

AN ETHNOBOTANICAL STUDY OF TRADITIONALLY USED MEDICINAL PLANTS OF MALDEVTA REGION, DEHRADUN, UTTARAKHAND, INDIA

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ABSTRACT

Medicinal plants constitute an important component of traditional healthcare systems and represent a valuable part of the biological and cultural heritage of rural communities. Uttarakhand, situated in the western Himalayan region of India, is characterized by considerable floristic diversity and a long history of traditional plant utilization. The present study documents the traditional medicinal knowledge associated with plant species occurring in Maldevta village and the adjoining natural forest in Dehradun district, Uttarakhand, India. The study is based on an ethnomedicinal survey conducted during April-July 2026 through door-to-door interactions, group discussions and questionnaire-based interviews with local residents. A total of 40 medicinal plant species belonging to 25 botanical families were documented. The recorded species include trees, shrubs, herbs and other life forms and are traditionally employed for the treatment of a range of common ailments, including respiratory disorders, gastrointestinal problems, fever, headache, skin disorders, wounds, tooth-related complaints, menstrual disorders, urinary problems and musculoskeletal conditions. Leaves and bark were among the most frequently utilized plant parts, while decoctions and pastes constituted important traditional modes of preparation. The study also indicates a gradual transition from traditional medicine toward allopathic healthcare, particularly among younger and more highly educated members of the community. The documented knowledge represents an important component of local cultural heritage and provides a useful baseline for future ethnobotanical, phytochemical and pharmacological investigations. Sustainable harvesting, cultivation of medicinal species, community participation and systematic documentation are recommended for conserving both medicinal plant resources and the associated traditional knowledge.

Keywords: Ethnobotany, ethnomedicine, traditional knowledge, medicinal plants, Maldevta, Dehradun, Uttarakhand, Himalayan flora, conservation.

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INTRODUCTION

Ethnobotany is a multidisciplinary field concerned with the relationship between human communities and plants, including their utilization for medicine, food, fodder, shelter, cultural practices and other purposes. Within ethnobotany, ethnomedicine specifically examines the traditional knowledge and practices through which plants and plant-derived materials are used for the maintenance of health and management of illness. Traditional medicinal knowledge is generally transmitted from one generation to another through oral communication, observation and practical experience (Martin, 2004; Gaur, 1999; Bhatt, 2020). Plants have historically provided an important source of therapeutic materials for human societies. Traditional medicinal systems developed through long-term interaction between local communities and their surrounding environments have contributed substantially to the identification of biologically active plant resources. In rural areas, particularly those situated in

mountainous regions, medicinal plants may continue to serve as readily accessible household remedies (Gairola, 2022; Topwal and Uniyal, 2018; Gaur,

1999; Hooker, 1875–1897).

India possesses exceptional ethnobotanical diversity because of its biological richness and cultural heterogeneity. The Himalayan region is particularly significant because differences in altitude, climate, soil and vegetation have produced a highly diverse flora. Uttarakhand forms an important part of the Indian Himalayan region and is recognized for its diverse plant resources and longstanding traditions of medicinal-plant utilization. The Dehradun Valley represents an important ecological transition zone between the Himalayan foothills and the Shivalik landscape. The district contains forests, agricultural areas, riverine habitats and rapidly expanding settlements (Topwal and Uniyal, 2018; Kala, 2007; Agarwal, 2019).

1.1 Study Area

The study was undertaken in Maldevta village and

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the adjoining natural forest of Dehradun district, Uttarakhand, India. Maldevta is situated in the eastern part of the Dehradun Valley and lies within the lower Himalayan foothill landscape. The geographical position of Maldevta is approximately 30.3439° N latitude and 78.1203° E longitude, with an elevation of approximately 701 m above mean sea level according to government geographic records (Gairola, 2022).

The broader locality is characterized by a combination of forest vegetation, agricultural land,

village habitation and river-associated environments. The Bandal River is an important geographical feature of the area and has historically contributed to local agricultural activity. The original ethnobotanical study describes the surrounding elevation as approximately 650–1050 m and emphasizes the medicinal-plant wealth associated with the locality (Gairola, 2022; Kala, 2007).

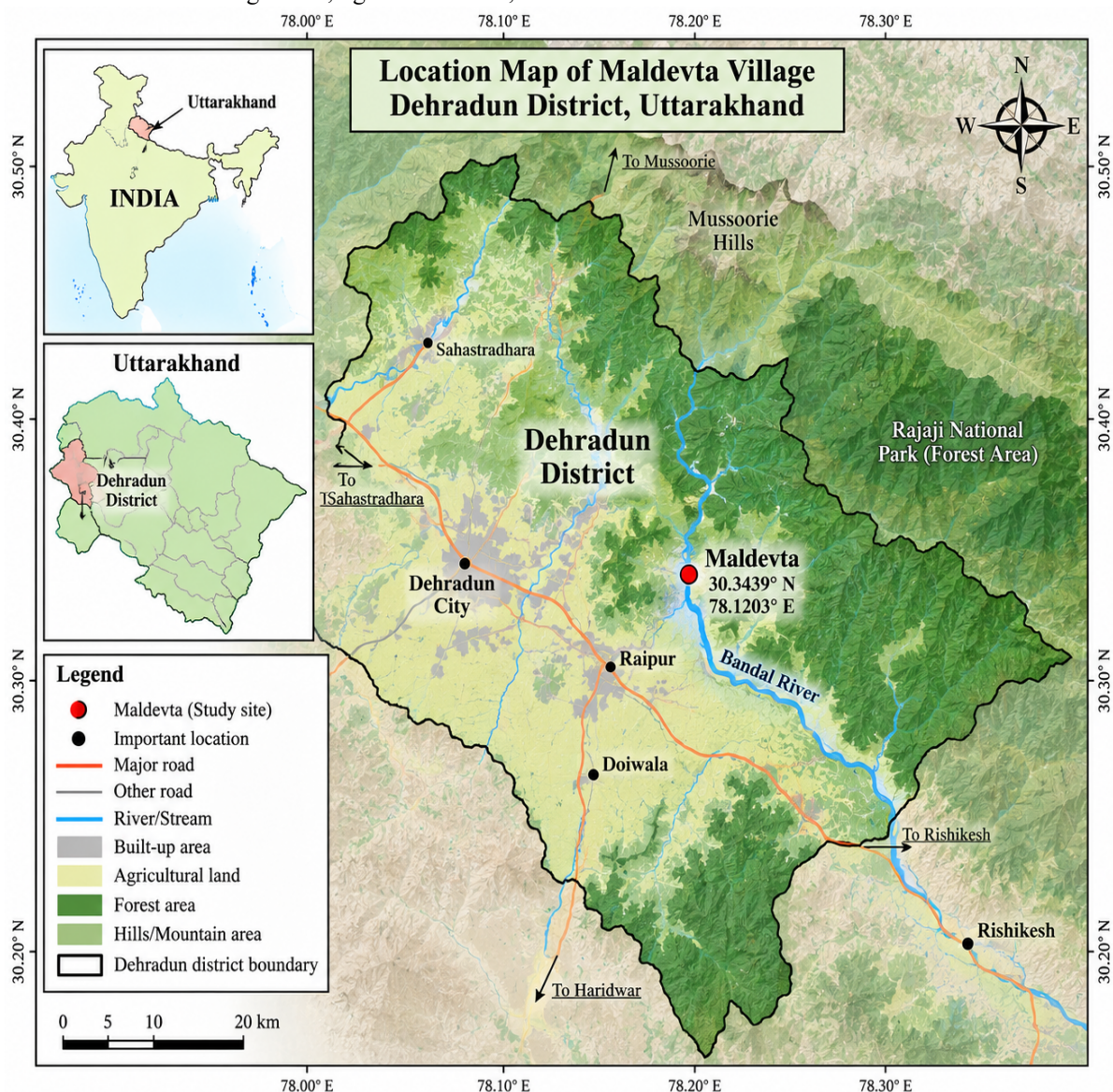


Figure 1. Location Map of Maldevta Study Area

2. Methodology

2.1 Survey

The ethnomedicinal survey considered Maldevta village and adjoining natural forest as the study area. Field investigation was conducted during April–July 2026. The methodology comprised door-to-door surveys, group discussions concerning traditional medicinal practices and questionnaire-based interactions with local residents. A total of 58 individuals from 36 families participated in the survey, comprising 34 males and 24 females. The

respondents belonged primarily to two broad age categories: 25–44 years and 45 years and above. Farming represented an important occupation within

the surveyed community. The questionnaire collected information concerning the personal details of informants, gender and age, occupation, educational background, duration of traditional-medicine use, belief in traditional medicinal practices, diseases for which medicinal plants were used, plant parts utilized, methods of preparation and administration and perceived benefits obtained

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from traditional medicine. Where possible, information concerning medicinal plants was cross-checked through discussions with more than one informant. Vernacular names were recorded in the form used by local residents. Plant material and

botanical information were subsequently organized according to scientific name, family, local name, plant part utilized and medicinal application (Martin, 2004; Phillips and Gentry, 1993).



Figure 2. Door-to-Door Surveys and Group Discussions

2.1.1 Ethical Considerations

Traditional medicinal knowledge represents community-associated intellectual and cultural knowledge. Information was therefore recorded respectfully and with consideration for the identity and privacy of informants. The present paper treats reported medicinal applications as traditional ethnobotanical claims and does not interpret them as clinically established therapeutic indications. (World Health Organization, 2013)

2.2 Scope of the Study

The present investigation is restricted to the 40 medicinal plant species documented in the Maldevta ethnomedicinal survey. The species belong to 25 botanical families and include trees, shrubs, herbs and other plant forms (Gairola, 2022; Topwal and Uniyal, 2018; Agarwal, 2019; Bhattacharyya et al., 2010).

The documented medicinal applications primarily concern common ailments that are traditionally managed at the household or community level. These include cough and cold, asthma and bronchitis, fever, headache and migraine, diarrhoea and dysentery, abdominal

complaints, constipation, skin disorders, boils and wounds, toothache, urinary disorders, menstrual disorders, joint and muscular complaints, jaundice and liver-related complaints and other locally recognized health conditions. The study is descriptive and ethnobotanical in nature. It does not include laboratory-based phytochemical screening, clinical trials or experimental pharmacological validation.

3. Results and Discussion

3.1 Diversity of Medicinal Plants

The survey documented 40 medicinal plant species belonging to 25 families. The species represent a considerable range of growth forms and ecological types. The inventory includes multipurpose trees, shrubs and herbaceous plants occurring in or around village and forest environments. The medicinal species documented from Maldevta are presented below. The table emphasizes botanical identity, vernacular nomenclature, family, plant part utilized, mode of use and reported medicinal application.

Table 1. Traditionally used medicinal plants documented from Maldevta, Dehradun, Uttarakhand

S. No	Scientific name	Local name	Habit	Family	Part utilized	Traditional medicinal use
1	<i>Acacia catechu</i>	Khair / Cutch	Tree	Fabaceae	Heartwood, bark	Used traditionally for cough, bronchitis, diarrhoea, dysentery, asthma and skin ailments; bark paste applied to cuts and wounds.
2	<i>Dalbergia sissoo</i>	Shisham	Tree	Fabaceae	Leaves, bark, wood	Leaves used for skin ailments and eye problems; bark paste used for boils and nausea.
3	<i>Albizia lebbek</i>	Siris	Tree	Fabaceae	Bark	Bark decoction traditionally used for bronchial asthma and as a herbal tea.
4	<i>Toona ciliata</i>	Toon	Tree	Meliaceae	Leaves, bark, flowers, gum	Traditionally used for dysentery, fever, headache, ulcers and menstrual disorders.
5	<i>Populus ciliata</i>	Himalayan poplar / Ban peepal	Tree	Salicaceae	Bark	Bark paste traditionally applied to muscular swellings.
6	<i>Jatropha curcas</i>	Physic nut / Jungli arandi	Shrub/small tree	Euphorbiaceae	Leaves	Leaf preparations have been traditionally used for inflammatory and infectious conditions.
7	<i>Grewia optiva</i>	Bhimal	Tree	Malvaceae	Bark	Traditionally used for

S. No	Scientific name	Local name	Habit	Family	Part utilized	Traditional medicinal use
						cough, dysentery, diarrhoea, malaria and other ailments.
8	<i>Bauhinia variegata</i>	Kachnar	Tree	Fabaceae	Bark, root	Bark decoction traditionally used for diarrhoea and skin disorders; root has been reported in folk use for snakebite.
9	<i>Shorea robusta</i>	Sal	Tree	Dipterocarpaceae	Bark, resin	Traditional uses include dysentery and treatment of some skin and inflammatory complaints.
10	<i>Terminalia arjuna</i>	Arjun	Tree	Combretaceae	Bark	Bark traditionally used in preparations for cardiovascular and general tonic purposes.
11	<i>Terminalia bellirica</i>	Baheda	Tree	Combretaceae	Fruit	Traditionally used for cough, respiratory complaints and digestive disorders.
12	<i>Terminalia chebula</i>	Haritaki / Harad	Tree	Combretaceae	Fruit	Traditionally used for digestive disorders, constipation and as a component of Triphala.
13	<i>Phyllanthus emblica</i>	Amla	Tree	Phyllanthaceae	Fruit	Traditionally used as a digestive and rejuvenating preparation and for cough and general weakness.
14	<i>Tinospora cordifolia</i>	Giloy / Guduchi	Climber	Menispermaceae	Stem, root, leaves	Traditionally used for fever, jaundice, digestive disorders, cough, skin disorders and general tonic purposes.
15	<i>Cissampelos pareira</i>	Patha	Climber	Menispermaceae	Root, leaves	Traditionally used for digestive, urinary and inflammatory complaints.
16	<i>Vitex negundo</i>	Nirgundi	Shrub	Lamiaceae	Leaves, roots, bark	Traditionally used for headache, joint/body pain, swelling, rheumatism and digestive complaints.
17	<i>Justicia adhatoda</i>	Vasaka / Adusa	Shrub	Acanthaceae	Leaves, flowers, roots	Traditionally used for cough, bronchitis and other respiratory

S. No	Scientific name	Local name	Habit	Family	Part utilized	Traditional medicinal use
						complaints.
18	<i>Calotropis gigantea</i>	Aak / Crown flower	Shrub	Apocynaceae	Leaves, latex, root	Traditionally used externally for joint pain, swelling and certain skin complaints.
19	<i>Ageratum conyzoides</i>	Goat weed	Herb	Asteraceae	Leaves, whole plant	Traditional uses include wounds, digestive complaints and respiratory disorders. It is among medicinal plants reported from the Dehradun Shivalik region.
20	<i>Achyranthes aspera</i>	Apamarg / Latjira	Herb	Amaranthaceae	Whole plant, roots, leaves	Traditionally used for digestive problems, wounds and inflammatory complaints.
21	<i>Boerhavia diffusa</i>	Punarnava	Herb	Nyctaginaceae	Root, whole plant	Traditionally used for urinary disorders, swelling and digestive/liver complaints.
22	<i>Eclipta prostrata</i>	Bhringraj	Herb	Asteraceae	Whole plant, leaves	Traditionally used in hair and scalp preparations and for liver-related and skin complaints.
23	<i>Oxalis corniculata</i>	Creeping wood sorrel	Herb	Oxalidaceae	Leaves, whole plant	Traditionally used for digestive complaints, wounds and inflammatory conditions.
24	<i>Mucuna pruriens</i>	Kaunch / Velvet bean	Climber	Fabaceae	Seeds	Traditionally used as a rejuvenating/tonic preparation and for nervous and reproductive complaints.
25	<i>Zingiber officinale</i>	Ginger / Adrak	Herb	Zingiberaceae	Rhizome	Traditionally used for indigestion, nausea, cough and respiratory complaints. It is also widely documented in ethnomedicinal use in the Dehradun region.
26	<i>Azadirachta indica</i>	Neem	Tree	Meliaceae	Leaves, bark, seed oil	Traditionally used for skin disorders, wounds, fever and as an antimicrobial preparation.

S. No	Scientific name	Local name	Habit	Family	Part utilized	Traditional medicinal use
27	<i>Aegle marmelos</i>	Bael	Tree	Rutaceae	Fruit, leaves, bark	Traditionally used particularly for diarrhoea and digestive disorders; also reported for cough and asthma.
28	<i>Ziziphus mauritiana</i>	Ber	Tree/shrub	Rhamnaceae	Fruit, leaves, bark	Fruits traditionally used for digestive complaints and as a general food/tonic preparation.
29	<i>Ficus racemosa</i>	Gular / Cluster fig	Tree	Moraceae	Bark, fruit, latex	Traditionally used for digestive disorders, wounds and inflammatory complaints.
30	<i>Ficus religiosa</i>	Peepal	Tree	Moraceae	Bark, leaves, fruit	Traditionally used for skin disorders, wounds, respiratory and digestive complaints.
31	<i>Ficus benghalensis</i>	Banyan / Bargad	Tree	Moraceae	Bark, aerial roots, latex	Traditionally used for wounds, inflammation, diarrhoea and certain reproductive complaints.
32	<i>Mangifera indica</i>	Mango / Aam	Tree	Anacardiaceae	Bark, leaves, fruit	Bark and leaves traditionally used for diarrhoea and digestive complaints; fruit used as food and tonic.
33	<i>Syzygium cumini</i>	Jamun	Tree	Myrtaceae	Seed, bark, fruit	Traditionally used for diabetes-related preparations and digestive complaints.
34	<i>Bauhinia purpurea</i>	Purple orchid tree	Tree	Fabaceae	Bark, flowers	Traditionally used for digestive and inflammatory complaints.
35	<i>Cassia fistula</i>	Amaltas / Golden shower	Tree	Fabaceae	Fruit pulp, bark	Fruit pulp traditionally used as a mild laxative and for constipation.
36	<i>Clerodendrum viscosum</i>	Ghantari	Shrub	Lamiaceae	Leaves, roots	Traditionally used for fever, digestive disorders and skin complaints.
37	<i>Lantana camara</i>	Lantana	Shrub	Verbenaceae	Leaves, flowers	Folk use includes external application for wounds and certain skin problems.
38	<i>Rauvolfia serpentina</i>	Sarpagandha	Herb/shrub	Apocynaceae	Root	Traditionally used for hypertension, insomnia and nervous disorders;

S. No	Scientific name	Local name	Habit	Family	Part utilized	Traditional medicinal use
						requires professional supervision because it contains potent bioactive alkaloids.
39	<i>Abutilon indicum</i>	Atibala / Country mallow	Herb/shrub	Malvaceae	Roots, leaves, seeds	Traditionally used for inflammatory, respiratory and urinary complaints.
40	<i>Datura metel</i>	Datura / Dhatura	Herb/shrub	Solanaceae	Leaves, seeds	Traditional external medicinal applications include pain and inflammatory complaints; poisonous and unsafe for self-medication.

3.2 Important Medicinal Species

Among the documented plants, *Acacia catechu* has a particularly broad range of traditional applications. The heartwood extract is traditionally associated with asthma, cough, bronchitis, colic, diarrhoea, dysentery, boils and skin complaints, while bark preparations are used externally for cuts and wounds. Such multifunctional use demonstrates the importance of multipurpose trees in traditional rural healthcare (Gairola, 2022; Topwal and Uniyal, 2018; Agarwal, 2019).

Dalbergia sissoo is similarly important as a multipurpose tree. Local knowledge associates its leaves with skin and eye complaints and its bark with boils and nausea. The species therefore illustrates the manner in which a commercially and ecologically important tree can simultaneously form part of a household medicinal system (Gairola, 2022; Gaur, 1999; Bhattacharyya et al., 2010).

Albizia lebbeck and *Toona ciliata* are particularly notable for their association with respiratory and gastrointestinal complaints. The bark of *Albizia lebbeck* is traditionally prepared as a decoction or herbal tea for bronchial asthma, whereas several parts of *Toona ciliata* are used for dysentery, fever, headache and menstrual complaints (Topwal and Uniyal, 2018; Gaur, 1999;

Agarwal, 2019).

Bauhinia variegata and *Bombax ceiba* are predominantly represented through bark-based preparations. The traditional applications of *Bauhinia variegata* include skin disorders, ulcers, diarrhoea, piles and dysentery, whereas *Bombax ceiba* is associated with diarrhoea, urinary problems, constipation and wound healing (Kumari et al., 2012; Bhatt, 2020; Irchhaiya et al., 2014).

Moringa oleifera is distinctive because several parts of the plant are used. Pods, roots, flowers, fruits, bark, leaves and seeds are all represented in the traditional medicinal record. This illustrates the importance of multipurpose household plants in local ethnomedicine (Topwal and Uniyal, 2018; Kala, 2007; Kumar et al., 2024). *ycanthos arbor-tristis* is another culturally important species. In addition to its medicinal applications, the plant has cultural and religious significance in many parts of India. Its leaves and flowers are traditionally used in preparations associated with fever, cough, arthritis, sciatica and intestinal complaints (Topwal and Uniyal, 2018; Gaur, 1999; Kumari et al., 2012).

4 Plant Parts Used



Fig 3. Different parts of the Plants used for Medicinal Purpose

Leaves are particularly important because they can often be harvested without killing the plant. Leaf preparations occur in *Dalbergia sissoo*, *Moringa oleifera*, *Nyctanthes arbor-tristis*, *Murraya koenigii*, *Urtica dioica* and several other species (Kala, 2007; Agarwal, 2019; Bhatt, 2020; Kumar et al., 2024).

Bark is another important medicinal resource but requires greater conservation attention. Repeated removal of bark can damage vascular tissues and may eventually kill trees. The traditional use of bark from *Acacia catechu*, *Albizia lebbek*, *Toona ciliata*, *Grewia optiva*, *Bauhinia variegata* and *Bombax ceiba* therefore warrants consideration in sustainable harvesting programmes (Kala, 2007; Agarwal, 2019; Kumari et al., 2012; Kumar et al., 2024).

Root and whole-plant harvesting can be even more destructive because removal may directly affect plant survival. Consequently, conservation strategies should encourage cultivation and controlled harvesting of species that are heavily dependent upon roots or whole plants (Kala, 2007; Bhatt, 2020; Kumar et al., 2024).

3.5 Modes of Preparation

The principal preparation methods in the region are decoction and paste. Leaves and bark are commonly prepared either as decoctions or by fresh grinding to form a paste for external application (Gairola, 2022; Topwal and Uniyal, 2018; Martin, 2004).

Decoction

A decoction involves boiling plant material in water to obtain a concentrated aqueous preparation. Bark, leaves and other relatively robust plant materials may be treated

in this manner.

The use of decoctions is widespread in traditional Himalayan medicine because the technique requires minimal equipment and can be performed at household level (Topwal and Uniyal, 2018; Bhatt, 2020; Joshi et al., n.d.).

Paste

Fresh plant parts may be crushed or ground into a paste and applied directly to the affected area. Such preparations are particularly associated with skin disorders, wounds, swelling and other external conditions (Agarwal, 2019; Kumari et al., 2012; Bhattacharyya et al., 2010).

Direct Consumption

Some medicinal plants or their parts are consumed directly. This approach is particularly evident where edible species possess both nutritional and medicinal importance.

3.6 Therapeutic Categories

The medicinal uses reported from Maldevta can be grouped into several broad therapeutic categories (Gairola, 2022; Topwal and Uniyal, 2018; Gaur, 1999).

Respiratory disorders

Respiratory complaints constitute an important category. *Acacia catechu*, *Albizia lebbek*, *Achyranthes aspera*, *Carissa opaca* and *Nyctanthes arbor-tristis* are associated with cough, asthma, bronchitis or related complaints (Gairola, 2022; Topwal and Uniyal, 2018; Ganesh et al., 2021).

Gastrointestinal disorders

Diarrhoea, dysentery, constipation, colic, stomach ache and vomiting are frequently represented. Species

including *Acacia catechu*, *Toona ciliata*, *Murraya koenigii*, *Woodfordia fruticosa*, *Bombax ceiba* and *Cassia fistula* are associated with such applications (Gairola, 2022; Topwal and Uniyal, 2018; Agarwal, 2019).

Dermatological conditions and wounds

Skin diseases, boils, cuts and wounds represent another important category. *Acacia catechu*, *Dalbergia sissoo*, *Bauhinia variegata*, *Moringa oleifera*, *Adina cordifolia* and *Pogostemon benghalensis* are among the plants reported for topical applications (Gairola, 2022; Agarwal, 2019; Kumari et al., 2012; Irchhaiya et al., 2014).

Fever and febrile disorders

Several species are associated with fever, including *Toona ciliata*, *Cassia fistula*, *Nyctanthes arbor-tristis*, *Ageratum conyzoides* and *Artemisia vulgaris* (Gairola, 2022; Topwal and Uniyal, 2018; Bhattacharyya et al., 2010).

Musculoskeletal complaints

Populus ciliata, *Nyctanthes arbor-tristis*, *Urtica dioica* and *Ricinus communis* are associated with swelling, joint pain, arthritis or related complaints (Topwal and Uniyal, 2018; Agarwal, 2019; Dar et al., 2013).

Reproductive health

Traditional applications relating to menstrual disorders are recorded particularly for *Toona ciliata*, *Leucaena leucocephala* and *Aerva scandens*. Such applications require careful scientific evaluation because traditional reproductive-health claims may have significant safety implications (Gairola, 2022; Topwal and Uniyal, 2018; Kumari et al., 2012).

3.8 Traditional Knowledge and Generational Change

An important result of the Maldevta survey was the difference in attitudes toward traditional medicine between age groups. The survey involved 58 respondents and found a stronger tendency toward allopathic treatment among younger residents, whereas respondents aged 45 years and above demonstrated comparatively greater confidence in traditional medicine. The difference appears to be associated with education, occupational mobility, migration and accessibility of modern healthcare. Younger members of the community have greater exposure to formal education, urban employment, transportation and modern healthcare systems (Gairola, 2022; World Health Organization, 2013).

This transition is not necessarily evidence that traditional medicine has completely disappeared. Instead, it indicates a shift from traditional medicine as a principal healthcare resource toward its continued use as a complementary or household practice.

3.9 Conservation Significance

The conservation of medicinal plants cannot be separated from the conservation of traditional knowledge. A medicinal species may remain

biologically present in the landscape while the cultural knowledge required for its identification and utilization disappears. Maldevta is particularly important because the area contains natural forest as well as agricultural and settlement environments. Increasing development, habitat modification and changes in land use may affect the availability of medicinal species (Kala, 2007; Agarwal, 2019; Kumari et al., 2012; Bhatt, 2020; Kala, n.d.; Kumar et al., 2024; Kala, n.d.).

Species harvested for bark, roots or whole plants should receive particular attention. Sustainable harvesting protocols could include selective harvesting, avoidance of complete plant removal, rotational harvesting, cultivation of high-demand species, community medicinal gardens, regeneration monitoring and documentation of local harvesting practices (Kala, 2007; Kumari et al., 2012; Bhatt, 2020; Kumar et al., 2024; Kala, n.d.).

3.10 Pharmacological Relevance

The 40 species documented in Maldevta provide an important preliminary pool for pharmacological investigation. Several of the plants have already received attention in scientific literature for their phytochemical or biological properties (Dar et al., 2013; Adams et al., 2007; Ganesh et al., 2021; Mirunalini and Krishnaveni, 2010; Irchhaiya et al., 2014; Madhvi et al., 2019; Bhattarai et al., 2024).

For example, *Acacia catechu*, *Bauhinia variegata*, *Moringa oleifera*, *Nyctanthes arbor-tristis*, *Phyllanthus emblica* and *Urtica dioica* have been investigated in various pharmacological contexts (Dar et al., 2013; Mirunalini and Krishnaveni, 2010; Irchhaiya et al., 2014).

Nevertheless, ethnobotanical documentation should not be confused with clinical validation. A traditional claim that a plant treats a particular disease indicates culturally transmitted knowledge and may provide a hypothesis for scientific investigation, but it does not independently establish efficacy, appropriate dosage or safety (World Health Organization, 2013; Martin, 2004). Comparative pharmacological reviews of medicinal plants, including *Psidium guajava*, *Rhododendron arboreum* and *Ocimum tenuiflorum*, likewise illustrate the value of treating ethnobotanical reports as leads for further investigation rather than as clinical proof (Gutiérrez et al., 2008; Madhvi et al., 2019; Bhattarai et al., 2024).

This distinction is especially important for plants associated with serious conditions such as snakebite, cancer, diabetes, hepatitis and reproductive disorders (Dar et al., 2013; Ganesh et al., 2021; Mirunalini and Krishnaveni, 2010; Irchhaiya et al., 2014; Madhvi et al., 2019; Bhattarai et al., 2024).

4. Conclusion

The present ethnobotanical assessment documents 40 medicinal plant species belonging to 25 botanical families traditionally used by the community of

Maldevta, Dehradun, Uttarakhand. The plants represent diverse growth forms and provide traditional remedies for numerous common ailments, particularly respiratory, gastrointestinal, dermatological, febrile, musculoskeletal and reproductive-health conditions.

Leaves, bark, roots, fruits, flowers, seeds and whole plants are incorporated into traditional preparations. Decoctions and pastes constitute important modes of preparation, reflecting the simplicity and accessibility of household ethnomedicine.

The medicinal flora of Maldevta also demonstrates the multifunctional character of local plant resources. Many species serve simultaneously as food, fodder, timber, ornamental or culturally important plants. Their medicinal significance therefore forms part of a broader relationship between the local community and its surrounding vegetation.

The study further highlights the importance of traditional knowledge preservation. Increasing access to allopathic medicine, formal education, migration and changing lifestyles may reduce the transmission of ethnomedicinal knowledge from older to younger generations. At the same time, habitat degradation and unsustainable harvesting may reduce the biological resources upon which such knowledge depends.

The traditional medicinal practices documented in Maldevta should consequently be viewed as an important cultural and ecological heritage. Systematic documentation, botanical authentication, sustainable harvesting, community-based cultivation and scientific validation are required to ensure that this knowledge is preserved while its medicinal potential is investigated responsibly.

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