European Journal of Taxonomy 826: 163–175
https://doi.org/10.5852/ejt.2022.826.1843
ISSN 2118-9773
www.europeanjournaloftaxonomy.eu
2022 · Yu S. & Wang S.



**Research article**

urn:lsid:zoobank.org:pub:84B1F6F0-FEE6-41D9-AAF2-F1B5B9A2EE58

# Taxonomy of the genus *Antiochtha* Meyrick (Lepidoptera, Lecithoceridae) in China, with descriptions of three new species

Shuai YU [1] & Shuxia WANG [2,*]

[1,2] College of Life Sciences, Nankai University, Tianjin 300071, P.R. China.

[*] Corresponding author: shxwang@nankai.edu.cn
[1] Email: yushuai088@163.com

[1] urn:lsid:zoobank.org:author:ED27A3A5-C89F-4341-83F1-8141A0D980C4
[2] urn:lsid:zoobank.org:author:648D6695-A0B9-483C-8C19-61F81EB5238D

**Abstract.** *Antiochtha* is a genus of the family Lecithoceridae characterized by the forewing with veins $M_2$ and $M_3$ coincident, the hindwing with vein $M_2$ absent, and the male genitalia with the valva narrowed from base to apex. The genus comprises 23 species and is mainly distributed in the Oriental Region. In this paper, we describe three new species: *Antiochtha erromera* sp. nov., *A. hainanensis* sp. nov. and *A. miniscula* sp. nov., and propose a new synonym, *A. rotunda* Zhu & Li, 2009 syn. nov., of *A. jianfengensis* Zhu & Li, 2009. *Antiochtha semialis* Park, 2002 is newly recorded in China and its female is described for the first time.

**Keywords.** Gelechioidea, Torodorinae, new species, new record.

Yu S. & Wang S. 2022. Taxonomy of the genus *Antiochtha* Meyrick (Lepidoptera, Lecithoceridae) in China, with descriptions of three new species. *European Journal of Taxonomy* 826: 163-175.
https://doi.org/10.5852/ejt.2022.826.1843

## Introduction

The family Lecithoceridae Le Marchand, 1947 is one of the most diverse lepidopteran family, yet the family has received little attention due to the absence of specialists and lack of economic significance. Autapomorphies of the family distinguishing it from other Gelechioid-moths include: 1) the antenna as long as or longer than the forewing; and 2) the male genitalia with a median process of gnathos always downturned, except in the subfamily Crocanthinae. The family is now divided into four subfamilies: 1) Lecithocerinae Le Marchand, 1947, based on the genus *Lecithocera* Herrich-Schäffer, 1853; 2) Torodorinae Gozmány, 1978, based on the genus *Torodora* Meyrick, 1894; 3) Ceuthomadarinae Gozmány, 1978, based on the genus *Ceuthomadarus* Mann, 1864; and 4) Crocanthinae Park, 2015, based on the genus *Crocanthes* Meyrick, 1886. More than 1400 species of the family are reported worldwide (Park *et al.* 2021), which are widely distributed in Oriental, Ethiopian, Australian and Palearctic regions. The biology of the group is poorly studied, but there is still some information available, such as its larvae feeding on non-living material and organisms, the adults having mostly nocturnal activity periods (Gozmány 1978; Common 1990; Komai *et al.* 2011; Park & Mey 2016).

*Antiochtha* Meyrick, 1905 is a genus of the subfamily Torodorinae, which was erected by Meyrick (1905) with *A. balbidota* Meyrick, 1905 from Sri Lanka as the type species. The genus *Antiochtha* was regarded as a synonym of *Gasmara* Walker, 1864 (Meyrick 1925; Clarke 1965), but the latter was a preoccupied name by *Gasmara* Walker, [1863] in Geometridae. Hence, *Antiochtha* was assigned as the subjective replacement name for *Gasmara* Walker, 1864 (Sattler 1973; Gozmány 1978). Members of the genus are characterized by the forewing with $M_2$ and $M_3$ coincident, the hindwing with $M_2$ absent, and the male genitalia with the valva narrowed from base to apex. *Antiochtha* is similar to *Halolaguna* Gozmány, 1978 in the male genitalia, but can be distinguished by the absence of $M_2$ in the hindwing, whereas it is present in the latter genus.

Currently, *Antiochtha* comprises 23 described species. Among them, ten are described from Sri Lanka (Walker 1864; Meyrick 1905, 1906, 1910, 1923; Wu & Park 1998; Park & Wu 2001), four from China (Zhu & Li 2009) and Thailand (Park 2002) each, two from India (Meyrick 1923), and one from Laos (Park & Bae 2017), Philippines (Park 2008) and Vietnam (Park *et al.* 2006) each.

The aim of the present paper is to describe three new species, to propose a new synonym, and to describe the female of *A. semialis* Park, 2002 for the first time.

## 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). Images of adults and genitalia were taken using Leica M205A and Leica DM750 microscopes, respectively, coupled with the Leica Application Suite 4.2 software. Terminology follows Gozmány (1978). Abbreviations used in this paper include:

TD = Type depository
TL = Type locality
ZMUC = Zoological Museum, University of Copenhagen, Denmark

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

## Results

Class Insecta Linnaeus, 1758
Order Lepidoptera Linnaeus, 1758
Superfamily Gelechioidea Stainton, 1854
Family Lecithoceridae Le Marchand, 1947
Genus *Antiochtha* Meyrick, 1905

***Antiochtha erromera*** sp. nov.
urn:lsid:zoobank.org:act:11CB74DC-0420-45D6-8EA8-6967A5F9DA03
Figs 1A, 2A, 3A, 4A

### Diagnosis

The new species is similar to *A. hainanensis* sp. nov. in appearance and wing venation. It can be distinguished in the male genitalia by the valva extending outward distally, the juxta with an imbricated median process shorter than the uncus on the posterior margin, and the absence of the lamella antevaginalis in the female genitalia; in *A. hainanensis*, the valva is strongly upturned distally, the juxta

has an elongate median process on the posterior margin approximately as long as the uncus, and the female genitalia has a banded lamella antevaginalis.


**Fig. 1.** Adults of *Antiochtha* spp. (dorsal view). **A**. *A. erromera* sp. nov., holotype (NKU). **B**. *A. hainanensis* sp. nov., paratype (NKU). **C**. *A. jianfengensis* Zhu & Li, 2009, from Hainan, China. **D**. *A. jianfengensis*, holotype of *A. rotunda* syn. nov. from Guizhou, China. **E**. *A. miniscula* sp. nov., holotype. **F**. *A. semialis* Park, 2002. Scale bars = 2.0 mm.

**Etymology**

The specific epithet is derived from the Latin '*erromerus*', referring to the stout aedeagus of the male genitalia.

**Type material**

**Holotype**

CHINA – **Hainan Province** • ♂; Ledong County, Jianfengling, Mingfenggu; 18°40′ N, 108°52′ E; 954 m a.s.l.; 8 Aug. 2017; X. Bai, P. Liu and S. Yu leg.; slide No. YS20048; NKU.

**Paratypes** (4 ♀♀)

CHINA – **Hainan Province** • 1 ♀; same collection data as for holotype; slide No. YS20277; NKU • 2 ♀♀; Ledong County, Jianfengling, Tianchi; 787 m a.s.l.; 8 Mar. 2015; Q.Y. Wang, S.R. Li and S.N. Zhao leg.; slide No. YS20065; NKU • 1 ♀; Wuzhishan City, Shuimanxiang; 766 m a.s.l.; 27 Feb. 2016; Q.Y. Wang, S.R. Li and S.N. Zhao leg.; NKU.

## Description

Adult (Figs 1A, 2A). Wingspan 11.0–13.0 mm. Head orange white, mixed with yellowish brown on occiput. Antenna orange white. Second palpomere of labial palpus orange white mixed with dark brown on inner surface, dark brown except orange white at apex on outer surface, roughly scaled ventrally; third palpomere orange white. Thorax orange white; tegula dark brown. Forewing with costal margin nearly straight, apex roundly produced, termen shallowly concave; ground colour dark brown, mixed with orange-white scales, orange white mixed with brown ventrobasally; antemedian fascia orange white, curved in S shape from about basal ⅖ of costal margin to basal ⅖ of dorsum, edged with black scales on its inner margin; discocellular stigma small, elliptical, black, encircled by orange white; costal spot small, wedge-shaped, orange white, from distal ⅕ extending to $M_1$; dorsal spot smaller, orange white, from distal ⅕ extending to $M_{2+3}$; fringe greyish black, basal line orange white; $M_1$ stalked with $R_{3+4+5}$, $M_{2+3}$ and $CuA_{1+2}$ stalked, $CuA_1$ and $CuA_2$ coincident. Hindwing and fringe brown; fringe with orange-white basal and median lines. Legs orange white, mixed with dark-brown scales.

Male genitalia (Fig. 3A). Uncus wide at base, narrowed to beyond middle, thereafter slightly widened to rounded apex, sparsely setose laterodistally. Gnathos with basal plate produced to a digitate process posteriorly; median process wide at base, narrowed to about basal ¼, thereafter uniform to distal ⅓, distal ⅓ slender, hooked, pointed at apex. Valva extending outward, wide at base, narrowed to narrowly rounded apex, densely setose in distal ¼; costa shallowly concave; sacculus banded, shorter than half length of valva, slightly concave inward ventrally. Vinculum produced anteriorly, forming a triangular saccus. Juxta narrowed medially, broadly rounded on anterior margin; posterior margin with an imbricate process at middle bearing apical spine; posterolateral lobe triangular; lateral lobe digitate, setose distally, arising from below posterolateral lobe, nearly as long as posterolateral lobe. Aedeagus stout, shorter than valva, straight, with semiovate preapical lobe ventrally, with dense granules in vesica; cornuti consisting of two small plates, placed distally.

Female genitalia (Fig. 4A). Eighth abdominal sternite represented by two lateral plates bearing sparse, strong setae. Apophyses posteriores about 1.5 times as long as apophyses anteriores. Ostium bursae large, rounded. Antrum membranous. Ductus bursae approximately three times as long as corpus bursae; ductus seminalis arising from between antrum and ductus bursae, nearly as wide as ductus bursae, helical. Corpus bursae small, elliptical; signum situated at middle, elliptical, serrate along margins, with narrow, horizontal central groove.

**Distribution**

China (Hainan Province).

***Antiochtha hainanensis*** Yu & Wang sp. nov.
urn:lsid:zoobank.org:act:5BA88BAF-0FA7-4257-8F7E-2A7226D04E10
Figs 1B, 2B, 3B, 4B

**Diagnosis**

The new species is similar to *A. erromera* sp. nov. superficially, and the differences between them are stated in the diagnosis of the latter species.

**Etymology**

The specific epithet is derived from the type locality.

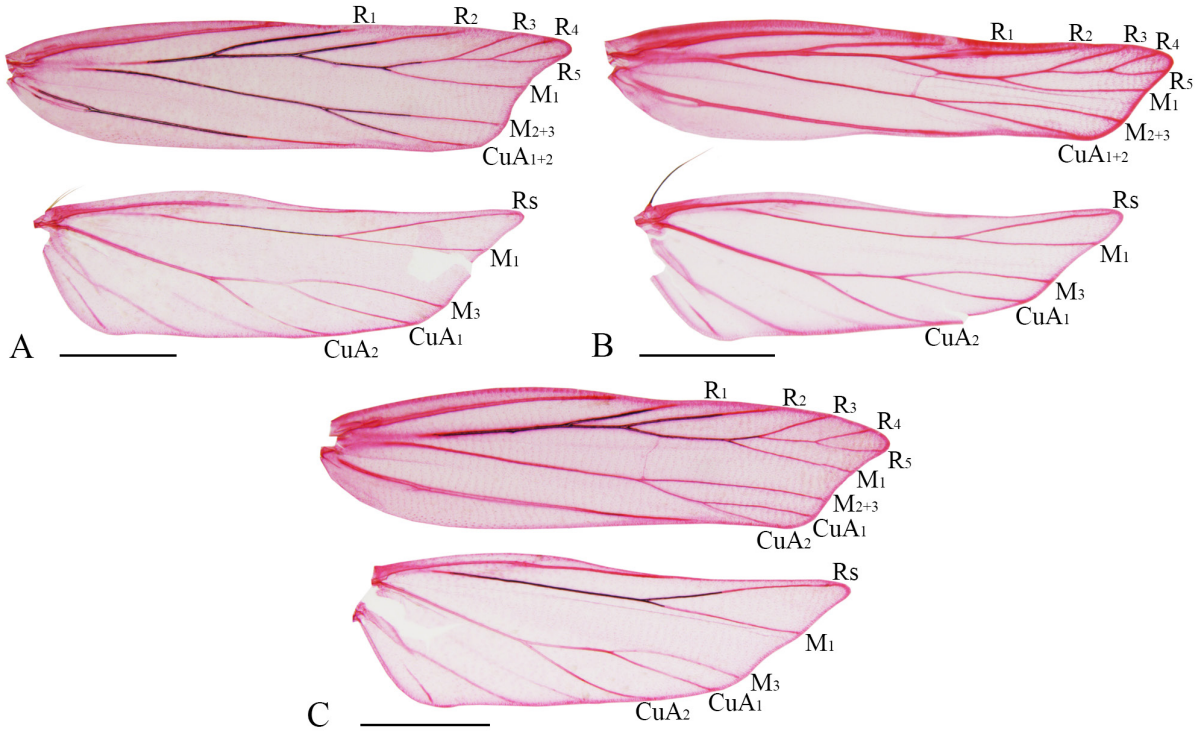


**Fig. 2.** Wing venations of *Antiochtha* spp., all paratypes. **A**. *A. erromera* sp. nov., slide No. WYS20277. **B**. *A. hainanensis* sp. nov., slide No. WYS20058. **C**. *A. miniscula* sp. nov., slide No. WYS20261. Scale bars = 1.0 mm.

**Type material**

**Holotype**

CHINA – **Hainan Province** • ♂; Ledong County, Jianfengling; 18°45′ N, 108°53′ E; 810 m a.s.l.; 12–15 Jun. 2018; P. Liu, X. Bai and S. Yu leg.; slide No. YS20045; NKU.

**Paratypes** (72 ♂♂, 2 ♀♀)

CHINA – **Hainan Province** • 7 ♂♂, 1 ♀; same data as for holotype; 12–15 Jun. 2018; slide No. YS20227♀; NKU • 35 ♂♂, 1 ♀; Ledong County, Jianfengling; 787 m a.s.l.; 28 May–5 Jun. 2015; P.X. Cong, W. Guan and S. Hu leg.; slide No. YS20057♂; NKU • 8 ♂♂; Ledong County, Jianfengling; 770 m a.s.l.; 16–17 Jul. 2014; P.X. Cong, W. Guan and S. Hu leg.; slide No. YS20058; NKU • 7 ♂♂; Ledong County, Jianfengling; 787 m a.s.l.; 12–17 Jul. 2015; Q.Y. Wang, X. Bai and M.T. Chen leg.; slide No. YS20060; NKU • 15 ♂♂, 1 ♀; Ledong County, Jianfengling; 787 m a.s.l.; 5–10 Mar. 2016; Q.Y. Wang, S.R. Li and S.N. Zhao leg.; slide No. YS20228♀; NKU.

## Description

Adult (Figs 1B, 2B). Wingspan 10.0–11.5 mm. Head and antenna orange white. Second palpomere of labial palpus orange white mixed with dark brown on inner surface, dark brown on outer surface, roughly scaled ventrally; third palpomere orange white. Thorax orange white; tegula dark brown. Forewing with costal margin slightly arched, apex roundly produced, termen shallowly concave; ground colour dark brown, mixed with orange-white scales, orange white mixed with brown ventrobasally, blackish brown from base to antemedian fascia along costal margin; antemedian fascia orange white, curved in S shape from beyond basal ⅖ of costal margin to basal ⅖ of dorsum, edged with black scales on inner margin; discocellular stigma elliptical, black, encircled by orange white; costal spot small, orange white, at distal ¼; dorsal spot smaller, orange white, at distal ¼; subterminal line orange white, running from below costal spot sinuate to dorsal spot, discontinuous; fringe greyish black, basal line orange white; $M_1$ stalked with $R_{3+4+5}$, $M_{2+3}$ and $CuA_{1+2}$ short-stalked, $CuA_1$ and $CuA_2$ coincident. Hindwing brown; fringe greyish brown, with an orange-white basal and median lines. Legs orange white mixed with dark-brown scales except foreleg dark brown ventrally.

Male genitalia (Fig. 3B). Uncus wide at base, narrowed to apex, sparsely setose distally. Gnathos with basal plate roundly produced posteriorly; median process wide at base, narrowed to distal ⅕, distal ⅕ slender, hooked, pointed at apex. Valva wide at base, narrowed to distal ⅓, distal ⅓ clavate, strongly upturned, apex rounded, slightly widened; costa deeply concave distally; sacculus broad basally, slightly narrowed distally, straight ventrally, about ⅗ length of ventral margin of valva. Juxta widened lateromedially, triangular on anterior margin; posterior margin with a large clavate process at middle, as long as uncus, with tooth at apex; posterolateral lobe thumbed; lateral lobe digitate, longer than posterolateral lobe, setose distally. Vinculum widened anteriorly forming subquadrate saccus. Aedeagus shorter than valva, straight, broad at base, narrowed to obtuse apex, with dense granules in vesica; cornutus situated distally, narrowly banded, slightly shorter than ⅓ length of aedeagus, with several teeth of variable size.

Female genitalia (Fig. 4B). Eighth abdominal sternite concave at middle on posterior margin. Apophyses posteriores about 1.5 times as long as apophyses anteriores. Lamella antevaginalis broadly banded, spiculose. Antrum weakly sclerotized. Ductus bursae about 2.5 times as long as corpus bursae, twisted twice, with sparse spines running from below ductus seminalis to posterior ¼; ductus seminalis narrowed basally, helical, arising from below antrum. Corpus bursae small, ovoid; signum situated at middle, elliptical, serrate along margins, with narrow, horizontal central groove.

**Distribution**

China (Hainan Province).

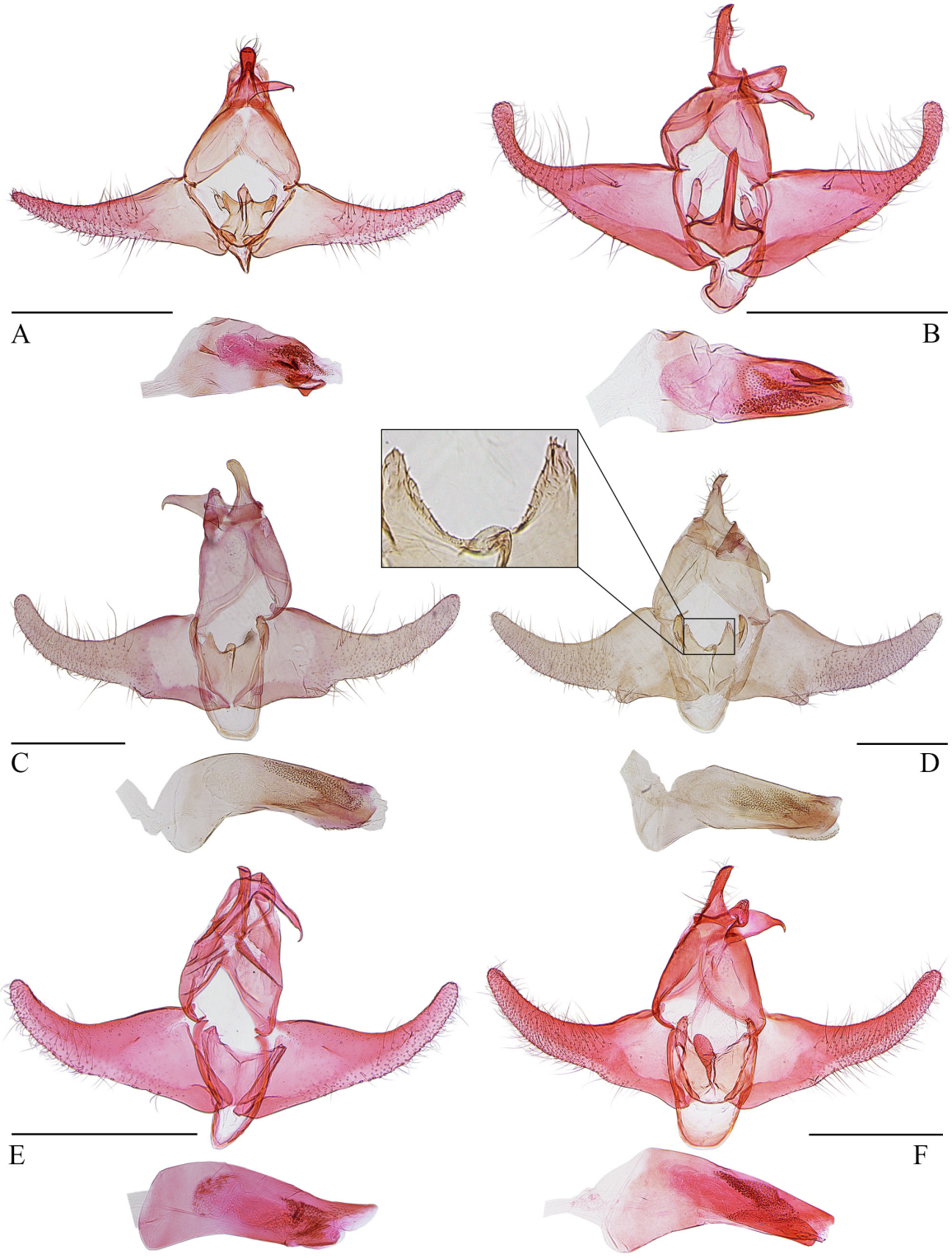


**Fig. 3.** Male genitalia of *Antiochtha* spp. **A**. *A. erromera* sp. nov., holotype, slide No. YS20048. **B**. *A. hainanensis* sp. nov., paratype, slide No. YS20058. **C**. *A. jianfengensis* Zhu & Li, 2009, holotype, slide No. ZYM06433. **D**. *A. jianfengensis*, holotype of *A. rotunda* syn. nov., slide No. ZYM06040. **E**. *A. miniscula* sp. nov., holotype, slide No. YS20276. **F**. *A. semialis*, slide No. YS20098. Scale bars = 0.5 mm.

***Antiochtha jianfengensis*** Zhu & Li, 2009
Figs 1C–D, 3C–D, 4C

*Antiochtha jianfengensis* Zhu & Li, 2009: 19. TL: China (Hainan). TD: NKU.

*Antiochtha rotunda* Zhu & Li, 2009: 21, **Syn. nov.** TL: China (Guizhou). TD: NKU.

## Diagnosis

This species is similar to *A. purpurata* Zhu & Liu, 2009 in both appearance and male genitalia. It can be distinguished in the male genitalia by the posterolateral lobes of the juxta subacute at the apex, the lateral lobes shorter than the juxta (Fig. 3C–D); and in the female genitalia by the eighth abdominal sternite without a process on the anterior margin (Fig. 4C). In *A. purpurata*, the posterolateral lobes are straight at the apex, the lateral lobes are as long as the juxta (Zhu & Li 2009: 23, fig. 2c), and the eighth abdominal sternite has a process at middle on the anterior margin (Zhu & Li 2009: 24, fig. 3b).

### Type material

#### Holotype

CHINA – **Hainan Province** • ♂; Ledong County, Jianfengling; 18°44′ N, 109°10′ E; 940 m a.s.l.; 4 Apr. 2007; Z.W. Zhang leg.; slide No. ZYM06433; NKU.

#### Paratypes

CHINA • 4 ♀♀; same collection data as for holotype; 4–6 Apr. 2007; NKU.

### Other material examined (17 ♂♂, 33 ♀♀)

CHINA – **Guizhou Province** • ♂ holotype of *Antiochtha rotunda* Zhu & Li, 2009; Guiyang City; 26°35′ N, 106°42′ E; 1100 m a.s.l.; 25 May 2001; H.H. Li leg.; slide No. ZYM06040; NKU.• 1 ♂, 9 ♀♀ paratypes of *Antiochtha rotunda* Zhu & Li, 2009; same collection data as for preceding; slide Nos. ZYM06039♀, ZYM06392♀, ZYM06394♀; NKU • 1 ♀ paratype of *Antiochtha rotunda* Zhu & Li, 2009; Guizhou Province, Daozhen Town, Xiannvdong; 600 m a.s.l.; 17 Aug. 2004; Y.L. Xiao leg.; slide No. ZYM06393; NKU • 1 ♀ paratype of *Antiochtha rotunda* Zhu & Li, 2009; Hubei Province, Lichuan City, Maobaqu; 700 m a.s.l.; 30 Jul. 1999; H.H. Li leg.; slide No. ZYM06117; NKU • 3 ♂♂; Libo County, Shuizuxiang; 740 m a.s.l.; 19–21 Jul. 2015; M.Q. Yang and G.E. Lee leg.; NKU • 1 ♂, 4 ♀♀; Maolan, Banzhai Village; 530 m a.s.l.; 8–13 Aug. 2018; M.L. Zheng, J.Q. Deng and X.J. Zhu leg.; slide Nos. YS20067♂, YS20068♀; NKU • 1 ♀; Maolan, Banzhai Village; 513 m a.s.l.; 24 Jul. 2019; M.R. Xing, B.X. Zhao and H. Sun leg.; NKU – **Hainan Province** • 1 ♂; Ledong County, Jianfengling; 770 m a.s.l.; 29 May 2015; P.X. Cong, W. Guan and S. Hu leg.; YS20059; NKU • 1 ♂; Ledong County, Jianfengling; 810 m a.s.l.; 14 Jun. 2018; P. Liu, X. Bai and S. Yu leg.; NKU • 1 ♀; Mt. Limu; 632 m a.s.l.; 29 Jun. 2015; Q.Y. Wang, S.R. Li and M.T. Chen leg.; NKU • 2 ♂♂; Wuzhishan City, Shuimanxiang; 690 m a.s.l.; 5 Nov. 2016; X. Bai, S.N. Qian and W.D. Qi leg.; NKU • 5 ♂♂, 16 ♀♀; Wuzhishan City; 738 m a.s.l.; 29 Oct.–4 Nov. 2016; X. Bai, S.N. Qian and W.D. Qi leg.; slide Nos. YS17078♂, YS17079♂, YS20074♀; NKU • 1 ♂, 1 ♀; Wuzhishan City, Hudiemuchang; 680 m a.s.l.; 27, 31 Oct. 2016; X. Bai, S.N. Qian and W.D. Qi leg.; slide Nos. YS17080♂, YS20073♀; NKU.

### Redescription

Adult (Fig. 1C–D). Wingspan 17.5–19.5 mm.

### Distribution

China (Guizhou Province, Hainan Province, Hubei Province) (Zhu & Li 2009).

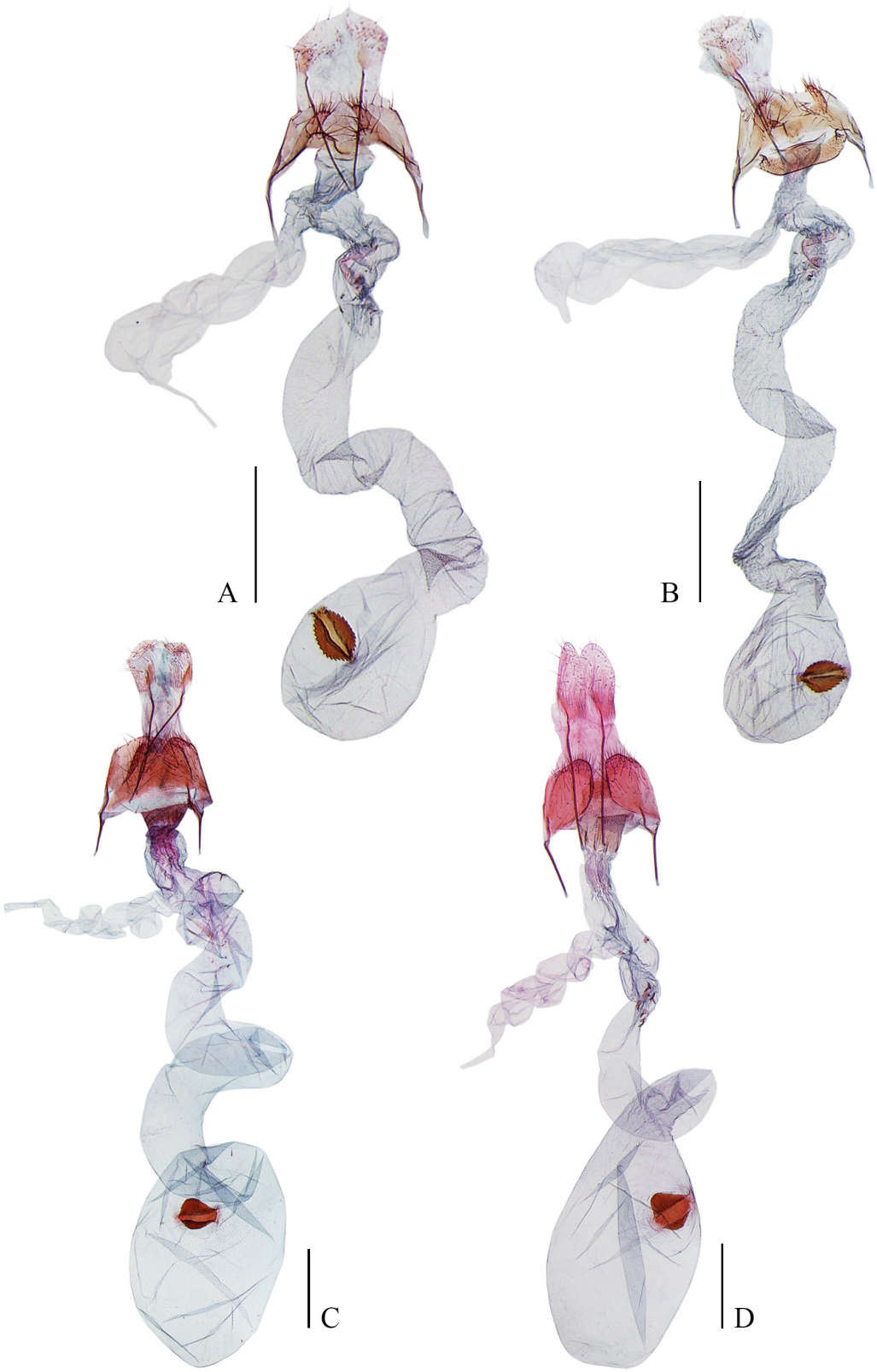


**Fig. 4.** Female genitalia of *Antiochtha* spp. **A**. *A. erromera* sp. nov., paratype, slide No. YS20065. **B**. *A. hainanensis* sp. nov., paratype, slide No. YS20228. **C**. *A. jianfengensis*, slide No. YS20074. **D**. *A. semialis* Park, 2002, slide No. YS20275. Scale bars = 0.5 mm

### Remarks

*Antiochtha rotunda* Zhu & Li, 2009 is synonymized with *A. jianfengensis* Zhu & Li, 2009. *Antiochtha rotunda* is identical to *A. jianfengensis* in appearance, venation, as well as in the female genitalia, and differs only by the sacculus more produced distally in the male genitalia (Fig. 3D), hence it should be treated as an individual variation.

***Antiochtha miniscula*** Yu & Wang sp. nov.
urn:lsid:zoobank.org:act:288ADBAB-9797-4E6A-A325-B94DCD91FBEB
Figs 1E, 2C, 3E

### Diagnosis

The new species can be distinguished from its congeners by the smaller size (9.5–10.0 mm), and the distally narrowed forewing with costal margin concave beyond middle.

### Etymology

The specific epithet is derived from the Latin '*minisculus*', referring to the small size of the adult.

### Type material

**Holotype**
CHINA – **Hainan Province** • ♂; Ledong County, Jianfengling; 18°40′ N, 108°52′ E; 810 m a.s.l.; 13 Jun. 2018; P. Liu, X. Bai and S. Yu leg.; slide No. YS20276; NKU.

**Paratypes** (2 ♂♂)
CHINA – **Hainan Province** • 1 ♂; same collection data as for holotype; 14 Jun. 2018; NKU • 1 ♂; Ledong County, Jianfengling; 770 m a.s.l.; 1 Jun. 2015; P.X. Cong, W. Guan and S. Hu leg.; slide No. YS20061; NKU.

## Description

Adult (Figs 1E, 2C). Wingspan 9.5–10.0 mm. Head and antenna orange white. Labial palpus orange white except dark brown on outer surface of second palpomere. Thorax orange white; tegula dark brown. Forewing narrowed distally, costal margin gently concave beyond middle, apex roundly produced, termen shallowly concave; ground colour dark brown except pale orange from basal ⅖ to apex along costal margin, mixed with orange-white scales in distal ⅗; dorsum with an orange-white spot at base; antemedian fascia orange white, from basal ⅖ of costal margin oblique outward to before middle of dorsum; discocellular stigma small, rounded, black; costal spot orange white, at distal ⅕; dorsal spot smaller, orange white, at distal ⅕; fringe greyish brown, basal band orange white; $M_1$ stalked with $R_{3+4+5}$, $M_{2+3}$ and $CuA_{1+2}$ almost arising from same point, $CuA_1$ and $CuA_2$ stalked for about half length of $CuA_2$. Hindwing and fringe pale greyish brown; fringe with orange-white basal line and weak median line. Legs pale yellow except fore and mid femora and fore tibia dark brown ventrally.

Male genitalia (Fig. 3E). Uncus wide at base, narrowed to middle, distal half clubbed. Gnathos with median process elongate, broad basally, uniform medially, distal ¼ slender, hooked, pointed at apex. Valva slightly extending dorsad distally, wide at base, narrowed to beyond middle, thereafter slightly narrowed to rounded apex; costa shallowly concave; sacculus broad basally, narrowed distally, straight ventrally, reaching ⅕ length of valva. Vinculum narrow, obtuse on anterior margin. Juxta shield-shaped, concave in broad V shape on posterior margin, rounded on anterior margin; posterolateral lobe subquadrate, straight at apex. Aedeagus slightly shorter than valva, wide at base, slightly narrowed to

apex, curved ventrad at basal ¼, with dense granules in vesica; cornuti consisting of cluster of spinules at basal ¼ and cluster of spines distally.

Female. Unknown.

**Distribution**

China (Hainan Province).

***Antiochtha semialis*** Park, 2002
Figs 1F, 3F, 4D

*Antiochtha semialis* Park, 2002: 139. TL: Thailand. TD: ZMUC.

**Diagnosis**

This species is similar to *A. hemitatos* Park, 2017 superficially. It can be distinguished in the male genitalia by the uncus narrowed distally, the gnathos with a stout median process, and the juxta with a large median process (Fig. 3F); in *A. hemitatos*, the uncus is widened distally, the median process of the gnathos is narrowly elongate, and the juxta lacks a median process (Park & Bae 2017: 287, figs 5–6).

**Material examined** (7 ♂♂, 4 ♀♀)

CHINA • 1 ♂; Fujian Province, Nanjing County, Mt. Zijin; 175 m a.s.l.; 26 Jul. 2020; M.J. Qi and X.Y. Jin leg.; NKU • 1 ♂; Jiangxi Province, Mt. Jiulian; 20 Jul. 2006; J.S. Xu and W.C. Li leg.; slide No. YS20273; NKU • 1 ♂; Hainan Province, Ledong County, Jianfengling; 810 m; 12 Jun. 2018; P. Liu, X. Bai and S. Yu leg.; slide No. YS20271; NKU • 1 ♀; Hainan Province, Ledong County, Jianfengling; 770 m a.s.l.; 5 Jun. 2015; P.X. Cong, W. Guan and S. Hu leg.; slide No. YS20272; NKU • 2 ♂♂, 3 ♀♀; Yunnan Province, Xishuangbanna, Yexianggu; 762 m a.s.l.; 9–10, 12 Jul. 2015; K.J. Teng and X. Bai leg.; slide Nos. YS20098♂, YS20099♀, YS20275♀; NKU • 1 ♂; Yunnan Province, Xishuangbanna, Yexianggu; 762 m a.s.l.; 20 Jul. 2014; K.J. Teng *et al.* leg.; slide No. YS20274; NKU • 1 ♂; Yunnan Province, Xishuangbanna; 29 May 2015; Z.G. Zhang leg.; NKU.

**Description**

Adult (Fig. 1F). Wingspan 14.0–15.0 mm.

Female genitalia (Fig. 4D). Eighth abdominal sternite represented by two large lateral plates, grooved vertically along midline. Apophyses posteriores slightly shorter than twice length of apophyses anteriores. Antrum weakly sclerotized, cup-shaped, spiculose. Ductus bursae longer than corpus bursae, twisted once anteriorly, with several thumbtack-shaped spines medially; ductus seminalis narrower than ductus bursae, helical, arising from about posterior ¼ of ductus bursae. Corpus bursae elliptical; signum situated at posterior ⅖, ovoid, serrate along margins, with a rectangular, horizontal central groove.

**Distribution**

Thailand (Nakhon Nayok Province) (Park 2002); China (Fujian Province, Hainan Province, Jiangxi Province, Yunnan Province): new record.

**Remarks**

This species was originally described from Thailand based on three male specimens. In this paper, we newly record this species in China and describe its female for the first time.

## Discussion

The vein $M_2$ in the hindwing is a key character, sometimes the only character, to distinguish a genus from its allies in Lecithoceridae, such as *Sarisophora* Meyrick, 1904 from *Lecithocera* Herrich-Schaffer, 1853, *Deltoplastis* Meyrick, 1925 from *Torodora* Meyrick, 1894, and *Antiochtha* Meyrick, 1905 from *Halolaguna* Gozmány, 1978 (Gozmány 1978; Wu 1997; Park 2012). Park & Bae (2017) described a new species from Laos, *Antiochtha hemitatos*, possessing the hindwing with the vein $M_2$ present. In the study, they redefined the generic characters of *Antiochtha* with the vein $M_2$ in the hindwing absent or present, which confused the relationship between *Antiochtha* and *Halolaguna*. Thereby, we herein recommend that the absence of the vein $M_2$ in the hindwing should be treated as one of the generic characters of *Antiochtha* until a detailed molecular analysis of the related genera is conducted.

## Acknowledgements

We would like to express our cordial thanks to all the team members for their participation in the field collection. This study is supported by the National Natural Science Foundation of China (No. 31872267).

## References

Clarke J.F.G. 1965. *Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick*. Trustees of the British Museum Natural History, London. https://doi.org/10.5962/bhl.title.68439

Common I.F.B. 1990. *Moths of Australia*. Melbourne University Press, Melbourne.

Gozmány L. 1978. Lecithoceridae. *In*: Amsel H.G., Reisser H. & Gregor F. (eds) *Microlepidoptera Palaearctica 5*: 1−360. Georg Fromme & Co., Wien.

Komai F., Yoshiyasu Y., Nasu Y. & Saito T. 2011. *A Guide to the Lepidoptera of Japan*. Tokai University Press, Tokyo.

Li H.H. 2002. *The Gelechiidae of China (I) (Lepidoptera: Gelechioidea)*. Nankai University Press, Tianjin.

Meyrick E. 1905. Descriptions of Indian Micro-Lepidoptera. *Journal of the Bombay Natural History Society* 16: 580−619.

Meyrick E. 1906. Descriptions of Indian Micro-Lepidoptera. *Journal of the Bombay Natural History Society* 17: 138–155.

Meyrick E. 1910. Descriptions of Indian Micro-Lepidoptera. *Journal of the Bombay Natural History Society* 20: 435−462.

Meyrick E. 1923. Gelechiadae. *Exotic Microlepidoptera* 3: 1−51.

Meyrick E. 1925. Lepidoptera Heterocera. Fam. Gelechiadae. *In*: Wytsman P. (ed.) *Genera Insectorum*: 1−237. Louis Desmet-Verteneuil, Bruxelles.

Park K.T. 2002. Four new species of the genus *Antiochtha* Meyrick (Lepidoptera, Lecithoceridae) from Thailand. *Journal of Asia-Pacific Entomology* 5 (2): 139–143. https://doi.org/10.1016/S1226-8615(08)60144-2

Park K.T. 2008. Four new species of *Torodora* Meyrick and a new species of *Antiochtha* Meyrick from the Philippines (Lepidoptera, Lecithoceridae). *Journal of Asia-Pacific Entomology* 11: 89–95. https://doi.org/10.1016/j.aspen.2008.04.006

Park K.T. 2012. Lecithoceridae (Gelechioidea, Lepidoptera) of New Guinea Part X: review of the genus *Sarisophora*, with descriptions of seven new species. *Tropical Lepidoptera Research* 22 (1): 8–15.

Park K.T. & Bae Y.S. 2017. Descriptions of two new species of Torodorinae (Lepidoptera, Lecithoceridae), with three new records of *Torodora* Meyrick from Laos. *Zootaxa* 4268 (2): 285–290. https://doi.org/10.11646/zootaxa.4268.2.7

Park K.T. & Mey W. 2016. A review of the genus *Lecithocera* Herrich-Schäffer, 1853 in the Philippines, with descriptions of seven new species (Lepidoptera: Lecithoceridae). *SHILAP Revista de lepidopterología* 44: 339–352.

Park K.T. & Wu C.S. 2001. Additional faunistic data and discussions of Lecithoceridae (Lepidoptera) from Sri Lanka, with descriptions of seven new species. *Insecta Koreana* 18 (2): 139–152.

Park K.T., Kim M.Y., Chae M.Y., Kang T.M., Bae Y.S., Nguyen C. & Pham V. 2006. A taxonomic review of the subfamily Torodorinae (Lepidoptera, Lecithoceridae) of Vietnam, with descriptions of five new species. *Journal of Asia Pacific Entomology* 9 (4): 327–337. https://doi.org/10.1016/S1226-8615(08)60311-8

Park K.T., De Prins J. & De Prins W. 2021. A checklist of Lecithoceridae (Lepidoptera: Gelechioidea) of the Afrotropical Region. *Journal of Asia-Pacific Biodiversity* 14: 355–370. https://doi.org/10.1016/j.japb.2021.06.001

Sattler K. 1973. A catalogue of the family-group and genus-group names of Gelechiidae, Holcopogonidae, Lecithoceridae and Symmocidae (Lepidoptera). *Bulletin of the British Museum (Natural History) Entomology Series* 28 (4): 153–282.

Walker F. 1864. Tortricies and Tineites. *List of the Specimens of Lepidopterous Insects in the Collection of the British Museum* 29: 562–835.

Wu C.S. 1997. *Fauna Sinica, Insecta*, *Lepidoptera, Lecithoceridae*. Science Press, Beijing.

Wu C.S. & Park K.T. 1998. Taxonomic review of the family Lecithoceridae (Lepidoptera) from Sri Lanka II. The subfamily Torodorinae: genera *Deltoplastis* Meyrick, *Hygroplasta* Meyrick, and *Antiochtha* Walker. *Insecta Koreana* 15: 1–22.

Zhu Y.M. & Li H.H. 2009. Review of *Antiochtha* (Lepidoptera: Lecithoceridae) from China with descriptions of four new species. *Oriental Insects* 43 (1): 17–24. https://doi.org/10.1080/00305316.2009.10417571

*Manuscript received: 10 February 2022*
*Manuscript accepted: 19 April 2022*
*Published on: 30 June 2022*
*Topic editor: Tony Robillard*
*Section editor: Jurate De Prins*
*Desk editor: Marianne Salaün*