

Hong Kong Entomological Bulletin



Hong Kong Entomological Bulletin

Published by the Hong Kong Entomological Society

Volume 17 (1) December 2025

Contents

Ho Wai-Chun, G.

Contribution to the knowledge of Chinese Phasmatodea XVI: New taxa and new nomenclature of the subfamily Necrosiinae (Lonchodidae) from the Phasmatodea of China II

中國蠃目之新知XVI：中國蠃目長角枝蠃亞科（長角棒蠃科）新分類群及新分類命名II 3-25

Cover photograph: *Oedohirasea wenshanensis* sp. nov. 文山膨胸棘蠃, adult female, Maguan, Wenshan, Yunnan, China, 28 July 2025, photo by George Ho Wai-Chun.

Chief editor: George Ho Wai-Chun (georgehwc@hotmail.com)
Editor: Yiu Vor (yiuvor@hkentsoc.org)

Subject editors

Coleoptera: Paul Aston (paulaston70@hotmail.com)
Hymenoptera (Aculeata): Christophe Barthélemy (cbarthelemy@hkentsoc.org)
Lepidoptera: Roger Kendrick (hkmoths@yahoo.co.uk)
Odonata: Graham Reels (gtreels@hkentsoc.org)
Phasmatodea: George Ho Wai-Chun (georgehwc@hotmail.com)

The Hong Kong Entomological Bulletin publishes papers reporting on all aspects of Insecta in Hong Kong and the wider bioregion, including biology, behaviour, ecology, systematics, taxonomy, genetics and morphology. Papers can be original research results, reviews or short communications. There is no page limit to the manuscripts and no page charge will be applied. At the editors' discretion, an independent review of submitted manuscripts will be sought from an appropriate authority.

Guidelines for authors

<http://hkentsoc.org/publications/guidelines/content.html>

Contribution to the knowledge of Chinese Phasmatodea XVI: New taxa and new nomenclature of the subfamily Necrosiinae (Lonchodidae) from the Phasmatodea of China II

George Ho Wai-Chun

HKES, P. O. Box No. 73749, Kowloon Central Post Office, Hong Kong.
E-mail: georgehwc@hotmail.com

ABSTRACT

This paper describes 13 new taxa including, two new genera, two new subgenera and nine new species from the Necrosiinae of China. They are namely, *Neoparamenexenus* **gen. nov.**, *Sinohirasea* **gen. nov.**, *Neoparamenexenus* (*Breviparamenexenus*) **subgen. nov.**, *Neoparamenexenus* (*Neoparamenexenus*) **subgen. nov.**, *Andropromachus bicornutus* **sp. nov.**, *Dianphasma dolichocarinatum* **sp. nov.**, *Oedohirasea wenshanensis* **sp. nov.**, *Oedohirasea yunnanensis* **sp. nov.**, *Parasinophasma biconcavum* **sp. nov.**, *Pseudososibia exigua* **sp. nov.**, *Pseudososibia nigrogranulata* **sp. nov.**, *Pseudososibia spinituberculata* **sp. nov.** and *Scionecra xizangensis* **sp. nov.** A total of eight new combinations are suggested: *Neoparamenexenus* (*Breviparamenexenus*) *balteatus* (Chen & He, 2002) **comb. nov.** [*Proscoteles*], *Neoparamenexenus* (*Breviparamenexenus*) *carinulatus* (Redtenbacher, 1908) **comb. nov.** [*Paramenexenus*], *Neoparamenexenus* (*Breviparamenexenus*) *guangxiensis* (Chen & He, 1999) **comb. nov.** [*Proscoteles*], *Neoparamenexenus* (*Breviparamenexenus*) *shenglii* (Ho, 2013) **comb. nov.** [*Lopaphus*], *Neoparamenexenus* (*Neoparamenexenus*) *congnatus* (Chen, He & Chen, 2000) **comb. nov.** [*Paramenexenus*], *Neoparamenexenus* (*Neoparamenexenus*) *laetus* (Kirby, 1904) **comb. nov.** [*Promachus*; = *Paramenexenus operculatus* Redtenbacher, 1908], *Sinohirasea unispina parvula* (Ho, 2017) **comb. nov.** [*Neohirasea*], and *Sinohirasea unispina unispina* (Ho, 2017) **comb. nov.** [*Neohirasea*]. One new synonym is suggested: *Pseudoparamenexenus beiliuensis* Qin, Cui & Bian, 2025 **syn. nov.** is synonymised with *Neoparamenexenus* (*Breviparamenexenus*) *balteatus* (Chen & He, 2002) **comb. nov.** Species list for *Andropromachus* Carl, 1913, *Dianphasma* Chen & He, 1997, *Neoparamenexenus* **gen. nov.**, *Oedohirasea* Ho, 2020, *Parasinophasma* Chen & He, 2008, *Pseudososibia* Ho, 2017, *Scionecra* Karny, 1923, and *Sinohirasea* **gen. nov.**, are provided.

Key words: stick insects, China, taxonomy, new genus, new subgenus, new species, new combination, new synonym

INTRODUCTION

Lonchodidae Brunner von Wattenwyl, 1893 is the largest stick insect family within the Phasmatodea, with two subfamilies, namely Necrosiinae Brunner von Wattenwyl, 1893, and Lonchodinae Brunner von Wattenwyl, 1893 (Brock and Büscher, 2022; Brock et al., 2025). In China, Necrosiinae has the highest

diversity of taxa and more than 200 species have been described (Chen and He, 2008; Hennemann et al., 2008; Brock et al., 2025; Ho, unpub. data).

This study is additional to the previous studies of the Necrosiinae from China (Ho, 2017a, 2020, 2024), the present work describing 13 new taxa including two new genera, two new subgenera and nine new species. It proposes eight new combinations and one new synonym from the Necrosiinae in China.

MATERIALS & METHODS

The systematic treatment is according to Otte and Brock (2005), Komoto et al. (2011), Bradler et al. (2014), Bradler and Buckley (2018), Robertson et al. (2018), Bank and Bradler (2022), Brock and Büscher (2022) and Brock et al. (2025). The terminology of armature used in this study is largely based on Rehn and Rehn (1939). Other morphological terms are based on Bragg (2001) and Brock and Büscher (2022). The Chinese names of all species listed in the checklist have been provided and standardised for consistent use in the literature, enabling other researchers to reference them in the future. Ootaxonomic description refers to Clark (1976a, 1976b, 1979), Sellick (1988, 1997, 1998; = Clark, J.T.), and Zompro (2004). Measurements are provided in millimetres (mm). The type specimens of the new taxa are deposited at Hong Kong Entomological Society, Hong Kong, China (HKES).

RESULTS

Lonchodidae Brunner von Wattenwyl, 1893

Necrosiinae Brunner von Wattenwyl, 1893

Necrosiini Brunner von Wattenwyl, 1893

Andropromachus Carl, 1913 (= *Spiniphasma* Chen & He, 2000)

Type-species: *Andropromachus scutatus* Carl, 1913: 49, by subsequent designation of Zompro (2002: 68).

Description: As in Hennemann (2007: 16).

Distribution: China and Vietnam.

Notes: Currently the genus *Andropromachus* Carl, 1913 includes seven species, among which one is new species described in this study: *Andropromachus bicornutus* **sp. nov.** At present, four species have been identified within China. An updated list of the Chinese

species of *Andropromachus* is provided.

Chen and He (2000: 32) originally used the Chinese name “粗棘蝟” for *Spiniphasma* Chen & He, 2000, which is now considered a synonym of *Andropromachus* Carl, 1913. Later, Chen and He (2008: 202) used “粗棘蝟” for *Spiniphasma*. In this study, the Chinese name “粗棘蝟” is used for *Andropromachus*, and “粗棘蝟” is maintained for *Spiniphasma*.

Species included in China:

1. *Andropromachus bicornutus* sp. nov. 雙角粗棘蝟 [China (Yunnan)]
2. *Andropromachus guangxiensis* (Chen & He, 2000) 廣西粗棘蝟 [*Spiniphasma guangxiense*; China (Guangxi & Guizhou)]
3. *Andropromachus gulinqingensis* Xie & Qian, 2022 古林箐粗棘蝟 [China (Yunnan)]
4. *Andropromachus ynau* Gao, Huang, Wang, Xie & Li, 2022 雲南粗棘蝟 [China (Yunnan)]

***Andropromachus bicornutus* sp. nov.** (Figs. 1-5, 32-37)

Types: Holotype, ♀, 1500-2000m, Maguan, Wenshan, Yunnan, China, 28 July 2025, George Ho Wai-Chun (HKES); Paratypes, 1♂, 24 eggs, same data as holotype (HKES).

Diagnosis: *Andropromachus bicornutus* sp. nov. is similar to *A. gulinqingensis* Xie & Qian, 2022, but it can be distinguished by its smaller size and the presence of paired supra-antennal spines in both sexes, the horn-like preopercular organ on the seventh abdominal sternum in female, and the weakly emarginated posterior margin of the anal segment in male.

Description of female (Figs. 1-3, 32, 36): Small size for Necrosciinae. Body robust, distinctly larger and more robust than male. General colouration of body and legs yellowish-green, with small blackish markings.

Head: Covered with very few small granules. Oval, gently tapering posteriorly behind compound eyes. Vertex convex, with paired short and small supra-antennal spines. Occiput distinctly convex, with paired supra-orbital spines, also with two pairs of medial spines along median longitudinal furrow, anterior pair larger than posterior pair. Compound eyes small and rounded, its length about three times that of genae. Antennae long and filiform, surpassing apices of protarsi; scapus flattened at base, shorter than third segment, longer than pedicellus.

Thorax: Thick-built, spinose, covered with a few small granules. Pronotum nearly rectangular, longer than wide, anterior margin incurved, posterior margin rounded, with one paired anterior and two paired posterior medial spines, transverse and longitudinal sulci crossing at middle point. Mesonotum moderately expanded

posteriorly in anterior half, distinctly swollen medially and indistinctly narrowing in posterior area; with paired anterior medial, pre-median medial, median medial, post-median medial and posterior medial spines, also with paired median and posterior spines, lateral margins with four spines. Metanotum wider than long, longer than median segment, with two paired median medial and one paired post-median medial spines, lateral margin with a large median spine. Mesopleurae and metapleurae with a supra-coxal spine. Mesosternum and metasternum with a few acute granules.

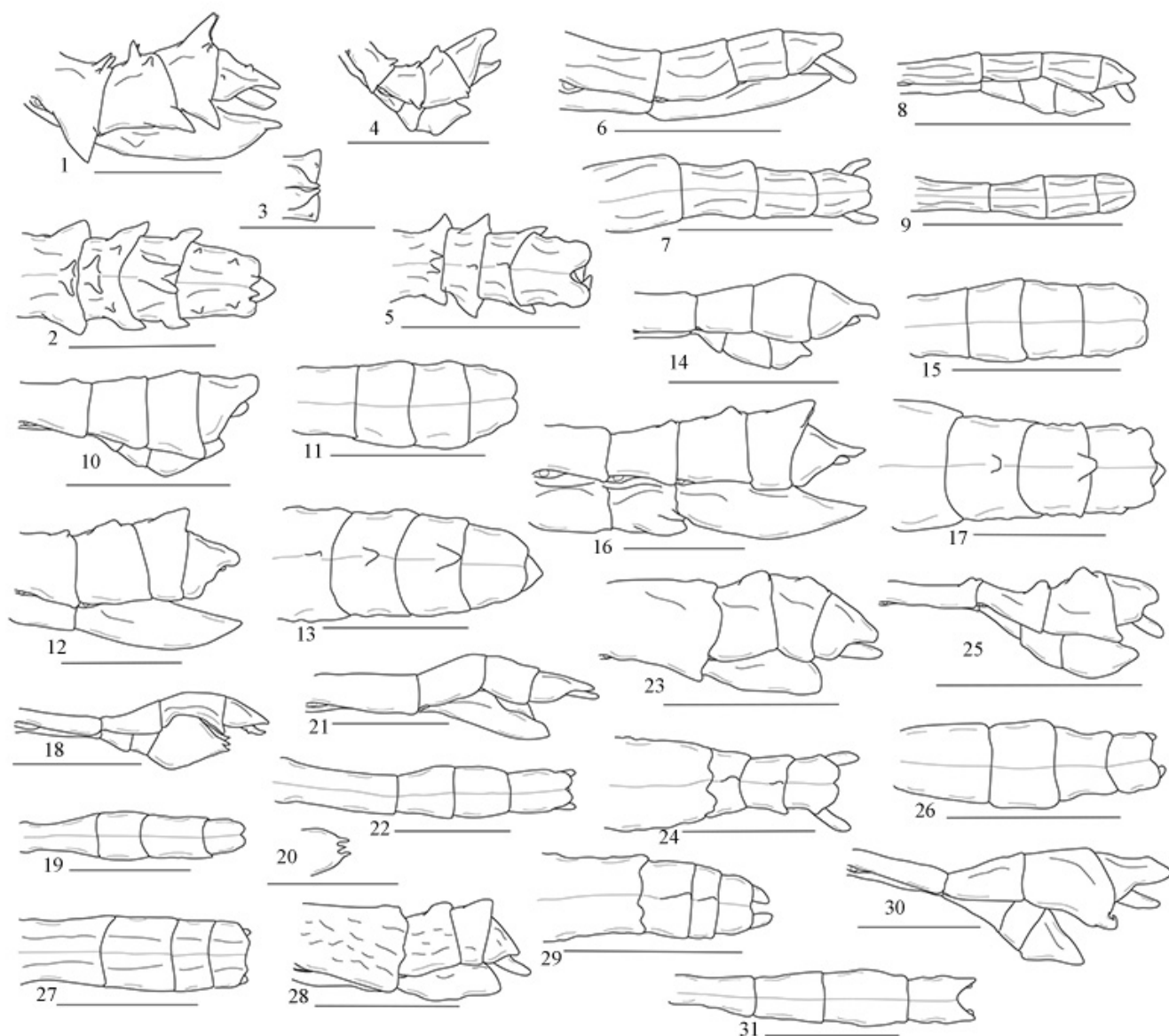
Abdomen: Cylindrical and tapering posteriorly. Second to ninth tergites with triangularly expanded posterolateral angles. Median segment narrow, wider than long, with paired posterior medial and posterior spines. Second to sixth tergites with two pairs of median medial, one posterior medial and a pair of posterior spines. Seventh and eighth tergites with paired posterior medial and posterior spines. Seventh sternum with a pair of horn-like preopercular organ on posteromedian area, tapering apically, apices pointed. Ninth tergum as long as eighth tergum, with a bituberculate crest posteromedially. Anal segment longer than eighth tergum, gently tapering posteriorly, posterior margin with small emarginations, posterolateral angles rounded, median and lateral longitudinal carinae distinctly elevated. Supra-anal plate small, indistinct, posterior margin rounded. Subgenital plate scoop-shaped, posterior apex pointed and surpassing posterior margin of anal segment. Cerci short, flattened, apices obtuse and not exceeding posterior margin of anal segment.

Legs: Slender. Femora thicker than corresponding tibiae. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of femora with small serrations. Profemora weakly curved basally. Anterodorsal and posterodorsal carinae of tibiae with small serrations, anteroventral and posteroventral carinae waved.

Description of male (Figs. 4-5, 33, 37): Body slender and slim, distinctly smaller than female. General colouration of body and legs yellowish-green, with small blackish markings.

Head: Oval, sparsely covered with a few small granules. Vertex convex, with paired short supra-antennal spines. Occiput rounded and convex, median longitudinal furrow distinct; with paired supra-orbital spines, also with two paired occipital medial spines. Compound eyes small and rounded, its length about three times that of genae. Antennae long and filiform, surpassing apices of protarsi; scapus flattened basally, shorter than third segment, longer than pedicellus.

Thorax: Covered with a few small granules. Pronotum rectangular, longer than wide, anterior margin distinctly incurved, posterior margin rounded, with paired anterior medial, post-median medial and posterior medial spines, transverse and longitudinal sulci crossing at middle area. Mesonotum moderately expanded posteriorly in anterior half, indistinctly swollen medially and indistinctly



Figures 1-31. 1. *Andropromachus bicornutus* sp. nov., female, apex of abdomen, lateral view. 2. *Andropromachus bicornutus* sp. nov., female, apex of abdomen, dorsal view. 3. *Andropromachus bicornutus* sp. nov., female, preopercular organ, ventral view. 4. *Andropromachus bicornutus* sp. nov., male, apex of abdomen, lateral view. 5. *Andropromachus bicornutus* sp. nov., male, apex of abdomen, dorsal view. 6. *Dianphasma dolichocarinatum* sp. nov., female, apex of abdomen, lateral view. 7. *Dianphasma dolichocarinatum* sp. nov., female, apex of abdomen, dorsal view. 8. *Dianphasma dolichocarinatum* sp. nov., male, apex of abdomen, lateral view. 9. *Dianphasma dolichocarinatum* sp. nov., male, apex of abdomen, dorsal view. 10. *Oedohirasea wenshanensis* sp. nov., male, apex of abdomen, lateral view. 11. *Oedohirasea wenshanensis* sp. nov., male, apex of abdomen, dorsal view. 12. *Oedohirasea wenshanensis* sp. nov., female, apex of abdomen, lateral view. 13. *Oedohirasea wenshanensis* sp. nov., female, apex of abdomen, dorsal view. 14. *Oedohirasea yunnanensis* sp. nov., male, apex of abdomen, lateral view. 15. *Oedohirasea yunnanensis* sp. nov., male, apex of abdomen, dorsal view. 16. *Oedohirasea yunnanensis* sp. nov., female, apex of abdomen, lateral view. 17. *Oedohirasea yunnanensis* sp. nov., female, apex of abdomen, dorsal view. 18. *Parasinophasma biconcavum* sp. nov., male, apex of abdomen, lateral view. 19. *Parasinophasma biconcavum* sp. nov., male, apex of abdomen, dorsal view. 20. *Parasinophasma biconcavum* sp. nov., male, poculum, ventral view. 21. *Parasinophasma biconcavum* sp. nov., female, apex of abdomen, lateral view. 22. *Parasinophasma biconcavum* sp. nov., female, apex of abdomen, dorsal view. 23. *Pseudososibia exigua* sp. nov., female, apex of abdomen, lateral view. 24. *Pseudososibia exigua* sp. nov., female, apex of abdomen, dorsal view. 25. *Pseudososibia exigua* sp. nov., male, apex of abdomen, lateral view. 26. *Pseudososibia exigua* sp. nov., male, apex of abdomen, dorsal view. 27. *Parasinophasma nigrogranulata* sp. nov., female, apex of abdomen, dorsal view. 28. *Pseudososibia spinituberculata* sp. nov., female, apex of abdomen, lateral view. 29. *Pseudososibia spinituberculata* sp. nov., female, apex of abdomen, dorsal view. 30. *Scionecra xizangensis* sp. nov., male, apex of abdomen, lateral view. 31. *Scionecra xizangensis* sp. nov., male, apex of abdomen, dorsal view. Scale bars = 5 mm. Drawings by author.

narrowing in posterior area; with paired anterior medial, pre-median medial, median medial, post-median medial and posterior medial spines, also with paired median and posterior spines, lateral margins with a few small spines. Metanotum roughly as long as wide, longer than median segment, with two paired median medial, one paired posterior medial and one paired median spines. Mesopleurae and metapleurae with a small supra-coxal spine.

Abdomen: Slender and cylindrical, with a few small granules. Median segment narrow, wider than long, with paired median medial and posterior spines. Second to ninth tergites with triangularly expanded posterolateral angles. Second to sixth tergites with two paired post-median medial, one posterior medial and one paired posterior spines. Eighth tergum gently expanded

posteriorly, as long as ninth tergum. Anal segment longer than ninth tergum, posterior margin with a small U-shaped emargination, posterolateral angles blunt, with minute dentations on inner surfaces. Poculum cup-shaped, posterior margin rounded and reaching posterior area of ninth tergum. Cerci short, flattened, apices pointed and incurved, not exceeding posterior margin of anal segment.

Legs: Slender and long. Sparsely covered with short bristles. Femora thicker than corresponding tibiae, anterodorsal, posterodorsal, anteroventral and posteroventral carinae with small serrations. Profemora weakly curved basally. Anterodorsal and posterodorsal carinae of tibiae with small serrations, anteroventral and posteroventral carinae weakly waved.



Figures 32-37. *Andropromachus bicornutus* sp. nov. 32. Female, habitus. 33. Male, habitus. 34. Egg, lateral view. 35. Egg, dorsal view. 36. Female, head and thorax, dorsolateral view. 37. Male, head and thorax, dorsolateral view. Scale bars: habitus, head and thorax, apex of abdomen = 5 mm; egg = 1 mm. Photos by author.

	Holotype Female	Paratype Male
Body	41.0	32.0
Head	5.0	3.0
Antennae	27.0	30.0
Pronotum	3.5	2.5
Mesonotum	14.0	7.5
Metanotum	2.5	2.5
Median Segment	2.0	1.5
Profemora	12.0	11.0
Mesofemora	10.0	9.0
Metafemora	14.0	12.0
Protibiae	13.0	12.0
Mesotibiae	11.0	10.0
Metatibiae	16.0	14.0

Table 1. Measurements of *Andropromachus bicornutus* sp. nov.

Measurements: See Table 1.

Description of egg (Figs. 34-35): Capsule brown, surface wrinkled, densely granulated; oval, posterior pole rounded. Micropylar plate oval, anteriorly and posteriorly rounded. Micropylar cup located at posterior area of micropylar plate. Median line distinct, short. Operculum flat, lacking capitulum.

Measurements: Length, 2.0 mm; width, 1.2 mm; height, 1.5 mm.

Distribution: China (Yunnan).

Etymology: The specific epithet of this new species is derived from the paired horn-like preopercular organ on the posteromedian area of the female's seventh abdominal sternum; adjective.

Dianphasma Chen & He, 1997

Type-species: *Dianphasma microptera* Chen & He, 1997: 159, by original designation.

Description: As in Ho (2017a: 5).

Distribution: China.

Notes: Currently the genus *Dianphasma* Chen & He, 1997 includes six species, among which one is new species described in this study: *Dianphasma dolichocarinatum* sp. nov. At present, all known species are exclusively found in China. An updated list of the species of *Dianphasma* is provided.

Species included:

1. *Dianphasma cheni* Ho, 2013a 陳氏滇蝟 [China (Guangxi)]
2. *Dianphasma chongqingensis* Qian & Xie, 2023 重慶滇蝟 [China (Chongqing)]
3. *Dianphasma dolichocarinatum* sp. nov. 長脊滇蝟 [China (Yunnan)]
4. *Dianphasma microptera* Chen & He, 1997 微翅滇蝟 [China (Yunnan)]

5. *Dianphasma sparsigranulatum* Ho, 2017a 稀粒滇蝟 [China (Guizhou)]

6. *Dianphasma yui* Ho, 2017a 喻氏滇蝟 [China (Yunnan)]

Dianphasma dolichocarinatum sp. nov. (Figs. 6-9, 38-41)

Types: Holotype, ♀, 2000m, Nanjian, Dali, Yunnan, China, 2 June 2018, George Ho Wai-Chun (HKES); Paratype, 1♂, same data as holotype (HKES).

Diagnosis: *Dianphasma dolichocarinatum* sp. nov. is similar to *D. yui* Ho, 2017, but it can be distinguished by its smaller size, more robust body, and larger alae in female. The male of *Dianphasma dolichocarinatum* sp. nov. is similar to *D. microptera* Chen & He, 1997, but it can be distinguished by its smaller size and the prominent carinae on the mesonotum and abdomen.

Description of female (Figs. 6-7, 38, 40): Small size for Necrosiinae. Body slender, distinctly more robust and larger than male. General colouration of body brown, legs brown with small blackish markings.

Head: Oval, longer than pronotum, sparsely covered with a few small granules. Vertex and occiput flattened, median and lateral longitudinal furrows distinct, posterior margin with indistinct swellings. Compound eyes small and rounded. Antennae long and filiform, surpassing apices of forelegs; scapus basally flattened, longer than pedicellus, roughly as long as third segment.

Thorax: Rough, sparsely granulated. Pronotum rectangular, longer than wide, anterior margin incurved, posterior margin truncate, transverse and longitudinal sulci crossing before middle area. Mesonotum slender and elongate, parallel-sided, longer than combined length of metanotum and median segment, median and lateral longitudinal carinae distinct. Metanotum slightly shorter than median segment.

Abdomen: Cylindrical, rough, sparsely covered with small granules and short wrinkles, median and lateral longitudinal carinae distinct. Fourth and fifth tergites with a small posteromedian elevation. Seventh sternum



Figures 38-41. *Dianphasma dolichocarinatum* sp. nov. 38. Female, habitus. 39. Male, habitus. 40. Female, head and thorax, dorsolateral view. 41. Male, head and thorax, dorsolateral view. Scale bars = 5 mm. Photos by author.

lacking noticeable preopercular organ. Eighth tergum longer than ninth tergum. Anal segment roughly as long as ninth tergum, constricted posteriorly, with a small emargination on posterior margin. Supra-anal plate indistinct. Subgenital plate scoop-shaped, tapering posteriorly, posterior margin pointed and reaching middle area of anal segment. Cerci long, flattened, straight, apices rounded and surpassing posterior margin of anal segment.

Legs: Slender and long, unarmed. Densely covered with short bristles. Femora thicker than corresponding tibiae. Profemora basally curved.

Wings: Tegmina absent. Alae minute, scale-like, oval, posterior margin pointed and not reaching anterior area of median segment.

Description of male (Figs. 8-9, 39, 41): Small size. Body slender and long, distinctly smaller and thinner than female. General colouration of body brown, legs brown with inconspicuous blackish markings.

Head: Oval, sparsely covered with very few small granules. Vertex flat, unarmed. Occiput flat, posterior margin with distinct small swellings. Compound eyes small and rounded. Antennae long and filiform, surpassing apices of forelegs; scapus flattened basally, longer than pedicellus, shorter than third segment.

Thorax: Rough, sparsely granulated. Pronotum rectangular, longer than wide, transverse and longitudinal sulci crossing before middle point, anterior margin incurved, posterior margin truncate. Mesonotum slender and elongate, median and lateral longitudinal carinae distinct. Metanotum shorter than median segment.

Abdomen: Cylindrical and slender. Sparsely covered with very few small granules. Median and lateral longitudinal carinae distinct. Eighth tergite longer than ninth tergite. Anal segment shorter than ninth tergum, posterior margin rounded. Poculum cup-shaped,

posterior margin pointed, reaching anterior area of anal segment. Cerci short, cylindrical, apices pointed and weakly incurved, not surpassing posterior margin of anal segment.

Legs: Slender and long, unarmed. Densely covered with short bristles. Profemora distinctly curved at base.

Wings: Tegmina absent. Alae minute, scale-like, oval, posterior margin rounded.

Measurements: See Table 2.

Distribution: China (Yunnan).

Etymology: The specific epithet of this new species is derived from the long carinae on the mesonotum and abdomen in both sexes; adjective.

***Neoparamenexenus* gen. nov.**

Type-species: *Promachus laetus* Kirby, 1904: 375 (= *Paramenexenus operculatus* Redtenbacher, 1908), by present designation.

Diagnosis: *Neoparamenexenus* gen. nov. is related to *Paramenexenus* Redtenbacher, 1908, but can be separated by its slender and elongate body, with broader abdomen, less spinose thorax and less robust legs in both sexes, the elongate and oblong micropylar plate in eggs and the zoogeographical distribution.

Description: Small to large size for Necrosiinae. Body slender, cylindrical, wrinkled and granulated. Head oval, dorsoventrally flattened, unarmed. Antennae long and filiform. Pronotum rectangular, longer than wide. Mesonotum longer than combined length of metanotum and median segment, with a few small spines on mesonotum in male, unarmed in female, lateral margins with a few tubercle-like granules. Mesopleurae with a few tubercle-like granules on lower margin in both sexes, with or without a spine-like supra-coxal tubercle in male. Metapleurae unarmed in

	Holotype Female	Paratype Male
Body	43.0	34.0
Head	3.0	2.0
Antennae	26.0	30.0
Pronotum	2.5	1.5
Mesonotum	9.0	7.0
Metanotum	2.5	1.5
Median Segment	3.0	2.5
Profemora	8.5	9.0
Mesofemora	7.0	6.5
Metafemora	10.0	9.0
Protibiae	8.0	8.0
Mesotibiae	6.0	6.0
Metatibiae	9.0	9.0

Table 2. Measurements of *Dianphasma dolichocarinarum* sp. nov.

female, with or without a spine-like supra-coxal tubercle in male. Abdomen wrinkled and granulated, female with distinct carinae. Second to eighth tergites with a small rounded posterolateral angle in female. Second to sixth or seventh tergites with a small tubercle or spine posteromedially. Seventh sternum with a spine-like or lacking noticeable preopercular organ posteromedially in female. Anal segment with emarginated or rounded posterior margin. Female subgenital plate short, not surpassing posterior margin of supra-anal plate or long, lanceolate, distinctly surpassing posterior margin of supra-anal plate. Male poculum small, cup-shaped. Supra-anal plate indistinct. Cerci short and flattened. Legs lacking noticeable armature. Anteroventral and posteroventral carinae of femora with a few small serrations subapically. Apterous. Egg capsule oval. Micropylar plate oblong. Operculum with a close-stalked capitulum.

Distribution: China and Vietnam.

Notes: This genus consists of two subgenera and six species.

Etymology: The specific epithet of this new genus is derived from the words “Neo” (meaning “new”) and “paramenexenus”, referring to a new genus that bears similarity to *Paramenexenus* Redtenbacher, 1908; masculine.

***Neoparamenexenus (Breviparamenexenus)*
subgen. nov.**

Type-species: *Prosceles balteatus* Chen & He, 2002, in Chen et al., 2002: 104, by present designation.

Diagnosis: *Neoparamenexenus (Breviparamenexenus)* subgen. nov. is related to *Neoparamenexenus (Neoparamenexenus)* subgen. nov., but can be separated by being small to medium-sized in both sexes, lacking noticeable preopercular organ on the seventh sternum in female and the unarmed thorax, mesopleurae and metapleurae in male.

Description: Small to medium-sized for Necrosciinae. Body slender, cylindrical, wrinkled and granulated, female more robust and larger than male. General colouration of body and legs brown. Head oval, dorsoventrally flattened, unarmed. Antennae long and filiform. Pronotum rectangular, longer than wide. Mesonotum longer than combined length of metanotum and median segment, unarmed in both sexes. Mesopleurae and metapleurae unarmed. Abdomen wrinkled and granulated. Second to sixth or seventh tergites with a small tubercle posteromedially. Seventh sternum with a spine-like preopercular organ posteromedially in female. Female subgenital plate short, not surpassing posterior margin of supra-anal plate. Male poculum small, cup-shaped. Supra-anal plate indistinct. Cerci short and flattened. Legs lacking noticeable armature. Anteroventral and posteroventral carinae of femora with a few small serrations subapically. Apterous. Egg

capsule oval. Micropylar plate oblong. Operculum with a close-stalked capitulum.

Distribution: China and Vietnam.

Notes: This subgenus consists of four species. Only three species are found in China. *Pseudoparamenexenus beiliuensis* Qin, Cui & Bian, 2025 **syn. nov.** is morphologically matched and conspecific with *Neoparamenexenus (Breviparamenexenus) balteatus* (Chen & He, 2002) **comb. nov.** and here synonymised. A list of the species of *Neoparamenexenus (Breviparamenexenus)* subgen. nov. is provided.

Etymology: The specific epithet of this new subgenus is derived from the words “Brevi” (meaning “short”) and “paramenexenus”, referring to the short genital plate of the female compare to the nominate subgenus *Paramenexenus (Neoparamenexenus)* subgen. nov.; masculine.

Species included:

1. *Neoparamenexenus (Breviparamenexenus) balteatus* (Chen & He, 2002, in Chen et al., 2002: 104, figs. 4a-b) **comb. nov.** 粒帶短新齒臀蝟 [*Prosceles*; = *Pseudoparamenexenus beiliuensis* Qin, Cui & Bian, 2025: 3, figs. 2A-I **syn. nov.**; China (Guangdong, Guangxi, Hainan, Hong Kong, Hunan & Shenzhen)]
2. *Neoparamenexenus (Breviparamenexenus) carinulatus* (Redtenbacher, 1908: 476) **comb. nov.** 脊短新齒臀蝟 [*Paramenexenus*; Vietnam]
3. *Neoparamenexenus (Breviparamenexenus) guangxiensis* (Chen & He, 1999: 85, figs. 2: 1-3) **comb. nov.** 廣西短新齒臀蝟 [*Prosceles*; China (Guangxi)]
4. *Neoparamenexenus (Breviparamenexenus) shenglii* (Ho, 2013b: 822, figs. 5-8) **comb. nov.** 勝利短新齒臀蝟 [*Lopaphus*; China (Hainan)]

***Neoparamenexenus (Neoparamenexenus)*
subgen. nov.**

Type-species: *Promachus laetus* Kirby, 1904: 375 (= *Paramenexenus operculatus* Redtenbacher, 1908), by present designation.

Diagnosis: *Neoparamenexenus (Neoparamenexenus)* subgen. nov. is related to *Neoparamenexenus (Breviparamenexenus)* subgen. nov., but can be separated by its large size and elongate body in both sexes, more robust body, the presence of spine-like preopercular organ on the seventh sternum and the long and lanceolate subgenital plate in female and the spinose thorax, mesopleurae and metapleurae in male.

Description: Medium to large size for Necrosciinae. Body slender, cylindrical, wrinkled and granulated, female more robust and larger than male. General colouration of body and legs green. Head oval, dorsoventrally flattened, unarmed. Antennae long and filiform. Pronotum rectangular, longer than wide.

Mesonotum longer than combined length of metanotum and median segment, with a few small spines on mesonotum in male, unarmed in female. Mesopleurae and metapleurae unarmed in female, with a few short spines in male. Abdomen wrinkled and granulated. Second to sixth or seventh tergites with a small spine posteromedially. Seventh sternum with a spine-like preopercular organ posteromedially in female. Female subgenital plate long, lanceolate, tapering posteriorly, apex pointed, distinctly surpassing posterior margin of supra-anal plate. Male poculum small, cup-shaped. Supra-anal plate indistinct. Cerci short and flattened. Legs lacking noticeable armature. Anteroventral and posteroventral carinae of femora with a few small serrations subapically. Apterous. Egg capsule oval. Micropylar plate oblong. Operculum with a close-stalked capitulum.

Distribution: China and Vietnam.

Notes: This subgenus consists of two species, both of which are found in China. A list of the species of *Neoparamenexenus* (*Neoparamenexenus*) **subgen. nov.** is provided. *Paramenexenus doupengshanense* Xu, 2008, is considered an invalid name pending formal publication (Xu, 2008). The morphology of this invalid species is related to *Neoparamenexenus* (*Neoparamenexenus*) *congnatus* (Chen, He & Chen, 2000) **comb. nov.**, and it should be placed under *Neoparamenexenus* (*Neoparamenexenus*) **subgen. nov.**

Etymology: As in *Neoparamenexenus* **gen. nov.**

Species included:

1. *Neoparamenexenus* (*Neoparamenexenus*) *congnatus* (Chen, He & Chen, 2000: 129, fig. 5) **comb. nov.** 擬長瓣新齒臂蟎 [*Paramenexenus*; China (Guangdong & Jiangxi)]
2. *Neoparamenexenus* (*Neoparamenexenus*) *laetus* (Kirby, 1904: 375) **comb. nov.** 長瓣新齒臂蟎 [*Promachus*; = *Paramenexenus operculatus* Redtenbacher, 1908; China (Guangxi, Guizhou & Yunnan) & Vietnam]

Oedohirasea Ho, 2020

Type-species: *Neohirasea fenshuilingensis* Ho, 2017a: 16, by original designation.

Description: As in Ho (2020: 9).

Distribution: China.

Notes: Currently the genus *Oedohirasea* Ho, 2020 includes six species, among which two are new species described in this study: *Oedohirasea wenshanensis* **sp. nov.** and *Oedohirasea yunnanensis* **sp. nov.** At present, all known species are exclusively found in China. An updated list of the species of *Oedohirasea* is provided.

Species included:

1. *Oedohirasea fenshuilingensis* (Ho, 2017a) 分水嶺膨胸棘蟎 [*Neohirasea*; China (Yunnan)]
2. *Oedohirasea huanglianshanensis* Ho, 2020 黃連山膨胸棘蟎 [China (Yunnan)]
3. *Oedohirasea pengzhong* (Ho, 2017a) 彭氏膨胸棘蟎 [*Neohirasea*; China (Guizhou)]
4. *Oedohirasea wangpeng* (Ho, 2017a) 王氏膨胸棘蟎 [*Neohirasea*; China (Yunnan)]
5. *Oedohirasea wenshanensis* **sp. nov.** 文山膨胸棘蟎種 [China (Yunnan)]
6. *Oedohirasea yunnanensis* **sp. nov.** 雲南膨胸棘蟎種 [China (Yunnan)]

Oedohirasea wenshanensis **sp. nov.** (Figs. 10-13, 42-47)

Types: Holotype, ♂, 1500-2000m, Maguan, Wenshan, Yunnan, China, 28 July 2025, George Ho Wai-Chun (HKES); Paratypes, 5♂, 5♀, 25 eggs, same data as holotype (HKES).

Diagnosis: *Oedohirasea wenshanensis* **sp. nov.** is closely related to *O. yunnanensis* **sp. nov.**, but it can be distinguished by the well-developed spine-like tubercles on the lateral margins of mesonotum and the presence of a pair of spine-like tubercles on the metanotum in both sexes, the presence of a pair of spine-like tubercles on the posterior area of the mesonotum in male and the lack of a noticeable preopercular organ on the seventh abdominal sternum in female.

Description of male (Figs. 10-11, 42, 46): Small size for Necrosiinae. Body slender and long, distinctly smaller and slenderer than female. General colouration of body and legs brown.

Head: Oval, lacking granulation. Vertex and occiput flat. Posterior margin of occiput with small swellings. Median and lateral longitudinal furrows distinct. Compound eyes oval and small, its lengths about three times length of genae. Antennae filiform, surpassing apices of protarsi, covered with short bristles; scapus flattened basally, shorter than third segment, longer than pedicellus.

Thorax: Rough, granulated and wrinkled. Pronotum rectangular, longer than wide, roughly as long as head, anterior margin gently incurved, with a pair of spine-like tubercles, posterior margin rounded, transverse and longitudinal sulci crossing at middle point. Mesonotum constricted pre-medially, weakly swollen medially, median longitudinal carina indistinct; centrally armed with a pair of spine-like tubercles, also with a pair of spine-like tubercles anteriorly and mediolaterally, lateral margins with a few spine-like tubercles. Metanotum with a pair of spine-like tubercles posteromedially. Mesopleurae and metapleurae with a few spine-like tubercles and a short spine-like supra-coxal tubercle.

Abdomen: Cylindrical, tapering posteriorly. Rough,

wrinkled and granulated. Median segment broader than long, shorter than metanotum. Anal segment longer than ninth tergum, with a small emargination on posterior margin, distinctly tapering posteriorly in lateral view. Poculum cup-shaped, posterior margin rounded and reaching anterior area of anal segment. Cerci short, flattened, apices rounded and not surpassing posterior margin of anal segment.

Legs: Slender and long, sparsely covered with short bristles. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of femora with inconspicuous elevations. Profemora curved basally. Tibiae lacking elevation.

Description of female (Figs. 12-13, 43, 47): Small size for Necrosiinae. Body robust, similar to male, but body distinctly larger and more robust. General colouration of

body and legs brown.

Head: Oval, lacking granulation. Vertex flat. Occiput weakly convex, posterior margin with small swellings. Median and lateral longitudinal furrows distinct. Compound eyes oval and small, its lengths about three times length of genae. Antennae filiform, surpassing apices of protarsi, covered with short bristles; scapus flattened basally, shorter than third segment, longer than pedicellus.

Thorax: Thick-built, rough, wrinkled and granulated. Pronotum roughly square, shorter than head, transverse and longitudinal sulci crossing at middle point; anterior margin weakly incurved, with a pair of large tubercles, posterior margin rounded. Mesonotum moderately expanded posteriorly in anterior half, moderately swollen medially and indistinctly narrowing in posterior



Figures 42-47. *Oedohirasea wenshanensis* sp. nov. 42. Male, habitus. 43. Female, habitus. 44. Egg, lateral view. 45. Egg, dorsal view. 46. Male, head and thorax, dorsolateral view. 47. Female, head and thorax, dorsolateral view. Scale bars: habitus, head and thorax, apex of abdomen = 5 mm; egg = 1 mm. Photos by author.

	Holotype Male	Paratype Males	Paratype Females
Body	35.0	33.0-36.0	37.0-42.0
Head	3.0	3.0	3.5-4.0
Antennae	28.0	26.0-28.0	20.0-21.0
Pronotum	2.5	2.5	3.0-3.5
Mesonotum	8.0	7.0-8.0	7.5-8.5
Metanotum	2.5	2.5	2.0-2.5
Median Segment	2.0	2.0	2.0-2.5
Profemora	11.0	10.5-11.0	9.0-10.5
Mesofemora	9.0	8.5-9.0	7.5-8.5
Metafemora	13.0	12.5-13.5	10.0-12.0
Protibiae	12.0	12.0-13.5	10.0-11.5
Mesotibiae	10.0	9.5-10.5	7.5-9.5
Metatibiae	15.0	15.0-16.5	11.5-14.5

Table 3. Measurements of *Oedohirasea wenshanensis* sp. nov.

half; mediolongitudinal carina indistinct, elevated with a tuberculate hump medially, lateral margins with a few enlarged spine-like tubercles. Metanotum slightly longer than median segment, with a tuberculate hump posteriorly. Mesopleurae with a few short spine-like tubercles. Metapleurae with a few short spine-like tubercles and a short supra-coxal tubercle.

Abdomen: Cylindrical, tapering posteriorly. Wrinkled, sparsely granulated. Median segment broader than long. Eighth to ninth tergites with a small crest-like structure posteromedially. Seventh sternum lacking noticeable preopercular organ. Anal segment longer than ninth tergum, median longitudinal carina indistinct, with small emarginations on posterior margin. Subgenital plate scoop-shaped, median longitudinal carina distinct, apex pointed and reaching posterior margin of anal segment. Cerci short, flattened, apices rounded and not surpassing posterior margin of anal segment.

Legs: Slender and long, sparsely covered with short bristles. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of femora waved with indistinct elevations, ventral carinae with less distinct elevations than dorsal carinae. Profemora incurved basally. Tibiae lacking elevation.

Measurements: See Table 3.

Description of egg (Figs. 44-45): Capsule brown, with blackish markings, surface wrinkled, densely granulated; oval, posterior pole rounded. Micropylar plate nearly rounded, anteriorly and posteriorly rounded. Micropylar cup located at posterior area of micropylar plate. Median line distinct, short. Operculum gently convex, lacking capitulum.

Measurements: Length, 2.5 mm; width, 2.0 mm; height,

2.0 mm.

Distribution: China (Yunnan).

Etymology: This new species is named after its type locality, Wenshan (Yunnan, China); adjective.

***Oedohirasea yunnanensis* sp. nov.** (Figs. 14-17, 48-53)

Types: Holotype, ♂, 1500-2000m, Maguan, Wenshan, Yunnan, China, 28 July 2025, George Ho Wai-Chun (HKES); Paratypes, 1♀, 6 eggs, same data as holotype (HKES).

Diagnosis: *Oedohirasea yunnanensis* sp. nov. is related to *O. wangpengi* (Ho, 2017), but it can be distinguished by the well-developed spine-like tubercles on the pronotum and mesonotum in both sexes, the shorter cerci in male and the shape of the preopercular organ on the seventh abdominal sternum in female.

Description of male (Figs. 14-15, 48, 52): Small size for Necrosiinae. Body slender and long, distinctly smaller and slenderer than female. General colouration of body and legs brown.

Head: Oval, lacking granulation. Vertex and occiput flat. Posterior margin of occiput with small swellings. Median and lateral longitudinal furrows distinct. Compound eyes oval and small, its lengths about three times length of genae. Antennae filiform, surpassing apices of protarsi, covered with short bristles; scapus flattened basally, shorter than third segment, longer than pedicellus.

Thorax: Rough, granulated and wrinkled. Pronotum rectangular, longer than wide, shorter than head, anterior margin gently incurved, with a pair of short spine-like



Figures 48-53. *Oedohirasea yunnanensis* sp. nov. 48. Male, habitus. 49. Female, habitus. 50. Egg, lateral view. 51. Egg, dorsal view. 52. Male, head and thorax, dorsolateral view. 53. Female, head and thorax, dorsolateral view. Scale bars: habitus, head and thorax, apex of abdomen = 5 mm; egg = 1 mm. Photos by author.

tubercles, posterior margin rounded, transverse and longitudinal sulci crossing at middle point. Mesonotum constricted pre-medially, weakly swollen medially, median longitudinal carina indistinct; centrally armed with a pair of spine-like tubercles. Metanotum unarmed. Mesopleurae and metapleurae with a short spine-like supra-coxal tubercle.

Abdomen: Cylindrical, tapering posteriorly. Rough, wrinkled and granulated. Median segment broader than long, shorter than metanotum. Anal segment longer than ninth tergum, with a small emargination on posterior margin. Poculum cup-shaped, posterior margin rounded and reaching anterior area of anal segment. Cerci short, flattened, apices rounded and not surpassing posterior margin of anal segment.

Legs: Slender and long, sparsely covered with short bristles. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of femora with indistinct elevations. Profemora curved basally. Anterodorsal and posterodorsal carinae of tibiae with indistinct elevations, anteroventral and posteroventral carinae unarmed.

Description of female (Figs. 16-17, 49, 53): Small size for Necrosciinae. Body robust, similar to male, but body distinctly larger and more robust. General colouration of body and legs brown.

Head: Oval, lacking granulation. Vertex flat. Occiput weakly convex, posterior margin with small swellings. Median and lateral longitudinal furrows distinct. Compound eyes oval and small, its lengths about three times length of genae. Antennae filiform, covered with short bristles; scapus flattened basally, roughly as long as third segment; pedicellus shorter than scapus.

Thorax: Thick-built, rough, wrinkled and granulated. Pronotum square, shorter than head, transverse and longitudinal sulci crossing at middle point; anterior margin weakly incurved, with a pair of large tubercles, posterior margin truncate. Mesonotum moderately expanded posteriorly in anterior half, moderately

swollen medially and narrowing in posterior half; mediolongitudinal carina indistinct, with a bituberculate hump medially, lateral margins with a few enlarged granules. Metanotum longer than median segment. Metapleurae with a short supra-coxal tubercle.

Abdomen: Cylindrical, tapering posteriorly. Wrinkled, sparsely granulated. Median segment broader than long. Eighth to ninth tergites with a small crest-like structure posteromedially. Preopercular organ on posteromedian area of seventh sternum distinct, small, crest-like, along with two short tubercles laterally. Anal segment with distinct median longitudinal carina, posterior margin with two small emarginations, posterolateral angles rounded. Subgenital plate scoop-shaped, median longitudinal carina distinct, apex pointed and reaching posterior margin of anal segment. Cerci short, flattened, apices rounded and not surpassing posterior margin of anal segment.

Legs: Slender and long, sparsely covered with short bristles. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of femora waved with indistinct elevations, ventral carinae with less distinct elevations than dorsal carinae. Profemora incurved basally. Anterodorsal and posterodorsal carinae of tibiae waved with indistinct elevations, tibiae with less distinct elevations than femora.

Measurements: See Table 4.

Description of egg (Figs. 50-51): Capsule brown, surface wrinkled, densely granulated; oval, posterior pole rounded. Micropylar plate oval, anteriorly and posteriorly rounded. Micropylar cup located at posterior area of micropylar plate. Median line distinct, short. Operculum flat, lacking capitulum.

Measurements: Length, 2.2 mm; width, 1.6 mm; height, 1.6 mm.

Distribution: China (Yunnan).

	Holotype Male	Paratype Female
Body	38.0	44.0
Head	3.0	5.0
Antennae	26.0	22.0
Pronotum	2.5	4.0
Mesonotum	8.5	9.0
Metanotum	2.5	3.0
Median Segment	2.0	2.0
Profemora	11.0	12.0
Mesofemora	9.0	10.0
Metafemora	12.5	14.0
Protibiae	12.0	12.0
Mesotibiae	9.5	9.0
Metatibiae	14.5	14.0

Table 4. Measurements of *Oedohirasea yunnanensis* sp. nov.

Etymology: This new species is named after its type locality, Yunnan, China; adjective.

***Paramenexenus* Redtenbacher, 1908**

Type-species: *Paramenexenus molestus* Redtenbacher, 1908: 476 (= *Anophelepis ceylonica* Saussure, 1868), by subsequent designation of Zompro (2004: 317).

Description: Medium-sized for Necrosciinae. Body slender, cylindrical, wrinkled and granulated, female more robust and larger than male. General colouration of body and legs brown. Head oval, unarmed, with very few small granules. Vertex and occiput flat. Antennae long and filiform. Thorax with very few small granules. Pronotum rectangular, longer than wide, shorter than head. Mesonotum with a few small spines, lateral margins with a few spines. Mesonotum longer than combined length of metanotum and median segment. Mesopleurae and metapleurae unarmed. Abdomen wrinkled and granulated, with longitudinal carinae. Median segment as long as metanotum. Second to sixth or seventh tergites with a small spine posteromedially. Anal segment with emargination on posterior margin. Female subgenital plate short, not surpassing posterior margin of supra-anal plate. Male poculum small, cup-shaped. Supra-anal plate indistinct. Cerci short and flattened. Legs lacking noticeable armature. Anteroventral and posteroventral carinae of femora with a few small serrations subapically. Apterous. Egg capsule oval. Micropylar plate oval. Operculum with a close-stalked capitulum.

Distribution: Sri Lanka.

Notes: *Paramenexenus* Redtenbacher, 1908 is redescribed due to the transfer of certain taxa to the newly established genus *Neoparamenexenus* **gen. nov.** in this study. *Paramenexenus* currently consists of three species, including *P. ceylonicus* (Saussure, 1868), *P. inconspicuus* Redtenbacher, 1908, and *P. subalienus* Redtenbacher, 1908. This genus and all species are confined to Sri Lanka.

***Parasinophasma* Chen & He, 2008
(= *Euphasma* Chen & He, 2001, preoccupied by
Euphasma Redtenbacher, 1906)**

Type-species: *Micadina henanensis* Bi & Wang, 1998: 12, by original designation.

Description: As in Ho (2017b: 182).

Distribution: China and Vietnam.

Notes: Currently the genus *Parasinophasma* Chen & He, 2008 includes 17 species and two subspecies, among which is one new species described in this study: *Parasinophasma biconcavum* **sp. nov.** At present, 11 species and one subspecies have been identified within China. An updated list of the Chinese species of

Parasinophasma is provided.

Species included in China:

1. *Parasinophasma biconcavum* **sp. nov.** 雙凹副華枝蟻 [China (Yunnan)]
2. *Parasinophasma fanjingshanense* Chen & He, 2006 梵淨山副華枝蟻 [China (Chongqing, Guangxi, Guizhou, Hubei, Jiangxi & Zhejiang)]
3. *Parasinophasma guangdongense* Chen & He, 2008 廣東副華枝蟻 [China (Guangdong & Hunan)]
4. *Parasinophasma hainanense* Chen & He, 2008 海南副華枝蟻 [China (Hainan)]
5. *Parasinophasma henanense* (Bi & Wang, 1998) 河南副華枝蟻 [*Micadina*; China (Guangxi, Guizhou, Henan, Hunan, Jiangxi, Sichuan & Zhejiang)]
6. *Parasinophasma laifanae* Ho, 2017b 麗芬副華枝蟻 [*Marmessoidea*; China (Hong Kong)]
7. *Parasinophasma ledongense* Wen, Qian, Xie, Chen & Wang, 2024 樂東副華枝蟻 [China (Hainan)]
8. *Parasinophasma luchunense* Ho, 2017b 綠春副華枝蟻 [China (Yunnan) & Vietnam]
- 8.1. *Parasinophasma luchunense luchunense* Ho, 2017b 綠春副華枝蟻 綠春亞種 [China (Yunnan)]
9. *Parasinophasma maculatum* Ho, 2015 斑副華枝蟻 [China (Yunnan)]
10. *Parasinophasma tianmushanense* Ho, 2015 天目山副華枝蟻 [China (Zhejiang)]
11. *Parasinophasma unicolor* Ho, 2015 單色副華枝蟻 [China (Fujian)]

***Parasinophasma biconcavum* **sp. nov.** (Figs. 18-22, 54-59)**

Types: Holotype, ♂, 1500-2000m, Maguan, Wenshan, Yunnan, China, 28 July 2025, George Ho Wai-Chun (HKES); Paratypes, 1♂, 3♀, 8 eggs, same data as holotype (HKES); 1♂, 1 subadult ♀, 1500-2000m, Yuping, Pingbian, Yunnan, China, 27 July 2025, George Ho Wai-Chun (HKES).

Diagnosis: *Parasinophasma biconcavum* **sp. nov.** is closely related to *P. luchunense luchunense* Ho, 2017, but it can be distinguished by its convex occiput of head, the shorter ninth abdominal tergum and the comparatively small emargination on posterior margin of anal segment in both sexes, the two distinct emarginations on the posterior margin of the poculum in male and a small hump-like preopercular organ on the posteromedian area of the seventh abdominal sternum in female.

Description of male (Figs. 18-20, 54, 58): Medium-sized for Necrosciinae. Body slender and long, distinctly smaller and thinner than female. General colouration of body brownish-green, legs green.

Head: Oval, lacking granulation. Vertex flat, unarmed. Occiput gently convex. Compound eyes small and rounded. Antennae long and filiform, surpassing apices

of forelegs; scapus flattened basally, longer than pedicellus, shorter than third segment.

Thorax: Unarmed, lacking granulation. Pronotum trapezoidal, gently constricted posteriorly, transverse and longitudinal sulci crossing before middle point, anterior margin incurved, posterior margin rounded. Mesonotum slender and elongate, broadly emarginated medially, median longitudinal carina indistinct, longer than combined length of metanotum and median segment.

Abdomen: Cylindrical and slender. Lacking granulation. Second to seventh tergites parallel-sided. Eighth tergum gently expanded posteriorly. Ninth tergum swollen and elongate, longer than eighth tergum. Anal segment shorter than ninth tergum, posterior margin with a small U-shaped emargination. Poculum cup-shaped, posterior margin with two distinct emarginations, reaching anterior area of anal segment. Cerci short, with a small spine-like appendage near base, cylindrical, tapering posteriorly, apices pointed and curved, reaching posterior margin of anal segment.

Legs: Slender and long, unarmed. Sparsely covered with short bristles. Profemora distinctly curved at base.

Wings: Tegmina oval, short, posterior margin truncate. Alae short, apices reaching middle area of third tergum.

Description of female (Figs. 21-22, 55, 59): Medium-sized for Necrosiinae. Body slender, distinctly more robust than male. General colouration of body grayish-brown, legs brownish-green with small blackish markings.

Head: Oval, longer than pronotum. Vertex flat. Occiput distinctly convex, median and lateral longitudinal furrows distinct. Compound eyes small and rounded. Antennae long and filiform, surpassing apices of forelegs; scapus basally flattened, longer than pedicellus; pedicellus as long as third segment.

Thorax: Unarmed. Pronotum trapezoidal, gently constricted posteriorly, anterior margin incurved, posterior margin gently rounded, transverse and longitudinal sulci crossing before middle area. Mesonotum slender and elongate, parallel-sided, median longitudinal carina



Figures 54-59. *Parasinophasma biconcavum* sp. nov. 54. Male, habitus. 55. Female, habitus. 56. Egg, lateral view. 57. Egg, dorsal view. 58. Male, head and thorax, dorsolateral view. 59. Female, head and thorax, dorsolateral view. Scale bars: habitus, head and thorax, apex of abdomen = 5 mm; egg = 1 mm. Photos by author.

	Holotype Male	Paratype Males	Paratype Females
Body	54.0	49.0-53.0	62.0-65.0
Head	3.5	3.0	4.0
Antennae	51.0	44.0-48.0	40.0-44.0
Pronotum	2.5	2.0	3.0
Mesonotum	12.0	11.5-12.0	13.5-15.5
Metanotum including median segment	6.0	6.0	7.5
Tegmina	2.5	2.5	3.5
Alae	12.0	12.5-13.0	16.0-16.5
Profemora	18.0	16.0-17.5	14.5-16.0
Mesofemora	12.0	10.0-12.0	9.5-10.5
Metafemora	16.0	14.5-17.0	13.5-14.5
Protibiae	17.0	15.0-17.0	13.5-15.0
Mesotibiae	11.0	9.0-11.0	9.0-9.5
Metatibiae	16.5	14.5-17.0	13.5-14.0

Table 5. Measurements of *Parasinophasma biconcavum* sp. nov.

indistinct, longer than combined length of metanotum and median segment, with a few small black granules. Mesopleurae and mesosternum with very few small granules. Metapleurae and metasternum lacking granulation.

Abdomen: Cylindrical and slender. Lacking granulation. Seventh sternum with a small hump-like preopercular organ posteromedially. Eighth tergum longer than ninth tergum. Anal segment as long as ninth tergum, gently constricted medioposteriorly, with a small emargination on posterior margin. Supra-anal plate indistinct. Subgenital plate scoop-shaped, short, tapering posteriorly, posterior margin pointed and reaching anterior area of anal segment. Cerci short, cylindrical, straight, tapering posteriorly, apices pointed and not surpassing posterior margin of anal segment.

Legs: Slender and long, unarmed. Sparsely covered with short bristles. Femora thicker than corresponding tibiae. Profemora basally curved.

Wings: Tegmina small, oval, posterior margin truncate. Alae short, apices reaching anterior area of fourth tergum.

Measurements: See Table 5.

Description of egg (Figs. 56-57): Capsule dark brown, surface densely fringed with long, feather-like bristles; oblong, posterior pole rounded. Micropylar plate oval, anteriorly and posteriorly rounded. Micropylar cup located at posterior area of micropylar plate. Median line indistinct. Operculum flat, lacking capitulum.

Measurements: Length, 2.2 mm; width, 1.2 mm; height, 1.5 mm.

Distribution: China (Yunnan).

Etymology: The specific epithet of this new species is derived from the two emarginations on the posterior margin of the male's pocium; adjective.

Pseudososibia Ho, 2017

Type-species: *Pseudososibia cristata* Ho, 2017a: 38, by original designation.

Description: As in Ho (2017a: 36).

Distribution: China.

Notes: Currently the genus *Pseudososibia* Ho, 2017 includes seven species, among which three are new species described in this study: *Pseudososibia exigua* sp. nov., *Pseudososibia nigrogranulata* sp. nov. and *Pseudososibia yunnanensis* sp. nov. At present, six species are found in China. An updated list of the species of Chinese *Pseudososibia* is provided.

Pseudososibia Srinivasan, Mukherjee & Chatterjee, 2018

is not a valid name and is preoccupied by *Pseudososibia* Ho, 2017. The type-species *Pseudososibia albidotarsi* Srinivasan, Mukherjee & Chatterjee, 2018 [India (Ferrargunj)] is temporarily placed in this genus until a replacement of generic name has been selected.

Species included:

1. *Pseudososibia brachyptera* (Chen & He, 2004) 短翅擬健螞 [Sosibia; China (Xizang)]
2. *Pseudososibia cristata* Ho, 2017a 冠擬健螞 [China (Xizang)]
3. *Pseudososibia exigua* sp. nov. 小擬健螞 [China (Yunnan)]
4. *Pseudososibia nigrogranulata* sp. nov. 黑粒擬健螞 [China (Yunnan)]
5. *Pseudososibia spinituberculata* sp. nov. 刺管擬健螞 [China (Yunnan)]
6. *Pseudososibia undulatomarginata* Ho, 2017a 波緣擬健螞 [China (Yunnan)]

Pseudososibia exigua sp. nov. (Figs. 23-26, 60-65)

Types: Holotype, ♀, 2000m, Nanjian, Dali, Yunnan, China, 2 June 2018, George Ho Wai-Chun (HKES); Paratypes, 1♀, 1♂, 2 eggs (laid by holotype female), same data as holotype (HKES).

Diagnosis: *Pseudososibia exigua* sp. nov. is similar to *P. undulatomarginata* Ho, 2017, but it can be distinguished by its smaller size, more robust body and the larger alae in both sexes.

Description of female (Figs. 23-24, 60, 64): Small size for Necrosiinae. Body elongate and slender. General colouration of body grayish-brown, legs brown with small blackish markings.

Head: Oval, longer than pronotum, sparsely covered with small granules. Vertex and occiput flattened, median and lateral longitudinal furrows distinct, posterior margin with small swellings. Compound eyes small and rounded. Antennae long and filiform, surpassing apices of forelegs; scapus basally flattened, longer than pedicellus; pedicellus longer than third segment.

Thorax: Rough, sparsely granulated. Pronotum rectangular, longer than wide, anterior margin incurved, posterior margin gently rounded, transverse and longitudinal sulci crossing before middle area. Mesonotum slender and elongate, parallel-sided, median longitudinal carina indistinct, longer than combined length of metanotum and median segment. Metanotum shorter than median segment. Mesosternum and metasternum with a few enlarged and acute granules.

Abdomen: Cylindrical, rough, sparsely covered with small granules and short wrinkles. Second to ninth tergites with a small posteromedian elevation. Posterior margin of seventh tergum distinctly waved. Seventh

sternum lacking noticeable preopercular organ. Eighth tergum roughly as long as ninth tergum. Anal segment longer than ninth tergum, weakly constricted posteriorly, with a small emargination on posterior margin. Supra-anal plate indistinct. Subgenital plate scoop-shaped, short, tapering posteriorly, posterior margin distinctly emarginated and reaching middle area of anal segment. Cerci long, cylindrical, straight, apices pointed and surpassing posterior margin of anal segment.

Legs: Slender and long, unarmed. Sparsely covered with short bristles. Femora thicker than corresponding tibiae. Profemora basally curved, anterodorsal carina inconspicuously waved.

Wings: Tegmina small, oval, distinctly elevated medially, posterior margin rounded. Alae small, rudiment-like, oval, distinctly larger than tegmina, posterior margin rounded and reaching middle area of median segment.

Description of male (Figs. 25-26, 61, 65): Small size for Necrosciinae. Body slender and long, distinctly smaller and thinner than female. General colouration

of body brown, legs brown with inconspicuous blackish markings.

Head: Oval, sparsely covered with small granules. Vertex flat, unarmed. Occiput flat, posterior margin with distinct small swellings. Compound eyes small and rounded. Antennae long and filiform, surpassing apices of forelegs; scapus flattened basally, longer than pedicellus; pedicellus longer than third segment.

Thorax: Rough, sparsely granulated. Pronotum rectangular, longer than wide, transverse and longitudinal sulci crossing before middle point, anterior margin incurved, posterior margin truncate. Mesonotum slender and elongate, median longitudinal carina distinct. Metanotum shorter than median segment. Metasternum with a few enlarged and acute granules.

Abdomen: Cylindrical and slender. Sparsely covered with small granules. Median and lateral longitudinal carinae distinct. Second to ninth tergites with a small posteromedian elevation. Eighth tergum longer than ninth tergum. Anal segment shorter than ninth tergum, posterior margin gently emarginated. Poculum cup-



Figures 60-65. *Pseudososibia exigua* sp. nov. 60. Female, habitus. 61. Male, habitus. 62. Egg, lateral view. 63. Egg, dorsal view. 64. Female, head and thorax, dorsolateral view. 65. Male, head and thorax, dorsolateral view. Scale bars: habitus, head and thorax, apex of abdomen = 5 mm; egg = 1 mm. Photos by author.

	Holotype Female	Paratype Female	Paratype Male
Body	49.0	50.0	48.0
Head	3.5	3.5	2.5
Antennae	26.0	30.0	28.0
Pronotum	3.0	3.0	2.0
Mesonotum	11.0	12.0	10.5
Metanotum	2.0	2.5	2.0
Median Segment	3.5	3.5	2.5
Profemora	9.0	9.0	8.5
Mesofemora	7.5	8.0	7.0
Metafemora	10.0	11.0	10.0
Protibiae	8.5	8.5	8.5
Mesotibiae	6.5	7.0	6.0
Metatibiae	11.0	11.5	11.0

Table 6. Measurements of *Pseudososibia exigua* sp. nov.

shaped, posterior margin pointed, reaching middle area of anal segment. Cerci short, cylindrical and straight, apices rounded and reaching posterior margin of anal segment.

Legs: Slender and long, unarmed. Sparsely covered with short bristles. Profemora distinctly curved at base.

Wings: Tegmina small, scale-like. Alae small, scale-like, oval, larger than tegmina.

Measurements: See Table 6.

Description of egg (Figs. 62-63): Capsule brown, densely granulated; oval, posterior pole rounded, ventral surface flat. Micropylar plate racket-shaped, anteriorly and posteriorly pointed. Micropylar cup located at middle area of micropylar plate. Median line distinct. Operculum flat, lacking capitulum.

Measurements: Length, 3.0 mm; width, 1.8 mm; height, 1.6 mm.

Distribution: China (Yunnan).

Etymology: The specific epithet of this new species is derived from its small size compared with other taxa in the genus; adjective.

***Pseudososibia nigrogranulata* sp. nov.** (Figs. 27, 66, 69)

Types: Holotype, ♀, 2000m, Nanjian, Dali, Yunnan, China, 2 June 2018, George Ho Wai-Chun (HKES); Paratype, 1♀, same data as holotype (HKES).

Diagnosis: *Pseudososibia nigrogranulata* sp. nov. is similar to *P. undulatomarginata* Ho, 2017, but it can be distinguished by its smaller size, the slenderer body, the non-undulate posterior margin of the seventh abdominal tergum and the absence of tegmina in female.

Description of female (Figs. 27, 66, 69): Medium-sized for Necrosciinae. Body elongate and slender. General colouration of body brown, legs brown with small blackish markings.

Head: Oval, longer than pronotum, sparsely covered with a few small granules. Vertex and occiput flattened, median and lateral longitudinal furrows distinct, posterior margin with distinct small swellings. Compound eyes small and rounded. Antennae long and filiform, surpassing apices of forelegs; scapus basally flattened, longer than pedicellus; pedicellus as long as third segment.

Thorax: Rough, wrinkled, sparsely granulated. Pronotum rectangular, longer than wide, anterior margin incurved, posterior margin gently rounded, transverse and longitudinal sulci crossing before middle area. Mesonotum slender and elongate, parallel-sided, median longitudinal carina indistinct, longer

than combined length of metanotum and median segment, with a few enlarged and acute black granules. Metanotum longer than median segment.

Abdomen: Cylindrical, rough, sparsely covered with small granules and short wrinkles. Posterior margin of seventh tergum not waved. Seventh sternum lacking noticeable preopercular organ. Eighth tergum longer than ninth tergum. Anal segment as long as ninth tergum, with two small emarginations on posterior margin. Supra-anal plate indistinct. Subgenital plate scoop-shaped, short, tapering posteriorly, posterior margin rounded and reaching posterior area of ninth tergum. Cerci short, flattened, straight, apices pointed and not surpassing posterior margin of anal segment.

Legs: Slender and long. Sparsely covered with short bristles. Femora thicker than corresponding tibiae. Profemora basally curved. Posteroventral carina of mesofemora and metafemora with two to three minute serrations.

Wings: Tegmina absent. Alae minute, scale-like, oval, posterior margin rounded and not reaching anterior margin of median segment.

Measurements: See Table 7.

Distribution: China (Yunnan).

Notes: The male is unknown.

Etymology: The specific epithet of this new species is derived from the black granules on the female's mesonotum; adjective.

***Pseudososibia spinituberculata* sp. nov.** (Figs. 28-29, 67, 70)

Types: Holotype, ♀, 1500-2000m, Maguan, Wenshan, Yunnan, China, 28 July 2025, George Ho Wai-Chun (HKES); Paratype, 1 subadult ♀, same data as holotype (HKES).

Diagnosis: *Pseudososibia spinituberculata* sp. nov. is similar to *P. undulatomarginata* Ho, 2017, but it can be easily distinguished by its larger size, more robust body, the distinct spine-like tubercles on the mesonotum and the larger tegmina in female.

Description of female (Figs. 28-29, 67, 70): Medium-sized for Necrosciinae. Body elongate and slender. General colouration of body brown, legs brown with small blackish markings.

Head: Oval, longer than pronotum, sparsely covered with small granules. Vertex and occiput flat, median and lateral longitudinal furrows distinct, posterior margin with small swellings. Compound eyes small and rounded. Antennae long and filiform, surpassing apices of forelegs; scapus basally flattened, longer than pedicellus; pedicellus roughly as long as third segment.



Figures 66-70. 66. *Pseudososibia nigrogranulata* **sp. nov.**, female, habitus. 67. *Pseudososibia spinituberculata* **sp. nov.**, female, habitus. 68. *Scionecra xizangensis* **sp. nov.**, male, habitus. 69. *Pseudososibia nigrogranulata* **sp. nov.**, female, head and thorax, dorsolateral view. 70. *Pseudososibia spinituberculata* **sp. nov.**, female, head and thorax, dorsolateral view. Scale bars = 5 mm. Photos by author.

	Holotype Female	Paratype Female
Body	53.0	52.0
Head	3.5	3.5
Antennae	26.0	26.0
Pronotum	3.0	3.0
Mesonotum	12.0	11.0
Metanotum	4.5	4.5
Median Segment	3.0	3.0
Profemora	10.5	10.5
Mesofemora	8.0	7.5
Metafemora	11.5	10.0
Protibiae	10.0	10.0
Mesotibiae	7.5	7.0
Metatibiae	11.5	11.0

Table 7. Measurements of *Pseudososibia nigrogranulata* **sp. nov.**

	Holotype Female
Body	66.0
Head	4.5
Antennae	38.0
Pronotum	4.0
Mesonotum	16.0
Metanotum	3.0
Median Segment	4.0
Tegmina	2.5
Alae	1.0
Profemora	15.0
Mesofemora	11.5
Metafemora	16.5
Protibiae	13.0
Mesotibiae	10.0
Metatibiae	17.0

Table 8. Measurements of *Pseudososibia spinituberculata* **sp. nov.**

Thorax: Sparsely granulated. Pronotum rectangular, longer than wide, anterior margin incurved, posterior margin gently rounded, transverse and longitudinal sulci just crossing before middle area. Mesonotum slender and elongate, parallel-sided, median longitudinal carina indistinct, with a few acute granules and spine-like tubercles, longer than combined length of metanotum and median segment. Mesopleurae, metapleurae, mesosternum and metasternum with a few enlarged and acute granules. Metanotum shorter than median segment.

Abdomen: Cylindrical, rough, sparsely covered with small granules and short wrinkles. Sixth tergum with a small posteromedian elevation. Posterior margin of seventh tergum distinctly waved. Seventh sternum lacking noticeable preopercular organ. Eighth tergum longer than ninth tergum. Anal segment slightly longer than ninth tergum, weakly constricted posteriorly, with a small emargination on posterior margin. Supra-anal plate indistinct. Subgenital plate scoop-shaped, short, tapering posteriorly, posterior margin weakly emarginated and reaching middle area of anal segment. Cerci long, cylindrical, straight, apices pointed and surpassing posterior margin of anal segment.

Legs: Slender and long, unarmed. Sparsely covered with short bristles. Femora thicker than corresponding tibiae. Profemora basally curved, anterodorsal carina inconspicuously waved.

Wings: Tegmina small, oval, distinctly elevated medially, posterior margin rounded. Alae reduced, scale-like, oval, distinctly smaller than tegmina.

Measurements: See Table 8.

Distribution: China (Yunnan).

Notes: The male is unknown. The measurements are only given to the adult holotype female.

Etymology: The specific epithet of this new species is derived from the spine-like tubercles on the mesonotum of the female; adjective.

***Scionecra* Karny, 1923**

Type-species: *Necroscia osmylus* Westwood, 1859: 135, by original designation.

Description: As in Ho and Zhang (2014: 698).

Distribution: Australia, China, India, Indonesia, Malaysia, Philippines and Vietnam.

Notes: Currently the genus *Scionecra* Karny, 1923 includes five species in China, among which one is new species described in this study: *Scionecra xizangensis* sp. nov. An updated list of the Chinese species of *Scionecra* is provided.

Species included:

1. *Scionecra huai* Ho, 2014 華氏突臀蟊 [China (Hainan)]
2. *Scionecra microptera* (Redtenbacher, 1908) 小翅突臀蟊 [*Aruanoidea*; China (Hainan) & Malaysia]
3. *Scionecra pseudocerca* (Chen & He, 2008) 擬尾突臀蟊 [*Aruanoidea*; China (Guangdong, Hainan & Hong Kong)]
4. *Scionecra spinosa* Ho, 2013c 刺突臀蟊 [China (Yunnan)]
5. *Scionecra xizangensis* sp. nov. 西藏突臀蟊 [China (Xizang)]

***Scionecra xizangensis* sp. nov. (Figs. 30-31, 68)**

Type: Holotype, ♂, 1000m, Motuo, Xizang, China, 25 July 2025, Kam Gin-Cheong (HKES).

Diagnosis: *Scionecra xizangensis* sp. nov. is similar to *S. pseudocerca* (Chen & He, 2008), but it can be easily distinguished by its larger size, more robust body, the strongly elongated and incurved posterolateral angles on the ninth abdominal tergum and the longer alae in male.

Description of male (Figs. 30-31, 68): Medium-sized for Necrosciinae. Body slender and long. General colouration of body dark brown, femora and tibiae reddish brown with black apices, wings dark brown.

Head: Oval, lacking granulation. Vertex flat, unarmed, with three distinct ocelli, each equal in size. Occiput distinctly convex. Compound eyes small and rounded. Antennae long and filiform, surpassing apices of forelegs; scapus flattened basally, longer than pedicellus, shorter than third segment.

Thorax: Unarmed. Pronotum rectangular, longer than wide, transverse and longitudinal sulci crossing before middle point, anterior margin weakly incurved, posterior margin rounded. Mesonotum slender and elongate, broadly emarginated medially, median longitudinal carina indistinct, longer than combined length of metanotum and median segment, distinctly wrinkled. Mesosternum weakly wrinkled. Mesopleurae, metapleurae and metasternum lacking granulation.

Abdomen: Cylindrical and slender. Lacking granulation. Second to seventh tergites parallel-sided. Eighth tergum weakly expanded posteriorly. Ninth tergum longer than eighth tergum, strongly elongated posterolaterally, forming a triangular angle, apex pointed and incurved. Anal segment shorter than ninth tergum, posterior margin with a deep U-shaped emargination; tapering posteriorly in lateral view, posterior apices pointed. Poculum cup-shaped, posterior margin rounded, reaching posterior area of ninth tergum. Cerci long, cylindrical, apices pointed and weakly curved, reaching posterior margin of anal segment.

Legs: Slender and long, unarmed. Sparsely covered

with short bristles. Profemora curved basally.

Wings: Tegmina oval, short, posterior margin subtruncate. Alae long, apices reaching posterior area of sixth tergum.

Measurements: See Table 9.

Distribution: China (Xizang).

Notes: The female is unknown.

Etymology: This new species is named after its type locality, Xizang, China; adjective.

***Sinohirasea* gen. nov.**

Type-species: *Neohirasea unispina unispina* Ho, 2017a: 24, by present designation.

Diagnosis: *Sinohirasea* gen. nov. is related to *Neohirasea* Rehn, 1904, but can be separated by its slender and elongated body, the less spinose thorax (only armed with a spine on posteromedian area of mesonotum and metanotum in male, reduced as a short tubercle in female), and the absence of subapical serrations on ventral carinae of legs in both sexes.

Description: Small to medium-sized for Necrosciinae. Body slender, cylindrical, rough, wrinkled and granulated. Head oval, dorsoventrally flattened, unarmed. Antennae long and filiform. Thorax rough, only armed with a small spine on posteromedian area of mesonotum and metanotum in male, reduced as a tubercle in female. Mesonotum longer than combined length of metanotum and median segment. Mesopleurae and metapleurae unarmed. Abdomen wrinkled and granulated. Second to sixth or seventh tergites with a small spine posteromedially. Seventh sternum with a spine-like preopercular organ posteromedially in female. Female

subgenital plate short, scoop-shaped. Male poculum small, cup-shaped. Supra-anal plate indistinct. Apical part of male vomer almost symmetrical, elongated apically, apex with four short spine-like tubercles. Cerci short and flattened. Legs lacking noticeable armature. Anteroventral and posteroventral carinae of femora unarmed. Apterous. Egg capsule oval. Micropylar plate oval. Operculum lacking a capitulum.

Distribution: China.

Notes: This new genus consists of one species and two subspecies, including *Sinohirasea unispina parvula* (Ho, 2017) **comb. nov.** [*Neohirasea*] and *Sinohirasea unispina unispina* (Ho, 2017) **comb. nov.** [*Neohirasea*]. At present, all known taxa are exclusively found in China. A list of the species of *Sinohirasea* gen. nov. is provided.

Etymology: The specific epithet of this new genus is derived from the words “Sino” (meaning “China”) and “hirasea”, referring to a genus from China that is similar to *Neohirasea* Rehn, 1904; feminine.

Species included:

1. *Sinohirasea unispina* (Ho, 2017a: 24) **comb. nov.** 單刺華棘蝱 [*Neohirasea*; China (Yunnan)]

1.1. *Sinohirasea unispina parvula* (Ho, 2017a: 26, figs. 61, 113-114) **comb. nov.** 單刺華棘蝱 細小亞種 [*Neohirasea*; China (Yunnan)]

1.2. *Sinohirasea unispina unispina* (Ho, 2017a: 24, figs. 57-60, 68, 104-112, 278-279) **comb. nov.** 單刺華棘蝱 單刺亞種 [*Neohirasea*; China (Yunnan)]

CONCLUSION

The subfamily Necrosciinae is rich in diversity in China, with over 200 species documented (Chen and He, 2008; Hennemann et al., 2008; Brock and Büscher,

	Holotype Male
Body	65.0
Head	4.0
Antennae	56.0
Pronotum	2.5
Mesonotum	10.0
Metanotum	8.0
Median Segment	3.0
Tegmina	34.0
Alae	20.0
Profemora	14.5
Mesofemora	19.0
Metafemora	21.0
Protibiae	20.0
Mesotibiae	20.0
Metatibiae	17.0

Table 9. Measurements of *Scionecra xizangensis* sp. nov.

2022; Brock et al., 2025; Ho, unpub. data). Collecting additional specimens from remote, primitive forests is expected to reveal a greater number of new species. Ultimately, each specimen collected would enhance our understanding of phasmid biodiversity in China. In future, molecular studies would enhance knowledge and help in distinguishing the validity of species with similar appearance.

ACKNOWLEDGMENTS

My special thanks go to Judith Marshall (Natural History Museum, London, U.K.) for providing valuable comments and suggestions to greatly improve the manuscript.

REFERENCES

- Bank, S. and Bradler, S., 2022. A second view on the evolution of flight in stick and leaf insects (Phasmatodea). *BMC Ecology and Evolution* 22, 62: 1-17.
- Bi, D.Y. and Wang, Z.G., 1998. Three new species of Phasmatodea from Henan Province. In: *The Fauna and Taxonomy of Insects in Henan 2. Insects of the Funiu Mountains Region* (Shen, X.C. and Shi, Z., eds.). China Agricultural Sciencetech Press, Beijing, China: 9-13.
- Bradler, S. and Buckley, T.R., 2018. Biodiversity of Phasmatodea. In: *Insect Biodiversity: Science and Society* (Adler, P.H. and Footitt, R.G., eds.). John Wiley and Sons, Hoboken, New Jersey: 281-313.
- Bradler, S., Robertson, J.A. and Whiting, M.F., 2014. A molecular phylogeny of Phasmatodea with emphasis on Necrosciinae, the most species-rich subfamily of stick insects. *Systematic Entomology* 39(2): 1-18.
- Bragg, P.E., 2001. *Phasmids of Borneo*. Natural History Publications (Borneo), Kota Kinabalu. 772pp.
- Brock, P.D. and Büscher, T.H., 2022. *Stick and Leaf-Insects of the World, Phasmids*. NAP Editions, Verrières-le-Buisson. 612pp.
- Brock, P.D., Büscher, T.H. and Baker, E., 2025. *Phasmida Species File Online. Version 5.0/5.0*. Available from <http://phasimida.speciesfile.org/HomePage/Phasmida/HomePage.aspx>, accessed on 1 October 2025.
- Brunner von Wattenwyl, K., 1893. Révision du système des Orthoptères et description des espèces rapportées par M. Leonardo Fea de Birmanie. *Annali del Museo Civico di Storia Naturale Giacomo Doria, Genova* (2)13(33): 1-230.
- Carl, J., 1913. Phasmides nouveaux ou peu connus du Muséum de Genève. *Revue Suisse de Zoologie* 21: 1-56.
- Chen, S.C. and He, Y.H., 1997. A new genus and new species of Phasmatodea from Yunnan, China (Phasmatodea: Heteronemiidae). *Acta Zootaxonomica Sinica* 22(2): 159-161.
- Chen, S.C. and He, Y.H., 1999. Three new species of Phasmatodea from Guangxi, China (Phasmatodea: Phasmatidae and Heteronemiidae). *Journal of Guangxi Academy of Sciences* 15(2): 84-86.
- Chen, S.C. and He, Y.H., 2000. Three new genera and two new species of Heteronemiidae (Phasmatodea) from South China. In: *Systematic and faunistic research on Chinese insects. Proceedings of the 5th National Congress of Insect Taxonomy* (Zhang, Y.L., ed.). China Agricultural Sciencetech Press, Beijing, China: 31-35.
- Chen, S.C. and He, Y.H., 2001. Phasmatodea: Heteronemiidae and Phasmatidae. In: *Insects of Tianmu Mountain* (Wu, H. and Pang, C.W., eds.). Science Press, China: 117-121.
- Chen, S.C. and He, Y.H., 2004. Phasmatodea: Heteronemiidae. In: *Insects of the Great Yarlung Zangbo Canyon of Xizang* (Yang, X.K., ed.). China Science and Technology Publishing House, Beijing, China: 26-27.
- Chen, S.C. and He, Y.H., 2008. *Phasmatodea of China*. China Forestry Publishing House, Beijing. 476pp.
- Chen, S.C., He, Y.H. and Chen, Z.Y., 2000. Three new species of Phasmatodea from Guangdong, China (Phasmatodea: Phasmatidae, Heteronemiidae). *Acta Scientiarum Naturalium Universitatis Sunyatseni* 39(4): 128-130.
- Chen, S.C., He, Y.H. and Li, Y., 2002. Phasmatodea. In: *Forest insects of Hainan* (Huang, F.S., ed.). Science Press, China: 100-116.
- Chen, S.C., He, Y.H. and Xu, F.L., 2006. Phasmatodea: Heteronemiidae and Phasmatidae. In: *Insects from Mt. Fanjingshan Landscape* (Li, Z.Z. and Jin, D.C., eds.). Guizhou Science and Technology Publishing House, Guiyang, China: 94-102.
- Clark, J.T., 1976a. The capitulum of phasmid eggs (Insecta: Phasmida). *Zoological Journal of the Linnean Society, London* 59: 365-375.
- Clark, J.T., 1976b. The eggs of stick insects (Phasmida) - a review with descriptions of the eggs of eleven species. *Systematic Entomology* 1: 95-105.
- Clark, J.T., 1979. A key to the eggs of stick and leaf insects (Phasmida). *Systematic Entomology* 4: 325-331.
- Gao, H.R., Huang, J.K., Wang, C., Xie, C.X. and Li, Y.H., 2022. Revision of the Chinese species of *Andropromachus* Carl, 1913 (Phasmatodea, Lonchodidae, Necrosciinae). *Zootaxa* 5175(4): 463-477.
- Hennemann, F.H., 2007. Notes on the genera *Andropromachus* Carl, 1913 and *Spinohirasea* Zompro, 2001. *Phasmid Studies* 15(1&2): 15-26.

- Hennemann, F.H., Conle, O.V. and Zhang, W.W., 2008. Catalogue of the stick and leaf-insects (Phasmatodea) of China, with a faunistic analysis, review of recent ecological and biological studies and bibliography (Insecta: Orthoptera: Phasmatodea). *Zootaxa* 1735: 1-76.
- Ho, G.W.C., 2013a. The genus *Dianphasma* (Phasmatodea: Diapheromeridae: Necrosciinae) in China, with description of a new species. *Entomotaxonomia* 35(3): 169-173.
- Ho, G.W.C., 2013b. Four new species of Diapheromeridae (Phasmatodea) from Hainan, China. *Acta Zootaxonomica Sinica* 38(4): 820-824.
- Ho, G.W.C., 2013c. A new genus and five new species of Necrosciinae (Phasmatodea, Diapheromeridae) from China. *Acta Zootaxonomica Sinica* 38(3): 530-534.
- Ho, G.W.C., 2015. A review of the genus *Parasinophasma* Chen et He (Phasmida: Diapheromeridae: Necrosciinae). *Acta Entomologica Sinica* 58(3): 329-334.
- Ho, G.W.C., 2017a. Contribution to the knowledge of Chinese Phasmatodea V: New taxa and new nomenclatures of the subfamilies Necrosciinae (Diapheromeridae) and Lonchodinae (Phasmatidae) from the Phasmatodea of China. *Zootaxa* 4368(1): 1-72.
- Ho, G.W.C., 2017b. Contribution to the knowledge of Oriental Phasmatodea I: A taxonomic study of the genus *Parasinophasma* (Phasmatodea: Necrosciinae). *Journal of Orthoptera Research* 26(2): 181-194.
- Ho, G.W.C., 2020. Contribution to the knowledge of Chinese Phasmatodea VI: New taxa and new nomenclature of the subfamily Necrosciinae from the Phasmatodea of China. *Hong Kong Entomological Bulletin* 12(2): 3-28.
- Ho, G.W.C., 2024. Contribution to the knowledge of Chinese Phasmatodea XV: New taxa and new nomenclature of the subfamilies Necrosciinae and Lonchodinae (Lonchodidae) from the Phasmatodea of China II. *Hong Kong Entomological Bulletin* 16(2): 3-14.
- Ho, G.W.C. and Zhang, B.L., 2014. Two new species of genus *Scionecra* (Phasmida: Diapheromeridae: Necrosciinae) from China and Vietnam. *Sichuan Journal of Zoology* 33(5): 698-699.
- Karny, H.H., 1923. Zur nomenklatur der phasmoiden. *Treubia* 3(2): 230-242.
- Kirby, W.F., 1904. *A Synonymic Catalogue of Orthoptera. 1. Orthoptera Euplexoptera, Cursoria et Gressoria. (Forficulidae, Hemimeridae, Blattidae, Mantidae, Phasmidae)*. British Museum, London. 501pp.
- Komoto, N., Yukuhiro, K., Ueda, K. and Tomita, S., 2011. Exploring the molecular phylogeny of phasmids with whole mitochondrial genome sequences. *Molecular Phylogenetics and Evolution* 58: 43-52.
- Otte, D. and Brock, P.D., 2005. *Phasmida Species File: Catalog of Stick and Leaf Insects of the World*. The Insect Diversity Association and the Academy of Natural Sciences, Philadelphia. 414pp.
- Qian, Y.H., Xie, C.X., Wen, J. and Wang, Y., 2023. Review of stick insects (Insecta: Phasmatodea) from Yintiaoling Nature Reserve of China, with description of two new species. *Zootaxa* 5257(1): 17-39.
- Qin, Y.T., Cui, Z.Z. and Bian, X., 2025. A new species of the genus *Pseudoparamenexenus* (Phasmatodea: Lonchodidae: Necrosciinae) and its phylogenetic relationships. *Diversity* 17(9), 637: 1-16.
- Redtenbacher, J., 1906. *Die Insektenfamilie der Phasmiden. I. Phasmidae Areolatae*. Wilhelm Engelmann, Leipzig. 180pp.
- Redtenbacher, J., 1908. *Die Insektenfamilie der Phasmiden. III. Phasmidae Anareolatae (Phibalosomini, Acrophyllini, Necrosciini)*. Wilhelm Engelmann, Leipzig. 250pp.
- Rehn, J.A.G., 1904. Studies in the orthopterous family Phasmidae. *Proceedings of the Academy of Natural Sciences of Philadelphia* 56: 38-107.
- Rehn, J.A.G. and Rehn, J.W.H., 1939(1938). The Orthoptera of the Philippine Islands. Part I Phasmatidae; Oribminae. *Proceedings of the Academy of Natural Sciences, Philadelphia* 90: 389-487.
- Robertson, J.A., Bradler, S. and Whiting, M.F., 2018. Evolution of oviposition techniques in stick and leaf insects (Phasmatodea). *Frontiers in Ecology and Evolution* 6(216): 1-15.
- Saussure, H. de, 1868. Phasmidarum novarum species nonnullae. *Revue et Magazine de Zoologie* 20(2): 63-70.
- Sellick, J.T.C., 1988. The capitula of phasmid eggs: an update with a review of the current state of phasmid ootaxonomy. *Zoological Journal of the Linnean Society, London* 93: 273-282.
- Sellick, J.T.C., 1997. The range of egg capsule morphology within the Phasmatodea and its relevance to the taxonomy of the order. *Italian Journal of Zoology* 64: 97-104.
- Sellick, J.T.C., 1998. The micropylar plate of the eggs of Phasmida, with a survey of the range of plate form within the order. *Systematic Entomology* 23: 203-228.
- Srinivasan, G., Mukherjee, T.K. and Chatterjee, P., 2018. A new genus and species of Phasmida, *Pseudososibia albidotarsi* (Phasmida: Necrosciinae) from South Andaman Island, India. *Phasmid Studies* 19: 18-23.

Wen, J., Qian, Y.H., Xie, C.X., Chen, R. and Wang, C., 2024. New species and new synonym of *Necrosciini* (Phasmatodea: Lonchodidae: Necrosciinae) from Hainan Province, China. *Zootaxa* 5507(2): 371-383.

Westwood, J. O., 1859. *Catalogue of Orthopterous insects in the collection of the British Museum Part 1, Phasmidae*. British Museum, London. 195pp.

Xie, C.X., Cai, J. and Qian, Y.H., 2022. New species of *Andropromachus* (Phasmatodea: Lonchodidae: Necrosciinae: Necrosciini) from Yunnan Province, China. *Biodiversity Data Journal* 10(e78080): 1-10.

Xu, F.L., 2008. *A taxonomic study on Phasmatodea in Guizhou*. Guizhou University, Guizhou, China. 70pp.

Zompro, O., 2002(2001). *Spinohirasea crassithorax*, n. gen. n. sp., eine neue Stabschrecke aus Vietnam (Phasmatodea: Phasmatidae: Lonchodinae: Menexenini). *Bonner Zoologische Beiträge* 50(1-2): 67-72.

Zompro, O., 2004. *Revision of the Genera of the Areolatae, including the Status of Timema and Agathemera (Insecta, Phasmatodea)*. Goecke & Evers, Keltern-Weiler, Germany. 327pp.

中國蝨目之新知XVI：中國蝨目長角枝蝨亞科（長角棒蝨科）新分類群及新分類命名II

何維俊

香港昆蟲學會 香港九龍中央郵政信箱73749號

電郵：georgehwc@hotmail.com

摘要：本文記述中國長角枝蝨亞科二新屬、二新亞屬及九新種：新齒臂蝨屬 *Neoparamenexenus* **gen. nov.**、華棘蝨屬 *Sinohirasea* **gen. nov.**、短新齒臂蝨亞屬 *Neoparamenexenus* (*Breviparamenexenus*) **subgen. nov.**、新齒臂蝨亞屬 *Neoparamenexenus* (*Neoparamenexenus*) **subgen. nov.**、雙角粗棘蝨 *Andropromachus bicornutus* **sp. nov.**、長脊滇蝨 *Dianphasma dolichocarinatum* **sp. nov.**、文山膨胸棘蝨 *Oedohirasea wenshanensis* **sp. nov.**、雲南膨胸棘蝨 *Oedohirasea yunnanensis* **sp. nov.**、雙凹副華枝蝨 *Parasinophasma biconcavum* **sp. nov.**、小擬健蝨 *Pseudososibia exigua* **sp. nov.**、黑粒擬健蝨 *Pseudososibia nigrogranulata* **sp. nov.**、刺管擬健蝨 *Pseudososibia spinituberculata* **sp. nov.**及西藏突臂蝨 *Scionecria xizangensis* **sp. nov.**；建立八新組合：粒帶短新齒臂蝨 *Neoparamenexenus* (*Breviparamenexenus*) *balteatus* (Chen & He, 2002) **comb. nov.**、脊短新齒臂蝨 *Neoparamenexenus* (*Breviparamenexenus*) *carinulatus* (Redtenbacher, 1908) **comb. nov.**、廣西短新齒臂蝨 *Neoparamenexenus* (*Breviparamenexenus*) *guangxiensis* (Chen & He, 1999) **comb. nov.**、勝利短新齒臂蝨 *Neoparamenexenus* (*Breviparamenexenus*) *shenglii* (Ho, 2013) **comb. nov.**、擬長瓣新齒臂蝨 *Neoparamenexenus* (*Neoparamenexenus*) *congnatus* (Chen, He & Chen, 2000) **comb. nov.**、長瓣新齒臂蝨 *Neoparamenexenus* (*Neoparamenexenus*) *laetus* (Kirby, 1904) **comb. nov.**、單刺華棘蝨 細小亞種 *Sinohirasea unispina parvula* (Ho, 2017) **comb. nov.** 及單刺華棘蝨 單刺亞種 *Sinohirasea unispina unispina* (Ho, 2017) **comb. nov.**；建議一新同物異名：*Pseudoparamenexenus beiliuensis* Qin, Cui & Bian, 2025 **syn. nov.**為粒帶短新齒臂蝨 *Neoparamenexenus* (*Breviparamenexenus*) *balteatus* (Chen & He, 2002) **comb. nov.**的同物異名；以及制定粗棘蝨屬 *Andropromachus* Carl, 1913、滇蝨屬 *Dianphasma* Chen & He, 1997、膨胸棘蝨屬 *Oedohirasea* Ho, 2020、新齒臂蝨屬 *Neoparamenexenus* **gen. nov.**、副華枝蝨屬 *Parasinophasma* Chen & He, 2008、擬健蝨屬 *Pseudososibia* Ho, 2017、突臂蝨屬 *Scionecria* Karny, 1923及華棘蝨屬 *Sinohirasea* **gen. nov.**的名錄。

關鍵字：竹節蟲，中國，分類，新屬，新亞屬，新種，新組合，新同物異名

