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## *Agaricus pilatianus*, a new record for the Sicilian mycoflora

### Abstract

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*A. pilatianus* (Bohus) Bohus, previously known in Italy in Emilia, Apulia and Sardinia, is recorded for the first time for Sicily. Brief notes on the chorology and ecology of the collected specimens are provided.

### Introduction

Although the history of mycological investigations in Sicily begins about two centuries ago, the mycological flora on the whole is still not well investigated.

As for macrofungi, our knowledge of most genera, *Agaricus* in particular, is very inadequate. A recent inventory of Sicilian fungi (Venturella 1991) lists just 14 *Agaricus* taxa, and only 6 from the Palermo area: *Agaricus arvensis* Schaeffer: Fr., *A. bertoloni* Inzenga, *A. placomyces* var. *meleagris* J. Schaeffer, *A. radicans* Vittad. sensu Bres., *A. silvaticus* Schaeffer ex Secr. and *A. vaporarius* (Pers. ex Vittad.) Moser.

This paper adds a new item to the Sicilian mycoflora: *Agaricus pilatianus* (Bohus) Bohus, one of the about seventy "European" species which, according to Cappelli (1984), belong to *A.* subg. *Agaricus*.

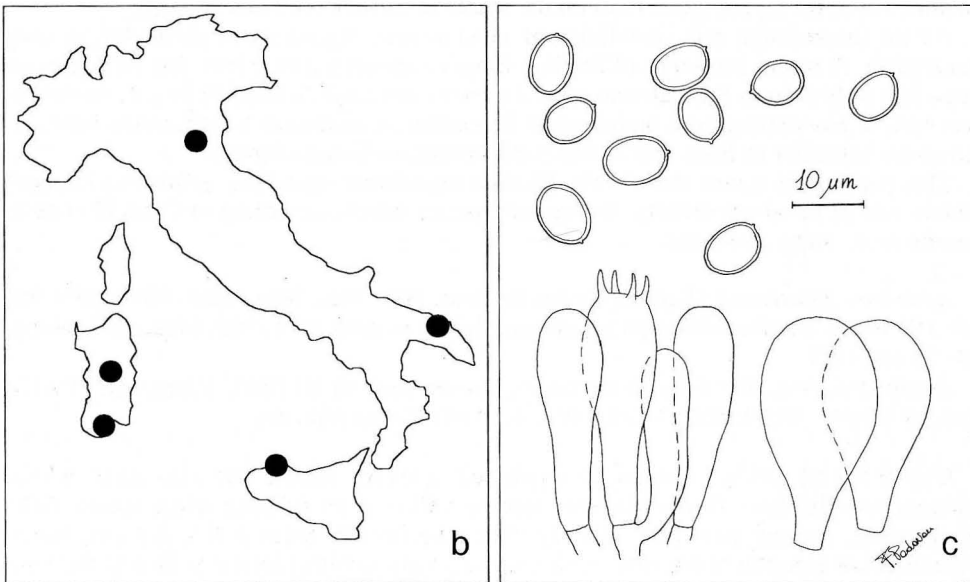
*Agaricus pilatianus* (Bohus) Bohus in Ann. Hist.-Nat. Mus. Natl. Hung. 66: 78-85. 1974 ≡ *A. xanthoderma* var. *pilatianus* Bohus in Ann. Hist.-Nat. Mus. Natl. Hung. 63: 77-82. 1971.

Sicily: Palermo, Via Filippo Parlatore, flower-bed, 16.10.1990, *Venturella* (PAL); *ibid.*, 8.9.1991, 29.10.1992, 24.11.1993, 4.3.1993, *Venturella obs.*

Cap 6-8 cm, fleshy, convex to expanded, greyish brown but also dirty white, squamulose-fibrillose, then squamose, turning yellow after rubbing when young. Gills dirty white, turning pale pink, finally chocolate-brown. Stem 5-6 x 2-3 cm, squat, cylindrical or tapering at the base, white, immediately turning chrome yellow at the base when detached from the ground. Ring pendent, with margin bending three times, turning yellow. Flesh whitish, turning chrome yellow in the stem base, smell slightly carbolic. Spores roundish, smooth, with a thick wall, blackish brown, 4.5-6 (6.5) x 3.9-4.4 μm (Fig. 1c). Cheilocystidia amply clavate, as long as the basidia but wider (up to 15 μm in diameter).



a



b

c

Fig. 1: *Agaricus pilatianus*. a, general habit; b, geographical distribution in Italy; c, microscopic features.

*Agaricus pilatianus* was observed on several occasions, from September to late in winter, in Palermo by one of the authors (G. V.), but exclusively in a little flower-bed (2.10 x 1.00 m) located inside his private garden (Fig. 1a). This flower-bed is neglected, full of rubbish and invaded by nitrophilous species, mainly *Urtica membranacea* Poir., which confirms the preference of *A. pilatianus* for areas strongly disturbed by human activities such as gardens, parks, graveyards, etc. (Moser 1980, Cappelli 1984).

The soil type falls under the Mediterranean red soils that are widespread on the calcarenite platforms along the western coastline of Sicily, and are characterized by a sandy-clayey texture, shortage of organic matter and a mainly neutral or sub-alkaline reaction (Fierotti & al. 1988).

A voucher specimen is kept in the herbarium of the Botanical Garden of Palermo (PAL).

*Agaricus pilatianus* was described from Hungary as a member of the *A. xanthodermus* group, at first as a variety of *A. xanthodermus* Genev. (Bohus 1971) soon raised to specific rank (Bohus 1974).

Cappelli (1984) and Curreli (1989) included it in *A. sect. Xanthodermatei* Singer, belonging to the *Flavescentes* section group, but with the *A. pilatianus* group being quite distinct from the *A. xanthoderma* and *A. pseudopratisensis* groups. According to these authors, the *A. pilatianus* group is characterized by a rather thick-set, not slender habitus, a stem base not swollen into a bulb (often attenuate), and a ring not simple but with a complex structure.

As regards the distribution of *Agaricus pilatianus* in Europe, Moser & Jülich (1991) in their *Farbatlas der Basidiomycetes* refers to a specimen from Ampass (Tirol, Austria) under *Picea excelsa* (Lam.) Link; recently Krisai (1992) pointed out three records from the Vienna area (Austria). Three records of *A. pilatianus* fo. *magnus* Bohus from W Berlin (Germany) are included in the check-list of Gerhardt (1970-1990). Bon (1985) quoted *A. pilatianus* as "ruderal, ± termophile mediterranéen au sud-est-européen" without references to specific collections.

In Italy the distribution of *Agaricus pilatianus* was so far only known from Emilia (from the walls of Ferrara, Cappelli 1984) and from central and southern Sardinia (under broad-leaved trees, Curreli 1989). An unpublished record arise from Bellù (ined.) who collected *A. pilatianus* from Apulia (in a beaten track under *Quercus ilex* L.). The new locality reported here substantially extends southwardly the known distribution of this species in Italy (Fig. 1b).

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