Ethnomedicinal and Aromatic Plants Use to Health Care
And Cooking Purposes by the Singphoo Tribes of
Tinsukia District of Assam, India.

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Abstract - Besides the basic needs - food, clothing and shelter, plants have served mankind by providing medicines to fight against different ailments. Traditional healing systems using various plant species play an important role in maintaining the physical and psychological well being of the vast majority of tribal people in India. Tribal communities living in remote hamlets of the country are still dependent on the traditional systems of medicines for their primary health care rather than the allopathic medicines. The present study focuses on the medicinal and aromatic plants traditionally used to health care and cooking purposes by the Singphoos particularly confined to Tinsukia district of Assam emphasizing on documentation and preservation of these plants through participatory rural appraisal exercise and interview. Indeed, the Singphoos are renowned for their consumption of wild aromatic leafy vegetables in their routine diet which have potent medicinal value.

Index Terms - Ethnomedicinal, Tribal community, Singphoo tribe, documentation.

I. INTRODUCTION

Singphoo is an ethnic tribe Burmah (Myanmer) in origin and at present mainly confined to the Tinsukia district (96º15'-96º1'E latitude and 27º14'-27º59'N longitude) of Upper Assam, Tirup and Lohit district (91º30'-97º30' E longitude and 26º28'-29º0'N latitude) of Arunachal Pradesh, India extending from China, Thiland and Myanmar. The Tinsukia district is bounded from north by Lakhimpur district and Arunachal Pradesh, from South and east by Arunachal Pradesh and West by Dibrugarh district. It covers an area of 3676.4 sq. km and divided into three subdivisions viz. Tinsukia, Sadiya and Margherita. The district is characterised by moderate climate with a maximum average temperature of about 32ºC and a minimum of about 9ºC and average rainfall is more than 250 cm and average annual relative humidity of about 75%. The vegetation of the district comprises of an admixture of deciduous, semi-evergreen and evergreen forests. Singhoos are residing in interior villages under subdivision Margherita of the district particularly on the bank of rivers, hill sides and mountains florist with natural vegetations. Mostly they are dependent on agriculture and forest resources for their livelihood. Singphoos have rich and unique culture and traditions. They have been using a good number of plants as medicine to treat different common ailments. Many wild aromatic plants used by the tribe as vegetables and spices to impart taste and flavour of their various recipes depending upon seasonal availability. Traditionally cooked recipes of Singphoos using wild aromatic leafy spices not only eating pleasure but also have potent medicinal value. The boiled recipes serve along with the fine grained rice (Metyngu) packed with the leaf of Phrynium pubinerve (Ko-Pat) "Satmukai" have a high position in their society traditionally used in different festivals, socio-religious occasions and to serve special guest. Due to exceptional delicacy Satmukai and traditional recipes of the tribe attract many food lovers of Assam, Arunachal Pradesh and abroad to the restaurants grown up in Margherita.

II. METHODOLOGY

Our present study was carried out in the Katatong area of Margherita Sub-division which is concentrated with most of the Singphoo villages. It was based on participatory appraisal and discussions with common people of the community and interviews with the traditional healers who were regularly using the plants to treat different ailments in their locality. Desired information and photographs were collected through periodical tours to the study site during 2010-11, 2011-12. Plant specimens were collected along with key informants on site visit. Sample specimens were prepared through herbarium technique to facilitate identification. Taxonomic identification of the specimens was done with the help of renowned taxonomists, "Flora of Assam" (Kanjilal et al. 1934-1940) and "Flora of British India" (Hooker, 1872-1897). Voucher specimens are now kept in the Department of Botany, Margherita College and Digboi College for ready references.

III. ENUMERATION, RESULTS AND DISCUSSIONS

Table: Plants used as medicine by Singphoos in different common ailments and their mode of use.

<table>
<thead>
<tr>
<th>Sl.no.</th>
<th>S=Singphoo name</th>
<th>A=Assamese name</th>
<th>E=English name</th>
<th>Scientific name and Family name</th>
<th>Mode of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ning ang kion</td>
<td>Ban dhania</td>
<td>Sweet broom</td>
<td>Scoparia dulcis. L Scrophulariaceae</td>
<td>Leaf extract is used in dysentry and...</td>
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<tr>
<td>2</td>
<td>S=Um bung jhu A=Kukur hita E=Dhaman</td>
<td>Grewia elastica. Tiliaceae</td>
<td>Root extract is used to treat tuberculosis.</td>
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<td></td>
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<tr>
<td>3</td>
<td>S=Fam shi A=Si Ju E=Common milk hedge</td>
<td>Euphorbia nerifolia. L Euphorbiaceae</td>
<td>Fresh leaf latex is rubbed on finger swelling.</td>
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<tr>
<td>4</td>
<td>S=Jong gu san A=Kapow Dhekia E=Lygodium</td>
<td>Lygodium pulmatum. L. Lygodiaceae</td>
<td>Leaf juice is used in asthma.</td>
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<tr>
<td>5</td>
<td>S=Kung mon A=Mahudi E=</td>
<td>Croton joufra Euphorbiaceae</td>
<td>Root extract is used by the female after child birth.</td>
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<tr>
<td>6</td>
<td>S=Na matap A=Damdeoka E=Garden balsam</td>
<td>Impatiens glandulifera. Royle Balsaminaceae</td>
<td>Leaf pest is used to treat skin diseases.</td>
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</tr>
<tr>
<td>7</td>
<td>S=Shi kang A=Katahi bangana E=Poison berry</td>
<td>Solanum indicum. L Solanaceae</td>
<td>Fruit is used in tooth ache.</td>
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<tr>
<td>8</td>
<td>S=U impic A=Suhani ban E=</td>
<td>Splenethus acmella Asteraceae</td>
<td>Whole plant is used in tooth ache, throat disease and cancer.</td>
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<tr>
<td>9</td>
<td>S=Ka khan A=Somborial E=Bala</td>
<td>Sida cordifolia. L Malvaceae</td>
<td>Whole plant is used in back pain.</td>
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<td></td>
</tr>
<tr>
<td>10</td>
<td>S=Shi kang A=Katahi bangana E=Poison berry</td>
<td>Solanum indicum. L Solanaceae</td>
<td>Fruit is used in tooth ache.</td>
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<td></td>
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<tr>
<td>11</td>
<td>S=Khamoupa A=Naphafu E=</td>
<td>Clerodendron colebrookianum Verbenaceae</td>
<td>Tander leaves are used in high blood pressure</td>
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<tr>
<td>12</td>
<td>S=Inga fun sun A=Gathion E=Indian crocus</td>
<td>Kaempferia rotunda Zingiberaceae</td>
<td>Root tubers are boiled and grind and eat with boiled rice in stomach trouble</td>
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</tr>
<tr>
<td>13</td>
<td>S=Mun ga A=Sajina E=Drum stick</td>
<td>Moringa oleifera Moringaceae</td>
<td>Leaf extract is used in high blood pressure,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>S=Ting kang kag A=Doron E=Leucas</td>
<td>Leucas aspera Lamiaceae</td>
<td>Leaf extract is used in allergy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>S=Maga making A=Modar E=Murica</td>
<td>Erythrina stricta Papilionaceae</td>
<td>Tender leaf juice is used in asthma and bark juice is used in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>S=Sumbung pang A=Matikanduri E=Racaba</td>
<td>Alternanthera sessilis Amaranthaceae</td>
<td>Leaves are used in indigestion.</td>
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<td></td>
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<tr>
<td>17</td>
<td>S=Salaw pa A=Hati khutara E=Amaranthus</td>
<td>Amaranthus spinosus Amaranthaceae</td>
<td>Whole plant extract is used in liver disorder.</td>
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<tr>
<td>18</td>
<td>S=Giyaq ban A=Nilaji ban E=Touch me not plant</td>
<td>Mimosa pudica Mimosaceae</td>
<td>Plants boiled in water and used to wash mouth to get relief from toothache.</td>
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<tr>
<td>19</td>
<td>S=Maksaram lap A=Tita bahak E=Malabar nut</td>
<td>Adhatoda vasica Acanthaceae</td>
<td>Leaf extract is use to treat cough and asthma</td>
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<td></td>
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<tr>
<td>20</td>
<td>S=Khira lap A=Madhusoleng E=</td>
<td>Polygonum microcephalum Polygonaceae</td>
<td>Young shoots are used to treat rheumatism, arthritis, gout, kidney stone</td>
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<td></td>
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<tr>
<td>21</td>
<td>S=Banjiikhun A=Pahari padina E=Pepper mint</td>
<td>Mentha spicata lamin E=Lamiaceae</td>
<td>Young shoots are used in gas, acidity, indigestion.</td>
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<td></td>
</tr>
<tr>
<td>22</td>
<td>S=Hpuung yang nazu A=Sangmora E=</td>
<td>Liasia spinosa Araceae</td>
<td>Fresh leaf juice is used with peper in dysentery</td>
<td></td>
<td></td>
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<tr>
<td>23</td>
<td>S=Mangah pun nah peq A=Madhurium E=Gwava</td>
<td>Psidium guwawa Myrtaceae</td>
<td>Bark juice is used in dysentery.</td>
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<td></td>
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<tr>
<td>24</td>
<td>S=Bau lap A=Pan E=Betel leaf</td>
<td>Piper betel Piperaceae</td>
<td>Leaf juice is used with clove in indigestion.</td>
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</tr>
<tr>
<td>25</td>
<td>S= Singkae lap A=Masandari E=Musanda</td>
<td>Houttuynia cordata Thumb Piperalceae</td>
<td>Whole plant is used in dysentery, indigestion, measles, stomach trouble.</td>
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<td></td>
</tr>
<tr>
<td>26</td>
<td>S=Matung ban A=Ban tulashi E=Baclicium</td>
<td>Ocimum gratissimum Linn Lamiaceae</td>
<td>Leaf juice is used in indigestion, coughs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>S=Yangma chingdu A=Dubari bon E=Grass</td>
<td>Cynodon dactylon Poaceae</td>
<td>Leaf juice is use to treat sinus trouble.</td>
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<td></td>
</tr>
<tr>
<td>28</td>
<td>S=Hom lap A=Jetuka E=Mahendi</td>
<td>Lawsonia inermis Lythraceae</td>
<td>Leaf extract is use in various skin diseases.</td>
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</tbody>
</table>
There is no proper documentation of the ethno-medico-botanical knowledge of Singphoo tribe inhabited in Tinsukia district. Hence, it is an urgent need for exploration and documentation of traditional knowledge of the tribe in order to determine the conservation value of the local forest resources. Present study includes information on 30 number of plant species, belonging to 23 number of families which are used by the Singphoo tribe in remedies for various diseases. The study offers a great deal of ethnobotanical knowledge that has been handed down generation after generation and are in current practice as remedial measure to get rid of some common ailments. It is hope that, this information will be useful lead for researchers and pharmacologists for further study. Extensive study will certainly be effective in popularizing the age old traditional Indian health care system and for wider application.

IV. CONCLUSION

The diversified cultural heritage in India loosing its cultural characters due to introduced modern cultures brought by electronic media from other parts of the world. But, many tribes who have their roots in interior rural areas flourish with natural vegetation still relish traditions of their own. Singphoo is one of the twenty tribes of Assam handed down their age old traditions generation after generation till today. Traditional boil recipes without use of any oil of Singphoo completely organic and found to be healthy. Green cover has been decreasing gradually day by day. Conservation of these diversity of medicinal and wild aromatic plants is therefore most important for the sustenance of age old tribal cultures. It is hope that the information will be of use for future in-depth research in this direction.

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