



## Traditional Therapeutic Uses of Plants among Scheduled Caste Community of Dibrugarh, Assam, India

Shah Rajesh Kumar<sup>1\*</sup> and Das Loveleena<sup>2</sup>

<sup>1</sup>Deptt. of Zoology, D.H.S.K. College, Dibrugarh, Assam, INDIA

<sup>2</sup>Deptt. of Life Sciences, Dibrugarh University, Assam, INDIA

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### Abstract

*Various tribes all over the world use plants for treating several diseases. Although the herbal medicines are largely preferred by the rural folk for curing diseases but the newer generations are much more attracted towards the modern health care facilities. As such, there is a risk of losing the traditional knowledge on medicinal use of plants in the near future and hence it is utmost important to explore and record the uses of the medicinal plants which are traditionally being practiced by many tribes. The aim of this study is to explore and record various plants used for medicinal purposes by the Scheduled Caste people of Dibrugarh. Several ethnobotanical surveys were conducted during the period between 2010 to 2012 in different regions of Dibrugarh, Assam. Information regarding traditional health care system, uses of medicinal plants and the vernacular names of the different plants were gathered through normal conversation, interview and discussion with the local herbal practitioners as well the elderly people of the community. In our study a total of 35 plants belonging to 24 families were found to be utilized by the SC community of Dibrugarh. These plants are being utilized for curing several diseases like Gastric, Blood Urination, Jaundice, Epilepsy, Cuts and Wounds, Ear ache, Cough, Pyorrhea, , Tonsillitis Sore, Stomach pain during menstruation cycle, Dysentery, Piles, etc. The SC Community of Dibrugarh use locally available plants in their own traditional ways for treating various diseases and these phyto remedies provide a broad scope for scientists to search for new potential bio active compounds.*

**Keywords:** Ethnobotany, herbal medicines, SC community, Dibrugarh.

### Introduction

Assam occupies a very unique position in the country in terms of biodiversity. It is considered as one of the botanically rich state in India which extends latitudinally from 24°2' - 27°6' N and longitudinally from 89°8' - 96°E' and occupies an area of more than about 78,523 sq. km<sup>1</sup>. Ethnomedicine refers to "those beliefs and practices relating to disease which are the products of indigenous cultural development and are not explicitly derived from the conceptual frame work of modern medicine"<sup>2</sup>. Ethnobotany is considered to be a new branch of science which studies the plant utilization by the primitive man and tribal people<sup>3</sup>.

The state of Assam is abundant in medicinal plants which are known to the native people<sup>4</sup>. The rural folk of this region have been using plants for various ailments and they still prefer to stay with their own traditional herbal medication although the modern health care facilities are also accepted by them<sup>5</sup>. Many local communities earn their livelihood from various products which are manufactured and sold based on their traditionally gained knowledge. The herbal medications are proved to be much more safer<sup>6</sup>. A few studies on ethno medicinal plants have been carried out in Assam<sup>7-11</sup> but the objective of our study was proper documentation of the information regarding ethno medicinal plant species which are used by the people of SC

community of Dibrugarh district for curing various diseases.

### Material and Methods

During the year 2010 to 2012 regular field trips were conducted in Dibrugarh district of upper Assam. Different areas like Sesa, Natun Gaon, Binoygutia, Lepetkata, Poharikhononia Gaon, etc. where the population of the SC community is dense were selected for the study. Various information regarding the use of medicinal plants, parts use and other details were collected through normal conversation, interview and discussion with the local herbal medicine practitioners as well as with some elderly men and women of the community. After conducting the ethno botanical surveys, herbarium were prepared following standard methods<sup>12,13</sup>. The identification of the plants collected was carried out by the help of Flora of Assam<sup>14</sup> and Flora of British India<sup>15</sup>.

### Result and Discussion

A brief description of various phytomedicines used by the people of SC community of Dibrugarh for treating various diseases along with mode of preparation is given below:

**Soar in hands and legs (Gha huwa):** Betel leaf (*Piper betle*, Piperaceae) and leaves of henna (*Lawsonia inermis*, Lythraceae)

are grind with mustard oil (*Brassica campestris*, Brassicaceae) and this mixture/ paste is applied in the affected region.

Epilepsy (Mirgi Roag): To melting ghee, flesh of round snail (*Pila globosa*) is added. The mixer is taken by the patient three times per day before food which is continued for a week. It is (mixture) also applied on head.

Bone pain: Sometimes even after removal of the plaster of a fractured bone, pain in the fractured region persists. In this case, bark of tejmuri (*Xanthoxylum nitidum*, Rutaceae), black, turmeric (*Curcuma caesia*, Zingiberaceae), about 5 pieces of *Piper nigrum*, (Piperaceae) and Zinger (*Zingiber Officinale*, Zingiberaceae) are mixed and ground together. The resulting paste is applied on the affected area and tied for one complete with a cloth.

Blood Urination: Turmeric (*Curcuma domestica* or *Curcuma longa*; family: Zingiberaceae) with many nodes are selected (about 3) and roasted inside hot ashes or on frying pan. The later is grind to form a paste which is taken along with water in empty stomach.

Cuts and wound: *Plantago ero* (Plantaginaceae) leaves are grind to form paste. A little amount of salt is added and the paste is tied on the affected region for about two days. Gandhalibon leaves (*Ageratum Conyzoides*, Asteraceae) are more frequently used as antiseptic. In another method, the outer layer (green part) of Bamboo (*Bambusa balcooa*, Family: Poaceae) is scrapped to form powder. The powder is applied on fresh wound and considered to have quick healing property.

Blood Clotting: Tender twigs and leaves of Keharaj (*Eclipta alba*, Asteraceae) are grind to form paste which is applied in the affected region to prevent bleeding.

Tonsillitis: Tender bamboo stalk (*Bambusa balcooa*, Poaceae) with lots of node is selected and the pith is removed. The stalk is grind with the bark of Tejmur (*Xanthoxylum nitidum*, Rutaceae) and Moran Ginger (*Zingiber Officinale*, Zingiberaceae) are wrapped around the neck for one day with the help of a cloth.

Cracks in hands and legs: 5/7 Hibiscus (*Hibiscus rosa sinensis*, Malvaceae) flowers are crush with hands and are applied in the crack parts and left for whole night.

Ear-ache: 2 to 3 drops of extract obtained from the root of Vim kol (*Musa bulbiciana*, Family: Musaceae) are used to cure ear ache.

Infection in Ear: Leaf juice of Black tulsi (*Ocimum sanctum*, Lamiaceae) is applied inside the infected ear for 3-4 days. The juice of ash roasted round snail can also be used.

Piles: Leaves of black tulsi, *Ocimum sanctum*, (Lamiaceae) and few crystals of Michiri (Crystallized Sugar lumps) are grind

together. In about 250 ml of cow milk the paste is mixed and taken by the patient. Small pieces (2-3) of *Amorphophallus paeoniifolius* (Araceae) are put inside a banana and taken by the patient. Tender leaves of Durun bon (*Leucas aspera*, Lamiaceae) can also be used. They are grind and are put inside the anal passage. In another herbal preparation to cure piles, roots of *Scoparia dulcis*, (family Scophulariaceae, locally called Sanibon) are grind along with few black pepper and little amount of salt and boiled in 100 ml of water till the liquid is reduced to half. This preparation is to be taken by the patient in empty stomach.

Sore in mouth and tongue: Inflorescence collected from wild Malkathi (*Spilanthes acmella*, Family: Asteraceae) is crushed and is applied in affected part.

Pyorrhea: In Pyorrhea disease stem of the plant Tejmur (*Zanthoxylum nitidum*, Family: Rutaceae) can be used as toothbrush.

Dysentery: For dysentery tender Matikaduri shoots (*Alternanthera sessilis*, Family: Amaranthaceae) are boiled and is given to the patient. Alternatively, juices squeezed from the roots of Chenibon (*Scoparia dulcis*, Scophulariaceae) are taken 3 times. Juices squeezed from the leaves of Bro Manimuni (*Centella ariatica*, Apiaceae) can also be taken thrice a day.

Stomach ache during menstruation cycle: Tender leaves of Nephaphu tree (*Clerodendrum, colebrookianum*, Verbinaceae) are grind along with some pieces of black pepper (*Piper nigrum*, Piperaceae) and heated on a pan and given to the patient for three days or Roots of Vim kol (*Musa paradisiaca*, Musaceae) are grind with a little amount of salt and given to the patient on the 3rd day of menstrual cycle.

Spermatorrhea (Dhatu Bimar): Root juices of Khutura (*Amaranthus spinosus*, Family: Amaranthaceae) are taken by the patient along with honey. Sajina leaves (*Moringa delifera*, Moringaceae) and Bel (*Aegle marmelos*, Family: Rutaceae) are grind along with talmichiri. The resulting paste is added to milk and given to the patient. Another treatment includes Satmul roots. Satmul (*Asparagus racemosa*, Liliaceae) roots are grind with few crystals of talmichiri (Crystallized palm sugar) and the resulting mixture is added to cow milk and taken by the patient for three days.

Reddishness of eye: 2 to 3 drops of juices squeezed from round snail are applied in the affected eye.

Tooth pain: Leave juice of guava (*Psidium guajava*, Myrtaceae), preferably tender is applied near the aching tooth.

Body ache: Turmeric (*Curcuma longa*, Family: Zingiberaceae) boiled in cow's milk along with jiggery is give to the patient to drink.

Cough: Outenga (*Dillenia indica*, Dilleniaceae) and ginger (*Zingiber officinale*, Zingiberaceae) are mixed and grind along with little salt and then heated. Juice squeezed is given to the patient for drinking before sleep.

Cough in children: Juice obtained from roasted stem of black colocasia, Araceae is applied on the terminal part of the tongue.

Swelling of hands and legs: Root of flowering *Mimosa pudica* (touch me not), Fabaceae are taken and wore around the waist with the help of a thread. In case of excessive swelling its curry is made along with *Channa fish*.

Dysentery of Infant: In infants dysentery is treated by using Pomegranate (*Punica granatum*, family: Punicaceae) buds. These are crushed and mixed with mother's milk and are given to the infant.

Round worm in children: A few pieces of black pepper (*Piper nigrum*, Piperaceae) and about 2-3 tender leaves of bonjaluk (*Hedyotis diffusa*, family: Rubiaceae) are grind together and give to the patient.

Gastric: 3 to 7 roots of tora tree (*Alpinia nigra*, Zingiberaceae), 7 round lemons and 250 gms. of Michiri are mixed, grind and the squeezed juice is given to the patient in empty stomach.

Jaundice: Leaves of Melastoma (*Melastoma malabathricum*, Melastomataceae) are grinded and mixed with cow milk (250 ml) along with a little amount of sugar. The juice is given to the patient.

Discussion: In the present study it is found that a total of about 35 plants belonging to 24 families are variously utilized for medicinal purposes by the SC community in Dibrugarh. This community has their own herbal methods for curing different diseases by using common plants and depends largely on their indigenous knowledge for health care. These herbal medicines also provide alternative source for expensive pharmaceutical remedies. Further study is required for obtaining more information regarding the utilization of other medicinal plants by these community.

## Conclusion

The SC Community of Dibrugarh use locally available plants in their own traditional ways for treating various diseases and these phyto remedies provide a broad scope for scientists to search for new potential bio active compounds.

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