

## Some note-worthy Ascomycetes from Maharashtra, India

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This paper presents an account of 4 new species and 3 new host records of Ascomycetes collected by the writer in the vicinity of Poona (India).

### 1. *Bagnisiella acaciae* sp. nov. Anahosur (Fig. 1).

Stromata subepidermalia, mox erumpentia, denique quasi superficialia nigra, elongata, rectangularia, interdum orbicularia, multiloculata, inferne sterilia, pseudoparenchymatica,  $1-1.5 \times 1-1.2$  mm; loculi rectangulares, clausi, usque 8 in quoque stromate, quoad magnitudinem variables,  $150-480 \mu$  lati,  $120-160 \mu$  crassi; asci cylindraceo-clavati,

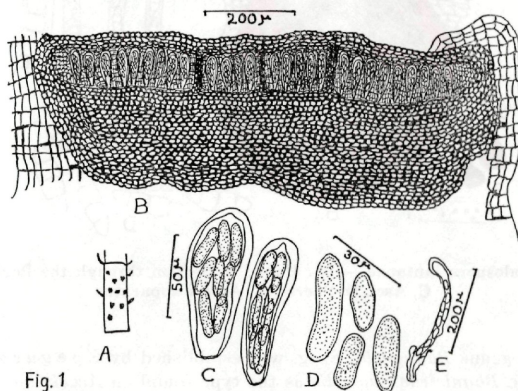


Fig. 1

Fig. 1. *Bagnisiella acaciae*. — A. Habit. B. Section through the Stroma. C. Asci. D. Spores. E. Ascus dehiscent

crasse tunicati, sessiles, apice perforati,  $84-96 \times 30-40 \mu$ ; sporae distichae, ellipsoideae vel breviter cylindraceae, utrinque late rotundatae, vix vel parum attenuatae, hyalinae vel subhyalinae, continuae,  $28-38$

× 8—12  $\mu$ , episporio crassiusculo, paraphysoides fibrosae, breviter articulatae.

Ascstromata black, elongated, subepidermal, becoming erumpent and finally completely exposed, rectangular, sometimes circular, shrunken in the centre, multiocculate, upper portion fertile and lower sterile, 1—1.5 × 1—1.2 mm. Locules rectangular, nonostiolate, upto 8 in each stroma, 150—480  $\mu$  broad and 120—150  $\mu$  high. Asci cylindro-clavatis, bitunicate, sessile, with apical pore, in basal layers, parallel, 84—96 × 30—40  $\mu$ . Ascospores ellipsoid to cylindrical, thick-walled, hyaline to subhyaline, biseriata, 1-celled, 28—38 × 8—12  $\mu$ . Pseudoparaphyses and paraphyses lacking. Interthecial tissues present.

Saprophytic on the twigs of *Acacia arabica* Willd. collected by A n a h o s u r K. H. at Poona (India) on 12-12-1967. M. A. C. S. Herb. No. 680 (type).

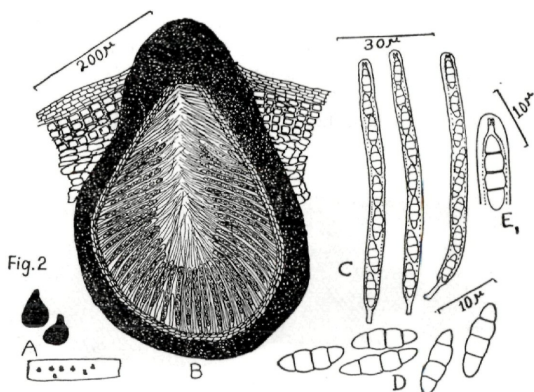


Fig. 2. *Calospora lantanae*. — A. Habit, B. Section through the Perithecium. C. Asci. D. Spores. E. Apical apparatus

The genus *Bagnisiella* Speg. was established by Spegazzini in 1880 with *Bagnisiella australis* as the type found on *Acacia bonariensis*. *Acacia arabica* is a new host for *Bagnisiella*.

It is quite clear that the writer's collection differs from the type in having bigger ascstroma, smaller asci and bigger ascospores and also collected on a new host and hence needs accommodation in a new taxon.

A species of *Haplosporella* Speg. with subhyaline, cylindrical to ellipsoid conidia, was found in association with this ascomycete. The

cultural studies are under progress to prove their true relationship which will be published in due course.

## 2. *Calospora lantanae* Anahosur sp. nov. (Fig. 2).

*Perithecia* singularia, innata, globosa, 320—568  $\mu$  diam., 400—570  $\mu$  alta, ostiolo crasse conico, in apice late rotundato, 50—60  $\times$  36—40  $\mu$  punctiformiter erumpentia; asci numerosi, cylindranei, breviter stipitati, crassiuscule tunicati, 8-spori, 80—96  $\times$  4—6  $\mu$ ; sporae monostichae, fusioideae, triseptatae, ad septa constrictae, hyalinae, 12—16  $\times$  2—4  $\mu$ ; paraphyses et periphyses numerosae, tenuiter filiformes.

*Perithecia* stromatic, separate, innate, beaked, ostiolate, globose, 320—568  $\mu$  broad and 400—570  $\mu$  high. Beak short, projecting outside the host, 50—60  $\times$  36—40  $\mu$ . Asci cylindrical, thick-walled, pedicellate, in wall-layers, with apical apparatus, octosporous, unitunicate, paraphysate, 80—96  $\times$  4—6  $\mu$ . Ascospores fusoid, hyaline, 3 septate, constricted at the septum, uniseriate 12—16  $\times$  2—4  $\mu$ . Paraphyses and periphyses abundant, filiform, slender and hyaline.

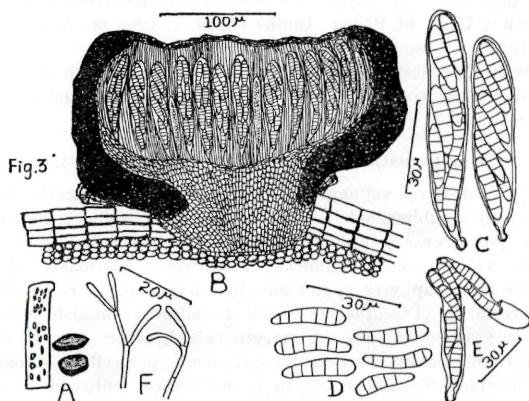


Fig. 3. *Patellaria caesalpiniae*. — A. Habit. B. Section through the apothecium. D. Spores. E. Ascus dehiscence

Saprophytic on the twigs of *Lantana camara* L. collected by Anahosur, K. H. at Poona (India) on 2-8-1968. M. A. C. S. Herb. No. 683 (type).

The genus *Calospora* Sacc. was established by Saccardo in 1883 with the type *Calospora platanoides* (Pers.) Niessl. The writer's collection of *Calospora* Sacc. differs from the type in having uniloculate

stromata, cylindrical narrow asci and much smaller ascospores which are arranged uniseriately in the ascos besides being collected on a new host.

### 3. *Patellaria caesalpiniae* Anahosur sp. nov. (Fig. 3).

Apothecia aggregata, nigrescentia, erumpentia, 240—400  $\mu$  longa, 192—240  $\mu$  lata, disco cupuliformi, 320—400  $\mu$  lato, 190—240  $\mu$  alto; asci clavati, stipitati, crasse tunicati, 8-spori, 64—90  $\times$  12—16  $\mu$ ; spora distichae, oblongae, hyalinae, 5-plerumque, 7-raro etiam 8-septatae, 20—26  $\times$  2—4  $\mu$ ; pseudoparaphyses septatae, hyalinae, superne ramulosae.

Discothecia black, with a wide cleft, aggregated, discoid, sessile, erumpent, 240—400  $\mu$  long and 192—240  $\mu$  broad. Locule cup-shaped, 320—400  $\mu$  broad and 190—240  $\mu$  high. Asci clavate, pedicellate, in basal layers, bitunicate, octosporous, 64—90  $\times$  12—16  $\mu$ . Ascospores oblong, hyaline, 5 to 8-celled, 8-celled rare, 7-celled abundant, biseriate, 20—26  $\times$  2—4  $\mu$ . Pseudoparaphyses branched at the tips, septate, hyaline and slender.

Saprophytic on the twigs of *Caesalpinia pulcherima*, collected by A h a n o s u r, K. H. at Poona (India) on 16. 7. 1968 M. A. C. S. Herb. No. 684 (type).

The writer's collection of *Patellaria* was compared with some species of *Patellaria* parasitizing the host family Leguminosae and was found to be different.

### 4. *Tryblidaria maharastrensis* Anahosur sp. nov. (Fig. 4).

Apothecia dispersa vel aggregata, erumpentia, nigrescentia, margine subelevato; disco subhemisphaerico, usque ad 1.2 mm diam.; asci clavati, breviter stipitati, crasse tunicati, 8-spori, 140—160  $\times$  38—46  $\mu$ ; spora ellipsoideae vel oblongae, brunneae, muriformes, distichae, 40—50  $\times$  8—12  $\mu$ ; pseudoparaphyses numerosae, hyalinae, superne ramulosae.

Ascstromata (Discothecia) black to slightly pinkish, erumpent, scattered to aggregated, discoid, margin raised, centre bulged, uniloculate, up to 1.2 mm. diam. Asci clavate, bitunicate, pedicellate, octosporous, in basal layers, 140—160  $\times$  38—46  $\mu$ . Ascospores ellipsoid to oblong, muriform, brown, biseriate, 40—50  $\times$  8—12  $\mu$ . Pseudoparaphyses abundant, branched at the apex, septate, and hyaline.

Saprophytic on the twigs of *Lantana camara* L. and *Rivina* sp. collected by A n a h o s u r, K. H. on 2. 2. 1967. M. A. C. S. Herb. No. 685 & 686 (type).

The genus *Tryblidaria* Sacc. was established by S a c c a r d o (1889) with *Tryblidaria fenestratum* (C. & E.) Rehm as type and was revised by R e h m in 1904. As the writer has collected the fungus on a new host it was compared with the type and was found to be significantly different in morphological characters and dimensions.

Tilak (1966) and Ramachandra Rao (1966) have described the ascocarp of this genus as an apothecium, interthecial threads as paraphyses and the remnants of stroma at the apex as epithecium. The recent investigations carried out by Muthappa (1967) and Seshadri & Muthappa (1968) on a closely allied fungus *Tryblidiella rufula*

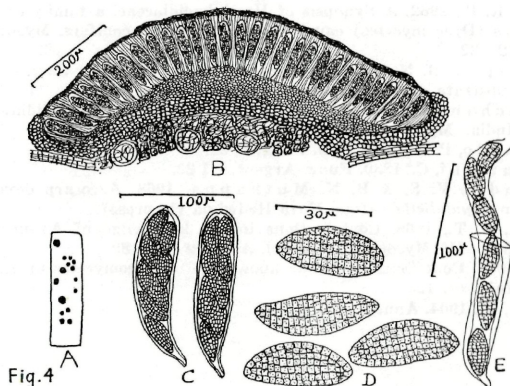


Fig. 4. *Tryblidiaria maharastrensis*. — A. Habit. B. Section through the apothecium. C. Asci. D. Spores. E. Ascus dehiscence

(Spreng.) Sacc. belonging to the family Patellariaceae prove very conclusively that the ascocarp in this family is in the nature of a Discothecium, as originally described by Korf (1962) and the interthecial threads as pseudoparaphyses continuous from top to the bottom with a 'pleospora' type of development. The stroma at the apex of the ascocarp is not a true epithecium but a thin layer made up of remnants of the stromatic cells along with the tips of the pseudoparaphyses termed as epistroma by Muthappa (1967).

#### New host records

1. *Bagnisiella acaciae* Ahanosur — Host: *Glyricidia* sp. M. A. C. S. Herb. No. 681.
2. *Bagnisiella australis* Speg. — Ref. Ann. Mycol. 13: 561, 1915. M. A. C. S. Herb. No. 682. Host: *Lantana camara* L.
3. *Valsa ceratophora* Tul. — Ref: Syll. Fung. 1: 108, 1882. M. A. C. S. Herb. No. 687. Host: *Ceasalpinia pulcherrima*.

The materials of the new species are deposited at Herb. Orientalis, New Delhi, C. M. I., Kew, England and M. A. C. S.

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