

## Contribution to our Knowledge of Ascomycetes of India XXIV

By Tilak S. T. & S. B. Kale

(Botany Department Marathwada University, Aurangabad, India)

(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.; *Rhynchospaeria 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. &

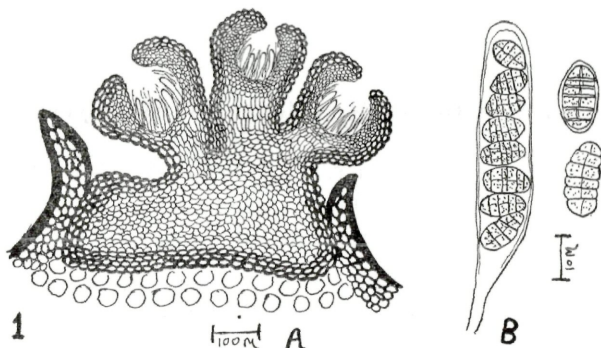


Fig. 1. *Cucurbitaria indica* sp. nov. — A. Vertical Section of ascocarps. — B. Ascus and ascospores.

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

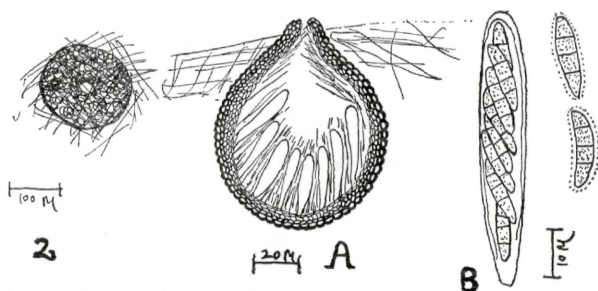


Fig. 2. *Melanomma marathawadensis* sp. nov. — A. Habit and vertical section of the perithecium. — B. Ascus and ascospores.

or elongated, brown, transversely septate, septa 3, biseriata 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 cylindraco-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, biseriata, 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 cylindraco-conoideo praedita,  $190-228 \times 114-152 \mu$ , sets obscure brunneis, septatis, paulatim acuminatis,  $450-600 \times 7-8 \mu$  obiecta; asci cylindraco-clavati, stipitati, tenuiter tunicati, 8-spori,  $128-133 \times 8-10 \mu$ ; sporae distichae, brunneae vel obscure brunneae, 3-septatae, cylindraco-clavatae, 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 & Awar 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,

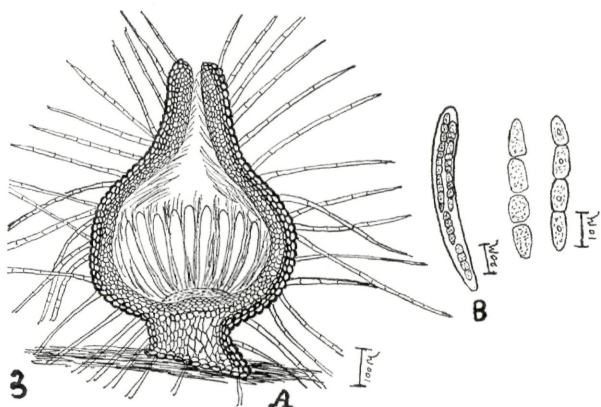


Fig. 3. *Ohleria phyllanthi* sp. nov. — A. Vertical section of perithecium. — B. Ascus and ascospores.

$266-304 \times 8-9 \mu$ ; 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,*

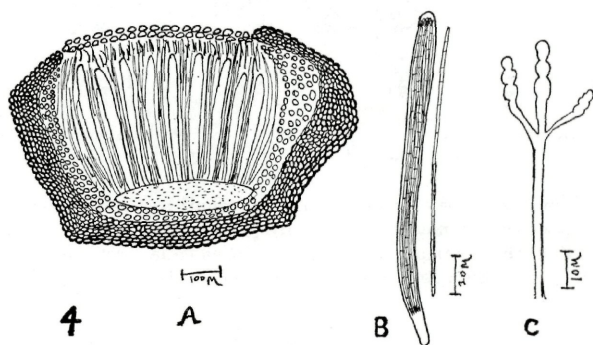


Fig. 4. *Ostropa idia* sp. nov. — A. Vertical section of apothecium. — B. Ascus, paraphyses and ascospores.

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,  $300-375 \mu$

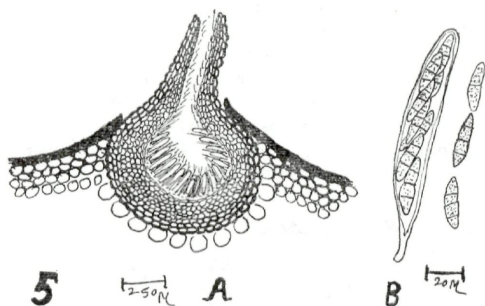


Fig. 5. *Rhynchosphaeria phoenicis* sp. nov. — A. Vertical section of perithecium. — B. Ascus and ascospores.

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

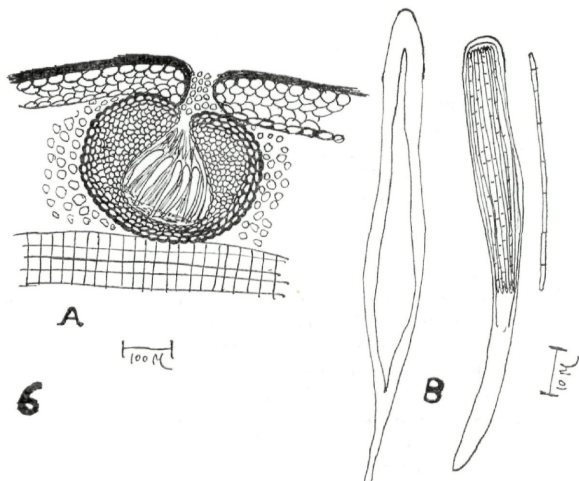


Fig. 6. *Robergea indica* sp. nov. — A. Vertical section of apothecium. — B. Ascus and ascospores.

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,

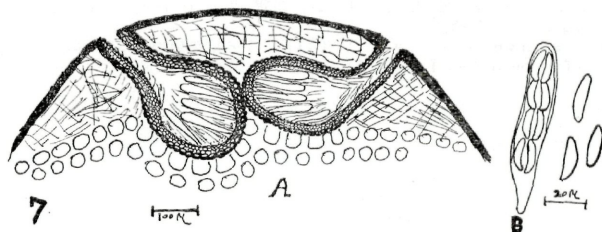


Fig. 7. *Xylochora arxii* sp. nov. — A. Vertical section of the epistroma and perithecia. — B. Ascus and ascospores.

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.

#### Acknowledgements

Grateful thanks are due to Marathawada University, Aurangabad, for the laboratory facilities, to the University Grants Commission New Delhi for the award of Research Fellowship to the junior author and to Dr. F. Petrak for the Latin diagnosis of the new species.

#### References

- Ainsworth, G. C. & G. R. Bisby, 1961. Dictionary of Fungi (C. M. I. Kew Surrey).
- A r x, J. A. & Emil M u l l e r, 1954. Die Gattungen der amersporen, Pyrenomyceten: Beiträge zur Krypt. der Schweiz. 11 (1) 1—34.
- Clements, F. E. & C. L. Shear, 1957. The genera of Fungi. Hafner publ. New York.
- Vishwanathan, T. S. & S. T. Tilak, 1960. Additions to our knowledge of ascomycetes of India. Mycopath. et Mycol. appl. 13: 237—242.



# ZOBODAT - [www.zobodat.at](http://www.zobodat.at)

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Sydowia](#)

Jahr/Year: 1970/1971

Band/Volume: [24](#)

Autor(en)/Author(s): Tilak S. T., Kale S. B.

Artikel/Article: [Contributions to our Knowledge of Ascomycetes of India XXIV. 81-88](#)