A new variety of Piptocephalis from Allahabad

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With 1 Fig. in the Text

During the course of isolations of fungi from soil the authors encountered a new and hitherto unrecorded variety of *Piptocephalis*. This variety is of the species *P. indica* Mehrotra & Baijal.

The heart-shaped head cells which characterize this new variety are known only in three other species, viz., *P. xenophila* Dobbs and English (1954), *P. microcephala* van Tieghem (1875) and in a recently described species *P. indica* Mehrotra, (B. S.) and Baijal (1964). Out of these three species this isolate comes nearest to *P. indica* in all the essential characters excepting the number of spores per chain which are upto 10 as against the 7 in *P. indica*. Furthermore, in this isolate, zygospores have been observed which have never been previously seen in *P. indica*. Hence it has been decided in view of these divergent characters to designate this isolate as a new variety has been named after the place, the soil of which yielded this fungus.

Piptocephalis indica var. **shantiniketna** var. nov. Fig. I.

Caespituli primum albidi, postea cinerascentes; mycelium ex hyphis valde ramosis compositum; sporophora plerumque errecta, brunneola, ad basim rhizoideis praedita, 2.2—5.5 μ, in apice 5.5—7.7 μ crassa, longitudinaliter striata, septata, iterum atque iterum dichotome ramosa, ramulis ultimis 2.2—11 × 1.65—3.3 μ, plerumque 3.3 × 2.2 μ; cellulae apicales 3.3—4.4 μ diam., 4—5-lobatae, merosporangiis 3—4 praeditae; sporangiosporae oblongae 3.3—6.6 × 2.2—2.7 μ, plerumque 4.4—2.2 μ, hyalinae; zygosporae globosae, aurantiaco-brunneae, 25—45 μ, plerumque 35 μ diam.; suspensoribus levibus; gametangia subinaequalia.

Colonies on Mucor species growing on hay and oat media at first white, later turning grayish; vegetative mycelium becoming septate, much branched; sporophore mostly erect, brownish with rhizoids at the base, main stalks, 2.2—5.5 μ at the base and 5.5—7.7 μ at the tip; longitudinal striations present, septate, septa simple, branched dichotomously, mostly with whorls of 2—5 primary branches, the latter again branching into 3 or 4 successive dichotomies; ultimate branches, 2.2—11 × 1.65—3.3 μ, mostly 3.3 × 2.2 μ; head cells small, 3.3—4.4 μ in diam., heart-shaped in surface view, 4—5 lobed, each lobe with 3—4 mero-

sporangia, the latter about 11.5—40 μ, mostly 35 μ long with spore 4—10 (usually 10), Sporangiospores oblong, 3.3—6.6 × 2.2—2.7 μ, mostly 4.4 × 2.2 μ, and colourless. Zygospores globose, orange-brown, 25—45 μ, average 35 μ in diam., formed as bud like enlargements from the fused apices of slightly unequal gametangia borne terminally or apposed progametangia; suspensors smooth, erospore wall reticulate. Zygospores produced as a bud formed around the point of fusion of the two gametangia as seen in *Piptocephalis cylindrospora*. The gametangia are slightly unequal.

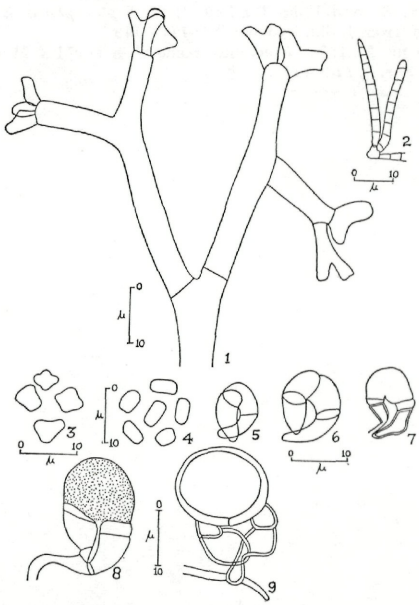

Fig. I. Piptocephalis indica var. shantiniketna. — 1. Upper portion of the sporangiophore showing the branching pattern. — 2. The merosporangia attached from a head cell at the base. Note the number of merospores in them. — 3. Head cells in different views. — 4. Merospores. — 5—8. Different developmental stages of zygospore formation. — 9. A mature zygospore.
Figs. 10—13. plate II

Type: M-33, isolated from loam soil pH 7.5 of Shantiniketan. Culture deposited in the Culture collection of Botany Department, University of Allahabad, and at NRRL, Peoria, Illionois, U.S.A.

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