

S2 P31

Integrative taxonomic approach and molecular phylogeny for identification of needle nematode species (*Longidorus* spp.) infesting grapevine soils in Portugal

CARLOS GUTIÉRREZ-GUTIÉRREZ<sup>1</sup>, MARGARIDA TEIXEIRA SANTOS<sup>2</sup>, MANUEL MOTA<sup>1,3</sup>

<sup>1</sup>NemaLab/ICAAM, Instituto de Ciências Agrárias e Ambientais Mediterrânicas & Dept. de Biologia, Universidade de Évora, Núcleo da Mitra, Ap. 94, 7002-554 Évora, Portugal; <sup>2</sup> Instituto Nacional de Investigação Agrária e Veterinária (INIAV), Quinta do Marquês, 2780-159 Oeiras, Portugal; <sup>3</sup> Dept. Ciências da Vida, Universidade Lusófona de Humanidades e Tecnologias, EPCV, C. Grande 376, 1749-024 Lisboa, Portugal

Autor correspondente: carlog@uevora.pt

“Needle” nematodes (*Longidorus* spp.) are polyphagous root ectoparasites causing severe damage to plants by their direct feeding, and additionally some species can transmit plant viruses. In order to establish the species diversity of the genus *Longidorus* in central-Western Portugal and its distribution, several vineyards were sampled in the Lisbon wine regions from 2015 to 2017 during the spring and autumn.

An integrative taxonomic approach based on the combination of morphometric and morphological characterizations with molecular analysis using ribosomal DNA (rDNA) sequences from ITS regions and D2–D3 expansion segments of the 28S gene were used for species delimitation and identification.

As results, two needle nematode species morphologically similar, *L. vinearum* and *L. vineacola*, were found parasitizing the rhizosphere of grapevine (*Vitis vinifera* L.). In this study, *L. vinearum* was the most frequently found species.

Acknowledgements:

This research was financially supported by FCT - Foundation for Science and Technology postdoctoral fellowship SFRH/ BPD/95315/2013 and FEDER Funds through the Operational Programme for Competitiveness Factors - COMPETE and National Funds through FCT under the Strategic Projects PEst-C/AGR/UI0115/2011 and PEst-OE/ AGR/UI0115/2014 (Portugal).

**Keywords:** D2–D3, Longidoridae, rDNA, virus vector