

## Contribution to our Knowledge of Ascomycetes of India XXIV

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(With 7 figures)

In the earlier papers (1960—68) 87 ascomycetes have been described from India. The present paper deals with the description of *Cucurbitaria indica* sp. nov. on *Zizyphus jujuba* Lam.; *Melanomma marathwadensis* sp. nov. on decaying brown paper; *Ohteria phyllanthi* sp. nov. on *Phyllanthus* sp.; *Ostropa indica* sp. nov. on *Vitex negundo* L.; *Rhynchosphaeria phoenicis* sp. nov. on *Phoenix sylvestris* Roxb.; *Robergea indica* sp. nov. on *Prosopis juliflora* Dc.; *Xyloaora arxii* sp. nov. on *Prosopis juliflora* DC. These collections have been described as new to science on the basis of comparative morphological studies and host relationship.

### 88. *Cucurbitaria indica* sp. nov.

Stroma innate, erumpent, black, crustose or felted, measuring from 1—1.5 mm across. Perithecia caespitose, on the black, crustose or felted stroma, small, globose to sub-globose with a small papillate opening, upper surface depressed, 225—300 × 150—200  $\mu$ . The wall of the ascocarp black, thick with rough surface when mature. Perithecia seemed to be stalked due to the elongation of the stromatic cells. Asci cylindrical-clavate, short-stalked, 8-spored, 56—64 × 13—14.4  $\mu$ , paraphysate, paraphyses filiform. Ascospores yellowish brown or greenish olive brown, uniseriate, transversely placed, muriform with 5—8 transverse septa and 5—7 longitudinal septa, oblong to fusiform, 18—21 × 8—11  $\mu$ , constricted at each septum.

Stroma innatum, mox erumpens, nigrum, crustaceum 1—1.5 mm diam.; perithecia caespitosa, globosa vel subglobosa, ostiolo minuto papillata, 225—300 × 150—200  $\mu$ ; pariete crassiusculo, pseudoparenchymatico, atro-olivaceo, in superficie asperulo, basi pedato-angustata stromati insidentia; asci cylindraceo-clavati, breviter stipitati, 8-spore, 56—64 × 13—14  $\mu$ ; sporae oblongae pallide brunneae, transverse 5—8-longitudinaliter 5—7-septatae, ad septa leniter constrictae, 18—21 × 8—11  $\mu$ ; paraphyses filiformes.

Collected on dead stem of *Zizyphus jujuba* Lam. at Ramling in the month of January 1968 Leg. S. B. Kale.

Sydow & Butler (1911) reported *Cucurbitaria agaves* Syd. &

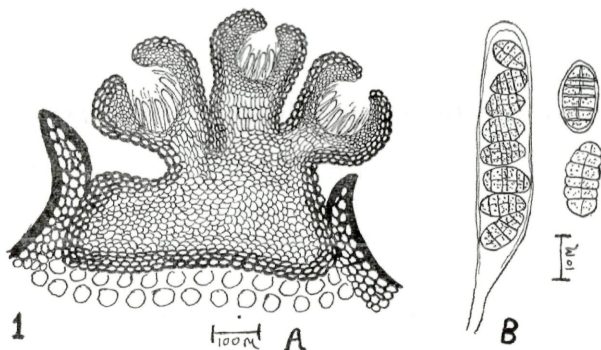


Fig. 1. *Cucurbitaria indica* sp. nov. — A. Vertical Section of ascocarps. — B. Ascus and ascospores.

Butl. on *Agave* sp. from India. With the addition of this species the genus is now represented by two species from India.

89. ***Melanomma marathawadensis* sp. nov.**

Perithecia minute, singly, superficial, attached, or interwoven by the threads of paper, astromatic, smooth or may have slight minute outgrowths, saprophytic on brown decaying paper; perithecia  $95-114 \times 76-87 \mu$ , membranous, ostiolate; ostiole papillate. Asci cylindrical-clavate, sessile to short-stalked, 8-spored, bitunicate,  $56-64 \times 11-13 \mu$ , paraphysate; paraphyses filiform minute. Ascospores ellipsoid to fusoid

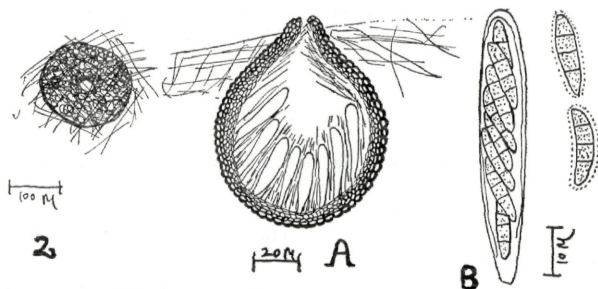


Fig. 2. *Melanomma marathawadensis* sp. nov. — A. Habit and vertical section of the perithecium. — B. Ascus and ascospores.

or elongated, brown, transversely septate, septa 3, biseriolate to sub-biseriate, compactly arranged, curved,  $16-21 \times 3-5 \mu$  with mucous sheath. Periphyses present in the ostiolar canal.

*Perithecia solitaria, levia, matrici insidentia vel fibris eius obvoluta, globosa vel ovoidea, 95-114  $\times$  76-87  $\mu$ , ostiolo papilliformi periphysato praedita; asci cylindraceo-clavati, sessiles vel breviter stipitati, 8-spori crassiuscule tunicati, 56-64  $\times$  11-13  $\mu$ ; sporae distichae vel incomplete distichae, ellipsoideae vel fusoidae, brunneae, triseptatae, rectae vel curvulae, 16-21  $\times$  3-5  $\mu$ ; paraphyses tenuiter filiformes.*

Collected on the decaying brown paper lying on the ground at Nizamabad & Aurangabad in the months of October 1967. Leg. S. B. Kale,

The genus *Melanomma* is an addition to the generic list of India.

90. ***Ohleria phyllanthi* sp. nov.**

*Perithecia* completely superficial, on a thin superficial stroma, in groups, rarely singly, hairy or setose, ostiolate; ostiole beaked, not collapsing; setae long, dark, brown, transversely septate, pointed at the tips all over the fruiting body, 450-600  $\times$  7-8  $\mu$ . *Perithecia* measuring from 190-228  $\times$  114-152  $\mu$ . Asci cylindrical, nonstipitate, thin-walled, unitunicate, 8-spored, 128-133  $\times$  8-10  $\mu$ , paraphysate; paraphyses filiform, many, minute; necks lined by periphyses; asci originate from the basal region. Ascospores brown to dark, transversely septate; septa — 3, biseriolate, overlapping, elongated, rod-like or ellipsoid, 41-45  $\times$  5-6  $\mu$ , spore-cells separating.

*Perithecia stromati tenuissimo superficiali insidentia, gregaria, raro solitaria, ostiolo periphysato cylindraceo-conoideo praedita, 190-228  $\times$  114-152  $\mu$ , sets obscure brunneis, septatis, paulatim acuminatis, 450-600  $\times$  7-8  $\mu$  obiecta; asci cylindracei, stipitati, tenuiter tunicati, 8-spori, 128-133  $\times$  8-10  $\mu$ ; sporae distichae, brunneae vel obscure brunneae, 3-septatae, cylindraceae, utrinque plus minusve attenuatae, rectae vel leniter curvulae, 41-45  $\times$  5-6  $\mu$  in loculos singulos dilatantes; paraphyses subnumerosae, filiformes.*

Collected on the dead stem of *Phyllanthus* sp. at Nizamabad & Awarad in the month of November 1967 Leg. S. B. Kale and Sou. V. S. Kale.

The genus is an addition to the generic list of India.

91. ***Ostropa indica* sp. nov.**

*Apothecia* innate, partly erumpent, embedded in the bark, globose to sub-globose, cask-shaped, dark, grey or blackish, with a whitish inner mass, leathery or membranous, waxy, opening circularly or by slit, 562-675  $\times$  750-938  $\mu$ ; hymenium flat at the basal region but exposing widely at maturity. Asci long, cylindrical, thick-walled, unitunicate, 8-spored, stipitate, 266-304  $\times$  8-9  $\mu$ , paraphysate; paraphyses fili-

form, branched at the tips. Ascospores hyaline, long, acicular, transversely septate, septa many, ascospores more or less extending in the whole ascus,  $225-293 \times 2\mu$ .

Apothecia cortici innata, partim erumpentia, globosa vel subglobosa, doliiformia, viridula vel nigrescentia, coriacea vel membranaceo-ceracea circulariter vel rimula aperta,  $562-675 \times 750-938 \mu$ , disco in maturitate denudato; asci cylindracei, crassiuscule tunicati, stipitati, 8-sporei,

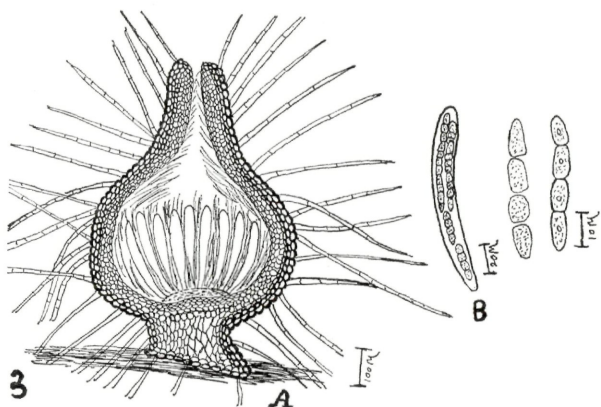


Fig. 3. *Ohleria phyllanthi* sp. nov. — A. Vertical section of perithecium. — B. Ascus and ascospores.

$266-304 \times 8-9 \mu$ ; sporae filiformes, hyalinae, multiseptatae, rectiusculae vel leniter arcuatae,  $225-293 \times 2 \mu$ ; paraphyses filiformes, antice ramulosae.

Collected on the dead stem of *Vitex negundo* L. at Awarad in the month of February 1968 Leg. S. B. K a l e.

The genus *Ostropa* Fr. is an addition to the generic list of India.

#### 92. *Rhynchosphaeria phoenicis* sp. nov.

Perithecia black, innate, flask-shaped, with long black cylindrical neck, projecting out of the bark or host tissue, ostiolate; ostiole periphysate; perithecia measuring from  $600-700 \times 400-600 \mu$ . The wall of the perithecium is made up of outer dark thick-walled cells and inner light-coloured, thin-walled cells, few cells in thickness. Asci many, cylindrical long, clavate, stipitate, paraphysate; paraphyses filiform, simple. Ascospores brown, fusiform to ellipsoid, transversely septate, septa 3,

4-celled, constricted in the middle, pointed at both ends, biseriate, measuring from  $26-30 \times 9-10 \mu$ .

*Perithecium innata, globosa vel late ovoidea, in ostiolum periphysatum, cylindraceo-conoideum plus minusve erumpentem attenuata, 600-700  $\times$  400-600  $\mu$ ; pariete pluristratoso, e cellulis extus atro-olivaceis, crassiuscule tunicatis, intus pallidioribus, tenuiter tunicatis composito, asci numerosi, cylindraceo-clavati, stipitati; sporae incomplete distichae,*

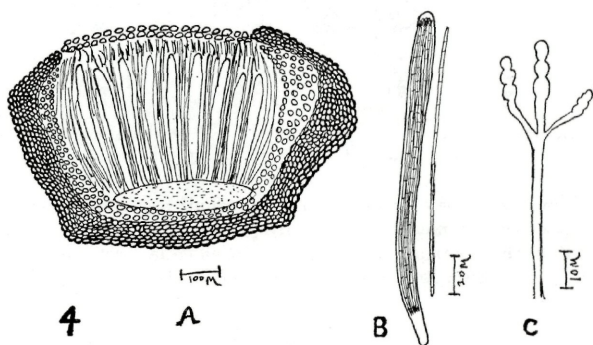


Fig. 4. *Ostropa idia* sp. nov. — A. Vertical section of apothecium. — B. Ascus, paraphyses and ascospores.

fusoideae vel anguste ellipsoideae, utrinque attenuatae, 3-septatae medio leniter constrictae,  $26-30 \times 9-10 \mu$ ; paraphyses filiformes.

Collected on dead pulvinus of *Phoenix sylvestris* Roxb. at Omerga, Awarad in the month of February 1968 Leg. S. B. Kale.

The genus is nov represented by two species from India.

### 93. *Robergea indica* sp. nov.

Apothecia waxy leathery, singly or in small groups, flaskhaped, completely embedded in the bark, externally dark and internally whitish, opening by a circular pore at the surface, raising through the bark, surrounded by a white thick margin, waxy cells many in the mouth; apothecia in v. s.  $225-300 \mu$  height and  $300-375 \mu$  broad; the wall broader and thick near the mouth and thin at the base; hymenium flat. Asci cylindrical, long, short-stalked, 8-spored, thick-walled, inoperculate,  $180-190 \times 5-7 \mu$  paraphysate; paraphyses filiform, few. Ascospores hyaline, thread-like, acicular, parallel, multiseptate,  $140-160 \times 1-1.6 \mu$ .

Apothecia solitaria vel greges minutos formantia, omnino innata, ceraceo-coriacea, extus obscura, intus albida, poro orbiculari, margine crassiusculo, albido cincto, erumpentia,  $225-300 \mu$  crassa,  $300-375 \mu$



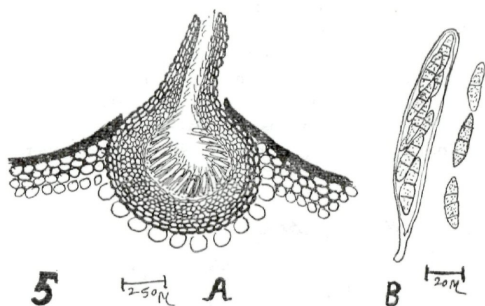


Fig. 5. *Rhynchosphaeria phoenicis* sp. nov. — A. Vertical section of perithecium. — B. Ascus and ascospores.

lata; excipulo superne crassiusculo, inferne tenui; asci cylindracei, stipitati, crassiuscule tunicati, inoperculati, 8-sporei,  $180-190 \times 5-7 \mu$ ; spore filiformes, utrinque obtusae, vix attenuatae, rectae vel leniter arcuatae, multiseptatae, hyalinae,  $140-160 \times 1-1.6 \mu$ ; paraphyses paucae, filiformes.

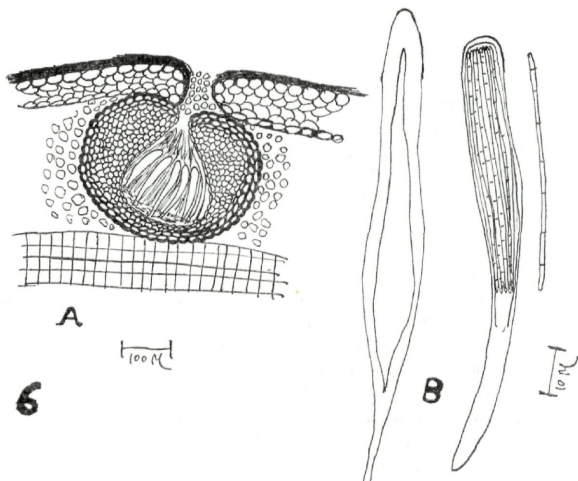


Fig. 6. *Robergea indica* sp. nov. — A. Vertical section of apothecium. — B. Ascus and ascospores.

Collected on dead stem of *Prosopis juliflora* DC. at Nizamabad & Omega in the month of November 1967 Leg. S. B. Kale and Sou. V. S. Kale.

The genus is an addition to the generic list of India.

94. **Xylochora arxii** sp. nov.

Perithecia small, singly or in small groups, roundish or elongated, innate, never erumpent, developing below the thick-walled hyphal or thick-walled-celled brown to black epistroma, which changes the colour of the host surface to black, procumbent, trailing in the host tissue,

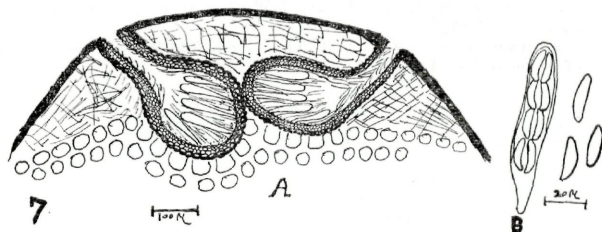


Fig. 7. *Xylochora arxii* sp. nov. — A. Vertical section of the epistroma and perithecia. — B. Ascus and ascospores.

ostiolate; ostiole always with the lateral sides, rarely spring up, grow longer, from  $300-375 \times 150-300 \mu$ , with short necks. The wall of the perithecium is 3-4 cells in thickness. Asci broadly cylindrical to long ellipsoidal, thin-walled, unitunicate, 8-spored, measuring from  $60-70 \times 10-15 \mu$ , paraphysate; paraphyses filiform and form the hymenium, lining the cavity of the perithecium. Ascospores hyaline, elliptical, 1-celled, slightly curved, elongated, biseriata,  $30-33 \times 4-6 \mu$ . Paraphyses present in the ostiolar neck.

Perithecia solitaria vel greges minutos formantia, innata, globosa vel ovoidea, sub stromate extenso, tenuiter crustaceo, superficiem matricis nigrificante evoluta, plus minusve procumbentia,  $300-375 \times 150-300 \mu$ , ostiolo laterali, plus minusve cylindraceo, periphysato punctiformiter erumpentia, pariete membranaceo, 3-6-stratoso, pseudoparenchymatico, atro-olivaceo; asci cylindracei vel clavato-cylindracei, stipitati, tenuiter tunicati, 8-sporei,  $60-70 \times 10-15 \mu$ ; sporae distichae, oblongae vel anguste ellipsoideae, continuae, rectae, inaequilatae vel leniter curvulae,  $30-33 \times 4-6 \mu$ ; paraphyses filiformes.

Collected on the dead stem of *Prosopis juliflora* DC. at Ramling in the month of January 1968 Leg. S. B. Kale.

The species has been described after Dr. von Arx for his valued contribution to the world ascomycetes.

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