



Original Article

Traditional Medicinal Plants of Sikkim Himalaya and Their Uses

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Abstract

The Indian state of Sikkim is part of the Eastern Himalayan biodiversity hotspot and harbours hundreds of medicinal and aromatic plant species that play a vital role in traditional health care systems such as Ayurveda, Unani, Siddha, Amchi (Tibetan), and folk medicine practices. These plants are deeply integrated into the cultural life of local communities and serve both healing and socio-economic functions for rural populations. These plant resources are deeply embedded in the socio-cultural fabric of local communities, where they are used for the treatment of a wide range of ailments including respiratory disorders, gastrointestinal problems, fever, inflammation, and chronic diseases. In addition to their therapeutic significance, medicinal plants contribute substantially to the livelihoods of rural populations through collection, cultivation, and trade. Indigenous knowledge associated with these plants has been transmitted across generations, reflecting a strong relationship between nature and traditional healing systems. However, increasing anthropogenic pressures, habitat degradation, and overexploitation pose serious threats to this valuable botanical heritage. This study highlights important medicinal plant species of the Sikkim Himalaya, their traditional uses, and their role in healthcare and local economies. It also emphasizes the urgent need for conservation strategies, sustainable utilization, and scientific validation to preserve these resources for future generations while supporting community-based healthcare systems.

Keywords: Medicinal plants in Sikkim, uses and variety.

Introduction

Sikkim Himalaya, with over 550 medicinal plant species, holds a rich repository of traditional medicine used by local communities for treating ailments like cough, fever, stomach disorders, and rheumatism.

Important Medicinal Plants of Sikkim [1-6]

1. Swertia chirata (Chirato): Used for liver disorders, fever, gastrointestinal issues, and as a tonic.
2. Cordyceps sinensis (Yarsagumba): Known as "Himalayan Gold," it is a fungus-caterpillar hybrid used for immunity.
3. Aconitum ferox (Bikh): Roots are used for treating rheumatism and fever.
4. Picrorhiza kurroa (Kutki): Bitter roots are used to treat malaria, fever, and digestive problems.
5. Nardostachys jatamansi (Jatamashi): Used for its anticonvulsant and heart-palpitation-reducing properties.
6. Bergenia ciliata (Pakhanbhed): Utilized for treating kidney stones and diarrhea.
7. Dendrobium nobile (Sonahkiri): Used to increase strength and vitality.
8. Asparagus racemosus (Kurilo): Tuberos roots are used for various health ailments.
9. Artemisia indica (Titepati): A common, multi-purpose herb.
10. Stephania glabra (Taubarkey): Root bulbs are used for asthma and arthritis.

Aconitum Species (Bikh / Atish), Aconitum ferox and Aconitum heterophyllum [7-10]

Among the most well-known and potent medicinal herbs in the Sikkim Himalaya are *Aconitum ferox* and *Aconitum heterophyllum*, locally called Bikh, Bikhma, or Atish. These species are traditionally used with great caution due to their strong bioactive alkaloids. Ethnomedically, they are used in processed or detoxified forms for:

Pain relief and anti-inflammatory applications. Fever and respiratory ailments such as asthma, cough, and bronchitis.

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Feverish conditions and relief of inflammatory pain. These plants have a strong presence in Ayurvedic pharmacopoeias but require careful preparation due to their toxic potential.

Acorus calamus (Vacha / Bojho)

Acorus calamus, locally known as Vacha or Bojho, grows in moist and marshy habitats. Its rhizome (underground stem) is the medicinally active part. Traditional uses include:

Digestive remedy for flatulence and chronic diarrhoea.

Treatment of respiratory problems such as cough, bronchitis, and fever.

Memory enhancement and cognitive support in children.

This plant finds a place in Ayurveda for both stomachic and neurological applications.

Aloe barbadensis (Ghiukumari)

Commonly known as Ghiukumari in Sikkim, *Aloe barbadensis* is widely recognized for its skin healing and digestive properties. Traditionally, it is used to:

Treat burns, wounds, and skin conditions.

Act as a digestive aid and mild purgative.

Promote hair health.

It is often used locally for external applications on irritated or damaged skin.

Asparagus racemosus (Satavari / Kurilo)

The woody climber *Asparagus racemosus*, locally called Satavari or Kurilo, is highly esteemed in traditional Sikkimese medicine — especially for women's health. Its uses include:

Enhancing lactation in nursing mothers.

Supporting reproductive health and balancing hormones.

Improving memory and digestion.

This plant is extensively used in Ayurvedic formulations aimed at female wellness.

Bergenia ciliata (Pakhanbheda)

Known locally as Pakhanbheda, *Bergenia ciliata* is a perennial herb used for:

Treating diarrhea, dysentery, and gastrointestinal disorders.

Kidney stone management and urinary tract ailments.

Blood purification and reducing inflammation.

Its root extracts are valued in both folk and formal medicine for detoxification and metabolic support.

Nardostachys jatamansi (Jatamansi) [10-20]

The aromatic herb *Nardostachys jatamansi*, known as Jatamansi, has a long history of use for calming and neurological support. Traditional applications include:

Reducing stress, anxiety, and epilepsy-like symptoms.

Treating heart palpitation and nervous tension.

Promoting hair growth when applied in oil form.

Its scent and calming properties make it a popular choice in local wellness practices.

Picrorhiza kurroa (Kutki)

Picrorhiza kurroa, commonly called Kutki, is one of the most commercially important medicinal herbs of the Himalayan region. Folk healers use it to support:

Malaria, fever, and general weakness.

Liver protection and detoxification.

Digestive disorders and non-specific gastrointestinal discomfort.

Its bitter root is widely recognized for hepatoprotective effects in Ayurvedic medicine.

Swertia chirata (Chiraito)

Often referred to as Chiraito, *Swertia chirata* is prized for its bitter tonic qualities. Traditional uses include:

Enhancing vision and body strength.

Reducing skin inflammation and joint pain.

Acting as a general tonic for health maintenance.

Though its taste is intensely bitter, the herb is esteemed for its broad healing value.

Additional Local Medicinal Species

Beyond the well-known herbs above, *numerous other plants* in Sikkim's forests serve traditional healing roles. Examples documented in ethnobotanical surveys include:

Adhatoda vasica (Asuru) — used for asthma, cough, and respiratory issues.

Berberis aristata (Chutro) — widely used for jaundice, malaria, and diarrhea.

Cinchona officinalis (Sinchona) — source of quinine used to treat malaria.

Calendula officinalis (Calendula) — antiseptic for wounds and skin infections.

Mentha viridis (Pudina) — used in fever, colds, and bronchitis [20-32]

These and other species form a rich pharmacopoeia in local health systems and reflect the botanical wealth of the region.

Socio-Cultural and Conservation Perspectives [33-40]

Medicinal plants of Sikkim are not just pharmacological resources — they are embedded in indigenous knowledge, cultural identity, and livelihoods. They are used by rural communities for primary healthcare and also contribute to local economies through sustainable harvesting. Ethnobotanical studies consistently show that *hundreds of plant species* in the Sikkim Himalaya are used for treating ailments ranging from digestive disorders to respiratory diseases, wounds, and infections.

However, many of these plants are under threat from habitat loss and over-harvesting. Conservation measures, cultivation efforts, and scientific documentation are vital for preserving this botanical heritage.

Conclusion

The Himalayan state of Sikkim hosts an extraordinary diversity of medicinal plants that have supported traditional medicine for centuries. From powerful adaptogens like Aconitum species to liver protectors like Kutki, and from digestive aids like Vacha to women's health herbs like Satavari, these plants illustrate the deep connection between nature and indigenous healing cultures. Understanding, preserving, and validating these botanical resources through scientific and community-led efforts will be crucial for sustainable healthcare and ecological stewardship in the region.

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Conflicts of interest

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