Abstract

The district of North Cachar Hills of Assam, one of the most biodiverse regions of the world is endowed with different tribes each with their own traditions, customs and method of healing. Northeast India has been a paradise for ethnobotanical research but the district of N.C.Hills, with its vast ethnobotanical wealth is virtually unexplored. The present study documents for the first time, the superstitious folkloric uses of plants to treat ailments among the different tribes. 16 species of plants has been identified with details on its method of use, disease, parts used, local name and growth forms. The study was conducted through informal interviews after prior informed consent. The study reflects a rich traditional knowledge base of the tribe on ethnomedicine with immense potential for a more detailed study with emphasis on its pharmacological aspects.

Keywords: N.C.Hills, Traditional knowledge, Superstition.

Introduction

The familiarity with the uses of plants in the field of medicine dates back to the beginning of civilization. Over the past decade, herbal medicine has become a topic of global importance in all
corners of the world. It continues to receive attention of scientist from chemical, pharmacological and clinical companies in India and abroad. Such ethnobotanical studies have led to the documentation of a large number of conventional and non-conventional medicinal plants used by tribals for meeting their multifarious requirements. Many folkloric uses of plants for medicine are now being supported by scientific studies that confirm both their safety and efficacy. The starting point in the development of many modern drugs is some reference in the use of that plant as an indigenous use in the traditional system of medicine or in folk medicine (Valiathan, 1998).

A report (2006-07) by the Ministry of Tribal Affairs states that the Indian sub-continent is inhabited by 84.3 million tribal populations, which is 8.2% of the total national population. They settle in more than 5000 forest dominated villages covering 15% of the total geographical area of Indian landmasses, representing one of the greatest emporia of ethnobotanical wealth (Chowdhury, 2000). The north-eastern part of India comprising of eight states alone harbour more than 130 major tribal communities out of a total 427 tribal communities found in India (Dutta and Dutta, 2005; Ramakrishnan, 1992). Tribal people are the ecosystem people who live in harmony with nature and maintain a close link between man and environment. Animism, symbolism, superstitious beliefs etc. plays an important part in a tribal culture. They have deep faith in their traditional method of healing which often involves superstitions.

A perusal of available literatures has shown that much research has been done in the north-eastern part of India alone (Kala, 2005; Hajra and Baishya, 1997; Borthakur, 1997; Dutta and Nath, 2000) but virtually none been documented from North Cachar Hills district of Assam (Sajem and Gosai, 2006; Tamuli and Saikia, 2004; Sajem et al, 2008). The present paper reports on some superstitious botanical folklore prevalent among different tribes of N.C.Hills district.

The Study area: North Cachar Hills district of Assam, India.

North Cachar Hills, a small hill district of Assam, Northeast India, located between 92°37’E - 93°17’E longitudes and 23°30’N - 25°47’N latitudes, lies in one of the world’s 12 mega biodiversity hotspot regions (Fig 1). It is a living anthropological museum of many ethnic tribes, such as Dimasa, Zeme-Naga, Hmar, Kuki, Biate, Hrangkhol, Khelma, Jaintia, Karbi, Vaiphei etc., each with their own unique cultures and traditional system of healing. The small hill district has a total population of 1, 86,189 and density of population is 38 person per square kilometres which is the lowest in the state of Assam (2001 census). Jhum or shifting cultivation on the hilly slopes is the traditional means of agricultural practice. It is the major mode of livelihood for indigenous
communities and is a major component of the larger agro-ecosystem that comprises of agriculture, forestry, hunting and fishing (Warner, 1991). The villages are located in isolated hilltops and far-flung areas without modern medical facilities. Thus their system of medicine has remained as the most affordable and easily accessible source of treatment for daily ailments.

**Methodology**

The study was conducted between April 2006-March 2007. Surveys were conducted through informal interviews with the traditional healers and the local cultivator. Prior informed consent was obtained before conducting the interviews. Data on the uses of plants, local name, parts used, and growth forms, method of preparation and mode of application were recorded. All the plant specimens were collected in flowering stage. A photo record of all the plant specimens has been maintained. Standard methods
plant collection and herbarium techniques have been followed in the study (Jain and Rao, 1977; Alexiades, 1996). The specimens were identified using relevant floras and standard literature (Kanjilal et al, 1982a; Kanjilal et al, 1982b; Hooker, 1989) and in consultation with the Botanical Survey of India, BSI/APC (ARUN Herbarium,) Itanagar and BSI, Eastern circle, Shillong. Voucher specimens were submitted in the Department of Ecology and Environmental Science, Assam University, Silchar.

**Results**

The study revealed the usage of 16 plant species used for the treatment of different ailments. The plant species collected are enumerated in alphabetical order, giving information on its botanical name, family, common name, local name, and method of use and dosage.

**Enumeration**

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Family</th>
<th>English Name</th>
<th>Local Name</th>
<th>Disease</th>
<th>Part used</th>
<th>Method of use</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Acorus calamus</em> L.</td>
<td>Areceae</td>
<td>Sweet Flag</td>
<td>Namchek (Zeme)</td>
<td>Prevention of food allergy (due to black magic)</td>
<td>Rhizome</td>
<td>A small piece of the rhizome is eaten before food. It is believed to render the magic potion added in food materials ineffective. (Zeme).</td>
</tr>
<tr>
<td><em>Allium cepa</em> L.</td>
<td>Liliaceae</td>
<td>Onion</td>
<td>Piat (Jaintia)</td>
<td>To cure any eye disease/evil eye</td>
<td>Bulb</td>
<td>The bulb is cut into half and hold near the eye (Dimasa). This causes tears to</td>
</tr>
</tbody>
</table>
flow which is believed to cleanse the eye of all its impurities and evil eye (Jaintia).

**Botanical Name**: Bauhinia scendens L.  
**Family**: Caesalpinaceae  
**English Name**: Snake Climber  
**Local Name**: Zongleilon (Hmar)  
Suthaibiding (Dimasa)  
Lutichhreh chitein sangragh (Jaintia)  
N’rui pichai ria/N’rui teso ria (Zeme)  
**Disease**: Black magic/curse/evil spirits  
**Part used**: Stem  
**Method of use**: A piece of the stem (~60 cm) is kept inside the house. It is believed to ward off black magic and curses (Dimasa). It is also believed by the Zemes that it could ward off evil spirits.

**Botanical Name**: Citrus aurantium L.  
**Family**: Rutaceae  
**English Name**: Orange  
**Local Name**: Serthlum (Vaiphei)  
**Disease**: Infection  
**Part used**: Thorn  
**Method of use**: The thorn is used to remove other thorns stuck in body parts. It is believed to prevent infection. It is also used to prick a raised body scar which is allowed to bleed for sometime. It flattens the raised scars (Vaiphei).

**Botanical Name**: Cyclosorus extensa (Bl.) Ching.  
**Family**: Polypodiaceae  
**Local Name**: Limbirsi (Dimasa)  
**Disease**: Shingles
Part used                : Leaves
Method of use        : 10-15 young leaves are collected and the patient is beaten with it, in and around the infection till it bleeds. The traditional healer performs chants during the whole process. The leaves are then burned to ash and then applied over the wounds (Dimasa).

Botanical Name      : *Cymbopogon martewii* (Roxb.) Wats
Family                                : Poaceae
English Name         : Ginger Grass or Rosha Grass
Local Name                        : Nithal (Biate)
Disease                   : Headache
Part used                : Leaves
Method of use        : Water extract is applied over the head. A piece of the long leaf is also tied around the head (Biate).

Botanical Name      : *Dioscorea bulbifera* L.
Family                                : Dioscoreaceae
Local Name                        : Jarma ske (Jaintia)
Disease                   : Enuresis
Part used                : Leaves
Method of use        : Leaves are washed, cleaned and placed on the plate on which food is served. This is done for 1 week to cure enuresis (Jaintia).

Botanical Name      : *Erythrina variegata* L
Family                                : Papilionaceae
English Name         : Coral tree
Local Name                        : N’tahabe bang (Zeme)
Disease                   : Seizure from extreme pain of stomach and heart (Black magic)
Part used                : Roots
Method of use        : The roots are crushed and ~ 5 ml of the juice is taken. It is also believed by
the Zeme Nagas that a person who possess black magic cannot sit on a stool/chair made out of this wood (Zeme).

Botanical Name : *Euphorbia antiquorum* L.
Family : Euphorbiaceae
English Name : Triangular Milkwort
Local Name : N’rangpali (Zeme)
Disease : To ward off evil spirits
Part used : Whole plant
Method of use : It is used as border plants and planted around the houses. It is believed to ward off evil spirits (Zeme).

Botanical Name : *Euphorbia roylaena* Boiss.
Family : Euphorbiaceae
Local Name : N’rangbang (Zeme)
Disease : To ward off evil spirits
Part used : Whole plant
Method of use : It is used as border plants and planted around the houses. It is believed to ward off evil spirits (Zeme).

Botanical Name : *Ficus glomerata* Roxb.
Family : Moraceae
Local Name : Theithot (Hmar)
Disease : Eye disease
Part used : Leaves
Method of use : Seven clean leaves are taken and made into a cone. It is then filled with water and heated. This water is then applied in the eye for any eye problems. (Hmar)
Botanical Name: *Gossypium herbaceum* L.
Family: Malvaceae
English Name: Cotton tree
Local Name: Pat (Vaiphei)
Kunthlai (Dimasa)
Disease: Insomnia
Part used: Seeds
Method of use: Pillows made out of seeds of this plant are believed to cure insomnia. (Vaiphei & Dimasa).

Botanical Name: *Musa paradisiaca* L.
Family: Musaceae
English Name: Banana
Local Name: Laigonthai (Dimasa)
Disease: To ward off evil spirits
Part used: Shoot part
Method of use: The shoot part is used in religious rites, festivals, ceremonies etc. They are tied at the entrance of the venue of celebration which is believed to drive off evil spirits so that the programmes can be carried out without any problems.

Botanical Name: *Sanseviera zeylanica* Roxb.
Family: Agavaceae
English Name: Ceylon Bowstring Hemp
Local Name: Santu P’sain (Jaintia)
Disease: To ward off evil spirits and other unwanted living beings such as snakes, scorpions etc.
Part used: Whole plant
Method of use: It is planted around the house compounds.
<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Scroparia dulcis L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>Scrophulariaceae</td>
</tr>
<tr>
<td>English Name</td>
<td>Sweet Broomweed</td>
</tr>
<tr>
<td>Local Name</td>
<td>Gymbat Pdyp (Jaintia)</td>
</tr>
<tr>
<td>Disease</td>
<td>Stomach ache, (said to be due to the dislocation of the navel)</td>
</tr>
<tr>
<td>Part used</td>
<td>Root</td>
</tr>
<tr>
<td>Method of use</td>
<td>Roots are crushed and made in to a paste and applied on the navel. A piece of the root is also tied over the navel with a black thread to correct the location and thus cure the pain (Jaintia)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Urena lobata L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>Malvaceae</td>
</tr>
<tr>
<td>English Name</td>
<td>Congo jute</td>
</tr>
<tr>
<td>Local Name</td>
<td>Saberthied (Jaintia)</td>
</tr>
<tr>
<td>Disease</td>
<td>Sprain</td>
</tr>
<tr>
<td>Part used</td>
<td>Roots</td>
</tr>
<tr>
<td>Method of use</td>
<td>Crushed and applied on the swellings and bandaged. Then pieces of roots are tied around the swellings. It is believed to prevent further swelling and reduce the pain (Jaintia)</td>
</tr>
</tbody>
</table>

**Discussion**

From the enumeration it is clear that different tribes in N.C.Hills district still practice their age old customs and has a strong interrelationship with plants and their usage in their customs and traditional method of healing. As many as four species, *Musa paradisiaca* L., *Euphorbia antiquorum* L., *E. roylaena* Boiss. and *Bauhinia scendens* L. are identified which, the tribal people believe, ward off evil spirit. Although their method of healing has a superstitious background, some of the species such as *Erythrina variegata* L., *Acorus calamus* L. and *Cymbopogon martenii* (Roxb.) Wats can be scrutinised using scientific methods. The study also reveals some unique and unconventional methods of treating common ailments. It is a common belief among the Biate,
Vaiphei, Hmar, Hrangkhol and Kuki tribe that licking a little salt or wetting the toes gives relief from burning eyes due to chillies. The Hmars, Vaiphei and Biates believe that applying a little lime (CaCO\(_3\)) in the lobes of the ears cures caterpillar stings. It is also common among the Vaiphei tribe to apply a little lime (CaCO\(_3\)) around the navel to cure flatulence and the villagers swear upon its effectiveness. Besides plants, it was also observed that some insects and animal parts are also being used for certain diseases such as, the dried gall bladder of a hoolock gibbon is used in the treatment of diabetes, crabs in the treatment of jaundice etc. The superstitious beliefs connected with certain plants explain how much the indigenous people were close to nature. ‘These superstitious beliefs in those plants may not be as imagined by the people but it reveals their deep faith in the mysterious power of divine commands that evil would befall on him or her, or their beloved ones etc. if they violated such beliefs’ (Mao, 2000).

**Conclusion**

The study thus shows that there is a vast wealth of both ethnobotanical and ethnozoological treasures which warrants a more detailed study. But due to the reduction in land holdings and increase pressure on shifting cultivation, youth on the area under study are seeking other avenues of livelihood in nearby towns, and as such, younger generation appears to be less interested in the traditional healthcare system or in the conservation of such resources. It is therefore high time to record wherever possible such indigenous botanical folklore of the various tribes. Systematic investigation of the plants to establish the pharmacological activity is anticipated to lead to development of newer and safer drugs as well as spur conservation of such unique habitat and its resources.

**Acknowledgements**

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**References**


