the present studies also shows a haploid chromosome number of 16.

FIG. 2. Metaphase II with X chromosome, × 3,000.

FIG. 3. Metaphase II with Y chromosome, × 3,000.

Taking into consideration the chromosome number in the present studies alone, the correlation reported on the basis of comparative morphology (Morimoto[2]) is supported to a large extent. According to Morimoto[2], the sub-families Zygopinae and Curculioninae are somewhat close to each other so far as the comparative structure of their body parts is concerned. This relationship between the above two sub-families is also supported by the chromosomal results as the chromosome morphology and chromosomal number have some similarity in the two sub-families.

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## ON A NEW SPECIES OF THE GENUS *INDODORYLAIMUS* ALI AND PRABHA, 1973 FROM *SOLANUM MELONGENA* L. (NEMATODA : DORYLAIMOIDEA)

*Indodorylaimus kanhobia* n. sp. collected from soil around the roots of brinjal at Kaij, Maharashtra, has been described.

### *INDODORYLAIMUS KANHOBIA* N. SP.

*Measurements*

Female (17): L = 1·47–1·79 mm; $a$ = 36·7–44·5; $b$ = 5·7–6·62; $c$ = 5·32–6·85; V = 29·58–38·29.

Male (3): L = 1·42–1·66 mm; $a$ = 25·0–27·5; $b$ = 5·37–5·59; $c$ = 6·0–8·82.

Holotype female: L = 1·66 mm; $a$ = 36·7; $b$ = 5·82; $c$ = 6·48.

Allotype male: L = 1·42 mm; $a$ = 27·0; $b$ = 5·42; $c$ = 8·77.

*Female* : Body curved when relaxed, tapering gradually towards both extremities anteriorly from slender part of oesophagus and posteriorly behind vulval region. Cuticle smooth about 1·2 $\mu$ thick. Oesophageal glands granular 65–70 $\mu$ long, one-tenth to one-fourteenth of the total body length, glands end into bulged granular gland cells.

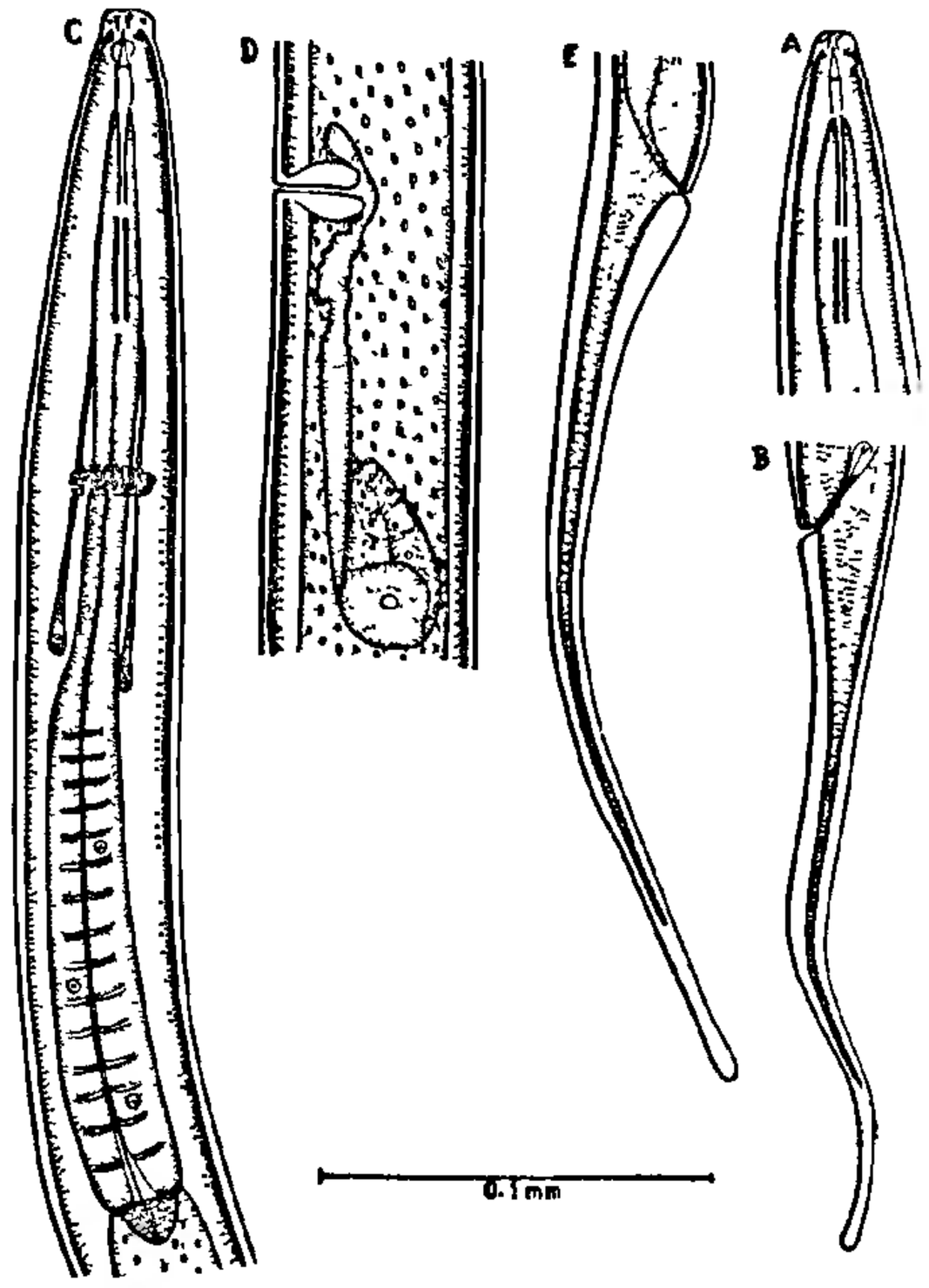


FIG. 1. *Indodorylaimus kanhobia* n. sp. A. Male anterior extremity ; B. Male tail region; C. Female oesophagus ; D. Female gonad ; E. Female tail.

Lip region narrow truncated slightly set off from the body, distinguished by strong sclerotization; about 1/8–1/10th of the body width at lip region. Lips six amalgamated amphid cup-shaped. Odonostyle straight cylindrical 18–20 $\mu$ long. Guiding ring single, about 60–65 $\mu$ from anterior end. Nerve ring 106–115 $\mu$ from anterior extremity. Anterior two-third of the oesophagus slender, expanding gradually to form basal expanded portion having a wide lumen about one-fifth to one-sixth of its width. Oesophago-intestinal junction with triangular cardia. Pre-rectum about three anal body widths. Tail filiform, ending in a round terminus, 8–9 anal body widths long.

Vulva a transverse slit, vagina at right angles to body axis, 20–23 $\mu$ long, gonad monoopisthodelphic, anterior uterine branch rudimentary, about 14–17 $\mu$ long, oviduct and uterus distinctly separated by sphincter. Spermatheca absent, sperms not observed. Oocytes arranged in multiple rows.

*Male* : Generally similar to female but tail is little shorter and more drawn outwards than the female. Spicules dorylaimoid, gubernaculum and lateral guiding pieces absent. Supplements not seen. Two caudal pores on each side of the anus.

*Habitat and Locality* : Collected from the soil around the roots of *Solanum melongena* L. from Kaij, district Beed, Maharashtra, India.

*Type specimens* : Holotype and twenty paratype females on slide No. BPT/Indo/77|2·1–3·0, allotype and 4 paratype males on Slide No. BPT/Indo/77$_1$ 3·1–3·4 are deposited in the Zoology Department, Marathwada University, Aurangabad, Maharashtra, India.

*Differential diagnosis* : *Indodorylaimus kanhobia* n. sp. differs from the only known species *I. wickeni* Ali and Prabha, 1973[1] in having thinner and longer body, shorter oesophagus and anteriorly located vulva.

Hence, it is regarded as a new species and named as *Indodorylaimus kanhobia* n. sp.

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## INFECTIVITY OF BOVINE LEUKEMIA VIRUS TO RABBITS, LAMBS AND RATS

BOVINE leukemia virus has been propagated in calves and lambs on experimental inoculation of lymphocytes from leukemic cattle/culture fluid infected with bovine leukemia virus[1–4]. The virus has not yet been propagated in laboratory animals and efforts to propagate it in rats are not successful. During these studies attempts were made to inoculate rabbits, lambs and rats with lymphocytes from a calf positive for antibodies against glycoprotein antigen of bovine leukemia virus. The lymphocyte culture fluid of the calf had glycoprotein antigen. Rabbits were also inoculated with lymphocyte culture fluid filtered through 450 m/$\mu$ filter pads. In an effort to determine whether $1 \times 10^4$ lymphocyte can induce infection in lambs, the experiment was conducted to determine the possible role of blood sucking arthopode vectors in transmission of the disease from an infected animal to healthy animals.

The rabbits and the rats have been found to be negative for bovine leukemia virus antigen and antibodies. The lambs were found to be negative for the antibodies against bovine leukemia virus glycoprotein antigen.

Lymphocytes for inoculation in rabbits, lambs and rats were obtained from an experimentally inoculated calf positive for antibodies against glycoprotein antigen of bovine leukemia virus. The lymphocyte culture fluid of the calf was found to contain antigen similar to glycoprotein antigen of bovine leukemia virus. Lymphocytes from the calf obtained from the peripheral blood collected in EDTA solution was centrifuged at 2,500 RPM (30 min) and the buffy coat was collected. It was suspended in phosphate buffered saline (PBS) and was overlayered on lymphoprep (Nyegaard and Co., Oslo, Norway), centrifuged at 2,000 RPM for 30 min. The lymphocytes at the interface of the two solutions were collected, washed and suspended in phosphate buffer saline for inoculation.

Lymphocytes were grown in a growth medium containing Eagle's medium (Gibco/Bio-Cult B. V. Schiphol-east, The Netherlands), 20% foetal calf serum, penicillin 100 units/ml and streptomycin 100 $\mu$gm/ml at pH 7·2 Phytohaemagglutinin M was added at 2 ml/50 ml.

Antigen was prepared from the lymphocyte culture fluid by ammonium sulphate precipitation (30 gm/100 ml fluid) incubated at 4° C for 18 hours. It was centrifuged at 2,500 RPM for 30 min and the precipitate was dissolved in distilled water (1/10 of original volume) dialysed overnight against phosphate buffer saline and concentrated by polyethylene glycol 4,000 to 1/100 of original volume.