

# Ethnobotanical survey and Traditional Medical Plant Usage among Local Communities in Ranikhet, Almora district, Uttarakhand.

Pooja Narang<sup>1</sup>, Km Meenu<sup>2</sup>,

Assistant Professor, Department of Botany, IFTM University, Moradabad

Research Scholar, Department of Botany, IFTM University, Moradabad

Email- [poojagulatinarang@gmail.com](mailto:poojagulatinarang@gmail.com)

## Abstract

Almora district, Uttarakhand is characterized by a rich Biodiversity of ethno-medicinal plants as well as a rich heritage site in traditional medicine system in the western Himalayan region. Present study deals with the status, identification and to explore the traditional knowledge of plant species about their uses by local people as ethno-medicine in a self-help mode by villagers (Kasar Devi) in Almora (Tewari et.al 2008)<sup>17</sup>. The plants described here were found and identified during visit. We identified so many plant species and their parts that have been used by local people to cure various ailments through their traditional use system.

**Keywords:** Ethno –medicine, traditional knowledge, ailment.

## INRODUCTION

India is rich in its diverse natural resources and treated as one of the 17 biggest natural biodiversity countries of the world. The Eastern Himalayas, Western Ghats, and Indo-Burma regions are the major intense biodiversity hotspots of India. The indigenous knowledge of medicinal plants is important part of primary health care system in almost every society, especially the far-flung areas. These areas, one of the last storehouses of traditional knowledge are under the constant threat of losing this valuable information as it moves from one generation to another through word of mouth. It is of outmost importance to document the folk knowledge on Wild plants before this. An inadequate understanding concerning taxonomy, biology and local knowledge of these plants has contributed to suboptimal utilization of these valuable resources. India is also rich in medicinal plant diversity with all the three levels of biodiversity such as species, genetic and habitat diversity<sup>12</sup>. Due to its unique geographical location and different climatic condition, Uttarakhand Himalaya has rich biodiversity and variety of plant species<sup>15</sup> and also has tremendous potential for domestication of medicinal plants that can be an important option for sustainable livelihood of the hilly people in coming future<sup>11</sup>. The details mentioned by the World Health Organization show that 80% of world's population still depend on natural products of medicines as they are efficient, safe, cost-effective, affordable, and easily accessible by the poor. As the local people are settled far from urban area, they cannot take modern health care facilities so they are totally dependent on traditional medicinal practices for their primary health care. Out of 15,000 species of flowering plants found in India, about 17% have their medicinal value<sup>14,16</sup> several species (1,745) are from the Indian Himalayan region, and many of these are found in Uttarakhand<sup>4,7</sup>. Local people of this region are partially or completely dependent on forest resources for medicine, food, and fuel<sup>13</sup> and medicinal species are

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steadily diminishing due to anthropogenic activities<sup>5</sup>. The knowledge possessed by the traditional healers (Vadhaya) can be used for the development of modern medicines. Modern searches for bioactive molecules typically make use of plants used by traditional healers.

**Work Area:** The Almora district lies between 29<sup>0</sup>30'N to 30<sup>0</sup>20'N latitudes and 79<sup>0</sup>20'E to 80<sup>0</sup>20'E longitudes. It is located in the central part of kumaun region of Uttarakhand (India). The study area covers the plants of Almora locality (Almora and Jageshwar). Almora has annual temperatures ranging from -3 to 28<sup>0</sup>C (27- 82<sup>0</sup>F). Flora of this region is classified into tropical, Himalayan, subtropical, subalpine and alpine vegetation. Alpine and subalpine zones are considered as the most natural abode of the largest number of medicinal plants.

### List of Medicinal Plants used by local people

#### 1. Apamarga



*Achyranthes aspera* Linn

#### **Traditional medicine**

The plant is used in Ayurvedic Medicine. The herb is administered in India in cases of dropsy. The seeds are given in hydrophobia, and in cases of snake-bites, as well as in ophthalmia and cutaneous diseases. The flowering spikes, rubbed with a little sugar, are made into pills, and given internally to people bitten by mad dogs. The leaves, taken fresh and reduced to a pulp, are considered a good remedy when applied externally to

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the bites of scorpions. The ashes of the plant yield a considerable quantity of potash, which is used in washing clothes. The flowering spike has the reputation in India (Oude) of being a safeguard against scorpions, which it is believed to paralyse. (Drury)."<sup>10</sup>

**Uses:**

It possesses valuable medicinal properties and used in treatment of cough, bronchitis and rheumatism, malarial fever, dysentery, asthma, hypertension and diabetes in Indian folklore. The plant is reported to have several medicinal properties and used as emmenagogue, purgative, diuretic, antimalarial, antihyperlipidemic, estrogenic, antileprotic, antispasmodic, cardiotoxic, antibacterial, and antiviral agents in traditional systems of medicine. It is also used as antiasthmatic antitussive and in the treatment of snakebite, hydrophobia, urinary calculi, rabies, influenza, otorrhoea, piles, bronchitis, diarrhoea, renal dropsies, gonorrhoea, and abdominal pain<sup>1,3,6,8</sup>.

**2. Masuri berry, Tanner's tree, Mansur shrub**



*Coriaria nepalensis* Wall.

**Traditional medicine**

In Chinese Traditional Medicine this species is used to treat various diseases<sup>19</sup>, and the leaf juice was indicated as antiseptic among the Newar community of Kathmandu District.<sup>2</sup>

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**Uses:** The plant produces purple berries so there is a slight risk of these being confused for edible fruit. Ingestion results in dilated pupils, salivation, intoxication, chills, loss of appetite, and bloating. In severe cases dramatic symptoms including violent seizures, muscular contractions and ultimately death can result. <sup>18</sup>

It used to treat numbness, toothache due to wind and heat, phlegm-retention syndrome, traumatic injury and acute conjunctivitis. Despite the high toxicity of *Coriaria nepalensis*, there are no scientifically authenticated records of human poisonings.

### 3. Kyol



*Costus speciosus Smith*

#### **Traditional medicine**

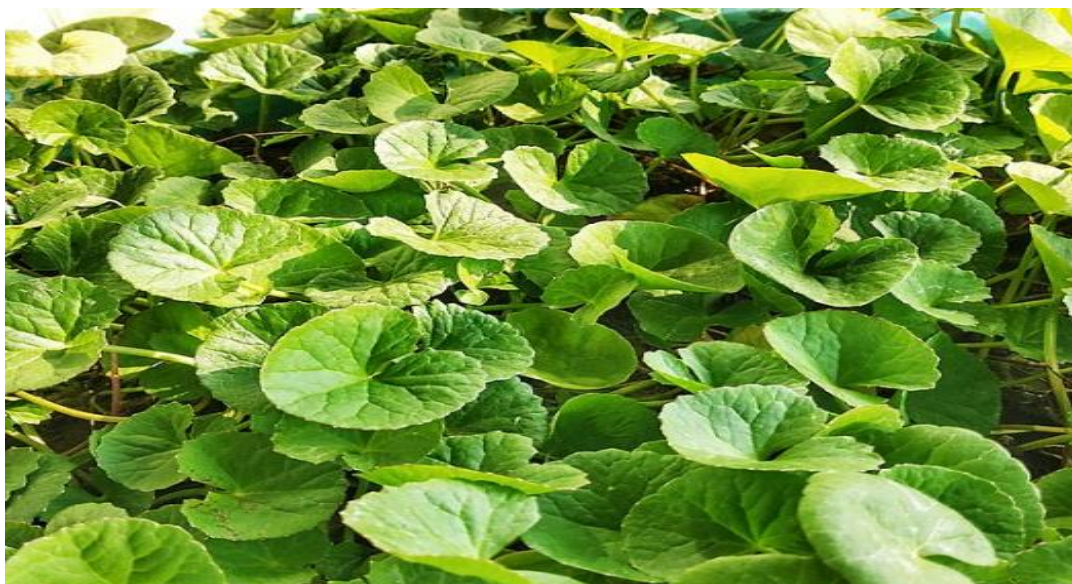
The rhizome which is widely used in Ayurveda is known to be given to patients with pneumonia, constipation, skin diseases, fever, asthma, bronchitis, inflammation, anaemia, rheumatism, dropsy, cough, urinary diseases and jaundice

#### **Uses:**

The plant has multiple active ingredients and has been found to possess many pharmacological activities such as antioxidant, anticancer, anti-inflammatory, antidiabetic, hypolipidemic, hepatoprotective, steroidogenic, adaptogenic, and antimicrobial effects. Tender shoots are eaten as vegetable. Rhizome juice is used as medicine for treatment of Jaundice.

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#### 4. Brahmi, Indian pennywort, Asiatic pennywort, spadeleaf, coinwort



*Centella asiatica* Linn.

##### **Traditional medicine:**

In traditional medicine, *C. asiatica* has been used to treat various disorders, dermatological conditions, and minor wounds, although clinical efficacy and safety have not been scientifically confirmed.<sup>9</sup> Contact dermatitis and skin irritation can result from topical application.<sup>9</sup> Drowsiness may occur after consuming it.<sup>9</sup> The herb may have adverse effects on liver function when used over many months. Leaves are cooked as vegetable and also used as traditional medicine to treat skin complaints and alimentary ulcers.

##### **Uses:**

Apart from wound healing, the herb is recommended for the treatment of various skin conditions such as leprosy, lupus, varicose ulcers, eczema, psoriasis, diarrhoea, fever, amenorrhoea, diseases of the female genitourinary tract and also for relieving anxiety and improving cognition. The plant is valued in indigenous medicine for treatment of leprosy and skin diseases and also to improve memory. The plant is used as an antidote to cholera. A cold poultice of the fresh herb is used as an external application in rheumatism, elephantiasis and hydrocele.

Syrup of the leaves with ginger and black pepper is taken for cough. Leaf juice with palm jaggery is given to women as a tonic after delivery. The leaf juice is rubbed on the forehead to cure severe headache. The leaf extract is used in the preparation of medicated oil for bone fracture.

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## Result and discussion:

Indian forests are the main reserves for the medicinal and other important plants. The oldest system for medicinal practice is Indian traditional system of medicine. Some medicinal plants which are found in Uttarakhand region used in Skin diseases, dyspepsia, depression, jaundice, vomiting, diarrhoea, high blood pressure, back pain, varicose ulcers, eczema, psoriasis, diarrhoea, fever, amenorrhea, diseases of the female genitourinary tract and also for relieving anxiety and improving cognition.

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