

## Phylogenetic relationships, based on SSU rDNA sequences, among the didelphic genera of the family Trichodoridae from Portugal

Isabel M. DUARTE <sup>1,\*</sup>, Maria Teresa M. DE ALMEIDA <sup>2</sup>, Derek J.F. BROWN <sup>3</sup>, Isabel MARQUES <sup>4</sup>, Roy NEILSON <sup>5</sup> and Wilfrida DECRAEMER <sup>6</sup>

<sup>1</sup> Departamento de Biologia e Ecologia, Escola Superior Agrária de Coimbra, Bencanta, 3040-316 Coimbra, Portugal <sup>2</sup> Departamento de Biologia, Universidade do Minho, Campus de Gualtar, 4710-057 Braga, Portugal <sup>3</sup> Central Laboratory of General Ecology, Gagarin Street 2, 1113 Sofia, Bulgaria <sup>4</sup> Instituto Gulbenkian de Ciência, Rua da Quinta Grande, 6, 2781-901 Oeiras, Portugal <sup>5</sup> Scottish Crop Research Institute, Invergowrie, Dundee DD2 5DA, UK <sup>6</sup> Royal Belgian Institute of Natural Sciences, Brussels, Belgium

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**Summary** – A survey of virus vector trichodorid nematodes was carried out in the central and northern regions of Portugal. Morphobio-metric identification showed the presence of trichodorid species previously reported from Portugal, except for *Paratrichodorus porosus*, which is reported for the first time in Continental Europe. Small subunit ribosomal DNA (SSU rDNA) sequences of ten different species occurring in Portugal were obtained and a phylogenetic analysis based on their alignment was performed to infer relationships among the different Portuguese trichodorid species and three non-indigenous populations (*Nanidorus minor*, *P. allius* and *P. teres*). The resulting phylogenetic tree is in agreement with the currently accepted classification for Trichodoridae, except for *Nanidorus*, which clusters together with *Trichodorus* species, while the genera *Paratrichodorus* and *Trichodorus* appear as two distinct groups. A better understanding of the generic groupings in the family Trichodoridae was found. Based on the new molecular analyses we herein accept *Nanidorus* as a valid genus.

**Keywords** – 18S rDNA, molecular, *Nanidorus*, *Paratrichodorus*, *Paratrichodorus porosus*, phylogeny, tobacco rattle virus (TRV), *Trichodorus*, *Tyololaimophorus minor*.