

## A NEW AND A KNOWN SPECIES OF DORYLAIMOIDEA (NEMATODA: DORYLAIMIDA) FROM WEST BENGAL, INDIA WITH A KEY TO THE SPECIES OF THE SUBGENUS *AXONCHIUM* COBB, 1920

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**Summary.** *Axonchium* (*Axonchium*) *coomansi* sp. n. was collected from soil around the roots of guava (*Psidium guajava* L.) and litchi (*Litchi chinensis* Sonn.) and a small population of *Mesodorylaimus mesonyctius* (Kreis, 1930) Andrassy, 1959 was collected from the rhizosphere of guava, in South 24-Parganas. *Axonchium* (*Axonchium*) *coomansi* sp. n. is characterized by its incompletely amalgamated lip region, long pharynx, long anterior uterine sac without sperm and posteriorly directed, unsclerotized vagina. It comes close to *A. (A.) amplicolle* Cobb, 1920, *A. (A.) metobtusicaudatum* (Sch. Stekhoven et Teunissen, 1938) Nair et Coomans 1973, *A. (A.) parasaccatum* Rahman, Jairajpuri et Ahmad, 1985, *A. (A.) saccatum* Jairajpuri, 1964 and *A. (A.) transkeiense* Nair, 1973. *Axonchium* (*A.*) *coomansi* sp. n. can be separated from all other closely related species except *A. (A.) amplicolle* in having a longer pharynx and rounded to tongue-shaped cardia (length of pharynx = 514-723  $\mu\text{m}$  and cardiform cardia in *A. (A.) metobtusicaudatum*, 695-768  $\mu\text{m}$  and clavate cardia in *A. (A.) parasaccatum*, 644-675  $\mu\text{m}$  and conoid cardia in *A. (A.) saccatum*, 616-670  $\mu\text{m}$  and bulboid to oval cardia in *A. (A.) transkeiense*). *Axonchium* (*A.*) *coomansi* sp. n. can be distinguished from *A. (A.) amplicolle* in having a much longer anterior uterine sac, comparatively thinner cuticle on the tail and by differently shaped cardia. The present specimens of *Mesodorylaimus mesonyctius* show similarities with *M. pizai* Lordello, 1965 with reference to tail structure, whereas the body structure and measurements of both male and female specimens agree well with *M. mesonyctius*. This is the first report of *M. mesonyctius* from West Bengal, India.

**Key words:** *Axonchium* (*Axonchium*) *coomansi* sp. n., *Litchi chinensis*, *Mesodorylaimus mesonyctius*, *Psidium guajava*.

A few female specimens of *Axonchium* (*Axonchium*) *coomansi* sp. n. were collected from the soil around the roots of guava (*Psidium guajava* L.) and litchi (*Litchi chinensis* Sonn.) and a small population of *Mesodorylaimus mesonyctius* (Kreis, 1930) Andrassy, 1959 from the soil around the roots of guava in South 24-Parganas district, West Bengal, India. Dhanam and Jairajpuri (1998) described three new species of the genus *Axonchium* Cobb, 1920 from the southern part of India, which have been accommodated in the updated key to the species of the subgenus *Axonchium* Cobb, 1920 as they specifically described these species under this subgenus. Kreis (1930) described *Dorylaimus mesonyctius* but Andrassy (1959) transferred the species to the genus *Mesodorylaimus*. *Mesodorylaimus mesonyctius* (Kreis, 1930) Andrassy, 1959 is widely distributed throughout the world. Ahmad and Ahmad (2001) reported this species from soil around the roots of paddy from Andhra Pradesh, India, with great variation in the tail length of female specimens. Further, Bohra and Baqri (2004) reported it from the rhizosphere of castor in Gujarat state, India.

### MATERIALS AND METHODS

Nematodes were extracted from soil samples using

Cobb's sieving and decantation technique (Cobb, 1918) combined with the modified Baermann funnel technique (Christie and Perry, 1951). Specimens were killed and fixed in hot FA 4:1 solution, mounted in anhydrous glycerin and sealed by paraffin wax. They were then observed under a compound microscope (Olympus BX 41). Drawings were made with the help of a drawing tube attached to the microscope and specimens were measured and photographed. The formulae to locate the positions of pharyngeal gland nuclei and the terms to denote them were used as given by Andrassy (1998).

### DESCRIPTIONS

*AXONCHIUM* (*AXONCHIUM*) *COOMANSI* sp. n.  
(Figs 1 and 2, Table I)

*Measurements.* See Table I. The measurements given hereafter are based on holotype. Minimum-maximum ranges of measurements of paratypes are given in parentheses.

*Female.* Body almost straight to slightly ventrally curved on fixation, particularly the posterior end, tapering to a narrow lip region. Cuticle finely striated, 3.5 (1-3.5)  $\mu\text{m}$  thick towards the anterior and in mid body and 10 (7-10)  $\mu\text{m}$  on tail. Body pores not distinct and hence have not been counted.

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Lip region set off by a constriction, narrower than adjoining body, 9 (7-9)  $\mu\text{m}$  wide or about 1/5-1/6<sup>th</sup> of body width at neck base, 5 (4-5)  $\mu\text{m}$  high. Lips are incompletely amalgamated, outer and inner portions of lips demarcated by a shallow depression. Amphids cup-shaped, 5.5 (5-6)  $\mu\text{m}$  from anterior end. Odontostyle fusiform, 1.2-1.7 lip region widths long, its aperture 4 (3-5)  $\mu\text{m}$  wide or 36.3% (25-41%) of odontostyle length. Guide ring distinct, 9 (7-9)  $\mu\text{m}$  from anterior end. Odontophore simple, rod-like, 1.2 (1.1-1.3) times the odontostyle length. Nerve ring at 125 (125-146)  $\mu\text{m}$  from anterior end, encircling the anterior slender part of pharynx. Anterior slender part and posterior expanded part of pharynx demarcated by a dip constriction. Total pharyngeal length 43.7% (41.8-44.7%) of the entire body length, out of which the posterior expanded part of pharynx is 576 (517-608)  $\mu\text{m}$  long or occupying 71.9 (69.5-72.3)% of the total pharyngeal length, apparently enclosed in a muscle sheath of straight bundles. Cardia rounded to tongue-shaped, 19.5 (17-22)  $\mu\text{m}$  long. Dorsal pharyngeal gland nucleus very prominent, visible at the beginning of posterior expanded part of pharynx.

Vulva transverse, post-equatorial. Vagina 20.5 (18.5-23.5)  $\mu\text{m}$  or about half to one-third of the corresponding body width, slopes slightly posterior. The length of *pars proximalis* vagina 11 (9-13.5)  $\mu\text{m}$ , *pars distalis* 9.5 (8.5-10.5)  $\mu\text{m}$ , *pars refringens* absent. Anterior uterine sac 144.5 (122.5-196)  $\mu\text{m}$  or 2.8 (2.2-3.2) vulval body widths long. Posterior branch of gonad functional, well developed, 240 (176.5-260)  $\mu\text{m}$  long, distinct sphincter present between uterus and oviduct, ovary reflexed 142 (95.5-188.5)  $\mu\text{m}$  long.

Pre-rectum 7.1 (4.8-7.1) and rectum 1.1 (0.8-1.1) anal body widths long. Tail short, rounded, 0.7 (0.7-0.8) anal body width long with thick cuticle on terminus.

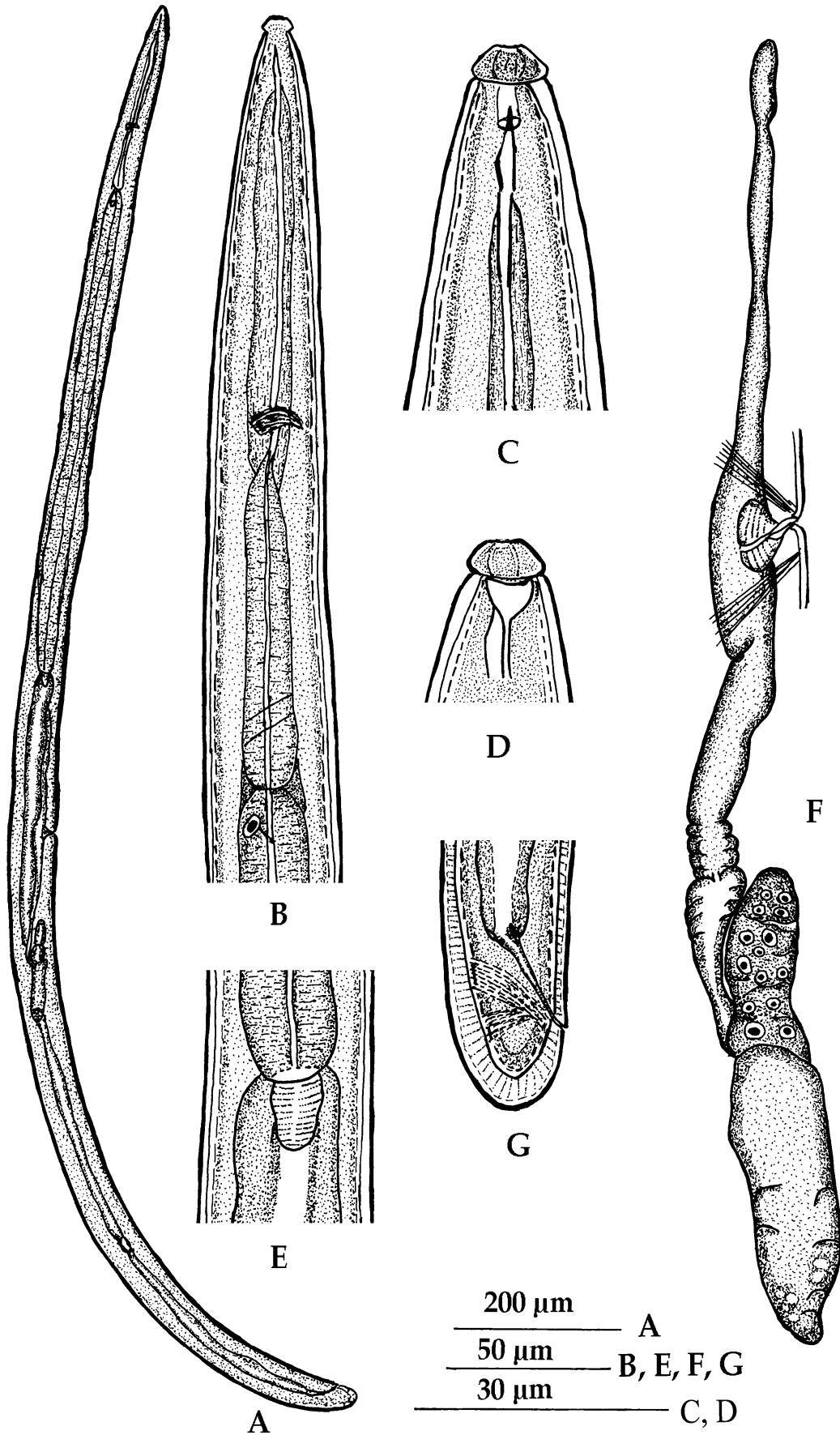
*Male.* Not found.

*Etymology.* The new species has been named after the eminent nematologist Dr. A. Coomans.

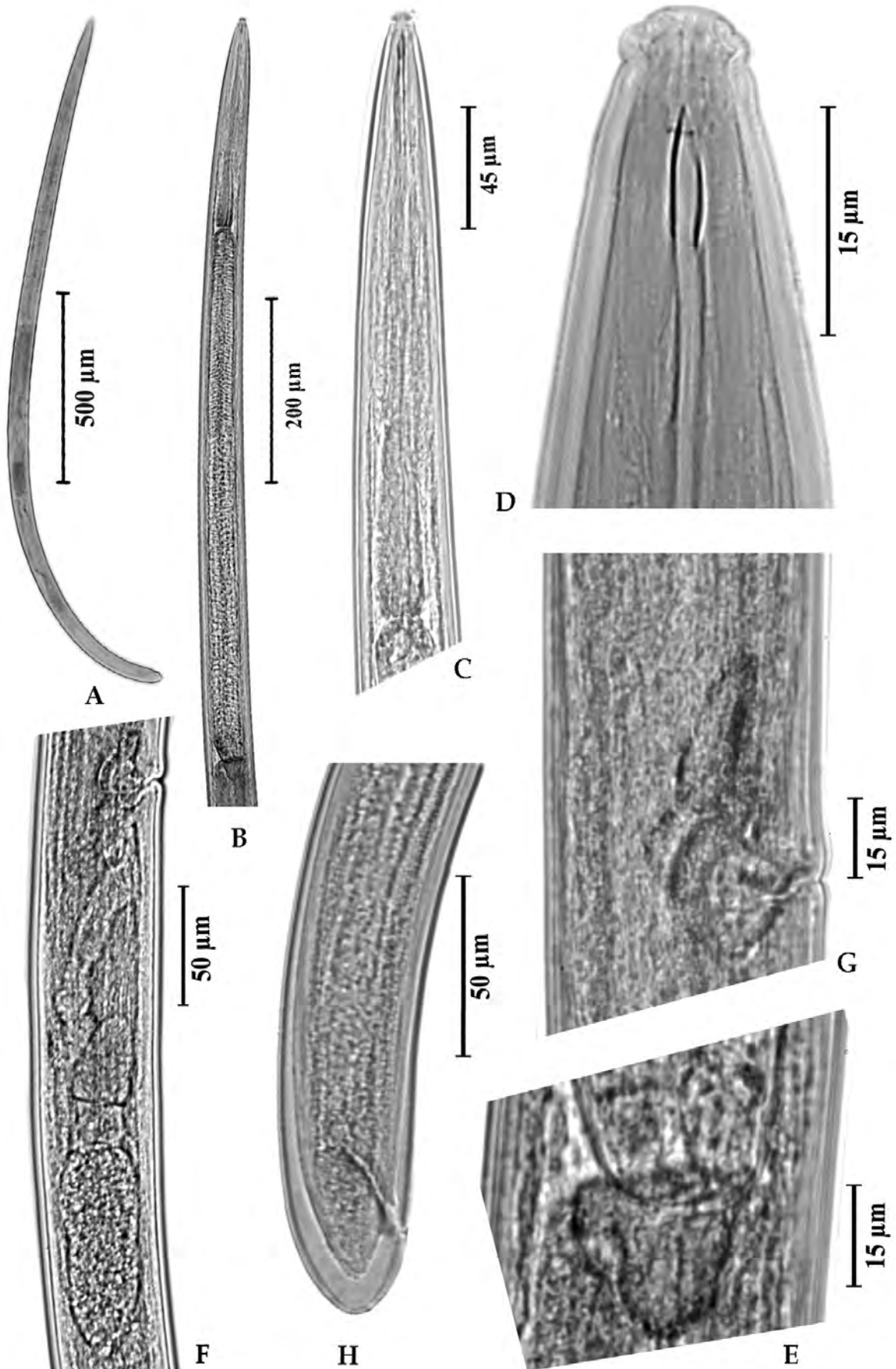
*Type specimen.* Holotype registration No. WN 1042 with two female paratypes on same slide. Paratype registration No. WN 1043 (2 ♀). Deposited in the National

**Table I.** Morphometrics of female of *Axonchium* (*Axonchium*) *coomansi* sp. n. (All measurements are in mm except L (in mm) and body ratios.

Character	Holotype female	Paratype females (4)				
		Min	Max	Mean	± SD	SE
L	1.83	1.68	2.03	1.83	0.14	0.07
a	35.6	31.1	34.3	32.4	1.36	0.68
b	2.2	2.2	2.4	2.3	0.08	0.04
c	74.8	66.4	75.4	69.6	3.96	1.98
c'	0.7	0.6	0.7	0.7	0.03	0.02
V %	54.1	52.2	54.2	53.2	0.97	0.48
G <sub>1</sub> %	7.8	6.6	9.6	7.9	1.23	0.61
G <sub>2</sub> %	20.8	16.1	24.4	19.2	3.83	1.91
Odontostyle length	11	10	12	11.5	1.0	0.5
Odontophore length	12.5	11.5	15.5	13.7	1.7	0.85
Odontostyle aperture	4	3	5	3.5	1.0	0.5
Odontostyle width	2	2.5	3	2.5	0.40	0.20
Maximum body width	51.5	49	64	56.7	6.34	3.17
Body width below lip region	14.5	13.5	16	14.6	1.03	0.51
Body width at neck base	49	46.5	56	52.6	4.57	2.29
Body width at vulva	51.5	49	61	54.6	5.22	2.61
Entire pharyngeal length	801.5	725	840.5	791.4	51.06	25.53
Anterior slender part of pharynx	225.5	208	240	229.5	14.49	7.24
Expanded part of pharynx	576	517	608	561.7	40.45	20.22
Length of glandularium	563.5	504.5	598	548.8	41.3	20.65
Length of cardia	19.5	17	24.5	21.4	3.09	1.55
Length of anterior gonad	144.5	122.5	196	146.9	33.25	16.62
Length of posterior gonad	382	272	448.5	352.6	73.05	36.52
Anterior end to vulva	992	884.5	1063	977.5	73.35	36.67
Vaginal length	20.5	18.5	23.5	20.5	2.11	1.05
Tail length	24.5	24.5	27	26.3	1.25	0.62
Anal body width	34	35.5	39	36.6	1.65	0.82
Length of pre-rectum	245	181	255	202.1	35.38	17.69
Length of rectum	36.5	29	36.5	33.1	3.03	1.51



**Fig. 1.** Female of *Axonchium* (*Axonchium*) *coomansi* sp. n.: A, entire body; B, anterior part of pharynx showing the junction with posterior expanded part of pharynx; C, anterior end showing cephalic region and odontostyle; D, amphid; E, pharyngo-intestinal junction and cardia; F, mono-opisthodelphic reproductive system with anterior uterine sac; G, tail.



**Fig. 2.** Photomicrographs of female of *Axonchium* (*Axonchium*) *coomansi* sp. n.: A, entire body; B, anterior end and entire pharynx; C, anterior part of pharynx; D, anterior end showing odontostyle; E, pharyngo-intestinal junction and cardia; F, monoopisthodelphic reproductive system with anterior uterine sac; G, vulva and anterior uterine sac; H, tail end.

Zoological Collection, Zoological Survey of India, Kolkata, India.

*Type habitat and locality.* Collected from soil around the roots of litchi (holotype) and guava at Baruipur block on 27. 07. 2005.

*Diagnosis and Relationship.* *Axonchium* (*Axonchium*) *coomansi* sp. n. is characterized by its incompletely amalgamated lip region, long pharynx, long anterior uterine sac without sperm and posteriorly directed, unsclerotized vagina. It comes close to *A. (A.) amplicolle* Cobb, 1920, *A. (A.) metobtusicaudatum* (Sch. Stekhoven *et* Teunissen, 1938) Nair *et* Coomans 1973, *A. (A.) parasaccatum* Rahman, Jairajpuri *et* Ahmad, 1985, *A. (A.) saccatum* Jairajpuri, 1964 and *A. (A.) transkeiense* Nair, 1973. *Axonchium* (*A. coomansi*) sp. n. can be separated from all other closely related species except *A. (A.) amplicolle* in having a longer pharynx and rounded to tongue-shaped cardia (length of pharynx = 514-723  $\mu$ m and cardiform cardia in *A. (A.) metobtusicaudatum*, 695-768  $\mu$ m and clavate cardia in *A. (A.) parasaccatum*, 644-675  $\mu$ m and conoid cardia in *A. (A.) saccatum*, 616-670  $\mu$ m and bulboid to oval cardia in *A. (A.) transkeiense*). Further, it can be differentiated from *A. (A.) saccatum* and *A. (A.) transkeiense* in having a shorter pre-rectum (= 10 anal body widths or 355-370  $\mu$ m in *A. (A.) saccatum* and 242-308  $\mu$ m in *A. (A.) transkeiense*). *Axonchium* (*A. coomansi*) sp. n. can be distinguished from *A. (A.) amplicolle* in having a much longer anterior uterine sac, comparatively thinner cuticle on the tail and by differently shaped cardia [in *A. (A.) amplicolle* anterior uterine sac 13-37  $\mu$ m in different populations from different places in the world as reported by Nair (1973)  $G_1 = 0.72-1.6\%$ , cuticle on tail = 10-12.5  $\mu$ m, cardia cylindroid].

*Remarks.* It should be mentioned that not all authors use sub-genera and that some of the formerly proposed sub-genera have been elevated to genera. Some authors use sub-genera within some genera. Coomans and Nair (1975) grouped nine sub-genera under the genus *Axonchium* and provided a general key to the species of the genus instead of the respective species of the different sub-genera. Therefore, a key to the species of the sub-genus *Axonchium* is given hereafter.

#### Key to the species of the subgenus *Axonchium* Cobb, 1920

(Modified after Coomans and Nair, 1975)

1. Lip region with inconspicuously separated or amalgamated lip region..... 2
  - Lip region with incompletely amalgamated or well separated lips..... 7
2. Lips amalgamated; anterior uterine sac completely absent.....*Axonchium* (*Axonchium*) *tochigiense* Khan *et* Araki, 2002
  - Lips inconspicuously separated; anterior uterine sac

- present.....3
3. Anterior uterine sac shorter,  $G_1 \leq 7$  .....4
  - Anterior uterine sac longer,  $G_1 \geq 7$ .....5
4. Body short, L = 1.57-1.65 mm; pre-rectum 4-5 anal body widths long .....*A. (A.) thoubalicum* Dhanachand *et* Jairajpuri, 1981
  - Body long, L = 1.82-1.97 mm; pre-rectum 9-11 anal body widths long .....*A. (A.) khasianum* Rahman, Jairajpuri *et* Ahmad, 1985
5. Length of pharynx greater than 650  $\mu$ m; cardia clavate.....*A. (A.) parasaccatum* Rahman, Jairajpuri *et* Ahmad, 1985
  - Length of pharynx less than 650  $\mu$ m; cardia rounded or cardiform.....6
6. Cardia cardiform; pre-rectum 4-6 anal body widths long.....*A. (A.) phukani* Rahman, Jairajpuri *et* Ahmad, 1985
  - Cardia rounded; pre-rectum 6-7 anal body widths long.....*A. (A.) neoeletum* Rahman, Jairajpuri *et* Ahmad, 1985
7. Body of female short (L < 1.50 mm); length of pharynx  $\leq 500$   $\mu$ m.....8
  - Body of female longer (L > 1.50 mm); length of pharynx > 500  $\mu$ m .....9
8. Length of female 1.12-1.45 mm; pharynx 444-500  $\mu$ m.....*A. (A.) siddiqii* Coomans *et* Nair, 1975
  - Length of female 1.1-1.3 mm; pharynx 401-472  $\mu$ m .....*A. (A.) cooverkolli* Dhanam *et* Jairajpuri, 1998
9. Lip region with incompletely amalgamated lips.....10
  - Lip region with well separated lips.....12
10. Anterior uterine branch shorter and rudimentary,  $G_1 = 0.6-1.2$ .....*A. (A.) camelliae* Dhanam *et* Jairajpuri, 1998
  - Anterior uterine branch longer,  $G_1 \geq 5$ .....11
11. Anterior uterine sac shorter,  $G_1 = 5-7$ .....
  - A. (A.) vallum* Ahmad *et* Jairajpuri, 1982
  - Anterior uterine sac longer,  $G_1 = 7.6-9.6$  .....
    - A. (A.) coomansi* sp. n.
12. Inner portion of lips forming six sub-spherical liplets and rising high above the outer portion of lip region.....*A. (A.) labiatum* Thorne, 1939
  - The inner portion of lips less off set and marked by depression.....13
13. Intestine/pre-rectum junction marked by a constriction, surrounded by a sphincter-like structure; vagina with wide diamond-shaped lumen in lateral view .....*A. (A.) cingulatum* Nair, 1973
  - Constriction or sphincter-like structure at intestine/pre-rectum junction absent; vagina with narrow lumen.....14
14. Vaginal cuticle wide; tail bulboid.....
  - A. (A.) bulbosum* Williams, 1958
  - Vaginal cuticle less wide; tail not bulboid.....15
15. Anterior gonad short, less than three-fourths of the body diameter long.....16
  - Anterior gonad longer, very rarely slightly less than the body diameter long.....17
16. Body ventrally arcuate, slender (body width 27-35

- µm); high conoid lips; cardia small, bluntly conoid; tail more or less cylindroid with three caudal pores ..... *A. (A.) nitidum* Jairajpuri, 1964
- Body slightly arcuate ventrally, stout (body width 41-58 µm); lips with a notch in the middle, separating the outer and inner portions; cardia cylindrical; tail bluntly conoid or rounded with two caudal pores ..... *A. (A.) amplicolle* Cobb, 1920
17. Lips more or less conoid; anterior uterine sac with spindle-shaped sperms..... *A. (A.) hosakodii* Dhanam et Jairajpuri, 1998
- Lips conoid or rounded; anterior uterine sac without spindle-shaped sperms.....18
18. Vagina with a constriction, i. e., surrounded by a sphincter at middle or at posterior half.....19
- Vagina without constriction, i. e., sphincter absent and gradually widening towards uterus.....23
19. Vaginal wall appears somewhat darker and differentiated from body cuticle.....20
- Vaginal wall not differentiated from body cuticle .....21
20. The intestine/pre-rectum junction is guarded by closely packed cells; cuticle at tail tip thicker (10-10.5 µm).....*A. (A.) sinclairi* Heyns et Furstenberg, 1993
- Closely packed cells absent at intestine/pre-rectum junction; cuticle on tail terminus comparatively thinner.....*A. (A.) saccatum* Jairajpuri, 1964
21. Body almost straight, L = 1.90-2.14 mm.....*A. (A.) transkeiense* Nair, 1973
- Body ventrally curved, body length varying greatly 22
22. L = 2.1-2.81 mm; G<sub>1</sub> = 1.3-6.8.....*A. (A.) heynsi* Nair, 1973
- L = 1.35-1.58 mm; G<sub>1</sub> = 12-13.....*A. (A.) shamimi* Baqri et Khera, 1976
23. Body almost straight.....24
- Body ventrally arcuate.....25
24. Lip region high with conoid lips; cardia more or less cardiform; tail broadly conoid, shorter than anal body width.....*A. (A.) sabulum* (Yeates, 1967) Coomans et Yeates, 1969
- Lip region low, with small offset inner portion of the lips; cardia cylindrical; tail cylindroid, longer than anal body width.....*A. (A.) latespiculatum* Nair, 1973
25. Body less than 2 mm long; pre-rectum up to 9 anal body widths long (≤ 300 µm); cardia rounded to cardiform.....26
- Body more than 2 mm long; pre-rectum 8-12 anal body widths long (≥ 300 µm); cardia linguiform.....*A. (A.) manalicum* Ali, Jairajpuri et Coomans, 1975
26. Body 1.2-1.3 mm long; odontostyle 8-9 µm long; cardia rounded.....*A. (A.) elegans* Jairajpuri, 1964
- Body over 1.3 mm in length; odontostyle 7-12 µm long; cardia cardiform..... 27
27. Odontostyle 11-12 µm; tail hemispheroid.....*A. (A.) metobtusicaudatum* (Sch. Stekh. et Teunissen, 1938) Nair et Coomans, 1973

- Odontostyle 7-9 µm; tail broadly rounded.....*A. (A.) eletum* Dhanachand et Jairajpuri, 1981

*MESODORYLAIMUS MESONYCTIUS*  
(Kreis, 1930) Andrassy, 1959  
(Fig. 3; Table II)

*Measurements.* See Table II.

*Females.* Body slightly ventrally curved upon fixation, gradually narrowing towards both extremities. Cuticle 1 µm thick at anterior end, 1-2.5 µm at mid body and 2.5-5 µm thick on tail. Lateral chords about one-third of body width at mid body. Body pores not visible.

Lip region rounded or slightly angular, almost continuous, 3-4 µm high, 9.5-11 µm wide or about one-third of the body width at neck base. Amphids stirrup-shaped, 3-4 µm from anterior end.

Odontostyle 1-1.1 lip region widths long, its aperture occupying 27.3-36.4% of odontostyle length. Guide ring single, 5-7 µm or 0.5-0.6 lip region width from anterior end. Odontophore 1.2-1.5 times the odontostyle length. Nerve ring at 86-91 µm from the anterior end. Expanded part of pharynx 38.2-43.0% of the total pharyngeal length. Cardia elongate-conoid, 9-12.5 µm long. Glandularium 80.6-89.8% of esophageal cylinder. Positions of pharyngeal gland nuclei are: D = 60-68%; AS<sub>1</sub> = 31.6-39.0%; AS<sub>2</sub> = 34.7-39.7%; PS<sub>1</sub> = 59.0-68.5%; PS<sub>2</sub> = 62.4-70.6%.

Reproductive system amphidelphic. Vulva transverse, post-equatorial. Vagina 14.5-19.5 µm long or extending inward about half of the corresponding body width, distally sclerotized. *Pars proximalis* vagina 10-12 µm, *pars refringens* 2.5-6 µm and *pars distalis* 1-3.5 µm long. Sphincter present at uterus-oviduct junction. Ovaries reflexed, anterior ovary 51.5-93 µm and posterior ovary 51.5-98 µm long. One specimen with egg in the anterior branch of gonad measuring 18.5 µm × 59 µm.

Pre-rectum 2.3-3.6, rectum 1.0-1.6 anal body widths long. Tail first convex-conoid and then suddenly narrowing on dorsal side to form a narrow digitate portion, tapering to a narrowly rounded terminus. Posterior narrow portion of tail straight or slightly bent ventrally, shorter than anterior convex-conoid portion, 8.5-14.5 µm long or 1/2.5-1/3.8 of the anterior portion. Tail 1.3-1.7 anal body widths long.

*Males.* Similar to female in general body shape and morphology except reproductive system and tail shape. Testes outstretched or in some of the specimens anterior testis reflexed. Supplements consist of 9-11 regularly spaced ventromedians and an adanal pair. Spicules 1.5-1.8 anal body widths long. Lateral guiding piece about one-third to one-fourth of spicule length. Pre-rectum 3.1-4.7 and rectum 1.1-1.4 anal body widths long. Tail short, rounded, ventrally curved, 0.7-0.9 anal body diameter long.

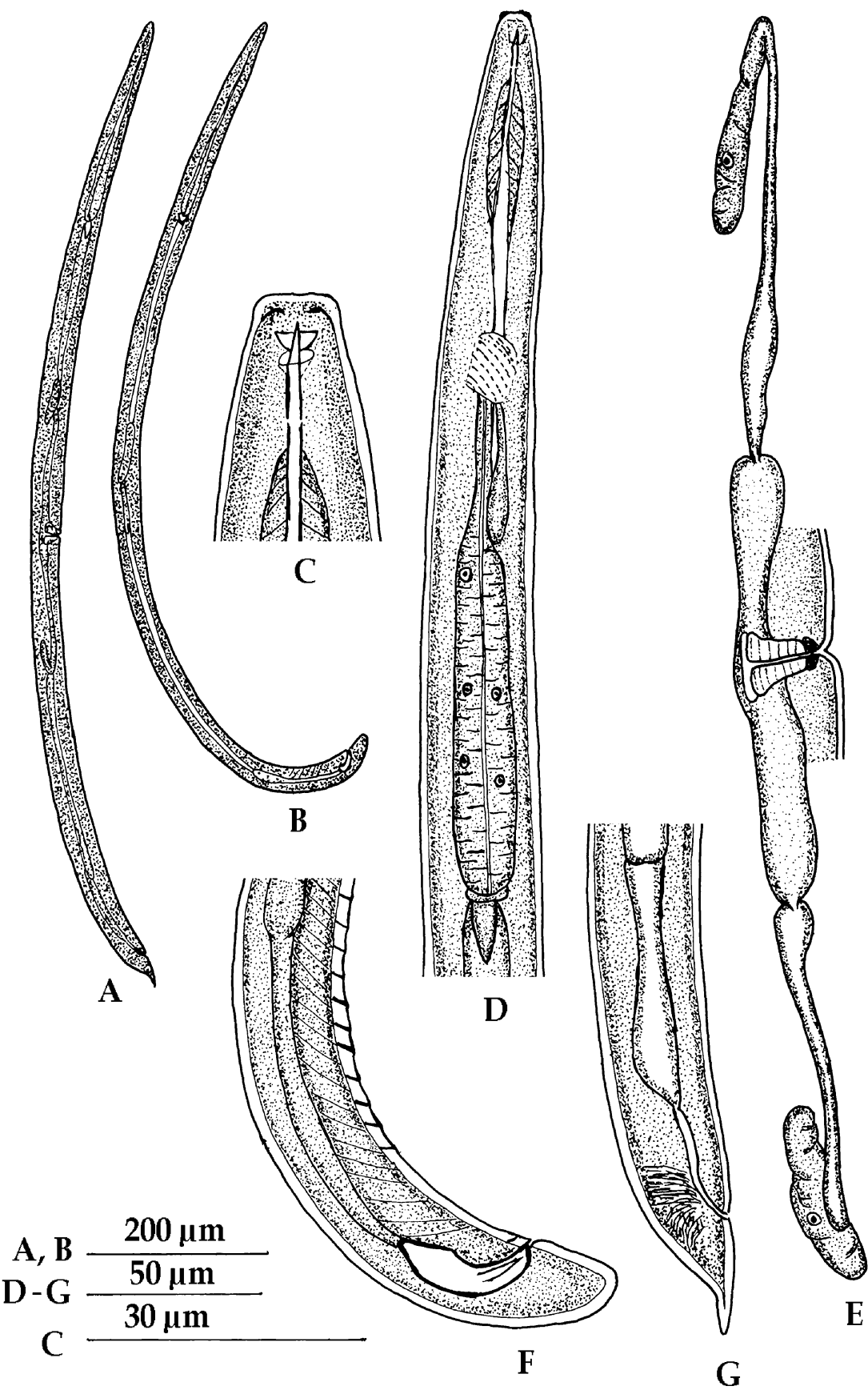


Fig. 3. *Mesodorylaimus mesonyctius*. Female: A, entire body; C, anterior end; D, anterior end showing pharynx, pharyngeal gland nuclei and cardia; E, reproductive system; G, posterior end showing pre-rectum, rectum and tail. Male: B, entire body; F, posterior end showing ventro-median supplements, spicule and tail.

**Table II.** Morphometrics of *Mesodorylaimus mesonyctius* (All measurements are in mm except L (in mm) and body ratios.

Character	Female	Male
n	26	16
L	1.09 ± 0.03 (1.01-1.12)	1.03 ± 0.02 (0.99-1.05)
a	31.9 ± 1.46 (30.5-34.6)	30.1 ± 1.94 (27-33)
b	4.5 ± 0.23 (4.2-4.9)	4.2 ± 0.13 (4.1-4.5)
c	32.7 ± 2.48 (30.1-37.3)	52.5 ± 5.35 (46.6-61.8)
c'	1.48 ± 0.13 (1.2-1.6)	0.8 ± 0.06 (0.7-0.9)
V %/T%	53.3 ± 1.32 (52.0-55.6)	53.5 ± 1.46 (51.9-55.1)
G <sub>1</sub> %	21.1 ± 4.46 (12.2-26.0)	--
G <sub>2</sub> %	20.5 ± 3.742 (14.6-27.2)	--
Odontostyle length	11.1 ± 0.75 (10-12)	11.3 ± 0.51 (11-12)
Odontophore length	15.08 ± 1.74 (12.5-17)	16.5 ± 1.54 (13.5-17.5)
Odontostyle aperture	3.5 ± 0.54 (3-4)	3.3 ± 0.51 (3-4)
Maximum body width	34.42 ± 2.24 (30.5-36)	34.3 ± 2.42 (32-39)
Body width at neck base	32.42 ± 2.24 (29-35.5)	31.3 ± 1.96 (29-34)
Body width at vulva	34.28 ± 2.23 (30.5-36)	--
Pharyngeal length	238.78 ± 8.27 (228-252)	240.1 ± 4.07 (233-245)
Expanded part of pharynx	96 ± 3.41 (91-98)	95.3 ± 10.49 (83-112)
Length of glandularium	83.7 ± 5.96 (78.5-93)	85 ± 5.65 (81-89)
Length of anterior gonad	231.5 ± 46.35 (135-279)	--
Length of posterior gonad	224.7 ± 35.21 (161-277)	--
Anterior end to vulva	584.8 ± 24.99 (541.5-620.0)	--
Tail length	33.6 ± 2.74 (29.5-37.0)	19.8 ± 1.68 (17-22)
Anal body width	22.0 ± 1.52 (19.5-24.5)	24.5 ± 0 (24.5)
Length of pre-rectum	62.8 ± 8.81 (51.5-73)	90.3 ± 14.12 (76-115)
Length of rectum	31 ± 4.64 (22-36)	30.5 ± 4.94 (27-34)
Length of testis	--	553.7 ± 24.26 (515-578)
Spicule length	--	41.1 ± 2.76 (37-44)
Lateral guiding piece	--	10.8 ± 1.09 (10-12)
Ventro-median supplements	--	10 ± 0.81 (9-11)



*Habitat and Locality.* Collected from the soil around the roots of guava from Joynagar and Kultali blocks.

*Remarks.* The present specimens of *M. mesonyctius* fit well with the original description except that its female tail ( $c = 18$  in original description) is shorter compared to the illustration given by Thorne and Swanger (1936) and shows similarities with *M. pizai* Lordello, 1965 with reference to its tail structure (in *M. pizai*, posterior tapering part of female tail shorter than the anterior rounded part). Ahmad and Ahmad (2001) reported a population of *M. mesonyctius* from soil around the roots of paddy (*Oryza sativa* L.) from Andhra Pradesh, India and concluded that the female tail length (26-65  $\mu\text{m}$ ) of those specimens showed great variation. They also measured  $c = 18-38$ , which conforms with our female specimens. Considering these as intra-specific variation, we preferred to report the specimens as *M. mesonyctius* because the body structure and measurements of both males and females agree well with *M. mesonyctius*. This is the first report of *M. mesonyctius* from West Bengal, India.

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