

## Traditional uses of medicinal plants by the *Tangkhul* – Naga tribe in Manipur, India

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### Abstract

Ukhrul district of Manipur, India is endowed with very rich flora and fauna including valuable wealth of medicinal plants. The present paper deals with 57 ethnomedicinal plants used by the *Tangkhul-Naga* tribes living in this district used for the treatment of their various diseases and ailments.

**Key words:** Traditional medicine, *Tangkhul-Naga*, Manipur

### INTRODUCTION

Ukhrul district of Manipur, India is the homeland of *Tangkhul* Naga tribes. The district lies between 23°13' N and 25°68' N latitudes and 94°20' E and 95°25' E longitudes, having an area of 4544 sq km. It is a hilly region, surrounded by Myanmar in the East, Nagaland State in the north, Chandel and Senapati districts of Manipur respectively in the South and West. The altitude of the district ranges from 914 m to 2,835 m above mean sea level. The overall temperate climatic back-up experience minimum and maximum temperature of 3° C to 33° C in different seasons of the year. The monsoon in the district is prevailing during May to the beginning of October with an average annual rainfall of 1224mm. The winter in Ukhrul is quite chilly.

The *Tangkhul* Nagas form one of the largest Naga tribes community in Manipur. They have their own culture and tradition. They speak a dialect of their own, known as '*Tangkhul*', which is a sub-family of Tibeto-Burmese language family. *Tangkhuls* are self-dependent and hard-working people. The majority of the villagers are agriculturists and rice is their staple food. However, most of them depend on forest products. They collect timber and firewood and produce charcoal from collected wood. They consume different parts of numerous plants and use many other plants for medicine, fish poisoning, timber, household materials etc. The *Tangkhul* people are mostly dependent on medicinal plants growing naturally in the vegetation for curing their different ailments. Therefore, a study was undertaken to record the medicinal plants used by the *Tangkhuls* people in villages.

Though much of the ethnobotanical studies have been conducted in most of the states and districts of India (Jain 1981, 1991, 1995; Das & Pandey 2007), only few contributions have been made from this region so far. Some such important works from Northeast India includes Borthakur (1976, 1981 a & b) Borthakur & Goswami (1995), Puri (1983); Kar & Borthakur (2008), Kar *et al* (2008), Jamir *et al* (2008), Tag *et al* (2008), Tiwari *et al* (2009), Nath *et al* (2009), Joseph & Kharkonger (1978), Rao & Jamir (1982, a, b), Jamir (1990, 1997), Devi (1989) and Sinha (1987, 1990, 1996).

### METHODOLOGY

Different species of plant used as medicine by *Tangkhuls* people living in Ukhrul were collected from the area. During the field survey the practitioners among the inhabitants of the area, including the medicine-men and others with knowledge of these plants, were consulted. Local interpreters were employed. Collected specimens were processed into poisoned and mounted herbarium sheets following Jain & Rao (1977). The plants were identified with the help of regional floras and matched in the herbarium of the Department of Botany, Nagaland University, Lumami. For the collection and preservation of these specimens were deposited in the Herbarium of the Department of Botany, Nagaland University, Headquarters: Lumami.

### ENUMERATION AND RESULTS

In the present paper, Botanical names of recorded ethnomedicinal plants are arranged alphabetically along with their families, local names, references to voucher specimens, different plant-parts used as medicine against their illness and diseases are presented in tabular form (Table 1).

**Table 1:** Traditional uses of medicinal plants by the *Tangkhul – Naga* tribe in Manipur

Botanical name [Family] (Exsiccatu)	Vernacular name	Parts used	Diseases treated
<i>Adhatoda vasica</i> Nees [Acanthaceae]; (Sum – 309)	<i>Sipchang</i>	Leaves/ Inflorescence	Fever, cough, bronchitis
<i>Ageratum conyzoides</i> L. [Asteraceae]; (Sum – 200)	<i>Imcheibong</i>	Root, leaves	Cuts, sores, dysentery
<i>Allium hookerii</i> , Thw. [Liliaceae]; (Sum – 240)	<i>Namrei</i>	Whole plant	Eye troubles, bronchitis, ulcers
<i>Amaranthus spinosus</i> L. [Amaranthaceae]; (Sum – 291)	<i>Somchan</i>	Whole plant	Constipation, menstrual discharge, liver problems
<i>Artemisia maritima</i> L. [Asteraceae]; (Sum – 277)	<i>Maharua</i>	Leaves	Stomach pain, muscular pain, menstrual disorder
<i>Artemisia nilagirica</i> (C.B. Clarke) Pamp. [Asteraceae]; (Sum – 259)	<i>Harana</i>	Whole plant	Piles, rheumatic pain, menstrual disorder
<i>Azadirachta indica</i> A. Juss. [Meliaceae]; (Sum – 304)	<i>Neem</i>	Leaves, Bark	Boils, ulcers, skin infection
<i>Bauhinia variegata</i> L. [Caesalpiniaceae]; (Sum – 221)	<i>Haochakwon</i>	Fresh leaf, bark, flower	Blood pressure, menstrual disorder, ulcers, boils
<i>Benincasa hispida</i> (Thunb.) Cogn. [Cucurbitaceae]; (Sum – 296)	<i>Kaksenghei</i>	Fruit	Stomach ulcer, jaundice
<i>Blumeopsis falcata</i> (D. Don) Merr. [Asteraceae]; (Sum – 264)	<i>Haochak</i>	Leaves	Fever, cough, skin diseases
<i>Cajanus cajan</i> (L) Mills. [Fabaceae]; (Sum – 355)	<i>Khaithei</i>	Leaves, pod	Skin infection, ulcers
<i>Callicarpa arborea</i> , Roxburgh [Verbenaceae]; (Sum – 246)	<i>Mondol</i>	Whole plant.	Headache, gastric problems, diarrhea
<i>Centella asiatica</i> , (L.) Urban [Apiaceae]; (Sum – 219)	<i>Kongriham</i>	Whole plant	Dysentery, ulcer, troubled menstrual cycle
<i>Cinnamomum zeylanicum</i> Blume [Lauraceae]; (Sum – 211)	<i>Sakomthing</i>	Bark, leaves	Cold, tonic, cough
<i>Clerodendrum indicum</i> (L.) Kuntze [Verbenaceae]; (Sum – 333)	<i>Nareihan</i>	Root, leaves	Blood pressure, problems, fever, asthma
<i>Cucurma angustifolia</i> Roxburgh [Zingiberaceae]; (Sum – 307)	<i>Jemsei</i>	Rhizome	Cough, dysentery, wormicide
<i>Cucurma longa</i> L. [Zingiberaceae]; (Sum – 279)	<i>Yaingang</i>	Rhizome	Blood purifier, bronchial complaints
<i>Dysophylla auricularia</i> Blume pain [Lamiaceae]; (Sum – 460)	<i>Khongpheina</i>	Whole plant	Headache, abdominal

<b>Botanical name [Family] (Exsiccatu)</b>	<b>Vernacular name</b>	<b>Parts used</b>	<b>Diseases treated</b>
<i>Elsholtzia blanda</i> Benth [Lamiaceae]; (Sum – 255)	<i>Yongpa</i>	Inflorescence	Diarrhea, fever, troubled menstrual cycle
<i>Embllica officinalis</i> Gaertner [Euphorbiaceae]; (Sum – 244)	<i>Shakshathe</i>	Fruits, Bark	Dysentery, piles, jaundice
<i>Eryngium foetidum</i> L. [Apiaceae]; (Sum – 280)	<i>Lam sachikom</i>	Young twigs, leaves	Blood pressure, stomach trouble
<i>Eupatorium cannabinum</i> L. [Asteraceae]; (Sum – 499)	<i>Naga Khawo</i>	Leaves	Injury, cuts, dysentery
<i>Euphorbia hirta</i> L. [Euphorbiaceae]; (Sum – 292)	<i>Mamatsi</i>	Young twigs, leaves	Cough, dysentery
<i>Ferula asafoetida</i> L. [Apiaceae]; (Sum – 302)	<i>Hing</i>	Latex	Toothache, indigestion, asthma
<i>Ficus benghalensis</i> L. [Moraceae]; (Sum – 275)	<i>Lelkuihan</i>	Bark, leaves, root	Piles, ulcers, boils
<i>Ficus hirta</i> Vahl [Moraceae]; (Sum- 759)	<i>Ashi-heibong</i>	Fruits, leaves	Diabetes, urinary tract stone
<i>Fleurya interrupta</i> Gaudich. [Urticaceae]; (Sum – 228)	<i>Lenghui</i>	Whole plant	Early healing, diarrhea
<i>Gynura cusimba</i> (D. Don) Moore [Asteraceae]; (Sum – 203)	<i>Revival</i>	Leaves	Stomach complaints, headache, wounds for blood clotting
<i>Houttuynia cordata</i> Thunb. [Saururaceae]; (Sum – 555)	<i>Ngayung</i>	Whole plant	Dysentery, muscular pain
<i>Juglans regia</i> L. [Juglandaceae]; (Sum – 209)	<i>Shirangthe</i>	Bark, leaves, kernel	Piles, skin infections
<i>Leucas aspera</i> Sprengel [Lamiaceae]; (Sum – 445)	<i>Mayanglambum</i>	Whole plant	Swellings, cold, cough, piles
<i>Leucoscepttrum canum</i> Smith [Lamiaceae]; (Sum – 605)	<i>Khuilawon</i>	Inflorescence	Stomach complaints
<i>Mentha arvensis</i> L. [Lamiaceae]; (Sum – 308)	<i>Suiruihan</i>	Whole plant	Diabetes, dysentery, cough, fever
<i>Mimosa pudica</i> L. [Mimosaceae]; (Sum – 294)	<i>Kangphal- ikaitabi</i>		Whole plant Piles, body pain, skin disease
<i>Ocimum canum</i> Sims. [Lamiaceae]; (Sum – 252)	<i>Sari</i>	Young twigs, leaves	Fever, cough, diarrhea
<i>Oenanthe javanica</i> Blume [Apiaceae]; (Sum – 248)	<i>Hanchamhan</i>	Young twigs, leaves	Appetizer
<i>Oroxylum indicum</i> Ventenat [Bignoniaceae]; (Sum – 268)	<i>Phong</i>	Fruits, leaves, Bark	Blood pressure problems, diabetes, piles, jaundice
<i>Osbeckia nepalensis</i> Hooker [Melastomataceae]; (Sum – 260)	<i>Yachubi</i>	Whole plant	Dysentery, diabetes, stomach complaints

<b>Botanical name [Family] (Exsiccatus)</b>	<b>Vernacular name</b>	<b>Parts used</b>	<b>Diseases treated</b>
<i>Oxalis corniculata</i> L. [Oxalidaceae]; (Sum – 288)	<i>Yensil</i>	Whole plant	Indigestion, dysentery
<i>Parkia javanica</i> Merr. [Mimosaceae]; (Sum – 205)	<i>Yongchak</i>	Bark, fruit	Dysentery, piles
<i>Passiflora edulis</i> Sims. [Passifloraceae]; (Sum – 256)	<i>Sitapor</i>	Fruit	Liver tonic, blood pressure problems
<i>Phlogocanthus thyrsoiflorus</i> (Roxburgh) Nees [Acanthaceae]; (Sum – 280)	<i>Sipchang</i>	Leaves	Cough, fever
<i>Plantago erosa</i> Wallich [Plantaginaceae]; (Sum – 225)	<i>Yempat</i>	Whole plant	Healing, stomach complaints
<i>Polygonum chinense</i> L. [Polygonaceae]; (Sum – 299)	<i>Hannahan</i>	Leaves	Gall stones, diarrhea
<i>Quercus serrata</i> Thunb. [Fagaceae]; (Sum – 300)	<i>Hoktheithing</i>	Leaves, seeds	Dysentery, abdominal pain
<i>Rhododendron arboretum</i> Sims. [Ericaceae]; (Sum – 254)	<i>Kokliwon</i>	Leaves, flowers	Headache, blood pressure problems, dysentery
<i>Rhus hookerii</i> Sahni & Bahad. [Anacardiaceae]; (Sum – 301)	<i>Kapothei</i>	Fruit.	Diarrhea, digestive, urinary complaints
<i>Rubus ellipticus</i> Smith [Rosaceae]; (Sum – 233)	<i>Karathei</i>	Leaves	Urinary complaints, troubled menstrual cycle
<i>Solanum nigrum</i> L. [Solanaceae]; (Sum – 266)	<i>Morok man</i>	Leaves, berries	Stomachache, fever
<i>Solanum torvum</i> , Swartz [Solanaceae]; (Sum – 305)	<i>Kapkhathei</i>	Fruits	Cough, tonsil complaints
<i>Swertia chirata</i> , Ham. [Gentianaceae]; (Sum – 290)	<i>Changla</i>	Leaves	Stomachache, indigestion
<i>Tectona grandis</i> L.f. [Verbenaceae]; (Sum – 500)	<i>Chingsoo</i>	Leaves	Blood pressure problems, hysteria
<i>Thalictrum foliolosum</i> DC. [Ranunculaceae]; (Sum – 208)	<i>Taliktrum</i>	Rhizome	Bitter tonic
<i>Vangueria spinosa</i> Hook.f. [Rubiaceae]; (Sum – 201)	<i>Theibethei</i>	Fruits	Intestinal worms
<i>Xylosma longifolium</i> Clos. [Bixaceae]; (Sum – 306)	<i>Nongleisang</i>	Leaves	Piles, cough, chest congestion
<i>Zanthoxylum acanthopodium</i> [Rutaceae]; DC. (Sum – 239)	<i>Nongnangthei</i>	Whole plant	Fever, throat complaints
<i>Zingiber officinale</i> Roscoe [Zingiberaceae]; (Sum – 303)	<i>Hui</i>	Rhizome	Asthma, cough, rheumatism

## DISCUSSION

In the present paper an attempt has been made to gather the information regarding the traditional medicinal plants, used by the *Tangkhul* Naga-tribe in Ukhrul district of Manipur. A total of 57 species of medicinal plants belonging to 54 genera and 33 families have been recorded. A maximum of 6 species of Asteraceae; 5 species of Lamaiceae; 4 species of Apaiceae; 2 species each of Acanthaceae, Moraceae and Mimosaceae have reported and the rest 37 families are represented

by single species. *Leucoseptrum canum* a rare and endemic plant to north east India have been recorded while *swertia chirata* which is vulnerable (VU) in Darjeeling Himalaya (Chettri *et al.*, 2005) and endangered (EN) in Himachal Pradesh (Badola H.K., (2002) have also been recorded from the study area. Species like the high altitude plant *Rhododendron arboreum* needs immediate conservation in order to prevent extinction in the district. It should be mentioned that this list is not exhaustive as many more such plants could be added after thorough botanical explorations and detail studies of this region.

The traditional knowledge of medicinal plants for cures of various diseases is well developed among the *Tangkhul* Naga -tribes. Practically nothing is known regarding the origin of the large number of native medicines. But the remedies resorted to by them quite startling. They might have learnt to utilize local herbs in different ailments and relief of pains after trials of centuries often at the risks of the loss of human life. Their beliefs pertaining to various diseases and their remedies are also based on the past experiences and traditional logic. In spite of the influx of modern civilization, particularly in the remote and rural areas people still hold their traditional faith. Because of fast development of roads in many areas of the district, nowadays, the earlier trends of treatments are gradually diminishing. Yet the villagers, even now, prefer indigenous treatment to modern therapeutic measures, unless the diseases become complicated. Sixty to eighty percent of the people are still dependent on folk healers and their knowledge pass on from generation to another. Some of their folklore medicines perhaps after investigation on modern scientific lines could provide future drugs for some dreadful diseases that are plague to the human being. However, it is a pity to note that the present survey have revealed that the rich flora of the plants are depleting very fast owing to several factors such as rampant destruction of forest, shifting/jhum cultivation, wild fires, over exploitation of plant resources, concrete roads and many other human socio-economic activities leading to the destruction of the forest in the area. Hence the author(s) stresses upon the urgent conservation and protection of the valuable wealth of medicinal plants from the region.

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