CHAPTER 9
ETHNOMYCOLOGICAL SURVEY OF JAUNSAR, CHAKRATA AND ITS PRESENT STATUS

9.1 Introduction

Chakrata is chiefly divided into two regions namely ‘Jaunsar’ and ‘Bawar’. Jaunsar-Bawar has common cultural and traditional beliefs. The native tribe of the region is called ‘Jaunsari’. The Jaunsari called themselves to be the descendants of Pandava’s of Mahabaharat. Natives are divided into three categories or caste: Brahmín, Kshatriya (upper caste) and others (mostly Scheduled caste (lower caste). Beside this, the area is also resided by a good number of Nepalis who came here initially as labour and became the permanent residents. The others are ‘Van Gujjars’ who are nomadic and live in the area only during March to September and move back to Saharanpur, Kalsi or other nearby places in winters. They practice ‘Islam’. Van Gujjars are a usually divided into the ‘Deras’ or camp of nearly 15-20 persons in each. There were 26 Deras in the year 2014 only in Jaunsar region (Source: Forest Department Kalsi, Chakrata) and number usually increases each year. The population of Chakrata Forest Division is about 1,40,607 (2011 census) of which Scheduled caste is about 20%.

Jaunsar has not been studied before in reference to ethnomycology. The indigenous people have an intimate knowledge of edible and poisonous mushrooms beside this they use some mushrooms/ wood inhabiting fungi for medicinal purpose or for some religious rituals. Local call them “chewn”. There is specific name of the mushroom (etymology) which is mainly based on the resemblance to some object (Table 1). In Jaunsar, mushroom eating is a common practice among the upper caste but they are very-very selective. Their range is very narrow and largely depends on most commonly occurring edible mushrooms. While broader range of selection of mushroom is shown by Nepali and Scheduled caste.

9.2 Methodology

Survey was conducted along Kalsi-Chakrata-Tiuni road in Chakrata tehsil of Dehradun district on which places/villages were selected randomly. Places/Villages surveyed: Kalsi, Sahiya, Korua, Chakrata cantonment, Deovan, Gwasa, Oli, Jadi, Lohari, Lokhandi, Mangtar, Koti, Tuna. The above mentioned communities were interviewed. A total of 33 people (Scheduled caste:7; Upper caste:19; Nepali:7) respondents (Table 2) within the
age group of 15-70 years were interviewed by applying artefact and inventory interviewing methods and semistructured questionnaire (Harsh et al. 1993, Lampman 2004, Adhikari et al. 2005, Ayodele 2011). Key informants selected purposely and systematically based on recommendations of knowledgeable elders, local authorities. Photographs of local collected mushrooms and mushroom widely edible were shown. Small kids of up to 10 years were able to recognize very commonly edible mushrooms as they were accompanied by their mothers when they go for collection. In our study we tried to interview as many women as possible because they have good knowledge of edible and poisonous mushrooms (Garibay-Orijel et al., 2012) but only few women could be interviewed as they were not available because of their household chores (Interviewers were able to talk to women only after taking men of the family in confidence. Due to apprehensions and conservative behaviour, interviewers avoided direct talk to women). In comparison to them men were easily accessible but most of them did not had sufficient knowledge especially the young adults. Men collect mushroom in forest while women collect from nearby area. Women are main mushroom collectors. Community data has been given in Table 2.

8.3 Results & Discussion

The fungi were collected between 2013-2014 in June to September and March (this period is marked with fruiting of Morchella). 63 species of 40 genera are listed (Table 1) here of which 48 species could only be determined to species level. The listed mushrooms are only the fraction of total edible mushrooms. Most of the species could not be determine because of immaturity, lack of critical field notes and lack of taxonomic expertise. Most common edible mushrooms were Cantharellus, Helvella, Lactarius, Sparassis and Suillus. In lower altitudes Termitomyces sp. and Termitomyces microcarpus are consumed most beside this Agaricus spp. (‘kurer’) and Astraeus hygrometricus were also much liked. Sparassis crispa and Laetiporus sulphureus were mentioned as most edible. The high popularity of S. crispa and L. sulphureus indicate its perceived economic and traditional significance to households. However S. crispa is readily available as compared to L. sulphureus. Armillaria mellea and Armillaria tabescens which holds the edible status are not consumed in this region. Natives altogether denied it as edible while most of the Nepalis too denied it but only one person gave affirmation. Spongipellis malicola is not edible but chewed by some Nepalis. Morchella though a highly prized mushroom not consumed usually rather it is collected and stored for selling. Nepalis consumed highest number of mushrooms followed by Scheduled caste (SC) and upper caste (UC) community consumed least. Nepalis came here approx 100 years ago
and it seems like upper caste Nepalis taught the upper caste of the area to use mushrooms as food. Even some sects of Van Gujjar have also started eating mushrooms after working with Nepalis and Scheduled Caste of the area but their number is very low. However, Nepalis were not able to tell about the medicinal uses of mushroom. Upper caste community only knew about few edible mushrooms. While Scheduled caste shared information about the medicinal and religious uses. The natives usually do not share the information with an outsider as they think that the effect of that particular thing will be vanished if they tell it to anybody. Sometimes information is not even shared with daughters of the family as they have to go to other house after their marriage. It took quite a long to win their confidence. Some mushrooms were unanimously found edible while some were unsure about its edibility even within the same community. Person living in lower altitude were aware of common edible mushrooms at higher altitudes while inhabitants of higher altitude were not very much familiar with mushrooms of lower regions except for the people who have relatives on either sides.

*Morchella* collected from villages by natives is bought by middle man (mostly from state of Himachal Pradesh) at the price of Rs. 12000 - 16000 (178-238 USD) per kg (dried). Morels are collected systematically during growing seasons (spring and sometimes after rainy season). Members of the family come back on leave from jobs so that they can contribute to the collection due to its higher economic return. A family can collect 3-4 kg of fresh *Morchella* in a day. There is no official record of *Morchella* export. There is no market for morels or other edible mushrooms in Chakrata. The nearest city is Dehradun which is 90 km and it takes almost 3-3.5 hours to reach there by local transport.

A mushroom locally known as “*Maida*” is approximately 30 cm in height and has cap expansion of approx 20 cm with a stipe of 4-5 cm diameter is said to have blue colour and secrete milk when fresh. It was told that this mushroom is used to enhance milk secretion in young mothers. The author (Manoj Kumar) did not get a chance to see the mushroom in wild or in dried condition. The above description is quite close to *Lactarius indigo* but the size is too big as informed. *Ganoderma lucidum* is also used for enhancing the milk secretion in mothers. The mushroom is dried and powdered. The powder is consumed orally with hot water. *Spongipellis unicolor* (=*Polyporus obtusus*), *Fomes fomentarius*, *Ganoderma lucidum* are used in religious rituals and used for exorcism. The fruit body is kept along with ‘Devta’, the God as it is considered sanctified. The sporocarps are burnt and smoke is spread in each
nuke and corner of house and on infants to protect them from evil spirits but seldom sold in
market.

Nepalis also consume stinkhorn (Phallus spp.) to enhance sex power like Chinese
(Roberts & Evans 2011), natives avoid it as it causes allergy in the form of swelling of lips
and cheeks. Truffles locally known as ‘Jhanda’ is used as mouth freshener. Truffles are
hunted by both men and women, who look for cracks or humps in soil caused by expansion
of truffles, which are dig out with digging object.

Auricularia auricula-judae locally known as “kanode” or “kanchatta” is used for Ear
Pus (paka kan). The mushroom is dried and grounded and mixed in some liquid. The local
“Vaidya”, the healer denied to tell complete formula. Stereum spp. (Stereum gausapatum, S.
hirsutum, S. lobatum, S. rugosum, S. sanguinolentum) paste is used for healing wounds (as
told). Puff balls (especially Lycoperdon pyriforme, L. perlatum, Geastrum spp.) are used as
burn remedy. Quite effective when applied with stored rain water.

“Khatai” (Rumex hestasus) locally known as ‘Almora patti’ or ‘Almora leaves’ are
sour in taste is used to prevent toxicity of mushroom. Mushrooms are usually washed or
boiled with a pinch amount of salt, then cooked with adequate amount of onion and garlic to
avoid toxicity. Amanita’s which are quite infamous for their lethal effects are used by drug
abusers for extreme relaxation and hallucination. Dried Amanita are filled in “Beedi” (Indian
cigarette filled with tobacco) and “Chillam” (pipe) and then smoked.

Locals are well acquainted with time and place to find the mushroom. Early morning
dew, thunder and lightening are considered essential for mushrooms to grow. The upper caste
community in the area is somewhat liberal as compared to the upper caste community of
Kumaun region of Uttarakhand state where they do not consume mushrooms at all. The
reason commonly given are that mushroom are having texture and taste of flesh which the
Brahmins do not consume (Adhikari et al., 2005; Bertelsen (2013); Ferchak & Croucher
(1996); Semwal, 2014). During their study in Kumaun region Bisht & Harsh (1987) have
already pointed out that most of the consumption is done by the Scheduled caste (Lower
caste/Dalits) and Nepalis. Flesh is commonly consumed in all sects of the Kumaun region.
So, similarity with flesh has nothing to do, but most of the time eating habits are dependent
on climatic conditions and beliefs of a particular area/community. There is a text written in
Manusmiriti, Skandapurana “a twice born man who knowingly eats mushrooms, a village
pig, garlic, a village cock, onions or leeks will become an outcaste”. Here “outcaste” referred
to **dalits** or **untouchables** (note: Brahmins are referred as twice born because of the *Upanayana*-threading ceremony to renew their vows). Flesh eating is a quite common practice among **Brahmins** and other upper caste in all forest area in Indian subcontinent whether it is Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Nepal, Assam, Bengal (*Shakti Devotees*), Orissa and among some Tamil and Malyali upper caste. Earlier and even today the sacrifices of animal in temples were quite common and the flesh was distributed as ‘*Prasadam*’ the offerings of God or sanctified by God. In **Kumaun**, the reason behind the non consumption of mushroom is that they are only meant for the lower caste people.

The upper caste in **Jaunsar** rely only on commonly occurring edible mushroom (e.g. *Sparassis crispa, Lactarius, Cantharellus, Suillus, Morchella, Helvella* etc.). As described earlier, there is possibility that they have acquired this knowledge from Nepalis. Like *Kumaun* and *Garhwal* here also most of the mushrooms are consumed by **Scheduled caste** and **Nepalis**. **Nepalis** consume most. They have immense knowledge of edible mushroom and cooking techniques. Wild mushroom eating is related to social and economic condition and as lower caste and Nepalis are not sound economically they resorted to eating whatever is available in the wild.

**Effect of human activity in the area**

Forest in the area is natural or unmanaged. As informed by the natives, in the past few years decline in fruiting of mushrooms has been observed, especially that of **Morchella**. The reason could be over exploitation and habitat destruction but the climate change cannot be ruled out. Opinions differ even among the conservationists, on whether collecting fungi for food is a threat to the fungi (Rotheroe, 1998). Some argue that because the toadstool is equivalent to a fungus fruit, picking it does no more harm than does picking blackberries (Bratton, 2003). Population in the region has increased a lot. Increased population (census 2001 and 2011) ensures increased human activity. People go in groups to collect mushrooms and return with a heavy collection. This reduces the chances of propagation. The pressure is mainly on **Cantharellus cibarius, Sparassis crispa, Lactarius, Suillus** and **Morchella** which are the most liked mushrooms. **Morchella** is a bounty mushroom which is usually exported to cities if collected in a good amount. As discussed family can earn nearly Rs. 1,00,000 (1500 USD) – 3,00,000 (4450 USD) by selling the dried **Morchella** at the price of Rs. 12,000 (178 USD) to 16,000 (238 USD) per Kg. Increased number of **Gujjar dera’s** is a major issue. As they roam with a large number of cattle (the number can reach up to 50 or more for some
ders). They lop and cut a large number of *Quercus* spp. for fodder and shade. Natives too lop a large number of *Quercus* sp. (*Quercus* floribunda, *Q.* leucotrichofofra, *Q.* semicarpifolia) for fuel, fodder and shade. Though felling is prohibited by law but increasing population have their own needs too. This increases the pressure on forests. Villagers have found loop holes of law as there is no ban on felling of a dead tree, they deliberately girdle it and when tree is dead in 3-4 years they sought permission to cut it. Litter too is not left into the forest as fallen branches are collected for fuel and logs are immediately converted into commercial timber. Grazing is also permissible by law (Forest Rights Act 2006). Every year permission is granted by the forest department to cut a tree to give a family of each village as ‘Mafi’ or ‘Pardoning from cutting a tree’ under Forest Recognition Act or Forest Right Act (2006). By this many trees are cut in a large number. There is no doubt that the habitat destruction is resulting into decrease in collection of mushrooms.

**Mushroom poisoning**

Deaths due to mushroom consumption are quite rare as locals are well acquainted with edible and poisonous mushrooms but yet chances of mistake cannot be denied. In 2014, reports of death due to mushroom poisoning were from Sahiya village where 5 persons were reported to be dead because of mushroom poisoning. Reports of death by mushroom consumption cannot be confirmed as they do not involve scientific study. Most of them appear rumours. It is not clear whether deaths are due to mushrooms or local country made liquor or both as deaths due to country made liquor are quite common in India. Mushrooms can be toxic when consumed with alcohol. Mushroom contains some alkaloids which when taken with alcohol can produce lethal effects (Arora, 1986; Benzamin, 1995; Michelot, 1992; Aneja, 2007). We tried to make people aware to avoid alcohol when consuming mushroom but *Lactarius* spp., *Boletus edulis*, *Sparassis crispa*, *Ramaria stricta*, *Agaricus* spp. and *Suillus* spp. were not toxic or hallucinogenic or produced other ill effects when they were consumed with country made liquor (it is personal observation of author Manoj Kumar as he has experienced local tradition and cuisine). However, one should still avoid alcohol with mushroom as individuals can have different tolerance and resistance. Most interesting was eating an *Amanita* sp. though we could not identify it to the species level. The same *Amanita* has also been reported from Garhwal Himalaya as *Amanita hemibapha* (Semwal et al., 2014). Nepalis have developed some kind of resistance towards toxic mushrooms as they use a wide range of mushrooms. They have developed preparation method. Scheduled castes have too developed the method of preparation. Majority of mushrooms are boiled in water before
eating as it may contain insects and larvae. They use *Rumex hastasus* as told before which is locally known as “Almora patti” or Almora leaves as *khatai*” or souring agent to prevent toxicity of mushrooms. Mushroom avoided by upper caste and lower caste are well cherished by Nepalis.

There is not yet a clear cut identification method of edible and poisonous mushroom. Individuals can have different opinions. But no opinion is 100% applicable or reliable. This short of information is actually transferred from generation to generation. Most of them agree with white fruit body having firm fibrous stipe texture as edible. Sometimes the colour description by individuals vary, same colour can be described by other individual differently. Some say mushroom with bitter taste are edible and while sweet are poisonous or vice versa. Another belief of local people is that if a mushroom is eaten by monkeys (*Langoor* and *Rhesus*), deer, squirrel, rat or some other rodent, only then it is considered edible. Most of the *Russula* spp. are identified by this method. Description of a poisonous species as told by local people matches mostly with that of *Amanita*.

**Current scenario**

Chakrata is in primary stage of urbanization (Davis, 1965 has given different stages of urbanization and Chakrata fits into primary stage). Urbanization is flourishing in this region. Local people find them at ever shifting border where traditional culture and modernity meet. New generation is quite unwilling to learn traditional knowledge. Youth is hopeful to get a job in nearby city. Initially they come but unwilling to go back. Older one says, “The real traditions are in the village”. Today, *Dehradun* is growing in part because of an expanded civil service, industrialization or other job opportunities, in fact urbanization is sweeping entire *Dehradun* district and it is increasingly attracting young *Jaunsari* for better chances of education and livelihood. Education determines their prosperity, success, and security in life. The irony is, on the one hand we want to educate them while at the same time expecting them to conserve their culture too. Both the things cannot be possible at the same time. An educated youth never want to stay in village. He always opts for cities to earn his lively-hood. In this way the traditional knowledge is vanishing.

**Conclusion**

Chakrata has vast diversity of macrofungi and traditional knowledge. This needs to be tapped out before it gets extinct. Unwillingness of youth to learn their traditional knowledge
is a step towards extinction. The question arises, “Can education, social and financial upliftment go parallel with the traditional knowledge? My answer to this is, “No”. In practicality this is not possible. If we educate deprived communities certainly their economic upliftment will occur but on the same they will be cut from their roots. To promote this, awareness programmes should be conducted through donor funded projects. Beside this, programmes on mushroom cultivation training can also be conducted. It is an extension work which involve technology transfer, human resource development, promotion, awareness (under the Entrepreneurship Development Programme, EDP) but this is advisable to only town areas where people have become alienated towards mushroom. In hills this can result in infatuation towards only a limited mushrooms and loss of knowledge for other commonly edible mushrooms.

Acknowledgement

We are thankful to the people of Jaunsar, Chakrata for their immense hospitality and for sharing their knowledge. The financial assistance is provided by ICMR under the Research Fellowship Program (ICMR-JRF) to Manoj Kumar.
**Table 1: Edible status of mushrooms recorded in Chakrata region**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Species name</th>
<th>Eaten by</th>
<th>Local Name</th>
<th>Uses</th>
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<tbody>
<tr>
<td>1.</td>
<td><em>Agaricus augustus</em> Fr.</td>
<td>x</td>
<td>Chhtari chewn</td>
<td>Umbrella mushroom</td>
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<td>2.</td>
<td><em>Agaricus sp. 1</em></td>
<td>√</td>
<td>Chhtari</td>
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<td>3.</td>
<td><em>Agaricus sp. 2</em></td>
<td>√</td>
<td>Chhtari</td>
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<td>4.</td>
<td><em>Agaricus placomyces</em> Peck.</td>
<td>x</td>
<td>Kurer</td>
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<td>5.</td>
<td><em>Albatrellus confluens</em> (Alb. &amp; Schwein.) Kotl. &amp; Pouzar</td>
<td>x</td>
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<td>6.</td>
<td><em>Amanita sp./ A. hemibapha</em> (Berk. &amp; Broome) Sacc.</td>
<td>√</td>
<td>Kurer</td>
<td>*</td>
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<td>7.</td>
<td><em>Armillaria mellea</em> (Vahl) P. Kumm.</td>
<td>x</td>
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<td>8.</td>
<td><em>Armillaria tabescens</em> (Scop.) Emel</td>
<td>x</td>
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<td>9.</td>
<td><em>Astraeus hygrometricus</em> (Pers.) Morgan</td>
<td>√</td>
<td>Put-puta/Roogda=something that burst</td>
<td>*</td>
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<td>11.</td>
<td><em>Auricularia polytricha</em> (Mont.) Sacc.</td>
<td>√</td>
<td>Kanode</td>
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<td>12.</td>
<td><em>Boletus edulis</em> Bull.</td>
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<td>13.</td>
<td><em>Boletus sp.</em></td>
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<td>14.</td>
<td><em>Cantharellus cibarius</em> Fr.</td>
<td>√</td>
<td>Peeli chewn= Yellow mushroom</td>
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<td>15.</td>
<td><em>Cantharellus cinnabarinus</em> (Schwein.) Schwein.</td>
<td>√</td>
<td>Narangi chewn/ Orange</td>
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<td>16.</td>
<td><em>Clavulinopsis fusiformis</em> (Sowerby)</td>
<td>√</td>
<td>Kesari/Narangi chewn</td>
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<tr>
<td>Corner</td>
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**Diversity and Distribution of Wood Decaying Fungi from Chakrata Hills of Dehradun, Uttrakhand**

17. *Coprinus comatus* (O.F. Müll.) Pers. √ √ √ *Muli chewn = Radish mushroom* * -- 1*
18. *Coprinus micaceus* (Bull.) Fr. x x √ # * -- 3*
19. *Clitocybe gibba* (Pers.) P. Kumm. x √ √ # * -- 3*
20. *Craterellus sp.* √ √ √ # * -- 2*
21. *Fomes fomentarius* (L.) Fr. x x x # -- -- * --*
22. *Ganoderma lucidum* (Curtis) P. Karst. x x x # -- * * --
23. *Helvella crispa* (Scop.) Fr. √ √ √ *Kanuda chewn/Jhuria = Ear like/Wrinkled* * -- -- 1*
24. *Helvella elastica* Bull. √ √ √ *Kanuda* * -- -- 1*
25. *Helvella lacunosa* Fr. √ √ √ *Kanuda* * -- -- 1*
26. *Hericium coralloides* (Scop.) Pers. √ √ √ *Khargosh chewn = Rabbit fir mushroom* * -- -- 1*
27. *Hericium erinaceus* (Bull.) Pers. √ √ √ *Khargosh chewn* * -- -- 1*
28. *Hydnum repandum* L. √ √ √ *Danti chewn = Teeth mushroom* * -- -- 1*
29. *Hygrophorus sp.* x x √ # * -- -- 2*
30. *Lactarius rufus* (Scop.) Fr. √ √ √ *Dudhiya chewn = Milk mushroom* * -- -- 1*
31. *Lactarius sp.* √ √ √ *Dudhiya chewn* * -- -- 1*
32. *Lactarius deliciosus* (L.) Gray √ √ √ *Khoooni chewn/Raguri chewn = Bloody mushroom as it secretes red latex* * -- -- 1*
33. *Lactarius paradoxus* Beardslee & Burl. √ √ √ *Khoooni chewn/Raguri chewn* * -- -- 1*
35. *Laetiporus sulphureus* (Bull.) Murrill  
   - Chewn  
   - *  
   - *  
   - 1
36. *Lepiota procera* (Scop.) Gray  
   - Digura chewn  
   - *  
   - *  
   - 1
   - #  
   - *  
   - *  
   - 3
   - Phut phuta  
   - *  
   - *  
   - 2
   - Phut phuta  
   - *  
   - *  
   - 2
   - Juma/Guchchi  
   - *  
   - *  
   - 1
41. *Oedomanciella* sp.  
   - *  
   - *  
   - 3
42. *Phallus* sp.  
   - #  
   - *  
   - *  
   - 3
   - Dhingri  
   - *  
   - *  
   - 2
44. *Pluteus cervinus* (Schaeff.) P. Kumm.  
   - #  
   - *  
   - *  
   - 2
   - Jhuria chewn= Bush mushroom  
   - *  
   - *  
   - 1
46. *Russula brevipes* Peck  
   - Baghali chewn  
   - *  
   - *  
   - 2
47. *Russula* sp.  
   - Chewn  
   - *  
   - *  
   - 2
   - #  
   - *  
   - *  
   - 2
49. *Strobilomyces strobilaceus* (Scop.) Berk.  
   - Chewn  
   - *  
   - *  
   - 3
50. *Suillus americanus* (Peck) Snell  
   - Chipli chatri= Slippery mushroom  
   - *  
   - *  
   - 1
51. *Suillus sibiricus* (Singer) Singer  
   - Chipli chatri  
   - *  
   - *  
   - 1
52. *Suillus* sp. 1  
   - Chipli chatri  
   - *  
   - *  
   - 1
53. *Suillus* sp. 2  
   - Chipli chatri  
   - *  
   - *  
   - 1
54. *Sparassis crispa* (Wulfen) Fr.  
   - Gobi chewn= Cauliflower mushroom  
   - *  
   - *  
   - 1
<table>
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<tr>
<th></th>
<th>Name of the Fungus</th>
<th>UC</th>
<th>SC</th>
<th>C</th>
<th>M</th>
<th>O</th>
<th>P</th>
<th>*</th>
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<tr>
<td>55.</td>
<td><em>Spongipellis malicola</em> (Lloyd) Ginns</td>
<td>x</td>
<td>x</td>
<td>√</td>
<td></td>
<td>#</td>
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<tr>
<td>56.</td>
<td><em>Spongipellis unicolor</em> (Fr.) Murrill</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>--</td>
<td>--</td>
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<tr>
<td>57.</td>
<td><em>Stereum</em> spp.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>#</td>
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<tr>
<td>58.</td>
<td><em>Termitomyces microcapus</em> (Berk. &amp; Broome) R. Heim</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
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<td><em>Jhari chewn</em> appears like small flowers that are scattered on the ground</td>
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<td>60.</td>
<td><em>Termitomyces</em> sp.</td>
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<td><em>Tremella fuciformis</em> Berk.</td>
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<td>62.</td>
<td><em>Tremella mesenterica</em> Retz.</td>
<td>x</td>
<td>x</td>
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<td>59.</td>
<td><em>Truffle</em></td>
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<td>√</td>
<td>√</td>
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<td>63.</td>
<td><em>Volvariella flaviceps</em> (Murrill) Shaffer</td>
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<td>x</td>
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UC = Upper caste, SC = Scheduled caste, C = Culinary, M = Medicinal, O = others (religious/tinder), P = Palatability (1 = Delicious, 2 = Good, 3 = Just edible)
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<th>Longitude</th>
<th>Altitude (m)</th>
<th>Men</th>
<th>Women</th>
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<th>UC</th>
<th>Nepali</th>
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SC= Scheduled Caste; UC= Upper Caste