AYUSHDHARA
ISSN: 2393-9583 (P)/ 2393-9591 (O)
An International Journal of Research in AYUSH and Allied Systems

Research Article

ETHNOMEDICINAL PLANTS OF LAHAUL VALLEY, HIMACHAL PRADESH: INTEGRATING PRELIMINARY FIELD OBSERVATIONS WITH RECENT RESEARCH EVIDENCE

Sukriti[1]*, Rashmi Srivastava[2], Monika Mehta[1]
*[1]PG Scholar, [2]Professor, PG Dept. of Dravyaguna, R.G.G.P.G Ayurvedic College and Hospital, Paprola, H.P, India.

Article info
Article History:
Received: 26-08-2026
Accepted: 20-09-2026
Published: 02-11-2026

KEYWORDS:
Lahaul Valley, Ethnomedicinal Survey, Medicinal Plants, Traditional Knowledge, Phytochemical Constituents, Pharmacological Activities.

ABSTRACT

Lahaul Valley, Himachal Pradesh, is a high-altitude Himalayan region rich in medicinal plant diversity and traditional healthcare knowledge. The present preliminary ethnomedicinal survey aimed to document medicinal plants used by local communities and review their reported phytochemical constituents and pharmacological activities reported in recent researches. The survey was conducted in the month of May in selected villages of Lahaul Valley by four postgraduate scholars of the Department of Dravyaguna, R.G.G.P.G Ayurvedic College and Hospital, Paprola, Himachal Pradesh. Information was collected through interviews and consultations with local elders, shepherds and other knowledgeable individuals. Plant identification was undertaken through literature review and consultation with subject experts. A total of 25 medicinal plant species of 16 families were documented, including their botanical and local names, families, parts used, traditional medicinal uses. A detailed literature search was conducted using online databases, including PubMed, Scopus and other databases to compile information on the major phytochemical constituents and reported pharmacological activities of the selected plants. Sanskrit name of the plant and their classification as *Ukta, Anukta* and *Ishdaukta,* according to the fact if they are mentioned in ayurvedic classic text or not, were also compiled after reviewing ayurvedic literature. Geotagged photographs of each plant were taken as proof of survey and also, it gives an idea about location and habitat of the plant species. This preliminary study provides an initial record of medicinal plant resources and associated traditional knowledge in Lahaul Valley, highlighting the need for further systematic documentation, botanical authentication and phytochemical and pharmacological investigations to support knowledge preservation and scientific evaluation.

INTRODUCTION

India is known for its rich biodiversity and has around 24.46% of its geographical area covered by forests and trees. The country hosts 4 global biodiversity hotspots: the Himalayas, the Western Ghats, the Indo-Burma region and Sundaland (including the Nicobar group of Islands). The Indian Himalayan Region (IHR) is a mega hotspot of biological diversity.[1]

Access this article online
Quick Response Code
https://doi.org/10.47070/ayushdhara.v13i5.3029

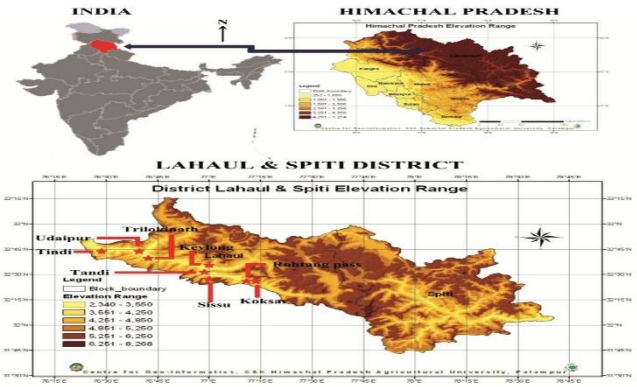
Published by Mahadev Publications (Regd.) publication licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)

Regarding Himachal Pradesh, it is located in western part of the Indian Himalaya, has a rich diversity of medicinal plants, which are widely used by indigenous people to treat different ailments. The elevation of the state ranges from 244m to 6,750m above mean sea level, resulting in diverse ecological and floristic diversity. The area of Himachal Pradesh may be classified broadly under the following three altitudinal zones 1. Up to 1,550m- it includes the Siwalik's and the foot hills of the outer Himalayas; 2. 1,550m to 3,050m- This region is a mountainous tract which again further subdivided into two distinct zones i.e., wet zone and dry zone and 3. above 3,050m, consisting of alpine pastures situated above the tree lines and below the snow.[2]

Lahaul and Spiti district is a high-altitude district in Himachal Pradesh, north India. This entirely mountainous district consists of two geographically distinct as well as formerly separate political-administrative units, called Lahaul and Spiti. Lahaul geologically located in the Himalayas and the Tibetan Plateau, Lahaul is connected to Manali in the south through the Rohtang Pass. Lahaul and Spiti district borders the districts of Kullu, Kangra and Chamba to the south; Chamba to the west; Jammu and Kashmir and Ladakh union territories to the north; Tibet to the east and Kinnaur district to the southeast.[3]

Lahaul is a high-altitude Himalayan region situated approximately between 32°45′ and 33°15′ N latitude and 76°45′ and 77°30′ E longitude, with elevations ranging from about 2,500m to over 6,000m above mean sea level. The region is characterized by rugged mountainous terrain, alpine meadows and a cold, dry climate. Winters are severe, with snowfall mainly occurring from December to March, while the summer season provides favourable conditions for the growth and collection of medicinal plants. So, the month of May was selected for survey.[4]

Map of Lahaul and Spiti district [5]



MATERIALS AND METHODS

The present preliminary ethnomedicinal survey was conducted in the month of May from May 8 2026 to May 11 2026 in selected villages of Lahaul Valley, Lahaul and Spiti District, Himachal Pradesh, India, to document the traditional use of medicinal plants by local communities. The collected plants were identified by communicating with the local people, farmers, consultation with the expert and with the help of available literatures and floras of concerned region. The present paper describes the local and common flora of different area of district Lahaul& Spiti H.P India which were used for many purposes by local people. It also reveals the Ethnomedicinal uses of plant with their botanical name, family, local name, plant parts used for treatment of different disease.

METHODOLOGY

A preliminary ethnomedicinal field survey was conducted during the month of May in selected villages of Lahaul Valley, Lahaul and Spiti District, Himachal Pradesh. Information regarding the traditional use of medicinal plants and the ailments treated were collected through an interview from Local elders, traditional healers, shepherds and other knowledgeable persons were consulted to document and verify information regarding the indigenous medicinal uses of important plant species.

Plant specimens and field observations were recorded during the survey. The identification of medicinal plants was carried out through literature review and consultation with subject experts in *Dravyaguna,* based on the available morphological and ethnomedicinal characteristics. The preliminary survey provided an overview of the ethnomedicinal knowledge and practices associated with medicinal plants used by the local communities of Lahaul. A total of 25 species has been recorded and enumerated with its botanical name, family name, Sanskrit name and are classified as *Ukta,* Anukta and *Ishdaukta* (Table 1). Plants are further enumerated with its local name, usable part of the plant, main phytoconstituents, pharmacological properties according to recent researches and ethnomedicinal use of the plant (table 2)

RESULTS AND DISCUSSION

Lahaul Valley represents a distinctive high-altitude Himalayan environment with diverse vegetation and a valuable repository of traditional plant-based knowledge. The preliminary field observations documented 25 medicinal plant species belonging to 16 different families which are used or recognized by local communities. The findings provide an initial overview of the diversity of medicinal plants and their reported applications in traditional healthcare practices in the region.

Flowers and fruits are the keys for botanical identification; many plants were identified in flowering stage and fruiting stage during this month. For example, *Berberis aristata, Iris germanica, Salix tetrasperma, Hyoscyamus niger, Rheum emodi, Sinopodophyllum hexandrum, Rumex acetosa, Prunus dulcis, Achillea millefolium* and *Ferula jaeschkeana, total 10 plants were identified in flowering stage. Juniperus communis*, *Juniperus mscropoda, Berberis aristata, Dolomiaea costus, Pinus wallchiana,* total 5 plant species were identified in fruiting stage. Also, the unique plant of Lahaul and Spiti *Ephedra gerardiana* called *Soma* in ayurveda was identified in its reproductive stage with abundant yellowish male cones as shown in image no. 17. *Equisetum arvense* has

two distinct growth forms, a fertile spore-bearing stem and a sterile green stem, both stages were identified as shown in image no. 23. Therefore, the species *Equisetum arvense* is called dimorphic.

The documented uses reflect the importance of different plant parts in local ethnomedicinal practices. Roots and rhizomes are used in several traditional preparations, while leaves, fruits, bark, aerial parts, and resin also have specific applications. The use of *Dolomiaea costus* and *Inula racemosa* for respiratory complaints, *Angelica glauca* for digestive disturbances, and *Salix tetrasperma* for fever and gastrointestinal complaints illustrates the range of traditional applications reported during the survey.

A preliminary comparison with published phytochemical and pharmacological literature indicates that several documented species contain biologically active constituents. For instance, *Berberis aristata* is known for berberine, *Ephedra gerardiana* contain Ephedrine & Pseudo-ephedrine, *Inula racemosa* has Alantolactone & Isoalantolactoe as their main phytoconstituents. Some are rich source of vitamin C like *Hippophae rhamnoides, Rumex acetosa and* Oraxia *digyna.* Research on these plant species has investigated a range of biological activities, including antioxidant, anti-inflammatory, antimicrobial, and antidiabetic effects. Such findings provide a scientific context for further investigating the traditionally reported uses of these plants; however, the presence of phytochemicals or pharmacological activity in experimental studies does not, by itself, establish the clinical efficacy or safety of a traditional preparation.

The survey also highlights the importance of documenting indigenous knowledge associated with medicinal plants before it is lost through changes in local lifestyles, ecosystem and healthcare practices. Recording local names, plant parts used, preparation methods and reported indications can provide a useful foundation for future ethnobotanical, phytochemical and pharmacological investigations. However, the present study is preliminary and limited to selected villages and a single field-survey period. The findings should therefore not be considered representative of the entire Lahaul Valley. Further studies involving a larger number of informants, systematic botanical identification and authentication, quantitative ethnobotanical indices, and detailed literature verification are required to strengthen the findings. Overall, the documented observations provide a preliminary baseline for future research on the medicinal plant diversity and traditional healthcare knowledge of Lahaul Valley, Himachal Pradesh.

Table 1

S.No.	Botanical Name	Family	Sanskrit Name	Plant description in Ayurvedic text
1.	*Juniperus communis*	Cupressaceae	*Hapusha*	*Ukta*
2.	*Juniperus macropoda*	Cupressaceae	*Ashwathfala*	*Ukta*
3.	*Berberis aristata*	Berberidaceae	*Daruharidra*	*Ukta*
4.	*Artemisia maritima*	Asteraceae	*Afsantin*	*Ukta*
5.	*Salix tetrasperma*	Salicaceae	*Jalvetas*	*Ukta*
6.	*Hippophae salcifolia*	Elaeagnaceae	*Amalvetas*	*Ukta*
7.	*Hyoscyamus niger*	Solanaceae	*Parsik Yvani*	*Ukta*
8.	*Rheum emodi*	Polygonaceae	*Revantchini*	*Ukta*
9.	*Dolomiaea costus*	Asteraceae	*Kuth*	*Ukta*
10.	*Inula racemosa*	Asteraceae	*Pushkarmoola*	*Ukta*
11.	*Rubia cordifolia*	Rubiaceae	*Manjistha*	*Ukta*
12.	*Ephedra gerardiana*	Ephedraceae	*Soma*	*Ukta*
13.	*Iris germanica*	Iridaceae	*Hemvati*	*Ishadukta*
14.	*Angelica glauca*	Apiaceae	*Chorak*	*Ishadukta*
15.	*Sinopodophyllum hexandrum*	Berberidaceae	*Vantrapusi*	*Ishadukta*
16.	*Thymus linearis*	Lamiaceae	*Ajgandha*	*Ishadukta*
17.	*Prunus dulcis*	Rosaceae	*Vatadh*	*Ishadukta*

18.	*Juglans regia*	Juglandaceae	*Akshotak*	*Ishadukta*
19.	*Pinus wallchiana*	Pinaceae	*Saralbhed*	*Anukta*
20.	*Ajuga bracteosa*	Lamiaceae	*Neelkanthi*	*Anukta*
21.	*Rumex acetosa*	Polygonaceae	*Chukribhed*	*Anukta*
22.	*Oraxia digyna*	Polygonaceae	*Chukrikabhed*	*Anukta*
23.	*Equisetum arvense*	Equisetaceae	*Ashwapuchha*	*Anukta*
24.	*Achillea millefolium*	Asteraceae	*Akarkara bhed*	*Anukta*
25.	*Ferula jaeschkeana*	Apiaceae	*Hingupatri*	*Anukta*

Table 2

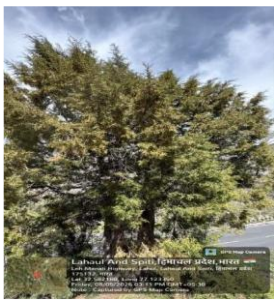
S.No.	Botanical Name	Local Name	Part Used	Main Phyto--chemical	Recent Researches	Ethno-Medicinal Uses
1.	*Juniperus communis*	Pethra	Fruit juniper oil	volatile oil alpha-pinene and alpha-terpinene[6]	Antimicrobial activity Anticancer activity (6)	Leaves are used for *Dhupan* (fumigation) for religious purpose and for calming effect.
2.	*Juniperus macropoda*	Shur Shuk-pa	Fruit juniper oil	Berries yield essential oil (sugiol, beta-sitosterol, and flavonoid, Junipodin and glycosides)[7]	Antimicrobial activity Antioxidant activity (7)	Fragrant leaves are supposed to relieve delirious condition in fever Oil extracted from heartwood is used in skin itching, boil and infection
3.	*Berberis aristata*	Kasmal	Root	Berberine[8]	Antidiabetic activity anti-cancer, anti-oxidant and anti-lipidemic [8]	Ripened fruits are edible and decoction of fruit is used to treat hyperacidity.
4.	*Iris germanica*	Buz	Root	Isoflavanoids (Irigenin & Irisolidone)[9]	Protective effect in Alzheimer's disease[9]	Dried rhizome is paste with mother's milk is used to enhance clear voice of child.
5.	*Artemisia maritima*	Nurcha	Leaves Flower	Santonin Tannins and saponins[10]	Antimicrobial, anti-cancer[10]	Dried powdered aerial plant parts are used to expel intestinal worms.
6.	*Salix tetrasperma*	Willow	Bark	Salicin[11]	Insecticidal activity[11], anti-inflammatory activity	Decoction of bark is used in fever, diarrhoea and dysentery
7.	*Hippophae salcifolia*	Charma	Fruit	Vitamin C flavonoids carotenoids phytosterols [12]	Antioxidant, anticancer effects, anti-obesity anti-microbial[12]	The juice of ripened fruits(1tsp) is added in boiled water to make hot beverage; it is believed to cure pulmonary and menstrual problems
8.	*Hyoscyamus niger*	Bazarbang Dhan-dro	Seeds	hyoscyamine & scopolamine [13]	Neuroprotective & anti-Parkinsonian[13]	Considered poisonous dried seeds are burnt and fumes are inhaled to relieve toothache
9.	*Pinus wallchiana*	Lhem-but	Wood, resin & needles	α-pinene[14]	Anti-inflammatory & analgesic effects[14]	Resin is used for inhalation in respiratory ailments

10.	*Rheum emodi*	Archa	Stem Leaves	Emodin, rhein, aloe-emodin, and physcion[15]	Hepatoprotective and nephroprotective antidiabetic activity[15]	Stem and petiole are sour in taste and eaten raw to relieve indigestion, added in chutney to enhance flavour.
11.	*Dolomiaea costus*	Kuth	Root	Costunolide & Dehydrocostus lactone[16]	Anti-inflammatory, Anti-oxidant, anti-cancer, Hepato-protective action[16]	Dried root powder is consumed in stomach-ache, cough, and cold. Root oil is used for joint pain.
12.	*Inula racemosa*	Manu	Root	Alantolactone & isoalantolactoe [17]	Anticancer activity [17]	Root powder or decoction is used to treat coughs, asthma, bronchitis, and chest pain.
13.	*Ajuga parviflora*	Karku Kaudu	Leaves	Bracteonin-A, Ajugapitin, Flavonoids Essential Oils like limonene, β-myrcene, and α-humulene [18]	Anti-inflammatory activity, analgesic agent, antitumor and anticancer activity [18]	The dried leaf powder (3gm) is used in the in malarial fever, decoction of leaves in diabetes
14.	*Angelica glauca*	Chora	Root	(Z)-ligustilide & butylidenephthalides, coumarins Essential oil like α-pinene[19]	Antioxidant potential, acute oral toxicity, and Gastroprotective effects of root extract [19]	Root powder (3 g) with lukewarm water for gastric disorders and is used as condiment. Local people also use it in fermentation process of making Liquor
15.	*Rubia cordifolia*	Umbalikuri	Root	Anthraquinones like Purpurin, Manjistin, Alizarin & Rubiadin Mollugin [20]	Anti-inflammatory, antibacterial, anti-platelet aggregation, anti-nephrotoxicity, anti-urolithiasis hepatoprotective [20]	Leaf and root decoction is used for blood purification, Root paste is used for skin itches, rashes & boils
16.	*Sinopodophyllum hexandrum*	Bankakri Pindiyali	Fruit	Podophyllotoxin [21]	Anti-Cancer activity anti-inflammatory, antiviral, platelet aggregation inhibition [21]	Fruits are edible and are used to treat constipation
17.	*Ephedra gerardiana*	Buchhur	Whole plant	Ephedrine & pseudo-ephedrine [22]	Anti-inflammatory, diuretic, expectorant, anti-inflammatory [22]	Fruits edible considered good for health, dried powder of whole plant along with zinger and pomegranate powder is used in cough, cold & fever
18.	*Thymus linearis*	Pipdi-tsrang Masha	Leaves flowers	Thymol carvacrol [23]	Antioxidant, anti-diabetic, and anti-bacterial[23]	Dried powder of leaves and flowers roasted with C*arum carvi* is used in bloating and indigestion

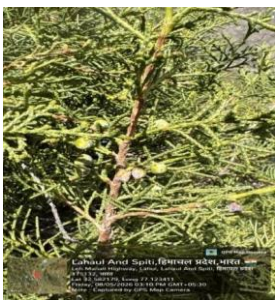
19	*Prunus dulcis*	Fruit	Fruit	Oleic Acid linoleic acid hydroxycinnamic acid & sinapic acid [24]	Antioxidant, antidiabetic & cytotoxic activity [24]	kernel is eaten as fruit and is added in local dishes in winter to keep body warm
20.	*Juglans regia*	Ka Kara Targa	Fruit Bark	Alpha-linolenic acid, tocopherols phytosterols, high-quality plant proteins, melatonin [25]	Antioxidant and anticancer activity [25]	Bark is used for maintaining oral health, kernel is eaten as dry fruit and is added in local dishes in winter to keep body warm
21.	*Rumex acetosa*	Chukri	Leaves	Vitamin C, beta-carotene, potassium, calcium, and iron [26]	Antiplatelet agent **(26)**	Leaf paste is applied in bleeding gums Leaves are added in green leafy vegetable
22.	*Oraxia digyna*	Surji-lab	Leaves	Ascorbic acid palmitic acid (60.36%), flavonoids, phytosterols[27]	Antioxidant, analgesic, and anti-inflammatory [27]	Root decoction mixed with jaggery is used to treat coughs and common colds.
23.	*Equisetum arvense*	Hadjod	Aerial parts	Silica, apigenin luteolin calcium potassium [28]	Diuretic activity nephrolithiasis antioxidant and antimicrobial [28]	Decoction of aerial part and root is used to treat jaundice
24.	*Achelia melifolia*	Chuang Chabu	Roots	Camphene, limonene, apigenin [29]	Anti-inflammatory antioxidant anticancer [29]	Decoction and powder of root used to cure indigestion, menstrual disorder & urinary disorder.
25.	*Ferula jaeschkeana*	Kalyash	Roots	Ferutinin ferulic acid umbelliferone [30]	Anti-inflammatory, anti-oxidant [31]	Crushed rhizomes are used to heal wounds, bruises & toothache



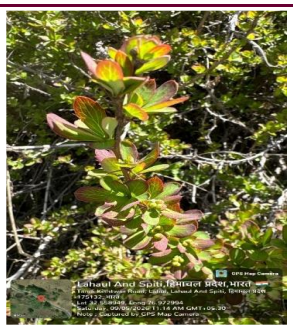
1.Juniperus communis



2. Juniperus macropoda



2. Juniperus macropoda (Fruits)



3.Berberis aristata



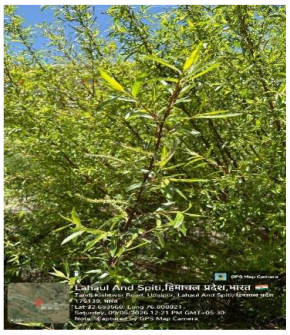
3. ***Berberis aristata*** **(Fruits)**



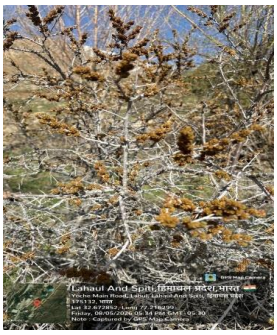
4. Iris germanica



5. Artemisia maritima



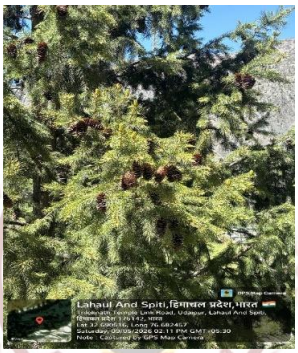
6. Salix tetrasperma



7. Hippophae salcifolia



8. Hyoscyamus niger



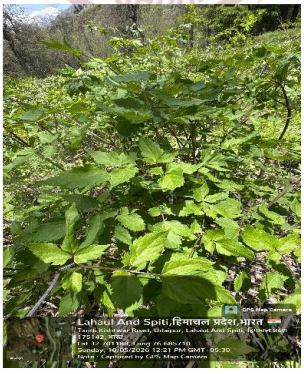
9. Pinus wallchiana



10. Rheum emodi



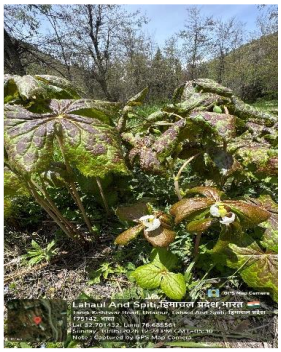
13. Ajuga parviflora

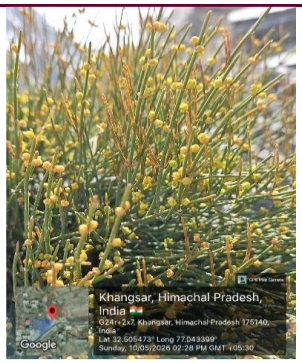


14. Angelica glauca

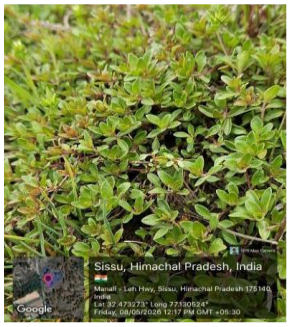
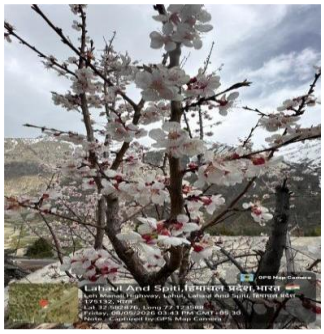


15. Rubia cordifolia



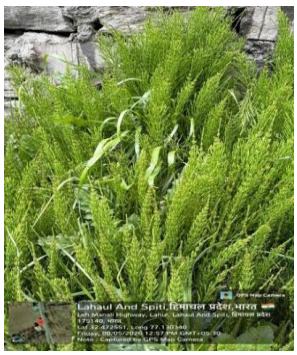


16. Sinopodophyllum hexandrum ***16. S. hexandrum* (Flower)** ***17. Ephedra gerardiana***

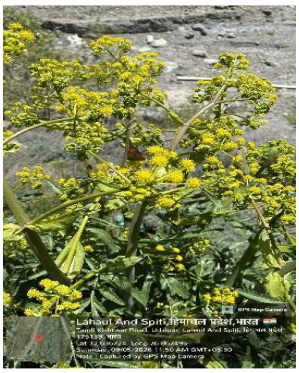

18. Thymus linearis ***19. Prunus dulcis*** ***20. Juglans regia***





21. Rumex acetosa ***22. Oraxia digyna*** ***23. Equisetum arvense***





23. *E. arvense* (Sporangia) **24. *Achelia melifolia*** **25. *Ferula jaeschkeana***

CONCLUSION

The present study is conducted to explore the flora of Lahaul region in Lahaul & Spiti district in the month of May which is month of early spring awakening in this region. This is the time of flowering for many species which make identification easier and more authentic. Total 25 medicinal plants were surveyed which belonged to 16 different families. The study focused on botanical identification, local name, plant part used and ethnomedicinal use of the particular plant species. Total 25 medicinal plants were surveyed which belonged to 16 different families. Each plant is studied further to see its main active phytoconstituent and pharmacological activity according to recent researches. Also, plants are classified as *Ukta, Anukta* and *Ishadukta* according to the fact if plant description is found in Ayurvedic

literature or not. These plants are native of Lahaul region and have a vital source for rural community treatment to cure various diseases at free of cost.

Acknowledgement

I am very grateful to Dr. Deeksha Sharma and Dr. Balbir (PG Scholar 3rd year Dept. of *Dravyaguna* at R.G.G.P.G Ayu. College and Hospital Paprola H.P) for their overall support and guidance during the survey. I am also very thankful to my guide Dr. Rashmi Srivastav who is my constant inspiration and her motivation and guidance clear all the obstacles in my path. I would like to express my gratitude towards my parents, Thanks to my brother and my sister for their love and constant support.

REFERENCES

1. Myers N, Mittermeier RA, Mittermeier CG, Da Fonseca GAB, Kent J. Biodiversity hotspots for conservation priorities. Nature. 2000 Feb; 403(6772): 853–8. doi:10.1038/35002501
2. Chowdhery, H. J., & Wadhwa, B. M. (1984). Flora of Himachal Pradesh: Analysis (Vols. 1–3). Botanical Survey of India, Department of Environment, Howrah, India.
3. Lahaul and Spiti district (Wikepedia) https://en.wikipedia.org/wiki/Lahaul_and_Spiti_district
4. Singh A, Lal M, Samant SS (2009). Diversity, indigenous uses and conservation prioritization of medicinal plants in Lahaul valley, proposed Cold Desert Biosphere Reserve, India.
5. Map of Lahaul and Spiti https://www.researchgate.net/profile/Meenakshi-Thakur/publication/347995657/figure/fig1/AS:974364732309504@1609318063006/Location-map-of-Lahaul-district-indicating-the-study-sites-Adapted-from-the-Centre-for.jpg
6. Maurya AK, Devi R, Kumar A, Koundal R, Thakur S, Sharma A, et al. Chemical Composition, Cytotoxic and Antibacterial Activities of Essential Oils of Cultivated Clones of Juniperus communis and Wild Juniperus Species. Chemistry & Biodiversity. 2018 Sep; 15(9): e1800183. doi:10.1002/cbdv.201800183
7. Rana J, Sagar A, Rana J, Bharti P. An assessment of the phytochemical constituents, antimicrobial and antioxidant activities of Juniperus macropoda Boiss. ADV TRADIT MED (ADTM). 2025 Dec; 25(4): 891–902. doi:10.1007/s13596-025-00820-2
8. Potdar D, Hirwani RR, Dhulap S. Phyto-chemical and pharmacological applications of Berberis aristata. Fitoterapia. 2012 Jul; 83(5): 817–30. doi: 10.1016/j.fitote.2012.04.012
9. Borhani M, Sharifzadeh M, Farzaei MH, Narimani Z, Sabbaghziarani F, Gholami M, et al. Protective Effect of Iris Germanica L. in B-Amyloid-Induced Animal Model of Alzheimer's Disease. Afr J Tradit Complement Altern Med. 2017 Jun 5; 14(4): 140–8. doi:10.21010/ajtcam. v14i4.1
10. Moslemi HR, Hoseinzadeh H, Askari Badouei M, Kafshdouzan K, Mazaheri Nezhad Fard R. Antimicrobial activity of Artemisia absinthium against surgical wounds infected by Staphylococcus aureus in a rat model. Indian J Microbiol. 2012; 52(4): 601–604. doi:10.1007/s12088-012-0283-x.
11. El-Shazly A, El-Sayed A, Fikrey E. Bioactive Secondary Metabolites from Salix tetrasperma Roxb. Z Naturforsch C. 2012; 67: 0353. doi:10.5560/ZNC.2012.67c0353
12. Javaid N, Amjad A, Weiskirchen R, Abbas A, Zafar S, Shah M, et al. Sea buckthorn (Hippophae rhamnoides L.): nutritional significance, phytochemistry, molecular mechanisms, therapeutic potential, and emerging applications in food systems. Foods. 2026 Apr 16; 15(8): 1389. doi:10.3390/foods15081389.
13. Patil SJ, Katake VC. A review on pharmacological activities of Hyoscyamus niger (L.), curcumin, Mucuna pruriens (L.), & Camellia sinensis (L.). Int J Novel Res Dev. 2025; 10(1): b177-b188. Available from: https://ijnrd.org/papers/IJNRD2501118.pdf
14. Sinha D. A review on ethnobotanical, phytochemical and pharmacological profile of Pinus wallichiana A.B. Jacks. Pharmacogn J. 2019; 11(4): 624–631. doi:10.5530/pj.2019.11.100
15. Zargar BA, Masoodi MH, Ahmed B, Ganie SA. Phytoconstituents and therapeutic uses of Rheum emodi Wall. ex Meissn. Food Chem. 2011; 128(3): 585–589. doi: 10.1016/j.foodchem.2011.03.083.
16. Aldholmi M. Method development and validation for the extraction and quantification of sesquiterpene lactones in Dolomiaea costus. Ultrasonics Sonochemistry. 2024 Dec; 111: 107128. doi: 10.1016/j.ultsonch.2024.107128
17. Gaurav Santoshrao J, Jamwal S, Kumar R, Bisht E, Bisen HK, Katoch S, et al. Phytomedicinal armamentarium: a review of Inula racemosa-derived alantolactones and isoalantolactones in anticancer therapy. PhytoPlus. 2025; 5(1): 100674. doi: 10.1016/j.phyplu.2024.100674.
18. Manjula Verma, Dr. Dev Prakash Dahiya, Anchal Sankhyan, An Overview on the Pharmacological Properties of Ajuga Bracteosa, Int. J. of Pharm. Sci., 2025, Vol 3, Issue 4, 3439-3448 https://doi.org/10.5281/zenodo.15310172

19. Swati, Kumar B, Pandey HK, Kaur R, Mishra S, Kalam MA. Phytochemical profiling, antioxidant capacity, acute toxicity, and gastroprotective potential of Angelica glauca root: A promising high-altitude medicinal herb. Fitoterapia. 2025 Jun; 183: 106565. doi: 10.1016/j.fitote.2025.106565
20. Wen M, Chen Q, Chen W, Yang J, Zhou X, Zhang C, et al. A comprehensive review of Rubia cordifolia L.: traditional uses, phytochemistry, pharmacological activities, and clinical applications. Front Pharmacol. 2022; 13: 965390. doi:10.3389/ fphar.2022.965390.
21. Liu W, Liu J, Yin D, Zhao X (2015) Influence of Ecological Factors on the Production of Active Substances in the Anti-Cancer Plant Sinopodophyllum hexandrum (Royle) T.S. Ying. PLOS ONE 10(4): e0122981
22. Nazar H, Amar A, Younus M, Shaheen G, Muhammad Asif H, Zafar F, et al. Review of Pharmacological Activity of Ephedra Gerardiana. Sci Inquiry Rev. 2023 Jun 15; 7(2): 81–100. doi:10.32350/sir.72.05
23. Hussain AI, Anwar F, Chatha SAS, Latif S, Sherazi STH, Ahmad A, et al. Chemical composition and bioactivity studies of the essential oils from two Thymus species from the Pakistani flora. LWT Food Sci Technol. 2013; 50(1): 185-192. doi: 10.1016/j.lwt.2012.06.003
24. Ben Khadher T, Sassi-Aydi S, Aydi S, Mars M, Bouajila J. Phytochemical profiling and biological potential of Prunus dulcis shell extracts. Plants (Basel). 2023 Jul 23; 12(14): 2733. doi:10.3390/plants12142733.
25. Zurek N, Pycia K, Pawłowska A, Kapusta IT. Phytochemical screening and bioactive properties of Juglans regia L. pollen. Antioxidants (Basel). 2022; 11(10): 2046. doi:10.3390/antiox11102046.
26. Jeong D, Irfan M, Lee DH, Hong SB, Oh JW, Rhee MH. Rumex acetosa modulates platelet function and inhibits thrombus formation in rats. BMC Complement Med Ther. 2020; 20: 98. doi:10.1186/s12906-020-02889-5.
27. Imad Ahmad, Luigi Milella, Ghallab Alotaibi. Oxyria digyna: A review on the nutritional value, phytochemistry and ethnopharmacology. Phytonutrients. 2022 Nov 27; 02–16. doi:10.62368/ pn. v1i01.9
28. Boeing T, Moreno KGT, Gasparotto Junior A, Mota da Silva L, de Souza P. Phytochemistry and pharmacology of the genus Equisetum (Equisetaceae): a narrative review of the species with therapeutic potential for kidney diseases. Evid Based Complement Alternat Med. 2021; 2021: 6658434. doi:10.1155/2021/6658434.
29. Farasati Far B, Behzad G, Khalili H. Achillea millefolium: mechanism of action, pharmacokinetic, clinical drug-drug interactions and tolerability. Heliyon. 2023; 9(12): e22841. doi: 10.1016/j.heliyon. 2023.e22841.
30. https://ask-ayurveda.com/wiki/article/4435-ferula-jaeschkeana-higupatr
31. Ghasemi Z, Rezaee R, Aslani MR, Boskabady MH. Anti-inflammatory, anti-oxidant, and immunomodulatory activities of the genus Ferula and their constituents: a review. Iran J Basic Med Sci. 2021; 24(12): 1613–1623. doi:10.22038/ IJBMS.2021.59473.13204.

Cite this article as:
Sukriti, Rashmi Srivastava, Monika Mehta. Ethnomedicinal Plants of Lahaul Valley, Himachal Pradesh: Integrating Preliminary Field Observations with Recent Research Evidence. AYUSHDHARA, 2026;13(5):373-382.
https://doi.org/10.47070/ayushdhara.v13i5.3029
Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**
Dr. Sukriti
PG Scholar,
PG Dept. of Dravyaguna,
R.G.G.P.G Ayurvedic College and Hospital Paprola, H.P,
Email: sukritethakur96@gmail.com

Disclaimer: AYUSHDHARA is solely owned by Mahadev Publications - A non-profit publications, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. AYUSHDHARA cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of AYUSHDHARA editor or editorial board members.