

A NEW SPECIES OF *CIRCINELLA* VAN TIEGH. AND LE MONN.

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THE genus *Circinella* was erected by Van Tieghem and Le Monnier¹ for the fungus bearing circinate branches terminated by globose sporangia with persistent sporangial walls. Since then about fifteen species of *Circinella* have been described from different parts of the world: (Petra², Zycha³, Hesseltine⁴). From India, so far, six species have been reported (Butler and Bisby⁵, Sarbhoy *et al.*⁶ Bilgrami *et al.*⁷.)

A striking species of *Circinella* has been isolated repeatedly during the course of study of microfungi from the soils of Bombay-Pune track, and also from the rhizos, here soil of *Parthenium hysterophorus* Linn. A careful review of presently recognised species of *Circinella* clearly indicates that the fungus under study represents a new species of the genus *Circinella*.
Circinella indica Patil and Kale sp. nov.

Colonia in lactosum fermentum extract agar cinerascens, reversus olivaceus; omnis sporangiophore erectus in basalis rhizoidea; rhizoidea ramosus, brunneus, 3-4 μ latus; sporangiophora 6-9 μ in diam, brunneus, semel ramosus; fertilis ramus circinata, ferens singularis sporangium ad apicem, brunneus, 5.5-9 μ in diam, alter ramus spira, brunneus, contractus versus apicem, 5.5-10.5 μ in diam, nunquam terminans in sporangium; sporangia globosa, parvus, incurvus, multisporea, brunneus, 18-32 μ in diam, paries persistent; columellis variabilis in forma, dilutus

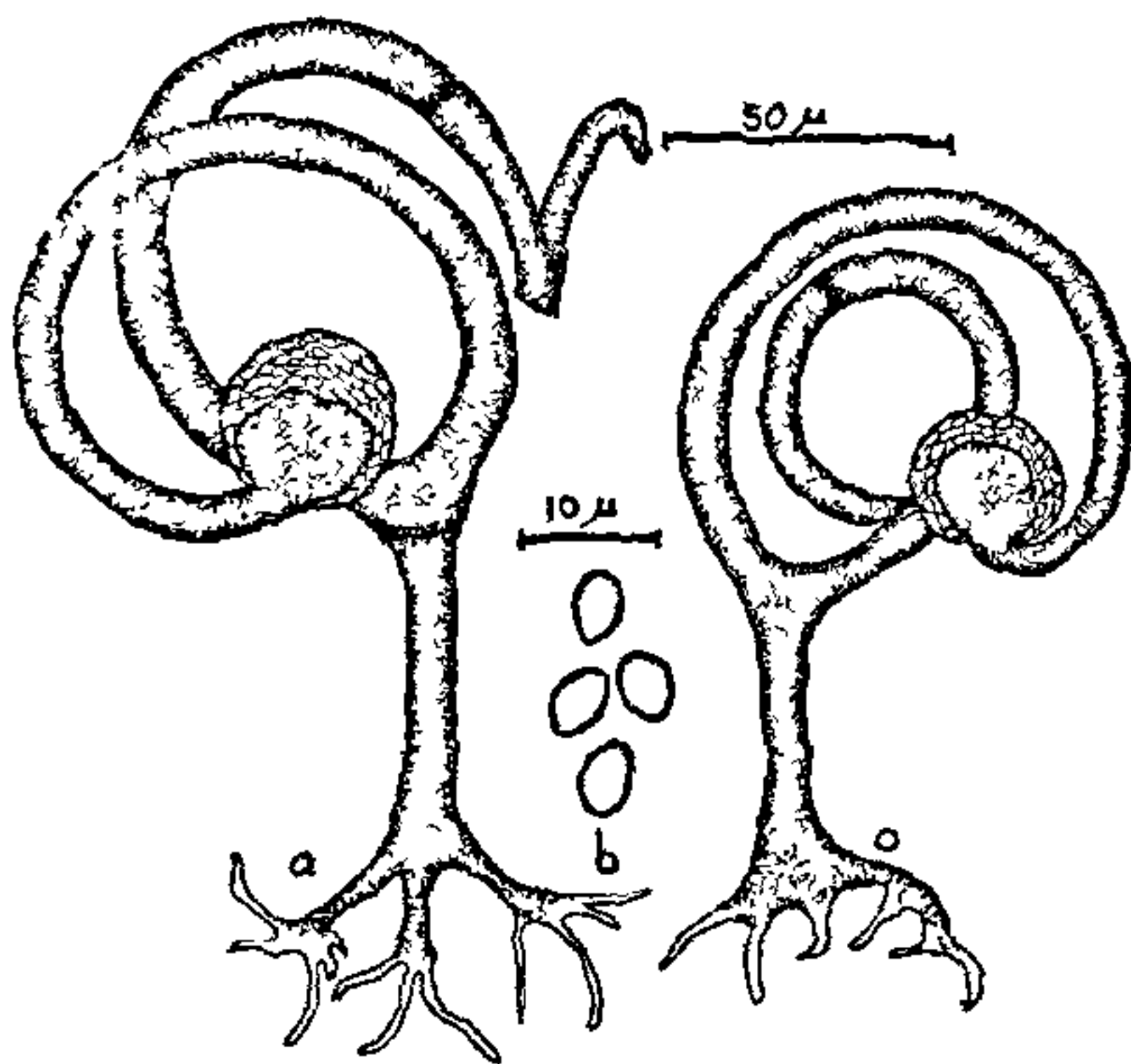


FIG. 1. *Circinella indica* Patil and Kale sp. nov. (a) showing sporangiophore with one fertile branch bearing sporangium and other sterile one. (b) Sporangiospores.

brunneus, laevis, 10-12 μ ; sporangiosporae hyalinus, laevis, sphaericus versus ovoideus, 3-5 μ in diam, zygosporaeque ignotae.

Colonies on lactose yeast extract agar light grey, reverse olive; each sporangiophore erect on a basal rhizoidal complex; rhizoids branched, brown 3-4 μ wide; sporangiophore 6-9 μ in diam, brown, only once branched; fertile branch circinate, bearing single sporangium at its tip, brown, 5.5-9 μ in diam, the other branch spiral, brown tapering towards the apex, 5.5-10.5 μ in diam, never terminates in a sporangium; sporangium spherical, small, incurved, many-spored, brown, 18-32 μ in diam, wall persistent; columellae variable in shape, light brown, smooth, 10-12 μ ; sporangiospores hyaline, smooth, spherical to ovoid 3-5 μ in diam, zygosporae not seen (Fig. 1a and b).

The present fungus resembles *Circinella rigida* in the thickness of sporangiophore and in the diameter of sporangium. The size of the sporangiospores fits in the range of that of *Circinella mucoroides*, *C. musae* and *C. rigida*. The presence of sterile branch reminds one of that seen in *C. mucoroides* and *C. musae*. However the present fungus differs from all these species of *Circinella* in having sporangiophore which is definite in growth. The stout sporangiophore of *C. indica* directly borne on rhizoids branches only once, to produce one fertile and the other sterile branch. However, the sporangium is borne circinately and since the wall of the sporangium breaks, as is typical of all species of *Circinella*, it seems logical to place it in that genus.

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