Medicinal Plants Used in Curing Major Ailments by the Jaintia and Rongmai Naga Tribes Settled in Barak Valley

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Abstract

This paper deals with the Ethnobotanical study of the Jaintia and Rongmai Naga tribes settled in Barak Valley of Assam. The study on them revealed that, they are settled in different parts of Barak Valley since a long time and they have been able to preserve their cultural heritage and knowledge about the usefulness of plants and animals in their day to day life for curing ailments. From the information gathered, it appears that the Jaintia and Rongmai Naga tribes have vast knowledge regarding the cure of various major ailments of human beings by using the plants growing around their habitat. The major part of the information gathered are regarding some major diseases i.e diabetes, high blood pressure, heart ailments, piles, malaria, bone fracture, jaundice, cataract etc. Study also revealed that, the Jaintia’s are practicing Jhum cultivation and their main source of income is Pan Jhum. While, Rongmai Naga’s are mainly practicing rainfed settled cultivation system as they are living in the plain areas.

Key words: Barak Valley (Assam), Ethnobotany, Jaintia tribe, Jhum cultivation, Rongmai Naga tribe.

Introduction

Ethnobotany deals with the immediate relationship between human societies and plants. It has been recognised as a multidisciplinary science comprising many interesting and useful aspects of plant science. Its importance has been realised mainly in respect to varied economic uses of plants among the primitive human societies.

Human beings have been using various plants and animal products to deal with various diseases from time immemorial. As per WHO report, about 40%-60% population of non-industrialised countries and 40% of industrialised countries still utilize traditional systems of health care (Syiem, 1999). All over the world, there has been an increasing interest in scientific study of man-plant interaction in natural environment, which is clearly visible among the indigenous people, commonly designated as tribes (Gupta, 1995). Jain (1981) made an extensive review of ethnobotanical studies in India.

The importance of gathering information on medicinal plants is to initiate their proper scientific management and exploitation for the economic development of the area. Ethnobotanical study is of immense importance in relation to medicinal science. Now it is a well established branch of science which has been given much attention. India is fortunate to have about 16,000 species of flowering plants. From among them, a large number are used as traditional and folk-lore remedies.

Now though modern medicine is considered superior, many westerners and scientists are looking towards herbal drugs as it has no side-effects. A vast majority of such plants are very familiar to tribals of India.
The Tribal people have immense knowledge about the plants & plant products. But with the spread of modern education, cultural invasion and gradually growing urbanization, the traditional knowledge base system is eroding. It is feared that, due to lack of proper documentation and conservation of bio-diversity, the traditional knowledge base with them may vanish within a few more years/generations. Like other parts of the world, the plant resources of North-East India are declining. Many ethnobotanically important plant species which were abundant till a few years back, are becoming rare.

Keeping the above in view, in the present work an attempt has been made to determine and inventory the status of medicinal plants and the plants known to be having medicinal value and their uses by the Jaintia and Rongmai Naga tribes settled in Barak Valley (South Assam).

About the Tribes

Jaintia : According to the historians and on the basis of records available the Jaintias are stock of Mon-Khmer people of Indo-China. They resemble Mon-Khmer people in some basic points of language, festivities and the custom of erecting stone monoliths. Therefore, it could be said that Jaintias may have come from the south east, first to the splendid valleys of Assam and then to beautiful Meghalaya.

The exact time of their migration is not known but it is assumed that the final migration might have taken place out of the rivalry of religion and culture followed by the conquest of Assam by Naraka of Mithila between 200-500 AD. The Jaintias first entered into the present hills known as Jaintia Hills through the south of the river Kupli. Jaintia people of Barak Valley in the foothills of K&J Hills mainly came from Trangblang in Jowai district of Meghalaya about 100 years ago. Their migration seems to be mainly due to the infertility of soil in the jhum field, transport problem, business interaction problems etc. Therefore, due to these reasons, some of the Jaintia peple migrated to the foothills of Barak Valley as the area was found to be very much favourable for Jhum cultivation.

Rongmai Naga : The Nagas are powerful indigenous group consisting of about 40 sub-tribes, who have for centuries inhabited the Naga hills at the trijunction of China, India and Myanmar. Their home is the meeting place of the so called brown and yellow races of Asia. The Nagas basically seems to have migrated from China through patkai hills section and settled on the way in the Naga Hills. Rongmai Nagas were first inhabited in Muklungdi, which is situated in China-Myanmar border. From Muklungdi Rongmai Nagas diverted to Mayanmar border and Langmai to the north side. After that Rongmai’s came to Barak Valley during eight century from Myanmar border. The main reason for this migration by the Rongmai people to the Barak Valley was due to the fact that they were regularly attacked by the Kukis, who had always fought with the Rongmai people and captured their women. The Kuki naga in fact seems to have forced the Rongmais to migrate to Barak Valley.

Methodology

The present work is an attempt to inventory the ethnobotanical knowledge of the Jaintia and Rongmai Naga tribes. The information regarding the uses of medicinal plants, animals, economic plants, home garden etc. were gathered from different persons, villagers and local medicine men during the field survey to different areas inhabited by the two tribes as mentioned above in Barak Valley, South Assam.

After reaching the site, the village Headman and medicine men were interviewed and the information regarding the medicinal plants use along with the voucher specimen (Jain and Rao, 1976) to prepare the herbarium for record and information, the process of preparation of medicine and therapeutic applications were recorded. The name of the plants have been arranged alphabetically followed by Scientific name, family, vernacular name, parts used, mode of use in a tabular form. Appropriate herbarium sheets were prepared for the identification/ confirmation of identification of the plant species collected. Confirmation of identification was done.
by consulting the Botanical Survey Herbarium of Shillong and Dehradun.

**Result and Discussion**

The authors have surveyed the medicinal plants used for curing major diseases and have noted 30 medicinal plants along with their Scientific name, Vernacular name, family, parts used, mode of preparation etc. These are shown in the Table 1. From the study it has been reported that, different parts of medicinal plant species are used by the Jaintia and Rongmai Naga tribes as medicine for curing diverse type of ailments.

The plants collected have been traditionally used for treating the ailments by the village elders as well as medicine-men of both the tribes (Jaintia, Rongmai Naga) for different major ailments i.e diabetes, high blood pressure, heart ailments, piles, malaria, bone fracture, jaundice, cataract, goiter, diarrhoea, dog bite etc. From the study it has been recorded that, some plants are also found to be in use, among the tribals to cure some major diseases i.e the use of *Terminalia arjuna*, *Tamarindus indica*, *Tinospora cardifolia*, *Clerodendrum* sp. *Eugenia cuminii* against heart problem, diabetes mellitus and high blood pressure. *Boerrhavia diffuse* & *Piper betle* to cure cataract, *Cissus quadrangularis*, to cure bone fracture, *Alocasia indica* & *Adhatoda vasica* to cure piles, *Bryophyllum pinnatum* &*HomaIomena aromatica* to cure urinary problems.

Some information regarding the use of animal products as a medicine is also revealed in the course of the investigation. Among them, Cockroach (*Periplanta americanana*) and horn of goat (preferably black coloured) (*Capra hircus*) to cure asthma, stomach and intestine of porcupine (*Manis crassicaudat*) is said to cure female diseases occurring after delivery (Table : 2). The present study also revealed that some of the medicinal plants collected are found to be grown in their homegardens and many of them are used as edible fruits or vegetables. Some peculiarities have also been observed about one plant, locally known as ‘Bajrabaan’. People belonging to Jaintia community believe that, persons equipped with this plant can develop resistance against the attack of evil powers.

Another information gathered from one Jaintia village was about the cure of fever. As reported the mode of preparation is that, the axe is made to red hot and then splashed into water and as a result the water turns warm. In this lukewarm water (kept in a big sized container) the patient (suffering from fever/bodyache) keeps his/her body submerged upto knee level and he/she gets relief of the ailments. Study also revealed that Jaintia’s are mainly practicing Jhum cultivation. But their main source of income is Pan Jhum, an alternative to Jhum cultivation. It is also observed that both the tribes under study have their own home gardens. So they are more or less dependent on them. Plants in the home gardens include fruit trees, timber yielding trees, vegetable crops, bamboo species etc. The home gardens are in their immediate surroundings, through which they are able to maintain the beneficial plant biodiversity as a source of medicine and shelter. (Table : 3)

From the information gathered, it appears that the Jaintia & Rongmai Naga tribes are settled in Barak Valley since a long time and they have vast knowledge about the cure of various kinds of ailments of human beings, by using the plants growing around them in their immediate vicinity. It is estimated that leaf & roots are the most important plant organs used for medicinal purposes. But the practice of herbal medicine is on the decline among the tribal societies.

**Table 1** : List of medicinal plants used for curing major ailments by the Jaintia and Rongmai Naga tribes

<table>
<thead>
<tr>
<th>SI No.</th>
<th>Scientific Name</th>
<th>Family</th>
<th>Vern. Name</th>
<th>Parts used</th>
<th>Purpose and mode of use</th>
<th>Tribes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Adhatoda vasica</em> Nees</td>
<td>Acanthaceae</td>
<td><em>Vosak</em></td>
<td>Leaves</td>
<td>Decoction of leaf juice of white variety is taken orally to cure piles. 1 leaf of <em>A. vasica</em> is mixed well with <em>Zingiber officinale</em> and <em>Allium sativum</em> is taken with honey to cure asthma.</td>
<td>R/J</td>
</tr>
<tr>
<td>SI No.</td>
<td>Scientific Name</td>
<td>Family</td>
<td>Vern. Name</td>
<td>Parts used</td>
<td>Purpose and mode of use</td>
<td>Tribes</td>
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</tr>
<tr>
<td>2</td>
<td>Allium sativum L.</td>
<td>Liliaceae</td>
<td>Enumfuamnai Rasun</td>
<td>Bulb</td>
<td>Bulb is taken orally to reduce high blood pressure. Paste of the bulb is mixed with the paste of <em>A. sepo</em> is applied externally on the affected area to cure from cat bite.</td>
<td>J/R</td>
</tr>
<tr>
<td>3</td>
<td>Averrhoa carambola L.</td>
<td>Averrhoaceae</td>
<td>Forchang</td>
<td>Fruit</td>
<td>Juice of the fruit is taken orally to cure jaundice.</td>
<td>J/R</td>
</tr>
<tr>
<td>4</td>
<td>Azadirachta indica A. Juss.</td>
<td>Meliaceae</td>
<td>Sleneckm</td>
<td>Leaves</td>
<td>Leaves are boiled in water and used at the time of bath to prevent infection from smallpox and other skin diseases.</td>
<td>J/R</td>
</tr>
<tr>
<td>5</td>
<td>Bombax ceiba L.</td>
<td>Bombacaeae</td>
<td>Koaha</td>
<td>Root</td>
<td>Root is grinded and mixed with water &amp; kept overnight. The juice so obtained is taken orally in empty stomach every early morning to cure white discharge.</td>
<td>J</td>
</tr>
<tr>
<td>6</td>
<td>Boerhaavia diffusa L.</td>
<td>Nyctaginaceae</td>
<td>Punarnava</td>
<td>Leaves</td>
<td>Leaf juice is used to cure cataract.</td>
<td>J</td>
</tr>
<tr>
<td>7</td>
<td>Bryophyllum pinnatum (Lam). Kurz.</td>
<td>Crassulaceae</td>
<td>Patharkuchi</td>
<td>Leaves</td>
<td>Leaf is taken orally to get relief from urinary troubles and for the release of kidney stone.</td>
<td>J/R</td>
</tr>
<tr>
<td>8</td>
<td>Caloccia esculenta (L). Schott.</td>
<td>Araceae</td>
<td>Khahu</td>
<td>Whole plant</td>
<td>Cooked tuber is used as vegetable to cure goiter. Shoot is used to cure jaundice.</td>
<td>J</td>
</tr>
<tr>
<td>9</td>
<td>Calotropis procera (Air). R. Br.</td>
<td>Asclepiadaceae</td>
<td>Akanda</td>
<td>Leaves</td>
<td>Slightly heated leaves are used in affected parts of the body to get relief from muscular pain.</td>
<td>R</td>
</tr>
<tr>
<td>10</td>
<td>Camellia sinensis (L). Kurtz.</td>
<td>Theaceae</td>
<td>Chad</td>
<td>Leaves</td>
<td>Green leaves are used to reduce high blood pressure.</td>
<td>J</td>
</tr>
<tr>
<td>11</td>
<td>Catharanthus roseus (L). G. Don.</td>
<td>Apocynaceae</td>
<td>Nayantara</td>
<td>Leaves</td>
<td>Tablet is made by leaf paste and then it is taken orally in diabetes.</td>
<td>R</td>
</tr>
<tr>
<td>12</td>
<td>Centella asiatica L.</td>
<td>Apioaceae</td>
<td>Manipuri pata</td>
<td>Leaves</td>
<td>The extracted juice of leaves are used as a heart tonic and remedial for high blood pressure.</td>
<td>J</td>
</tr>
<tr>
<td>13</td>
<td>Cissus quadrangularis L.</td>
<td>Vitaceae</td>
<td>Lepongriang</td>
<td>Stem &amp; leaves</td>
<td>Paste of young shoot and leaf is used in bone fracture and as pain killer.</td>
<td>J</td>
</tr>
<tr>
<td>14</td>
<td>Clerodendrum glandulosum</td>
<td>Verbenaecae</td>
<td>Pressurepata</td>
<td>Leaves</td>
<td>Leaf juice is taken orally to reduce high blood pressure.</td>
<td>R</td>
</tr>
<tr>
<td>15</td>
<td>Costus speciosus (Koen. Ex. Retz.) Snn.</td>
<td>Costaceae</td>
<td>Jummothium</td>
<td>Root</td>
<td>Root juice is mixed with milk and taken orally against leucorisa.</td>
<td>R</td>
</tr>
<tr>
<td>Sl No</td>
<td>Scientific Name</td>
<td>Family</td>
<td>Vern. Name</td>
<td>Parts used</td>
<td>Purpose and mode of use</td>
<td></td>
</tr>
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<td>----------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Coriandrum sativum L.</td>
<td>Brassicaceae</td>
<td>Sarset</td>
<td>Rhizome</td>
<td>Fresh rhizome paste is applied on the painful portion of human body or in animals is more effective as pain killer &amp; bone fracture.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Cyathula prostrata (L.) Bl.</td>
<td>Aizoaceae</td>
<td>Dauhanpat</td>
<td>Leaves</td>
<td>Paste of leaves is applied externally to cure dog and cat bite.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Homalomena aromatica Schott.</td>
<td>Araceae</td>
<td>Ysopam</td>
<td>Rhizome</td>
<td>Rhizome juice mixed with little water is taken to promote urination.</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Houttuynia cordata Thumb.</td>
<td>Dipsacaceae</td>
<td>Tupat</td>
<td>Whole plant</td>
<td>Juice of whole plant is good for proper urination.</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Myrtantes arborescens L.</td>
<td>Rubiaceae</td>
<td>Sia seyri</td>
<td>Leaves</td>
<td>Leaf juice is taken orally against malaria.</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Ocimum gratissimum L.</td>
<td>Lamiaceae</td>
<td>Lepone</td>
<td>Leaves</td>
<td>The leaf juice is used to cure problem of eye.</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Piper betle L.</td>
<td>Piperaceae</td>
<td>Panthai</td>
<td>Leaves</td>
<td>Leaf juice is used externally to cure cataract.</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Phyllanthus virgatus Frost.</td>
<td>Euphorbiaceae</td>
<td>Ratalu</td>
<td>Seeds &amp; Leaves</td>
<td>Seed and leaf paste is used externally over throat against pain, specially for children.</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Plumbago zeylanica</td>
<td>Plumbaginaceae</td>
<td>-</td>
<td>Root</td>
<td>Juice of root is taken orally to cure jaundice.</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Ricinus communis L.</td>
<td>Euphorbiaceae</td>
<td>Veranda</td>
<td>Leaves</td>
<td>Slightly warmed leaves with mustard oil are used externally on body to get relief from muscular pain.</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Sarcum officinarum L.</td>
<td>Poaceae</td>
<td>Kuiar</td>
<td>Stem</td>
<td>Stem juice is taken against jaundice.</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Syzygium cumini (L.) Skeels.</td>
<td>Myrtaceae</td>
<td>Kalajam</td>
<td>Fruit</td>
<td>Ripe fruit is eaten raw to cure diabetes.</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Tamorindus indica L.</td>
<td>Caesalpinaceae</td>
<td>Sapein</td>
<td>Fruit</td>
<td>Juice of the fruit is mixed with water and taken orally in hypertension. Same is applied on head to reduce high blood pressure.</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Ficus benghalensis (Willd.)</td>
<td>Moraceae</td>
<td>Ileptheinket</td>
<td>Stem</td>
<td>Stem is cut into small pieces and added with water and kept overnight. The juice so obtained is taken orally in empty stomach. This is good for heart.</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Terminalia arjuna (Roxb.)</td>
<td>Combretaceae</td>
<td>Arjun</td>
<td>Bark</td>
<td>Dried bark is mixed with tea or milk and taken orally in diabetes. Bark is boiled and the juice so obtained is mixed with milk and is taken in heart problem.</td>
<td></td>
</tr>
</tbody>
</table>

J = Jaintia  
R = Rongmai Naga
Medicinal Plants Used in Curing Major.....

Table 2: List of animals used as medicine by the Jaintia and Rongmai Naga Tribes.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Common name</th>
<th>Scientific name</th>
<th>Local name</th>
<th>Mode of utilization</th>
<th>Tribes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Cockroach</td>
<td><em>Periplanata americana</em></td>
<td>Telchura</td>
<td>The whole body is inserted into banana and are eaten to cure asthma.</td>
<td>J</td>
</tr>
<tr>
<td>3.</td>
<td>Earthworm</td>
<td><em>Pheretina posthuma</em> Fn. Br.</td>
<td>Kecho</td>
<td>Earthworm mud is applied externally on the lower abdomen to promote urination.</td>
<td>J</td>
</tr>
<tr>
<td>4.</td>
<td>Goat (Preferably black coloured)</td>
<td><em>Capra hircus</em></td>
<td>Kalo khasi</td>
<td>The horn of black goat is being turned into ashes by fire and this is mixed with honey and make tablet of it and taken twice a day to cure asthma. (Folk belief).</td>
<td>J</td>
</tr>
<tr>
<td>5.</td>
<td>Porcupine</td>
<td><em>Manis crassicaudat</em></td>
<td>Cheda</td>
<td>Stomach &amp; intestine of porcupine are dried &amp; eaten raw to cure female diseases occurring after delivery.</td>
<td>J</td>
</tr>
</tbody>
</table>

Table 3: List of plants used as vegetable by the Jaintia and Rongmai Naga tribes

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Scientific name</th>
<th>Family</th>
<th>Local name</th>
<th>Mode of utilization</th>
<th>Tribes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><em>Centella asiatica</em> L.</td>
<td>Apiaceae</td>
<td>Manipuripata</td>
<td>Leaves are used as vegetable.</td>
<td>J/R</td>
</tr>
<tr>
<td>2.</td>
<td><em>Homalomena aromatica</em> Schott.</td>
<td>Araceae</td>
<td>Ysapein</td>
<td>Stem is used as vegetable.</td>
<td>J</td>
</tr>
<tr>
<td>3.</td>
<td><em>Ipomea aquatica</em> Forst.</td>
<td>Convulvulaceae</td>
<td>Kalmisak</td>
<td>Leaves are used as vegetable.</td>
<td>J</td>
</tr>
<tr>
<td>4.</td>
<td><em>Moringa oleifera</em> Lam.</td>
<td>Moringaceae</td>
<td>Sajna</td>
<td>Fruit is used as vegetable.</td>
<td>J/R</td>
</tr>
<tr>
<td>5.</td>
<td><em>Adhatoda vasica</em> Nees.</td>
<td>Acanthaceae</td>
<td>Vasak</td>
<td>Leaf and flower is used as vegetable.</td>
<td>R</td>
</tr>
<tr>
<td>6.</td>
<td><em>Colocasia esculenta</em> (L.) Schott.</td>
<td>Araceae</td>
<td>Kachu</td>
<td>Tuber is used as vegetable</td>
<td>J</td>
</tr>
</tbody>
</table>
Some of the major reasons for this are the rapid developmental works at the cost of natural and useful (mainly forest products) bio-diversity, increased popularity of allopathic medicines and gradual decline of interest in the new generation for the traditional medicinal use i.e use of herbal medicine, etc. Besides, the complex chemical composition of the herbal medicine, may not get easy recognition from the scientific community.

Therefore, detailed study is required to be taken up for the chemical analysis of the plants used as medicine by the tribes (i.e. Rongmai Naga, Jaintia) to detect the active ingredients present in them. Further chemical studies will be taken up to prove their properties to control the ailments as recommended by the tribal medicine practitioners to prove their credibility to be used as medicine and for their commercialization.

Some studies on ethnobotany have been reported from Barak Valley in the recent past. The valuable information of ethnobotanical aspects of Reang tribes settled in Barak Valley have been known through the works of Dutta Choudhury M., (2000). Das (2006) worked on different communities of Cachar District. Dutta & Dutta (2001) reported on the medicoethnobotanical knowledge of the seven tribes settled in Barak Valley. (i.e. Dimasa, Halam, Deb Barma, H’mar, Jaintia, Kuki and Rongmai). Das et al., (2002) have reported 72 plant species from 42 families, used against some common ailments of the tea tribes settled in the Barak Valley. Dutta & Dutta (2005) have also reported about the potential of ethnobotanical studies in North East India with special reference to Barak Valley. Das et al., (2010) have published a book on the medicinal plants of Southern Assam covering the tribes settled in the area.

The present report is an addition to the knowledge on ethnobotany of Rongmai Naga and Jaintia tribes settled in Barak Valley and therefore should be useful to the concerned people at large.

Acknowledgements
We would like to convey our heartfelt gratitude to Jaintia and Rongmai Naga communities who have readily interacted and provided warm...
Plate I: Catharanthus roseus (L.) G. Don.

Plate II: Croton scabiosus Beddome.

Plate III: Bombax ceiba L.

Plate IV: Piper betle L.

Plate V: Bryophyllum pinnatum (Lam.) Kurtz.
hospitability to us. We would like to express our
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Anand Barman, Sri Jahar Sikidar, Pouchun
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the tribal villages for the above mentioned study.

References


Introduction

The Karok have a long history of utilizing and preserving indigenous knowledge and wisdom to sustain themselves and their environment. This knowledge is often passed down through generations and is deeply embedded in their culture and traditions. However, with the modernization of society and the rapid loss of traditional practices, there is an urgent need to preserve and promote this knowledge to ensure its continuity.

The project aims to document and disseminate knowledge about the use of medicinal plants among the Karok community. This involves conducting interviews with knowledgeable elders, recording their insights, and compiling them into a comprehensive resource. The information will be shared through various platforms, including local community events, workshops, and educational programs.

The project also seeks to integrate traditional knowledge with modern science to develop new applications and products. This could include the development of medicinal products, herbal remedies, and other natural products that are both effective and environmentally friendly.

The significance of this project lies in its potential to bridge the gap between traditional and modern knowledge, fostering a deeper understanding and appreciation of indigenous knowledge. It also has the potential to support local economic development by creating new opportunities in the field of natural products.

Conclusion

The project has successfully documented and compiled valuable knowledge about the use of medicinal plants among the Karok community. The information has been shared through various platforms, reaching a wider audience.

The project's success in integrating traditional knowledge with modern science highlights the importance of preserving and promoting indigenous knowledge. It provides a model for other communities to follow, fostering a broader understanding and appreciation of the value of traditional knowledge.

In conclusion, the project has made significant contributions to the field of indigenous knowledge and has the potential to support local economic development. It is a testament to the power of collaboration between traditional and modern knowledge systems.
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Introduction

Understanding knowledge, skill, and disease.


Abstract

Medical plans based on the disease characteristics.