

Ascomycetes of Western India. VIII.*

A. PANDE

Maharashtra Association for the Cultivation of Science, Research Institute,
Pune 411 004, India

Abstract. Three new species of ascomycetous fungi are described, viz. *Comoclathris wehmeyeri* sp. n., *Hysterographium indicum* sp. n. and *Pleospora mangiferae* sp. n.

Comoclathris CLEM. 1911

Minn. Bot. Stud. 1: 186

Type species: *C. planispora* (ELL.) J. HARR

1. *Comoclathris wehmeyeri* sp. nov. — Fig. 1

Ascomata rotundata, innata, erumpentia, ostiolata, subpapillata, collabentia ubi veteres, paries ex cellulis brunneis, isodiametricis vel polygonalibus. Asci subsessiles vel brevistipitati, clavati, bitunicati, basalis stratis exorientis, paralleli ordinati, pseudoparaphysatis, rotundati ad apicem, $70-75 \times 20-25 \mu\text{m}$. Ascospores lateraliter complanatae, brunnae, biseriatae (distichae) aspectu frontali late clavatae vel ellipsoideae et muriformae, aspectu laterali cylindricae et phragmosporae, $25-30 \times 10-15 \mu\text{m}$, 3-septatae, cellulae centrales longitudinaliter divisae, extremae cellulae non divisae. Ad ramos. India. Typus: AMH 4260.

Ascomata rounded, embedded, erumpent, ostiolate, slightly papillate, collapsing when old, $120-230 \times 190-230 \mu\text{m}$; wall of the fruiting body composed of isodiametric or polygonal dark cells. Asci subsessile or shortly stalked, clavate, bitunicate, arising from the basal layer of locule, parallel, pseudoparaphysate, rounded above, $70-75 \times 20-25 \mu\text{m}$. Ascospores laterally flattened, brown, biseriate, in front view broadly clavate or ellipsoid and muriform with 3 cross septa and a vertical continuous septum through central cells, end cells not vertically divided; in side view cylindrical, with cross septa only, $25-30 \times 10-15 \mu\text{m}$.

Habitat. — On twigs of *Crossandra infundibuliformis* Loc.

Material. — INDIA: Pune, 25. V. 1978, PANDE (AMH 4260, holotype).

Remarks: *Platyspora* WEHMEYER (1961) is separated from *Pleospora* due to its laterally flattened, muriform spores with a vertical septum crossing the central cells but leaving the tip cells undivided.

*) Contribution No. 688 from the Department of Mycology & Plant Pathology.

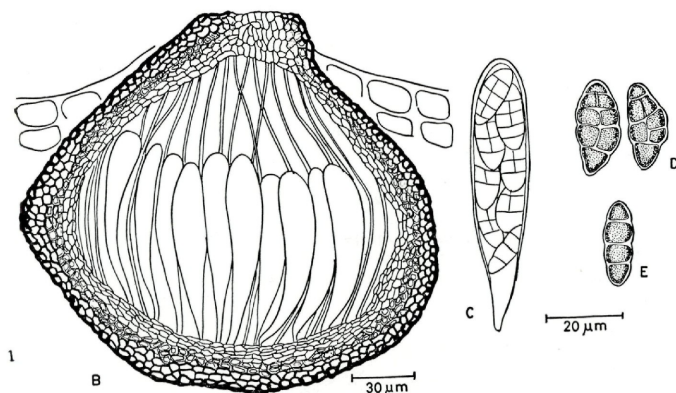


Fig. 1. *Comoclathris wehmeyeri* PANDE (type): B. Section of ascocarp. — C. Ascus. — D, E. Spores (in front and lateral view)

However, recently ARX & MÜLLER (1975) referred this Wehmeyerian genus to *Comoclathris* which was established earlier by CLEMENTS 1911 [following HARR (1971), ERIKSON (1967)], with *C. planispora* (ELL.) HARR as type species. There are three species described by WEHMEYER in the genus *Platyspora* viz. *P. planispora* (ELL.) WEHM., *P. permuda* (CAKE) WEHM. and *P. pentamera* (KARST.) WEHM.

Comparative studies between these three previously reported species and the present collection showed that the present fungus is not comparable with any of these species. The new species is dedicated to Prof. L. E. WEHMEYER in recognition of his valuable contribution to Mycology and especially to the genus *Pleospora* and allied forms.

| | Ascoma | Wall | Asci | Ascospores |
|-------------------------------|-------------------------|----------|----------------------|--|
| <i>Platyspora permuda</i> | 100–350 μm (500) | 15–40 μm | 60–160 × 20–45 μm | 15–44 × 8–24 × 7–18 μm 3 septate |
| <i>P. pentamera</i> | 150–300 μm | — | 70–115 × 15–25 μm | (18)–20–30 × 8–15 × 6–10 μm 4 septate |
| <i>P. planispora</i> | 150–250 μm | 10–15 μm | 75–125 × 7–25 μm | (23)–28–41 × 11–17 × 7–11 μm 5 septate |
| <i>Comoclathris wehmeyeri</i> | 120–230 × 190–280 μm | — | 70–75 × 20–25 μm | 25–30 × 10–15 μm 3–4 septate |

Hysterographium Corda 1842

Icon. Fung. 5: 34

Type species: *H. fraxini* (PERS.) de NOT.2. *Hysterographium indicum* sp. nov. — Fig. 2

Ascomata hysterothecia, erumpentia, superficialia immersa ad basim, laeves, navicularia, 1 mm longa \times 0.2 mm crassa. Parietis ex cellulis fusco-brunneis, isodiametricis vel elongatis; rima longitudinalinalia, 220–290 μ m crasso et 140–160 μ m alta. Asci paralleli, numerosi, cylindrici, subsessiles vel brevistipitati, bitunicati, octospori, pseudoparaphysibus immixtis, 54–80 \times 14–17 μ m. Pseudoparaphyses ramosae. Ascosporae 8, aureobrunneae, muriformes, biseriatae (distichae), 18–30 \times 7–11 μ m. Ad lignum. India. Typus: AMH 3761

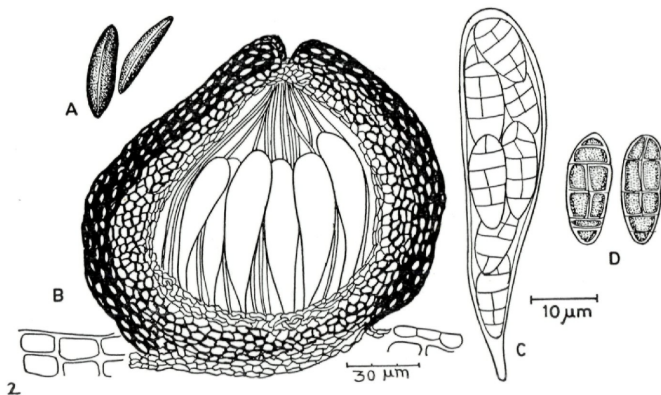


Fig. 2. *Hysterographium indicum* PANDE (type): A. carpophores (\times 12). — B. Section of ascocarp. — C. Ascus. — D. Spores

Ascomata hysterothecial, erumpent, superficial, immersed at the base, smooth, boat shaped, 1 mm long and 0.2 mm thick. Wall composed of isodiametric or elongated, dark brown cells. Hysterothecia opening by longitudinal cleft, 220–290 μ m wide and 140–160 μ m high (in cross section). Asci arising from the basal layer of the locule, parallel, numerous, cylindrical, subsessile or shortly stalked, bitunicate, octosporous, 54–70 \times 14–17 μ m, pseudoparaphyses branched. Ascospores 8, golden brown, muriform, biseriatae, 18–30 \times 7–11 μ m.

Habitat. — On dead wood.

Material. — INDIA: Narsapur, XII. 1977, PANDE (AMH 3761, holotype).

Remarks: There are three species of the genus reported from India, viz. *H. acaciae* TILAK (1970) and *H. acaciae* R. RAO (1971) (which are later homonyms of *H. acaciae* DOIDGE) and *H. avaradi* TILAK & KALE (1970). The comparison between these species, the type species and the present collection showed significant variations and hence the present collection is described *H. indicum* as a new taxon.

| | Ascocarps | V. S. ascocarps | Asci | Ascospores |
|--------------------------------|----------------|-------------------------|-----------------------|---------------------|
| <i>Hysterographium fraxini</i> | 2 × 0.5 mm | — | 200 × 40 μm | 30–50 × 12–20 μm |
| <i>H. acaciae</i> ss. TILAK | 1 mm | 350–400 × 300–350 μm | 60–70 × 18–20 μm | 15–20 × 6–7 μm |
| <i>H. acaciae</i> ss. RAO | 2 mm | — | 200–250 × 20–30 μm | 25–40 × 10–17 μm |
| <i>H. avaradii</i> | 1–1.5 mm | 500–700 × 400–600 μm | 92–120 × 10–16 μm | 17–22 × 7–8 μm |
| <i>H. indicum</i> (type) | 1 × 0.2–0.3 mm | 160–290 × 140–160 μm | 54–70 × 14–17 μm | 18–30 × 7–11 μm |

Pleospora Rabenh. 1854

Herb. Mycol. 1: 547.

Type species: *P. herbarum* (PERS. ex FR.) RABENH.

3. *Pleospora mangiferae* sp. nov. — Fig. 3

Ascomata minuta, sphaerica, immersa, 280 × 175 μm. Parietis o cellulis brunneis, isodiametricis. Asci numerosi, paralleli, bitunicati, brevistipitati, rotundati et crassitunicati ad apicem, octospori, 90–115 × 24–30 μm. Pseudoparaphyses ramosae. Ascospores ellipsoideae, fuscobrunneae, muriformes, biseriatae (distichae), raro medianiter constrictae, apicaliter rotundae, apex proximalis leviter angustus, 24–32 × 14 μm. Ad ramos Mangiferae indicae. India. Typus: AMH 3759.

Ascomata small, spherical, immersed in the host tissue, 280 × 175 μm. Wall composed of isodiametric, brown cells. Asci parallel, arising from basal layer, bitunicate, shortly stipitate, rounded and thickened at the apex, octosporous, 90–115 × 24–30 μm. Pseudoparaphyses branched. Ascospores ellipsoidal, dark brown, muriform, biseriata, sometimes constricted at central transverse septum, vertical septa not continuous, ends rounded, generally proximal end slightly narrower than the distal end, 24–32 × 14 μm.

Habitat. — On twigs of *Mangifera indica* L.

Material. — INDIA: Pune, XII. 1977, PANDE (AMH 3759, holotype).

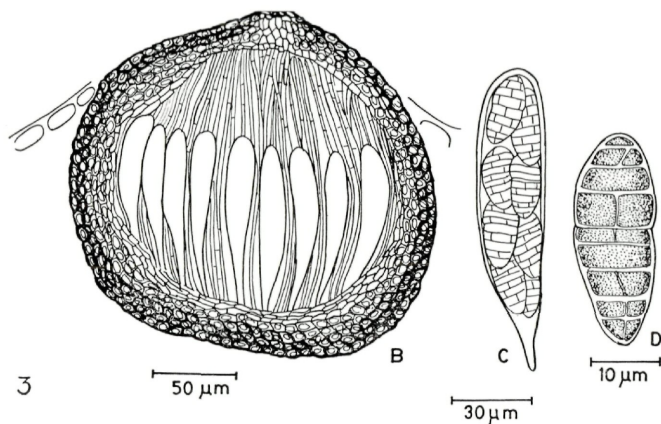


Fig. 3. *Pleospora mangiferae* PANDE (type): B. Section of ascocarp. — C. Ascus. — D. Spore

Remarks: Literature studies revealed that so far no species of *Pleospora* is reported on *Mangifera indica* as host-plant. For comparison with *P. herbarum* see following list.

| | Ascocarp | Asci | Ascospores |
|-----------------------------|--------------|----------------------|------------------|
| <i>Pleospora herbarum</i> | 1/2 mm | 150 × 40 µm | 24–40 × 11–14 µm |
| <i>P. mangiferae</i> (type) | 280 × 175 µm | 90–115 × 24–30 µm | 24–30 × 14 µm |

Acknowledgements

Grateful thanks are offered to Prof. V. P. BHIDE, Head of the Department of Mycology & Plant Pathology and to the Director, M.A.C.S. for facilities.

References

- ARX, J. A. von & E. MULLER (1975). A re-evaluation of the bitunicate Ascomycetes with keys to families and genera. — Stud. Mycol. 9: Centraal Bureau voor Schimmelculturs, Baarn, Netherlands (pp. 159).
- BILGRAMI, K. S., JAMALUDDIN & RIZWI, M. A. (1978). Fungi of India. Part I. — Today & Tomorrow's Printers and Publishers, New Delhi (pp. 467).
- *HARR, J. (1971). Einfluss äusserer Faktoren auf die Entwicklung einiger Arten der Gattung *Clathrospora*. — Nova Hedw. 20: 865–901.
- *ERIKSON, O. (1967). On graminicolous Pyrenomycetes from Fennoscandia I, II & III. — Ark. Bot. Ser. 2–6: 339–466.

* Original not seen.

- RAO, R. (1971). Some new and noteworthy fungi from India VIII. — *Sydowia* 25: 54–57.
- TILAK, S. T. (1970). Contribution to our knowledge of Ascomycetes of India XXVI. — *Sydowia* 24: 97–102.
- TILAK, S. T. & KALE, S. B. (1970). Contribution to our knowledge of Ascomycetes of India XXV. Hysteriales. — *Sydowia* 24: 89–92.
- WEHMEYER, L. E. (1961). A world monograph of the genus *Pleospora* and its segregates. — Ann. Arbor (451 pp.).

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Sydowia](#)

Jahr/Year: 1980

Band/Volume: [33](#)

Autor(en)/Author(s): Pande A. K.

Artikel/Article: [Ascomycetes of Western India. VIII. 236-241](#)