

Contribution to our Knowledge of Ascomycetes of India-XXIII

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In the earlier papers (1960—68) 82 ascomycetes have been described from India. The present paper deals with the description of *Dictyodothis acaciae* sp. nov. on *Acacia catechu* W. & A.; *Dictyodothis greviae* sp. nov. on *Grewia* sp.; *Dothideopsella phyllanthae* sp. nov. on *Phyllanthus* sp.; *Metameris petrakii* sp. nov. on *Bougainvillea spectabilis* Willd. and *Microdothella caesalpinae* sp. nov. on *Caesalpinia bonducella* Fleming. These collections have been described as new to science on the basis of comparative morphological studies and host relationship.

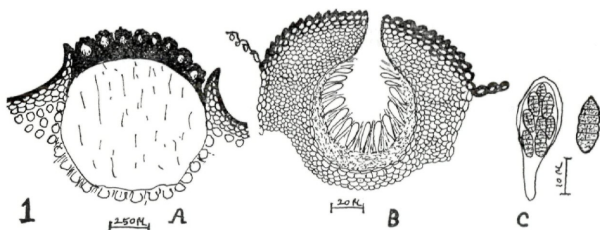


Fig. 1. *Dictyodothis acaciae* sp. nov. — A. V. S. of stroma, locules and host tissue. — B. Vertical section of locules Magnified. — C. Ascus and acrospores

83. *Dictyodothis acaciae* sp. nov.

Stroma erumpens, basi albida, pediformi innatum, superne hemisphaericum, nigrum, pluriloculatum, 600—800 μ diam.; loculi monostichi, globosi, in maturitate aperti, 76—95 \times 76—83 μ ; asci clavati, stipitati, crasse tunicati, 8-sporei, 27—30 \times 11—12 μ ; sporae clavatae, brunneae, transverse 3—5-longitudinaliter 2—3-septata, medio valde constrictae, 14—16 \times 4—6 μ ; paraphyses numerosae, filiformes.

Stroma erumpent, black, differentiated into lower white sterile layer which forms the foot like structure and the upper circular to semicircular black fertile region, pluriloculate, 600—800 μ across, locules many surrounded by stromatic tissue, spherical or ball like, opening on the surface by a channel, locule polyascus, 76—95 \times 76—83 μ . Asci club shape to clavate, bitunicate, stipitate, 8 spored, paraphysate, 27—30 \times 11—12 μ . Paraphysis numerous filiform, Ascospores club shaped, brown, muriform

strongly constricted in the middle, with 3—5 transverse septa and 2—3 longitudinal septa, $14-16 \times 4-6 \mu$.

Collected on dead bark of *Acacia catechu* W. & A. at Ramling in the month of Jan. 1968. Leg. S. B. K a l e.

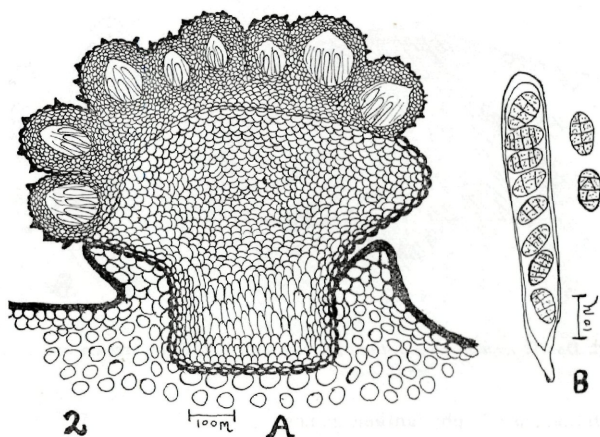


Fig. 2. *Dictyodothis grewiae* sp. nov. — A. Vertical section of stroma and locules. — B. Ascus and ascospores

84. *Dictyodothis grewiae* sp. nov.

Stroma erumpens, basi pediformi innatum, hemisphaericum, nigrum, $750-950 \mu$ diam., in superficie ob verrucas minutissimas, dentiformes asperulum; loculi numerosi, globosi vel subglobosi, in maturitate aperti, $84-103 \mu$ diam.; asci cylindraceo-clavati, crasse tunicati, 8-sporei, breviter stipitati, $57-64 \times 8-10 \mu$; sporae monostichae, olivaceae, oblongae vel ellipsoideae, transverse 3—6-longitudinaliter, 2—5-septatae, ad septa omnia constrictae, $9-10 \times 6-8 \mu$; paraphyses filiformes.

Stroma erumpent, black, with upper fertile region and lower foot like structure, pluriloculate, $750-950 \mu$ across, surface rough with teeth like outgrowths, locules many in single layer, globose to subglobose, pluriascus, opening by a channel $84-103 \mu$ across. Asci cylindrical-clavate, 8 spored, bitunicate, short stalked $57-64 \times 8-10 \mu$, paraphysate. Paraphysis filiform. Ascospores greenish brown, uniseriate, oblong to ellipsoid, muriform, 3—6 transverse septa and 2—5 longitudinal septa, constricted at each septum, $9-11 \times 6-8 \mu$.

Collected on dead stem of *Grewia* sp. at Ramling in the month of Jan. 1968. Leg. S. B. K a l e.

The genus *Dictyodothis* was erected by Theissen & Sydow (1915) with *D. berberis* as the type species. The genus remained unrepresented in the Indian Flora and with the description of these two species is now represented by two species.

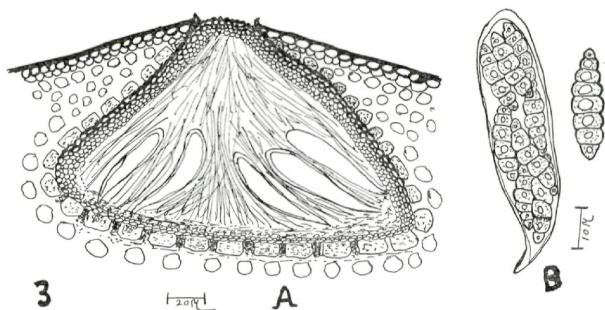


Fig. 3. *Dothideopsella phyllanthae* sp. nov. — A. V. S. of stroma and locules. — B. Ascus and ascospores

85. *Dothideopsella phyllanthae* sp. nov.

Stroma innatum, erumpens, nigrum, uniloculatum, perithecio simile sed sine pariete distincto, in maturitate poro apertum, $114-152 \times 190-266 \mu$; asci clavati, stipitati, crasse tunicati, 8-sporei, $60-75 \times 15-19 \mu$; sporae irregulariter distichae, primum hyalinae, postea brunneae, ellipsoideae vel fusoideae, plerumque curvulae, transverse 5-7-septatae, $14-16 \times 10-11 \mu$, in quaque cellula guttula oleosa praeditae; paraphyses filiformes.

Stroma innate, erumpent, black, uniloculate, locule perithecium like but lacks definite separating wall, opening at maturity by a pore, each; locule pluriascus, $114-152 \times 190-266 \mu$. Asci clavate, stipitate, 8 spored, bitunicate, paraphysate, $60-75 \times 15-19 \mu$. Paraphysis filiform. Ascospores initially hyaline later turning brown, ellipsoid to fusoid, curved, transversely septate, septa 5-7 μ , irregularly biseriata, $14-16 \times 10-11 \mu$, with oil drop in each cell.

Collected on dead stems of *Phyllanthus* sp. at Apsinga in the month of Jan. 1968. Leg. S. B. K a l e.

The genus *Dothideopsella* was erected by Hoehnel (1915) with *D. agminalis* as the type species. A i n s w o r t h (1961) considered it as synonym of *Leptosphaeria* Ces. & de Not. and treats it under the Sphaeriales probably considering it as true perithecium. The present studies, however, suggest the clear locular nature of the genus.

86. *Metameris petrakii* sp. nov.

Stroma innatum, erumpens, pluriloculatum, $450-750 \times 250-365 \mu$; loculi globosi vel a latere plus minusve compressi, $114-155 \times 112-160 \mu$, ostiolo breviter rostellato praediti; asci numerosi, clavato-cylindracei, stipitati, crasse tunicati, 8-spore, $72-80 \times 13-14 \mu$; sporae distichae, fusiformi-ellipsoideae, transverse 3-septatae, medio constrictae, leniter curvulae, in quaque cellula guttula oleosa ornata, mucro obvolutae, $21-22 \times 5-6 \mu$; paraphyses filiformes, capitatae.

Stroma black, innate-erumpent, pluriloculate, $450-750 \times 250-365 \mu$, locules globular or laterally compressed, polyascus, $114-155 \times$

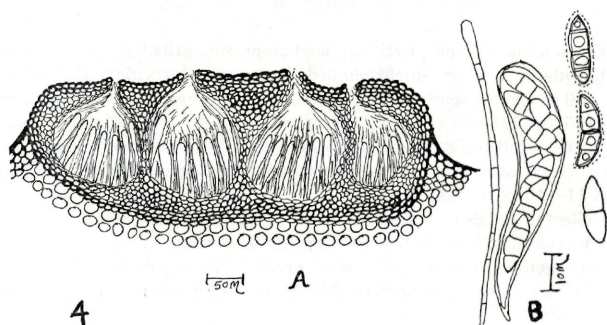


Fig. 4. *Metameris petrakii* sp. nov. — A. V. S. of Stroma and locules. — B. Paraphysis, ascus and ascospores

$112-160 \mu$, opening by a neck like structure which forms a channel. Asci many, clavate, cylindrical, bitunicate, stipitate, 8 spored, paraphysate, $72-80 \times 13-14 \mu$. Paraphysis filiform, capitate, numerous. Ascospores hyaline, fusiform, ellipsoid, transversely septate, septa 3, deeply constricted in the middle, slightly curved, thick walled, with oil globule in each cell, biseriate, $21-22 \times 5-6 \mu$, with a mucous sheath.

Collected on dead stems of *Bougainvillea spectabilis* Willd. at Nizambad & Awarad in the month of Nov. 1967. Leg. S. B. Kale.

The genus *Metameris* was erected by Theissen & Sydow (1915) with *M. japonica* as the type species. The genus is an addition to the generic lists of India.

87. *Microdothella caesalpiniae* sp. nov.

Stromata late dispersa, subcuticularia, postea superficialia, mono- vel plurilocularia, $152-175 \times 300-450 \mu$; loculi semiglobosi, in maturitate canali brevi aperti, $105-135 \times 225-375 \mu$; asci ellipsoidei vel subglobosi crasse tunicati, stipitati, 8-spore, $57-68 \times 19-23 \mu$; sporae

irregulariter ordinatae, hyalinae, continuae, ellipsoideae vel rhomboidales, $11-15 \times 9-13 \mu$; paraphysoides sat numerosae.

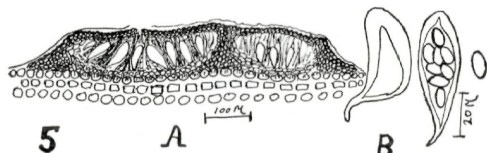


Fig. 5. *Microdothella caesalpiniae* sp. nov. — A. V. S. of stroma and locules. — B. Young and mature asci and ascospores

Stroma black, saprophytic on dead stem, subcuticular, later on superficial, wide spreading, shield shaped, mono- or pluricellular, $152-175 \times 300-450 \mu$, locules semicircular, poluascus, opening by a narrow channel, $105-135 \times 225-375 \mu$. Asci many ellipsoid to globoid, thick walled, bitunicate, stipitate, 8 spored, $57-68 \times 19-23 \mu$ paraphysoids present. Ascospores hyaline, one celled, irregularly arranged, ellipsoid to rhomboidal $11-15 \times 9-13 \mu$.

Collected on dead stems of *Caesalpinia bonducella* Fleming at Ap-singa in the month of Jan. 1968. Leg. S. B. Kale.

The genus *Microdothella* was erected by Sydow (1914) with *M. culmicola* as the type species. The genus is an addition to the generic list of India.

Acknowledgements

Grateful thanks are due to Marathwada University Aurangabad for the laboratory facilities and to Dr. F. Petrak for the latin rendering of new species. The award of Research Fellowship to junior author has facilitated the work.

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*) Originals not seen.

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Band/Volume: [23](#)

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Artikel/Article: [Contributions to our Knowledge of Ascomycetes of India-XXIII.
24-28](#)