

Original Research Article

TRADITIONAL FOLK MEDICINE OF MIZORAM, INDIA**Dr. Lalrinnunga Hmar^{1*}, Dr. Lalawmkima Darlong², Remruatpuii Tochwang³**^{1*} Associate Professor, Dept. of History & Ethnography, Mizoram University, India² Assistant Professor, Dept. of Botany, Govt. Degree College, Kamalpur, Dhalai, Tripura, India³ Assistant Professor, Dept. of Sociology, Women's College, Agartala, Tripura, India***Corresponding Author:** Dr. Lalrinnunga Hmar

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Abstract: The whole region of Mizoram in India is well-known for its rich biological and socio-cultural diversity. The local community deeply understands the traditional use of medicinal plants from the forest to treat various ailments. This study was carried out in the Serchhip district of Mizoram, aiming to document the medicinal plant knowledge of the Mizo tribe. Information was gathered by conversing with elderly indigenous individuals living near forested areas. The study identified 34 plant species from 31 genera and 23 families, which are used for treating conditions like allergies, colds, fevers, and wounds. Most of these plants are collected from the wild, with a focus on using leaves for traditional remedies. These findings provide valuable insights for potential pharmaceutical advancements. Integrating scientific knowledge with indigenous practices can benefit both the traditional community and support the conservation of important plant species. Despite the reliance on traditional healing and cultural practices by many locals, there is a critical need to comprehensively protect and record the ethno-botanical knowledge of tribal populations for the benefit of future generations.

Key words: Serchhip, Mizoram, indigenous, medicine, biodiversity, healing, conservation,

For generations, wild plants and animals have played a significant role in meeting various household needs such as nutrition, healthcare, and energy provision (Heubes et al. 2012). These plant resources have been extensively utilized by indigenous tribal communities whose way of life is deeply intertwined with the natural world. This traditional knowledge system stems from the intricate relationships between humans, plants, animals, natural elements, and geographical features (Kassam et al. 2010). Over time, they have amassed substantial knowledge about these resources, expanding upon ancestral wisdom, resulting in a diverse and extensive collection of traditional knowledge on the utilization of the abundant natural resources available to them.

India is home to 427 tribal communities, with over 130 major tribes residing in the North-East region (Kala 2005). The rural populace in India traditionally relies on plants for both sustenance and medicinal purposes. The wealth of ethnomedicinal knowledge within these tribal communities is evident through their diverse cultures and folklore. Mizoram, one of the eight states in the North-East region of India, is inhabited by four tribes spread across 11 districts. The intricate physiography of Mizoram contributes to its abundant and varied natural flora, attributed to its location at the confluence of three distinct geo-climatic zones: the Indian, Himalayan, and oriental landmasses. These conditions result in a distinctive array of plants, animals, and ecosystems, making this region stand out as one of the world's most diverse biodiversity zones. Regrettably, this area is now acknowledged as a global biodiversity hotspot, facing widespread exploitation of its biological resources.

In recent times, significant changes have occurred regarding various aspects of ethnomedicinal practices due to environmental degradation and substantial transformations in modern, social, and economic systems. Indigenous communities worldwide are increasingly adjusting their traditional practices to align with development, leading to the erosion of indigenous knowledge over time (Rai and Lalramnghinglova: 2010). This trend is exacerbated by factors such as governmental policies and globalization, along with its accompanying cultural and economic shifts, which pose a threat to traditional knowledge that could have significant benefits for the global community. Additionally, the valuable traditional knowledge related to medicinal plants and the plants themselves are being depleted from their natural habitats due to overexploitation and direct commercial trade from wild sources.

The passing down of traditional plant use knowledge has traditionally occurred through generational transfer within everyday life. Yet, the preservation of this knowledge is at risk when the transfer between older and younger generations is uncertain. Hence, there is a pressing necessity to document all ethnobiological insights from diverse ethnic communities to prevent the potential loss of this invaluable knowledge system.

Study area

The Serchhip District, situated at the heart of the state, has its administrative center in Serchhip Town. Geographically, the district spans from 23°35'N to 23° N latitude and from 92°41' E to 93°10' E longitude. It is centrally positioned within the state, bordered to the north and northwest by Aizawl District, to the west and south by Lunglei District, to the southeast by Myanmar (Burma), and to the east by Champhai District. With an average elevation of approximately 1044 meters above mean sea level, the district's headquarters, Serchhip, stands at 1281 meters above mean sea level. The district encompasses a total forest area of 91,235 hectares, including 408 hectares of dense forest and 794 hectares of open forest, accounting for about 64.17% of its geographical area. Predominantly characterized by hilly terrain, the district also features alluvial benches along its rivers that support agricultural activities.

The Mizo community residing in Serchhip, Mizoram, is facing a similar challenge where ethnomedicinal knowledge, natural resources, traditional wisdom, and tribal culture are gradually diminishing over time. It is crucial to take steps to wisely utilize and protect these assets to maintain the integrity of the forests, which support various intricate ecosystem processes. This ensures that the invaluable traditional knowledge remains preserved and continues to benefit the community both locally and globally. Recording the locally available medicinal plants in the native language is imperative, emphasizing the pressing need to safeguard the ethnomedicinal knowledge and the advantages derived from this diverse range of vital bioresources. Implementing sound management practices and sustainable harvesting methods for medicinal plants can contribute to biodiversity conservation, enhance environmental well-being, create job opportunities through cultivation and marketing, offer cost-effective medications, and boost exports. With this in mind, an effort has been made to document the oral traditions concerning the ethnomedicinally significant plant species in the forests of the Serchhip district in Mizoram, underlining the importance of conservation efforts.



Mizoram map showing Serchhip district.

Methodology

In this study, medicinal plants refer to botanical species traditionally utilized for treating various human ailments. Data presented in this paper was gathered through household surveys and field research conducted in the study area between January 2022 and June 2022. The research focused on documenting the traditional uses of wild and semi-domesticated plants with medicinal properties among the local populace. Questionnaires were administered through personal interviews with respondents, including consultations with traditional healers in the community. The collected information underwent thorough verification and analysis. Local field guides assisted in the collection of plant specimens, which were later identified with the expertise of specialists in the field. Additionally, a comprehensive review of literature from various authors, organizations, and institutions on medicinal plants and herbaria was conducted to supplement the primary data collection efforts.

Result and findings

Scientific Name: *Begonia sp.*

Local Name: Sekhupthur

Family: Begoniaceae

Use: The entire plant is ingested raw twice daily to address issues related to hemorrhoids, kidney, and urinary issues.

Scientific Name: *Clerodendrum glandulosum* Lindl.

Local name: Phuihnam

Family: Lamiaceae

Use: The leaves of the boil plant are utilized in making a soup to treat hypertension and high blood pressure. Additionally, compressed leaves and roots are employed as a remedy for diarrhea.

Scientific: *Averrhoa sp.*

Local Name: Theiherawt

Family: Oxalidaceae

Use: Three to four slices are consumed daily for jaundice and to alleviate bleeding piles as an antiscorbutic. Infusions are ingested to address liver enlargement.

Scientific Name: *Benincasa hispida* (Thunb.) Cogn.

Local Name: Maipawl

Family: Cucurbitaceae

Use: The fruit is utilized as a laxative, diuretic, antiperiodic, and for managing internal organ hemorrhages. The seeds are employed as anthelmintics.

Scientific Name: *Bergenia ciliata* (Haw.) Sternb.

Local Name: Pan-Damdawi

Family: Saxifragaceae

Use: The leaves are utilized to alleviate earaches. Leaves and roots serve as a tonic and antiscorbutic, and are employed in the treatment of diarrhea, fevers, hemorrhoids, and urinary issues.

Scientific Name: *Blumea lanceolaria* (Roxb.) Druce

Local Name: Buarze

Family: Asteraceae

Use: Crushed leaves are used topically to heal wounds and long-lasting ulcers. A leaf infusion is consumed to combat dysentery.

Scientific Name: *Carica papaya* L.

Local Name: Thingfanghma

Family: Caricaceae

Use: The extract from immature fruit, when consumed in significant quantities similar to a toddy, is utilized to eliminate freckles and other skin imperfections, and is also ingested as an anthelmintic. Mature fruit is employed for addressing digestive issues. The seed serves as a vermifuge. The juice obtained from boiled leaves is applied for the management of hypertension and high fever.

Scientific Name: *Cassia tora* L

Local Name: Kelbe-an

Family: Leguminosae

Use: A paste made from the roots is applied externally to treat ringworm infections. An external application of a decoction made from the leaves and seeds is used to treat skin diseases.

Scientific Name: *Catharanthus roseus* (L.) G.Don

Local Name: Kumtluang

Family: Apocynaceae

Use: The fresh leaves are consumed to address hypertension. They are also utilized as a cancer-fighting agent. A medicinal preparation made from the roots, stems, and leaves is employed for managing diabetes, diarrhea, dysentery, and cholera.

Scientific Name: *Centella asiatica* (L.) Urb.

Local Name: Lambak/Hnahbial

Family: Apiaceae

Use: The leaves are utilized for enhancing memory and managing hypertension. They are boiled, and the resulting water is consumed to address asthma and eye issues.

Scientific name: *Chromolaena odorata* (L.) R.M.King & H. Rob.

Local Name: Tlangsam

Family: Asteraceae

Use: Crushed leaves juice is applied externally as to stop bleeding

Scientific name: *Cinnamomum verum* J.

Local Name: Thakthing

Family: Lauraceae

Use: The bark is utilized for its carminative, antispasmodic, haemostatic, astringent, and antiseptic properties, while the leaves are employed in managing diabetes.

Scientific name: *Cordia dichotoma* G.Forst.

Local Name: Muk

Family: Boraginaceae

Use: The plant is utilized as a remedy for snake bites. Its fruit serves as an astringent, anthelmintic, demulcent, and expectorant, and is employed in treating urinary infections. The bark is utilized as a fever reducer. Leaves are applied to alleviate ulcers, coughs, and colds.

Scientific name: *Crotalaria juncea* L.

Local Name: Tumthang

Family: Fabaceae

Use: The leaves are prepared for their properties as a soothing agent, inducing vomiting, causing bowel movements, and inducing abortion.

Scientific name: *Cucurbita maxima* Duchesne

Local Name: Mai

Family: Cucurbitaceae

Use: The fruits or leaves are boiled, and the resulting water is consumed to treat eye issues.

Scientific name: *Curcuma caesia* Roxb.

Local Name: Ailaidum

Family: Zingiberaceae

Use: The juice extracted from crushed rhizomes is utilized for curing diarrhoea and stomach discomfort.

Scientific name: *Curcuma longa* L.

Local Name: Aieng

Family: Zingiberaceae

Use: Crushed rhizome juice is used as an antiseptic

Scientific name: *Dillenia indica* L.

Local Name: Kawrthindeng

Family: Dilleniaceae

Use: The fruit is boiled to extract the water, which is consumed to treat jaundice. A dose of 50 ml of bark infusion is taken twice a day to treat diarrhoea and dysentery.

Scientific name: *Dillenia pentagyna* Roxb.

Local Name: Kaihzawl

Family: Dilleniaceae

Use: The aerial parts and bark are consumed as a decoction to treat diabetes, while a paste made from the aerial parts and bark is applied externally for rheumatic pains. The bark decoction is specifically used as an antiulcer remedy, particularly for issues like piles.

Scientific name: *Dysoxylum gobara* (Buch.-Ham.) Merr.

Local Name: Thingthupui

Family: Meliaceae

Use: A preparation made by boiling leaves and buds is utilized as a treatment for diarrhoea and dysentery.

Scientific name: *Elsholtzia blanda* Benth.

Local Name: Nauhri

Family: Lamiaceae

Use: An infusion made from aerial parts is used to address a childhood illness known as *nauhri*, which includes symptoms of fever, cholera, skin ailments, and inflammation. A poultice made from aerial leaves is applied to alleviate inflammation in glands.

Scientific name: *Embelia subcoriacea* Mez

Local Name: Tling

Family: Myrsinaceae

Use: Decoction made from the aerial parts of leaves is utilized for bathing to treat smallpox and to cleanse women's wounds following childbirth.

Scientific name: *Emblica officinalis* Gaertn.

Local Name: Sunhlu
Family: Euphorbiaceae
Use: The raw fruit is taken orally for the remedy of stomach problems

Scientific name: *Eryngium foetidum* L.
Local Name: Bahkhawr
Family: Apiaceae
Use: The roots are used for treatment of stomach pain.

Scientific name: *Erythrina stricta* Roxb.
Local Name: Fartuahpui
Family: Leguminosae
Use: The inner bark is utilized as an astringent and as a remedy for snake bites. A decoction made from the inner bark coating is ingested to address stomach ulcers.

Scientific name: *Eupatorium cannabinum* L.
Local Name: Hlothar
Family: Asteraceae
Use: Crushed leave juice is applied to stop nose bleeding

Scientific name: *Ficus prostrata* (Miq.) Buch.-Ham. ex Miq.
Local Name: Theitit
Family: Moraceae
Use: Crushed root juice is applied for remedy of poisoned snake bites

Scientific name: *Garcinia sp.*
Local name: Chengkek
Family: Clusiaceae
Use: The bark and leaves are used for the management of diarrhea, leprosy, and ulcers.

Scientific name: *Garcinia paniculata* Roxb.
Local Name: Vawmva
Family: Clusiaceae
Use: The seeds are utilized for treating roundworm infections.

Scientific name: *Gardenia coronaria* Banks
Local Name: Rul-hlah
Family: Rubiaceae
Use: 50 ml of an infusion of root and leave is taken orally twice daily against snake bite

Scientific name: *Girardinia palmata* Gaudich. ex Blume
Local Name: Kangthai
Family: Urticaceae
Use: Crushed root juice is taken against food allergies (especially pork).

Scientific name: *Gmelina arborea* Roxb. ex Sm.
Local Name: Thlanvawng
Family: Lamiaceae
Use: An infusion made from the flower is ingested to address high blood pressure, while externally applying roasted fruit helps alleviate itching.

Scientific name: *Hedychium spicatum* G.Lodd.

Local Name: Kelhnamtur

Family: Zingiberaceae

Use: The rhizome is utilized for treating stomach discomfort, liver issues, vomiting, inflammation, pain, snake bites, as well as for its carminative, tonic, stimulant, and expectorant properties.

Scientific name: *Hibiscus rosa-sinensis* L.

Local Name: Midumpangpar

Family: Malvaceae

Use: The raw fruit is taken for the remedy of jaundice

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