

## Some Ascomycetes from Maharashtra (India)

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This paper deals with four species of Ascomycetes collected by the writer, three of which are considered new to science and one a new host record on the basis of comparative studies and host relationship.

The type material of the new species has been deposited at the M. A. C. S. Herbarium, Poona 4.

### 1. *Mycosphaerella holopteleae* sp. nov. Naphade

Pseudothecium uniloculate, ostiolate, erumpent to innate, globose,  $75.0-135 \times 68-128 \mu$ . Asci cylindrical, bitunicate, numerous, sessile, arising in fascicles, octosporous,  $37.0-46.0 \times 6.0-8.0 \mu$ . Ascospores clavate to elliptical, two-celled, hyaline, constricted at septum,  $10.0-13.4 \times 2.8-4.0 \mu$ . Paraphyses absent.

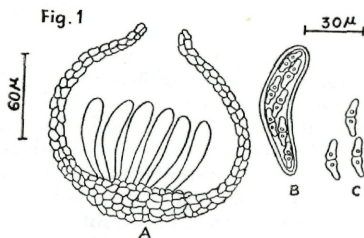


Fig. 1. *Mycosphaerella holopteleae* sp. nov. Naphade. — A. Section through Ascocarp. — B. Asci. — C. Ascospore.

*Perithecia innata* mox plus minusve erumpentia, globosa, ostiolata,  $75-135 \times 68-128 \mu$ ; asci numerosi clavato-cylindranei, crassiuscule tunicati, sessiles, aparaphysati, 8-sporei,  $37-46 \times 6-8 \mu$ ; sporae plus minusve distichae, fusoidae, hyalinae, medio septatae et constrictae  $10-13.4 \times 2.8-4 \mu$ .

On living leaves of *Holoptelea integrifolia* Planch (Urticaceae) collected by S. R. Naphade on 15th November 1968, at Poona (India), M. A. C. S. Herb. No. 725 (Type).

|         |              |      |           |           |
|---------|--------------|------|-----------|-----------|
| Species | Pseudothecia | Asci | Ascospore | Authority |
|---------|--------------|------|-----------|-----------|

A careful search of literature showed no species of *Mycosphaerella* being described on the host or other members of the host family. The fungus is therefore described as a new species.

It is interesting to note that this ascigerous stage was always found in close association with a conidial fungus belonging to the form genus *Phyllosticta* Pers.

## 2. *Leptosphaeria ocimicola* sp. nov. Naphade.

Pseudothecium black, uniloculate, erumpent, globose to subglobose, 146–225  $\mu$  diam. Asci cylindrical to clavate, bitunicate, octosporous, in wall layers pedicellate, 90.0–104.8  $\times$  8.p–9.2  $\mu$ .

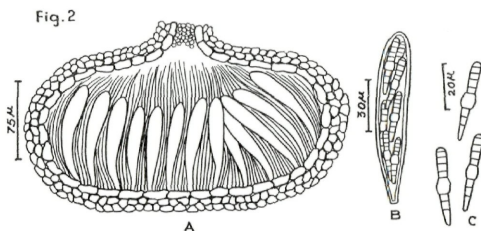


Fig. 2. *Leptosphaeria ocimicola* sp. nov. Naphade. — A. Section through Ascocarp. — B. Asci. — C. Ascospore.

Ascospores clavate to oblong, 8 septate, middle cell broader constricted at the septa, sub-hyaline, biserriate 30.0–34.0  $\times$  6.4–7.2  $\mu$ . Paraphyses filiform, simple and hyaline.

Perithecia erumpentia, nigra, globosa vel subglobosa, plus minusve depressa, 146–225  $\mu$  diam.; asci cylindraco-clavati, antice brotundati, vix vel parum, postice paulatim in stipitem brevem attenuati, crassiuscule tunicati, 8-spore, 90–104.8  $\times$  8–9.2  $\mu$ ; sporae plus minusve distichae, fusiformes, antice rotundatae, postice parum sed distincte attenuatae, subhyalinae 8-septatae, cellula media maxima et plus minusve prominula, 30–34  $\times$  6.4–7.2  $\mu$ ; paraphyses filiformes.

On dead stems of *Ocimum sanctum* Linn. collected by S. R. Naphade on 20th December 1968. M. A. C. S. Herb. No. 726 (Type).

Detailed comparative studies with the type *Leptosphaeria dolio-lum* (Ces.) de-Not showed that the writer's collection was distinct from the type species in respect of habit, dimensions of asci and ascospore, and host relationship.

## 3. *Phaeopeltosphaeria indica* sp. nov. Naphade

Perithecia innate with clypeus, ostiolate, globose, uniloculate dark brown thick walled, 128–250  $\mu$  Asci cylindrical to narrowly

clavate, numerous bitunicate, hyaline, pedicellate, octosporous  $68.5-89.0 \times 7.2-9.2 \mu$ . Ascospore uniseriately arranged muriform, yellowish, 4-celled with 1-2 vertical septa.  $12.9-14.4 \times 7.2-8.0 \mu$ . Paraphyses present, Paraphyses filiform, long, simple and hyaline.

Perithecia innata, clypeo tecta, globosa, obscure brunnea, ostiolo periphysato praedita,  $128-250 \mu$  diam.; pariete crassiusculo, pseudoparenchymatico; asci numerosi, clavato-cylindranei, antice

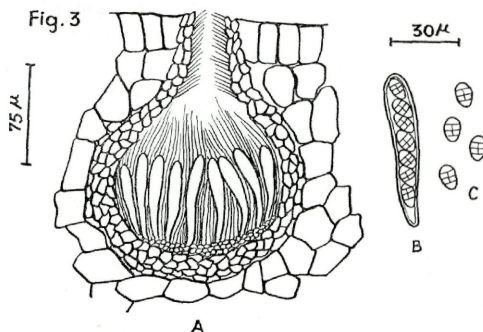


Fig. 3. *Phaeopeltosphaeria indica* sp. nov. Naphade. — A. Section through Ascocarp. — B. Asci. — C. Ascospore.

late rotundati, postice in stipitem brevem attenuati, crassiuscule tunicati, 8-sporei,  $68.5-89 \times 7.2-9.2 \mu$ ; sporae monostichae, luteolae, transverse 3-longitudinaliter 1-raro 2-septatae,  $12.9-14.4 \times 7.2-8 \mu$ ; paraphyses filiformes, ascos superantes.

On living leaves of *Diospyros peregrina* Gurke, collected by S. R. Naphade on 15th November 1968 at Poona, India, M. A. C. S. Herb No. 727 (Type).

On the basis of the detailed comparison with type species, the writer's collection was found to be distinct in respect of morphological characters, dimensions of asci and ascospores besides being collected on the hitherto unreported host. It is described as a new species. The genus is a new record to Indian Fungi.

#### 4. *Leptosphaerulina australis* McAlp.

Infection spot light brown perithecia in groups, superficial to innate, globose, uniloculate, ostiolate  $96-146 \mu$  in diam. Asci 3-5 in number, thick walled bitunicata, obovate to spherical, hyaline octosporous, irregularly clustered  $76.5-98.0 \mu$ . Ascospore 4 septate, muriform subhyaline with 0-3 vertical septa, constricted at septa  $28.0-36.0 \times 8.0-12.8 \mu$ .

On living leaves of *Crotalaria juncea* I. collected by S. R. Naphade on 13th August, 1968, Poona (India) M. A. C. S. Herb. No. 728.

Rao & Karan (1964) have reported 10 new hosts for *Leptosphaerulina australis* McAlp from India. The writer's collection agreed in all respect with the type species.

#### Acknowledgement

The writer acknowledges his sincere and grateful thanks to Prof. M. N. Kamat for his deep interest and guidance and to Dr. Dr. F. Petrak for Latin rendering.

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Jahr/Year: 1970/1971

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Autor(en)/Author(s): Naphade S. R.

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