

3. Vestibule provided with minute to strongly developed sclerotized plates; S₂ N located much anterior to pharyngeal base.....
Thornenematinae
 Vestibule not provided with sclerotised plates; S₂N towards pharyngeal base Laimydorinae

SUBFAMILY DORYLAIMINAE DE MAN, 1876

DIAGNOSIS: Large-sized nematodes. Cuticle with distinct longitudinal ridges. Odontostyle tubular with wide lumen and aperture. Guiding ring 'double'. Odontophore rod-like. Expanded portion of pharynx about one-half total neck length. Dorsal Pharyngeal gland nucleus at some distance from its orifice. First pair of ventro-sublaterals widely separated. Vulva transverse or pore-like. Female reproductive system amphidelphic. Tail elongate-conoid to long, filiform in females and short, conoid in males.

Type genus: *Dorylaimus* Dujardin, 1845

Other genus: *Ischiodylaimus* Andr assy, 1969

KEY TO GENERA OF DORYLAIMINAE

1. Ventromedian supplements arranged in contiguous series of 25 – 55
*Dorylaimus*
 2. Ventromedian supplements in 2-groups (fascicles).....
*Ischiodylaimus*

GENUS *DORYLAIMUS* DUJARDIN, 1845

The genus *Dorylaimus* was proposed by Dujardin, 1845 with *D. stagnalis* as its type species. Thorne & Swanger (1936) in their monumental work included 185 species under *Dorylaimus*. Andr ssy (1959) subdivided *Dorylaimus* into a number of genera and included only large sized species with sexual dimorphism in tail under this genus. Goody (1936) emended the diagnosis of *Dorylaimus* and included only the species with longitudinal ridges on the cuticle in this genus. Andr ssy (1969) further sub-divided the genus in three genera and restricted only those species which have longitudinal ridges and numerous contiguous supplements to *Dorylaimus*. Andr ssy (1970), Baqri & Coomans (1973), Andr ssy (1988), Ahmad & Jairajpuri (1982), Baqri & Jana (1986) and Jimenez-Guirado (1988) have added species to this genus.

During the present work, specimens of *Dorylaimus* were found in the soil samples collected from different localities in India. Upon detailed study they were found to represent the type species *Dorylaimus stagnalis* Dujardin, 1845 and *D. fodori* Andr ssy, 1988 which are described hereunder.

DIAGNOSIS: Large size nematodes, 2-5 mm long. Cuticle thick, regular with wing-like longitudinal ridges over the entire body, except the extremities. Lateral body pores indistinct, usually numerous series of ventral and dorsal body pores may also be present. Lip region continuous with body; lips amalgamated; labial papillae often raised above lip contour. Amphids with stirrup-shaped fovea and slit-like

aperture. Odontostyle well-built, with wide lumen and aperture. Guiding ring 'double'. Odontophore rode-like. Pharynx fairly muscular, enlarging near middle. Cardia elongate-conoid. Female reproductive system amphidelphic. Vulva transverse or pore-like. Prerectum in males long, beginning well above range of supplementants. Lateral guiding pieces present. Ventromedian supplements numerous (25-55), contiguous. Tail elongate-conoid to filiform in females and short, conoid with rounded terminus in males.

Type species: *Dorylaimus stagnalis* Dujardin, 1845

Other species: *D. afghanicus* Andrásy, 1960

D. alaeus Thorne, 1939

D. amplexor Nesterov & Lisetskaya, 1965

D. asymphydorus Andrásy, 1969

D. bukowinensis Micoletzky, 1922

D. callosus Skwarra, 1921

D. conicus (Andrásy, 1978) Andrásy, 1981

D. crassus De Man, 1884

D. crinatus Thorne and Swanger, 1936

D. deaconi Botha & Heyns, 1991

D. exillicaudatus Altherr, 1953

D. fodori Andrásy, 1988

D. geraerti Baqri & Jana, 1986

D. gigas Kleynhans, 1970

D. helveticus Steiner, 1919

D. innovatus Baqri & Jana, 1983

D. lineatus Altherr & Deboutteville, 1972

D. liratus (Sahneider 1966) Orley, 1980

D. macroproctus Altherr, 1963

D. macrosoma Jimenez-Guirado, 1988

D. montanus Stefanski, 1923

D. numidicus Andrassy, 1988

D. otamanliansis Uzumov, 1974

D. pachys Andrásy, 1970

D. paradoxus Eliava, 1967

D. popus Gagarin, 1980

D. siddiqii Ahmad & Jairajpuri, 1982

D. stekhoveni Baqri & Coomans, 1973

D. stenus Andrásy, 1970

D. stephani Andrásy, 1969

D. sulcatus Cobb, 1915

D. tepidus Andrásy, 1959

D. thornei Andrásy, 1969

D. unicus Andrásy, 1970

***Dorylaimus stagnalis* Dujardin, 1845**

(Fig. 1)

MEASUREMENTS:

Females (n = 6) : L = 3.07-4.66 (3.86) mm; a = 37-42 (40); b = 4.5-5.4 (4.9); c = 15.1-17.7 (16.4); c' = 4.6-5.8 (5.2); V = 39-45 (42); G1 = 15-16 (15); G2 = 17-20 (19); odontostyle = 42-49 (46) μ m; odontophore =

= 40-56 (48) μm ; neck length = 678-959 (768) μm ; Prerectum = 231-288 (260) μm ; rectum = 53-77 (65) μm ; tail = 173-293 (233) μm ; ABD = 37-50 (44) μm .

Males (n = 3) : L = 3.27-3.92 (3.59) mm; a = 34-39 (37); b = 4.7-5.3 (5.0); c = 88.6-103.0 (95.3); c' = 0.6-0.7 (0.7); T = 56-69 (68); \odot odontostyle = 42-45 (44) μm ; \odot odontophore = 41-44 (43) μm ; neck length = 689-791 (740) μm ; spicules = 88-116 (102) μm ; lateral guiding pieces = 11-19 (15) μm ; ventromedian supplements = 47-49 (48); Prerectum = 436-700 (568) μm ; tail = 37-42 (40) μm ; ABD = 49-61 (55) μm .

DESCRIPTIONS:

Female: Body slightly ventrally curved upon fixation, tapering gradually towards extremities but more posteriorly. Cuticle with fine transverse striations, 6-8 μm thick at mid-body and marked with 32-34 longitudinal ridges which gradually fade out towards extremities. Lateral chords about one-fourth to one-third of corresponding body width at mid-body. Dorsal and ventral pores 6-10 and 22-29 respectively.

Lip region slightly narrower than adjoining body, marked by a slight depression, 18-23 μm wide and 6-8 μm high. Amphids strap-shaped with slit-like apertures, 8-10 μm wide, occupying about half of corresponding body width. \odot odontostyle cylindroid, 2.1-2.3 lip region widths long, its aperture 15-19 μm wide or 38-39% of \odot odontostyle length. Guiding ring 'double' consisting of a 'fixed' and a movable ring

connected to each other; fixed ring at 21-27 μm from anterior end. Odontophore simple, rod-like, slightly longer than odontostyle. Neve ring at 160-182 μm from anterior end of body. Expanded portion of pharynx occupying about 48-49% of total neck length. Cardia elongate-conoid, 39-53 μm or about half of the corresponding body width long. Pharyngeal gland nuclei end their orifices located are as follows:

DO = 50-51% S₁N₁ = 64-67% S₂N = 84-85%
 DN = 51-53%
 DO-DN = 1.44-1.52% S₂N₂ = 73-75% S₂O = 86-87%

Reproductive system amphidelphic. Vulva pore like; vagina 43-52 μm or about half of corresponding body width deep. Prerectum about 5-6 anal body widths long. Rectum, 1.4-1.5 anal body widths long. Tail elongate – conoid to filiform about 4.6-5.8 anal body widths long, with two caudal pores on each side.

Male : Supplements, an adanal pair and a contiguous series of 47-49 ventro medians. Spicules about 1.7-1.9 anal body widths long. Lateral guiding pieces rod-like, about one-fifth to one-seventh of spicules length. Prerectum 9-11 anal body widths long, extending well beyond the range of the supplements. Tail convex-conoid with rounded terminus, less than one-anal body width long, with two caudal pores on each side.

HABITAT AND LOCALITY: Soil around roots of water grasses (unidentified) from University Campus, Aligarh, Uttar Pradesh.

REMARKS: *Dorylaimus stagnalis* is a very widely distributed species among dorylaims and has been reported from over fifty countries representing every continent. Shafqat & Jarajpuri (1990) made a detailed study of the morphology and variability in this species and observed variations in total body length, size of odontostyle, position of guiding ring, position of vulva, length of gonads, prerectum and tail. The most unusual variation seems to be in V position (34.88-50.24) as reported by shafqat & Jairajpuri (1990). The position of vulva in nematodes is believed to be most reliable character being ^aleast variable (5-10%). A survey of literature indicates V value to be 42-47 in *D. stagnalis*. The present population of *D. stagnalis* completely fits earlier descriptions.

***Dorylaimus fodori* Andr ssy, 1988**

(Fig. 2)

MEASUREMENTS:

Females (n = 5) : L = 4.02-4.43 (4.22) mm; a = 31-40 (35); b = 5.3-6.2 (5.7); c = 14.0-18.8 (16.5); c' = 4.0-5.6 (4.8); V = 34-41 (37); G1 = 11-15 (13); G2 = 9-19 (14); odontostyle = 46-49 (47) μm ; odontophore = 46-53 (49) μm ; neck length = 708-812 (760) μm ; prerectum = 219-261 (240) μm ; rectum = 57-69 (63) μm ; tail = 234-289 (261) μm ; ABD = 50-57 (53) μm .

Males (n = 4) : L = 3.34-3.81 (3.58) mm; a = 30-37 (33); b = 4.6-5.2 (4.9); c = 80-126 (103); c' = 0.7-0.8 (0.7); T = 54-65 (59); odontostyle

= 40-44 (42) μm ; odontophore = 44-50 (47) μm ; neck length = 700-723 (711) μm ; spicules = 85-114 (99) μm ; lateral guiding pieces = 21-23 (21) μm ; ventromedian supplements = 42-47 (44); prerectum = 570-590 (570) μm ; tail = 38-42 (40) μm ; ABD = 47-54 (50) μm .

DESCRIPTIONS:

Female: Body ventrally curved upon fixation. Cuticle finely striated, marked with longitudinal lines. Lateral chords about one-fifth of body width at mid body. Lateral, dorsal and ventral body pores indistinct.

Lip region 18-20 μm wide, offset by slight depression; lips amalgamated. Amphids stirrup-shaped, their aperture 5-6 μm or about half of corresponding body width wide. Odontostyle 2.4-2.5 lip region widths long, its aperture 9-10 μm or about one-fourth of the odontostyle length. Guiding ring 'double', at 23-28 μm or 1.3-1.4 lip region widths from anterior end. Odontophore simple, rod-like, 1.1-1.2 times the odontostyle length. Nerve ring at 158-169 μm from anterior end of body. Expanded portion of pharynx occupying about 52-55% of total neck length. Cardia elongate-conoid, 30-48 μm or about one-half or one-third of the corresponding body width long. Location of pharyngeal gland nuclei and their orifice are as follows :

DO = 49-52%	$S_1N_1 = 60-65\%$	$S_2N = 86-90\%$
DN = 50-54%	$S_2N_2 = 65-81\%$	$S_2O = 88-93\%$
DO-DN = 2.08-2.60%		

Reproductive system amphidelphic. Vulva pore-like. Vagina 47-57 μm or less than half of corresponding body width deep. Prerectum about 4-5 anal body widths long. Rectum about one anal body width

long. Tail elongate-conoid to filiform, about 4-5 anal body widths long, with two caudal pores on each side.

Male: Supplements, an adanal pair and a contiguous series of 42-47 ventromedians. Spicules about 1.7-2.0 anal body widths long. Lateral guiding pieces rod-like. Prerectum 10-12 anal body widths long, extending well beyond the range of supplements. Tail convex-conoid with rounded terminus, less than one anal body width long, with one or two caudal pores on each side.

HABITAT AND LOCALITY: Soil around roots of paddy (*Oryza sativa* L.) from Hyderabad, Andhra Pradesh, India. Collected on August 22, 1997.

REMARKS: Andrásy (1988) described this species from Bangalore, India, based on three females and a male. The present specimens with females and males provide addition data on the species. However, it fits well under the original description of the species. This species appear to be restricted to South India.