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## RESEARCH ARTICLE

# STUDY OF DIVERSITY OF ETHNOBOTANICAL PLANTS USED BY THE MISHING TRIBES OF GOLAGHAT DISTRICT, ASSAM AND THEIR CONSERVATION

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### ABSTRACT

The present investigation deals with the Ethnobotanical plants used by the Mishing tribes of the Golaghat district of Assam. A total 70 species belonging to 40 families were recorded. The study revealed that the family Asteraceae is found to be used mostly with 8 species followed by family Fabaceae having 4 and Euphorbiaceae and Solanaceae with 4 species, etc. It has also been observed that due to urbanisation and modernization the tribe away from their traditional and culture uses of plants. It is urgently requires for the conservation of such vanishing for the betterment of the society at large.

#### Key words:

Ethnobotany, Mishing tribe,  
Ailments, Golagha district, Assam

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### INTRODUCTION

Plants are one of the important biotic natural resources which help the progress of human civilization. From the ancient time to till today plants constitute the baseline of human as well as other living organisms. Because the plants give us shelter, food and cloth for our day to life. The term ethnobotany was coined by **John W. Harshberger (1895)** and considered as the art of collection of useful plants by a group of people and the description of the uses of plants. The focus of ethnobotany is on how plants have been or are used, managed and perceived in human societies and includes plants used for food, fodder, medicine, divination, cosmetics, dyeing, textiles, for building, tools, currency, clothing, music, social life and rituals. Over the last century, ethnobotany has evolved into a specific discipline that looks at the people-plant relationship in a multidisciplinary manner, such as ecology, economic botany, pharmacology and public health. Herbal medicines are assumed to be of great importance in the primary health care of individuals and communities in many developing countries. Indigenous knowledge of plant use has become recognized world wide not only because of its intrinsic value but also because it has a potential instrumental value to science and conservation. Today, there are thousand year-old indigenous knowledge based traditions and records of popular healing that have maintained their importance despite new developments and progress in the fields of chemistry,

pharmaceuticals, and medicine. Indeed, interest in herbal drugs is increasing. In recent years, because of the costs as well as serious side-effects of a number of modern drugs, attention has turned back to medicinal plants as a source for discovery of newer drugs with less cost and side-effect. The ancient heritage of Vedic literature in India dates back to 1000 to 2000 B.C., Which contain valuable information regarding medicinal plants. A total of about 248 plants have been recorded in Atharva Veda and Rig Veda. In early periods many works like **Nelson (1944); Gregson (1949); Russel and Hira (1961)** etc. reported the ethnobotanical importance about the different tribes and communities. Ethnobotanical studies in India in modern lines started before the term was coined with collection of information by **G. Watt (1889-1896)** in connection with compilation of his dictionary, about a century ago. Dr. S.K Jain started intensive field studies among the tribes of central India in 1960 and published a good paper on ethnobotany. Some notable works of ethnobotanical plants were reported by different authors from North east India in time to time such as medicinal plants used by the Karbi Along of ethnomedicinal surveys of Miris (**Hajra & Baishya 1981**); Ethnobotanical plants used by the tribes of Cachar district (**Das, et al., 2008**); Medicinal plants of Cachar district (**Das, et al., 2010**); study of Traditional Handloom weaving by the Kom tribe of Manipur (**Khatoon et al., 2012**); Study of ethnobotanically important plants and their uses by the tribal Communities residing near by Nambor-Doigrung wild life Sactuary of Golaghat Assam (**Soren et al.,**

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2014); Ethnoveterinary plants used by the Chiru tribe of Manipur (Rajkumari *et al.* 2014); Less known ethnobotanical uses of Maring tribe of Manipur (Nongmaithem & Das, 2015); An inventory of ethnomedicinal plants among the Rabha Tribe residing near by Chadubi Beel of Kamrup district (Bora & Das, 2015); Study of some species of the family cyperaceae and poaceae with special reference to their utilization in Dhubri district (Hussain and Das, 2015) etc.

### Study Area

Nestling between the eastern Himalayan foothills and the Patkai and Barail Ranges of the east, Assam is one of the largest north-eastern states of India, situated between  $24^{\circ} 2' - 27^{\circ} 6' N$  latitude and  $89^{\circ} 8' - 96^{\circ} E$  longitude, the political boundary of Assam extends to an area of 78,523 Sq. Km. of which total forest area is about 22, 177.72 Sq. Km. This area excludes the unclassed state forest which is approximately 9248. 38 Sq Km.

The state has an area of 78,523 Sq. km. thus constituting 30.8 percent of the total geographical area of the North-East India. It may be mentioned here that the population of Assam constitutes 73.4 % of the total population of the North-East India with a density of 186.43 persons per square kilometer as against 167 persons per square kilometer of the entire country. Assam has a unique landscape with sprawling tea gardens and unending stretches of paddy fields interspersed with groves of coconut, areca nuts, and banana plants. Assam, the rich, green land of rolling plains, dense forests and beautiful rivers, it is the gateway to the north eastern part of India. Assam is bordered by Bhutan in the North; Arunachal Pradesh in the East; Nagaland, Manipur and Mizoram in the south; and Bangladesh on the west.

Golaghat district of the state of Assam is situated at about 100 mts. above the sea-level & the area is 3502 sq.Km. The area is situated between  $26.0^{\circ} - 27.1^{\circ} N$  lat. and  $93.0^{\circ} - 94.18^{\circ} E$  long.

The topography of Golaghat district is plain and slopes down gradually towards the river Dhansiri, which runs through the whole part of the district. Besides these, there are many rivulets and tributaries namely – Dhansiri, Doyang, Nambor, Doigrung, Gelabil, Rengma, Lentajan, Mengajan, Ghiladhari, Letecujan, Difolu and Kakodunga. These rivulets and tributaries play an important role in the topography and vegetation as most of them started from hilly areas and followed down into the Brahmaputra. The undivided Golaghat district has been separated from Jorhat and Nagaland by the rivulets of Kakodunga and Doyang respectively. In a recent study on the soil of southern bank of Brahmaputra, the influence of rainfall and temperature was found to be conspicuous. The high rainfall results in increasing the contents of organic matter and aluminium oxides and it decreases the  $p^H$  of soil. The climate of the entire district is monsoonic which facilitate the luxuriant growth of all types of plants starting from lower cryptogams to higher angiosperms. The summer season spreads over April to September which is followed by the cold seasons. The area has a cooler winter, a moderate spring, moderate summer and a humid atmosphere.

The forest type of Nambor Wild life Sanctuary is Riparian as there are many rivulets as one passes through the NH 39.

The present work was carried out in the Mising tribe populated village of Golaghat district of Assam ( Fig. : 1).

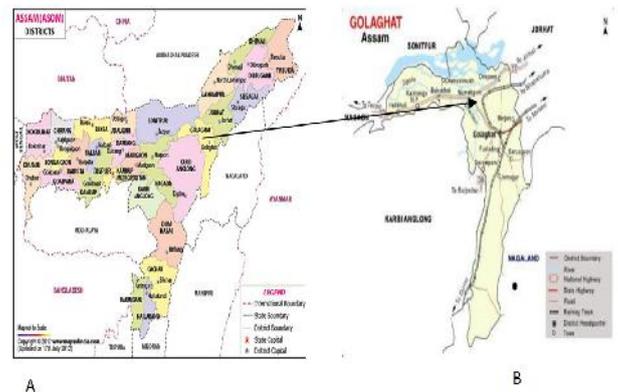


Fig. 1 a Map showing the Golaghat district Assam and b the study area.

### METHODOLOGY

Survey had been conducted during the period of August, 2014 to March, 2015. Plants were collected along with photo data (except few) and noted down their related information (Plate-II: A-D). For collection of information about the ethnobotanical uses of plants by the by the Mishing community traditional healers, senior villagers and patients who were associated with these healers for a quite long time were consulted, through repeated interview and by distributing questionnaires with the format given . The model of questionnaires was prepared following the methods suggested by Parabia and Reddy (2002) with slight modification. The specific diseases, plant parts used and modes of preparation were also documented ( Table-1).

### About The Tribe

The Mising people or Mising also called 'Miri', are an ethnic tribal group inhabiting the districts of Dhemaji, North Lakhimpur, Sonitpur, Tinsukia, Dibrugarh, Sibsagar, Jorhat and Golaghat of the Assam state in India. The total population is more than 1 million in Assam but there are also more than 50,000 Mishing people, divided among three districts: East Siang district, Lower Dibang Valley, and Lohit districts of Arunachal Pradesh. Few of them have settled themselves permanently in National capital Delhi and few hundred in Mumbai which is the financial capital of India. They are the second largest tribal group in North-East India, first being the Bodos in Assam. They were earlier called Miris in historical days, and the Constitution of India still refers to them as Miris. Mising derives from the two word Mi and Toshing /Anshing. "Mi" means man while Anshing/Toshing means worthiness or cool. So Mishing means man of worthiness. The word mi is familiar to many tribe in South East Asia. Mizo and Mishmi are one such example. To depict non-tribal outsiders (most probably the general Assamese people) the word Mipak is used extensively which means man of unworthiness. So mipak is the opposite meaning of Mishing They belong to

greater Tani people community which comprises many tribes in Arunachal Pradesh in India and Tibet Autonomous Region (TAR) in China.

Local communities of Northeast India are knowledgeable about the local plant resources and their utilization (Sarmah, 2010; Sarmah *et al.*, 2006).

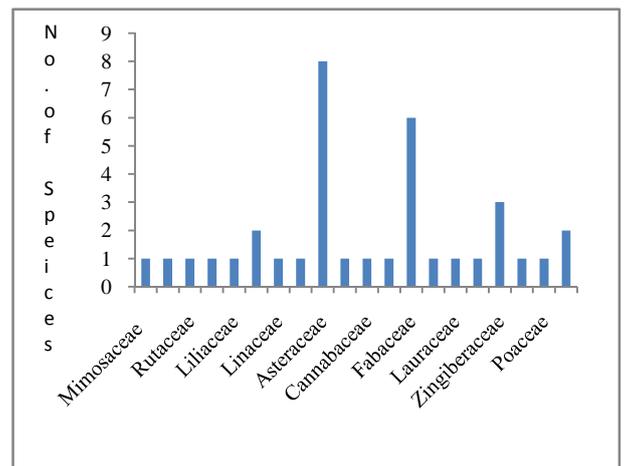
**Table1** Ethnobotanical plants used by the Mishing tribe of Golaghat District

| Scientific name                        | Local name           | Family          | Parts used                      | Ethnobotanical uses   |
|--|----------------------|-----------------|---------------------------------|---|
| <i>Acacia nilotica</i> Delile          | Babul                | Mimosaceae      | Leaf, bark and fruit            | Cough and Kidney trouble.   |
| <i>Acorus calamus</i> L.               | Boch                 | Acoraceae       | Rhizome                         | Cough and cold, fever and stomach trouble.  |
| <i>Aegle marmelos</i> (L.) Correa.     | Bael                 | Rutaceae        | Root, leaf and Fruits           | Diarrhoea and Dysentery.  |
| <i>Alangium salyfolium</i> Wangerin    | Angkul               | Alangiaceae     | Leaf, Stem, and bark            | Urinary problem.  |
| <i>Aloe barbadensis</i> Roxb.          | Salkuwari            | Liliaceae       | Whole plant                     | Skin treatment, Burn injuries.  |
| <i>Anacyclus pyrethrum</i> (L.) DC.    | Akarkara             | Asteraceae      | Root                            | Relieving from toothache.   |
| <i>Apium graveolens</i> L.             | Ajmod                | Apiaceae        | Whole plant and seed            | Toothache and Cough.  |
| <i>Artemisia annua</i> L.              | Artemisia            | Asteraceae      | Whole plant                     | Common fever and malaria.   |
| <i>Baliospermum montanum</i> Mull. Arg | Danti / Dravanti     | Euphorbiaceae   | Root, leaf and seed             | Dropsy and jaundice.  |
| <i>Berberis aristata</i> DC.           | Daruhaldi            | Berberidaceae   | Root, bark, and fruit           | Disease of Eye, ear and face.   |
| <i>Calotropis procera</i> W.T.Aiton    | Aak                  | Asclepiadaceae  | Root, Leaf and seed             | Throat trouble.   |
| <i>Cannabis sativa</i> L.              | Bhang                | Cannabinaceae   | Whole plant except root         | Insomnia, Headache, and cough.  |
| <i>Cassia fistula</i> L.               | Amaltas              | Caesalpiniaceae | Secondary Root, Leaf, and fruit | Constipation, stomach trouble.  |
| <i>Cassia angustifolia</i> Vahl        | Chenna               | Fabaceae        | Leaves and Flower               | Weight loss.  |
| <i>Chrysanthemum coronarium</i> L.     | Guлдауди             | Asteraceae      | Whole plant                     | Heart, Urinary glands, Menstruation trouble.  |
| <i>Cissus quadrangularis</i> L.        | Devil's backbone     | Vitaceae        | Stem / whole plant              | Paste of the plant used externally for joining of bone.   |
| <i>Cinnamomum zeylanicum</i> Breyne    | Dalchini             | Lauraceae       | Bark                            | Commonly uses as spices in cury.  |
| <i>Clerodendrum serratum</i> Spreng.   | Bharangi             | Verbanaceae     | Root and Leaf                   | Headache, Ear problem, Gout, stomach pain.  |
| <i>Clitoria ternatea</i> L.            | Aparajeeta           | Fabaceae        | Whole plant, flower, seed       | In Ulcer, dysentery, poisonous insect bite.   |
| <i>Curcuma zedoary</i> Bergius         | Kalo ada             | Zingiberaceae   | Rhizome                         | Use for colic, loss of appetite and indigestion.  |
| <i>Curcuma amada</i> Roxb.             | Amada                | Zingiberaceae   | Rhizome                         | Cough and cold and diabetic.  |
| <i>Cuscuta reflexa</i> Roxb.           | Aakashbolly          | Convolvulaceae  | Whole plant                     | Hair, Eye diseases, Rheumatic pain.   |
| <i>Cynodon dactylon</i> (L.) Pers.     | Dubori bon           | Poaceae         | Root and leaf                   | Headache, eye diseases. Juice of the plant mixed with little amount sugar candy to stimulate sex hormone. |
| <i>Datura metal</i> L.                 | Dhatura              | Solanaceae      | Root, bark, and fruit seed      | Headache, eye diseases, Breast pain.  |
| <i>Digitalis purpurea</i> L.           | Foxglove             | Plantaginaceae  | Whole plant , root and flower   | Used as a treatment for heart failure in addition to a range of other traditional uses.                   |
| <i>Alstonia scholaris</i> R.Br.        | Chatian              | Apocynaceae     | Bark, leaf, flower              | Boils, skin diseases, and ulcers.   |
| <i>Eclipta prostrata</i> (L.) L.       | Bhangra              | Asteraceae      | Whole plant                     | Hair tonic, toothache, diphtheria.  |
| <i>Emblica officinalis</i> Gaertn.     | Amlakhi, Amla        | Euphorbiaceae   | Root leaf, flower, and seed     | Juice of leaf and fruit is taken orally against diabetes.   |
| <i>Euphorbia thymifolia</i> Wall.      | Dudhi                | Euphorbiaceae   | Whole plant                     | Hair loss, child diarrhoea.   |
| <i>Eupatorium ayapanea</i>             | Ayapan               | Asteraceae      | Leaf and root                   | High blood pressure.  |
| <i>Ficus racemosus</i> L.              | Dimaru gas           | Moraceae        | Leaf, bark and fruit            | Hearing loss, Blood disease, Headache.  |
| <i>Ficus benghalensis</i> L.           | Badgas               | Moraceae        | Leaf, bark and fruit            | Blood purifier, and also used in kidney stone.  |
| <i>Gmeliana arborea</i> Roxb.          | Gomari               | Verbenaceae     | Leaf, bark and seed             | Pain in head, diarrhoea, Stomach pain.  |
| <i>Gymnema sylvestris</i> Schult.      | Gudmar               | Asclepiadaceae  | Whole plant                     | Juice of the plants taken against diabetes.   |
| <i>Hemidesmus indicus</i> (L.)R.Br.    | Anantmool            | Asclepiadaceae  | Root                            | Hair growth, anti abortive.   |
| <i>Hibicus rosasinensis</i> L.         | Jaba                 | Malvaceae       | Flower                          | Petals of Flowers juice mix with <i>Sesamum indicum</i> oil are used externally to increase hair growth.  |
| <i>Hyescyamus niger</i> L.             | Khurasani            | Solanaceae      | Whole plant and seed            | Toothache, ear diseases.  |
| <i>Jasminum grandiflorum</i> Chameli   | Chameli              | Oleaceae        | Whole plant and flower          | Facial problem, ear problem, Headache.  |
| <i>Kaempferia galanga</i> L.           | Chandramula          | Zingiberaceae   | Rhizome                         | Rhizome is used against dog bite.   |
| <i>Lawsonia inermis</i> L.             | Jetuka               | Lythraceae      | Leaf                            | Leaves juice applied externally for the growth of hair.   |
| <i>Lepidium sativum</i> L.             | Chandrasur           | Brassicaceae    | Root, Leaf and seed             | Hyperactive airways disorders.  |
| <i>Linum usitatissium</i> L.           | Alsi                 | Linaceae        | Whole plant and seed            | Headache, Sleeplessness, ear and eye diseases.  |
| <i>Matricari chamomilla</i> Blanco     | Chamomile            | Asteraceae      | Whole plant                     | Health debility.  |
| <i>Melia azedarach</i> L.              | Bokayan              | Meliaceae       | Leaf, bark and seed             | Cough, epilepsy, Blood diseases and pains.  |
| <i>Oxalis corniculata</i> L.           | Changeri             | Oxalidaceae     | Whole plant and flower          | Mouth odour, Headache, Dysentery, and Diarrhoea.  |
| <i>Phyllanthus amarus</i> L.           | Bhuiamla             | Phyllanthaceae  | Whole plant                     | Kidney and Urinary trouble.   |
| <i>Plumbago zeylanica</i> L.           | Chitra/Agni/Dahana   | Plumbaginaceae  | Whole plant                     | Diarrhoea, amenorrhoea and anaemia.   |
| <i>Premna integrifolia</i> L.          | Arni                 | Verbenaceae     | Root, leaf, and stem            | Liver complaints, cold and fever.   |
| <i>Psidium guajava</i> L.              | Amroot/Safari /Guava | Myrtaceae       | Leaf and Fruit                  | Headache, Teethache, Diarrhoea.   |
| <i>Psoralea corylifolia</i> L.         | Bakuchi              | Fabaceae        | Root, leaves, and seed          | Remedy of Kidney, cough and worm.   |
| <i>Pterocarpus marsupium</i> Roxb.     | Beejasar             | Fabaceae        | Heart wood and leaf             | Diabetes and leaves for skin diseases.  |
| <i>Punica granatum</i> L.              | Anar                 | Lythraceae      | Leaf, flower, Fruits            | Diarrhoea, Anaemia, Eye diseases.   |
| <i>Rheum emodi</i> Wall.               | Amalvetasa           | Polygonaceae    | Root and rhizome                | Used against ulcer.   |

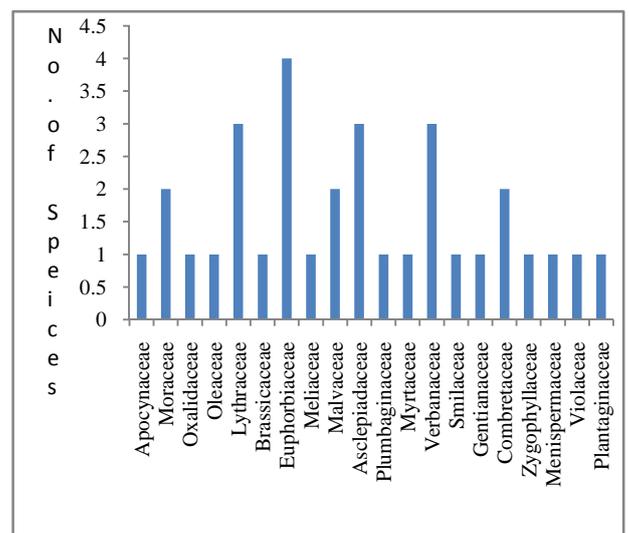
**Table1** Ethnobotanical plants used by the Mishing tribe of Golaghat District

| <i>Ricinus communis</i> L.                           | Arrand                 | Euphorbiaceae  | Leaf and seed            | Eye diseases, menstruation problem.  |
|--|------------------------|----------------|--------------------------|--|
| <i>Saraca asoca</i> (Roxb.) W.J. de Wilde            | Ashoka                 | Fabaceae       | Bark                     | Bleeding gynaecological condition.   |
| <i>Sesbania grandiflora</i> (L.) Pers.               | Augastia               | Fabaceae       | Root, leaf and Flower    | Eye diseases, Hysteria.  |
| <i>Sida cordifolia</i> Forssk.                       | Bala                   | Malvaceae      | Whole plant              | Eye and ear diseases.  |
| <i>Smilax glabra</i> Roxb.                           | Chobchini / Madhusnuhi | Smilacaceae    | Root                     | It is used for digestion.  |
| <i>Sabaeranthus indicus</i> Kurz                     | Gurukhmundi            | Asteraceae     | Whole plant and seed     | Headache, white hair, eye diseases, mouth odour.   |
| <i>Solanum indicum</i> L.                            | Brihati                | Solanaceae     | Root and fruit           | Asthma, catarrh, dropsy, chest pain chronic fever, colic.  |
| <i>Swertia chirata</i> L.                            | Chirata                | Gentianaceae   | Whole plant              | Fever, and antiworm.   |
| <i>Tagetes patula</i> L.                             | Nargee                 | Asteraceae     | Leaves, flower and seeds | Toothache, ear diseases, sexual debility.  |
| <i>Terminalia bellerica</i> (Gadrtm) Roxb.           | Baheda                 | Combretaceae   | Bark, Root and Fruit     | Use for hair growth. Fruits are powder taken against constipation.   |
| <i>Terminalia arjuna</i> (Roxb. Ex DC.) Wight & Arn. | Arjuna                 | Combretaceae   | Bark                     | Heart disease, Hair loss.  |
| <i>Trachyspermum ammi</i> Sprague                    | Ajowan                 | Apiaceae       | Whole plant and seed     | Headache, cough, ear diseases.   |
| <i>Tribulu terrestris</i> L.                         | Gukhru                 | Zygophyllaceae | Leaf and fruit           | Urinary problem, Labour pain.  |
| <i>Tinospora cordifolia</i> Miers.                   | Amrita                 | Menispermaceae | Whole plant              | About 10-20 ml juice of the plant taken orally in empty stomach early in the morning to control blood sugar. |
| <i>Viola serpens</i> Wall.                           | Banafsha               | Violaceae      | Whole plant with flower  | Bleeding piles, and constipation.  |
| <i>Withania somnifera</i> (L.) Dunal                 | Ashwagandha            | Solanaceae     | Root and leaf            | Nervous exhaustion, Spermatorrhoea.  |
| <i>Woodfordia fruticosa</i> Kurz.                    | Dhataki                | Lythraceae     | Leaves and flower        | Leaf and flower juice externally against teeth problem.  |

The interesting as well as useful aspect of human dimension on the plant diversity is unique and affected by the nature and practices among the different ethnic groups (Jain, 2000). Mising tribals have been inhabiting in different parts, nearby Nambor. Mising is a tribal community belonged to Mongoloid group – a multitude of people that followed Austro-Asiatic races to India (Singh et al., 1996). Livelihood system of Mising people is traditionally dependent on the forest resources. They are agriculturist, hard working and very much peace loving. But, in spite of their ceaseless toil and their peaceful co-existence with their Assamese non-tribal neighbours, they have remained literally and economically poor and backward. In Assam, they are distributed in most parts of the northern bank of the river Brahmaputra. Misings have distinct entities from the rest of the tribes of Assam with their special culture and tradition (Baruah and Kalita, 2007). The Mishing tribe, their main livelihood is agriculture and they have their traditional house and live on traditional system of medicine (Plate-I: A-D). The fringe tribal people are depending on the forests for the preparation of medicine, food, country-drinks, fibre, construction materials, fishing implements, fire wood, spice, broom, agricultural implements, thatch-grasses and endless materials required for various purposes. They are mostly cultivators. They live in houses made of ‘Bamboo’, known as ‘Chang-ghar’ (Plate-I-A). They are skilled persons, experts in Weaving clothes, making furniture, poultry (pig) farm etc. Still they believe their tradition and custom. They prepare ‘Rice beer’ named as ‘Apong’ (Traditional drink). They also enjoy festivals and perform rituals. They follow “Hinduism”. The Mising tribal population prepares rice beer from starter cakes made of rice flour mixed with dry powdered leaves of different plants (viz. *Ananas comosus* (L.) Merr. *Saccharum officinarum* L. *Psidium guajava* L., *Musa balbisiana* Colla., *Capsicum annum* L., *Polygonum hydropiper* L. *Piper nigrum* L. and in addition to which they add seeds of *Piper longum* L.



**Fig. 2** Diversity of plant species according to families.



**Fig. 3** Diversity of plant species according to families.

They use half boiled sticky rice as substrate and directly mix with starter culture (Kusure) but sometimes they add rice husk with the above preparation. The former is known as Nagin-aping and the later as Poro-aping. *Acorus calamus* L., *Houttuynia cordata* Thunb., *Terminalia chebula* Retz. , *Centella asiatica* (L.) Urban, *Clerodendrum colebrookianum* Walp , etc. are commonly used as medicinal plants by the Mising tribe.

## RESULTS

Enumeration of species along author citation, local name, family, parts used and their ethnobotanical uses as follows:

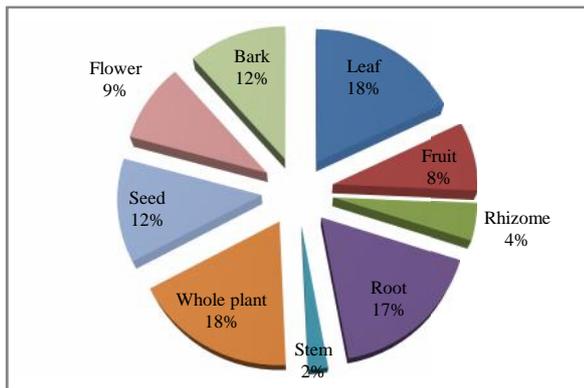


Fig. 4 Diversity of plant parts used

### Plate-I



A. Traditional Mishing house.



B. Traditional weaving of Mishing tribe



C. Fishing tool manufactured with Bamboo strip.



D. Mishing woman collecting plant material for their day to day use.

### Plate-II



A. *Curcuma amada* Roxb.



B. *Eupatorium ayapanea*



C. *Plumbago zeylanica* L.



D. *Terminalia arjuna* Roxb. Ex DC.) Wight & Arn.

## DISCUSSION

In the present study a total 70 Ethnobotanical plant species belonging to 40 families were recorded. The family Asteraceae is found to be highest having 8 species followed by Fabaceae having 6 species and Solanaceae, Euphorbiaceae with 4 species, 3 species each from Asclepiadaceae and Verbenaceae, followed by Morraceae, Violaceae, Oxalidaceae,

Combretaceae, Plantaginaceae, Malvaceae, Apiaceae each having only with 2 species and only 1 species each of the families viz. Avertroaceae, Meliaceae, Acoraceae, Cannabinaceae, Lauraceae, Vitaceae, Liliaceae, Polygonaceae, Mimosaceae, Gentianaceae, Rutaceae, Liliaceae, Convolvulaceae, Caesalpinaceae, Myrtaceae, Plumbaginaceae etc. ( Fig.2-3)

Analysis of diseases-wise plant classification showed that out of the total 70 species of plants 13 species were used as Headache, 4 species against eye troubles, 8 species for hair growth and troubles, 8 species for ear troubles and for diarrhoea-6 species, dysentery-2species, Ulcers-2 species, constipation-3 species, cough-5 species, cough and cold-2 species, fever-5 species, only 1 species for malaria, 2 species for asthma, 2 species for insomnia, 3 species Herat troubles, and 2 species for colic.

On the other hand, only one species for both diarrhoea and dysentery, liver trouble, worm, high blood pressure, burn injuries, boil, dropsy, rheumatic pain, diphtheria, jaundice, anti abortive, hysteria, colic, stomach pain, throat trouble, breast pain, weight loss, piles, bone joining, indigestion, nerves diseases, kidney stone.

In addition to that 5 species used against diabetes, 4 species against urinary troubles, 3 species used against kidney troubles, 4 species are reported against skin diseases.

Women are considered to be the backbone of the society / in the family as such they are accustomed daily stress and strain, they face different kinds of health related problem. Many plants are used in women complicacies i.e. 1 species for amenorrhea, 2 species for anaemia, 2 species as blood purification, only one species for sexual debility, 3 species for menstruation trouble.

On the other hand only 1 species used for spermatophorea formation problem, 1 species for sex hormonal deficiency.

As the Mishing tribe residing in village near to the forest, often they are bitten by different kinds of insects, snakes. In this connection in the present investigation only 1 species reported for Insect bite and 1 species reported against Dog-bite (Table-1).

It has been revealed that the medicine sometime used same species of plants for the treatment of different diseases it may due to the particular plants contain different compounds.

It has been observed that the Mishing used different underground forms of plants such as root and rhizome as medicine maximum parts used viz. Whole plant and leaf ( Fig.: 4). The study thus underlines the potentials of the ethnobotanical research and the need for the documentation of traditional ecological knowledge pertaining to the medicinal plant utilization for the greater benefit of mankind.

## CONCLUSION

Traditional knowledge is on the decline nowadays, due to the advent on the modern technologies and lack of the interest of the younger generations. Such investigation need to be conserved and prioritize and as there is no written record and it passes from one generation to next through orally for the betterment of the society at large.

## Acknowledgments

The authors are thankful to the Mishing tribe of Golaghat district of Assam who shared their valuable knowledge regarding the usefulness of the plants and their consent to publish this work. We are also thankful to the Forest official Govt. of Assam for their cooperation during field work.

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