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## **Towards a Red Data List of fungi for Italy**

### **Abstract**

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A preliminary list of 23 fungal species believed to be threatened in Italy (some illustrated by photographs) is presented.

Fungi are an essential component of ecosystems because of the unique role they play in decomposition processes, symbiosis, and parasitism. Recently a dramatic change in the mycoflora as a whole and its macrofungal component in particular has been reported by several authors, mostly for northern and Central Europe (Arnolds 1991a-b, Arnolds & Kreisel 1993, Delamadeleine 1991, Jansen 1991, Keller 1991, Schmitt 1991). The same authors also underlined that macrofungi, belonging to different functional and ecological groups growing in several kinds of habitats, are excellent bioindicators.

In Italy, documenting actual changes in the mycoflora is difficult due to the scant opportunities to compare inventories from the past with present data. With the exception of Sicily (Venturella 1991) there are no regional check-lists on which a national inventory might be based.

The European Council for the Conservation of Fungi in 1991 (Arnolds & Kreisel 1993) and the Congress of European Mycologists at Kew (U.K.) in 1992 underlined the necessity to preserve, in each country, the whole wealth of the mycoflora, with special emphasis on rare, threatened and biogeographically important taxa. The Working Group for Mycology of the Italian Botanical Society has therefore decided to set up an recording and mapping project for the macrofungi in Italy (Lo Bue 1996) from which, among other things, a national Red Data List might be derived. The mapping project, already initiated at the end of the 1970s by G. Govi of the University of Bologna, gives priority to those taxa that are most needful of protection on a large scale. Its completion will require the co-operation of local and regional mycological amateur associations as well as the Gruppo Micologico Bresadola and the Unione Micologica Italiana.

Table 1. Provisional list of 23 species of macrofungi threatened in Italy.

<i>Amanita eliae</i> Quél. (Fig. 1)	<i>Hygrocybe calyptriformis</i> (Berk. & Broome) Fayod
<i>Antrodiella onychoides</i> (Egeland) Niemalä	<i>Hygrocybe spadicea</i> (Scop. : Fr.) P. Karst.
<i>Battarreia phalloides</i> Dicks. : Pers.	<i>Inocybe tricolor</i> Kühner
<i>Boletus junquilleus</i> (Quél.) Boud.	<i>Junghuhnia semisupiniformis</i> (Murr.) Ryvardeen
<i>Cortinarius herculeus</i> Malençon	<i>Leucopaxillus lepistoides</i> (Maire) Singer (Fig. 3)
<i>Cortinarius orellanus</i> (Fr.) Fr.	<i>Lycoperdon mammeiforme</i> Pers. (Fig. 4)
<i>Dendrothele incrustans</i> (P. A. Lemke) P. A. Lemke (Fig. 5)	<i>Melanophyllum eyrei</i> (Massal.) Singer
<i>Entoloma madidum</i> (Fr.) Gillet	<i>Panellus dunensis</i> Bon & Courtec.
<i>Gyrodontium sacchari</i> (Spreng.) Hjortstam (Fig. 6)	<i>Rhodotus palmatus</i> (Bull. : Fr.) Maire (Fig. 2)
<i>Hebeloma hiemale</i> Bres.	<i>Russula seperina</i> Dupain
<i>Hebeloma remyi</i> Bruchet	<i>Torrendia pulchella</i> Bres.
	<i>Trametes ljubarskyi</i> Pilát

As in other European countries for which a fungal Red Data List already exists, a preliminary list has been drawn up as a starting point. As here presented, this list (Table 1) comprises 23 species, none of which can be assigned with confidence to one of the definite IUCN Red Data categories as defined in, e.g., Groombridge (1992: 234). According to the IUCN scheme, they all belong to category K, comprising "taxa that are suspected



Fig. 1-2. 1, *Amanita eliae* (left); 2, *Rhodotus palmatus* (right). – Photographs by F. Padovan.



Fig. 3-4. – 3, *Leucopaxillus lepidoides* (top); 4, *Lycoperdon mammeiforme* (bottom) – Photographs by F. Padovan.

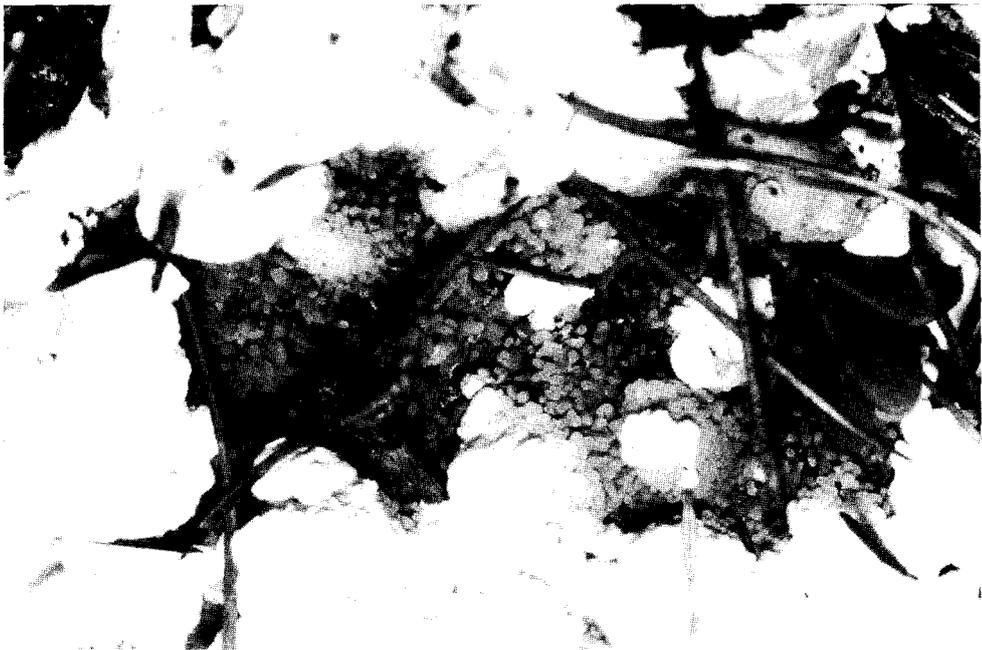
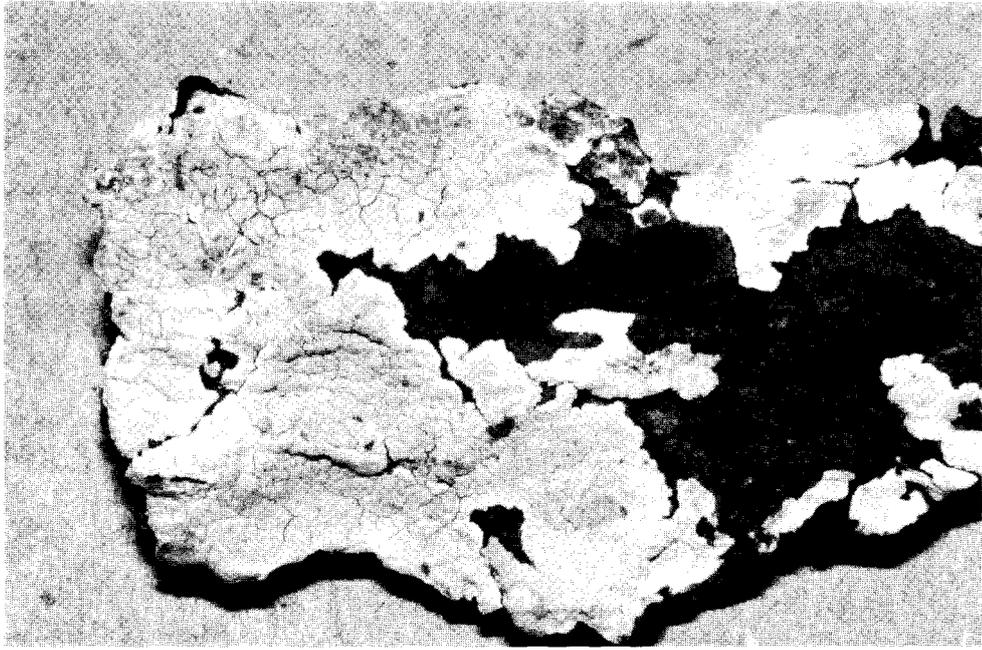


Fig. 5-6. – 5, *Dendrothele incrustans* (top); 6, *Gyrodontium sacchari* (bottom). – Photographs by F. Padovan.

but not definitely known to belong to one of the above [definite] categories [of threat], because of lack of information”.

Of course a Red Data List, especially a preliminary one, must not be regarded as a definitive census but is wide open to additions and amendments resulting from new information or deriving from interaction between the various university institutions and mycological groups.

The common edible fungi are excluded from this preliminary list, pending the enactment of a national legislation regulating their harvest. Such a national law (No. 352, 23 Aug 1993) was recently promulgated, yet at present only a few regions have issued consequent regulations to restrict the harvesting of fungi.

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