THE FLESHY FUNGI, *SPARASSIS CRISPA* (BASIDIOMYCETES: POLYPORALES) FROM NEPAL

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Abstract: A cauliflower mushroom, collected at the bases of oak and conifers in different localities of Langtang National Park, Central Nepal is identified as *Sparassis crispa* (Wulf.) Fr. The taxonomic approach has been made here along with distribution notes.

Key words: *Sparassis*; Taxonomy; Langtang; Distribution; Edible mushrooms.

INTRODUCTION

The genus *Sparassis* Fr. (Basidiomycetes, Polyporales, Sparassidaceae) is almost worldwide in its distribution. Taxonomy of this genus has been based mainly on basidiocarp macro morphology, basidiospore size and host plant type (Burdsall & Miller, 1988). Twelve species with three varieties have been recorded in this genus, according to the CABI Index of Fungi (http://www.indexfungorum.org/). Among them some common are *Sparassis brevipes* Krombh, *S. crispa* Wulf. : Fr., and *S. spathulata*. Schw. : Fr. In many aspects, Asian *S. crispa* resembles *S. radicata* Weir from western North America more than *S. crispa* from eastern North America and Europe (Wang *et al.*, 2004). *Sparassis* are known as brown-rot producers (Weir, 1917).

Compared with the number of species known from Europe, Japan and North America the species of mushrooms in Nepal is expected to reach more than 3000 due to the large variation in climatic condition and vegetation types (Christensen *et al*., 2008). Regarding the mushrooms research particularly in and around Langtang area, only few researches were carried out by researchers like Otani (1982), Thind & Sharma (1983), Adhikari (1988), Pandey & Budathoki (2006) and Pandey *et al*., (2006). In the present paper the taxonomic approach has been made along with its distribution.

STUDY AREA

Langtang National Park (LNP) and Buffer Zone spreading over 1710 km^2 (latitude: 27.86-28.39^0 N and longitude: 85.18-85.90^0 E) to the north of Kathmandu (at an aerial distance roughly 32 km), lies in the central Himalaya. It includes two major realms namely Indo- Malayan and Palearctic (DNPWC, 2008), thus representing area of high biodiversity value.

Major research sites in this study area are Dhunche (1960m), Pahiro (1660m), Lama Hotel (2840m), Ghoda Tabela (3000m), Thulo Syafru (2120m), Chandanbari (3250) and Cholangpati (3585).

MATERIALS AND METHOD

The collection was made in July 2008. The collected specimens were photographed in natural habitat before they were picked up. The field records were noted down. All collected mushrooms were dried for use of voucher specimens. The specimens were shed dried and well managed. Collected specimens were identified after laboratory study in Central Department of Botany, Tribhuvan University, Kathmandu. Different relevant literatures like, Fries, (1828); Saccardo, (1888); Purukayastha & Chandra, (1985); Philips, (1981); Imazeki *et al.*, (1988), and Adhikari, (2000) were consulted for the scientific identification and to know distribution pattern in the global context. Identified species is deposited in Tribhuvan University Central Herbarium (TUCH).

Description

***Sparassis crispa* (Wulf.) Fr.**

- Thakrey chyau , Fursey chyau , Chyapkey chyau, Fyala shymo (Tamang)

*Syst. Mycol.*1:465.1821; Fries (1828), *Elenchus Fungorum, sistens Commentarium in Systema Mycologicum*, 227; Saccardo (1888), *Sylloge Fungorum*, 690. Purkayastha and Chandra (1985), *Manual of Indian edible mushrooms*, 61. Imazeki *et al.*, (1988), *Colored Illustration of fungi of Japan*, p.430.

Sporocarp 15-45 cm broad, 15- 40 cm tall; cauliflower like,

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composed of rounded branched mass of leafy lobes which are thin, flattened, wavy, and arising from a rooting sterile base; white to pale yellow. Branch 5-12 cm x 2-5 cm, usually narrowing downwards, branch edges discoloring brown in age or in dry weather. Flesh firm, tough or elastic type, white in color. Smell sweetish, pleasant.

Spore print whitish, spores 4-6 x 3-5 µm, elliptic and smooth produced on 4-spored basidia, inamyloid; clamp connections present.

Specimens examined

At the base of *Quercus lamellose*, Pahiro (1660m), 12.07.2008 / 2065.03.28, no. 00128L, Devkota, S. At the base of *Quercus semicarpifolia*, Dhunche (1960m), 10.07.2008 / 2065.03.26, no. 00105L, Devkota, S. At the base of *Tsuga dumosa*, Thulo Syafru (2120m), 19.07.2008 / 2065.04.04, no. 00172L, Devkota, S. At the base of *Quercus semicarpifolia*, Lama Hotel (2840m), 13.07.2008 / 2065.03.29, no. 00142L, Devkota, S. At the base of base of *Tsuga dumosa* Ghoda Tabela (3000m), 14.07.2008 / 2065.03.30, no. 00154L, Devkota, S. At the base of *Quercus semicarpifolia* Chandanbari (3250m), 20.07.2008 / 2065.04.05, no. 00193L, Devkota, S. At the base of *Tsuga dumosa* Cholangpati (3585m), 21.07.2008 / 2065.04.06, no. 00206L, Devkota, S. TUCH.

Edibility- Edible and highly preferred by local Tamang community.

Newly recorded from Nepal

Distribution- North America, Europe, China, India, Japan, Nepal.

Note: *Sparassis spathulata* differs with *S. crispa* in having tightly packed branches, large sized spores 6-8 x 5-6 µ and absent of clamp connection.

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