

Intra-specific morphometric variability of *Tylenchorhynchus mashhoodi* Siddiqi and Basir (1959) associated with groundnut, *Arachis hypogaea* L. in West Bengal

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ABSTRACT : During a roving survey in major groundnut growing areas of the Hooghly district of West Bengal (India), forty three soil samples measuring 200cm³ were collected to study the morphometric variability of *Tylenchorhynchus mashhoodi* associated with groundnut, *Arachis hypogaea* L. The nematodes were extracted from the soil and then fixed in 4:1 formalin glacial acetic acid solution. These samples were processed following Seinhorst glycerol-ethanol method. The processed specimens were permanently mounted in pure anhydrous glycerol. Measurements on thirty two morphometric features of the nematode were taken under compound microscope (Olympus BX-51) with the help of ocular micrometer as well as with the image analyzing device ProgRes CT5 of Jenoptic Version 2.80. De Man indices for important morphometric features of the *T. mashhoodi* were also worked out. Drawings were made with the help of drawing tube of the compound binocular microscope. Detailed observation on morphometric variability revealed *T. mashhoodi* as the only dominant species under the genus *Tylenchorhynchus*. The present population of *T. mashhoodi* revealed high variability in body length among females than males. Number of lip annules and lateral lines were consistent between sexes. The stylet length (15-23µm) showed least variability among juveniles, moderate variability among males and high variability among females. Ratios like, a, b, c, c' were found highly variable in females; while males showed least to moderate variability with regard to a and b ratios. V% in females, distance of median valve from stylet base and excretory pore from anterior end in males are least variable.

Key Words: Groundnut, morphometric variability, *Tylenchorhynchus mashhoodi*.