

ANTHASTHOOPA, A NEW GENUS OF THE SPHÆROPSIDALES

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AN interesting pycnidial fungus was collected on dead pods of *Cæsalpinia pulcherrima* Swartz., from the University Botany Laboratory Garden, Madras. A description of this fungus is given below.

The fungus forms numerous pycnidia all over the dead pods. The pycnidia appear as minute, pin-point-like, somewhat circular, elevations on the surface of the pod and are separate. The pycnidia are immersed in the substratum and are depressed-globose. The pycnidial wall is membranous and is composed of 2-4 layers of pseudoparenchymatous, dark brown cells. There is no evidence of a morphologically differentiated ostiole and dehiscence appears to be due to the bursting of the top of the pycnidium through the tissue of the substratum. The conidiophores are not produced from all over the inner surface of the pycnidial wall, but are produced entirely from over a hemispherical mound of fungal tissue, simulating a sporodochium. The cells of this tissue are minute and subhyaline to pale brown. The conidia are one-celled, hyaline, dorsiventral, and are produced acrogenously and singly at the tips of simple, subhyaline conidiophores. Each conidium has an apical, hyaline, mucoid appendage which is whip-like, the whip being turned backwards and lying parallel and closely touching the concave side of the conidium. This appendage is as long as the spore itself or sometimes slightly shorter.

In the possession of a mucoid apical appendage, the fungus resembles the genus *Neottiospora* Desm. (Subramanian and Ramakrishnan, 1953). However, the appendage in the present fungus is not funnel-shaped as in *Neottiospora*, but is solid and whip-like, and is always turned back and lies closely appressed to the concave side of the dorsiventral spore. A further noteworthy feature of our fungus is the sporodochium-like mound of tissue, at the base of the pycnidial cavity, from which the conidiophores arise. So far as we are aware, no genus of the Sphæropsidales combining the characteristics of this fungus has been described so far and we are, therefore, proposing a new genus to accommodate it. The generic and specific names are both derived from Sanskrit: the generic name from *antha* (अन्त) = internal, and

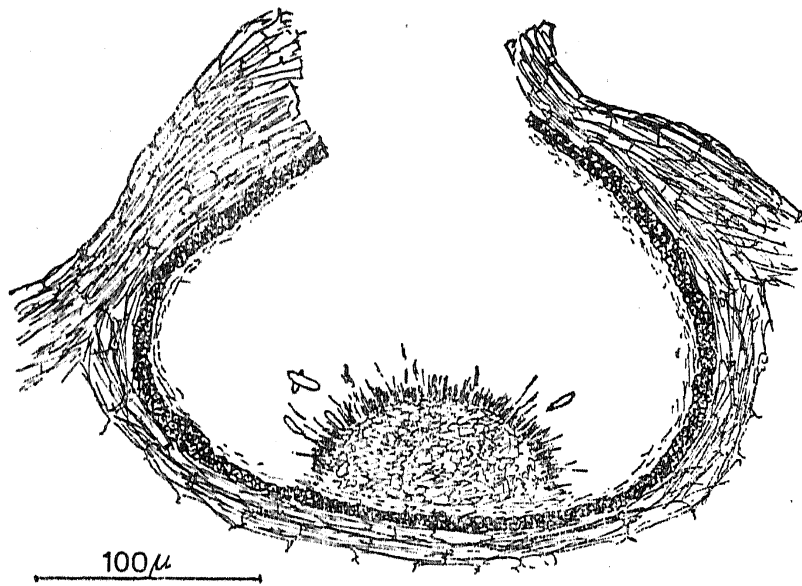


FIG. 1

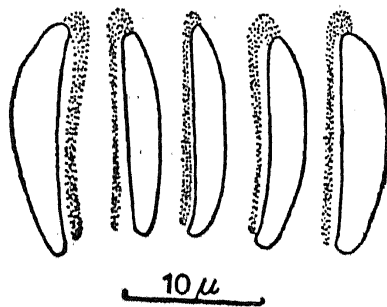


FIG. 2

FIGS. 1-2. *Anthasthoopa simba* from type specimen, Herb. M.U.B.L. No. 808. Fig. 1. Longitudinal section of pycnidium (diagrammatic). Fig. 2. Conidia.

sthoopa (स्तूप) = mound, column; and the specific name from *simba* (सिब) = legume, suggestive of the substratum on which the fungus occurred.

***Anthasthoopa* SUBRAMANIAN AND RAMAKRISHNAN GEN. NOV.**

Pertinet ad Fungos Imperfectos, ad *Sphærospidales*, *Sphæroideas*, *Hyalosporas*. Pycnidia immersa, parietibus membranaceis, absque stromate. Conidiophori producti ex cumulo textuum sporodochii similium ad basim cavitatis pycnidialis. Conidia semel cellulata, hyalina, dorsiventralia, producta singulariter atque acrogene, singula ornata appendice apicali, hyalina, mucoidea retrorsum versa, intime adpressa atque parallela lateri concavo conidii.

Fungus imperfectus, *Sphærospidales*, *Sphærioideae*, *Hyalosporæ*. Pycnidia immersed, with membranous wall, without stroma; conidiophores

produced from the surface of a sporodochium-like mound of tissue at the base of the pycnidial cavity. Conidia one-celled, hyaline, dorsiventral, produced singly and acrogenously, and each having an apical, hyaline, mucoid appendage turned backwards and lying closely adpressed and parallel to the concave side of the conidium.

TYPE SPECIES: *Anthaslicopa simla* SUBRAMANIAN AND
RAMAKRISHNAN SP. NOV.

Pycnidia minuta, circularia, immersa, depresso-globosa, tum erumpentia, dehiscentia per rupturam apicia; parietes pycnidiales membranacei, constantes e 2-4 seriebus cellularum brunneolarum atque pseudoparenchymaticarum. Conidiophori simplices, hyalini, surgentes e cumulo textus fungalis sporodochio similis ad basim cavitatis pycnidialis. Conidia semel cellulata, hyalina, fusiformia, tenuiter curvata atque dorsiventralia, producta acrogene atque singulariter ad apices conidiophorum, singula ornata appendice apicali, hyalina, mucoidea, flagelliformi, retrorsum versa atque parallela et intime adpressa lateri concavo conidii; conidia $15-19 \times 2.5-3.4 \mu$; appendix aequilonga conidio, vel eo tenuiter brevior.

Typus lectus in leguminibus emortuis *Casalpinia pulcherrima* Sw. in campo laboratorii botanici Universitatis, in urbe Madras, die 26 mensis Junii anni 1952 a C. V. Subramanian, et positus in herbario M.U.B.L. sub numero 808.

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REFERENCES

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