

# A peculiar new microleafhopper genus, *Koreoridia* gen. nov., belonging to the tribe Erythroneurini from Korea (Homoptera: Cicadellidae: Typhlocybinae)

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## Abstract

In the course of the continuous survey on the taxonomy of typhlocybinae microleafhoppers from Korean peninsula, the authors have found a peculiarly remarkable genus unknown so far, base on the nominate species new to science, having the characteristic morphology in male genitalia: *Koreoridia koreana* gen. et sp. nov. This new genus reveals an affinity of *Arboridia* Zachvatkin, 1946, belonging to the tribe Erythroneurini Young, 1952. Description and illustration of morphological features of the present new taxa and key to the Korean genera of the tribe Erythroneurini are provided respectively.

**Key words:** Hemiptera, Auchenorrhyncha, Typhlocybinae, taxonomy, identification, new genus.

## Introduction

The largest microleafhopper tribe among the subfamily Typhlocybinae appears to be Erythroneurini, with over 164 genera globally, although 10 genera are known in Korean fauna by Hossain, one of the authors, who revised the subfamily Typhlocybinae from Korea in his Ph.D. thesis (2018).

This tribe consists of a diverse group of tiny and delicate leafhoppers where species occur on a wide variety of woody host plants and grasses.

The present tribe is a well-supported monophyletic group, characterized by the venation of the hindwing, in which the anal vein is completely confluent with the postcubital vein, the submarginal vein is absent between RM and CuA, and the forewing inner (fourth) apical cell is elongate and parallel-sided.

In the course of the continuous survey on the taxonomy of typhlocybinae microleafhoppers from Korean peninsula, the authors have found a peculiarly remarkable genus unknown so far, base on the nominate species new to science, having the characteristic morphology in male genitalia:

*Koreoridia koreana* gen. et sp. nov. This new genus reveals an affinity of *Arboridia* Zachvatkin, 1946, belonging to the tribe Erythroneurini Young, 1952. Thus, a total of 11 genera have been known to the Korean fauna including the above new genus.

Description and illustration of morphological features of the present new taxa and key to the Korean genera of the tribe Erythroneurini are provided respectively.

## Classification

### Checklist of the genera belonging to the tribe Erythroneurini from Korea

1. Genus *Alnetoidia* Dlabola, 1958
2. Genus *Anufrievia* Dworakowska, 1970
3. Genus *Arboridia* Zachvatkin, 1946
4. Genus *Diomma* Motschulsky, 1863
5. Genus *Empoasca* Distant, 1918
6. Genus *Punctigerella* Vilbaste, 1968
7. Genus *Singaporea* Mahmood, 1967
8. Genus *Tautoneura* Anufriev, 1969
9. Genus *Ziczacella* Anufriev, 1970
10. Genus *Zygina* Fieber, 1866

#### 11. Genus *Koreoridia koreana* gen. et sp. nov.

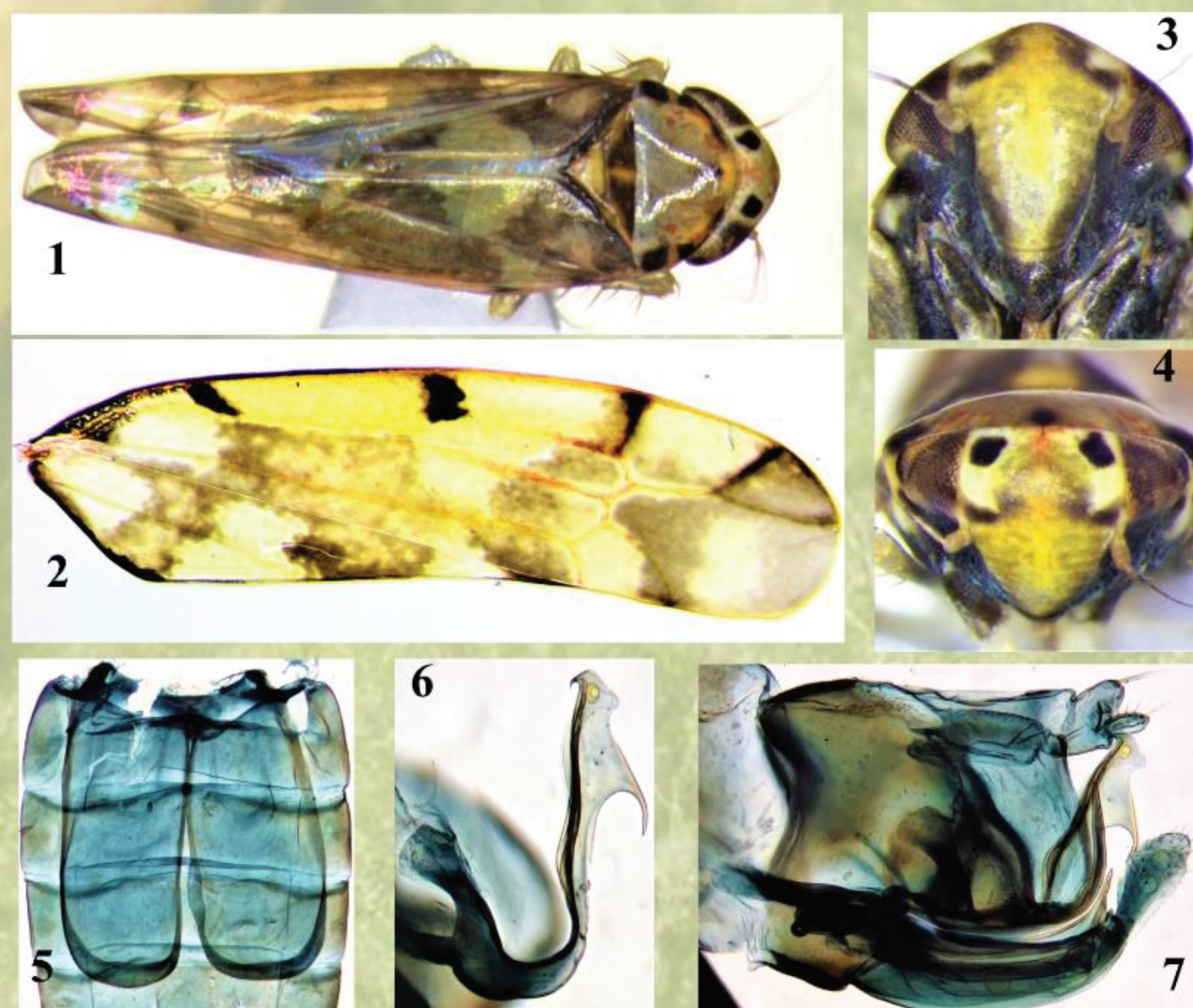
Diagnosis: Head including eyes apparently narrower than pronotum, slightly shorter than half of pronotum mesally. Male subgenital plate narrowly curved, with apex spatulately extending. Aedeagus flat, broadly extended distally, hooked mesally at posterior margin mesally, armed with a short process apically. Style with apex sharply pointed, with subapical short process.

## Key to the genera of Erythroneurini from Korea

1. Forewings narrowed distally; aedeagal shaft with appendages ..... *Anufrievia*
- Forewing nearly parallel; aedeagal shaft with or without appendages ..... 2.
2. Aedeagus flat, broadly extended distally, hooked mesally at posterior margin mesally, armed with a short process apically ..... *Koreoridia koreana* gen. et sp. nov.
- Aedeagus various, but not extended distally, with posterior margin simple, lacking short process apically ... 3.
3. Crossveins of forewings nearly in a straight line ..... *Singaporea*
- Crossveins of forewings not on a straight line ..... 4.
4. Forewings without R; hindwings usually reduced, with single cross vein ..... *Diomma*
- Forewings with R; hindwings with 2 cross vein ..... 5.
5. Pygofer lobes with dorsal and ventral process ..... *Alnetoidia*
- Pygofer lobes with 1, sometimes weakly developed process ..... 6.
6. Fourth apical cell of forewings very long, almost twice as long as wide ..... *Empoasca*
- Fourth apical cell of forewings almost quadrate ..... 7.
7. Subgenital plates with 2 groups of bristles arranged separately from each other; 1st pair situated at apex of plate, 2nd approximately in the middle ..... *Zygina*
- Subgenital plates with a group of bristles at the middle of outer margin ..... 8.
8. Basal projection of pygofer lobes without thick bristles ..... *Arboridia*
- Basal projection of pygofer lobes with a group of thick bristles ..... 9.
8. Anal tube from each side with a long process; aedeagus often asymmetrical ..... *Tautoneura*
- Anal tube without processes; aedeagus symmetrical ..... 10.
10. Style with apex bidentate; Base of aedeagus not separated by sclerotized membrane ..... *Punctigerella*
- Styles with apex three-dentate, armed with slender inner apical tooth; Aedeagal shaft with a pair of strong horn-like processes basally, shaft connected with base by weakly sclerotized membranous chord ... *Ziczacella*

## References

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Figs. 1-7. *Koreoridia koreana* gen. et sp. nov. 1: Adult, 2: Forewing, 3: Face, 4: Head in anterior view, 5: Male abdomen, 6: Male pygofer in lateral view, 7: Aedeagus.