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BASIROLAIMUS GEN. N. (NEMATODA: HOPLOLAIMIDAE) WITH THE DESCRIPTION OF *BASIROLAIMUS SACCHARI*, N.SP. FROM INDIA

by

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There are species of *Hoplolaimus* which differ from the type species, *H. tylenchiformis* Daday, 1905, in possessing six nuclei in the oesophageal glandular lobe instead of three nuclei as in the type species and in others related to it. The number of these nuclei in *Hoplolaimus* spp. is considered to be of diagnostic value at generic level. Consequently, a new genus, *Basirolaimus*, is proposed for those species with six nuclei. A new species, *B. saccharis*, is described.

BASIROLAIMUS (1) g.n.

Diagnosis: Hoplolaiminae. Head off set with transverse and longitudinal striae. Cephalic frame-work massive. Spear massive with well-developed forward pointing knobs which sometimes have anteriorly projecting processes. Basal oesophageal lobe overlapping intestine dorsally, laterally and ventrally with maximum overlap on dorsal side. Basal oesophageal gland lobe with six nuclei. Lateral field with four or fewer incisures. Epiptygma present or absent. Phasmids in the form of scutella. Female tail shorter than one anal body width. Males with terminal caudal alae.

(1) Named in memory of the Late Professor Mohammad Abdul Basir Khan, Department of Zoology, Aligarh Muslim University, Aligarh.

Type species: *Basirolaimus seinhorsti* (Luc, 1958) Comb. N.
Syn. *Hoplolaimus seinhorsti* Luc, 1958

Other species:

B. columbus (Sher, 1963) Comb. n.
Syn. *Hoplolaimus columbus* Sher, 1963
B. indicus (Sher, 1963) Comb. n.
Syn. *H. indicus* Sher, 1963
B. aegypti (Shafiee *et* Koura, 1969) Comb. n.
Syn. *H. aegypti* Shafiee *et* Koura, 1969
B. chambus (Jairajpuri *et* Baqri, 1973) Comb. n.
Syn. *H. chambus* Jairajpuri *et* Baqri, 1973
B. clarissimus (Fortuner, 1973) Comb. n.
Syn. *H. clarissimus* Fortuner, 1973
B. cephalus (Mulk *et* Jairajpuri, 1975) Comb. n.
Syn. *H. cephalus* Mulk *et* Jairajpuri, 1975
B. dimorphicus (Mulk *et* Jairajpuri, 1975) Comb. n.
Syn. *H. dimorphicus* Mulk *et* Jairajpuri, 1975
B. seshadrii (Mulk *et* Jairajpuri, 1975) Comb. n.
Syn. *H. seshadrii* Mulk *et* Jairajpuri, 1975

BASIROLAIMUS SACCHARI sp.n.
(Fig. 1, A-G)

6 ♀♀ (Paratypes): L = 1.1 (1.1-1.2) mm; a = 29 (26-34); b = 10 (8.7-11.4); c = 65 (57-66); v = 54 (53-59); spear = 34 (34-35) µm; o = 14 (14-15); anterior scutellum = 39% (37-44); posterior scutellum = 66% (65-71).
3 ♂♂ (Paratypes): L = 1.2 (1.2-1.25) mm; a = 34 (30-40); b = 12 (11.1-12.5); c = 45 (43-51); spear = 34 (33-34) µm; o = 18 (17.6-18.5); anterior scutellum 31% (29-37); posterior scutellum = 68% (66-71); spicules = 39 (39-40) µm; gubernaculum = 18 (18-20) µm; capitulum = 23 (22-24) µm.
Female (Holotype): L = 1.1 mm; a = 30; b = 11.9; c = 64; v = 53; spear = 35 µm; o = 15; anterior scutellum = 38%; posterior scutellum = 65%.
Male (Allotype): L = 1.2 mm; a = 34; b = 12; c = 45; spear = 34 µm; o = 18; anterior scutellum = 31%; posterior scutellum = 68%; spicules = 39 µm; gubernaculum = 18 µm; capitulum = 22 µm.

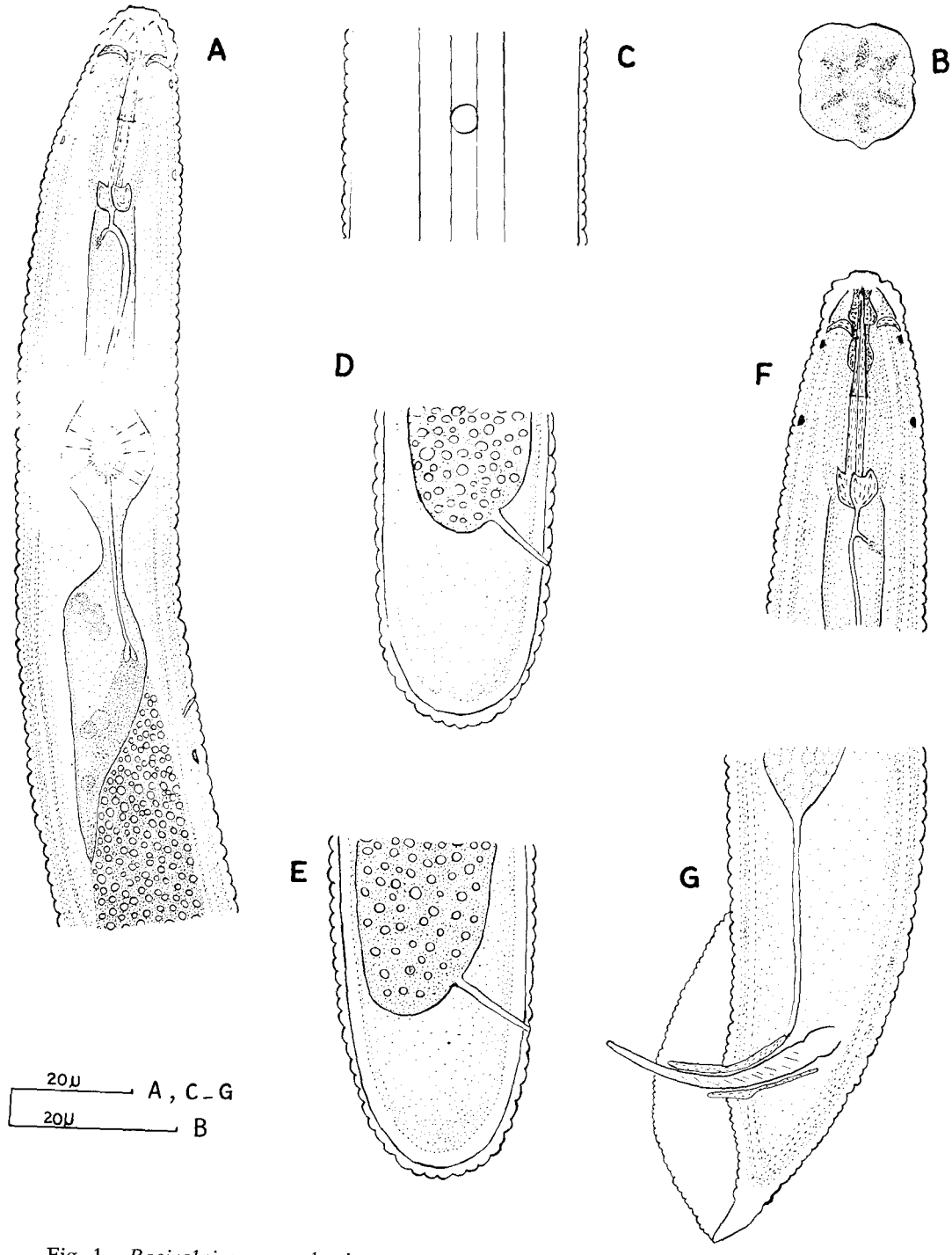

Fig. 1 - *Basirolaimus sacchari* n. sp.: anterior region (A), *en face* view (B), lateral field (C), end tails (D, E) of female; head (F) and tail (G) of male.

Female: Body assuming a slightly ventrally arcuate, open 'c' shape on death, with transverse striae averaging 2 μm apart. Lateral field with four areolated incisures, occupying slightly less than half of body width. Scutella well marked, 5 μm in diameter. Head off set with 3 annules. Basal head annules with 8 longitudinal striae. Posterior margins of cephalic framework extending to 2 annules in the region of neck. Anterior cephalids 3 annules from base of head. Posterior cephalids 9 annules from anterior cephalids. Spear basal knob measuring 7 μm across. Anterior margins of spear knobs projecting anteriorly. Opening of the duct of dorsal oesophagus gland at 15% of spear length from spear base. Basal oesophageal gland lobe with six nuclei. Oesophago-intestinal junction 5 annules anterior to excretory pore. Excretory pore 3 annules above hemizonid. Vulva equatorial without epiptygma. Gonads with distinct spermathecae. Ovaries opposed, outstretched. Intestine overlapping rectum dorsally to a distance of 3-4 annules. Tail 3/4 anal body width long, with 9-10 annules on ventral side.

Male: Body resembling female in the detail of anterior end. Spear knobs 5 μm across. Outlet of the duct of dorsal oesophageal gland at 18% of spear length from spear base. Caudal alae terminal.

Type material: Holotype (female), allotype (male) and paratypes (3 females and 3 males) deposited with the Museum, Zoology Department, Aligarh, and 3 females (paratypes) with the National Nematode Collections, Indian Agricultural Research Institute, New Delhi.

Type habitat and locality: Collected from the rhizosphere of sugar cane (*Saccharum officinarum* L.) at Babiana, Bareilly district (Uttar Pradesh). The species was also collected from the rhizosphere of opium (*Papaver somniferum* L.) at Babiana in Bareilly District; and from the rhizosphere of sugar cane in the research plot of the Zoology Department, Aligarh.

Diagnosis and relationship: *B. sacchari* n. sp. differs from the other species included in this genus in having four incisures in the lateral field and no epiptygma.

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SUMMARY

A new genus, *Basirolaimus*, is proposed for those species of *Hoplolaimus* Daday, 1905 which possess six nuclei in the basal gland lobe of the oesophagus. A new species, *B. sacchari*, is described which differs from other species included in this genus by having four incisures in the lateral field and no epiptygma.

RIASSUNTO

Basirolaimus *gen. n. (Nematoda: Hoplolaimidae) con la descrizione di* Basirolaimus sacchari *sp. n. dell'India.*

Viene proposto il nuovo genere *Basirolaimus* per raggruppare le specie di *Hoplolaimus* Daday, 1905 che presentano sei nuclei nel lobo basale dell'esofago. Viene, inoltre, descritta una nuova specie, *B. sacchari*, che si differenzia dalle altre specie di questo genere per avere quattro incisure nel campo laterale ed assenza di epitigma.

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