AN UNDESCRIBED SPECIES OF *MICROCLAVA* (HYPHOMYCETE) FROM KARNATAKA

AN interesting but a rare hyphomycetous fungus was collected recently from the forests of Agumbe (India) which showed the following characters:

Colonies effuse, non-conspicuous; mycelium superficial; conidiophores simple, unbranched, erect, slightly bulged at the apex into an obconical or ellipsoidal structure with two sporogenous cells; conidia (aleuriospores) 1-celled, thick-walled, faintly verrucose, brown, borne side by side in pairs, subglobose with flattened base; on the basis of which it was identified as a species of *Microclava* Stev.[1,2]. A thorough perusal of literature revealed no report of this genus from India so far[3]. The Indian collection of the fungus was compared with the other three known species[1] *viz.*, *Microclava miconiae* Stev., *M. bispora* (Hansf.) Deighton, and *Microraimensis* (Batista and Cavalcanti) Deighton, all reported from U.K. The present collection significantly varied from these species in respect of morphology. However it showed some resemblances with *M. bispora* but differed from it in possessing shorter conidiophores and larger conidia; and hence the same has been presented here as a new species:

Microclava indica sp. nov. (Fig. 1)

Coloniae effusae, non-conspiceosae et non-visiblis; mycelium superficiale; septatae; conidiophora simplicia, recta, septata, non-ramosa, macronematae et mononematibus, pallide-brunneae, magnit 28–40 × 3·5–4 μ; conidia (aleuriosporae) sub-spherica vel globosa, unicellularia, brunnea, crassiuscule tunicati, leviter verrucosa, 4–10 × 4–7 μ.

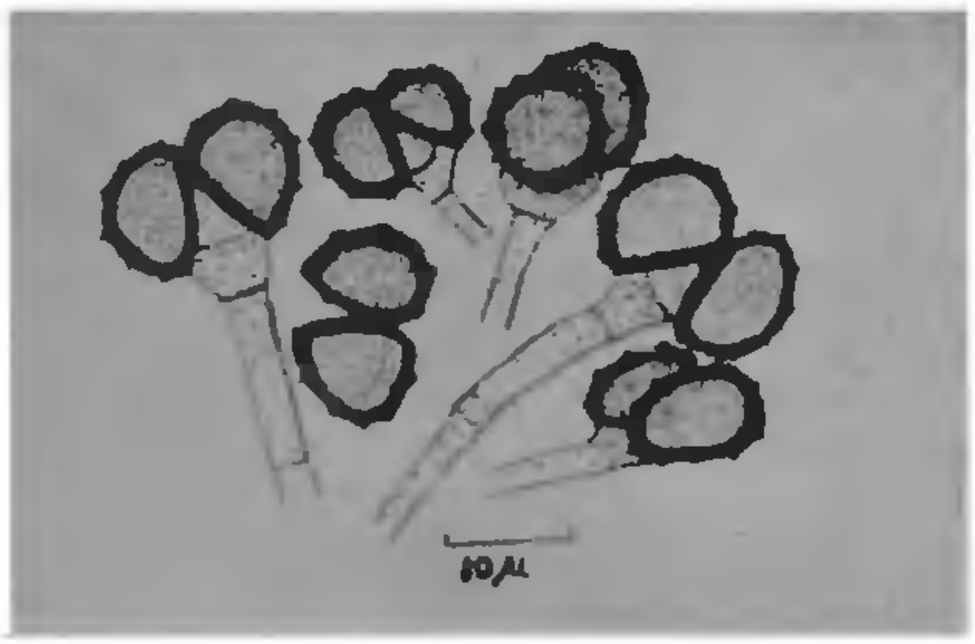

FIG. 1. Showing conidiophores and conidia of *Microclava indica* sp. nov.

Matrix.—On leaves of *Schleichera* sp. (Fam: Sapindaceae) legit: AWS (16th December 1974) at Agumbe, AMH No. 2533 (Holotype).

Remarks.—This is a new generic record to India and was found closely associated with a microthyriaceous fungus in nature.

Grateful thanks are due to Prof. M. N. Kamat for his keen interest and to the Ministry of Education, Govt. of India, for the award of S.R.T. to the senior author.

M.A.C.S. Research Institute, Poona 4 (India), April 28, 1975.

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NEMATOTHECIUM HANSFORDII SP. NOV.—A NEW GENERIC RECORD TO INDIA

DURING the course of mycological survey of Maharashtra State, a hyperparasitic fungus parasitizing sooty mold affecting *Memecylon edule* L. was collected. The sooty mold was identified as *Meliola memecyli* Syd. and the hyperparasite was found to belong to the Ascomycetous genus *Nematothecium*[1] Syd.—a well known hyperparasite on sooty molds. A review of literature[2] revealed that this genus was not previously reported from India. Furthermore, the present material on critical comparison with holotypic materials of *Nematothecium vinosum* Syd. and *N. asterinae* Hansf., which are the only two species of *Nematothecium* so far reported, was found to be significantly distinct in respect of dimensions of asci and ascospores, (*vide* Table I) besides being on a new host, *i.e. Meliola memecyli.*

The present fungus, therefore, is placed under a new taxon namely *Nematothecium hansfordii.* The specific epithet is named in the honour of Dr. C. G. Hansford, in recognition of his outstanding contributions to the field of mycology. The proposed new species is described below:

Nematothecium hansfordii sp. nov. (Fig. 1).

Fungus parasitic on colonies of *Meliola,* hyphae brownish pink, distinctly septate, 3–4 μ broad.

Perithecia numerous, aggregated within colonies of *Meliola,* made up of 2 layers of wall, outer dark brown, plectenchymatous; inner light brown, measuring 200–260 × 250–330 μ.

Asci in basal umbellate cluster, cylindrical, slightly curved, shortly stipitate; measuring 90–115 × 12–16 μ, paraphysate.

Paraphyses numerous hyaline to subhyaline simple and filiform.

Ascospores subfiliform to filiform, mostly sigmoid, curved at both the ends, 5–6 septate, olivaceous gray; measuring 82–105 × 4–6 μ.

TABLE I

Name of the Species	Host	Asci measurement	Ascospore measurement
1. *Nematothecium vinosum* Syd. (Type species)	*Meliola* sp.	65–90 × 10–14 μ	60–75 × 3–4 μ
2. *N. asterinae* Hansf.	*Asterolibertia burchelliae*	18–23 × 4–7 μ	16–20 × 1 μ
3. *N. hansfordii* sp. nov.	*Meliola memecyli*	90–115 × 12–16 μ	82–105 × 4–6 μ

On colonies of *Meliola-memecyli* Syd.

Holotype—AMH-2628.

Type locility—Khandala (M.S.).

Nematothecium hansfordii sp. nov. (Fig. 1).

Fungus in plagulis *Melioliae* parasitans ex hyphis, bruneo = roseum. Hyphae distincte septatae, 3–4 μ latum.

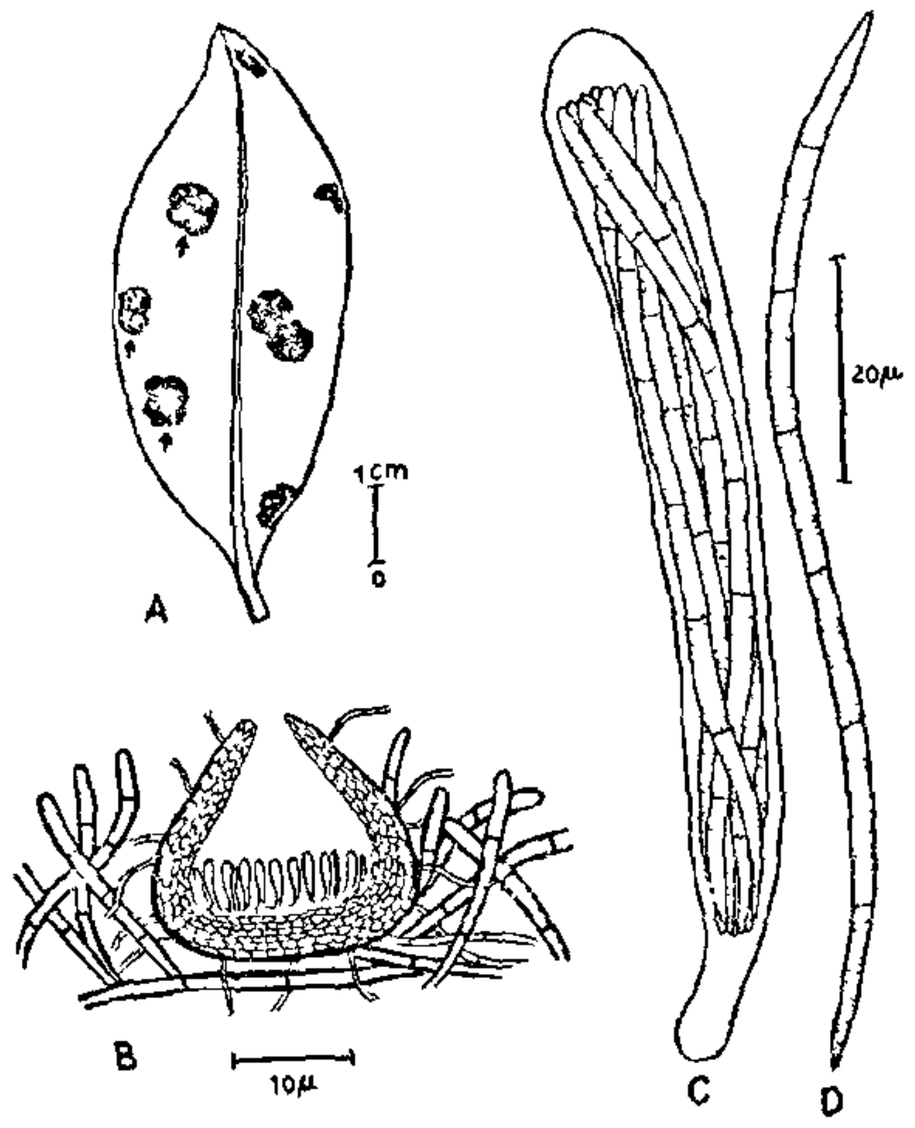

FIG. 1. *Nematothecium hansfordii* sp. nov. A, Habitat; B, V.S. of Perithecium; C, Ascus; D, Ascospore.

Perithecia numerosa, gregaria in plagulis *Melioliae;* paries bistratosi, exterium fusce-brunneus, plectenchymaticus, interius pallido brunneus; magnit 200–260 × 250–330 μ .

Asci in basalis umbellati fasciculi, cylindraceo-curvatiae, brevi-stipitatae; magnit 90–115 × 12–16 μ, paraphysaliae.

Paraphyses numerosae, hyalinae vel subhylinae, simplices et filiformes.

Ascosporae subfiliformae vel filiformae, pleurumque signoideacurvatiae, ad biden apicem, 5–6 septate, olivaceo-griscae; magnit 82–105 × 4–6 μ.

On plagulis *Meliola memecyli* Syd.

Holotype—AMH-2628.

Typus locus—Khandala (M.S.).

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MAINTENANCE OF STRUCTURAL HETEROZYGOSITY IN THE F_2 GENERATION OF INTERSPECIFIC HYBRIDS OF ANNUAL CHRYSANTHEMUM

ANNUAL Chrysanthemums are of two distinct species. *Chrysanthemum coronarium* Linn., and *Chrysanthemum carinatum* Schousb. They are generally grown as winter garden annuals. Both the species are cross pollinated. Maintenance of interchange heterozygosity and its preponderance due to better reproductive fitness were noted in natural populations of these two species[1,2]. Nilsson[3] reported successful hybridization between these two species but a detailed analysis of this hybrid and segregants is not yet available. Interchange as well as inversion heterozygosity were observed in the hybrids. The objective of the present study was to analyse cytologically the F_2 plants of the hybrids between *C. coronarium* and *C. carinatum*.

Flower buds were fixed in Carnoy's fixative for 24 hours and then preserved in 70% ethyl alcohol. Anthers of suitable size were squashed in propino-