

Taxonomic review of the genus *Epilepia* Janse, 1931 from China, with descriptions of two new species (Lepidoptera: Pyralidae, Epipaschiinae)

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Abstract

Three species of the genus *Epilepia* Janse, 1931 from China are reviewed. *Epilepia denticulata* Rong & Li, sp. n. and *E. longaduncata* Rong & Li, sp. n. are described as new. Photographs of adults and genitalia are provided. KEY WORDS: Lepidoptera, Pyralidae, Epipaschiinae, *Epilepia*, new species, China.

Revisión taxonómica del género *Epilepia* Janse, 1931 de China, con descripción de dos nuevas especies (Lepidoptera: Pyralidae, Epipaschiinae)

Resumen

Se revisan tres especies del género *Epilepia* Janse, 1931 de China. *Epilepia denticulata* Rong & Li, sp. n. and *E. longaduncata* Rong & Li, sp. n., se describen como nuevas. Se proporcionan fotografías de los adultos y genitalias.

PALABRAS CLAVE: Lepidoptera, Pyralidae, Epipaschiinae, *Epilepia*, nuevas especies, China.

Introduction

The genus *Epilepia* was established by Janse in 1931 to accommodate three species: the type species *Macalla melanosparsalis* Janse, 1922, *E. melanobrunnea* (Janse, 1922) transferred from *Macalla*, and *E. simulata* Janse, 1931. Later on, INOUE & YAMANAKA (1975) transferred *M. dentatum* Matsumura & Shibuya, 1927 and *M. melanobasis* Hampson, 1906 to *Epilepia*, and SPEIDEL (2007) described *E. meyi* from Nigeria.

Epilepia dentatum (Matsumura & Shibuya, 1927) described from Japan is the only species distributed in the Palearctic Region, which was recorded in China and Korea (LI *et al.*, 2009). The aim of the present paper is to review three *Epilepia* species in China, including two new species.

Material and methods

Specimens examined in the present study were collected by light traps. Adults were examined using an Olympus SZX9 stereo microscope. Permanent mounting methods of genitalia and venation follow the techniques introduced by LI (2002). Images of adults were taken by using a Leica M205A stereo microscope and images of genitalia were taken by using a Leica DM750 microscope, and all refined in Photoshop CS5 software.

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

Taxonomic accounts

Epilepia Janse, 1931

Epilepia Janse, 1931: 466.

Type-species: *Macalla melanosparsalis* Janse, 1922, by original designation.

Type locality: South Africa.

Generic characters: Body medium size. Head (Fig. 1): Labial palpus slender, first segment thicker than second, second segment with hair-like scales on ventral surface distally. Maxillary palpus short and compressed in both male and female (except long brush-like in male of *E. dentatum*). Antenna with short cilia on ventral surface in male, without scape extension; female antenna slightly thinner than male. Forewing (Figs 2-4) with discal and discocellular spots represented by a tuft; terminal line with evenly spaced spots along its inner side. Hindwing with metal flash near costal margin, with a short strip from upper corner to lower corner of cell. Wing venation (Fig. 5): Forewing with R_3 , R_4 and R_5 stalked; hindwing with $Sc+R_1$ and R_s departed, M_1 and R_s from upper angle of cell; both wings with M_2 and M_3 separated. Mid and hind tibiae with hair-like scales on outer side.

Male genitalia (Figs 6-8). Uncus elongate, often widened distally. Gnathos absent. Valva sub-ovate, with a sclerotized wavy fold from base reaching below dorso-apex; costa developed; sacculus absent. Juxta rectangular. Aedeagus with a denticle or a hook before apex ventrally.

Female genitalia (Figs 9-11). Papillae anales collar-shaped in basal half, shovel-shaped in distal half. Apophyses anteriores usually membranous distally, longer than apophyses posteriores. Antrum differing in shape. Corpus bursae ovate; signa two, with dense denticles.

Diagnosis: *Epilepia* is similar to *Teliphasa* Moore, 1888 in the forewing with both discal and discocellular spots represented by a tuft, and the postmedian line curved outward and forming an angle medially. *Epilepia* can be separated from *Teliphasa* by the hindwing without a discocellular spot, and in the male genitalia by the elongate uncus, the absence of a gnathos, and the sub-ovate valva. In *Teliphasa*, the hindwing bears a discocellular spot; and the semicircular uncus is undeveloped, the gnathos is present, and the valva is sub-rounded in the male genitalia.

Epilepia denticulata Rong & Li, sp. n. (Figs 2, 6, 9)

Type material. CHINA: Holotype ♂♂, Maoershan Nature Reserves (25.9°N, 110.5°E), Guilin, Guangxi, 1016 m, 23-VII-2015, coll. Mu-jie Qi and Sheng-nan Zhao, slide No. RH15361. Paratypes (6 ♂♂, 7 ♀♀). GUANGXI: 5 ♂♂, 4 ♀♀, 23-25-VII-2015, other data same as holotype, slide Nos. RH15362 ♀, RH15376 ♂, RH15533 ♂; 1 ♀, Yinshan Park, Dayaoshan Nature Reserves, Jinxiu, 1364 m, 21-VII-2015, coll. Mu-jie Qi and Sheng-nan Zhao; 1 ♀, Yangmeiao, Huanjiang County, Hechi, 1180 m, 24-VII-2015, coll. Mei-qing Yang and Gaeun Lee; GUIZHOU: 1 ♂, 1 ♀, Dongdai, Limingguan, Libo County, 720 m, 19-VII-2015, coll. Mei-qing Yang and Gaeun Lee, slide No. RH15375 ♂.

Diagnosis: This new species is similar to *E. longaduncata* Rong & Li, sp. n. in both forewing pattern and male genitalia. It can be distinguished in the male genitalia by the valva with costa nearly straight dorsally, the juxta with length about 1.3 times the width, and the aedeagus with a denticle near apex ventrally; and in the female genitalia by the rectangular antrum. In *E. longaduncata* sp. n., the costa of the valva is convex beyond middle dorsally, the length of the juxta is about 0.8 times the width, and the aedeagus has a long hook near apex ventrally; and the antrum is torch-shaped in the female genitalia.

Description: Adult (Fig. 2) wingspan 25.0-30.0 mm. Head white. Male labial palpus slender; first segment white on basal half, black mixed with grayish green on distal half, about 1/4 length of second; second segment exceeding vertex apically, white mixed with blackish gray on basal half, blackish gray on distal half, ventral surface with short blackish gray mixed with yellowish fuscous hair-like scales on distal 1/4; third segment black on basal half, white on distal half, tapering, about 1/4 length of second; female labial palpus slightly shorter than male. Maxillary palpus compressed and short, white mixed with pale yellowish fuscous. Antenna black, with white annulations on dorsal

surface; male with short grayish white cilia on ventral surface, cilia along outer side line about 1.2 times of diameter of antenna, inner side line about 2.0 times of diameter of antenna. Thorax and tegula blackish gray, mixed with dirty white and grayish green. Forewing basal area black with dense white scales on anterior 1/3, white with dense pale yellowish fuscous scales on posterior 2/3, with an arched semicircular strip at base; median area white, suffused with black and pale yellowish fuscous scales; distal area blackish gray, slightly paler near termen; antemedian line black, from middle of lower margin of cell slightly arched outward to basal 1/4 of dorsum; postmedian line black, wide, from beyond 2/3 of costal margin arched inward to M_3 , then oblique inward to base of CuA_2 , finally vertical to distal 1/3 of dorsum, beyond postmedian line at costal margin set a white mixed with black spot; discal and discocellular spots represented by a black tuft, with white scales bordering its outside; rectangular black patch placed along costal margin above discal spot; terminal line pale yellow, evenly spaced with uniform black rectangular spots along its inner side, interrupted with pale yellow on veins. Hindwing deep gray, darkening toward apex, with weak metal flash near costal margin; with a short oblique black strip from upper corner to lower corner of cell. Cilia of both wings pale yellow, interrupted with black on extension of veins. Legs with inner side white; outer side black, with dense white and grayish green scales on femora and tibiae, mid tibiae with black mixed with white and grayish green hairs, hind tibiae with white hairs, tarsi with each tarsomere white at apex. Abdomen with 3rd to 5th segments white mixed with black and yellow on ventral surface, remaining segments black mixed with yellow; black suffused with white on dorsal surface, 1st to 3rd segments white anteriorly.

Male genitalia (Fig. 6): Uncus with basal half uniformly narrow, distal half widened to apex, apex concave in triangle at middle; with dense fine hairs dorsally. Valva sub-ovate, narrowed basally, with dense fine hairs, with a sclerotized wavy fold from base reaching below dorso-apex; costa nearly straight dorsally, narrowed basally and distally, produced roundly and with dense setae ventro-medially. Juxta broad, sub-rectangular, with length about 1.3 times width, weakly sclerotized, with dense microtrichia posteriorly. Aedeagus slender, about 3/5 length of ventral margin of valva, its basal 1/3 membranous, distal 2/3 weakly sclerotized, with a denticle near apex ventrally; cornuti composed of a bunch of long spines, one of them slightly stronger and longer.

Female genitalia (Fig. 9): Papillae anales collar-shaped in basal half, shovel-shaped in distal half, with hairs of varying length. Eighth segment rectangular, with dense long setae posteriorly; sternite banded, triangularly produced at middle anteriorly. Apophyses anteriores about 1.3 times length of apophyses posteriores, slightly thicker, distal 1/4 membranous. Antrum rectangular. Ductus bursae thick, strongly sclerotized. Corpus bursae ovate, about 1.5 times length of ductus bursae; signa with dense denticles, smaller signum sub-rectangular, larger signum rounded.

Distribution: China (Guangxi, Guizhou).

Etymology: The specific name is derived from the Latin *denticulatus*, meaning denticulate, referring to the denticle near apex of the aedeagus.

Epilepia longaduncata Rong & Li, sp. n. (Figs. 3, 7, 10)

Type material. CHINA: Holotype ♂, Baihualing (25.3°N, 98.8°E), Baoshan, 1474 m, 5-VIII-2014, coll. Kai-jian Teng, Shu-rong Liu and Hua Rong, slide No. RH15182. Paratypes (175 ♂♂, 127 ♀♀). YUNNAN: 11 ♂♂, 5-7-VIII-2014, other data same as holotype; 2 ♂♂, Dahaoping, Tengchong, 2020 m, 6-VIII-2007, coll. Dan-dan Zhang; 1 ♂, 2 ♀♀, Baihualing, Mt. Gaoligong, Baoshan, 1473 m, 29-30-VII-2013, coll. Shu-rong Liu, Yu-qi Wang and Kai-jian Teng, slide Nos. RH15365♂, RH15366♀; 1 ♀, Yexianggu, Xishuangbanna, 762 m, 17-VII-2014, coll. Kai-jian Teng, Wei Guan, Xiu-chun Wang and Shu-rong Liu; 1 ♂, Baihualing, Baoshan, 1577 m, 6-VIII-2015, coll. Kai-li Liu and Hao Wei; 1 ♂, Xiajinchang, Malipo County, Wenshan, 1470 m, 27-VII-2016, coll. Kai-jian Teng, Gaeun Lee and Tao Wang; 1 ♀, Yexianggu, Jinghong, 762 m, 8-VIII-2016, coll. Kai-jian Teng, Gaeun Lee and Tao Wang; LIAONING: 1 ♀, Da'ansi, Qianshan, Anshan, 245 m, 6-VIII-2016, coll. Mu-jie Qi, Juan Li and Yan-yan Jia; ZHEJIANG: 2 ♂♂, 2 ♀♀, Chansi, Mt. Tianmu, 350 m, 15-VIII-1999, coll. Hou-hun

Li *et al.*, slide Nos. WSS03086 ♂, WYP05119 ♀; 1 ♂, 3 ♀♀, Wuyanling, Taishun, 28-VII-1-VIII-2005, coll. Yun-li Xiao, slide No. WYP05108 ♀; 18 ♂♂, 3 ♀♀, Qingliangfeng, Lin'an, 900 m, 8-12-VIII-2005, coll. Yun-li Xiao, slide Nos. WYP05052 ♂, WYP05053 ♂, WYP05109 ♂, WYP05227 ♀, RH16045 ♂, RH16046 ♀; 2 ♂♂, 8 ♀♀, Mt. Tianmu, Lin'an, 350 m, 7-8-VIII-2007, coll. Qing Jin; 3 ♀♀, Shunxi, Lin'an, 420 m, 11-12-VIII-2007, coll. Qing Jin; 1 ♀, Zhonglieci, Mt. Tianmu, 400 m, 24-VII-2011, coll. Xi-cui Du; 1 ♂, Xianrending, Mt. Tianmu, 1500 m, 25-VII-2011, coll. Xi-cui Du and Xiao-bing Fu; 1 ♂, 1 ♀, Sanmuping, Mt. Tianmu, 800 m, 29-VII-2011, coll. Xi-cui Du and Xiao-bing Fu; 1 ♂, Shunxiwu, Qingliangfeng, 390 m, 18-V-2012, coll. Lin-lin Yang and Zhen-guo Zhang; 1 ♂, Mt. Longtang, Qingliangfeng, 500 m, 22-V-2012, coll. Lin-lin Yang and Zhen-guo Zhang; 25 ♂♂, Zhonglieci, Mt. Tianmu, 365 m, 27-VI-2013, coll. Ai-hui Yin and Xiu-chun Wang; 13 ♂♂, 4 ♀♀, Mt. Tianmu, 325 m, 28-VI-2013, coll. Ai-hui Yin and Xiu-chun Wang; 3 ♂♂, 6 ♀♀, Huangtanyu, Mt. Jiulong, 467 m, 3-9-VII-2013, coll. Ai-hui Yin and Xiu-chun Wang; 1 ♀, Neijiujian, 430 m, 7-VII-2013, coll. Ai-hui Yin and Xiu-chun Wang; 6 ♂♂, Sanmuping, Mt. Tianmu, 789 m, 12-13-VII-2014, coll. Ai-hui Yin, Xue-mei Hu and Qing-yun Wang; 4 ♀♀, Qianjiangyuan, Mt. Tianmu, 866 m, 7-10-VII-2014, coll. Ai-hui Yin, Xue-mei Hu and Qing-yun Wang; 5 ♂♂, 2 ♀♀, Lao'an. Mt. Tianmu, 555 m, 4-5-VII-2014, coll. Ai-hui Yin, Xue-mei Hu and Qing-yun Wang, slide No. RH15372 ♀; 2 ♀♀, Tianmu Village, Mt. Tianmu, 335 m, 1-VII-2014, coll. Ai-hui Yin, Xue-mei Hu and Qing-yun Wang; 1 ♀, Xiguan, Mt. Tianmu, 566 m, 16-VII-2014, coll. Ai-hui Yin, Xue-mei Hu and Qing-yun Wang; 1 ♂, 5 ♀♀, Sanmuping, Mt. Tianmu, 789 m, 16-17-VII-2015, coll. Ai-hui Yin, Kang Lou and Tao Wang, slide Nos. RH15369 ♂, RH15370 ♀, RH15371 ♂; 1 ♀, Ganzhuling, Simingshan, Yuyao, 853 m, 24-VII-2015, coll. Ai-hui Yin, Kang Lou and Tao Wang; 1 ♂, 1 ♀, Simingshan, National Forest Park, Ningbo, 822 m, 1-2-VIII-2016, coll. Qing-yun Wang, Mei-qing Yang and Ping Liu; 1 ♂, 1 ♀, Taohuadao, Zhoushan, 629 m, 4-VIII-2016, coll. Qing-yun Wang, Mei-qing Yang and Ping Liu; 1 ♂, 4 ♀♀, Daishandao, Zhoushan, 21 m, 5-VIII-2016, coll. Qing-yun Wang, Mei-qing Yang and Ping Liu; 6 ♀♀, Changgangshan National Forest Park, Zhoushan, 64 m, 6-VIII-2016, coll. Qing-yun Wang, Mei-qing Yang and Ping Liu; 2 ♂♂, 1 ♀, Laofoyan Village, Shuangzikou, Jiangshan, 424 m, 7-9-VIII-2016, coll. Qing-yun Wang, Mei-qing Yang and Ping Liu; 1 ♀, Huangtianhu, Jingning, 787 m, 11-VIII-2016, coll. Qing-yun Wang, Mei-qing Yang and Ping Liu; 2 ♂♂, 6 ♀♀, Shimendong, Qingtian, 102 m, 19-21-VIII-2016, coll. Qing-yun Wang, Mei-qing Yang and Ping Liu, slide Nos. RH16467 ♂, RH16468 ♀, RH16470 ♀; 4 ♂♂, 15 ♀♀, Linkeng Village, Yongjia, 387 m, 23-27-VIII-2016, coll. Qing-yun Wang, Mei-qing Yang and Ping Liu; ANHUI: 1 ♂, Tanqiao, Huangshan, 6-VIII-2004, coll. Jia-sheng Xu and Jia-liang Zhang; 1 ♂, 2 ♀♀, Jiuhua, Mt. Jiuhua, 9-VIII-2004, coll. Jia-sheng Xu and Jia-liang Zhang, slide No. RH16039 ♂; 1 ♂, Mozitan, Huoshan County, 12-VIII-2004, coll. Jia-sheng Xu and Jia-liang Zhang; FUJIAN: 1 ♂, Tongmu, Mt. Wuyi, 15-VII-2012, coll. Zhi-bo Wang and Zhen-guo Zhang; 1 ♂, Tongmu, Mt. Wuyi, 3-VIII-2012, coll. Zhi-bo Wang; JIANGXI: 1 ♀, Mt. Jinpen, 19-VII-2006, coll. Jia-sheng Xu and Wei-chun Li; 1 ♀, Xiaoxidong, Mt. Jinggang, 1-VII-2011, coll. Li-jun Yang; HENAN: 3 ♂♂, 4 ♀♀, Mt. Jigong, Xinyang, 700 m, 13-VII-2001, coll. Dan-dan Zhang, slide Nos. WYP05075 ♂, WYP05132 ♂; 1 ♀, Shuiliandong, Tongbai, 300 m, 16-VII-2001, coll. Dan-dan Zhang, slide No. WYP05112; 1 ♂, Mt. Baiyun, Luoyang, 1560 m, 22-VII-2001, coll. Dan-dan Zhang, slide No. WYP05136; 1 ♂, Mt. Huaguo, Yiyang, 1000 m, 1-VIII-2006, coll. Deng-hui Kuang and Hui Zhen; HUBEI: 1 ♀, Yanjia'ao, Luotian, 24-VII-2012, coll. Yun-li Xiao and Yu-ping Wang; 1 ♂, 1 ♀, Mahe, Xianfeng, 400 m, 26-VII-1999, coll. Hou-hun Li *et al.*; 1 ♂, Cangxi, Xinhua County, 8-VIII-2004, coll. Yun-li Xiao; 1 ♂, 1 ♀, Mt. Wudang, Shiyang, 172 m, 7-IX-2012, coll. Jin-wei Li; 1 ♂, Tiantangzhai, Luotian County, 570 m, 17-IX-2012, coll. Li-jun Yang; 5 ♀♀, Taohuachong, Yingshan County, 635 m, 23-27-VI-2014, coll. Wei Guan and Mei-qing Yang; 4 ♂♂, 1 ♀, Taohuachong, Mt. Dabie, 661 m, 19-24-VI-2014, coll. Xiao-hua Chen and Chang Pan; 1 ♂, Taohuachong, Yingshan County, 590 m, 24-VI-2014, coll. Jiu-yang Luo and Yao Fei; 2 ♂♂, Taohuachong, Mt. Dabie, 590 m, 25-VI-2014, coll. Li-jun Xue; 2 ♂♂, Wujiashan, Yingshan County, 880 m, 29-VI-2014, coll. Xiao-hua Chen and Chang Pan; 2 ♂♂, Wujiashan, Yingshan County, 880 m, 30-VI-2014, coll. Wei Guan and Mei-qing Yang; 1 ♂, Qingtianguan, Luotian County, 590 m, 2-VII-2014, coll. Yao Fei and Jiu-yang Luo; 1 ♂, Qingtianguan, Luotian County, 2-VII-2014, coll. Zhen-

hua Liu and Chang Pan; 5 ♀♀, Qingtianguan Forest Farm, Luotian County, 570 m, 1-4-VII-2014, coll. Wei Guan and Mei-qing Yang; 3 ♂♂, Qingtianguan, Mt. Dabie, 590 m, 2-3-VII-2014, coll. Li-jun Xu; HUNAN: 3 ♂♂, Yueyan Village, Dao County, 21-22-VIII-2012, coll. Jin-wei Li and Xiao-hua Chen; 2 ♂♂, Zhupo Village, Huitong County, 23-VIII-2012, coll. Jin-wei Li and Xiao-hua Chen; GUANGDONG: 2 ♂♂, Heishiding, Fengkai, 7-V-2010, coll. Dan-dan Zhang and Bo Tong; 1 ♂, Heishiding, Fengkai, 1-V-2011, coll. Dan-dan Zhang and Bo Tong; 2 ♂♂, Mt. Danxia, Shaoguan, 96 m, 6-7-VI-2012, coll. Jin-wei Li; GUANGXI: 1 ♀, Huaping, Yachang, Leye County, 910 m, 28-VII-2004, coll. Jia-sheng Xu; 11 ♂♂, 4 ♀♀, Huaping, 950 m, 6-8-VIII-2006, coll. Wei-chun Li, slide Nos. RH16047 ♂, RH16048 ♀; 1 ♂, Nonggang, Nature Reserves, 21-VIII-2011, coll. Mu-chun Cheng; 2 ♀♀, Peixiu, Rongshui, 30-VIII-2011, coll. Jin-wei Li; 1 ♂, Mt. Jinzhong, 957 m, 18-VII-2013, coll. Xiao-hua Chen; 1 ♀, Tengmao Village, Jingxi County, 672 m, 9-VII-2015, coll. Dan Xu and Ji-ping Wan; 1 ♂, Hekou, Mt. Daoyao, Jinxiu, 823 m, 18-VII-2015, Mu-jie Qi and Sheng-nan Zhao; 1 ♀, Jiuwanshan, Hechi, 1600 m, 24-VII-2015, coll. Ji-ping Wan; SICHUAN: 1 ♂, 2 ♀♀, Baoxing County, 1100 m, 1-VIII-2004, coll. Ying-dang Ren, slide No. WYP05149 ♀; 1 ♂, Bifengxia, Ya'an, 1115 m, 27-VI-2016, coll. Kai-jian Teng and Xiao-fei Yang, slide No. RH16469; CHONGQING: 1 ♂, Mt. Jinyin, Qianjiang, 1100 m, 25-VII-2012, coll. Jun Zhang and Lin-jun Xu; 1 ♂, Aikou, Qianjiang, 900 m, 27-VII-2012, coll. Jun Zhang and Lin-jun Xu; GUIZHOU: 2 ♂♂, 3 ♀♀, Chishuisuoluo, 390 m, 27-30-V-2000, coll. Yan-li Du, slide Nos. WYP05092 ♂, WYP05146 ♂; 1 ♀, Wanxiang, Leishan County, 900 m, 14-IX-2005, coll. Jia-liang Zhang; 1 ♂, Daheba, Mayanghe, 430 m, 6-VI-2007, coll. Xi-cui Du, slide No. RH16252; 1 ♂, Baishao, Kuankuoshui, 800 m, 12-VIII-2010, coll. Xi-cui Du; 1 ♂, Maolan, Libo, 21-VIII-2011, coll. Jin-wei Li; 1 ♀, Maolan Nature Reserves, 1-IX-2011, coll. Jin-wei Li; 2 ♂♂, Maolan Nature Reserves, 797 m, 12-VII-2013, coll. Xiao-hua Chen; 2 ♂♂, 1 ♀, Dongdai, Limingguan, Libo County, 720 m, 19-VII-2015, coll. Mei-qing Yang and Gaeun Lee, slide Nos. RH15353 ♂, RH15354 ♀, RH15375 ♂; SHAANXI: 1 ♂, Tianping Village, Langao, 577 m, 16-VIII-2016, coll. Wei-xing Feng and Wen-tao Shi; GANSU: 1 ♀, Bifenggou, Wen County, 860 m, 9-VII-2005, coll. Hai-li Yu, slide No. WYP05158.

Diagnosis: This new species is similar to *E. denticulata* sp. n., and the differences between them are stated under the preceding species.

Description: Adult (Fig. 3) wingspan 23.0-27.0 mm. Head white mixed with grayish green. Male labial palpus slender; first segment black, about 1/3 length of second; second segment exceeding vertex apically, white mixed with black except basal 1/3 and distal 1/3 black on outside, ventral surface with short white mixed with black hair-like scales apically; third segment black, grayish green mixed with white apically, tapering, about 1/3 length of second; female labial palpus with second segment black apically. Maxillary palpus compressed and short, white mixed with black. Antenna yellowish fuscous, with white annulations on dorsal surface; male with short grayish white cilia on ventral surface, cilia along outer side line about 1.2 times of diameter of antenna, inner side line about 2.0 times of diameter of antenna. Thorax white, mixed with grayish green, black apically; tegula white, mixed with grayish green and black. Forewing with basal area white, with dense black and grayish green scales; median area white, with sporadic black and grayish green scales; distal area blackish gray, fuscous mixed with dirty white near termen; antemedian line black, from middle of lower margin of cell slightly arched outward to basal 1/4 of dorsum; postmedian line black, wide, almost indistinguishable from black background of distal area, from distal 1/3 of costal margin obliquely outward to M_3 , then oblique inward to base of CuA_2 , finally vertical to distal 1/3 of dorsum, beyond postmedian line at costal margin set a white mixed with black spot; discal and discocellular spots represented by a black tuft, with white scales bordering its outside; longitudinal rectangular black patch placed along costal margin above discal spot; terminal line dirty white, evenly spaced with uniform black rectangular spots along its inner side, interrupted with dirty white on veins. Hindwing with basal half white on anterior half, tinged with metal flash, gray on posterior half; distal half blackish gray; with a short oblique gray strip from upper corner to lower corner of cell. Cilia of both wings pale yellow, interrupted with black on extension of veins. Legs with inner side white; outer side black, femora and tibiae with dense white and grayish green scales, mid tibiae with black mixed

with white and grayish green hairs, hind tibiae with white hairs, tarsi with each tarsomere white at apex. Abdomen black, mixed with white on posterior margin of each segment, or white mixed with black on posterior margin of each segment on ventral surface; black with dense white scales or white with dense black scales on dorsal surface.

Male genitalia (Fig. 7): Uncus with basal 3/5 uniformly narrow, then slightly widened to before apex, apex narrowly rounded; with dense short hairs dorsally. Valva sub-ovate, narrowed basally, with dense fine hairs; with a sclerotized wavy fold from base reaching below dorso-apex; costa slightly convex beyond middle dorsally, narrowed basally and distally, produced roundly and with dense setae ventro-medially. Juxta broad, sub-rectangular, with length about 0.8 times width, nearly membranous, with dense microtrichia on posterior 1/3. Aedeagus about 2/3 length of ventral margin of valva, basal half weakly sclerotized, distal half slightly thinner, with a long hook near apex ventrally; cornuti being a bunch of long spines.

Female genitalia (Fig. 10): Papillae anales collar-shaped in basal half, shovel-shaped in distal half, with hairs of varying length. Eighth segment rectangular, with long setae posteriorly; sternite slightly narrowed toward middle, produced in trapezoidal shape at middle anteriorly. Apophyses anteriores with distal 1/4 slightly wider and membranous, about 1.2 times length of apophyses posteriores. Antrum torch-shaped. Ductus bursae thick, basal 3/4 with dense microtrichia, distal 1/4 nearly membranous. Corpus bursae sub-ovate, about 2.0 times length of ductus bursae; signa different in size, rounded, with dense denticles.

Distribution: China (Anhui, Chongqing, Fujian, Henan, Hubei, Hunan, Gansu, Guangdong, Guangxi, Guizhou, Jiangxi, Liaoning, Shaanxi, Sichuan, Yunnan, Zhejiang).

Etymology: The specific name is derived from the Latin prefix *long-*, meaning long, and the word *aduncatus*, meaning hooked, referring to the long hook near apex of the aedeagus.

Epilepia dentatum (Matsumura & Shibuya, 1927) (Figs. 4, 8, 11)

Macalla dentatum Matsumura & Shibuya, 1927: 349. TL: Japan (Kyoto).

Epilepia dentatum (Matsumura & Shibuya): Inoue & Yamanaka, 1975: 108.

Material examined: CHINA, TIANJIN: 1 ♂, Mt. Baxian, Ji County, 550 m, 23-VI-2001, coll. Hou-hun Li *et al.*; 8 ♂♂, Mt. Baxian, Ji County, 500 m, 12-16-VII-2005, coll. Hou-hun Li *et al.*, slide Nos. WYP05046, WYP05117, WYP05157; 1 ♂, Heishuihe, Mt. Baxian, Ji County, 550 m, 19-VII-2009, coll. Bing-bing Hu *et al.*; 14 ♂♂, 11 ♀♀, Mt. Baxian, Ji County, 23-24-VII-2015, coll. Hou-hun Li and Pei-xin Cong, slide Nos. RH15447 ♂, RH15448 ♀; 3 ♂♂, 2 ♀♀, Mt. Jiulong, Ji County, 10-12-VII-2009, coll. Wei-chun Li; HEBEI: 1 ♂, Tainingsi, Yi County, 150 m, 19-VII-2000, coll. Hai-li Yu; 1 ♀, Laoniuyu, Jingxing, 26-VII-2000, coll. Hai-li Yu, slide No. ZDD01109; 8 ♂♂, 2 ♀♀, Suanzaoping, Neiqiu, 670 m, 28-29-VII-2000, coll. Hai-li Yu, slide Nos. ZDD01110 ♂, WYP05118 ♀, WYP05134 ♂; 1 ♂, Shuangyuanfeng, Mt. Wuling, Xinglong County, 800 m, 2-VII-2009, Qing Jin *et al.*; 5 ♂♂, 1 ♀, Shuangyuanfeng, Mt. Wuling, Xinglong County, 800 m, 16-29-VII-2011, coll. Hou-hun Li and Yan-peng Cai, slide Nos. LLJ14010 ♀, RH15450 ♂; SHANXI: 5 ♂♂, 3 ♀♀, Manghe, Yangcheng County, 594 m, 13-17-VII-2012, coll. Wei Guan and Xiu-chun Wang, slide Nos. LLJ14008 ♀, LLJ14009 ♂, RH15409 ♂, RH15410 ♀; ZHEJIANG: 1 ♀, Chanyuansi, Mt. Tianmu, 350 m, 20-VIII-1999, coll. Hou-hun Li *et al.*; 15 ♂♂, 5 ♀♀, Laoan, Mt. Tianmu, 555 m, 3-6-VII-2014, coll. Ai-hui Yin, Xue-mei Hu and Qing-yun Wang, slide Nos. RH15442 ♂, RH15443 ♂, RH15444 ♀; 3 ♂♂, 2 ♀♀, Qianjiangyuan, Mt. Tianmu, 866 m, 8-10-VII-2014, coll. Ai-hui Yin, Xue-mei Hu and Qing-yun Wang; 3 ♂♂, Sanmuping, Mt. Tianmu, 789 m, 13-14-VII-2014, coll. Ai-hui Yin, Xue-mei Hu and Qing-yun Wang; 3 ♂♂, 23 ♀♀, Sanmuping, Mt. Tianmu, 789 m, 16-17-VII-2015, coll. Ai-hui Yin, Kang Lou and Tao Wang, slide Nos. RH15445 ♂, RH15446 ♀; 2 ♂♂, 1 ♀, Xiguan, Mt. Tianmu, 566 m, 16-18-VII-2014, coll. Ai-hui Yin, Xue-mei Hu and Qing-yun Wang; 1 ♂, Tianmu Village, Mt. Tianmu, 335 m, 18-VII-2015, coll. Ai-hui Yin, Kang Lou and Tao Wang; 1 ♂, Mt. Tianmu, 335 m, 19-VII-2015, coll. Ai-hui Yin, Kang Lou and Tao Wang; 1 ♂, Laofoyan Village, Shuangxikou, Jiangshan, 424 m, 9-VIII-2016, coll. Qing-yun Wang, Mei-qing Yang and Ping Liu; 1 ♀, Linkeng Village, Yongjia, 387 m, 25-VIII-2016, coll. Qing-yun Wang, Mei-qing Yang and Ping Liu; HENAN: 1 ♂,

Shiziping, Lushi, 1200 m, 21-VII-2001, coll. Dan-dan Zhang, slide No. WYP05288; 1 ♂, Baligou, Hui County, 780 m, 12-VII-2002, coll. Xin-pu Wang, slide No. WYP05051; 3 ♂♂, 1 ♀, Xiuwu, Mt. Yuntai, Jiaozuo, 1028 m, 5-9-VIII-2014, coll. Pei-xin Cong, Sha Hu and Lin-jie Liu, slide No. RH15449 ♂; HUBEI: 1 ♂, Houhe, Wufeng, 1000 m, 12-VII-1999, coll. Hou-hun Li *et al.*, slide No. WYP05234; 1 ♂, Shayuan, Hefeng, 1260 m, 17-VII-1999, coll. Hou-hun Li *et al.*, slide No. WYP05126; GUANGXI: 8 ♂♂, 7 ♀♀, Huaping, 1300 m, 6-7-VIII-2006, coll. Wei-chun Li, slide Nos. WYP05288 ♂, WYP05289 ♀; HAINAN: 1 ♂, Mt. Wuzhi, 700 m, 19-V-2007, coll. Zhi-wei Zhang and Wei-chun Li; 1 ♂, Mt. Diaoluo, 940 m, 31-V-2007, coll. Zhi-wei Zhang and Wei-chun Li; GUIZHOU: 1 ♂, Pobao, Liminguan, Libo, 740 m, 20-VII-2015, coll. Mei-qing Yang and Gaeun Lee, slide No. RH15333.

Diagnosis: Adult (Fig. 5) wingspan 22.0-28.0 mm. This species can be distinguished from the above two new species by the long brush-like maxillary palpus in male and the forewing not white in the median area; in the male genitalia by the uncus widened distally, the juxta with a horsehead-shaped process, and the aedeagus without a hook or denticle near apex ventrally (Fig. 8); and in the female genitalia by the infundibulate antrum (Fig. 11).

Distribution: China (Fujian, Guangxi, Guizhou, Hainan, Hebei, Henan, Hubei, Hunan, Shanxi, Sichuan, Taiwan, Tianjin, Zhejiang); Japan, North Korea.

Discussion

Epilepia dentatum (Matsumura & Shibuya, 1927) was described from Japan, and was also found in China and Korea. The two new species described in this paper are closely associated with *E. dentatum*. However, we found the three species different from the African species in the external characters by the absence of the scape extension in male, and in the male genitalia by the absence of the gnathos and the valva lacking the process at base of the upper margin; in the African species, the scape extension and the gnathos are present, and the valva bears a process at base of the upper margin. We tentatively place these two species in the genus *Epilepia*, and their affiliation with the African species needs further study.

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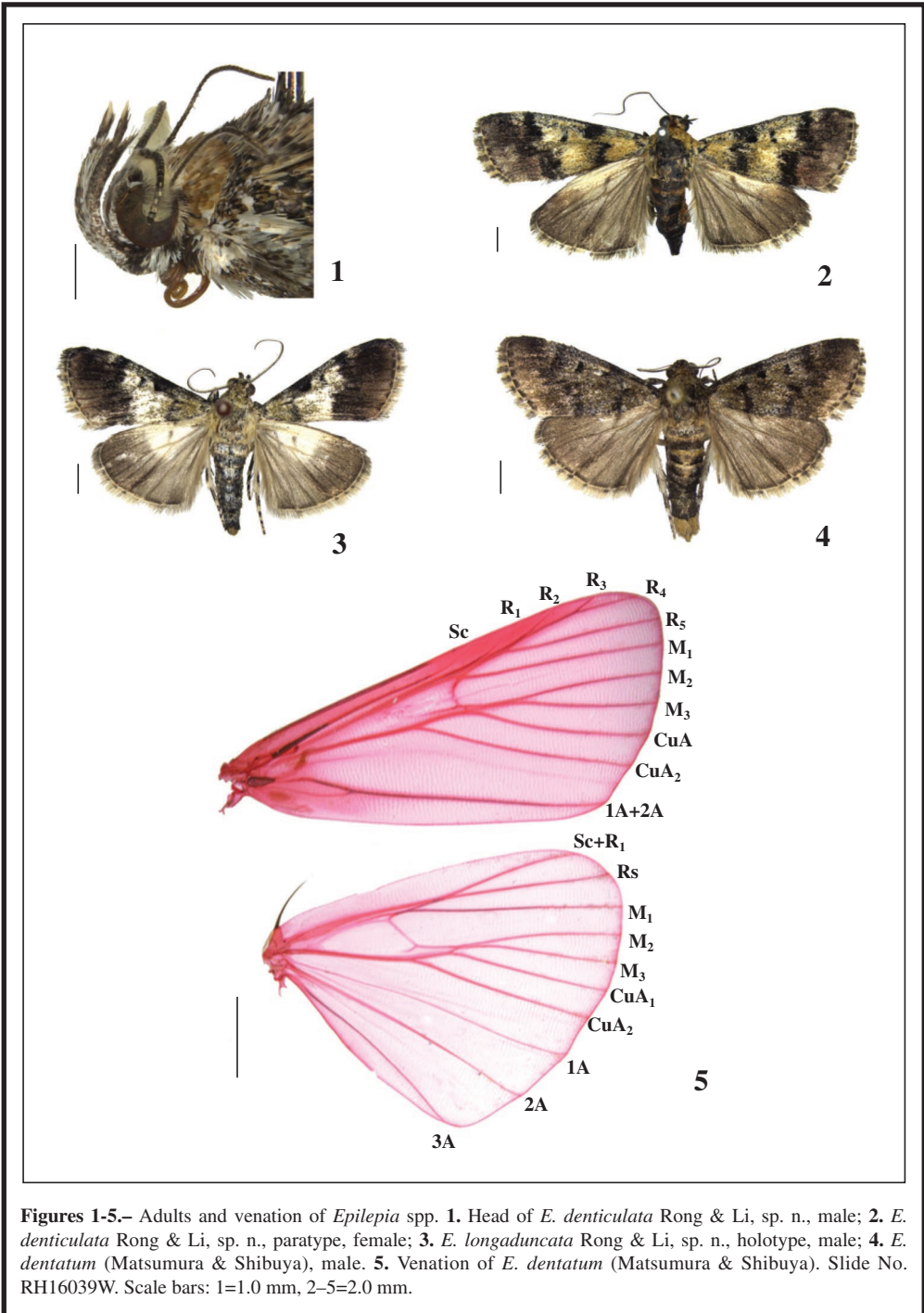
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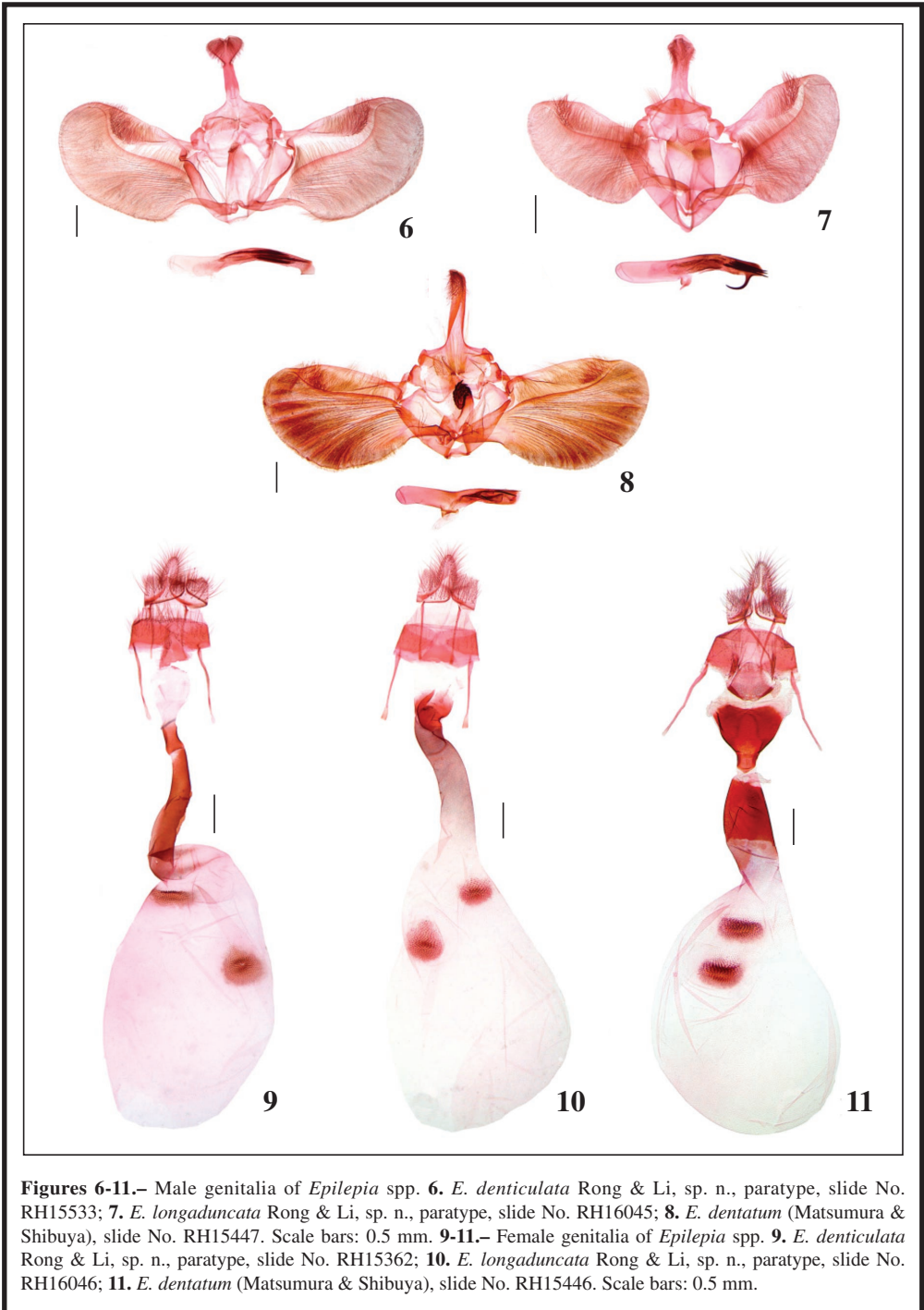
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Figures 6-11.— Male genitalia of *Epilepia* spp. **6.** *E. denticulata* Rong & Li, sp. n., paratype, slide No. RH15533; **7.** *E. longaduncata* Rong & Li, sp. n., paratype, slide No. RH16045; **8.** *E. dentatum* (Matsumura & Shibuya), slide No. RH15447. Scale bars: 0.5 mm. **9-11.**— Female genitalia of *Epilepia* spp. **9.** *E. denticulata* Rong & Li, sp. n., paratype, slide No. RH15362; **10.** *E. longaduncata* Rong & Li, sp. n., paratype, slide No. RH16046; **11.** *E. dentatum* (Matsumura & Shibuya), slide No. RH15446. Scale bars: 0.5 mm.