

LEAVES.—*Agave sisilana* *Bromelia* sp.
FRUIT.—*Musa* sp., *Gossypium* sp.
Jute Agricultural Research
Laboratories, Dacca,
Indian Central Jute Committee,
October 4, 1943.

A. C. BOSE.

1. Lec. Bolles, *The Microtome's Vade-Mecum*, 1937, 671-72.
2. Vinson, *Bot. Gaz.*, 1910, 49, 222 (original not seen).
3. McClung, C. E., *Handbook of Microscopical Technique*, 1937, 222.
4. Rawlin, T. E., *Phytopathological and Botanical Research Methods*, 1933, p. 54.
5. Dastur, K. H., *Indian J. Agric. Sci.*, 1939, 9, 295-96.
6. Rosenblatt, M., and Peluso, J. V., *Jour. A.O.A.C.*, 1941, 24, 170-81.
7. Nodder, C. R., *Bull. I.C.J.C.*, 1941, 3, 647.
8. Kundu, B. C., *Ibid.*, 1943, 6, 157-61.

A NEW ASCOMYCETOUS FUNGUS ON SELAGINELLA

THE fungi, so far recorded on *Selaginella*, are *Pythium Debaryanum* and *Synchytrium Selaginellae* among the Phycomycetes; *Taphrina Selaginellae*, *Acrospermum urceolatum* and *Leptosphaeria helvetica* among the Ascomycetes; the Deuteromycete *Phyllosticta Selaginellae*, and two smuts *Melanotanium Selaginellae* and the Indian specimen *Entyloma polyosporium*.¹ According to some² the smut recorded from India³ as *Entyloma* bears greater resemblance to the genus *Melanotanium*. Recently Sydow⁴ has described *Melanotanium oreophilum* as a new species on two Indian *Selaginellae*.

The present specimen is an Ascomycete belonging to the order Sphaeriales and the family Sphaeriaceae. The minute perithecia are globose and black and are found superficially in groups at the tips of vegetative shoots or sporangiferous spikes. They are black, smooth, hard, devoid of hairs and lack long beaks. However, an ostiole, situated on a minute papilla, is clearly visible under a lens. The ascospores, which are eight in number in each ascus, are oblong to spindle-shaped, hyaline and bi-celled. Paraphyses are present.

The fungus thus agrees with the description given^{5,6} for the genus *Melanopsamma* to which it belongs. Studies based on microtome sections as well as measurements of spores, asci, etc., show that it is a new species. An interesting feature of this fungus is that its hyphae grow down to a considerable extent, along the vascular bundle, from the tip, but do not affect other parts of the stem such as endodermis, cortex, etc., or the leaves. A full description of the fungus together with the naming of the species will be given elsewhere. It may be noted here that this is also the first record of *Melanopsamma* on any host in India. Butler and Bisby⁷ and Mundkur⁸ do not mention anything about this genus.

The present fungus was found growing on living *Selaginella chrysocaulos* in the Lloyd

Botanical Gardens, Darjeeling, in the month of September.

Department of Botany,
University of Allahabad,
October 5, 1943.

A. K. MITRA.

1. Verdoorn, Fr., *Manual of Pteridology*, 1933, p. 156.
2. Maheswari, P., and Pari, V., *Curr. Sci.*, 1935, 3, 301.
3. Singh, T. C. N., *New Phytologist*, 1930, 29, 294-96.
4. Sydow, H., *Annales Mycologici*, 1935, 33, 367.
5. Winter, G., *Rabenhorst's Kryptogamenflora*, 1887, p. 238.
6. Saccardo, *Sylloge fungorum*, Vols. 1-24.
7. Butler and Bisby, *Fungi of India*, 1932.
8. Mundkur, B. B., *Fungi of India*, Supplement 1, 1938.

CASES OF ANTIPODAL POLYEMBRYONY IN ALANGIUM LAMARCKII Thw.

A DETAILED review on polyembryony has already been published by Webber.² In most of the cases multiple embryos are formed by nucellar budding and these are sporophytic in nature. Development of additional embryos from the antipodals are comparatively of rare occurrence. Cases of antipodals developing further into adventitious embryos are reported by Ernst¹ in *Allium* and Woodworth³ doubtfully refers to such cases in *Amus rugosa*.

In the course of the studies on the Gametogenesis and Embryogeny in *Alangium Lamarckii* Thw., the writer noticed in many cases, the antipodals developing into immature embryos. In normal cases the antipodal nuclei degenerate just prior to fertilization. But in some cases they become cellular. Such a cell

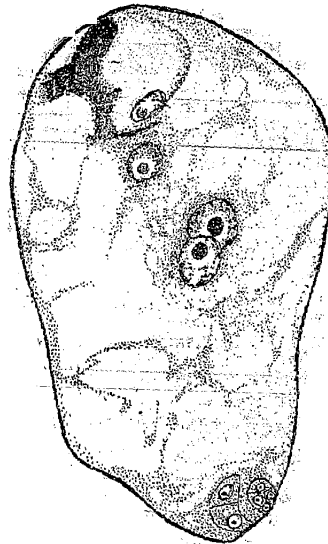


FIG. 1
Embryo-sac of *Alangium Lamarckii* showing antipodal polyembryony. $\times 700$.