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. radicatus 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.


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).
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-alcaline 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. xanthodermus and A. pseudopratensis 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, ± thermophile mediterraneen au sud-est-europeen" 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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References


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