

Additional notes on *Lethe violaceopicta* (POUJADE, 1884) and its relatives

(Lepidoptera, Nymphalidae, Satyrinae)

by

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Abstract: In this paper, *Lethe violaceopicta* (POUJADE, 1884) and its relatives are studied following LANG & DING (2022), and a revised checklist is provided. *Lethe violaceopicta lingnana* LANG & DING, 2022 from S. China (Guangdong, Guangxi, S. Hunnan) & S. W. China (W. Sichuan) and *L. cybele namjagbarwae* HUANG, 1999 from S. W. China (S. E. Tibet) are raised to specific status respectively, viz. *L. lingnana* LANG & DING **stat. nov.** and *L. namjagbarwae* HUANG **stat. nov.** Three new subspecies are described: *Lethe violaceopicta kulingensis* **subspec. nov.** from S. E. China (Jiangxi, Zhejiang), *L. lingnana wawushana* **subspec. nov.** from S. W. China (W. Sichuan), and *L. ailao pseudoburmana* **subspec. nov.** from S. W. China (N.W. Yunnan).

Lethe violaceopicta (POUJADE, 1884) and its closely related species belong to the *sidonis* HEWITSON, 1863-subgroup (Subgenus *Zophoessa* DOUBLEDAY, [1849]: the *sura* DOUBLEDAY, [1849]-group) (DE LESSE, 1957; LANG, 2017). LANG & DING (2022) divided these species into two sections based upon that the ♂ uncus has or has not a dorsal crest. Though this feature is a useful diagnostic character for species identification, it seems that it can hardly separate these species into two natural sections. Therefore, in this study, a new arrangement is provided for them with a revised checklist and a survey of all involved taxa.

Materials: Specimens examined in this study are deposited in Chongqing Museum of Natural History, Beibei, China (CMNH), Dr. SONG-YUN LANG's private collection, Beibei, China (LSY), Mr. HAO HUANG's private collection, Qingdao, China (HH), and Mr. CHUN-HAO WANG's private collection, Beijing, China (WCH). Photographs of the HTs of *Lethe kanjupkula* TYTLER and *L. violaceopicta burmana* TYTLER, which are kept in Natural History Museum, London, UK (NHMUK), were took and provided by Mr. SI-YAO HUANG (Bonn) and were permitted to use by Dr. BLANCA HUERTAS (NHMUK).

A checklist of *Lethe violaceopicta* (POUJADE, 1884) and its relatives:

I. (1-4) the *Lethe violaceopicta* (POUJADE, 1884)-complex

(1) *Lethe violaceopicta* (POUJADE, 1884)

(1-a) *Lethe violaceopicta violaceopicta* (POUJADE) (syn. *calisto* LEECH, 1891)

(1-b) *Lethe violaceopicta kulingensis* **subspec. nov.**

(2) *Lethe lingnana* LANG & DING, 2022 **stat. nov.**

(2-a) *Lethe lingnana lingnana* LANG & DING **stat. nov.**

(2-b) *Lethe lingnana wawushana* **subspec. nov.**

(3) *Lethe kanjupkula* TYTLER, 1914

(4) *Lethe pseudokanjupkula* LANG & DING, 2022

II. (5-7) the *Lethe burmana* TYTLER, 1939-complex

(5) *Lethe burmana* TYTLER, 1939

(6) *Lethe ailao* LANG & DING, 2022

(6-a) *Lethe ailao ailao* LANG & DING

(6-b) *Lethe ailao pseudoburmana* **subspec. nov.**

(7) *Lethe namjagbarwae* HUANG, 1999 **stat. nov.**

III. (8) *Lethe cybele* LEECH, 1893

IV. (9) *Lethe nicetas* (HEWITSON, 1863)

Taxonomic account

I. (1-4) the *Lethe violaceopicta* (POUJADE, 1884)-complex

This species complex includes four species (No. 1-4) as following: *Lethe violaceopicta* (POUJADE), *L. lingnana* LANG & DING **stat. nov.**, *L. kanjupkula* TYTLER and *L. pseudokanjupkula* LANG & DING.

Diagnosis: 1) the ♂ upperside ground color is blackish grey (for fresh specimen); 2) on the ♂ forewing underside, the postdiscal band is creamy white, it is clear or obscure; 3) the ♂ uncus has or not has a dorsal crest.

(1) *Lethe violaceopicta* (POUJADE, 1884)

Debis violaceopicta POUJADE, 1884, Bull. Soc. Ent. Fr. **1884**: clviii. Type Locality (TL): Mou-pin [Baoping, W. Sichuan].

Lethe calisto LEECH, 1891, Entomologist **24** (Suppl.): 23. TL: Omei-Shan, [W. Sichuan].

Zophoessa violaceopicta: DE LESSE, 1957, Ann. Soc. Ent. Fr. **125**: 79, fig. 8.

Lethe violaceopicta: D'ABRERA, 1990, Butt. Hol. Reg. (1): 122; LANG, 2017, Nym. China (2): pl. VI: fig. 8 (♂).

Diagnosis: In this species complex, *Lethe violaceopicta* (POUJADE) can be distinguished from other species by the combination of the following characters: 1) on the ♂ forewing underside, the postdiscal band is thick and well present, whereas it is thin and obscure in others; 2) the ♂ uncus in lateral view (Fig. 18A) is stout apically, whereas its apex is sharply pointed in others (figs. 18B, 19C-D); 3) the ♂ uncus in dorsal view (Fig. 20A) has a broad caudal tip, whereas the caudal tip is very narrow in others (figs. 20B, 21C-D); 4) the dorsal crest on the ♂ uncus is often absent, but it is seldom present in some individual variations (figs. 18A3, A4, A9).

Distribution: China (S. Shaanxi, S. E. Gansu, W. Sichuan, N. Jiangxi, Zhejiang).

(1-a) *Lethe violaceopicta violaceopicta* (POUJADE, 1884) (figs. 1, 8, 18A1-7, 20A1-3, 22A1-4)

Material: 1 ♂, [CHINA, Sichuan, Kangding], Wassu [Wasikou], VI.1930, CMNH; 1 ♂, CHINA, Sichuan, Omei, Jiuling-gang, 1700 m, 9.VIII.2013, leg. SONG-YUN LANG, LSY; 1 ♂, CHINA, Sichuan, Leibo, Mahu, 1375 m, 15.V.2018, leg. SONG-YUN LANG, LSY; 2 ♂♂, CHINA, Sichuan, Qingcheng Houshan, 16.IX.1990, legs. JIANG HOU & YU-JUAN HU, CMNH; 4 ♂♂, 1 ♀, CHINA, Gansu, Kangxian, Qinghe, 1600 m, 8.VI.2016, legs. JIANG HOU & SONG-YUN LANG, LSY; 1 ♂, CHINA, Gansu, Kangxian, Yangba, 1100 m, 9.VI.2016, legs. SONG-YUN LANG, LSY.

Distribution: W. China (S. Shaanxi, S. E. Gansu, W. Sichuan).

(1-b) *Lethe violaceopicta kulingensis* subsp. nov. (figs. 2, 7, 18A8-11, 20A4-5, 22A5-6)

Holotype (HT): ♂, CHINA, Jiangxi, Mt. Lu, Kuling, 12.IX.2015, leg. SONG-YUN LANG, SATY1127, CMNH. **PT** (PT singular & plural): 48 ♂♂, 1 ♀, CHINA, Jiangxi, Mt. Lu, Kuling, 1100-1350 m, 12-16.IX.2015, legs. SONG-YUN LANG & JIANG HOU, LSY; 2 ♂♂, CHINA, Zhejiang, Lin'an, Qingliang-feng, 1000 m, 14.VI.2014, leg. JIAN-QING ZHU, LSY.

Diagnosis: The new subspecies can be distinguished from the nominate subspecies by the following characters: 1) on the forewing underside, the postdiscal spots are not pointed towards the termen, whereas they are often sharply pointed towards the termen in the spaces 3 and 4 in the nominate subspecies; 2) unci are somewhat thinner in lateral view (figs. 18A8-11) and narrower in dorsal view (figs. 20A4-5) than those of the nominate subspecies (figs. 18A1-7, 20A1-3); 3) valve (figs. 22A5-6) are narrower apically than those of the nominate subspecies (figs. 22A1-4).

Etymology: The subspecific name *kulingensis* is named after Kuling on the top of Mt. Lu, N. Jiangxi, S. E. China.

Distribution: S. E. China (N. Jiangxi, Zhejiang).

(2) *Lethe lingnana* LANG & DING, 2022 stat. nov.

Lethe violaceopicta: LANG (nec POUJADE), 2017, Nym. China (2): pl. 6: fig. 66 (♂ genitalia); pl. VI: fig. 9 (♀), 10 (♂).

Lethe violaceopicta lingnana LANG & DING, 2022, *Atalanta* **53** (1/2): 131, figs. 16-18, 26-27, 29h-i. TL: Tianlin, Guangxi.

Diagnosis: This species is separated from *Lethe violaceopicta* (POUJADE) here, and it can be distinguished from the latter by the combination of the following characters: 1) on the ♂ forewing underside, the postdiscal band is thin and often very obscure, whereas it is thick and clear in *L. violaceopicta* (POUJADE); 2) the ♂ uncus in lateral view (Fig. 18B) is sharply pointed apically, whereas its apex is stout in *L. violaceopicta* (POUJADE) (Fig. 18A); 3) the ♂ uncus in dorsal view (Fig. 20B) has a very narrow caudal tip, whereas the caudal tip is wide in *L. violaceopicta* (POUJADE) (Fig. 20A); 4) as in *L. violaceopicta* (POUJADE), the dorsal crest on the ♂ uncus is absent or present in different individuals.

Notes: Both *Lethe lingnana* LANG & DING stat. nov. and *L. violaceopicta* (POUJADE) have been found in W. Sichuan (the former is described as a new local subspecies below). At Mt. Omei, the present author collected a fresh ♂ *L. violaceopicta* (POUJADE) (figs. 1b, 18A1, 20A1, 22A1) on 9th August and a very worn ♂ *L. lingnana* LANG & DING stat. nov. (figs. 18B1, 20B1, 22B1) on 16th June. It is a clue of sympatric distribution for the two species. But it is also possible that they are two seasonal forms (late spring/early summer brood and late summer/early autumn brood) respectively. However, the present author also collected a fresh ♂ *L. violaceopicta* (POUJADE) on 15th May (spring) from Leibo (figs. 1c, 18A3, 20A2, 22A2) and several *L. lingnana* LANG & DING stat. nov. during 4th to 7th July (summer) from Hongya (figs. 3, 18B2, 20B2) (in W. Sichuan, both Leibo and Hongya are not far away from Omei). Therefore, it can be concluded that both *L. lingnana* LANG & DING stat. nov. and *L. violaceopicta* (POUJADE) have two broods per year and the seasonal difference in each species is inexistent or inconspicuous.

In fact, no figure of the HT of *Debis violaceopicta* POUJADE from Mou-pin (kept in Paris) has been examined, and the image and definition of current “*Lethe violaceopicta* (POUJADE)” was only established on the figure of its junior synonym, viz. *L. calisto* LEECH, 1891, which was illustrated by LEECH (1892) (figs. 1a, 8a). Therefore, there is still a risk that *L. lingnana* LANG & DING stat. nov. might be a junior synonym of *Debis violaceopicta* POUJADE, and meanwhile, the current “*Lethe violaceopicta* (POUJADE)” might be *L. calisto* LEECH. But this possibility is very small basing upon 3 reasons as following: 1) POUJADE (1884)'s original description (based on 2 ♂♂ only) is more fit for the current “*L. violaceopicta* (POUJADE)”; 2) DE LESSE (1957) studied material in Paris and gave a figure (fig. 18A2) of ♂ genitalia (it might be a syntype) which is the same as the current “*L. violaceopicta* (POUJADE)”; 3) no current “*L. lingnana* LANG & DING stat. nov.” has been found from Mou-pin area (the type locality of *Debis violaceopicta* POUJADE), which is to the north of the known range of the current “*Lethe lingnana* LANG & DING stat. nov.” in W. Sichuan. Of course, it is easy to verify what is what for a person who can study the POUJADE's collection in Paris.

Distribution: China (S. Hunan, N. Guangdong, E. Guangxi, W. Sichuan).

(2-a) *Lethe lingnana lingnana* LANG & DING, 2022 stat. nov. (figs. 4, 10, 18B3-9, 20B3-5, 22B2-4)

Material: HT ♂, CHINA, Guangdong, Ruyuan, Nan-ling, 1000 m, 28.V.2014, leg. SONG-YUN LANG, SATY1247, CMNH; PT 19 ♂♂, , CHINA, Guangdong, Ruyuan, Nan-ling, 1000-1200 m, 24-28.V.2014, leg. SONG-YUN LANG, LSY; PT 3 ♂♂, CHINA, Hunnan, Yizhang, Mang-shan, 1300 m, 21-23.V.2014, legs. GUO-XI XUE & MENG LI, LSY; PT 8 ♂♂ CHINA, Guangxi, Jinxiu, Shengtang-shan, 1500 m, 16.V.2015, legs. HOU JIANG & SONG-YUN LANG, LSY; 55 ♂♂, PT 1 ♀, CHINA, Guangxi, Xing'an, Maoershan, 1600 m, 25-29.V.2015, legs. HOU JIANG & SONG-YUN LANG, LSY.

Distribution: S. China (S. Hunan, N. Guangdong, E. Guangxi).

(2-b) *Lethe lingnana wawushana* subsp. nov. (figs. 3, 11, 18B1-2, 20B1-2, 22B1)

HT ♂, CHINA, Sichuan, Hongya, Mt. Wawu, 4-7.VII.2011, leg. SONG-YUN LANG, SATY1125, CMNH. **PT** 2 ♂♂, 1 ♀, CHINA, Sichuan, Hongya, Mt. Wawu, 4-7.VII.2011, legs. YI LANG & SONG-YUN LANG, LSY; 1 ♂, CHINA, Sichuan, Omei, Xianfeng-Si, 1750 m, 16.VI.2014, leg. SONG-YUN LANG, LSY; 1 ♂, CHINA, Sichuan, Ebian, Heizhu-gou, 1800-2000 m, 20.VI.2014, leg. SONG-YUN LANG, LSY.

Diagnosis: The new subspecies can be distinguished from the nominate subspecies by the following characters: 1) on the ♂ hindwing underside, the area between the postdiscal ocelli and the discal fascia is brownish, whereas it is decorated with obscure yellowish patches in the spaces 2, 3 and 4 in the nominate subspecies; 2) ♂ unci (figs. 18B1-2) are somewhat longer than those of the nominate subspecies (figs. 18B3-9).

Etymology: The subspecific name *wawushana* is named after Mt. Wawu (Wawu-shan) in Hongya, W. Sichuan, W. China.

Distribution: S. W. China (W. Sichuan).

(3) *Lethe kanjupkula* TYTLER, 1914 (figs. 5, 9, 19C, 21C, 22C)

Lethe kanjupkula TYTLER, 1914, J. Bombay nat. Hist. Soc. **23**: 220, pl. 1: 5, 6. TL: Kanjupkul, Manipur.

Lethe violaceopicta kanjupkula: TALBOT, [1949], Fauna Br. Ind. Butt. (2): 177.

Lethe kanjupkula (Partim): LANG, 2017, Nym. China (2): pl. VI: fig. 11 (♂).

Material: 1 ♂ (photo checking), Type HT/ HT *Lethe kanjupkula* TYTLER det. P. ACKERY 1972/ *Lethe kanjupkula* TYTLER Kanjupkul, Manipur, 6000' 4.VI.12./ H. C. TYTLER Coll. B.M. 1941-92./ HT ♂ B.M. TYPE No. Rh. 15711 *Lethe kanjupkula* TYTLER./ BMNH(E) #933721/ NHMUK 015199341, NHMUK; 11 ♂♂, CHINA, Yunnan, Gongshan, Dulong-jiang, Maku, 1300 m, 22-24.VI.2015, leg. SONG-YUN LANG, LSY.

Diagnosis: *Lethe kanjupkula* TYTLER is similar to *L. lingnana lingnana* LANG & DING **stat. nov.**, and it can be distinguished from the latter by the following characters: 1) it is somewhat smaller than *L. lingnana lingnana* LANG & DING **stat. nov.**; 2) on the ♀ forewing underside, the postdiscal band is continuous throughout (Fig. 9), whereas it is discrete in the spaces 1b, 2 and 3 in *L. lingnana lingnana* LANG & DING **stat. nov.** (Fig. 10); 3) on the ♂ hindwing underside, the area between the postdiscal ocelli and the discal fascia is concolor with the brownish ground color, whereas it is decorated with obscure yellowish patches in the spaces 2, 3 and 4 in *L. lingnana lingnana* LANG & DING **stat. nov.**; 4) ♂ unci (Fig. 19C) are somewhat shorter and thinner than those of *L. lingnana lingnana* LANG & DING **stat. nov.** (Fig. 18B).

Distribution: S. W. China (N.W. Yunnan), N.E. India (Manipur).

(4) *Lethe pseudokanjupkula* LANG & DING, 2022 (figs. 6, 19D, 21D, 22D)

Lethe violaceopicta: MONASTYRSKII (*nec* POULADE), 2005: Butt. Vietnam (1): pl. 11: fig. 4a-b ♀, 4c-d (♂).

Lethe kanjupkula (Partim): LANG (*nec* TYTLER), 2017, Nym. China (2): pl. 6: fig. 67 (♂ genitalia); pl. VI: fig. 12 (♂).

Lethe kanjupkula: SAITO & VU (*nec* TYTLER), 2020, Butterflies **83**: 28, fig. 1, 1v (♂).

Lethe pseudokanjupkula LANG & DING, 2022, Atalanta **53** (1/2): 132, figs. 7-9, 22, 29d. TL: Tianlin, Guangxi.

Material: 1 ♂, HT, CHINA, Guangxi, Tianlin, Cenwang Laoshan, 1400 m, 8.V.2015, leg. SONG-YUN LANG, SATY0422, CMNH; PT 4 ♂♂, CHINA, Guangxi, Tianlin, Cenwang Laoshan, 1300-1700 m, 8-10.V.2015, leg. SONG-YUN LANG, LSY; 3 ♂♂, VIETNAM, Ha Giang, VI-VII.2023, leg. DANG NGOC VAN, purchased by SI-YAO HUANG from eBay, LSY.

Diagnosis: *Lethe pseudokanjupkula* LANG & DING seems to be a transition between *L. lingnana lingnana* LANG & DING **stat. nov.** to its east and *L. kanjupkula* TYTLER to its west. It is very similar to *L. kanjupkula* TYTLER, and it can be distinguished from the latter by the following characters: 1) it is somewhat larger than *L. kanjupkula* TYTLER; 2) the dorsal crest on the ♂ uncus is well present (fig. 19D), whereas it is absent in *L. kanjupkula* TYTLER (fig. 19C).

Notes: Considering that the crest on the ♂ uncus of *Lethe lingnana lingnana* LANG & DING **stat. nov.** are occasionally present, therefore, it is also possible that *L. pseudokanjupkula* LANG & DING might be a subspecies of *L. lingnana* LANG & DING **stat. nov.**

Distribution: S. W. China (W. Guangxi), N. Vietnam.

II. (5-7) the *Lethe burmana* TYTLER, 1939-complex

This species complex includes three species (No. 5-7) as following: *Lethe burmana* TYTLER, *L. ailao* LANG & DING and *L. namjagbarwae* HUANG **stat. nov.**

Diagnosis: 1) the ♂ upperside ground color is dark reddish brown (for fresh specimen); 2) on the ♂ forewing underside, the postdiscal band is yellowish, it is clear or obscure; 3) the ♂ uncus has a prominent dorsal crest.

(5) *Lethe burmana* TYTLER, 1939 (figs. 12, 19G, 21G, 22G)

Lethe violaceopicta burmana TYTLER, 1939, J. Bombay nat. Hist. Soc. **41** (2): 245. TL: Sadon, N.-E. Burma; Talbot, [1949], Fauna Br. Ind. Butt. (2): 178; D'ABRERA, 1985, Butt. Oriental (2): 414, fig. R ♂ (HT); SHIZUYA, WATANABE, SAITO & SOE, 2005, Butterflies (S. fujisanus) **39**: 35, fig. UP, UN (♂).

Lethe burmana: LANG, 2017, Nym. China (2): pl. 6: fig. 68 (♂ genitalia), pl. VI: fig. 13 (♂).

Lethe nicetas: LANG (*nec* HEWITSON), 2017, Nym. China (2): pl. 6: fig. 69 (♂ genitalia).

Material: 1 ♂ (photo checking), Type HT/ HT *Lethe violaceopicta* s.sp. *burmana* TYTLER det. P. ACKERY 1972/ ♂ Sadon N.E. Burma 10.10.27/ *Lethe violaceopicta* sub.sp. *burmana* H. C. TYTLER Coll. B.M. 1941-92./ HT ♂ B.M. TYPE No. Rh. 15713 *Lethe violaceopicta burmana* TYTLER./ NHMUK 010243638, NHMUK; 1 ♂, CHINA, Yunnan, Lushui, East slope of Mts. Gao-li-gong, Yaojiaping, 2700 m, 9.VI.2015, leg. SONG-YUN LANG, LSY; 1 ♂, CHINA, Yunnan, Lushui, West slope of Mts. Gao-li-gong, Pianma, 2100 m, 10.VI.2015, leg. SONG-YUN LANG, LSY; 13 ♂♂, CHINA, Yunnan, Lushui, Pianma, 2550 m, 10-12.IX.2023, legs. JIANG HOU & SONG-YUN LANG, LSY.

Diagnosis: See the corresponding sections of *Lethe ailao* LANG & DING and *L. namjagbarwae* HUANG **stat. nov.** below.

Distribution: S. W. China (W. Yunnan), N. Myanmar.

(6) *Lethe ailao* LANG & DING, 2022

Lethe ailao LANG & DING, 2022, Atalanta **53** (1/2): 131, figs. 1-2, 19, 29a (HT). TL: Ailao, Xinning, Yunnan.

Diagnosis: *Lethe ailao* LANG & DING can be distinguished from *L. burmana* TYTLER by the following characters: 1) on the ♂ hindwing underside, the area between the postdiscal ocelli and the discal fascia is decorated with deep yellowish patches in the spaces 2 and 3, whereas it is concolor with the brownish ground color in *L. burmana* TYTLER; 2) ♂ unci (fig. 19F) are somewhat longer and weakly bent upwards in the center, whereas they are somewhat shorter and weakly bent downwards near the apex in *L. burmana* TYTLER (fig. 19G); 3) the crest is about one-sixth to one-fifth the length of the uncus (fig. 19F), whereas it is about one-fourth the length of the uncus in *L. burmana* TYTLER (fig. 19G); 4) the apical teeth (fig. 22F) are somewhat shorter than those in *L. burmana* TYTLER (fig. 22G).

Distribution: S. W. China (Yunnan).

(6-a) *Lethe ailao ailao* LANG & DING, 2022 (figs. 13, 19F1, 21F1, 22F1)

Material: 1 ♂, HT, CHINA, Yunnan, Xinping, Ailao-shan, 2176 m, 13.V.2019, leg. SONG-YUN LANG, SATY0793, CMNH.

Distribution: S. W. China (C. Yunnan).

(6-b) *Lethe ailao pseudoburmana* subsp. nov. (figs. 14, 19F2, 21F2, 22F2)

Lethe nicetas: LANG (nec HEWITSON), 2017, Nym. China (2): pl. VI: fig. 14 (♂).

Lethe ailao (Partim): LANG & DING, 2022, *Atalanta* **53** (1/2): 131, fig. 3-4, 20, 29b (PT ♂).

HT: ♂, PT of *Lethe ailao* LANG & DING, CHINA, Yunnan, Gongshan, East slope of Mts. Gao-li-gong, 2800 m, 20.VI.2015, leg. SONG-YUN LANG, SATY0387, CMNH.

Diagnosis: The new subspecies can be distinguished from the nominate subspecies by the following characters: 1) on the ♂ forewing underside, the postdiscal band is orange and somewhat ill-defined, whereas it is yellowish and clearly defined in the nominate subspecies; 2) the crest on the ♂ uncus (Fig. 19F2) is less humped than that in the nominate subspecies (Fig. 19F1).

Notes: It is also possible that this subspecies is a distinct species.

Etymology: The subspecific name *pseudoburmana* composed by the Latin prefix *pseudo-* and the name *burmana*, means “false *burmana*”.

Distribution: S. W. China (N.W. Yunnan).

(7) *Lethe namjagbarwae* HUANG, 1999 stat. nov. (figs. 15, 19E, 21E, 22E)

Lethe cybele namjagbarwae HUANG, 1999, *Lambillionea* **99** (4): 647, fig. 74, 75. TL: Metok, S. E. Tibet.

Material: 1 ♂ (photo checking), HT/ On path from Hanmi to Nage, Metok, S. E. Tibet, 2000 m, Late August, 1995, leg. HAO HUANG, HH; 1 ♂ (photo checking), CHINA, Tibet, Medog, Hanmi, leg. ZHEN-JUN WU, WCH.

Diagnosis: A) *Lethe namjagbarwae* HUANG stat. nov. can be distinguished from *L. burmana* TYTLER by the following characters: 1) on the ♂ forewing underside, the postdiscal band is clear, whereas it is often obscure or vestigial in *L. burmana* TYTLER; 2) on the ♂ hindwing underside, the area between the postdiscal ocelli and the discal fascia is decorated with yellowish patches in the spaces 2 and 3, whereas it is concolor with the brownish ground color in *L. burmana* TYTLER; 3) the crest is about one-third the length of the uncus (Fig. 19E), whereas it is about one-fourth the length of the uncus in *L. burmana* TYTLER (Fig. 19G).

B) *Lethe namjagbarwae* HUANG stat. nov. can be distinguished from *L. ailao* LANG & DING by the following characters: 1) on the ♂ hindwing underside, the area between the postdiscal ocelli and the discal fascia is decorated with luxurious yellowish patches in the spaces 2 and 3, whereas the yellowish patches are relatively reduced in *L. ailao* LANG & DING; 2) the crest is about one-third the length of the uncus (Fig. 19E), whereas it is about one-sixth to one-fifth the length of the uncus in *L. ailao* LANG & DING (Fig. 19F).

Notes: This taxon was described as a subspecies of *Lethe cybele* LEECH basing upon a single ♂ (Fig. 15a), but an additional ♂ specimen (Fig. 15b) reveals that it is a distinct species which is more closely related to *L. burmana* TYTLER (H. HUANG, pers. comm.). Though the ♂ genitalia of the HT was pressed by a coverslip and is kept in a slide (Fig. 19E2), a thin and elongated crest of the uncus can also be observed.

Distribution: S. W. China (S. E. Tibet).

III. (8) *Lethe cybele* LEECH, 1893 (figs. 17, 19H, 21H, 22H)

Lethe cybele LEECH, 1893, *Butt. China* (2): 643, pl. 43: 8. TL: Omei-Shan, [Sichuan].

Material: 22 ♂♂, CHINA, Sichuan, Ebian, Heizhugou, 1800-2000 m, 17-18.VIII.2013, legs. YI LANG & SONG-YUN LANG, LSY; 1 ♂, CHINA, Shaanxi, Ningshan, 1500-1700 m, 4.IX.2010, leg. YU-FEI LI, LSY.

Diagnosis: *Lethe cybele* LEECH can be distinguished from other involved species in this study by the combination of the following characters: 1) in fresh ♂, the upperside ground color is deep reddish brown, whereas it is blackish grey in the *L. violaceopicta* (POUJADE)-complex; 2) on the ♂ hindwing underside, the area between the postdiscal ocelli and the discal fascia is decorated with yellowish patches in the spaces 2 and 3, whereas it is concolor with the brownish ground color in *L. burmana* TYTLER and most taxa of the *L. violaceopicta* (POUJADE)-complex; 3) the base of the ♂ uncus (Fig. 19H) is not humped, whereas it is strongly bent upwards in others.

Distribution: W. China (S. Shaanxi, W. Sichuan).

IV. (9) *Lethe nicetas* (HEWITSON, 1863) (figs. 16, 19i, 21i, 22i)

Debis nicetas HEWITSON, 1863, *Exotic Butt.* (3): 78, *Debis* pl. 3: 17, 18. TL: East India [Darjiling].

Material: 1 ♂, CHINA, Yunnan, Gongshan, Dulong-jiang, Maku, 1300 m, 6.V.2015, leg. HAO HUANG, ex. HH, LSY; 1 ♂, CHINA, Yunnan, Dulong-jiang, Bapo, 29.V.2011, leg. JIA-QI WANG, ex. HUANG SI-YAO's collection, LSY.

Diagnosis: *Lethe nicetas* (HEWITSON) can be distinguished from other involved species in this study by the combination of the following characters: 1) on the ♂ forewing upperside, the postdiscal band is visible, whereas it is invisible in others; 2) on the ♂ hindwing underside, the area between the postdiscal ocelli and the discal fascia is decorated with yellowish patches in the spaces 2 and 3, whereas it is concolor with the brownish ground color in *L. burmana* TYTLER and most taxa of the *L. violaceopicta* (POUJADE)-complex; 3) the ♂ uncus (Fig. 19i) has an elongated dorsal crest which is absent in *L. cybele* LEECH and part of the *L. violaceopicta* (POUJADE)-complex; 4) the dorsal surface of the caudal end of the ♂ tegumen is flat (Fig. 19i), whereas its middle is deeply concave in others; (5) the dorsal surface of the caudal end of the ♂ tegumen is completely sclerotized (Fig. 21i), whereas it has a central hyaline area in others.

Distribution: S. W. China (Yunnan, S. E. Tibet), N. Vietnam, N. Myanmar, Nepal, N. India.

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Magnification of the landscape pictured in fig. 24, page 234.



Fig. 1: *Lethe violaceopicta* (POUJADE, 1884): (a) ♂, [Sichuan], after LEECH (1892: Pl. III: 5); (b) ♂, Sichuan, Omei, S421, LSY; (c) ♂, Sichuan, Leibo, S1243, LSY; (d-e) ♂, Gansu, Kangxian, (d) S1244 (e) S1245, LSY. **Fig. 2:** *Lethe violaceopicta kulingensis* subspec. nov.: (a) HT ♂, Jiangxi, Mt. Lu, S1127, CMNH; (b-e) PTs ♂♂, ditto, (d) S1126, LSY; (f) PT ♂, Zhejiang, Lin'an, S1238, LSY; (g) a ♂ in nature, Jiangxi, Mt. Lu. **Fig. 3:** *Lethe lingnana wawushana* subspec. nov., HT, ♂, Sichuan, Hongya, S1125, CMNH. **Fig. 4:** *Lethe lingnana* LANG & DING, 2022 stat. nov.: (a) HT, ♂, Guangdong, Ruyuan, S1247, CMNH; (b) PT ♂, ditto, S1246, LSY; (c-d) PTs, ♂♂, Guangxi, Jinxiu, (c) S1115 (d) S1262, LSY; (e-f) PT ♂♂, Guangxi, Xing'an, (e) S1253 (f) S1254, LSY; (g) ♂ in nature, Guangdong, Ruyuan.

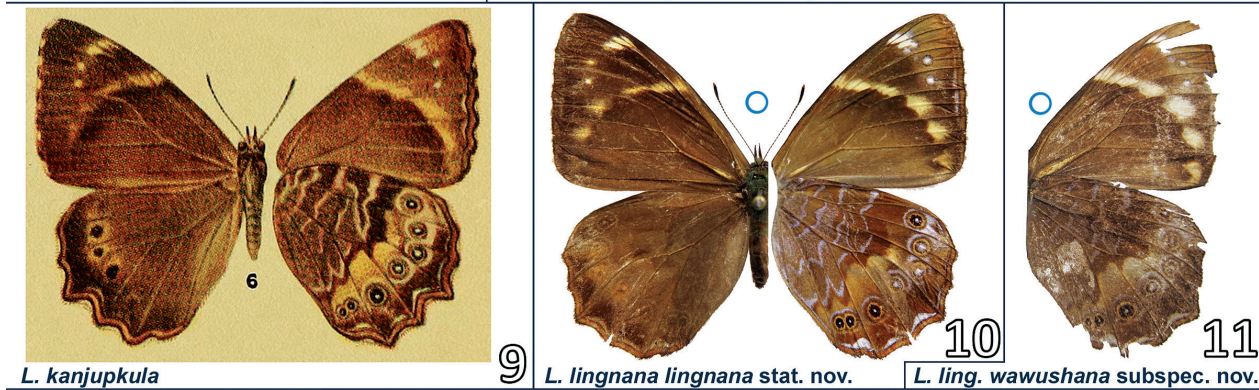
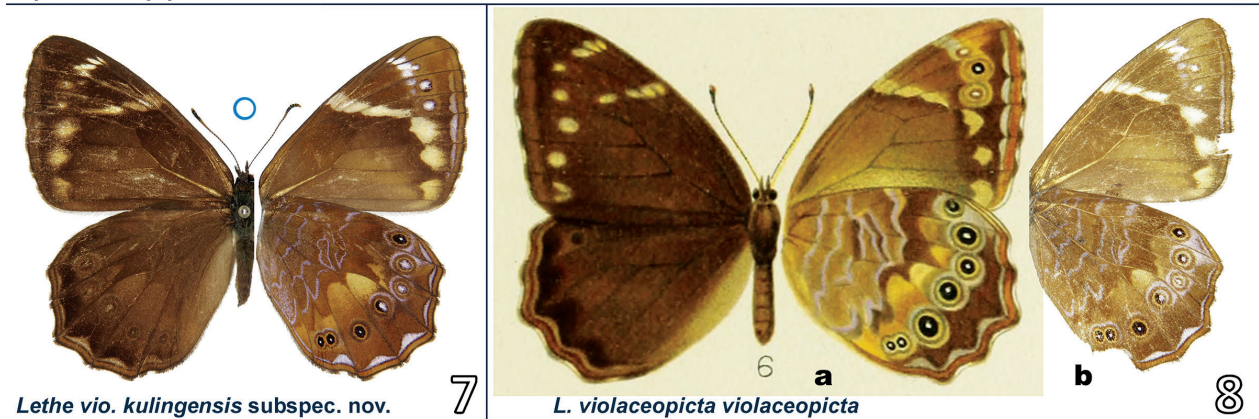
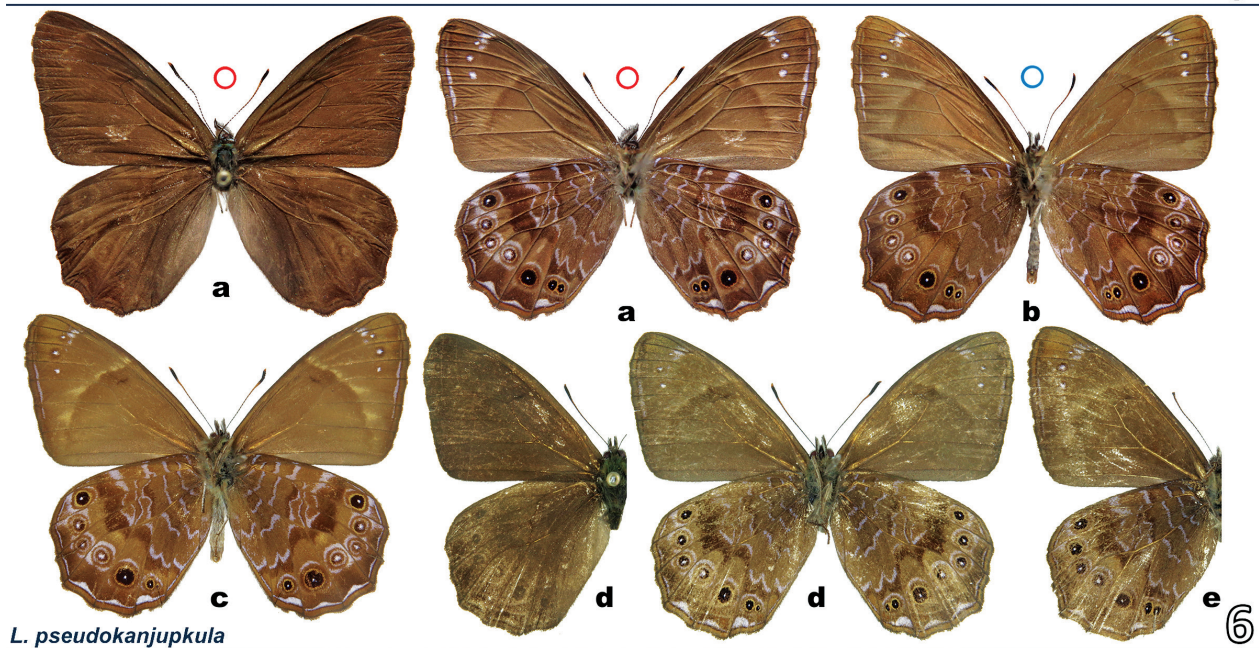


Fig. 5: *Lethe kanjupkula* TYTLER, 1914: (a-b) ♂, Yunnan, Dulongjiang, (a) S415 (b) S1249, LSY; (c) HT ♂, INDIA, Manipur, © The Trustees of NHMUK. **Fig. 6:** *Lethe pseudokanjupkula* LANG & DING, 2022: (a) HT ♂, Guangxi, Tianlin, S422, CMNH; (b-c) PT ♂♂, ditto, (b) S1248 (c) S1257, LSY; (d-e) ♂, VIETNAM, Ha Giang, (d) S1264 (e) S1265, LSY. **Fig. 7:** *Lethe violaceopicta kulingensis* subspec. nov., PT ♀ Jiangxi, Mt. Lu, LSY. **Fig. 8:** *Lethe violaceopicta* (POUJADE, 1884): (a) ♀, [Sichuan], after LEECH (1892: Pl. III: 6); (b) ♀, Gansu, Kangxian, LSY. **Fig. 9:** *Lethe kanjupkula* TYTLER, 1914, ♀, INDIA, Manipur, after TYTLER (1914: fig. 6). **Fig. 10:** *Lethe lingnana* LANG & DING, 2022 stat. nov., PT ♀, Guangxi, Xing'an, LSY. **Fig. 11:** *Lethe lingnana wawushana* subspec. nov., PT ♀, Sichuan, Hongya, LSY.

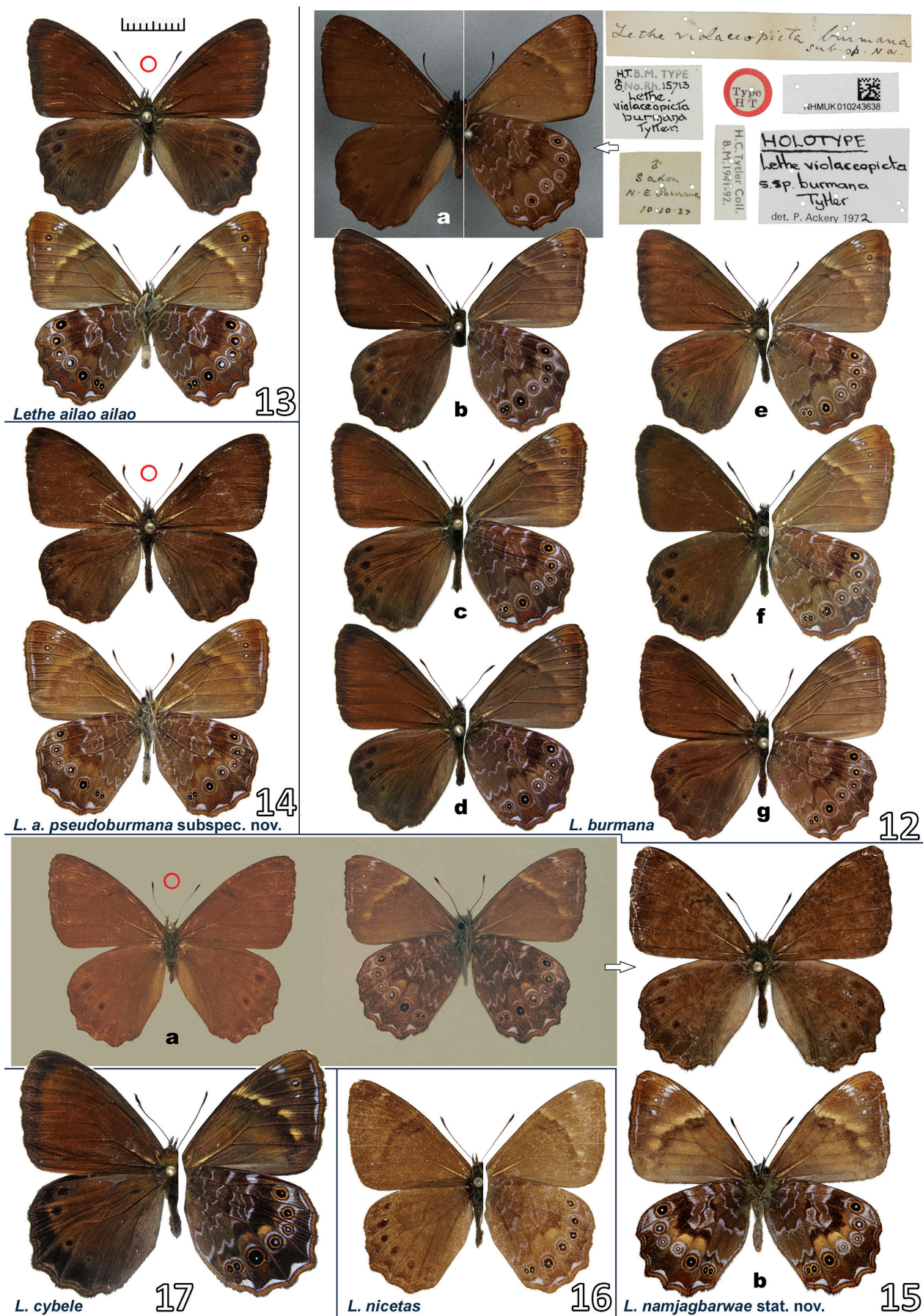


Fig. 12: *Lethe burmana* TYTLER, 1939: (a) HT ♂, MYANMAR, Sadon, © The Trustees of NHMUK; (b-g) ♂, Yunnan, Pianma, (b) S1236 (g) S416, LSY. **Fig. 13:** *Lethe ailao* LANG & DING, 2022, HT ♂, Yunnan, Xiping, S793, CMNH. **Fig. 14:** *Lethe ailao pseudoburmana* subsp. nov., HT ♂, Yunnan, Gongshan, S387, CMNH. **Fig. 15:** *Lethe namjagbarwae* HUANG, 1999 stat. nov.: (a) HT ♂, Tibet, Medog, HH; (b) ♂, ditto, WCH. **Fig. 16:** *Lethe nicetas* (HEWITSON, 1863), ♂, Yunnan, Dulongjiang, S1116, LSY. **Fig. 17:** *Lethe cybele* LEECH, 1893, ♂, Sichuan, Ebian, S518, LSY.

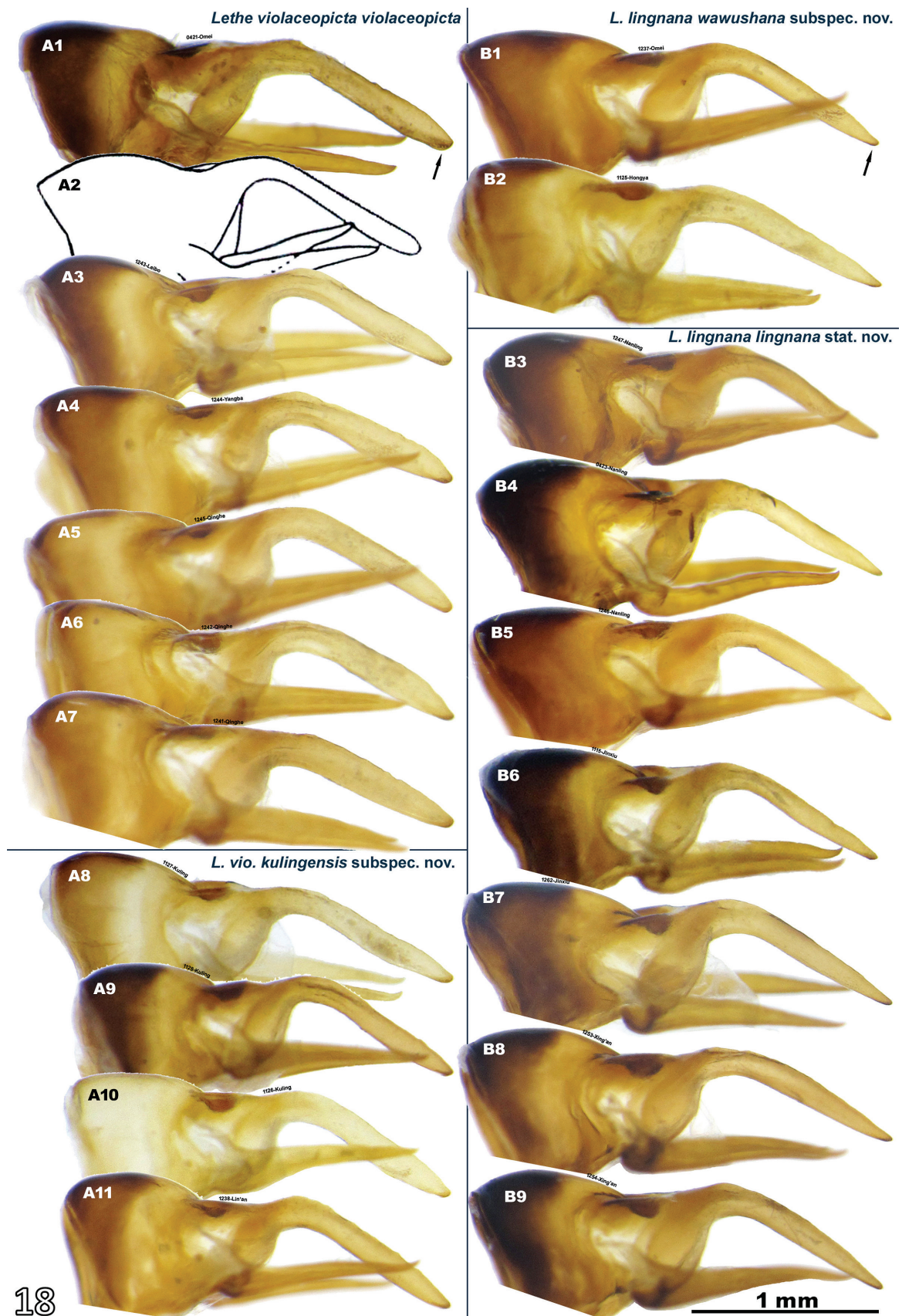


Fig. 18: ♂ tegumen+uncus+gnathos in lateral view. **A.** *Lethe violaceopicta* (POUJADE, 1884): (A1-7) subspec. *violaceopicta* POUJADE: (A1) Sichuan, Omei, S421, LSY; (A2) Se-Tchuen [Sichuan], after DE LESSE (1957: fig. 8); (A3) Sichuan, Leibo, S1243, LSY; (A4-7) Gansu, Kangxian, (A4) S1244 (A5) S1245 (A6) S1242 (A7) S1241, LSY; (A8-11) subspec. *kulingensis subspec. nov.*: (A8) HT, Jiangxi, Mt. Lu, S1127, CMNH; (A9-10) PT, ditto, (A9) S1128 (A10) S1126, LSY; (A11) PT, Zhejiang, Lin'an, S1238, LSY. **B.** *Lethe lingnana* LANG & DING, 2022 *stat. nov.*: (B1-2) subspec. *wawushana subspec. nov.*: (B1) PT, Sichuan, Omei, S1237, LSY; (B2) HT, Sichuan, Hongya, S1125, CMNH; (B3-9) subspec. *lingnana* LANG & DING: (B3) HT, Guangdong, Ruyuan, S1247, CMNH; (B4-5) PT, ditto, (B4) S423 (B5) S1246, LSY; (B6-7) PT, Guangxi, Jinxiu, (B6) S1115 (B7) S1262, LSY; (B8-9) PT, Guangxi, Xing'an, (B8) S1253 (B9) S1254, LSY.

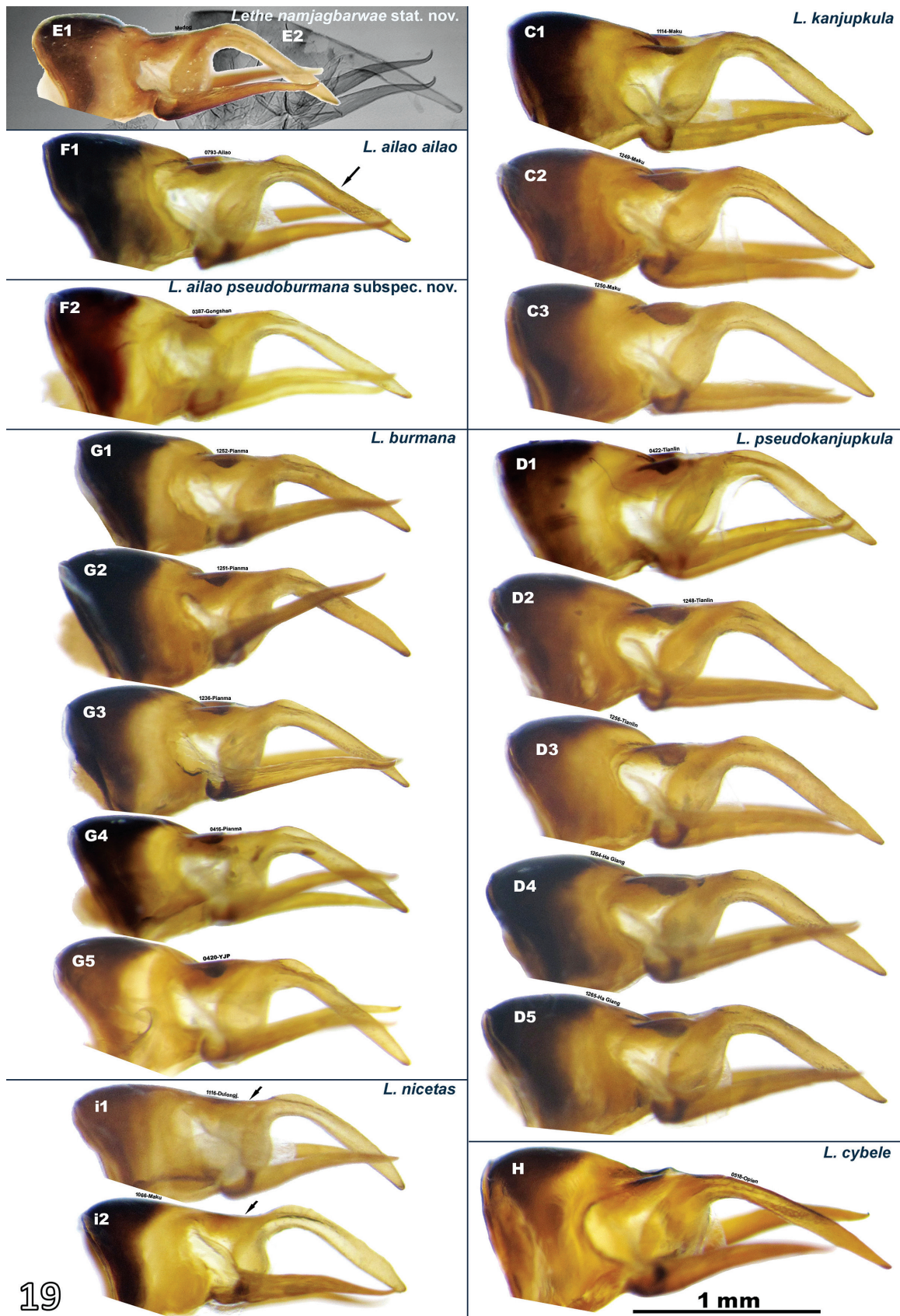


Fig. 19: ♂ tegumen+uncus+gnathos in lateral view. **C.** *Lethe kanjupkula* TYTLER, 1914, Yunnan, Dulongjiang, (C1) S1114 (C2) S1249 (C3) S1250, LSY. **D.** *Lethe pseudokanjupkula* LANG & DING, 2022: (D1) HT, Guangxi, Tianlin, S422, CMNH; (D2-3) PT, ditto, (D2) S1248 (D3) S1256, LSY; (D4-5) VIETNAM, Ha Giang, (D4) S1264 (D5) S1265, LSY. **E.** *Lethe namjagbarwae* HUANG, 1999 **stat. nov.**: (E1) Tibet, Medog, WCH; (E2) HT, ditto, HH. **F.** *Lethe ailao* LANG & DING, 2022: (F1) subspec. *ailao* LANG & DING, HT, Yunnan, Xinping, S793, CMNH; (F2) subspec. *pseudoburmana* **subspec. nov.**, HT, Yunnan, Gongshan, S387, CMNH. **G.** *Lethe burmana* TYTLER, 1939: (G1-4) Yunnan, Pianma, (G1) S1252 (G2) S1251 (G3) S1236 (G4) S416, LSY; (G5) Yunnan, Lushui, S420, LSY. **H.** *Lethe cybele* LEECH, 1893, Sichuan, Ebian, S518, LSY. **I.** *Lethe nicetas* (HEWITSON, 1863): (i1-2) Yunnan, Dulongjiang, (i1) S1116 (i2) S1066, LSY.

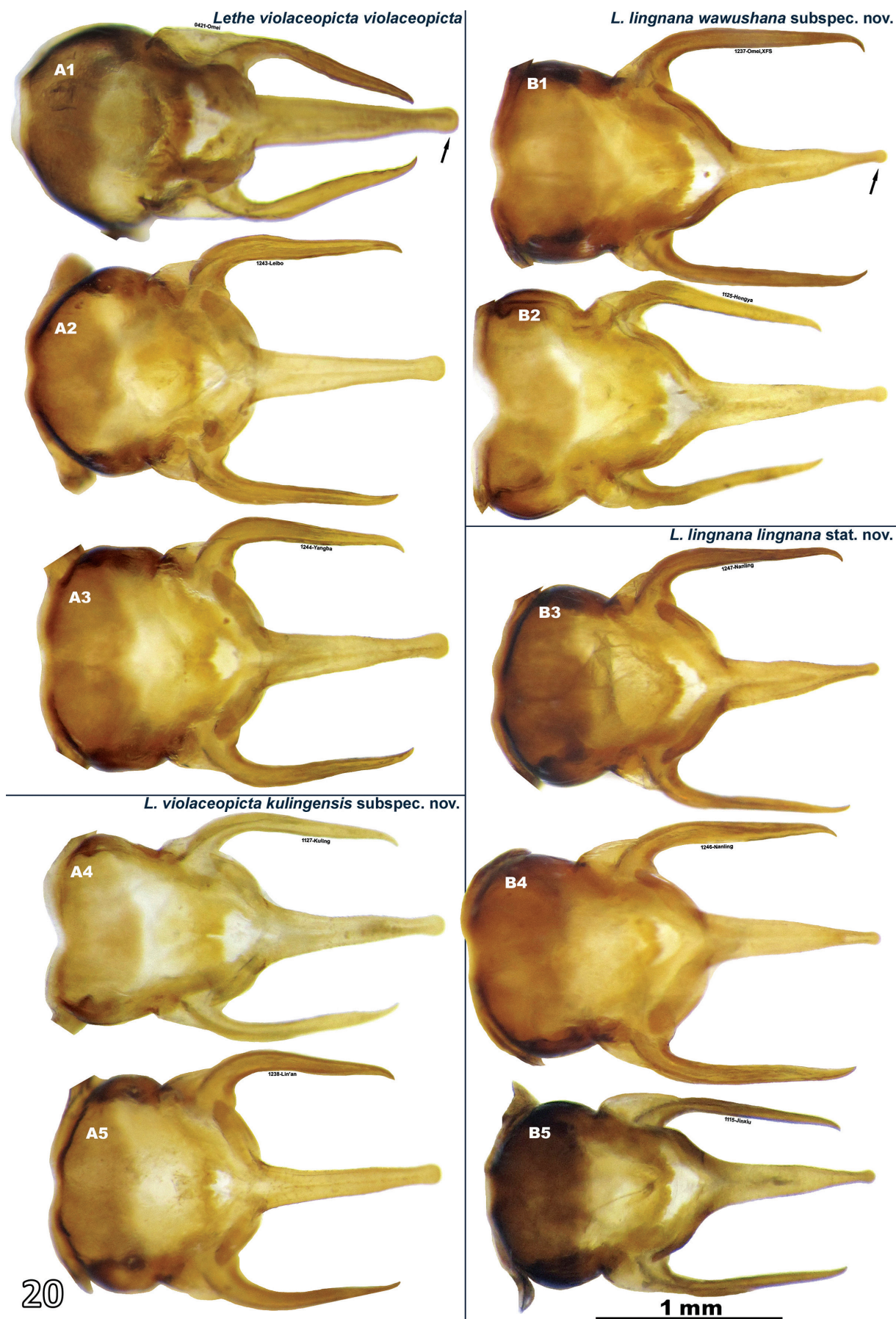


Fig. 20: ♂ tegumen+uncus+gnathos in dorsal view. **A.** *Lethe violaceopicta* (POUJADE, 1884): (A1-3) subspec. *violaceopicta* POUJADE: (A1) Sichuan, Omei, S421, LSY; (A2) Sichuan, Leibo, S1243, LSY; (A3) Gansu, Kangxian, S1244, LSY; (A4-5) subspec. *kulingensis* subspec. nov.: (A4) HT, Jiangxi, Mt. Lu, S1127, CMNH; (A5) PT, Zhejiang, Lin'an, S1238, LSY. **B.** *Lethe lingnana* LANG & DING, 2022 stat. nov.: (B1-2) subspec. *wawushana* subspec. nov.: (B1) PT, Sichuan, Omei, S1237, LSY; (B2) HT, Sichuan, Hongya, S1125, CMNH; (B3-5) subspec. *lingnana* LANG & DING: (B3) HT, Guangdong, Ruyuan, S1247, CMNH; (B4) PT, ditto, S1246, LSY; (B5) PT, Guangxi, Jinxiu, S1115, LSY.

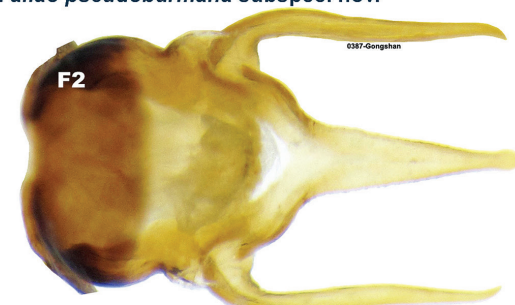
Lethe namjagbarwae stat. nov.



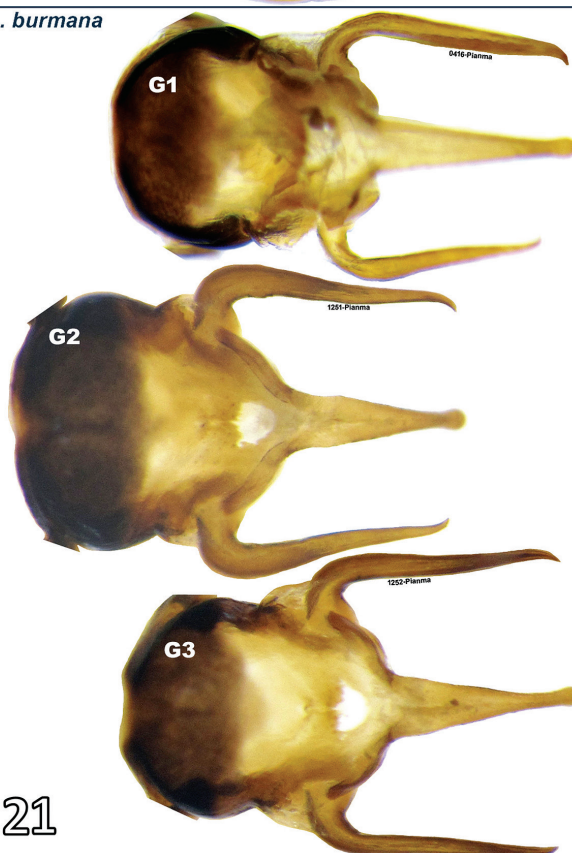
L. ailao ailao



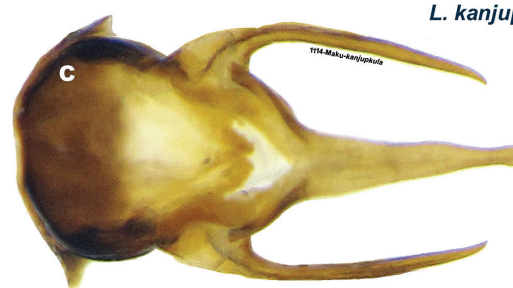
L. ailao pseudoburmana subspec. nov.



L. burmana



L. kanjupkula



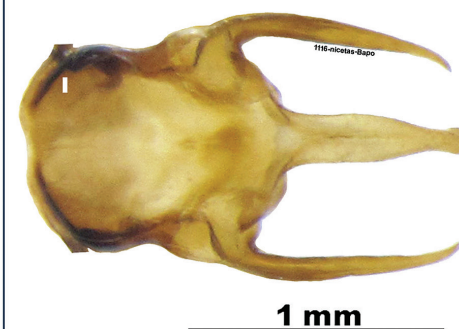
L. pseudokanjupkula



L. cybele



L. nicetas



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Fig. 21: ♂ tegumen+uncus+gnathos in dorsal view. **C.** *Lethe kanjupkula* TYTLER, 1914, Yunnan, Dulongjiang, S1114, LSY; **D.** *Lethe pseudokanjupkula* LANG & DING, 2022: (D1) PT, Guangxi, Tianlin, S1248, LSY; (D2) VIETNAM, Ha Giang, S1265, LSY. **E.** *Lethe namjagbarwae* HUANG, 1999 stat. nov., Tibet, Medog, WCH. **F.** *Lethe ailao* LANG & DING, 2022: (F1) subspec. *ailao* LANG & DING, HT, Yunnan, Xinping, S793, CMNH; (F2) subspec. *pseudoburmana* subspec. nov., HT, Yunnan, Gongshan, S387, CMNH. **G.** *Lethe burmana* TYTLER, 1939: (G1-3) Yunnan, Pianma, (G1) S416 (G2) S1251 (G3) S1252, LSY. **H.** *Lethe cybele* LEECH, 1893, Sichuan, Ebian, S210, LSY. **I.** *Lethe nicetas* (HEWITSON, 1863), Yunnan, Dulongjiang, S1116, LSY.

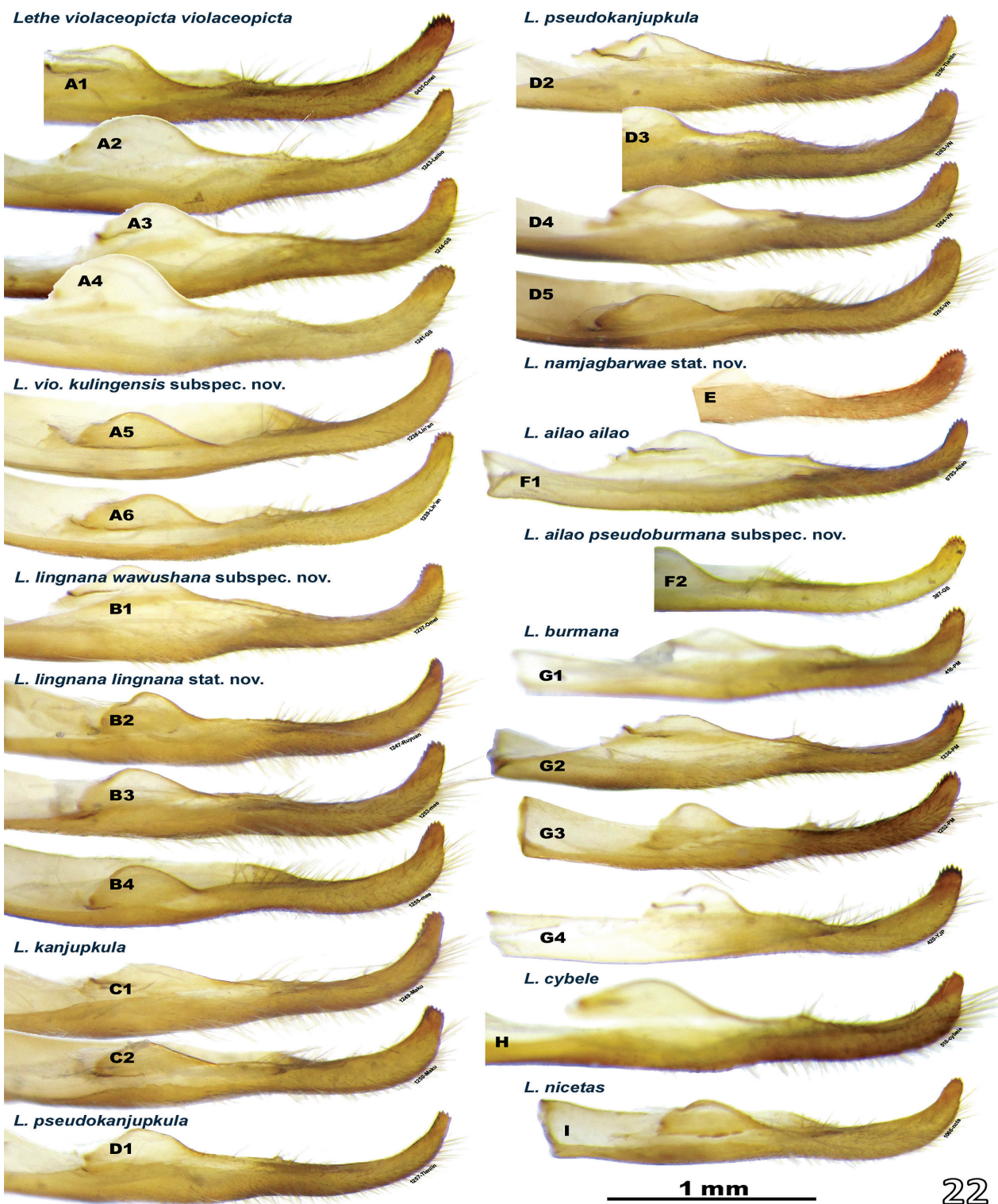
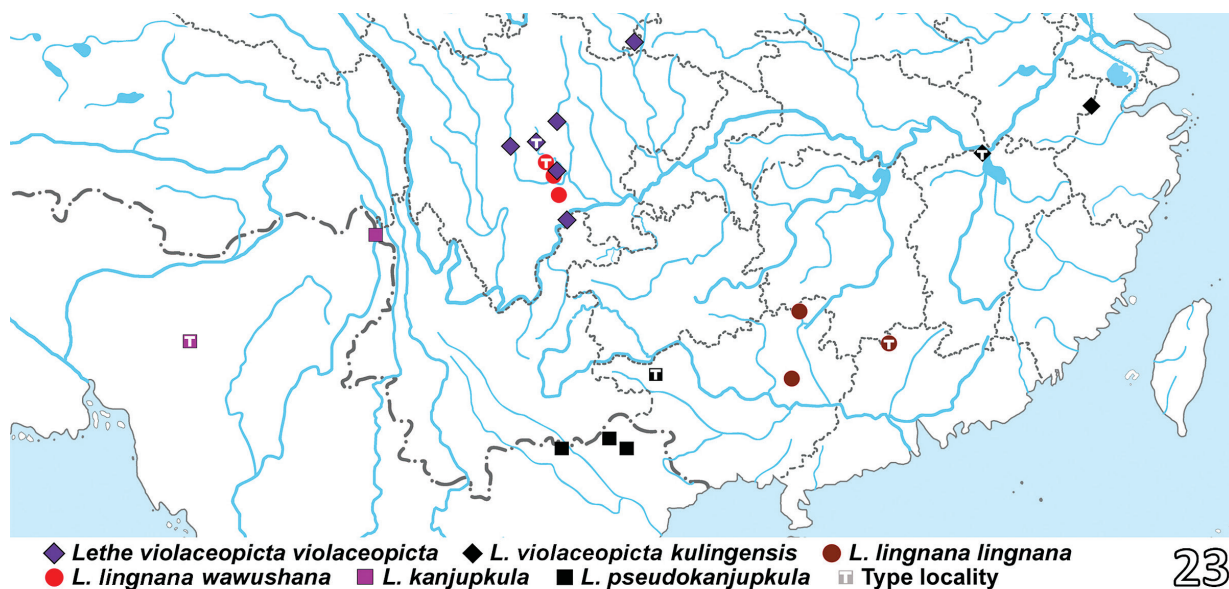
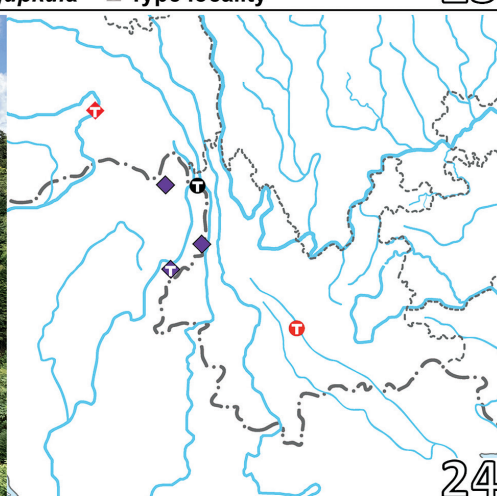


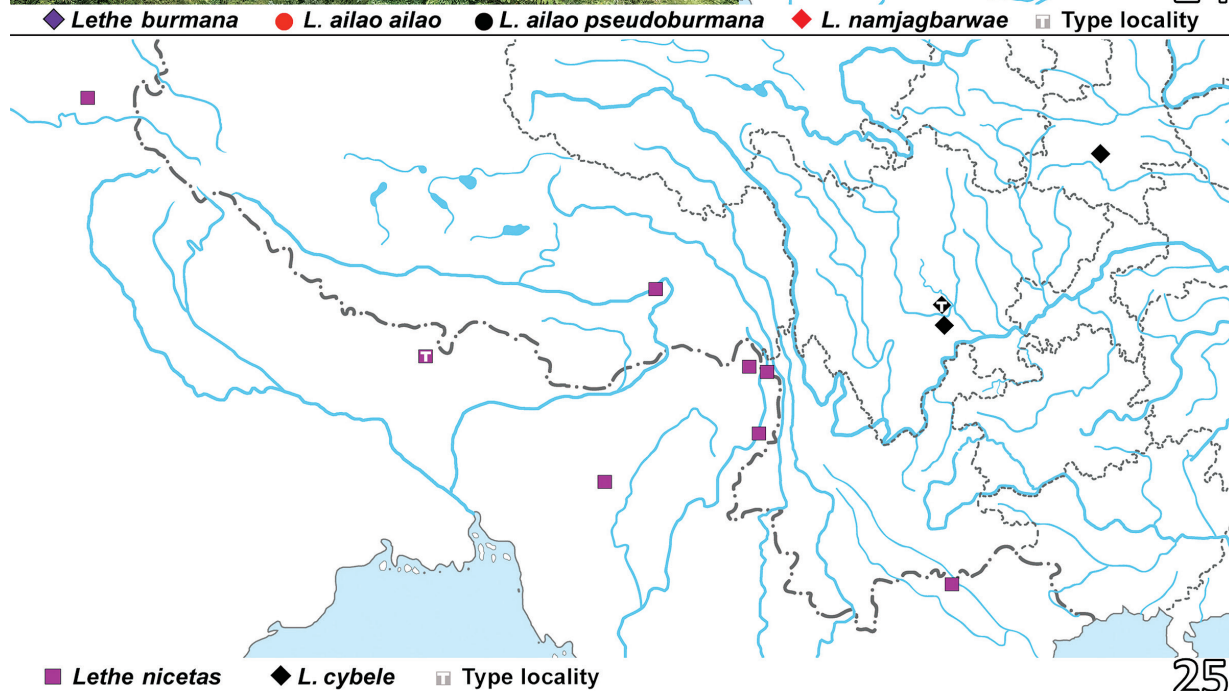
Fig. 22: ♂ left valva in dorsal view. **A.** *Lethe violaceopicta* (POUJADE, 1884): (A1-4) subsp. *violaceopicta* POUJADE: (A1) Sichuan(SC), Omei, S421, LSY; (A2) SC, Leibo, S1243, LSY; (A3-4) Gansu, Kangxian, (A3) S1244 (A4) S1241, LSY; (A5-6) subsp. *kulingensis* subsp. nov., PT, Zhejiang, Lin'an, (A5) S1238 (A6) S1239, LSY. **B.** *Lethe lingnana* LANG & DING, 2022 **stat. nov.**: (B1) subsp. *wawushana* subsp. nov., PT, SC, Omei, S1237, LSY; (B2-4) subsp. *lingnana* LANG & DING: (B2) HT, Guangdong, Ruyuan, S1247, CMNH; (B3-4) PT, Guangxi, Xing'an, (B3) S1253 (B4) S1255, LSY. **C.** *Lethe kanjupkula* TYTLER, 1914, Yunnan(YN), Dulongjiang, (C1) S1249 (C2) S1250, LSY. **D.** *Lethe pseudokanjupkula* LANG & DING, 2022: (D1-2) PT, Guangxi, Tianlin, (D1) S1257 (D2) S1256, LSY; (D3-5) VIETNAM, Ha Giang, (D3) S1263 (D4) S1264 (D5) S1265, LSY. **E.** *Lethe namjagbarwae* HUANG, 1999 **stat. nov.**, Tibet, Medog, WCH. **F.** *Lethe ailao* LANG & DING, 2022: (F1) subsp. *ailao* LANG & DING, HT, YN, Xiping, S793, CMNH; (F2) subsp. *pseudoburmana* subsp. nov., HT, YN, Gongshan, S387, CMNH. **G.** *Lethe burmana* TYTLER, 1939: (G1-3) YN, Pianma, (G1) S416 (G2) S1236 (G3) S1252, LSY; (G4) YN, Lushui, S420, LSY. **H.** *Lethe cybele* LEECH, 1893, SC, Ebian, S518, LSY. **I.** *Lethe nicetas* (HEWITSON, 1863), YN, Dulongjiang, S1066, LSY.



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Fig. 23: Distribution map of the *Lethe violaceopicta* (POUJADE, 1884)-complex (Sources of data: POUJADE, 1884; TYTLER, 1914; MONASTYRSKII, 2005; LANG, 2017; SAITO & VU, 2020; LANG & DING, 2022; specimens kept in CMNH, LSY). **Fig. 24:** Distribution map of the *Lethe burmana* TYTLER, 1939-complex (Sources of data: TYTLER, 1939; HUANG, 1999; SHIZUYA et al., 2005; LANG & DING, 2022; specimens kept in CMNH, LSY) with a landscape of Mts. Gao-li-gong, Lushui, W. Yunnan. **Fig. 25:** Distribution map of *Lethe nicetas* (HEWITSON, 1863) and *L. cybele* LEECH, 1893 (Sources of data: LEECH, 1893; TALBOT, 1949; HUANG, 2000; MONASTYRSKII, 2005; SHIZUYA et al., 2005; LANG & DING, 2022; specimens kept in LSY).

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Autor(en)/Author(s): Lang Song-Yun

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