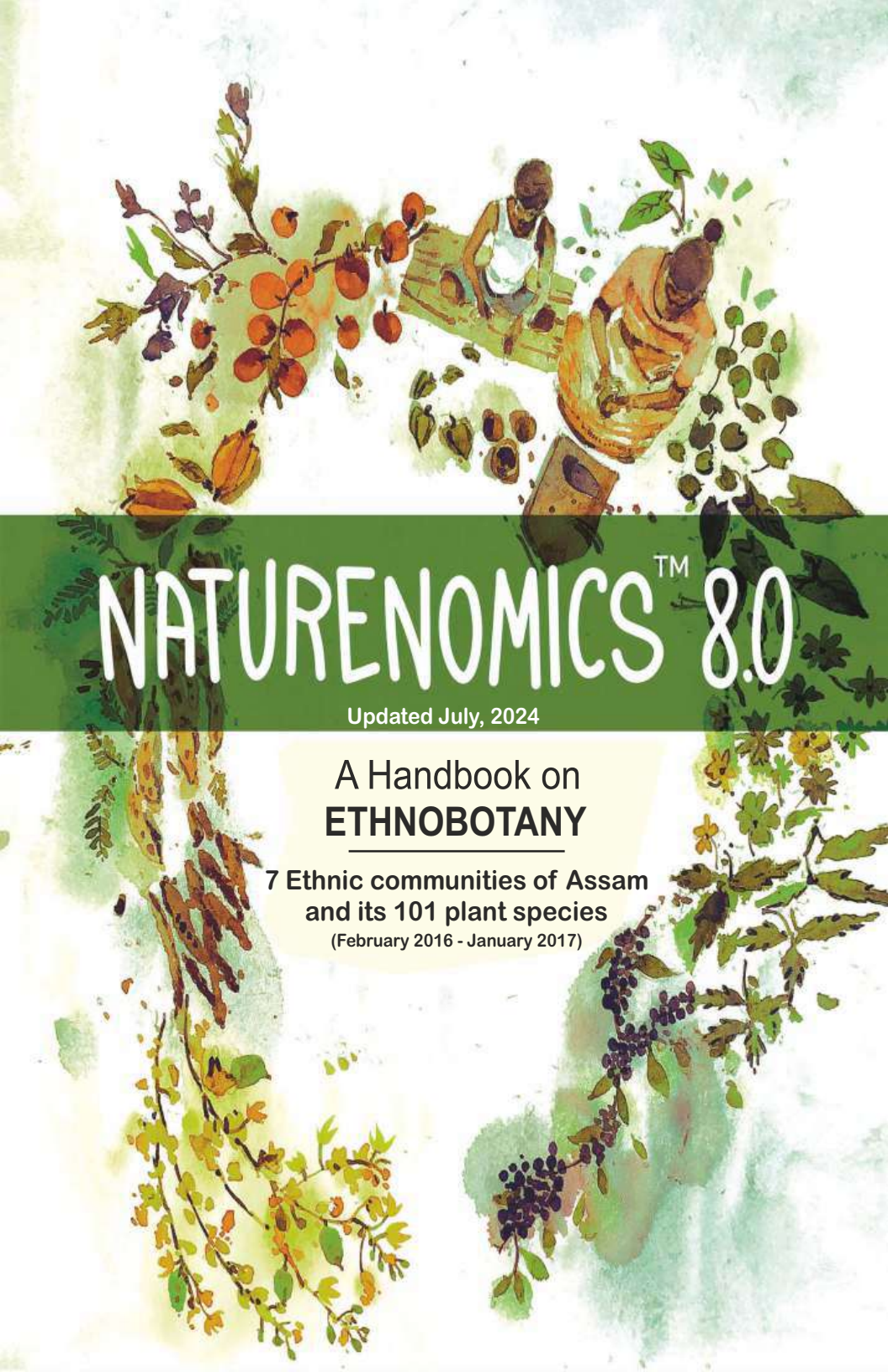

# NATURENOMICS™ 8.0

Updated July, 2024

## A Handbook on
## ETHNOBOTANY

**7 Ethnic communities of Assam and its 101 plant species**

**(February 2016 - January 2017)**

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## ETHNOBOTANY

**7 Ethnic communities of Assam and its 101 plant species**

(February 2016 - January 2017)

BALIPARA FOUNDATION
Assam • India

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BALIPARA FOUNDATION
Assam • India

Assamese

Bodo

Garo

Mishing

Nepali

Nyishi

Tea Tribes

BALIPARA FOUNDATION
Assam • India

# ABOUT THE BOOK

The Eastern Himalayan region is inhabited by more than 490 ethnic communities who share an interdependent relationship with the abundant biodiversity in the region.

This handbook is a compilation of the commonly used plants for traditional medicines, food and culture by seven ethnic communities of the Eastern Himalayas- Tea tribes, Assamese, Bodo, Garo, Mishing, Nepali and Nyishi inhabited in Sonitpur district of Assam, India. It mentions a total of 101 species and each plant is defined with their scientific names, vernacular names, description, habitat, parts which are used, medicinal use, economic importance and its flowering and fruiting period. It was crucial to document this booklet because the knowledge and importance of these highly valuable plants is reducing with each passing generation. It is imperative that the ecological knowledge of these communities stays intact and documented for better use of the community and also the larger world.

The present study is not only an effort to document how ethnic communities interact with plants for their existential requirements, but also to study how much of this knowledge is confined across generations. Using baseline data from previously conducted research on uses of various plants by different communities, the present study has also tracked the changes of ethnobotanical knowledge over the past three living generations of seven ethnic communities belonging to the Sonitpur district of Assam, India.

The next phase of this is to carry out an extensive study which involves different districts of Assam and their varied communities and indigenous plants. This study will also bring out the scientific analysis behind the medicinal properties of the plant species.

# About Balipara Foundation

Launched in 2007, the Balipara Foundation takes a community based approach to conservation through a proprietary concept **Naturenomics™ (Nature+Economics)**. Building on the principle of **ecology is economy**, we equip **indigenous & forest-fringe communities in the Eastern Himalayas to manage their natural assets, creating resilience against the climate crisis for both biodiversity and people**.

The Foundation's multidisciplinary team of over 50 people passionately collaborates with indigenous & forest-fringe communities to achieve this through **Rural Futures: a model for creating incomes through rewilding forests and agricultural lands.** Through the enriched natural capital, communities in the Eastern Himalayas **access & deliver universal basic assets** such as education, healthcare, renewable energy, etc.

From Snowline to Sealine the Eastern Himalayas Spanning from Eastern Nepal to China's Southwest mountains, the Eastern Himalayas are both biodiversity and culturally rich, with over 400 indigenous communities and 12000 unique species. Today both communities and rare species are threatened by rampant deforestation and ecological degradation, shrinking livelihoods and climate change. But the region's rich forests offer the perfect opportunity for an experiment in alternatives to extractive growth by reconciling people and biodiversity through restorative natural capital economies the Naturenomics ™ Civilization.

Nature underpins the economy and extractive, ecology destroying growth has spurred the climate crisis, calling for a fundamental rethink of how we use natural capital. Through Rural Futures, we strengthen local natural capital economies supported by sustainable businesses. The outcome is an alternative to exploitative and destructive growth sustainable development that balances lives, livelihoods and land to build resilience among communities and biodiversity on the frontlines of climate change.

# In A Few Words

**Ranjit Barthakur**
*Founder Forester, Balipara Foundation*

Growing up in this biocultural paradise I was fascinated by the art and science of Botany, as I was fascinated by its anthropological history. In the face of the recent, rapidly changing ecosystems facing the stress of human development, I realize that **botany and nature cannot stand apart from human development**. It is essential to build into our cultures, an understanding of our interdependent relationship with nature, making it important to study human communities and their web of relationships with the flora and fauna around them.

Charles C Mann writing in *1491: New Revelations of the Americas Before Columbus* documented how the natural landscape of the Northern Americas were indelibly shaped by the Native Americans. Scientific studies on the biocultural history of the Amazon rainforest now show that the rainforest we once thought pristine was once a food forest, meticulously cultivated and managed by pre-Columbian indigenous societies in Latin America. Even today, 80% of the world's biodiversity lives within indigenous managed land, which accounts for 22% of our world's total land.

Frank Kingdon Ward's works have shaped a lot of my beliefs and ideals. An adventurous explorer and renowned botanist, he had a lasting impression on the study of the eastern Himalayan region's botanical resources.

Way back in the 1980s, J.D. Hooker's writings provide an exhaustive documentation of the flora of northeastern India. After reading these writings, I became aware of the importance of these natural resources and the part they have played, and continue to play in preserving culture and promoting the well-being of future generations. This makes me passionate about protecting this natural resource so that future generations may benefit from it.

In a world facing both climate and biodiversity crisis today, the scientific community is slowly waking up to the vast knowledge and experience indigenous communities have in managing vulnerable terrestrial and marine ecosystems. In the absence of indigenous fire management techniques and conservation techniques focusing on keeping landscapes untouched, vicious wildfires and the spread of invasive species reveal how important indigenous management practices have been in preserving the health and biodiversity of ecosystems. As indigenous languages face extinction, vital medicinal knowledge and ecological knowledge risk being lost forever.

Ethnobotany as a field emerged in the 1940s, along with anthropological interest in indigenous societies and their relationships with the natural world – but also in the hunt for disease-resistant variants of commercial species like rubber crops. Richard Evans Schultes, considered the father of modern ethnobotany, was one of the scholars who initially united these research interests, before committing himself fully to understanding the botanical knowledge of the indigenous people of the Amazon. His study with those communities revealed the extent of destruction of both the Amazonian rainforest, and its indigenous peoples, and the interlinkages between the two.

Building on Schultes' research, ethnobotany has focused heavily on the medicinal and therapeutic uses of plants. In his book *Tales of a Shaman's Apprentice* the author Mark J. Plotkin describes his work in the Amazon rainforest researching the curative powers of plants used by shamans, including their potential uses. Scholars like Dr. Peter Raven have

focused on understanding how indigenous people have their own unique taxonomy and classification. Others, like indigenous scholar, Keewaydinoquay Peschel, used ethnobotany as a means to document swiftly disappearing indigenous knowledge and to preserve cultural practices and traditions of Great Lakes Native Americans. More recently, scholars like Prof. Xu from Kunming University have use ethnobotanic research techniques to document wild food and crop variants with genetic properties that enhance nutrition, or have greater climate resilience, to drive food security.

Indigenous scholars like Robin Wall Kimmerer have been writing about the reciprocal relationships that indigenous communities have with nature and their rich body of traditional ecological knowledge. In *Braiding Sweetgrass*, she offers an alternate scientific lens for the natural world: interdependence.

It is this interdependence that forms the bedrock of Naturenomics™: interdependence of economy and ecology. Since 2007, the circular relationship between good ecology and good economy has been the guiding principle behind the Balipara Foundation's work. Our natural assets, and the enhancement of our natural assets lies behind our drive to innovate, to explore and find the best solutions for the future of the region's biodiversity.

For the indigenous people of the Eastern Himalayas, Naturenomics™ has always been a way of life, and their key to understanding both wellbeing and economy. They are the stewards of the Eastern Himalayas' plenteous natural assets. Today, economic pressures and pressures of assimilation are threatening this fragile interdependence – and the abundant ecological knowledge and practices of these communities. Yet it is this knowledge and stewardship that has played an indispensable role in guiding our work to enhance, restore and regenerate our natural assets.

The wealth of information on tribes and medicinal plants found in Verrier Elvin's writings has persuaded me that there are more similarities between Indo-Tibetan people, flora, and wildlife than differences; political boundaries, not natural ones, are the only factors that have formed the demarcation.

The Eastern Himalayas stretch from snowline to sealine, uniting 400 ethnic communities who speak over forty different languages across a landscape that covers three biodiversity hotspots. It is a polyphonous mélange of cultures mingling with nature, birthing a rich body of knowledge and traditions around the values of the natural world. Yet despite is biocultural diversity, it remains one of the least studied areas of the world and the knowledge of its indigenous people, from Nepal to Myanmar and down south to Bangladesh, is swiftly vanishing as languages, cultures and tradition come under pressure today.

As the Eastern Himalayas face rising climate risks and burgeoning biodiversity loss, its indigenous communities and their knowledge will be the key to thriving biodiversity, resilience and climate security to create the Naturenomics™ civilization. It will take not only the science of botany, but the practice of anthropology for communities to document, preserve and practice this knowledge. It is only with the stewardship of our indigenous communities, after all, that we can nurture interdependence between ecology and economy. This study is the first step towards this, covering the traditional ecological knowledge of seven ethnic communities in the climate-vulnerable district of Sonitpur in Assam. It covers 101 medicinal plants, with their unique uses across the Garo, Mishing, Adivasi, Nyishi, Nepali, Assamese and Bodo communities. This book marks the beginning of our ethnobotanical journey across the Eastern Himalayas, as we continue to learn from its communities on the road to seeding natural assets for a resilient, net zero future. I hope that it inspires many others to reach out to their communities and in documenting it, recognize the value of this knowledge for what it is: hope for our imperiled future.

# PREFACE

Ethnobotany is the scientific study of the relationships that exist between people and plants. It is the study of how people of a particular culture and region make use of indigenous (Native) plants. Since their earliest origins, humans have depended on plants for their primary needs and existence. Plants provide food, medicine, shelter, dyes, fibers, oils, resins, gums, soaps, waxes, latex, tannins, and even contribute to the air we breathe. Most indigenous communities also use plants in ceremonial and spiritual rituals.

Tribes that have developed an intimate knowledge of various plants and their medicinal uses have played an invaluable role in the development of Ayurvedic medicines. In a recent study, the All India Coordinated Research Projects have credited these ethnic communities with the knowledge of 9000 plant species, out of which—7500 are used for human healing and veterinary health care. Dental care products like datum roots and condiments like turmeric used in cooking and ointments are also tribal discoveries, as are many fruit trees and vines. Ayurvedic cures for arthritis and night blindness owe their origin to tribal knowledge.

Northeastern states of India harbor more than 200 tribal communities out of the total 645 tribes found in India, thus representing one of the greatest regions of ethno-botanical knowledge.

These ethnic communities, settled mostly on the fringes of forest regions, hold within their cultures a vast repertoire of plant based knowledge. For generations these communities have developed an intricate knowledge of the resources that plants provide for almost all of their existential requirements, viz., food, shelter and medicine, besides also contributing to their cultural and spiritual ethos. Their knowledge and wisdom are imparted through oral tradition from older generation to younger generation. This mode of knowledge transfer is quite vulnerable when the younger generations are losing their interest and faith in traditional knowledge and wisdom of their forefather at the present scenario. Therefore, much of this traditional plant knowledge is being lost across the descendants of tribal communities. The westernization and homogenization of cultures, fast-tracked by the rapid access of affordable technology (satellite TV, mobile internet) and the replacing of traditional plant products with industrial products have eroded the flow of knowledge from generation to generation and becoming more and more non-existent. It is not an unlikely scenario that within a few generations this unwritten knowledge will vanish completely. Therefore, an attempt has been made to document the ethno botanical knowledge associated with seven indigeneous communities inhabited in Sonitpur district of Assam, India in a systematic manner.

# CONTENTS

# ETHNOBOTANY AND US

- Various ethnobotanical studies have been conducted across tribal communities of the Northeastern region of India. These studies have primarily focused on documenting the extent of plant uses, and most of this information has been derived from certain knowledgeable individuals and/or practitioners of herbal remedies.

- Ethnobotanical studies were carried out from February 2016 to January 2017 (Updated May, 2021) among the seven different ethnic communities inhabiting in Sonitpur district. These studies mainly explored the different ethnobotanical plants used by the different community members namely Assamese, Bodo, Garo, Mishing, Nepali, Nyishi and Tea tribes for various purposes. Primary information was collected from aged old or elderly people, village heads, and herbal practitioners of each community.

- Prior Informed Consent (PIC) from the villagers was obtained before the information on ethnobotanical knowledge related to ethnomedicinal wisdom was collected during field visit as per the CBD guidelines (UNEP. 2007).

- Plant species were identified using literature, like 'The Flora of British India' (Hooker 1872 – 1894) and 'Flora of Assam' (Kanjilal et al. 1934 –1940). Plant taxonomist were consulted.

- Compilation of collected data of each plant species, arranging in alphabetical order and presenting a brief about the plant's description and their uses by the seven ethnic communities in terms of traditional medicines, food and culture.

# STUDY AREA AND ITS INHABITANTS

**STUDY SITE:** Erstwhile Sonitpur district of Assam.

Erstwhile Sonitpur (The present Sonitpur and Biswanath districts) is the second largest district of Assam situated on the north bank of the river Brahmaputra. The district is bordered by Arunachal Pradesh in north, river Brahmaputra in south; Lakhimpur district in east and Darrang in the west (Figure 1).

**Coordination:** 92°16' East- 93°43' East longiture & 26°30' North- 27°01' North latitude, of North East India.

**Area:** 5324 sq. km on the northern banks of Brahmaputra, the second largest district of Assam.

**Population:** 19, 24,110 as per 2011 Census.

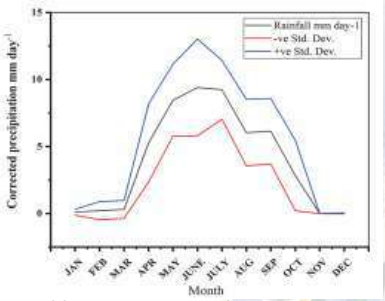
**Demography:** Not entirely homogenous as several linguistic, religious and ethnic communities and groups live in the Sonitpur district.

**Communities:** Assamese, Bodo, Mishing, Tea tribes, Nepali, Rabha, Rajbongshi, Garo, Nyishi, Adi, Munda, Apatani, Lama etc. are some important communities.Out of these, seven major ethnic communities i.e. **Assamese, Bodo, Mishing, Tea tribes, Nepali, Nyishi and Garo** have been selected for the present study.

*Figure 1: Map of study area, erstwhile Sonitpur district of Assam, India*

**Climate:** Sonitpur district comes under the Sub-Tropical climatic region, and exhibit Monsoon type of climate. Summer is hot and humid with heavy downpour mainly caused by the moisture-laden South-West Monsoon on striking the Himalayan foothills of the North.

The Temperature ranges from 24°C to 35°C in the summer months and falls to 12°-28°C in the winter months of October to February with an average temperature of 16°C




*Monthly average corrected precipitation mm day$^{-1}$ of Sonitpur district from 2013 to 2022 (Source: https://power.larc.nasa.gov)*















# ASSAMESE COMMUNITY

The Assamese community is a subgroup of the people of Assam and their dialect is Assamese. This community traditionally includes Hindu groups like Ahoms, Assamese Brahmins, Moran and Motok, Kaibarta, Kalitas, Koch Rajbongshis, Sutiyas, etc. and celebrate Bihu as their major festival. Agrarian in nature, rice is their staple diet and they are renowned for their craftmanship in bamboo and cane art. Another important aspect of the cultural life of the Assamese people, particularly women, is weaving of fine silk and cotton cloths of various oral and other decorative designs. Traditional dress of men-folk of the Assamese community includes skirt *'Dhoti'* the lower garment and floral scarf *'Gamusa'* tied around the waist and over the head for men. The women-folk wear '*Mekhela Chadar'* a set of lower and upper garment made of fine silk, *'Muga'.* They wear bangles made of brass or silver known as *'Gamkharu',* neckpieces known as *'Dholbiri'* and *'Junbiri'.* The present study was conducted in Gomani Forest Village, Sonitpur, Assam. Assamese culture is traditionally a hybrid one developed due to assimilation of ethno-cultural groups of Austric, Dravidian, Tibeto-Burman and Tai origin in the past. Therefore, both local elements and the local elements in Sanskritised forms are distinctly found. The major milestones in the evolution of Assamese culture are: Assimilation in the Kamarupa Kingdom for almost 700 years (under the Varmans for 300 years, Salastambhas and Palas for each 200 years). Settlement of the Chutia dynasty in the 12th century in eastern Assam and assimilation for next 400 years. Establishment of the Ahom dynasty in the 13th century AD and assimilation for next 600 years. Assimilation in the Koch Kingdom (15th–16th century AD) of western Assam and Kachari Kingdom (12th–18th century AD) of central and southern Assam. Vaishnava Movement led by Srimanta Shankardeva (Xongkordeu) and its contribution and cultural changes. The Vaishanava movement, the 15th century religio-cultural movement under the leadership of Srimanta Sankardeva (Sonkordeu) and his disciples have provided another dimension to Assamese culture. A renewed Hinduisation in local forms took place, which was initially greatly supported by the Koch and later by the Ahom Kingdoms. The resultant social institutions such as *namghar* and *sattra* (the Vaishnav Monasteries) have become part of the Assamese way of life. The movement contributed greatly towards language, literature, and performing and fine arts of Assamese community.

# BODO COMMUNITY

Bodo is a Tibeto-Burmese-speaking ethnic group in Assam. The word 'Bodo' has been derived from the word 'Bod' means Tibet. Bodo tribes are known to be the earliest settlers in Assam. As the primitive settlers of Assam valley, the Bodo community is considered to be the most traditionally and culturally rich community of the state. The plant called Siju is worshipped as a symbol of *Bathou* symbol. Bodos are a part of the greater Bodo-Kachari family of ethno-linguistic groups and are spread across northeastern India and clustered strongly in Assam, along the eastern Duars. They are the first to cultivate rice and rear silkworms. They are the largest ethnic group of tribes with a population close to 1 million. The Bodo language is recognized as one of twenty-two scheduled languages in the Indian Constitution. The Bodo-Kachari, to which the Bodo people belong, are thought to have entered Assam sometime around 5000 years ago after Austroasiatic language speakers from Southeast Asia had settled the region. The Bodo people are recognized as a plains tribe in the Sixth Schedule of the Indian Constitution. They are concentrated within Udalguri, Chirang, Baksa, Bajali, Sonitpur, Goalpara, Dhemaji, Lakhimpur and Kokrajhar districts. They are among the first inhabitants of the Brahmaputra valley. Bodos have historically practiced Bathouism, and a form of forefather worship called "*Obonglaoree*". In the Bodo language, '*Ba*' means five and '*thou*' means deep. Since, Bodos believe in the five mighty elements of God – land, water, air, fire, and ether – the number five has become significant in the Bathou religion. Thetree (*Euphorbia milii* var. splendens), is taken as the symbol of Bathou and worshipped. In addition to Bathouism, some Bodo people also follow Hinduism and Christianity. Bodo houses are built of bamboo and cane, they follow a plant-based diet and most of them are settled farmers, though they formerly practiced shifting cultivation. Dresses and ornaments of the Bodos are the symbol of their traditional art and culture. They weaved different kind of clothes like "*Dokhna*" (Women's dress for covering the whole body), "*Jwmgra*" (Chadar or orna or scarf of woman), "*Gamsha*" (Cloth for covering the lower part of the body by men and sometimes used while bathing), "*Phali*" or "*Rumal*" (Handkerchief), "*Hishima*" (Big and wide cloth used as rugs during the winter season) etc. out of the threads of *Eri* and *Muga*. Rice wine is produced from fermented rice mainly during festivals. The present study was conducted in Sengelimar Bodo Village, Sonitpur, Assam.

# GARO COMMUNITY

Garos are the second largest tribe of Meghalaya state of India. They were brought to Assam by the British rulers. Around the year 1000 B.C., the Garo people left the highlands of the Himalayas and made their way to the fertile valleys of Northeast India and Burma. They are settled mostly in the foothills of Arunachal Pradesh. The Garo language belongs to the Bodo–Garo branch of the Tibeto-Burman language family. The Garos are one of the few remaining matrilineal societies in the world. The individuals take their clan titles from their mothers. Both men and women enjoy adorning themselves with varieties of ornaments like nadongbi, natapsi, ripok etc. Garos are very liberal in their food habits. They rear goats, pigs, fowls, ducks etc. and relish their meat. The biggest among Garo festivals is the Wangala, celebrated in the honor of their deity, 'Saljong', who is believed to provide them with nature's bounties as well as ensure their prosperity. This festival is usually celebrated as thanks-giving after harvest in October or November. The Garos call themselves 'Achik Mande' which literally means 'hill man'. Traditionally, the youngest daughter (nokmechik) inherits the property from her mother. Sons leave the parents' house at puberty and are trained in the village bachelor dormitory (nokpante). After getting married, the man lives in his wife's house. In Garo habitations, the house where unmarried male youth or bachelors live is called Nokpante. The women were forbidden from entering the Nokpante. Any woman who broke this rule was considered tainted or "marang nangjok". But this is a thing of the past and all children are given equal care, rights, and importance by the parents. Garos are a matrilineal society but are not to be mistaken to be matriarchal. While the property is owned by women, the men govern the society and domestic affairs and manage the property. The Garo people have traditional names. However, the culture of modern Garo community has been greatly influenced by Christianity. Different stages of dress habits are to be found nowadays amongst the Garos. In the most interior areas the men use a small piece of cloth worn between the thighs (gando), and the women wear reeking, i.e., a small piece of cloth about forty five centimeter wide, and one 50 half meter long round the waist. Sometimes a shirt or jersey is used by the men, and a blouse or a black jersey are worn by women to cover the upper part of the body. The present study was conducted in Sengelimari Garo Gaon, Sonitpur, Assam.

# MISHING COMMUNITY

Mishing is a tribal community belonging to Mongoloid group – a multitude of people that followed Austro-Asiatic races to India. The Mishings presently living in plains of Assam were not one single tribe but various Tani tribes of Arunachal Pradesh migrated to the plains of Assam. However, There is no written history of the Mishings about their migration from Northern China to the plains of Assam but somewhere around the 13th century, they started migrating from the hills of Arunachal Pradesh towards the plains of Assam, most probably in search of fertile land. Mishing tribe inhabiting in the districts of Dhemaji, North Lakhimpur, Sonitpur, Tinsukia, Dibrugarh, Sibsagar, Jorhat and Golaghat of Assam, Northeast India are known to use a good number of wild plants as traditional food and they are also known to be highly passionate for cooking traditionally unique food items. Bright colors (usually black and red) are prevalent in the rich traditional dresses and ornaments of the Mishing community. The traditional craft of weaving is a very bright aspect of Mishing culture. The men usually wear woven cotton jackets *'Mibo galuk'*, light cotton towels and *'Gaabo'* a piece of cloth to wrap around the waist. The women wear *'Agey'* the lower garment, *'Ribi-gasor',* wrapped to cover the lower garment and blouse or *'Agey-gasor',* set of upper and lower garment. Women wear ornaments made of colorful threads. Mishing women have independent spirit and do not depend much upon men-folk for their maintenance. This is mostly because they are industrious and work side by side with their men-folk in the field. They not only try to augment family income but also develop their independent spirit. It is mostly due to their hard labour that the family bread is earned. By nature, Mishing women are carefree, bold and hospitable. The Mishing women have their typical cloth design which consists of two pieces. The striking affinities to the dress of the Assamese people are *'Mekhela'* and *'Chadar'* in the Assam Valley. All the Mishing women are good weavers. The Mishings are divided into various groups though they do not strictly follow them. First, they are divided into two broad divisions; viz., Barogam and Dahgam. These two are further subdivided into Pagro, Chayengia, Ayengia, Dambukial, Samuguria and so on. These divisions can also be subdivided into a number of clans. Matrimonial alliances are usually preferred within a sub-group. For instance, a man of Doley clan usually prefers to marry a woman of Pegu clan as both the clans belong to Pagro sub-group. Clan exogamy and sub-group and tribal endogamy is practised by them. The present study was conducted in Baligaon Miri Green Village, Sonitpur, Assam.

# NEPALI COMMUNITY

Indian Nepali are Nepalese who have total or partial Indian heritage and are the citizens of India as per the Gazette notification of the Government of India. It is found in the Puranas, Epics, Yoginitantra and other historical sources that from the primitive time Nepali speaking people migrated and are residing in different parts of Assam. The Nepali community is composed of Bahun, Chettri, Newar, Tamang, Limbu and other Nepali ethnic castes. They are considered to have immigrated into the district starting from early 1850s as soldiers, cultivators, etc. After the British occupation of Assam, under the patronage of the colonial government large number of Nepalis migrated to this region in search of life as Gopalak and Soldiers. Large scale Nepali migration into Assam began only with the colonial intervention. The Nepalis in Assam have preserved and maintained their own traditional social customs. In the process a certain degree of assimilation with the Assamese society has been noted. This is evident from the festivals celebrated, food habits and matrimonial relation where a high degree of assimilation is noted. Across the generations they have developed a vast knowledge of medicinal uses of plants. The traditional costume of Nepali is called the *"Daura Suruwal"* or *"Labeda-Suruwal",* and consists of a shirt that ends at the knee and fastens at the side with ties, pants, and a kind of shoes called *"docha".* It is worn only by men and can include a coat. The present study was conducted in Sonaipam Nepali Village, Assam, India.

# NYISHI COMMUNITY

The Nyishi tribe is one of the principal inhabitants of Arunachal Pradesh in North-Eastern India. A small population is settled in the foothills of Arunachal Pradesh along the border of Sonitpur district of Assam. They live in traditionally designed houses known as '*chang ghar'*. Their passion for jewellery is legendary. They wear heavy ornaments made of silver, brass and aluminium. Neckpieces are known as '*Rinyo*', '*Wofi*' and '*Dole*' and bangles are known as '*Koji*'. Men wear headgears known as '*Padam*', made from beak of the hornbill. Nyishis are evolved from a joint family system, generally no individual owns properties – both movable and immovable. The movable properties include traditional valued items like *Talu* (brass plate), *Mazi* (Tibetan tongueless bell), *Tasang* (bead), *Dumping* (comb like item), *Koji* (bangle), *Huhi* (disc), *Oriok* (sword), *Raji*, domesticated animals such as *Sebe* (Mithun, a bose front talis), *Shey* (cow), *Sebing* (goat), *Erik* (pig) and *Puruk* (hen). It can also be used for bartering prestigious and costly traditional valuables such as *Mazi, Talu, Tasang* etc: The Mithun is treated sacred because in almost all ceremonial rituals, sacrifice of Mithun is compulsory. Nyishis are expert in handicrafts i.e. weaving, cane and bamboo works, pottery, blacksmith, wood carving and carpentry etc. Traditionally, the basic purpose of producing these craft articles was to meet the demands of the family. Agriculture, livestock breeding, hunting and fishing sustained the Nyishis to maintain a high degree of self-sufficiency in so far as food is concerned. However, the additional requirements such as cloth, utensil, salt etc. are obtained through barter trade-evolved since and immemorial, among themselves and from their neighbours. Early Nyishis confined their trading activities amongst the tribesmen themselves and with the people across the northern border called *Nyeme chanam* i.e. trade link with the Tibetans. Nyokum is a festival celebrated by the Nyishi tribe which commemorates their ancestors. The word '*Nyokum*' has been derived from the combination of two words – '*Nyok*' means land (earth) and '*Kum*' means collectiveness or togetherness. Therefore, the Nyokum festival may very well be interpreted as inviting all the Gods and Goddesses of the universe, with the Nyokum Goddess as the principal deity, to a particular venue at a particular time. The festival is commonly celebrated by the people from all class and walk of life for better productivity, prosperity and happiness of all human beings on earth. The present study was conducted in the Phuloguri Nyishi Village, Sonitpur.

# TEA TRIBE COMMUNITY

The Tea tribes* Community, also known as the Tea tribes or tea-garden community of Assam, migrated mainly into the upper Brahmaputra belt from the tribal heart-land of central-eastern India and has played a significant role in the growth of tea plantations in Assam. Tea tribes community is multi ethnic groups of Tea-garden workers in Assam. It is a term used to denote those active tea garden workers and their dependents who reside in labour quarters built inside 800 Tea estates spread across Assam. They are the descendants of tribals and marginalised castes brought by the British colonial planters as indentured labourers from the predominantly tribal and marginalised caste dominated regions of present-day Jharkhand, Odisha, Chhattisgarh, West Bengal and Andhra Pradesh into colonial Assam during 1860-90s in multiple phases for the purpose of being employed in the tea gardens industry as labourers. The major tribes belonging to this community are, Munda (West Bengal), Kurmi (jharkhand and West Bengal), Santhal (Jharkhand, West Bengal, and Odisha), Oran/Orang (Jharkhand, Chattisgarh and Madhya Pradesh), Gond (Odisha, Chattisgarh and Madhya Pradesh), Gowala (Jharkhand and West Bengal), Ghanshi (West Bengal, Jharkhand, and Odisha). People were brought to Sonitpur District Tea Garden belonging to a total of around 110 communities, by the British during the early 19th century. Tea-tribes are heterogeneous, multi-ethnic groups which includes many tribal and caste groups. They are found mainly in those districts of Upper Assam and Northern Brahmaputra belt where there is high concentration of tea gardens like Kokrajhar, Udalguri, Sonitpur, Nagaon, Golaghat, Jorhat, Sivasagar, Charaideo, Dibrugarh and Tinsukia districts. There is a sizeable population of the community in the Barak Valley region of Assam as well in the districts of Cachar, Karimganj and Hailakandi. The total population is estimated to be around 6.5 million of which estimated 4 million reside in residential quarters built inside tea estates. They are not a single ethnic group but consist of different ethnic group speaking dozens of languages and have different culture. They speak several languages including Sora, Odia, Sadri, Kurmali, Bengali, Santali, Kurukh, Kharia, Kui, Gondi and Mundari. Sadri with Assamese influence serve as lingua franca among the community. Also known as the “protector of forests”, they share an intricate bond with nature and love to worship nature. Tea tribes community is very fond of dress and ornaments. Men usually wear a skirt "Dhoti" along with a red-bordered scarf “Gamucha" wrapped over the waist. Women are adorned with ornaments like bangles, armlets, hairpins, bracelets, necklaces, rings, etc., usually made of silvers, aluminum and brass. Women wear knee-length white saree with red border. They carry a bamboo basket known as “Dhoko” in Tea tribes, to keep the tea leaves after picking from the tea gardens. The present study was conducted in the Ghuramari Bura Gaon, Sonitpur, Assam.

*The tribal communities inhabiting and working in the tea gardens of Assam have been termed here as Tea Tribes. They are people who were brought to the tea gardens of Assam in the mid nineteenth century from different parts of the country. Since then, the community has grown and flourished in Assam and now constitutes 24% of Assam's total population. These inducted communities of people from different parts of the country are one of the most culturally diverse communities of Assam. Over the years, tea tribal communities have contributed highly in the growth of Assam and its tea industry.

# ETHNOBOTANICAL PLANTS USED BY COMMUNITIES

## BONSAT

| | | |
|---|---|---|
| **Scientific Name:** | *Achyranthes aspera* L. | |
| **Family:** | Amaranthaceae | |
| **Vernacular Names:** | English | Prickly Chaff Flower |
| | Hindi | Apamarg, Aghara, Chirchita, Latjira |
| | Assamese | Bonsat, Bioni-sabota |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Apamarga, Akamaro, Kalee jhar, Ulto kuro |
| | Nyishi | Not reported |
| | Tea tribes | Apamarg |

Whole Plant

Inflorescence

**Description:** It is an erect or spreading long-lived perennial herb which can grow up to 2 m tall, leaves opposite. Inflorescence terminal simple spike, flowers greenish, sharp, spiny bracteoles, sessile, complete and zygomorphic.

**Habitat:** Found in moist or shaded areas, abundant in wastelands, fallow lands, road sides and forest margins.

**Propagation:** Sexually by seeds.

**Parts used:** Roots, leaves, and flowers.

**Cultural and religious virtue:** 21 plant leaves are used in Ganesh puja during Ganesh Chaturthi.

**Medicinal use:** Used in leprosy, fever, cholera, nasal catarrah, tonsillitis, sore throat, gastric disorders, debility, etc., also used as a sedative and diaphoretic; applied in the form of paste in cases of neuralgia and rheumatism.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Nepali.

**Marketing channel:** Locally sold in the market.

**Flowering:** August-September; **Fruiting:** September -October.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# BIS

| | | |
|---|---|---|
| **Scientific Name:** | *Aconitum ferox* Wall. ex Ser. | |
| **Family:** | Ranunculaceae | |
| **Common Names:** | English | Indian Aconite |
| | Hindi | Meetha Teliya, Vatsanabha |
| | Assamese | Bis |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Bish |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

Leaves with Inflorescence

Whole Plant

**Description:** Perennial erect herb growing up to 2 m in height; leaves alternate, simple, rounded or oval, flowers borne on branched racemes, floral parts arranged spirally on an elongated receptacle. Considered to be the most poisonous plant found in the Himalaya and one of the most poisonous in the world.

**Habitat:** Found in moderately shaded areas; grows well in forest, gardens; heavy clay soils and prefers a moist calcareous soil in sun or semi-shade.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves, flower and roots.

**Cultural and religious virtue:** Used as a (potentially lethal) *Aghori Entheogen*-devotees of the Hindu deity Shiva smoke the dried roots of *Aconitum ferox* combined in a mixture with cannabis flowers, in a practice that is part consciousness-expansion by *entheogen*, part ordeal by poison.

**Medicinal use:** Used in leprosy, fever, cholera, nasal catarrah, tonsillitis, sore throat, gastric disorders, debility, etc., also used as a sedative and diaphoretic; applied in the form of paste in cases of neuralgia and rheumatism.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Nepali.

**Marketing channel:** Locally sold in the market.

**Flowering:** August-September; **Fruiting:** September -October.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# BOS

| | | |
|---|---|---|
| **Scientific Name:** | *Acorus calamus* L. | |
| **Family:** | Acoraceae | |
| **Common Names:** | English | Sweet Flag |
| | Hindi | Bach, Ghorbach, Safed Bach |
| | Assamese | Bos |
| | Bodo | Bach |
| | Garo | Bach |
| | Mishing | Alokoni |
| | Nepali | Bojho |
| | Nyishi | Bach |
| | Tea tribes | Bach |

Inflorescence

Whole Plant

**Description:** It is an aromatic semi-aquatic perennial herb 1-4 ft tall, rhizomes creeping, consisting of tufts of basal leaves that emerge directly from a spreading root stock. Leaves narrow, glossy bright green, apex acute, base amplexicaul. Flowers pale green, fragrant, arranged compactly on a sessile, cylindrical. Fruits berries green, oblong seeds.

**Habitat:** Semi-aquatic and marshy localities.

**Propagation:** Sexually by seeds and vegetative propagation by rhizomes.

**Parts used:** Whole plant and rhizome.

**Cultural and religious virtue:** People believe that spirits,devils cannot enter due to its odour. They put the rhizome at the four corners of the altar or at the entrance of the ritual site.

**Medicinal use:** The leaves, stems, and roots are most widely and frequently used as herbal medicines. It cures bronchitis, rheumatic pain, diarrhoea, flatulence, pneumonia, cough and cold.

**Economic importance:** Sold in local market as medicinal plants.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali and Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market, seasonally.

**Flowering & Fruiting:** April-July.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** Least Concern.

# BEL

| | | |
|---|---|---|
| **Scientific Name:** | *Aegle marmelos* L. | |
| **Family:** | Rutaceae | |
| **Common Names:** | English | Golden Apple / Wood Apple |
| | Hindi | Bael |
| | Assamese | Bel |
| | Bodo | Bael |
| | Garo | Bael |
| | Mishing | Bel |
| | Nepali | Bael |
| | Nyishi | Bael |
| | Tea tribes | Bel |

The Fruit

Whole Tree

**Description:** A medium size deciduous tree upto 12 m tall, with slender drooping branches or rather shabby crown. Leaves pinnately trifoliate. Flowers yellowish white, fragrant. Berries globose, large, pulp sweet, thick, orange coloured with adhesive clear mucus; seeds compressed.

**Habitat:** Plain areas, forests, near roadsides.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves and fruit.

**Cultural and religious virtue:** The tree is considered sacred and holy by Assamese and Tea tribes.

**Medicinal use:** Used in treatment of chronic diarrhoea, dysentery, fevers, abdomen pain, urinary troubles, etc.

**Economic importance:** Ripe fruits are eaten fresh or as juice.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Fruits are locally sold in the market, available seasonally.

**Flowering:** March-May; **Fruiting:** March-June.

**Occurrence:** Commonly available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# GENDALI BON

| | | |
|---|---|---|
| **Scientific Name:** | *Ageratum conyzoides* L. | |
| **Family:** | Asteraceae | |
| **Common Names:** | English | Goat Weed |
| | Hindi | Visadodi, Semandulu, Gha Buti |
| | Assamese | Gendali Bon |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Gendali Bon |
| | Nepali | Bheda Jhaar |
| | Nyishi | Visadodi |
| | Tea tribes | Semandulu |

Inflorescence

Whole Plant

**Description:** A common aromatic annual herb, an erect softly hairy annual plant which grows up to a height of 2.5 feet. Stem woody to fleshy; green or purplish. Oppositely arranged leaves are ovate to lance-like, coarsely rounded, and have toothed margin. White or very pale blue or very faintly pinkish purple flower, discoid, in terminal corymbs. Achenes angled black.

**Habitat:** Found in moist or shaded areas, abundant in wastelands, fallow lands, road sides and forest margins.

**Propagation:** Sexually by seeds.

**Parts used:** Flower and leaves.

**Cultural and religious virtue:** Traditionally used as insecticide and nematicide.

**Medicinal use:** Use to cure dysentery and diarrhea. The plant is used against cuts and wounds.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Fruits are locally sold in the market, available seasonally.

**Flowering & Fruiting:** August-December.

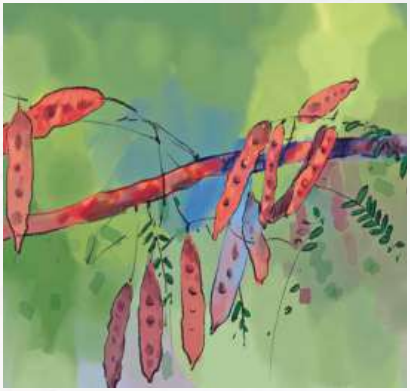
**Occurrence:** Commonly available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# KOROI

| | | |
|---|---|---|
| **Scientific Name:** | *Albizia procera* (Roxb.) Benth | |
| **Family:** | Fabaceae | |
| **Common Names:** | English | White Siris Tree |
| | Hindi | Safed Siris |
| | Assamese | Tantari-Asing, Koroi |
| | Bodo | Siris |
| | Garo | Siris |
| | Mishing | Siris |
| | Nepali | Seto Siris, Karaahi |
| | Nyishi | Siris |
| | Tea tribes | Not reported |

Flower



Leaves

**Description:** A tall sub-deciduous tree with greenish-yellow surfaced bark, bipinnate leaves having opposite leaflets. Flowers sessile, yellowish-white, pod fruit.

**Habitat:** Moist deciduous forests and also in the plains, found throughout Assam.

**Propagation:** Sexually by seeds.

**Parts used:** Whole plant.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Whole plant is reported to show anti-cancer activity. Bark is used for the treatment of pregnancy related problems, stomach ache, rheumatism and haemorrhage.

**Economic importance:** The leaves of the plant have been reported to be cooked as vegetable. Bark can ground into powder, mixed with flour and eaten. Widely harvested from the wild for its timber and is used in fuel wood plantations or as an ornamental tree. Wood is widely used for several purposes like construction, furniture, boats, flooring, and carts, among others.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi.

**Marketing channel:** Sold in the local market.

**Flowering & Fruiting:** July-November.

**Occurrence:** Available in the wild in Evergreen forest, planted in tea gardens.

**IUCN status:** This taxon has not yet been assessed.

# KOCHU

| | | |
|---|---|---|
| **Scientific Name:** | *Alocasia acuminata* Schott | |
| **Family:** | Araceae | |
| **Common Names:** | English | Elephant Ear Plant |
| | Hindi | Mankanda |
| | Assamese | Kochu |
| | Bodo | Thaso |
| | Garo | Not reported |
| | Mishing | Ange |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Kotchu |

Whole Plant

Leaves

**Description:** A perennial, terrestrial small to medium sized tuberous herb without aerial stem, slightly robust, evergreen. Stem rhizomatous, generally elongate, erect. Roots adventitious. Leaves peltate, ovate, acuminate, long petioled, base sheathing, pale green. Inflorescences usually solitary. Fruiting spathe green, ripening orange-red.

**Habitat:** Slightly shady area, well-drained, humus-rich, fertile loam, though found in wide range of soil types.

**Propagation:** Sexually by seeds and rootstock division.

**Parts used:** Shoot, leaves and tubers.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported.

**Economic importance:** Young shoots, tender leaves and tubers are cooked mostly with acidic fruit.

**Used by (Ethnic groups):** Assamese, Bodo, Mishing, Tea tribes.

**Marketing channel:** Locally sold in the market, available throughout the year.

**Flowering & Fruiting:** June-September.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# SALKUNWARI

| | | |
|---|---|---|
| **Scientific Name:** | *Aloe vera* (L.) Burm.f. | |
| **Family:** | Asphodelaceae | |
| **Common Names:** | English | Aloe-Vera |
| | Hindi | Ghi Kanwar |
| | Assamese | Salkunwari |
| | Bodo | Ghi Kanwar |
| | Garo | Ghi Kanwar |
| | Mishing | Salkunwari |
| | Nepali | Ghi Kanwar |
| | Nyishi | Ghi Kanwar |
| | Tea tribes | Ghi Kanwar |

Whole Plant

Flowers

**Description:** An evergreen succulent perennial plant, stem less or very short stemmed plant, spreading by offsets; leaves narrow-lanceolate, thickened fleshy serrated leaves, bear spiny teeth on the margins. Flower yellow to purplish, drooping; triangular capsule fruit containing numerous seeds.

**Habitat:** Dry sandy conditions, fields, houseplants, full sunshine and does not require much water.

**Propagation:** Sexually by seeds and vegetative propagation by adventitious buds.

**Parts used:** Whole plant.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** It is used in traditional medicine as a skin treatment. Used for treatment of high fever. Used as stomachic, anthelmintic, emmennagogue, cathartic and blood purifier. Leaves are used for treatment of liver disorder, rheumatism, skin disorder and expulsion of intestinal worms.

**Economic importance:** Have high market value.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering & Fruiting:** October-December.

**Occurrence:** Cultivated.

**IUCN status:** This taxon has not yet been assessed.

# BOGI TORA

| | | |
|---|---|---|
| **Scientific Name:** | *Alpinia nigra* (Gaertn.) Burtt | |
| **Family:** | Zingiberaceae | |
| **Common Names:** | English | Bamboo-Leaved Galangal |
| | Hindi | Not reported |
| | Assamese | Tora, Bogi Tora |
| | Bodo | Tharai |
| | Garo | Tora |
| | Mishing | Tareng |
| | Nepali | Tora |
| | Nyishi | Tora |
| | Tea tribes | Not reported |

Whole Plant

Leaves with inflorescence

**Description:** An erect, available throughout the year or perennial herb, sometimes attains about 10-12 ft in height, shoot and leaves are slightly aromatic, leaves are sessile or sub-sessile,minute axillary white, fragrant flowers occur in the apex of the shoot, globose capsules, green when unripe and red when ripe.

**Habitat:** Evergreen and moist deciduous forests, marshy slope between low hillocks, hillocks and riversides.

**Propagation:** Sexually by seeds and vegetative propagation by rhizomes.

**Parts used:** Stem and leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** It has been reported to be used for various problems like stomach and liver problems, hypertension and diabetes. The rhizome is used in the treatment of bronchitis and rheumatism. Fruits are used in treatment of ringworm.

**Economic importance:** Sold in local markets as medicinal herb and vegetable.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi.

**Marketing channel:** Locally sold in the market, available throughout the year.

**Flowering & Fruiting:** January-June.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# SOTIONA

| | | |
|---|---|---|
| **Scientific Name:** | *Alstonia scholaris* (L.) R. Br. | |
| **Family:** | Apocynaceae | |
| **Common Names:** | English | Devil Tree |
| | Hindi | Saptaparni, Shaitan ka Jhar, Chitvan |
| | Assamese | Sotiona |
| | Bodo | Chitvan |
| | Garo | Chitvan |
| | Mishing | Chitvan |
| | Nepali | Chitvan |
| | Nyishi | Chitvan |
| | Tea tribes | Not reported |

Leaves

Flowers

**Description:** A tall evergreen glabrous tree having greyish rough bark and milky sap; branches whorled; bark grey and glossy whorls leaves. Flowers, small, greenish white, highly scented. Fruit is made up of a pair of slender follicles, green, thin pods.

**Habitat:** Moist deciduous forests, open reed areas, near river, also in the plains.

**Propagation:** Sexually by seeds.

**Parts used:** Bark and Timber.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The bark is reported to be used for the treatment of jaundice.

**Economic importance:** Used as low grade timber, also as nutritional animal fodder.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi.

**Marketing channel:** Not reported.

**Flowering:** October-November; **Fruiting:** January-June.

**Occurrence:** Commonly available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# MATIKADURI

| | | |
|---|---|---|
| **Scientific Name:** | *Alternanthera sessilis* (L.) R.Br. ex DC | |
| **Family:** | Amaranthaceae | |
| **Common Names:** | English | Sessile Joyweed |
| | Hindi | Garundi, Guroo |
| | Assamese | Matikaduri |
| | Bodo | Guroo |
| | Garo | Guroo |
| | Mishing | Garundi |
| | Nepali | Bhiringi Jhaar, Jibre Paate |
| | Nyishi | Garundi |
| | Tea tribes | Garundi |

Nodes with Inflorescence

Inflorescence

**Description:** A perennial prostrate herbaceous plant. Leaves simple, opposite, elliptic to lanceolate, shortly petioled. White inconspicuous flowers in small axillary sessile heads. Fruit - utricle.

**Habitat:** Abundant in moist places, river banks and marshy areas, clayey soil, in low lying areas, roadsides.

**Propagation:** Sexually by seeds.

**Parts used:** Whole plant.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** It has been reported to be used to stop bleeding when wounded and helps in its healing. Used as antidote to snake bites. Used to increase the milk flow of lactating mother and for promoting hair growth.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering & Fruiting:** September-December.

**Occurrence:** Commonly available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# MORISA

| | | |
|---|---|---|
| **Scientific Name:** | *Amaranthus tricolor* L. | |
| **Family:** | Amaranthaceae | |
| **Common Names:** | English | Edible Amaranth |
| | Hindi | Chaulai |
| | Assamese | Denga Shak / Morisa |
| | Bodo | Morisa |
| | Garo | Morisa |
| | Mishing | Morisa |
| | Nepali | Morisa |
| | Nyishi | Morisa |
| | Tea tribes | Morisa |

Inflorescence

Plant

**Description:** An annual herb which grows upto 2-3 feet tall, easily grown in moist, average, well drained soils, in full sun to part shade with red inflorescence. Leaves ovate-oblong or rhomboid-ovate; flowers unisexual in axillary and terminal red or green panicled spikes; Seeds lenticular, compressed, black, shining.

**Habitat:** Well-drained fertile soil in open fields, poor soils, roadsides and wastelands, cultivated.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves and seeds.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** It helps in the purification of blood and prevents weakness.

**Economic importance:** Most parts of the plants, including the leaves and seeds are edible and are frequently used as a source of food.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market, available seasonally.

**Flowering & Fruiting:** September-December.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# KATA KHUTURA

| | | |
|---|---|---|
| **Scientific Name:** | *Amaranthus spinosus* L. | |
| **Family:** | Amaranthaceae | |
| **Common Names:** | English | Thorny Amaranth |
| | Hindi | Kanta Chaulai |
| | Assamese | Hati Khutura / Kata Khutura |
| | Bodo | Kanta Chaulai |
| | Garo | Kanta Chaulai |
| | Mishing | Kanta Chaulai |
| | Nepali | Ban Lunde, Kaande Lunde |
| | Nyishi | Kanta Chaulai |
| | Tea tribes | Kanta Chaulai |

Inflorescence

Plant

**Description:** An erect glabrous herb much branched with sharp axillary spines, oblong lanceolate leaves. Flowers unisexual, greenish on axillary clusters greenish-white flowers in axillary clusters. Seedminute, dark purple shining.

**Habitat:** Abundant in fallow lands and wastelands, as a weed in fields, roadsides, and open areas.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves and stem.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The plant has been reported to be used for jaundice and helps in the purification of blood.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in market.

**Flowering & Fruiting:** Throughout the year.

**Occurrence:** Commonly available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# AGORA

| | | |
|---|---|---|
| **Scientific Name:** | *Aquilaria sinensis* (Lour.) Spreng. | |
| **Family:** | Thymelaeaceae | |
| **Common Names:** | English | Agar Wood |
| | Hindi | Agar |
| | Assamese | Agora |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Agar |
| | Nepali | Not reported |
| | Nyishi | Agar |
| | Tea tribes | Not reported |

Woody Fruit

Whole Plant

**Description:** A large tropical evergreen tree with glabrous shoots, leaves alternate, thinly leathery leaf blades, oblong lanceolate. Flowers are green or dirty-yellow, bisexual in terminal umbellate cyme. Fruit green, flattened egg-shaped, thick rather woody, capsular, long obovoid; pear-shaped seeds, covered with orange-brown hairs.

**Habitat:** Grows over high rainfall tract, high humid regions, sandy loam and slightly acidic soils. Extensively cultivated in homegardens of upper Assam.

**Propagation:** Sexually by seeds.

**Parts used:** Resin.

**Cultural and religious virtue:** Used to make alternate manuscripts as an alternate of paper. It is the major source of agarwood, used for perfume and incense and used in religious functions and rituals.

**Medicinal use:** It has been reported to be used for animal pest removal.

**Economic importance:** Raw material for making incense sticks and perfumes.

**Used by (Ethnic groups):** Assamese, Mishing, Nyishi.

**Marketing channel:** Locally sold in the market, available throughout the year.

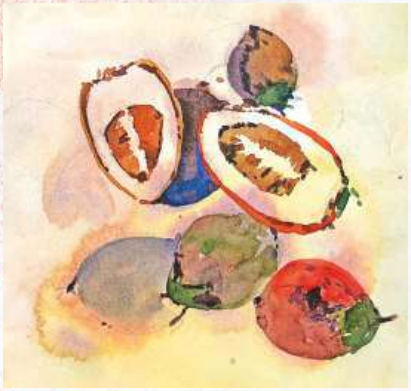
**Flowering :** April–June; **Fruiting:** April–September.

**Occurrence:** Available in the wild, not commonly and cultivated.

**IUCN status:** Critically Endangered.

# TAMUL

| | | |
|---|---|---|
| **Scientific Name:** | *Areca catechu* L. | |
| **Family:** | Arecaceae | |
| **Common Names:** | English | Betel Nut |
| | Hindi | Guvak, Guwa, Udveg |
| | Assamese | Tamul |
| | Bodo | Tamul |
| | Garo | Tamul |
| | Mishing | Tamul |
| | Nepali | Supari |
| | Nyishi | Tamul |
| | Tea tribes | Not reported |



Nuts

Whole Plant

**Description:** It is a medium-sized palm tree, growing straight to 20 m tall, with a trunk 10–15 cm in diameter. The leaves are 1.5–2 m long, pinnate, with numerous, crowded leaflets. Fruit green when young, orange-red when mature. Seed (nut) is aromatic and astringent, and can be addictive.

**Habitat:** Along fields, marshes and forest gaps, also cultivated.

**Propagation:** Sexually by seeds.

**Parts used:** Seed/Nut.

**Cultural and religious virtue:** The areca seed, along with betel leaf is used as sacred offering for rituals and formal invitations.

**Medicinal use:** Not reported.

**Economic importance:** Used for dyeing yarns.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Nepali, Nyishi, Mishing.

**Marketing channel:** Sold in the local markets and exported within states.

**Flowering & Fruiting:** Throughout the year.

**Occurrence:** Cultivated.

**IUCN status:** This taxon has not yet been assessed.

# KOTHAL

| | | |
|---|---|---|
| **Scientific Name:** | *Artocarpus heterophyllus* Lam. | |
| **Family:** | Moraceae | |
| **Common Names:** | English | Jackfruit |
| | Hindi | Katahal, Kathal |
| | Assamese | Bilangaal / Kothal |
| | Bodo | Kathal |
| | Garo | Kathal |
| | Mishing | Kothal |
| | Nepali | Kathal |
| | Nyishi | Not reported |
| | Tea tribes | Kathal |

Leaves and Bud

Fruits

**Description:** An evergreen tree with dense crown, glabrous branches. Leaves elliptic-obovate, entire, alternate, unisexual creamy white flowers in spikes, enclosed by spathe like bracts and fleshy fruits.

**Habitat:** Evergreen and semi-evergreen forests, also widely cultivated. Grown on different types of soil, favourable on deep, well-drained, alluvial, sandy or clay loam soils.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported.

**Economic importance:** The unripe fruit is eaten as vegetable and ripe fruit is eaten raw. Used as timber.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes.

**Marketing channel:** Locally sell in the market.

**Flowering:** February- April; **Fruiting:** May- October.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# NEEM

| | | |
|---|---|---|
| **Scientific Name:** | *Azadirachta indica* A. Juss. | |
| **Family:** | Meliaceae | |
| **Common Names:** | English | Margosa Tree |
| | Hindi | Neem |
| | Assamese | Neem |
| | Bodo | Neem |
| | Garo | Neem |
| | Mishing | Neem |
| | Nepali | Neem |
| | Nyishi | Neem |
| | Tea tribes | Not reported |

Inflorescence

Seeds and Plant

**Description:** A well-known middle-sized semi-evergreen tree. Leaves odd- or even pinnate; leaflets. The flowers are white and scented, fruit is drupe becomes greenish yellow when ripe.

**Habitat:** Dry and hot conditions, Dry deciduous forests, also widely planted, Grown best on deep, sandy soils; however can grow on infertile, rocky and dry soils.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves and flower.

**Cultural and religious virtue:** It is highly valued as an air purifier and used to prevent air borne diseases.

**Medicinal use:** The plant is used as a medicine for stomach pain, worm infection and skin diseases.

**Economic importance:** The tender shoots and flowers of the neem tree are eaten as a vegetable. Twigs are used as pesticides and fertilizers. Used as timber.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi.

**Marketing channel:** Sold in the local markets.

**Flowering:** March-April; **Fruiting:** April- June.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# LETEKU

| | | |
|---|---|---|
| **Scientific Name:** | *Baccaurea sapida* (Roxb.) Müll. Arg. | |
| **Family:** | Phyllanthaceae | |
| **Common Names:** | English | Burmese Grape |
| | Hindi | Khattaphal, Latka |
| | Assamese | Leteku / Latok Tenga |
| | Bodo | Latka |
| | Garo | Dojuka |
| | Mishing | Latka |
| | Nepali | Kusum |
| | Nyishi | Latka |
| | Tea tribes | Latka |

Whole Tree

Fruits

**Description:** A medium size tree, dioecious, evergreen, shade loving plant. Bark darkish grey. Leaves elliptic-oblong or obovate or elliptic-lanceolate, acuminate, membranous. Flowers dioecious, comes out from old trunk as raceme inflorescences. The fruit is oval to round in shape and turns yellow or yellowish brown in ripen condition.

**Habitat:** Tropical forests, Subtropical forests, wet evergreen forests and inland forests.

**Propagation:** Sexually by seeds or by grafting.

**Parts used:** Flowers, leaves, barks, roots.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** It is used as a tonic as antidote in snake bite. The decoction of the bark, root and leaves are used in skin disease. Bark is used as medicine for constipation by some tribes in NE India.

**Economic importance:** Fruit pulp is edible, delicious and digestive. Fruits are consumed raw.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market, available seasonally.

**Flowering:** April-May; **Fruiting:** June-August.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# BAH

| | | |
|---|---|---|
| **Scientific Name:** | *Bambusa sp.* | |
| **Family:** | Poaceae | |
| **Common Names:** | English | Bamboo |
| | Hindi | Baans |
| | Assamese | Mewai / Bah |
| | Bodo | Baans |
| | Garo | Baans |
| | Mishing | Bah |
| | Nepali | Kauns |
| | Nyishi | Baans |
| | Tea tribes | Baansha |

Bamboo Tree

Young Shoot

**Description:** A tall, woody, perennial, evergreen plant belonging to the grass family. The internodal stems of the ridges are usually hollow as in grasses.

**Habitat:** Moist soil and humid conditions of forest, river banks, roadsides, wastelands and open ground; tolerates a wide range of climatic conditions.

**Propagation:** Sexually by seeds and vegetative propagation by rhizomes, culms and branches.

**Parts used:** Stem, young shoot, leaves, articulations and seed.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The roots are used for diarrhea.

**Economic importance:** Unripe fruit is eaten as vegetable and ripe fruit is eaten raw. The young shoots are eaten as vegetable and are kind of favourite for the Bodos to cook with pork and chicken. Bamboo is exclusively used in construction.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** November -April.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# PUNORBHA

| | | |
|---|---|---|
| **Scientific Name:** | *Boerhavia diffusa* L. | |
| **Family:** | Nyctaginaceae | |
| **Common Names:** | English | Red Spiderling |
| | Hindi | Punarva, Satha |
| | Assamese | Punorbha |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Punarva |
| | Nepali | Punarva |
| | Nyishi | Punarva |
| | Tea tribes | Not reported |

Flower

Plant

**Description:** A diffused spreading prostrate herb with long trailing branches and reddish stem. Leaves in unequal pairs, ovate or orbicular-ovate or rounded. Flowers very small, dark pink, sessile. Fruit small.

**Habitat:** Open places and near river banks. Moist and dry deciduous forests and also in the plains. Can grow in very poor soils and on stone revetments. Common in waste land .

**Propagation:** Sexually by seeds.

**Parts used:** Leaves and roots.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The plant is said to be a good cure for hypertension and in traditional medicines.

**Economic importance:** Cooked as vegetable herbs.

**Used by (Ethnic groups):** Assamese, Mishing, Nepali, Nyishi.

**Marketing channel:** Not reported.

**Flowering :** April-June; **Fruiting:** July-August.

**Occurrence:** Commonly available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# SIMOLU

| | | |
|---|---|---|
| **Scientific Name:** | *Bombax ceiba* L. | |
| **Family:** | Malvaceae | |
| **Common Names:** | English | Red Silk Cotton Tree |
| | Hindi | Simal |
| | Assamese | Simolu |
| | Bodo | Simal |
| | Garo | Simal |
| | Mishing | Shalmali |
| | Nepali | Simal |
| | Nyishi | Simal |
| | Tea tribes | Simal |

Whole Tree

Flower

**Description:** A deciduous tall tree grows to an average of 20 meters, with old trees up to 60 meters in wet tropical regions. Main branches radiates horizontally from the trunk. Leaves compound with 5-7 radiating leaflets. The fruit a woody capsule oblong enclosing seeds covered in silky fibre.

**Habitat:** Hot, dry and moist deciduous forests and also near rivers. Road sides, forest, along open stream banks.

**Propagation:** Sexually by seeds.

**Parts used:** Stem, leaves, fruits, bark, gum and root.

**Cultural and religious virtue:** It is used for extraction of silk cotton. Undeveloped fruit called Maratimoggu used as spice in Indian cuisine.

**Medicinal use:** The leaves and fruits are also used by girls for hair care. The bark gives a gum and exudates are used in medicine. The young roots are used in the treatment of cholera, tubercular fistula, coughs, urinary complaints, nocturnal pollution, abdominal pain due to dysentery, and impotency. The gum is used in the treatment of dysentery, haemoptysis in pulmonary tuberculosis, influenza and menorrhagia. The leaves are hypotensive and hypoglycaemic. Stem are used on bleeding gums. The bark is reputedly used against cholera (usually combined with many other plants), pleurisy, stings and as a diuretic.

**Economic importance:** Timber is used for matches and coffins.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering :** January-February; **Fruiting:** March-June.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# TAGO

| | | |
|---|---|---|
| **Scientific Name:** | *Brassaiopsis glomerulata* (Blume) Regel | |
| **Family:** | Araliaceae | |
| **Common Names:** | English | Not reported |
| | Hindi | Not reported |
| | Assamese | Not reported |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Not reported |
| | Nyishi | Tago |
| | Tea tribes | Not reported |

Whole Plant

Leaves with Inflorescence

**Description:** A large shrub or small tree up to 20 m tall with thorns on the stems, palmate leaves; branches prickly. Leaves compound, palmate; flowers white, fruits globose.

**Habitat:** Moist and shaded places of dense forest.

**Propagation:** Sexually by seeds.

**Parts used:** Flowers.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported.

**Economic importance:** Flowers are reported to be eaten as vegetables.

**Used by (Ethnic groups):** Nyishi.

**Marketing channel:** Sold in the local market, seasonally.

**Flowering & Fruiting:** November-February.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# BET

| | | |
|---|---|---|
| **Scientific Name:** | *Calamus rotang* L. | |
| **Family:** | Arecaceae | |
| **Common Names:** | English | Rattan Palm |
| | Hindi | Bet, Vetasa |
| | Assamese | Bet |
| | Bodo | Bet |
| | Garo | Bet |
| | Mishing | Bet |
| | Nepali | Bet |
| | Nyishi | Bet |
| | Tea tribes | Not reported |

Plant

Seeds

**Description:** Monocot clustering canes, dioecious, and flowers are clustered in attractive inflorescences, enclosed by spiny spathes. The edible fruits are top shaped, covered in shiny, reddish-brown imbricate scales.

**Habitat:** Common in swamp forests, frequent along fresh water streams of lower hill valleys. Moist deciduous and riverine ecosystem. Grows best in a humus-rich soil.

**Propagation:** Sexually by seeds.

**Parts used:** Stems, leaves and seed.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Leaves and seed are eaten to cure intestinal worm disease.

**Economic importance:** The canes have been used from generations in making furniture, baskets, and other such household items.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Nepali, Mishing, Nyishi.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** October-May.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# Nangal-Bhanga

| | | |
|---|---|---|
| **Scientific Name:** | *Callicarpa serrata* Moench | |
| **Family:** | Lamiaceae | |
| **Common Names:** | English | Beauty Berry |
| | Hindi | Bastara |
| | Assamese | Nangalbandha |
| | Bodo | Bastara |
| | Garo | Bastara |
| | Mishing | Bastara |
| | Nepali | Daheekaamlo |
| | Nyishi | Bastara |
| | Tea tribes | Bastara |

Whole Plant

Leaves with Berries

**Description:** A deciduous shrub with pale pink and lavender flowers and soft hairy leaves and twigs.

**Habitat:** Secondary forest, open fields, along river banks.

**Propagation:** Sexually by seeds.

**Parts used:** Whole plant.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The plant has been reported to be used for the treatment of pneumonia.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Not reported.

**Flowering & Fruiting:** July-December.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# DHUNA

| | | |
|---|---|---|
| **Scientific Name:** | *Canarium bengalense* Roxb. | |
| **Family:** | Burseraceae | |
| **Common Names:** | English | Canarium Tree |
| | Hindi | Damar-Batu |
| | Assamese | Dhuna, Bisjang |
| | Bodo | Not reported |
| | Garo | Dhuna |
| | Mishing | Dhuna |
| | Nepali | Goguldhup |
| | Nyishi | Dhuna |
| | Tea tribes | Not reported |

Whole Plant

Seeds

**Description:** It is a tall evergreen tree that can grow up to 25 metres tall. Leaves compound, stipulate, imparipinnate. Inflorescences in narrow axillary or supra-axillary raceme-like panicles. Drupes, dark purple, spindle-shaped, pruinose; mesocarp fleshy, aromatic.

**Habitat:** Moist evergreen and semi-evergreen forest.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit, bark, resin/gums and leaves.

**Cultural and religious virtue:** Used in Hindu rituals. Resin/gum used in rituals.

**Medicinal use:** The leaves and bark are used externally for rheumatic swelling. Bark also cures hysteria, snake-bites, besides it is antiseptic.

**Economic importance:** Resin is obtained from tree trunk.

**Used by (Ethnic groups):** Assamese, Garo, Mishing, Nepali, Nyishi.

**Marketing channel:** Locally sold in the market.

**Flowering:** May-September; **Fruiting:** July-December.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# AMITA

| | | |
|---|---|---|
| **Scientific Name:** | *Carica papaya* L. | |
| **Family:** | Caricaceae | |
| **Common Names:** | English | Papaya |
| | Hindi | Papita |
| | Assamese | Amita |
| | Bodo | Omita |
| | Garo | Omita |
| | Mishing | Omita |
| | Nepali | Papita |
| | Nyishi | Not reported |
| | Tea tribes | Papita |

Fruits

Flowers

**Description:** A small sparsely branched tree with spirally arranged large. Leaves large with long, hollow petiole, latex milky, deeply palmate leaves confined to the top of the trunk. All parts of plants contain latex in articulated laticifers. Flowers creamy-white, fleshy, waxy, fragrant and large berry fruit.

**Habitat:** Cosmopolitian, hot and humid conditions, grows well in high temperature and full sunshine.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit and latex.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The latex from the plant has been reported to be used for the traditional treatment of toothache.

**Economic importance:** Unripe fruit is cooked and ripe fruit eaten as raw.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering:** November-March; **Fruiting:** All over the year.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# SORU-MEDELUA

| | | |
|---|---|---|
| **Scientific Name:** | *Senna tora* (L.) Roxb. | |
| **Family:** | Leguminosae | |
| **Common Names:** | English | Pot Cassia |
| | Hindi | Charota |
| | Assamese | Soru-Medelua |
| | Bodo | Adi Diga |
| | Garo | Charota |
| | Mishing | Charota |
| | Nepali | Charota |
| | Nyishi | Charota |
| | Tea tribes | Charota |

Whole Plant

Leaves with Inflorescence

**Description:** A herbaceous annual foetid herb; can grow up to 30-90cm (12-35inch) tall. Stems woody below. Leaves pinnate, leaflets in 3 pairs, opposite, obovate, oblong and base oblique, pubescent beneath, apex rounded; foliar glands between the lowest pair of leaflets. Flowers in corymbose racemes, golden yellow. Pod short; seeds oblong.

**Habitat:** Common in plains and low lying places, river banks, fallow fields, wastelands.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Roots are used for curing snakebite, ring worm and psoriasis. Leaves are used to treat several ailments like ulcer, parasitic skin diseases, psoriasis, etc. Seeds are treated as laxatives, expectorants, opnthalmics, etc. Leaves and seeds are used as remedy of skin diseases and leprosy. Also used as germicide and antiparasitic. Diluted refined leaf juice is taken orally for treatment of urinary problem.

**Economic importance:** Young leaves are used as vegetables by Bodos, favourable with pork / fish or as mixed vegetable. Mature seeds are boiled with tea and consumed to keep body warm in winter.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Not reported.

**Flowering:** June-August; **Fruiting:** July-December.

**Occurrence:** Commonly available in the wild along roadside.

**IUCN status:** This taxon has not yet been assessed.

# NAYANTORA

| | | |
|---|---|---|
| **Scientific Name:** | *Catharanthus roseus* (L.) G. Don | |
| **Family:** | Apocynaceae | |
| **Common Names:** | English | Madagascar Periwinkle |
| | Hindi | Sadabahar |
| | Assamese | Nayantora |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Nayantora |
| | Nepali | Sadabahar |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

Whole Plant

Leaves with Flower

**Description:** A perennial glabrous, profusely branched, erect or decumbent, evergreen, under-shrubs which grows from 30 -100 cm tall. Stems more or less woody. Leaves oblong, elliptic-ovate, obtusely stipulate, acute or cunneate at base. Flowers have basal tube with a corolla, white or deep rose; style slender.

**Habitat:** Cosmopolitian, degraded natural habitats, roadsides, managed lands, sandy soil.

**Propagation:** Sexually by seed and vegetative propagation by stem cuttings.

**Parts used:** Leaves and flower.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Extracts prepared from the leaves have been applied externally as antiseptic agents for the healing of wounds, to relieve the effects of wasp stings; against haemorrhage, skin rash and as a mouth wash to treat toothache.

**Economic importance:** Cultivated as ornamental plants.

**Used by (Ethnic groups):** Assamese, Mishing, Nepali.

**Marketing channel:** Not reported.

**Flowering & Fruiting:** Whole year.

**Occurrence:** Available in the wild and cultivated as ornamental plants.

**IUCN status:** This taxon has not yet been assessed.

# BOR MANI-MUNI

| | | |
|---|---|---|
| **Scientific Name:** | *Centella asiatica* (L.) Urb. | |
| **Family:** | Apiaceae | |
| **Common Names:** | English | Asiatic Pennywort |
| | Hindi | Brahmanduki, Ballari |
| | Assamese | Bor Mani-Muni |
| | Bodo | Brahmanduki |
| | Garo | Brahmanduki |
| | Mishing | Brahmanduki |
| | Nepali | Brahmabuti |
| | Nyishi | Brahmanduki |
| | Tea tribes | Brahmanduki |

Leaves

Plant

**Description:** A perennial herbaceous creeper, faintly aromatic with rosettes leaves. Leaves are fleshy, orbicular to reniform and dentate. Stems are slender, creeping stolons; rootstock consists of rhizomes; flower sessile, umbels simple sessile or subsessile; fruit ovoid, laterally compressed.

**Habitat:** Moist places, marshes, swamps, forest roadside, cultivated / agricultural lands, semi-natural habitats.

**Propagation:** Sexually by seeds and vegetative propagation stem/runner cutting.

**Parts used:** Leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** It is used as a culinary vegetable and as a medicinal herb. It helps in relieving stomach pain and is also reported to be effective to digestion, gastritis and jaundice problems.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market, available seasonally.

**Flowering & Fruiting:** April-December.

**Occurrence:** Commonly available in the wild and agricultural fields.

**IUCN status:** Least Concern.

# JILMIL SHAK

| | | |
|---|---|---|
| **Scientific Name:** | *Chenopodium album* L. | |
| **Family:** | Amaranthaceae | |
| **Common Names:** | English | Lamb's Quarters |
| | Hindi | Bathua |
| | Assamese | Jilmil Shak |
| | Bodo | Bathua |
| | Garo | Bathua |
| | Mishing | Bathua |
| | Nepali | Bathua |
| | Nyishi | Bathua |
| | Tea tribes | Bathua |

Whole Plant

Inflorescence

**Description:** A fast growing weedy annual herb, usually erect and variously branched. Leaves are waxy-coated, alternate; leaves on the upper part of the flowering stems are entire and lanceolate-rhomboid. Tiny flowers on a dense branched inflorescence a variable spiciform or cymosely branched panicle, mostly terminal.

**Habitat:** Common in cultivated/agricultural lands. Wet places, river banks and degraded forests, also in the wastelands.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported.

**Economic importance:** The leaves and young shoots are eaten as leafy vegetables. Also used as feed for chicken and other poultries.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** February-March.

**Occurrence:** Available in the wild and agricultural fields.

**IUCN status:** This taxon has not yet been assessed.

# HARJURA LOTA

| | | |
|---|---|---|
| **Scientific Name:** | *Cissus quadrangularis* L. | |
| **Family:** | Vitaceae | |
| **Common Names:** | English | Bone-Setter/Devil's Backbone |
| | Hindi | Harjora, Asthibhanga |
| | Assamese | Harjura Lota, Har Ghunuca |
| | Bodo | Harjora |
| | Garo | Harjora |
| | Mishing | Harjora |
| | Nepali | Harjora |
| | Nyishi | Harjora |
| | Tea tribes | Harjora |

Whole Plant

Inflorescence

**Description:** A succulent, glabrous, deciduous thorny shrub. Quadrangular sectioned branches with internodes and leathery edge at each angle and toothed trilobed leaves at each nodes, leaves simple, entire. Racemes of small white, yellowish, or greenish flowers; globular berries are red when ripe.

**Habitat:** Common in the plains, degraded forest, wastelands and cultivated lands. Dry deciduous forests.

**Propagation:** Sexually by seed and vegetative propagation by leaf-tip/stem cuttings.

**Parts used:** Stem, root, leaves, young shoot.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Reported to be used traditionally for healing broken bones and injured ligaments and tendons. Whole plant is useful in asthma, bowel complaints, epitaxis, curvy and irregular menstruation. Useful in treating chronic ulcers, tumours, epilepsy and convulsion.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering:** July-September; **Fruiting:** October-January.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# JORA TENGA

| | | |
|---|---|---|
| **Scientific Name:** | *Citrus medica* L. | |
| **Family:** | Rutaceae | |
| **Common Names:** | English | Citron, Chinese orange |
| | Hindi | Galgal, Purak, Turanj |
| | Assamese | Jora Tenga, Tula Tenga |
| | Bodo | Galgal |
| | Garo | Galgal |
| | Mishing | Galgal |
| | Nepali | Bimiro |
| | Nyishi | Galgal |
| | Tea tribes | Galgal |

Leaves with Fruits

Whole Tree

**Description:** A small evergreen shrub or tree. Leaflets are evergreen, lemon-scented, ovate-lanceolate or ovate elliptic; leaves simple, alternate, spiral, petioles. Inflorescences in axillary racemes, fragrant flowers in short clusters, white or pinkish; Fruits large with a thick rind, ovoid-oblong, ellipsoid or obovoid, narrow towards a stylarend, yellowish, surface smooth, rough or warty on outer.

**Habitat:** Open forests along marshes, road-sides, cultivated lands.

**Propagation:** Sexually by seeds.

**Parts used:** Root, seed, leaves, bark.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The root has been reported to be used for the treatment of bone fractures and dislocation. Root, bark, seeds and leaves are used to treat enlarged abdominal viscera. The peel is useful in checking vomiting and intestinal worm. Fruits are used as stomachic, tonic, astringent. Useful in dyspepsia, flatulence, gastric irritability and general debility.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering & Fruiting:** Throughout the year.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# NEFAFU

| | | |
|---|---|---|
| **Scientific Name:** | *Clerodendrum cordatum* D. Don | |
| **Family:** | Lamiaceae | |
| **Common Names:** | English | Glory Bower |
| | Hindi | Nefafu |
| | Assamese | Nefafu |
| | Bodo | Nefafu |
| | Garo | Nefafu |
| | Mishing | Adi Pakkam |
| | Nepali | Nefafu |
| | Nyishi | Nefafu |
| | Tea tribes | Nefafu |

Leaves with Inflorescence

Whole Plant

**Description:** An evergreen shrub or small tree, characterized by a foetid smell, shining light grey bark. Leaves are simple, opposite or rarely whorled, large ovate, long petioled shiny leaves. Inflorescences loosely cymose or capitate, flowers white in broad terminal compound cyme. Fruit drupe, bluish green to deep green when ripe.

**Habitat:** Moist and wastelands. Bamboo and Mixed forest.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Tender leaves are eaten as vegetable and highly recommended for curing high blood pressure, diabetes and control worm diseases.

**Economic importance:** One of the constituents of making medium for yeast in the process of making rice beer.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** October -February.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# DHAPATITA

| | | |
|---|---|---|
| **Scientific Name:** | *Clerodendrum infortunatum* L. | |
| **Family:** | Lamiaceae | |
| **Common Names:** | English | Hill Glory Bower |
| | Hindi | Titabhamt, Bhant |
| | Assamese | Dhapatita |
| | Bodo | Sobkha Bendong |
| | Garo | Bhant |
| | Mishing | Bhant |
| | Nepali | Rajbeli, Chitu |
| | Nyishi | Pato |
| | Tea tribes | Not reported |

Whole Plant

Leaves with Inflorescence

**Description:** The plant is a gregarious shrub, 1-2 m high. Leaves simple opposite, ovate or orbicular, base cordate, margin entire or denticulate, and apex acuminate. Quadrangular branches are covered with silky yellowish hair. Flowers white with purplish pink or dull-purple throat, pubescent. Drupe, globose, bluish-black on ripening.

**Habitat:** Moist evergreen forests, along river banks. Degraded forest areas and wasteland.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves.

**Cultural and religious virtue:** Natural health remedies in traditional practices.

**Medicinal use:** Used as medicine for rheumatism, fever, diarrhea and skin complaints. It also has good antibacterial activity.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Garo, Mishing, Nepali, Nyishi.

**Marketing channel:** Sold in the local market.

**Flowering & Fruiting:** December-April.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# KOLA KOCHU

| | | |
|---|---|---|
| **Scientific Name:** | *Colocasia esculanta* (L). Schott | |
| **Family:** | Araceae | |
| **Common Names:** | English | Elephant Ear |
| | Hindi | Arbi, Aruwi, Banda, Kala Kochu |
| | Assamese | Kola Kochu, Bon Kochu |
| | Bodo | Kala Kochu |
| | Garo | Kala Kochu |
| | Mishing | Kala Kochu |
| | Nepali | Gawa, Kuchuro |
| | Nyishi | Kala Kochu |
| | Tea tribes | Kala Kochu |

Whole Plant

Tubers

**Description:** Herbaceous perennial plant with a large fleshy corm at the base, and lateral, thick, edible runners. Adventitious root, fibrous, and shallow. Leaves are arranged in a loose rosette; blades pointing downward, cordate to sagittate at base. Fruit is a many-seeded berry, globose, densely packed and forming a fruiting head.

**Habitat:** Wet fields, marshy areas and near the banks of ponds and streams.

**Propagation:** Sexually by seeds and vegetative propagation by corms, tubers and root suckers.

**Parts used:** Corm and leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Reported to be useful for blood purification and formation, also reported to be an effective ailment for jaundice.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** May-October.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# MORA PAAT

| | | |
|---|---|---|
| **Scientific Name:** | *Corchorus capsularis* L. | |
| **Family:** | Malvaceae | |
| **Common Names:** | English | White Jute |
| | Hindi | Patta Shak |
| | Assamese | Mora Paat |
| | Bodo | Patta Shak |
| | Garo | Patta Shak |
| | Mishing | Patta Shak |
| | Nepali | Patta Shak |
| | Nyishi | Patta Shak |
| | Tea tribes | Patta Shak |

Whole Plant

Leaves with Inflorescence

**Description:** Erect annual foetid herb. The plant can grow 30–90 cm tall and consists of alternative pinnate, acute leaves with leaflets mostly with three opposite pairs, obovate, rounded tip, serrate at margin. Yellow flower, sessile or subsessile, five-petaled; capsules, truncate and depressed at apex, many seeded.

**Habitat:** Nearby low-lying area, along sides of water bodies, cultivated /agricultural fields. Degraded forest areas.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves, root and seed.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Roots are used for curing snakebite, ring worm and psoriasis. Leaves are used to treat several ailments like ulcer, parasitic skin diseases, leprosy, psoriasis, etc. They are appetizer, carminative, demulcent, laxative, stimulant and stomachic. An infusion of the leaves has been used to reduce fever, dysentery, dyspepsia and liver disorder. Roots and leaves have been used against dysentery. Seeds are treated aslaxatives, expectorants, opthalmics, etc. Mature seeds are boiled with tea and consumed to keep body warm in winter. Also used as germicide and antiparasitic.

**Economic importance:** Young leaves are used as vegetables by Bodos, favourable with pork / fish or as mixed vegetable. Jute has high market value.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering:** October-December; **Fruiting:** February-March.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# JAMLAKHUTI

| | | |
|---|---|---|
| **Scientific Name:** | *Hellenia speciosa* (J.Koenig) S.R. Dutta | |
| **Family:** | Costaceae | |
| **Common Names:** | English | Crepe-Ginger |
| | Hindi | Kembu |
| | Assamese | Jamlakhuti |
| | Bodo | Kembu |
| | Garo | Not reported |
| | Mishing | Jamlakhuti |
| | Nepali | Not reported |
| | Nyishi | Kembu |
| | Tea tribes | Kembu |

Whole Plant

Leaves with Inflorescence

**Description:** A monocot fleshy herb grow to 10 ft tall, tuberous rhizome; round stem, with distinct nodes and inter nodes; highly branched, leaves spirally arranged on the stalk. Big white flowers, showy and dense head. Fruit is capsule, quite distinct, and green.

**Habitat:** Moist deciduous and semi-evergreen forests, also moist areas.

**Propagation:** Sexually by seeds and vegetative propagation bystem cutting and rhizomes.

**Parts used:** Rhizome.

**Cultural and religious virtue:** Used in Hindu rituals.

**Medicinal use:** The rhizome has been reported to be used to cure, high fever, jaundice and intestinal worms.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Mishing, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** July-December.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# RONGALAU

| | | |
|---|---|---|
| **Scientific Name:** | *Cucurbita moschata* Duchesne | |
| **Family:** | Cucurbitaceae | |
| **Common Names:** | English | Pumpkin |
| | Hindi | Mitha Kaddu |
| | Assamese | Rongalau |
| | Bodo | Mitha Kaddu |
| | Garo | Mitha Kaddu |
| | Mishing | Mitha Kaddu |
| | Nepali | Mitha Kaddu |
| | Nyishi | Mitha Kaddu |
| | Tea tribes | Mitha Kaddu |

Leaves with Inflorescence

Fruit

**Description:** It is a monoecious, creeping or climbing stems, vine-like annual that trails along the ground or climbs by tendrils. Velvety-hairy, shallowly-to deeply-lobed, broad-ovate to kidney-shaped leaves with toothed margins and cordate bases often have white spots on the veins. Flowers are creamy white to orange-yellow, borne singly in leaf axils.

**Habitat:** Cosmoplitian, cultivated.

**Propagation:** Sexually by seeds.

**Parts used:** Young shoots, leaves, flower, fruit and seed.

**Cultural and religious virtue:** Used to prepare local cuisine.

**Medicinal use:** Dried pulp of the fruit is a remedy in haemorrhages of the pulmonary organs. Seeds are anthelmintic. Powdered seed are used in gonorrhea and urinary trouble. Kernels of the mature and fresh seeds are mixed with sugar and milk and taken for expulsion of pork tape worm and beef tapeworm. The powdered mature seeds mixed with sugar and milk is fed to mothers for increase in lactation.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the market.

**Flowering & Fruiting:** Almost throughout the year.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# HALODHI

| | | |
|---|---|---|
| **Scientific Name:** | *Cucurma longa* L. | |
| **Family:** | Zingiberaceae | |
| **Common Names:** | English | Turmeric |
| | Hindi | Haldi |
| | Assamese | Halodhi |
| | Bodo | Haldi |
| | Garo | Haldi |
| | Mishing | Haldi |
| | Nepali | Haldi |
| | Nyishi | Haldi |
| | Tea tribes | Haldi |

Whole Plant

Inflorescence

**Description:** A herbaceous perennial plant with tuberous rhizomes, or underground stems, yellow to orange, cylindrical, aromatic rhizomes, long simple leaves, alternately arranged in two rows, oblong to elliptical, narrowing at the tip; yellow white flowers, fruit capsule, small ovoid brown seeds.

**Habitat:** Cultivated, edge of the forest, on the banks of the rivers, and tolerates to droughty environments.

**Propagation:** Sexually by seeds and vegetative propagation by tuberous rhizomes.

**Parts used:** Rhizomes.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The rhizome has been reported to be used for the treatment of gastric, asthma and cough.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in market.

**Flowering & Fruiting:** July-October.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# AKASHILOTA

| | | |
|---|---|---|
| **Scientific Name:** | *Cuscuta cassytoides* Nees ex Engelm. | |
| **Family:** | Convolvulaceae | |
| **Common Names:** | English | Giant Dodder |
| | Hindi | Amar Bel, Akash Bel |
| | Assamese | Akashilota |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Amar Bel |
| | Nepali | Amar Bel |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

White Flowers

Whole Plant on Host Plant

**Description:** An unusual parasitic vine, leafless and rootless grows in a prolific manner over host plants with inter-twined stems; the twining stem develops and penetrates the host stem to draw water and nourishment. White small flowers, perfect bell shape with yellow filaments.

**Habitat:** Cosmopolitian, forest and degraded forest.

**Propagation:** Sexually by seeds.

**Parts used:** Whole plant.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Used for the treatment of headache, labour pain, bone fracture, fever, rheumatism etc.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Mishing, Nepali.

**Marketing channel:** Not reported.

**Flowering & Fruiting:** November-March.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# BIHOLONGONI

| | | |
|---|---|---|
| **Scientific Name:** | *Amblovenatum opulentum* J.P. Roux | |
| **Family:** | Thelypteridaceae | |
| **Common Names:** | English | Fern |
| | Hindi | Not reported |
| | Assamese | Biholongoni |
| | Bodo | Biholongoni |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Biholongoni |

Whole Plant

Leaves with Spores

**Description:** Perennial fern, rhizome erect, produces new plant from rhizome, frond arching, terminal segment, pinnate; Sori with yellow glands, numerous spores that are easily dispersed.

**Habitat:** Moist habitat, degraded forest, edges of forest.

**Propagation:** Sexually by spore and vegetative propagation by rhizomes.

**Parts used:** Leaves.

**Cultural and religious virtue:** Used for preparing traditional rice beer.

**Medicinal use:** The leaf is used in the treatment of pneumonia and headache.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering & Fruiting:** None.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# KORON

| | | |
|---|---|---|
| **Scientific Name:** | *Pongamia pinnata* (L.) Pierre. | |
| **Family:** | Fabaceae | |
| **Common Names:** | English | Pongam Tree |
| | Hindi | Not reported |
| | Assamese | Koron / Koroch |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Koroch |

Leaves with Flowers

Fruits

**Description:** A fast growing medium-sized evergreen or briefly deciduous, glabrous shrub or tree upto 20 metres tall. Bark is grey-brown, smooth or faintly vertically fissured. Branchlets are hairless with pale stipule scars. Leaves are alternate, imparipinnate with long slender leafstalk, hairless, pinkish-red when young, glossy dark green above and dull green small clusters white, purple and pink flowers blossom on their branches throughout the year. Pods smooth, oblique oblong to ellipsoid, flattened but slightly swollen. Seeds are compressed ovoid or elliptical, bean-like with a brittle coat long, flattened, dark brown.

**Habitat:** Humid and sub-tropic environments. Tolerant of saline conditions and alkalinity, and occurs naturally in lowland forest on limestone and rocky areas. Shade loving plant but grows well in full sunlight. Well adapted to adverse climatic conditions and soil moisture conditions.

**Propagation:** Sexually by seeds.

**Parts used:** Seeds.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Reported to be used for the treatment of pneumonia and indigestion issues.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering:** March-April; **Fruiting:** February-May.

**Occurrence:** Available in the wild.

**IUCN status:** Least Concern.

# OUTENGA

| | | |
|---|---|---|
| **Scientific Name:** | *Dillenia indica* L. | |
| **Family:** | Dilleniaceae | |
| **Common Names:** | English | Elephant Apple |
| | Hindi | Karambel, Chalta |
| | Assamese | Outenga |
| | Bodo | Karambel |
| | Garo | Karambel |
| | Mishing | Sampah |
| | Nepali | Not reported |
| | Nyishi | Karambel |
| | Tea tribes | Karambel |

Flowers

Fruits

**Description:** An evergreen small to medium tree; toothed shiny leaves, conspicuously corrugated surface with impressed veins.Large white flower, arise solitary at the ends of the twigs, facing downward. Large fibrous fruit, fleshy, pseudocarps indehiscent, yellowish green when ripe.

**Habitat:** Tropical evergreen or moist forest, along banks of forest streams and often along rivers.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Used medicinally for diarrhoea, control diabetes and cholesterol and for good hair growth.

**Economic importance:** The fruit is eaten raw or cooked. Used in curry dishes and prepare pickle. Used as timber.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market, seasonally.

**Flowering:** June-August; **Fruiting:** December-April.

**Occurrence:** Available in the wild.

**IUCN status:** Least Concern.

# KATH ALU

| | | |
|---|---|---|
| **Scientific Name:** | *Dioscorea alata* L. | |
| **Family:** | Dioscoreaceae | |
| **Common Names:** | English | Yam |
| | Hindi | Not reported |
| | Assamese | Kath Alu |
| | Bodo | Kath Alu |
| | Garo | Kath Alu |
| | Mishing | Ungan |
| | Nepali | Not reported |
| | Nyishi | Kath Alu |
| | Tea tribes | Kath Alu |

Leaves

Tubers

**Description:** A polymorphic monocot climber having one or several hairy tubers with small rootlets. Leaf cordate, dark green stem angular. Flower small.

**Habitat:** Grown in deep, fertile, rich humus, consistently moist, well-drained soils and in partially to fully sunlight. Widely cultivated.

**Propagation:** Sexually by seeds and vegetatively by tubers.

**Parts used:** Tubers.

**Cultural and religious virtue:** Used in rituals.

**Medicinal use:** Not reported.

**Economic importance:** Stem tubers and root tubers are eaten cooked as vegetable.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market, seasonally.

**Flowering:** July-October; **Fruiting:** November-December.

**Occurrence:** Available in the wild and often cultivated.

**IUCN status:** This taxon has not yet been assessed.

# DHEKIA

| | | |
|---|---|---|
| **Scientific Name:** | *Diplazium esculentum* (Retz.) Sw. | |
| **Family:** | Athyriaceae | |
| **Common Names:** | English | Vegetable Fern |
| | Hindi | Not reported |
| | Assamese | Dhekia |
| | Bodo | Dhekia |
| | Garo | Dhekia |
| | Mishing | Dhekia |
| | Nepali | Dhekia |
| | Nyishi | Dhekia |
| | Tea tribes | Dhekia |

Plant

Young Leaves

**Description:** A large perennial terrestrial fern with erect rhizome; fronds, bipinnate, curled at the tip, dark brown sori.

**Habitat:** Full sunlight or in partial shade in disturbed places, open places in wet ground, river banks and along streambanks.

**Propagation:** Propagated by spores. Runners of older plants produce plantlet.

**Parts used:** Leaves/Fronds.

**Cultural and religious virtue:** Used in rituals.

**Medicinal use:** Not reported.

**Economic importance:** The young fronds are stir fried and also used in salads.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** None.

**Occurrence:** Commonly available in the wild.

**IUCN status:** Least Concern.

# LAIJABORI

| | | |
|---|---|---|
| **Scientific Name:** | *Drymaria cordata* (L.) Willd.ex Schult. | |
| **Family:** | Caryophyllaceae | |
| **Common Names:** | English | Tropical Chickweed |
| | Hindi | Pith Papra |
| | Assamese | Laijabori / Thunthuni / Abhiijaalo |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Pith Para |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

Whole Plant

Leaf with Flowers

**Description:** A diffused herb with climbing tendency, generally form a ground dense cover, usually on moist and shady places. Leaves simple, opposite, broadly ovate, almost round, with heart-shaped base; tiny flowers in dichasial cyme, one seeded capsules.

**Habitat:** Moist environments, shade tolerant. Grow along roadsides, riverbanks, ditches, secondary forests, forest edges, agriculture, grassland and disturbed land. Found in wide range of soil textures.

**Propagation:** Sexually by seed and vegetative propagation by rooting nodes.

**Parts used:** Whole Plant.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** It is used as a medicine for sinus problem, and in treatment of cuts and wounds of domesticated animal.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Nepali.

**Marketing channel:** Not reported.

**Flowering & Fruiting:** January-December.

**Occurrence:** Available in the wild abundantly, seasonally.

**IUCN status:** Least Concern.

# BHRINGRAJ

| | | |
|---|---|---|
| **Scientific Name:** | *Eclipta prostrata* (L.) L. | |
| **Family:** | Asteraceae | |
| **Common Names:** | English | False Daisy |
| | Hindi | Keshraj |
| | Assamese | Bhringraj |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Bhringraj |
| | Nepali | Bhringraj |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

Leaves with Inflorescence

Whole Plant

**Description:** This plant has cylindrical, greyish roots. Leaves simple, opposite, stalkless, oblong, lance-shaped, or elliptic, leaf margin serrate-dentate; small solitary flower heads 6–8 mm in diameter, with white florets; oblong achene.

**Habitat:** Wet and moist places in agricultural fields, roadsides, degraded lands. Prefer semi-shade.

**Propagation:** Sexually by seeds.

**Parts used:** Whole plant.

**Cultural and religious virtue:** The plant has traditional uses in Ayurveda.

**Medicinal use:** It is considered highly medicinal for liver problem. The young leaves are crushed and applied on cuts and wounds for quick healing.

**Economic importance:** Tender leaves are used as vegetable.

**Used by (Ethnic groups):** Assamese, Mishing, Nepali.

**Marketing channel:** Sold in the local market.

**Flowering:** August-September; **Fruiting:** October-December.

**Occurrence:** Available in the wild abundantly, seasonally.

**IUCN status:** This taxon has not yet been assessed.

# GERMANI BON

| | | |
|---|---|---|
| **Scientific Name:** | *Ageratina altissima* (L.) R.M. King & H. Rob. | |
| **Family:** | Asteraceae | |
| **Common Names:** | English | Bitter Bush |
| | Hindi | Not reported |
| | Assamese | Germani Bon |
| | Bodo | Germani Bon |
| | Garo | Germani Bon |
| | Mishing | Germani Bon |
| | Nepali | Germani Bon |
| | Nyishi | Germani Bon |
| | Tea tribes | Germani Bon |

Inflorescence

Whole Plant

**Description:** A woody herbaceous perennial climbing undershrub; leaves opposite, triangular-ovate or deltoid, pubescent base entire acute, petiolate; vegetative structures covered with articulate hair throughout; stems round; flower heads, tubular, white to purple; achene fruits.

**Habitat:** Disturbed areas, forest margins, roadsides, waste areas, neglected grasslands, crops fields and plantations.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The leaves have been reported to be used to stop bleeding for many cut wounds, stomach diseases. Used in sore throat and cold.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Not reported.

**Flowering & Fruiting:** Almost through the year.

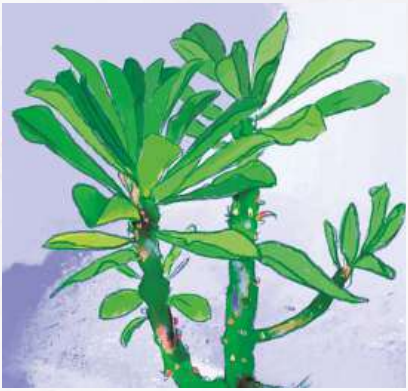
**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# Siju

| | | |
|---|---|---|
| **Scientific Name:** | *Euphorbia nerifolia* L. | |
| **Family:** | Euphorbiaceae | |
| **Common Names:** | English | Indian Spurge Tree |
| | Hindi | Not reported |
| | Assamese | Siju |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

Leaves with Inflorescence



Whole Plant

**Description:** A large much branch erect, prickly, xerophytic succulent shrub, cactus-like, light green, glabrous; main trunk and larger branches are round and terete, often leafless; towards the end of branches, fleshy, alternate, subsessile, ovate, oblong; flowered cymes; fruit capsule.

**Habitat:** Well drained soil in full sun, dry rocky ground, often cultivated for hedges in villages.

**Propagation:** Sexually by seed and vegetative propagation by root stocks.

**Parts used:** Root, leaf, milky latex.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Reported to be used to get relief from cough and cold and pain in the ear.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese.

**Marketing channel:** Not reported.

**Flowering & Fruiting:** Intermittently throughout the year.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# BORGOS

| | | |
|---|---|---|
| **Scientific Name:** | *Ficus benghalensis* L. | |
| **Family:** | Moraceae | |
| **Common Names:** | English | Indian Banyan |
| | Hindi | Barh, Bargad |
| | Assamese | Borgos |
| | Bodo | Bargad |
| | Garo | Bargad |
| | Mishing | Bargad |
| | Nepali | Bargad |
| | Nyishi | Bargad |
| | Tea tribes | Bargad |

Whole Plant

Leaves with Figs

**Description:** A large spreading semi-evergreen dense crown tree with propagating roots which grow downwards as aerial roots. Once reached the ground, they grow into woody trunks. Simple leaf, ovate-elliptic, entire, young leaves pink in colour. Figs stalkless, paired, globose-ellipsoid achene, dark brown, scarlet red when ripe.

**Habitat:** Moist natural and cultivated lands on well-draining sandy loam soils, drought-resistant.

**Propagation:** Sexually by seeds.

**Parts used:** Not reported.

**Cultural and religious virtue:** Considered as a sacred tree by the community.

**Medicinal use:** Not reported.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Not reported.

**Flowering:** March-April; **Fruiting:** March-May.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# JAGYA DIMARU

| | | |
|---|---|---|
| **Scientific Name:** | *Ficus racemosa* L. | |
| **Family:** | Moraceae | |
| **Common Names:** | English | Cluster Fig / Country Fig |
| | Hindi | Gular |
| | Assamese | Jagya Dimaru |
| | Bodo | Dimaru |
| | Garo | Dimaru |
| | Mishing | Dimaru |
| | Nepali | Dumri |
| | Nyishi | Dumri |
| | Tea tribes | Dumri |

Whole Tree

Figs

**Description:** Large semi-deciduous tree about 20 m tall rarely with aerial roots. Leaves arranged alternately on twigs. Simple leaf, young leaves are toothed, alternate-spiral, entire; Figs grow directly on trunks or main branches. Globose figs, cauliflorus; greenish-white when young, ripened ones purplish-red.

**Habitat:** Open, deciduous forest, moist areas, along rivers and streams. Grows in semi-shade or no shade, moist soil.

**Propagation:** Sexually by seeds.

**Parts used:** Bark, root, leaves and fruits.

**Cultural and religious virtue:** The stem is considered sacred and used in performing rituals.

**Medicinal use:** Root is used in treatment of dysentery, tonsilitis and diabetes mellitus. Bark is highly useful in treating abortion. Leaves are used in washing ulcer and wounds. Fruits are used in dyspepsia, haemorrhages and menorrhagia.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the market.

**Flowering:** January-April; **Fruiting:** March-July.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# TAKKUK

| | | |
|---|---|---|
| **Scientific Name:** | *Ficus semicordata* Buch. –Ham. ex Sm. | |
| **Family:** | Moraceae | |
| **Common Names:** | English | Drooping Fig |
| | Hindi | Khaina, Khunia |
| | Assamese | Not reported |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Takkuk |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

Whole Tree

Figs

**Description:** A small to medium-sized evergreen tree, spreading, umbrella-like crown; hairy young shoots, large leaves of glossy green colour on top, entire margin or coarsely toothed; figs globose to pear-shaped, pink or dull reddish brown with white spots.

**Habitat:** Natural habitats in hills slopes.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit, leaves and young shoots.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported.

**Economic importance:** Figs are edible, leaves are used as fodder. Young leaves and shoots are cooked as vegetable.

**Used by (Ethnic groups):** Mishing.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** Throughout the year.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# BOR THEKERA

| | | |
|---|---|---|
| **Scientific Name:** | *Garcinia pedunculata* Roxb. ex Buch.-Ham | |
| **Family:** | Clusiaceae | |
| **Common Names:** | English | Garcinia |
| | Hindi | Kokum |
| | Assamese | Bor Thekera |
| | Bodo | Bor Thekera |
| | Garo | Bor Thekera |
| | Mishing | Bor Thekera |
| | Nepali | Not reported |
| | Nyishi | Bor Thekera |
| | Tea tribes | Bor Thekera |

Leaves

Fruits

**Description:** A tall deciduous tree, with fluted truck with short spreading branches, lanceolate leaves with prominent midribs, light green flowers and fleshy, berry globose fruits.

**Habitat:** Humid dense forests in hilly areas.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit.

**Cultural and religious virtue:** Used in festivals.

**Medicinal use:** It also helps to cure stomach problems and dysentery.

**Economic importance:** The ripe fruit is cooked or eaten raw. The sliced fruits are dried in sun for consumption in curries or pickles.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market, seasonally (Harvested in April).

**Flowering:** March-April; **Fruiting:** July-August.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# GOMARI

| | | |
|---|---|---|
| **Scientific Name:** | *Gmelina arborea* Roxb. | |
| **Family:** | Lamiaceae | |
| **Common Names:** | English | Beechwood |
| | Hindi | Gumhar |
| | Assamese | Gomari |
| | Bodo | Gumhar |
| | Garo | Gumhar |
| | Mishing | Gumhar |
| | Nepali | Gumhar |
| | Nyishi | Not reported |
| | Tea tribes | Gumhar |

Flowers

Fruits

**Description:** A fast growing moderate-sized deciduous tree, bark light grey coloured with pale brown blotches due to fallen flakes; leaves opposite with long stalk, round and narrow tip, coated with soft hair; yellow with orange-pink shade flowers in clusters; drupe yellowish, fleshy and smelly.

**Habitat:** Tropical semi-evergreen, sub-montane, moist teak forests, deciduous sal and dry teak forests. Prefers moist fertile soil with high rainfall, could not thrive on ill-drained soils. Commonly planted as ornamental tree along agricultural land and on village community lands and wastelands.

**Propagation:** Sexually by seeds.

**Parts used:** Flower, leaves and timber.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported.

**Economic importance:** Young leaves and flowers are cooked and eaten; leaves are also used in making local rice wine. Timber.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering:** February-April; **Fruiting:** April-July.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# TENGA MORA

| | | |
|---|---|---|
| **Scientific Name:** | *Hibiscus sabdariffa* L. | |
| **Family:** | Malvaceae | |
| **Common Names:** | English | Roselle |
| | Hindi | Lalambari, Patwa |
| | Assamese | Tenga Mora / Mwitha Bangal |
| | Bodo | Lalambari |
| | Garo | Lalambari |
| | Mishing | Lalambari |
| | Nepali | Lalambari |
| | Nyishi | Lalambari |
| | Tea tribes | Lalambari |

Flowers

Fruits

**Description:** It is an annual or perennial herb or woody-based sub shrub, growing upto 2.5 m (7-8 ft) tall. Leaves simple, deeply three- to five-lobed, alternate, polymorphic, lanceolate-ovate; flower bisexual, yellow, white, orange, and purple at the base; Fruit capsule, globose-cylindrical, apex acute.

**Habitat:** Warm and tropical regions. Grows on well-drained,humus rich fertile, moist soils in the sunny areas, cannot grow in the shade.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves, flowers, fruits and seeds.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Seeds are aphrodisiac. Flowers are used for treatment of gastritis and constipation. Leaves are used in dysentery.

**Economic importance:** Leaves, fruits and flowers are used as vegetable. Fruits are used to prepare jelly.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the market.

**Flowering:** April-July; **Fruiting:** August-November.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# MASUNDHARI

| | | |
|---|---|---|
| **Scientific Name:** | *Houttuynia cordata* Thunb. | |
| **Family:** | Saururaceae | |
| **Common Names:** | English | Fish Mint |
| | Hindi | Simdalu |
| | Assamese | Masundhari |
| | Bodo | Simdalu |
| | Garo | Simdalu |
| | Mishing | Simdalu |
| | Nepali | Not reported |
| | Nyishi | Simdalu |
| | Tea tribes | Not reported |

Flowers

Whole Plant

**Description:** A herbaceous perennial plant with creeping root stock; leaves alternate, cordate at base, shortly acuminate at apex, entire, which gives out very unpleasant smell; greenish yellow flowers, minute in dense flowered spike; fruits are sub-globose.

**Habitat:** Natural habitats, moist loamy soils, shallow water and low light situations in lowlands and forested banks. Cultivated in gardens.

**Propagation:** Sexually by seeds and vegetative propagation by root stock and plant fragments.

**Parts used:** Leaves and roots.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The plant has been reported to be used to cure stomach problems and indigestion and infection.

**Economic importance:** Used as vegetable.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nyishi.

**Marketing channel:** Locally sold in the market, available throughout the year.

**Flowering:** April-June; **Fruiting:** July-August.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# BON-TULSI

| | | |
|---|---|---|
| **Scientific Name:** | *Hyptis suaveolens* (L.) Poit. | |
| **Family:** | Lamiaceae | |
| **Common Names:** | English | American Mint |
| | Hindi | Vilaiti Tulsi |
| | Assamese | Bon-Tulsi |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Bon-Tulsi |
| | Nepali | Not reported |
| | Nyishi | Bon-Tulsi |
| | Tea tribes | Not reported |

Flowers

Whole Plant

**Description:** A gregarious undershrub or herb, erect annual or often a perennial, grows upto 2.5 metres; quadrangular stem, hairy; leaves opposite, aromatic, ovate, tomentose; axillary inflorescence, flower pink or purple, arranged in clusters; Nutlets, oblong or ovoid, flat, glabrous, blackish-brown.

**Habitat:** Found along rail tracks and roadsides, in foothills of open forests, forest clearings, and on wasteland particularly on arid and rocky substrates. Could not tolerate water logging and little tolerance to drought.

**Propagation:** Sexually by seeds and vegetative propagation by root cutting.

**Parts used:** Leaves, flower and seeds.

**Cultural and religious virtue:** Used in rituals.

**Medicinal use:** It is used in the treatment of a wide range of conditions including flatulence and other stomach problems, fever associated with cold. It is also considered for liver and skin diseases.

**Economic importance:** Used as vegetable.

**Used by (Ethnic groups):** Assamese, Mishing, Nyishi.

**Marketing channel:** Locally sold in the market, available throughout the year.

**Flowering & Fruiting:** August-March.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# KOLMOU

| | | |
|---|---|---|
| **Scientific Name:** | *Ipomea aquatica* Forssk. | |
| **Family:** | Convolvulaceae | |
| **Common Names:** | English | Water Spinach |
| | Hindi | Nali, Kamli Sag |
| | Assamese | Kolmou |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Kamli Sag |

Flowers

Plant with Leaves

**Description:** Marshy or aquatic-floating herbs, tropical herbaceous plant; stems hollow, rooting at the nodes; leaves alternate, vary from sagittate to lanceolate, broad; white trumphet flowers with a purple center; capsule globose.

**Habitat:** Moist, marshy, waterlogged soils. Shallow ponds, ditches, peripheries of deep ponds, tanks, and slopes of wet soils are also suitable. Grows in wide range of soil conditions with full sunlight.

**Propagation:** Sexually by seeds and vegetative propagation by stem nodes (root) that produce to new plants.

**Parts used:** Tender shoots and leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported.

**Economic importance:** Used as vegetable.

**Used by (Ethnic groups):** Assamese, Tea tribes.

**Marketing channel:** Not reported.

**Flowering & Fruiting:** Throughout the year.

**Occurrence:** Available in the wild.

**IUCN status:** Least concern.

# CHENGMORA

| | | |
|---|---|---|
| **Scientific Name:** | *Lasia spinosa* (L.) Thwaites | |
| **Family:** | Araceae | |
| **Common Names:** | English | Lasia |
| | Hindi | Kantasaru |
| | Assamese | Chengmora |
| | Bodo | Chibru |
| | Garo | Kantasaru |
| | Mishing | Chengmora |
| | Nepali | Kantasaru |
| | Nyishi | Kantasaru |
| | Tea tribes | Kantasaru |

Whole Plant

Fruit

**Description:** An evergreen stout, spinous, aquatic or marsh perennial herb growing upto 1-2 m height, spreading by means of a long, creeping, stoloniferous stem; leaves rosette, simple, lanceolate, sagittate, or pinnatipartite, thorny along the veins; flower hermaphrodite, all fertile; berry obovoid.

**Habitat:** Swamps, wet forests, sub-tropical forests, open marshes, muddy streams, ditches, and wetlands or in permanently standing water.

**Propagation:** Sexually by seeds and vegetative propagation by underground stems.

**Parts used:** Leaves and roots/rhizomes.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The rhizomes are used or treatment of lymphotuberculosis, lymphonoditis, stomach aches, snake and insect bites, injuries and rheumatism. The roots are used in the treatment of throat ailments. The leaves and roots are used as a remedy for piles.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the market.

**Flowering & Fruiting:** May-October.

**Occurrence:** Available in the wild.

**IUCN status:** Least concern.

# JETUKA

| | | |
|---|---|---|
| **Scientific Name:** | *Lawsonia inermis* L. | |
| **Family:** | Lythraceae | |
| **Common Names:** | English | Henna |
| | Hindi | Henna, Mehendi |
| | Assamese | Jetuka |
| | Bodo | Mehendi |
| | Garo | Mehendi |
| | Mishing | Mehendi |
| | Nepali | Not reported |
| | Nyishi | Mehendi |
| | Tea tribes | Not reported |

Leaves

Inflorescence

**Description:** A deciduous shrub, glabrous and multi-branched with spine tipped branchlets; bark greyish brown, thin; simple elliptical leaves, opposite, entire; cream fragrant flowers in terminal panicles; capsule, globose.

**Habitat:** Dry to semi-arid habitats, along watercourses and in temporarily flooded riverbeds and riverine brushes. Grows on poor, stony, and sandy soils, but it is also adapted to heavy, fertile clay soils.

**Propagation:** Sexually by seeds and vegetative propagation by stem cuttings.

**Parts used:** Leaves.

**Cultural and religious virtue:** Used in festivals.

**Medicinal use:** The leaves have been reported to be used to dye skin, hair and finger nails. Prevents and cure skin diseases and finger nail infection.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nyishi.

**Marketing channel:** Locally sold in the market, available throughout the year.

**Flowering:** January-April; **Fruiting:** February-June.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# DURUN

| | | |
|---|---|---|
| **Scientific Name:** | *Leucas aspera* (Willd.) Link | |
| **Family:** | Lamiaceae | |
| **Common Names:** | English | Thumba |
| | Hindi | Gopha |
| | Assamese | Durun / Goma |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Durun |

Whole Plant

Inflorescence

**Description:** An annual erect hirsute herb or undershrub, commonly found everywhere as weed. Leaves opposite-decussate or whorled, linear-lanceolate, base cuneate, margin distantly serrate, apex acute, puberulous; white flowers held together in auxillary whorls or dense terminals.

**Habitat:** Grows wild in open dry lands and sandy soil. Commonly found in wastelands.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Reported to be commonly used as an insecticide. Used to reduce fever and also helps to cure appetite and digestion issues.

**Economic importance:** Young leaves are consumed as vegetables.

**Used by (Ethnic groups):** Assamese, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** September-February.

**Occurrence:** Commonly available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# BAKNALA

| | | |
|---|---|---|
| **Scientific Name:** | *Lobelia nicotianifolia* Roth ex Schult. | |
| **Family:** | Campanulaceae | |
| **Common Names:** | English | Wild Tobacco |
| | Hindi | Dhawal, Narasala |
| | Assamese | Laham / Baknala |
| | Bodo | Dhawal |
| | Garo | Dhawal |
| | Mishing | Dhawal |
| | Nepali | Dhawal |
| | Nyishi | Dhawal |
| | Tea tribes | Dhawal |

Plant

Flowers

**Description:** A tall erect, much branched, somewhat hairy herb, leaves narrowly obovate-lanceolate, large, white flowers and borne in terminal racemes; capsules.

**Habitat:** Open localities on edges in dense forest, often on grassy hill slopes.

**Propagation:** Sexually by seeds.

**Parts used:** Whole plant.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The plant has been reported to be used for treating bronchitis and asthma. Use on the skin for muscle soreness, bruises, sprains, insect bites, poison ivy, ringworm, and other conditions.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering & Fruiting:** October-March.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# GAHETH

| | | |
|---|---|---|
| **Scientific Name:** | *Macrotyloma uniflorum* (Lam.) Verdc. | |
| **Family:** | Fabaceae | |
| **Common Names:** | English | Horse Gram |
| | Hindi | Gaheth, Kulat |
| | Assamese | Gaheth / Cepeta kalai |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Gaheth |
| | Nepali | Gahat / Kurtikolai |
| | Nyishi | Gaheth |
| | Tea tribes | Gaheth |

Plant

Flowers

**Description:** It is a climbing herb growing up to 60 cm tall with a perennial fibrous rhizome stem densely covered with whitish hair; leaflets are ovate, rounded at the base, pointed or slightly tapering; yellow or greenish-yellow flowers with violet blot; pods with 6-7 seeds.

**Habitat:** Moderately warm and dry environment. Grows in drier and semi-arid climatic tracts.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit and seeds.

**Cultural and religious virtue:** Used in traditional dishes as vegetable bean.

**Medicinal use:** It can be medicinally beneficial as an antioxidant, in diabetes and its related disorders.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Mishing,Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market, seasonally.

**Flowering & Fruiting:** October-December.

**Occurrence:** Available in the wild abundantly, seasonal.

**IUCN status:** This taxon has not yet been assessed.

# AAM

| | | |
|---|---|---|
| **Scientific Name:** | *Mangifera indica* L. | |
| **Family:** | Anacardiaceae | |
| **Common Names:** | English | Mango |
| | Hindi | Aam |
| | Assamese | Aam |
| | Bodo | Aam |
| | Garo | Aam |
| | Mishing | Aam |
| | Nepali | Aam |
| | Nyishi | Aam |
| | Tea tribes | Aam |

Whole Tree

Fruit

**Description:** A large evergreen tree, umbrella-shaped, spreading crown, rough thick dry-grey fibrous bark. Leaves simple, alternate, clustered at the tips of branchlets, elliptic, elliptic-lanceolate, margin entire, glabrous, shiny; flowers polygamous, yellowish-green; fruit yellowish-red when ripe, drupe.

**Habitat:** Natural and semi-natural habitats. Grows in a wide range of soils and moisture regimes. Drought-tolerant.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit, bark and leaves.

**Cultural and religious virtue:** Leaves (twigs) are used in rituals ceremony.

**Medicinal use:** The bark of the tree has been reported to be used for the traditional treatment of jaundice and stomach pain.

**Economic importance:** Unripe and ripe fruits are eaten.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Locally sold in the market, seasonally.

**Flowering:** February-April; **Fruiting:** May-June.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# PANI TENGESI

| | | |
|---|---|---|
| **Scientific Name:** | *Marsilea mutica* Mett. | |
| **Family:** | Marsileaceae | |
| **Common Names:** | English | Water Clover |
| | Hindi | Not reported |
| | Assamese | Pani Tengesi |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Tengesi |

Whole Tree

Leaves

**Description:** Aquatic ferns, long stalked leaves having four clovers like lobes and are either held above water or submerged.

**Habitat:** Shallow, still or sluggishly flowing water, in seasonally wet habitats.

**Propagation:** Sexually by spores and vegetative propagation by adventitious roots and rhizomes.

**Parts used:** Leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported.

**Economic importance:** The sporocarp and leaves of the plant have been reported to be used as food and eaten as vegetable.

**Used by (Ethnic groups):** Assamese, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering:** February-April; **Fruiting:** May-June.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# PHUTKOLA

| | | |
|---|---|---|
| **Scientific Name:** | *Melastoma malabathricum* L. | |
| **Family:** | Melastomataceae | |
| **Common Names:** | English | Malabar Melastome |
| | Hindi | Not reported |
| | Assamese | Phutkola / Thung Khu |
| | Bodo | Phutkola |
| | Garo | Phutkola |
| | Mishing | Phutkola |
| | Nepali | Phutkola |
| | Nyishi | Phutkola |
| | Tea tribes | Phutkola |

Whole Plant

Flower

**Description:** Evergreen erect shrub that grows to a height of about 3 meters; reddish stems covered with bristly scales and minute hair; leaves simple, opposite, decusate, broad, ovate-lanceolate, rounded at base, acute or shortly acuminate at apex, entire; pink flowers in terminal dichasial cymes; fruit a loculicidal capsule.

**Habitat:** Open, disturbed sites associated with plantation crops. Found in upland and rice fields.

**Propagation:** Sexually by seeds.

**Parts used:** Root, leaves, barks and fruits.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Roots and leaves are used to stop bleeding from cut wounds, bark is used for treatment of pneumonia, leafs are used for dysentery. Fruit is one of the ingredients for treating impotency.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the market.

**Flowering:** February-August; **Fruiting:** July-December.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# KOLIALOTA

| | | |
|---|---|---|
| **Scientific Name:** | *Mikania micrantha* Kunth | |
| **Family:** | Asteraceae | |
| **Common Names:** | English | Bitter Vine |
| | Hindi | Not reported |
| | Assamese | Kolialota |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Kolialota |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

Leaves

Inflorescence

**Description:** A vigorously growing perennial scandent climbing shrub with slender, much branched, twining stems; leaves simple, opposite, glabrous, lanceolate oblong, elongated, attenuated at the top and shortly acuminate, margin subentire to roughly crenate or wavy; white flowers, tubular; fruit black, achene, oblong to obovate.

**Habitat:** Grows in a wide range of habitats along streams and roadsides, along edges of forests and forest plantations, along fence-lines, in grasslands and wastelands and on and among tree crops. Found in damp, lowland clearings or open areas, where there is adequate temperate, light and rainfall.

**Propagation:** Sexually by seeds and vegetative propagation by stem fragments and root stocks.

**Parts used:** Leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Leaves are used to stop bleeding from any cut wounds.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Mishing.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** February-April.

**Occurrence:** Commonly available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# BHAT KERELA

| | | |
|---|---|---|
| **Scientific Name:** | *Momordica dioca* Roxb. ex Willd. | |
| **Family:** | Cucurbitaceae | |
| **Common Names:** | English | Spine Gourd |
| | Hindi | Ban Karela |
| | Assamese | Supi-Sung / Bhat Kerela |
| | Bodo | Bhat Kerela |
| | Garo | Bhat Kerela |
| | Mishing | Supi-Sung |
| | Nepali | Bhat Kerela |
| | Nyishi | Not reported |
| | Tea tribes | Bhat Kerela |

Leaves with Flower

Fruit

**Description:** A climbing herb with tuberous roots; leaves small broadly ovate, base cordate, margin denticulate, apex acute; small yellow flowers; round or oval fruits, small, dark green to pale yellow.

**Habitat:** Tropical moist deciduous forests, southern tropical dry deciduous forests.

**Propagation:** Sexually by seeds and vegetative propagation by stem cuttings.

**Parts used:** Fruits .

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The fruit is also reported to be used for the traditional treatment of jaundice.

**Economic importance:** The fruit is edible and cooked as vegetable.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** July-December.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# SAJJINA

| | | |
|---|---|---|
| **Scientific Name:** | *Moringa oleifera* Lam. | |
| **Family:** | Moringaceae | |
| **Common Names:** | English | Drumsticks |
| | Hindi | Senjana |
| | Assamese | Munga / Sajjina |
| | Bodo | Senjana |
| | Garo | Senjana |
| | Mishing | Senjana |
| | Nepali | Senjana |
| | Nyishi | Not reported |
| | Tea tribes | Senjana |

Whole Plant

Leaves with Seeds

**Description:** A fast growing slender, deciduous tree, rather slender with drooping branches; branches and stems brittle, with corky whitish grey bark; leaves feathery, pale green, compound, tripinnate, with many small leaflets; flowers fragrant, white or creamy-white; fruit is a hanging three sided brown capsule, pod tapering at both ends.

**Habitat:** Grows along stream banks and arid areas where the soils are fertile and well drained. Grows well in a sunny position, tolerating a wide range of soil types, can tolerate drought.

**Propagation:** Sexually by seeds and vegetative propagation by stem cuttings.

**Parts used:** Leaves and pods.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Widely cultivated for young seed pods and leaves to be used as vegetables and for traditional herbal medicine. It is used to gain strength in weakness and to cure diarrhea.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** March and July.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# BOLA NUNI

| | | |
|---|---|---|
| **Scientific Name:** | *Morus macroura* Miq. | |
| **Family:** | Moraceae | |
| **Common Names:** | English | Mulberry |
| | Hindi | Shahtoot |
| | Assamese | Bola Nuni |
| | Bodo | Nuni |
| | Garo | Nuni |
| | Mishing | Nuni |
| | Nepali | Nuni |
| | Nyishi | Nuni |
| | Tea tribes | Nuni |

Plant

Fruit

**Description:** The common mulberry is a deciduous tree, 10-25 m tall, spreading head of branches usually wider than the height of the tree, springing from a short, rough trunk.

**Habitat:** Agricultural fields, roadsides, forest edges, urban environments, and other disturbed areas. Warm to tropical, very dry to moist forest. Prefer warm, moist, well-drained loamy soil in a sunny position.

**Propagation:** Sexually by seeds.

**Parts used:** Fruits.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Strengthen the immune system and are good for eyesight.

**Economic importance:** Berry edible.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market, seasonally.

**Flowering & Fruiting:** March-June.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# NARASINGHA

| | | |
|---|---|---|
| **Scientific Name:** | *Murraya koenigii* (L.) Spreng. | |
| **Family:** | Rutaceae | |
| **Common Names:** | English | Curry Leaf Plant |
| | Hindi | Kari Patta |
| | Assamese | Narasingha |
| | Bodo | Kari Patta |
| | Garo | Kari Patta |
| | Mishing | Narasingha |
| | Nepali | Kari Patta |
| | Nyishi | Kari Patta |
| | Tea tribes | Kari Patta |

Fruits

Leaves

**Description:** A deciduous aromatic shrub or small evergreen tree with strong smell; pinnate leaves, alternate-spiral, oblong-lanceolate, entire; small white flowers; berries shiny purplish black when mature, single large viable seed.

**Habitat:** Well-drained soils in areas with full sun or partial shaden.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Leaves are used for flavouring curries and also reported to be used for stomach problems and have high iron content.

**Economic importance:** Berry edible.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nyishi.

**Marketing channel:** Locally sold in the market.

**Flowering:** March-May; **Fruiting:** July-August.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# SEWALI

| | | |
|---|---|---|
| **Scientific Name:** | *Nyctanthes arbor-tristis* L. | |
| **Family:** | Oleaceae | |
| **Common Names:** | English | Night Jasmine |
| | Hindi | Har Singar |
| | Assamese | Sewali |
| | Bodo | Har Singar |
| | Garo | Har Singar |
| | Mishing | Har Singar |
| | Nepali | Parijaat |
| | Nyishi | Not reported |
| | Tea tribes | Har Singar |

Fruits

Leaves

**Description:** A deciduous shrub or small tree with flaky grey bark, opposite leaves, distantly toothed or entire, coriaceous, scabrid, base rounded, cuneate or acute; white sweet scented flowers with an orange- red centre; compressed orbicular capsular fruit.

**Habitat:** Rocky ground in dry hillsides, and as undergrowth in dry deciduous forest. Grows in wide variety of loamy soils and in soils found in average garden situations, full sunlight to partial shade.

**Propagation:** Sexually by seeds and vegetative propagation by stem cuttings.

**Parts used:** Flower and leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Leaves are used to treat jaundice and indigestion problems.

**Economic importance:** Flowers are eaten as vegetables either as fresh or as dried.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali.

**Marketing channel:** Locally sold in the market.

**Flowering:** September-October; **Fruiting:** February-March.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# TULOKHI

| | | |
|---|---|---|
| **Scientific Name:** | *Ocimum tenuiflorum* L. | |
| **Family:** | Lamiaceae | |
| **Common Names:** | English | Holy Basil |
| | Hindi | Tulsi |
| | Assamese | Tulokhi |
| | Bodo | Tulsi |
| | Garo | Tulsi |
| | Mishing | Tulsi |
| | Nepali | Tulsi |
| | Nyishi | Not reported |
| | Tea tribes | Tulsi |

Plant

Leaves with Inflorescence

**Description:** An aromatic perennial herb, tall with hairy stems; leaves simple, green or purple, petioled, opposite decussate, serrate, oblanceolate; purplish flowers, elongate racemes; nutlet.

**Habitat:** Tropical and subtropical regions, primarily cultivated in home gardens, as well as around temples and places of worship. Grows naturally in moist soils.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves.

**Cultural and religious virtue:** It is a sacred plant. Cultivated for religious and traditional medicinal purposes.

**Medicinal use:** Leaves are used to get relief from cough and cold.

**Economic importance:** Flowers are eaten as vegetables either as fresh or as dried.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering:** November-January; **Fruiting:** December-February.

**Occurrence:** Cultivated.

**IUCN status:** This taxon has not yet been assessed.

# BHATGHILA

| | | |
|---|---|---|
| **Scientific Name:** | *Oroxylum indicum* (L.) Kurz | |
| **Family:** | Bignoniaceae | |
| **Common Names:** | English | Indian Trumpet Flower |
| | Hindi | Ullu, Bhut-Vriksha |
| | Assamese | Bhatghila / Kharoi-Khandai |
| | Bodo | Bhut-Vriksha |
| | Garo | Bhut-Vriksha |
| | Mishing | Bhut-Vriksha |
| | Nepali | Bhut-Vriksha |
| | Nyishi | Bhut-Vriksha |
| | Tea tribes | Bhut-Vriksha |

Plant with Fruits

Inflorescence

**Description:** A small tree with few branches and open crown; leaves compound, pinnate, with opposite pinnae, apex acuminate, margin entire, glabrous; flowers in terminal racemes, large, reddish-purple and pinkish-yellow within; long capsule, flat, purple brown; seeds many, flattened with broad hyaline papery wings.

**Habitat:** Open forests and roadsides. Tolerate a wide range of climatic conditions. Grows well in fertile, moisture-retentive soil in a sunny position or light shade.

**Propagation:** Sexually by seeds and vegetative propagation by stem cuttings.

**Parts used:** Roots, flower, seed and fruits.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Seeds are used in traditional medicine. Roots are used to treat rheumatism, dropsy, diarrhea, dysentery. Leaves treat stomach ache, rheumatism, ulcer and enlarged spleen. Fruits are useful in cardiac disorder, bronchitis, haemorrhoids.

**Economic importance:** Flower, seeds fruits and young shoots are eaten as vegetable and sold in local markets.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the market.

**Flowering & Fruiting:** June-December.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# TENGESI TENGA

| | | |
|---|---|---|
| **Scientific Name:** | *Oxalis corniculata* L. | |
| **Family:** | Oxalidaceae | |
| **Common Names:** | English | Creeping Wood Sorrel |
| | Hindi | Amrul Sak |
| | Assamese | Tengesi Tenga |
| | Bodo | Amrul Sak |
| | Garo | Amrul Sak |
| | Mishing | Amrul Sak |
| | Nepali | Charee Aamilo |
| | Nyishi | Amrul Sak |
| | Tea tribes | Amrul Sak |

Plant

Flower

**Description:** Prostate herbs with creeping stem, rooting nodes, trifoliate leaves subdivided into three rounded leaflets and resembles clover in shape, flowers yellow, fruits capsular.

**Habitat:** Natural forests, disturbed areas, roadsides, cultivated / agricultural land, gardens, lawns and fallow fields.

**Propagation:** Sexually by seeds and vegetative propagation by rooting nodes.

**Parts used:** Whole plant/leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Leaves are antiscorbutic and are used in treating scurvy. Leaves are used in treatment for jaundice, gout, rheumatism, and calculi in urinary tract.

**Economic importance:** The leaves are edible and used to prepare chutney.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering & Fruiting:** October-March.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# BHEDAILOTA

| | | |
|---|---|---|
| **Scientific Name:** | *Paederia foetida* L. | |
| **Family:** | Rubiaceae | |
| **Common Names:** | English | Skunk Vine |
| | Hindi | Gandhali |
| | Assamese | Bhedailota |
| | Bodo | Bhedailota |
| | Garo | Bhedailota |
| | Mishing | Bhedailota |
| | Nepali | Not reported |
| | Nyishi | Bhedailota |
| | Tea tribes | Not reported |

Plant

Leaves with Inflorescence

**Description:** A fast growing, slender, perennial climbing plant producing stems that twine into other plants for support. Leaves simple, opposite or rarely ternate, triangular to ovate, obtuse to acute, acuminate, ovate, ovate-oblong, lanceolate, cordulate to cordate at base; flowers are small, grayish pink or lilac, in broad or long, curving clusters at the end of branches or in leaf axils. It has got an unpleasant smell.

**Habitat:** Along forest edges, in secondary evergreen to deciduous forest and clearings in primary forest.

**Propagation:** Sexually by seeds and vegetative propagation by shoots that produce adventitious roots.

**Parts used:** Whole plant.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** It is considered as medicinal for stomach problems, relief from pains and weakness, preventive medicine for liver diseases.

**Economic importance:** Young leaves are edible.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nyishi.

**Marketing channel:** Locally sold in the market.

**Flowering:** May-October; **Fruiting:** July-December.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# TITA FUL

| | | |
|---|---|---|
| **Scientific Name:** | *Phlogacanthus thyrsiformis* (Roxb. ex Hardw.) Mabb. | |
| **Family:** | Acanthaceae | |
| **Common Names:** | English | Nongmangka |
| | Hindi | Basak |
| | Assamese | Tita Ful |
| | Bodo | Tita Ful |
| | Garo | Tita Ful |
| | Mishing | Tita Ful |
| | Nepali | Chuwaa |
| | Nyishi | Tita Ful |
| | Tea tribes | Not reported |

Inflorescence

Plant

**Description:** An evergreen shrub having quadrangular branch, leaves dark green, pale beneath, elliptic- lanceolate, pubescent, and entire; flowers orange-red in long inflorescence, fruits capsular.

**Habitat:** Forest and bamboo grove. Cultivated.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves, roots and flowers.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The plant has been reported to be used in the treatment of liver problems and coughs. Useful in chronic bronchitis, asthama and phthisis, dysentery, haemoptysis, painful swelling, neuralgia, blood pressure and malarial fever.

**Economic importance:** Flowers are cooked and eaten as vegetable.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering:** December-February; **Fruiting:** February-April.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# AMLAKHI

| | | |
|---|---|---|
| **Scientific Name:** | *Phyllanthus emblica* L. | |
| **Family:** | Phyllanthaceae | |
| **Common Names:** | English | Gooseberry |
| | Hindi | Amla |
| | Assamese | Amlakhi |
| | Bodo | Aonla |
| | Garo | Aonla |
| | Mishing | Aonla |
| | Nepali | Amla |
| | Nyishi | Aonla |
| | Tea tribes | Aonla |

Whole Plant

Leaves with Fruits

**Description:** It is a small to medium size deciduous tree with a crooked trunk and spreading branches. Leaves are pinnate with small leaflets. The flowers are monoecious and greenish yellow.

**Habitat:** Dry and open forest. Often common in grassy areas, brush and village groves and bamboo grove. Tolerant of alkaline soils.

**Propagation:** Sexually by seeds and vegetative propagation by semi-hard wood cuttings.

**Parts used:** Fruits.

**Cultural and religious virtue:** Popularly known as Amla it is also used in shampoos and hair oils.

**Medicinal use:** The fruit (Amla/Aonla) is highly medicinal and is edible, fresh, pickled or cooked. The fruit is rich in vitamin C and immuno-modulators.

**Economic importance:** Fruit edible.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market, seasonally.

**Flowering:** August-September; **Fruiting:** October-December.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# POKMOU

| | | |
|---|---|---|
| **Scientific Name:** | *Physalis minima* L. | |
| **Family:** | Solanaceae | |
| **Common Names:** | English | Little Gooseberry |
| | Hindi | Asbhari, Chirpati |
| | Assamese | Pokmou |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Pokmou |
| | Nepali | Not reported |
| | Nyishi | Harua / Tita-Shak |
| | Tea tribes | Not reported |

Whole Plant

Fruits

**Description:** The plant is bushy herbaceous annual, having soft glabrous leaves.

**Habitat:** Well-drained soil in full sun or light shade. Field edges, wastelands, roadsides, etc where the soil is porous and rich in organic matter.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported.

**Economic importance:** Ripe fruits are edible which is sweet scented and delicious.

**Used by (Ethnic groups):** Assamese, Mishing, Nyishi.

**Marketing channel:** Not reported.

**Flowering:** August-September; **Fruiting:** October-December.

**Occurrence:** Available in the wild, abundant .

**IUCN status:** This taxon has not yet been assessed.

# PAAN

| | | |
|---|---|---|
| **Scientific Name:** | *Piper betle* L. | |
| **Family:** | Piperaceae | |
| **Common Names:** | English | Betel Leaf |
| | Hindi | Paan |
| | Assamese | Paan |
| | Bodo | Fatwi |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

Whole Plant

Leaves with inflorescence

**Description:** It is an evergreen climbing shrub of 5 - 20 metres long having woody stems.

**Habitat:** Moist and well-drained soils.

**Propagation:** Vegetative propagation stem cutting.

**Parts used:** Leaves.

**Cultural and religious virtue:** Sacred offering while worshipping. Betel leaf is used as a wrapper for the chewing of areca nut or tobacco where it is mainly used to add flavour.

**Medicinal use:** Not reported.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese.

**Marketing channel:** Sold in the market.

**Flowering:** August-September; **Fruiting:** October-December.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# PIPOLI

| | | |
|---|---|---|
| **Scientific Name:** | *Piper longum* L. | |
| **Family:** | Piperaceae | |
| **Common Names:** | English | Indian Long Pepper |
| | Hindi | Pipli |
| | Assamese | Pipoli |
| | Bodo | Pipli |
| | Garo | Pipli |
| | Mishing | Pipoli, Pipli |
| | Nepali | Pipli |
| | Nyishi | Pipli |
| | Tea tribes | Pipli |

Whole Plant

Fruit

**Description:** It is a climber, aromatic herb, trailing either on ground or climbing on trees; leaves dark green, oblong. Male and female flowers are distinct, fruiting spike long fleshy.

**Habitat:** Moist forests, along streams and among bushes. Grows well in rich, well-drained soil in light shade.

**Propagation:** Sexually by seeds and vegetative propagation by semi-ripe cuttings.

**Parts used:** Fruits.

**Cultural and religious virtue:** Cultivated for its fruit, which is usually dried and used as a spice and seasoning.

**Medicinal use:** Used for enhancing digestion, assimilation and metabolism of the food we eat.

**Economic importance:** It is used as a condiment in various dishes.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering:** August-September; **Fruiting:** October-December.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# MESAKI JOLA PHANG

| | | |
|---|---|---|
| **Scientific Name:** | *Pouzolzia sanguinea* (Blume) Merr. | |
| **Family:** | Urticaceae | |
| **Common Names:** | English | Not reported |
| | Hindi | Not reported |
| | Assamese | Not reported |
| | Bodo | Mesaki Jola Phang |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Not reported |
| | Nyishi | Oyek |
| | Tea tribes | Not reported |

Plant with Glomerules at Nodes

Leaves

**Description:** It is a perennial shrub characterized by woody, densely branched stem, simple, alternate leaf, verticillaster inflorescence with condensed, green flowers.

**Habitat:** Warm evergreen forests, edges of forest, damp open forest, grasslands, and roadsides. Often found in fallow lands and disturbed habitats.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported.

**Economic importance:** Young leaves are eaten as vegetable.

**Used by (Ethnic groups):** Bodo, Nyshi.

**Marketing channel:** Not reported.

**Flowering:** August-September; **Fruiting:** October-December.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# AHOM BOGORI

| | | |
|---|---|---|
| **Scientific Name:** | *Prunus domestica* L. | |
| **Family:** | Rosaceae | |
| **Common Names:** | English | Common Plum |
| | Hindi | Alubokhra |
| | Assamese | Bisfol Khande / Ahom Bogori |
| | Bodo | Ahom Bogori |
| | Garo | Ahom Bogori |
| | Mishing | Ahom Bogori |
| | Nepali | Ahom Bogori |
| | Nyishi | Ahom Bogori |
| | Tea tribes | Ahom Bogori |

Flowers

Fruits

**Description:** A small deciduous tree with rounded crown, somewhat thorny, leaves lanceolate, flowers white, drupe fruit and hairy above, red or dark purple in color.

**Habitat:** Temperate regions.

**Propagation:** Sexually by seeds and vegetative propagation by stem cuttings.

**Parts used:** Flower, fruits, oil, seed and roots.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The plant has been reported to be used for stomach ailments and headache. Fruits are effective in enlarged spleen, piles, gonorrhoea, irregular menstruation. Roots are astringent.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering:** April; **Fruiting:** July-November.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# MADHURIAAM

| | | |
|---|---|---|
| **Scientific Name:** | *Psidium guajava* L. | |
| **Family:** | Myrtaceae | |
| **Common Names:** | English | Guava |
| | Hindi | Amrood |
| | Assamese | Madhuriaam |
| | Bodo | Madhuriaam |
| | Garo | Madhuriaam |
| | Mishing | Madhuriaam |
| | Nepali | Amba, Bihi |
| | Nyishi | Not reported |
| | Tea tribes | Madhuriaam |

Fruits

Leaves with Flowers

**Description:** An evergreen or sub-deciduous small tree with smooth pinkish brown bark exfoliating in thin flakes, elliptic oblong leaves, white flowers and large fleshy, globose fruits.

**Habitat:** Humid and dry climates of tropical and sub-tropical regions. Grows well in a wide range of fertile soil conditions, moisture-retentive soil and a sunny position. Cultivated.

**Propagation:** Sexually by seeds and vegetative propagation by stem cuttings and grafting.

**Parts used:** Fruit and leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The leaves have been reported to be used for the traditional treatment of dysentery and relief from stomach pain.

**Economic importance:** Fruits are edible.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering:** April-June; **Fruiting:** October-December.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# KOHUA BON

| | | |
|---|---|---|
| **Scientific Name:** | *Saccharum spontaneum* L. | |
| **Family:** | Poaceae | |
| **Common Names:** | English | Wild Sugarcane/Kans Grass |
| | Hindi | Kaans |
| | Assamese | Kohua Bon |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Kohua Bon |
| | Nepali | Kaans |
| | Nyishi | Not reported |
| | Tea tribes | Kaans |

Whole Plant

Inflorescence

**Description:** It is a perennial grass, growing up to 3 meters in height, with spreading rhizomatous roots.

**Habitat:** Tropical and subtropical regions, areas with moderate, but prolonged, dry periods. Commonly found along river banks, roadsides and railroads, on waste ground and along the banks of lakes and ponds.

**Propagation:** Sexually by seeds and vegetative propagation by rhizomes and stem fragments.

**Parts used:** Leaves and seeds.

**Cultural and religious virtue:** Used in Hindu rituals.

**Medicinal use:** Used in Ayurveda.

**Economic importance:** The plant has been reported as good fodder for goats and suitable to produce silage.

**Used by (Ethnic groups):** Assamese, Mishing, Nepali, Tea tribes.

**Marketing channel:** Sold in the local market, seasonally.

**Flowering:** August-September; **Fruiting:** October-December.

**Occurrence:** Available in the wild .

**IUCN status:** This taxon has not yet been assessed.

# MESAKI

| | | |
|---|---|---|
| **Scientific Name:** | *Sarcochlamys pulcherrima* Gaudich. | |
| **Family:** | Urticaceae | |
| **Common Names:** | English | Duggal Fibre Tree |
| | Hindi | Not reported |
| | Assamese | Mesaki / Notke |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Ambe |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

Whole Plant

Leaves

**Description:** An evergreen shrub or small tree with alternate leaves, shining and rough above, white beneath, reticulation visible from outside, flowers in axillary spikes, fruit achene.

**Habitat:** Tropical moist deciduous forests, open and damp secondary forests on floodplains, and around water courses.

**Propagation:** Sexually by seeds.

**Parts used:** Shoots and leaves.

**Cultural and religious virtue:** Used in Hindu rituals.

**Medicinal use:** Reported to be traditionally used for the treatment of diarrhea, dysentery, stomach problems and calcium deficiency.

**Economic importance:** Young shoots and leaves are eaten as vegetables with meat.

**Used by (Ethnic groups):** Assamese, Mishing.

**Marketing channel:** Locally sold in the market.

**Flowering:** April-June; **Fruiting:** October-December.

**Occurrence:** Available in the wild .

**IUCN status:** This taxon has not yet been assessed.

# BONDHONIA

| | | |
|---|---|---|
| **Scientific Name:** | *Scoparia dulcis* L. | |
| **Family:** | Plantaginaceae | |
| **Common Names:** | English | Sweet Broomweed |
| | Hindi | Mithi Patti |
| | Assamese | Bondhonia |
| | Bodo | Mithi Patti |
| | Garo | Mithi Patti |
| | Mishing | Bongalioli / Numnyaoli |
| | Nepali | Not reported |
| | Nyishi | Mithi Patti |
| | Tea tribes | Not reported |

Whole Plant

Flowers

**Description:** An erect, available throughout the year or perennial herb with minute axillary flowers and globose capsules, green when unripe and red when ripe.

**Habitat:** Moist habitats or along sandy stream beds, abundant in wastelands or cultivated fields.

**Propagation:** Sexually by seeds.

**Parts used:** Stem and leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** It has been reported to be used for various problems like stomach and liver problems, hypertension and diabetes.

**Economic importance:** Young shoots and leaves are eaten as vegetables with meat.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nyishi.

**Marketing channel:** Locally sold in the market.

**Flowering:** October-November; **Fruiting:** November-December.

**Occurrence:** Available in the wild .

**IUCN status:** This taxon has not yet been assessed.

# TITA-BHEKURI

| | | |
|---|---|---|
| **Scientific Name:** | *Solanum indicum* L. | |
| **Family:** | Solanaceae | |
| **Common Names:** | English | Indian Nightshade |
| | Hindi | Barhati |
| | Assamese | Bangko / Tita-Bhekuri |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Tita-Bhekuri |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

Flowers

Fruits

**Description:** A shrub with stems and branches having curved prickles, branches are covered with minute stellate brown hair, leaves ovate, sparsely prickly on both sides, bluish purple flowers, fruit berry and globose.

**Habitat:** Tropical and subtropical regions, roadsides, waste lands and along forest edges. Grows well in sandy soils and shady places.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Used for treatment of worm infection and skin diseases.

**Economic importance:** Fruits are eaten as vegetables.

**Used by (Ethnic groups):** Assamese and Mishing.

**Marketing channel:** Locally sold in the market.

**Flowering:** April-June; **Fruiting:** October-December.

**Occurrence:** Available in the wild .

**IUCN status:** This taxon has not yet been assessed.

# BIHTITA

| | | |
|---|---|---|
| **Scientific Name:** | *Solanum torvum* Sw. | |
| **Family:** | Solanaceae | |
| **Common Names:** | English | Turkey Berry |
| | Hindi | Bhurat, Bhankatiya |
| | Assamese | Bihtita |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Not reported |
| | Nyishi | Bahka |
| | Tea tribes | Not reported |

Fruits

Whole Plant

**Description:** The plant is broad leaved, evergreen, shrub, growing up to 16 ft tall. The stems are armed with stout, straight or lightly curved prickles.

**Habitat:** Warm moist fertile conditions, found in forest margins, waterways, plantation crops, roadsides, disturbed sites and waste areas. Grows best in warm moist fertile conditions.

**Propagation:** Sexually by seeds.

**Parts used:** Fruits.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported..

**Economic importance:** Fruit is eaten as vegetable.

**Used by (Ethnic groups):** Assamese and Nyishi.

**Marketing channel:** Not reported.

**Flowering:** August-September; **Fruiting:** October-December.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# SWONI

| | | |
|---|---|---|
| **Scientific Name:** | *Acmella paniculata* (Wall. ex DC.) R.K.Jansen | |
| **Family:** | Asteraceae | |
| **Common Names:** | English | Panicled Spot Flower |
| | Hindi | Not reported |
| | Assamese | Swoni / Bhringaraj, Huhuni Sak |
| | Bodo | Ushumoi |
| | Garo | Huhuni Sak |
| | Mishing | Marchang |
| | Nepali | Huhuni Sak |
| | Nyishi | Huhuni Sak |
| | Tea tribes | Huhuni Sak |

Whole Plant

Inflorescence

**Description:** An erect annual herb, perennial, growth up to 40cm. It has soft branching stems, yellow flowers.

**Habitat:** Along roadsides, in cultivated fields, marshes, streams, pastures, meadows, and in disturbed habitats.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves, root, flowers and fruits.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Used as medicine in sore mouth, tooth ache and in wounds etc.

**Economic importance:** Young shoots and leaves are eaten cooked as vegetable.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering & Fruiting:** September-January.

**Occurrence:** Available in the wild .

**IUCN status:** This taxon has not yet been assessed.

# UDAL

| | | |
|---|---|---|
| **Scientific Name:** | *Sterculia villosa* Roxb. | |
| **Family:** | Malvaceae | |
| **Common Names:** | English | Elephant Rope Tree |
| | Hindi | Not reported |
| | Assamese | Udal |
| | Bodo | Ubak |
| | Garo | Ubak |
| | Mishing | Sargik Esing |
| | Nepali | Khava |
| | Nyishi | Ubak |
| | Tea tribes | Ubak |

Reddish Brown Fruit

Flowers

**Description:** A moderate sized deciduous tree with large lobed trees crowded at the end of the branchlets. Flowers yellow, fruit an aggregate of 2-7 reddish brown follicles.

**Habitat:** Moist deciduous forest, grows best in a light, well-drained soil. Found along the river banks.

**Propagation:** Sexually by seeds.

**Parts used:** Root and bark.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Not reported.

**Economic importance:** The powdered root is mixed with rice flour and used to prepare a bread-like doughnut. It makes the bread soft and tasty. A gum obtained from the bark is used as a substitute for gum tragacanth in confectionery etc. Paper, rope, bags are made using the bark.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Not reported.

**Flowering & Fruiting:** February-April.

**Occurrence:** Available in the wild in deciduous and moist deciduous forests.

**IUCN status:** This taxon has not yet been assessed.

# PAHARI

| | | |
|---|---|---|
| **Scientific Name:** | *Sterculia alata* Roxb. | |
| **Family:** | Malvaceae | |
| **Common Names:** | English | Wild Papaya |
| | Hindi | Not reported |
| | Assamese | Tula, Pahari |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Not reported |
| | Nepali | Not reported |
| | Nyishi | Tago |
| | Tea tribes | Not reported |

Fruit

Whole Plant

**Description:** The plant is erect up to 30 m (100 ft), having buttressed stem.

**Habitat:** Moist, evergreen to semi-evergreen forests. Open and disturbed forests areas.

**Propagation:** Sexually by seeds.

**Parts used:** Seeds.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Used for herbal medicines.

**Economic importance:** Seeds are eaten .

**Used by (Ethnic groups):** Assamese and Nyishi.

**Marketing channel:** Not reported.

**Flowering:** August-September; **Fruiting:** October-December.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# NARJI FOOL

| | | |
|---|---|---|
| **Scientific Name:** | *Tagetes erecta* L. | |
| **Family:** | Asteraceae | |
| **Common Names:** | English | Marigold |
| | Hindi | Genda Fool |
| | Assamese | Narji Fool |
| | Bodo | Genda Fool |
| | Garo | Genda Fool |
| | Mishing | Genda Fool |
| | Nepali | Genda Fool |
| | Nyishi | Not reported |
| | Tea tribes | Genda Fool |

Whole Plant with Flowers

Whole Plant

**Description:** An annual or perennial herbaceous plant with pinnate green leaves and blooms occurs in golden, yellow, orange and white colors.

**Habitat:** Fertile and well-drained soils in full sun. Cultivated as ornamental plant.

**Propagation:** Sexually by seeds and vegetative propagation by stem cutting.

**Parts used:** Leaves and flower.

**Cultural and religious virtue:** Flower offer in religious ceremony and worshipping .

**Medicinal use:** The leaves of the plant has been reported to be used to get relief from cough and cold diseases.

**Economic importance:** Not reported .

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering & Fruiting:** Not reported.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# TETELI

| | | |
|---|---|---|
| **Scientific Name:** | *Tamarindus indica* L. | |
| **Family:** | Leguminaceae | |
| **Common Names:** | English | Tamarind |
| | Hindi | Imli |
| | Assamese | Teteli |
| | Bodo | Thinkli |
| | Garo | Teteli |
| | Mishing | Teteli |
| | Nepali | Imli |
| | Nyishi | Imli |
| | Tea tribes | Imli |

Leaves with Inflorescence

Fruits

**Description:** A long lived medium growth tree with leaves alternately arranged and pinnately lobed, red and yellow elongated flowers and indehiscent legume or pod as a fruit with a hard brown shell. The fruit has a fleshy, juicy, acidulous pulp.

**Habitat:** Found in wide range of soil and climatic conditions, prefers semi-arid areas and wooded grassland, and can also be found growing along stream and riverbanks. Grows best in well-drained, fertile soil in a sunny position.

**Propagation:** Sexually by seeds and vegetative propagation by stem cutting.

**Parts used:** Fruit, stem, bark and leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Fruit pulp has laxative properties and used as astringent, refrigerant, carminative and in bilious disorders. Leaves are useful in bleeding piles. Stem bark is astringent, antipyretic, used in cases of bone fracture.

**Economic importance:** The fruit is eaten raw or dried. Jams and jellies are also prepared along with pickles or eaten as chutneys or curries.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering:** April-June; **Fruiting:** October-December.

**Occurrence:** Available in the wild in deciduous to semi-evergreen forests.

**IUCN status:** This taxon has not yet been assessed.

# HILIKHA

| | | |
|---|---|---|
| **Scientific Name:** | *Terminalia chebula* Retz. | |
| **Family:** | Combretaceae | |
| **Common Names:** | English | Black Myrobalan |
| | Hindi | Harra |
| | Assamese | Hilikha |
| | Bodo | Hilikha |
| | Garo | Hilikha |
| | Mishing | Hilikha |
| | Nepali | Harra |
| | Nyishi | Not reported |
| | Tea tribes | Hilikha |

Leaves with Fruits

Inflorescence

**Description:** A medium to large deciduous tree, greyish brown bark with irregular flakes, leaves alternate or sub-opposite, young leaves covered with soft white hair, greenish white flowers, hard drupe like fruits, yellowish brown with ribs.

**Habitat:** Tropical and subtropical regions. Open forest in full sunlight of mixed deciduous forest and teak forest. Capable of growing on different types of soils, but attains best development on loose well-drained soils, such as sandy loam as well as clayey loam.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit.

**Cultural and religious virtue:** Fruits used in rituals ceremony.

**Medicinal use:** It is highly regarded as the 'King of medicines'. Both ripe and unripe fruits are used as medicines. A piece of fruit is kept in the mouth to cure cough and stomach pain.

**Economic importance:** Fruits edible.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes.

**Marketing channel:** Locally sold in the market.

**Flowering:** April-June; **Fruiting:** October-December.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# AMARLATA

| | | |
|---|---|---|
| **Scientific Name:** | *Tinospora cordifolia* (Willd.) Miers | |
| **Family:** | Menispermaceae | |
| **Common Names:** | English | Heart Leaved Moonseed |
| | Hindi | Gulbel / Giloy |
| | Assamese | Amarlata |
| | Bodo | Not reported |
| | Garo | Not reported |
| | Mishing | Amarlata |
| | Nepali | Not reported |
| | Nyishi | Not reported |
| | Tea tribes | Not reported |

Leaves with Seeds

Whole Plant

**Description:** A large, wood, extensively spreading succulent climbing shrub with several elongated twinning branches, leaves simple, alternate, broadly ovate, apex acuminate, flowers greenish yellow, fruits drupe, ovoid or globose, scarlet or orange colored.

**Habitat:** Tropical regions, deciduous and dry forests. Dry or moist soils and prefers well-drained soil in full sunlight.

**Propagation:** Sexually by seeds and vegetative propagation by stem cutting.

**Parts used:** Leaves.

**Cultural and religious virtue:** Fruits used in rituals ceremony.

**Medicinal use:** Leaves are used to treat dysentery, liver, eye diseases, cancer, diabetes and cardiac ailments.

**Economic importance:** Not reported .

**Used by (Ethnic groups):** Assamese and Mishing.

**Marketing channel:** Locally sold in the market.

**Flowering:** April-June; **Fruiting:** October-December.

**Occurrence:** Available in the wild .

**IUCN status:** This taxon has not yet been assessed.

# POSOTIA

| | | |
|---|---|---|
| **Scientific Name:** | *Vitex negundo* L. | |
| **Family:** | Lamiaceae | |
| **Common Names:** | English | Chinese Chaste Tree |
| | Hindi | Nirgundi |
| | Assamese | Posotia |
| | Bodo | Nirgundi |
| | Garo | Nirgundi |
| | Mishing | Nirgundi |
| | Nepali | Not reported |
| | Nyishi | Nirgundi |
| | Tea tribes | Not reported |

Inflorescence

Whole Plant

**Description:** A large, aromatic shrub with digitate leaves covered with hair in the bottom surface, lavender to blue flowers arranged in panicles and small drupe fruits.

**Habitat:** Warm temperate to tropical areas, found in wastelands, moist area, grasslands, and mixed open forests and often on banks of rivers. Grows well in well-drained loamy soil and warm sunny areas. Cultivated.

**Propagation:** Sexually by seeds and vegetative propagation by stem cutting.

**Parts used:** Leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The plant has been reported to be used for relieving from pains and also used in households as insect repellent.

**Economic importance:** Not reported.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nyishi.

**Marketing channel:** Locally sold in the market, available throughout the year.

**Flowering:** April-August; **Fruiting:** November-February.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# TEJPOL

| | | |
|---|---|---|
| **Scientific Name:** | *Zanthoxylum armatum* DC. | |
| **Family:** | Rutaceae | |
| **Common Names:** | English | Winged Prickly Ash |
| | Hindi | Tejphal |
| | Assamese | Tejpol |
| | Bodo | Tejphal |
| | Garo | Not reported |
| | Mishing | Tejphal |
| | Nepali | Timur |
| | Nyishi | Honyur / Jabrang |
| | Tea tribes | Not reported |

Whole Plant

Fruit

**Description:** It varies in habit from a prickly, deciduous to evergreen shrub, woody climber or small tree growing up to 5 metres tall.

**Habitat:** Warm temperate and subtropical areas. Moist areas with deep soils exposed to sun and degraded slopes, shrub lands, open pastures, natural forests, secondary scrub forests and wastelands. Prefer a good deep well-drained moisture retentive soil in full sun or semi-shade.

**Propagation:** Sexually by seeds and vegetative propagation by stem and root cuttings.

**Parts used:** Fruit and leaves.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** The plant is used as medicine.

**Economic importance:** Used as a condiment.

**Used by (Ethnic groups):** Assamese, Bodo, Mishing, Nepali, Nyishi.

**Marketing channel:** Sold in the market, seasonally.

**Flowering:** August-September; **Fruiting:** October-December.

**Occurrence:** Available in the wild.

**IUCN status:** This taxon has not yet been assessed.

# MEZENGA

| | | |
|---|---|---|
| **Scientific Name:** | *Zanthoxylum oxyphyllum* Edgew. | |
| **Family:** | Rutaceae | |
| **Common Names:** | English | Prickly Ash |
| | Hindi | Not reported |
| | Assamese | Bajruli / Mezenga |
| | Bodo | Mezenga |
| | Garo | Mezenga |
| | Mishing | Onger |
| | Nepali | Mezenga |
| | Nyishi | Mezenga |
| | Tea tribes | Mezenga |

Leaves

Whole Plant

**Description:** A slender scrambling shrub which is highly aromatic. Prickles are usually hooked. Leaves long, prickles beneath, seeds black, sub-globose.

**Habitat:** Temperate and subtropical areas. Forest and river banks.

**Propagation:** Sexually by seeds.

**Parts used:** Leaves, oil, bark and fruits.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Oil is antiseptic, disinfectant and deodorant. Bark is stomachic, sudorific, stimulant, used in fever and in colic. Fruits are used in asthma dyspepsia, bronchitis and rheumatism, Seeds are used for digestion. Tender shoots can treat luecoderma, stomach trouble and used as blood purifier.

**Economic importance:** Tender shoots are eaten as vegetable, suitable with pork. Fruits are also used as condiment.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering & Fruiting:** Not reported.

**Occurrence:** Available in the wild in Evergreen forest.

**IUCN status:** This taxon has not yet been assessed.

# ADA

| | | |
|---|---|---|
| **Scientific Name:** | *Zingiber officinale* Roscoe | |
| **Family:** | Zingiberaceae | |
| **Common Names:** | English | Ginger |
| | Hindi | Adarak |
| | Assamese | Ada |
| | Bodo | Haijeng |
| | Garo | Adarak |
| | Mishing | Adarak |
| | Nepali | Adarak |
| | Nyishi | Adarak |
| | Tea tribes | Adarak |

Rhizome

Leaves with Inflorescence

**Description:** Herbaceous perennial plant which grows annual psuedostems about a meter tall. It bears narrow leaf blades. The inflorescences bear pale yellow with purple flowers arising directly from the rhizome on separate shoot.

**Habitat:** Hot, humid condition and partly-shaded habitats in moist tropical and subtropical forests. Grows well in well drained loamy soils with an adequate supply of organic matter.

**Propagation:** Vegetative propagation by rhizomes.

**Parts used:** Rhizome.

**Cultural and religious virtue:** Not reported.

**Medicinal use:** Cold and cough.

**Economic importance:** Powdered dry ginger root is typically used as a flavoring for recipes such as breads and other dishes as spice.

**Used by (Ethnic groups):** Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the market.

**Flowering:** April-June; **Fruiting:** October-December.

**Occurrence:** Cultivated.

**IUCN status:** This taxon has not yet been assessed.

# BOGORI

| | | |
|---|---|---|
| **Scientific Name:** | *Ziziphus mauritiana* Lam. | |
| **Family:** | Rhamnaceae | |
| **Common Names:** | English | Indian Jujube |
| | Hindi | Ber |
| | Assamese | Bogori |
| | Bodo | Bwgwri |
| | Garo | Not reported |
| | Mishing | Ber |
| | Nepali | Ber |
| | Nyishi | Ber |
| | Tea tribes | Bogori |

Whole Plant

Fruits

**Description:** It is a shrub or small thorny tree that can grow to a height of 3-15 m, leaves with 3 ribs at the base, margin with soft fine teeth, tiny star shaped flowers.

**Habitat:** Arid and semi-arid regions, tropical and subtropical forest, grassland land, roadsides, riparian habitats and abandon farmland. Grows well in well-drained sandy loams. Cultivated.

**Propagation:** Sexually by seeds.

**Parts used:** Fruit .

**Cultural and religious virtue:** Used in dishes as pickle.

**Medicinal use:** Used as medicine for treatment dysentery and cough.

**Economic importance:** Fruit edible.

**Used by (Ethnic groups):** Assamese, Bodo, Mishing, Nepali, Nyishi, Tea tribes.

**Marketing channel:** Sold in the local market.

**Flowering:** August-September; **Fruiting:** October-December.

**Occurrence:** Available in the wild and cultivated.

**IUCN status:** This taxon has not yet been assessed.

# Scope for Future Studies

The Book encompasses a wide range of ethnobotanically important floral species of northeast India, more particularly, the Sonitpur district of Assam. The exploration of the ethnobotanical heritage of Sonitpur district has revealed a wealth of knowledge and practices. However, there remains significant potential for expanding and deepening our understanding. One such broader area of study that remains is the studies on the medicinal uses of plants, including traditional remedies, preparations, and modern pharmacological validation. The reporting along with its scientific validations shall be of great significance for the preservation and spread of their traditional knowledge. Moreover, considering the current climate change scenario of the globe, it becomes essential to understand its impact on the local plant species and traditional practices and proposing adaptive measures in order to conserve those species both ex and in-situ. It shall be interesting to conduct comparative studies with other regions, with different communities of Eastern Himalayas to understand similarities and differences in ethnobotanical practices and plant usage, and help contribute towards a broader understanding of ethnobotany in the region. It shall be of wider significance that the study should not be limited to ethnobotany, but also the ethnomycology, and other non-plant organisms that play a role in traditional practices and local ecosystems. It is noteworthy to mention that Camellia sinensis is not included in the book, as the handbook's main objective was to provide information on the native and lesser-known plant species found in the Sonitpur District. Since Camellia sinensis is commonly grown and significant to the economy, they have been purposefully left out in favour of native species that are underrepresented in the literature.

Apart from the studies, it is essential to develop and conduct educational programs and materials based on the traditional knowledge of the communities to raise awareness and engage the youth, especially that of the local communities, and the policymakers should move towards the preservation of ethnobotanical knowledge.

*Jatindra Sarma, IFS*

Member Secretary
State Medicinal Plants Board, Assam

## AFTERWORD

The indigenous communities of the world depend upon nature for their survival and sustenance, and their cultures have co-evolved with the ecosystems they have inhabited. The relationship between their cultures and plant resources has amassed in the form of traditional ecological knowledge, which has been handed down through generations. However, modernization and changes in socio-cultural structure, economic status, and religious/spiritual values are detaching these people from their dependence on natural resources. Consequently, the ecological knowledge is fading away with the erosion of ethnic languages and/or extinction of dialects.

Ethno-botany as a discipline emphasizes on understanding the connection between biodiversity and cultural diversity, as well as the mutual influence of plants and humans. Ethno-botanical studies are imperative for scientists, governments, policy-makers and stake-holders in devising sustainable agriculture, developing new drugs, alternate sources of nutrition, pest-control, organic textiles, etc., thus empowering ethnic communities to manage biodiversity in the wake of climate change.

India is a vast country with a kaleidoscopic variety of land and nature, people and cultures.The state of Assam is nestled between two biodiversity hotspots of the world, *viz.* the Eastern Himalayas and the Indo-Burma, with over 15% of its population as ethnic groups living harmoniously with nature. In spite of a rich cultural heritage woven intricately around bio-resources, there is an inadequacy of such recorded data. Most ethno-botanical studies in Assam have thrown light upon specific targets only; be it a particular ethnic community, or a particular usage of plant resources by a community. The need of the hour is a comprehensive ethno-botanic documentation covering all major communities under one roof.

In this light, the handbook on the "Ethnobotany across 7 Ethnic Communities of Assam" is the result of the journey of Balipara Foundation in documenting knowledge on ethnobotany in the Eastern Himalayas. The study has vividly painted the human-plant relationship of theAdivasi, Assamese, Bodo, Garo, Mishing, Nyishi, and Nepali communities in the Balipara block of the Sonitpur district of Assam.The information that this handbook holds would provide baseline data which would help in the conservation of these ethnobotanical resources as well as the traditional knowledge that they carry.

I congratulate Balipara Foundation and the authors of this handbook for their endeavor and wish them luck.

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# APPENDIX

## List of ethnobotanically important plants recorded from Sonitpur district of Assam and their uses by various communities

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Achyranthes aspera* L. | Ganesh Chaturthi | Dropsy, hydrophobia, ophthalmia and cutaneous diseases. Safeguard against scorpions. | Roots, leaves, and flowers | Fresh leaves | Slender roots used as a tooth stick. | Assamese, Nepali, Tea Tribe | 18 |
| *Aconitum ferox* Wall.ex Ser. | Shivarati | Leprosy, fever, cholera, nasal catarrah, tonsillitis, sore throat, gastric disorders, debility; sedative and diaphoretic; neuralgia and rheumatism. | Leaves, flower and roots | ---- | ---- | Assamese, Nepali | 20 |
| *Acorus calamus* L. | Keep away devils spirits | Bronchitis, rheumatic pain, diarrhoea, flatulence, Pneumonia, cough a nd cold. | Leaves, stems, and rhizome | ---- | ---- | Assamese, Bodo, Garo, Mishing, Nepali, Nyshi and Tea tribes. | 22 |
| *Aegle marmelos* L. | Sacred tree | Chronic diarrhoea, dysentery, fevers, abdomen pain, urinary troubles | Leaves and fruits | Fruits | ---- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi and Tea tribes. | 24 |
| *Ageratum conyzoides* L. | --- | Dysentery and diarrhea; cuts and wounds. | Flowers and leaves | Flowers and leaves | Insecticide and nematicide. | Assamese, Mishing, Nepali, Nyishi and Tea Tribe. | 26 |
| *Albizia procera* (Roxb.) Benth | --- | Anti-cancer activity. Pregnancy related problems, stomach ache, rheumatism and haemorrhage. | Whole plant and bark | Leaves and bark | Timber and in fuel wood, Ornamental tree. | Assamese, Bodo, Garo, Mishing, Nepali and Nyishi. | 28 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Alocasia acuminata* Schott | --- | --- | --- | Young shoots and tender leaves | --- | Assamese, Bodo, Mishing and Tea Tribe. | 30 |
| *Aloe vera* (L.) Burm.f. | --- | Skin problems, high fever, stomachic, anthelmintic, emmennagogue, cathartic and blood purifier. Liver disorder, rheumatism and expulsion of intestinal worms. | Whole plant | --- | Have high market value. | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi and Tea tribes. | 32 |
| *Alpinia nigra* (Gaertn.) Burtt | --- | Stomach and liver problems, hypertension and diabetes. Bronchitis and rheumatism ringworm. | Stem and leaves | Stem and leaves | --- | Assam ese, Bodo, Garo, Mishing, Nepali and Nyshi. | 34 |
| *Alstonia scholaris* (L.) R.Br. | --- | Jaundice. | Bark | --- | Low grade timber, nutritional animal fodder. Timber | Assamese, Bodo, Garo, Mishing, Nepali, Nyshi | 36 |
| *Alternanthera sessilis* (L.) R. Br. ex DC | --- | Stop bleeding and healing of cuts and wounds. Antidote to snake bites. Increase milk flow of lactating mother and promotes hair growth. | Whole plant | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi and Tea tribes. | 38 |
| *Amaranthus tricolor* L. | --- | Purification of blood and prevents weakness. | Leaves and seed | Leaves | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi and Tea tribes. | 40 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Amaranthus spinosus* L. | --- | Jaundice and blood purifier | Leaves and stem | Leaves and stem | --- | Assamese, Bodo, Garo, Mishing, Nepali and Tea tribe | 42 |
| *Aquilaria sinensis* (Lour.) Spreng. | Eccentric paper to make traditional manuscripts | Pest removal for animal | Resin | Bark and wood | Animal pest removal. Major source of agarwood. Raw material for making incense sticks and perfumes. | Assamese, Mishing, Nyshi | 44 |
| *Areca catechu* L. | Sacred offering for rituals and formal invitations. Seed, along with betel leaf | --- | --- | Seed/Nut | Use d for dyeing yarns. | Assamese, Bodo, Garo, Nepali, Nyshi, Mishing | 46 |
| *Artocarpus heterophyllus* Lam. | --- | --- | --- | Unripe fruit | Timber | Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes. | 48 |
| *Azadirachta indica* A. Juss. | Air purifier and used to prevent air borne diseases. | Stomach pain, worm infection and skin diseases. | Leaves | Tender shoots and flowers | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyshi. | 50 |
| *Baccaurea sapida* | --- | Tonic as antidote in snake bite. Skin disease andconstipation. | Flowers, leaves, barks, roots | Fruit | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyshi, Tea tribe. | 52 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Bambusa sp.* | --- | Diarrhea. | Roots | Unripe fruit and young shoots | Bamboo is exclusively used in construction | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 54 |
| *Boerhavia diffusa* L. | --- | Hypertension | Leaves and roots | Leaves | --- | Assamese, Mishing, Nepali, Nyshi. | 56 |
| *Bombax ceiba* L. | --- | Cholera, tubercular fistula, coughs, urinary complaints, abdominal pain due to dysentery, pleurisy, stings, diuretic and impotency. Dysentery, haemoptysis in pulmonary tuberculosis, influenza and menorrhagia. Hypotensive and hypoglycaemic. Bleeding gums. | Leaves, bark gum, stem and fruits | Undeveloped fruit | Silk cotton, spice and timber | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 58 |
| *Brassaiopsis glomerulata* (Blume) Regel | --- | --- | --- | Flowers | --- | Nyshi | 60 |
| *Calamus rotang* L. | --- | Intestinal worm disease. | Leaves and seed | Fruits | Furniture, baskets, and other such household items. | Assamese, Bodo, Garo, Nepali, Mishing, Nyshi | 62 |
| *Callicarpa serrata* Moench | --- | Treatment of pneumonia. | Whole plant | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe | 64 |
| *Canarium bengalense* Roxb. | Resin/gum used in Hindu rituals. | Rheumatic swelling. Hysteria, snake-bites and antiseptic. | Leaves and bark | --- | Resin obtained from tree trunk are used in rituals | Assamese, Garo, Mishing Nepali, Nyshi. | 66 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Carica papaya* L. | --- | Traditional treatment of toothache. | Latex | Fruits | --- | Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes. | 68 |
| *Senna tora* (L.) Roxb. | --- | Snakebite, ring worm and psoriasis. Ulcer, parasitic skin diseases, psoriasis, laxatives, expectorants, opnthalmics, skin diseases, leprosy urinary problem. | Roots, leaves and seeds | Young leaves and mature seeds | Germicide and antiparasitic. | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 70 |
| *Catharanthus roseus*(L.) G. Don | --- | Healing wounds, wasp stings, haemorrhage, skin rash and mouthwash to treat toothache. | Leaves | --- | Ornamental plants | Assamese, Mis hing, Nepali | 72 |
| *Centella asiatica* (L.) Urb | --- | Stomach pain, gastritis and jaundice pro blems. | Leaves | Whole plants | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 74 |
| *Chenopodium album* L. | --- | --- | --- | Leaves and young shoots | Feed for chicken and other poultries. | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 76 |
| *Cissus quadrangularis* L. | --- | Healing broken bones and injured ligaments and tendons. Asthma, bowel complaints, epitaxis, curvy and irregular menstruation. Chronic ulcers, tumours, epilepsy and convulsion. | Whole plant, Stem, root, leaves, young shoot | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 78 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Citrus medica* L. | --- | Bone fractures and dislocation. Treatment of enlarged abdominal viscera. Checking vomiting and intestinal worm. Stomachic, tonic, astringent. Dyspepsia, flatulence, gastric irritability and general debility. | Leaves, root, bark, fruits and seeds | Fruits | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 80 |
| *Clerodendrum cordatum* D. Don | --- | Curing high blood pressure, diabetes and control worm diseases. | Tenders leaves | Tenders leaves | Used for making medium for yeast in the process of making rice beer. | Assamese, Bodo, Garo, Mishing, Nyshi, Tea tribe. | 82 |
| *Clerodendrum infortunatum* L. | Natural health remedies in traditional practices. | Rheumatism, fever, diarrhea and skin complaints. Antibacterial activity. | Leaves | --- | --- | Garo, Mishing, Nepali, Nyshi. | 84 |
| *Colocasia esculenta* (L). Schott | --- | Blood purification and formation, and jaundice | Corm and leaves | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 86 |
| *Corchorus capsularis* L. | --- | Snakebite, ring worm and psoriasis. Ulcer, parasitic skin diseases and leprosy. Appetizer, carminative, demulcent, laxative, stimulant and stomachic. Fever, dysentery, dyspepsia and liver disorder. Laxatives, expectorants and ophthalmic. Germicide and antiparasitic. | Leaves, roots and seeds | Young leaves | Jute has high market value. | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 88 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Hellenia speciosa* (J.Koenig) S.R. Dutta | Used in Hindu rituals | High fever, jaundice and intestinal worms. | Rhizome | --- | --- | Assamese, Bodo, Mishing, Nyshi, Tea tribe. | 90 |
| *Cucurbita moschata* Duchesne | --- | Haemorrhages of thepulmonary organs. Anthelmintic, ingonorrhea and urinary trouble. Expulsion of pork tape worm and beef tapeworm. Increase milk flow of lactating mother. | Dried pulp of the fruit, seeds, kernels of the mature and fresh seeds | Young shoots, leaves, flower, fruit and seed. | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 92 |
| *Cucurma longa* L. | --- | Gastric, asthma and cough. | Rhizome | --- | --- | Assam ese, Bodo, Mishing, Nepali, Nyshi, Tea tribes. | 94 |
| *Cuscuta cassytoides* Nees ex Engelm. | --- | Headache, labour pain, bone fracture, fever, rheuma tism. | Whole plant | --- | --- | Assamese, Mishing, Nepali | 96 |
| *Amblovenatum opulentum* J.P. Roux | --- | Pneumonia and headache. | Leaves | --- | Used for preparing traditional rice beer | Assamese, Bodo, Tea tribes. | 98 |
| *Pongamia pinnata* (L.) Pierre. | --- | Pneumonia and indigestion issues | Seeds | --- | Not reported | Assamese, Tea tribes | 100 |
| *Dillenia indica* L. | --- | Diarrhoea, control diabetes and cholesterol and hair tonic for good growth. | Fruit | Fruit | Timber. | Assamese, Bodo, Garo, Mishing, Nyshi, Tea tribes. | 102 |
| *Dioscorea alata* L. | Used in rituals | --- | --- | Stem tubers and root tubers | --- | Assamese, Bodo, Garo, Mishing, Nyshi, Tea tribes. | 104 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Diplazium esculentum* (Retz.) Sw. | --- | --- | --- | Young fronds | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 106 |
| *Drymaria cordata* (L.) Willd .ex Roem. & Schult | --- | Sinus problem, and in treatment of cuts and wounds of domesticated animal. | Whole plant | --- | --- | Assamese, Nepali | 108 |
| *Eclipta prostrata* (L.) L. | The plant has traditional uses in Ayurveda. | Liver problem. Cuts and wounds for quick healing. | Whole plant | Tender leaves | --- | Assamese, Mishing, Nepali | 110 |
| *Ageratina altissima* (L.) R.M. King & H. Rob. | --- | Stop bleeding for many cut wounds, stomach diseases. Sore throat and cold. | Leaves | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 112 |
| *Euphorbia nerifolia* L. | --- | Cough and cold and pain in the ear. | Root, leaf, milky latex. | --- | --- | Assamese | 114 |
| *Ficus benghalensis* L. | Sacred tree | --- | --- | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe | 116 |
| *Ficus racemosa* L. | Sacred and used in performing rituals. | Dysentery, tonsilitis and diabetes mellitus; threated abortion, ulcer and wounds, dyspepsia, haemorrhages and menorrhagia | Leaves, root, bark and fruits | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe | 118 |
| *Ficus semicordata* Buch.-Ham.ex Sm | Not reported | Not reported | --- | Figs and young leaves | Leaves are used as fodder | Mishing | 120 |
| *Garcinia pedunculata* Roxb. ex Buch.-Ham | Used in festivals | Cure stomach problems and dysentery | Fruit | Ripe fruit | --- | Assamese, Bodo, Garo, Mishing, Nyshi, Tea tribes | 122 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Gmelina arborea* Roxb | --- | --- | --- | Young leaves and flowers | Timber. Making local rice wine | Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes. | 124 |
| *Hibiscus sabdariffa* L. | --- | Aphrodisiac. Gastritis and constipation and dysentery. | Leaves, flowers and seeds | Leaves, fruits and flowers | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe | 126 |
| *Houttuynia cordata* Thunb. | --- | Stomach problems and indigestion and infection. | Whole plant, leaves and roots | Whole plant | --- | Assamese, Bodo, Garo, Mishing, Nyshi | 128 |
| *Hyptis suaveolens* (L.) Poit. | Used in rituals. | Flatulence and other stomach problems, fevers associated with colds, liver and skin diseases. | Leaves, flower and seeds | --- | --- | Assamese, Mishing, Nyshi | 130 |
| *Ipomoea aquatica* Forssk. | --- | --- | --- | Tender shoots and leaves | --- | Assamese, Tea tribe. | 132 |
| *Lasia spinosa* (L.) Thwaites | --- | Lymphotuberculosis, lymphonoditis, stomach aches, snake and insect bites, injuries and rheumatism. Throat ailments and piles. | Leaves, rhizomes and roots | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 134 |
| *Lawsonia inermis* L. | Used in festivals | Skin diseases and finger nail infection. | Leaves | Leaves | Dyeing skin, hair and fingernails | Assamese, Bodo, Garo, Mishing, Nyshi. | 136 |
| *Leucas aspera* (Willd) Link | --- | Fever, appetite problems and digestion issues. | Leaves | Young leaves | Insecticide | Assamese, Tea tribes | 138 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Lobelia nicotianifolia* Roth ex Schult. | --- | Bronchitis, asthma, skin for muscle soreness, bruises, sprains, insect bites, poison ivy and ringworm | Whole plant | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 140 |
| *Macrotyloma uniflorum* (Lam.) Verdc. | Used in traditional dishes. | Antioxidant and diabetes related disorders. | Fruit and seed | Bean | Used in traditional dishes | Assamese, Nepali, Mishing, Nyshi, Tea tribe. | 142 |
| *Mangifera indica* L. | Leaves (twigs) are used in rituals ceremony | Jaundice and stomach pain. | Fruit, bark and leaves | Unripe and ripe fruits | --- | Assam ese, Bodo, Garo, Mishing, Nepali, Nyshi, Tea tribe. | 144 |
| *Marsilea mutica* Mett. | --- | --- | --- | Sporocarp and leaves | --- | Tea tribes | 146 |
| *Melastoma malabathricum* L. | --- | To stop bleeding from cut wounds, pneumonia, dysentery and im potency. | Leaves, roots, fruits and bark | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyshi, Tea tribe. | 148 |
| *Mikania micrantha* Kunth | --- | To stop bleeding from any cut wounds. | Leaves | --- | --- | Mishing | 150 |
| *Momordica dioca* Roxb. ex Willd. | --- | Jaundice. | Fruits | Fruits | --- | Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes. | 152 |
| *Moringa oleifera* Lam. | --- | To gain strength in weakness and to cure diarrhea. | Young pods and leaves | Young seed pods and leaves | --- | Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes. | 154 |
| *Morus macroura* Miq. | --- | Strengthen the immune system and improve eyesight. | Fruit/Berry | Fruit/Berry | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyshi, Tea tribe | 156 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Murraya koenigii* (L.) Spreng. | --- | Stomach problems and have high iron content. | Leaves | Leaves | Flavouring curries | Assamese, Bodo, Garo, Mishing, Nyshi | 158 |
| *Nyctanthes arbor-tristis* L. | --- | Jaundice and indigestion problems. | Leaves | Flowers | --- | Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes. | 160 |
| *Ocimum tenuiflorum* L. | Sacred plant. Cultivated for religious and traditional medicinal purposes. | Cough and cold. | Leaves | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes. | 162 |
| *Oroxylum indicum* (L.) Kurz | --- | Rheumatism, dropsy, diarrhea, dysentery, stomach ache, rheumatism, ulcer and enlarged spleen, cardiac disorder, bronchitis, haemorrhoids. | Leaves, seeds, fruits and roots | Flower, seeds fruits and young shoots | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe, | 164 |
| *Oxalis corniculata* L. | --- | Scurvy, jaundice, gout, rheumatism, and calculi in urinary tract. | Whole plant and leaves | Leaves | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 166 |
| *Paederia foetida* L. | --- | Stomach problems, relief from pains and weakness, preventive medicine for liver diseases. | Whole plant | Young leaves | --- | Assamese, Bodo, Garo, Mishing, Nyshi | 168 |
| *Phlogacanthus thyrsiformis* (Roxb. Ex Hardw.) Mabb. | --- | Liver problems, coughs, chronic bronchitis, asthama and phthisis, dysentery, haemoptysis, painful swelling, neuralgia, blood pressure and malarial fever. | Leaves, roots, flowers | Flowers | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyshi | 170 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Phyllanthus emblica* L. | --- | Immuno-modulators. | Fruit | Fruit | Used in shampoos and hair oils. | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 172 |
| *Physalis minima* L. | --- | --- | --- | Ripe fruits | Not reported | Assamese, Mishing, Nyishi. | 174 |
| *Piper betle* L. | Used as sacred offering while worshipping. | --- | --- | Betel leaf | Betel leaf is used as a wrapper for the chewing of areca nut or tobacco where it is mainly used to add flavour. | Assamese | 176 |
| *Piper longum* L. | --- | Enhancing digestion, assimilation and met abolism | Fruits | Fruits | Used as a condiment/ spice and seasoning. | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 178 |
| *Pouzolzia sanguinea* (Blume) Merr. | --- | --- | --- | Young leaves | --- | Nyishi | 180 |
| *Prunus domestica* L. | --- | Stomach ailments and headache. Treatment of enlarged spleen, piles, gonorrhoea, irregular menstruation. Stringent. | Flower, fruits, oil, seed and roots | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 182 |
| *Psidium guajava* L. | --- | Dysentery and relief from stomach pain. | Leaves and fruits | Fruits | --- | Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes. | 184 |
| *Saccharum spontaneum* L. | Used in Hindu rituals. | --- | --- | Whole plant | Good fodder for goats and suitable to produce silage. | Assamese, Mishing, Nepali, Tea tribes. | 186 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Sarcochlamys pulcherrima* Gaudich. | --- | Diarrhea, dysentery, stomach problems and calcium deficiency. | Shoots and leaves | Young shoots and leaves | --- | Mishing | 188 |
| *Scoparia dulcis* L. | --- | Stomach and liver problems, hypertension and diabetes. | Stem and leaves | --- | --- | Assamese, Bodo, Garo, Mishing, Nyishi | 190 |
| *Solanum indicum* L. | --- | Worm infection and skin diseases. | Fruit | Fruit | --- | Assamese and Mishing | 192 |
| *Solanum torvum* Sw. | --- | --- | --- | Fruit | --- | Assamese and Nyshi | 194 |
| *Acmella paniculata* (Wall.ex DC.) R.K. Jansen | --- | Sore mouth, tooth ache and in wounds | Leaves, root, flowers and fruits. | Young shoots and leaves | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 196 |
| *Sterculia villosa* Rox b. | --- | --- | --- | Powdered root | Paper, rope, bags are made using the bark. | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 198 |
| *Sterculia alata* Roxb. | --- | Herbal medicines | Seeds | Seeds | --- | Assamese and Nyshi | 200 |
| *Tagetes erecta* L. | Flowers are offered in religious ceremony and worshipping | Cough and cold diseases. | Leaves | --- | --- | Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes. | 202 |
| *Tamarindus indica* L. | --- | Astringent, antipyretic, refrigerant, carminative, bilious disorders, bleeding piles and bone fracture. | Leaves, fruit and stem bark | Fruits | --- | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 204 |

| Scientific Name | Cultural and Religious Virtue | Ailments Concern | Part use for preparation of Medicine | Edible Parts | Economic Importance | Use by Community | Page No. |
|---|---|---|---|---|---|---|---|
| *Terminalia chebula* Retz. | Fruits used in rituals ceremony | Cough and stomach pain. | Ripe and unripe fruits | Ripe and unripe fruits | --- | Assamese, Bodo, Garo, Mishing, Nepali, Tea tribes. | 206 |
| Tinospora cordifolia (Willd.) Miers | --- | Dysentery, liver, eye diseases, cancer, diabetes and cardiac ailments. | Leaves | --- | --- | Assamese and Mishing | 208 |
| *Vitex negudo* L. | --- | Relieving from pains | Leaves | Leaves | Households as insect repellent | Assamese, Bodo, Garo, Mishing, Nyishi. | 210 |
| *Zanthoxylum armatum* DC. | --- | --- | Fruit and leaves | Fruit and leaves | Used as a condiment. | Assamese, Bodo, Mishing Nepali, Nyshi. | 212 |
| *Zanthoxylum oxyphyllum* Edgew. | --- | Antiseptic, disinfectant, deodorant, stomachic, sudorific, stimulant. Fever and colic; asthma, dyspepsia, bronchitis, rheumatism, luecoderma, and blood purifier. | Leaves, oil, bark, fruits | Tender shoots and fruits | Fruits are used as condiment. | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 214 |
| *Zingiber officinale* Roscoe | --- | Cold and cough | Rhizome | Powdered root/ rhozome | Used as spice and flavouring agent | Assamese, Bodo, Garo, Mishing, Nepali, Nyishi, Tea tribe. | 216 |
| *Ziziphus mauritiana* Lam. | --- | Dysentery and cough. | Fruit | Fruit | --- | Assamese, Bodo, Mishing, Nepali, Nyshi, Tea tribes. | 218 |

# BIBLIOGRAPHY


- UNEP. 2007. *User's Manual on the CBD Guidelines on Biodiversity and Tourism* Development,. Accessed [13/12, 2017]. https://www.cbd.int/doc/programmes/tourism tourism-manual-en.pdf.
- Hooker, J.D. 1872 – 1894. The Flora of British India. Vol. I-VI. L. Revee & Co, London.
- Kanjilal UN, Kanjilal PC, Das A & De RN (1934–1940) *Flora of Assam, Vols. 1-4*, Govt. Press, Shillong.
- The Encylopedia of Succulents, llifle.com [Is this a book? If so give detail of the reference.]
- www.leonlevynativeplantpreserve.com
- http://www.worldagroforestry.org/
- https://www.cabi.org/
- http://tropical.theferns.info/
- http://www.flowersofindia.net/
- https://indiabiodiversity.org/
- POWO (2019). "Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; http://www.plantsoftheworldonline.org/ Retrieved 11/09/2020.
- Tropicos.org. Missouri Botanical Garden. 12 Sep 2020 http://www.tropicos.org


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- Google images links
- https://indiabiodiversity.org/


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