



## A new leafhopper genus and four new species from the Grassland Biome of South Africa (Hemiptera, Cicadellidae)

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### Abstract

A new endemic deltocephaline leafhopper, *Tetramelasma* gen.n. is described from the Grassland Biome of South Africa, comprising four new species: *T. litopyx* sp. n., *T. nodosatha* sp. n., *T. scolosatha* sp. n. and *T. tanyphysis* sp. n. Two paired dark markings on the vertex of the head are striking features of this genus and it is found in association with a number of grass species usually at high altitudes in the Grassland Biome. Species of this genus are characterized in the male by a short, truncated plate with a dorsal sclerotized process, the aedeagus with a long, slender shaft that is fused with the connective. Tribal placement in Deltocephalini is based on the fusion between the aedeagus and connective. The style has the posterior apophysis short and hollow or elongate and somewhat serrated. Females are characterized by the sternite 7 that is deeply invaginated along the posterior margin or only with a shallow notch, semicircular and sclerotized laterally.

**Key words:** taxonomy, morphology, endemic, temperate grassland, Deltocephalinae, Deltocephalini

### Introduction

The Grassland Biome of South Africa is rich in species of the largest cicadellid subfamily, the Deltocephalinae. This is the fifth contribution on leafhoppers associated with the Grassland Biome of South Africa. Previous work concerned *Drakensbergena* (Stiller, 2009a), *Elginus* (Stiller, 2009b), *Pravistylus* (Stiller, 2010a) and *Vilargus* (Stiller, 2010b). *Tetramelasma* is a new leafhopper, which is probably endemic to the grassland biome of Southern Africa. Members of the new genus have been found in 11 vegetation types of four bioregions of the Grassland Biome as defined by Mucina & Rutherford (2006). *Tetramelasma nodosatha* was found in six vegetation types, *T. litopyx* in three, *T. tanyphysis* in two, and *T. scolosatha* in one. Most of these collection records are at higher altitudes (1700–3000 m). Some of the grasses from which species of this leafhopper genus were collected include *Merxmuellera disticha*, *M. drakensbergensis*, *Merxmuellera* sp. and *Festuca* sp. According to Mucina and Rutherford (2006), in addition to these grasses, there are about 28 dominant and common grass species in these vegetation types.

### Material and methods

About 870 specimens were examined, of which 223 were dissected and 580 were measured. Type material is deposited in the South African National Collection of Insects, Pretoria (SANC) Agricultural Research Council, Plant Protection Research Institute, and additional material in the Illinois Natural History Survey, Campaign, Illinois, USA (INHS) and the Natural History Museum, London (BMNH), as designated in the species accounts. Terminology follows Davis (1975), Blocker & Triplehorn (1985) and Zahniser & Dietrich (2008). Drawings were made with the aid of a drawing tube, with consistent magnification for the same structures. Images were captured through an Olympus SZH12 microscope with Analysis™ and CombineZP software was used to assemble individual images to achieve greater depth of field.