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Research Paper

# Medicinal Plants Found In Imphal Valley Used in Treatments Of Various Ailments

Botany

KEYWORDS : Medicinal plants, Imphal valley, ailments, indigenous

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## ABSTRACT

*Medicinal plants are used for treating various ailments and diseases in our day today life. The valley people practices folk medicines to take care of their health and related problems primarily from the plant sources available within the vicinity of their environment. A survey has been conducted on the medicinal plants used by the people of Imphal valley ie., Imphal-east, Imphal-west, Bishnupur and Thoubal district. The information was collected through interview and discussion among old knowledgeable persons of the study areas. During the investigation it has been recorded 100 species belonging to 89 genera and 53 families which are widely used as medicines in treatments of various ailments were discuss briefly with particular emphasis on their scientific name, local name, family, parts used. Leaves and young shoot were the most common part of the plant utilized by the indigenous people as the source of medicine. The least part of the plant used was root and fruit. The most dominant family is Asteraceae and Lamiaceae with 8 species each that are used for several diseases.*

**Introduction:**

In India, it is estimated that approximately 70 % of the population relies on traditional medicine to meet primary health care needs (Lavekar and Sharma, 2005). Traditional medicinal practice is an integral part of culture of people of North East India. Manipur has a unique history of using medicinal plants for treatments of various primary health ailments. The state is blessed with richest repositories of medicinal and aromatic plants and moreover well-known for its diverse culture of human races. There is an age long intrinsic relationship between the ethnic Meitei community and medicinal plants for the treatment of various primary healthcare ailments which remained endemic to this particular community of this state. Although, less well documented, the use of traditional healers is widely acknowledged in Manipur. The people of Manipur continued the use of folk-medicine till recent years even though modern medicinal science is well established. Traditionally, medicinal plants were conserved *in-situ* in *Umanglai* (sacred grooves) and *ex-situ* in their home gardens of traditional herbal practioners - *Maiba* and *Maibis* (Khumbongmayum *et al.* 2005). There have been many reports by different researchers in recent years on folkloric treatment with herbal medicine by the Meitei community in Manipur viz., Sinha (1996), Singh *et al.*, (2001), Khan (2005), Devi *et al.*, (2009), Yumnam and Tripathi (2012) reported for folkloric treatment with herbal materials that are being used to cure different diseases by the people of Manipur. Large number of ethnobotanical studies of Manipur were carried out by several workers, but in this present investigation was studied to draw the attention of importance for proper documentation and conservation of this traditional knowledge of practicing the medicinal plant for treatment of various ailment in Manipur.

**Methodology:**

Manipur lies in between 23°80' N – 25°68' N and 93°03' E – 94°78' E and has a geographical area of 22, 327 $km^2$ which constitutes 0.7 % only to the total land surface of India (Vedaja, 1998). The rich diversity of plants originates from the variations in the climatic and edaphic factors, location of the state on the confluence of Himalayas and Indo-Burma region. The region lying in the Indo-Burma Biodiversity Mega Hotspots ranks in the 8th amongst the 34th biodiversity hotspots of the world (Meyers *et al.*, 2000). This holds immense potential for production and marketing of value added bio-resources in particular, spices, medicinal and aromatic plants. The study was carried out in valley districts (comprised of four districts, Imphal east, Imphal west, Thoubal and Bishnupur) during 2014 and 2015. The information was collected from aged old local people of different districts by interview method. The specimens of the plants are collected and identified on the basis of vernacular name, regional floras and published literatures. They are enumerated alphabetically with scientific name, Local name, Family and their medicinal values.

**Table.1 : List of medicinal plants found in valley districts of Manipur.**

| Sl. No. | Scientific Name | Family | Local Name | Parts use | Medicinal values |
|---|---|---|---|---|---|
| 1 | *Achrynthes aspera* Linn. | Amaranthaceae | Khujumpere | Root | Timely delivery of child by pregnant woman |
| 2 | *Acorus calamus* Linn. | Araceae | Ok-hidak | Rhizome | Cough, fever, itching |
| 3 | *Adenostemmal avenia* (L.) Kuntze | Asteraceae | Lalu-kok | Leaves | Fresh injuries & skin disease |
| 4 | *Adhatoda vasica* Linn. | Acanthaceae | Nongmangkha-angouba | Leaves & flower | Cough, fever, dysentery |
| 5 | *Adiantum capillus-veneris* Linn. | Adiantaceae | Mayurpambi | Leaves | Poisonous bites, burns |
| 6 | *Aegle marmelos* (L.) Correa | Rutaceae | Harikhagok | Fruit, Leaves | Diabetes, dysentery |
| 7 | *Ageratum conyzoides* Linn. | Asteraceae | Khongjainapi | Leaf | Hair care |
| 8 | *Allium hookeri* Thw. | Alliaceae | Maroinapakpi | Whole plant | Hair scalp & infection originating in a hair follicle |
| 9 | *Alocasia cucullata* (Lour.) Schott | Araceae | Palukabi/Singju-pan | Rhizome | Purify blood |

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|---|---|---|---|---|---|
| 10 | *Alocasia indica* Schott | Araceae | Yendem | Petiole | For rejuvenating women after giving birth |
| 11 | *Alocasia macrorrhizos* (L.) G. Don | Araceae | Hongoo | Corm | Food for nursing mother and old men |
| 12 | *Alpinia galangal* (Linn.) Willd. | Zingiberaceae | Kanghu | Rhizome | Regulate blood circulation |
| 13 | *Andrographis paniculata* (Burm.f.) Wall. | Acanthaceae | Bhubati | Leaves | Chronic fever |
| 14 | *Amaranthus viridis* Linn. | Amaranthaceae | Chengkruk | Tender leaf | Health improver for adult |
| 15 | *Anisomeles indica* (L.) Kuntze | Lamiaceae | Thoiding Angouba | Seed, Leaf | Toothache, rheumatism, cold |
| 16 | *Passiflora edulis* Sims. | Passifloraceae | Sitaphal | Leaf | Dysentry |
| 17 | *Ardisia colorata* Roxb. | Myrsinaceae | Uthum | Leaf | Diabetes, Urinary disorder |
| 18 | *Artabotyrs hexapetalis* Linn. f | Annonaceae | Chinichampra | Flowers, Leaves | Aromatherapy, perfume |
| 19 | *Artemisia nilagirica* Linn. | Asteraceae | Laibak-ngou | Shoot & leaves | Mouth ulcer & dizziness |
| 20 | *Asparagus filicinus* Buch. Ham. | Liliaceae | Nungarei | Root | Dysentery & epilepsy |
| 21 | *Aphanamixis polystachya* (Wall.) R. Parker | Meliaceae | Heirankhoi | Fruit | Liver tonic |
| 22 | *Averrhoac arambola* Linn. | Averrhoaceae | Heinijom | Fruit | Burns & scalds |
| 23 | *Bambusa tulda* Roxb. | Poaceae | Saneibi | Young shoot | Ringworm |
| 24 | *B. nutans* Wall. | Poaceae | Ootang | Young shoot | Dog bites |
| 25 | *Bauhinia purpurea* Wall. | Caesalpinaceae | Chingthraoleimachu | Bark | Liver tonic |
| 26 | *Benincasa hispida* (Thunb.) Cogn. | Cucurbitaceae | Torobot | Fruit | Stomach ulcer |
| 27 | *Bixao rellana* Linn. | Bixaceae | Ureirom | Leaf | Snake bites |
| 28 | *Bryophyllum pinnatum* (Lam.) Kurz. | Crassulaceae | Manahidak | Leaf | Insects bites |
| 29 | *Bombax ceiba* Linn. | Bombaceae | Tera | Root | Aphrodisiac |
| 30 | *Butea monosperma* Lam. | Papiplionaceae | Panggonglei | Leaves | Diarrhea, dysentery, snake bite |
| 31 | *Calotropis gigantean* (Linn.) W.T.Aiton | Asclepiadaceae | Ang-got | Shoot | Ring worm & leprosy |
| 32 | *Capsella bursapastoris* (Linn.) Medik | Brassicaceae | Chantruk | Whole | Urinary problems |
| 33 | *Cassia alata* (Linn.) Roxb. | Caesalpini-aceae | Daopata-achouba | Leaves | Diabetes, skin diseases |
| 34 | *Cassia occidentalis* Linn. | Fabaceae | Thounam | Leaves | Diabetes |
| 35 | *Cedrelatoona* (Roxb.) ex Rottler & Willd. | Meliaceae | Tairen | Leaves | Skin diseases & poxes |
| 36 | *Celtis australis* Linn. | Ulmaceae | Heikreng | Fruit | Jaundice |
| 37 | *Cinnamom umtamala* (Buch. Ham.) | Lauraceae | Tejpata | Leaves | Dizziness, headache |
| 38 | *Cissus javanica* D.C. | Vitaceae | Kongyouyenlaba | Leaf | Urinary disorder |
| 39 | *Clerodendrum serratum* (Linn.) Moon | Verbenaceae | MoirangKhanambi | Leaves | Fever, dysentery, asthma, bronchitis |
| 40 | *C. colebrookianum* Walp. | Verbenaceae | Kuthap | Leaves | Skin diseases, dysentery |
| 41 | *Coixlacryma-jobi* Linn. | Poaceae | Chaning | Root | Menstrual disorders and as blood purifier |
| 42 | *Costus speciosus* (J. Konig) C. Specht | Zingiberaceae | Okchak-KhombiK-hongban-Takhelei | Rhizome | Urinary stone case |
| 43 | *Crassocephalum crepidi-oides* (Benth.) S. Moore | Asteraceae | Terapaibi | Leaf | Antiseptic |
| 44 | *Curcuma caesia* Roxb. | Zingiberaceae | Yaimu | Rhizome | Cough, dysentery |
| 45 | *Cymbopogon citrates* (D.C.) Stapf. | Gramineae | Lemon grass | Leaves | Digestion |
| 46 | *C. flexuosus* (Nees ex Sleud.) Will. Watson | Gramineae | Haona | Leaves | Cut & injuries for early healing |
| 47 | *Dillenia indica* Linn. | Dilleniaceae | Heigri | Tender shoot | Asthma |

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| 48 | *Elsholtzia blanda* Benth. | Lamiaceae | LombaLomba | Leaves & dried inflorescences | Cough, Sore throat |
| 49 | *E. ciliate* (Thunb.) Hyl. | Lamiaceae | Tekta | Leaf | Stomach disorder, antibacterial, antiviral, anti-inflammatory |
| 50 | *Eryngium foetidum* (Linn.) | Apiaceae | Awa-phadigom | Whole plant | Arthritis |
| 51 | *Eupatorium birmanicum* (DC.) | Asteraceae | Langthrei | Young shoot & Leaves | Epilepsy |
| 52 | *Euphorbia hirta* (Linn.) | Euphorbiaceae | Pakhangleiton | Young stem & flower | Diarrhoea, dysentery & colic pain |
| 53 | *Ficus hispida* Linn. f | Moraceae | Ashiheibong | Bark | Asthma |
| 54 | *Ficus semicordata* Buch-Ham | Moraceae | Heiyit | Bark | Pimples & cracked skin |
| 55 | *Foeniculum vulgare* Mill | Apiaceae | Hop Fennel | Seed | Flavouring, breath freshener, menstrual pain, digestion |
| 56 | *Galinsoga parviflora* (Cav.) | Asteraceae | Hamengsampakpi | Leaf | Diarrhoea & dysentery |
| 57 | *Garcinia peduculata* Roxb. | Clusiaceae | Heibung | Fruit | Gout & Bone setting |
| 58 | *Gmelina arborea* Roxb. | Verbenaceae | Wang | Leaves, Fruit | Stomachic, ulcers, diuretic, piles, fevers |
| 59 | *Gynura nepalensis* (D C.) | Asteraceae | Terapaibi | Young stem & flower | Against stomach ulcer |
| 60 | *Hedychium marginatum* (C. B. Clarke) | Zingiberaceae | Takhellei-angangba | Rhizome | Bronchitis & stomach ulcer |
| 61 | *H. coronarium* (J. Koenig) | Zingiberaceae | Takhellei-angouba | Rhizome | Cough, vomiting |
| 62 | *Houttuynia cordata* Thunb. | Saururaceae | Toning kok | Whole plant except flower | Detoxification, boils, allergy, antipyretic, anti-inflammatory, tumours, asthma, analgesic, diuretic, haemorrhoids |
| 63 | *Iris bakeri* (Chapin.) | Iridaceae | Kombirei | Rhizome | Brain coolant & hysteria |
| 64 | *Jatropha gossypifolia* (Linn.) | Euphorbiaceae | Kege-manbi | Leaves & root | Eczema, leprosy & snake bites |
| 65 | *Kaempferia galangal* (Linn.) | Zingiberaceae | Yaithamna-manbi | Rhizome | Baldness |
| 66 | *Melothria perpusilla* (Blume.) Cogn. | Cucurbitaceae | Lamthabi | Leaves & Fruit | Jaundice & kidney affection |
| 67 | *Meriandra benghalensis* (Roxb.) Benth. | Lamiaceae | Kanghuman | Leaves | Cough, dizziness |
| 68 | *Mimosa pudica* (Linn.) | Mimosaceae | Kangphal-ikaithabi | Young shoot | Piles & jaundice |
| 69 | *Mussaendra frondosa* Linn. | Rubiaceae | Hanulei | Leaf | Healing bone fracture |
| 70 | *Nicotiana plumbaginifolia* Viviani | Solanaceae | Meiteihidakmana | Leaf | Insecticide, toothache |
| 71 | *Ocimum basilicum* (Linn.) | Lamiaceae | Naosek-lei | Leaves & young shoots | Fever |
| 72 | *Oroxylum indicum* (Linn.) Benth. ex Kurz | Bignoniaceae | Shamba | Leaves & seed | Gastric ulcer, tonsil |
| 73 | *Paederia foetida* Linn. | Rubiaceae | Oinam | Leaves | Dyspepsia, flatulence, gastritis, digestion, dysuria, diarrhoea, stomachache, |
| 74 | *Pandanus foetidus* Roxb. | Pandanaceae | Ketukee | Leaves, Flower | Leprosy, small pox, syphilis, scabies, diabetis, heart & brain diseases |
| 75 | *Phlogacanthus thyrsiformis* (Roxb.) Nees. | Acanthaceae | Nongmangkha | Leaves & flower | Fever , cough |
| 76 | *Piper longum* (Linn.) | Piperaceae | Tabopi | Root & fruit | Jaundice, laxative |
| 77 | *Plumbago zeylanica* (Linn.) | Plumbagi-naceae | Telhidak | Root | Piles, bronchitis |
| 78 | *Pogostemon parviflorus* (Benth.) | Lamiaceae | Sangbrei | Leaves & root | Bleeding piles |

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| 79 | *Polygonum orientale* (Linn.) | Polygonaceae | Yellang | Tender leaves & shoots | Tonic & against headache |
| 80 | *P. posumbu* (Buch.-Ham.) ex D.Don | Polygonaceae | Phak-pai | Tender shoots & leaves | Heart beat increases |
| 81 | *Psidium gaujava* Linn. | Myrtaceae | Pungdon | Leaf & Fruit | Diarrhoea |
| 82 | *Psophocarpus tetragonolobus* (Linn.) D.C. | Papilionaceae | Tengnou-manbi | Young fruit | Cough |
| 83 | *Rhus semialata* (Murr.) | Anacardiaceae | Heimang | Fruit, leaves | Intestinal worms, hair care |
| 84 | *Ricinus communis* Linn. | Euphorbiaceae | Kege | Root | Complaints during pregnancy |
| 85 | *Salvia bengalensis* K.D. | Lamiaceae | Kanghu-maan | Rhizome | Hypertension, tonsillitis, dyspepsia, urinary problem |
| 86 | *Scutellaria discolor* (Wallich. ex Benth.) | Lamiaceae | Yenakhat | Leaves | Menstrual pain |
| 87 | *Sesbania grandiflora* (Linn.) Poiret. | Papiplionaceae | Chuchu-rangmei | Young fruit | Diabetes |
| 88 | *Sida rhombifolia* (Linn.) | Malvaceae | U-han | Leaves | Urinary disorder, rheumatism |
| 89 | *Smilax ovalifolia* (Roxb.) | Liliaceae | Kwa-mana-manbi | Aerial part | Skin diseases |
| 90 | *Solanum anguivi* Lam. | Solanaceae | Leipungkhanga | Fruit | Sore mouth, swelling, tongue disorder |
| 91 | *Stevia rebaudiana* (Bertoni.) | Asteraceae | Stevia | Leaves | Diabetes control |
| 92 | *Swertia chirata* (Wall.) C.B. Clarke | Gentianaceae | Chiraita | Stem | Tonic, stomachic & laxative |
| 93 | *Terminalia citrina* Roxb. | Combretaceae | Manahi | Fruit | Controlling diabetes |
| 94 | *Tinospora cordifolia* (Thunb.) Miers. | Menispernaceae | Ninthou-khong-lee | Leaves | Diarrhoea & muscular sprain |
| 95 | *Viola canescens* Wall | Violaceae | Mansang | Leaf | Stomach ulcer & cardio- vascular diseases |
| 96 | *Vitex negundo* (Linn.) | Verbanaceae | Urishibi | Tender leaf | Gastro-enteritis |
| 97 | *Xylosma longifolia* (Clos.) | Flacourtiaceae | Nongleishang | Fresh leaf | Scabies |
| 98 | *Zanthoxylum rhetsa* (Roxb.) DC | Rutaceae | Naoseknum | Leaf | Jaundice |
| 99 | *Z. acanthopodium* (D.C.) | Rutaceae | Mukthrubi | Young leaf & fruit | Fever , cough, bronchitis |
| 100 | *Zingiber officinale* Roscoe | Zingiberaceae | Sing | Rhizome | Antiemetic, anti-inflammatory, rheumatism, coughing, neurological disorders, cancer |

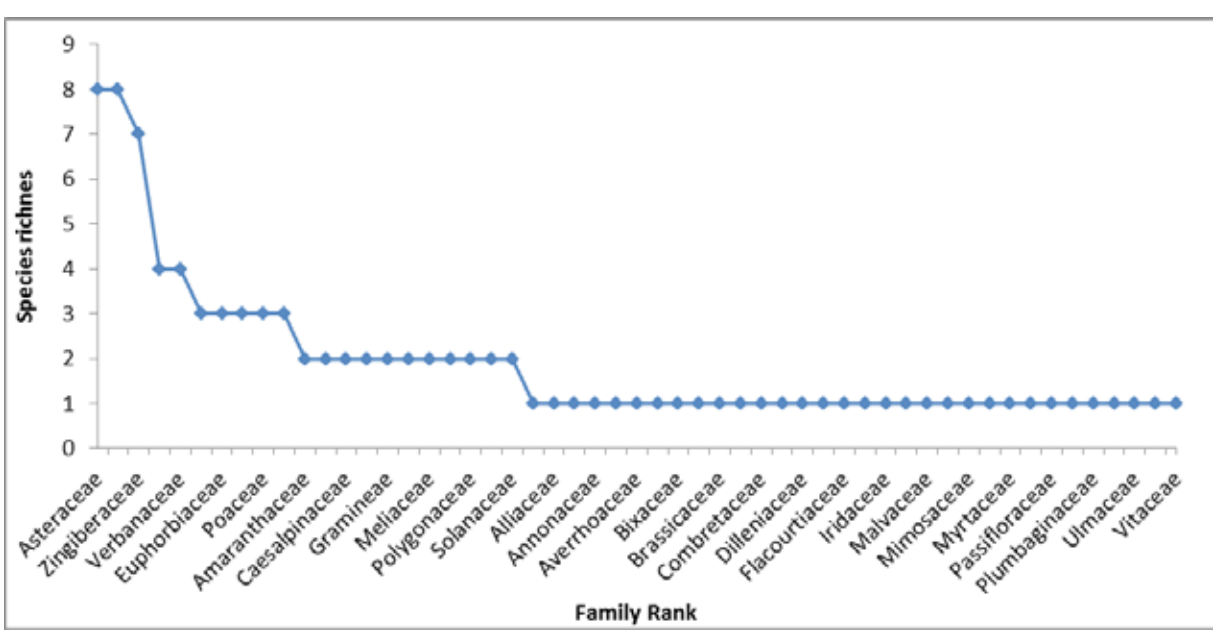


**Fig.1: Family dominance curve of the plants**

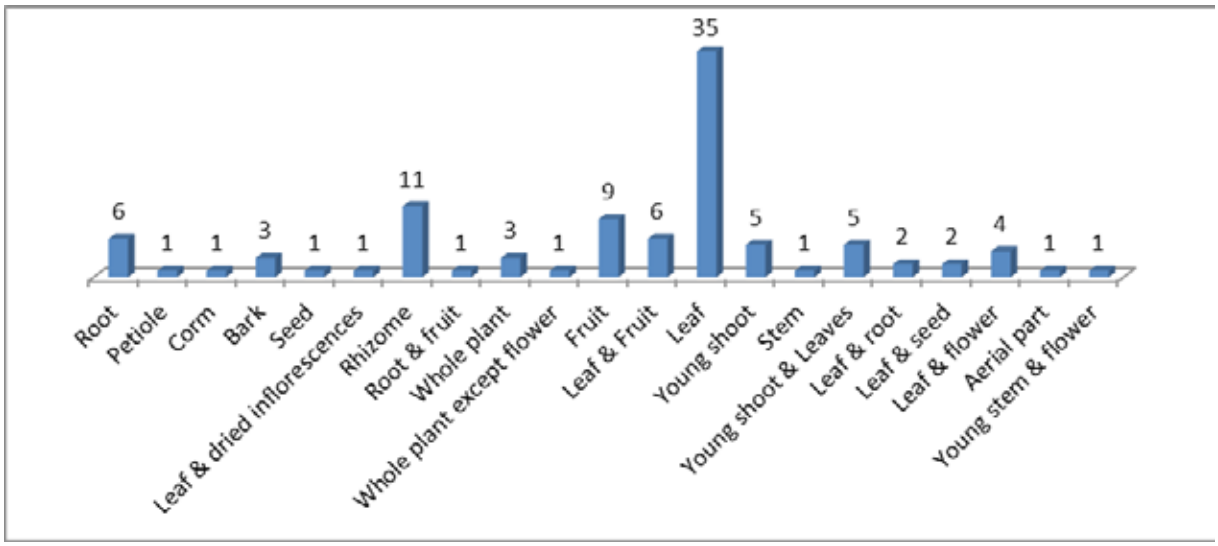


**Fig.2: Showing plant parts used against the number of species**

**Result and Discussion:**

During the present investigation, altogether 100 plants belonging to 89 genera and 53 families were collected which have many medicinal benefits. "Table 1 about here indicated list of medicinal plants found in valley districts of Manipur". Based on the family dominance, Asteraceae and Lamiaceae (8) were found to be most widely used family followed by Zingiberaceae (7),Verbenaceae, Euphorbiaceae and Poaceae are represented by 4 species each. However, many families (32 families) such as Alliaceae, Solanaceae, Annonaceae, Bixaceae, Combretaceae, Brassicaceae etc. were found to be traditionally used for their medicinal values. "Fig.1 about here indicated Family dominance curve of the plants". It is observed that many of the plant species that are used by them have a broad spectrum for treating various diseases with the same plant. The most common part of the plant utilized by the indigenous people is leaves with 35 species recorded for various ailments and treatments. "Fig.2 about here indicated showing plant parts used against the number of species". Some of the important medicinal plants formed a bond of attachment for the indigenous people as a home remedy since time immemorial. *Acorus calamus, Adhatoda vasica* are used for treating cough, fever, itching. *Andrographis paniculata, Cucurma cassia, Eryngium foetidum* are used for treating Arthritis. *Sesbania grandiflora, Terminalia citrina* are used for treating diabetes. The most dominant family of the present study is Asteraceae with 8 species which is in conformity with study of Saklam and Jain (1994); Lokho (2012) in which they have reported the same family as the most dominant family of medicinal plants across the North Eastern States of India. The second most important family with a record of 7 species as medicinal plants during the present survey is Zingeberaceae. Despite of the richness of plant wealth in the area these plants have been less recognized and are subjected to exploitation due to anthropogenic activities. Many important plants of high medicinal values are becoming extinct due to the deforestation for various purposes like urbanization, agricultural practices etc. Therefore, it is necessary to conserve these precious medicinal plants for future generations.

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