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Mononchida (Nematoda) from Silent Valley National Park, India

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Abstract

Four known and a new species of nematodes belonging to the Order Mononchida Jairajpuri, 1969 are described and illustrated from Silent Valley National Park, India. *Cobbonchus vulvastriatus* n. sp. has 0.92–0.11 mm long body; buccal cavity 25–27×12–13 µm, dorsal tooth comparatively large with its apex at 72–81% from base of stoma; subventral teeth slightly smaller with their apices at 40–41% from the base of stoma; female genital system amphidelphic, 1–3 pre-vulval and 2–4 post-vulval cuticular infoldings present; spicules 1.2–1.4 times the cloacal body diameter long; gubernaculum trough-shaped with distal thickening; lateral guiding pieces small; ventromedian supplements six, spaced; tail conoid, curved ventrad with a strong angular bending, slender portion of tail about twice the anterior part; caudal glands well developed, arranged in tandem, spinneret terminal. *Clarkus sheri* (Mulvey, 1967) Jairajpuri, 1970; *Mylonchulus amurus* Khan & Jairajpuri, 1979; *Mylonchulus mulveyi* Jairajpuri, 1970 and *Mylonchulus paraindex* Ahmad, Baniyamuddin & Jairajpuri, 2005 are recorded for the first time from this park.

Key words: Cobbonchus vulvastriatus n. sp., Clarkus sheri, descriptions, Mononchida, Mylonchulus amurus, Mylonchulus mulveyi, Mylonchulus paraindex, nematode, Silent Valley park, taxonomy

Introduction

Silent Valley National Park is located in the Nilgiri Hills, South India (11°03' to 11°13' N latitude and 76°21' to 76°35' E longitude). The park is one of the least disturbed tracts of South Western Ghats mountain rain forest and tropical moist evergreen forest in India. Soils are blackish and slightly acidic with good accumulation of organic matter. Very little is known about the soil-inhabiting nematode fauna of this biodiversity "hot spot" region. Only nine species of nematodes have been described to date from this Park. Ahmad and Jairajpuri (1982, 1983 & 1986) described two new species each of the genus Axonchium Cobb, 1920 (A. vallum Ahmad & Jairajpuri, 1982 and A. tacitum Ahmad & Jairajpuri, 1982), two species of Iotonchus Cobb, 1916 (I. silvallus Ahmad & Jairajpuri, 1983 and I. pseudodigonicus Ahmad & Jairajpuri, 1983) and a new genus and species Silvallis sclerostoma Ahmad & Jairajpuri, 1986 from this Park.. Ahmad et al. (1992) further described a new species of the rare nematode genus Thalassogenus Andrássy, 1973 (T. shamimi Ahmad, Ahmad, Bilgrami & Khan, 1992) from this region. Khan et al. (1994, 1994a) described two more species, Allodorylaimus vallus and Paractinolaimus vulvapapillatus and also reported Labronemella andrassyi (Baqri & Khera, 1975) Andrássy, 1985. It is clear that there is a paucity of information on the nematode fauna of this park, with only two species of Mononchida reported so far. During the course of the present study, predatory nematodes belonging to the Order Mononchida Jairajpuri, 1969 were isolated from soil samples collected from various sites in Silent Valley National Park. These samples yielded a total of five species of mononchids, representing the genera Clarkus Jairajpuri, 1970 (C. sheri (Mulvey, 1967) Jairajpuri, 1970), Mylonchulus Cobb, 1916 (M. mulveyi Jairajpuri, 1970; M. amurus Khan & Jairajpuri, 1979 and M. paraindex Ahmad, Baniyamuddin & Jairajpuri, 2005), and Cobbonchus Andrássy, 1958 (C. vulvastriatus n. sp). Brief descriptions of the known species and a detailed description of the new species are provided in this paper.