

Contributions to Indian Myriangiabeae II

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With three Figures

This is the 2nd contribution to this aspect of studies and presents three new species of *Myriangium* collected by the writer at Tungareshwar near Bassein, Maharashtra State, during the months of September—October 1969, parasitizing *Tamarindus indica* L., *Abutilon indicum* Sweet, and *Zyziphus rotundifolia* Lamk. since no species of *Myriangium* had been previously reported on the three host families, a detailed comparative study was undertaken with the type species in respect of habit, natur of stroma, morphological characters, host relationship and nature of parasitism.

A review of the literature bearing on the taxonomy of the genus *Myriangium* has already been presented by the writer (1969) in his 1st contribution of this series and needs no repetition.

The three species described below were compared with the type *M. duriaei* and other Indian species and found to be significantly distinct in respect of habit, natur of stroma, arrangement of locules within the stroma and dimensions besides being collected on hitherto unreported hosts. These species are essentially phytopathogenic unlike the type species which is entomogenous in its parasitism. The species accordingly are accommodated as new taxa.

1. *Myriangium tamarindi* Tendulkar sp. nov. (Fig. 1).

Stromata black, rigid with distinctly raised margins having wavy base, generally uniloculate, hypostroma present. Locules allantoid, subiculum lacking, measuring 352—368 μ in length and 144—160 μ in height. Asci globose to obovate, in uniascal cavities, arranged regularly in 2 to 3 tiers, 8-spored, measuring 28—44 μ \times 26—32 μ . Ascospores muriform with one vertical and 5 to 6 transverse septa, constricted at septa, light yellow, measuring 24—28 μ \times 7.6—8 μ .

Stromata dispersa, superficialia, ambitu orbicularia, tuberculiformia vel pulvinata, superne plus minusve convexa ex hypostromate circumcirca explanato et extenso, pseudoparenchymatico emersa, contextu pseudoparenchymatico, 352—368 μ diam., 144—160 μ crassa, plurilocularia, loculi irregulariter di- vel tritichi, monoascigeri; asci subglobosi vel late ovoidei, sessiles, crassiuscule tunicati, 8-spори, 28—44 \times

26—32 μ ; spores conglobatae vel indistincte tristichae, oblongae, utrinque vix vel parum attenuatae, rectae vel leniter curvulae, longitudinaliter septo unico, transverse septis 5—6 praeditae, in medio plus minusve, ceterum non vel lenissime constrictae, pallide luteolae, 24—28 \times 7.6—8 μ .

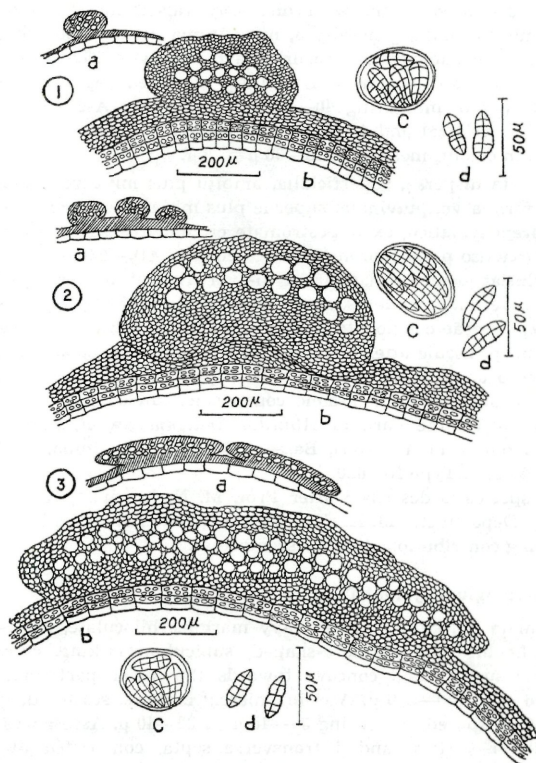


Fig. 1. *Myriangium tamarindi* — a. Habit showing uniloculate stroma (Schematic) — b. Stroma with asci in uniascal cavities arranged in 2 to 3 tiers. — c. Ascus. — d. Ascospores.

Fig. 2. *Myriangium kamatii* — a. Habit showing multiloculate stroma (Schematic) — b. Stroma with allantoid locule and asci in uniascal cavities packed in 2 to 3 tiers. — c. Ascus. — d. Ascospores.

Fig. 3. *Myriangium zyziphi* — a. Habit showing biloculate stroma (Schematic). — b. Stroma showing asci, in uniascal cavities, scattered in the locule. — c. Ascus. — d. Ascospores.

Parasitic on the bark of *Tamarindus indica* L. collected by J. S. Tendulkar at Tungreshwar, Bassein, Maharashtra, India on 11. 9. 1969, M. A. C. S. Type No. 819.

2. *Myriangium kamatii* Tendulkar sp. nov. (Fig. 2).

Stromata black, rigid with distinctly raised margin and wavy bottom, multiloculate, generally 3, hypostroma present. Locules allantoid with basal subiculum, measuring $416-624 \mu \times 272-320 \mu$. Asci globose to obovate, in uniascal cavities, arranged regularly in 2 to 3 tiers, 8-spored, measuring $40-44 \mu \times 32-36 \mu$. Ascospores muriform with 1 vertical and 4 to 5 transverse septa, constricted at septa, yellowish in colour, measuring $26-30 \mu \times 8 \mu$.

Stromata dispersa, superficialia, ambitu plus minusve orbicularia, tuberculiformia vel pulvinata, superne plus minusve convexa, contextu pseudoparenchymatico, ex hypostromate circumcirca explanato et plus minusve extenso pseudoparenchymatico emersa, $416-624 \times 272-320 \mu$, plurilocularia; loculi subregulariter di- vel tristichi, monoascigeri; asci subglobosi vel late ovoidei, sessiles, crassiuscule tunicati, 8-sporei, $40-44 \times 32-36 \mu$; sporae conglobatae, oblongae, utrinque obtusae, vix vel parum et abruptiuscule attenuatae, rectae vel leniter curvulae, longitudinaliter septo unco, transverse septis 5-6 praeditae, in medio plus minusve, ceterum non vel lenissime constrictae, luteolae, $26-30 \times 8 \mu$.

Parasitic on the bark of *Abutilon indicum* Sweet, collected by J. S. Tendulkar at Sateri, Bassein, Maharashtra, India, on 13. 10. 1969. M. A. C. S. Type No. 820.

The species is described after Prof. M. N. Kamat, Head of the Mycology Department, M. A. C. S., Poona 4, India, in recognition of his outstanding contributions to the Ascomycetes.

3. *Myriangium zyziphi* Tendulkar sp. nov. (Fig. 3).

Stromata black, rigid with wavy margins, biloculate, hypostroma present. Locules linearly disc-shaped, subiculum lacking, convex at the upper surface and concave towards the lower part, measuring $880-1056 \mu \times 160-240 \mu$. Asci in uniascal cavities, scattered, globose to obovate, 8-spored, measuring $36-48 \mu \times 32-40 \mu$. Ascospores muriform with 1 vertical and 4 transverse septa, constricted at septa, yellowish in colour, measuring $22-32 \mu \times 8 \mu$.

Stromata dispersa, superficialia, lineari-tuberculiformia vel elongato-pulvinata, superne convexa, inferne concava, contextu pseudoparenchymatico, ex hypostromate circumcirca explanato et plus minusve extenso, pseudoparenchymatico emersa, $880-1056 \times 160-240 \mu$, plurilocularia, loculi subregulariter di- vel tristichi, monoascigeri; asci plus minusve globosi vel late ovoidei, sessiles, crassiuscule tunicati, 8-sporei, $36-48 \times 32-40 \mu$; sporae conglobatae, oblongae, utrin-

que abruptiuscule attenuatae, tunc oblongo-fusoideae, rectae, raro inaequilatae vel curvulae, longitudinaliter septo unico, transverse septis 4—5 praeditae, in medio plus minusve, ceterum non vel lenissime constrictae, luteolae, 22—32 \times 8 μ .

Parasitic on the bark of *Zyziphus rotundifolia* Lamk. collected by J. S. Tendulkar at Sateri, Bassein, Maharashtra, India, on 13. 10. 1969. M. A. C. S. Type No. 821.

The genus is essentially known to parasitize scale insects. However, it is interesting to note that out of the nine species of *Myriangium* reported from India only one viz. *M. cinchonae* has been reported to be associated with scale insects.

This contribution brings the total number of species of *Myriangium* in India to 9 all of which are essentially parasitic on the bark of several plants of economic importance. The infection, however, appeared to be of sporadic nature with little or no damage to the hosts.

The type materials of the three new species are being deposited at Herb. Orientalis, New Delhi (India) and C. M. I., Kew, England.

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