



## ORIGINAL ARTICLE

## Medicinal Plants Used in Indian System of Medicine in Pir Panjal Range of Jammu and Kashmir, North West Himalaya India

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### ABSTRACT

*The present paper highlights the occurrence of some common plants used in Indian system of medicine to cure various ailments. The plants have been collected from different localities of the pirpanjal region of Jammu and Kashmir particularly from district Poonch, Rajouri and Shopian. Interviews from tribals peoples have also been conducted to inquire about the occurrence of medicinal plants in different localities. The present work will be very useful for the students and scientific community of the area.*

**Key words:** Medicinal Plants, Pir Panjal Region, North West Himalay

### INTRODUCTION

The process of deriving drugs from plants is not new. Over the centuries people have depended on the surrounding plant diversity for the treatment of various ailments. It is a well-known fact that Traditional Systems of medicines always played important role in meeting the global healthcare needs. They are continuing to do so at present and shall play major role in future also. The system of medicines which are considered to be Indian in origin or the systems of medicine, which have come to India from outside and got assimilated in to Indian culture are known as Indian Systems of Medicine (Prasad, 2002). India has the unique distinction of having six recognized systems of medicine in this category. They are Ayurveda, Siddha, Unani and Yoga, Naturopathy and Homoeopathy. Though Homoeopathy came to India in 18<sup>th</sup> Century, it completely assimilated in to the Indian culture and got enriched like any other traditional system hence it is considered as part of Indian Systems of Medicine (Prasad, 2002). The authors in the present text is enumerating the only the plants used in Ayurvedic system of medicine which is oldest and native to India. The Ayurvedic system of medicine is based on three dosas (Vatta, Pitta and Kapha). The body will be healthy if all the dosas exist in equal quantities (Kumar 2014).

The need for the documentation of medicinal plants exists all over the world and significant work has been done for the documentation of medicinal plants of Jammu and Kashmir as well as other parts of the country such as Ambasta (1986), Chatterjee and Pakrashi (1991), Chouhan (1999), Prajapati *et al.* (2003), Khare (2007), Ravishanker and Shukla (2007), Khan *et al.* (2012), Khan and Kumar (2012 a, b, c), Joshi and Joshi (2013), Khan (2013) Kumar (2014 a, b, c, d, e), Wani *et al.* (2016) Khan and Paul (2017a) Paul and Khan (2017).

### STUDY AREA

The Pir Panjal Range is a group of mountains with largest range in the lower Himalayas. It runs in the Inner Himalayas from east-southeast (ESE) to west- northwest (WNW) across the Indian states of Himachal Pradesh and Jammu and Kashmir and Pakistan occupied Kashmir where the average elevation varies from 1,400 m to 4,100 m. Pir Panjal dissociates itself from the Himalayas near the bank of Sutlej river and forms a divide between the Rivers Beas and Ravi on one side and the Chenab on the other. In this range, the famous Murree and Galliat mountains are also located. The Banihal pass is a mountain across the Pir Panjal range at 2,832 m and lies at the head of the Vitasta River at the southern end of the Kashmir valley. Banihal pass of Jammu region connects Qazigund area of Kashmir.

The Sinthan pass is about 3,800 above sea level and remains covered with snow for most parts of the year. It connects Jammu and Kashmir with Kishtwar. On the Pir Ki Gali there is a small unassuming mausoleum of Pir Baba Sheikh Ahmed Karim where the people pray for their safe journey. Pir ki Gali is the gateway to Kashmir valley and is gaining popularity as beautiful tourist spot. Pir ki Gali is the highest point of Mughal road (11500 ft approx) and lies to the south west of the Kashmir valley. Pir Panjal is the barrier of Poonch, Rajouri and Banihal between Kashmir valley and also for the monsoon for crossing over to Kashmir valley.

**Table 1:** Uses of Experimental Plants

S.No	Botanical Name	Family	Parts Used	Local name	Uses
1	<i>Abelmoschus esculentus</i> Linn.	Malvaceae	Fruit	Bhindhi	Vitiated condition of pitta, abdominal disorder and general debility
2	<i>Abies pindrow</i> Royle ex D. Don	Pinaceae	Leaves	Riyar	They are used in vitiated condition of pitta and vatta, cough, asthma and diarrhoea
3	<i>Achyranthus aspera</i> Linn.	Amaranthaceae	Whole plant	Phutkanda	The plant is bitter, thermogenic laxative and used in vitiated conditions of pitta and vatta.
4	<i>Aconitum heterophyllum</i> Wall ex Royle	Ranunculaceae	Root	Patrees	Used on diabetes, antiperiodic and tonic. They are also used in dysentery malarial fever and general debility.
5	<i>Acorus calamus</i> Linn	Araceae	Rhizome	Bach, vacha	The rhizome bitter tonic and used on nervous and hysterical conditions. It is also used in haemorrhoids and skin disease and otalgia.
6	<i>Agaricus compestris</i> Linn	Agaricaceae	Whole plant	Chatri	The fungus is sweet, cooling laxative and aphrodisiac.
7	<i>Albizia lebbek</i> Linn Benth.	Mimosaceae	Bark flowers and seeds		The bark is sweet mildly thermogenic, expectorant and anti-inflammatory. The flowers are useful in chronic cough and bronchitis.
8	<i>Albizia odoratissima</i> (Linn, f.)	Mimosaceae	Bark	Sainsa	The bark is cooling, depurative and expectorant.
9	<i>Aloe barbadense</i> Mill	Liliaceae	Leaf juice and pulp	Gheekun war	The pulp of the plant is used on helmenthiasis in children.
10	<i>Betula utilis</i> Jacquemontii	Betulaceae	Bark	Bhurz	The bark is astringent. It is used in vitiated conditions of tridosa, convulsion, cough and bronchitis.
11	<i>Boerhaavia diffusa</i> Linn.	Nyctaginaceae	Whole plant	It-sit booti	The plant is used as anti-inflammatory, stomachache and tonic. It is used in all types of inflammations constipation and cough.
12	<i>Bombax ceiba</i> Linn	Bombaceae	Root and stem bark	Simbal	Used on sexual disorder
13	<i>Cannabis sativa</i> Linn.	Cannabinaceae Linn	Leaves and flower	Bhang	They are used as stomachache, anti-inflammatory and anti-emetic.
14	<i>Desmodium gangeticum</i> Linn.	Fabaceae	Roots	Shalparni	The root is bitter, cardiogenic, aphrodisiac, carminative, constipating
15	<i>Diplocyclos palmatus</i> Linn	Cucurbitaceae	Whole plant	Shivlingi	The plant is thermogenic, anti-inflammatory and is useful in vitiated conditions of pitta and vatta.
16	<i>Delphinium denudatum</i> Wall ex Hook f & Thoms	Ranunculaceae	Roots	Nirbisi	The roots are acrid bitter, thermogenic, anodyne, digestive carminative, diuretic and linthotriptic.

## **MATERIALS AND METHOD**

The work was undertaken in different localities of the Pir panjal range through field studies carried out during the period of March 2008 July 2013. The plant specimens were collected during different seasons of the year and voucher numbers were allotted to each specimen. Detail regarding the botanical characters and folk uses were recorded on the separate field notebook. Data regarding place of collection, collection number, altitude, date of collection, flower colour, fragrance and other characters which may be lost during the pressing of the specimen have been recorded. Special attention was given to collect the disease free specimens. At high altitude we used old news paper for pressing the plant specimens which were later tagged and carried to the laboratory in plant press. During first few days the sheets were changed at an interval of six hour in rainy season so that the discoloration of foliage and flowers may not take place. Finally the specimens identified with the help of standard floras and by matching with herbarium sheets have been deposited in the Department of Botany, K.P.G. College, Simbhoali for further references. The collected medicinal plants have been described in Table 1.

## **OBSERVATIONS**

The collected ethnomedicinal plants have been enumerated with their correct botanical identity, family, parts used, local name and uses in table 1.

## **DISCUSSION**

Plant biodiversity is one of the major bio resource that fulfills the need of human beings i.e., food timber and medicine (Kumar 2014). Plant provides the predominant ingredient of medicine in most of medicine systems. The objective of this study is to provide comprehensive information on medicinally important floral diversity and distribution of the plants in the Poonch district of Jammu and Kashmir.

## **CONCLUSION**

The present study provides information on 16 medicinal plant species belonging to 16 genera and 15 families distributed in different localities of district Poonch. During the course of study the authors collected about 100 medicinal plants used in different formulation of Ayurveda, Sidha and Unani system of medicine. In the present text only plants used in Ayurvedic system of medicine have been enumerated. The tribal and rural people of the Poonch district are totally dependent upon the surrounding floristic diversity for their day to day needs such as timber food fodder and medicine. The tribal and rural people in addition to Hakims also played good role provided information during the collection of medicinally important plants. The selected study area shows great diversity of medicinally important plant. So there is a need to explore the floristic diversity of this unexplored area to conserve the natural biodiversity.

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