

中国副厚蝽属分类研究及二新种记述 (蝽目: 蝽科)

何维俊

(香港昆虫学会, 香港九龙中央邮政信箱 73749 号)

摘要: 本文对中国副厚蝽属 *Parapachymorpha* Brunner von Wattenwyl, 1893 进行了分类研究, 其中包括 2 新种——道英副厚蝽 *Parapachymorpha daoyingi* sp. nov. 和西双版纳副厚蝽 *Parapachymorpha xishuangbannaensis* sp. nov., 以及 1 中国新记录种——刺副厚蝽 *Parapachymorpha spinosa* Brunner von Wattenwyl, 1893。新种模式标本保存于上海昆虫博物馆。

关键词: 蝽目; 蝽科; 副厚蝽属; 分类; 新种; 新记录; 中国

中图分类号: Q969 文献标识码: A 文章编号: 0454-6296(2014)02-0244-04

A review of the genus *Parapachymorpha* Brunner von Wattenwyl (Phasmatodea: Phasmatidae) from China, with descriptions of two new species

HO Wai-Chun George (Hong Kong Entomological Society, P. O. Box No. 73749, Kowloon Central Post Office, Hong Kong)

Abstract: This paper presents a taxonomic review of the genus *Parapachymorpha* Brunner von Wattenwyl, 1893 from China. Two new species, *Parapachymorpha daoyingi* sp. nov. and *P. xishuangbannaensis* sp. nov., are described. *Parapachymorpha spinosa* Brunner von Wattenwyl, 1893 is recorded for the first time from China. The type specimens of the new species are deposited in Shanghai Entomological Museum, Shanghai.

Key words: Phasmatodea; Phasmatidae; *Parapachymorpha*; taxonomy; new species; new record; China

副厚蝽属 *Parapachymorpha* 由 Brunner von Wattenwyl 于 1893 年建立, 模式种为黑副厚蝽 *P. nigra* Brunner von Wattenwyl, 1893。该属目前记录 6 种, 主要分布于中国南方、越南、泰国和缅甸 (Otte and Brock, 2005)。中国目前仅记载 1 种, 即四刺副厚蝽 *P. tetraacantha* Chen et He, 2001 (陈树椿和何允恒, 2001)。作者在整理中国副厚蝽属时, 发现 2 新种及 1 新记录种, 现记述如下。

副厚蝽属 *Parapachymorpha* Brunner von Wattenwyl, 1893

Parapachymorpha Brunner von Wattenwyl, 1893. *Annali del Museo Civico di storia naturale Giacomo Doria*, Genova, 13: 96; Kirby, 1904. A Synonymic Catalogue of Orthoptera. Vol. 1. Orthoptera Euplexoptera, *Cursoria et Gressoria* (Forficulidae, Hemimeridae, Blattidae, Mantidae, Phasmatidae), 342; Brunner von Wattenwyl, 1907. Die Insektenfamilie der Phasmatiden. II. Phasmatidae Anareolatae (Clitumnini, Lonchodini, Bacunculini), 217; Bradley and Galil, 1977. *Proceedings of the Entomological Society, Washington*, 79 (2): 185; Chen and He, 2001.

Entomological Journal of East China, 10 (1): 8; Zompro, 2004. *Abhandlungen des Naturwissenschaftlichen Vereins in Hamburg (NF)*, 37: 317; Otte and Brock, 2005. Phasmatida Species File, Catalog of Stick and Leaf Insects of the World, 249; Hennemann, Conle and Zhang, 2008. *Zootaxa*, 1735: 20; Chen and He, 2008. Phasmatodea of China, 210.

模式种: *Parapachymorpha nigra* Brunner von Wattenwyl, 1893。

体粗棒状, 向腹端缩细。头卵形, 常具颗粒或短刺。触角短, 分节明显, 到达前足股节中部。胸部具皱折及短刺。腹部圆柱形; 雄性臀节浅裂; 雌性臀节后缘弧形。两性尾须短。足股节背面具齿。无翅。

1 道英副厚蝽, 新种 *Parapachymorpha daoyingi* sp. nov. (图 1: A; 2: A, B)

雌性: 体中型, 褐色; 表面粗糙, 具颗粒及刺。缺翅。头长卵形, 长于前胸背板, 具明显颗粒及钝刺; 后头隆起, 具 4 对尖刺及少量短钝刺。复眼小, 半球形, 其直径为眼后头长的 3 倍。触角短, 分节

作者简介: 何维俊, 男, 1983 年 11 月生, 硕士, 主要从事蝽目昆虫分类学研究, E-mail: georgehw@hotmail.com

收稿日期 Received: 2013-11-19; 接受日期 Accepted: 2014-01-15

中国副厚蜥属分种检索表

1. 触角 19 节; 腹部第 5 节背板无刺 西双版纳副厚蜥 *P. xishuangbannaensis* sp. nov.
触角 15~17 节; 腹部第 5 节背板具刺 2
2. 腹部第 6~8 节背板无刺 四刺副厚蜥 *P. tetracantha* Chen et He, 2001
腹部第 6~8 节背板具刺 3
3. 后足股节内外腹脊具 3 枚细齿 刺副厚蜥 *P. spinosa* Brunner von Wattenwyl, 1893
后足股节内外腹脊具 5 枚细齿 道英副厚蜥 *P. daoyingi* sp. nov.

Key to the species of *Parapachymorpha* from China

1. Antennae 19-segmented; fifth abdominal tergum lacking spines *P. xishuangbannaensis* sp. nov.
Antennae 15-17-segmented, fifth abdominal tergum armed with spines 2
2. Sixth to eighth abdominal terga lacking spines *P. tetracantha* Chen et He, 2001
Sixth to eighth abdominal terga armed with spines 3
3. Anteroventral and posteroventral carinae of metafemora armed with 3 small teeth
..... *P. spinosa* Brunner von Wattenwyl, 1893
Anteroventral and posteroventral carinae of metafemora armed with 5 small teeth *P. daoyingi* sp. nov.

明显, 15 节; 长于头部及前胸背板之和, 短于中胸背板; 第 1 节扁平, 基部稍缩细, 具明显中脊, 长为第 2 节的 3 倍; 第 2 节短柱形, 短于第 3 节。胸部散布颗粒。前胸背板梯形, 长大于宽, 十字形沟位于中央, 前缘凹入, 后缘平截及具 1 对刺。中胸背板长为前胸背板长的 3.3 倍, 侧缘具短钝刺; 沿中线两侧的前端、中部及后端各具 1 对刺。后胸背板的中部及后端各具 1 对刺。腹部圆柱形, 长于头部及胸部之和; 具颗粒; 中节后缘具 2 枚刺; 第 2~5 腹节背板后缘具 4 枚刺; 第 7 腹节腹板后缘中突不明显, 较扁; 第 8 腹节背板中部向后端缩细; 第 9 腹节背板后缘隆起, 短于第 8 腹节背板; 臀节稍短于第 9 腹节背板, 具中纵脊, 后缘具凹痕; 腹瓣舟形, 具侧脊, 到达臀节后缘。尾须短, 侧扁, 末端稍尖, 超过臀节后缘。足修长; 前足股节基部弯曲, 腹脊具不明显细齿。中足股节及后足股节内外腹脊具 3 枚细齿。胫节腹面及背面缺齿。

雄性: 未知。

体长: 46 mm; 前胸背板长: 3 mm; 中胸背板长: 10 mm; 后胸背板长(含中节): 6 mm; 前足股节长: 17 mm; 中足股节长: 11 mm; 后足股节长: 16 mm。

正模 ♀, 云南: 腾冲, 1981-IX-30, 何秀松采; 副模 1 ♀, 同正模。

分布: 中国(云南)。

新种与刺副厚蜥 *Parapachymorpha spinosa*

Brunner von Wattenwyl, 1893 相似, 但新种胫节腹面及背面缺齿可相区别。

词源: 新种种名以昆虫学者毕道英教授名字命名。

2 刺副厚蜥 *Parapachymorpha spinosa* Brunner von Wattenwyl, 1893, 中国新记录种

Parapachymorpha spinosa Brunner von Wattenwyl, 1893, 13: 96, pl. 4: 36.

研究标本: 1 ♀, 云南: 西双版纳, 2003-VII-8, 李利珍采。

分布: 中国(云南); 缅甸及泰国。

3 四刺副厚蜥 *Parapachymorpha tetracantha* Chen et He, 2001

Parapachymorpha tetracantha Chen et He, 2001, 10(1): 8-10.

研究标本: 1 ♀, 云南: 西双版纳, 1974-V-14-25, 周尧等采。

分布: 中国(云南)。

4 西双版纳副厚蜥, 新种 *Parapachymorpha xishuangbannaensis* sp. nov. (图 1: B; 2: C, D)

雌性: 体中型, 褐色; 体表粗糙, 具皱折, 颗粒及刺。缺翅。头长卵形, 长于前胸背板, 具明显颗粒及钝刺; 后头稍隆起, 具 1 对三角形叶突; 后缘具 4 枚钝刺。复眼小, 半球形, 其直径为眼后头长的 4 倍; 复眼间具 1 条黑色横纹。触角短, 分节明



图1 道英副厚蝽 *Parapachymorpha daoyingi* sp. nov. (A) 和西双版纳副厚蝽 *P. xishuangbannaensis* sp. nov. (B)
Fig. 1 *Parapachymorpha daoyingi* sp. nov. (A) and *P. xishuangbannaensis* sp. nov. (B)

A, B: 雌性, 侧面观 Lateral view, ♀. 比例尺 Scale bars: 5 mm.

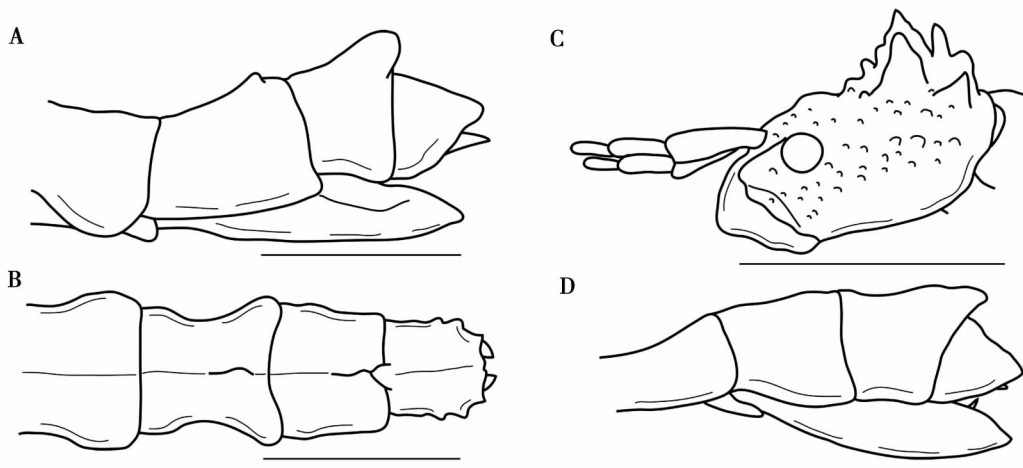


图2 道英副厚蝽 *Parapachymorpha daoyingi* sp. nov. (A, B) 和西双版纳副厚蝽 *P. xishuangbannaensis* sp. nov. (C, D)
Fig. 2 *Parapachymorpha daoyingi* sp. nov. (A, B) and *P. xishuangbannaensis* sp. nov. (C, D)

A: 雌性, 腹端侧面 Terminalia, lateral view, ♀; B: 雌性, 腹端背面 Terminalia, dorsal view, ♀; C: 雌性, 头侧面 Head, lateral view, ♀; D: 雌性, 腹端侧面 Terminalia, lateral view, ♀. 比例尺 Scale bars: 5 mm.

显, 19 节; 长于头部及前胸背板之和, 与中胸背板等长; 第 1 节扁平, 基部缩细, 具明显中脊, 长为第 2 节的 1.5 倍; 第 2 节扁平, 长约为第 3 节及第 4 节之和。胸部密布颗粒。前胸背板梯形, 长大于宽, 十字形沟位于中央, 前缘明显凹入, 后缘近平截并具 1 对短刺。中胸背板长为前胸背板长的 3.3 倍,

侧缘具 2~3 枚短刺; 沿中线两侧的前端、中部及后端各具 1 对刺。后胸背板的前端及后端各具 1 对刺。中胸侧板及后胸侧板具钝刺。腹部圆柱形, 长于头部及胸部之和; 具皱折及颗粒; 中节矩形, 长大于宽, 后缘具 4 枚刺; 第 2~4 腹节背板后缘具 6 枚短刺; 第 4~8 腹节背板具中纵脊及侧纵脊; 第 7

腹节腹板后缘具中突,较扁,末端钝圆;第8腹节背板后缘宽于前缘;第9腹节背板后缘隆起,长于第8腹节背板;臀节短于第8腹节背板,具中纵脊,后缘近平截;腹瓣舟形,末端尖,到达臀节后缘。尾须短,侧扁,末端钝圆,不超过臀节后缘。足修长;前足股节基部弯曲,内腹脊具不明显细齿。中足股节内外背脊具3~5枚叶突。各胫节内外背脊具4~6枚叶突。中足胫节及后足胫节腹中脊近基部隆起。

雄性:未知。

体长:46 mm;前胸背板长:3 mm;中胸背板长:10 mm;后胸背板长(含中节):7 mm;前足股节长:19 mm;中足股节长:12 mm;后足股节长:16 mm。

正模 ♀,云南:西双版纳三岔河,2009-VI-9-10,刘宪伟等采。

分布:中国(云南)。

新种与四刺副厚股蜥 *Parapachymorpha tetracantha* Chen et He, 2001 相似,但新种触角19节,第5腹节背板无刺等可相区别。

词源:新种种名以模式产地西双版纳命名。

致谢 承上海昆虫博物馆和上海师范大学借用标本,特致谢意。

参考文献 (References)

Bradley JR, Galil BS, 1977. The taxonomic arrangement of the Phasmatodea with keys to the subfamilies and tribes. *Proceedings of*

the Entomological Society, Washington, 79(2): 176-208.

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*, 13: 1-230.

Brunner von Wattenwyl K, 1907. Die Insekten familie der Phasmiden. II. Phasmidae Anareolatae (Clitummini, Lonchodini, Bacunculini). Verlag Wilhelm Engelmann, Leipzig. 157 pp

Chen SC, He YH, 2001. Two new record genera and new species of Phasmatodea from China (Phasmatodea: Phasmatidae, Heteronemiidae). *Entomological Journal of East China*, 10(1): 8-10. [陈树椿,何允恒,2001. 中国蜥目昆虫二新纪录属与二新种记述(蜥目:蜥科,异蜥科). 华东昆虫学报,10(1): 8-10]

Chen SC, He YH, 2008. Phasmatodea of China. China Forestry Publishing House, Beijing. 476 pp. [陈树椿,何允恒,2008. 中国蜥目昆虫. 北京:中国林业出版社. 476页]

Hennemann FH, Conle OV, Zhang WW, 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.

Kirby WF, 1904. A Synonymic Catalogue of Orthoptera. Vol. 1. Orthoptera Euplexoptera, Cursoria et Gressoria (Forficulidae, Hemimeridae, Blattidae, Mantidae, Phasmidae). Longmans and Co. for British Museum (Natural History), London. 501 pp.

Otte D, Brock PD, 2005. Phasmida Species File. Catalog of Stick and Leaf Insects of the World. The Insect Diversity Association and the Academy of Natural Sciences, Philadelphia. 414 pp.

Zompro O, 2004. Revision of the genera of the Areolatae, including the status of *Timema* and *Agathemera* (Insecta, Phasmatodea). *Abhandlungen des Naturwissenschaftlichen Vereins in Hamburg (NF)*, 37: 1-327.

Appendix: Brief descriptions of new taxa

Parapachymorpha daoyingi sp. nov. (Figs. 1: A; 2: A, B)

This new species is related to *Parapachymorpha spinosa* Brunner von Wattenwyl, 1893, but differs in unarmed tibiae.

Length of body: 46 mm; length of pronotum: 3 mm; length of mesonotum: 10 mm; length of metanotum (with median segment): 6 mm; length of profemur: 17 mm; length of mesofemur: 11 mm; length of metafemur: 16 mm.

Holotype ♀, Yunnan: Tengchong, Sep. 30, 1981, collected by HE Xiu-Song; paratype 1 ♀, same data as holotype.

Etymology: The specific name is named after the Entomologist, Prof. BI Dao-Ying.

Parapachymorpha xishuangbannaensis sp. nov. (Figs. 1: B; 2: C, D)

This new species is similar to *Parapachymorpha tetracantha* Chen et He, 2001, but differs in 19-segmented of antennae and lacking spines on fifth abdominal tergum.

Length of body: ♀ 46 mm; length of pronotum: ♀ 3 mm; length of mesonotum: ♀ 10 mm; length of metanotum (with median segment): ♀ 7 mm; length of profemur: ♀ 19 mm; length of mesofemur: ♀ 12 mm; length of metafemur: ♀ 16 mm.

Holotype ♀, Yunnan: Sanchahe, Xishuangbanna, Jun. 9-10, 2009, collected by LIU Xian-Wei et al.

Etymology: The specific name is derived from the type locality "Xishuangbanna".

(责任编辑:袁德成)