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As mentioned previously (Petersen 1967a) I agree with Corner (1950) on the synonymy of *C. sulcata* with *Clavaria* (*Clavulinopsis*) *miniata*, but I can find no evidence that Corner has seen the type of *C. sulcata*. In fact (personal communication with Dr. Mien A. Rifai), there is some evidence to the contrary.

Corner (1950) pointed out that *Clavaria miniata* Purton had priority over *C. miniata* Berk., and that *C. phoenicea* Zoll. & Mor. might be the name of choice for "purists." I have not seen type or authentic material of *C. phoenicea* and no transfer of that name *Clavulinopsis* has been proposed, so I have chosen to retain *Clavulinopsis sulcata* as both the taxonomic and nomenclatural type of the genus (cf. Petersen 1967a).

The small-apiculate spored members of *Clavulinopsis* present a bewildering reticulum of color characters. I have little faith in the primacy of pigment location (hymenium and subhymenium versus trama and subhymenium). At the same time, carotene pigments are confusing in their biochemical expression, as in *Cantharellus* subg. *Leptocantharellus*, so I have tried to adhere to Corner's (1950) scheme on taxonomic disposition of color forms, but with little success (cf. Petersen 1971). The fault is not in the scheme, but my inability to correctly interpret it. One concept is obvious, however: *Clavulinopsis sulcata* is the red-orange pole of the complex.

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#### AN UNDESCRIBED SPECIES OF CALOTHYRIOPSIS ON APPLE

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#### ABSTRACT

The new species *Calothyriopsis mali* Subhedar & V.G. Rao (Fam.: Microthyriaceae), collected for the first time on apple fruits from India, is described and illustrated.

#### ABSTRAK

Jenis baru *Calothyriopsis mali* Subhedar & V.G. Rao (Microthyriaceae) yang dikumpulkan pertama kali pada buah apel di India dipertelakan dan digambar.

During our survey for post-harvest diseases of fruits and vegetables, an unusual blemish disease was observed on several stored fruits of apple (*Mains pumila* L.) in the Poona market (India). The infection was particularly detected on varieties like 'Maharaja', 'Simla' and to some extent on 'Golden Delicious', and found to be restricted to the fruit coat only, never reaching deep into the pulp. Critical examination of these blemish areas revealed the presence of numerous black thyrothecia of a species of *Calothyriopsis* (Microthyriaceae) hitherto unreported on apples'. These fructifications were gregarious, dark, superficial and typically arranged in concentric rings (Fig. 1). With such severe infection, the fruits lose their normal glistening light-pink colour, and thus lowering their market value. The infection areas remain firm and do not show any symptoms of decay. No conidial state was found to be associated with this ascomycetous fungus.

As for its diagnosis and identity, a critical search of literature revealed no report of any species of *Calothyriopsis* on apple. Besides, the present fungus was also compared with other species viz. *C. conferta* (Theiss.) Hohn. and *C. roupalae* (Syd.) von Arx (Muller & von Arx 1962) and found to be quite distinct in its morphology in possessing smaller thyrothecia, asci and ascospores. Hence, it is described here as a new species.

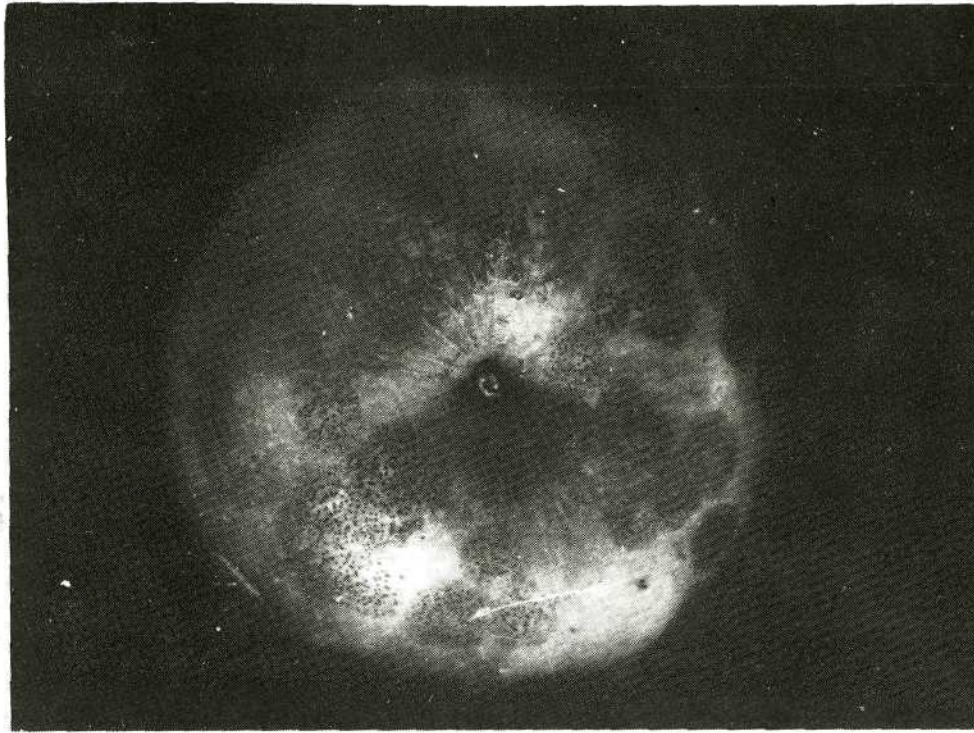


FIG. 1. An infected fruit of apple showing fungal colonies.

***Calothyriopsis mali* sp. nov.** — Fig. 2.

Thyrothecia ovoidea superficialia, brunnea, gregaria, 100—260 x 28—48  $\mu$ m; Mycelia superficialia, brunnea; hypopodia nulleae, haustoria simplicia intro hospes epidermidis. Asci clavati vel ellipsoidea bitunicati, distichae, 25—32.5 x 7—10  $\mu$ m. Ascospores ellipsoideae, hyalinae, uniseptatae, magnit; 14.5—20 x 6—9  $\mu$ m.

TYPE: On fruits of *Malus pumila* L. at Poona, India, 9 September 1975, Legit. M.N.K. and A.W.S. (No. A.M.H. 3148).

Thyrothecia ovoid, superficial, brown, arranged in concentric rings, rough, measure 100—260 x 28—48  $\mu$ m. Mycelium superficial, brown, hypopodia absent, haustoria simple, entering the epidermal tissue of the host. Asci clavate to ellipsoid, bitunicate, distichous, 25—32.5 x 7—10  $\mu$ m. Ascospores ellipsoid, hyaline, uniseptate, 14.5—20 x 6—9  $\mu$ m.

We are grateful to Professor M.N. Kamat, Chief of the Division of Mycology and Plant Pathology for his keen interest, to Dr, G.B. Deodikar,

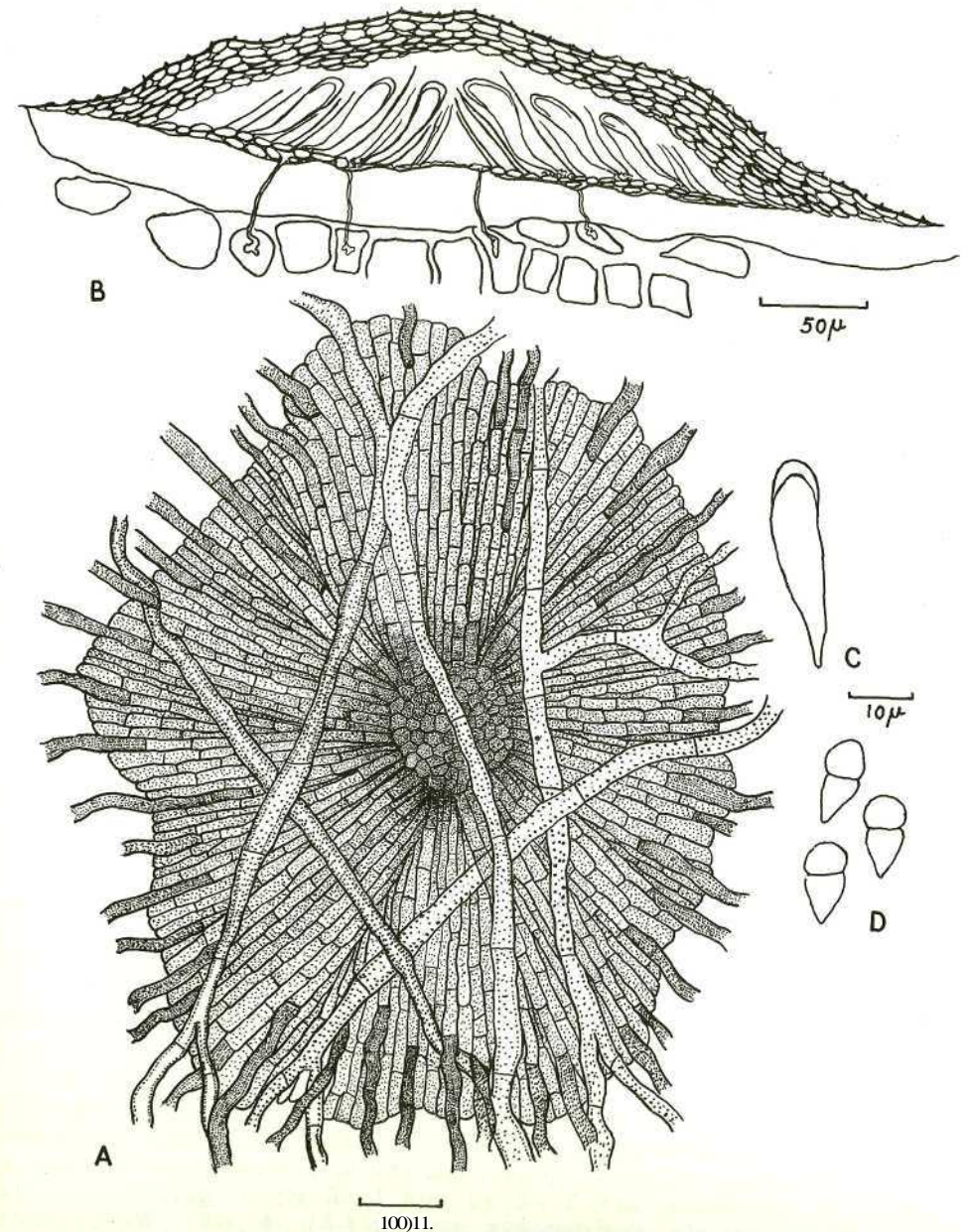


FIG. 2. *Calothyriopsis mali*. A. Thyrothecium, B. V.S. of Thyrothecium, C. Ascus, D. Ascospores,

the Director, M.A.C.S. Poona-4 for laboratory facilities and to the Ministry of Education, Government of India for the award of S.R.T. \*one of us (A.W.S.). This paper represents contribution no. 582 from department of Mycology and Plant Pathology.

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## A NEW SPECIES OF BALANOPHORA FROM THE MALAY PENINSULA

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## ABSTRACT

An illustrated description of *Balanophora hansenii* Hambali, *spec. nov.* is presented. The species belongs to sect. *Dibalaniella*.

## ABSTRAK

Pertelaan bergambar jenis baru *Balanophora hansenii* Hambali disajikan. Jenis ini tergolong seksi *Dibalaniella*.

In his monograph on the genus *Balanophora* J.R. & G. Foster (Dansk Bot. Arkiv 28: 1-189. 1972) Dr. Bertel Hansen recognized 15 species. However, as a by product of a recent mistletoe-hunting trip with Drs. John and Soejatmi Dransfield in Malaya, one more species is to be included in this genus.

*Balanophora hansenii* Hambali, *spec. nov.* — Fig. 1.

A ceteris speciebus sectionis *Dibalaniellae* tuberibus inflorescentias ferentibus cylindricis, inflorescentia foliis aggregatis oculata differt.

HOLOTYPUS: *Hambali s.n.* (BO).

Dioecious plants, dirty to bright coral red, with a pale yellow inflorescence. Tubers branched, elongate, those bearing inflorescences distinctly cylindrical, 4–6 cm by 1.5 cm with apical part ca. 1 cm wide, surface fine granular, minutely puberulous, with scattered white stellate warts. Leaves 1.5–3.8 cm by 1.1–1.9 cm, appearing verticillate on a very short stem of 1 cm long, 3-merous, in 3–4 whorls, slightly cucullate, appressed to and completely concealing the inflorescence, forming a compact oval head, during anthesis rather loosely arranged; longitudinal nerves 5–8, visible only in wet translucent material, median nerves occasionally branched at the middle. Male inflorescence ca. 2 cm by 1.8 cm; flower — bearing bracts 2.5 mm by 4–5.5 mm, truncate, non flower — bearing bracts 3–4 mm by 3–4 mm, spatulate to acute. Flower 19–20, (3-), 4-, (5-) merous, zygomorphic, dimensions of basal flowers larger than those of the apical; pedicels ca. 2–7 mm; lateral

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