

Sparassis crispa (Wulf.) Fr., the cauliflower mushroom - a new record from Lahore, Pakistan.

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Abstract

Sparassis crispa (Wulf.) Fr., the cauliflower mushroom, with densely branched fruiting body is a unique member among aphyllorphorales. The present survey study reports it for the first time from Lahore, Pakistan. It was found growing in association with *Melia azadaracta* L. trees in the University of the Punjab, New Campus, Lahore.

Keywords: Cauliflower mushroom, *Sparassis crispa*, Lahore, Pakistan.

Introduction

The present communication reports the *Sparassis crispa* (Wulf.) Fr. (Cauliflower mushroom) from Lahore, Pakistan collected on 23rd July 2006 from the base of a tree of a *Melia azadaracta*. This is being reported for the first time from Lahore, Pakistan (Ahmad, 1956; Ahmad *et al.*, 1997). Previously it was reported from Swat, Northern Pakistan by Ahmad (1956; 1972) and Hattori and Murakami (1993).

Sparassis crispa (Wulf.) Fr. (Syns. *Sparassis radicata*, *Clavaria crispa*), a member of the family Sparassidaceae, order Aphyllorphorales is commonly known as cauliflower mushroom. As its common name suggests, the densely branched fruiting body of *Sparassis crispa* resembles a cauliflower. Initially creamy-buff in color, the long-lived fruiting bodies gradually darken with age, especially along the branch edges. *Sparassis crispa* is believed to be parasitic on conifers. Affected trees produce annual fruiting bodies, sometimes bushel basket in size. The size, color, and flattened branched structure of the fruiting body of *Sparassis crispa* distinguishes it from other members of the coral group (Burdall and Miller, 1988; Morton & Gilbertson, 1976; Ainsworth, 1973; Arora, 1991; Bas *et al.*, 1999). It is an edible mushroom recently cultivated in Japan. It contains a remarkably high content of 6-branched 1,3-beta-D-glucan showing antitumor activity (Bas *et al.*, 1999). They have prepared a drug currently available in the market under the commercial name of "Maitake" which is a blend of eight mushrooms, *S. crispa* being one of the ingredients.

Description

Basidioma large coralloid and highly convoluted. Fruiting body 20 cm broad, 10 cm tall, sometimes larger, a rounded mass of flattened, wavy, leaf-like branches, white to pale yellow; branch edges discoloring brown in age;

monomitic; arising from a large root-like sterile base, the upper portion appearing chambered when sectioned, solid below; flesh white. Hymenium on the flattened surfaces of the fruiting body. Odor fragrant, somewhat spicy. Spores 5-7 × 3-5 μm elliptical, smooth, colourless and non-amyloid. Spore deposit white. Usually solitary at the base of conifers, especially Bishop and Monterey pine; fruiting from late fall to mid-winter (Arora, 1991). It usually grows from dead roots in the soil. It is fleshy and aside from washing out the insects hiding under the numerous caps it is easy to prepare and very good tasting. Edible but cleaning debris from the branches can be a deterrent.

References

- Ahmad S, 1956. Fungi of Pakistan, published by Biological society of Pakistan, Lahore, Monograph, 1: 1-126.
- Ahmad S, 1972. Contribution to the fungi of Pakistan. XIII. *Biologia*, 18: 1-6.
- Ahmad S, Iqbal SH, Nasir AN, 1997. Fungi of Pakistan. Published by Sultan Ahmad Mycological Society of Pakistan, Department of Botany, University of the Punjab, Lahore.
- Ainsworth GC, Frederick K, Sparrow K, Sussman AS, 1973. *The Fungi: An Advanced Treatise*. Volume IVB. A Taxonomic Review with Keys: Basidiomycetes and Lower Fungi.. New York: Academic Press.
- Arora D, 1991. All That the Rain Promises, and More.....: Ten Speed Press. Berkeley.
- Bas C, Kuyper Th W, Noordeloos ME, Vellinga EC, 1999. Flora Agaricina Neerlandica -- Critical monographs on the families of Agarics and Boleti occurring in the Netherlands. Volume 4. Rotterdam: A. A.Balkema.

Burdsall HH, Millwe OK, 1988. Neotypification of *Sparassis crispa*: *Mycotaxon*, **31**: 591-593.

Hattori T, Murakami Y, 1993. Some aphyllophorales fungi from Pakistan. In:

Cryptogamic flora of Pakistan. T. Nakaike and S. Malik (eds.), **2**: 93-103.

Morton KJ, Gilbertson RL, 1976. Cultural and other morphological studies of *Sparassis radiata* and related species. *Mycologia*, **68**: 622-639.

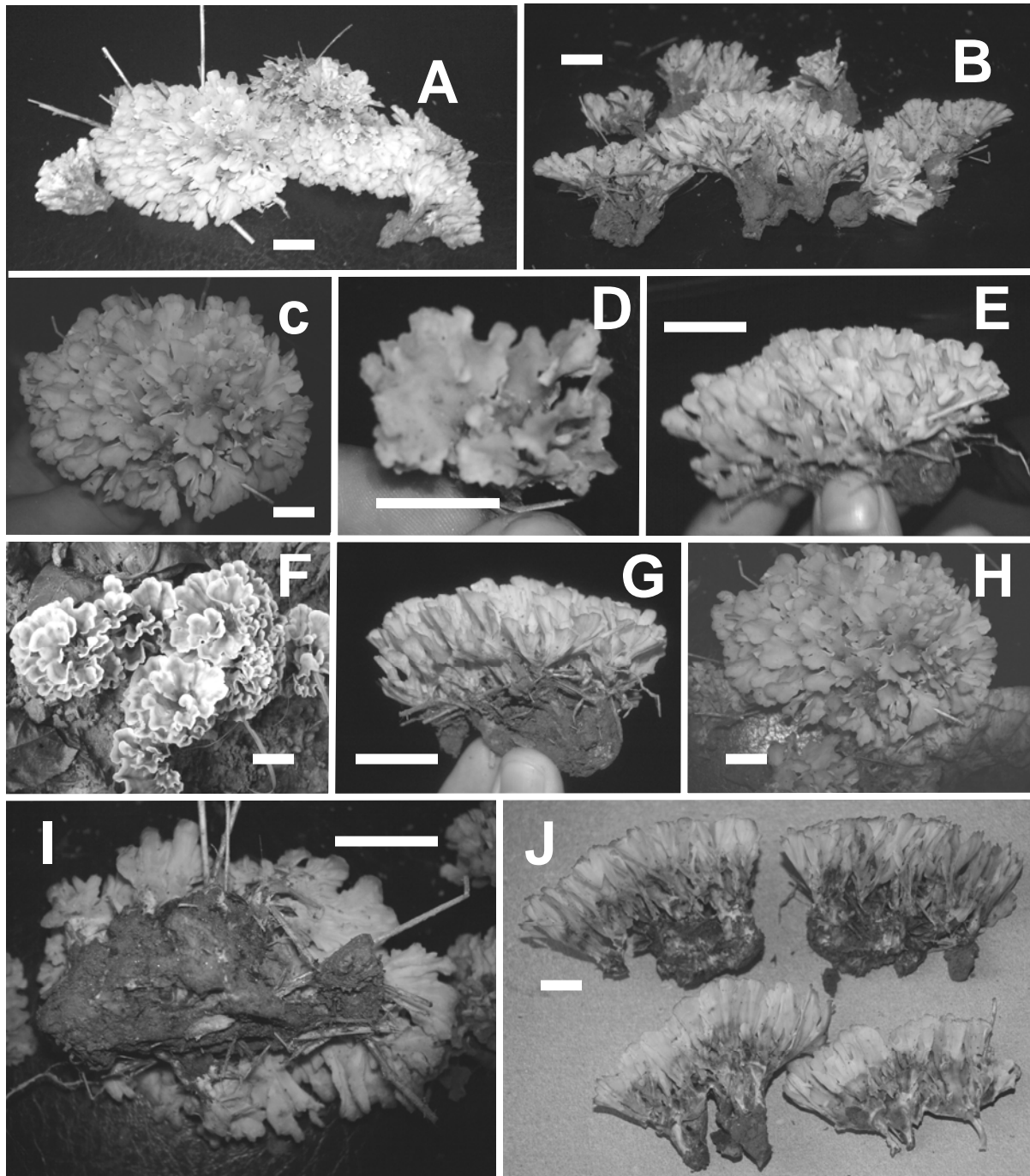


Fig. 1. A-H: Surface and side views of *Sparassis crispa*. I: Dorsal view of the basidiocarp showing substratum. J: Vertical section showing compact basal portion (bar=2 cm).