

Five new species of *Episymphloe* (Blattodea: Blaberoidea: Ectobiidae) from China

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Abstract: In this paper, five new species of *Episymphloe* are reported, mainly distributed in Yunnan, Guizhou and Guangxi in China. Three new synonyms and a combination are proposed. Morphological descriptions of the new species, including the male genitalia, are provided along with detailed photographs. A checklist to *Episymphloe* from China is also given to indicate the diversity of species.

Key words: Cockroaches; *Episymphloe brevis*; *Episymphloe daliensis*; *Episymphloe longispina*; *Episymphloe multa*; *Episymphloe symmetrica*; taxonomy

中国拟歪尾蠊属五新种（蜚蠊目：硕蠊总科：姬蠊科）

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摘要：记述来自中国云南、贵州和广西的拟歪尾蠊属 5 个新种，并提出 3 个新异名及 1 个新组合。详细描述了新种的形态特征，尤其是雄性外生殖器，提供了形态特征图。本文还附中国拟歪尾蠊属名录以表明该属目前的物种多样性水平。

关键词：蜚蠊；短突拟歪尾蠊；大理拟歪尾蠊；长尾拟歪尾蠊；多特拟歪尾蠊；对刺拟歪尾蠊；分类

Introduction

The genus *Episymphloe* Bey-Bienko, 1950 belongs to Blattellinae, with *Blattella* as its sister group (Jin *et al.*, 2022). So far, species of this genus are only distributed in China, Southeast Asia, Australia and surrounding islands. Most species in this genus live in the wild, dwelling on leaves or branches at night and often hiding in leaf litter or under rocks during the day. They are mostly of medium size, yellow-brown, and similar in external appearance, often requiring dissection of the male genitalia to determine species.

Species in the genera *Episymphloe* and *Symphloe* are similar in morphology. Asahina (1979) made a detailed comparison of *Episymphloe* and *Symphloe* and redescribed the genus level characteristics of *Episymphloe*. Roth (1985) distinguished the species of *Episymphloe* and *Symphloe* by the supra-anal plate being symmetrical or not, and transferred some species including *E. popovi* and *E. marginata* into *Symphloe*. But Roth (1997) rejected this view and moved these species back to *Episymphloe*. And he revised *Episymphloe* and specified the identification characteristics.

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Recently, several scholars reported many *Episymphloe* species from China and in the two latest papers, the taxonomy research history of *Episymphloe* was summarized and the species published in recent years have been listed (Zhang *et al.* 2019; Li *et al.* 2020). Currently, the genus *Episymphloe* contains 60 species (including 4 subspecies) distributed in China.

Herein, five species of genus *Episymphloe* from China and new to science are described mainly on the basis of supra-anal plate, subgenital plate and male genitalia, which greatly enriches the cockroach fauna of China. In addition, a checklist to this genus *Episymphloe* is given to reflect the latest research progress.

Material and methods

All specimens were collected from Yunnan, Guizhou, and Guangxi in China. Morphological terminology used in this paper mainly follows McKittrick (1964), Roth (2003), and Li *et al.* (2018). Measurements are based on specimens examined by vernier caliper. Genital segments of examined specimens were placed in tubes and soaked with 10% NaOH, then the tubes were immersed in hot water for 15–20 minutes and then rinsed with distilled water. Genitalia were observed in glycerin under a SZ780 Continuous Zoom Stereo Microscope. Specimens and genital photographs were taken by a Leica M205A stereomicroscope with a Leica DFC Camera. All photos provided here were composed in Adobe Photoshop CS6. The type materials examined are deposited in the Institute of Entomology, Southwest University (SWU), Chongqing, China.

Terminology abbreviations in this article are as follows: L3 — sclerites of the left phallomere; L2vm — median phallomere; R2, R3 — sclerites of the right phallomere; T — tergite; ScP — subcosta posterior; R — radius; RA — radius anterior; RP — radius posterior; M — media; CuA — cubitus anterior; CuP — cubitus posterior; V — vannal veins; Pcu — postcubitus.

Taxonomy

Episymphloe Bey-Bienko, 1950: 157. **Type species:** *Episymphloe paradoxura* Bey-Bienko, 1950.

Li *et al.* (2020) have revised the generic diagnosis and provided it in detail; we do not repeat it here.

A checklist of *Episymphloe* from China

1. *E. asahinai* Roth, 1985 — China (Taiwan).
2. *E. brevilamina* Zhang *et al.*, 2019 — China (Zhejiang).
3. *E. brevis* Qiao & Che **sp. nov.** — China (Guangxi, Guizhou, Yunnan).
4. *E. carinata* Zhang *et al.*, 2019 — China (Guangxi).
5. *E. cheni* (Bey-Bienko, 1957) — China (Chongqing, Sichuan, Guizhou, Yunnan).
6. *E. conspicua* Wang *et al.*, 2014 — China (Zhejiang, Jiangxi, Fujian).
7. *E. daliensis* Qiao & Che **sp. nov.** — China (Yunnan).
8. *E. daozenana* Wang & Feng, 2005 — China (Hubei, Guizhou).
9. *E. dianxica* Zhang *et al.*, 2019 — China (Yunnan).
10. *E. dispar* (Bey-Bienko, 1957) — China (Yunnan).
11. *E. diversa* Zhang *et al.*, 2019 — China (Hubei, Guangxi, Guizhou).
12. *E. forficula* (Bey-Bienko, 1957) — China (Yunnan).

13. *E. formosana formosana* (Shiraki, 1907) — China (Anhui, Zhejiang, Hubei, Taiwan, Guizhou, Yunnan).
14. *E. formosana yoshinoe* (Shiraki, 1931) — China (Taiwan).
15. *E. hassenzana* Roth, 1987 — China (Taiwan, Sichuan).
16. *E. hunanensis* (Guo & Feng, 1985) — China (Hunan, Guangdong, Guangxi, Chongqing).
17. *E. jianfengensis* (Feng, 2002) **com. nov.** — China (Hainan).
18. *E. kryzhanovskii* (Bey-Bienko, 1957) — China (Beijing, Gansu, Hubei, Chongqing, Guizhou, Yunnan).
19. *E. kunmingi* (Bey-Bienko, 1969) = (*Symphloe quadrispinis* Woo & Feng, 1992. **Syn. nov.**) — China (Chongqing, Sichuan, Yunnan).
20. *E. longilamina* Guo *et al.*, 2011 — China (Zhejiang).
21. *E. longiloba* (Bey-Bienko, 1969) = (*Episymphloe guizhouensis* (Feng & Woo, 1988. **Syn. nov.**) — China (Guizhou, Yunnan).
22. *E. longispina* Qiao & Che **sp. nov.** — China (Yunnan).
23. *E. longistylata* Zhang *et al.*, 2019 — China (Zhejiang, Guizhou).
24. *E. luoxiaoshanensis* Liu *et al.*, 2017 — China (Jiangxi, Hunan).
25. *E. malaisei externa* (Bey-Bienko, 1969) — China (Yunnan).
26. *E. malaisei malaisei* (Princis, 1950) — China (Jiangxi, Guangdong, Guizhou, Yunnan); Malaysia.
27. *E. mamillata* (Feng & Woo, 1988) — China (Guizhou, Yunnan).
28. *E. maoershanica* Zhang *et al.*, 2019 — China (Guangxi).
29. *E. marginata* Bey-Bienko, 1957 — China (Chongqing, Guizhou, Yunnan).
30. *E. maxima* Li *et al.*, 2020 — China (Guangxi).
31. *E. multa* Qiao & Che **sp. nov.** — China (Yunnan).
32. *E. obscura* Zhang *et al.*, 2019 — China (Hunan).
33. *E. paradoxura* Bey-Bienko, 1950 — China (Guangxi, Sichuan).
34. *E. paravicina* (Bey-Bienko, 1969) — China (Yunnan).
35. *E. popovi* Bey-Bienko, 1957 — China (Yunnan).
36. *E. potanini* (Bey-Bienko, 1950) — China (Zhejiang, Hubei, Guangxi, Chongqing, Sichuan).
37. *E. prima* (Bey-Bienko, 1957) — China (Guangdong, Guangxi, Yunnan).
38. *E. princisi* (Bey-Bienko, 1969) — China (Yunnan).
39. *E. quarta* (Bey-Bienko, 1969) = (*Episymphloe fangensis* Roth, 1986. **Syn. nov.**) — China (Yunnan); Thailand.
40. *E. rothi* Zhang *et al.*, 2019 — China (Yunnan).
41. *E. rubroverticis* (Guo & Feng, 1985) — China (Jiangxi, Hunan, Guangdong).
42. *E. secunda* (Bey-Bienko, 1957) — China (Yunnan).
43. *E. sichuanensis* Li *et al.*, 2020 — China (Sichuan).
44. *E. sinensis* (Walker, 1869) — China (Beijing, Henan, Jiangsu, Anhui, Zhejiang, Hubei, Fujian, Taiwan, Guangdong, Hainan, Hongkong, Chongqing, Sichuan, Guizhou, Yunnan).
45. *E. splendens* (Bey-Bienko, 1957) — China (Guangxi, Chongqing, Sichuan, Guizhou, Yunnan).

46. *E. spinosa* (Bey-Bienko, 1969) — China (Sichuan, Yunnan).
47. *E. subvicina* (Bey-Bienko, 1969) — China (Yunnan).
48. *E. sundaica* (Hebard, 1929) — China (Fujian, Taiwan, Hainan, Guangxi, Chongqing, Guizhou, Yunnan); Vietnam; Thailand; Philippines; Malaysia; Indonesia (Java).
49. *E. symmetrica* Qiao & Che **sp. nov.** — China (Yunnan).
50. *E. taiheizana* Asahina, 1979 — China (Taiwan).
51. *E. tertia* (Bey-Bienko, 1957) — China (Yunnan).
52. *E. tridens* (Bey-Bienko, 1957) — China (Yunnan); Laos.
53. *E. torchacea* (Feng & Woo, 1999) — China (Fujian, Hainan).
54. *E. uncinata* Bey-Bienko, 1969 — China (Yunnan).
55. *E. unicolor* (Bey-Bienko, 1958) — China (Yunnan).
56. *E. vicina* (Bey-Bienko, 1954) — China (Zhejiang, Fujian, Guangdong, Chongqing, Sichuan, Guizhou); Vietnam.
57. *E. wulingensis* (Feng & Woo, 1993) — China (Fujian, Guangdong, Hainan, Guangxi, Chongqing, Sichuan, Guizhou).
58. *E. xiai* Liu *et al.*, 2017 — China (Zhejiang, Hunan, Fujian, Sichuan).
59. *E. zagulajevi* (Bey-Bienko, 1969) — China (Yunnan).
60. *E. zhengi* Guo *et al.*, 2011 — China (Zhejiang).

1. *Episymploce brevis* Qiao & Che **sp. nov.** (Fig. 1)

Measurements. Male: body length: 16.9–18.6 mm, pronotum length×width: 3.2–4.4×3.8–4.5 mm, tegmina length: 13.8–15.9 mm.

Coloration. Body yellowish brown. Head yellowish brown. Ocellar spots yellowish white. Antennae blackish brown. Third and fourth maxillary palpi yellow. Fifth maxillary palpus brown. Pronotum pale brown. Tegmina and wings brown. Abdominal sterna and legs yellow. Cerci black (Figs 1A, 1B).

Description. Male. Vertex with interocular space less than the distance between antennal sockets. Third and fifth maxillary palps approximately same length, weakly longer than fourth maxillary palpus (Fig. 1B). Pronotum subelliptical (Fig. 1A). Tegmina and hind wings fully developed, extending beyond end of abdomen. CuA with 3–5 complete branches and 3–5 incomplete branches (Fig. 1E). Front femur Type A3 (Fig. 1C). Pulvilli and arolium present. Tarsal claws symmetrical and unspecialized. T1 specialized with a cluster of setae in the middle. T7 specialized with a pair of shallow fossae (Fig. 1G); lateral plates of T9 both with a spine-like process (Fig. 1F).

Terminalia. Hind margin of supra-anal plate with two chiasmatic spine-like processes in the middle, and a short protrusion at the base of the left process. Paraprocts different. The right paraproct bifurcate with one apex acute and the other rounded. The left paraproct with a process and rounded apically (Fig. 1L). Subgenital plate asymmetrical, left rear margin of subgenital plate with dense spines. Styli different, left stylus stout with a spine at the end; right stylus nearly conoid (Fig. 1K). Phallomere simple, hook on the left of subgenital plate with incision (Fig. 1H); median phallomere slender and rodlike (Fig. 1I); right phallomere with irregular sclerite and dense spines at the bottom (Fig. 1J).

Holotype. ♂, **China**, Guizhou, Qiannan Buyi and Miao Autonomous Prefecture, Libo County, Jia'ou Town, 852 m, 12-VI-2019, Lu QIU & Wenbo DENG leg. **Paratypes.** 4♂, same

data as holotype; 1♂, Qiannan, Dushan County, Mawei Town, 904 m, 09-VI-2019, Lu QIU & Wenbo DENG leg.; 1♂, Guiyang City, Shili Benchland, 1100 m, 04-VI-2019, Lu QIU & Wenbo DENG leg.; 1♂, Yunnan, Kunming City, West Mountain, 2209 m, 21-V-1982, Pingzhang FENG leg.; 1♂, Xishuangbanna, Jinghong City, Mengyang Town, 850 m, 17-VII-1957, Lingchao ZANG leg.; 1♂, Guangxi, Baise City, Napo County, Defu Village, 1350 m, 18-VI-2000, Jun CHEN leg.

Etymology. The specific epithet is derived from the Latin word *brevis*, referring to the short protrusion of the supra-anal plate.

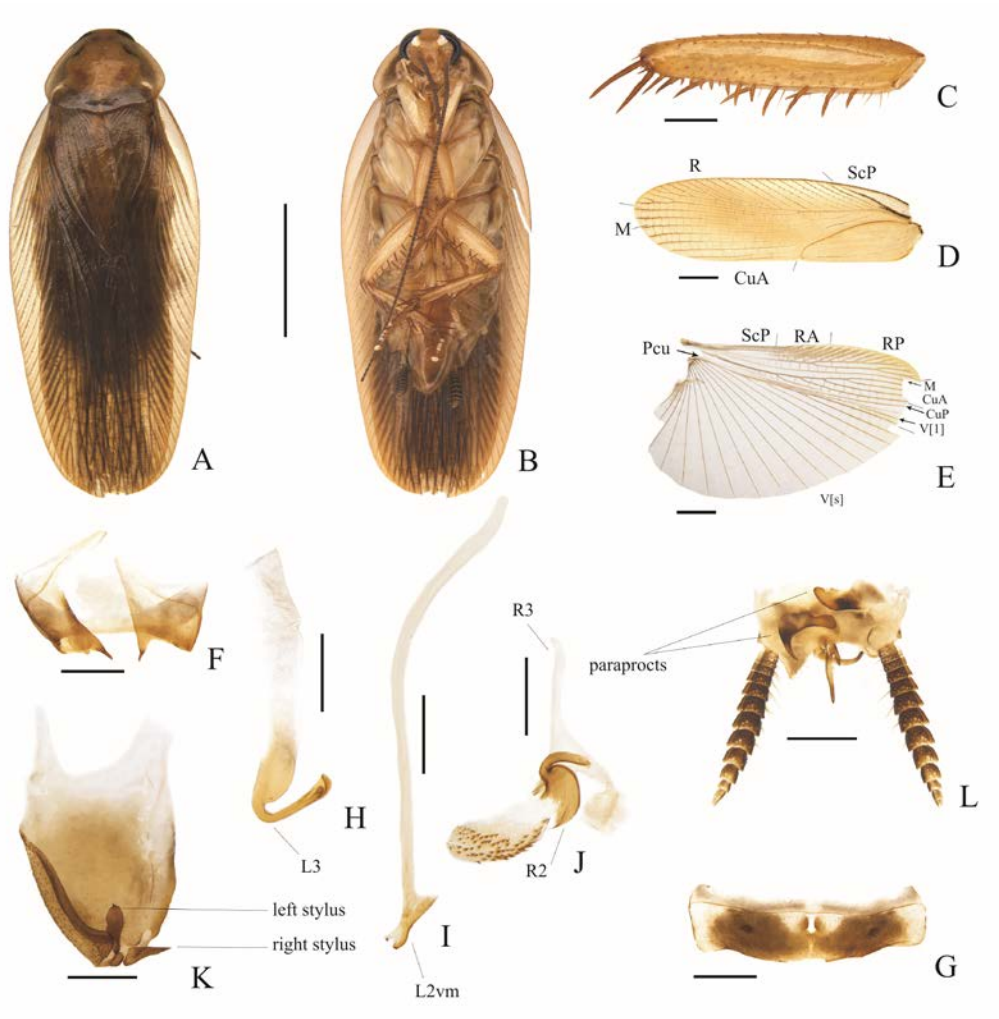


Figure 1. *Episymphloe brevis* Qiao & Che **sp. nov.**, holotype, ♂. A. Habitus, dorsal view; B. Habitus, ventral view; C. Front femur, ventral view; D. Paratype, tegmen; E. Wing; F. Ninth abdominal tergite, dorsal view; G. Seventh abdominal tergite, dorsal view; H. Left phallomere; I. Median phallomere; J. Right phallomere; K. Subgenital plate, dorsal view; L. Supra-anal plate, ventral view. Scale bars = 5.0 mm (A, B); 2.0 mm (D, E); 1.0 mm (F, G, K, L); 0.5 mm (C, H, I, J).

Remarks. This species resembles *Episymphloe malaisei malaisei* (Princis, 1950) but can be distinguished by the following characteristic: 1) the posterior margin of the supra-anal plate with a short protrusion at the base of the left process in the former, while no protrusion

in the latter; 2) two processes of supra-anal plate straight in the former, while curved in the latter (see Roth 1987: 137, fig. 3).

2. *Episymphloce daliensis* Qiao & Che sp. nov. (Fig. 2)

Measurements. Male: body length: 10.2–12.2 mm, pronotum length×width: 2.8–3.1×3.3–3.6 mm, tegmina length: 4.5–5.5 mm.

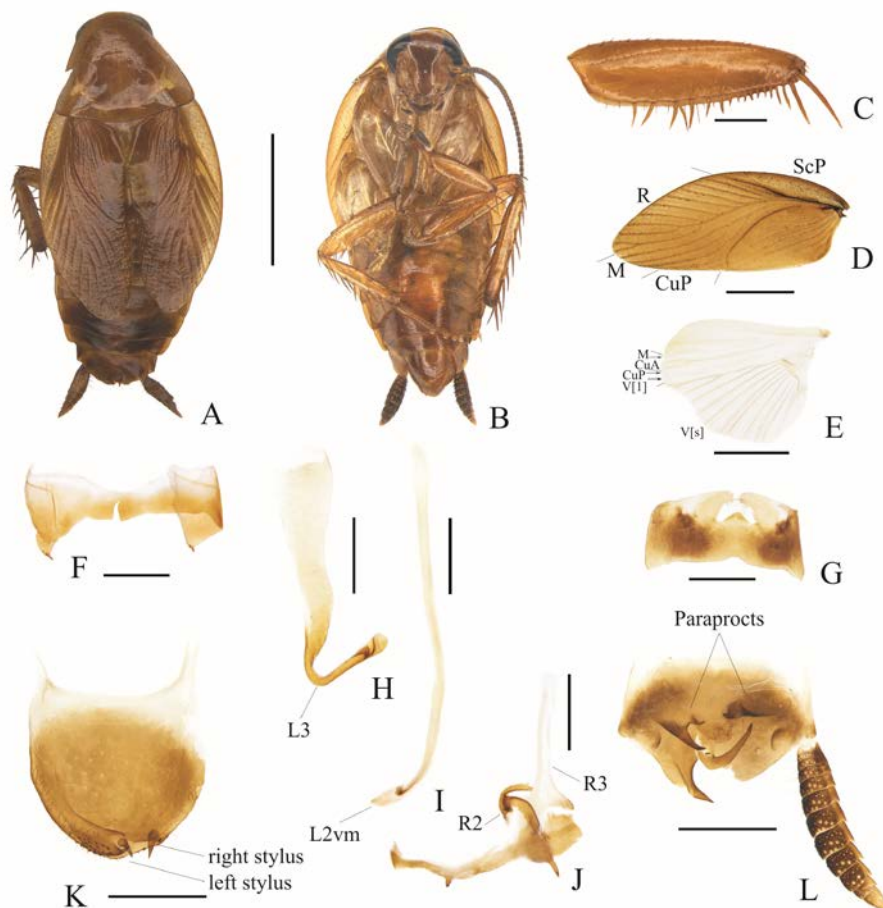


Figure 2. *Episymphloce daliensis* Qiao & Che sp. nov., holotype, ♂. A. Habitus, dorsal view; B. Habitus, ventral view; C. Front femur, ventral view; D. Paratype, tegmen; E. Paratype, wing; F. Paratype, ninth abdominal tergite, dorsal view; G. Seventh abdominal tergite, dorsal view; H. Left phallomere; I. Median phallomere; J. Right phallomere; K. Subgenital plate, dorsal view; L. Supra-anal plate ventral view. Scale bars = 5.0 mm (A, B); 2.0 mm (D, E); 1.0 mm (F, G, K, L); 0.5 mm (C, H, I, J).

Coloration. Body yellowish brown. Head brown. Ocellar spot indistinct, antennae blackish brown. Fourth and fifth maxillary palpi brown, third maxillary palpus yellowish brown. Pronotum and tegmina yellowish brown. Abdominal sterna and legs yellowish brown. Cerci black (Figs 2A, 2B).

Description. Male. Vertex with interocular space almost same as the distance between antennal sockets. Third and fifth maxillary palps approximately same length, slightly longer than fourth maxillary palpus (Fig. 2B). Pronotum nearly subelliptical (Fig. 2A). Tegmina and

hind wings reduced, reaching to about the hind margin of T5 and T2, respectively. Hind wings with R, M nearly degenerated, CuA without branch (Fig. 2E). Front femur Type A to B with four big spines at the end (Fig. 2C). Pulvilli and arolium present. Tarsal claws symmetrical and unspecialized. T1 specialized with a cluster of setae in the middle; T7 specialized with arched process in the middle (Fig. 2G); T9 lateral plates nearly similar, apex triangular-shaped with two or three little spines (Fig. 2F).

Terminalia. Supra-anal plate asymmetric, with two curved spine-like process in the middle of hind margin. Paraprocts different. The right paraproct with two different size spine-like processes. The left paraproct with small horn-like process (Fig. 2L). Left rear of subgenital plate upturned and thickened with a spine. Right stylus bigger than left stylus (Fig. 2K). Hook on the left side of subgenital plate with an incision (Fig. 2H). Median phallomere slender and rodlike (Fig. 2I). Right phallomere with two small processes at the bottom (Fig. 2J).

Holotype. ♂, **China**, Yunnan, Dali City, Weishan County, Weibao Mountain, 2200 m, 23-VII-2020, Duting JIN & Yishu WANG leg. **Paratype.** 1♂, Yunnan, Dali City, Cang Mountain, 2200 m, 24-VII-2020, Likang NIU & Rong CHEN leg.

Etymology. The specific epithet *daliensis* refers to the type locality: Dali, Yunnan.

Remarks. This species is similar to *E. kunmingi* (Bey-Bienko, 1969) but can be distinguished by the following characteristics: 1) short tegmina only reaching T5 in the former, while in the latter, tegmina and wings slightly reduced, reaching the middle of the supra-anal plate; 2) hind margin of supra-anal plate with a spine-like process curved to the base in the former, while absent in the latter (Fig. 3).

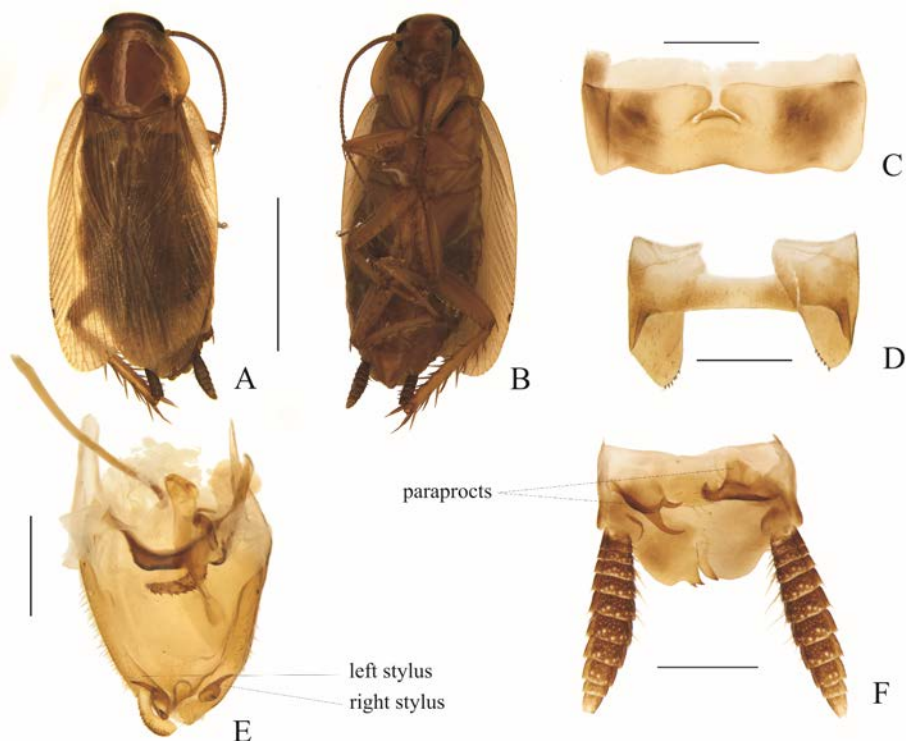


Figure 3. *Episymphloe kunmingi* (Bey-Bienko, 1969). A. Habitus, dorsal view; B. Habitus, ventral view; C. Seventh abdominal tergite, dorsal view; D. Ninth abdominal tergite, dorsal view; E. Supra-anal plate, ventral view; F. Subgenital plate, dorsal view. Scale bars = 5.0 mm (A, B); 1.0 mm (C–F).

3. *Episymploce longispina* Qiao & Che sp. nov. (Fig. 4)

Measurements. Male: body length: 18.8–21.0 mm, pronotum length×width: 3.9–4.5×4.5–5.4 mm, tegmina length: 16.3–17.5 mm.

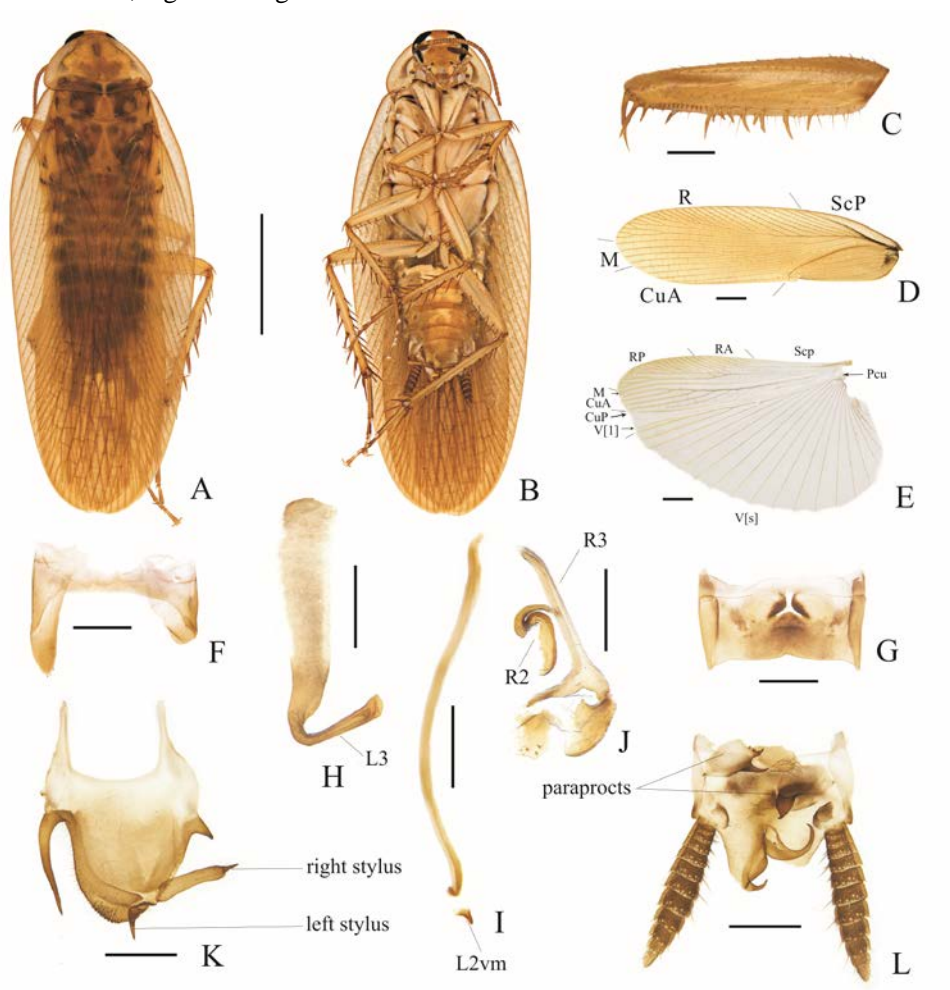


Figure 4. *Episymploce longispina* Qiao & Che sp. nov., holotype, ♂. A. Habitus, dorsal view; B. Habitus, ventral view; C. Front femur, ventral view; D. Tegmen; E. Paratype, wing; F. Paratype, ninth abdominal tergite, dorsal view; G. Seventh abdominal tergite, dorsal view; H. Left phallomere; I. Median phallomere; J. Right phallomere; K. Subgenital plate, dorsal view; L. Supra-anal plate, ventral view. Scale bars = 5.0 mm (A, B); 2.0 mm (D, E); 1.0 mm (F, G, K, L); 0.5 mm (C, H, I, J).

Coloration. Body yellowish brown. Head yellowish brown. Ocellar spots yellowish white, antennae yellowish brown. Fourth and fifth maxillary palpi brown, third maxillary palpus pale yellow. Pronotum yellowish brown. Tegmina and wings yellow. Abdominal sterna and legs yellow. Cerci brown (Figs 4A, 4B).

Description. Male. Vertex with interocular space less than the distance between antennal sockets (Fig. 4B). Pronotum nearly subelliptical with unobvious symmetrical markings (Fig. 4A). Tegmina and hind wings fully developed, extending beyond end of abdomen. CuA with 2–3 complete branches and 4–7 incomplete branches (Fig. 4E). Front femur type B3 (Fig. 4C).

Pulvilli and arolium present. Tarsal claws symmetrical and unspecialized. T7 specialized with an inverted Y-shaped shallow fossae in the middle (Fig. 4G); lateral plates of T9 elongated, left one much longer than right (Fig. 4F).

Terminalia. Hind margin of supra-anal plate with a deep crack, the right lobe elongated with a small spine-like crooked processes; the left lobe with a big curved horn-like process, upturned. Paraprocts different. The left paraproct with a big horn-like process. The right paraproct with two spine-like processes and several short spines (Fig. 4L). Subgenital plate asymmetrical, lateral margin of subgenital plate upturned and thickened with spines. Styli different; left stylus deflexed, right stylus long and cylindrical with a spine (Fig. 4K). Hook phallomere with an incision near the apex on the left side of the subgenital plate (Fig. 4H). Median phallomere slender and rodlike, with a membranous transition zone near apex (Fig. 4I). Right phallomere with three sclerites (Fig. 4J).

Holotype. ♂, **China**, Yunnan, Pingbian County, Dawei Mountain, 1522 m, 17-V-2016, Lu QIU & Zhiwei QIU leg. **Paratypes.** 3♂, same data as holotype.

Etymology. The Latin words *longus* and *spina* are combined, referring the special right stylus being long and spiny.

Remarks. This species is similar to *E. spinosa* (Bey-Bienko, 1969) but can be distinguished by the following characteristics: 1) right stylus sturdy and long, with apex sharp in the former, while short and tapering in the latter; 2) lateral margin of subgenital plate with two spines in the former, while a thin spine present in the latter (see Bey-Bienko, 1969: 852, fig. 47).

4. *Episymphloe multa* Qiao & Che sp. nov. (Fig. 5)

Measurements. Male: body length: 11.2–11.9 mm, pronotum length×width: 2.9–3.0×3.9–4.2 mm, tegmina length: 6.0–6.3 mm.

Coloration. Body yellowish brown. Head yellowish brown. Ocellar spots yellowish white, antennae yellowish brown. Maxillary palpi brown. Pronotum yellowish brown. Tegmina and wings yellow. Abdominal sterna and legs yellow. Cerci brown (Figs 5A, 5B).

Description. Male. Vertex with interocular space slightly shorter than the distance between antennal sockets. Third and fifth maxillary palps approximately same length, slightly longer than fourth palpus (Fig. 5B). Pronotum nearly semicircular (Fig. 5A). Tegmina and hind wings reduced, reaching to about the hind margin of T7 and T3 respectively (Fig. 5D). Front femur type A to B with four big spines at the end (Fig. 5E). Pulvilli and arolium present. Tarsal claws symmetrical and unspecialized. T1, T2, T3 specialized with a cluster of setae in the middle (Figs 5F, 5I, 5J); T7 specialized with an arched process in the middle, two sides lightly concave (Fig. 5H); T9 specialized, hind margin of lateral plates with a row of small spines (Fig. 5G).

Terminalia. Supra-anal plate asymmetric with a deep concavity in the middle of hind margin. Paraprocts different. The right paraproct with two spine-like processes. The left paraproct with a robust process (Fig. 5O). Lateral margin of subgenital plate with a spine. Left rear of subgenital plate upturned and thickened with many spines. Two spine-like styli long (Fig. 5N). Hook on the left side of subgenital plate with an incision (Fig. 5K). Median phallomere slender and rodlike (Fig. 5L). Right phallomere with three sclerites (Fig. 5M).

Holotype. ♂, **China**, Yunnan, Chuxiong City, Zixi Mountain, 2397 m, 07-VII-2012, Dong WANG leg. **Paratypes.** 2♂, same data as holotype.

Etymology. The specific epithet, *multus*, refers to the several tergites (T1, T2, T3, T7 and T9) that are specialized.

Remarks. This species resembles *E. maoershanica* Zhang *et al.*, 2019, but can be distinguished by the following characteristics: 1) tegmina and wings reduced in the former, while in the latter, tegmina and wings fully developed, reaching the end of the abdomen; 2) the left paraproct with a robust process in the former, while two little tips present in the latter (see Zhang *et al.*, 2019: 206, figs 18–21).

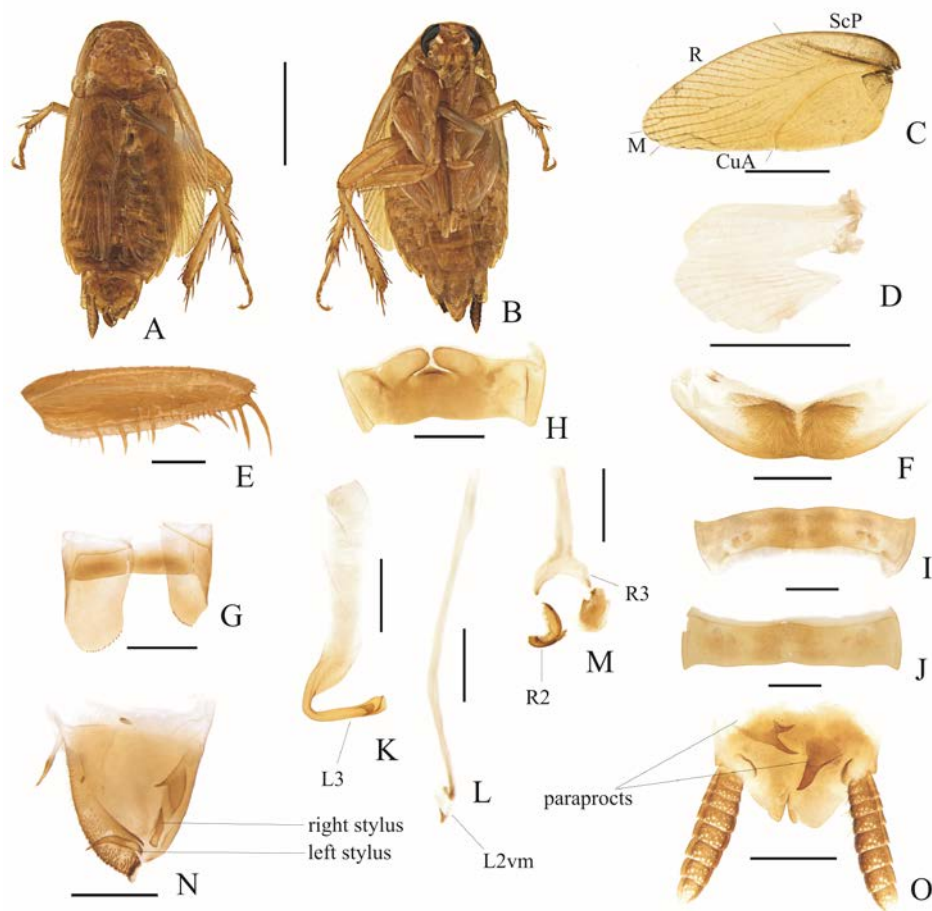


Figure 5. *Episymploce multa* Qiao & Che *sp. nov.*, holotype, ♂. A. Paratype, habitus, dorsal view; B. Paratype, habitus, ventral view; C. Tegmen; D. Wing; E. Front femur, ventral view; F. First abdominal tergite, dorsal view; G. Ninth abdominal tergite, dorsal view; H. Seventh abdominal tergite, dorsal view; I. Second abdominal tergite, dorsal view; J. Third abdominal tergite, dorsal view; K. Left phallomere; L. Median phallomere; M. Right phallomere; N. Subgenital plate, dorsal view; O. Supra-anal plate, ventral view. Scale bars = 5.0 mm (A, B); 2.0 mm (C, D); 1.0 mm (F, G, H, I, J, N, O); 0.5 mm (E, K, L, M).

5. *Episymploce symmetrica* Qiao & Che *sp. nov.* (Fig. 6)

Measurements. Male: body length: 17.5–19.6 mm, pronotum length×width: 3.2–

3.5×3.4–3.8 mm, tegmina length: 16.0–16.9 mm.

Coloration. Body yellowish brown. Head yellowish brown. Ocellar spots white; antennae yellowish brown. Maxillary palpi brown. Pronotum yellowish brown. Tegmina and wings yellowish brown. Abdominal sterna and legs yellow. Cerci yellowish brown (Figs 6A, 6B).

Description. Male. Vertex with interocular space slightly shorter than the distance between antennal sockets. Third and fifth maxillary palps approximately same length, slightly longer than fourth palpus (Fig. 6B). Pronotum nearly subelliptical (Fig. 6A). Tegmina and hind wings fully developed, extending beyond end of abdomen. CuA with 3 complete branches and 5–7 incomplete branches (Fig. 6E). Front femur type B3 (Fig. 6C). Pulvilli and arolium present. Tarsal claws symmetrical and unspecialized. T7 specialized with an inverted Y-shaped shallow fossae in the middle (Fig. 6G). T9 without any special structure (Fig. 6F).

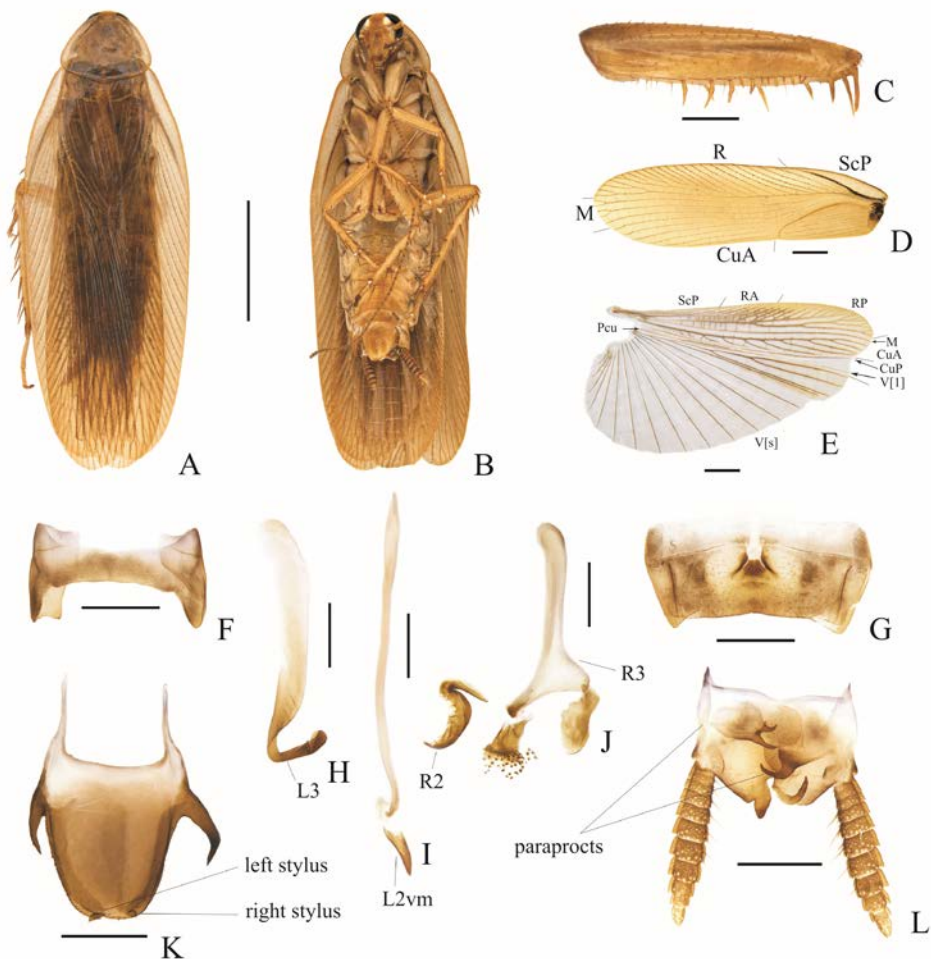


Figure 6. *Episymphloe symmetrica* Qiao & Che **sp. nov.**, holotype, ♂. A. Habitus, dorsal view; B. Habitus, ventral view; C. Front femur, ventral view; D. Paratype, tegmen; E. Wing; F. Ninth abdominal tergite, dorsal view; G. Seventh abdominal tergite, dorsal view; H. Left phallomere; I. Median phallomere; J. Right phallomere; K. Subgenital plate, dorsal view; L. Supra-anal plate, ventral view. Scale bars = 5.0 mm (A, B); 2.0 mm (D, E); 1.0 mm (F, G, K, L); 0.5 mm (C, H, I, J).

Terminalia. Supra-anal plate asymmetric with a deep concavity in the middle of hind margin. Right lobe with a crooked spine-like process. Paraprocts different. The left paraproct with a big process, nearly right-angle in shape. The right paraproct with two processes (Fig. 6L). Subgenital plate nearly symmetrical, lateral margin slightly upturned with long spines. Two spine-like styli small (Fig. 6K). Hook on the left side of subgenital plate with an incision (Fig. 6H). Median phallomere slender and rodlike (Fig. 6I). Right phallomere with three sclerites (Fig. 6J).

Holotype. ♂, **China**, Yunnan, Xiping County, Ailao Mountain, 2421 m, 10-V-2016, Zhiwei QIU & Lu QIU leg. **Paratypes.** 4♂, same data as holotype.

Etymology. The specific name, *symmetrica*, refers to the spines on lateral margin of subgenital plate being nearly symmetrical.

Remarks. This species can be easily distinguished from other species of *Episymphloe* by the two obvious large lateral spines of the subgenital plate.

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