

Morphological and morphometric characterization of root-knot nematodes from cardamom in Idukki district of Kerala, India

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ABSTRACT : Three populations of root knot nematode, *M. javanica* collected from Thovalappady, Pampadumpara and Balagram areas in Idukki district of Kerala were identified and characterized morphologically and morphometrically. On the basis of different levels of coefficient of variability for morphometric characters of mature females, perineal pattern and second stage juveniles, the different characters were rated as least variable, moderately variable and highly variable. In mature females and perineal pattern, the characters body width and length of vulval slit (LVS) were least variable characters whereas neck length, anus to vulval slit (AVS) and anus to tail terminus (ATT) were highly variable characters. The characters body length, stylet length, length of median bulb (LMB), width of median bulb (WMB) and ratio 'a' were moderately variable characters. In second stage juveniles, tail length, ratios c and c' were highly variable characters whereas length, stylet length, and head to median bulb (H-MB) were least variable; anal body width (ABW) was moderately variable among the population. Most of the characters were in conformity with the type description of *M. javanica* except for some variations, which have been discussed.

Key Words: Morphological, morphometrical, characterization, *M. javanica*, Kerala.