

SHORT COMMUNICATION

Tao Wei, Jianhua Huang*. TO THE SYNONYMY OF *TRAILIA BRACHYPEZA* BI, 1986 (ORTHOPTERA: ACRIDIDAE, CATANTOPINAE). – Far Eastern Entomologist. 2012. N 255: 11-15.

Summary. *Traulia brachypeza* Bi, 1986 was redescribed based on the examination of type and additional materials. New synonymy is proposed: *Traulia brachypeza* Bi, 1986 = *Traulia yifengensis* Wang, Xiangyu et Liu, 1997, **syn. n.**

Key words: Orthoptera, Acrididae, *Traulia brachypeza*, *Traulia yifengensis*, taxonomy, redescription, new synonymy, China.

Т. Вей, Я. Хуан*. К синонимии *Traulia brachypeza* Би, 1986 (Orthoptera: Acrididae, Catantopinae) // Дальневосточный энтомолог. 2012. N 255. С. 11-15.

Резюме. На основании изучения типов и дополнительного материала дано переописание *Traulia brachypeza* Би, 1986. Установлена новая синонимия: *Traulia brachypeza* Би, 1986 = *Traulia yifengensis* Wang, Xiangyu et Liu, 1997, **syn. n.**

INTRODUCTION

Traulia brachypeza Bi, 1986 was described based on a single female from Pingxiang County, Guangxi Province, China. *T. yifengensis* Wang, Xiangyu et Liu, 1997 was described based on two females from Guanshan, Yifeng County, Jiangxi Province, China. Males of both species are unknown. When we examined grasshopper types at Shandong University, two females were found with a determined name of “*Traulia hsiai* sp. nov.” on the identification label, a scientific name we have never known before. After a careful study on relative references, it was confirmed that those two females with the name label of “*Traulia hsiai* sp. nov.” were indeed the types of another published species, *T. yifengensis*, since the type data in the original reference were completely identical to those of the unpublished species, “*Traulia hsiai* sp. nov.”. Possibly *T. hsiai* was the scientific name proposed firstly for a new species and then it was changed to *T. yifengensis* when the paper was published, but the label did not be changed correspondingly in time and this was confirmed by one of the author, Prof. Yuwe Wang, who described and published the species *T. yifengensis* (personal communication). Since *T. yifengensis* is extremely similar to *T. brachypeza* and the diagnostic characters described in original paper to distinguish *T. yifengensis* from *T. brachypeza* were tegmina length and color of hind tibiae, both of which have normal variation sometimes in some groups, we compared the types of these two species as well as two females from Hunan Province. As a result of our study, it was concluded that *T. yifengensis* should be a junior synonym of *T. brachypeza*.

TAXONOMY

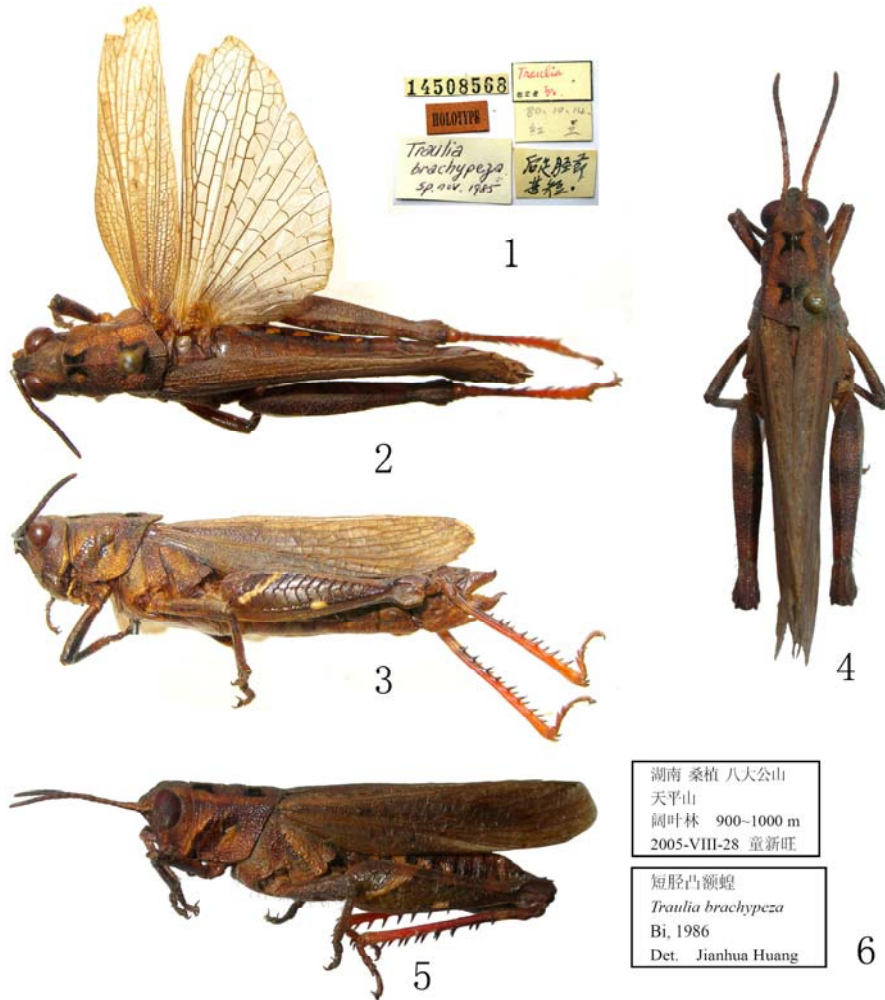
***Traulia brachypeza* Bi, 1986**

Figs 1–12

Traulia brachypeza Bi, 1986: 200, 205 (holotype – ♀, China: Hongwei; studied); Zheng, 1993: 159; Yin et al., 1996: 711; Jiang & Zheng, 1998: 145; Li et al., 2006: 486.

Traulia yifengensis Wang, Xiangyu et Liu, 1997: 54, 56 (holotype – ♀, China: Guanshan; studied), **syn. n.**

MATERIAL EXAMINED. **China:** Hongwei, Pingxiang, Guangxi, 14.X 1980, 1 ♀, leg. Tianshan Li (holotype of *Traulia brachypeza*); Guanshan, Yifeng, Jiangxi, 500 m, 4.VIII 1993, 1 ♀, leg. Yuwen Wang & Jinggong Xiangyu (holotype of *Traulia yifengensis*); the same locality, 31.VII 1993, 1 ♀, leg. Yuwen Wang & Jinggong Xiangyu (paratype of *Traulia yifengensis*); Tianpingshan, Badagongshan, Sangzhi County, Hunan Province, 900~1000 m, 28.VIII 2005, 1 ♀, leg. Xinwang Tong; Huangsang Nature Reserve, Suining County, Hunan Province, 500~600 m, 11.VIII 1997, 1 ♀, leg. Jianhua Huang.



Figs. 1-6. *Traulia brachypeza*. 1-3 – holotype female: 1 – labels, 2 – body, dorsal view, 3 – the same, lateral view; 4-6 – female from Badagongshan, Sangzhi County, Hunan Province: 4 – body, dorsal view, 5 – the same, lateral view, 6 – labels.

DESCRIPTION. Female. Body moderately large, integument coarsely punctured and rugose. Head slightly shorter than pronotum. Face slightly oblique in profile view, with distinct straight facial keels. Frontal ridge distinctly projected anteriorly between antennal sockets, with parallel carinate lateral sides and broad longitudinal sulcus throughout which become much weaker near clypeus in some individuals. Fastigium narrow, slightly oblique anteriorly, shallowly depressed and distinctly carinate laterally, with a distinct longitudinal median carina extending to occiput; interocular distance about twice as the width of frontal ridge between antennal sockets. Fastigial foveola distinct and elongately triangular. Antennae filiform, eighteen-segmented, about eleven millimeter long, just reaching or slightly extending posterior margin of pronotum, with median segments about one and a half times as long as broad, dorsum of segments three to eight flattened. Eyes oval, distinctly protruding, longitudinal diameter about one and two-fifths times as long as horizontal diameter and two and one-fifth times as long as subocular furrow. Pronotum cylindrical; anterior margin slightly rounded, with small notch in the middle; posterior margin obtusely rounded or sometimes slightly bisinuate, smooth or with indistinct notch in the middle; median carina distinct throughout, slightly raised, crossed by three distinct transverse sulci, forming distinct or indistinct notches sometimes in profile view, especially where crossed by the posterior sulcus; lateral carina absent; dorsum with two pairs of depressions flanked at median carina, one behind the anterior margin and another one behind the posterior transverse sulcus; prozona about one and a third times as long as metazona; lateral lobes broadly and distinctly depressed obliquely, with both anteroventral and posteroventral corners broadly rounded, anterior margin bicarinate and bisulcate, lower margin broadly rounded, and slightly roundedly concave near anterior margin. Prosternal spine conical, with apex slightly obtusely rounded. Interspace of mesosternal lobes nearly as long as broad; metasternal lobes broadly separated from each other. Both tegmina and hind wings completely developed and nearly as long as each other, distinctly exceeding apices of hind femora; apices of tegmina broadly rounded and slightly truncate obliquely. Fore and middle femora with distinct or indistinct carinae dorsally. Hind femora moderately stout, with upper median carinae serrate, extending apically to form a short spine or obtuse tooth; both supra-genicular and subgenicular lobes rounded. Hind tibiae a little shorter than hind femora in length, with seven spines on outer margin and nine spines on inner margin, external apical spine absent. Tympanum large, aperture oval. Terminal tergite of abdomen narrowly split in the middle, furcula indistinct or completely absent. Supra-anal plate subtriangular, longitudinally convex, with a fine and distinct median transverse carina; basal half of the dorsum broadly sulcate, and apical third flat or slightly depressed; apex bluntly rounded. Cerci short and conical, apices obtusely rounded, not reaching the top of supra-annal plate. Subgenital plate with posterior margin triangularly protruding. Ovipositor stout and straight, apices distinctly curved and hook-like, both dorsal and ventral valves with outer margin smooth.

Body brown to dark brown. Maxillary and labium palpi yellowish brown. Pronotum with a pair of black semilunar maculations flanked at median carina each in anterior portion of prozona and metazona, a pale brown longitudinal narrow band in both sides; lateral lobes sometimes nearly unicolored, but sometimes pale brown in the lower portion, with a dark broad oblique band from anteroventral posterodorsal corners. Hind femora dark brown; outer surface with a pale brown oblique narrow band near the base and a pale brown small spot close to lower carina near the middle; upper surface with three dark brown transverse maculations alternating with three pale brown ones. Hind tibiae reddish brown, with a pale yellow annulation near the base; tibial spines black apically or completely. Abdomen reddish brown; tergites with a yellow irregular maculation at each side from segments two to five.

MALE. Unknown.

MEASUREMENTS (in mm). Female length of body 29.0-33.0 mm; length of pronotum 7.0-7.5 mm; length of tegmina 22.0-26.8 mm; length of hind femur 14.6-16.5.

NOTES. According to the original description, diagnostic characters to distinguish *T. yifengensis* from *T. brachypeza* are the longer tegmina and the color of blackish brown at the base of hind tibiae. However, we found no difference between these two species when examining type specimens. Therefore, *T. yifengensis* should be synonymized with *T. brachypeza*.



Figs. 7-12. *Traulia yifengensis*. 7-9 – holotype female: 7 – labels, 8 – body, dorsal view, 9 – the same, lateral view; 10-12 – paratype female: 10 – body, dorsal view, 11 – the same, lateral view, 12 – labels.

Although antennae of *T. brachypeza* was originally described having twenty-one segments, we can count only eighteen segments or so. *T. brachypeza* is extremely similar to *T. lofaoshana* Tinkham except the fully developed long tegmina and hind wings. As for hind

tibiae shorter than hind femora, it seems a shared character among *Traulia* species. *T. brachypeza* is an extremely rare species, only five specimens from four localities have been found and no male has been collected so far. Therefore, further study, especially molecular analysis, is needed to understand better the relationship of these two species when materials are available.

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