

Ascomycetes of Coorg (India)-VII

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With 5 Fig. in the text

This is the 7th contribution from this Laboratory in the series and presents an account of five species of Ascomycetes collected by the writer in the forests of Coorg, Mysore State, India, which are considered new to science on the basis of critical and comparative studies and host relationship.

The type materials of the above fungi are deposited at M. A. C. S. Herbarium, Herb. Orientalis, New Delhi and C. M. I., Kew, England.

1. *Gnomonia grewiae* sp. nov. Anahosur (Fig. 1).

Maculae ellipticae vel orbiculares, plerumque marginales, solitariae, obscure brunneae, 2—3 mm diam.; perithecia epiphylla, innata, aggregata, globosa 190—220 × 100—125 μ , ostiolo elongato cylindraceo, periphysis numerosis ornata plus minusve prominulo, 140—160 μ longo,

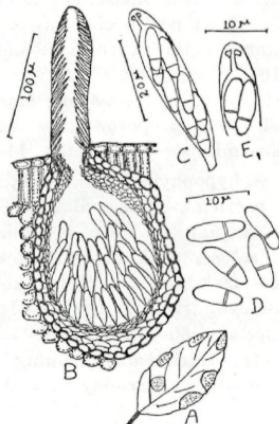


Fig. 1. *Gnomonia grewiae*. — A. Habit. — B. Section through the perithecium.
— C. Ascii. — D. Ascospores. — E. Apical apparatus

20—32 μ crasso; asci clavati, subsessiles vel brevissime stipitati, tenuiter tunicati, 8-spori, 42—50 \times 8—10 μ , aparaphysati; sporae plus minusve distichae, oblongae, hyalinae, inaequaliter biloculares, antice vix vel parum, postice distincte attenuatae, rectae, raro inaequilaterae, 8—10 \times 2—4 μ .

Infection spots ellipsoid to spherical, mostly marginal, isolated, dark brown, 2—3 mm. Perithecia dark brown, epiphyllous, innate, aggregated, globose to spherical, with a long beak projecting outside the host, 190—220 \times 100—125 μ . Beak cylindrical, ostiolate, periphysate, 140—160 \times 28—32 μ . Asci clavate, pedicellate, gelatinizing at maturity, with apical apparatus (Canal & Pore), unitunicate, octosporous, in basal layers, 42—50 \times 8—10 μ . Ascospores oblong, hyaline, unequally 2-celled, rounded at the tip, biseriate 8—10 \times 2—4 μ . Paraphyses lacking, ostiolar periphyses abundant.

Incites necrotic spots on the living leaves of *Grewia pilosa*, collected by A n a h o s u r, K. H. at Coorg, India on 27. 2. 1968, M. A. C. S. Herb. No. 619 (type).

The Coorg fungus is collected on an unreported host and therefore merits a new taxon on the basis of morphology, dimensions and host relationship.

2. *Irene indica* sp. nov. Anahosur (Fig. 2).

Plagulae hypophyliae, densiuscule dispersae, aterrimeae, 1.5—3.4 mm diam.; mycelium ex hyphis obscure brunneis, septatis, 5—7 μ crassis compositum; hyphopodia capitata bilocularia, alternata vel irregulariter disposita, 14—18 \times 10—16 μ ; perithecia crassiuscule tunicata, omnino clausa 110—135 μ diam., setis obscure brunneis, septatis, superne attenuatis, usque ad 100 μ longis praedita; asci oblongo-ellipsoidei vel oblongo-ovoidei, tenuiter tunicati, 2—3-spori, subsessiles vel brevissime stipitati, 60—72 \times 31.4—41.4 μ ; sporae ellipsoideae, obscure brunneae, 4-septatae, ad septa plus minusve constrictae, 44—46 \times 10—16 μ .

Colonies black, dense, hypophyllous, scattered, 1.5—3.4 mm. Mycelium dark-brown, septate, superficial, hyphopodiate, 5—7 μ diam. Hyphopodia capitate, 2-celled, dark-brown, alternate to irregular, 14—18 \times 10—16 μ . Perithecia superficial, setose, dark brown, thick-walled, non-ostiolate, 110—135 μ diam. Setae dark-brown, septate, tapering at the tip, upto 100 μ long. Asci clavato-cylindrical, in the wall layers, hyaline, unitunicate 2 to 3 spored, pedicellate, 60—72 \times 31.4—41.4 μ . Ascospores elliptical, 5-celled, dark-brown, thick-walled, highly constricted, arranged irregularly, 44—46 \times 10—16 μ . Paraphyses and periphyses abundant, filiform, hyaline.

Parasitic on the leaves of *Amoora rohituka* W. & A. collected by A n a h o s u r, K. H. at Coorg (India) on 17-10-1967. M. A. C. S. Herb. No. 620 (type).

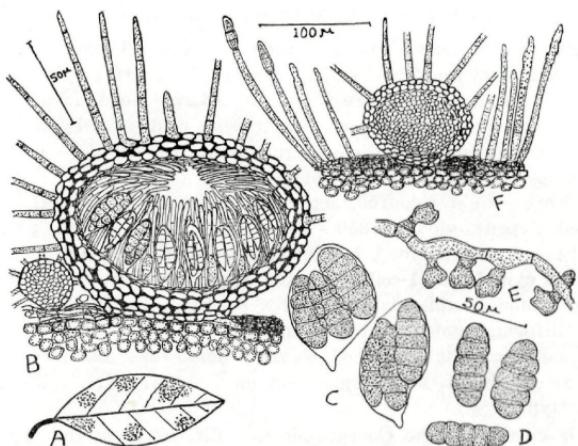


Fig. 2. *Irene indica*. — A. Habit. — B. Section through the perithecioid. — C. Ascospores. — D. Ascopores. — E. Hyphopodia. — F. Association of conidial fungus (*Exosporium tiliæ*) with perithecioid

The Coorg collection has reported on a new host and host family and is therefore described as a new species. This genus is a new generic record to Indian fungi.

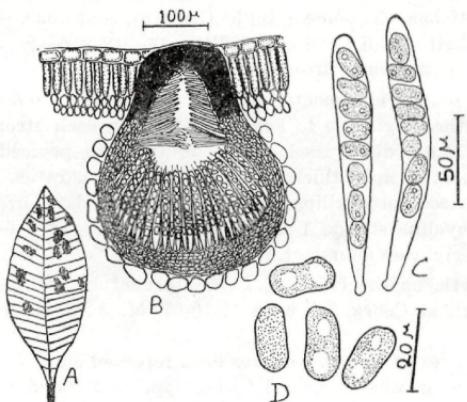


Fig. 3. *Polystigma eugeniae*. — A. Habit. — B. Section through the perithecioid. — C. Ascospores. D. Ascospores

3. *Polystigma eugeniae* sp. nov. Anahosur (Fig. 3).

Perithecia solitaria, innata, pallide colorata, ostiolata, clypeo bene evoluto tecta, globosa, 250—300 μ diam., asci clavati, stipitati, 8-spori, crassiuscule tunicati, 160—180 \times 16—18; sporae monostichae, oblongo-ellipsoideae vel breviter et crasse cylindraceae, continuae, hyalinae, medio interdum leniter contractae, oleoso-guttulatae, 16—20 \times 8—10 μ ; paraphyses et periphyses filiformes, numerosae.

Perithecia light coloured, separate, innate, ostiolate with a highly developed clypeus, globose, 250—300 μ diam. Asci clavate, pedicellate, in basal layers, octosporous, hyaline, thick-walled, 160—180 \times 16—18 μ . Ascospores cylindrical, 1-celled, hyaline, slight constriction in the centre, with oil globules, uniseriate 16—20 \times 8—10 μ . Paraphyses and periphyses, filiform, slender, hyaline abundant.

Parasitic on the leaves of *Eugenia jambolana* Lam. collected by A n a h o s u r, K. H. at Coorg, India on 7-2-1967, M. A. C. S. Herb. No. 621 (type).

It is clear that the Coorg collection differs from the type in all respects having perithecia with well developed clypeus and much bigger ascospores besides being collected on an unreported host, on the basis of which it is described as a new species.

4. *Rosselia punicae* sp. nov. Anahosur (Fig. 4).

Stromata nigra, erumpentia, globosa, aggregata, 0.6—1.2 \times 0.6—0.8 mm; perithecia 1—2 in quoque stromate, globosa, ostiolata, 316—411.8 μ diam.; asci cylindracei, tenuiter tunicati, breviter stipitati, 8-spori, antice rotundati, leniter incrassati, 120.8—151.4 \times 8—10 μ ; sporae monostichae, ellipsoideae vel lenticulares, continuae, obscure brunneae, linea longitudinali hyalina praeditae, 16—18 \times 6—9 μ ; paraphyses et periphyses numerosae, filiformes.

Stroma black, erumpent, globose, aggregated, 0.6—1.2 \times 0.6—0.8 mm. Perithecia globose to spherical, 1—2 in each stroma, ostiolate black, 316—411.8 μ diam. Asci clavate, unitunicate, pedicellate, in wall-layers, octosporous, apex thickened, with apical apparatus, 120.8—151.4 \times 8—10 μ . Ascospores ellipsoidal to lenticular, dark brown, with a longitudinal hyaline streak, 1-celled, uniseriate 16—18 \times 6—9 μ . Paraphyses and periphyses abundant, filiform, hyaline.

Saprophytic on the twigs of *Punica granatum*, collected by A n a h o s u r, K. H. at Coorg, India on 17-10-67. M. A. C. S. Herb. No. 622 (type).

As no species of *Rosselia* have been reported on *Punica granatum*, the Coorg fungus was compared to the type and found to be distinct in respect of stroma, perithecia & ascospores besides being collected on a hitherto unreported host, on the basis of which it is offered as a new species.

5. *Xylaria azadirachtae* sp. nov. Anahosur. (Fig. 5).

Stroma obscure brunneum, globosum, longiuscule stipitatum, 1.1—2 mm diam.; stipite obscure brunneo, simplici, flexuoso, chordaeformi, 20—40 × 0.2—0.4 mm; perithecia globosa, ostiolata, in stromate peripherice ordinata, 350—460 μ diam.; ascii cylindracei, tenuiter tunicati, breviter stipitati, 8-spori, 160—200 × 5—6 μ ; sporae monostichiae,

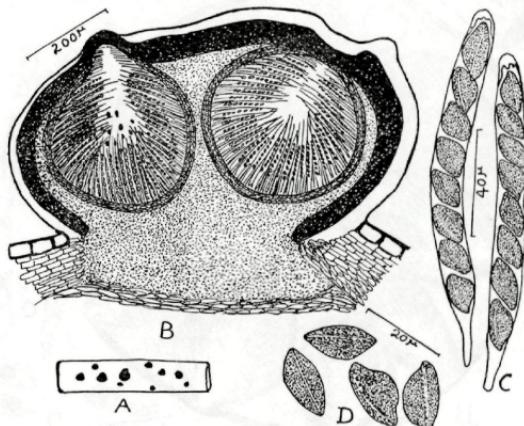


Fig. 4. *Rossellinia punicae*. — A. Habit. — B. Section through the stroma. — C. Ascii. — D. Ascospores

obscure brunneae, continuae, guttula oleosa, majuscula praeditae, late fusoideae, utrinque plus minusve attenuatae, rectae vel inaequilaterae, 16—18 × 4—6 μ , episporio crassiusculo; paraphyses et periphyses numerosae, tenuiter filiformes.

Stroma dark-brown, spherical to capitate, borne singly at the tip of stipes, 1.1—2.0 mm. diam. Stipe dark brown, simple, flexuous, cord-like, 20—40 × 0.2—0.4 mm. Perithecia globose, ostiolate, arranged along the periphery of the stroma 350—460 μ diam. Ascii cylindrical, pedicellate in wall-layers, octosporous, unitunicate, papillate, 160—200 × 5—6 μ . Ascospores dark-brown, 1-celled, thick-walled, with a prominent oil globule, fusoid to inequilaterally ellipsoid, obliquely uniseriate, 16—18 × 4—6 μ , paraphyses and periphyses abundant, filiform, hyaline, slender.

Saprophytic on the seeds of *Azadirachta indica* collected by Anahosur, K. H. at Coorg, India on 18-10-67. M. A. C. S. Herb. No. 623 (type).

The Coorg fungus is significantly distinct in having small stromatic heads produced singly over long cord-like stipes, much bigger perithecia, ascii and ascospores and needs accommodation in a new Taxon.

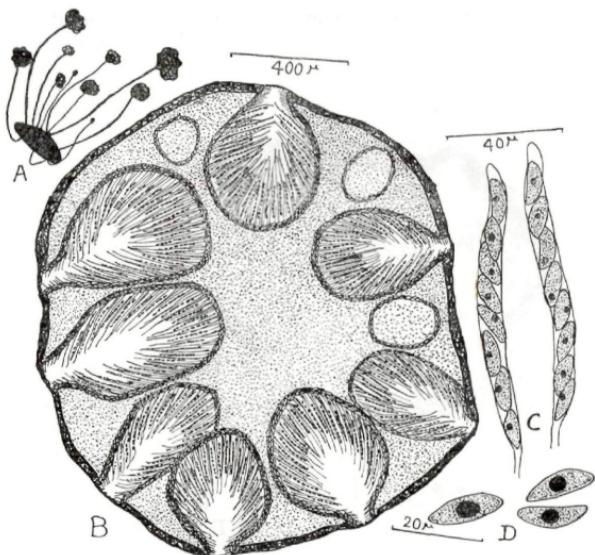


Fig. 5. *Xyloria azadirachiae*. — A. Habit. — B. Section through the stroma. — C. Ascii. — D. Ascospores

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