



## Ethno-medicinally important herbs of Ramnagar forest division in Kumaon Region

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### Abstract

The present study deals with Ethno-medicinally important herbs and their uses in the Ramnagar forest division. The study records 30 species of herbs belongs to 22 different families and their local herbal uses to cure different ailments by the local inhabitants. The currently accepted botanical names, family, local names, parts used and the medicinal uses of those parts are given.

**Keywords:** Ailments, bhabar, ethno-medicine, Kumaon, Ramnagar, traditional

### Introduction

Ramnagar Forest Division is an important forest division of Western Circle of the forest of Uttarakhand which occupies an area of about 48,700 hectares and mostly occupies the Bhabar area with low Siwalik Hills in some parts.

Bhabar is a waterless area composed of bed of boulders, gravels and silt brought down by the Himalayan streams and rivers. These extremely porous deposits are fairly deep. The Siwaliks consist of tertiary coldoremates and sandstone. The average rainfall in the area is about 1300mm. About 80% of the rain fall is received from June to September, directly due to monsoon currents. Winter rains are scanty. Heavy dew occurs at night time from November to March. Temperature is very high from April to June. Though cool "dadu" brings some respite from heat. Frost is registered during night in December and January. The Sal forests are dominant in the area. They are present in the area with low slopes. Some deciduous species are associates with Sal forest. These deciduous riverian forests of *Dalbergia sissoo* and *Acaia catechu* on sandy and gravelly deposits along the rivers and streams. Deciduous miscellaneous forests of riverian type also occur in the area.

Composed of many different species including *Mallotus philippinensis*, *Bombax ceiba*, *Haldina cordifolia*, *Lagerstromia parviflora*, *Holarrhena pubescens*, *Cassia fistula* etc. Tall grasses also occur in Bhabar area with other woody elements. Due to the richness in vegetation, the area has a great number of herbaceous species which have been used by the local inhabitants and tribes for their day to day life and in the treatment of certain ailments. Though, a good number of research work (Osmaston (1927), Duthie (1903-1929), Pant (1976-1981), Gupta (1960-1968), Jain (1956-1996), Uniyal (1997), Kalakoti and Pangtey (1988), Pandey *et al.* (1989-99), Joshi and Pande (1996-1999), Joshi (1993) and Shah (1970-1971) have contributed to the systematics and the ethnobotany of higher altitudinal regions but a little has been done for the lower altitudinal regions. The present paper is a small step to fill up that lacuna.

### Material and Methods

The present study was based on a field survey (2008-2009) in Ramnagar Forest Division, to find the herbs of medicinal value. The survey was conducted among the local people, local tribes, farmers, local vaidyas and a middle aged woman's who use these plants in their day to day life. These people have a vast knowledge about the medicinal uses of plants growing around them.

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During survey the information gathered on the basis of prepared questionnaire viz., local name, mode of preparation, medicinal parts and parts used etc. Standard methods were followed for the collection of plant materials, mounting, preparation and preservation of plant species (Jain & Rao, 1978). The preliminary identification of specimens was done with the help of manuals and floras and later confirmed after matching with the authentic specimens present in the herbaria of *Northern Circle of Botanical Survey of India*, Dehradun (BSD) and *Forest Research Institute*, Dehradun (DD). Out of these an alphabetical list including the

plant name, local name, family, parts used and medicinal uses were also made (Table 1).

### Results and Discussion

The present study records 30 herbaceous species of ethno-medicinal plants representing 22 families. In which 4 genera with 4 species belong to monocotyledonous family and 25 genera with 26 species are of dicotyledonous family. The following is the list of some important medicinal herbs found in the Ramnagar Forest Division along with their local name(s), family, parts used and their ethno-medicinal uses (Table 1).

**Table 1: List of Ethno-medicinally Important Herbs and their Uses**

S. No	Botanical Name	Local Name	Family	Parts Used	Uses
1.	<i>Ageratum conyzoides</i> L.	Bhubania, Phulaina	Asteraceae	Root and Leaves	Leaf paste is used for treating cut wounds to check bleeding. Poultice of the leaves is good for boils and juice is used as a lotion for eyes. Root paste is used to set dislocated bones and the powders of roots are used for cuts, sores and ruptures caused by leprosy.
2.	<i>Argemone mexicana</i> L.	Pilikateli	Papaveraceae	Root, Seed, Milky juice and Oil	The leaves juice and seed oil is applied in skin diseases and wounds healing properties. The paste of root is applied on scorpion bite and in severe stomachache. Root is burnt to provide heat in treatment of piles. Seed oils used for massage and paste of seed is useful in rheumatic disorders. Yellow juice of plant is used for dropsy, jaundice and cutaneous affections.
3.	<i>Andrographis paniculata</i> Nees	Kalmegha	Acanthaceae	Whole Plant	It is considered to be useful for children and not so much for older persons. It is useful for all type of fevers, malaria, mouth ulcers and venomous snake bites and also useful in common cold, urinary infections, dysentery and infectious hepatitis.
4.	<i>Aerva lanata</i> (L.) Juss. ex Schult.	Chaya	Amaranthaceae	Leaves and Root	Roots are used in headache and decoction of the root is Given as tonic to pregnant women. Leaf juice is used as effective remedy to expel the kidney stones. It is also useful for any irritation and for skin diseases.
5.	<i>Blumea fistulosa</i> (Roxb) Kurz.	Kukraida	Asteraceae	Leaves	Leaves used for body ache.
6.	<i>Baliospermum montanum</i> (Willd.) Muell.-Arg.	Danti	Euphorbiaceae	Seeds	Small quantity of seeds taken orally in constipation.
7.	<i>Boerhavia</i>	Punarnava	Nyctaginaceae	Whole	Juice of fresh roots is used as eye drops.



**Ethno-medicinally important herbs of Ramnagar**

	<i>diffusa</i> L.			Plant	Root juice is administered orally in asthma and urinal disorder. Watery extract of the root is given orally in jaundice. Leaves paste is useful in skin diseases like scabies.
8.	<i>Basella alba</i> L.	Poi	Basellaceae	Root and Leaves	Poultice of leaves used to reduce local swelling. Leaf juice thoroughly rubbed and mixed with butter is a soothing and cooling application for burns and scalds. Cooked roots are used for diarrhea. Cooked leaves and stem are used as antidote to poison.
9.	<i>Cleome viscosa</i> L.	Jakhya	Capparaceae	Leaves	Leaves juice used in earache.
10.	<i>Cannabis sativa</i> L.	Bhang	Cannabaceae	Leaf, Seeds, Flower and Fruit	Paste of leaf is applied on wisdom tooth. Paste of seeds is used a remedy for knots in joints. The Plant is useful in asthma, burns, coughs, diarrhea, dysentery, fever, gonorrhea and for rheumatism.
11.	<i>Curcuma longa</i> L.	Jungli haldi	Zingiberaceae	Tubers and Rhizome	Due to strong antiseptic properties it is useful for all kinds of poisonous affections. Rhizome juice along with honey is used for anemia. Fresh tuber juice with salt is used for intestinal worms. The paste of herb mixed with salt and lime juice used to cure swellings and sprain.
12.	<i>Centella asiatica</i> L.	Brahmi	Apiaceae	Whole Plant	The plant a valued medicine for treatment of leprosy and skin diseases and also to improve memory. Poultice of plant is used for rheumatism. A decoction of young shoots is given for hemorrhoids. The leaves are useful in abdominal disorders due to dysentery in children.
13.	<i>Fagopyrum esculentum</i> Moench	Ugal	Polygonaceae	Bark and Seeds	Bark and seeds are used to cure diarrhea and extreme dehydration.
14.	<i>Gloriosa superba</i> L.	Langhi	Liliaceae	Root and Rhizome	Paste of root is applied externally on joints for muscular pain. Rhizome is useful for skin diseases and leprosy.
15.	<i>Ipomoea quamoclit</i> L.	Lal Bharad	Convolvulaceae	Whole Plant	Plant decoction is used in piles and as an antidote for snake bite.
16.	<i>Ipomoea nil</i> (L.) Roth	Bharad	Convolvulaceae	Seeds	Seeds are useful in constipation, skin diseases, and scabies and for leucoderma.
17.	<i>Impatiens balsamina</i> .	Gulmendi	Balsaminaceae	Seeds	Paste of seed is applied externally in skin diseases.
18.	<i>Mentha arvensis</i> L.	Pudina	Lamiaceae	Leaves	Fresh leaves taken during dysentery; leaf paste used to massage in body aches.
19.	<i>Oxalis corniculata</i> L.	Khatta-Meetha	Oxalidaceae	Whole Plant	Juice of herb is used as eye drops on cataract. Paste of shoots along with black pepper is applied to boil, wound and weeping eczema. Leaves and roots are used to treat dysentery

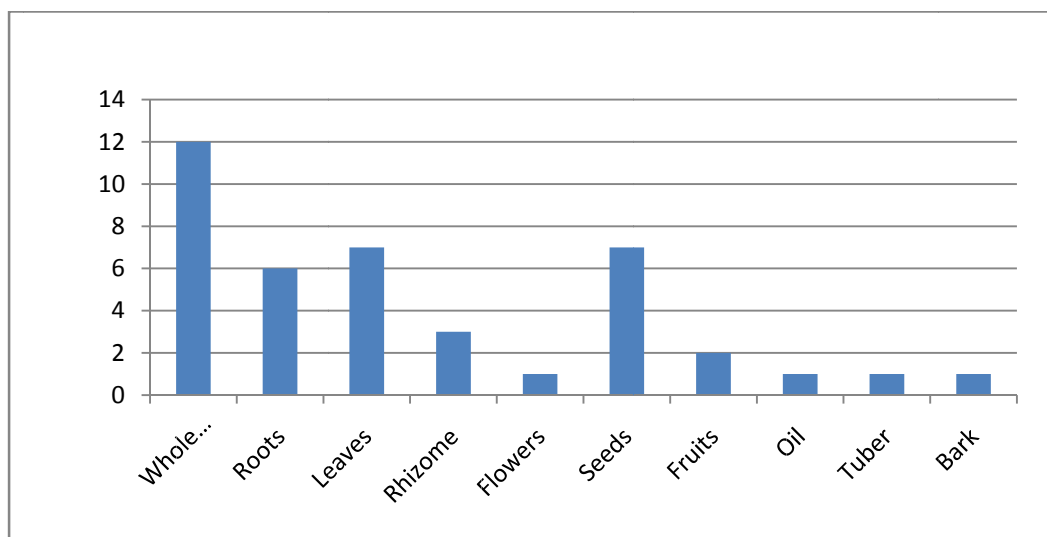


20.	<i>Phyllanthus niruri</i> L.	Bhumiya amla	Euphorbiaceae	Whole Plant	Infusion of the leaf taken for jaundice, gonorrhoea and urinary tract infection. Powdered leaf and root are drunk for colic, cough and indigestion. It is also used to treat gout, kidney disorders and impotence.
21.	<i>Piper longum</i> L.	Pipli	Piperaceae	Whole Plant	The plant is commonly used to treat stomachache, bronchitis, cough, tumors, insomnia, epilepsy, gonorrhoea, diarrhea and cholera. Paste of seed is applied externally to soothe and relieves muscular pain.
22.	<i>Physalis minima</i> L.	Bandhapa riya	Solanaceae	Whole Plant	Poultice of plant is used to treat headache, gastralgia and intestinal pain; also used to treat fever. Decoction of the plant is taken to ensure normal urination. A paste of leaves and stems is used to treat dizziness and juice of leaves, mixed with mustard oil and water used for earache.
23.	<i>Rumex hastatus</i> D. Don	Chilmora	Polygonaceae	Whole Plant	Root decoction is used for rheumatism. Leave juice is given in abdominal colic.
24.	<i>Rungia repens</i> Nees	Kharmar	Acanthaceae	Whole Plant	Dried herb is used in the treatment of cough and fever. Fresh, bruised leaves are mixed with castor oil used for scaly fungous infection.
25.	<i>Ranunculus sceleratus</i> L.	Jaldhaniya	Ranunculaceae	Roots	Roots are useful in dysentery, diarrhea, stomach disorder, fever, vomiting, inter inflammatory condition and also useful in skin disorder.
26.	<i>Senecio nudicaulis</i> Buch.-Ham ex D. Don	Ratpatia	Asteraceae	Whole Plant	Juice of leaves is dropped in eyes in conjunctivitis. Paste of herb and leaves is applied on wounds.
27.	<i>Solanum nigrum</i> L.	Makoi	Solanaceae	Whole Plant	Juice of whole plant is given for fever. Paste of leaves with black pepper is applied over boils and pimples.
28.	<i>Sesamum orientale</i> L.	Til	Pedaliaceae	Seeds	Small quantity of seed oil is taken orally for dysentery.
29.	<i>Zea mays</i> L.	Bhutta	Poaceae	Fruits	Decoction of corn is used to treat kidney stones.
30.	<i>Zingiber officinale</i> Roscoe	Adrak	Zingiberaceae	Rhizome	Rhizome used in throat pain, cold, cough and bronchitis.

Various parts of these species such as whole plant (12), roots (6), seeds (7), flower(1), fruit(2), rhizome(3), tuber(1), bark(1) and oil (1) were used to cure different ailments (Fig. 1). Most of the plant species are reported to be quite effective remedies for different diseases such as diarrhea, diabetes, jaundice, backache, stomachache, toothache, ulcers, cold, skin related problem and feminine problems. The present study has been designed to explore the ethno-

medicinal significance of the herbaceous flora of this region. However it's pity to note that owing to rampant deforestation, cultivation, burning of jungle, over-exploitation, fire wood collection, grazing and browsing, lopping and other human socio-economic development activities, the rich flora including the wealth of medicinal plant of this region are depleting very fast day by day. Hence, there is a need of conservation and protection of these plants.

Fig. 1: Plant partwise ethno-medicinal uses



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