A NEW GENUS AND A NEW SPECIES OF DELPHACINI (HEMIPTERA, FULGOROIDEA, DELPHACIDAE) FROM CHINA

QIN Dao-Zheng

Key Laboratory of Plant Protection Resources and Pest Management of Ministry of Education, Entomological Museum, Northwest A & F University, Yangling, Shaanxi 712100, China; E-mail: qindaozh0426@yahoo.com.cn

Abstract *Dingiana nigrifacialis* gen. *et sp.* nov. is described and illustrated from Southern China. According to the characters of post tibal spur, this genus should be placed into the tribe Delphacini. The type specimen is deposited in the Entomological Museum, Northwest A & F University, Yangling, Shaanxi (NWAFU).

Key words Hemiptera, Delphacidae, Delphacini, Dingiana, new genus, new species, China.

The family Delphacidae is the largest one of the Fulgoroidea. It is easily recognizable from other fulgoroids by the character of a movable spur on the end of hind leg (Yang *et* Yang, 1986). According to Asche (1985), this family includes 6 subfamilies: Asiracinae, Kelisinae, Stenocraninae, Plesiodelphacinae, Vizcayinae and Delphacinae. Delphacinae including three tribes: Tropidocephalini, Saccharosydnini and Delphacini.

The tribe Delphacini was established by Muir in 1915. It is the largest of the three tribes, tribal char racters are: post-tibial spur variously shaped, solid or flattened, normally with teeth on inner margin (if without teeth, then aedeagus and male drumming or gan different than in Tropidocephalini); base of aedeagus not strongly twisted, almost symmetrical, diaphragm between base of aedeagus and anal segment differentiated in a distinct plate or ring-like suspensorium; apodemes of 1st abdominal sternite of male drumming organ not bent ventrad but directed mediodorsad (Asche, 1990).

In this paper, *Dingiana nigrifacialis* gen. *et* sp. nov. is described and illustrated. The type specimen is deposited in the Entomological Museum, Northwest A & F University, Yangling, Shaanxi (NWAFU).

Dingiana gen. nov.

Type species: Dingiana nigrifacialis sp. nov.

Description Head including eyes narrower than pronotum Vertex longer submedially than wide at base about 1. 2 1. 0, submedian carinae not uniting at apex, Y-shaped carina distinct, basal compartment wider at hind margin than greatest length. Frons longer in middle line than widest part about 2. 2: 1. 0, widest at level of ocelli, median carina forked about at middle level of eyes. Postclypeus wider at base than frons at apex, with three distinct carinae. Rostrum reaching to meta coxae. Antennae cylindrical, two segments together surpassing frontoclypeal suture, basal segment longer than wide about 1. 4: 1. 0, shorter than second about 1. 0: 2. 0. Ocelli present. Pronotum shorter than vertex medially, lateral carina not attaining hind margin. Mesonotum in middle line with nearly the same length as vertex and pronotum together, median carina not reaching the end of scutellum. Spinal formula of hind leg 5-7-4. Post-tibial spur with 19 teeth.

Anal segment of male collar like, lateroapical ar gles each produced into a spinose process. Pygofer in posterior view with opening longer than wide, in pro file longer ventrally than dorsally. Medioventral margin comprises three processes: the lateral two welldeveloped and widely separated, apical half distinctly broadened, apex bifurcated. the median process broad and crescent shaped. Suspensorium Y-shaped, with arms about half as long as stem. Diaphragm moderately broad, dorsal margin evenly concave. Opening for genital styles nearly triangular. Phallus long, reflected cephalad subapically into two short processes. Genital styles long, divergent apically.

Diagnosis. The new genus is similar to *Taropha-gus Zimmerman* but can be distinguished by: 1) frons with the widest at level of ocelli (the latter with the widest part at apical third); 2) antennae with the basal segment shorter than second about 1. 0: 2. 0 (the latter with the basal segment shorter than second about 1. 0: 1. 7; 3) suspensorium Y-shaped, arms developed, about half as long as stem (the latter with the small arms at dorsal margin); 4) medioventral margin with the lateral processes well-developed, apical half dis

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tinctly broadened, apex bifurcated (the latter with the two lateral processes not broadened at apical half, apex unbifurcated).

Etymology. The genus is named in honor of Prof. DING Jim Hua (College of Plant Protection, Nanjing Agricultural University, Nanjing, Jiangsu, China), a well known taxonomist in Delphacidae, and to express my sincere thanks for his help. Gender, feminine.

Distribution. Southern China (Hainan Province).

Dingiana nigrifacialis sp. nov. (Figs. 1-11)

Macropterous form. Body length including tegmen 3.5 mm; tegmen length 2.9 mm.

General color infuscate. Eyes black. Frons be tween carinae, postclypeus and gena blackish brown. Antennae with a black ring around base and apex of first segment, the second segment with the basal half yellowish brown and apical half brown. Tegmen hyaline, yellowish brown, with blackish brown markings as figured. Holotype & macropterous, Jianfengling (18. 7°N, 108. 8°E), Hainan Province, China, 25 Oct. 2002. WANG Zong Qin, CHE Yan Li and WANG Pei-Ming.

Etymology. The specific name is derived from the Latin word "nigri" (black) and "facialis" (face) which refers to the color of frons, postclypeus and gena blackish brown.

Host plant. Unknown.

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Figs 1-11. *Dingiana nigrifacialis* sp. nov. 1. Head and thorax, dorsal view. 2. Frons and dypeus. 3. Tegmen. 4. Male genitalia, posterior view. 5. The same, left side. 6. Male pygofer, lateral view. 7. Diaphragm of pygofer. 8. Male anal segment, aedeagus and genital styles. 9. Anal segment, ventral view. 10. Genital styles. 11. Suspensorium.

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REFERENCES

- Asche, M. 1985. Zur phylogenie der Delphacidae Leach, 1815. (Hormoptera, Cicadina, Fulgoromorpha). Marburger Entomol. Publ., 2: 192.
- Asche, M. and Wilson, M. R. 1989. The three taro planthoppers: species recognition in *Tarophagus* (Hemiptera: Delphacidae). Bull Entomol, Res., 79 (2): 285 298.
- Asche, M. 1990. Vizcayinae, a new subfamily of Delphacidae with revision of *Vizcaya* Muir (Homoptera: Fulgoroidea) a significant phylogenetic link. *Bishop Mus Occas Pap.*, 30: 154 187.

- Chen, XS, Li, ZZ and Ding JH 2001. Three new genera and four species of Delphacidae (Homoptera: Fulgoroidea). Acta Zootax. Sinica, 26 (3): 323 332. [动物分类学报]
- Fennah, R. G. 1956. Fulgoroidea from Southern China. Proc. Calif. Acad. Sci., 28: 441-527.
- Kuch, GL, Ding, J-H, Tian, I-X and Hwang, GL 1983. Economic Insect Fauna of China. Fasc. 27. Homoptera Delphacidae. Fauna Editorial Committee, Academia Sinica. Science Press, Beijing. F 166.
- Muir, F. 1915. A contribution towards the taxonomy of the Delphacidae. Can. Ent., 47: 317 320.
- Wang, J-C and Ding, J-H 1996. Delphacidae Fauna of Gansu Province, China. Homoptera, Fulgoroidea. Gansu Science and Technology Press, Lanzhou. + 162.
- Yang, G T 1989. Delphacidae of Taiwan (II) (Homoptera: Fulgor roidea). NSCS pe. Publ., 6: + 334.
- Zimmerman, E. C. 1948. Insects of Hawaii. Vol. IV Homoptera, Auchenorrhyncha. Univ. Hawaii Press, Honolulu. 268 pp.

中国飞虱族一新属一新种(半翅目,蜡蝉总科,飞虱科)

秦道正

西北农林科技大学植保资源与病虫害治理教育部重点实验室,西北农林科技大学昆虫博物馆 陕西杨凌 712100

摘要 记述了采于中国海南省尖峰岭的飞虱科飞虱族1新属新种:黑颜丁氏飞虱 Dingiana nigrifacialis gen. et sp. nov.。丁氏飞虱属 Dingiana gen. nov. 与其近缘属 Tarophagus Zimmerman 的主要区别在于:1) 额在单眼位置处为最宽,而后者在端部1/3处最宽;2) 触角第1节与第2节的长

关键词 半翅目,飞虱科,飞虱族,丁氏飞虱属,新属,新种,中国. 中图分类号 Q269.36

度比为1.02.0,而后者为1.01.7;3) 悬片"Y"形,分 支长,达主干长度之半,而后者仅在背端具短分叉;4) 雄 虫腹缘具3个腹中突,两侧的2个相当发达,其端半部显著 膨大,端部二分叉,而后者端半部不膨大,端部不分叉。模 式标本保存于西北农林科技大学昆虫博物馆。