

# Role of Plants Used in Religious and Cultural System by Local Inhabitants of Sacred Forests of district Pithoragarh, Kumaun Himalaya

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## ABSTRACT

Sacred natural sites are part of a broader set of cultural values that different social groups, traditions, beliefs or value systems attach to places and which 'fulfil humankind's need to understand, and connect in meaningful ways, to the environment of its origin and to nature'. The study was conducted in 6 sacred forests located in Pithoragarh district of Uttarakhand state, India. The approximate area of the six sacred forests ranges from 120 -195 ha and are located at an elevation range of 1497-2603 m above sea level. Survey was done during year 2015. In order to achieve authentic information, an extensive dialogue with the inhabitants of Villages around sacred forests conducted using Participatory Rural Appraisal (PRA) tools. The present study compiles 17 religious plant species belonging to 14 families (13 Angiosperms and 1 Gymnosperms) used by local inhabitants round sacred forests, Pithoragarh. Within the documented species tree(53%) cover the maximum number of species followed by shrubs(29%) and Herbs (18%). present studies shows percentage of plant part used fruit (28%), leaf(28%), stem(19%),seed(5%),whole plant (5%), Rhizome(5%),Flower (5%) and Inflorescence (5%) by local peoples.

**Keywords:** Sacred Forests, Sacred plants, Kumaun Himalaya, Religious belief.

## INTRODUCTION

Areas of land or water having special spiritual significance to peoples and communities' (Oviedo and Jeanrenaud, 2007). 'Sacred' has different meanings to different communities. At the basic level it denotes deep respect and 'set aside' for purposes of the spiritual or religious. Sacred natural sites are part of a broader set of cultural values that different social groups, traditions, beliefs or value systems attach to places and which 'fulfil humankind's need to understand, and connect in meaningful ways, to the environment of its origin and to

nature' (Putney, 2005). The term 'sacred natural sites' implies that these areas are in some way holy, venerated or consecrated and so connected with religion or belief systems, or set aside for a spiritual purpose. Sacred natural sites are just one of many domains where religions or belief systems interact with

nature. There are important elements to take into account regarding indigenous or traditional spirituality. The growing recognition of the political status of indigenous peoples provided in 2007 by the United Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007) has significantly increased awareness of the deeper dimensions of oppression and also of resilience. The first scholar to document sacred groves of the State was D. Brandis, the first Inspector General of Forests, who wrote about occurrence of sacred groves in 1897 (Rao, 1996). The first authentic report on the sacred groves is the Census report of Travancore of 1891 in which Ward and Conner (1927) reported 15,000 sacred groves in Travancore. In Uttarakhand Sacred groves play an important role in the religious and socio-cultural life of the local people. Rituals and ceremonies are often carried out in the sacred groves to propitiate ancestral spirits and deities for enhancing agricultural yields and for well-being of animals and human beings (Singh. 2011, Seema et al., 2007, Ashish et al., 2010). The main objective of this study is to understand the use

### How to Site This Article:

Brij M. Upreti, Lalit Tewari, Ashish Tewari (2017). Role of Plants Used in Religious and Cultural System by Local Inhabitants of Sacred Forests of district Pithoragarh, Kumaun Himalaya. *Biolife*. 5(1), pp 7-11.

DOI: [10.5281/zenodo.7353691](https://doi.org/10.5281/zenodo.7353691)

Received: 2 January 2017;

Accepted; 18 February 2017;

Available online : 1 March 2017

of plant species in various traditional ceremonies and there ethno medicinal uses.

### MATERIALS AND METHODS

The study was conducted in 6 sacred forests located in Pithoragarh district of Uttarakhand state, India. Six

**Table-1. Detail description about Sacred forests of Pthoragarh District, Uttarakhand.**

Sacred forest	Altitude	Area(ha)	Age of Sacred site	Forest type
SF Kalika	1695m	145	Established by Sankaracharya	<i>Cedrus deodara</i>
SF Chamunda	1795m	159	Established by Sankaracharya	<i>Cedrus deodara</i>
SF Betal Devta	1504m	133	Aprox.750 yr	<i>Querques leucotrichophora</i>
SF Thal kedar	2602m	195	More than 800 yr	<i>Querques leucotrichophora</i> & <i>Rhododendron aeboreum</i>
SF Psupatinath	1906m	153	More than 250yr	<i>Rhododendron aeboreum</i>
SF Ratwali	1807m	136	Aprox. 600yr	<i>Querques leucotrichophora</i>

SF: Sacred Forest

**Figure-1: 1. Haat Kalika sacred foest 2. Chamunda Devi Sacred Forest 3. Pasupatinath Sacred Forest 4. Betal Devta Sacred Forest 5. Golu Devta Sacred Forest 6. Thal Kedar Sacred forest (Google Earth).**

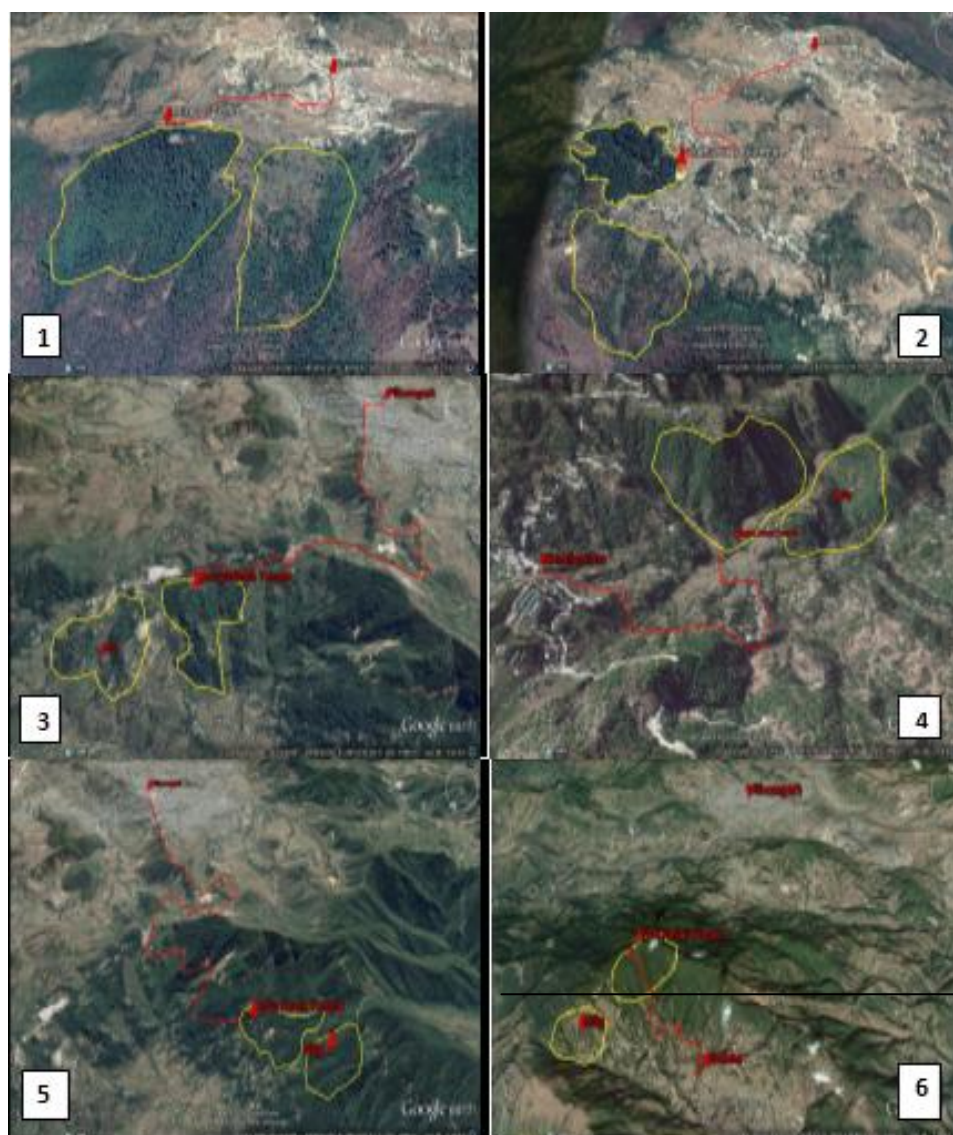


Table-2. Religious and ethno medicinal uses of plant species from sacred forests of Pithoragarh.

S.No	Botanical name	Local name	Family	Life forms	Part use	Uses
1	<i>Agela marmelos</i> (L) Correa	Bael	Rutaceae	T	Fruit/leaf	<ul style="list-style-type: none"> <li>Leaves are offered to please lord Shiva during 'Shivarchan'.</li> <li>Local people use the squash of pulp of fruit to cure the digestive disorder.</li> </ul>
2	<i>Cannabis sativa</i> L	Bhang	Canabaceae	S	Seed	<ul style="list-style-type: none"> <li>Cannabis most closely associated with the worship of Shiva, one of the three principal deities of India.</li> <li>The resin of the plant is taken in very small quantity in severe stomach pain and as healing agent in wounds.</li> </ul>
3	<i>Cedrus deodara</i> (Roxb.ex.c anbert) G.Don	Devdar	Pinaceae	T	Stem	<ul style="list-style-type: none"> <li>The fragrance of wood repels poisonous animals and insects.</li> <li>Oil is used in body joint pain.</li> </ul>
4	<i>Cynodon dactylon</i> (L) Pers	Doob	Poaceae	H	Leaf	<ul style="list-style-type: none"> <li>It is used in almost all religious rituals supposed to please Lord Ganesh.</li> <li>The extract of plant used in cure nasal bleeding.</li> </ul>
5	<i>Datura stramonium</i> L	Dhatura	Solanaceae	S	Fruit	<ul style="list-style-type: none"> <li>Fruit and flower offered to lord Shiva.</li> <li>The seed, leaves after roasting are applied Locally to relive pain</li> </ul>
6	<i>Ficus auriculata</i> Lour	Bedu	Moraceae	T	Fruit	<ul style="list-style-type: none"> <li>Leaves are used to place food for ancestors and local deities.</li> <li>Fruits are eaten raw and cooked as vegetable.</li> </ul>
7	<i>Juglans regia</i> L.Var kumaonica DC.	Akharot	Juglandacea e	T	Fruit	<ul style="list-style-type: none"> <li>Fruits are offered to deities.</li> <li>Fresh leaves and twigs are widely used in toothache.</li> <li>Fruit is given to the patients for improving/strengthening the brainpower</li> </ul>
8	<i>Origanum vulgare</i> L.	Van tulsi	Lamiaceae	H	Leaf/inflorescence	<ul style="list-style-type: none"> <li>Leaves and inflorescence used during ritual ceremonies</li> <li>Oil of plant used in skin problems.</li> </ul>
9	<i>Osmanthus fragrans</i> Lour.	Shiling	Oleaceae	T	Flower/leaf	<ul style="list-style-type: none"> <li>It rivals the sacred tree <i>Pipal</i> (<i>Ficus religiosa</i> Linn.) in sacred forest Pasupatinath Kumaun Himalaya</li> </ul>
10	<i>Phyllanthus emblica</i> L	Amla	Phyllanthaceae	T	Leaf/fruit	<ul style="list-style-type: none"> <li>Leaf and fruits are used during 'shraddh' (worship of ancestors)</li> <li>Fresh fruit juice used in eye sight improving and anaemia.</li> </ul>
11	<i>Pinus roxburghii</i> Sarg.	Chir	Pinaceae	T	Leaf	<ul style="list-style-type: none"> <li>Leaf or young branch used for the preparation of 'Kalsh(Holly pot) during traditional rituals.</li> <li>Plant resin is applied locally on the pimples for about 2-3 hours daily</li> </ul>

12	<i>Prunus cerasoides</i> D. Don.	Payya	Rosaceae	T	Stem	<ul style="list-style-type: none"> <li>• Leaf and stem used during 'Holi' festival in hill regions of Kumaun</li> <li>• The juice of bark is applied externally to treat backaches. seeds are chewed in case of kidney stone.</li> </ul>
13	<i>Rhododendron arboretum</i> Sith	Burans	Ericaceae	T	Flower	<ul style="list-style-type: none"> <li>• Flowers are offered to deities in almost all religious functions (especially during 'Fool deli').</li> <li>• Flower juice is given to the patients in liver complaints and in anemic conditions</li> </ul>
14	<i>Urtica dioica</i> L.	Bichoo ghass	Urticaceae	S	Leaf/stem	<ul style="list-style-type: none"> <li>• The twig is carried with new born baby in travelling to ward off the evil spirit.</li> <li>• The root paste is used in case of tooth cavity.</li> </ul>
15	<i>Valeriana wallichii</i>	Samyo	Valerianaceae	H	Rhizome	<ul style="list-style-type: none"> <li>• Rhizome paste used in skin infection</li> <li>• Locally much used in dhoop manufacturing</li> </ul>
16	<i>Vitex nigrundo</i> L.	Sebai	Lamiaceae	S	Whole plant	<ul style="list-style-type: none"> <li>• Believed to have magical potency and branches of these shrubs are used to avert the evil spirit and other evil influences by local peoples.</li> </ul>
17	<i>Zanthoxylum alatum</i> DC.	Timur	Rutaceae	S	Stem/fruit	<ul style="list-style-type: none"> <li>• The twigs are kept in house to keep away evil spirit.</li> <li>• It is used in curing various common ailments such as toothache, common cold, cough, and fever, as it is believed to give warmth to the body.</li> </ul>

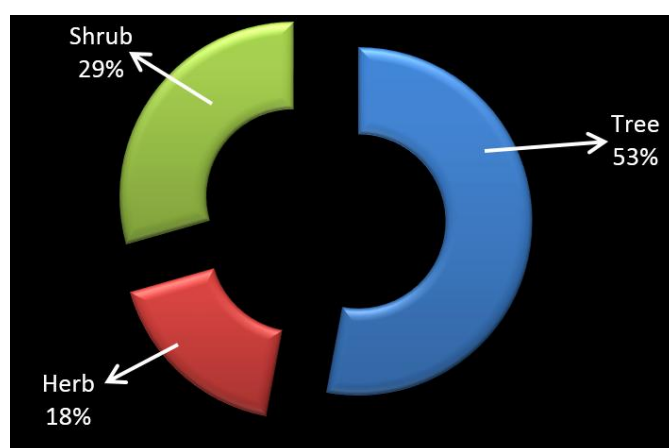
from 120 -195 ha and are located sacred forests ranges from 120 -195 ha and are located at an elevation range of 1497-2603 m above sea level.

Survey was done during year 2015. In order to achieve authentic information, an extensive dialogue with the inhabitants of Villages around sacred forests conducted using Participatory Rural Appraisal (PRA) tools (Silverman, 2005). The respondents comprised young and old, male and female. Identification of plants and documentation of cultural uses with the help and participation of local / rural peoples, traditional knowledge holders / local *vaidyas* to know the local names, religious & cultural and medicinal importance of the mentioned plants. The collected plants specimens were identified with the help of different floras and manuscripts, standard literature (Osmaston 1927, Gupta 1968, Naithani 1984–1985, Gaur 1999).

## RESULTS AND DISCUSSION

The present study compiles 17 religious plant species belonging to 14 families (13 Angiosperms and 1 Gymnosperms) used by local inhabitants round sacred forests, Pithoragarh (Table-1).

Figure-2: Life form distribution of plant species

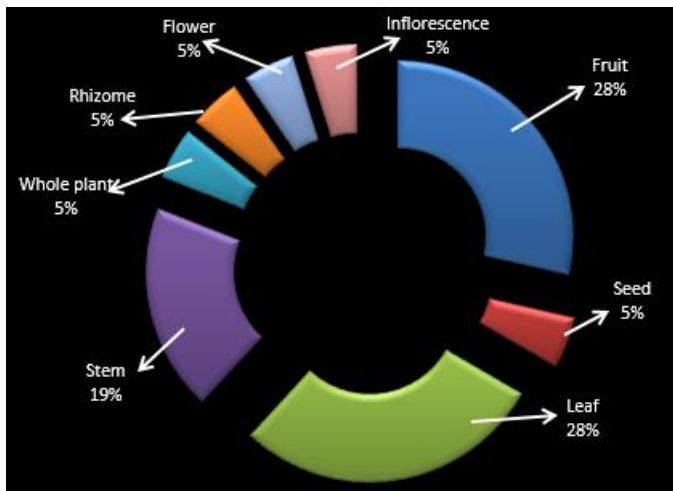


Within the documented species tree (53%) cover the maximum number of species followed by shrubs (29%) and Herbs (18%) (Fig-2). Present studies shows percentage of plant part used fruit (28%), leaf (28%), stem (19%), seed (5%), whole plant (5%), Rhizome(5%), Flower (5%) and Inflorescence (5%) by

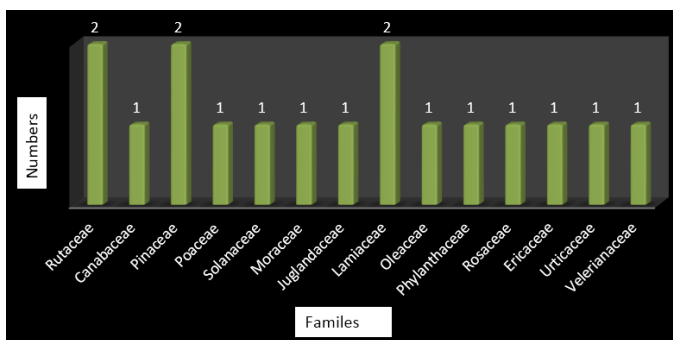


local peoples (Fig-3). Previous studies on Himalayan plants were done by Pangtey (1980), Mehra et.al, (2014), Niroulal (2015) and Pandey et.al., (2016).

**Figure-3: Graph showing % distribution of plant part used.**



**Figure-4: Distribution of families constituting number of plant species.**



## Acknowledgement

The authors are thankful Head, Department of Botany D. S. B. Campus, Nainital for necessary research facilities.

## Conflict of Interests

Authors declare that there is no conflict of interests regarding the publication of this paper.

## References

[1]. Silverman, D. 2005. Doing Qualitative Research: A Practical Handbook. Thousand Oaks: SAGE, London, UK.  
 [2]. Osmaston, A.E. 1927. A forest flora for Kumaun. International Book Distributors, Dehradun, pp 605.  
 [3]. Gupta, R.K. 1968. Flora Nainitalensis: A Handbook of the flowering plants of Nainital. Navayug Traders, New Delhi.

[4]. Naithani, B.D. 1984-1985. Flora of Chamoli. Vols. I-II. Botanical Survey of India, Calcutta.  
 [5]. Gaur, R.D. 1999. Flora of the District Garhwal Northwest Himalayas (With Ethnobotanical Notes). Transmedia: Srinagar, Garhwal.  
 [6]. Oviedo, G. and Jeanrenaud, S. (2007) 'Protecting sacred natural sites of indigenous and traditional peoples', in Mallarach, J.M. and Papayannis, T. (eds) (2007) Protected Areas and Spirituality, IUCN and Publications de l'Abadia de Montserrat, Gland, Switzerland  
 [7]. Putney, A. (2005) 'Building cultural support for protected areas through sacred natural sites', in McNeely, J. (2005) Friends for Life, IUCN, Gland, Switzerland and Cambridge.  
 [8]. Rao. P. (1996). Sacred groves and conservation. WWF-india Quarterly 7: 4-8, 1996  
 [9]. UNDRIP (2007) 'Declaration on the rights of indigenous peoples, United Nations', General Assembly, 61st session, agenda item 68, Report of the Human Rights Council  
 [10]. Singh Harsh (2011). Floristic Diversity of Sacred Groves of Pithoragarh, Uttarakhand. Ph.D Thesis submitted to Kumaun University Nainital.  
 [11]. Ward and Conne (1927).Memoirs of the survey of Travancore and cochin states.cited from census report of Travancore, 1891  
 [12]. Dhaila-Adhikari S & Adhikari B S (2007).Veneration of deity by restoration of sacred grove in village Minar, Kumsun region of Uttarakhand :A case study. Journal of American Science 3(2):45-49.  
 [13]. Anthwal Ashish., Gupta Nutan, Sharma Archana, Anthwal Smriti and Kim Ki-Hyun (2010).Conserving biodiversity through traditional beliefs in sacred groves in Uttarakhand Himalaya, India. Resources, Conservation and Recycaling,54, 962-971.  
 [14]. Mehra A, Bajpai O & Joshi H (2014) Diversity, utilization and sacred values of Ethno-medicinal plants of Kumaun Himalaya. Tropical Plant Research 1(3): 80–86  
 [15]. Ghanashyam Niroula1 and N.B Singh, ( 2015) Religion and Conservation: A Review of Use and Protection of Sacred Plants and Animals in Nepal, Journal of Institute of Science and Technology, , 20(2): 61-66, © IOST, Tribhuvan University.  
 [16]. Pangtey YPS (1980) Some Wild Edible Fruit Plants of Kumaun Hills In: Singh JS, Singh SP & Shastri C (eds) Science and Rural Development in Mountains. Gyanodaya Publication, Nainital.  
 [17]. Sateesh Pujari and Estari Mamidala (2015). Anti-diabetic activity of Physagulin-F isolated from *Physalis angulata* fruits. *The Ame J Sci & Med Res*, 2015,1(1):53-60  
 [18]. Sharma V. Joshi B.D. (2010), Role of sacred plants in religious and health care system of local people of Almora distict of Uttarakhand State (India), *Academica Arena*;2(6).pp 19-22  
 [19]. Pandey.N.C., Joshi G.C., Tewari L.M.(2016), Ethnobotanical plant diversity of Betalghat region of Kumaun Himalaya. *Biolife* 4(4). Pp 629-649.