

## **Traditional knowledge of medicinal plants used by the Yimchunger-Naga tribes in Nagaland**

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### **Abstract**

The present paper deals with the first hand investigation on the use of fifty-six plant species in traditional medicinal herbs used by the *Yimchunger-Naga* tribes in Kiphre district in Nagaland for the treatment of various diseases and relief of pain.

**Key words:** Traditional medicine, *Yimchunger-Naga*, Nagaland.

### **INTRODUCTION**

*Yimchunger-Nagas* are representing one of the distinct aboriginal major tribes in the State of Nagaland. *Yimchunger* area is located under Pungru sub-division of Kiphre district, which lies between 23°04' – 25°02' N latitudes and 91°20' – 93°20' E longitudes. Saramati, the highest peak of Nagaland achieving an altitude of 3,841 meters above sea level is located in Kiphre district on the Burma border.

The climate is warm, subtropical type in the foothills, moderate and sub -montane type in the midslopes and cool and temperate type in higher mountain and hills. The rainfall is quite varied with an average annual rate of 150-250 cm spreading over six months i.e. May to October and received mostly from South West monsoon.

Presently, the *Yimchunger* are spread over more than seventy villages with its Headquarters at Shamator town. The population is estimated about 1,17,500 approximately. Generally, the villages of the *Yimchunger* tribe build on a commanding feature, which quite often happened to be on the top of a mountain, and hill slopes areas. Most of the villages were named after particular flora and fauna or some after their chieftain who established the village.

Economically, the *Yimchunger* are self-dependant and hard working people. Besides rice, maize, millets, Soya bean etc. “Kholaru”(beans) is the stable and most important food crop of the *Yimchungerü*. Moreover, the *Yimchungerü* people are rich in their culture. Their culture is inhibited by behaviors and thoughts of their forefathers and passed on from one generation to another, through words of mouth tradition and day to day traditional practices, customs, religious beliefs, art, feast of merit, log drums, housing, food and drinks, dress and ornaments, utensils, furniture, agricultural implements, festivals, rituals and ceremonies, painting, wood carving and tattooing, hunting, weaving cloth, indigenous games and sports, etc. including traditional knowledge of medicinal plants as the components of *Yimchunger-Naga* tribes in Nagaland.

A good number of valuable accounts have been contributed on the studies of medicinal plants during the last two decades from the North-Eastern region of India (Baruah & Sharma 1984; Bhattacharjee *et al* 1980; Bora 1999; Borthakur 1981a, 1981b, 1976; Borthakur & Goswami 1995;

Das & Mondal 2003; Gogoi 1998; Gogoi & Baissya 1984; Gurung 2002; Jain & Rao 1977; Jain & Borthakur 1980; Rawat & Chowdery 1998; Samantha 1984; Tiwari *et al* 1979).

Further, except a few valuable accounts contributed from the State of Nagaland nothing has been studied from the *Yimchunger-Naga* tribes in Nagaland (Chaturvedi & Jamir 2007; Jamir 1997, 2006; Jamir & Rao 1990; Jamir & Upadhyay 1998; Jamir & Lal 2005; Kakati & Doulo 2002; Megoneitso & Rao 1983; Rao 1981; Rao & Jamir 1982a, 1982b).

## METHODOLOGY

All information regarding the traditional knowledge of medicinal plants those were used by the *Yimchunger* tribes have been gathered from the local medicine-men, Gaon Bora, village elders etc. during field trips to different localities at *Yimchunger* areas for the last two years. Botanical collection has been followed methods of Jain & Rao (1977). The plants were identified with the help of literature and matching in the Herbarium of the Department of Botany, Nagaland University, Headquarters: Lumami and at ASSAM.

## ENUMERATION AND RESULT

In the present paper, botanical names are arranged alphabetically along with the family and common /local names followed by the reference to voucher specimens. Thereafter, uses of plant parts and treatment for various diseases and ailments are mentioned. Further, all the identified specimens have been deposited in the Herbarium of the Department of Botany, Nagaland University, Headquarters: Lumami (Table 1).

**Table 1:** Traditional uses of Medicinal Plants by the *Yimchunger-Naga* Tribe.

Botanical Name [voucher specimen]	Family	Common / local name	Part used	Diseases/ Ailments treated
<i>Ageratum conyzoides</i> L. [JY – 99]	Asteraceae	Goat weed/ <i>Rimso rim</i>	Leaves	As haemostatic to stop bleeding
<i>Aloe barbadensis</i> Miller [JY – 71]	Liliaceae	Indian Aloe/ <i>Maiyü</i>	Succulent leaves	Asthma, tumors, burns, injuries, skin diseases
<i>Allium cepa</i> L. [JY – 46]	Liliaceae	Onion/ <i>Piaz</i>	Bulbs	Cough, fever, diabetes, constipation, rheumatism & as antidote
<i>A. sativum</i> L. [JY – 10]	Liliaceae	Garlic/ <i>Kiupungtupü</i>	Bulbs	Cough, cold, high blood pressure, lung tuberculosis, rheumatism & as antidote
<i>Artocarpus heterophylla</i> H.J. Lam [JY – 35]	Moraceae	Jack fruit/ <i>Sunglopu aso</i>	Root bark & latex	Diarrhea, asthma, fever & as insect repellent
<i>Ananas comosus</i> (L.) Merrill [JY – 97]	Bromeliaceae	Pineapple/ <i>Tsongrüpaso</i>	Young fruits, leaf-extract	Contraceptives and as germicide
<i>Apium graveolens</i> L. [JY – 19]	Apiaceae	<i>Yei küye</i>	Seed	Antispasmodic; nerve disorders
<i>Bauhinia variegata</i> L. [JY – 41]	Caesalpiniaceae	Mountain ebony/ <i>Tho pün sang</i>	Barks & leaves	A laxative & anthelmintic; dysentery, diarrhea, piles

Botanical Name [voucher specimen]	Family	Common / local name	Part used	Diseases/ Ailments treated
<i>Bidens biternata</i> (Lour.) Merrill & Sherff [JY – 30]	Asteraceae	<i>Arim tsüülüh</i>	Leaf extract	In wounds as haemostatic
<i>Brassica juncea</i> L. [JY – 11]	Brassicaceae	Mustard/ <i>Wonian</i>	Seed oil	Throat pain, bronchitis, rheumatism, cold, fever & body ache
<i>Capsicum frutescens</i> L. [JY – 8]	Solanaceae	Chilli/ <i>Yitiüsong</i>	Fruit extract	Toothache, rheumatism, tonsillitis, throat pain; an appetizer
<i>Carica papaya</i> L. [JY – 76]	Caricaceae	Papaya/ <i>Khiuk aso</i>	Root, unripe & ripe fruits	Contraceptives, anti- rabies; urinary problems, diabetes, indigestion, cough, jaundice
<i>Centella asiatica</i> (L.) Urban [JY – 91]	Apiaceae	Indian penny root/ <i>Khenu rim</i>	Whole plant	Cholera, dysentery, piles, tuberculosis, urinary disorders
<i>Citrus medica</i> L. [JY – 64]	Rutaceae	Citron/ <i>Asan</i>	Fruit juice	Indigestion, constipation, nausea, diabetes, urinary problems
<i>Cnicus benedictus</i> L. [JY – 115]	Asteraceae	Blessed thistle/ <i>Ayang Sangsen</i>	Leaves & flowers	Tumors and cancer
<i>Colchicum autumnale</i> L. [JY – 94]	Liliaceae	Meadow saffron/ <i>Küpong topü sangpen</i>	Bulb & seeds	Rheumatism and arthritis
<i>Colocasia esculenta</i> (L.) Schott [JY – 32]	Araceae	Taro/ <i>Penu Thung</i>	Whole plant	Cuts, injuries, toothache
<i>Cucurbita pepo</i> L. [JY – 15]	Cucurbitaceae	Pumpkin/ <i>Jimuru</i>	Fruit pulp	Diuretic, promotes urine flow; boils, indigestion, burns
<i>Curcuma amada</i> Roxb. [JY – 70]	Zingiberaceae	Cardamum/ <i>Lutsur putong</i>	Seeds	Cholera, dysentery, stomachache, sprain, bone fracture
<i>Drymaria diandra</i> Blume [JY – 100]	Caryophyllaceae	Heart leaf/ <i>Khemütsok rim</i>	Whole plant	Fever, asthma, pneumo- nia, diarrhea, ulcers, skin diseases; as antidote.
<i>Elettaria cardamomum</i> Maton [JY - 51]	Zingiberaceae	Cardamum/ <i>Kutsur putong</i>	Seeds	Indigestion, stomachache
<i>Eupatorium adenophorum</i> Sprengel [JY – 5]	Asteraceae	Mugwort/ <i>Burmukhom rim</i>	Leaves	Malaria; haemostatic
<i>Euphorbia antquorum</i> L. [JY - 57]	Euphorbiaceae	Triangular wort/ <i>Duckrhak</i>	Roots/ stems / latex	Boils, fever, intestinal parasites; as antidote
<i>Glycine max</i> (L.) Merrill [JY – 22]	Fabaceae	Soya bean/ <i>Mongshük</i>	Flowers & seeds	Eyeache, dandruff; as tonic
<i>Helianthus annuus</i> L. [JY – 88]	Asteraceae	Sun-flower/ <i>Ani sangpen</i>	Leaves, flowers & seeds	Asthma, cough, headache, bodyache, kidney problems & rheumatism
<i>Hebiscus rosa-sinensis</i> L. [JY – 38]	Malvaceae	Chinese hibiscus/ <i>Arito sangpen</i>	Root bark & flowers	Cough, high fever, skin diseases

Botanical Name [voucher specimen]	Family	Common / local name	Part used	Diseases/ Ailments treated
<i>Houttuynia cordata</i> Thunburgh [JY – 38]	Piperaceae	Snaker root/ <i>Thü lemusu</i>	Whole plant	Cholera, dysentery, ulcers & skin diseases
<i>Impatiens augustifolia</i> Hook.f. [JY – 4]	Balsaminaceae	<i>Kirak Jim</i>	Whole plant	A contraceptive; skin diseases
<i>Imperata cylindrica</i> P. Beauvois [JY – 56]	Poaceae	<i>Ayi</i>	Roots	Dysentery, piles, anti- intestinal parasites
<i>Litsea cubeba</i> (Lour.) Persoon [JY – 60]	Lauraceae	<i>Ninrüng sang</i>	Leaves & seeds	Haemostatic; cough, fever, allergic troubles
<i>Luffa cylindrica</i> (L.) Roemer [JY – 112]	Cucurbitaceae	Sponge gourd/ <i>Jng rhaewü</i>	Stem & leaves	Anemia, liver disorders, menstrual problems
<i>Mangifera indica</i> L. [JY – 93]	Anacardiaceae	Mango/ <i>Akm Aso</i>	Fruits & barks	Cholera, diarrhea, jaundice, kidney problems
<i>Manihot esculenta</i> Crantz [JY – 90]	Euphorbiaceae	Tapioca/ <i>Sangkekhem seru</i>	Tubers & leaves	Skin rashes, itching, sores, eczema
<i>Melia azadarach</i> L. [JY – 20]	Meliaceae	Peütsürsian Lilac/ <i>Nütsüm sang</i>	Leaves, bark & fruits	Abortifacient, diuretic, anthelmintic; tuberculosis, headache
<i>Merabilis jalapa</i> L. [JY – 73]	Nyctaginaceae	4 o' clock plant/ <i>Thiyam sangpen</i>	Roots & leaves	Wounds, boils, piles, bodyache, rheumatism
<i>Mimosa pudica</i> L. [JY – 95]	Mimosaceae	<i>Mih chih sang</i>	Root bark & leaves	Boils, tumours, sores, piles, urinary problems; as antidote
<i>Mucuna pruriens</i> (L.) DC. [JY – 68]	Fabaceae	Cowitch/ <i>Shuhyi khal</i>	Roots & seeds	Hallucinatory, purgative; urinary problems, paralysis
<i>Musa paradisiaca</i> L. [JY – 24]	Musaceae	Banana/ <i>Liangwo</i>	Roots, stems & fruits	Contraceptive; venereal diseases, epilepsy, diarrhea, dysentery
<i>Mussaenda roxburghii</i> Hook.f. [JY – 3]	Rubiaceae	Mussaenda/ <i>Mutum omüjih</i>	Leaves & bark	Haemostatic; gastric, ulcers, heart burn
<i>Ocimum basilicum</i> L. [JY – 92]	Lamiaceae	Sweet Basil/ <i>Khiung hüim</i>	Leaves & bark	Cough, cold, fever, diarrhea, nausea, earache & as antidote
<i>Osbeckia crinita</i> Benth [JY – 27]	Melastomataceae	<i>Mülo Sangpen</i>	Leaves & inflorescence	Indigestion, stomachache, fever
<i>Phyllanthus emblica</i> L. [JY – 31]	Euphorbiaceae	Goose berry/ <i>Tsühniungaso</i>	Root bark	Indigestion, dysentery, fever, piles, jaundice, bleeding gums, kidney problems
<i>Plantago erosa</i> Wallich [JY – 55]	Plantaginaceae	Rabbit plant/ <i>Lim khim awo</i>	Fruits, leaves & bark	Boils, injury, sprains, bone fractures
<i>Psidium guajava</i> L. [JY – 55]	Myrtaceae	Guava/ <i>Moturam</i>	Leaves & roots	Germicide; cholera, diarrhea, dysentery
<i>Ricinus communis</i> L. [JY – 98]	Euphorbiaceae	Castor/ <i>Thunu Jim lak</i>	Leaves & bark	Purgative; sores, bleeding piles, ulcers, rheumatism
<i>Rubus basiocarpus</i> Smith [JY – 40]	Rosaceae	Rasp berry/ <i>Phühneak aso s</i>	Leaves & seeds	Cholera, indigestion, skin diseases

Botanical Name [voucher specimen]	Family	Common / local name	Part used	Diseases/ Ailments treated
<i>Saccharum officinarum</i> L. [JY – 43]	Poaceae	Sugar cane/ <i>Phiang niungi</i>	Root's bark	Cooling, diuretic, laxative; jaundice, hypertension
<i>Salvia officinalis</i> L. [JY – 7]	Lamiaceae	Sage/ <i>Yapnyei</i> <i>pai Sangpen</i>	Culm	Abortifacient; oral ulcers, cough, tuberculosis, kidney troubles
<i>Solanum myriacanthum</i> Dunnal [JY – 61]	Solanaceae	<i>Akuhtong</i>	Whole plant	Contraceptive, germicide
<i>Tagetes erecta</i> L. [JY – 80]	Asteraceae	Mari-gold/ <i>Sangpen</i>	Fruits	Colds, bronchitis, muscle pain, allergic problems
<i>Tectonia grantis</i> L.f. [JY – 17]	Verbenaceae	Teak/ <i>Thu Sang</i>	Barks, flowers & seeds	Dysentery, piles, diabetes, scabies; prevent hair growth
<i>Vitis vinifera</i> L. [JY – 89]	Vitaceae	Grapes/ <i>Kurung aso</i>	Leaves & seeds	Haemostatic; urinary problems, sleeplessness, tumors
<i>Zanthoxylum acanthopod- ium</i> DC. [JY – 62]	Rutaceae	Darmar/ <i>Thümüh Sang</i>	Leaves & seeds	Hair tonic; fever, cough, indigestion
<i>Zea mays</i> L. [JY – 9]	Poaceae	Maize/ <i>Machi</i>	Grains	As nutritive, resolvent & nourishing food
<i>Zingiber officinale</i> Roscoe [JY – 33]	Zingiberaceae	Ginger/ <i>Shing</i>	Rhizome	Cough, stomachache, bodyache & tuberculosis

## DISCUSSION AND CONCLUSION

In the present studies, 56 species of medicinal plants belonging to 55 genera and 36 families have been recorded. Definitely, more plants might be available by intensive and thorough survey of the regions. However, all these wealth of medicinal plants are being depleting and disappearing day to day owing to various factors: like 'Shifting' cultivation, forest fire, over exploitation, rampant destruction of the forests, concrete roads etc. and other socio-economic developmental activities. The author(s) stresses upon the urgent conservation and protection of the valuable wealth of medicinal plants from the region. It is strongly believed that at least some of these plantlores might be proved to be life saving and effective drugs through detailed investigation using modern scientific techniques.

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