

MICROSPHAERA GROSSULARIAE (Wallroth) Lev.:
A CLEISTO-THECIAL ASCOMYCETE NEW FOR INDIA

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ABSTRACT

Microsphaera grossulariae (Wallroth) Lév. is recorded from Mussoorie hills (N.W. Himalayas) for the first time. *Spiraea cantopiensis* Lour., is a new host for the fungus.

INTRODUCTION

During botanical excursion, September-October 1981 in the Mussoorie hills, one of us (G.S.R.) collected an interesting powdery mildew on *Spiraea* species from the subalpine region. On critical investigations the fungus was identified as *Microsphaera grossulariae* which is a new record for India. The cited collection has been deposited in PAN (Herbarium, Botany Department, Panjab University, Chandigarh, India).

The genus *Microsphaera* Lév. is represented previously in India by 3 species, Bilgrami *et al.* (1979).

OBSERVATIONS

Microsphaera grossulariae (Wallroth) Lév., in Ann. Sci.

Nat. Bot. III, 15 154-1851.

Fig. 1. A - C.

Ascocarps scattered or gregarious, superficial, seated on sparse mycelium, globose, dark-brown to black, 1/6 - 1/10 mm across, bearing 10-18 appendages, predominantly 15, 1/4 - 1/7 mm long and 5-7 μ m wide, simple, (occasionally branched in the middle), straight or bent, thick-walled, hyaline at the base, brownish above, 1-2 septate below near the base and non-septate or 1-septate at the point of first dichotomy, closely forked near the apices. Asci 35-56 x 21-35 μ m, saccate or ovate, 4-4-spored, hyaline, thick-walled, with a short knob-like stipe, 3 or 4 asci per ascocarp. Ascospores 17-25 x 8.5-14 μ m, broadly ellipsoid, straight or somewhat curved, hyaline, thin-walled, one-celled, guttulate, guttules variable in number and position, with foamy granular contents.

Collection examined: G.S. Rawla 9130 (PAN), on *Spiraea cantoniensis* Lour., Sarkanda Devi (alt. 3030 m), Mussoorie, U.P., North-Western Himalayas, India, September 29, 1981.

Remarks: *Microsphaera grossulariae* is being recorded here for the first time from India. This collection agrees well with the description given by Dennis (1978) in gross morphology except the larger ascospores, which are well within the circumscription of the species.

The British populations were on *Ribes grossularia* where as the Indian populations are on *Spirea cantoniensis* which is a new host record for the fungus.

This species is marked by small cleistothecia with distinctly forked appendages; small 4-spored saccate or ovate asci; and large ellipsoid ascospores.

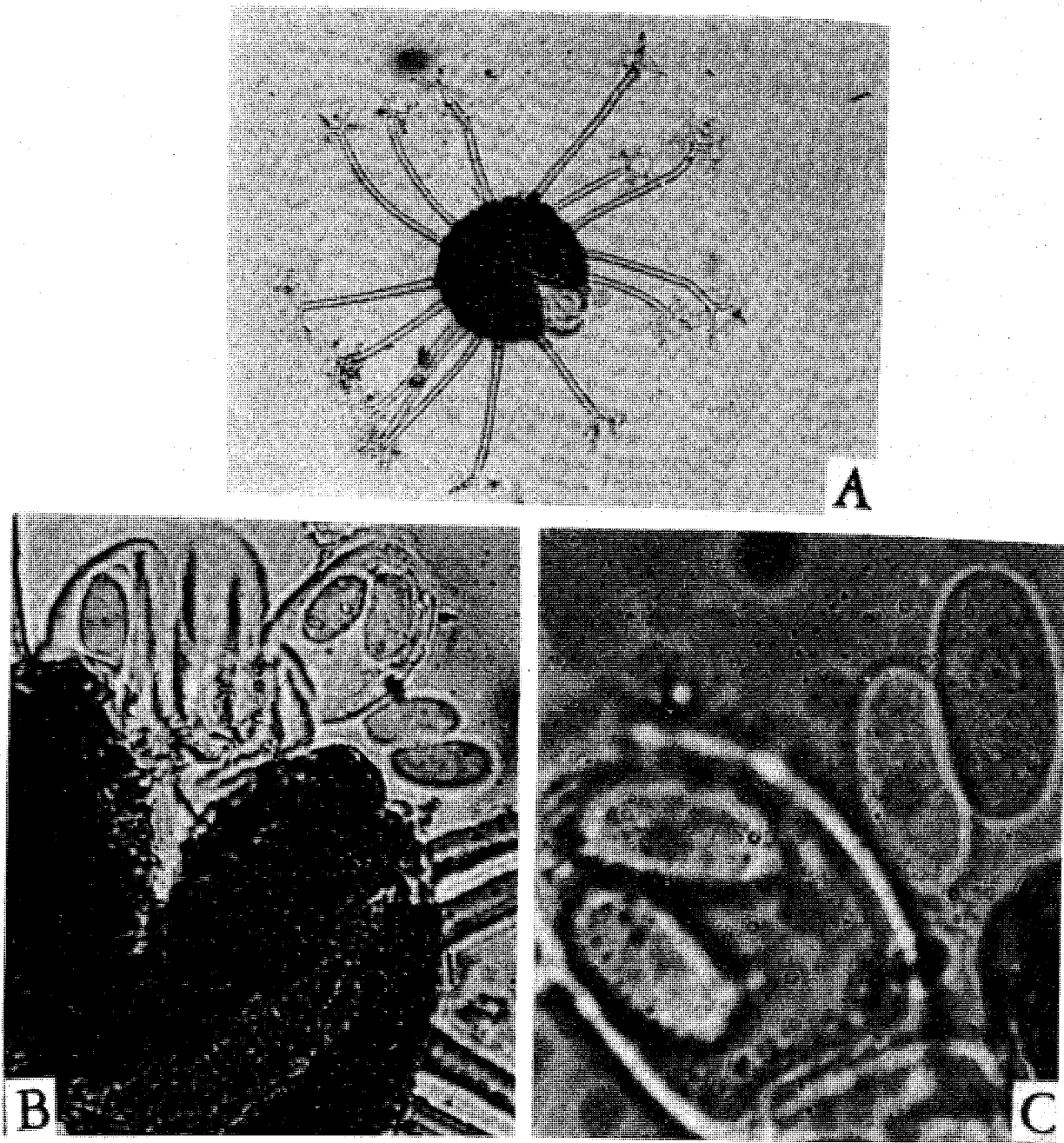


Fig. 1, A-C. Microsphaera grossulariae (Wallroth) Lév.
(Photomicrographs)

- A. Cleistothecium showing 15 appendages and their nature X 450.
- B. Fruitbody after dehiscence, releasing asci X 1600.
- C. Ascospores X 2000.

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