $M_2$  and  $M_3$  subparallel,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe greyish brown;  $M_3$  and  $CuA_1$  long-stalked.

MALE GENITALIA (Fig. 10D). Uncus subtriangular, shallowly concave on posterior margin; caudal lobe short digitiform. Gnathos with basal plate subquadrate, roundly produced on posterior margin; median process broad in basal  $\frac{1}{3}$ , narrowed to distal  $\frac{1}{3}$ , distal  $\frac{1}{3}$  slender to pointed apex, curved ventrad at distal  $\frac{1}{4}$ . Valva broad and parallel-sided basally, narrowed to cucullus; cucullus about half as long as valva, slightly widened medially, narrowed from middle to narrowly rounded apex, nearly straight on costal margin, setose ventrally, with several bullet-shaped setae ventrobasally; costal bar narrow in basal half, widened from middle toward valva, gently angled at middle; sacculus distinct basally, taeniod. Vinculum broad; saccus not developed, rounded on anterior margin. Juxta shield-shaped, with small notch at middle on posterior margin, produced at middle on anterior margin; posterior lobe semioval basally, narrow taeniod distally, extending outward. Aedeagus shorter than valva, arched, wide at base, narrowed to basal  $\frac{1}{3}$ , thereafter tubular, without dorsal denticle, with dense granules in vesica; cornuti consisting of elliptical ring placed medially, cluster of spinules from basal  $\frac{1}{4}$  to before middle, and several spines at distal  $\frac{1}{4}$ .

SEVENTH ABDOMINAL STERNITE (Fig. 15D). Anterolateral rib thin, forked basally, curved distally, reaching posterior margin of sixth abdominal sternite; posterolateral lobe weakly sclerotized, triangular.

#### Female

Unknown.

#### Distribution

China (Yunnan).

#### *Lecithocera balteiformis* sp. nov.

[urn:lsid:zoobank.org:act:E792FE7F-AE01-4890-9DB3-C7C19586C39D](https://zoobank.org/act:E792FE7F-AE01-4890-9DB3-C7C19586C39D)

Figs 1E, 6C, 10E, 15E

#### Diagnosis

The new species is similar to *L. longivalva* Gozmány, 1978 in the male genitalia. It can be distinguished from *L. longivalva* by the smaller size of the adult (11.0–12.0 mm), in the male genitalia by the gnathos with a subovate basal plate and the cucullus about  $\frac{3}{5}$  the length of the valva; whereas in *L. longivalva*, the adult is larger ( $\geq 20.0$  mm), the gnathos has a distally widened basal plate (Gozmány 1978: pl. 27 fig. 44) and the cucullus is half the length of the valva (Gozmány 1978: 105).

#### Etymology

The specific epithet is derived from the Latin “*balteiformis*”, referring to the taeniod posterolateral processes of the seventh abdominal sternite.

#### Type material

##### Holotype

CHINA – Shanxi Province • ♂; Yicheng County, Dahe Forest Farm; 35°27' N, 111°55' E; 1202 m a.s.l.; 23 Jul. 2013; S.L. Hao and M.J. Li leg.; slide no. LSR13346; NKU.

##### Paratypes

CHINA – Henan Province • 7 ♂♂; Xixia County, Huangshian; 890 m a.s.l.; 17 Jul. 1998; H.H. Li *et al.* leg.; slide nos ZMR10131, YS18197; NKU.

## Description

ADULT (Figs 1E, 6C). Wingspan 11.0–12.0 mm. Head pale yellow. Antenna pale yellow; flagellum ringed with dark brown in basal  $\frac{1}{4}$ . Labial palpus pale yellow; second palpomere mixed with brown scales on outer surface; third palpomere about  $\frac{2}{3}$  length of second palpomere. Thorax and tegula pale yellow, mixed with brown scales. Forewing with costal margin slightly arched, apex bluntly rounded, termen oblique; ground colour pale yellow, covered with dense dark brown scales; markings blackish brown: discal stigma small rounded; discocellular stigma larger, elliptical; fringe pale brown, basal line pale yellow;  $R_3$  and  $R_{4+5}$  arising from same point,  $R_4$  and  $R_5$  stalked,  $R_5$  to apex,  $M_2$  and  $M_3$  free,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe grey; fringe with pale yellow basal line;  $M_3$  and  $CuA_1$  stalked for shorter than half-length.

MALE GENITALIA (Fig. 10E). Uncus V-shaped; caudal lobe elongate digitiform, with rounded apex. Gnathos with basal plate subovate; median process uniform in basal  $\frac{3}{5}$ , thereafter narrowed to distal  $\frac{1}{4}$ , distal  $\frac{1}{4}$  slender, curved ventrad before apex by right angle. Valva broad basally, narrowed to cucullus; cucullus about  $\frac{3}{5}$  length of valva, parallel-sided in basal half, thereafter narrowed to narrowly rounded apex, nearly straight on costal margin, densely setose, with row of bullet-shaped setae along basal half of ventral margin; costal bar narrow, widened from middle toward valva, angled at middle; sacculus distinct basally, uniform. Vinculum broad; saccus semiovate. Juxta shield-shaped, with small notch at middle on posterior margin, with tiny projection at middle on anterior margin; posterior lobe semiovate basally, taenoid distally, extending outward. Aedeagus about  $\frac{3}{5}$  length of valva, curved at basal  $\frac{1}{3}$ , parallel-sided from basal  $\frac{1}{3}$  to apex, with dense granules in vesica; cornuti consisting of L-shaped sclerite, bar-shaped sclerite medially, bundle of spines at distal  $\frac{1}{4}$  and tooth apically.

SEVENTH ABDOMINAL STERNITE (Fig. 15E). Anterolateral rib thin, curved, not reaching posterior margin of sixth abdominal sternite; posterolateral lobe broad taenoid.

## Female

Unknown.

## Distribution

China (Henan, Shanxi).

## *Lecithocera bicornuta* sp. nov.

[urn:lsid:zoobank.org:act:F662643C-DC9C-41D8-A596-C86A18765728](https://zoobank.org/urn:lsid:zoobank.org:act:F662643C-DC9C-41D8-A596-C86A18765728)

Figs 1F, 6D, 10F, 15F

## Diagnosis

The new species is superficially similar to *L. yoshiyasui* Park, 2006. In the male genitalia it can be distinguished by the cucullus with distinctly narrow rounded apex which is longer than half the length of the valva, and the saccus not developed, with a rounded anterior margin; in *L. yoshiyasui*, the cucullus is slightly narrowed to broadly rounded apex and it is half the length of valva; the saccus is triangular (Park 2006a: 101, fig. 6).

## Etymology

The specific epithet is derived from the Latin “*bi-*” and “*cornuti*”, referring to the aedeagus with two cornuti in the male genitalia.



## Type material

### Holotype

CHINA – Yunnan Province • ♂; Xishuangbanna, Lvshilin; 21°51' N, 101°25' E; 20 May 2015; Z.G. Zhang leg.; slide no. YS19614; NKU.

### Paratypes (33 ♂♂)

CHINA – Yunnan Province • 28 ♂♂; same collection data as for holotype except 20 May–4 Jun. 2015; NKU • 1 ♂; Jinghong City, Yexianggu; 762 m a.s.l.; 26 Jul. 2014; K.J. Teng *et al.* leg.; slide no. YS19610; NKU • 3 ♂♂; Jinghong City, Yexianggu; 762 m a.s.l.; 9–13 Jul. 2015; K.J. Teng and X. Bai leg.; NKU • 1 ♂; Jinghong City, Yexianggu; 762 m a.s.l.; 9 Aug. 2016; K.J. Teng *et al.* leg.; NKU.

## Description

ADULT (Figs 1F, 6D). Wingspan 12.0–13.0 mm. Head orange white. Antenna orange white; flagellum ringed with dark brown. Labial palpus with second palpomere orange white on inner surface, yellowish brown on outer surface, roughly scaled ventroapically; third palpomere orange white dorsally, dark brown ventrally, shorter than second palpomere. Thorax and tegula orange white. Forewing with costal margin nearly straight except extending ventrad from distal  $\frac{1}{5}$ , apex triangularly produced, termen obliquely truncate; ground colour orange white, with scattered dark brown scales; markings blackish brown: basal streak slender, about  $\frac{1}{4}$  as long as costal margin; discal stigma rounded; discocellular stigma larger, elliptical; tornal streak oblique inward, extended to below discocellular stigma anteriorly; fringe pale brownish yellow;  $R_3$ ,  $R_4$  and  $R_5$  stalked,  $R_5$  to termen,  $M_2$  and  $M_3$  free,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe pale greyish brown; fringe with pale yellow basal line;  $M_3$  and  $CuA_1$  coincident.

MALE GENITALIA (Fig. 10F). Uncus subtriangular, concave in broad V-shape on posterior margin; caudal lobe short digitiform, setose and rounded apically. Gnathos with basal plate triangularly produced on posterior margin; median process wide at base, narrowed to distal  $\frac{1}{3}$ , then slender to pointed apex, curved ventrad preapically. Valva broad and parallel-sided basally, narrowed to cucullus; cucullus longer than half length of valva, parallel-sided in basal  $\frac{2}{5}$ , thereafter narrowed to narrowly rounded apex, shallowly concave medially on costal margin, setose, with row of bullet-shaped setae along ventral margin in basal  $\frac{2}{5}$ ; costal bar narrow in basal half, widened from middle toward valva, gently angled at middle; sacculus distinct and taenioid basally. Vinculum broad; saccus not developed, rounded on anterior margin. Juxta shield-shaped, with small notch at middle on posterior margin, projected at middle on anterior margin; posterior lobe semiovate basally, narrow taenioid distally, extending outward. Aedeagus about  $\frac{3}{4}$  length of valva, wide at base, narrowed to basal  $\frac{1}{4}$  where it is curved, then parallel-sided, without dorsal denticle, with dense granules in vesica; cornuti consisting of long bar about  $\frac{2}{3}$  length of aedeagus, and recurved sclerite at middle.

SEVENTH ABDOMINAL STERNITE (Fig. 15F). Anterolateral rib bar-shaped, curved gently, not reaching posterior margin of sixth abdominal sternite; posterolateral lobe weakly sclerotized, elongate triangular.

### Female

Unknown.

### Distribution

China (Yunnan).

*Lecithocera bigeminata* sp. nov.

urn:lsid:zoobank.org:act:0A724F62-A592-4EB8-8841-721BA5EF3019

Figs 2A, 6E, 11A, 15G, 18C

**Diagnosis**

The new species can be distinguished from its congeners by the thickened third palpomere of the labial palpus, the juxta with horn-shaped posterior lobes extending dorsad in the male genitalia, and the corpus bursae with two signa in the female genitalia.

**Etymology**

The specific epithet is derived from the Latin “*bigeminatus*”, referring to the corpus bursae with two signa in the female genitalia.

**Type material**

**Holotype**

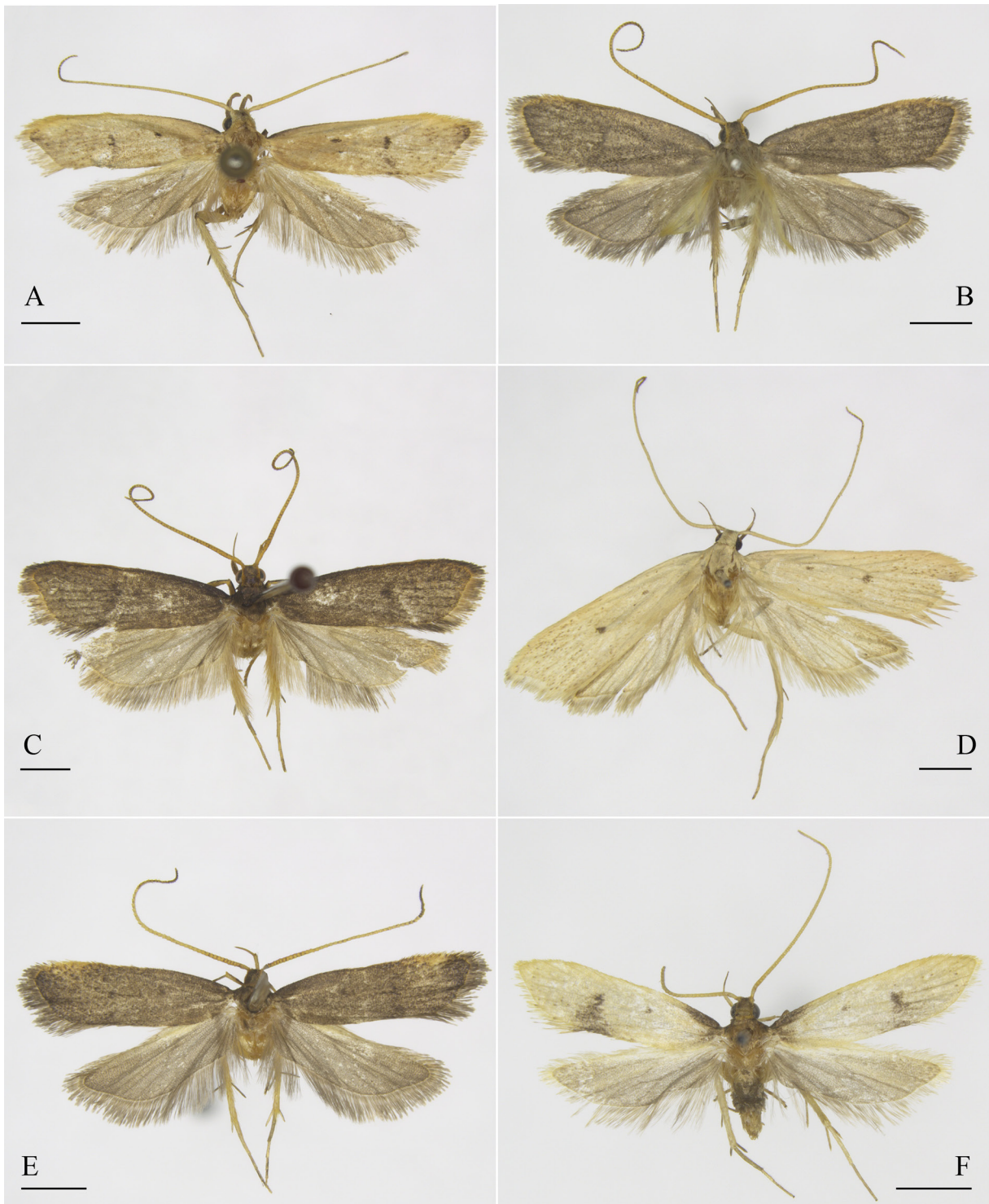
CHINA – **Chongqing** • ♂; Mt Simian; 29°19' N, 106°22' E; 1000 m a.s.l.; 21 Jul. 2010; X.C. Du and L.F. Song leg.; slide no. YS18192; NKU.

**Paratypes** (87 ♂♂, 46 ♀♀)

CHINA – **Chongqing** • 8 ♂♂, 1 ♀; same collection data as for holotype except 20–21 Jul. 2010; slide nos LSR11045♀, LSR11052♂, YS20003♂; NKU • 12 ♂♂, 6 ♀♀; 1200–1280 m a.s.l.; 14–19 Aug. 2012; Y.H. Sun and A.H. Yin leg.; slide nos LSR12170♂, LSR12272♂, LSR12273♀; NKU • 7 ♂♂, 14 ♀♀; Mt Simian; 1280 m a.s.l.; 11–12 Aug. 2012; X.F. Yang and T.T. Liu leg.; slide no. LSR12267♂; NKU • 6 ♂♂, 3 ♀♀; Mt Jinyun; 29–30 Jul. 2010; X.C. Du and C.W. Bi leg.; slide nos YS18191♂, YS18193♀, YS18194♀; NKU • 24 ♂♂, 6 ♀♀; Mt Jinyun; 550 m a.s.l.; 16–17 Jul. 2011; X.C. Du *et al.* leg.; slide nos YS18214♂, YS18215♀, YS18134♂, YS18135♂, YS18136♀; NKU • 7 ♂♂, 6 ♀♀; Mt Jinyun; 550 m a.s.l.; 29–30 Jul. 2012; Y.H. Sun and A.H. Yin leg.; slide no. LSR12276; NKU • 1 ♂; E'mei City, Wanniansi; 830 m a.s.l.; 13 Jul. 2013; Teng *et al.* leg.; slide no. YS18178; NKU • 1 ♂; Qiuyang County, Mt Jinyin; 660 m a.s.l.; 25 Jul. 2012; Y.H. Sun and A.H. Yin leg.; NKU. – **Fujian Province** • 1 ♂; Mt Wuyi, Sangang; 740 m a.s.l.; 25 Jul. 2008; W.C. Li *et al.* leg.; slide no. ZMR10136; NKU. – **Hubei Province** • 1 ♂; Lichuan City, Maoba Region; 700 m a.s.l.; 29 Jul. 1999; H.H. Li leg.; slide no. ZMR10209; NKU. – **Guangxi Zhuang Autonomous Region** • 10 ♂♂, 4 ♀♀; Pingxiang City, Shaoping Forest Farm; 280 m a.s.l.; 1–3 May 2012, 14–17 Jun. 2013; X.F. Yang leg.; slide nos LSR12077♂, LSR13368♂, LSR13371♂, LSR13373♂, LSR13407♂; NKU • 4 ♂♂, 5 ♀♀; Huaping; 950 m a.s.l.; 6–8 Aug. 2006; W.C. Li leg.; NKU. – **Guizhou Province** • 2 ♂♂, 1 ♀; Jiangkou County, Heiwan; 600 m a.s.l.; 27–28 Jul. 2001; H.H. Li and X.P. Wang leg.; slide nos LSR11074♂, ZMR10264♂, ZMR10303♀; NKU. – **Yunnan Province** • 2 ♂♂; Mengla County, Menglun; 570 m a.s.l.; 15 Aug. 2005; Y.D. Ren leg.; slide no. ZMR10334; NKU • 1 ♂; Wenshan City, Malipo County; 1470 m a.s.l.; 26 Jul. 2016; Teng *et al.* leg.; slide no. YS19013; NKU.

**Description**

ADULT (Figs 2A, 6E). Wingspan 16.0–16.5 mm. Head pale yellowish brown, orange white laterally. Antenna orange white; flagellum ringed with dark brown distally on dorsal surface. Labial palpus orange white on inner surface, yellowish brown on outer surface, third palpomere thickened, shorter than second palpomere. Thorax and tegula pale yellowish brown. Forewing with costal margin slightly arched, apex roundly produced, termen oblique; ground colour brownish yellow, mixed with dark brown scales, becoming denser toward apex; dense orange yellow scales along costal margin from distal 1/3 to before apex; markings blackish brown: basal streak slender, about 1/3 as long as costal margin; distal stigma small and rounded; discocellular stigma larger, oblong; tornal streak ill-defined; fringe pale



**Fig. 2.** Adults of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU), dorsal view. **A.** *L. bigeminata* sp. nov., holotype, male. **B.** *L. chersitis* Meyrick, 1918, male. **C.** *L. duplicispinea* sp. nov., holotype, male. **D.** *L. flavalba* sp. nov., holotype, male. **E.** *L. flavistriata* sp. nov., paratype, female. **F.** *L. furvibasis* sp. nov., paratype, male. Scale bars=2.0 mm.

greyish orange;  $R_3$  and  $R_{4+5}$  short-stalked,  $R_4$  and  $R_5$  stalked for about half length of  $R_5$ ,  $R_5$  to termen,  $M_2$  and  $M_3$  subparallel,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe greyish brown; fringe with pale yellow basal line;  $M_3$  and  $CuA_1$  stalked for about half length of  $M_3$ .

**MALE GENITALIA** (Fig. 11A). Uncus V-shaped; caudal lobe digitiform, rounded apically. Gnathos with basal plate undeveloped; median process wide at base, narrowed to distal  $\frac{1}{4}$ , then slender to pointed apex, curved ventrad at distal  $\frac{1}{4}$  by right angle. Valva broad basally, narrowed before cucullus; cucullus about half length of valva, slightly narrowed to broadly rounded apex, shallowly concave on costal margin, setose on ventral half, with row of bullet-shaped setae along basal half of ventral margin; costal bar narrow, triangularly produced at middle on dorsal margin; sacculus taeniod. Vinculum broad; saccus not developed. Juxta shield-shaped, concave on lateral margin, straight on posterior margin, triangular on anterior margin; posterior lobe nearly horn-shaped, extending obliquely dorsad. Aedeagus shorter than valva, tubular, arched, with two dorsal denticles, with dense granules in vesica; cornuti consisting of long, basally plate-shaped sclerite bearing basal and apical tooth, plate with large apical horn, and bundle of spines placed at ventrobasal  $\frac{3}{5}$ .

**SEVENTH ABDOMINAL STERNITE** (Fig. 15G). Anterior margin roundly convex, with horn-shaped process at middle; anterolateral rib bar-shaped, curved in middle, reaching before posterior margin of sixth abdominal sternite; posterolateral lobe weakly sclerotized, semioval.

**FEMALE GENITALIA** (Fig. 18C). Eighth abdominal sternite concave at middle on posterior margin. Apophyses posteriores about twice as long as apophyses anteriores; both apophyses posteriores and anteriores rectangularly broadened anteriorly. Antrum cup-shaped, spiculate. Ductus bursae nearly as long as corpus bursae, weakly sclerotized and wrinkled near ductus seminalis; ductus seminalis arising from about posterior  $\frac{1}{4}$ . Corpus bursae ovate; signa two, at posterior  $\frac{3}{5}$ : one elliptical, denticulate, with heavily sclerotized ridge; another smaller, denticulate.

### Distribution

China (Chongqing, Fujian, Guangxi, Guizhou, Hubei, Yunnan).

### Remarks

This species is slightly different from the other species of the genus *Lecithocera* in having a slightly thickened third palpomere of the labial palpus, but other characters including the venation and the male genitalia agree well with those of *Lecithocera*. Hence, we placed this species in *Lecithocera*.

*Lecithocera chersitis* Meyrick, 1918

Figs 2B, 11B, 15H, 18D

*Lecithocera chersitis* Meyrick, 1918: 106. TL: Korea. TD: NHMUK.

### Material examined (4 ♂♂, 1 ♀)

**CHINA – Zhejiang Province** • 1 ♂, 1 ♀; Jiangshan City, Xianxialing, Laofoyan Village; 465 m a.s.l.; 10 and 12 Aug. 2018; S. Yu *et al.* leg.; slide nos YS19205♂, YS19206♀; NKU • 1 ♂; Hangzhou City, Yongjia County, Linkeng Village; 387 m a.s.l.; 26 Aug. 2016; Q.Y. Wang, M.Q. Yang and P. Liu leg.; slide nos YS19635♂; NKU. – **Hunan Province** • 1 ♂; Taojiang County, Heping Village; 26 Jul. 2004; Y.L. Xiao leg.; slide no. ZMR10248; NKU. – **Guangdong Province** • 1 ♂; Maoming City, Yangmei Town; 21 Apr. 2006; D.D. Zhang leg.; slide no. LSR13138; NKU.



### Short morphological characterization

ADULT (Fig. 2B). Wingspan 14.5–15.0 mm.

### Distribution

China (Guangdong, Hunan, Zhejiang), Korea (Meyrick 1918), Japan (Sakamaki 2013).

### Remarks

This species is newly recorded for China.

### *Lecithocera duplicispinea* sp. nov.

[urn:lsid:zoobank.org:act:AC761CEE-FD7D-442A-8969-234914375DAB](https://doi.org/10.3896/BI.2014.14375DAB)

Figs 2C, 6F, 11C, 15I, 18E

### Diagnosis

This new species is similar to *L. tumidosa* Park, 2010 in the male genitalia. It can be distinguished by the hindwing with  $M_3$  and  $CuA_1$  stalked, in the male genitalia by the aedeagus with four cornuti, and in the female genitalia by the rounded signum of the corpus bursae; whereas in the latter species, the veins  $M_3$  and  $CuA_1$  are coincident in the hindwing, the aedeagus has more than ten cornuti (Park & Wu 2010: 67, fig. 18), and the signum is triangular (Park & Wu 2010: 69, fig. 25).

### Etymology

The specific epithet is derived from the Latin “*duplic-*” and “*spineus*”, referring to the two spiniform apical cornuti in the male genitalia.

### Type material

#### Holotype

CHINA – Yunnan Province • ♂; Tengchong City, Xiaodifang; 24°52' N, 98°45' E; 2116 m a.s.l.; 12 Aug. 2014; K.J. Teng *et al.* leg.; slide no. YS19083; NKU.

#### Paratypes (55 ♂♂, 9 ♀♀)

CHINA – Yunnan Province • 5 ♂♂, 2 ♀♀; same collection data as for holotype; slide nos YS19080♂, YS19081♀; NKU • 1 ♂; Dali City, Mt Jizu; 2228 m a.s.l.; 27 Jul. 2014; K.J. Teng *et al.* leg.; NKU • 28 ♂♂, 3 ♀♀; Baoshan City, Nankang; 2009 m a.s.l.; 16–20 Jul. 2015; K.J. Teng and X. Bai leg.; NKU • 14 ♂♂, 1 ♀; Weishan County, Mt Weibao; 2200 m a.s.l.; 20 Jul. 2001; H.H. Li and X.P. Wang leg.; slide nos ZMR10127♂, ZMR10313♀, ZMR10314♂, ZYM06270♂, ZYM06450♀; NKU • 7 ♂♂, 1 ♀; Baoshan City, Gaoligong; 2157 m a.s.l.; 21–20 Jul. 2015; K.J. Teng and X. Bai leg.; NKU • 2 ♀♀; Mt Longling County, Xiaohei; 2300 m a.s.l.; 10 Aug. 2005; Y.D. Ren leg.; slide nos ZYM06270, ZYM06450; NKU.

### Description

ADULT (Figs 2C, 6F). Wingspan 16.0–22.0 mm. Head dark brown, tinged with shining purplish brown, orange yellow laterally. Antenna orange yellow; flagellum ringed with dark brown. Labial palpus with second palpomere orange yellow on inner surface, yellowish brown on outer surface; third palpomere orange yellow dorsally, dark brown ventrally, as long as second palpomere. Thorax and tegula dark brown. Forewing widened distally, costal margin slightly arched, apex rounded, termen oblique; ground colour dark brown; markings blackish brown: basal streak ill-defined; discal stigma small; discocellular stigma larger, elliptical; fringe brown, mixed with yellowish brown, basal line pale orange;  $R_3$  close to

R<sub>4+5</sub> at base, R<sub>4</sub> and R<sub>5</sub> long-stalked, M<sub>2</sub> and M<sub>3</sub> subparallel, CuA<sub>1</sub> and CuA<sub>2</sub> short-stalked. Hindwing and fringe pale grey; fringe with pale orange basal line; M<sub>3</sub> and CuA<sub>1</sub> stalked for about 1/3 length of M<sub>3</sub>.

**MALE GENITALIA** (Fig. 11C). Uncus V-shaped; caudal lobe digitiform, rounded apically. Gnathos with lateral arm taeniod and as wide as base of median process; median process elongate, narrowed from base to distal 1/5, then slender, curved ventrad pre-apically almost by right angle. Valva broad basally, narrowed before cucullus; cucullus about half length of valva, subtriangular, narrowed from base to rounded apex, shallowly concave on costal margin, setose on ventral half, with row bullet-shaped setae basally along ventral margin; costal bar narrow basally, widened from middle toward valva, angled at middle; sacculus narrow taeniod, sinuate ventrobasally, reaching cucullus. Vinculum broad; saccus subtriangular with blunt apex. Juxta rectangular, longer than wide, heavily sclerotized on posterior margin, with papillary process at middle on anterior margin; posterior lobe small, triangular, extending dorsad. Aedeagus as long as valva, uniform except widened basally, curved at basal 1/4, without dorsal denticle, with dense granules in vesica; cornuti consisting of curved bar about 1/4 length of aedeagus, sclerotized plate placed mesially and two large apical spines.

**SEVENTH ABDOMINAL STERNITE** (Fig. 15I). Anterior margin convex roundly; anterolateral rib broad at base, tapered to apex, not reaching posterior margin of sixth abdominal sternite; posterolateral lobe subrectangular.

**FEMALE GENITALIA** (Fig. 18E). Eighth abdominal sternite shallowly concave at middle on posterior margin. Apophyses posteriores about twice as long as apophyses anteriores. Antrum rectangular, longer than wide, spiculose. Ductus bursae about 1.5 times as long as corpus bursae, narrowed from posterior 1/5 to middle; ductus seminalis broad, arising from middle of ductus bursae. Corpus bursae ovate; signum situated posterior to middle, small and rounded, densely denticulate.

### Distribution

China (Yunnan).

*Lecithocera flavalba* sp. nov.

[urn:lsid:zoobank.org:act:488BA4BA-CE58-4372-A9ED-A5B2A2BC356A](https://zoobank.org/act:488BA4BA-CE58-4372-A9ED-A5B2A2BC356A)

Figs 2D, 7A, 11D, 16A, 18F

### Diagnosis

The new species is similar to *L. chersitis* Meyrick, 1918 in both male and female genitalia. It can be distinguished by the orange white forewing with a rounded discocellular stigma, a triangularly produced apex, a concave termen and the subtrapezoidal uncus of the male genitalia. In *L. chersitis*, the brownish orange forewing has a reniform discocellular stigma, a rounded apex and an gently convex termen, and the uncus is V-shaped.

### Etymology

The specific epithet is derived from the Latin “*flavus*” and “*albus*”, referring to the colours of the forewing.

### Type material

#### Holotype

CHINA – Yunnan Province • ♂; Menghai County, Mt Mannong; 21°55' N, 100°25' E; 12–20 Feb. 2014; H.L. Han leg.; slide no. YS19060; NKU.

### Paratype

CHINA – Yunnan Province • 1 ♀; same collection data as for holotype; slide no. YS19061; NKU.

### Description

ADULT (Figs 2D, 7A). Wingspan 15.0–15.5 mm. Head and antenna creamy white. Labial palpus creamy white on inner surface, yellowish brown on outer surface; third palpomere as long as second palpomere. Thorax and tegula creamy white. Forewing with costal margin nearly straight, apex triangularly produced, termen shallowly concave; ground colour orange white, with scattered dark brown scales; markings blackish brown: discal stigma very small; discocellular stigma larger, rounded; fringe orange white basally, pale brownish yellow distally;  $R_3$  and  $R_{4+5}$  short-stalked,  $R_5$  to termen,  $M_2$  and  $M_3$  subparallel,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing orange white, tinged with pale brownish yellow; fringe pale brownish yellow, basal line orange white;  $M_3$  and  $CuA_1$  short-stalked.

MALE GENITALIA (Fig. 11D). Uncus subtrapezoidal; caudal lobe papillary, setose. Gnathos with lateral arm taeniod and as wide as basal width of median process; median process wide at base, narrowed to distal  $\frac{1}{4}$  where it is curved, then slender to pointed apex. Valva broad basally; cucullus about half length of valva, narrowed from base to obliquely blunt apex, shallowly concave on costal margin, setose on ventral half, with row of bullet-shaped setae along ventral margin; costal bar narrow, sinuate slightly; sacculus broad and straight in basal half, narrowed in distal half, reaching cucullus. Juxta subrectangular, longer than wide, notched at middle on posterior margin, with small triangular process at middle on anterior margin; posterior lobe narrow taeniod, extending outward. Vinculum broad; saccus not developed, rounded on anterior margin. Aedeagus shorter than valva, almost tubular, with two tiny dorsal denticles, with dense granules in vesica; with two cornuti: one bar-shaped, about  $\frac{2}{5}$  length of aedeagus, with tooth; the other plate-shaped, bifurcate, placed medially.

SEVENTH ABDOMINAL STERNITE (Fig. 16A). Anterior margin gently convex; anterolateral rib taeniod, reaching before posterior margin of sixth abdominal sternite; posterolateral lobe subtriangular.

FEMALE GENITALIA (Fig. 18F). Eighth abdominal sternite deeply incised in V shape on posterior margin, forming two large posterior lobes. Apophyses posteriores about twice as long as apophyses anteriores. Antrum sclerotized. Ductus bursae shorter than corpus bursae, broad; ductus seminalis arising from near antrum, broad. Corpus bursae large, ovate; signum situated at middle, subrounded, densely denticulate.

### Distribution

China (Yunnan).

*Lecithocera flavistriata* sp. nov.

[urn:lsid:zoobank.org:act:88C3F035-7CC8-4E99-9BEA-221EA12096BC](https://zoobank.org/act:88C3F035-7CC8-4E99-9BEA-221EA12096BC)

Figs 2E, 7B, 11E, 16B, 19A

### Diagnosis

The new species is similar to *L. neosticta* Meyrick, 1918 in the male genitalia. It can be distinguished by the hindwing with  $M_3$  and  $CuA_1$  coincident, and the male genitalia with the cucullus about  $\frac{3}{5}$  the length of the valva and widened distally; whereas in *L. neosticta*, the hindwing has  $M_3$  and  $CuA_1$  stalked, the cucullus is half the length of the valva and narrowed distally.

### Etymology

The specific epithet is derived from the Latin “*flav-*” and “*striatus*”, referring to the forewing with an orange-yellow stripe along the costal margin distally.

## Type material

### Holotype

CHINA – Yunnan Province • ♂; Gongshan County, Pukawang Village; 27°50' N, 98°19' E; 1335 m a.s.l.; 11 Jun. 2017; K.J. Teng *et al.* leg.; slide no. YS19606; NKU.

### Paratypes (3 ♂♂, 5 ♀♀)

CHINA – Yunnan Province • 1 ♂; same collection data as for holotype; slide no. YS19661; NKU • 1 ♂, 1 ♀; Baoshan City, Nankang; 2009 m a.s.l.; 17 Aug. 2014; K.J. Teng *et al.* leg.; slide nos YS19704♂, YS19780♀; NKU • 4 ♀♀; Gaoligongshan; 2157 m a.s.l.; 22–24 Jul. 2015; K.J. Teng and X. Bai leg.; slide no. YS19705; NKU • 1 ♂; Gaoligongshan, Qinlangdang; 380 m a.s.l.; 28 May 2017; K.J. Teng *et al.* leg.; NKU.

## Description

ADULT (Figs 2E, 7B). Wingspan 12.0–12.5 mm. Head brown, with orange yellow scales laterally. Antenna pale orange; flagellum ringed with dark brown. Labial palpus pale orange except dark brown ventrally on third palpomere; third palpomere shorter than second palpomere. Thorax and tegula brown. Forewing with costal margin slightly arched, apex rounded, termen oblique; ground colour dark brown, orange yellow along costal margin from distal  $\frac{1}{4}$  to before apex forming short stripe; discal and discocellular stigmata blackish brown, ill-defined; tornal streak blackish brown; fringe greyish brown;  $R_3$  close to  $R_{4+5}$  at base,  $R_4$  and  $R_5$  stalked for half length of  $R_5$ ,  $R_5$  to costal margin before apex,  $M_2$  and  $M_3$  separated,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe greyish brown; fringe with orange white basal line;  $M_2$  and  $M_3+CuA_1$  arising from same point,  $M_3$  and  $CuA_1$  coincident.

MALE GENITALIA (Fig. 11E). Uncus Y-shaped; caudal lobe digitiform, rounded and setose apically. Gnathos with basal plate rounded on posterior margin; median process narrowly elongate, wide at base, narrowed to distal  $\frac{1}{3}$  where it is curved, then slender to a pointed apex. Valva broad basally, narrowed before cucullus; cucullus about  $\frac{3}{5}$  length of valva, narrowed slightly before middle, then widened to obliquely blunt apex, shallowly concave on costal margin, setose on ventral half; costal bar narrow in basal half, widened from middle toward valva, gently angled at middle; sacculus distinct basally, narrow taeniod. Vinculum broad; saccus semiovate. Juxta shield-shaped, concave at middle on posterior margin, with triangular process at middle on anterior margin; posterior lobe narrow taeniod, extending outward. Aedeagus about  $\frac{3}{4}$  length of valva, uniform except slightly wider at base, gently curved, without dorsal denticle, with dense granules in vesica; cornuti consisting of anchor-shaped sclerite apically, basally curved bar about  $\frac{1}{3}$  length of aedeagus, recurved sclerite placed medially and band of spines at distal  $\frac{1}{3}$ .

SEVENTH ABDOMINAL STERNITE (Fig. 16B). Anterolateral rib thin, forked basally, extending obliquely outward distally, not reaching posterior margin of sixth abdominal sternite; posterolateral lobe weakly sclerotized, subtriangular.

FEMALE GENITALIA (Fig. 19A). Eighth abdominal sternite slightly concave at middle on posterior margin. Apophyses posteriores about twice as long as apophyses anteriores. Antrum cup-shaped, slightly longer than wide, spiculose. Ductus bursae nearly as long as corpus bursae, narrow, dilated medially; ductus seminalis dilated subbasally and forming elliptical sac, then slender, arising from about posterior  $\frac{2}{5}$  of ductus bursae. Corpus bursae ovate, granulose; signum subrounded, denticulate, situated posterior to middle of corpus bursae.

## Distribution

China (Yunnan).



*Lecithocera furvibasis* sp. nov.

[urn:lsid:zoobank.org:act:E2004381-51F4-4247-B25E-38F98DAC9409](https://urn:lsid:zoobank.org:act:E2004381-51F4-4247-B25E-38F98DAC9409)

Figs 2F, 7C, 11F, 16C, 19B

### Diagnosis

The new species is similar to *L. castanoma* Wu, 1997 and *L. tumicuculla* sp. nov. in the male genitalia by sharing a widened cucullus. The new species can be distinguished from the above mentioned species in appearance by the forewing having a triangular tornal streak, and in the female genitalia by the rounded signum of the corpus bursae lacking denticles and having a ridge. *Lecithocera castanoma* has no tornal streak (Park *et al.* 2016: 296, fig. 3) and *L. tumicuculla* sp. nov. has a uniformly narrow tornal streak on the forewing, and the ovate signum of the corpus bursae has dense denticles and lacks a ridge (Park *et al.* 2016: 300, fig. 33).

### Etymology

The specific epithet is derived from the Latin “*furv-*” and “*basis*”, referring to the forewing being dark brown basally.

### Type material

#### Holotype

CHINA – Yunnan Province • ♂; Gaoligongshan; 27°41' N, 98°16' E; 380 m a.s.l.; 28 May 2017; K.J. Teng leg.; slide no. YS18169; NKU.

#### Paratypes (17 ♂♂, 27 ♀♀)

CHINA – Yunnan Province • 8 ♂♂, 20 ♀♀; same collection data as for holotype except 28–31 May 2017; slide nos YS18168♂, YS18170♂, YS18171♀, YS20004♀; NKU. – Xizang Autonomous Region [Tibet] • 3 ♂♂, 3 ♀♀; Médog, 80 K; 2059 m a.s.l.; 7–8 and 19 Aug. 2017; M.J. Qi and X.F. Yang leg.; slide nos YS19069♂, YS19070♀; NKU • 1 ♂, 4 ♀♀; Médog, 80 K; 2076 m a.s.l.; 6–8 Aug. 2018; M.J. Qi leg.; NKU • 5 ♂♂; Bomi County, Yigong Country; 2247 m a.s.l.; 5 Aug. 2017; M.J. Qi and X.F. Yang leg.; NKU.

### Description

ADULT (Figs 2F, 7C). Wingspan 13.5–15.0 mm. Head dark brown except orange-yellow on frons and lateral sides. Antenna pale yellow. Labial palpus pale yellow on inner surface, dark yellowish brown on outer surface; third palpomere as long as second palpomere. Thorax and tegula dark brown. Forewing with costal margin slightly arched, apex blunt, termen oblique; ground colour orange white except dark brown basally; markings blackish brown: basal streak wide, about ¼ length of costal margin; discal stigma very small; discocellular stigma larger; tornal streak subtriangular, narrowed and meeting discocellular stigma anteriorly; fringe orange white; R<sub>3</sub> close to R<sub>4+5</sub> at base, R<sub>4</sub> and R<sub>5</sub> long-stalked, R<sub>5</sub> to costal margin before apex, M<sub>2</sub> and M<sub>3</sub> free, CuA<sub>1</sub> and CuA<sub>2</sub> short-stalked. Hindwing and fringe pale grey; fringe with orange white basal line; M<sub>3</sub> and CuA<sub>1</sub> coincident.

MALE GENITALIA (Fig. 11F). Uncus broadly V-shaped, rectangular anteriorly; caudal lobe digitiform, blunt apically. Gnathos with basal plate trapezoidal; median process broad at base, narrowed to distal ¼, then slender, curved ventrad in preapical sector by right angle. Valva broad at base, slightly narrowed to cucullus, ventral margin sinuate; cucullus about half length of valva, elliptical, widened medially, rounded apically, setose on ventral half; costal bar with basal half narrow, widened from middle toward valva, angled at middle; sacculus narrowly taeniod, about ¼ length of ventral margin of valva. Vinculum broad; saccus triangular. Juxta shield-shaped; posterior margin with small notch at middle; anterior margin with small triangular protrusion at middle; posterior lobe narrow taeniod, extending outward. Aedeagus

slightly shorter than valva, broad at base, narrowed to basal  $\frac{1}{4}$  where it is curved, then parallel-sided to before blunt apex, with one dorsal denticle, with dense granules in vesica; cornuti consisting of bundle of spines at basal  $\frac{1}{4}$ , bar about  $\frac{2}{5}$  length of aedeagus and rolled sclerite and band of spines distally.

SEVENTH ABDOMINAL STERNITE (Fig. 16C). Anterolateral rib forked basally, extending obliquely outward, not reaching posterior margin of sixth abdominal sternite; posterolateral lobe semiovate.

FEMALE GENITALIA (Fig. 19B). Eighth abdominal sternite arched on posterior margin. Apophyses posteriores about  $\frac{5}{3}$  as long as apophyses anteriores. Antrum cup-shaped, longer than wide, weakly sclerotized, spiculate. Ductus bursae longer than corpus bursae, broad except narrowed posteriorly, wrinkled; ductus seminalis arising from about middle, broadened basally forming sac, then much more slender. Corpus bursae ovate; signum situated posterior to middle, rounded, weakly sclerotized, with horizontal ridge at middle.

### Distribution

China (Yunnan, Xizang).

### *Lecithocera haviensis* Park, 2016

Figs 3A, 12A, 16D, 19C

*Lecithocera haviensis* Park in Park *et al.* 2016: 301. TL: Vietnam (Nhin Binh Province). TD: PC.

### Material examined

CHINA – Yunnan Province • 3 ♂♂, 1 ♀; Dali City, Mt Weibao; 2205 m a.s.l.; 31 Jul.–3 Aug. 2014; K.J. Teng *et al.* leg.; slide nos YS19710♂, YS19719♀; NKU.

### Short morphological characterization

ADULT (Fig. 3A). Wingspan 15.0–16.0 mm.

FEMALE GENITALIA (Fig. 19C). Eighth abdominal sternite deeply concave at middle on posterior margin. Apophyses posteriores about twice as long as apophyses anteriores. Antrum cup-shaped, spiculose. Ductus bursae slightly longer than corpus bursae, dilated medially, with sclerite near origin of ductus seminalis; ductus seminalis dilated subbasally and forming subrounded sac, then slender. Corpus bursae elliptical; signum subrounded, densely denticulate, placed at posterior  $\frac{2}{5}$ .

### Distribution

China (Yunnan), Vietnam (Park *et al.* 2016).

### Remarks

This species is newly recorded for China and its female is described for the first time.

### *Lecithocera laticuculla* sp. nov.

[urn:lsid:zoobank.org:act:AA93DDEA-A57C-4AAA-B206-F9087196C1AE](https://zoobank.org/act:AA93DDEA-A57C-4AAA-B206-F9087196C1AE)

Figs 3B, 7D, 12B, 16E, 19D

### Diagnosis

The new species is similar to *L. oxycona* Meyrick, 1910 in the male genitalia. It can be distinguished by the forewing without a band, the sacculus nearly uniformly wide, and the juxta with a small U-shaped



**Fig. 3.** Adults of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU), dorsal view. **A.** *L. haviensis* Park, 2016, female. **B.** *L. laticuculla* sp. nov., holotype, male. **C.** *L. ligulacea* sp. nov., holotype, male. **D.** *L. margirecta* sp. nov., paratype, male. **E.** *L. medogensis* sp. nov., paratype, male. **F.** *L. neosticta* Meyrick, 1918, male. Scale bars=2.0 mm.

notch at middle on posterior margin in the male genitalia; in *L. oxycona*, the forewing has a creamy white band (Gozmány 1978: pl. 4 fig. 32), the sacculus is narrowed from the base to the apex, and the juxta is broadly concave in the quadrate on the posterior margin (Gozmány 1978: pl. 24 fig. 32).

### Etymology

The specific epithet is derived from the Latin “*latus*” and “*cucullus*”, referring to the wide cucullus in the male genitalia.

### Type material

#### Holotype

CHINA – **Zhejiang Province** • ♂; Suichang County, Mt Jiulong; 28°15' N, 118°30' E; 360 m a.s.l.; 22 May 2017; S.N. Qian and G.E. Lee leg.; slide no. YS19669; NKU.

#### Paratypes (4 ♂♂, 5 ♀♀)

CHINA – **Zhejiang Province** • 3 ♂♂, 5 ♀♀; same collection data as for holotype except 21–24 May 2017; slide nos YS19684♂, YS19685♀; NKU. – **Guangxi Zhuang Autonomous Region** • 1 ♂; Jinxiu County, Hekou; 650 m a.s.l.; 28 Apr. 2008; H. Zhen and L. Zhang leg.; slide no. ZMR10076; NKU.

### Description

ADULT (Figs 3B, 7D). Wingspan 15.5–18.0 mm. Head and antenna pale orange. Labial palpus with second palpomere pale orange on inner surface, yellowish brown on outer surface; third palpomere pale orange dorsally, yellowish brown ventrally, as long as second palpomere. Thorax and tegula yellowish brown. Forewing with costal margin slightly arched, apex broadly rounded, termen oblique; ground colour pale brownish yellow, mixed with yellowish brown and dark brown scales; markings blackish brown: basal streak wide at base; discal stigma small, rounded; discocellular stigma larger, elliptical; tornal streak diffused to below discocellular stigma; fringe pale brownish yellow, basal line orange white;  $R_3$  close to  $R_{4+5}$  at base,  $R_4$  and  $R_5$  stalked for about  $\frac{2}{5}$  length of  $R_4$ ,  $R_5$  to apex,  $M_2$  and  $M_3$  separated,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe deep grey; fringe with basal line orange white;  $M_3$  and  $CuA_1$  long-stalked.

MALE GENITALIA (Fig. 12B). Uncus broadly V-shaped; caudal lobe short digitiform, rounded apically. Gnathos with lateral arm broad taeniod; median process narrowly elongate, wide at base, narrowed to distal  $\frac{1}{5}$ , then slender to pointed apex, gently curved ventrad preapically. Valva broad basally, slightly narrowed to cucullus; cucullus about half length of valva, extending obliquely dorsad, wide, elliptical, broadly rounded at apex, densely setose, with two rows of bullet-shaped setae along basal half of ventral margin; costal bar narrow in basal half, widened in distal half, triangularly produced at middle on dorsal margin; sacculus uniformly wide, taeniod, reaching cucullus. Vinculum broad; saccus not developed. Juxta shield-shaped, with U-shaped notch at middle on posterior margin, with small projection at middle on anterior margin; posterior lobe narrow taeniod, extending outward. Aedeagus slightly shorter than valva, wide at base, slightly narrowed to basal  $\frac{2}{3}$ , then parallel-sided, gently curved, with two dorsal denticles, with dense granules in vesica; cornuti consisting of two clusters of spines at basal  $\frac{2}{5}$ , long bar about  $\frac{3}{5}$  length of aedeagus bearing apical tooth and forked sclerite situated beyond middle.

SEVENTH ABDOMINAL STERNITE (Fig. 16E). Anterolateral rib bar-shaped, curved at middle, reaching before posterior margin of sixth abdominal sternite; posterolateral lobe heavily sclerotized, elongate triangular, gently concave on inner margin.

FEMALE GENITALIA (Fig. 19D). Eighth abdominal sternite slightly concave at middle on posterior margin. Apophyses posteriores about twice as long as apophyses anteriores. Antrum cup-shaped, length equal to width, spiculose. Ductus bursae as long as corpus bursae, broad, with sclerite near origin of ductus



seminalis; ductus seminalis arising from posterior  $\frac{1}{4}$ , broad. Corpus bursae elongate elliptical; signum large elliptical, denticulate, situated posterior to middle.

### Distribution

China (Guangxi, Zhejiang).

### *Lecithocera ligulacea* sp. nov.

urn:lsid:zoobank.org:act:2F233486-0D4E-4AAF-91C3-650C91DF4C6F

Figs 3C, 7E, 12C, 16F, 19E

### Diagnosis

The new species is similar to *L. fascinatrix* Meyrick, 1935 in the male genitalia. It can be distinguished by the forewing with a plical stigma, in the male genitalia by the juxta with taenioid posterior lobes extending outward and the variedly shaped cornuti. In *L. fascinatrix*, the forewing has no plical stigma, the juxta has no distinct posterior lobe and the cornuti are spiniform (Gozmány 1978: pl. 32 fig. 64).

### Etymology

The specific epithet is derived from the Latin “*ligulaceus*”, referring to the corema sac of the seventh abdominal sternite being tongue-shaped apically.

### Type material

#### Holotype

CHINA – **Guangxi Zhuang Autonomous Region** • ♂; Nanning, Mt Daming; 23°32' N, 108°20' E; 280 m a.s.l.; 7 Aug. 2011; S.L. Hao and Y.H. Sun leg.; slide no. LSR13200; NKU.

#### Paratypes (6 ♂♂, 2 ♀♀)

CHINA – **Guangxi Zhuang Autonomous Region** • 2 ♂♂; same collection data as for holotype; slide no. LSR13453; NKU. – **Hunan Province** • 3 ♂♂, 2 ♀♀; Mt Badagong; 1250 m a.s.l.; 13–14 Aug. 2001; H.H. Li and X.P. Wang leg.; slide nos LSR13414♂, LSR13415♀, LSR14002♀, ZYM06047♂; NKU. – **Guizhou Province** • 1 ♂; Kuankuoshui; 1500 m a.s.l.; 12 Aug. 2012; L.L. Yang leg.; slide no. LSR13279; NKU.

### Description

ADULT (Figs 3C, 7E). Wingspan 10.0–12.0 mm. Head pale yellow. Antenna pale yellow; flagellum ringed with dark brown. Labial palpus pale yellow; third palpomere nearly as long as second palpomere. Thorax and tegula pale yellow, mixed with dark brown scales. Forewing with costal margin nearly straight, apex triangularly produced, termen oblique and gently concave; ground colour dark brown; markings blackish brown: discal stigma oblong, edges creamy white; plical stigma obliquely elliptical, placed below discal stigma; discocellular stigma larger, subrectangular; fringe greyish brown, basal line pale yellow;  $R_3$  free,  $R_4$  and  $R_5$  stalked for about half length of  $R_5$ ,  $R_5$  to termen,  $M_1$  close to  $R_{4+5}$  at base,  $M_2$  and  $M_3$  arising from same point,  $CuA_1$  and  $CuA_2$  separated. Hindwing pale greyish orange; fringe deep grey, basal line pale yellow;  $M_3$  and  $CuA_1$  stalked for about  $\frac{2}{3}$  the length of  $CuA_1$ .

MALE GENITALIA (Fig. 12C). Uncus subtrapezoidal, shallowly concave on lateral and posterior margins; caudal lobe short, digitiform. Gnathos with lateral arms broad; median process broad in basal  $\frac{1}{3}$ , narrowed to distal  $\frac{1}{3}$ , distal  $\frac{1}{3}$  slender to pointed apex, gently curved ventrad preapically. Valva broad basally, narrowed to cucullus; cucullus about half length of valva, half as wide as basal width of valva, parallel-sided to before obliquely blunt apex, nearly straight on costal margin, setose on ventral  $\frac{2}{3}$ , with two rows of bullet-shaped setae along ventral margin distally; costal bar narrow, slightly arched basally;

sacculus taenioid, broad in basal half, narrowed from middle to cucullus. Vinculum broad; saccus not developed. Juxta shield-shaped, concave shallowly on posterior margin, triangularly produced at middle on anterior margin; posterior lobe taenioid, widened apically, extending outward. Aedeagus slightly shorter than valva, uniformly wide in basal  $\frac{2}{3}$ , then narrowed to apex, gently curved, with two tiny dorsal denticles, with dense granules at distal  $\frac{1}{3}$ ; cornuti consisting of denticulate sclerite at basal  $\frac{1}{3}$  and  $\frac{2}{3}$ , respectively, several teeth in distal half, and pinch of spines at distal  $\frac{1}{3}$ .

SEVENTH ABDOMINAL STERNITE (Fig. 16F). Anterior margin with apically tongue-shaped corema sac at middle extending to anterior margin of fourth abdominal sternite; anterolateral rib bar-shaped, curved, short; posterolateral lobe small, horn-shaped.

FEMALE GENITALIA (Fig. 19E). Eighth abdominal sternite concave at middle on posterior margin. Apophyses posteriores about 1.5 times as long as apophyses anteriores. Antrum cup-shaped, wider than long, spiculose. Ductus bursae slightly shorter than corpus bursae, relatively broad, with numerous spines in posterior half on inner wall; ductus seminalis slender, arising from posterior  $\frac{1}{4}$  of ductus bursae, with sparse spines on inner wall. Corpus bursae elliptical; signum tongue-shaped, weakly sclerotized anteriorly, densely denticulate, placed at posterior  $\frac{1}{3}$ .

### Distribution

China (Guangxi, Guizhou, Hunan).

### *Lecithocera margirecta* sp. nov.

[urn:lsid:zoobank.org:act:BB360F68-63D8-42D6-901C-13EAD09788E3](https://zoobank.org/act:BB360F68-63D8-42D6-901C-13EAD09788E3)

Figs 3D, 7F, 12D, 16G, 19F

### Diagnosis

The new species is similar to *L. eremiodes* Park, 2010 in the male genitalia by sharing an elongate cucullus with a straight costal margin. It can be distinguished by the forewing with basal streak indistinct and without plical stigma, the hindwing with  $M_3$  and  $CuA_1$  coincident, and in the male genitalia by the aedeagus with two dorsal denticles; in *L. eremiodes*, the forewing has a black basal streak and a dark brown plical stigma, the veins  $M_3$  and  $CuA_1$  are stalked in the hindwing, and the aedeagus has one dorsal denticle (Park & Wu 2010: 68, fig. 22).

### Etymology

The specific epithet is derived from the Latin “*marg-*” and “*rectus*”, referring to the straight cucullus on the costal margin in the male genitalia.

### Type material

#### Holotype

CHINA – **Guizhou Province** • ♂; Suiyang County, Kuanguoshui; 28°15' N, 107°12' E; 1500 m a.s.l.; 12 Aug. 2010; L.L. Yang leg.; slide no. ZMR10323; NKU.

#### Paratypes (11 ♂♂, 5 ♀♀)

CHINA – **Guizhou Province** • 2 ♀♀; same collection data as for holotype except 13 Aug. 2010; slide nos ZMR10284, ZMR10322; NKU • 1 ♂; Jiangkou County, Heiwan; 600 m a.s.l.; 27 Jul. 2001; H.H. Li and X.P. Wang leg.; slide no. ZMR10151; NKU • 1 ♂; Mt Fanjing; 1300 m a.s.l.; 2 Aug. 2001; H.H. Li and X.P. Wang leg.; slide no. ZMR10262; NKU • 5 ♂♂, 3 ♀♀; Jiangkou, Taiping Town; 540 m a.s.l.; 15–16 Jul. 2019; M.R. Xing *et al.* leg.; slide nos YS19568♂, YS19578♂, YS19579♀; NKU • 14 ♂♂, 2 ♀♀; Suiyang County, Kuanguoshui; 1491 m a.s.l.; 7–8 Jul. 2019; M.R. Xing *et al.* leg.; NKU. –

**Hunan Province** • 3 ♂♂; Sangzhi County, Mt Badagong; 1250 m a.s.l.; 12–13 Aug. 2001; H.H. Li and X.P. Wang leg.; slide nos YS19483, ZMR10228, ZMR10321; NKU. – **Guangxi Zhuang Autonomous Region** • 1 ♂; Huaping; 1300 m a.s.l.; 1 Aug. 2006; W.C. Li leg.; slide no. LSR11289; NKU.

### Description

**ADULT** (Figs 3D, 7F). Wingspan 14.5–15.0 mm. Head yellowish brown, orange white on lateral sides. Antenna orange white. Labial palpus with second palpomere orange white on inner surface, pale brownish yellow on outer surface; third palpomere orange white dorsally, dark brown ventrally, as long as second palpomere. Thorax and tegula orange white. Forewing with costal margin slightly arched, apex rounded, termen oblique; ground colour orange white, with scattered dark brown scales, becoming denser distally; markings blackish brown: discal stigma rounded; discocellular stigma larger, slightly dilated anteriorly; tornal streak oblique inward, diffused to below discocellular stigma anteriorly; fringe pale brownish yellow, basal line orange white;  $R_3$  close to  $R_{4+5}$  at base,  $R_4$  and  $R_5$  stalked for about half the length of  $R_5$ ,  $R_5$  to apex,  $M_2$  and  $M_3$  subparallel,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe grey; fringe with orange white basal line;  $M_3$  and  $CuA_1$  coincident.

**MALE GENITALIA** (Fig. 12D). Uncus broadly V-shaped; caudal lobe digitiform, rounded and with sparse setae apically. Gnathos with lateral arms broad; median process wide at base, narrowed to basal  $\frac{2}{3}$ , distal  $\frac{1}{3}$  slender to pointed apex. Valva broad basally, narrowed before cucullus; cucullus about half length of valva, elongate triangular, narrowed slightly from base to subacute apex, straight on costal margin, setose on ventral half, with several bullet-shaped setae ventrally near base; sacculus relatively wide in basal half, slender in distal half, reaching cucullus. Vinculum broad; saccus nearly semiovalate. Juxta shield-shaped, with small notch at middle on posterior margin, with small projection at middle on anterior margin; posterior lobe narrow taenioid, extending outward. Aedeagus shorter than valva, curved, broad in basal  $\frac{2}{5}$ , narrowed to basal  $\frac{3}{5}$ , then tubular, with two dorsal denticles, with dense granules in vesica; cornuti consisting of cluster of spines at basal  $\frac{1}{3}$  and two sclerites, each with one tooth.

**SEVENTH ABDOMINAL STERNITE** (Fig. 16G). Anterolateral rib thin, forked in basal  $\frac{1}{3}$ , curved, not reaching posterior margin of sixth abdominal sternite; posterolateral lobe weakly sclerotized, elongate triangular, rough on outer margin.

**FEMALE GENITALIA** (Fig. 19F). Eighth abdominal sternite arched on posterior margin. Apophyses posteriores slightly shorter than twice as long as apophyses anteriores. Antrum inverted trapezoidal, length about 1.5 times width, spiculate. Ductus bursae relatively narrow, slightly longer than corpus bursae; ductus seminalis almost as wide as ductus bursae, arising from posterior  $\frac{1}{4}$  of ductus bursae. Corpus bursae elliptical; signum at posterior  $\frac{1}{4}$ , small, rolled, densely denticulate.

### Distribution

China (Guangxi, Guizhou, Hunan).

*Lecithocera medogensis* sp. nov.

[urn:lsid:zoobank.org:act:401DBB53-490C-4312-8678-58EE21AC71DE](http://urn:lsid:zoobank.org:act:401DBB53-490C-4312-8678-58EE21AC71DE)

Figs 3E, 8A, 12E, 16H, 20A

### Diagnosis

The new species is similar to *L. mylitacha* Wu & Liu, 1993 in the male genitalia. It can be distinguished by the seventh abdominal sternite with subtriangular posterolateral lobes, and in the female genitalia by the signum of the corpus bursae with a tooth and without denticles; in *L. mylitacha*, the posterolateral

lobes of the seventh abdominal sternite are narrow taenoid (Park & Wu 2010: 66, fig. 14), and the signum has dense denticles and lacks a tooth (Park & Wu 2010: 69, fig. 23).

### Etymology

The specific epithet is derived from the type locality.

### Type material

#### Holotype

CHINA – **Xizang Autonomous Region [Tibet]** • ♂; Mêdog County; 28°37' N, 94°31' E; 880 m a.s.l.; 16 Aug. 2003; X.P. Wang and H.J. Xue leg.; slide no. YS19166; NKU.

#### Paratypes (63 ♂♂, 9 ♀♀)

CHINA – **Xizang Autonomous Region [Tibet]** • 1 ♂, 1 ♀; same collection data as for holotype; slide nos ZMR10119♂, LSR11238♀; NKU • 8 ♂♂, 1 ♀; Mêdog, Beibengxiang; 780 m a.s.l.; 12 Aug. 2003; X.P. Wang and H.J. Xue leg.; slide nos LSR11229♂, LSR11237♀, LSR12032♂, LSR12033♂, ZMR10373♀; NKU • 37 ♂♂, 8 ♀♀; Mêdog, Beibengxiang; 987 m a.s.l.; 12–13, 15 Aug. 2017; M.J. Qi and X.F. Yang leg.; slide nos YS19067♂, YS19068♀, YS19251♂, YS19253♂, YS19482♂; NKU • 2 ♂♂, 3 ♀♀; Mêdog, Beibengxiang, Fangkongdong; 750 m a.s.l.; 1 Aug. 2018; M.J. Qi leg.; slide nos YS19698♂, YS19703♀; NKU • 4 ♀♀; Mêdog, Gelin Village; 894 m a.s.l.; 14 Aug. 2017; M.J. Qi and X.F. Yang leg.; slide no. YS19252; NKU • 4 ♂♂; Mêdog, Gelin Village; 1063 m a.s.l.; 29 Jul. 2018; M.J. Qi leg.; NKU • 8 ♂♂, 1 ♀; Mêdog, Yadong Village; 833 m a.s.l.; 16 Aug. 2017; M.J. Qi and X.F. Yang leg.; NKU • 2 ♂♂; Mêdog, Jiangxin Village; 780 m a.s.l.; 30 Jul. 2018; M.J. Qi leg.; slide no. YS19488; NKU • 1 ♂, 1 ♀; 2. Aug. 2018; Mêdog, Yadong; 833 m a.s.l.; M.J. Qi leg.; slide nos YS19487♂; NKU.

### Description

**ADULT** (Figs 3E, 7A). Wingspan 10.5–14.0 mm. Head yellowish brown, orange yellow on lateral sides. Antenna orange white; flagellum ringed with brown. Labial palpus with second palpomere orange white on inner surface, yellowish brown on outer surface; third palpomere orange white dorsally, dark brown ventrally, shorter than second palpomere. Thorax and tegula yellowish brown. Forewing with costal margin slightly arched, apex blunt, termen oblique; ground colour orange white, with scattered dark brown scales; markings blackish brown: basal streak wide, about  $\frac{1}{4}$  length of costal margin; discal stigma small, rounded; discocellular stigma larger, elliptical; tornal streak wide, diffused to below discocellular stigma anteriorly; fringe orange white, mixed with brown scales;  $R_3$  and  $R_{4+5}$  short-stalked,  $R_5$  to apex,  $M_2$  and  $M_3$  subparallel,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe grey; fringe with orange white basal line;  $M_3$  and  $CuA_1$  long-stalked, almost coincident.

**MALE GENITALIA** (Fig. 12E). Uncus broadly V-shaped; caudal lobe digitiform, rounded apically. Gnathos with basal plate subrectangular, arched outward on posterior margin; median process wide at base, narrowed to distal  $\frac{1}{4}$  where it is curved, then slender to pointed apex. Valva broad basally, narrowed to cucullus; cucullus about half length of valva, slightly widened medially, narrowed from middle to rounded apex, shallowly concave on costal margin basally, setose on ventral half, with two rows of bullet-shaped setae along ventral margin medially; costal bar narrow, gently angled at middle; sacculus distinct basally, narrow taenoid, about  $\frac{1}{4}$  length of ventral margin of valva. Vinculum broad; saccus not developed. Juxta shield-shaped, with small notch at middle on posterior margin, with small triangular projection at middle on anterior margin; posterior lobe crescent-shaped basally, narrow taenoid distally, extending outward. Aedeagus shorter than valva, tubular except wider at base, without dorsal denticle, with dense granules in vesica; cornuti consisting of numerous spines running from basal  $\frac{1}{4}$  to middle, and tooth apically.

SEVENTH ABDOMINAL STERNITE (Fig. 16H). Anterolateral rib thin, forked basally, reaching before posterior margin of sixth abdominal sternite; posterolateral lobe weakly sclerotized, triangular.

FEMALE GENITALIA (Fig. 20A). Eighth abdominal sternite arched on posterior margin. Apophyses posteriores slightly shorter than twice as long as apophyses anteriores. Antrum cup-shaped, wider than long, spiculose. Ductus bursae slightly shorter than corpus bursae, wrinkled, narrowed posteriorly; ductus seminalis arising from about middle of ductus bursae, dilated subbasally and forming sac, then slender. Corpus bursae ovate; signum rounded, weakly sclerotized, with large, heavily sclerotized tooth situated posterior to middle.

### Distribution

China (Xizang [Tibet]).

### *Lecithocera neosticta* Meyrick, 1918

Figs 3F, 12F, 17A, 20B

*Lecithocera neosticta* Meyrick, 1918: 107. TL: India (Coorg). TD: NHMUK.

### Material examined (3 ♂♂, 1 ♀)

CHINA – Guizhou Province • 2 ♂♂; Jiangkou County, Heiwan; 600 m a.s.l.; 27–28 Jul. 2001; H.H. Li and X.P. Wang leg.; slide no. LSR13344; NKU • 1 ♂, 1 ♀; Jiangkou County, Taiping Town; 540 m a.s.l.; 13 and 16 Jul. 2019; M.R. Xing *et al.* leg.; slide nos YS19580♂, YS19581♀; NKU.

### Short morphological characterization

ADULT (Fig. 3F). Wingspan 11.0–12.0 mm.

FEMALE GENITALIA (Fig. 20B). Eighth abdominal sternite concave at middle of posterior margin. Apophyses posteriores slightly shorter than twice as long as apophyses anteriores. Antrum rectangular, length twice as long as width. Ductus bursae shorter than corpus bursae, broad except narrowed posteriorly; ductus bursae relatively narrow, arising from middle of ductus bursae. Corpus bursae ovate; signum small, rounded, densely denticulate, placed at posterior  $\frac{1}{3}$ .

### Distribution

China (Guizhou), India (Meyrick 1918).

### Remarks

This species is newly recorded for China and its female is described for the first time.

### *Lecithocera nullisigna* sp. nov.

[urn:lsid:zoobank.org:act:2E4037C4-C14F-4F8C-8820-50497946FE01](https://zoobank.org/act:2E4037C4-C14F-4F8C-8820-50497946FE01)

Figs 4A, 8B, 13A, 17B, 20C

### Diagnosis

The new species is similar to *L. leytensis* Park & Mey, 2016 and *L. insulana* Park & Mey, 2016 in the male genitalia. It can be distinguished by the forewing with a dark brown tornal streak and the veins  $M_2$  and  $M_3$  stalked; in *L. leytensis* and *L. insulana*, the forewing has no tornal streak and the veins  $M_2$  and  $M_3$  are separated (Park & Mey 2016: 349, figs 1–2).



### Etymology

The specific epithet is derived from the Latin “*null-*” and “*signum*”, referring to the corpus bursae without signum in the female genitalia.

### Type material

#### Holotype

CHINA – Yunnan Province • ♂; Gongshan County, Pukawang Village; 27°50' N, 98°19' E; 1335 m a.s.l.; 11 Jun. 2017; K.J. Teng *et al.* leg.; slide no. YS19467; NKU.

#### Paratypes (10 ♂♂, 7 ♀♀)

CHINA – Yunnan Province • 10 ♂♂, 7 ♀♀; same collection data as for holotype except 5–12 June 2017; slide nos YS18176♂, YS18177♀, YS19468♀; NKU.

### Description

ADULT (Figs 4A, 8B). Wingspan 15.0–16.0 mm. Head pale orange, tinged with yellowish brown. Antenna pale orange; flagellum ringed with dark brown. Labial palpus with second palpomere pale orange, mixed with dark brown scales on outer surface, roughly scaled ventrally; third palpomere pale orange dorsally, dark brown ventrally, shorter than second palpomere. Thorax and tegula pale orange, tinged with dark brown. Forewing with costal margin slightly arched, apex blunt, termen oblique; ground colour pale brownish yellow, with scattered dark brown scales, becoming denser distally; basal streak dark brown, distinct at base; markings blackish brown: discal stigma rounded; discocellular stigma larger, rounded; tornal streak obliquely diffused to discocellular stigma anteriorly; fringe pale yellowish brown, basal line pale orange;  $R_3$  close to  $R_{4+5}$  at base,  $R_4$  and  $R_5$  stalked for about half the length of  $R_5$ ,  $M_2$  and  $M_3$  stalked for about  $\frac{1}{3}$  the length of  $M_3$ ,  $CuA_1$  and  $CuA_2$  arising from same point. Hindwing pale grey; fringe pale yellowish brown, basal line orange white;  $M_3$  and  $CuA_1$  stalked for about half length.

MALE GENITALIA (Fig. 13A). Uncus nearly heart-shaped, semicircularly concave on posterior margin; caudal lobe thumbed, rounded and setose apically. Gnathos with basal plate trapezoidal, arched outward on posterior margin; median process wide at base, narrowed to basal  $\frac{3}{5}$ , distal  $\frac{2}{5}$  slender to pointed apex, curved ventrad. Valva broad basally, narrowed to cucullus; cucullus about half length of valva, slightly widened to before oblique blunt apex, shallowly concave on costal margin, setose on ventral half, with a row of bullet-shaped setae along distal half of ventral margin; costal bar narrow, arched basally; sacculus broad in basal  $\frac{2}{3}$ , narrowed from distal  $\frac{1}{3}$  to cucullus. Vinculum broad; saccus not developed, with rounded anterior margin. Juxta widened anteriorly, trapezoidally concave on posterior margin, with short digitiform process at middle on anterior margin; posterior lobe narrow taenoid, extending outward. Aedeagus as long as valva, tubular, gently curved, without dorsal denticle, with numerous granules in vesica; cornutus a large plate about  $\frac{2}{3}$  length of aedeagus, apically with tooth.

SEVENTH ABDOMINAL STERNITE (Fig. 17B). Anterior margin subtriangularly produced at middle; anterolateral rib heavily sclerotized, thin except slightly wide at base, reaching posterior margin of sixth abdominal sternite; posterolateral lobe small, weakly sclerotized, horn-shaped.

FEMALE GENITALIA (Fig. 20C). Eighth abdominal sternite arched on posterior margin. Apophyses posteriores about 1.5 times as long as apophyses anteriores. Antrum weakly sclerotized, wider than long, spiculate. Ductus bursae about 1.5 times as long as corpus bursae, broad, slightly narrower than corpus bursae; ductus seminalis arising from about posterior  $\frac{2}{5}$  of ductus bursae, relatively narrow, dilated subbasally and forming a rounded sac. Corpus bursae ovate; signum absent.

### Distribution

China (Yunnan).

*Lecithocera orbiculata* Park, 2010

Figs 4B, 13B, 17C, 20D

*Lecithocera orbiculata* Park, 2010 in Park & Wu, 2010: 65. TL: Thailand (Nakhon Nayok Province).  
TD: OPU.

**Material examined** (19 ♂♂, 1 ♀)

CHINA – **Zhejiang Province** • 4 ♂♂; Jiangshan City, Laofoyan Village; 465 m a.s.l.; 10 Aug. 2018; S. Yu *et al.* leg.; NKU • 1 ♂; Jiangshan City, Laofoyan Village; 413 m a.s.l.; 30 Aug. 2017; S.N. Qian *et al.* leg.; NKU • 1 ♂; Jiangshan City, Laofoyan Village; 424 m a.s.l.; 8 Aug. 2016; Q.Y. Wang *et al.* leg.; slide no. YS19193; NKU. – **Fujian Province** • 3 ♂♂, 1 ♀; Mt Wuyi, Sangang; 740 m a.s.l.; 16–17, 24 May 2004; H.L. Yu leg.; slide nos YS18087♂, ZMR09049♂, ZMR10278♀, ZMR10279♂; NKU. – **Guangxi Zhuang Autonomous Region** • 3 ♂♂; Mulun; 280 m a.s.l.; 13–14 Aug. 2011; S.L. Hao and Y.H. Sun leg.; slide nos LSR11049, LSR13465; NKU • 1 ♂; Mt Dayao; 823 m a.s.l.; 18 Jul. 2015; M.J. Qi and S.N. Zhao; slide no. YS19559; NKU. – **Hainan Province** • 1 ♂; Bawangling; 600 m a.s.l.; 10 Jun. 2007; Z.W. Zhang and W.C. Li leg.; slide no. LSR12002; NKU • 1 ♂; Wuzhishan; 742 m a.s.l.; 8 Jul. 2014; P.X. Cong *et al.* leg.; slide no. YS19643; NKU • 1 ♂; Wuzhishan; 738 m a.s.l.; 2 Mar. 2016; Q.Y. Wang *et al.* leg.; slide no. YS19642; NKU • 1 ♂; Wuzhishan; 766 m a.s.l.; 8 Jan. 2016; K.J. Teng *et al.* leg.; slide no. YS19640; NKU • 1 ♂; Wuzhishan; 689 m a.s.l.; 22 Dec. 2017; M.J. Qi and S. Yu leg.; slide no. YS19641; NKU • 1 ♂; Mt Limu; 607 m a.s.l.; 17 May 2015, P.X. Cong *et al.* leg.; slide no. YS19650; NKU.

**Short morphological characterization**

ADULT (Fig. 4B). Wingspan 14.0–15.0 mm.

FEMALE GENITALIA (Fig. 20D). Eighth abdominal sternite arched on posterior margin. Apophyses posteriores about twice as long as apophyses anteriores. Antrum rectangular, longer than wide, spiculose. Ductus bursae longer than corpus bursae, wrinkled, broad except narrowed posteriorly; ductus seminalis arising from about posterior  $\frac{2}{3}$  of ductus bursae, relatively narrow, dilated subbasally and forming sac. Corpus bursae ovate; signum heart-shaped, densely denticulate, located at middle.

**Distribution**

China (Fujian, Guangxi, Hainan, Zhejiang), Thailand (Park & Wu 2010).

**Remarks**

This species is newly recorded for China and its female is described for the first time.

*Lecithocera parviflava* sp. nov.

[urn:lsid:zoobank.org:act:698809B9-D852-4960-8DD8-CC81982F4567](https://doi.org/10.21203/rs.3.rs-10000000/v1)

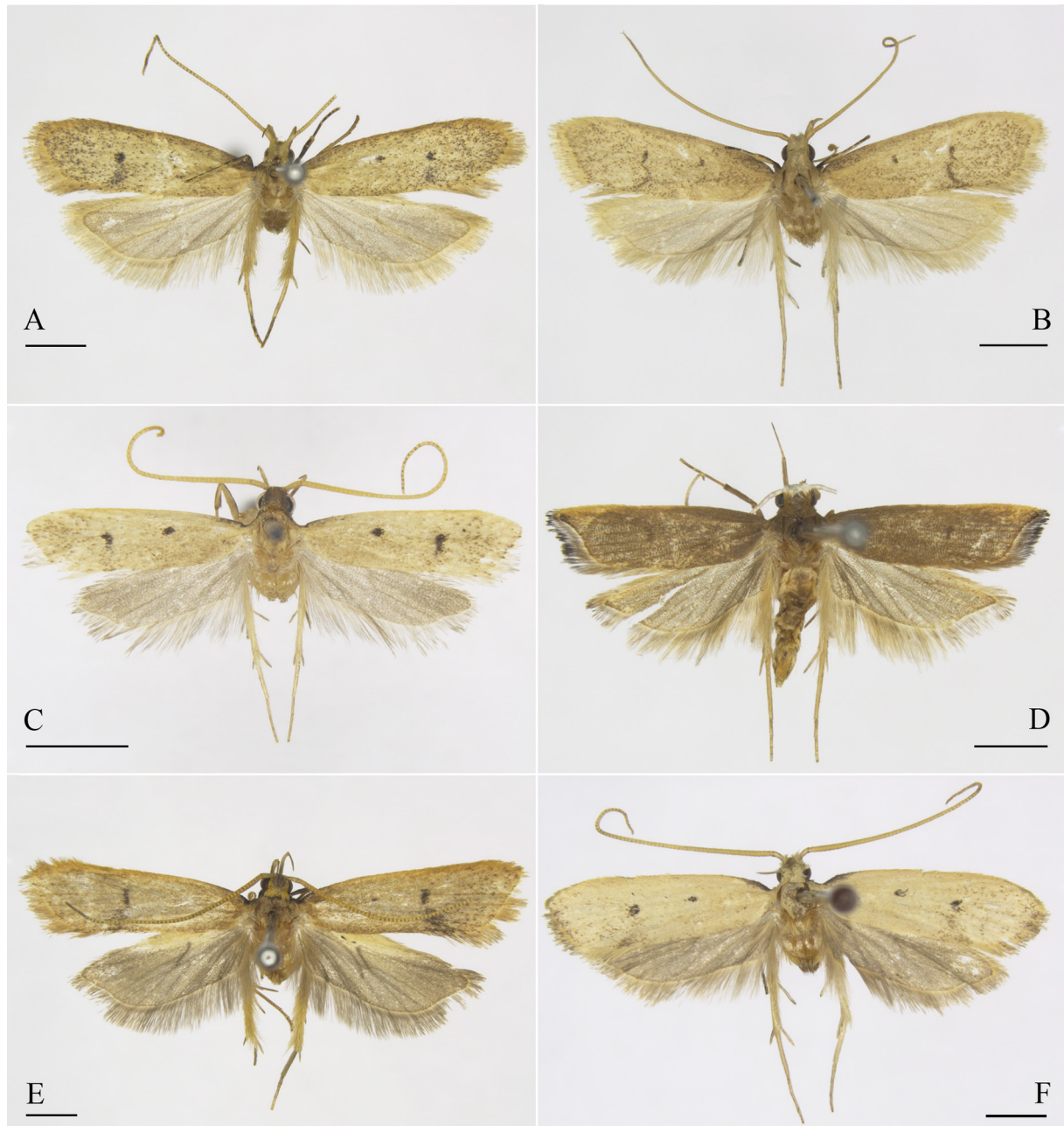
Figs 4C, 13C, 17D

**Diagnosis**

The new species is similar to *L. haviensis* Park, 2016 in both appearance and male genitalia. The new species can be distinguished in the male genitalia by the cucullus being narrowed from the middle to the apex, the saccus triangular, and the aedeagus without V-shaped cornutus; in *L. haviensis*, the cucullus is narrowed from basal  $\frac{2}{3}$  to apex, the saccus is almost semiovate, and the aedeagus has a V-shaped cornutus.

### Etymology

The specific epithet is derived from the Latin “*parv-*” [= small] and “*flavus*” [= yellow], referring to the small size and the colour of the forewing.



**Fig. 4.** Adults of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU), dorsal view. **A.** *L. nullisigna* sp. nov., holotype, male. **B.** *L. orbiculata* Park, 2010, male. **C.** *L. parviflava* sp. nov., holotype, male. **D.** *L. parvispinea* sp. nov., holotype, male. **E.** *L. sichuanensis* sp. nov., holotype, male. **F.** *L. rubigona* Park, 2006, male. Scale bars = 2.0 mm.

## Type material

### Holotype

CHINA – Hainan Province • ♂; Yinggeling, Hongkan; 19°05' N, 109°30' E; 508 m a.s.l.; 15 Jun. 2015; P.X. Cong *et al.* leg.; slide no. YS19645; NKU.

## Description

ADULT (Fig. 4C). Wingspan 10.0 mm. Antenna pale yellow, ringed with dark brown distally. Labial palpus with second palpomere pale yellow on inner surface, brownish yellow on outer surface; third palpomere pale yellow dorsally, dark brown ventrally, slightly shorter than second palpomere. Thorax and tegula pale yellow. Forewing with costal margin slightly arched, apex blunt, termen oblique; ground colour pale yellow, with scattered brown scales; markings blackish brown: basal streak narrow, about  $\frac{1}{5}$  length of costal margin; discal stigma rounded; discocellular stigma larger, elliptical; fringe orange white;  $R_3$ ,  $R_4$  and  $R_5$  stalked,  $R_5$  to termen,  $M_2$  and  $M_3$  separated,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe pale greyish brown;  $M_3$  and  $CuA_1$  long-stalked.

MALE GENITALIA (Fig. 13C). Uncus nearly trapezoidal, concave in broad V-shape on posterior margin; caudal lobe subovate. Gnathos with lateral arm broad, triangular and bearing two denticles on posterior margin; median process wide at base, narrowed to basal  $\frac{3}{5}$ , distal  $\frac{2}{5}$  arched and slender to pointed apex. Valva broad basally, narrowed to cucullus; cucullus about half length of valva, tubular in basal half, narrowed to rounded apex, shallowly concave on costal margin, sparsely setose, with several bullet-shaped setae medially along ventral margin; costal bar narrow, arched; saccus taenoid. Vinculum broad; saccus triangular with a blunt apex. Juxta shield-shaped, semicircularly concave on posterior margin, semiovally produced medially on anterior margin; posterior lobe triangular, blunt at apex, extending dorsad. Aedeagus as long as valva, nearly tubular except slightly widened at base, gently curved, with two dorsal denticles, with dense granules in vesica; cornuti consisting of a cluster of strong spines at basal  $\frac{2}{5}$ , long bar about  $\frac{1}{5}$  length of aedeagus placed medially and plate with apical horn placed distally.

SEVENTH ABDOMINAL STERNITE (Fig. 17D). Anterior margin roundly convex; anterolateral rib thin, forked in basal half, reaching posterior margin of sixth abdominal sternite; posterolateral lobe weakly sclerotized, triangular.

### Female

Unknown.

## Distribution

China (Hainan).

### *Lecithocera parvispinea* sp. nov.

[urn:lsid:zoobank.org:act:5D207EBA-8A44-4FA9-A32D-56C553923D9B](https://zoobank.org/act:5D207EBA-8A44-4FA9-A32D-56C553923D9B)

Figs 4D, 8C, 13D, 17E

## Diagnosis

The new species is superficially similar to *L. anglijuxta* Wu, 1997 and *L. serratiloba* sp. nov. The new species can be distinguished from the species mentioned above in the male genitalia by the cucullus being widened distally and having a ventral spine; in *L. anglijuxta* and *L. serratiloba*, the cucullus is narrowed distally and has no ventral spine (Wu 1997: pl. 11 fig. 1).



### Etymology

The specific epithet is derived from the Latin “*parvi-*” and “*spineus*”, referring to the small process of the juxta on the posterior margin of the male genitalia.

### Type material

#### Holotype

CHINA – Hainan Province • ♂; Ledong County, Jianfengling; 19°03' N, 109°16' E; 940 m a.s.l.; 7 Jun. 2007; Z.W. Zhang and W.C. Li leg.; slide no. LSR14023; NKU.

#### Paratypes

CHINA – Hainan Province • 5 ♂♂; same collection data as for holotype except 6–7 Jun. 2007; slide nos LSR11259, YS20001; NKU.

### Description

ADULT (Figs 4D, 8C). Wingspan 14.0–15.0 mm. Head brownish orange except white on frons and vertex. Antenna creamy white. Labial palpus orange pale yellow; third palpomere longer than second palpomere. Thorax and tegula brownish orange. Forewing with costal margin nearly straight, apex triangularly produced, termen gently concave below apex; ground colour brownish orange except ochreous yellow below costal margin from about middle to apex; discal stigma absent; discocellular stigma oblong, dark brown; apex with very small greyish black spot; fringe brown basally, greyish black distally, basal line orange white;  $R_3$ ,  $R_4$  and  $R_5$  stalked,  $R_5$  to termen,  $M_2$  and  $M_3$  subparallel,  $CuA_1$  and  $CuA_2$  stalked for about  $\frac{2}{5}$  length of  $CuA_1$ . Hindwing grey, with pale yellow scales along veins; fringe brownish orange, basal line orange white;  $M_3$  and  $CuA_1$  stalked for about  $\frac{1}{3}$  of length of  $CuA_1$ .

MALE GENITALIA (Fig. 13D). Uncus short, subtriangular. Gnathos with basal plate rectangular, arched on posterior margin; median process broad in basal half, narrowed from middle to distal  $\frac{1}{3}$ , thereafter slender to pointed apex, curved ventrad. Valva broad basally, narrow to cucullus; cucullus about half length of valva, narrowed to basal  $\frac{2}{5}$ , thereafter widened to bluntly rounded apex, densely setose, costal margin shallowly concave, ventral margin with large spine at basal  $\frac{2}{5}$  and 2–3 rows of bullet-shaped spines from spine to apex; costal bar narrow, slightly arched; sacculus broad in basal half, narrowed to before cucullus, with cluster of piliform setae medially. Vinculum broad; saccus with blunt anterior margin. Juxta shield-shaped, semicircularly concave medially and with small spiniform process at middle on posterior margin, subquadrately produced at middle on anterior margin; posterior lobe narrow taenoid, extending outward. Aedeagus nearly as long as valva, uniformly wide in basal half, narrowed from middle to apex, curved before middle, with one dorsal denticle; cornuti consisting of large spine at middle and long, narrow sclerite with apical tooth placed in distal  $\frac{1}{3}$ .

SEVENTH ABDOMINAL STERNITE (Fig. 17E). Anterolateral rib broad at base, tapered to apex, reaching before middle of sixth abdominal sternite; posterolateral lobe elongate horn-shaped.

#### Female

Unknown.

#### Distribution

China (Hainan).

*Lecithocera rubigona* Park, 2006  
Figs 4F, 13F, 17G

*Lecithocera rubigona* Park, 2006a: 98. TL: Thailand (Loei Province). TD: ZMUC.



### Material examined

CHINA – **Zhejiang Province** • 1 ♂; Mt Tianmu, Qianjiangyuan; 866 m a.s.l.; 10 Jul. 2014; A.H. Yin *et al.* leg.; slide no. YS19753; NKU.

### Short morphological characterization

ADULT (Fig. 4F). Wingspan 16.5 mm.

### Distribution

China (Zhejiang), Thailand (Park 2006a).

### Remarks

This species is newly recorded for China.

### *Lecithocera serratiloba* sp. nov.

[urn:lsid:zoobank.org:act:B2320993-25A8-46F1-A7E1-2F077BE0E01B](https://doi.org/10.21203/rs.3.rs-2280993/v1)

Figs 5A, 9A, 14A, 17H, 20F

### Diagnosis

The new species is diagnostic in the male genitalia by the subtriangular cucullus with a semiovate concavity on the ventral margin, a horn-shaped posterior lobe of the juxta, which is serrate laterally, and in the female genitalia by the tongue-shaped signum about half the length of the corpus bursae.

### Etymology

The specific epithet is derived from the Latin “*serrat-*” and “*-lobus*”, referring to the laterally serrate posterior lobe of the juxta in the male genitalia.

### Type material

#### Holotype

CHINA – **Hainan Province** • ♂; Ledong County, Jianfengling, Tianchi; 18°44' N, 108°50' E; 1050 m a.s.l.; 30 Apr. 2013; Y.H. Sun *et al.* leg.; slide no. YS18190; NKU.

#### Paratypes (19 ♂♂, 30 ♀♀)

CHINA – **Hainan Province** • 19 ♂♂, 29 ♀♀; same collection data as for holotype except 29–30 Apr. 2013; slide nos LSR11261♀, LSR13351♀, LSR13352♂, LSR14024♂, YS18188♀, YS19172♀, YS18188♀, YS18189♀, YS19171♂; NKU • 1 ♀; Jianfengling; 940 m a.s.l.; 6 Jun. 2007; Z.W. Zhang and W.C. Li leg.; slide no. LSR11261; NKU.

### Description

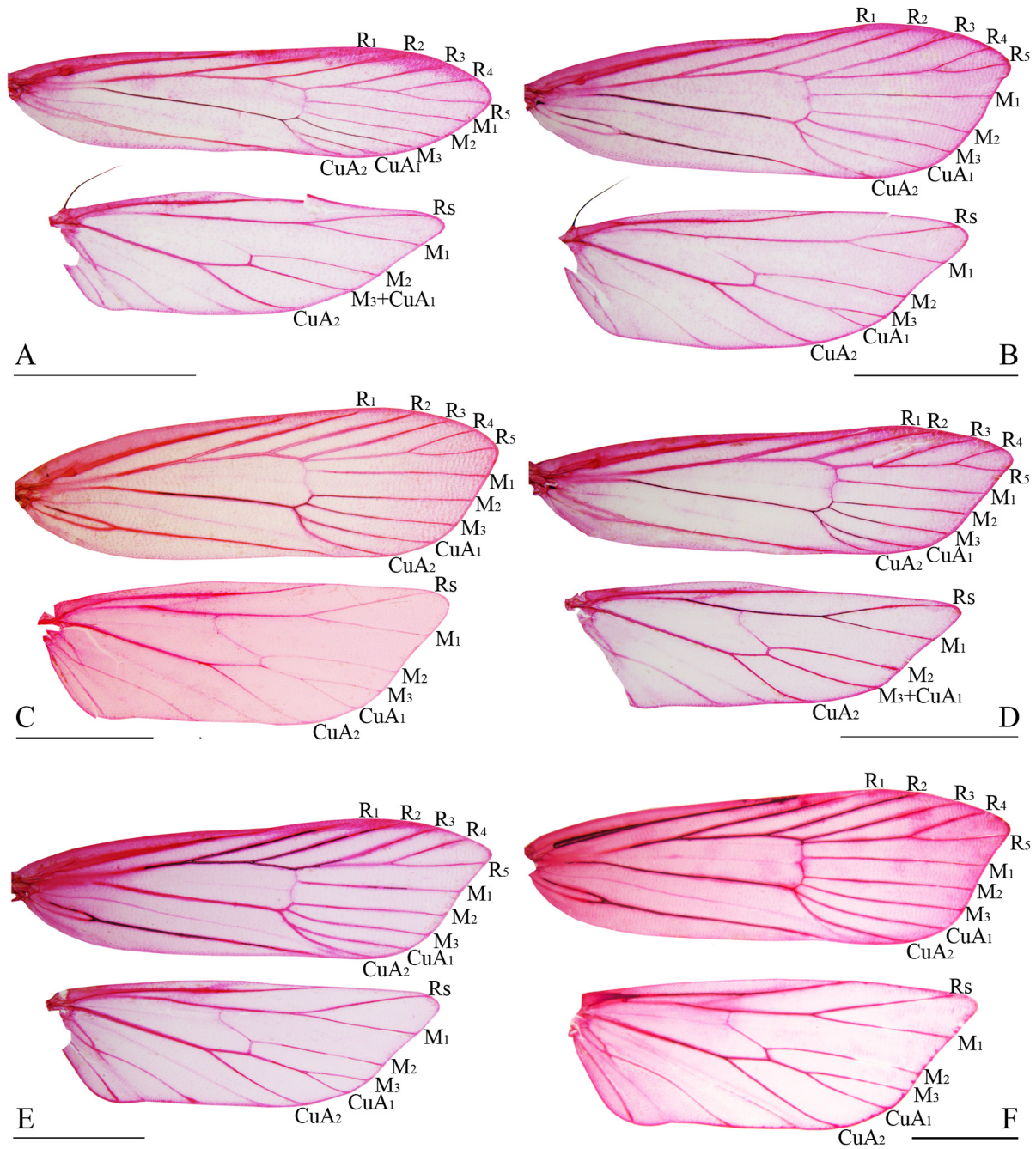
ADULT (Figs 5A, 9A). Wingspan 9.5–12.0 mm. Head dark yellowish brown. Antenna creamy white. Labial palpus yellowish brown; third palpomere slightly longer than second palpomere. Thorax and tegula dark yellowish brown. Forewing with costal margin almost straight except slightly arched basally, apex produced, termen oblique; ground colour yellowish brown; markings blackish brown: discal stigma small; discocellular stigma oblong; apex with blackish brown spot; fringe yellowish brown in basal half, blackish brown subterminally, pale brownish yellow terminally;  $R_3$  close to  $R_{4+5}$  at base,  $R_4$  and  $R_5$  stalked for about  $\frac{3}{5}$  length of  $R_5$ ,  $R_5$  to termen,  $M_2$  and  $M_3$  subparallel,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing grey; fringe pale yellow tinged with greyish brown;  $M_3$  and  $CuA_1$  stalked for about  $\frac{1}{3}$  length of  $M_3$ .

MALE GENITALIA (Fig. 14A). Uncus large U-shaped, longer than median process of gnathos, triangularly produced on anterior margin; caudal lobe horn-shaped, with dense setae. Gnathos with basal plate rectangular; median process broad in basal  $\frac{2}{5}$ , narrowed to distal  $\frac{1}{3}$ , then slender to pointed apex, curved ventrad preapically by right angle. Valva broad basally, narrowed to cucullus; cucullus shorter than half length of valva, subtriangular, narrowed from middle to bluntly rounded apex, straight on costal margin, densely setose, with semiovalate concavity beyond middle on ventral margin; costal bar slender, angled at middle; sacculus taenioid, wide at base, narrowed to cucullus. Vinculum broad; saccus subtriangular with blunt anterior margin. Juxta shield-shaped, with denticle at middle below posterior margin, semicircularly produced at middle on anterior margin; posterior lobe large, horn-shaped, slightly shorter than juxta, serrated laterally. Aedeagus slightly longer than valva, wide at base, gently narrowed toward apex, nearly straight, without dorsal denticle, with numerous granules in vesica; cornuti consisting of two horns at basal  $\frac{1}{3}$  and before apex, respectively.

SEVENTH ABDOMINAL STERNITE (Fig. 17H). Anterolateral rib thin and curved, reaching to before posterior margin of sixth abdominal sternite; posterolateral lobe subtriangular.

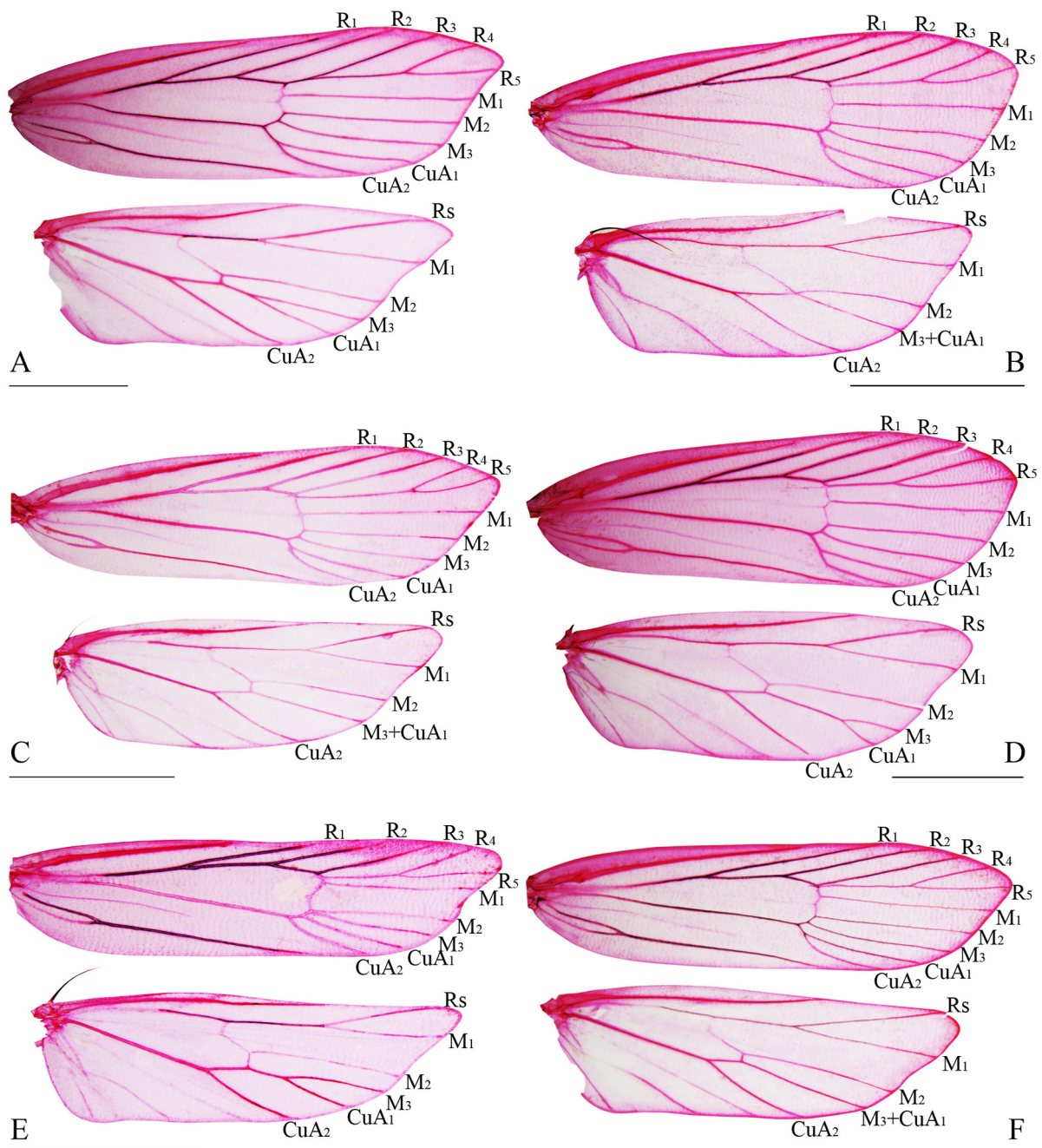


**Fig. 5.** Adults of species of *Lecithocera* Herrich-Schäffer, 1853, all paratypes (NKU), dorsal view. **A.** *L. serratiloba* sp. nov., female. **B.** *L. tenuextrema* sp. nov., male. **C.** *L. tumicuculla* sp. nov., male. **D.** *L. yunnanensis* sp. nov., female. Scale bars=2.0 mm.



**Fig. 6.** Wing venations of species of *Lecithocera* Herrich-Schäffer, 1853, all paratypes (NKU). **A.** *L. angustifolia* sp. nov., male, slide no. YS19608. **B.** *L. asticta* sp. nov., male, slide no. YS20005. **C.** *L. balteiformis* sp. nov., male, slide no. YS18197. **D.** *L. bicornuta* sp. nov., male, slide no. YS19610. **E.** *L. bigeminata* sp. nov., male, slide no. YS20003. **F.** *L. duplicispinea* sp. nov., female, slide no. ZMR10313. Scale bars = 2.0 mm.





**Fig. 7.** Wing venations of species of *Lecithocera* Herrich-Schäffer, 1853, all paratypes (NKU). **A.** *L. flavalba* sp. nov., female, slide no. YS19061. **B.** *L. flavistriata* sp. nov., male, slide no. YS19661. **C.** *L. furvibasis* sp. nov., female, slide no. YS20004. **D.** *L. laticuculla* sp. nov., male, slide no. YS19684. **E.** *L. ligulacea* sp. nov., male, slide no. LSR13453. **F.** *L. margirecta* sp. nov., male, slide no. ZMR10321. Scale bars = 2.0 mm.

FEMALE GENITALIA (Fig. 20F). Eighth abdominal sternite concave at middle on posterior margin. Apophyses posteriores about 3 times as long as apophyses anteriores. Lamella antevaginalis slightly sclerotized and semicircular. Antrum sac-like, membranous. Ductus bursae slightly longer than corpus bursae, narrow in posterior 1/3, broad and with sparse conic spines in anterior 2/3, granulose anteriorly; ductus seminalis arising from middle of ductus bursae, slender. Corpus bursae elliptical, granulose; signum large, tongue-shaped, longer than half length of corpus bursae, densely denticulate, with longitudinal median furrow.

### Distribution

China (Hainan).

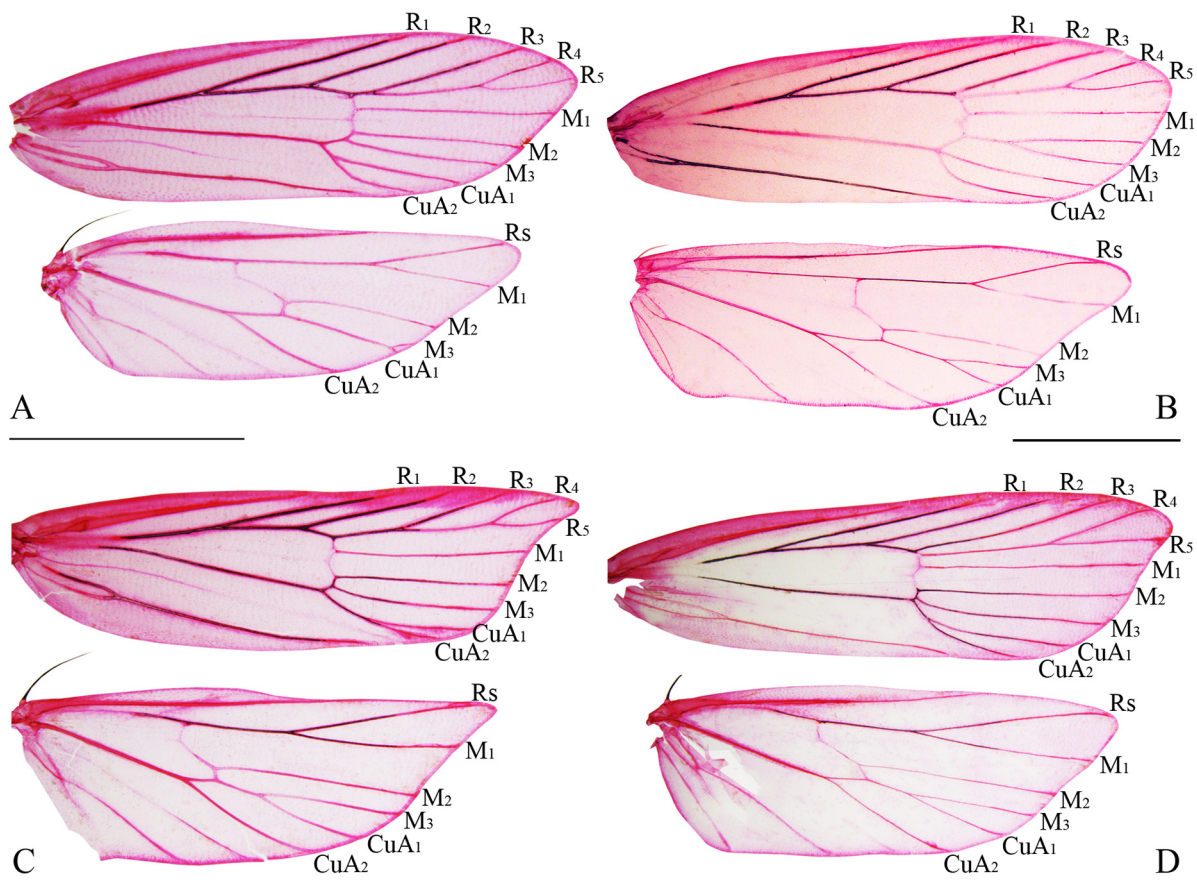
### *Lecithocera sichuanensis* sp. nov.

[urn:lsid:zoobank.org:act:EC3B5129-E123-42AB-8567-730AC9EDD541](http://urn:lsid:zoobank.org:act:EC3B5129-E123-42AB-8567-730AC9EDD541)

Figs 4E, 8D, 13E, 17F, 20E

### Diagnosis

The new species is superficially similar to *L. pelomorpha* Meyrick, 1931. It can be distinguished in the male genitalia by the subrectangular cucullus, the juxta with subquadrate posterior lobes, and in the



**Fig. 8.** Wing venations of species of *Lecithocera* Herrich-Schäffer, 1853, all paratypes (NKU). **A.** *L. medogensis* sp. nov., male, slide no. YS19067. **B.** *L. nullisigna* sp. nov., female, slide no. YS19177. **C.** *L. parvispineae* sp. nov., male, slide no. YS20001. **D.** *L. sichuanensis* sp. nov., male, slide no. YS19027. Scale bars=2.0 mm.



female genitalia by the corpus bursae with a small asteroidal signum; in *L. pelomorpha*, the cucullus is subtriangular (Gozmány 1978: pl. 26 fig. 41), the posterior lobe of the juxta is horn-shaped, and the signum is large, subrectangular (Gozmány 1978: pl. 63 fig. 41).

### Etymology

The specific epithet is derived from the name of the type locality.

### Type material

#### Holotype

CHINA – Sichuan Province • ♂; Chengdu City, Anzihe; 30°47' N, 103°12' E; 1598 m a.s.l.; 22 Jun. 2016; K.J. Teng and X.F. Yang leg.; slide no. YS19028; NKU.

#### Paratypes (19 ♂♂, 4 ♀♀)

CHINA – Sichuan Province • 1 ♂; same collection data as for holotype; slide no. YS19027; NKU • 5 ♂♂, 4 ♀♀; Chengdu City, Anzihe; 12–15 Jul. 2016; Y. Fei leg.; slide nos YS19549♂, YS19585♀; NKU • 3 ♂♂; Baoxing, Fengtongzhai; 1600 m a.s.l.; 2 Aug. 2004; Y.D. Ren leg.; slide nos LSR13058, LSR13064, LSR13331; NKU • 10 ♂♂; Baoxing, Fengtongzhai; 1565 m a.s.l.; 1–2 Aug. 2016; Y. Fei leg.; slide no. YS19026; NKU.

### Description

ADULT (Figs 4E, 8D). Wingspan 16.5–18.0 mm. Head pale orange. Antenna pale orange. Labial palpus pale yellow except dark brown ventrally on third palpomere; third palpomere about  $\frac{2}{3}$  length of second palpomere. Thorax pale orange; tegula pale orange, blackish brown at base. Forewing with costal margin nearly straight, apex blunt, termen oblique; ground colour yellowish brown, with scattered dark brown scales distally, mottled orange-yellow scales along costal margin from about middle to apex; markings blackish brown: basal streak distinct at base; discal stigma small; discocellular stigma larger, oblong; tornal streak wide at base, narrowed and diffused to below discocellular stigma; fringe brownish yellow, basal line orange white;  $R_3$  close to  $R_{4+5}$  at base,  $R_4$  and  $R_5$  stalked for longer than half length,  $R_5$  to termen,  $M_2$  and  $M_3$  separated,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe grey; fringe with an orange white basal line;  $M_3$  and  $CuA_1$  stalked for about  $\frac{1}{3}$  length of  $M_3$ .

MALE GENITALIA (Fig. 13E). Uncus subtriangular, broadly V-shaped on posterior margin; caudal lobe short, thumbed, setose. Gnathos with lateral arm broad, triangular on posterior margin; median process wide in basal  $\frac{3}{5}$ , narrowed from distal  $\frac{2}{5}$  to pointed apex, curved ventrad at distal  $\frac{2}{5}$  by right angle. Valva broad basally, slightly narrowed before cucullus; cucullus about half length of valva, nearly as wide as basal width of valva, subrectangular, broad at apex, setose ventrodistally, with row of bullet-shaped setae distally along ventral margin; costal bar narrow, angled at basal  $\frac{2}{5}$ ; sacculus broad taenioid, narrowed distally, reaching cucullus. Vinculum broad; saccus almost semioval. Juxta large, deeply incised at middle on posterior margin forming paired large quadrate posterior lobe, with short, digitiform process at middle on anterior margin. Aedeagus shorter than valva, tubular, gently curved at middle; cornuti consisting of several dispersed, needle-like spines in basal  $\frac{1}{3}$ , two large sclerites in distal half, and three teeth dorsoapically.

SEVENTH ABDOMINAL STERNITE (Fig. 17F). Anterior margin convex medially; anterolateral rib short, reaching before posterior margin of sixth abdominal sternite; posterior margin convex medially; posterolateral lobe small.

FEMALE GENITALIA (Fig. 20E). Eighth abdominal sternite concave medially on posterior margin forming two semioval caudal lobes. Apophyses posteriores twice as long as apophyses anteriores. Antrum weakly sclerotized, nearly funnel-shaped, with horizontal median ridge. Ductus bursae distinctly shorter than corpus bursae, narrow, widened toward corpus bursae; ductus seminalis slender, dilated basally,

forming rounded sac. Corpus bursae oblong; signum very small, asteroidal, with denticles, placed near anterior margin of corpus bursae.

### Distribution

China (Sichuan).

### *Lecithocera tenuextrema* sp. nov.

[urn:lsid:zoobank.org:act:AC7A3480-19BC-443D-B2C8-5F5B60320B0E](http://urn:lsid:zoobank.org:act:AC7A3480-19BC-443D-B2C8-5F5B60320B0E)

Figs 5B, 9B, 14B, 17I, 21A

### Diagnosis

The new species is similar to *L. tridentata* Wu & Liu, 1993 in the male genitalia. It can be distinguished by the absence of a patch before the termen in the forewing, in the male genitalia by the cucullus being uniformly wide in basal  $\frac{1}{3}$ , narrowed to the middle, thereafter slender in the distal half, and in the female genitalia by the signum of the corpus bursae having dense denticles and lacking a tooth. In *L. tridentata*, the forewing has a dark brown patch before the termen, the cucullus is uniformly wide in basal  $\frac{1}{3}$ , narrowed from basal  $\frac{1}{3}$  to  $\frac{2}{3}$  and uniform in distal  $\frac{1}{3}$  (Wu & Liu 1993: 343, fig. 26), and the signum has 3 teeth but lacks denticles (Wu & Liu 1993: 345, fig. 39).

### Etymology

The specific epithet is derived from the Latin “*tenu-*” and “*extremus*”, referring to the slender distal part of the cucullus in the male genitalia.

### Type material

#### Holotype

CHINA – Guangxi Zhuang Autonomous Region • ♂; Pingxiang, Shaoping Forest Farm; 22°08' N, 106°56' E; 280 m a.s.l.; 17 Apr. 2012; X.F. Yang leg.; slide no. LSR13405; NKU.

#### Paratypes (62 ♂♂, 4 ♀♀)

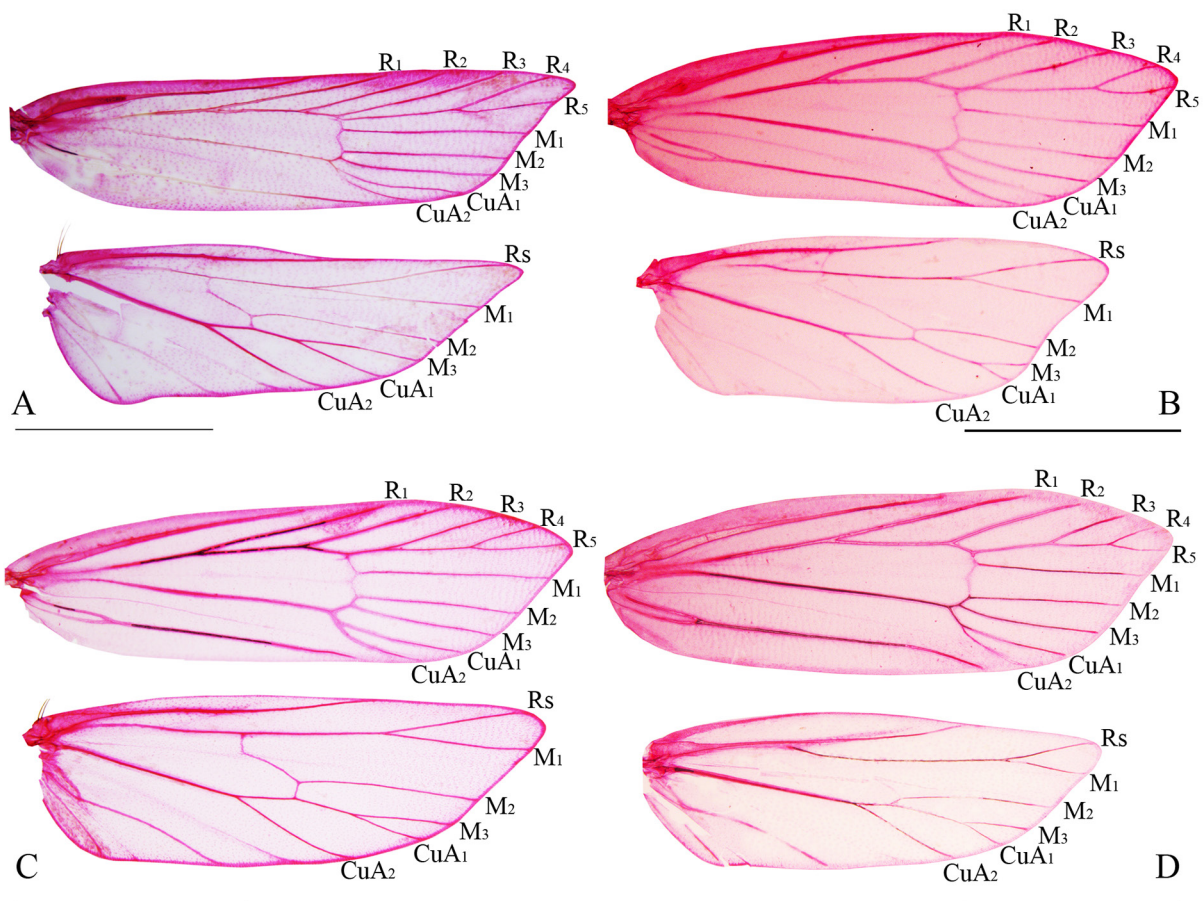
CHINA – Guangxi Zhuang Autonomous Region • 11 ♂♂, 1 ♀; same collection data as for holotype except 15–19 Apr. 2012; slide nos LSR12079, LSR12080, LSR13404, LSR13419, LSR13462; NKU • 25 ♂♂, 2 ♀♀; same collection data as for holotype except 18 Mar.–12 Apr. 2013; slide nos LSR13363♂, LSR13369♂, LSR13370♂, LSR13385♂, YS19148♀; NKU • 6 ♂♂; same collection data as for holotype except 22 Jul. 2012; X.F. Yang and Z.G. Zhang leg.; slide no. LSR13018; NKU • 8 ♂♂, 1 ♀; same collection data as for holotype except 8–25 Sep. 2012; Z.G. Zhang leg.; slide nos LSR12315♂, LSR12316♀, LSR12317♂; NKU • 9 ♂♂; same locality as for holotype; 190 m a.s.l.; 24–28 Jul. 2011; B.B. Hu leg.; slide nos LSR12216, LSR13289; NKU • 1 ♂; Pingxiang, Qingshan Forest Farm; 300 m a.s.l.; 23 Jul. 2011; B.B. Hu leg.; slide no. LSR12186; NKU • 1 ♂; Pingxiang, Fubo Forest Farm; 550 m a.s.l.; 1 Aug. 2011; B.B. Hu leg.; NKU • 1 ♂; Guilin City, Quanzhou, Miaotou Town; 100 m a.s.l.; 25 Jul. 2013; X.F. Yang leg.; NKU.

### Description

ADULT (Figs 5B, 9B). Wingspan 8.0–12.0 mm. Head with frons orange white, vertex yellowish brown. Antenna orange white, flagellum ringed with dark brown. Labial palpus orange white on inner surface, yellowish brown on outer surface; third palpomere slender, nearly as long as second palpomere. Thorax and tegula pale yellowish brown. Forewing with costal margin slightly arched, apex blunt, termen oblique; ground colour orange white, covered with dense dark yellowish brown and dark brown scales, becoming denser around apex and along termen; basal streak dark brown, ill-defined; markings blackish brown:

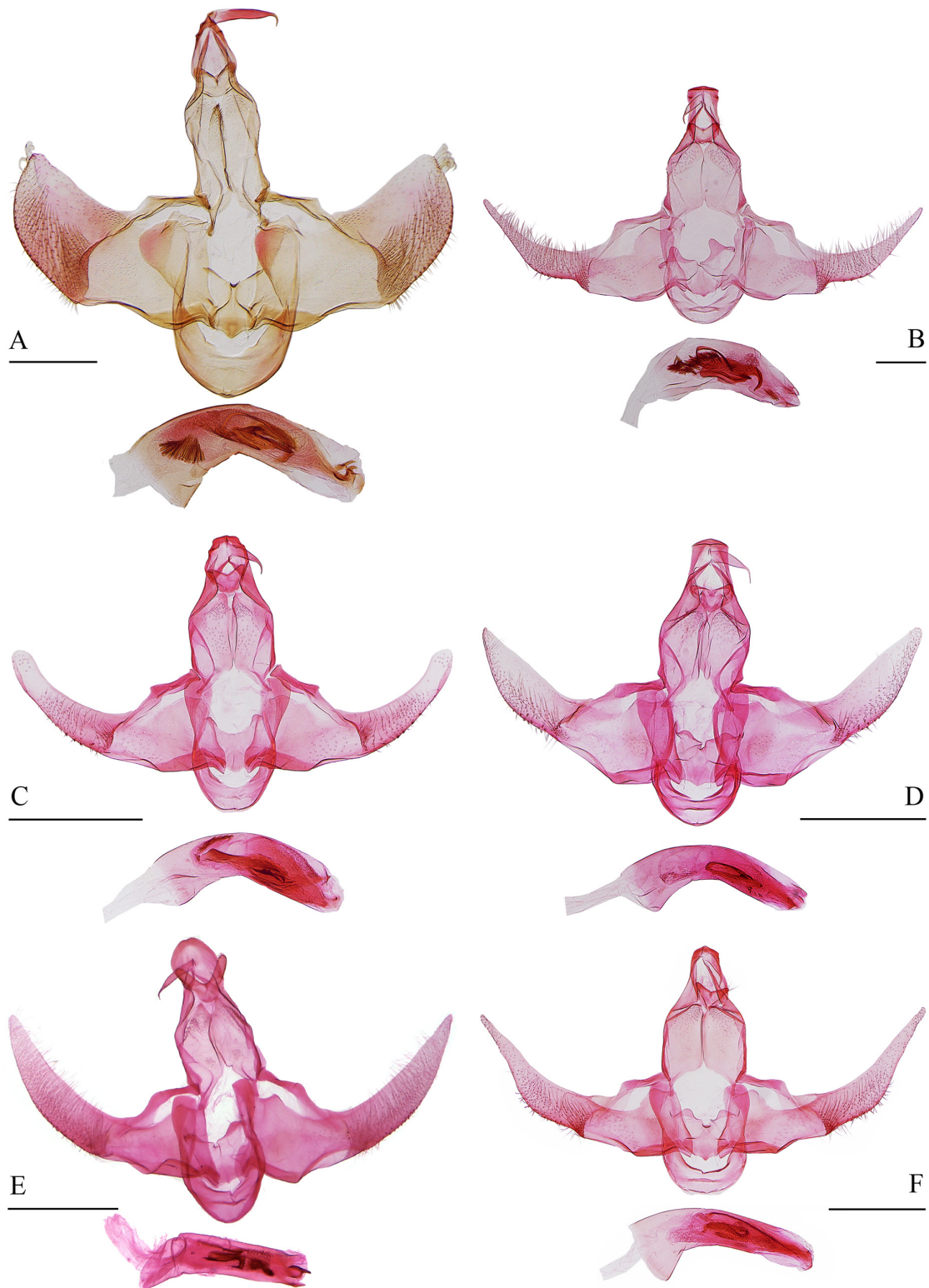
discal stigma small; discocellular stigma larger, elliptical; tornal streak diffused to below discocellular stigma anteriorly; fringe orange white, mixed with greyish brown scales;  $R_3$  and  $R_{4+5}$  short-stalked,  $R_4$  and  $R_5$  stalked for about  $\frac{2}{3}$  length of  $R_5$ ,  $R_5$  to termen below apex,  $M_2$  and  $M_3$  subparallel,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe pale greyish orange; fringe with an orange white basal line;  $M_3$  and  $CuA_1$  long-stalked.

**MALE GENITALIA** (Fig. 14B). Uncus short, broadly V-shaped; caudal lobe short digitiform, rounded apically. Gnathos with lateral arm broad taenioid; median process wide at base, narrowed to distal  $\frac{1}{3}$ , then slender to pointed apex, curved ventrad at distal  $\frac{1}{4}$  by right angle. Valva broad and parallel-sided basally, narrowed to cucullus; cucullus about  $\frac{3}{5}$  length of valva, uniformly wide in basal  $\frac{1}{3}$ , narrowed to middle, thereafter slender to rounded apex, setose, with 3–4 rows of bullet-shaped setae ventrally in basal  $\frac{1}{3}$ ; costal bar narrow, gently angled at middle; saccus narrow taenioid, reaching cucullus. Vinculum broad; saccus triangular with blunt apex. Juxta shield-shaped, with small notch at middle on posterior margin, with small protrusion at middle on anterior margin; posterior lobe semiovate basally, narrow taenioid distally, extending outward. Aedeagus about  $\frac{2}{3}$  length of valva, broad at base, narrowed to blunt apex, curved ventrad at basal  $\frac{1}{4}$ , with dense granules in vesica; cornuti consisting of some spines varied in size running from basal  $\frac{2}{5}$  to distal  $\frac{1}{4}$ , two sclerites placed beyond middle and small sclerite before apex.

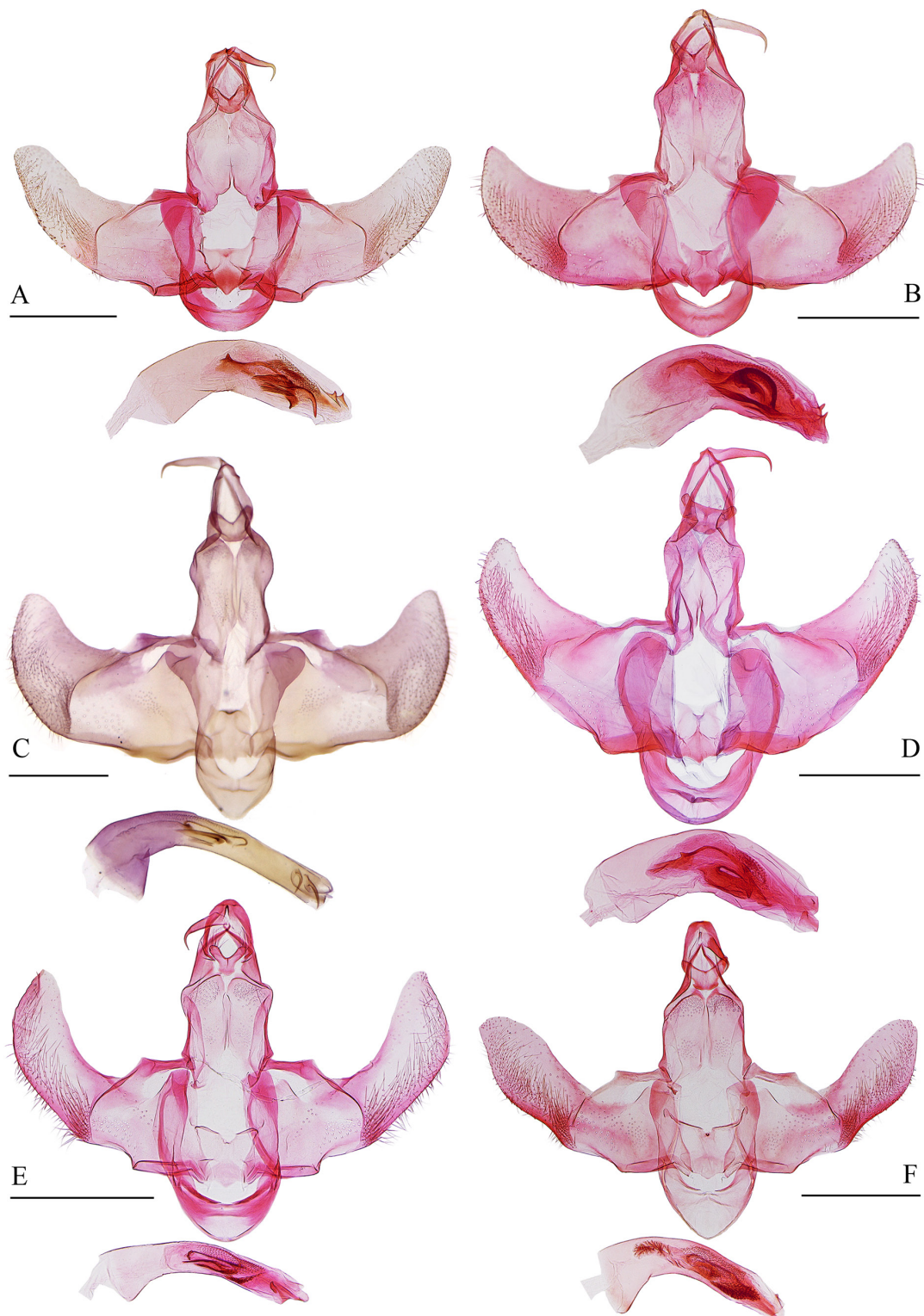


**Fig. 9.** Wing venations of species of *Lecithocera* Herrich-Schäffer, 1853, all paratypes (NKU). **A.** *L. serratiloba* sp. nov., female, slide no. LSR11261. **B.** *L. tenuextrema* sp. nov., male, slide no. LSR12079. **C.** *L. tumucuculla* sp. nov., female, slide no. YS18084. **D.** *L. yunnanensis* sp. nov., male, slide no. YS19620. Scale bars=2.0 mm.



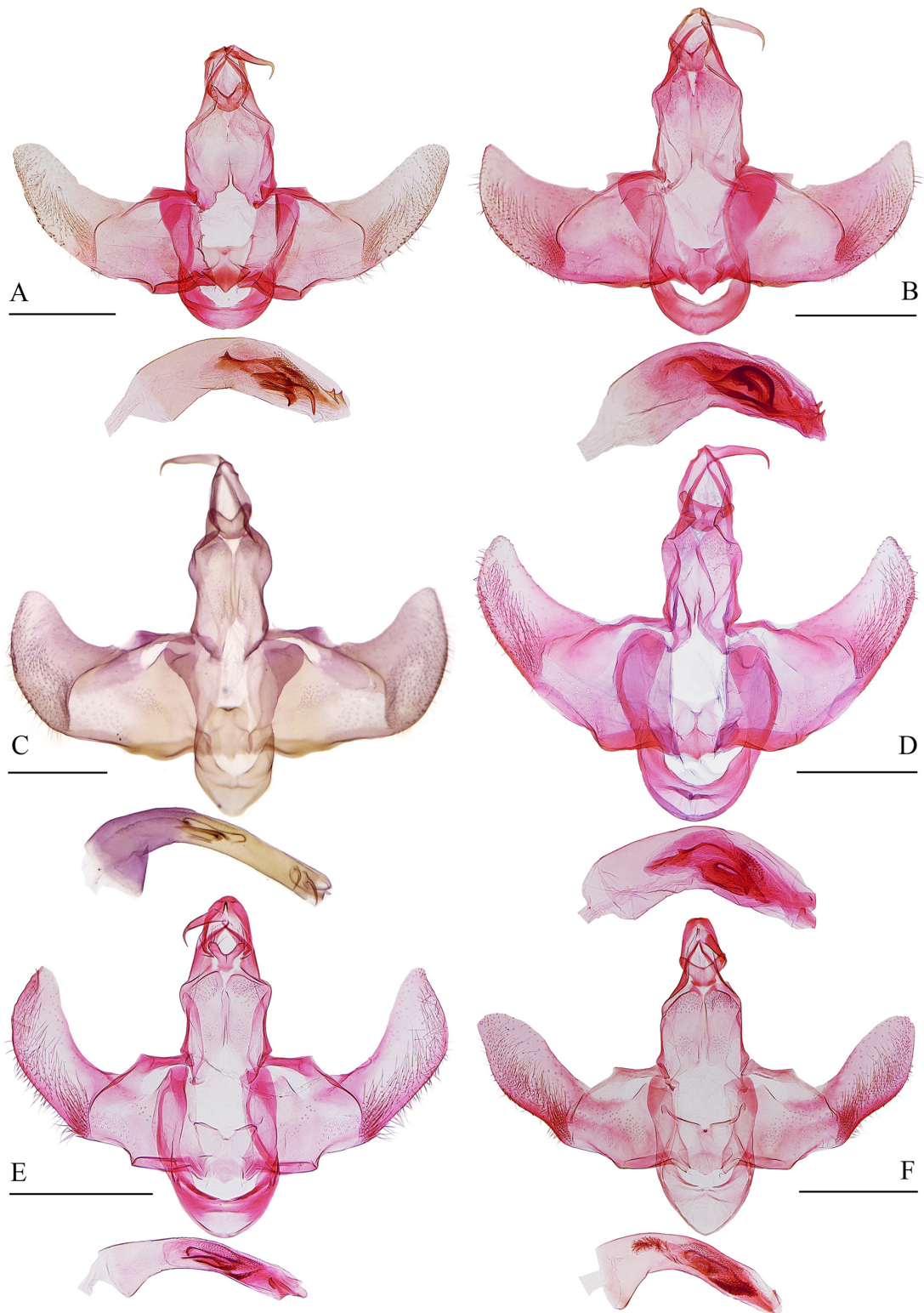


**Fig. 10.** Male genitalia of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU). **A.** *L. alpestra* Park, 2005, slide no. YS19101. **B.** *L. alpina* Park, 2016, slide no. YS19008. **C.** *L. angustifolia* sp. nov., holotype, slide no. YS19607. **D.** *L. asticta* sp. nov., holotype, slide no. YS19603. **E.** *L. balteiformis* sp. nov., holotype, slide no. LSR13346. **F.** *L. bicornuta* sp. nov., holotype, slide no. YS19614. Scale bars=0.5 mm.

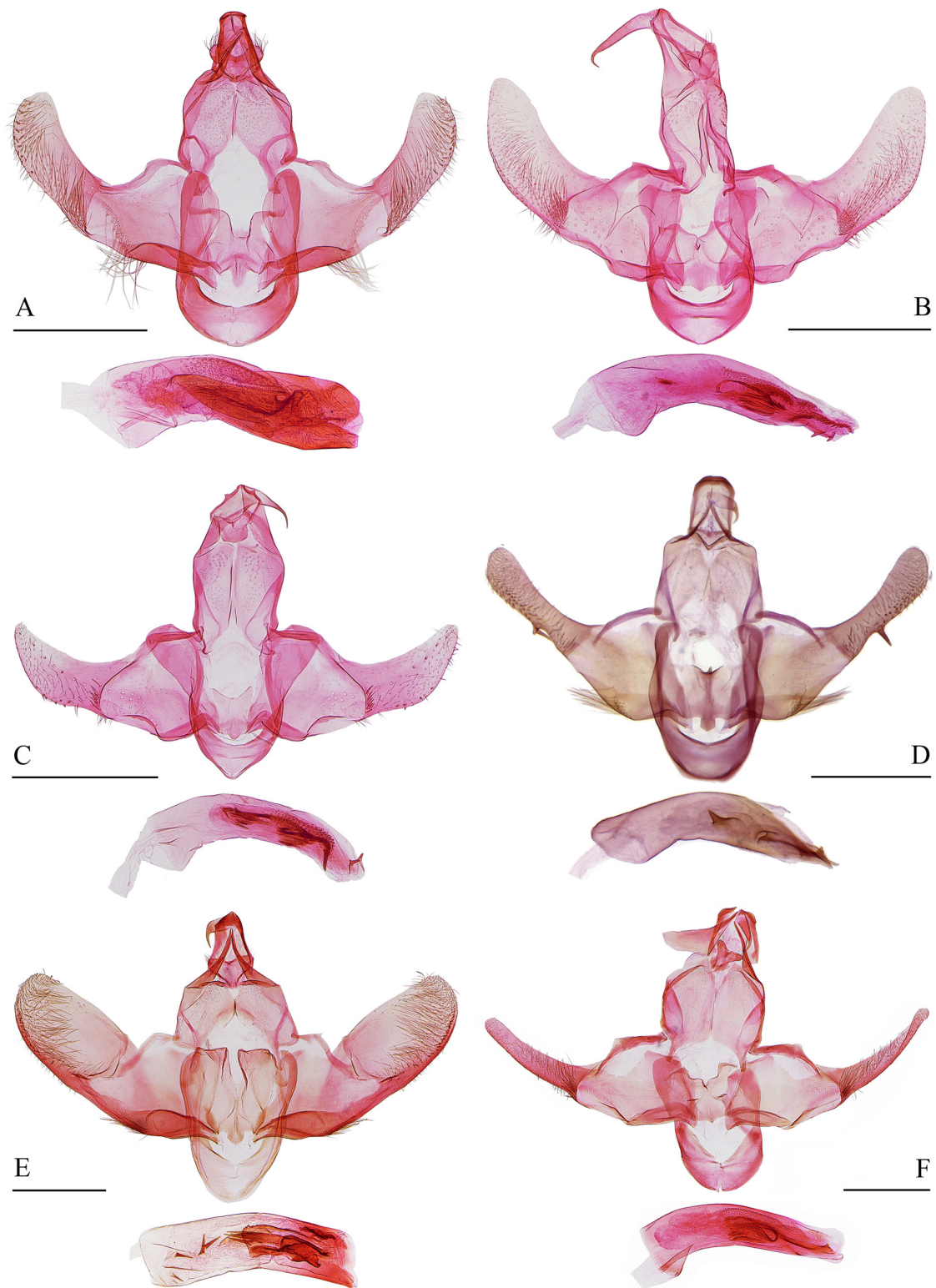


**Fig. 11.** Male genitalia of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU). **A.** *L. bigeminata* sp. nov., holotype, slide no. YS18192. **B.** *L. chersitis* Meyrick, 1918, slide no. YS19205. **C.** *L. duplicispinea* sp. nov., paratype, slide no. ZYM06270. **D.** *L. flavalba* sp. nov., holotype, slide no. YS19060. **E.** *L. flavistriata* sp. nov., paratype, male, slide no. YS19661. **F.** *L. furvibasis* sp. nov., holotype, slide no. YS18169. Scale bars=0.5 mm.





**Fig. 12.** Male genitalia of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU). **A.** *L. haviensis* Park, 2016, slide no. YS19710. **B.** *L. laticuculla* sp. nov., paratype, slide no. YS19684. **C.** *L. ligulacea* sp. nov., paratype, slide no. LSR13453. **D.** *L. margirecta* sp. nov., paratype, slide no. YS19483. **E.** *L. medogensis* sp. nov., holotype, slide no. YS19166. **F.** *L. neosticta* Meyrick, 1918, slide no. LSR13344. Scale bars=0.5 mm.



**Fig. 13.** Male genitalia of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU). **A.** *L. nullisigna* sp. nov., holotype, slide no. YS19467. **B.** *L. orbiculata* Park, 2010, slide no. LSR13465. **C.** *L. parviflava* sp. nov., holotype, slide no. YS19645. **D.** *L. parvispinea* sp. nov., paratype, slide no. LSR11259. **E.** *L. sichuanensis* sp. nov., holotype, slide no. YS19028. **F.** *L. rubigona* Park, 2006, slide no. YS19753. Scale bars=0.5 mm.

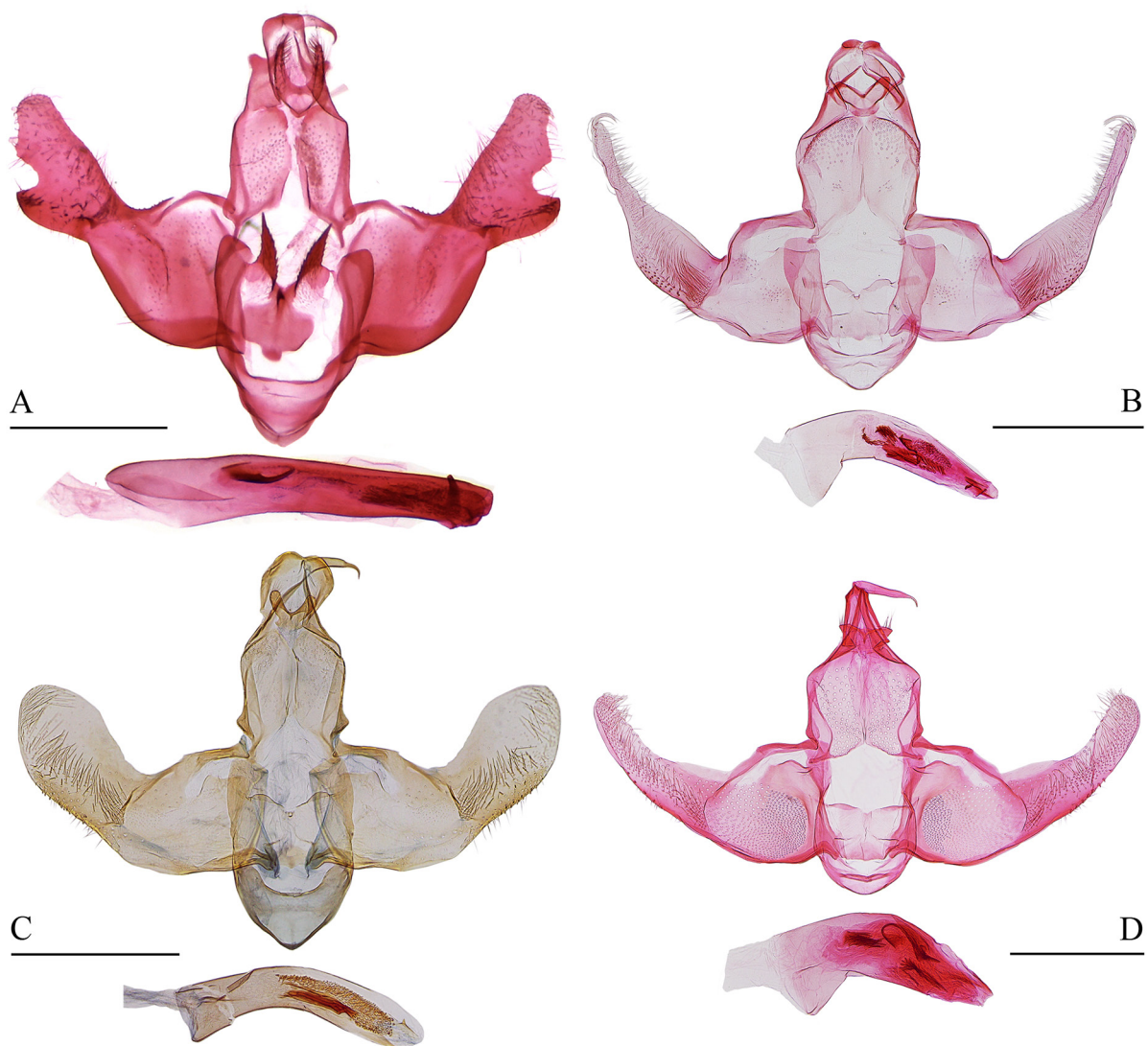


SEVENTH ABDOMINAL STERNITE (Fig. 17I). Anterolateral rib thin, forked basally, curved, reaching before posterior margin of sixth abdominal sternite; posterolateral lobe wide at base, narrowed to about basal  $\frac{2}{3}$ , then slender, gently concave on inner margin.

FEMALE GENITALIA (Fig. 21A). Eighth abdominal sternite gently concave at middle on posterior margin. Apophyses posteriores about 1.5 times as long as apophyses anteriores. Antrum subrectangular, longer than wide, spiculose. Ductus bursae slightly longer than corpus bursae, broad, narrowed posteriorly; ductus seminalis arising from about middle of ductus bursae, dilated subbasally and forming sac. Corpus bursae elliptical; signum subrounded, denticulate, placed at middle.

### Distribution

China (Guangxi).



**Fig. 14.** Male genitalia of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU). **A.** *L. serratiloba* sp. nov., paratype, slide no. LSR14024. **B.** *L. tenuextrema* sp. nov., holotype, slide no. LSR13405. **C.** *L. tumicuculla* sp. nov., paratype, slide no. YS18085. **D.** *L. yunnanensis* sp. nov., paratype, slide no. YS19616. Scale bars=0.5 mm.

*Lecithocera tumicuculla* sp. nov.

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Figs 5C, 9C, 14C, 17J, 21B

### Diagnosis

The new species is similar to *L. castanoma* Wu, 1997 and *L. furvibasis* sp. nov. in the male genitalia. It differs from *L. castanoma* by having the seventh abdominal sternite with a pair of taenioid posterolateral lobes, and in the male genitalia by the basal plate of the gnathos being bilobed on the posterior margin. In *L. castanoma*, the posterolateral lobes of the seventh abdominal sternite are subovate (Park & Wu 2010: 66, fig. 16), and the basal plate of the gnathos is produced on the posterior margin (Wu 1997: pl. 10 fig. 4). The differences between this new species and *L. furvibasis* sp. nov. are stated in the diagnosis of the latter.

### Etymology

The specific epithet is derived from the Latin “*tum-*” and “*cucullus*”, referring to the widened cucullus in the male genitalia.

### Type material

#### Holotype

CHINA – **Hunan Province** • ♂; Xinhua County, Xiaolang Village; 27°36' N, 111°15' E; 3 Aug. 2004; Y.L. Xiao leg.; slide no. LSR13294; NKU.

#### Paratypes (44 ♂♂, 102 ♀♀)

CHINA – **Hunan Province** • 3 ♂♂; same collection data as for holotype; slide nos LSR13110, LSR13029, LSR13287; NKU. – **Hubei Province** • 1 ♂; Lichuan, Maoba; 700 m a.s.l.; 30 Jul. 1999; H.H. Li leg.; slide no. LSR13103; NKU. – **Guangxi Zhuang Autonomous Region** • 7 ♂♂, 26 ♀♀; Yongfu, Qinmu Village; 160 m a.s.l.; 1–6 May 2008; L. Zhang and H. Zhen leg.; slide nos ZMR10039♂, ZMR10079♀, ZMR10080♀, ZMR10081♀, ZMR10197♀; NKU • 4 ♂♂, 1 ♀; Yizhou, Xiangbaxiang; 169 m a.s.l.; 18 Aug. 2011; S.L. Hao and Y.H. Sun leg.; slide nos LSR12185♂, LSR12225♂, LSR13129♂; NKU • 2 ♂♂; 2, 13 Apr. 2013; Pingxiang, Shaoping Forest Farm; 280 m a.s.l.; X.F. Yang leg.; slide no. YS18015; NKU • 2 ♂♂, 1 ♀; Jinxiu County, Hekou; 650 m a.s.l.; 28 Apr. 2008; H Zhen and L Zhang leg.; NKU • 1 ♂; Jinxiu County; 600 m a.s.l.; 24 Apr. 2008; H Zhen and L Zhang leg.; slide no. ZMR10039; NKU. – **Guizhou Province** • 7 ♂♂, 61 ♀♀; Mayanghe; 430 m a.s.l.; 5, 10, 12 Jun. 2007; X.C. Du leg.; slide nos YS18083♂, YS18084♀, YS18085♂, ZYM06488♀, ZYM06489♀; NKU. – **Yunnan Province** • 1 ♂; Mengyang, Guanping; 1200 m a.s.l.; 17 Aug. 2005; Y.D. Ren leg.; slide no. LSR13291; NKU • 7 ♂♂, 2 ♀♀; Jingdong County, Zijiaosuo; 1244 m a.s.l.; 4 Jul. 2013; S.R. Liu *et al.* leg.; slide no. LSR13224♂, LSR13442♂; NKU • 2 ♂♂, 7 ♀♀; Jinghong City, Mt Jinuo; 1003 m a.s.l.; 26–29 Jul. 2019; K.J. Teng *et al.* leg.; slide no. YS19695♂; NKU. – **Xizang Autonomous Region [Tibet]** • 1 ♂; Mêdog, Beibengxiang; 780 m a.s.l.; 12 Aug. 2003; X.P. Wang and H.J. Xue leg.; slide no. LSR11228; NKU • 6 ♂♂, 4 ♀♀; Mêdog, Beibengxiang; 987 m a.s.l.; 12 Aug. 2017; M.J. Qi and X.F. Yang leg.; slide nos YS19249♂, YS19250♀; NKU.

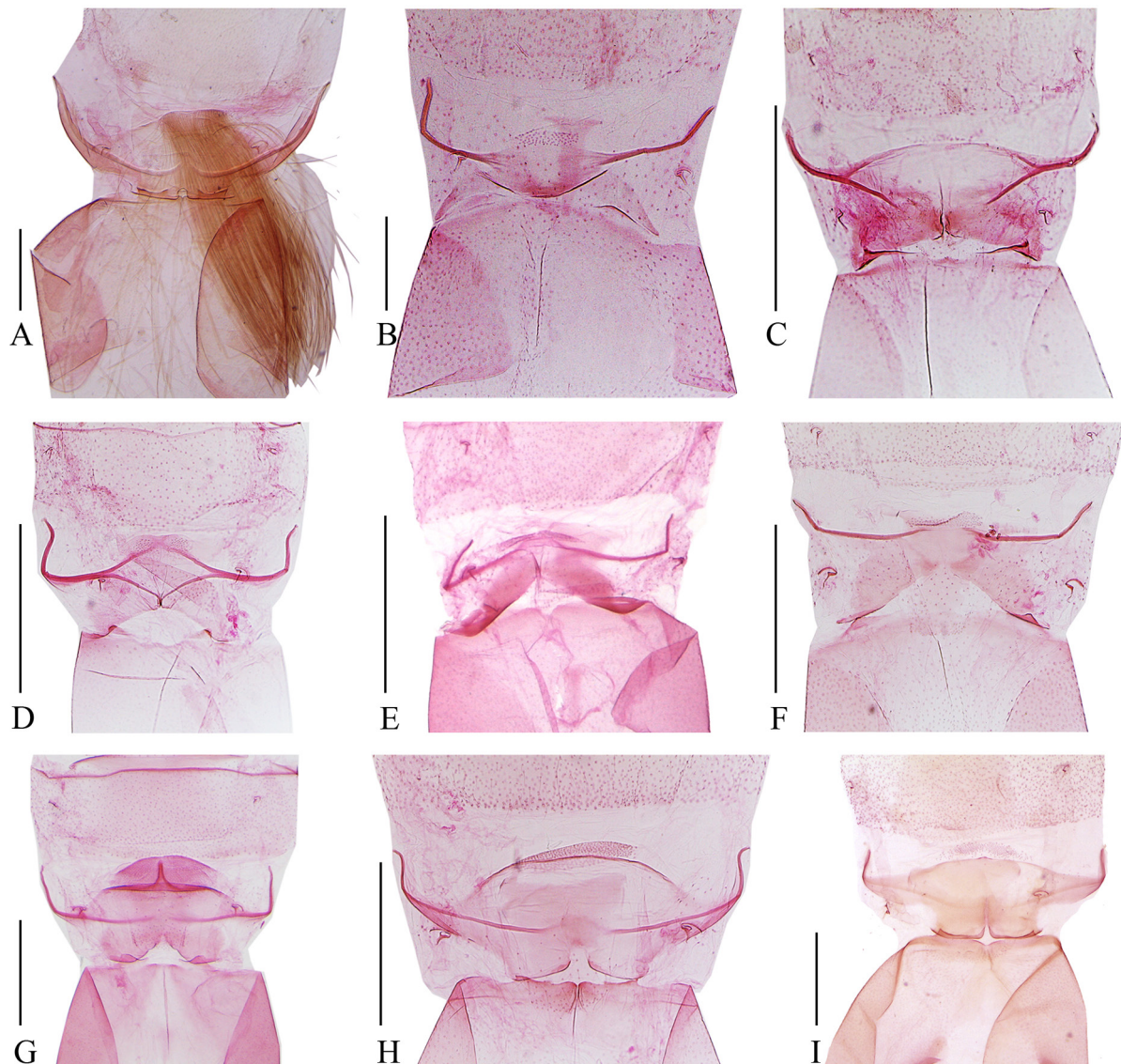
### Description

ADULT (Figs 5C, 9C). Wingspan 9.0–11.0 mm. Head brown, orange-yellow on lateral sides. Antenna pale orange. Labial palpus pale orange on inner surface, brownish orange mixed with dark brown on outer surface; third palpomere slightly shorter than second palpomere. Thorax and tegula greyish brown. Forewing relatively broad, with costal margin slightly arched, apex bluntly rounded, termen oblique; ground colour brownish yellow, covered with dense greyish brown scales; markings blackish brown: basal streak ill-defined; discal stigma rounded; discocellular stigma small; tornal streak perpendicularly



diffused to discocellular stigma anteriorly; fringe greyish orange, tinged with dark brown, basal line orange white;  $R_3$  stalked with  $R_{4+5}$ ,  $R_5$  to costal margin before apex,  $M_2$  and  $M_3$  separated,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe pale greyish orange; fringe with basal line orange white;  $M_3$  and  $CuA_1$  stalked for about half the length of  $CuA_1$ .

MALE GENITALIA (Fig. 14C). Uncus V-shaped; caudal lobe long, digitiform, rounded and setose apically. Gnathos with basal plate bilobed on posterior margin; median process wide at base, narrowed to basal  $\frac{2}{3}$ , then abruptly slender, curved ventrad preapically. Valva broad basally; cucullus about half length of valva, widened at distal  $\frac{1}{3}$ , then narrowed to rounded apex, gently arched on costal margin, setose on ventral half, with row of bullet-shaped setae along basal half of ventral margin; costal bar

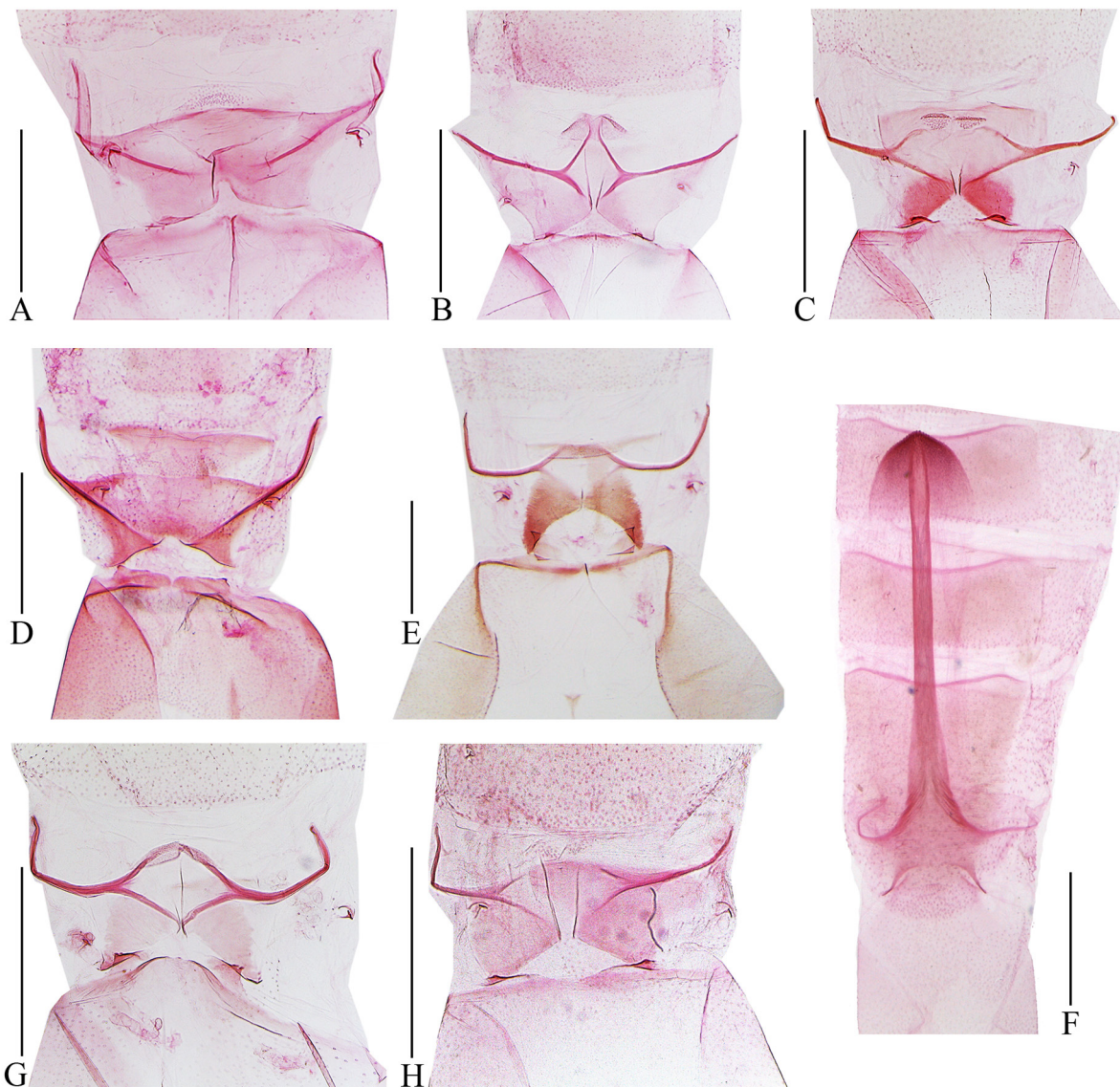


**Fig. 15.** Male seventh abdominal sternite of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU). **A.** *L. alpestra* Park, 2005, slide no. YS19101. **B.** *L. alpina* Park, 2016, slide no. YS19008. **C.** *L. angustifolia* sp. nov., holotype, slide no. YS19607. **D.** *L. asticta* sp. nov., holotype, slide no. YS19603. **E.** *L. balteiformis* sp. nov., holotype, slide no. LSR13346. **F.** *L. bicornuta* sp. nov., holotype, slide no. YS19614. **G.** *L. bigeminata* sp. nov., paratype, slide no. LSR13407. **H.** *L. chersitis* Meyrick, 1918, slide no. YS19635. **I.** *L. duplicispinea* sp. nov., paratype, slide no. ZYM06270. Scale bars = 0.5 mm.

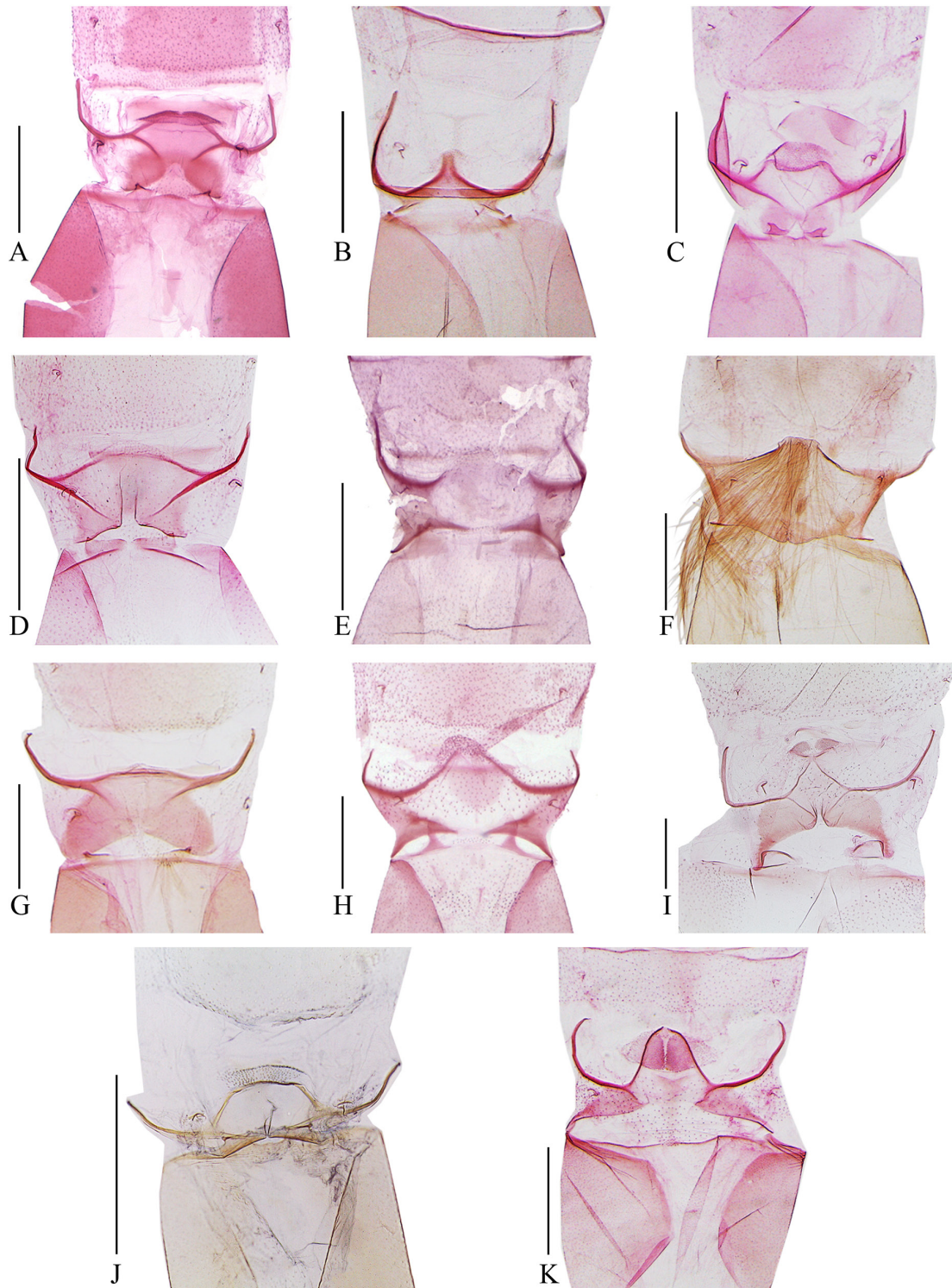


narrow in basal half, widened from middle toward valva, gently angled at middle; sacculus narrow in basal half, widened in distal half, reaching cucullus. Vinculum broad; saccus triangular with blunt apex. Juxta shield-shaped, with small notch at middle on posterior margin, with small projection at middle on anterior margin; posterior lobe semiovate basally, taenioid distally, extending outward. Aedeagus nearly as long as valva, almost uniformly wide, gently curved, with one dorsal denticle, with dense granules in vesica; cornuti consisting of sclerite about  $\frac{1}{3}$  length of aedeagus, placed beyond middle, and some spines medially.

SEVENTH ABDOMINAL STERNITE (Fig. 17J). Anterolateral rib thin, forked basally, not reaching posterior margin of sixth abdominal sternite; posterolateral lobe broad taenioid.



**Fig. 16.** Male seventh abdominal sternite of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU). **A.** *L. flavalba* sp. nov., holotype, slide no. YS19060. **B.** *L. flavistriata* sp. nov., paratype, slide no. YS19661. **C.** *L. furvibasis* sp. nov., holotype, slide no. YS18169. **D.** *L. haviensis* Park, 2016, slide no. YS19710. **E.** *L. laticuculla* sp. nov., paratype, slide no. YS19684. **F.** *L. ligulacea* sp. nov., paratype, slide no. LSR13414. **G.** *L. margirecta* sp. nov., paratype, slide no. YS19483. **H.** *L. medogensis* sp. nov., holotype, slide no. YS19166. Scale bars=0.5 mm.

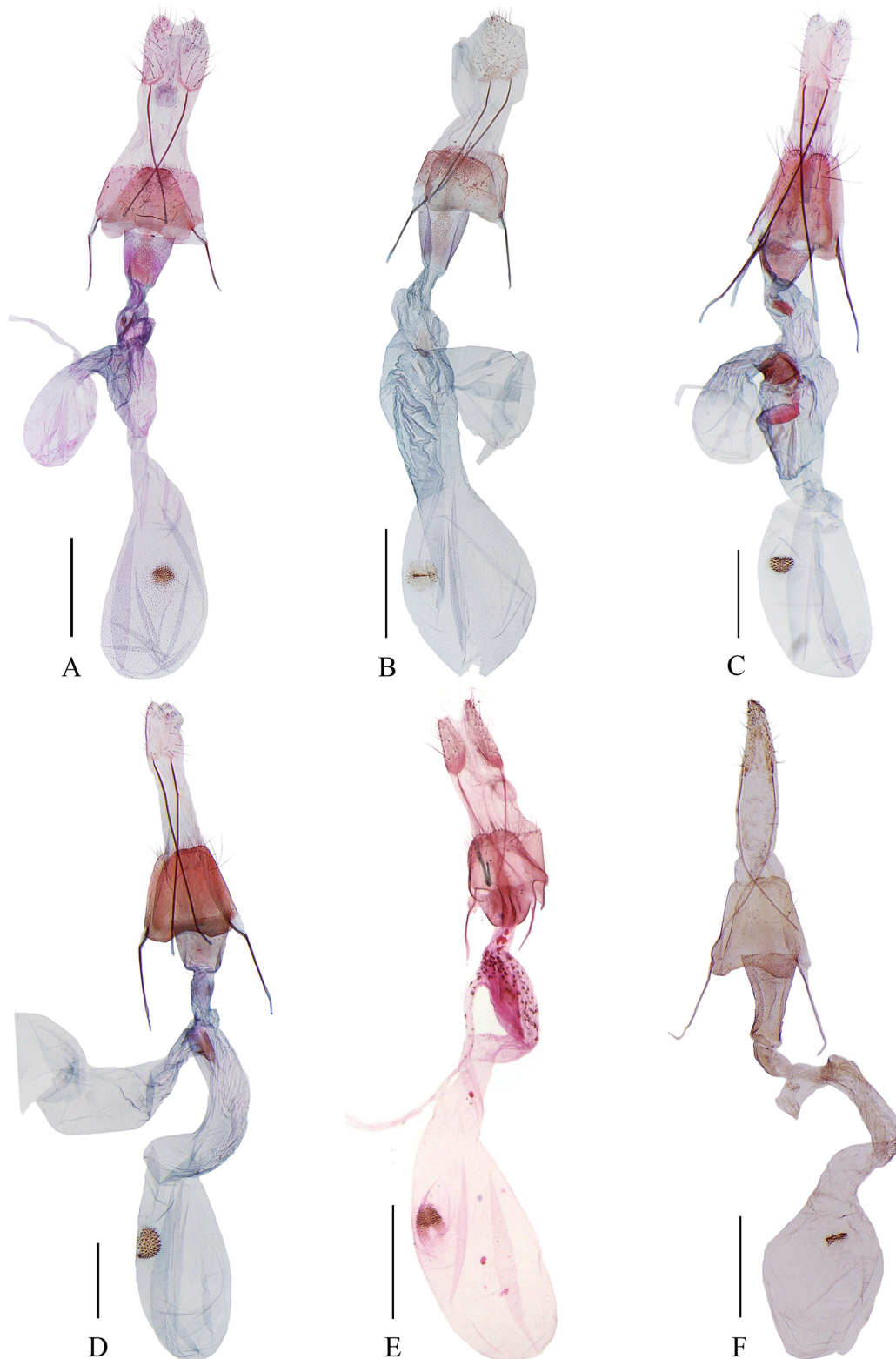


**Fig. 17.** Male seventh abdominal sternite of species of *Lecithocera* Herrich-Schäffer, 1853 (NKU). **A.** *L. neosticta* Meyrick, 1918, slide no. LSR13344. **B.** *L. nullisigna* sp. nov., holotype, slide no. YS19467. **C.** *L. orbiculata* Park, 2010, slide no. LSR13465. **D.** *L. parviflava* sp. nov., holotype, slide no. YS19645. **E.** *L. parvispinea* sp. nov., paratype, slide no. LSR11259. **F.** *L. sichuanensis* sp. nov., holotype, slide no. YS19028. **G.** *L. rubigona* Park, 2006, slide no. YS19753. **H.** *L. serratiloba* sp. nov., paratype, slide no. LSR14024. **I.** *L. tenuextrema* sp. nov., holotype, slide no. LSR13405. **J.** *L. tumicuculla* sp. nov., paratype, slide no. YS18085. **K.** *L. yunnanensis* sp. nov., paratype, slide no. YS19616. Scale bars=0.5 mm.



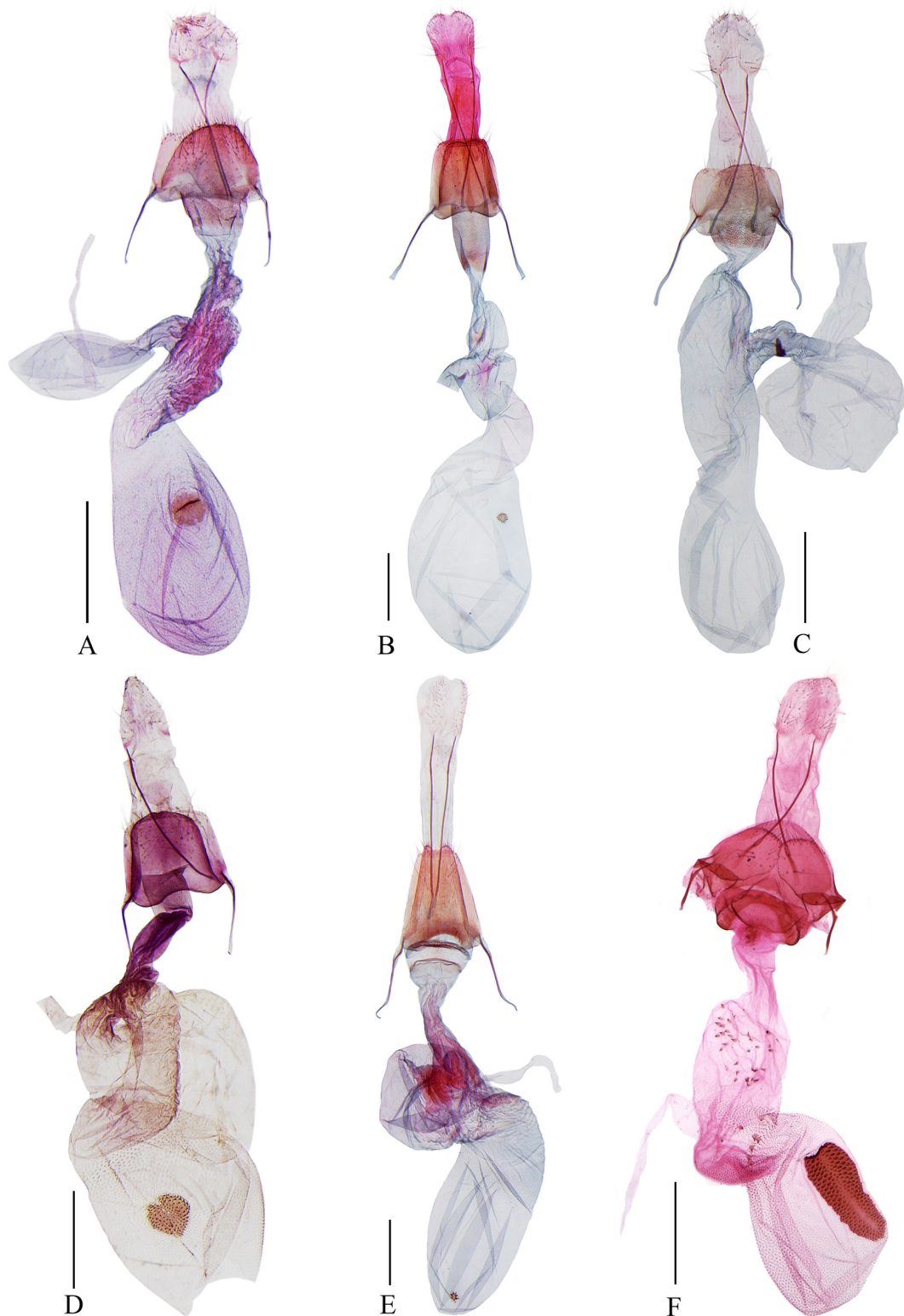


**Fig. 18.** Female genitalia of species of *Lecithocera* Herrich-Schäffer, 1853, all paratypes (NKU). **A.** *L. alpestra* Park, 2005, slide no. YS19093. **B.** *L. alpina* Park, 2016, slide no. YS19464. **C.** *L. bigeminata* sp. nov., slide no. YS18194. **D.** *L. cherstis* Meyrick, 1918, slide no. YS19206. **E.** *L. duplicispinea* sp. nov., slide no. ZMR10313. **F.** *L. flavalba* sp. nov., slide no. YS19061. Scale bars=0.5 mm.



**Fig. 19.** Female genitalia of species of *Lecithocera* Herrich-Schäffer, 1853, all paratypes (NKU). **A.** *L. flavistriata* sp. nov., slide no. YS19705. **B.** *L. furvibasis* sp. nov., slide no. YS18171. **C.** *L. haviensis* Park, 2016, slide no. YS19719. **D.** *L. laticuculla* sp. nov., slide no. YS19685. **E.** *L. ligulacea* sp. nov., slide no. LSR13415. **F.** *L. margirecta* sp. nov., slide no. ZMR10284. Scale bars=0.5 mm.





**Fig. 20.** Female genitalia of species of *Lecithocera* Herrich-Schäffer, 1853, all paratypes (NKU). **A.** *L. medogensis* sp. nov., slide no. YS19703. **B.** *L. neosticta* Meyrick, 1918, slide no. YS19581. **C.** *L. nullisigna* sp. nov., slide no. YS19468. **D.** *L. orbiculata* Park, 2010, slide no. ZMR10278. **E.** *L. sichuanensis* sp. nov., slide no. YS19585. **F.** *L. serratiloba* sp. nov., slide no. LSR13351. Scale bars=0.5 mm.

FEMALE GENITALIA (Fig. 21B). Eighth abdominal sternite slightly concave at middle on posterior margin. Apophyses posteriores are about twice as long as apophyses anteriores. Antrum cup-shaped, weakly sclerotized, spiculose. Ductus bursae longer than corpus bursae, broad, wrinkled and weakly sclerotized in posterior half; ductus seminalis arising from about middle of ductus bursae, basal part wider than ductus bursae. Corpus bursae ovate; signum elliptical, with dense denticles, placed in middle.

### Distribution

China (Guangxi, Guizhou, Hubei, Hunan, Xizang [Tibet], Yunnan).

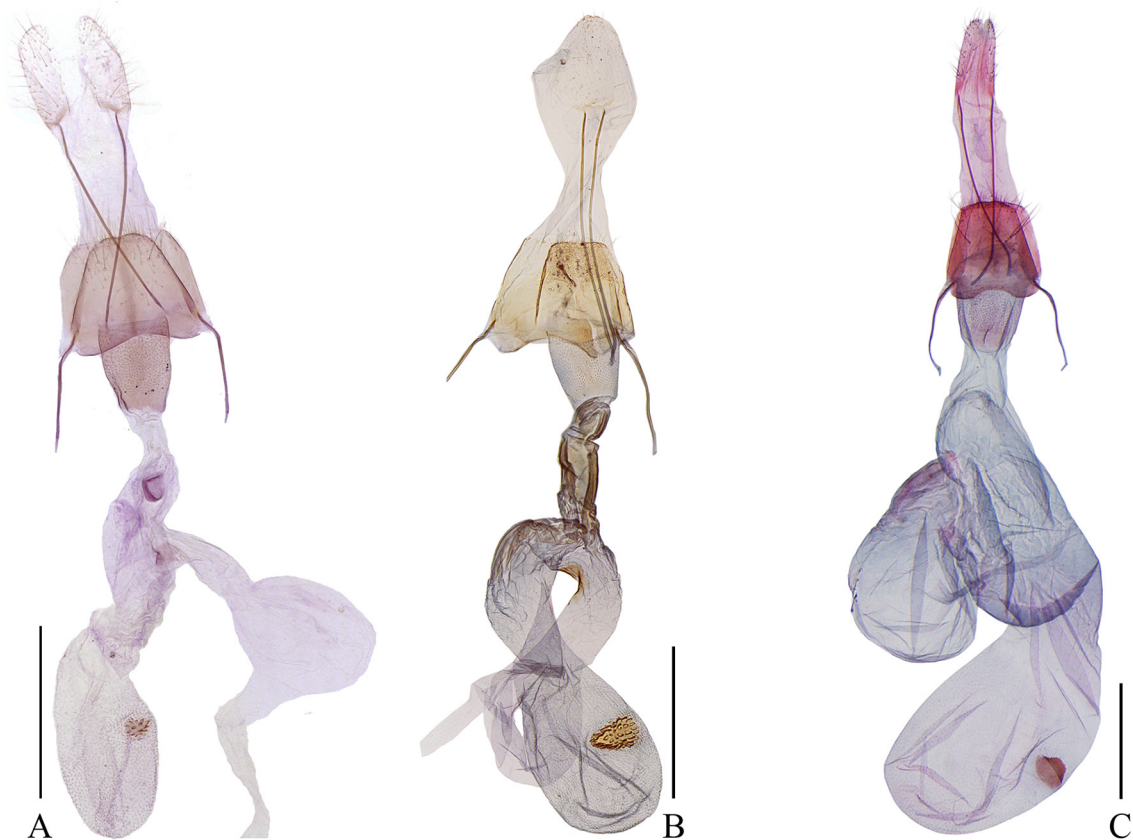
### *Lecithocera yunnanensis* sp. nov.

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Figs 5D, 9D, 14D, 17K, 21C

### Diagnosis

The new species is similar to *L. manesa* Wu & Liu, 1992 in the male genitalia. It can be distinguished by the forewing bearing a tornal streak, by the aedeagus without a dorsal denticle in the male genitalia, and in the female genitalia by the signum of the corpus bursae being without denticles. In *L. manesa*, the tornal streak is absent, the aedeagus has two dorsal denticles, and the signum has dense denticles (Wu & Liu 1992: 679, fig. 2140).



**Fig. 21.** Female genitalia of species of *Lecithocera* Herrich-Schäffer, 1853, all paratypes (NKU). **A.** *L. tenuextrema* sp. nov., slide no. LSR12316. **B.** *L. tumicuculla* sp. nov., slide no. YS18084. **C.** *L. yunnanensis* sp. nov., slide no. YS19621. Scale bars=0.5 mm.

## Etymology

The specific epithet is derived from the type locality Yunnan.

## Type material

### Holotype

CHINA – Yunnan Province • ♂; Xishuangbanna, Yexianggu; 22°10' N, 100°52' E; 762 m a.s.l.; 20 Jul. 2014; K.J. Teng *et al.* leg.; slide no. YS19612; NKU.

### Paratypes (40 ♂♂, 18 ♀♀)

CHINA – Yunnan Province • 14 ♂♂, 5 ♀♀; same collection data as for holotype except 17–20 Jul. 2014; slide no. YS19619♀; NKU • 5 ♂♂; Xishuangbanna, Yexianggu; 762 m a.s.l.; 10–12 Jul. 2015; K.J. Teng and X. Bai leg.; slide no. YS19616; NKU • 2 ♂♂; Xishuangbanna, Yexianggu; 762 m a.s.l.; 21–23 Jul. 2019; K.J. Teng *et al.* leg.; NKU • 11 ♂♂, 8 ♀♀; Xishuangbanna; 20–29 May 2015; Z.G. Zhang leg.; slide nos YS19620♂, YS19621♀; NKU • 2 ♂♂; Xishuangbanna; 4–5 Jun. 2015; Z.G. Zhang leg.; NKU • 1 ♂, 3 ♀♀; Mengla County, Bubeng; 680 m a.s.l.; 23 Jul. 2019; K.J. Teng *et al.* leg.; NKU • 1 ♂, 1 ♀; Jinghong City, Menglun; 580 m a.s.l.; 3, 6 Aug. 2014; K.J. Teng *et al.* leg.; NKU • 4 ♂♂, 1 ♀; Jinghong City, Mt Jinuo; 1003 m a.s.l.; 21–30 Jul. 2019; K.J. Teng *et al.* leg.; NKU.

## Description

ADULT (Figs 5D, 9D). Wingspan 12.0–13.0 mm. Head yellowish brown. Antenna pale orange; flagellum ringed with dark brown. Labial palpus pale orange on inner surface, dark brown on outer surface; second palpomere roughly scaled dorsally; third palpomere nearly as long as second palpomere. Thorax and tegula brownish yellow. Forewing with costal margin slightly arched, apex blunt, termen oblique; ground colour brown, mixed with dense rough yellowish brown and greyish brown scales in distal  $\frac{1}{3}$ ; basal streak dark brown, distinct at base; markings black: discal stigma small; discocellular stigma larger, elliptical; tornal streak wide, reaching before discocellular stigma anteriorly; fringe dark grey, basal line pale brownish yellow;  $R_3$ ,  $R_4$  and  $R_5$  stalked,  $R_5$  to termen,  $M_2$  and  $M_3$  free,  $CuA_1$  and  $CuA_2$  short-stalked. Hindwing and fringe grey; fringe with basal line pale yellow;  $M_3$  and  $CuA_1$  stalked for about half length of  $M_3$ .

MALE GENITALIA (Fig. 14D). Uncus subtriangular, shallowly concave on posterior margin. Gnathos with lateral arms broad, triangularly produced on posterior margin; median process wide at base, narrowed to distal  $\frac{1}{4}$ , thereafter slender to pointed apex, curved ventrad preapically. Valva broad basally; cucullus longer than half length of valva, slightly narrowed to before rounded apex, shallowly concave on costal margin, densely setose, with several bullet-shaped setae medially along ventral margin; costal bar narrow, gently arched; sacculus narrow, reaching cucullus. Vinculum broad; saccus not developed. Juxta shield-shaped, gently concave at middle on posterior margin; posterior lobe narrow, extending outward. Aedeagus about  $\frac{4}{5}$  length of valva, wide at base, narrowed to blunt apex, without dorsal denticle; cornuti consisting of two bundles of spines at basal  $\frac{1}{3}$  and  $\frac{2}{3}$  respectively, curved sclerite about  $\frac{1}{4}$  length of aedeagus and bearing apical spine.

SEVENTH ABDOMINAL STERNITE (Fig. 17K). Anterior margin bell-shaped; anterolateral rib thin and curved, reaching before posterior margin of sixth abdominal sternite; posterolateral lobe elongate, triangular, and slender distally.

FEMALE GENITALIA (Fig. 21C). Eighth abdominal sternite arched gently on posterior margin. Apophyses posteriores about twice as long as apophyses anteriores. Antrum weakly sclerotized, cup-shaped, spiculate. Ductus bursae nearly as long as corpus bursae, widened toward corpus bursae, anterior part as wide as corpus bursae; ductus seminalis dilated subbasally and forming subrounded sac, then slender. Corpus bursae elliptical; signum at middle, elliptical, posteriorly with semioval flap.

**Distribution**

China (Yunnan).

**Checklist for the genus *Lecithocera* Herrich-Schäffer, 1852 in China**

*Lecithocera affinita* Wu, 1997

*Lecithocera affinita* Wu, 1997: 142. TL: China (Hunan). TD: IZCAS.

**Distribution**

China (Hunan).

*Lecithocera alpestra* Park, 2005

*Lecithocera alpestra* Park, 2005: 234. TL: Thailand (Loei Province). TD: ZMUC.

**Distribution**

China (new record: Yunnan), Thailand.

*Lecithocera alpina* Park, 2016

*Lecithocera alpina* Park in Park *et al.*, 2016: 303. TL: Vietnam (Thua Thien Province). TD: PC.

**Distribution**

China (new record: Yunnan), Vietnam.

*Lecithocera altusana* Park, 1999

*Lecithocera altusana* Park, 1999: 252. TL: China (Taiwan). TD: KNA.

**Distribution**

China (Taiwan).

*Lecithocera ambona* Wu & Liu, 1993

*Lecithocera ambona* Wu & Liu, 1993: 333. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Sichuan).

*Lecithocera amseli* Gozmány, 1978

*Lecithocera amseli* Gozmány, 1978: 104. TL: China (Yunnan). TD: ZFMK.

**Distribution**

China (Yunnan).

*Lecithocera anglijuxta* Wu, 1997

*Lecithocera anglijuxta* Wu, 1997: 126. TL: China (Yunnan). TD: IZCAS.



**Distribution**

China (Yunnan), Thailand (Park 2009).

*Lecithocera angustiella* Park, 1999

*Lecithocera angustiella* Park, 1999: 251. TL: China (Taiwan). TD: KNA.

**Distribution**

China (Taiwan).

*Lecithocera angustifolia* sp. nov.

TL: China (Yunnan). TD: NKU.

**Distribution**

China (Yunnan).

*Lecithocera asteria* Wu, 1997

*Lecithocera asteria* Wu, 1997: 126. TL: China (Yunnan). TD: IZCAS.

**Distribution**

China (Yunnan).

*Lecithocera asticta* sp. nov.

TL: China (Yunnan). TD: NKU.

**Distribution**

China (Yunnan).

*Lecithocera atricastana* Park, 1999

*Lecithocera atricastana* Park, 1999: 254. TL: China (Taiwan). TD: USNM.

**Distribution**

China (Taiwan).

*Lecithocera aulias* Meyrick, 1910

*Lecithocera aulias* Meyrick, 1910a: 447. TL: India. TD: NHMUK.

**Distribution**

China (Hunan, Jiangxi, Sichuan, Taiwan) (Wu 1997; Park 1999), Thailand (Park 2006b), India.

*Lecithocera aulicousta* Wu, 1997

*Lecithocera aulicousta* Wu, 1997: 141. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Sichuan).

*Lecithocera baliocata* (Wu, 1994) comb. nov.

*Galoxestis baliocata* Wu, 1994: 136. TL: China (Guangxi). TD: IZCAS.

**Distribution**

China (Guangxi).

*Lecithocera balteiformis* sp. nov.

TL: China (Shanxi). TD: NKU.

**Distribution**

China (Shanxi, Henan).

*Lecithocera beijingensis* Wu & Liu, 1993

*Lecithocera beijingensis* Wu & Liu, 1993: 329. TL: China (Beijing). TD: IZCAS.

**Distribution**

China (Beijing).

*Lecithocera bicornuta* sp. nov.

TL: China (Yunnan). TD: NKU.

**Distribution**

China (Yunnan).

*Lecithocera bigeminata* sp. nov.

TL: China (Chongqing). TD: NKU.

**Distribution**

China (Chongqing, Fujian, Guangxi, Guizhou, Hubei, Yunnan).

*Lecithocera bimaculata* Park, 1999

*Lecithocera bimaculata* Park, 1999: 244. TL: China (Taiwan). TD: NHMUK.

**Distribution**

China (Taiwan).

*Lecithocera castanoma* Wu, 1997

*Lecithocera castanoma* Wu, 1997: 125. TL: China (Guangdong). TD: IZCAS.

**Distribution**

China (Guangdong), Philippines (Park & Mey 2016), Thailand (Park & Wu 2010), Vietnam (Park *et al.* 2016).

*Lecithocera catacnepha* Gozmány, 1973

*Lecithocera catacnepha* Gozmány, 1973: 426. TL: Nepal. TD: ZSM.

**Distribution**

China (Fujian, Hainan) (Wu & Liu 1993), Nepal.

*Lecithocera chartaca* Wu & Liu, 1993

*Lecithocera chartaca* Wu & Liu, 1993: 334. TL: China (Jiangxi). TD: IZCAS.

**Distribution**

China (Anhui, Guangdong, Guizhou, Hunan, Hubei, Jiangxi, Sichuan, Zhejiang) (Park 1999; Teng & Wang 2020).

*Lecithocera chersitis* Meyrick, 1918

*Lecithocera chersitis* Meyrick, 1918: 106. TL: Korea. TD: NHMUK.

**Distribution**

China (new record: Guangdong, Hunan, Zhejiang), Korea (Meyrick 1918), Japan (Sakamaki 2013).

*Lecithocera chondria* Wu, 1997

*Lecithocera chondria* Wu, 1997: 125. TL: China (Jiangxi). TD: IZCAS.

**Distribution**

China (Jiangxi).

*Lecithocera cladia* (Wu, 1997)

*Galoxestis cladia* Wu, 1997: 206. TL: China (Zhejiang). TD: IZCAS.

*Lecithocera cladia* – Teng & Wang in Li *et al.*, 2020: 56.

**Distribution**

China (Fujian, Guizhou, Hunan, Zhejiang) (Teng & Wang 2020).

*Lecithocera comparata* (Gozmány, 1978)

*Quassitagma comparata* Gozmány, 1978: 134. TL: China (Sichuan). TD: NHMUK.

*Lecithocera comparata* – Park 2000: 363.

**Distribution**

China (Sichuan).

*Lecithocera contorta* Wu & Liu, 1993

*Lecithocera contorta* Wu & Liu, 1993: 330. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Sichuan).

*Lecithocera cuspidata* Wu & Liu, 1993

*Lecithocera cuspidata* Wu & Liu, 1993: 329. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Sichuan), Vietnam (Park *et al.* 2016).

*Lecithocera didentata* Wu & Liu, 1993

*Lecithocera didentata* Wu & Liu, 1993: 333. TL: China (Anhui). TD: IZCAS.

**Distribution**

China (Anhui).

*Lecithocera dondavisii* Park, 2013

*Lecithocera dondavisii* Park in Park *et al.*, 2013: 49. TL: China (Taiwan). TD: MGCL.

**Distribution**

China (Taiwan).

*Lecithocera duplicata* (Gozmány, 1978)

*Quassitagma duplicata* Gozmány, 1978: 134. TL: China (Zhejiang). TD: ZFMK.

*Lecithocera duplicata* – Oku *et al.* 2021: 529.

**Distribution**

China (Fujian, Jiangxi, Sichuan, Zhejiang), Japan (Oku *et al.* 2021).

*Lecithocera duplicispinea* sp. nov.

TL: China (Yunnan). TD: NKU.

**Distribution**

China (Yunnan).

*Lecithocera ebenosa* Wu, 1997

*Lecithocera ebenosa* Wu, 1997: 127. TL: China (Yunnan). TD: IZCAS.

**Distribution**

China (Yunnan).



*Lecithocera eligmosa* Wu & Liu, 1993

*Lecithocera eligmosa* Wu & Liu, 1993: 331. TL: China (Jiangxi). TD: IZCAS.

**Distribution**

China (Jiangxi).

*Lecithocera erebosa* Wu & Liu, 1993

*Lecithocera erebosa* Wu & Liu, 1993: 334. TL: China (Beijing). TD: IZCAS.

**Distribution**

China (Beijing).

*Lecithocera erecta* Meyrick, 1935

*Lecithocera erecta* Meyrick, 1935: 74. TL: China (Zhejiang). TD: NHMUK.

**Distribution**

China (Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, Taiwan, Yunnan, Zhejiang) (Wu 1997; Zhu & Li 2012; Park 2018).

*Lecithocera eretma* Wu & Liu, 1993

*Lecithocera eretma* Wu & Liu, 1993: 327. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Sichuan).

*Lecithocera fascicula* Park, 1999

*Lecithocera fascicula* Park, 1999: 253. TL: China (Taiwan). TD: KNA.

**Distribution**

China (Taiwan).

*Lecithocera fascinatrix* Meyrick, 1935

*Lecithocera fascinatrix* Meyrick, 1935: 563. TL: China (Taiwan). TD: NHMUK.

**Distribution**

China (Taiwan).

*Lecithocera flavalba* sp. nov.

TL: China (Yunnan). TD: NKU.

**Distribution**

China (Yunnan).

*Lecithocera flavistriata* sp. nov.

TL: China (Yunnan). TD: NKU.

**Distribution**

China (Yunnan).

*Lecithocera frisilina* (Gozmány, 1978) comb. nov.

*Recontracta frisilina* Gozmány, 1978: 149. TL: China (Sichuan). TD: NHMUK.

**Distribution**

China (Sichuan).

*Lecithocera furvibasis* sp. nov.

TL: China (Yunnan). TD: NKU.

**Distribution**

China (Yunnan, Xizang [Tibet]).

*Lecithocera fuscosa* Park, 1999

*Lecithocera fuscosa* Park, 1999: 250. TL: China (Taiwan). TD: KNA.

**Distribution**

China (Taiwan).

*Lecithocera gemma* Wu & Liu, 1993

*Lecithocera gemma* Wu & Liu, 1993: 329. TL: China (Fujian). TD: IZCAS.

**Distribution**

China (Fujian).

*Lecithocera glabrata* (Wu & Liu, 1992)

*Quassitagma glabrata* Wu & Liu in Huang, 1992: 445. TL: China (Jiangxi). TD: IZCAS.

*Lecithocera glabrata* – Park 2000: 363.

**Distribution**

China (Fujian, Guizhou, Hunan, Jiangxi, Taiwan, Yunnan) (Park 2000).

*Lecithocera haviensis* Park, 2016

*Lecithocera haviensis* Park in Park *et al.*, 2016: 301. TL: Vietnam (Nhin Binh Province). TD: PC.

**Distribution**

China (new record: Yunnan), Vietnam.

*Lecithocera hemiacma* Meyrick, 1910

*Lecithocera hemiacma* Meyrick, 1910b: 448. TL: Malaysia. The type depository of the species can not be found.

*Brachyerga hemiacma* – Meyrick 1925: 235.

**Distribution**

China (Xizang) (Wu & Liu 1993), Malaysia.

*Lecithocera hiata* Wu & Liu, 1993

*Lecithocera hiata* Wu & Liu, 1993: 328. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Sichuan).

*Lecithocera indigens* (Meyrick, 1914)

*Frisilia indigens* Meyrick, 1914: 50. TL: China (Taiwan). TD: SDEI.

*Quassitagma indigens* – Gozmány 1978: 133.

*Lecithocera indigens* – Park 2000: 361.

**Distribution**

China (Taiwan, Yunnan) (Wu 1997), Korea (Park *et al.* 2020), Vietnam (Park *et al.* 2016), Thailand (Park 2006b).

*Lecithocera insidians* Meyrick, 1918

*Lecithocera insidians* Meyrick, 1918: 108. TL: India. TD: NHMUK.

**Distribution**

China (Fujian, Sichuan) (Wu & Liu 1993), India.

*Lecithocera iodocarpha* Gozmány, 1978

*Lecithocera iodocarpha* Gozmány, 1978: 114. TL: China (Zhejiang). TD: ZFMK.

**Distribution**

China (Fujian, Guangxi, Zhejiang) (Teng & Wang 2020).

*Lecithocera jugalis* Meyrick, 1918

*Lecithocera jugalis* Meyrick, 1918: 109. TL: India. TD: NHMUK.

**Distribution**

China (Jiangxi) (Wu & Liu 1993), India.

*Lecithocera laciniata* Wu, 1997

*Lecithocera laciniata* Wu, 1997: 141. TL: China (Xizang [Tibet]). TD: IZCAS.

**Distribution**

China (Xizang [Tibet]).

*Lecithocera lacunara* Wu & Liu, 1993

*Lecithocera lacunara* Wu & Liu, 1993: 331. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Sichuan).

*Lecithocera latebrata* Wu, 1997

*Lecithocera latebrata* Wu, 1997: 142. TL: China (Anhui). TD: IZCAS.

**Distribution**

China (Anhui).

*Lecithocera laticuculla* sp. nov.

TL: China (Zhejiang). TD: NKU.

**Distribution**

China (Guangxi, Zhejiang).

*Lecithocera latiola* Park, 1999

*Lecithocera latiola* Park, 1999: 247. TL: China (Taiwan). TD: KNA.

**Distribution**

China (Taiwan).

*Lecithocera leucoceros* Meyrick, 1932

*Lecithocera leucoceros* Meyrick, 1932: 204. TL: Japan. TD: NHMUK.

**Distribution**

China, Japan.

**Remarks**

This species was described from Japan based on two females (Meyrick 1932), which was confirmed by examining the types; however, we found that three specimens labelled “*leucoceros* Meyr. Japan, China” were deposited in the museum.

*Lecithocera levirota* Wu & Liu, 1993

*Lecithocera levirota* Wu & Liu, 1993: 328. TL: China (Anhui). TD: IZCAS.

**Distribution**

China (Anhui), Vietnam (Park *et al.* 2016).



*Lecithocera licnitha* Wu & Liu, 1993

*Lecithocera licnitha* Wu & Liu, 1993: 332. TL: China (Yunnan). TD: IZCAS.

**Distribution**

China (Yunnan).

*Lecithocera ligulacea* sp. nov.

TL: China (Guangxi). TD: NKU.

**Distribution**

China (Guangxi, Guizhou, Hunan).

*Lecithocera longivalva* Gozmány, 1978

*Lecithocera longivalva* Gozmány, 1978: 105. TL: China (Yunnan). TD: ZFMK.

**Distribution**

China (Yunnan).

*Lecithocera lota* Wu, 1997

*Lecithocera lota* Wu, 1997: 127. TL: China (Guangxi). TD: IZCAS.

**Distribution**

China (Guangxi).

*Lecithocera macrotoma* Meyrick, 1934

*Lecithocera macrotoma* Meyrick, 1934: 36. TL: China (Guangdong). The type depository of the species can not be found.

**Distribution**

China (Guangdong).

*Lecithocera manesa* Wu & Liu, 1992

*Lecithocera manesa* Wu & Liu in Peng & Liu, 1992: 678. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Hunan, Sichuan).

*Lecithocera margirecta* sp. nov.

TL: China (Guizhou). TD: NKU.

**Distribution**

China (Guangxi, Guizhou, Hunan).

*Lecithocera medogensis* sp. nov.

TL: China (Xizang [Tibet]). TD: NKU.

**Distribution**

China (Xizang [Tibet]).

*Lecithocera megalopis* Meyrick, 1916

*Lecithocera megalopis* Meyrick, 1916: 575. TL: Philippines. TD: NHMUK.

**Distribution**

China (Jiangxi, Taiwan) (Wu & Liu 1993; Park 1999), Philippines.

*Lecithocera meishanensis* Park, 2018

*Lecithocera meishanensis* Park, 2018: 111. TL: China (Taiwan). TD: USNM.

**Distribution**

China (Taiwan).

*Lecithocera melliflua* Gozmány, 1978

*Lecithocera melliflua* Gozmány, 1978: 106. TL: China (Hunan). TD: NHMUK.

**Distribution**

China (Hubei, Hunan).

*Lecithocera meloda* Wu & Liu, 1993

*Lecithocera meloda* Wu & Liu, 1993: 328. TL: China (Hainan). TD: IZCAS.

**Distribution**

China (Hainan).

*Lecithocera metacausta* Meyrick, 1910

*Lecithocera metacausta* Meyrick, 1910a: 446. TL: India. TD: NHMUK.

**Distribution**

China (Fujian, Jiangxi, Taiwan) (Wu & Liu 1993; Park 1999), Korea (Park & Lee 1999), Thailand (Park 2006b), India.

*Lecithocera meyricki* Gozmány, 1978

*Lecithocera meyricki* Gozmány, 1978: 100. TL: China (Shandong). TD: ZMHB.

**Distribution**

China (Shandong).

*Lecithocera morphna* Wu, 1997

*Lecithocera morphna* Wu, 1997: 142. TL: China (Yunnan). TD: IZCAS.

**Distribution**

China (Yunnan).

*Lecithocera mylitacha* Wu & Liu, 1993

*Lecithocera mylitacha* Wu & Liu, 1993: 334. TL: China (Yunnan). TD: IZCAS.

**Distribution**

China (Yunnan), Thailand (Park 2006b).

*Lecithocera nantouensis* Park, 2018

*Lecithocera quadriatella* Park, 2018: 109. TL: China (Taiwan). TD: USNM.

**Distribution**

China (Taiwan).

*Lecithocera neosticta* Meyrick, 1918

*Lecithocera neosticta* Meyrick, 1918: 107. TL: India (Coorg). TD: NHMUK.

**Distribution**

China (new record: Guizhou), India.

*Lecithocera nitikoba* Wu & Liu, 1993

*Lecithocera nitikoba* Wu & Liu, 1993: 330. TL: China (Yunnan). TD: IZCAS.

**Distribution**

China (Yunnan).

*Lecithocera nullisigna* sp. nov.

TL: China (Yunnan). TD: NKU.

**Distribution**

China (Yunnan).

*Lecithocera olinxana* Wu & Liu, 1993

*Lecithocera olinxana* Wu & Liu, 1993: 331. TL: China (Anhui). TD: IZCAS.

**Distribution**

China (Anhui).

*Lecithocera orbiculata* Park, 2010

*Lecithocera orbiculata* Park in Park & Wu, 2010: 65. TL: Thailand (Nakhon Nayok Province). TD: OPU.

**Distribution**

China (new record: Fujian, Guangxi, Hainan, Zhejiang), Thailand.

*Lecithocera ossicula* Wu, 1997

*Lecithocera ossicula* Wu, 1997: 126. TL: China (Yunnan). TD: IZCAS.

**Distribution**

China (Yunnan).

*Lecithocera palingensis* Park, 1999

*Lecithocera palingensis* Park, 1999: 252. TL: China (Taiwan). TD: KNA.

**Distribution**

China (Taiwan).

*Lecithocera palmata* Wu & Liu, 1993

*Lecithocera palmata* Wu & Liu, 1993: 332. TL: China (Hainan). TD: IZCAS.

**Distribution**

China (Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Zhejiang) (Teng & Wang 2020).

*Lecithocera paralevirota* Park, 1999

*Lecithocera paralevirota* Park, 1999: 245. TL: China (Taiwan). TD: USNM.

**Distribution**

China (Taiwan).

*Lecithocera paraulias* Gozmány, 1978

*Lecithocera paraulias* Gozmány, 1978: 114. TL: China (Zhejiang). TD: ZFMK.

**Distribution**

China (Hunan, Jiangxi, Sichuan, Zhejiang) (Wu 1997), Korea (Park & Oku 2006).

*Lecithocera parenthesis* Gozmány, 1973

*Lecithocera parenthesis* Gozmány, 1973: 422. TL: Nepal. TD: ZSM.

**Distribution**

China (Xizang [Tibet]) (Wu 1997), Nepal.



*Lecithocera parviflava* sp. nov.

TL: China (Hainan). TD: NKU.

**Distribution**

China (Hainan).

*Lecithocera parvispinea* sp. nov.

TL: China (Hainan). TD: NKU.

**Distribution**

China (Hainan).

*Lecithocera pelomorpha* Meyrick, 1931

*Lecithocera pelomorpha* Meyrick, 1931: 69. TL: China (Sichuan). TD: NHMUK.

**Distribution**

China (Hunan, Sichuan, Taiwan, Yunnan, Zhejiang) (Wu 1997; Park 1999), Thailand (Park 2006b).

*Lecithocera pepantica* Meyrick, 1934

*Lecithocera pepantica* Meyrick, 1934: 36. TL: China (Guangdong). The type depository of the species can not be found.

**Distribution**

China (Guangdong).

*Lecithocera peracantha* Gozmány, 1978

*Lecithocera peracantha* Gozmány, 1978: 116. TL: China (Zhejiang). TD: ZFMK.

**Distribution**

China (Zhejiang).

*Lecithocera petalana* Wu & Liu, 1993

*Lecithocera petalana* Wu & Liu, 1993: 330. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Sichuan).

*Lecithocera phaeodryas* Meyrick, 1931

*Lecithocera phaeodryas* Meyrick, 1931: 68. TL: China (Sichuan). The type depository of the species can not be found.

**Distribution**

China (Sichuan).

*Lecithocera platomona* (Wu, 1997) comb. nov.

*Quassitagma platomona* Wu, 1997: 210. TL: China (Yunnan). TD: IZCAS.

**Distribution**

China (Yunnan).

*Lecithocera polioflava* Gozmány, 1978

*Lecithocera polioflava* Gozmány, 1978: 109. TL: China (Zhejiang). TD: ZFMK.

**Distribution**

China (Zhejiang).

*Lecithocera protolyca* Meyrick, 1938

*Lecithocera protolyca* Meyrick, 1938: 5. TL: China (Yunnan). TD: NHMUK.

**Distribution**

China (Yunnan).

*Lecithocera pulchella* Park, 1999

*Lecithocera pulchella* Park, 1999: 254. TL: China (Taiwan). TD: KNA.

**Distribution**

China (Taiwan).

*Lecithocera sichuanensis* sp. nov.

TL: China (Sichuan). TD: NKU.

**Distribution**

China (Sichuan).

*Lecithocera quadratiella* Park, 2018

*Lecithocera quadratiella* Park, 2018: 109. TL: China (Taiwan). TD: USNM.

**Distribution**

China (Taiwan).

*Lecithocera raphidica* Gozmány, 1978

*Lecithocera raphidica* Gozmány, 1978: 106. TL: China (Shanghai). TD: ZFMK.

**Distribution**

China (Shanghai).

*Lecithocera rotundata* Gozmány, 1978

*Lecithocera rotundata* Gozmány, 1978: 116. TL: China (Zhejiang). TD: ZFMK.

**Distribution**

China (Jiangxi, Taiwan, Zhejiang) (Wu 1997; Park 1999), Japan (Sakamaki 2013), Vietnam (Park *et al.* 2016).

*Lecithocera rubigona* Park, 2006

*Lecithocera rubigona* Park, 2006a: 98. TL: Thailand (Loei Province). TD: ZMUC.

**Distribution**

China (new record: Zhejiang), Thailand.

*Lecithocera sabrata* Wu & Liu, 1993

*Lecithocera sabrata* Wu & Liu, 1993: 330. TL: China (Zhejiang). TD: IZCAS.

**Distribution**

China (Zhejiang).

*Lecithocera sarmenta* (Wu, 1994) comb. nov.

*Galoxestis sarmenta* Wu, 1994: 136. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Sichuan).

*Lecithocera serratiloba* sp. nov.

TL: China (Hainan). TD: NKU.

**Distribution**

China (Hainan).

*Lecithocera shanpinensis* Park, 1999

*Lecithocera shanpinensis* Park, 1999: 247. TL: China (Taiwan). TD: KNA.

**Distribution**

China (Taiwan).

*Lecithocera sigillata* Gozmány, 1978

*Lecithocera sigillata* Gozmány, 1978: 115. TL: China (Zhejiang). TD: ZFMK.

**Distribution**

China (Zhejiang).

*Lecithocera spinivalva* Wu, 2005

*Lecithocera spinivalva* Wu in Yang & Jin, 2005: 268. TL: China (Guizhou). TD: IZCAS.

**Distribution**

China (Guizhou).

*Lecithocera squalida* Gozmány, 1978

*Lecithocera squalida* Gozmány, 1978: 120. TL: China (Zhejiang). TD: ZFMK.

**Distribution**

China (Zhejiang), Thailand (Park & Wu 2010).

*Lecithocera stictata* (Wu, 1994) comb. nov.

*Galoxestis stictata* Wu, 1994: 136. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Sichuan).

*Lecithocera stimulata* (Wu, 1994) comb. nov.

*Quassitagma stimulata* Wu, 1994: 141. TL: China (Sichuan). TD: IZCAS.

**Distribution**

China (Sichuan, Yunnan).

*Lecithocera structurata* Gozmány, 1978

*Lecithocera structurata* Gozmány, 1978: 107. TL: China (Zhejiang). TD: ZFMK.

**Distribution**

China (Zhejiang).

*Lecithocera tenuextrema* sp. nov.

TL: China (Guangxi). TD: NKU.

**Distribution**

China (Guangxi).

*Lecithocera thaiheisana* Park, 1999

*Lecithocera thaiheisana* Park, 1999: 246. TL: China (Taiwan). TD: USNM.

**Distribution**

China (Taiwan).



*Lecithocera tienchiensis* Park, 1999

*Lecithocera tienchiensis* Park, 1999: 253. TL: China (Taiwan). TD: KNA.

**Distribution**

China (Taiwan).

*Lecithocera tricholoba* Gozmány, 1978

*Lecithocera tricholoba* Gozmány, 1978: 117. TL: China (Zhejiang). TD: ZFMK.

**Distribution**

China (Zhejiang).

*Lecithocera tridentata* Wu & Liu, 1993

*Lecithocera tridentata* Wu & Liu, 1993: 333. TL: China (Jiangxi). TD: IZCAS.

**Distribution**

China (Jiangxi), Japan (Oku *et al.* 2021).

*Lecithocera tumucuculla* sp. nov.

TL: China (Hunan). TD: NKU.

**Distribution**

China (Guangxi, Guizhou, Hubei, Hunan, Yunnan, Xizang).

*Lecithocera tylobathra* Meyrick, 1931

*Lecithocera tylobathra* Meyrick, 1931: 69. TL: China (Sichuan). TD: NHMUK.

**Distribution**

China (Beijing, Sichuan).

*Lecithocera yunnanensis* sp. nov.

TL: China (Yunnan). TD: NKU.

**Distribution**

China (Yunnan).

**Discussion**

In the present study, 21 new species and 7 newly recorded species were added to the Chinese fauna of *Lecithocera*, bringing the total number to 123 as identified in the checklist. Our results indicate that *Lecithocera* represents a high diversity in China and we have reasons to believe that the potential species diversity of the genus could be much higher than currently understood.

*Lecithocera theconoma* Meyrick, 1926 was described from Mt Murud, Malaysia based on three specimens. Clarke (1965) noted that two specimens were missing and he designated the remaining

female as the lectotype. Park (1999) misreported that *L. theconoma* was originally described from Taiwan, China, which was followed by Park & Wang (2000) and Heppner (2012). Here, we exclude *L. theconoma* from the Chinese list of *Lecithocera*.

The vein  $M_2$  in the hindwing is actually a key character in separating different genera of Lecithoceridae, such as *Halolaguna* Gozmány, 1978 from *Antiochtha* Meyrick, 1905, *Torodora* Meyrick, 1894 from *Deltoplastis* Meyrick, 1925 and *Thubana* Walker, 1864 from *Thubdora* Park, 2018. The genus *Sarisophora*, erected by Meyrick (1904), was separated from the genus *Lecithocera* Herrich-Schäffer, 1853 by the absence of vein  $M_2$  in the hindwing. Gozmány (1978) and Wu (1997) followed this classification. Park (1999) treated *Sarisophora* as a synonym of *Lecithocera*, and he later (2012) resurrected it as a valid genus. Park (2000) synonymized the genus *Psammoris* Meyrick, 1906 with *Lecithocera*, but the absence of the vein  $M_2$  in the hindwing of *Psammoris* brings it closer to the genus *Sarisophora*. The taxonomic status of the genus *Psammoris* Meyrick needs further discussion, and we will not touch this subject in the present article.

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