

FIRST RECORD OF *RIESSIA SEMIOPHORA* FRESEN. FROM SPAIN

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ABSTRACT. First record of *Riessia semiophora* Fresen. from Spain. *Riessia semiophora* Fresen., a basidiomycetous anamorph previously unrecorded in Spain, is described and illustrated with light microscopy (LM), differential interference contrast (DIC) and scanning electron (SEM) micrographs.

Key Words: Basidiomycetes, anamorphs, *Riessia*.

RESUM. Primera cita de *Riessia semiophora* Fresen. a Espanya. *Riessia semiophora* Fresen., un anamorf de basidiomicet no citat fins ara a Espanya, és descrit i il·lustrat amb microfotografies per sistemes d'òptica clàssica, contrast d'interferència diferencial (DIC) i microscòpia electrònica de rastreig (SEM).

Paraules clau: Basidiomicets, anamorfs, *Riessia*.

INTRODUCTION

During mycological prospecting carried out under the programme on Mycological Biodiversity of Catalonia, *Riessia semiophora* Fresen. was found on two different substrates and in two distinct sites of the country. *Riessia* Fresen., created in 1852, is a very small genus of microscopic dikaryotic anamorphs whose clamp connections in the hyphae point out its basidiomycetous nature. Conidial ontogeny is holoblastic, conidia are solitary, and secession schizolytic (HAWKSWORTH *et al.*, 1995). *R. semiophora*, the species for which the genus was erected, has been rarely found in the world. Considering the synnematosus habit of the fructifications and the shape of the conidia, SACCARDO (1886) placed this fungus among the deuteromycetous Staurosporae of the family Phaeostilbeae Sacc. However, its uncommon tetra-radiate conidia have been considered either as staurospores or dictyosporae (KENDRICK & CARMICHAEL, 1973).

The morphological characteristics of the fungus collected in Catalonia agree with those observed by GOOS (1967) for *R. semiophora*. This species is here recorded for the first time for Spain, and its features are described and illustrated.

DESCRIPTION

***Riessia semiophora* Fresen.** Figs. 1, A-D.

Colonies projecting from the substrate as white, conical shaped synnemata, and showing a powdery, floury aspect at maturity. Each synnema consists of a stalk up to 800-850 µm tall, 130 µm wide at the base and 60-70 µm toward the apex, composed of erect, smooth-walled, septate hyphae, 2-2,5 µm in diam. hyaline when young and pale brownish later on, that diverge moderately at their upper half and there produce conidiogenous cells and conidia. Conidiogenous cells filiform and hyaline, with four (rarely five) radiately arranged loci that give rise to the four (rarely five) subtriangular, appressed lobes of the conidia. Conidia hyaline, with rough surfaces, 9-12 µm in outline diam., distinctly flattened and complanate, 4-6 µm in thickness when viewed from the side. They show a peculiar flower-like aspect because of the cruciate manner in which the lobes are borne from a central disk.

SPECIMENS EXAMINED. SPAIN, CATALONIA: Serra de Roques Blanques, Castellolí, Torrent de les Coves, alt. 600 m, on a carpophore of the basidiomycete *Fomitopsis pinicola* (Fr.) Karst. living on a log of *Pinus* sp., 11 Mar. 1996, leg. X. Llimona (BCC Myc. MC234). - Berguedà, Castell de l'Areny, alt. 1115 m, on a dead stump of *Pinus sylvestris* L., 15 Aug. 1996, leg. P. Hoyo (BCC Myc. MC243).

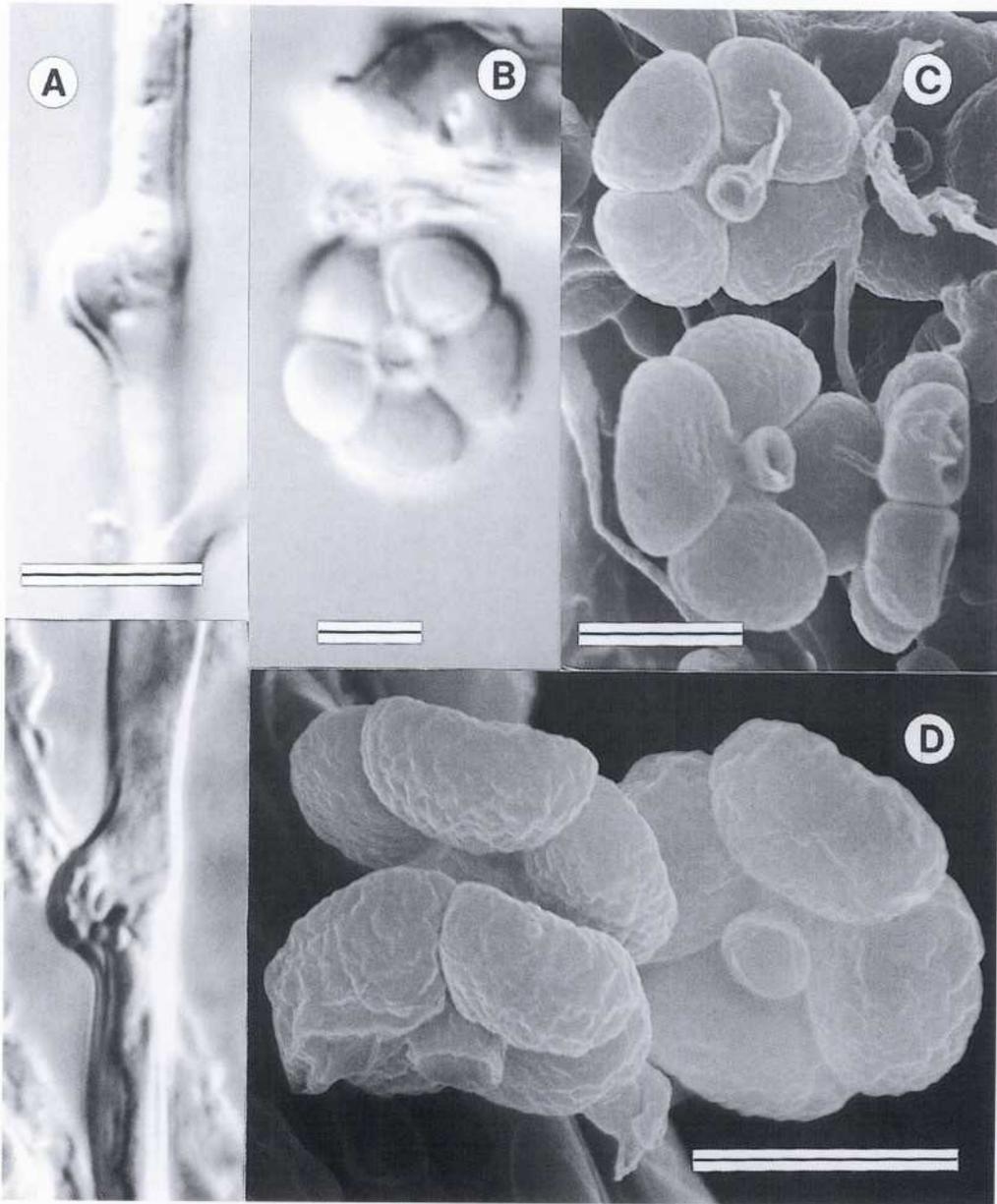


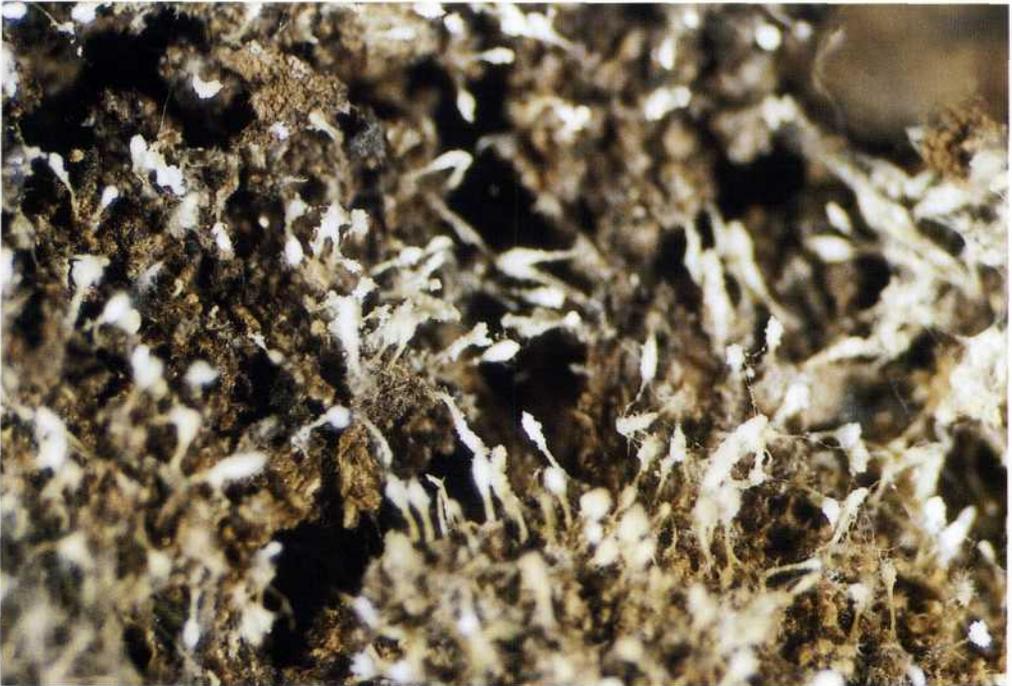
Fig. 1. *Riessia semiophora*. A) Clamp-connections observed by differential interference contrast microscopy (DIC) in the hyphae. B) DIC micrograph of a 5-lobed conidium. C and D) SEM views of conidia showing the insertion points to the conidiophores and their corrugated wall surfaces. (Bars = 5 μ m).

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REFERENCES

- GOOS, R.D. (1967). Observations on *Riessia semiophora*. *Mycologia*, 59: 718-722.
- HAWKSWORTH, D.L., KIRK, P.M., SUTTON, B.C., & PEGLER, D.N. (1995). *Ainsworth & Bisby's Dictionary of the Fungi*. 8th ed. CAB International, Egham, Surrey, U.K.
- KENDRICK, W.B. & CARMICHAEL, J.W. (1973). Hyphomycetes. In *The Fungi* (G.C. Ainsworth, F.K. Sparrow and A.S. Sussman Eds.), IV A: 323-509 (p. 405).
- SACCARDO, P.A. (1886). *Sylloge fungorum. Omnium hucusque cognitorum. Hyphomycetum*. Vol. 4: 627. Pavia.



Riessia semiophora in nature, groups of synnemata, (BCC Myc. MC234).