



सत्यमेव जयते
Department of Science
and Technology (DST)
Govt. of India

SELECTED WILD MUSHROOMS OF HIMACHAL PRADESH



HIMACHAL PRADESH COUNCIL FOR SCIENCE
TECHNOLOGY & ENVIRONMENT [HIMCOSTE]



HIMALAYAN FOREST RESEARCH INSTITUTE (HFRI)

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Himachal Pradesh is situated in western Himalayas in the northern part of India. It lies between 30°22'40" to 33°12'20" N latitude and 75°45'55" to 79°04' 20" E longitude and spread over 55,673 Km². The elevation ranges from 450 meters to over 7,026 meters above mean sea level. The State's name was coined from the Sanskrit-*Him* means 'snow' and *achal* means 'land'. It is bordered by Jammu and Kashmir on the north, Punjab on the southwest, Haryana on the south, Uttarakhand on the southeast and Tibet on the east. As per data of 2011 census, Himachal Pradesh has population of 68.65 Lakhs. About 90 per cent people live in rural areas and are directly or indirectly dependent on agriculture and horticulture for their livelihood.

The North West Himalaya in Himachal Pradesh exhibits lots of variation in altitude and climatic conditions. This region abounds in forest wealth, including many species of trees and other woody plants. Different parts of Himachal Pradesh are inhabited by the tribal communities who are using traditional knowledge to identify the edible, poisonous and medicinal mushrooms as herbal remedies to cure different types of diseases.

Mushrooms have been the objects of much curiosity and speculation since times immemorial. Mushroom lacks chlorophyll and cannot, therefore, make its own food. It grows on dead organic matter or parasitically or symbiotically with other living organisms. They are integral component of the forest ecosystems. Their edibility, poisonous nature, psychotropic properties and mycorrhizal and parasitic association with the forest trees makes them economically important and interesting to study. Wild edible mushrooms are an important supplementary food source for rural communities and also provides additional income when sold in regional markets. A brief account of some common edible mushrooms of Himachal Pradesh is described in this booklet. But it is always advisable not to eat any mushroom from the wild unless you are absolutely sure of its identity, because many mushroom species are poisonous.

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Agaricus campestris L.

Family: Agaricaceae

Common name: Button mushroom or field mushroom

Key features: The cap is creamy white and bears small scales towards maturity. Gills are pinkish initially and turns black on maturity. Stipe is white, smooth with tapering base and bear ring near cap.

Occurrence: Grows as saprophyte alone or in fairy rings in fields, lawns and grasslands.



Amanita caesarea (Scop.) Pers

Family: Amanitaceae

Common name: Caesar's mushroom

Key features: The cap is orange to a brilliant red-orange, convex and becomes flat with age. Gills are light yellow and free. Stipe is long and cylindrical, pale to orange, wears ring near top and volva at the base.

Occurrence: Occurs solitary or in groups in symbiotic association with pine and oak. (photograph source: Wikipedia).



SELECTED WILD MUSHROOMS OF HIMACHAL PRADESH

Amanita vaginata (Bull.) Lam.

Family: Amanitaceae

Common name: Grisette

Key features: The cap is convex or near flat, bears small central raised area (umbo), gray to grayish brown, margins are striated. The stipe is long with slight tapering apex, wearing few grayish scales, stuffed to hollow, lacking ring but having volva at base

Occurrence: Occurs solitary or in groups in symbiotic association with pine and oak. (photograph source: Wikipedia).



Boletus edulis Bull.

Family: Boletaceae

Common Name: Penny bun

Key features: Cap penny bun like, yellowish brown to brown to darke color, sticky to touch. Hymenium porus, yellowish. Stipe central, bulbous, brownish to whitish yellow.

Occurrence: Occurs as symbiotic associates of conifers.



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Cantharellus cibarius Fr.

Family: Cantharellaceae

Common name: Chanterelles

Key Features: The cap is funnel shaped, light yellow to deep egg yellow or orange, margins are wavy and irregular and lower surface with false gills. Stipe show wide variation in shape and size, often fused together when growing in clusters.

Occurrence: Occurs singly, scattered in groups, or sometimes clustered on the ground.



Coprinus comatus (O.F.Müll.)

Pers.

Family: Agaricaceae

Common name: Shaggy inky cap

Key features: Oval to rounded-cylindrical cap becoming bell shaped on maturity, bear shaggy scales. Gills are white becoming black and inky with age. Stipe is fibrous, hollow, usually tapers towards top.

Occurrence: Occurs scattered or in groups on leaf litter in lawns and grassy areas.



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Ganoderma lucidum (Curtis) P. Karst

Family: Ganodermataceae

Common name: Rishi

Key features: The cap is more or less fan shaped, woody to corky, upper surface is shiny varnished, red to reddish brown in colour. Stipe is lateral in origin, reddish black and brittle. Pores on lower surface, whitish in colour and turn brown with age. Not eaten in India but of great nutraceutical significance.

Occurrence: Occurs in both tropical and temperate forests as parasite or saprophyte.



Helvella crispa (Scop.) Fr.

Family: Helvellaceae

Common name: White saddle, elfin saddle

Key features: Creamish white to yellowish in colour, cap has irregular shaped lobes and undersurface bears fine hairs. Stem is white to slightly pinkish, and ribbed with cross veins and pouches

Occurrence: Occur singly or gregariously on ground or on the rotting woods.



(photograph source: Wikipedia).

SELECTED WILD MUSHROOMS OF HIMACHAL PRADESH

Hericium coralloides (Scop.) Pers.

Family: Hericiaceae

Common name: Coral/ comb tooth fungus

Key features: Fruiting body from irregular shaped cluster of branches originates from common core. The branches bear clusters of snow-white fleshy spines which become brittle and turns yellowish with age

Occurrence: Saprophytic, solitary or in groups on dead wood.

(photograph source: Wikipedia).



Hydnum repandum L.

Family: Hydnaceae

Common name: Wood hedgehog

Key features: The cap is creamy white, with irregular undulations and pits on its upper surface. Undersurface bears spines or teeth. The stipe is somewhat off-center, cylindrical, solid and smooth.

Occurrence: Occurs singly, scattered or in groups on the ground in coniferous and deciduous forests.



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Lactarius deliciosus (L. Fr.) S.F.

Gray

Family: Russulaceae

Common name: Saffron milk cap

Key features: The cap is convex and then depressed, reddish orange and turns greenish when handled. The gills exude red-orange latex when cut. Stipe is short and hollow having orange pits near base.

Occurrence: Occurs in groups under pine and oak forests.



Lactarius sanguifluus (Paulet) Fr.

Family: Russulaceae

Common name: Bloody milk cap

Key features: The cap is convex with central depression, orange to pinkish in color and appears smooth and sticky. The fruit body oozes reddish to purple latex which turns greenish upon exposure to air. The stipe is elongated and cylindrical

Occurrence: Occurs scattered or in groups under conifer forests.
(photograph source: Wikipedia).



SELECTED WILD MUSHROOMS OF HIMACHAL PRADESH

Lycoperdon pyriforme Schaeff.

Family: Agaricaceae

Common name: Puffball

Key features: The fruit body is pear shaped, covered with fine spines which usually wear off with age. It develops a central perforation on maturity through which spores are liberated by rain drops and wind currents. Stipe is short and spongy bearing numerous rhizomorphs.

Occurrence: Occurs scattered or in groups on ground or on deadwoods of hardwoods or conifers.



Morchella angusticeps Peck.

Family: Morchellaceae

Common Name: Gucchi

Key features: Pileus is elongated, sub-globose or elongated with slightly subconic apex. Pits are elongated, yellowish within and smoky brown to black at margins. Ribs are longitudinal and irregular. Stipe is stout hollow and brittle when dry. Surface of stipe is smooth.

Occurrence: Occurs on ground in coniferous and mixed coniferous forests.



SELECTED WILD MUSHROOMS OF HIMACHAL PRADESH

Morchella crassipes (Vent.) Pers.

Family: Morchellaceae

Common Name: Morel

Key features: Pileus is elongated and often subconic. Pits are rounded or irregularly elongated, yellowish, greyish within, becoming brownish or blackish on drying. Ribs are thin and often sharp edged, edges are lighter than interior pits. Stipe is stout, hollow, cylindrical and strongly swollen near the base.

Occurrence: Occurs solitary or scattered on ground in mixed coniferous forests.



Morchella deliciosa Fr.

Family: Morchellaceae

Common Name: Gucchi

Key features: Pileus is elongated to sub-globose. Pits are whitish to yellowish when fresh, becoming brown after drying. Ribs are longitudinal with rounded edges. Stipe is stout, hollow, white to yellowish in colour.

Occurrence: Occurs solitary or scattered on ground in coniferous and mixed coniferous forests.



SELECTED WILD MUSHROOMS OF HIMACHAL PRADESH

Morchella esculenta (L) Pers.

Family: Morchellaceae

Common Name: Gucchi

Key features: Pileus is sub-globose ovate or elongated, attenuated upwards but obtuse at the apex. Pits colour yellowish within when fresh becoming brown after drying. Ribs irregularly anastomosed, not longitudinally disposed, the edges are rounded and lighter than interior of pits. Stipe is stout, hollow, usually little enlarged at the base and nearly even above.

Occurrence: Occurs solitary or scattered on ground in coniferous and mixed coniferous forests.



Morchella semilibera DC ex Fr.

Family: Morchellaceae

Common Name: Gucchi

Key features: Pileus is conic to elongated, apex acute or obtuse, light brown in colour. Pits are irregularly rounded or elongated, shallow and brownish or blackish in colour. Ribs are almost longitudinal to irregular anastomosed with rounded edges. Stipe is long, hollow, brittle when dry and tapering upwards.

Occurrence: Occurs solitary and scattered on ground in silver-fir-spruce forests.



SELECTED WILD MUSHROOMS OF HIMACHAL PRADESH

Morchella simlensis Lakhanpal & Shad

Family: Morchellaceae

Common Name: Gucchi

Key features: Pileus is globose or elongated with obtuse apex. Pits are brownish to yellowish in colour within when fresh and turns brown after drying. Ribs are irregularly anastomosed with sharp edges and clear white in colour. Stipe is stout, hollow and brittle when dry, whitish to yellowish in colour.

Occurrence: Occurs solitary on ground in chir-oak and mixed coniferous forests.



Morchella tibetica Zang.

Family: Morchellaceae

Common Name: Gucchi

Key features: Pileus is elongated and conical. Pits are elongated, yellowish to brownish within and brown at the margins. Ribs are longitudinally disposed, irregularly anastomosed and sharp edged. Stipe is stout hollow and brittle when dry, rough surfaced and white to yellow in colour.

Occurrence: Occurs solitary on ground in coniferous, mix coniferous and oak forests.



SELECTED WILD MUSHROOMS OF HIMACHAL PRADESH

Pleurotus ostreatus (Jacq. ex Fr.)
P.Kumm.

Family: Pleurotaceae

Common name: Dhingari

Key features: Cap is broad, convex, becoming flat, kidney-shaped to fan-shaped. Somewhat greasy when young and fresh, turns pale brown to dark brown with age. Stipe is lateral-eccentric, creamish and smooth. Gills run along the stipe.

Occurrence: Grows on woods in shelf-like clusters.



Russula brevipes Peck

Family: Russulaceae

Common name: Short stemmed Russula

Key features: The cap is white to creamish, convex to slightly funnel-shaped, sometimes develops cracks with age. Gills are close and crowded. Stem is short, cylindrical and solid.

Occurrence: Occurs in mycorrhizal association with conifers.



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Sparassis crispa (Wulfen) Fr.

Family: Sparassidaceae

Common name: Cauliflower mushroom

Features: It's generally shaped like an irregular sphere composed of tightly packed branches on a short stem forming lobe-like structures which are similar to cauliflower. The unusual appearance makes it easy to identify and its nutty-like flavor makes it a good edible species.

Occurrence: Grow from the roots or bases of trees primarily under hardwoods of conifers and oak.



Volvariella bombycina (Schaeff.)

Singer

Family: Pluteaceae

Common name: Silky rosegill or tree mushroom

Key features: The fruiting body is initially egg-shaped when still enclosed in the universal veil. On opening it becomes bell-shaped to nearly flat, underside of the cap present crowded pinkish gills. Stem is long without ring and tapers towards top and bears a sac-like volva at base.

Occurrence: Saprophytic, growing solitary or in groups on the deadwood of hardwoods or conifers.



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