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## A new species of *Platydecticus* (Orthoptera: Tettigoniidae: Tettigoniinae; Nedubini) from the Andes of Chile

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### Summary

A new species of the genus *Platydecticus* is described based on adult male and female specimens and the egg. The new species, *Platydecticus diaguita*, inhabits the Andes Range at 27° S latitude, above 3000 m elevation. Both sexes are easily identifiable by genital morphology characters and by the external characters of the fastigium of the vertex and the reduced number of spines in the hind tibia. It is also the smallest species described for the genus.

**Key words:** eggs, Nedubini, SEM, taxonomy

### Introduction

The tribe Nedubini, Gorochoy, 1988 is composed of 20 genera and 82 species, mostly of arid environments of Australia, North America (California) and South America (Chile and Argentina) (OSF 2015). Five genera are present in Chile: *Apteropedetes* Rentz, 1979 and *Barraza* Kocak & Kelmal, 2008 with one species each; *Falcidectes* Rentz & Gurney, 1985 and *Xyrdectes* Rentz & Gurney, 1985 with two species each and *Platydecticus* Chopart, 1951 with 15 species; this last genus also has the widest latitudinal distribution (Elgueta *et al.* 1999). The diagnostic characters of genera and species are fundamentally based on the genital morphology of both sexes; they were reviewed by Rentz & Gurney (1985). The morphology of the eggs has been studied recently; important diagnostic characters were reported (Vera, 2014).

Although *Platydecticus* is most diverse genus of the Nedubini in Chile, there have been few taxonomic studies of the group. Here I describe a new species based on a few specimens of individuals collected in a little-explored region of the Andes of the Región de Coquimbo, Chile. Both sexes and the egg are described morphologically. New characters for the genus are studied associated with the mouthparts, as well as other new characters such as the ultrastructure of the egg. Finally, the sexes are associated by characters independent of sexual characters, which has presented difficulties in the descriptions of other species.

### Materials and methods

All material examined is from the same collection event: 2 males and 3 females, Chile, IV Región de Coquimbo, Cuesta el Gato, 27°39'25.72"S–69°41'18.86"W, elevation 3026 m, 05 January 2014, Col. J. Mondaca. Observations on the collecting site: Nearly flat area beside the road, soil sandy and gravelly, covered by a shrubland of *Adesmia hystrix* Philippi along with Graminae and creeping herbs (Fig. 1).

Specimens were preserved in 96% ethanol. The five specimens are deposited in the Entomological Collection of the Museo Nacional de Historia Natural de Santiago, Chile (MNNC). The observations on general morphology, color, measures and dissections were performed using a Nikon stereoscopic microscope with 10X oculars and a 0.7X–3X zoom objective with ruler incorporated in the ocular. Photographs were taken with a digital camera. SEM observations were performed with a Hitachi TM3000 scanning electron microscope. The egg described was obtained by dissection of one of the females.