



## **ETHNO BOTANICAL STUDIES ON BHOTIYA TRIBAL COMMUNITY OF UTTARKASHI DISTRICT**

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### **Abstract**

Plants provide food, medicine, energy, shelter, wood and non-wood products to sustain life on earth. Uttarakhand also known as DEVBHOOMI, one of the Himalayan states of India, is richest in resources with respect to the occurrence of religious and spiritual plants. These plants are utilized by ethnic societies of Uttarkashi district to their religious activities and are also important as food, fodder and medicine. We have identified a total so many plant species belonging to different families utilized traditionally by ethnic societies of Uttarkashi district during various religious, medicinal, mysterious and spiritual ceremonies. Recently, few ethno-botanical studies on some caste or tribes have been conducted. However, these attempts have ignored detailed study on religious and spiritual values of plants in heterogeneous Hindu dominated Indian society particularly Uttarakhand that gives higher social recognition on it. Therefore, this paper attempts to investigate and document some high value medicinal, religious and spiritual values of plant species in Uttarkashi district of Uttarakhand state. In the present study, the description of religious plants is based on survey and discussion with local users (ethnic societies) of Uttarkashi district.

**Key words:** Ethnic societies, ethno-botanical, tribes and religious plants

### **Introduction**

**B**hotiyas are transhumant community of semimongoloid people of Tibetan origin, mainly inhabiting the high altitude region of Indian Central Himalaya and Indo-Nepal border, a zone of ethnic intermixing and cultural assimilation. The eight major Bhotias groups of Uttarakhand are Johari, Jeethora, Darma, Chaudansi, Byansi, Marchha, Tolcha, and Jad are scattered over the eight main river valleys known as Johar, Darma, Byans, Chaudans (Pithoragarh district of Uttarakhand), Mana, Niti (Chamoli

district of Uttarakhand), Nilang, Jadung (Uttarkashi district of Uttarakhand) respectively.

Among the native societies of the Central Himalaya the Jad (Bhotia) are still one of the under developed and smallest separate tribal society. Jad are the native of Nelang and Jadung remote village (a part of Indian Trans-Himalaya) are a high altitude cold desert area, harbouring many rare and endangered plant and animal species. This area, strands at the height of over 11,000 ft MSL and characterized by high solar intensity, high aridity, low temperature, inadequate soil and short growing season, has low plant productivity) of

Uttarkashi district of Uttarakhand. After Indo Tibet War 1962 they Indian Army shifted in Harsil, Bagori and Beerpur Villages of Uttarkashi district.

They have a good knowledge on the use of high altitude medicinal plants due to their constant and close association with the Alpine and sub-alpine forests. These people use the medicinal plants for their effectiveness, lack of conventional health care facility and cultural preferences (Canigo & Siebert, 1998) and they have attained a quite good knowledge on both valuable and adverse effects of plants. However, this huge knowledge on medicinal plants verbally passed down from their ancestral generation is slowly diminishing and deteriorating due to changing socio-economic and cultural practices (Phondani, 2010) and shifting of young generation to urban areas. Several medicinal plants have been listed as endangered, vulnerable and threatened due to commercial over exploitation, unsustainable harvesting practice and climate change (Farooqee & Saxsena, 1996; Ratha et al., 2012). The loss of traditional knowledge is irreversible just as the loss of species (Joshi et al, 2005).

The documentation on ethno medicinal plant practices of Bhotiya tribe of Uttarakhand was done by various workers (Maikhuri, 1998; Negi, 2002; Kala, 2003; Samal, 2010) in a sporadic manner to recognize the use of plant species for

different purposes. In the Central Himalayan region documentation of ethnobotanical knowledge was done by various workers (Paliwal and Baduni, 1988; Semwal and Gaur, 1981; Negi, 1986; 1988; Maikhuri et al., 2000; Nautiyal et al., 2001a) to understand the use of plant species for different purposes. Though some of them have been reported about the medicinal plants uses in health care system among the tribal communities living in similar geographical region (Maikhuri et al., 2000; Nautiyal et al., 2001a) however, small community residing in same area having own traditional knowledge is not documented yet by workers properly.

### Need of Documentation

Hence there is an immediate need to document the various uses of the medicinal plants used by the tribe before some of them disappear from the areas or before switching over of the tribe to modern system of medicine. The following is the list of some important high altitude medicinal plants used by the Jad tribe along with their local names, Sanskrit names or names as mentioned in the Ayurvedic system of medicine, locality of collection, habit, part/s used, source of collection and period of collection.

**Table 1:** Enumeration of High altitude medicinal plants used by the Bhotiya tribe of Uttarkashi, Uttarakhand (Abbreviation used: H- Herb, T- Tree, S-Shrubs, Ft- Fruit, St-Stem, Lf- Leaf, Bk-Bark, Wp- Whole plant, Rt- Root, Rz-Rhizome, T-Tuber, Sd- Seed)

S. No.	Scientific name	Vernacular name	Locality	Habit	Part/s used	Source of collection	Period of collection
1	<i>Aconitum balfourii</i> Stapf (Ranunculaceae)	Mithavish, Mitha	Alpine forest	H	Rz	Wild	September-October
2	<i>Aconitum heterophyllum</i> Wall. ex Royle (Ranunculaceae)	Atis	Sub-alpine	H	Rz	Wild	September-October
3	<i>Aconitum violaceum</i> (Ranunculaceae)	Kadwa	Alpine	H	Rz	Wild	September-October
4	<i>Allium carolinianum</i> (Liliaceae)	Rukba	Sub-Alpine	H	Lf, B	Wild	August-October
5	<i>Allium humile</i> Kunth (Liliaceae)	Jimbu	Alpine	H	Lf	Wild	August-October

6	<i>Angelica glauca</i> (Apiaceae)	Chora	Subalpine	H	Rt	Wild & Cultivated	August-September
7	<i>Arnebia euchroma</i> (Boraginaceae)	Balchhadi	Subalpine	H	Rt, Lf	Wild	September-October
8	<i>Bergenia ciliata</i> <i>Sternb.</i> (Saxifragaceae)	Pattarchatta	Subalpine	H	Rz	Wild	August-September
9	<i>Biebersteinia odora</i> (Biebersteiniaceae)	Taksha	Sub-alpine	H	Wp	Wild	August-September
10	<i>Carum carvi L.</i> (Apiaceae)	Chongsa jeera	Sub-alpine	H	Sd	Wild	October
11	<i>Cedrus deodara</i> (Pinaceae)	Deodar	Sub-alpine	T	Sd	Wild	October
12	<i>Dactylorhiza hatagirea</i> (Ranunculaceae)	Hathajadi	Alpine	H	Rt	Wild	August-September
13	<i>Delphinium denudatum</i>	Nirvishi	Sub-alpine	H	Sd	Wild	September-October
14	<i>Hippophae salicifolia</i> (Elaeagnaceae)	Emli	Sub-alpine	T	Fr	Wild	September-October
15	<i>Hyssopus officinalis</i> (Lamiaceae)	Chhabra/lavender	Sub-alpine	S	L	Wild	September
16	<i>Nardostachys grandiflora</i> (Valerianaceae)	Jatamansi	Alpine	H	Rz	Wild	October
17	<i>Papaver somniferum</i> (Ranunculaceae)	Posth		H		Wild and cultivated	
18	<i>Picrorhiza kurrooa</i> Royle ex Benth. (Scrophulariaceae)	Kutki	Alpine	H	Rt	Wild and cultivated	September-October
19	<i>Pinus wallichiana</i> (Pinaceae)	Chir	Subalpine	T	Sd	Wild	
20	<i>Podophyllum hexandrum</i> Royle (Podophyllaceae)	Bankakri	Subalpine	H	Rt	Wild	September-October
21	<i>Prunus Armeniaca</i> (Rosaceae)	Plum	Subalpine	T	Sd	Wild and cultivated	
22	<i>Pyrus malus</i> (Rosaceae)	Seb	Subalpine	T	Fr	Wild and cultivated	August-September
23	<i>Rheum webbianum</i> Royle (Polygonaceae)	Archa	Alpine	H	Fr	Wild	September-October
24	<i>Saussurea costus</i> (Falc.) Lipsch. (Asteraceae)	Kut, Kuth	Alpine	H	Rt	Cultivated	September-October
25	<i>Saussurea obvallata</i> (DC.) Edgew. (Asteraceae)	Bramhakam Al	Alpine	H	Rt, wp	Wild	August-October

26	<i>Selinum vaginatum</i> (Apiaceae)	Bhutkesh	Subalpine	H	Rt	Wild and Cultivated	August-September
27	<i>Taxus baccata L.</i> (Taxaceae)	Thuner	Subalpine	T	Lf, St. bk	Wild	April-June

## Conclusion

The present study indicated that the tribal community of Bagori Uttarkashi is a rich reservoir of important high altitude cold desert medicinal plants in regards to Indigenous System of Medicine and Ayurveda. The bhotiya tribe, inhabiting the area, has a good knowledge on the beneficial use of medicinal plant resources with regards to medicines. The Knowledge on ethno medicine of this tribe is eroding gradually due to modernization, and so documentation of it will benefit the younger generation of this community and will provide a platform for researchers to tap the medicinal potentialities of the available medicinal plants. Introducing techniques of ex-situ cultivation of commercially viable species would present a strong option for income generation and prevention of migration of the local people. Kitchen gardening presently in every household greatly benefits the tribe, and should be encouraged to venture into large scale production through promotion of nursery practices.

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