

## Contribution to our Knowledge of Ascomycetes of India-XX

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With 5 figures

In the earlier papers (1960—1967) 70 ascomycetes have been described from India. The present paper constitutes XX<sup>th</sup> in series in which, *Ophionectria* Sacc. on *Clerodendron inerme* Goetn., *Sillia* Karst. on *Gymnema montanum* Hook., *Ophioceras* Sacc. on *Vitex negundo* L., *Valsella* Fuck. on *Acacia arabica* Willd. and *Lentomita* Niessl. on *Jasminum auriculatum* constitute new generic records for India.

### 71. *Ophioceras petrakii* sp. nov.

*Perithecia* solitaria, innata, ostiolo cylindraceo, subelongato, antice fere truncato-rotundato, poro perforato punctiformiter erumpentia, ovoidea-atra, 600—750 × 555—675 μ, extus hyphis myceloideis praedita; asci cylindracei, antice late rotundati, postice in stipitem crassiusculum, brevem attenuati, tenuiter tunicati, 171—182 × 12—15 μ; sporae filiformes, utrinque obtusae, non vel lenissime attenuatae, fere ascorum longitudine, parallele ordinatae, raro rectae, plerumque varie curvulae, transverse multiseptatae, ad septa non constrictae, hyalinae, 152—171 × 3—4 μ; paraphyses breviter filiformes.

*Perithecia* singly, completely embedded in the wood, beaked, beak straight, without clypeus, ostiolate, flask-shaped, 600—750 × 555—675 μ, black, opening at the surface of the host by a pore. Myceloid hyphae given from the wall. Asci cylindrical, thin-walled, 8-spored, stipitate, 171—182 × 12—15 μ, paraphysate; paraphyses filiform, minute. Ascospores hyaline, acicular, long, extending the whole ascus, parallel, 152—171 × 3—4 μ, transversely septate; septa many. The arrangement of the ascospores is peculiar, one in the centre is surrounded by seven ascospores.

The present fungus is associated with *Boerlagella* Penzig & Sacc. which is hyperparasitic on this fungus.

Collected on the dead stem of *Vitex negundo* L. at Awarad in the month of December 1967. Leg. S. B. Kale and deposited in the herbarium of Botany Department Marathwada University, under sub No. MUH 228 (Tilak type).

The present species have described after Dr. Petrak for his valuable contribution to the fungi.

The genus *Ophioceras* was originally established by Saccardo (1883) with *O. macrocarpum* as the type species.

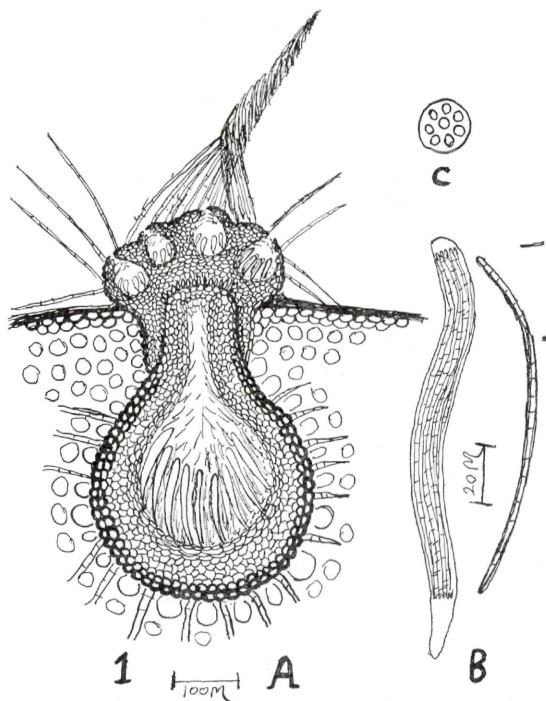


Fig. 1. *Ophioceras petrakii* sp. nov. — A. V. S. of perithecium. — B. Ascus and its T. S. and ascospores

72. *Sillia kamatii* sp. nov.

Perithecia solitaria vel gregaria, omnino innata, subglobosa vel ovoidea ostiolo truncato-conico, perforato punctiformiter erumpentia,  $525-600 \times 450-500 \mu$ ; pariete pseudoparenchymatico, contextu extus e cellulis atro-olivaceis, crassiuscule tunicatis, intus pallidioribus, tenuiter tunicatis composito; asci cylindracei, antice rotundati, postice in stipitem longiusculum attenuati, tenuiter tunicati, 8-spори,  $220-228 \times 11-15 \mu$ ;

sporangia anguste fusoidae, utrinque paulatim attenuatae et subacuminatae, rectae vel leniter curvulae, transverse multiseptatae, ad septa non constrictae, in quaque cellula guttula oleosa praeditae,  $45-50 \times 6-8 \mu$ ; paraphyses numerosae, fibrosae, mox mucosae.

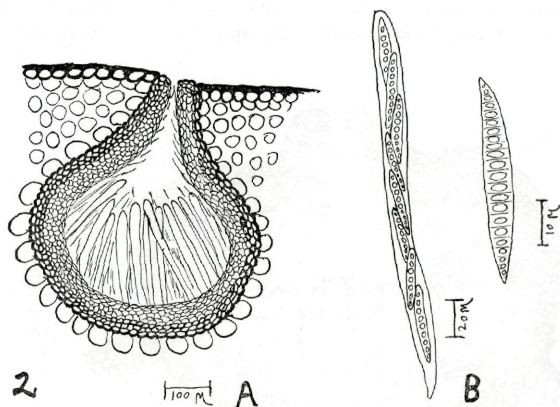


Fig. 2. *Sillia kamatii* sp. nov. — A. Vertical section of perithecium. — B. Ascus and ascospores

Perithecia singly or in groups, completely embedded, flask-shaped, black, beaked, ostiolate,  $525-600 \times 450-500 \mu$ . The wall of the perithecium made up of the outer thick-walled and inner thin-walled cells, many cells in thickness. Asci cylindrical, long stipitate, thin-walled, 8-spored,  $220-228 \times 11-15 \mu$ , paraphysate; paraphyses disintegrating soon and the asci detached soon. Ascospores hyaline, broadly elongated, pointed at both ends, transversely septate; each cell is having oil globule, ascospores measuring from  $45-50 \times 6-8 \mu$ .

Collected on the dead stem of *Gymnema montanum* Hook. at Parli in the month of October 1967. Leg. S. B. Kale and deposited in the herbarium of Botany Department Marathwada University, under sub-No. MUH 229 (Tilak type).

The species has been described after Professor M. N. Kamat for his valuable contribution to the Indian fungi.

The genus *Sillia* was originally established by Karsten (1873) with *S. ferruginea* (Pers.) Karst. as the type species. Besides being new species the genus constitutes a new generic record for India.

### 73. *Ophionectria clerodendri* sp. nov.

Perithecia solitaria, greges minutos interdum formantia, primum

coccinea, postea obscura, plus minusve globosa, collabascentia, innata, sed mox plus minusve erumpentia, ostiolo late depresso-conico, periphysato perforato praedita,  $228-304 \times 266-304 \mu$ ; asci numerosi, tenuiter tunicati, antice late rotundati, postice in stipitem crassiusculum attenuati, 8-sporei,  $114-133 \times 19-22 \mu$ ; sporae plus minusve distichae, anguste fusoidae, utrinque paulatim attenuatae, obtusiusculae, rectae vel curvulae, transverse 8-12-septatae,  $42-46 \times 4-11 \mu$ ; paraphyses filiformes.

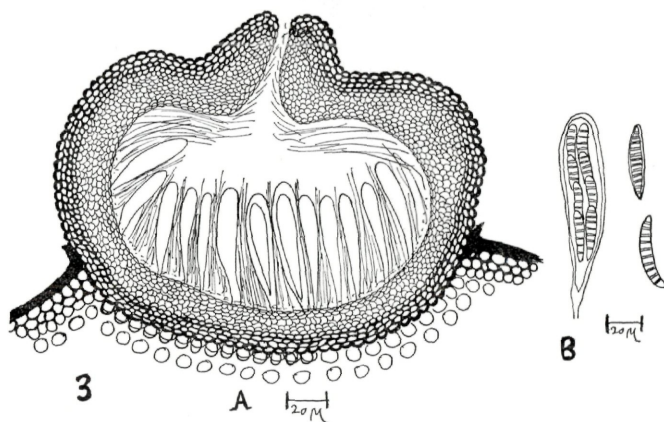


Fig. 3. *Ophionectria clerodendrae* sp. nov. — A. V. S. of perithecium. — B. Ascus and ascospores

Perithecia initially bright coloured, later becoming dark coloured at maturity, collapsing, singly, or in small groups, innate-erumpent, smooth, ostiolate; ostiole periphysate, perithecia  $228-304 \times 266-304 \mu$ . Asci many, all over the inner surface, 8-spored, unitunicate, stipitate,  $114-133 \times 19-22 \mu$ , paraphyses filiform; paraphyses filiform, simple. Ascospores hyaline, elongated, transversely septate; septa 8-12 and thick, biseriate, slightly curved to elliptical to fusoid,  $42-46 \times 4-11 \mu$ .

Collected on the dead stem of *Clerodendron inerme* Goetn. at Nizamabad and Amble-wadi in the month of October 1967. Leg. S. B. Kale & M. Bhim Rao and deposited in the herbarium of Botany Department Marathwada University under sub-No. MUH 230 (Tilak type).

The genus *Ophionectria* was originally erected by Saccardo (1878) with *O. trichospora* (B. & Br.) Sacc. as the type species. Besides being a new species the genus is an addition to the generic list of India.

74. *Valsella acaciae* sp. nov.

Stromata dispersa, cortici innata, late truncato-conica, vertice mox erumpentia, sed vix prominula,  $1312-1575 \times 2256-2915 \mu$ , linea stromatica nigrescenti circumscripta, imprimis sub peritheciis pseudo-parenchymatica, pallide brunnea; perithecia ellipsoidea vel ovoidea, superne in ostiola periphysata contracta, ostiolis anguste cylindraceis, plus minusve elongatis, in disco plano, primum albedo, postea cinerascenti erumpentibus sed vix prominulis praedita,  $750-937 \times 225-375 \mu$ ; asci numerosi, crassiuscule clavati, antice late rotundati, postice plus minusve attenuati, sessiles vel brevissime stipitati, tenuiter tunicati, polyspori,  $32-40 \times 8-9 \mu$ ; sporae confertae, allantoidaeae, utrinque obtusae, vix vel leniter attenuatae, hyalinae vel subhyalinae,  $6-8 \times 1.6-2 \mu$ ; paraphyses filiformes.

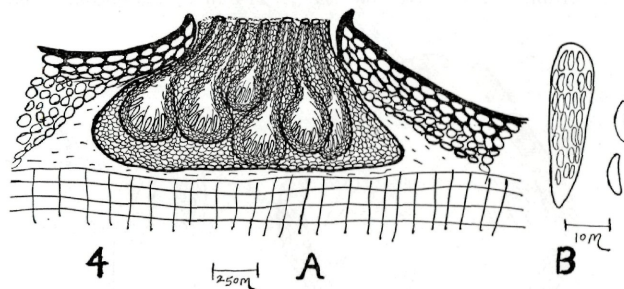


Fig. 4. *Valsella acaciae* sp. nov. — A. V. S. of Perithecia and stroma. — B. Ascus and ascospores

Stroma small, cushion-shaped, developed within the bark, and erumpent by raising it into small pustules, about  $1312-1575 \times 2256-2915 \mu$ . Stroma outlined by a thin blackened layer, inner mass light brown, enclosing many perithecia, becoming erumpent through a slit in the bark and exposes the ostiolar white to grey disc, dotted with the black ostioles. Perithecia flask-shaped or conical, black, in valsoid groups, with long, black, narrow necks which do not extrude beyond the ostiolar disc. Perithecia measuring from  $750-937 \times 225-375 \mu$ ; asci broadly club-shaped to broadly-clavate sessile, to sub-sessile, polysporous, thin-walled, unitunicate,  $32-40 \times 8-9 \mu$ , paraphysate; paraphyses filiform, minute. Ascospores allantoid, hyaline to sub-hyaline, irregularly or polyseriately arranged,  $6-8 \times 1.6-2 \mu$ .

Collected on dead stem of *Acacia arabica* Willd. at Nizamabad & Awarad in the month of November 1967. Leg. S. B. Kale & Sou. V. S. Kale and deposited in the herbarium of Botany Department Marathwada University under sub-No. MUH 231 (Tilak type).



75. *Lentomita jasmini* sp. nov.

*Perithecia* solitaria vel in greges minutos disposita, superficialia, brunnea vel nigrescentia, levia, ostiolo minute papilliformi praedita, subglobosa vel ovoidea,  $210-240 \times 180-200 \mu$ ; asci numerosi cylindraceo-clavati, antice late rotundati, postice paulatim attenuati et stipitati, crasse tunicati, 8-sporei,  $56-64 \times 11-13 \mu$ ; spora ellipsoideae vel oblongae, utrinque late rotundatae, vix vel parum, interdum etiam distincte attenuatae, tunc oblongo-fusoideae, primum hyalinae, postea subhyalinae, medio septatae, non vel lenissime constrictae,  $21-23 \times 9-10 \mu$ , episporio crassiusculo ornatae; paraphyses filiformes.

*Perithecia* astromatic, singly or in small groups, superficial, brown to black, smooth, ostiolate; ostiole slightly papillate, flask-shaped,  $210-240 \times 180-200 \mu$ . Asci many, cylindrical-clavate, stipitate, thick-walled, bitunicate, 8-spored,  $56-64 \times 11-13 \mu$ , paraphysate; para-

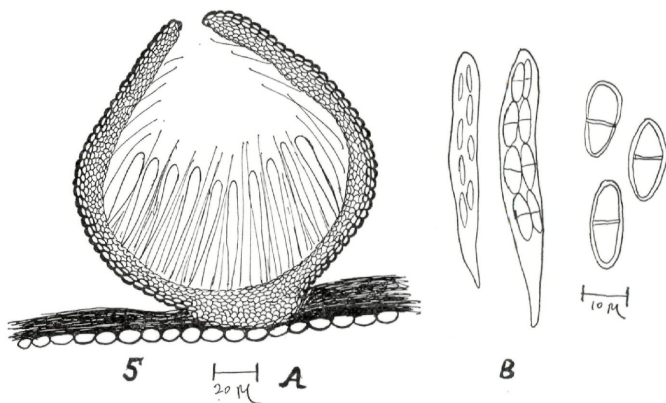


Fig. 5. *Lentomita jasmini* sp. nov. — A. V. S. of perithecium. — B. Ascus and ascospores

physes filiform. Ascospores initially hyaline, later becoming sub-hyaline, 2-celled, wall and septa thick, elliptical to oblong, but while developing, elongated, minute, later on becoming larger at maturity,  $21-23 \times 9-10 \mu$ .

Collected on dead stem of *Jasminum auriculatum* Vahl. at Aurangabad in the month of November 1967. Leg. S. B. Kale and deposited in the herbarium of Botany Department Marathwada University, under sub-No. MUH 232 (Tilak type).

The genus was originally erected by N i e s s l (1876) with *L. brevis*

*collis* as the type species. Besides being new species the genus is an addition to the generic list of India.

#### A c k n o w l e d g m e n t s

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