



## The leafhopper tribe Agalliini (Hemiptera: Cicadellidae: Megophthalminae) in Pakistan

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### Abstract

Nine species of the tribe Agalliini are listed from Pakistan and a key is provided for their separation. Four new records are included. Six species are redescribed and illustrations and distributions are provided.

**Key words:** New records, taxonomy, leafhopper, morphology

### Introduction

The tribe Agalliini of the subfamily Megophthalminae consists of 37 genera and 600 species worldwide that breeds on shrubs and herbs and is represented in the Indian subcontinent by 6 genera and 28 species (Viraktamath, 2004). Some species are vectors of plant pathogens (Nielson, 1979). Megophthalminae can be recognized by their small wedge shaped body, measuring 2–9 mm. They have short, broad heads, ocelli on the face, hind wings with four closed apical cells and forewings with a reduced or absent appendix. The last feature, besides other characters, distinguishes the group from the otherwise similar Idiocerinae. Agalliini differ from other leafhoppers in having the macrosetae of R3 on the hind tibia originating at or beyond the midlength and the male style with a forked distal end (except in a few New World genera). This tribe differs from Megophthalmini in the absence of carinae between the antennal pits and ocelli, and from Adelungiini in the absence of reticulate forewing venation and the relatively short, broad male connective, except in *Humpatagallia* Evans & Viraktamath (African) and *Brasa* Oman (Neotropical).

Pruthi (1930, 1936) described two species of the tribe Agalliini before the creation of Pakistan: *Agallia robusta* from Jhika gali marree and *Durgades idiocera* from Murree Hills. Later, Mahmood (1979) recorded the presence of the genera *Aceratagallia* Kirkaldy, *Agallia* Curtis, *Agalliopsis* Kirkaldy, *Anaceratagallia* Zachvatkin, *Ceratagallia* Kirkaldy, *Nehela* White, *Peragallia* Ribaut and *Austroagallia* Evans. Unfortunately, figures and details of the material examined were lacking and Mahmood's material has not been found, hence it is not possible to confirm these identifications. The genera *Aceratagallia*, *Agalliopsis* and *Ceratagallia*, are found only in the New World and, presumably, Mahmood misidentified these genera. Viraktamath (1973) studied *Austroagallia nitobei* (Matsumura) and Ahmed & Aziz (1988) mentioned the presence of *Aceratagallia robusta* Kirkaldy on grass in Pakistan. Subsequently, Viraktamath (2004) described the new species *Durgades sympatrica* Viraktamath, from Murree, Pakistan.

As part of this study, six species belonging to the genera *Agallia* and *Austroagallia* were collected from Pakistan. Details of these species are given below, including their redescription and illustration. In addition, a checklist and key to species known to occur in Pakistan are given.