

Classification of the planthopper genus *Stenocranus* Fieber of the subfamily Stenocraninae Wagner from Korea (Homoptera: Delphacidae)

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Abstract

Hitherto, a total of 11 species belonging to the genus *Stenocranus* Fieber, 1866 have been known in Korean fauna. Among these taxa, 10 species including 2 unpublished new species were described by the first author (Kim, 2019: M.agr. thesis). Subsequently, the other one newly recorded species was reported by the authors in the annual conference of ESK in 2021. In the course of taxonomic survey on the planthoppers in Korean peninsula, the authors have found a further unknown species new to science, and describe here along with the previous 2 unpublished new species: *Stenocranus bukbaesanus* sp. nov., *S. heuksanus* sp. nov. and *S. hwawangsanus* sp. nov. Thus, all together 12 species of this genus are listed in the inventory of Korean Homoptera. Descriptions, illustrations of morphological features and keys to the Korean species of the genus are provided respectively.

Key words: Hemiptera, Auchenorrhyncha, Fulgoromorpha, taxonomy, identification, new species.

Classification

Checklist of the species belonging to the genus *Stenocranus* from Korea

1. *Stenocranus bukbaesanus* sp. nov.
2. *Stenocranus heuksanus* sp. nov.
3. *Stenocranus hokkaidoensis* Metcalf, 1943
4. *Stenocranus hwawangsanus* sp. nov.
5. *Stenocranus koreanus* Matsumura, 1935
6. *Stenocranus matsumurai* Metcalf, 1943
7. *Stenocranus qiandainus* Kuoh, 1980
8. *Stenocranus rufilinearis* Kuoh, 1981
9. *Stenocranus silvicola* Vilbaste, 1968
10. *Stenocranus spinosus* Ding, 1994
11. *Stenocranus takasagonis* Matsumura, 1935
12. *Stenocranus tamagawanus* Matsumura, 1935

Diagnosis. Macrocoryphe 1.5 - 2.0 times longer than wide. Mesonotum and pronotum with 3 distinct carinae. Brownish longitudinal stripe in the apex of wing present or absent. Anal tube often hook-shaped teeth at below part. Stylus claw-shaped. Partly, aedeagus covered in the theca. Ovipositor of female wide and shield-shaped.

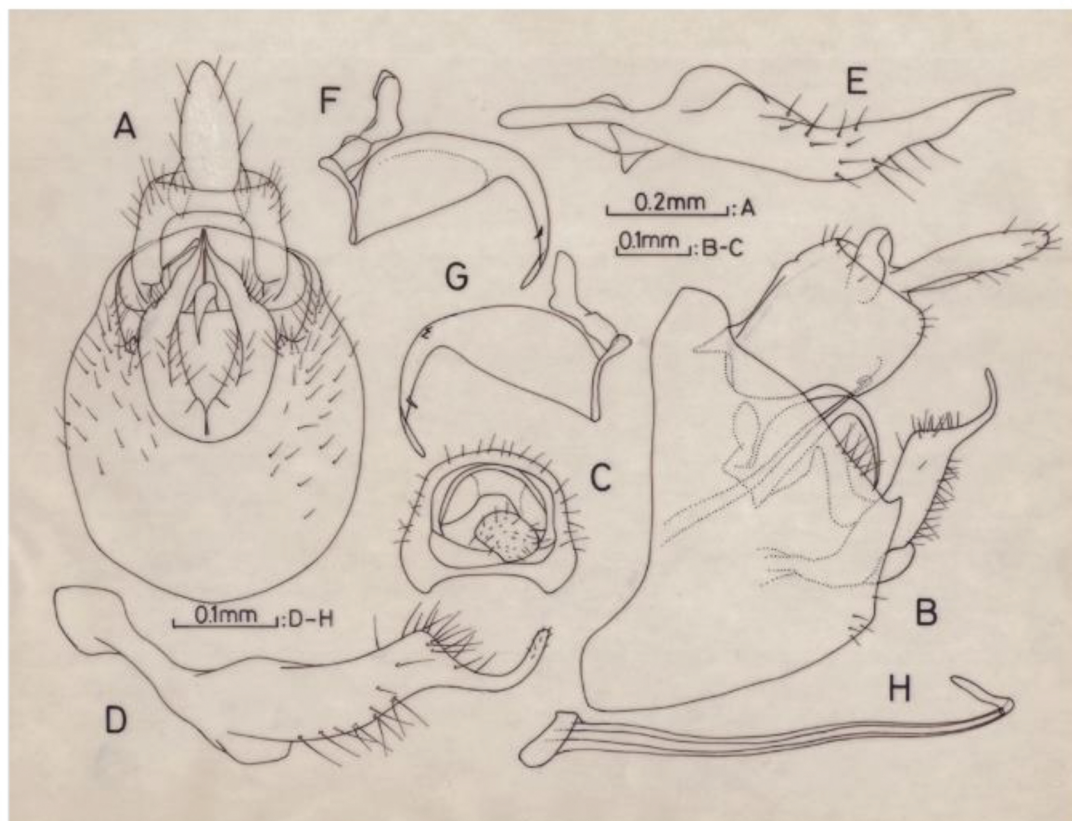


Fig. 1: *Stenocranus heuksanus* sp. nov. A: genital block of male, ventral view; B: genital block of male, lateral view; C: Anal tube; D: stylus, front view; E: stylus, lateral view; F: penis, left lateral view; G: penis, right lateral view; H: aedeagus.

Key to the Korean *Stenocranus* species

1. Between median and lateral carinae of metope distinctly pale yellowish to brownish ----- 2
- Between median and lateral carinae of metope distinctly black ----- 7
2. Wing with longitudinal dark brown stripe at apex ----- 3
- Wing without longitudinal dark brown stripe at apex ----- 4
3. Space in median carina of macrocoryphe pale-brownish -----
----- *Stenocranus hokkaidoensis*
- Space in median carina of macrocoryphe concolorous with the body -----
----- *Stenocranus koreanus*
4. Body pale brown ----- 5
- Body grayish brown ----- 6
5. Anal tube with two pairs of small teeth on sides; upper one hook-shape, lower one reach straight ----- *Stenocranus spinosus*
- Anal tube with a pair of small teeth on sides ----- *Stenocranus tamagawanus*
6. Stylus straight at lateral view ----- *Stenocranus matsumurai*
- Stylus curved upward at lateral view ----- *Stenocranus silvicola*
7. Body and wing brown ----- 8
- Body and wing black ----- *Stenocranus takasagonis*
8. Metope with black stripe thicker than half width of metope ----- 9
- Metope with black stripe thinner than half width of metope ----- 11
9. Inner margin of lateral carina of mesonotum with orange stripe -----
----- *Stenocranus rufilinearis*
- Outer margin of lateral carina of mesonotum with black stripe ----- 10
10. Penis with ventral base rather straight in lateral view; distal process armed with a minute spine before apex ----- *Stenocranus heuksanus* sp. nov.
- Penis with ventral base protruded subtriangularly in lateral view, with distal process lacking minute spine before apex ----- *Stenocranus qiandainus*
11. Median carina of mesonotum and pronotum white-brown or concolorous with body ----- *Stenocranus hwawangsanus* sp. nov.
- Median carina and lateral carinae of mesonotum and pronotum distinctly white -----
----- *Stenocranus bukbaesanus* sp. nov.

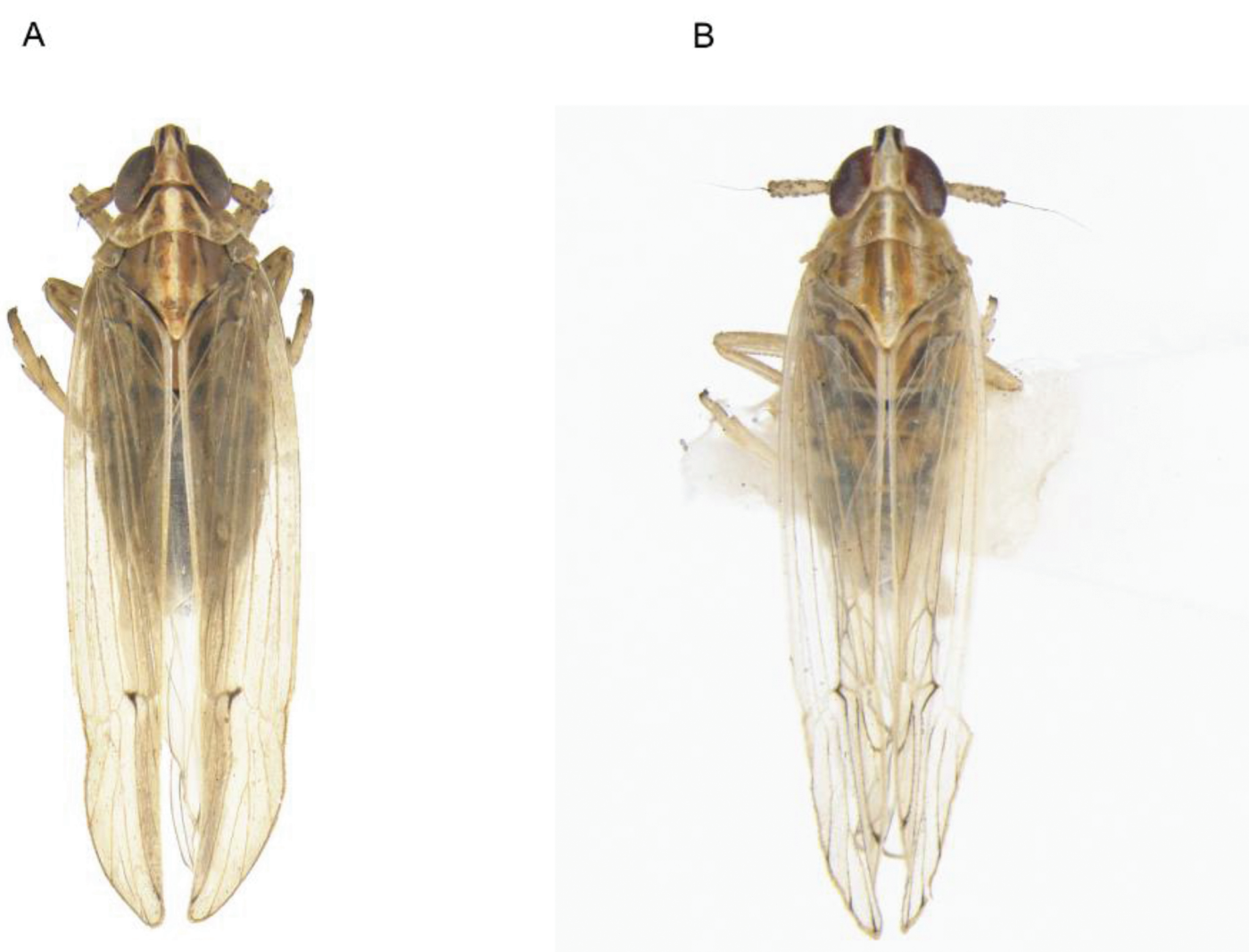


Fig. 2. A: *Stenocranus hwawangsanus* sp. n., B: *Stenocranus bukbaesanus* sp. n.