constitutes a new host as well as generic record to India, a brief description of the fungus is given here for reference.

Conidiomata subepidermal, dark black, opening up gradually into a flattened cupulate structure on the host, composed of brown pseudoparanchymatous cells, 180–600 μm in diam. Setae borne on the outer wall, thick-walled, dark brown, 300–400 μm long, 2–3 μm broad, acuminate, divergent. Conidiophores hyaline, branched at the base, smooth, cylindrical, 18–25 × 1.5–2 μm in size. Conidiogenus cells enteroblastic, phialidic, hyaline, smooth, cylindrical. Conidia hyaline, 1-celled, apices and base obtuse, thin-walled, smooth, fusiform to curved, eguttulate with apical and basal setulae, 15–18 × 2–3 μm in size. Setulae single, unbranched, 2–3 μm long (figure 1).

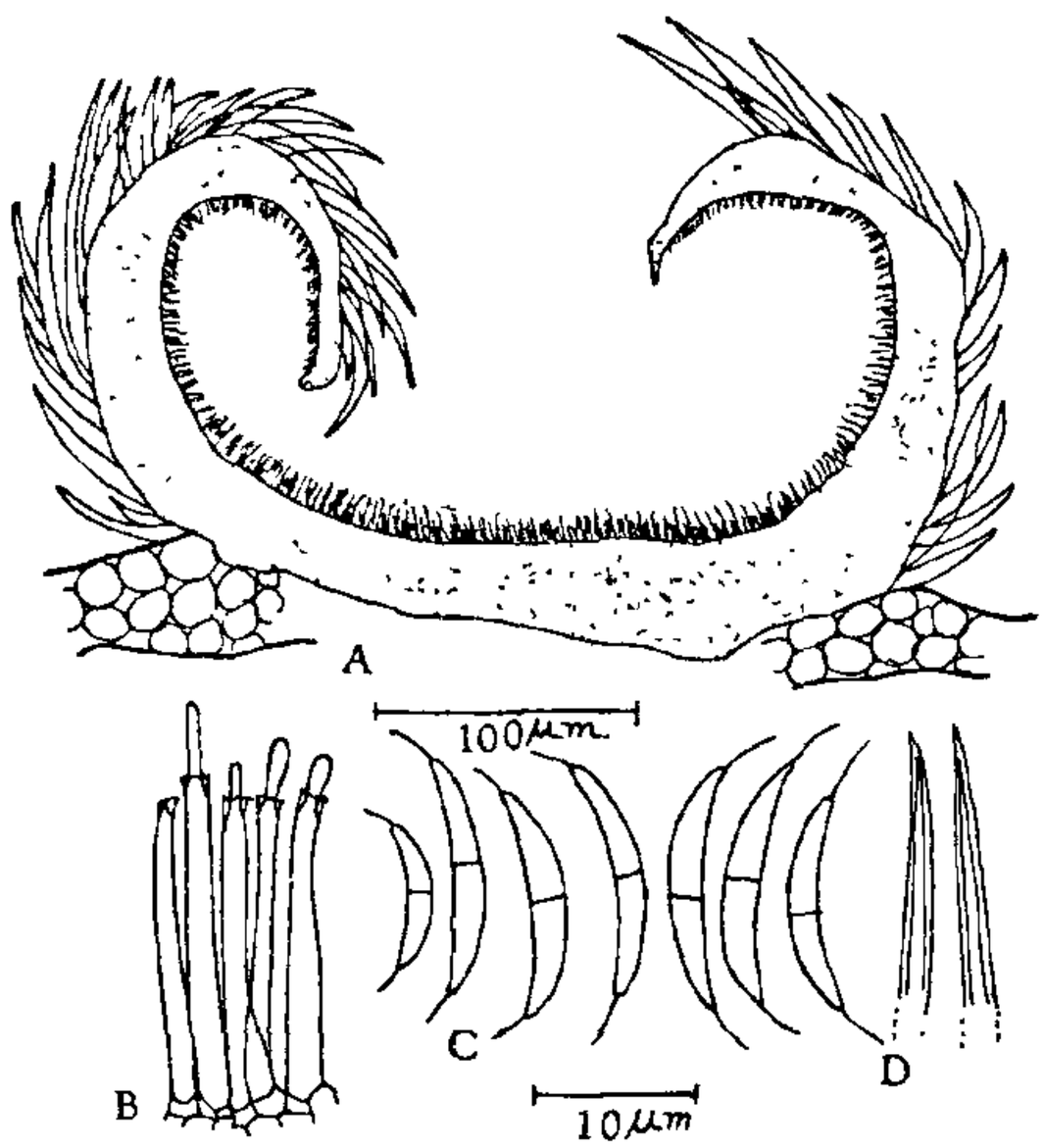

Figure 1: *Pseudolachnea hispidula*, **A**. Vertical section of a conidiomata, **B.** conidiophores with developing conidia, **C.** conidia with setulae, **D**. Setae.

Collected on the bark of *Phoenix dactylifera* Roxb., Katrain, H. P., Oct., 1981, A. K. Sarbhoy, HCIO. 33840.

Critical examination of the specimens *i. e. Dinemasporium hispidulum* (Schrad. ex Fr.) Curtis, on pods of *Robinia pseudoacacia* L., Mussoorie, U. P., 20.6.1959, J. N. Kapoor, HCIO 29093; on leaves of *Camellia theae* L., Devas, W. B., 3.3.1904, H. H. Manu, HCIO 1953; *D. gramineum* Cke., on *Saccharum officinarum* L., Kenduguri, Assam; 8.7.1965, A. K. Roy, HCIO 29066 revealed that these resembled *P. hispidula*.

Thanks are due to Head, IARI for providing facilities.

30 March 1983; Revised 6 February 1984

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THE ROOT-KNOT NEMATODE, *MELOIDOGYNE INCOGNITA*, A POTENTIAL THREAT TO BANANA PLANTATIONS

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DURING a survey of banana (*Musa paradisiaca* L.) var. local Amrutapani plantations in Nellore district of Andhra Pradesh, heavy infestation of root-knot nematode was observed. The diseased plants were unthrifty, sickly in appearance with drooping leaves. Premature senescence and drying of leaves was observed in advanced stages. Though the crop was ten months old, most of the plants had not thrown out flower bunches except a few. Examination of suckers from such diseased plants showed medium to large sized galls on almost all cords as well as small feeder roots (figure 1). Besides galling, cortical root necrosis was also seen on newly produced fleshy roots. Root rotting of galls was observed on older roots. About 16–27 adult females of root-knot nematode, *Meloidogyne incognita* with egg masses were recorded per centimetre of cord root. The other nematodes recovered from soil around the rhizosphere of such diseased plants were: *Helicotylenchus densibullatus*, *Helicotylenchus* sp., *Pratylenchus convallariae*, *Pratylenchus* sp., and *Neotylenchus* sp.

Root-knot nematodes have been reported to cause yield reduction in banana, in the Philippines, particularly when bananas are under stress[1]. The presence of

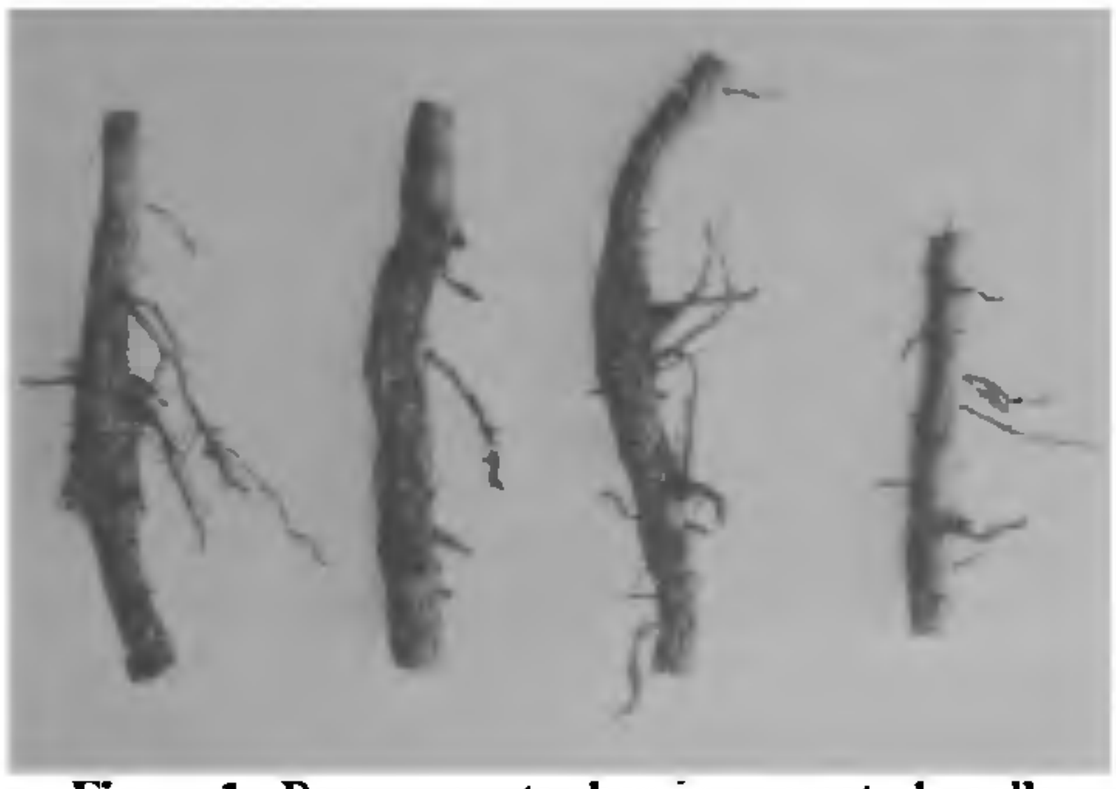

Figure 1. Banana roots showing nematode galls.

Meloidogyne spp. and *Helicotylenchus* sp. around rhizosphere of banana have been recorded earlier[2,3]. However, severe damage to banana plantations by root-knot nematode, *Meloidogyne incognita* under field conditions has not been reported so far.

Considering the pathogenic nature of the root-knot nematode, it is essential to take necessary precautions to prevent its spread to other banana growing areas through infested soil and roots adhered to suckers.

Grateful thanks are due to Dr Gopal Swarup, Division of Nematology, IARI, New Delhi for going through the manuscript.

14 October 1983; Revised 16 January 1984

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CYTOLOGICAL AND OTHER EVIDENCES FOR THE TAXONOMIC POSITION OF *NYCTANTHES ARBOR-TRISTIS* L.

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THE taxonomic position of *Nyctanthes* is controversial. Bentham and Hooker[1] and Gamble[2] placed this genus in Oleaceae. Stant[3] compared it with *Lantana* suggesting its affinity to Verbenaceae. Airy Shaw[4] supporting a verbenaceous relationship of *Nyctanthes* assigned the genus to a subfamily, Nyctanthoideae. All these studies were based on resemblances in morphological characters of vegetative parts. As there is no report of its cytology or chromosome number cytological investigations were undertaken presently with the object of throwing additional light on its taxonomic position.

Since root tip materials were not readily available somatic chromosome number of *N. arbor-tristis* was investigated by making squash preparations of shoot tips pretreated with 0.03 % solution of 3-amino-1,2,4-triazole[5] making use of the unique property of this chemical selectively inhibiting chloroplast development[6,7]. Pretreated shoot tips were fixed at 4.30 p.m. in 1 : 3 acetic acid : alcohol and stained by lactopropionic orcein[8]. Meiotic chromosome number was investigated by making smears of pollen mother cells from flower buds fixed at 10.30 a.m. in 1:1:3 chloroform : acetic acid : alcohol to which a few drops of ferric acetate were added. The PMCs were stained in two drops of propionocarmine (previously prepared by dissolving 4 g carmine in 200 ml 45 % propionic acid by boiling for 8 hr in a reflex condenser and filtering after cooling) on a slide which was gently warmed for 1 min during smearing and pressed between blotting papers to wipe out excess stain applying uniform pressure over the cover slip which was immediately sealed and observed.

By the above methods the somatic chromosome number of *N. arbor-tristis* is determined to be $2n = 44$ and its meiotic number to be $n = 22$ bivalents (figures 1 & 2). Since the chromosomes of *Nyctanthes* are extremely small a meaningful karyotype analysis is found to be difficult.

It may be pointed out that the chromosome number $2n = 44$ or $n = 22$ of *N. arbor-tristis* observed in the present study is comparable to that in the genus *Lantana* which also has $2n = 44$ chromosomes[9,10] and may be drawn in support of a verbenaceous affinity of