Identification of dominant and important plant-parasitic nematodes of wheat, alfalfa fields and grapevine vineyards in Sistan

Abstract

In order to identify and determine distribution of the most common and important plant parasite nematodes, 80 root and soil samples were collected from wheat and alfalfa fields and grapevine vineyards in several localities of Sistan province, during years 2013-2014. After extraction, fixation and transferring to anhydrous glycerol, the nematodes were mounted on microscopic slides and identified at species level by using the light microscope, equipped with digital camera. In this study 13 plant parasitic nematode species, belonging to the orders Tylenchida and Dorylaimida, viz. *Aphelenchoides cyrtus, Boleodorus thylactus, Ditylenchus myceliophagus, Filenchus butteus, F. sandneri, Neopsilenchus magnidens, Pratylenchus elamini, P. neglectus, P. thornei, Scutylenchus rugosus, Tylenchorhynchus brassicae, Tylenchorhynchus* sp. and *Longidorus auratus* were identified. Out of 13 species, *P. elamini* and *L. auratus* are new records for the nematofauna of Iran. The characters of *Tylenchorhynchus* sp. are between the characters of *T. brassicae* and *T. clarus*.

Key words: Sistan, Wheat, Alfalfa, Grape, Fauna, Plant parasitic nematodes

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