

Ethnobotany of Mao-Naga Tribe of Manipur, India

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Abstract:

Utilizing and understanding the bio-resources efficiently for survival made human as the most successful species on the planet. This paper discusses cultural economic importance for the Mao-Naga tribe in Manipur. It deals with ethnobotanical descriptions of 63 taxa belonging to 38 families citing their local names, medicinal uses, culinary and ritualistic uses, etc. It also sheds light on indicator plants which are used by the tribe for *jhum* cultivation and other agricultural practices.

Key words: Ethnotaxonomy, Ethnobotany, Edible plants, Indicator plants

INTRODUCTION

The North-East region of India consists of 8 states namely, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The tribes in the North East region comprise about 57.15 % of the total population (Singh *et al* 2004). According to Verma (1990) among the states of North-Eastern India, Assam has the least percentage of tribal concentration (12.83 %) whereas Mizoram has the highest concentration of tribes (94.75 %). Out of the total 450 tribes in the country, North-East region has about 225 tribes. (Chatterjee *et al* 2006). This study focuses on Mao-Naga tribe of Manipur. The state of Manipur comprises of 8 districts: Bishnupur, Chandel, Churachandpur, Imphal–East, Imphal–West, Senapati, Tamenlong, Thoubal and Ukhrul. The study area falls under the Senapati district which is in the northern part of Manipur. The study region falls between 94° north latitude and 25.15° east longitude with a total area of 3271 sq km. The region is bordered by the Nagaland state on the north, Thoubal and Bisnupur districts on the south, Ukhrul District on the east and Tamenlong district on the west (William 2010). The region falls under the micro endemic hotspots of Patkai-Manipur-Lushai hills covering the net area of 58,990 sq km (Nayar 1996) which now falls under the Indo-Burma Hotspot harboring about 7,000 endemic taxa and 13,500 plant species (Mittermeier *et al* 2004). The suitable climatic conditions and the range of the habitats encourage the occurrence of rich flora and fauna of the region.

ETHNOBOTANICAL STUDIES IN NORTH EAST INDIA

The ethnobotanical study in North-East India has gained momentum in few past decades with numerous publications in different journals like *Indian Journal of Traditional Knowledge (IJTK)*, *Ethnobotany* and *Pleione*. The journal *IJTK* have published about

3,597 plant species, which listed about 499 edible plants and 1246 medicinal plants till now which are ethnobotanically used by the local people in North East, India. Major works published in IJTK include Khumbongmayum *et al* (2005), Angami *et al* (2006), Begum & Gogoi (2007), Das *et al* (2008), Barbhuiya *et al* (2009), Srivastava & Adi 2009, Chhetri (2010), Srivastava *et al* (2010), and Srivastava & Nyishi (2010). The journal *Pleione* is also publishing numerous ethnobotanical articles from NE India since its appearance in 2007, (Tag *et al* 2008; Jamir *et al* 2008; Umeshkumar *et al* 2009; Das & Dutta Choudhury 2009; Salam *et al* 2009; Roy *et al* 2010; Mozhui *et al* 2011; Devi *et al* 2011; Nanda *et al* 2013; Rajkumari *et al* 2013). However, the study on ethnobotany of Northeast, where there is a high concentration of tribes, is still far from adequate. The paucity of ethnobotanical studies in northeast India could be attributed to several reasons (Haridason 2004):

- (a) Constraints and understanding the languages: Many languages in the North-East do not have scripts and the presence of cryptic forms of languages even within the same tribe is a major impediment.
- (b) Inadequate taxonomic products for identification of the flora of Northeast.
- (c) Non-availability of skilled and trained human resource for taxonomic and ethnobotanical research.
- (d) Rigid ethnic groups who do not interact easily with the people for other regions.
- (e) Inadequate support for research.

In spite of the above constraints and difficulties, a number of ethnobotanical studies have been carried out by several institutions, State Forest Institutes, Botanical Survey of India, Universities in the Northeast and individual researchers from neighborhood. One such noteworthy to address in the field of ethnobotany is the North Eastern Institute for Folk Medicine, Arunachal Pradesh (Shankar *et al* 2011).

Ethnobotanical studies on Mao-Naga Tribe

In spite of increasing ethnobotanical studies in Northeast India only a few studies were done on Mao-Naga tribe such as Pfoze *et al* (2010), Mao & Hynniewta (2011), Lokho (2012), Mao & Odyuo (2007) and Pfoze *et al* (2011). The last two publications dealt with other Naga tribes of Northeast and not exclusively on Mao-Naga tribe.

METHODOLOGY

This study is based on a rapid survey that was carried out from December 2012 to January 2013. Prior to the commencement, community meetings were held in which the purpose and outcome of the study were explained in detail, as a part of international protocols and ethical commitment. Prior Informed Consent (PIC) was obtained from the knowledge holders to carry out the study. Semi-structured questionnaire was adopted for collection of data. Transect walks were conducted with the knowledge holders for field identification of plants. Information on culture was obtained from community meetings.

Voucher specimens were collected and were identified with the help of the Floras including Singh *et al* (2001); Kanjilal *et al* (1934 – 1940), Hooker (1890 – 1897) as well as e-floras of China, Nepal and Thailand (www.efloras.org). The identifications were confirmed with Dr. K. Haridason and Dr. K. Ravi Kumar from FRLHT, Bengaluru. For future reference, the specimens are deposited in Bio-cultural Herbarium, FRLHT, Bengaluru. The names enumerated are updated from websites such as www.tropicos.org, www.theplantlist.org, www.ars-grin.gov, www.efloras.org and <http://www.mobot.org/MOBOT/research/APweb/>

ENUMERATION

The plants recorded are tabulated alphabetically along with their botanical names followed by families, local names, voucher specimens, habit, plant parts used and their uses in Table 1.

Table 1. Plants used by Mao-Naga tribe

Botanical names [Family]; local name; voucher specimen	Habit	Parts used	Ethnic uses
<i>Abelmoschus manihot</i> (Linnaeus) Medikus [Malvaceae]; <i>Hriilomodzii</i> ; <i>M.C.C.H 9831</i>	Shrub	Stem, fruit	Stem retted in mud together with grass for making walls of traditional huts; fruits used as a shampoo in dandruff
<i>Acacia pennata</i> (Linnaeus) Willdenow [Mimosaceae]; <i>kokriso</i> ; <i>M.C.C.H 9833</i>	Climber	Bark	Grounded bark-in gunny bags put into running streams or rivers and stamped with feet to produce foam to stupefy fish
<i>Acmella paniculata</i> (Wallich ex DC.) R.K. Jansen [Asteraceae]; <i>chiiviwo</i> ; <i>M.C.C.H 9814</i>	Herb	Leaves	As vegetables.
<i>Achyranthes</i> sp. [Amaranthaceae]; <i>M.C.C.H 9803</i>	Herb	Inflorescence	Used to stick feathers of birds during festivals to adorn one
<i>Ageratum conyzoides</i> Linnaeus [Asteraceae]; <i>Kepha pha pa</i> ; <i>M.C.C.H 9806</i>	Herb	Inflorescence, leaves	Paste of inflorescence and leaves applied to wounds for blood clotting
<i>Ainsliaea latifolia</i> (D. Don) Schultz-Bipontinus [Asteraceae]; <i>Chongha evii pro</i> ; <i>M.C.C.H 9807</i>	Herb	Leaves	Leaf paste applied to the thigh of buffalo to facilitate taming
<i>Anaphalis contorta</i> (D. Don) Hooker f. [Asteraceae]; <i>Onamei chewing gum</i> ; <i>M.C.C.H 9808</i>	Herb	Leaves	Chewing of leaves produced gum like substance that cleans the teeth
<i>Anthogonium gracile</i> Lindley [Orchidaceae]; <i>Oki</i> ; <i>M.C.C.H 9837</i>	Herb	Pseudo bulb	Fine paste of pseudo bulbs applied on cracked heels, often with oozing of blood to heal and as analgesic.
<i>Artemisia indica</i> Willdenow [Asteraceae]; <i>Shiiprii priijii</i> ; <i>M.C.C.H 9809</i>	Herb	Leaves	Extract of grounded leaves used to treat dysentery / loose motion/ amebiosis; also relieves stomach ache.
<i>Bambusa</i> sp. [Poaceae] <i>kovo</i> ; <i>M.C.C.H 9862</i>	Tree	Leaves	Turning of leaves to dark green marks the paddy plantation
<i>Bauhinia variegata</i> Linnaeus [Cesalpiniaceae]; <i>Livosii</i> ; <i>M.C.C.H 9821</i>	Tree	Flower, bark	Extract of 5-10 flowers are given to treat diabetes; bark as cordage
<i>Bidens pilosa</i> Linnaeus [Asteraceae]; <i>Changha</i> ; <i>M.C.C.H 9810</i>	Herb	Leaves	Decoction for treating stomach pain; tender leaves serve as an alternate for tea (2-3 tender leaves serve 4 people)
<i>Bombax cieba</i> Linnaeus [Malvaceae]; <i>prikrii sii</i> ; <i>M.C.C.H 9863</i>	Tree	Flowers	Flowering marks the onset of summer.
<i>Brugmansia suaveolens</i> (Humbolt & Bonpland ex Willdenow) Berchtold & J. Presl [Solanaceae]; <i>Bakha tobowo</i> ; <i>M.C.C.H 9861</i>	Shrub	Leaves	Decoction is used for fomentation in joint pain/sprain; extract are applied on the snake bite.
<i>Buddleja</i> sp. [Scrophulariaceae]; <i>Kathi mara</i> ; <i>M.C.C.H 9849</i>	Shrub	Leaves	Cleansing agent for roasted animal skin.
<i>Cannabis sativa</i> Linnaeus [Cannabaceae]; <i>Kanja</i> ; <i>M.C.C.H 9818</i>	Herb	Whole plant	Used as vegetable and cook together with rice; leaves and inflorescence are fried with flour or grounded cereal and consumed; seeds are roasted and eaten for relieving stiffness of muscles and muscle pains

Botanical names [Family]; local name; voucher specimen	Habit	Parts used	Ethnic uses
<i>Cardamine flexuosa</i> Withering [Brassicaceae]; <i>Sheshe sho</i> ; M.C.C.H 9816	Herb	Leaves	As vegetable
<i>Cardamine hirsuta</i> Linnaeus [Brassicaceae]; <i>Kosanini</i> ; M.C.C.H 9817	Herb	Leaves	As vegetable
<i>Caryopteris sp.</i> [Lamiaceae]; <i>Tostii pa</i> ; M.C.C.H 9858	Shrub	Leaves	Cook and eaten as vegetable; decoction for treating malaria
<i>Cuscuta chinensis</i> Lamarck [Convolvulaceae]; <i>Chokro</i> ; M.C.C.H 9822	Parasitic	Stem	Decoction is used for massaging and fomentation
<i>Coix lacryma-jobi</i> Linnaeus [Poaceae]; <i>Oshiito</i> ; M.C.C.H	Herb	Leaves, seeds	As alternate for tea; seeds are cooked along with rice as flavoring agent
<i>Drymaria cordata</i> subsp. <i>diandra</i> (Blume) J.A. Duke [Caryophyllaceae]; M.C.C.H 9820	Herb	Whole plant	Paste is applied on the bitten spot for snake bite; decoction is used for treating typhoid
<i>Elsholtzia blanda</i> (Benth) Benth [Lamiaceae]; <i>Kholo</i> ; M.C.C.H 9827	Herb	Leaves, shoots	Extract is used against dysentery and stomach pain; Tender shoots kept at the angle of the ear lobe believe to ward off evil spirits
<i>Equisetum giganteum</i> Linnaeus [Equisetaceae]; <i>Pei bobo</i> ; M.C.C.H 9845	Herb	Stem	Paste is applied on chronic swellings of the leg
<i>Fagopyrum esculentum</i> Moench [Polygonaceae]; <i>Mariwo</i> ; M.C.C.H 9841	Herb	Leaves	As vegetable; swine fodder
<i>Ficus sp.</i> [Moraceae]; <i>Ovachiidoshii</i> ; M.C.C.H 9835	Shrub	Fruits, leaves	Fruits edible; leaves as cow fodder
<i>Girardinia palmata</i> (Forsskål) Gaudichaud-Beaupré [Urticaceae]; <i>Shiimolo</i> ; M.C.C.H 9865	Herb	Stem	After retting, fibers extracted are used for weaving traditional clothes and shawls; today, woven cloths are used during rituals and festivals as remnant practice
<i>Gynura nepalensis</i> DC. [Asteraceae]; <i>Tobow</i> ; M.C.C.H 9811	Herb	Leaves	As vegetable; paste given in dysentery or diarrhea
<i>Hedychium ellipticum</i> Buchanan-Hamilton ex Smith [Zingiberaceae]; <i>Dosu pa</i> ; M.C.C.H 9859	Herb	Stem, flower	Young shoots edible; flowering marks paddy plantation getting delayed
<i>Hypericum sp.</i> [Hypericaceae]; M.C.C.H 9826	Shrub	Leaves	Decoction is used for treating stomach pain
<i>Lantana camara</i> Linnaeus [Verbenaceae]; <i>Bakha so</i> ; M.C.C.H 9857	Shrub	Leaves	Decoction of 8- 12 leaves are taken to treat fever
<i>Lobelia sp.</i> [Lobeliaceae]; <i>Makhi bu</i> ; M.C.C.H 9829	Herb	Stem	Hollow bark is dried which are used as a musical instrument
<i>Melastoma sp.</i> [Melastomataceae]; <i>Okhe pa</i> , M.C.C.H 9832	Shrub	Whole plant	To stop bleeding from cuts and wounds; extract of flowers for treating piles; fruits edible
<i>Mimosa pudica</i> Linnaeus [Mimosaceae]; <i>Ahre pro</i> ; M.C.C.H 9834	Herb	Roots	Fresh or dried roots are kept on the gums to relieve toothache
<i>Momordica charantia</i> Linnaeus [Cucurbitaceae]; <i>Khenao</i> ; M.C.C.H 9823	Climber	Whole	Decoction of 10-15 leaves is used to treat stomach pain; used as vegetable

Botanical names [Family]; local name; voucher specimen	Habit	Parts used	Ethnic uses
<i>Muscari commutatum</i> Gussone [Asparagaceae]; <i>Ora kekho</i> ; M.C.C.H 9828	Herb	Leaves	Used in rituals to draw water. Fruits edible
<i>Oenanthe javanica</i> (Blume) DC. [Apiaceae]; <i>Ekru</i> ; M.C.C.H 9854	Herb	Leaves	To treat stomachache from flatulence and for easy bowel movement
<i>Oxalis corniculata</i> Linnaeus [Oxalidaceae]; <i>ozhe pito</i> ; M.C.C.H 9838	Herb	Whole plant	Fruits edible; as a cleansing agent for greasy or oily hand
<i>Physalis sp.</i> [Solanaceae]; <i>Chubobo</i> ; M.C.C.H 9850	Herb	Fruits	Edible
<i>Physalis angulata</i> Linnaeus [Solanaceae]; <i>Chubobo</i> ; M.C.C.H 9851	Herb	Leaves	As vegetable
<i>Plantago erosa</i> Linnaeus [Plantaginaceae]; <i>Dziipao</i> ; M.C.C.H 9839	Herb	Leaves	For treating piles; as vegetable
<i>Persicaria capitata</i> (Buchanan-Hamilton ex D. Don) H. Gross [Polygonaceae]; <i>Tokhu pro</i> ; M.C.C.H 9843	Herb	Inflorescence	Used against ant bites
<i>Persicaria chinensis</i> (Linnaeus) H. Gross [Polygonaceae]; <i>Obei-o kati</i> ; M.C.C.H 9842	Herb	Leaves, fruits	As vegetables; induce dysentery; fruits edible
<i>Pogostemon benghalensis</i> (Burman f.) O. Kuntze [Lamiaceae]; <i>Liriwo</i> ; M.C.C.H 9840	Shrub	Leaves	As vegetable
<i>Polygonum runcinatum</i> Buchanan-Hamilton ex D. Don [Polygonaceae]; <i>Nobito</i> ; M.C.C.H 9844	Herb	Whole	As a cleansing agent for dirt and oil; as vegetable
<i>Prunus persica</i> (Linnaeus) Stokes [Rosaceae]; <i>Mikrashii</i> ; M.C.C.H 9864	Tree	Flowers	Flowering indicates plantation can be done to potato, maize, cabbage and other cash crops in the jhum fields
<i>Psidium guajava</i> Linnaeus [Myrtaceae]; <i>Pondol</i> ; M.C.C.H 9836	Tree	Leaves, fruit	Extract taken to treat dysentery; fruits edible
<i>Rhus javanica</i> Linnaeus [Anacardiaceae]; <i>Omoshii</i> ; M.C.C.H 9804	Shrub	Fruits, Leaves	Leaves as alternate for tea; fruits taken to treat diarrhea and dysentery
<i>Ricinus communis</i> Linnaeus [Euphorbiaceae]; <i>Shiihre bu</i> ; M.C.C.H 9824	Shrub	Leaves	Decoction is used for fomentation; for rearing edible caterpillars
<i>Rubus alceifolius</i> Poirlet [Rosaceae]; M.C.C.H 9866	Shrub	Fruits	Edible
<i>Rubus ellipticus</i> Smith [Rosaceae]; <i>Somoso shii</i> ; M.C.C.H 9847	Shrub	Fruits	Edible
<i>Salix tetrasperma</i> Roxburgh [Salicaceae]; <i>Oziisii</i> ; M.C.C.H 9848	Tree	Log	For making traditional utensils; planted as soil binder on embankments
<i>Sambucus javanica</i> Reinwardt ex Blume [Caprifoliaceae]; <i>Pakra</i> ; M.C.C.H 9819	Shrub	Leaves	Placed on the dog bed to treat lice
<i>Schefflera hypoleuca</i> (Kurz) Harms [Araliaceae]; <i>Okrii nghu vii</i> ; M.C.C.H 9805	Shrub	Leaves	Whole leaves are used for traditional yeast making
<i>Scurrula sp.</i> [Loranthaceae]; <i>Chuta</i> ; M.C.C.H 9830	Herb	Fruits	Mucilaginous substance of fruits is used as a gum for trapping birds
<i>Senecio scandens</i> Buchanan-Hamilton ex D. Don [Asteraceae]; M.C.C.H 9812	Herb	Leaves	Extract is used as eye drops to relieve eye pain

Botanical names [Family]; local name; voucher specimen	Habit	Parts used	Ethnic uses
<i>Shuteria involucrata</i> (Wallich) Wight & Arnott [Fabaceae]; <i>Litiri</i> ; M.C.C.H 9825	Climber	Stem	As cordage for miscellaneous purposes like tying a gunny bag or tying edible caterpillars
<i>Solanum americanum</i> Miller [Solanaceae]; <i>Oho phira pro</i> ; M.C.C.H 9852	Herb	Leaves, fruits	As vegetable and laxative; fruits extract mixed with grains are fed to birds to prevent bird flu
<i>Solanum viarum</i> Dunal [Solanaceae]; <i>Prii prii bviiso</i> ; M.C.C.H 9853	Herb	Stem	Used as anti-dandruff shampoo; twigs kept on the gum to relieve toothache
<i>Sonchus wightianus</i> DC. [Asteraceae]; M.C.C.H 9813	Herb	Leaves	Cook and eaten against diabetes
<i>Thunbergia mysorensis</i> (Wight) T. Anderson [Acanthaceae]; <i>Kolatohoe</i> ; M.C.C.H 9801	Climber	Leaves, fruit	Decoction to treat malaria; planted as an ornamental
<i>Tricholepis sp.</i> [Asteraceae]; <i>Osoba</i> ; M.C.C.H 9815	Herb	Stem	Edible
<i>Triumfetta bogotensis</i> DC. [Asteraceae]; <i>Ozhecha ngha</i> ; M.C.C.H 9802	Herb	Seeds	For trapping mice
<i>Urtica dioica</i> Linnaeus [Urticaceae]; <i>Shiimo</i> ; M.C.C.H 9856	Herb	Leaves, bark	Fresh extract is applied on cuts and wounds; as swine feed; earing the stem bark around the neck to ward off the evil spirits

RESULTS AND DISCUSSION

The present study recorded 64 taxa of ethnobotanical importance belonging to 38 families. The Fig 1 shows that Asteraceae is the largest family of ethnobotanical importance with 10 taxa followed by Solanaceae with 5 taxa, Polygonaceae with 4 taxa, Lamiaceae, Malvaceae, Mimosaceae, Rosaceae with 3 taxa each and Brassicaceae, Poaceae, Urticaceae with 2 taxa each. The rest 26 taxa belong to different plant families with one species in each.

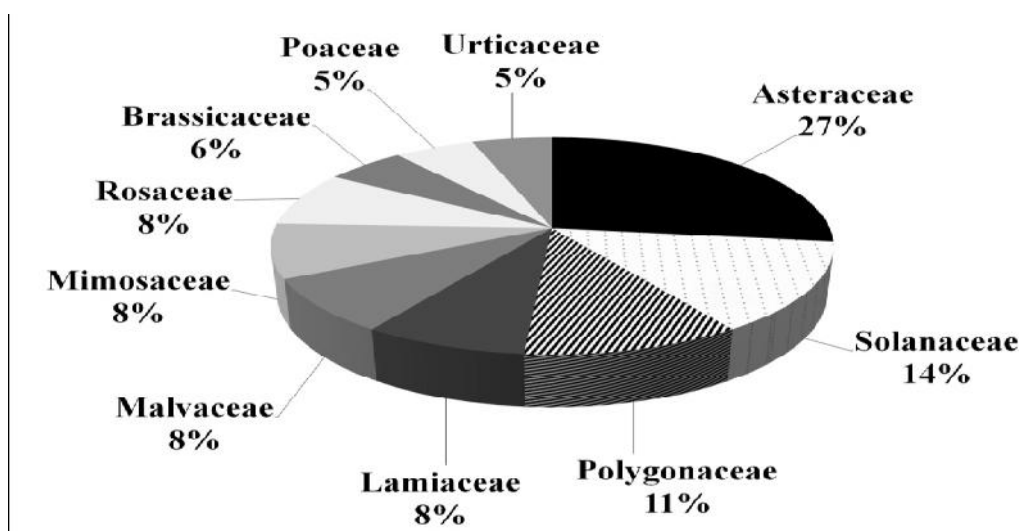


Fig. 1. Major plant families of ethnobotanical importance

Asteraceae is the largest family of pharmacological importance throughout the North-East India. This fact corroborates with the observations of Kala (2005). This is due to the wide spread and adaptive nature of the members of Asteraceae both in temperate and tropical regions (Mabberley 2008). Families like Brassicaceae, Solanaceae, Verbenaceae also have emerged as ethnobotanically important families in this study which are known for their pharmacological importance throughout India (Ved & Goraya 2008).

Major Plant Parts of Ethnobotanical Resource

Of the various plant parts used, the Fig. 2 shows 35 taxa are leaves followed by fruits and stem with 10 taxa, flowers and whole plant with 4 taxa, bark, inflorescence and seeds with 2 taxa each while the log, pseudo bulb and roots comprises of a taxa. Folk medicine systems throughout India use leaves more than the other parts (Rathinakumar 2009; Franco & Narasimhan 2012). The leaves have always been preferred by the tribal people for a variety of reasons, such as availability and multi-purpose use like medicine, food, cleansing agent, fodder, etc.

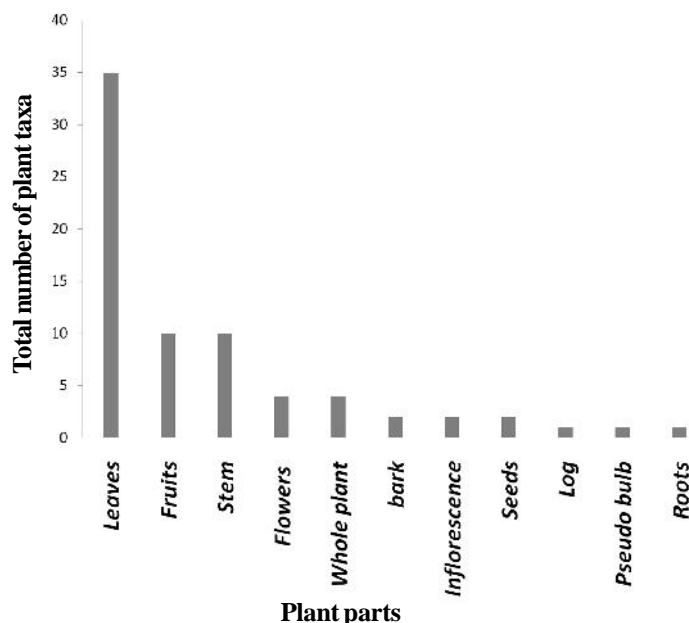


Fig. 2. Various plant parts used by Mao-Naga tribes.

Habit:

Herbs are using by the mankind for several millennia. They are used for culinary purpose, medicines and some are considered as sacred (Shivanand *et al* 2010). In the present study, herbs are mostly used for culinary and medicinal purposes. As given in the Fig 3, herbs dominate with 38 taxa, shrubs with 15 taxa, trees with 6 taxa and climbers comprise of 4 taxa.

Edible plants:

The present study records 12 species those are used as food by Mao Naga tribe. They are *Ficus sp.*, *Gynura nepalensis*, *Hedychium*

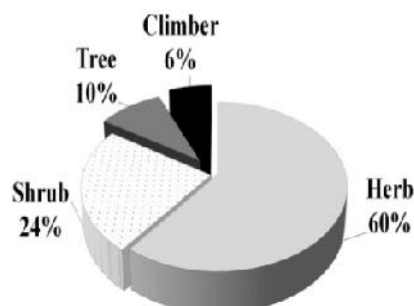


Fig. 3. Habit-group classification of plants used by Mao-Naga tribe,

ellipticum, *Oxalis corniculata*, *Physalis sp.*, *Physalis angulata*, *Persicaria chinensis*, *Polygonum runcinatum*, *Psidium guajava*, *Rubus ellipticus*, *Rubus alceifolius* and *Tricholepis sp.* Out of these, 4 are cultivated in home gardens and in the *jhum* fields. The cultivated edible species, *Gynura nepalensis* (Cholesterol spinach) is a well-known nutraceutical believed to lower cholesterol (Tswei, 2000). It is widely used in almost all eastern Asiatic regions. *Persicaria chinensis* and *Polygonum runcinatum* are valued appetizers and are given in soup form for people suffering from fever.

Medicinal plants:

This rapid survey has recorded 36 taxa used for medicinal purposes. Out of 36 taxa, 9 taxa are used to treat stomach pain and dysentery and 2 species each for treating diabetes, tooth pain and shampoo and others for treating different ailments. A number of plant species used for stomach pain and dysentery indicates that these ailments are much common in the population possibly due to a shortage of good potable water. The occurrence of these diseases frequent in summer corroborates the hypothesis. A similar pattern of large plant resources used for stomach related disorders have been observed by Franco & Narasimhan (2012).

Cleaning the hair and body is an essential part of the health of any community. Mao Naga uses two species as shampoo, namely *Abelmoschus manihot* and *Solanum viarum*.

Indicator plants:

Forest communities mostly rely on plants as indicators for seasons, for predictions and for environmental changes. Such observation on the plant species brings bountiful harvest (Mao & Hynneiwa 2011). Indicator plants are often use present in Mao-Naga traditional folklores. Some of the indicator plants used by Mao-Naga tribe are given in Table 2.

Table 2. Indicator plants for seasons and plantation

Plants	Habit	Indications
<i>Bombax cieba</i>	Tree	Flowering marks the onset of summer
<i>Bambusa spp.</i>	Tree	Turning of leaves to dark green marks the paddy plantation
<i>Hedychium ellipticum</i>	Herb	Flowering marks paddy plantation is delaying
<i>Prunus persica</i>	Tree	Flowering indicates to start cultivation of potato, maize, cabbage and other cash crops in the Jhum fields

Folk classification:

The Mao-Naga community recognizes two major life forms by a unique beginner. The trees are known by the term '*stiibu*' and the climbers are known by the term '*Ori*'. However, the communities do not distinguish between herbaceous and woody climber. It is noteworthy that they do not have unique beginner for two life forms namely herbs and shrubs. The classification of life forms by different communities varies in different regions (Berlin 1992; Balee 1994; Franco & Narasimhan 2012).

CONCLUSION

The present article exposed only a fraction of knowledge collected from dozens of knowledge holders. There is still untapped human knowledge on plant resources pending documentation. Traditional knowledge is dynamic. Hence, requires periodic documentation to understand the undergoing changes in the knowledge system (Narasimhan & Franco 2009).

There is a need for promoting general awareness to local people of this region to revitalize and restore the traditional knowledge and for their own benefit and permitting

scientific documentation. Such awareness is essential for the community in terms of Intellectual Property Rights (IPR), benefit sharing, conservation and better utilization of plant resources.

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