Zootaxa 4044 (1): 141–150
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.4044.1.8
http://zoobank.org/urn:lsid:zoobank.org:pub:3868C648-3115-4816-93AD-78C3C5F00092

New isolate of *Mononchoides composticola* Steel, Moens, Scholaert, Boshoff, Houthoofd & Bert, 2011 (Nematoda: Neodiplogasteridae) from Iran

EBRAHIM SHOKOOHI[1,3], ELAHE SEDDIQI[1], HADI PANAHI[1] & JOAQUÍN ABOLAFIA[2]

[1]*Nematology Laboratory, Department of Plant Protection, College of Agriculture, Shahid Bahonar University of Kerman, Kerman, Iran. E-mail: eshokoohi@uk.ac.ir*
[2]*Departamento de Biología Animal, Biología Vegetal y Ecología, Universidad de Jaén. Campus "Las Lagunillas" s/n. 23071–Jaén, Spain*
[3]*Unit for Environmental Sciences and Management, Potchefstroom, North West University, South Africa.*
E-mail: Ebrahim.Shokoohi@nwu.ac.za

Summary

Mononchoides composticola was isolated during a survey on free living nematodes from vermicompost in Iran. This population of *M. composticola* is characterised by a dorsal claw-like tooth; 7–9 µm long and 3–5 µm wide, 14–15 finely visible longitudinal ridges on the cuticle, in which each ridge comprises two lines, long spicules (39–45 µm long), a short gubernaculum (15–17 µm or less than half of the spicule length), two pairs of precloacal papillae, five pairs of postcloacal papillae, papillae (v3) comprising three small papillae, and a long filiform tail (418–654 µm in females, 382–455 µm in males). Molecular analysis of *M. composticola* based on sequence of the 18S rDNA placed it close to *M. composticola* (GU943511; GU943512; from Belgium) and *M. striatus* (AY593924; from The Netherlands) in a well supported clade (1.00 posterior probability). Measurements, illustrations, LM and SEM pictures, and the phylogenetic position of *M. composticola* are given.

Key words: 18S rDNA, description, *Mononchoides*, Iran, phylogeny, taxonomy

Introduction

The genus *Mononchoides* Rahm, 1928 belongs to the family Neodiplogasteridae Paramonov, 1952 (*cf.* Andrássy 1984, 2005) and has been studied by many scientists (see Abolafia 2006). This genus comprises 45 nominal species (Sudhaus & Fürst von Lieven 2003, Steel *et al.* 2011, Mehdizadeh *et al.* 2013, Atighi *et al.* 2013), *M. iranicus* Atighi *et al.*, 2013 being the most recently described species. The members of this genus are considered to feed on bacteria, fungal spores and ciliates and/or to be predators (Yeates *et al.* 1993, Fürst von Lieven & Sudhaus, 2000), although it is not clear which stages are microbial feeders and which stages are predaceous (Steel *et al.* 2011).
The present paper presents a new record on diplogasterids of the genus *Mononchoides* collected from vermicompost in Iran. In addition, SSU rDNA information and a phylogenetic hypothesis of *M. composticola* Steel, Moens, Scholaert, Boshoff, Houthoofd & Bert, 2011 relationships is given.

Material and methods

Nematode material: Nematodes were extracted from soil samples by Baermann's (1917) funnel technique. They were fixed with hot 4% formaldehyde solution and processed to anhydrous glycerine by the method of De Grisse (1969). Measurements were taken directly using an ocular micrometer and/or a curvimeter upon drawing the corresponding organ or structure. Drawings were made using a drawing tube attached to an Olympus CH–2 microscope. For SEM study some specimens were processed according to Abolafia (2015) and photographed in a Zeiss Merlin microscope. LM pictures were made with a Nikon Eclipse 80i microscope equipped with a Nikon Digital Sight DS–5M camera. The terminology used to describe the morphology of the stoma and spicules follows the proposals by De Ley *et al.* (1995) and Abolafia & Peña-Santiago (2006), respectively.

Accepted by P. Mullin: 21 July 2015; published: 17 Nov. 2015