FOUR NEW SPECIES OF NEMATODES BELONGING IN THE FAMILY DIPHTHEROPHORIDAE FROM NORTH INDIA

BY

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Two new species of Diphtherophora, D. ivanovae n. sp. and D. granata n. sp. and two new species of Tylolaimorphorus, T. digitatus n. sp. and T. indicus n. sp. are described from Indian soils. D. ivanovae is characterized by its smaller body size \((L = 0.37-0.47 \text{ mm})\), short, not dorsally bent tail and offset head; while D. granata is distinctive in possessing a striated cuticle and sub-cuticle, digitate tail and continuous head. T. digitatus can be differentiated from all previously known species by its smaller body size \((L = 0.36-0.44 \text{ mm})\) and shape of spicules while T. indicus is distinguished from T. digitatus in possessing continuous lip region, arcuate spicules, greater average body size and in tail shape (tail not digitate).

Earlier Husain, Khan & s'Jacob (1965) described four new species of Diphtherophora de Man, 1880 from India. The present authors have collected a number of populations of nematodes belonging to the family Diphtherophoridae. Two of them contained nematodes of the genus Diphtherophora de Man, 1880 representing undescribed species and two of them new species of the genus Tylolaimorphorus de Man, 1880.

DIPHTHEROPHORA IVANOVAE N. SP.

Fig. 1, A-B

Females (6): \(L = 0.37-0.47 \text{ mm}; a = 19-29; b = 4.3-6.0; c = 14-20; V = 48-58; \text{spear} = 14-20 \mu\).

Holotype: \(L = 0.38 \text{ mm}; a = 21; b = 4.4; c = 14; V = 56; \text{spear} = 15 \mu\).

Description: Body cylindrical, tapering at both extremities, assuming ventrally arcuate shape on death. Cuticle and sub-cuticle striated, loosely fitted with the body except at head, vulva and anus. Lip region distinctly set-off from the body by a constriction. Labial papillae elevated. Spear typical of the genus, 14-20 \(\mu\) in length. Protrudor muscles well developed. Oesophagus cylindrical anteriorly. Nerve ring near middle of oesophagus, slightly above the excretory pore. Basal bulb elongate pyriform. Cardia two-celled. Intestine packed with dense refractive granules. Rectum distinct, nearly half or slightly more than anal-body width long. Tail slightly less than three times the anal-body width long, conoid, not dorsally bent, with broadly rounded terminus.


Males: Not found.
Holotype: Female, slide No. 716, deposited with the Plant Pathology Section, Department of Botany, Aligarh Muslim University, Aligarh, U.P., India.

Paratypes: Five females in the collection of the authors.

Type habitat and locality: Collected from soil around the roots of Foeniculum vulgare Gaertn. from Bijnor, U.P., India.

Diagnosis and relationship: D. ivanovae n. sp. resembles D. caudata Ivanova, 1958 and D. minuta Ivanova, 1958. It differs from the former in the smaller