

Figures 3, 4. 3. Mature conidia. 4. Phialides with young developing conidia.

is by irregular, stellate rupture of the upper wall of the pycnidium. The fungus was collected on leaves of *Calophyllum inophyllum* for three consecutive years in the same season. This shows that this Coelomycetous fungus plays an important role in the decomposition of tropical leaf litter.

**Habitat:** 1) Collected on fallen leaves of *Calophyllum inophyllum* L., Y. W. C. A. Hostel, Madras, by J. Muthumary, 2-10-1983. Herb. MUBL 2912.

2) On fallen leaves of *Eucalyptus* sp. Kodaikanal, on the way to Berijam, by J. Muthumary, 10-10-1984. Herb. MUBL 2913.

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1. Sutton, B. C., *The Coelomycetes*, Commonwealth Mycological Institute, Kew, England, 1980, p. 686.

## DEVELOPMENT OF GAMETOPHYTES IN *BIGNONIA INCARNATA* AUBL

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BIGNONIACEAE is a large family and literature on embryology is scanty. Davis<sup>1</sup> mentioned the embryological work of *Bignonia megapotamica*, *Jacaranda*, *Tecoma* and *Oroxylum indicum*. Shirke<sup>2</sup> described the embryogeny of *Spathodea campanulata*. The present work was undertaken to understand the locally available members of Bignoniaceae.

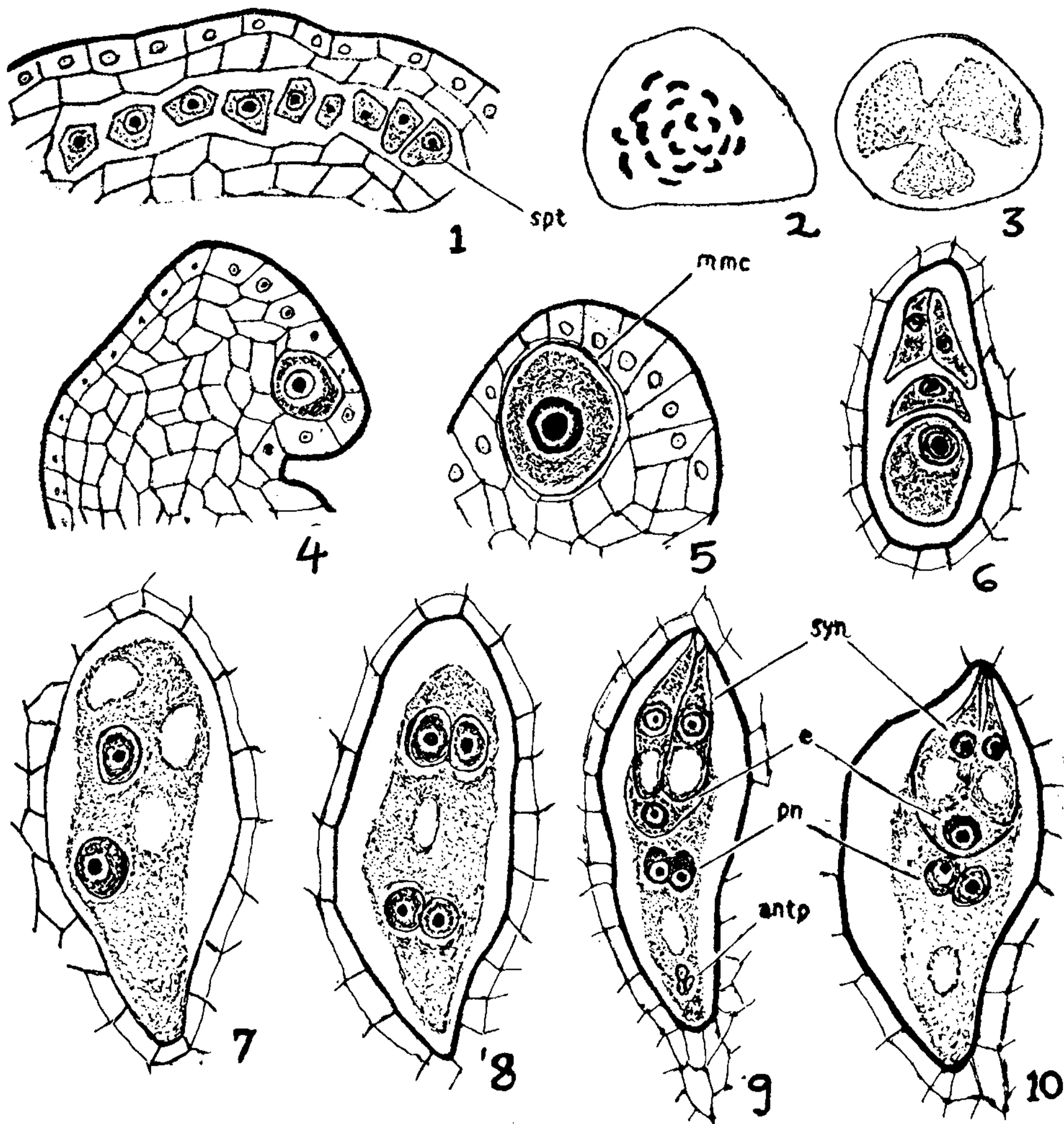
In antherlobe, one of the hypodermal cells is differentiated as an archesporial initial and it divides and forms sporogenous tissue (figure 1). The cells are polygonal when young but become poly to hexagonal later. Division in the PMC is of successive type, with the haploid chromosome number,  $n = 20$  (figure 2). A mature pollen grain is tricolpate (figure 3). Ovules are unitegmic, tenuinucellate and anatropous. Archesporium directly acts as a megaspore mother cell (figures 4 and 5). Degeneration of nucellar cells is greater at chalazal region. Nucleus of MMC starts dividing and undergoes synizeisis, forming dyad,; followed by a second transverse division resulting in T-shaped tetrad (figure 6). The chalazal megaspore is functional and gives rise to mature embryo sac. Functional megaspore cell enlarges, cytoplasm becomes vacuolated, its nucleus divides resulting in two-nucleate stage (figure 7). Two nuclei are situated at the centre with a vacuole on either side. The next division forms a four-nucleate stage (figure 8). The third division results in eight-nucleate embryo sac (figures 9 and 10). In a mature embryo sac the chalazal and micropylar polar nuclei move and fuse, forming a secondary nucleus. Development of female gametophyte conforms to the monosporic, eight-nucleate, polygonum type and well compared with the work of Swamy<sup>3</sup>.

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1. Davis, G. L., *Systematic embryology of the Angiosperms*, 1966, 1.

2. Shirke, D. R., *Bioviyanam*, 1985, 11, 51.

3. Swamy, B. G. L., *J. Indian Bot. Soc.*, 1941, 20, 299.



**Figures 1–10.** *Bignonia incarnata* Aubl. 1. Sporogenous tissue, *Spt.*, ( $\times 250$ ). 2. PMC at diakinesis, ( $\times 350$ ). 3. Pollen grain, ( $\times 350$ ). 4. Archesporial initial, ( $\times 300$ ). 5. Megaspore mother cell, *mmc* ( $\times 500$ ). 6. T-shaped megaspore tetrad, ( $\times 500$ ). 7. Two-nucleate embryo sac ( $\times 500$ ). 8. Four-nucleate embryo sac ( $\times 500$ ). 9–10. Mature embryo sac ( $\times 400$ ). *Spt*—Sporogenous tissue. *mmc*—Megaspore mother cell. *Syn*—Synergids, *e*—egg. *Pn*—Polar nuclei, *antp*—antipodals.