

# A TAXONOMIC STUDY ON THE PLANTHOPPER GENUS PALEGO FENNAH (HEMIPTERA, FULGOROIDEA, DELPHACIDAE) FROM CHINA

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**Abstract** In the present paper, one new synonym of *Palego* Fennah is reported: *Parathriambus* Kuoh, 1982 is a junior synonym of *Palego* Fennah, 1978, two new combinations: *Palego spinosus* (Kuoh) comb. nov. and *Palego lobatus* (Kuoh) comb. nov. are proposed, and *Palego simulator* Fennah is recorded for the first time from China. A key for separation of *Palego* is also provided.

**Key words** Hemiptera, Delphacidae, *Palego*, new synonym, new combination, new record, China.

The planthopper genus *Palego* was erected by Fennah in 1978 for *Palego simulator* Fennah, 1978 from Vietnam, belonging to the tribe Delphacini, Delphacidae. Kuoh (1982) established the genus *Parathriambus* for two species of Southern China and designated *Parathriambus spinosus* as its type species. Kuoh noted "this genus resembles *Thriambus* Fennah and *Euidastor* Fennah". When examining the specimens deposited in the Entomological Museum, Northwest A & F University (NWAUFU), the author find the type species of *Palego* Fennah, and the generic characters of *Parathriambus* described by Kuoh (1982) is the same as *Palego* Fennah (1978). So, a new synonym is reported in this paper, *i. e.* *Parathriambus* Kuoh is a junior synonym of *Palego* Fennah, and the two species which included in *Parathriambus* have been transferred to *Palego* as new combinations, *Palego simulator* Fennah is firstly recorded from China. A key

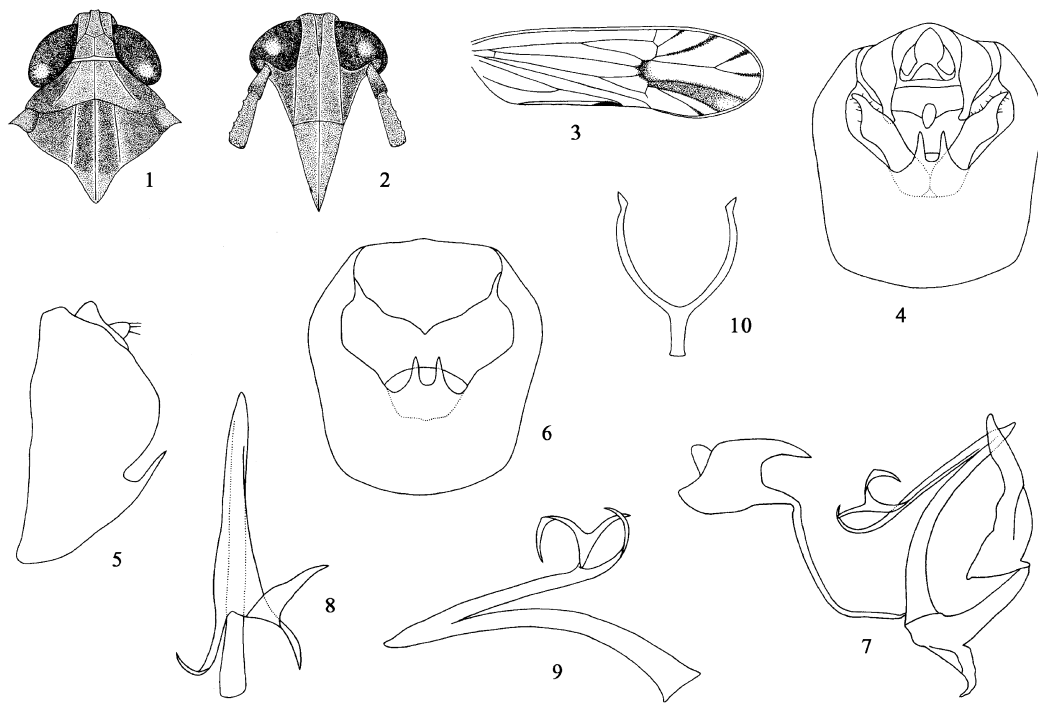
for the separation of *Palego* is provided. The description is based on dried specimens mounted on cards. The methods and terminology used in this work follows Yang and Yang (1986).

## *Palego* Fennah, 1978

*Palego* Fennah, 1978. *Annales Zool. Warsz.*, 34 (9): 234. Type species: *Palego simulator* Fennah, 1978.

*Parathriambus* Kuoh, 1982. *Acta Zootaxon. Sin.*, 7 (2): 175. new synonym.

Head including eyes narrower than pronotum. Vertex moderately produced beyond level of eyes, slightly narrower at apex than at base, apical margin truncate, in profile vertex rectangularly rounded into frons, submedian carinae originating near base of lateral carinae, not uniting at apex, basal compartment longer at base than greatest length about 1.8:1.0 and than middle length about 2.0:1.0, Y-shaped carina distinct. Frons in



Figs 1-10. *Palego simulator* Fennah. 1. Head and thorax, dorsal view. 2. Frons and clypeus. 3. Tegmen. 4. Male genitalia, posterior view. 5. The same, left side. 6. Diaphragm of pygofer. 7. Male anal segment, aedeagus and genital styles, lateral view. 8. Aedeagus, dorsal view. 9. The same, lateral view. 10. Suspensorium.

middle line longer than wide at widest part about 2.0:1.0, widest at apex, wider at apex than at base, lateral margins slightly sinuate between eyes, thence nearly straight and slightly divergent toward apex, median carina forked above level of ocelli. Postclypeus as wide as frons at apex, longer than broad at base, with three distinct carinae. Ocelli distinct. Rostrum reaching metacoxa. Antennae cylindrical, nearly reaching middle of frontoclypeus, basal segment longer than wide about 2.0:1.0, shorter than second about 1.5:1.0. Pronotum slightly longer in middle line than broad at anterior margin between lateral carinae, lateral carinae not quite attaining hind margin. Mesonotum longer in middle line than vertex and pronotum together, median carina reaching end of scutellum. Forewing long and narrow, transverse vein located about 1/3 from apex. Spinal formula of hind leg 5-7-4. Post tibial spur with about 30 teeth.

Male genitalia. Anal segment of male short and broad, lateroapical angles each produced ventrad into a long lobe, widely separated. Pygofer in profile longer ventrally than dorsally, with a medioventral margin comprising two separate spinose processes. Diaphragm with dorsal margin concave, incised medially. Aedeagus with phallus long and slender, reflected cephalad at apex in a moderately long flagellum. Suspensorium "Y"-shaped, arms long and slender, longer than stem. Genital styles broad and divergent.

Distribution. Southern China (Aedeagus Yunnan, Hainan), Vietnam

**Key to species of Palego**

1. Flagellum of phallus terminating in three rather long spinose processes ..... 2  
     Flagellum of phallus terminating in three short lobes .....  
     ..... *P. lobatus* (Kuoh) **comb. nov.**
2. Body length including tegmen 3.9-4.2 mm (♂). Pygofer in posterior view with opening wider than long. Frons with median carina forked at

basal 2/5. Vertex longer submedially than wide at base about 1.1:1.0 ..... *P. simulator* **Fennah rec. nov.**  
 Body length including tegmen 4.8 mm (♂). Pygofer in posterior view with opening longer than wide. Frons with median carina forked at basal third. Vertex shorter submedially than wide at base about 1.0:1.1 ..... *P. spinosus* (Kuoh) **comb. nov.**

**1** *Palego spinosus* (Kuoh, 1982), **comb. nov.**  
*Parathriambus spinosus* Kuoh, 1982. *Acta Zootaxon. Sin.*, 79 (2): 175.

Distribution. China (Yunnan).

**2** *Palego lobatus* (Kuoh, 1982), **comb. nov.**  
*Parathriambus lobatus* Kuoh, 1982. *Acta Zootaxon. Sin.*, 7 (2): 176.

Distribution. China (Hainan).

**3** *Palego simulator* **Fennah, new record** (Figs. 1-10)  
*Palego simulator* Fennah, 1978. *Annales Zool. Warsz.*, 34 (9): 235.

Specimens examined. 8 ♂♂, 4 ♀♀, Hainan, Bawangling, 28 May 1983, coll. ZHANG Ya Lin; 3 ♂♂, 1 ♀, Hainan, Jianfengling, 18 May 1983, coll. ZHANG Ya Lin;

Distribution. China (Hainan); Vietnam

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**中国帕飞虱属分类研究 (半翅目, 蜡蝉总科, 飞虱科)**

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摘要 Fennah (1978) 根据分布于越南的标本建立了帕飞虱属 *Palego*, 仅包括其模式种 *Palego simulator* Fennah, 1978; 葛钟麟 (1982) 根据分布于中国南部的标本建立了披突飞虱属 *Parathriambus*, 并指定刺披突飞虱 *Parathriambus spinosus* 为其模式种, 该属现在包括 2 种。作者在整理研究保存于西北农林科技大学昆虫博物馆的该属标本时, 发现帕飞虱属 *Palego* 的模式种; 根据葛钟麟 (1982) 对披突飞虱属 *Parathriambus* 的属征描述, 作者发现该属与

Fennah (1978) 建立的帕飞虱属 *Palego* 的属征吻合。据此, 作者提出: 披突飞虱属 *Parathriambus* Kuoh, 1982 应为帕飞虱属 *Palego* Fennah, 1978 的新异名。文中对该属属征进行了重新描述, 原来隶属披突飞虱属 *Parathriambus* 的 2 个种同时被移入帕飞虱属; 帕飞虱属 *Palego* 的模式种 *Palego simulator* Fennah 也是在中国的首次报道。文中还给出了该属已知种的种检索表。

关键词 半翅目, 飞虱科, 帕飞虱属, 新异名, 新组合, 新纪录种, 中国.

中图分类号 Q969.36