

REDESCRIPTION AND FIRST RECORD OF THE PLANTHOPPER GENUS IDIOBREGMA ANUFRIEV (HEMIPTERA, FULGOROIDEA, DELPHACIDAE) FROM CHINA

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Abstract The Palearctic delphacids, *Idiobregma unicarinata* Anufriev, is reported for the first time from China based on the specimens collected from Jilin (N. E. China). A redescription of brachypterous adults is provided and male genitalia are reillustrated. The relationship of this genus with related genera is discussed.

Key words Hemiptera, Delphacini, *Idiobregma*, new record, China.

1 Introduction

The monotypic delphacid genus *Idiobregma* was established by Anufriev in 1972 for *I. unicarinata* Anufriev from Sikhote Alin Region, USSR. Anufriev & Emejanov (1988) reillustrated the type species, and provided a key to the single species, which is currently known to occur only in the Palearctic Region. This genus and the species were discovered in the specimens collected from Jilin Province in Northeast China. This opportunity is taken to redescribe the genus and discuss its relationship with other genera of the tribe Delphacini in the Chinese fauna.

2 Material and Methods

This study is based on recent collections made by the graduate students of the Entomological Museum, Northwest A & F University (NWAUFU). External body characters were examined under a Metc stereomicroscope, and illustrations of the male genitalia were made using an OLYMPUS PM10AD microscope, and the external figures were drawn using Leica MZ 12.5 stereomicroscope with built in drawing tube. The body measurements are from apex of vertex to tip of abdomen. The morphological terminology used in this description follows Ding (2006). All measurements are in millimeters (mm).

3 Genus *Idiobregma* Anufriev

Idiobregma Anufriev, 1972: 612.

Type species: *Idiobregma unicarinata* Anufriev, 1972, by monotypy.

Generic diagnosis. Body brownish, medium sized. Head short, relatively broad, fastigium obtusely rounded, median carina of frons forked at base. Calcar tectiform, without distinct teeth on inner margin. Male genitalia with parameres divergent. Genital diaphragm broad. Aedeagus tubular, with oblique row of teeth subapically. Suspensorium ring like ventrally. Male anal segment ring like, ventrolateral angles strongly produced ventrad into two processes slightly separated from each other.

Remarks. The genus *Idiobregma* is similar to *Megadelphax* Wagner and *Muirodelphax* Wagner as given by Ding (2006), but differs from them by the shorter and broader head and by the calcar without distinct teeth on inner margin. It also differs from *Muirodelphax* by the strongly produced processes of the anal segment. This genus is a new record for China.

Idiobregma unicarinata Anufriev, 1972 (Figs 1–12)

Idiobregma unicarinata Anufriev, 1972: 612.

Description. Brachypterous. Body brown to sordid brown. Eyes dark. Ocelli reddish black. Mesonotum with a large black elliptical to round patch on either side of lateral carina. Female with valvulae blackish brown.

Body length ♂ 3.45–3.47, ♀ 3.55–3.93, width at tegulae ♂ 0.93–1.02, ♀ 1.08–1.13. Head width including eyes width ♂ 0.86–0.88, ♀ 0.89–0.91, narrower than pronotum. Vertex with anterior margin rounded slightly, projected in front of eyes, broadly rounded to frons; lateral margins in dorsal view nearly parallel except where expanded behind eyes, vertex length ♂ 0.29–0.38, ♀ 0.35–0.38, width ♂ 0.40–0.43, ♀ 0.48–0.58. Frons strongly vaulted, widest at lower level of eyes, lateral carinae convex, frons length ♂ 0.70–0.77, ♀ 0.70–0.79, width ♂ 0.47–0.48, ♀ 0.48–0.53. Antennal terete, reaching past frontoclypeal suture, length of segment I ♂ 0.16–0.18, ♀ 0.17–0.18, II ♂ 0.29–0.30, ♀ 0.28–0.30. Postclypeus narrower at base than frons at apex, median carina distinct, post and antedypeus together about 0.70× length of frons. Rostrum reaching metacoxae.

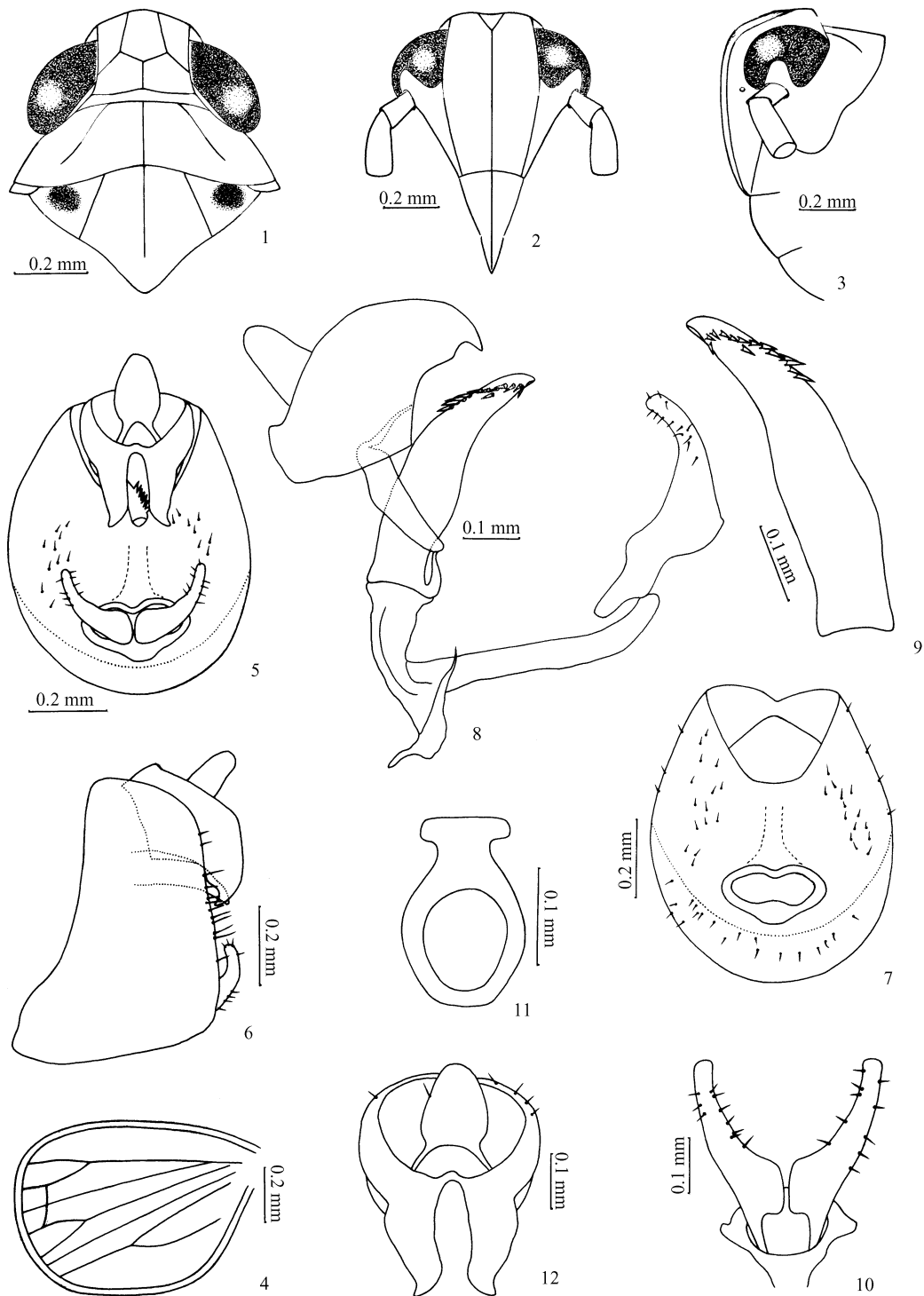
Thorax. Pronotum width ♂ 0.95–0.96, ♀ 1.03–1.05, length ♂ 0.23–0.29, ♀ 0.29–0.30, two lateral carinae posterolaterally directed and slightly curved laterally, not attaining posterior margin, hind margin gently concave. Mesonotal carinae becoming obscure towards posterior margin, two lateral carinae slightly diverging caudad and reaching posterior margin, length ♂ 0.48–0.53, ♀ 0.55–0.63. Tegmina nearly truncate apically, length ♂ 1.18–1.22, ♀ 1.30–1.48, just attaining end of fifth abdominal tergite. Metabasitarsus slightly longer than tarsomeres 2 + 3 combined; spinulation of 1st metatarsomere 7 (2 + 5), 2nd 4. Calcar length ♂ 0.35–0.36, ♀ 0.35–0.39, approximately 0.70× total length of basitarsus. Tectiform, inner margin not smooth, with thin and small denticles.

Abdomen (except genitalia). Apodemes of 2nd sternite elongate and dorsally directed, nearly attaining tergite.

Male genitalia. Pygofer in profile almost trapezoidal, ventrally about 2.0 times wider than dorsally, laterodorsal angle smoothly rounded, not projected caudad, without process on medioventral margin. Diaphragm of pygofer with dorsal margin narrow and shallowly concave medially, without armature. Parameres short, strongly diverging, in length not attaining the dorsal margin of the diaphragm, gradually tapering and recurved with rounded apex. Opening of diaphragm for parameres large, dorsal margin produced downward medially, ventral margin convex medially. Aedeagus tubular, compressed, in profile narrowing in apical third, slightly

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Figs 1-12. *Idobregma uncarinata* Anufriev. 1. Head and thorax, dorsal view. 2. Face. 3. Head and pronotum, left lateral view. 4. Right tegmen. 5. Male genitalia, caudal view. 6. Same, left lateral view. 7. Pygofer, caudal view, anal segment and parameres removed. 8. Anal segment, aedeagal complex and parameres, left lateral view. 9. Aedeagus, right lateral view. 10. Parameres, caudal view. 11. Suspensorium, caudal view. 12. Anal segment, caudal view.

bent ventrad, on right side armed with an oblique row of teeth, phallosome ventrad at apex. Suspensorium ventrally ring like, embracing base of aedeagus and connecting at ventral side, without distinct arms, common stem T shaped, straight at dorsum, lateral margins strongly concave at both sides. Anal segment ring like, ventrally closed by very narrow chitinous bridge, ventrolateral angles on each side produced ventrad into strong, almost parallel, broad

process; apices bent laterad.

Specimens examined. 2 ♂♂, 4 ♀♀, Antu County, Jilin Province, China, 22 July 2006, 890 m, coll. ZHANG Xin Min (NWAUFU).

Distribution. China (Jilin Province), USSR.

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REFERENCES

Anufriev, G. A. 1972. New and little known leafhoppers from the family

Delphacidae (Homoptera) from the Maritime District. *Zoologicheskii Zhurnal*, 51 (4): 612-615.

Anufriev, G. A. and Emlyanov, A. F. 1988. 1. Suborder Cicadinea (Auchenorrhyncha) - cicads. In: Ler, P. A. (ed.), Keys to the Identification of Insects of the Soviet Far East. Vol. 2, Homoptera and Heteroptera. Nauka, Leningrad. (In Russian) pp. 12-495.

Ding, J. H. 2006. Fauna Sinica. Insecta, Vol. 45. Homoptera, Delphacidae. Editorial Committee of Fauna Sinica, Chinese Academy of Science. Science Press, Beijing. 776 pp.

艾地飞虱属在中国首次发现及模式种重描记

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摘要 记述了来自中国吉林的飞虱科1新纪录属: 艾地飞虱属 *Idiobregma* Anufriev, 1972, 并对其模式种 *Idiobregma univarinata* Anufriev,

1972作了重新描记, 研究标本保存在西北农林科技大学昆虫博物馆。

关键词 半翅目, 飞虱族, 艾地飞虱属, 新纪录, 中国

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