## Mealybugs (Hemiptera: Pseudococcidae) associated with persimmon *Diospyros kaki* L. (Ebenaceae) in Southern Brazil

## Vitor C. Pacheco da Silva<sup>1,2</sup>, Thibaut Malausa<sup>3</sup>, Jean-François Germain<sup>4</sup>, Marcos Botton<sup>2</sup>, Mehmet Bora Kaydan<sup>5</sup>

<sup>1</sup>Plant Protection Graduate Program, UFPel, Pelotas – Brazil, vitorcezar@gmail.com; <sup>2</sup>Embrapa Grape and Wine, Bento Gonçalves– Brazil, marcos.botton@embrapa.br; <sup>3</sup>Institut Sophia Agrobiotech, UMR INRA, Sophia Antipolis–France, tmalausa@paca.inra.fr; <sup>4</sup>Anses, Laboratoire de la Santé des Végétaux, Montferrier-sur-Lez– France, jean-francois.germain@anses.fr; <sup>5</sup>Çukurova University, Adana – Turkey, bkaydan@hotmail.com

Temperate fruit production is an important economic activity in Southern Brazil. In this region, persimmon Diospyros kaki L. (Ebenaceae) is grown in small farms for domestic consumption and internal market. Mealybugs are often found in at least 50% of the orchards causing damages on fruits due to the honeydew secretion. However, there is a lack of information about species composition damaging orchards in Southern Brazil. In this work, we present a survey of mealybugs associated with persimmon trees in the Serra Gaúcha Region, Rio Grande do Sul, Brazil. Mealybugs were collected from commercial orchards between 2013 and 2015. Identification was carried out by using morphological features and DNA characterization. The species found infesting fruits, leaves and branches of persimmon trees were: Anisococcus sp. n., Dysmicoccus brevipes (Cockerell), D. sylvarum Williams & Granara de Willink, D. texensis (Tinsley), Ferrisia cristinae Kaydan & Gullan, Ferrisia sp. n., F. terani Williams & Granara de Willink, F. williamsi Kaydan&Gullan, Nipaecoccus jacarandae Williams & Granara de Willink, Phenacoccus gregosus Williams & Granara de Willink, Ph. tucumanus Granara de Willink, Pseudococcus meridionalis Prado, Ps. nakarahai Gimpel & Miller), Pseudococcus sp. n., Ps. sociabilis (Hambleton), Ps. viburni (Signoret) and Pseudococcus sp. Three of these species are new to science and three are new records for Brazil. Ph. gregosus and Ps. nakaharai were recorded for the first time in South America. A. sp. n., D. brevipes, Ps. sociabilis and Ps. viburni are the most common mealybugs found in persimmon trees.

Keywords: Coccomorpha, fruit trees, fauna, new species.