# WILD EDIBLE PLANTS OF ASSAM

The "WILD EDIBLE PLANTS OF ASSAM" is written by Sri Brahmananda Patiri and Sri Ananta Borah, and is published by the Director Forest Communication, Forest Department, Assam.

© : Publisher

First Edition: March, 2007

Brahmananda Patiri & Ananta Borah

**Printed at :** Geetakhi Printers & Publishers Zoo-Road Tiniali, Guwahati -21

## Tarun Gogoi



Chief Minister Assam



## Message

The people of Assam from time immemorial have mainly depended upon the forests to meet their daily needs. The tribal people of Assam have excellent knowledge in the use of almost all the plants of the forests as the source of food or medicine, timber etc. and they have been using such plants since several generations without having anything in written. With the change in the socio-economic conditions, some of the information have been lost and the same is also happening in case of the wild edible plants.

Scientific study and documentation of the traditional knowledge and the use of the wild edible plants is a bold step towards the preservation of such knowledge.

I am happy to learn that, Sri B.N. Patiri, DCF and Sri Ananta Borah, have come forward for the scientific documentation of the wild edible plants of Assam and the Forest Department of Assam is coming forward to publish this wonderful book.

I hope this book titled "Wild Edible Plants of Assam" will meet the need for such a publication and will receive due appreciation from one and all.

Tarun Gogoi

#### ROCKYBUL HUSSAIN

Minister Environment & Forests, Tourism. P&S, Information & Public Relation, Asom, Dispur, Guwahati-6



Phone: (0361) 2237007 (O) (0361) 2233163 (O) (0361) 2262970 (R) (03672) 233680 (R) 236345 (R)



#### **MESSAGE**

The concept of forest in the 21<sup>st.</sup> century is changing as we consider forests as a bio-diversity stabilizer for global warming and climate change. Involvement of the community in forest and wild life management has been tried out in various parts of this world. At this juncture, it is most important to create an awareness for the immense potentiality of mother earth to sustain mankind in the present context.

In tradition, we have various knowledge on medicinal plants, edible plants, decorative plants and many other plants for their uses. Due to rapid change in our social life style in the context of globalization, most of the tribal and traditional knowledge have been forgotten or not properly documented. Because of deforestation we are losing many of our precious species every day. Assam is a land rich in Bio-diversity in terms of both flora & fauna.

The work taken up by Shri B. N. Patiri, DCF and Shri Ananta Bora for documenting the wild edible plants of Assam is indeed praise worthy.

This book is an endeavour for the upkeepment of our traditional knowledge of some of the natural resources of Assam.

Rockybul Hussain

#### Foreword



I went through the manuscript of "Wild Edible Plants of Assam" and was glad to see that the writers took enough pain to acquaint with the uses of plants in different parts of Assam. The contents are not only with common names of the plants but also generalise with different local names of different communities of Assam, along with their uses.

The present book aims to fulfil the knowledge gap in different plant uses. The information of plant uses from all over Assam, that have relevance to the understanding of the rich bio-diversity of Assam is covered in an integrated and comprehensive manner.

I hope this book will fulfill a long felt need for students, researchers and naturalists.

(Dr. G.C. Sarma)

Department of Botany Gauhati, University.

## **PREFACE**

Survey, identification and documentation of wild plants is of great importance in assessing country's natural resources and their scope of utilization, which is a challenging aspect of plant taxonomy. Advances made in field Botany and growing interest in the search of new economically useful plants have attracted many researchers to devote attention to the study of wild edible plants. The knowledge on the use of wild edibles plants has mostly remained intact with different ethnic people and the same usually varies from tribe to tribe and place to place. Due to change in socio-economic conditions as well as food habit of the tribes, some information regarding use of wild plants as food have been lost and many more are on the verge of extingtion; hence documentation of these is very important at this juncture.

Investigations have been carried out on wild edible plants in different parts of India, but in Assam we achieved some progress in this regard. Kanjilal *et al* (1934-'40) has mentioned the use of some plants as edible in "Flora of Assam". Later, different ethno-botanical and floristic studies also highlighted some wild plants as edibles. All these information were in bits & pieces and therefore, an easily accessible and comprehensive work on wild edible plants of Assam was a long felt need.

This book is prepared using self experience with wild edible plants, survey at different locations and compilation of secondary data to fulfill at least partially, the need of society. The book enumerates 350 species of Angiosperms belonging 215 Genera under 95 Families; two species of Gymnoperms and 12 Pteridophytes. Families are arranged as per Bentham & Hooker's system with recent modifications adopted by BSI. Valid botanical names are followed by vernicular names in Assamese and other local languages have been given as much

as possible. Synonyms are kept limited and mentioned only where deemed necessary. A brief description of habit and habitat of the plants are given, mentioning flowering and fruiting seasons with a note on their uses as food by natives. Some coloured photographs of plants taken in the field and an index of scientific and vernicular names are also appended. We hope, the book will provide first hand information on wild edible plants of the state and will be the basis for further research and study.

We would like to express our sincere thanks and gratefulness to the persons from different communities in different localities of Assam, who have given a lot of information on their food habits, which helped us in gathering field knowledge towards preparing this book. We are also thankful to Dr. G.C. Sarma, Dept. of Botany, Gauhati University and Dr. Dipak Konwar, BRPL Vidyalaya, Dhaligaon and Sri Santanu Dey, Aranyak and our special thanks goes to Shri Shankar Hazarika, AFS, Director Forest Communication, for encouraging the project, and Sri A. Rabha, IFS, Field Director, Manas Tiger Project for valuable help. We are also grateful to the Forest Department, Govt. of Assam for publication of the book.

We cordially welcome any correction and suggestion to improve the quality of the book in subsequent editions.

21st March, 2007 Bongaigaon, Assam

**Authors** 

			Meliaceae Icacinaceae Rhamnaceae	24 25 26
	Co	ntents	Vitaceae	27
	<u>CO</u>	<u>iiceiics</u>	Leeaceae	29
				29
		Page No.	Sapindaceae	
1.	Introduction	Ĭ-XVIII	Sabiaceae	30
2.	Gymnosperms		Anacardiaceae	30 35
	Cycadaceae	1	Moringaceae	
	Gnetaceae	1	Connaraceae	36 36
3.	Angiosperms		Papilionaceae	
	Dycotyledons		Caesalpiniaceae	42 47
	Dilleniaceae	2	Mimosaceae	
	Annonaceae	3	Rosaceae	48
	Nymphaeaceae	4	Crassulaceae	51 52
	Nelumbonaceae.	5	Rhizophoraceae	52
	Brassicaceae	6	Combretaceae	52 54
	Capparaceae	6	Myrtaceae	57
	Flacourtiaceae	7	Lecythidaceae Melastomaceae	57 58
	Carryophyllaceae	8		59
	Portulacaceae	9	Memecylaceae	59
	Hypericaceae	9	Trapaceae Passsifloraceae	60
	Clusiaceae	10	Cucurbitaceae	61
	Saurauiaceae	13		63
	Malvaceae	14	Begoniaceae Molluginaceae	63
	Bombacaceae	14	Molluginaceae	64
	Sterculiaceae	15	Apiaceae Araliaceae	65
	Tiliaceae	16	Caprifoliaceae	65
	Elaeocarpaceae	19	Rubiaceae	66
	Oxalidaceae	19	Asteraceae	70
	Averrhoaceae	20		7 <i>0</i> 7 <i>5</i>
	Rutaceae	21	Myrsinaceae Sanotaceae	75 77
	Burseraceae	23	Sapotaceae	77
			Ebenaceae	19

	Oleaceae	81
	Apocynaceae	81
	Buddleiaceae	82
	Menyanthaceae	83
	Hydrophyllaceae	83
	Ehretiaceae	84
	Convolvulaceae	85
	Solanaceae	88
	Scrophulariaceae	92
	Gesneriaceae	93
	Bignoniaceae	94
	Acanthaceae	94
	Thunbergiaceae	96
	Verbenaceae	97
	Lamiaceae	102
	Nyctaginaceae	105
	Amaranthaceae	106
	Chenopodiaceae	110
	Basellaceae	111
	Phytolaccaceae	112
	Polygonaceae	113
	Piperaceae	117
	Saururaceae	119
	Myristicaceae	119
	Lauraceae	120
	Elaeagnaceae	121
	Loranthaceae	122
	Santalaceae	122
	Euphorbiaceae	123
	Urticaceae	130
	Cannabaceae	132
	Moraceae	139
	Myricaceae	139
4.	Monocotyledons	140

	Hydrocharitaceae	140
	Zingiberaceae	140
	Musaceae	142
	Costaceae	143
	Marantaceae	144
	Discoreaceae	144
	Liliaceae	146
	Smilacaceae	147
	Pontederiaceae	148
	Commelinaceae	149
	Arecaceae	149
	Pandanaceae	152
	Typhaceae	152
	Araceae	153
	Cyperaceae	159
	Poaceae	160
5.	Cryptogams	161
	Pteridophytes	161
6.	Photos of Edible Plants	A-T
7.	References	165
8.	Index for Vernacular Name	l-xvi
9.	Index for Botanical Name	XVII-XXVIII

----XXX-----

## Introduction

Assam, one of the biodiversity hotspots occupies a special place in Northeastern India located between 24°44' N to 27°45'N Latitude and 89°41'E to 96°02'E Longitude, covering 2.4% of the geographical area of the country i.e. 78,438 sq.km. The annual rainfall ranges between 305 cm. max. to 178 cm. min. with an average of 211.76 cm. The temperature recorded in summer is 37°C max. and 18°C min. and 26°C max. and 7°C min. in winter, with an average humidity of 83.00%

#### Forest Status & Bio Diversity Estimation of Assam

Total recorded forest area of the state is 28,748 sq. km. out of which 359 sq. km. come under water bodies and covers 32% of the total geographical area. On the other hand forest & tree cover is 36.67% of geographical areas including homestead forestland. Out of the total forest area, 3,555 sq. km.of forests are under various types of encroachment(Source: Assam Forests at a Glance, 2005-06)

As per estimation, 3017 species of flowering plants, 164+ species of orchid, 42 species of bamboo & 14 species of cane, 193 species of mammals, 9 species of primates, 800+ species of birds, out of which 280 species are migratory, 60+ species of amphibians, 1500 species of butterflies & 116 species of reptiles have been recorded.

### An ecological sketch

Pattern of rainfall configuration of grounds are the

factors controlling the distribution of plants in to the types of forest association. The state consists of two valleys- the Brahmaputra and the Barak, seperated by range of comparatively low hills.

The Barak or Surama valley receives direct N.W. Monsoon; due to the presence of steep hills it receives a good precipitation in comparison to the Brahmaputra valley, which is much less open to the monsoon winds. It receives half spent clouds over Karbi Anglong & N.C. Hills and partly those that enter the valley through Dhubri. Therefore, there is a dry belt in the angle formed by the Karbi Anglong & Naga Hills, which are away from the main direction as Brahmaputra current and passing over clouds go without precipitation i.e. Hojai, Lanka or Southern Nagaon. Another belt lies along the foot hills of Himalaya extending from the Champa river of Kokrajhar to Panchanodi in Darrang. The Brahmaputra current passes away from this belt and also does not benefit from the Barak current. Both the currents impinge on the next range or hills, the Himalayas opposite Tezpur and they combine to drift towards the east and give very heavy rains to Upper Assam & the north bank of the eastern part of Brahmaputra.

The dry belt is characterised by deciduous type of forests, where regions with heavy rainfall are clothed with evergreen forests. Sal bearing areas are intermediate between the two extremes, where rainfall is well below 250 cm. Apart from some parts of Chirang reserve in Kokrajhar and near Boko of Kamrup Districts, all sal bearing areas come under deciduous forests.

Grass lands occur in the deciduous tracts and also in the riperian areas of the Brahmaputra and it's tributaries. The length of the Brahmaputra river in Assam is 640 km. & length of the Barak river is 225 km. and there are 121 drainage systems or tributaries in both the Brahmaputra & the Barak. The river Brahmaputra covers 23,3000 sq.km.under its drainage system in India.

In this context the major forest types of Assam are --

- 1. Tropical wet evergreen.
- 2. Tropical semi evergreen.
- 3. Tropical moist deciduous.
- 4. Sub-tropical broad leaved hill.
- 5. Sub-tropical pine and littoral.
- 6. Swamp forests.

But for the point of discussion, four major patterns can be grouped together -

- 1. Evergreen.
- Deciduous.
- 3. Swamp forest.
- Grass lands.

Evergreen areas are under Lakhimpur, Dhemaji, Dibrugarh, Sibsagar, Tinsukia, Cachar and extend as far as up to Panchnadi in the north bank and Golaghat district. The dominent families are -- Dilleniaceae, Anonaceae, Clusiaceae, Magnoliaceae, Fabaceae, Myrtaceae, Styraceae, Ebenaceae, Myristicaceae, Lauraceae, Euphorbiaceae, Fagaceae, Arecaceae & Poaceae, and Dipterocarpaceae are also characterised by storied formation of a forest and presence of various climbers.

Deciduous forests lie mainly in the sal tracts. Dhubri, Kokrajhar, Goalpara, Bongaigaon, Chirang, Baksa, Nalbari & Udalguri come under this area. Associates of sal are Lagerstroemia perviflora, Kydia calycina, Schima Wallichi, Careya arborea, Gmelina arborea, Cassia fistula, Albizzia lucida. A.odoratissima, Millusa velutina, Stereospermum chelonoides etc.

Swamp areas are generally beels or low lying areas, abandoned river channels etc. In these areas following species are common: Crataeva lophosperma, Eugenia species, Duabanga grandiflora, Terminalia myriocarpa, Lagerstroemia flos-regina, Trewia nudiflora, Ficus pyriformes etc. and also grasses like Hygrorhiza aristata, Vossia procera, Panicum proliferum, Phragmities communis & P. karka, Arundo donax etc. Aquatic plants such as Nymphaeceae, Lamnaceae, Alismaceae, Naiadaceae, Eriocauleceae, Cyperaceae etc. are common.

Grass lands are of two types- one in the riperian belt, the other is in low rainfall areas. In riperian areas, *Saccharum, Anthistena, Erianthus, Arundo, Phragmities*.etc are common and on the other hand in low rainfall areas *Imperata arundinaceae, Aptuda varia, Andropogon jwarancusa, Nardus contortus, Setaria glauca* etc. are common.

## **Habit & People**

The total population of Assam is 2,66,55,528 as per 2001 census, which consists 2.6% of country's total population. Average population density is 340 per sq.km. (2001 census) with a Male-Female ratio of 1000:932. Literacy rate is 64.28%.

There is an old saying that, who ever goes to the forest he never return back with an empty stomach. Even though the concept of modern food has invaded the Assamese kitchen, but traditional systems still persist. Assam is the home of various ethnic tribes & castes like Bodo, Mishing, Karbi, Dimasha, Rabha, Garo, Santhals, Rajbongshi, Deuri, Tiwa, Sonowal, Manipuri, Kuki, Hmar etc. Three autonomous district councils and four autonomous councils have been created to meet the aspirations of various tribes.

The Assamese household is unique in many senses, every house consists of some *Baris* and well demarcated ditches around the boundary. They have special tree & fruit orchards, kitchen and flower garden, personal pond, arecanut & citrus orchard, bamboo & banana groves in and around the house. In one sense every house is an independent institution. Although, they prefer community living but they are independant in domestic needs. Most of the wild vegetation and edible plants grow in & around their homestead. Villagers in vicinity of forest areas enjoy the privilage of visiting the forests for collection of edible plants mostly in groups. In olden days, especially in some tribal communities, womenfolk used to collect wild edible plants from neighbouring forests a day

(VI)

ahead of any community function. Due to edaphic & climatic conditions, remoteness of the localities, most of the tribals & villagefolk hardly eat vegetables found in urban areas, instead they prefer wild vegetables. Modern day foods that we are dependent on, consists only of 20 species of plants, most of them are cultivated by using inorganic fertilizer.

The history of present system of orchards of miscelleneous plants began in the 16th century during Ahom period. A boy named Mumai Tamuly kept a beautiful orchard. After being noticed by King Swargadeo Pratap Singha, he was picked up as an officer. During his tenure he taught people to up keep various gardens for household needs. In this way most of the wild edible plants, though not domesticated, got their place in the vicinity of houses, small tracts of forests near villages, river islands & in bamboo groves.

Assam is a mixture of various cultures and races. People of Indo-Tibetan origin like Bodo, Karbi, Chutia, Rabhas, Mishings, Koch, Deuris, Dimasha, Sonowals settled in this valley long back before known history. The Dravidian group represented by Kaibartas & Banikyas were the earliest settlers. Most of the place names still bear their originality like Gohati, Goalpara, Barpeta, Sarupeta, Jamuguri as Dravidian influence. The epithen like hati, guri, juli, peta claim Dravidian touch. Another aboriginal group of early settlers were Monkhmer Australoid group ie. the Khasis & Jayantias. The Khasis still start many words & sentences with *ka*, the place names like *Kamakhya*, *Kamrup*, *Kachar*, *Kazironga*, *Kachaikhaiti*, *Kamta* are Australoid origin Assamese words, *katari* is of Khasi origin, eating of betel nut & leaf, carrying

satchel are influences of Khasis. Arvan groups also came long back & had influence in sun worship and lot of temples etc. The famous sun temple at Malinithan near Silapathar tells its influence, that is why most of the Tani groups still practise a religion called Donyi-Polo i.e. sun & moon worship. Influence of Buddhism existed till 15th century. The great verses of Charvapadas are reminiscent of Buddhist influence. The popularity of Ramayana also told us about the Buddhist popularity. That is why Karbi version of Ramayana Sabin Alun, Khamti version of Ramayana still exist. First Ramayana in regional language written in Assamese by Madhav Kandali tells its popularity in Assam. Although Hindu influence was there from Gupta period, but only in the 16th century most of the Kings of Assam converted to Hinduism. Vaishnavite movement led by great Sankardev founded the modern Assamese life style. The great migration of Ahoms from South East Asia also brought many influences to this valley, they assimilated the various races into one homogenous group, organised the people & popularised many systems. Chinese words like da or dao became an Assamese word. Such influence are rarely visible. (U. N. Goswami 2000)

After conversion to Hinduism, the kings used to settle villages mixing all the castes in a group and many *Brahmins* & *Kayasthas* from mainland were requested to settle in various places, by granting tax-free land etc. This trend was there in Assam till eighth century A.D., but there are still some records even from 8th century AD. But in any case there was no caste system in Assam.

After plundering the state by Myanmarese during early

(VIII)

19th century, the British occupied Assam in 1826, and tea was discovered in 1831. In the name of tea plantation, and construction of roads & railways they brought many labourers mainly Adivashi, Oraong, Oriya from mainland, even from Afghanistan and China. In course of time they became part of present day Assamese culture and new streams of influence came into being.

The British introduced many new species to Assam and new food habits started to take root, like use of potato, various pulses, cabbages etc.

Turkish influence came into this part during early thirteenth century. A general from Goura Turbak raided Assam in 1206 A.D. in search of an old road that goes to China, and discovered a new route to China, He was throroughly defeated by Assamese king Prithu, and most of the Turkish soldiers remained in Assam and assimilated in the great systems of Assamese culture. After 16th century the great Mughals tried 17 times to conquer these portions of India. In several cases, they advanced upto Sibsagar, but never held any territory permanently. In this process many Muslims of Turkish and Afghan origin settled down in Assam. The great sufi saint Ajan Pir popularised the religion and new influences also slowly added to this great assimilation process. The "Satriya dresses", the dress worn at various religious functions by the vaisnavites are said to be influenced by Mughals, especially by Mirjumlla, a governor of Bengal in the seventeenth century. Many words of Arabic and Turkish origin were added to Assamese vocabulary.

During the British period many Bengali Hindus were

brought as office helpers, officers, as supervisors to various construction sites and administration, in various departments like police, forest, PWD, health etc. They also settled down almost in all present day townships and also influenced a lot in general food habits. From 1836-71 medium of education/ instruction was also in Bengali, afterwards only Assamese language came as medium of education. In this period, a lot of Bengali influences kept their identity. From 1937 after the functioning of provincial Govt. many Muslims from Maimanshingh were brought in to Assam to increase food production and later they settled in flood plains of Assam. From the days of partition, and couple of wars between India and Pakistan and political unrest in East Pakistan, thousands of refugees migrated to Assam. Due to economic & political reasons thousands of Bangladeshis settled in Assam from the middle of the 20th century. In this way also many changes in life style were contributed by these migrants to the society. Many people from mainland also settled down in this part and provided local influence.

In such type of atmosphere, Assamese culture along with strong ethnic influences moulded through history to the present status. The food habits, although under went a sea change, but due to climatic condition it still persists in originality. The British had influenced the upper strata of society, but the majority had prefered evolution rather than sudden change. Like change of food habit by Irish people into potato, during 19th century and witnessing a great famine in 1845 by potato blight desease is not seen in this case. Tribal elements are very strong and are still growing stronger. Till couple of

decades ago Assam was known as *land of forests*, mainland people had limited conception on overall living style of the society. Sir Edward Gait, the first British Historian of Assam in 1881 completed the book *A History of Assam*. In his first chapter he mentioned, the climate of the valley had such influence that, here life goes very slowly, whoever settled down in this valley in a span of 50 years, he had to slow down his pace. The process of globalisation has brought a sea of changes, markets being developed, new road links coming up, even at one time, those that were considered as weeds have also began to be sold, all eatable items are available in the market whether wild or cultivated. In these present onslaught to new invasion of habit, all wild plants must be preserved & documented before they vanish from this planet.

In this context the primary criterions of Assamese food habits are --

- (i) Use of less oil or use of mustard oil.
- (ii) Use of boiled food.
- (iii) Use of roasting or roasting by wrapping with alpina leaf, banana leaf or maranta leaf.
- (iv) Use of small fishes in various curries.
- (v) Use of less spices or restricted to the minimum.
- (vi) Use of fermented food, like fermented rice (*Pointa Bhat*) fermented bamboo shoots (*Kharisa*), fermented mustard seed (*Panitenga*), dried or semifermented & dried fishes (*Namshing or Napham or Hukati*), fermented rice with lot of herbs as country liquor, like (*Horlang, Apong, Laopani* etc.), fermented betel nut, even fermented vegetables used mostly by Nepalese-the *qundurk* & *narzi* by Bodos are worth

mentioning.

- (vii) Use of various types of wild vegetables. During festivals of Bohag Bihu, upto 101 types of wild vegetables are eaten, 7 types of vegetables are considered customary. In Bengal also such traditions like *Soudha Sagi* ie: eating of 14 types of vegetables are common.
- (viii) Eating lots of acidic food, most of the popular Assamese dishes are acidic.(Commonly known as *Tenga*)
- (ix) Extensive use of black gram. Which is a popular pulse, also among the tribals eating of pounded rice as curry, or broken rice into curry is popular.
- (x) Most characteristic among them are use of alkaline substances. The popular saying of *khar khowa* Assamese is from extensive use of Alkali. It is prepared from *Bhimkol (Musa bulbasiana)*. It is from the fact that, salt was very precious in Assam, the Nagas & Mishimis generally brought rock salt from the hills, some times intermitent wars disturbed such supplies. That is why "*lone... sone samaan*" i.e. salt is as precious as gold. Only influential people could afford to possess salt. The commoners had to be satisfied with home made crude alkaline substances instead of salt, it still persists as food habit.
- (xi) Use of bitter substances, eaten as only bitter alternative like *phlogocenthus*, *chirata*, *momordica* used only as bitter substances from time to time. It is considered among Bodos that lot of use of bitter substances reduces occurance of fever and considered as an antihelmenthic.

## (XII)

## **Topography**

#### **Rock and Soil**

As per the report of Burma Oil Company under P.Evans (1934) topographically Assam is divided into three major zones
1. Brahmaputra Valley.

- 2. Barak Valley
- 3. Central Assam Hills

(Karbi Anglong & N.C. Hill Districts.)

The two valleys are largely alluvial and Central Assam range is mainly gneiss with a fringe of tertiaries. As per geological formation Assam may be grouped as.

Alluvium Tertiary

Cretaceous

Sedimentary

Gondwana

Igneous and metamorphic

Alluviums are characterised by pebbles, sand clay and decomposed vegetative materials. Tertiary beds of assemble of rocks, hard sandstones, soft sand, conglomerate clay, clayey & shaley sandstone coal seams. In several areas, it contains oil. Tertiary deposits are

Dihing series (un conformity.)

Tipam series

Surma series

Borail series

Disang series.

Out of which Dihing is the youngest. Igneous rock is not abundant but basalt is the most important rock. Metamorphic rocks are Gneiss, Schists and Quartzites. Granite, Pendolite and Dolente are found intruded into the metamorphic rock.

Barak valley consists of swampy flats broken by numerous isolated hills of low ranges. South Eastern parts are projection of Tripura & Mizoram hills strata as Barak valley belongs to newer division. Flat grounds are occupied by clayey alluvium and with large beels.

Assam valley is divided into two parts- Lower Assam plains broken by isolated groups of hills but in upper Assam almost unbroken plains. The hills of Dhubri, Goalpara, Kamrup and Tezpur are actually outlying projections of Meghalaya metamorphic complex and composed with mostly Gneiss. Valleys, plateus of these hills have red lateritic soil. On the other hand larger valleys have been formed by alluvium material brought down by the Brahmaputra and its tributaries.

At the head of the Brahmaputra valley, low spurs such as Tipam hills are structurally part of Patkai hill ranges. Foot hills of the Himalaya are clearly demarcated by Bhabar and Terai zones. In Bhabar areas, top soil is very thin and large boulders, sand, pebbles are more, water table is very low, in most of the streams of these tracts water is hardly visible. In Terai zone thicker deposit of alluvium, sand with smaller pebbles and swamp areas are visible.

Central Assam range consists large broken plateus, Meghalaya plateu merges into irregular hills of N.C. hills then join with Patkai hill ranges. Karbi Anglong hill is an extention

(XV)

of Meghalaya plateu and is composed mainly of gneiss and mostly of metamorphic rock, soil is red laterite.

## Enumeration of wild food plant species

A study conducted on the wild edible food plants in various localities and with various tribes' vernacular names have been given to each species representing various tribes, photographs have also been incorporated to elaborate the same. The species included in the list have been considered for those which have been regularly used by the various ethnic groups. A little morphological desciption allowing any one to have idea has been described along with the localities they are generally found. Flowering time, fruit ripening time & flower colour also have been mentioned. The families have been arranged according to the Benthen & Hooker system (1862-1882) with slight modification proposed by Hutchinson (1973) regarding spliting of the families.

The principal edible wild plants of Assam have been considered according to their food potential and present status. Taxonomic account deals with 95 families, 215 genera and about 350 species. About 156 species are green vegetables, 30 species are root & root like vegetables, 147 species are fruits, 11 species are condiments, seeds of 22 species are used, of 7 species, the bark is eaten & of 25 species, flowers are eaten. The leading families of local wild edible plants are represented by -- (1) Fabaceae (2) Moraceae (3) Euphorbiaceae (4) Rosaceae (5) Amaranthaceae (6) Araceae (7) Verbenaceae (8) Solanaceae (9) Asteraceae.

### **Present Situation & Conclusion**

From the assessment made by the Forest Survey of India in its 2003 Report, the forest cover of Assam since 1987 is as below:

Year	ar Forest cover (F.C)	
	(in sq. km.)	
1987	25160	
1989	24832	
1991	24751	
1993	24508	
1995	24061	
1997	23824	
1999	23688	
2001	27714	
2003	27826	

The figures show the fluctuation in areas and increase of forest cover. But as per the reality the actual forest is like below:

Very Dense forest	1684 sq km	2.1%
Moderately Dense	11358 "	14.5%
Degraded/open for	est 14789 "	18.5%
Non forest	50612 "	64.5%

(Source: Forest Department, Assam)

Very dense forests are generally protected areas, wild life areas and are situated in inaccessible terrain. Moderately dense forests have got tremendous biotic pressure specially tree felling. Degraded and open forests have scrubs & little tree forest. In this context it is observed that in open and moderately dense forest areas most of the original tree species have been eliminated and new species have occupied the places. Specially in deciduous and moist deciduous forests, Fabaceae and Verbinaceae species are taking the places. In sal dominated areas, sal comes out as gregerious coppice and have little place for other species to come up. In areas where teak is planted most of the undergrowth have been restricted. Teak was introduced in Assam during 1872 and is still continuing for tree plantation. For plantation also, preferable species are teak (Tectona grandis), sal (Shorea robusta), hollong (Dipterocarpus mannii), kadam (Anthocephalus kadamba), simul (Bombax ceiba) etc. although presently various local species are prescribed and planted, original biodiversity is being tried to be maintained; it is a good sign.

But the worst aspect is the invasion of weed, due to the process of globalization various weeds are taking up open spaces keeping no room for local useful species. In evergreen and moist deciduous forest, a gregerious climber *Mikania micrantha* is becoming a menace. In dry areas *Perthenium capitata*, *Chromolaena odoratum* occupy most of the open areas and does not allow other species to grow.

In water bodies *Eichhornia crassipes* (water hyacinth)

which was introduced in early 19th century, is now occupying major water areas. In shallow water and damp places *Ipomea carnea var fistulosa* is presently causing a real problem, it not only inhibits the growth of local species but also expels the aquatic fauna. The invasions of weed, occupation of new species in new places, and decrease of old, useful species in forest areas is a major concern and requires a new method of survey and study. The apprehension for the depletion or even extinction of some local species population by over utilization and commercialization is still a threat. The ignorance of the new generation about the useful species is also another cause of concern. Although in the native villages most of the useful species are protected and allowed to propagate in their kitchen garden & baris.

The season of eating and the process of eating have already established norms and passed through the successive generations. Some of the species used as wild food plants known to be endangered and threatend have been mentioned in the proper places need special attention. The aim of this book is to create awareness, protection of the species and also the need to acknowledge the traditional food of this region. It is a pioneering work and in later stages all details will be considered for preservation, sustainance of such beautiful and useful biodiversity. Thus every community have their own conservation and harvesting methods.

## **WILD EDIBLE PLANTS OF ASSAM**

## **GYMNOSPERMS**

## Cycadaceae

## 1. Cycas pectinata Griff.

Vern : Thaljimura/Nagchampa/Nagphana (As.) Telchupi (Rabha)

Habit & habitat: - Small evergreen palm like shrub with crown of leaves at apex. Leaflets shiny glabrous, 4 - 7 ft. long. Male flowers in compact and large cone; female flowers in loose cones, about 6 inch long and covered with brown hairs. Flowering occur usually in May. Generally found as undergrowth on the hill slopes and foot hills.

*Uses :-* Matured ovules are eaten and also used as medicine in gastric trouble. Fleshy stem is pounded and used to wash hairs. Young shoots used as vegatable.

## **Gnetaceae**

## 2. Gnetum montanum MG. E.

Vern : Mamoi lota (As.)
Jeging reibe (Mishing)

Habit & habitat: - A large evergreen climber, stem woody. Leaves opposite, 6 - 16 cm by 5 - 12 cm. elliptic or ovate. Male & female flowers are separate, occur during Feb-April. Fruiting in cold season.

Generally found in evergreen tract near river bank. *Uses :-* Drupaceous fruit which occur in the fruiting spike is delicious, edible when ripen .

## ANGIOSPERMS Dicotyledones

#### **Dilleniaceae**

#### 3. Dillenia indica L.

Vern : Outenga, Panchkol (As.)
Sampa (Mishing)
Thaigir (Bodo)
Pumplung (Karbi)

Habit & habitat: - An evergreen tree upto 20 mts in height. Branches generally ascending, often fluted at the base and branchlets marked with v shaped leafscars. Leaves 14 - 30 cm by 7 - 12 cm. Flowers are generally white, sepals broadly ovate, concave & pale green. Naturally occur in damp places near swamps and river banks.

Flowering :June to August and fruiting :December - April.

Uses: Fleshy calyx eaten raw as well as cooked as vegetable suited with fish, pulses and root vegetable; pickles, Jam etc. are also prepared from it. Mucilage found in the fruit is used to wash hair as shampoo and considered good for hair growth.

## 4. Dillenia pentagyna Roxb.

Vern : Okshi (As.) Chirimpi (Karbi)

Habit and habitat :- A deciduous tree about 15 - 17 m

height, branches ascending. leaves are large, 30-50 cm by 9 - 20 cm, oblanceolate, narrow at the base, margin serrated. Flowers light greenish yellow in fascicles of 5-8 from short branch protuberance.

Generally occur in drier regions especially in lower Assam and KarbiAnglong.

*Uses :-* Flowers, fruits especially the fleshy calyx are eaten as vegetable.

#### 5. Dillenia scabrella Roxb.

Vern : Baji ou, Panilewa (As.) Chirinso (Karbi)

Habit & habitat :- A deciduous tree upto 19 mts in height with a fluted trunk.

Branches more or less horizontal. Leaves are larger then *D. indica* but fruits are less than 3 cm, globose, pale green with 5 - 7 carpels.

Predominant in upper Assam, Nagaon & Karbi Anglong; grows on slopes of foot hills.

Flowering & fruiting: March - May.

*Uses :-* The fruit is eaten either cooked or raw as vegetable.

#### **Annonaceae**

## 6. Annona squamosa L.

Vern.: Atlas, Ata-Kathal Sitaphal/ Ata phol (Bengali)

Habit & habitat :- Small tree with bushy habit, often cultivated but in Assam it is more or less running wild.

Flowering occurs during March - May and fruiting in Aug to October.

1

*Uses :-* Ripe fruit is eaten, sweet and aromatic in taste. Leaves used as medicine for lowering blood sugar but it is considered to cause infertility if use frequently.

## 7. Fissistigma verrucosum (Hook.f. & Th.) Merr.

Syn. Melodorum verrucosum Hook.f. & Th.

Vern: Hed Vekuli (As.)

Habit & habitiat: - A large woody climber, young shoots rusty tomentose. Flowers are solitary and pale yelow; occur during March - May and fruit ripen in November to January. Generally occur in evergreen patches or near hill stream. Common in upper Assam.

*Uses :-* Ripe berries are eaten with much relish; the pulp is aromatic which is also edible.

## Nymphaeaceae.

## 8. Euryle ferox Salisb.

Vern : Nikori, Utpal (As.)(Upper Assam) Makhna (Kamrup, Goalpara)

Habit & habitat: - A very prickly aquatic herb. Leaves are large, 30 - 40 cm in diameter. Flowers are about 5cm in dia., violet- blue or red in colour. Fruit is spongy and very prickly out side. Flowering: May to June, Fruiting: July to August.

*Uses :-* The seeds are considered good food for babies & invalids; eaten either raw or roasted. It can be added in sweets, meat and makes light food with milk also.

## 9. Nymphaea nouchali Burm. f.

Vern: Boga bhet, Seluk (As.)

Habit & habitat: - A large aquatic herb with creeping root stock. Leaves peltate or sub-peltate. Flowers are white. Fruit 12-30 celled with many seeds. Flowering and fruiting occur during August to September and sometimes extends up to October.

*Uses :-* Fruit, leaf petiole and roots are eaten cooked as vegetable. Seeds are eaten raw or roasted.

## 10. Nymphaea rubra Roxb.ex Andrews

Vern: Ronga bhet, Mokua, Seluk (As.)

Habit & habitat: - Aquatic herb. Corm is modular and 7 - 10 cm in diameter. Leaves are 15-30 cm in dia., broad, oval or orbicular. Flowers are generally 7-10 cm. in dia. Fruit 10 - 20 celled. Flowering and fruiting occur during August to October.

*Uses :-* Leaf petiole, fruits and roots cooked as vegetable. Seeds are eaten either raw or roasted. Fruit and root stock can be eaten raw.

## Nelumbonaceae.

## 11. Nelumbo nucifera Gaertn.

Vern: Padum (As.)

Habit & habitat: - A large aquatic herb with milky opaque juice. Root stock large, stout and creeping. Leaves peltate, young raised above water and older one generally floating. Petioles with scattered weak prickles. Flowering occur during July to September and fruit ripen in November to December.

*Uses :-* Petioles eaten as vegetable. Ripe carpel, seeds are eaten either raw or cooked.

#### **Brassicaceae**

## 12. Lepidium sativum L.

Vern: Halim (As.)

Habit & habitat: - A glabrous annual herb about 30 - 90 cm in height. Leaves radical and long petioled. Flowers are generally white. Flowering and fruiting occur in winter i.e. November to April.

*Uses :-* Leaves and tender shoots are eaten as vegetable. Also used as medicine for liver problem. It can be eaten raw also.

## 13. Rorippa indica (L.)

[Nasturtium indicum auct non (L.) D.C.]

Vern: Gonga mula (As.)

Habit & habitat: - An annual herb of about 12 cm long with leaves of about 5-10 cm, hairy and variousely lobbed. flowers are very small. Flowering and fruiting occur during March to May.

Uses:-Young plant is used as vegetable.

## Capparaceae

## 14. Capparis zeylanica L.

Vern: Gobindaphal (As.)

Habit & habitat: A shrub leaves simple with stipulary thorn found generally in upper Assam. Fruit is hairy and flowers are generally white. Flowering occurs in March and fruits ripen durig October-November.

Uses:-Seeds of the ripe fruits are eaten roasted.

## 15. Stixis suavelons (Roxb.) Pierre.

Syn. Roydsia suavelons Roxb.

Vern: Madhumalati, Madhabilata (As.)

Habit & habitat :- A large unarmed woody climber with speckled branches. Leaves deep green above, pale underneath with raised white dots. Flowers are dull white and very sweet scented. Flowering occurs during February to March and fruits ripen in October to January. Fruit is one seeded drupe about 3cm long. Becomes pale orange when ripe.

*Uses :-* The ripe fruit is eaten which is very aromatic & sweetish.

#### Flacourtiaceae

## 16. Casearia glomerata Roxb ex DC.

Vern : Tel bhuruki (As.) Han bo Arung (Karbi) Dauphenda (Bodo)

Habit & habitat: - A small deciduous tree with spreading crown. The leaves turn copper coloured before falling. Flowers are small, greenish yellow in dense fascicles. Fruit is less than 2cm long, ovoid & pulpy. Flowering generally during January-February and fruiting in March.

*Uses :-* Young shoots & leaves are eaten as vegetables, generally cooked with rice or chicken by Karbis & Bodos. For Karbis it is indispensible for offerings to their God.

## 17. *C. esculenta* Roxb.

Vern: Kron suri (Karbi)

8

Habit & habitat: - A very small tree up to 6 mts. Leaves shining and glabrous. Flowers are axillary, yellow. Fruit is a capsule with red aril. Flowering in September-October; fruiting in January-March.

*Uses :-* Leaves and tender shoots are cooked into curry, prevalent with Karbis.

## 18. Flacourtia jangomas (Lour.) Raeusch

(F. cataphracta Roxb.)

Vern: Ponial/Finel (As.)

Habit & habitat:- A small evergreen tree bearing compound spines on the trunk upto about middle edge. Flowers occur on lateral shoots. Male and female flowers are different and small. Fruits globose, dark purple when ripe. It is covered by persistent stigmas.

Flowering occur in March - April. Fruit ripen during November and January.

*Uses :-* Ripe fruits ,which are acidic, are eaten raw. When ripe, fruits pressed with thumb for a minute reduces toughness.

## Carryophyllaceae

## 20. Drymaria cordata (L.) Wild ex Roemer & Schultes

Vern : Lai Jabori (As.) Jabshri (Bodo)

Habit & habitat:-A diffused herb with climbing tendency, generally form a dense ground cover, usually on moist &shady places. leaves decussate ovate, sub-orbicular or cordate. Flowers small, in axillary or terminal cymes, white.

Uses:-Tender leaves & shoots are eaten as vegetable,

suitable with small fishes. It is also used as medicine for sinus problem, and in treatment of cuts & wounds of domesticated animal.

## 21. Stellaria media (L.)Vill.

Vern: Morolia (As.)

Habit & habitat :- A diffused herb with striate branchlets; leaves decussate, lower leaves long petioled and upper ones sub-sessile. Flowers small, pale white, in dichasial cymes. Found generally at damp& shady places mixed with other herbs.

*Uses :-* Tender shoots, young leaves are eaten as vegetable during Autumn & winter, and are also used as medicine in nasal problems and stomach disorders.

#### Portulacaceae

#### 22. Portulaca oleracea L.

Vern : Malbhog Khutura / Malbhog sak / Hah thengia (As.)

Habit & habitat: - A prostrate herb with fleshy, glabrous leaves. Branchlets reddish or purple coloured. Flowers small, yellow. Generally occurs in damp and open areas.

*Uses :-* Tender shoots and leaves are used as vegetable mixed with other vegetables or with fish. Also used as medicine in liver problem and in Jaundice.

## Hypericaceae

## 23. Hypericum japonicum Thunb. ex Murr.

Vern: Sonaphuli (Bodo)

Habit & habitat:- A small diffusely branched annual herb, up to one foot in height, generally occurs in open paddy

field and forest fringes. Leaves decussate, smooth, ellipticovate, sessile. Flower golden yellow and found through out the year.

*Uses :-* It is used as a mixed vegetable; also used as medicine by Bodos. It is suitable to use with good amount of chillies.

#### Clusiaceae

#### 24. Garcinia cowa Roxb. ex D.C.

Vern: Kau thekera (As.)

Habit& habitat:- A small middle sized tree with oval crown and dark green foliage, branchlets slightly 4-gonous. Generally found in evergreen tracts. Flowers are yellow, male & female flowers are separated. Fruit is about 5cm in dia., globose but slightly tapering and somewhat oblique towards the apex.

Flowering Period is March-April and fruit become edible during July-August.

Uses:-The fruit is eaten which is acidic. It is preserved after slicing and drying in the sun and is used as medicine for dysentery; also pickles are prepared form it.. Seeds of the ripe fruit are eaten fresh which is sweet.

#### 25. Garcinia lanceaefolia Roxb.

Vern : Rupahi Thekera (As.) Prangso (Karbi)

Habit & habitat: A glabrous shrub up to 12ft. height generally grown under dense shade of other trees. Leaves are lanceolete, shinning. Flowers are solitary terminal and red in colour; occur during February-March. Fruit is 6-8 seeded, smooth obovoid and red in colour. Generally ripen

during June-July.

Uses:- The red ripe fruit is very beautiful and is eaten fresh. Young leaves and shoots which are slightly acidic in taste, are eaten cooked by Karbis & Mishings.

## 26. Garcinia morella (Gaertn.) Desr.

Vern: Kuji Thekera (As.) Thaika (Bodo)

Habit & habitat :- A small evergreen tree. Bark is dark grey in colour and significant. Generally favours evergreen tracts. Male & female flower are separated. Fruit about 2cm in dia., globose and slightly elongated, becomes yellow when ripe. Flowering during December-February & fruiting in May-June.

Uses :- Ripe fruits are eaten but very acidic. It can also be preserved by slicing and sundrying. Pickles are also prepared. Bodos cook unripe fruit as vegetable with fishes. Also by boiling, chutney can made. In main land of Assam, sundried slices are added to black green pulses for slightly acidic curry which is popular. Dried fruit slices are also considered good for dysentery patients.

#### Garcinia paniculata Roxb. **27**.

Vern: Sochopa Tenga (As.)

Habit& habitat :- A handsome evergreen deciduous tree with oval crown and decussate branches. Male flowers are dull white, very sweet scented. Female flowers are large but not scented. Fruits globose, about 3cm in dia. Flowering occur in December to February and fruiting occur during May to July.

Uses :- The ripe fruit is eaten with much relish. Unripe fruits can be used to prepare pickles.

#### 28. Garcinia pedunculata Roxb.

Vern: Bor thekera (As.) Tabing esing (Mishing) Ampri Arong (Karbi)

Habit & habitat :- A large evergreen tree with fluted trunk with short spreading branches. Branchlets slightly four angled. Leaves lanceolate, midrib stout. Male flowers pale green in few flowered panicle; female flowers solitary. Fruit is globose, 8 - 12 cm in dia., with fleshy aril.

Uses: The mature fruit is eaten cooked or raw; generally it is mixed with other vegetables, especially with pulses.

## 29. Garcinia xanthochymus Hook . f.

Vern: Tepor tenga (As.) Thesampreng (Karbi)

Habit & habitat: A small middle sized evergreen tree with a dense narrow crown. Generally found near riverbank i.e. favours evergreen forest with clayey soil. Leaves dark green, 20-40 cm long and 5-8 cm width, narrowly oblong or oblong lanceolate, shining. Flowers unisexual. The fruit is 4cm-6cm in dia., . crowned by persistent stigmatic lobes, golden yellow when ripe. Flowering season is March-May and fruiting in Octboer-February.

Uses: The ripe fruit which is very acidic can be eaten raw or cooked with other vegetables. The fruit which exudes golden yellow juices can be eaten by roasting or boiling.

## Saurauiaceae

#### 30. Saurauia armata Wall.

(S. cerea Griff.)

Vern: Parbatia Sengunia (As.)

Habit & habitat: A small tree, young smooth thick and covered with sharp pointed scale. Leaves are dark brown and placed between. Flowers white, blooms during April to May.

Uses: The ripe fruits are eaten.

## 31. Saurauia panduana Wall.

Vern : Rata gagon (As.) Gaban (Nep)

Habit & habitat: An evergreen tree found mainly in upper Assam and Karbi Anglong. Flowers are small, white and changing to pink, occur during April to June. Fruits are berries, globose, white ,occur during Sept to November. *Uses:* The ripe berries are eaten.

## 32. Saurauia roxburghii Wall.

Vem: Bon Pachala, Pani Pachala, Parbatia Hengunia (As.) Nonthler Arong (Karbi) Daibri (Bodo)

Habit & habitat: A small tree with narrow crown, young parts covered with scurfy tomentose and subulate scales. Flowers are pink in colour, seen during March to May. Fruits are berries, white, very small and globose; occur during May to Aug.

*Uses :* Ripe berries are eaten fresh. Leaves are good fodder.

#### 14

#### Malvaceae

#### 33. Hibiscus subdarifa L.

Vern: Tenga mora, Mesta tenga (As.& Bodo)

Habit & habitat: A herbaceous plant up to 6/7" in height.

Generally planted or kept wild during summer and dies during winter. Stems and leaves are reddish in colour.

Flowers reddish or so, occur during summer. The fruits are red, hairy. Fleshy sepals persists in fruits.

*Uses :* Leaves and fruits are acidic, eaten cooked. It is good with fish and pork. Jelly is prepared with ripe fruits. Some times leaves are used as medicine in dysentry of man and domestic animals.

## 34. Thespesia populnea (L.) Soland

Vern.:Parash pipal (As.)

Habit & habitat: Small tree with peltate-scaly branchlets. Leaves ovate, orbicular, 7-nerved at base, base cordate, margin entire, apex acuminate. Flowers solitary. Epicalyx segments 3-5, calyx lobes 5, small. Petals 5, yellow to pink. Fruit is globose capsule. Flowering & fruiting: Throughout the year. Common along canals, rivers etc. often planted.

*Uses :* Young leaves and flower buds are eaten fried.

## **Bombacaceae**

## 35. Bombax ceiba L.

Vern: Simalu (As.)
Singi (Mishing)
Pharkong (Karbi)
Simla (Bodo)

Habit & habitat: A lofty deciduous tree with butressed base when old and whole trunk is covered with large conical prickles. Flowers are red, large, found during January to March. Capsule is about 7 inch long green in colour. Found generally in the river bank & flood plains.

Uses: Unripe fruits are eaten raw by Mishing although it is used for extraction of silk cotton.

#### Sterculiaceae

#### 36. Sterculia alata Roxb.

Vern: Pahari odal, Nagasul (As) Bong bong (Karbi)

Habit & Habitat: A very tall tree with horizontal branches, young parts are golden pubescent. Found generally in evergreen tract of Upper Assam. Flowers occur during February to April in brownish yellow and fruiting occurs during November-March. Seeds are numerous in each follicle.

Uses: The Karbi & Sonowal eat the seed roasted.

## 37. Sterculia coccinea Roxb.

Vern: Nak Chepeta (As.) Sagla papio (Mishing) Konkelo (Karbi)

Habit & habitat: A shrub or small tree common in moist deciduous forests of Upper Assam and Karbi Anglong. Flower pale white, blooms in August-September. Follicles scarlet & velvety, coriaceous, bright red, available during April-May.

Uses: The tender follicles or fruits are eaten cooked like

beans. Mature seeds are fried or roasted and eaten.

#### 38. Sterculia foetida L.

Vern. Pohu odal (As.)

Habit & habitat: A tree with digitately lobed leaves, leaflets 5-7, elliptic, margin entire. Flowers in axillary panicles, densely clustered, flesh coloured. Gynandrophore present. Fruits are follicles, boat shaped, 3- 5 lobed, glabrous, woody, beaked; seeds many.

Uses: Ripe beans are eaten after roasting.

## 39. Sterculia guttata Roxb.

Vern: Shirikh (As.)

Habit & habitat: A large evergree tree with oval crown. Leaves are simple, not lobed. Flowers are white, occur during spring, follicles are red, hairy outside, available during August to September.

Uses: The seeds are eaten roasted.

## 40. Sterculia roxburghii Wall.

Vern: Nagphona (As.) Mimong omak (Garo)

Habit & habitat: A small or middle sized tree with dark brown rough bark. Flowers are brick red in February-March. Follicles are pink, thinly coriaceous, beaked seeds are black and ovoid. It is available in forest during June-July. Common in moist deciduous forests.

Uses: The black seeds are roasted and eaten.

#### 41. Sterculia versicolor Wall.

Vern: Durong (As.& Bodo)

Habit & habitat: Lofty tree predominantly found in moist

evergreen tracts of upper Assam and N.C. Hills. Leaves digitate with long petiole. Flowers are pale yellow in long penicles occur in March-April. Follicles are large, coriaceous, with dark brown brittle hairs. Each follicle contain 10 seeds.

Uses: The seeds are eaten cooked.

## 42. Sterculia villosa Roxb.

Vern: Udal (As. & Bodo)

Sargik esing (Mishing)

Chekong (Karbi)

Habit & habitat: A moderate sized deciduous tree with large lobed leaves. They are red when young and crowded near the top. Flowers are yellow, bloom during March to April unisexual. Follicles are reddish brown and tomentose outside, scarlet and shining inside, occur in April to June; Seeds with a shining black aril.

Uses: The seeds are eaten roasted or baked.

#### **Tiliaceae**

## 43. Grewia elastica Royle.

Vern: Man Bijal, Phuhura (As)

Thusura (Bodo)

Bong der so (Karbi)

A deciduous tree found generally in deciduous tracks of Assam. Flowers are yellow. Fruit is drupe and globose hairy, blackish when ripe.

Flowering : April-May Fruiting :November- December

*Uses :* The ripe fruit is eaten.

## 44. Grewia sapida Roxb.

Vern: Phuhura, Thouraguti (As.)

Bong der so (Karbi)

Pumi Aye (Mishing)

Habit & habitat: A prostrate undershrub with perennial woody root stock throwing out annually number of bushy shoots. It is found generally in the dry grass land of Assam. Flowers are yellow and fruit is drupe, hirsute.

Uses: The ripe fruit is eaten by Mishing and Karbis.

#### 45. Grewia hirsuta Vahl.

Vern: Hukta pata (As.)

Habit & habitat: A spreading shrub about 9 ft with annual or periodic shoot. It is also found in grass lands. Flowers are yellow and fruit is drupe and reddish brown.

Flowering: Rainy season

Fruiting: November-January

*Uses :* The ripe fruit is eaten; also the fruit is used to treat dysentery and diarrhoea.

## 46. Grewia sclerophylla Roxb.

Vern: Bipu Bum tha (Karbi)

Habit & habitat: A shrub with brownish young part generally occur in the open grass and in slight elevated portion. After every fire in winter in its habitat, it become more or less stunted. Flowers yellow, fruit is drupe with rough stellate hairy with crustaceous rind and sweet pulp.

Flowering: May to September

Fruiting: Autumn.

Uses: The ripe fruit is eaten.

## Elaeocarpaceae

## 47. Elaeocarpus floribundus Bl.

Vern: Jalphai (As.)

Theng Koreng (Karbi)

Habit & habitat: An evergreen tree, found generally wild as well as cultivated in the household gardens for its edible fruit. leaves are ovate - elliptic, often rounded at base, glabrous, blistered on both surfaces when dry, turning bright red before falling. The varities have broader leaves, longer pedicles, smaller & more astringent fruit. Flowers are small & white, fruit is drupe light green.

Flowering: May to August

Fruiting: November to December.

*Uses :* The mature fruit is eaten fresh, or cooked and also very favourable as pickles.

## Oxalidaceae

## 48. Oxalis corniculata L.

Vern: Soru tengeshi (As.)

Habit & habitat: A prostrate herb, branchlets creeping, rooting at nodes. Leaves digitately trifoliate. Generally found in damp and open shady places as weed.

Flowering:Rainy season.

*Uses :* Young shoots & leaves are used as vegetable. It is mildly acidic. The plant is also highly considered medicinal in dysentery and blood pressure. It is suitable with small fish.

## 49. Oxalis debilis H.B.K. var. corymbosa (DC.) Lour.

Vern: Bor tenggeshi (As.)

Habit & habitat: A gregarious herb with long petiole. Leaves larger than *O. corniculata*. It is a common weed in cool damp places. Flowers are rose, tinged with purple or pink striate, pick during January to March.

*Uses :* Leaves along with petiole are eaten as vegetable, specially with small fish & bottle gourd.

#### **Averrhoaceae**

#### 50. Averrhoa carambola L.

Vern: Kardoi (As.)

Kamranga (Bodo & Lower Assam)

Habit & habitat: A small evergreen tree, generally found all over the state. Flowers are pink white and fruits are star shaped with five promiment ridges.

Flowering: July - August Fruiting: October - January

*Uses :* Fleshy fruits quite acidic. They are eaten raw or cooked with sugar. Pickles, jelly and squash can be prepared. It is used as medicine for jaundice and kidney stone.

## 51. Averrhoa bilimbi L.

Vern: Bilimbi tenga, Rohdoi (As.)

Habit & habitat: A small tree, stem irregularly fluted. Generally found cultivated near homestead or running wild. Flowers small purple and white. Fruit approximately 3 inch long, oblong in outline, sharply 3 to 5 lines. Turn yellowish green when ripe. Here also sweet and sour varieties are found.

*Uses :* Fruits are eaten fresh, as chutny, as squash and also considered medicinal for liver trouble

## 21 **Rutaceae**

## 52. Aegle marmelos Correa

Vern: Bel (As.)

Wood apple (Eng.)

Habit & habitat: A tree with spinous branches. Leaves are trifoliate, oil glands present in leaves. Flowers are greenish white and sweet scented. Fruits are 2 - 7 inch. in diameter, outer shell is stony hard, inside which is a strong clear waxy mass embedded in a mass of sweet aromatic pulp. Ripe fruits are sweet scented.

Flowering: March to May

Fruiting: March to June in the next year.

Uses: It is a sacred plant for Hindus. The pulp of the ripe fruit is laxative and mixed with milk and sugar and a sherbet is prepared. It is medicinal for indigestion and constipation. The unripe fruit is boiled or roasted to use as medicine for dysentery and diarrhoea. Sliced immature fruit is dried under the sun and use to prepare a kind of drink called "Bel tea" which is considered medicinal for heart weakness.

#### 53. Citrus medica L.

Vern :Jara tenga (As.)

Tume han thar (Karbi)

Habit & habitat: A bushy thorny shrub common along the edges of marshes, sluggish stream and river islands in the upstream. Leaves elliptic - obovate, oblong - lanceolate, aromatic. Spines straight. Flowers are white, usually tinged with red. Fruit oblong and obovoid, yellow when ripe and highly aromatic.

Flowering & fruiting occur through out the year but more during spring.

*Uses :* The fleshy mesocarp of the fruit is sweet, eaten fresh; also acid juice of the fruit is taken. It was a common scene during harvesting of paddy, Assamese ladies prefers to eat this acid fruit with salt and chilli.

## 54. Glycosmis arborea (Roxb.) Corr.

(G. pentaphylla Corr.)

Vern: Hengna poka, Tultha poka, Chagol ladi, Chaul dhuwa (As.)
Theng lokso (Karbi)

Habit & habitat: An evergreen shrub. Leaves compound, leaflets usually five. The leaves give an unpleasent smell when bruished. Generally occur in the neighbourhood of swamps or on the bank of sluggish streams, under bamboo grooves. Fruit is a berry, white or pinkish when ripe.

Flowering & fruiting: January to April

Uses: Ripe berries are eaten with much relish.

## 55. Murrya koenigii (L.) Spreng.

Vern: Narasinha, Bishahari (As.)

Thenhskso (Karbi)

Habit & habitat: A deciduous aromatic shrub with strong smell. Leaves pinnate, leaflets 15 - 25, oblique. Flowers small, white, fragrant. Fruit subglobose, purplish black when ripe. It is found all over the state and has a gregarious tendency.

*Uses :* The leaves are used to flavour curries; also eaten mixed with other vegetables. Often used as digestive.

## 56. Zanthoxylum oxyphyllum Edgw.

Vern : Mezenga (As.) Onger (Mishing)

Habit & habitat: A slender scrambling shrub. It is highly aromatic. Prickles are usually hooked. Leaves 6 - 14 inch long, rachis armed with prickles beneath. Found generelly in Upper Assam and Maghalaya.

Flowering: April - May Fruiting: August - September. *Uses:* Tender shoots are eaten as vegetable, suitable with pork and considered a good vegetable by Mishings. It is presumed that cooking with pork deworms, specially tap worms, by this vegetable.

## 57. Zanthoxylum rhetsa (Roxb) D.C.

(Zanthoxylum budrunga Wall.)

Vern : Bajarmoni, Bajramoni (As.)

Bajruli (Bodo)

Onger esing (Mishing)

Tenga nang (Karbi)

A deciduous tree with a large crown armoured with sharp prickles on the branches. Leaves are faintly aromatic. Flowers are small, light green or pale yellow. Fruits are bluish -black. generally found at moist forests of lower Assam and in foot hills of Himalaya in northern bank.

*Uses :* Tender leaves are eaten as vegetable by Aitonias & Mishings.

#### Burseraceae

## 58. Bursera serrata Coleb.

Vern: Mirtenga (As.)

Neoli (Bodo) Kisianthor (Karbi)

Habit & habitat: A large tree generally predominant on foot hills of lower Assam. It is considered as very hard wood generally not cut for firewood etc. Flowers are very small. Fruit is a drupe, 2-3 furrowed, exocarp bright pink.

Flowering & fruiting: March - April

Uses: Ripe fruits are eaten, acidic.

#### Meliaceae

#### 59. Azadirachta indica A. Juss

Vern: Mahaneem (As.)

Habit & habitat: A well known middle sized tree usually planted at household gardens and roadsides but in many cases it is running wild. Leaves compound, serrated. The flowers are white and scented, fruit is drupe become greenish yellow when ripe.

Flowering: March - April Fruit ripe: July - August.

Uses: Leaves are bitter, eaten raw, or fried, sometimes prepare curry along with pounded rice. In Assam it is valued as medicine for stomach pain, worm infection, skin diseases. In most families leaves were kept under bed to prevent tick etc. It is highly valued as air purifier.

## 60. Melia azedarach L.

Vern : Ghoraneem (As.) Abori esing (Mishing) Neemtita (Karbi) Habit & habitat: A deciduous middle sized tree. It is generally planted in home steads of Assam. Leaves pinate compound, leaflets 1-5 pairs, opposite, base oblique, margin serrated. The flowers are small, petals 5, white but tinged with purplish blue. Fruits are drupe, smooth, green when unripe and yellow after ripening.

Flowering: March to May Fruits: Ripening by August

Uses: Flowers are eaten as vegetable, it is quite bitter in taste. Some tribes of western Assam prepare dishes with pounded rice. It is a good fire wood. Leaves are used in treatment of skin diseases, to kill worms of both man and domesticated animals.

#### Icacinaceae

## 61. Natsiatum herpeticum Buch.-Ham.

Vern: Oupat (As.)

Target ruibe (Mishing)

Habit & habitat: A small herbaceous climber, shoots densily strigose. It is found in most of the areas of the state. Flowers are greenish yellow in receme. Fruit is compressed ovate drupe.

Flowering: December - January

Fruiting: January - February.

*Uses :* Leaves and tender shoots are eaten cooked as pot herbs, favourite vegetable of Mishings. It is highly delicious when it is cooked with fishes.

## 26

#### Rhamnaceae

#### 62. Hovenia dulcis Thunb.

Vern : Chetia bola (As.)
Pinke esing (Mishing)

Habit & habitat: A middle sized deciduous tree up to 80 ft. Young shoots are tomentose. Flowers are white. The peduncle and other parts of the inflorescence thicken into fleshy mass when the fruit is ripen, latter it look like the fruit is embedded in the penduncle.

Flowering: May - June

Fruit: December - January

*Uses :* The fleshy penducle when ripen become very sweet and eaten. The fruit is also eaten.

## 63. Zizyphus mauritiana Lamk.

Vern : Bogori (As.) Thakri (Karbi)

Habit & habitat: A small deciduous tree, armed with erect or recurved stipular thorn; bark dark grey. Leaves orbicular - round, basally 3-nerved, grey and glabrous above, rust-tomentose below. Flowers borne in axillary cymes in dense fascicles, small, greenish-yellow. Drupe oblong-globose. Flowering usually in September - November and fruit ripen in December - February.

The tree is found almost every where but most prominent in sandy island & banks of river.

*Uses :* Fruit is eaten fresh and prepared curry with fishes by Mishings. The fruits are sliced or pounded and dried under the sun and preserved for future use. The powdered

. . .

sour item is used to mix with other curries. Pickles are also prepared with this fruit.

## 64. Zizyphus rugosa Lamk.

Vern : Bon Bogori, Dindao Bogori (As.) Bata bakuri (Karbi)

Habit & habitat: A deciduous straggller, young parts rusty tomentose. Thorns recurved. Leaves orbicular - round, basally 5-nerved. Flowering visible during March - April. Fruit is a drupe, globose or pyriform. It is found throughout the province specially along with the sal forests in Western Assam.

Uses: The ripe fruit is eaten as in Z. maurtiana.

#### **Vitaceae**

## 65. Cissus quadrangularis L.

Vern: Harjora (As.)

Habit & habitat: A climber with stout stem, fleshy, quadrangular and contracted at the node. Branching is dichotomous. Flowers are in cymose inflorescence, whitish. Fruit globose, red when ripe. The climber is armed with long tendrils.

Flowering: July - September Fruit: October - January.

*Uses :* The young shoots are eaten as curries; also used as medicine in treatment of bone fracture.

## 66. *C. repens* Lam.

Vern : Soru Harjhora (As.)

A trailing, glabrous plant, young shoots are succulent, red, covered with a white bloom. Leaves are

pale green and simple. It is found both in plains and hills upto 9,600 ft.

Flowering & fruiting occur in October to January *Uses :* Leaves and young shoots are eaten as vegetable.

## 67. Tetrastigma lanceolarium (Roxb.) Planch.

(Vitis lanceolarium Roxb.)

Vern: Tadi Ripum (Mishing)

Habit & habitat: A large climber with flat woody stem. Leaves 3-5-foliate, leaflets oblanceolate-elliptic, apex sharpely acuminate, margin serrtaed. Flowers small, greenish-white. Fruit berry, small, globose.

Common in all over the state especially in evergreen tracts.

Flowering: February - April

Fruit: May - August

Uses: The ripe fruit is eaten cooked with fish by Mishings.

## 68. Tetrastigma thomsonianum Planch.

[ Vitis angustifolia (Roxb.)Wall.]

Vern : Nal tenga (ass)

Nekung (Mishing)

Demshri (Bodo)

Habit & habitat: A herbaceous climber; the colour of the stem is dark and generally flattened. leaves 3-foliate. Tendrils are simple. Flower are light green .Fruit is berry, globose. The climber is found near the river banks, river islands and in evergreen tracts.

Flowering:September - October

Fruit ripen: December - January.

Uses: Tender shoots and leaves are eaten which are

28

acidic; It is very tasty when it is cooked with fish. During March - April the acid taste is reduced.

#### Leeaceae

## 69. Leea macrophylla Roxb.

Vern: Kath thengia (As.)

Habit & habitat: A perennial herb with annual shoots, about 3 - 5 ft long. Generally die back in March - April. Flowers are white, small. Fruit is depressed globose black when ripe.

Flowering : August - October Fruit ripe: October - March

*Uses :* Young leaves are eaten as vegetable. The ripe fruit which is less than a centimeter in diameter is eaten fresh.

## Sapindaceae

## 70. Euphoria longan (Lour.) Steud.

Nephalium longna (Lam.)Camb.]

Vern: Naga Lichu, Tokra, Kath lichu, Mirgoch (As.) Tegonog (Mishing)

Marli (Karbi)

Habit & habitat: An evergreen middlesized tree found mostly in the evergreen tracts of Upper Assam. leaves pinnate compound, shining when young. Flowers are pale yellow in terminal cymose panicles. Fruit is sub-globose, rough, purplish red when ripe. Aril is like Litchi but in small size, taste like litchi.

Flowering: April - May Fruiting: July - September

*Uses :* Aril of the fruit which is sub acidic is eaten fresh. Tastes like litchi.

## 71. Aphania rubra Radlk.

Vern : Tanting, Bongadhi, Maiki Bandardima, Hekokeko (As.) Thaikhrok (Bodo)

Habit & habitat: A shrub up to 12ft. in height, branches verrucose, often with minute vertical fissure. Flowers are small, brick red. Fruit is less than an inch long, lobbed, red while ripening, purple and soft when fully ripe. It is generally found in the evergreen tracts of forests.

Flowers: October - January Fruit ripen: March - April Uses: The ripe fruit is eaten fresh.

ipe iruit is cateri iresii.

#### Sabiaceae

## 72. Meliosma pinnata (Roxb.) Maxim. ssp. pinnata

Vern : Shengunia, Bon Pachala, Mamoi (As.) Dermi esing (Mishing)

Habit & habitat: Small tree to 30ft, common in the state specially near river bank. Branchlets rusty-villous. leaves odd-pinnate, leaflets 6-pairs, oblong-lanceolate. Flowers are creamy-white, fruit is drupe.

Flowering: April - June

Fruit ripen: August - September

*Uses :* The young leaves are eaten cooked as vegetable, specially with fishes by Mishing.

## 73. M. simplicifoila (Roxb.) Walp. ssp simplicifolia

Vern: Thowthowa, Larubandha, Sankko-neru,

Hengunia, Phoko, Dhapapatia (As.)

Gurban, Nitak (Mishing)

Phaglanjan (Karbi)

Laidsbri (Bodo)

Habit & habitat: A small evergreen tree, branchlets densely tomentose. Leaves simple, quite large, 5 - 15 inch long, light green in colour. Panicles are long, densely wooly. Flowers white turning pale yellow. Fruit is drupe with persistant sepals.

Flowers : January - May Fruit ripen: March - June

*Uses :* Tender leaves & young shoots are eaten cooked as vegetable especially by Mishing people. It makes a popular dish with local fishes.

#### **Anacardiaceae**

## 74. Mangifera indica L.

Vern : Am (As.) Kedi (Mishing)

Tharbi (Karbi)

Habit & habitat: A large evergreen tree. Leaves are oblong or elliptic-lanceolate, crowded at ends of branches. Panicles terminal, flowers uni- or bisexual, petals creamywhite in colour. Fruit is a drupe, ovoid-oblong.

Although planted but most of them are grown as uncared plant. It is grown at damp, semi-wet areas to higher

altitude. On the basis of colour, size, shape and taste there are many local varieties of mango viz. "Tiliki Am", "Senduri Am", "Matimitha Am" etc. are known to occur. These are usually with large stone, less flosh and of less commercial exploitation. The number of such plants has been decreasing due to destruction by human being. The ripe fruits are mostly infected by insects.

Flowering: February - March

Fruit ripen: May-June.

*Uses :* Ripe fruit is eaten with much relish. Some varieties have sweeter taste also eaten when unripe. Unripe fruits are used to prepare pickles, unripe mango-chutney with pudina is common recipe. Mishing and other tribe prepare curry with sliced unripe mango and fishes.

The wood is also valuable. Villagers use to predict monsoon by observing the flowering pattern of mango plant.

## 75. Mangifera sylvatica Roxb.

Vern: Bon Am (As.)

Chuchi Am (Nepali)

Habit & habitat: A tall lofty evergreen tree with dense globose crown. Although leaves are same as common mango but it has narrower leaf with longer petiole. Fruit is also long, ovate, often forming a hook like structure. It is found in the evergreen tract of Upper Assam, Barak valley and Kokrajhar in Ultapani area.

Flowering: September to October.

Fruit ripen: January to March

Uses: The unripe fruit is more aromatic but pleasant than

the mango and suitable to prepare curry, pickles, jelly and chutney. But ripe fruit is very inferior to common mango. The curry prepared by slicing unripe wild mango is very aromatic and pleasant although highly acidic.

## 76. Pegia nitida Colebr.

( Tapiria hirsuta Hook. f.)

Vern: Dhindou Bogori Lata (As.)

Midi takkir (Mishing)

Hongding (Karbi)

Chutti lara (Nepali)

Habit & habitat: A scandent shrub with hairy appearence found through out the plant. It can be found upto 4000 ft. prevalent in scrub forests, old "jhum" areas. Leaves are compound. Flowers minute, white and sweet scented. Fruit is drupe, small, oblong, black when ripe, with sub-acidic aromatic smell.

Flowers: January - March

Fruit: April - May.

*Uses :* The Karbis & Mishings eat the tender shoots and leaves as vegetable. The ripe fruit is also eaten. Also used as medicine by Garos as antisepitc.

## 77. Rhus chinensis Miller.

(Rhus semialata Murr.)

Vern : Naga tenga (As.)

Habit & habitat: A small deciduous tree, generally gregarious in habit. Leaves compound, leaflets usually 3. Branchlets spine-tipped. Flowers are small, pale green. Fruit is drupe, small, less than one inch.

Flowers: May - September Fruit ripen: February - April

Uses: The ripe fruit is very sour, generally much eaten by Nepalese. In the "Khuti(s)" in side forest it is used to prepare curds. It is also considered medicinal for remedy of colic pain. Some times juice of the fruit is taken.

## 78. Rhus griffithii Hook. f.

Vern : Darmi easing (Mishing)

Habit & habitat: A small tree, predominantly found in Upper Assam. Leaves compound, with leaflets and 0about 1 - 2 feet long, smoth. Fruit is small, drupe.

Flowers : March - May Fruit : July - October

*Uses :* The young leaves are used as vegetable by Mishing and Adis.

## 79. Spondias axillaris Roxb.

Vern: Khamoli Chali, Homoi tenga, Mitha amora (As.) Belam (Mishing) Theseli (Karbi)

Habit & habitat: An evergreen tree, ascending upto 4000 ft. but some what rare species. Branches are dense & horizontal. Leaves 12 - 18 inch long, lanceolate. Flowers greenish white; both male & female flowers are separate. Fruit is drupe more than an inch long and yellow when ripe.

Flowering: February - April Fruit ripe: July - December.

Uses: The inner bark is chewed by most hill people and

some Assamese. It is said that by chewing the bark hunger is reduced, also give a pleasant taste to the mouth. Some times it is used as substitute of Arecanut. The ripe fruit is eaten.

## 80. Spondias pinnata (L.f.) Kurz.

Vern : Amora (As.)

Dorge (Mishing)

Chiming (Karbi)

Habit & habitat: A middle sized tree with a pleasant aromatic acidic smell. It is deciduous and remain leafless during December to March. Leaves compound, leaflets opposite, 3 paired. Flowers uni- or bisexual, greyish-white or pale yellow. Fruit is drupe more than a inch long, acidic, aromatic. It become greenish yellow when ripe. It is generally used as hedges in most Assamese localities as the tree can be propagated easily by cuttings.

*Uses :* Fruit is eaten raw when ripe; unripe green fruits are made in to curry, also forms good pickles. The tender leaves and flower buds are used to prepare a very agreeable curry with fishes. Seeds also eaten.

## Moringaceae

## 81. *Moringa oleifera* Lamk.

Vern: Sajina (As.)

Habit & habitat: A middle sized soft tree with thick corky bark. Leaves compound, with pale green leaflets when young, become darker when older and yellow at the fall period. Generally planted in the the home stead, also use as hedge as cuttings propagate easily, found as escape

in the forest. Flowers small, whitish, honey scented. Fruit is a capsule about 9 - 20 inch. long

Flowers : January - March Fruit ripen : March - May.

*Uses :* Fruits, when unripe, are used as vegetable. Young and tender leaves, and flowers are also used as vegetable. The fruit known as drum stick is highly suitable with pulses.

#### Connaraceae

## 82. Rourea minor (Gaertn.) Alston.

(R. commulata Planch.)

Vern: Makoi Lata (As.)

Habit & habitat: A large scandent, glabrous shrub, occur generally in evergreen tracts of the forest. Leaves compound, shining. Flowers white and small. Fruits are in follicles, about one inch long, oblique, curved. Seed is completely enveloped by a bright red aril.

Flowering time : May - June

Fruit ripen: July - Augut.

Uses: The aril of the ripe fruit is eaten.

## **Papilionaceae**

## 83. Canavalia cathartica Thouars

Syn. C. ensiformis (L.) D.C.)

Vern: Kamtal Urahi (As.)

Thepa (Karbi)

Habit & habitat: A perennial climber, leaf pinnate 3-foliate. Flowers large and white in axillary receme. Pods long, 8 - 10 inch by 1.3 inch, flat with two prominent longitudinal ridges.

Flowering & Fruiting: August - December.

*Uses :* The tender pods are used as vegetable and the seeds are used as pulse. In some areas it is cultivated as vegetable.

## 84. Dalbergia pinnata (Lour.) Prain

Syn. D. tamarandifolia Roxb.

Vern: Laleng Chali, Dat bijli (As.)

Subin Rikang (Karbi)

Amlai lewa (Bodo)

Habit & habitat: A large deciduous woody climber with twisted branch lets. Flowers white, with very short pedicels. Pods are small, strap shaped. Fairly common in the state.

Flowering: January - March Fruit: October - December.

*Uses :* The bark is often chewed with betel vine leaves in Upper Assam.

## 85. Dalbergia rimosa Roxb.

Vern : Gajai Lota, Mermeri Lata (As.)

Phukri lewa (Bodo)

Habit & habitat: A sub-erect straggling or climbing shrub with branch lets often forming tendrils. Dormant buds some time develop in to spines. It is found through out the province. Flowers are very small, sweet scented. Pods are strap shaped.

Flowering: April - May

Fruit ripen: November - December

Uses: Seeds are eaten as pulse by many of the plain tribes.

38

## 86. Dalbergia stipulacea Roxb.

Vern. : Dat Bijal (As.)

Garo-deosal (Bodo)

Sabima-rikang (Karbi)

Habit & habitat: A climbing shrub or small tree with fluted old stems. Leaves with terete petiole supported by a pair of ovate falcate stipules; leaflets oblong, cuneate, slightly oblique at the base. panicles axillary, 3-5 inches long, flowers are suported by large persistent bracts and bracteoles, corolla reddish-purple, stamens diadelphous. Fruit a pod, pendulous, thin, flat, dark green, deep brown when ripe.

Flower: March-April. Fruit: Nov.- December.

Uses: Seeds are eaten by Garo people.

## 87. Derris elliptica (Roxb.) Benth.

Vern: Bakal bih, Makoi sopa, Etam chali (As.)

Hiru alu (Karbi)

Habit habitat: A large woody dextrose climber common in the plains of Assam generally found in the grass land and glades. Flower in terminal receme, red. Pod small, less than 2 inch in length, rigid reticulate.

Flowering :March - April

Fruit ripen:March - June.

*Uses:* The bark is chewed with betel leaf and slight sedative. The root is used to poison fish.

## 88. Desmodiam triquetrum (L.) DC.

ssp. pseudotriquetrum (DC.) Prain

Vern: Ulucha (As., Mishing)

Habit & habitat: An erect or semi-erect undershrub up to 3 - 5 ft. long. Branches sharply triquetroes. Flowers purplish pink. Pod 1 - 2 inch. by half inch, hairy. Common in grasslands up to 4000 ft. altitude.

Flowering:October - December

Fruiting: December - March.

*Uses*: Dried leaves are used as substitute of tea by Mishing & Adis in Upper Assam.

## 89. Mucuna pruriens (L.) DC

Vern: Bander Kekua (As.)

Habit & habitat: An annual climber, generally found in scrub forests, waste lands in the plain, near localities. Leaves compound, ovoid and glabrous. Flowers dark purple, calyx has irritating bristles. Pod is about 2 - 3 inches, ends curved in oppoisite direction, covered with dense pale brown hairs.

Flowering: January - March

Fruit ripen: April - June

*Uses :* Hair in the pods & calyx are highly irritating but after carefull preparation seed can be separated which are delicious considered aphrodisiac in many localities.

## 90. Pueraria phaseoloides (Roxb.) Benth.

Vern: Pani Alu (As.)

Habit & habitat: An annual tuberous climber, young shoots covered with hair. Generally found in open evergreen forests along streams of Lower Assam. Flowers pale blue, pod 3 - 5 inches long, linear, black when ripe.

Flowering: September - October

40

Fruit ripen:October - November

Uses: The tuber is flehy and tasty, it is often eaten raw.

## 91. Pueraria tuberosa (Roxb. ex Wild.) D.C.

Vern: Urahi alu, Pani Alu (As.)

Habit & habitat: A woody climber with large tuberous root. It is deciduous and gives flowers during leaf less period. Flowers are bright blue. Pods are flat, 2 - 3 inches long, flexible. Most common in deciduous tracts.

Flowering: March - April

Fruit: May - June

*Uses :* The tuber is fleshy and edible; taste liquory and eaten raw, it is also used as medicine.

#### 92. Pueraria thomsonii Benth.

Vern.: Pani alu(As.)

Habit & habitat: An annual tuberous climber. Commonly found in deciduous tracts of forests or in scrub forests.

Flowers: April -May Fuits: May- June

Uses: Tuberous roots are eaten cooked.

## 93. Sesbania grandiflora (L.) Poir.

Vern: Bokphul (As.)

Habit & habitat: Small tree, often cultivated. Leaves compound, with 20-30 pair of leaf-lets. It is a quick growing species. Flowers are white, about 5cm across, pendulous, petals reflexed, winged. Fruit is a long pod.

Flowers: October - November Fruit ripen: January - February

Uses: Flowers are eaten as vegetable, either fried or with

pounded rice or gram.

#### 94. Sesbania sesban (L.) Merr.

(S. aegyptica Pers.)

Vern: Jayantiphul (As.)

Habit & habitat: A quick growing soft wood, short lived shrub, 10 - 15 ft. in height, branchlets glabrous. Leaves peripinnate, leaflets15-20 pairs, opposite. Flowers in racemes, dark brown to purple with golden -yellow inside. Pod is about 6 - 9 inch long.

Flowers time: August - September

Uses: Flowers are eaten fried with pounded rice or gram. The tree is generally planted for fertilizer or shade, and found wild as escape.

#### 95. Uraria rufescense (DC.) Schindl.

Vern: Hikoti mah (As.) Kolma (Mishing)

Habit & habitat: Annual herb, almost prostrate or having a climbing tendency. Flowers small, yellow. Pods smaller than black gram. Generally found in the paddy fields after harvesting or in the damp dry up areas.

Flowering & Fruiting in winter.

Uses: Seeds eaten fresh or cooked. It can be used as pulse.

#### 96. Vigna vaxillata Benth.

Vern: Banoria Urahi (As.)

Habit & habitat: A slender twiner with fusiform tuberous root. Leaves compound, 3 - foliate. Flowers are generally consisted at the end of peduncles appear to as head. Exists

upto 5000 ft. high. Flowers are purple; pods 3 - 4 inches by 2.5 inches, slightly compressed and covered with dark brown hairs.

> Flowering: August -September Fruit ripen: September - October.

Uses: The seeds are used as pulse. Tuberous roots are eaten cooked.

### Caesalpiniaceae

#### 97. Bauhinia acuminata L.

Vern. Name: Mati kotora (As.)

Megong aphal (Garo)

Habit & habitat: An erect shrub up to 10 ft. high. Leaves are 3-5 inches in length, slightly longer than broad, cleft about one third way down into two acute or sub-obtuse lobes. Flowers white, in short leaf opposed raceme; bracts and bracteoles are linear, pubescent. Sepals with spatheceous limb, acuminate. Petals with prominent midrib and ascending veins. Stamens 10, ovary stipitate. Pod glabrous.

Flowering in April to May.

Uses: Flowers are eaten fried.

#### 98. Bauhinia malabarica Roxb.

Vern. name: Kotra, Tenga kotra (As.)

Khormang (Bodo)

Hanthar (Karbi)

*Habit & habitat :* A moderate sized tree with bushy crown. Leaves broader than length, cleft about a fourth of the way down into two rounded lobes, 7-9 or 11 nerved, cordate or subcordate. Petiole swollen at both ends. Flowers dull white in axillary and terminal. Pod 7-14 inch long, flat, flexible, straight, beaked, marked when dry with more or less reticulate raised lines which descend obliquely from the middle of the valves to the sutures.

Flowering: August- October, Fruiting: January- May. *Uses :* Flowers are eaten cooked.

### 99. Bauhinia purpurea L.

Vern. Ronga Kanchan (As.)

Habit & habitat: Small trees with warty branchlets. Leaflets connate about half way, lobed, sometimes lobes overlapping, thin coriaceous, base subcordate, margin entire. Flowers in axillary or terminal recemes or paniculate. Calyx-tube apex 2-cleft. Petals rose to pink, obovate, narrow at base, obtuse. Stamens 3-5. Pods oblong, compressed, many seeded.

Flowering: peak in September Fruiting: Throughout the year.

*Uses :* Flower buds are eaten cooked. The plant is cultivated for ornamental purposes.

### 100. Bauhinia veriegata L.

Vern : Kanchan, Boga Kotora, Kotora, Kurol (As.) Inku (Karbi) Kharmang (Bodo)

Habit & habitat: A small tree; leaves are simple, deeply cordate, dull green, Found throughout the province upto 2000 ft. Often cultivated for its beautiful flower. Flowers large, white, pink or purple. Pods 6 - 10 inch. long, hard, flat.

44

Flowering: February - April Fruit ripen: Rainy Season

*Uses :* Flower buds are eaten cooked, seeds are also eaten by roasting.

#### 101. Cassia fistula L.

Vern: Sonaru/Sonalu (As.)

Habit & habitat: A medium - large sized deciduous tree found all over the state ascending up to 2000 ft. Leaves compound, leaflets come in 5 pairs, opposite, oblong-broadly obovate, glabrous above, pubescent below, base subacutre, margin entire, apex gradually tapering. Flowers in terminal racemes, pedicel elongated. Petals 5, yellow, stamens 10, carpel one. Pod oblong, 1 - 2 ft long, cylindrical, smooth. Seeds many,immersed in a dark brown pulp. During leaf less period flower occur covering all branches.

Flowering: March - July Fruit: Ripe in cold season.

*Uses :* Flowers and flower buds are eaten cooked. The pulp of the ripe pod is eaten fresh, also use as medicine to cure mouth ulcers. The pulp is considered a powerful purgative.

#### 102. Cassia siamea Lamk.

Vern : Sia Sunaru (As.)

Habit & habitat: A middle size evergreen tree, usually planted on roadside. Leaves pinnate compound, leaflets 7-10 pairs, ovate-oblong, 2.5-6 cm long and 1.5-2 cm width, base and apex obtuse. Flowers in panicles, about 3 cm

across, yellow. Fruit is pod, 20-25 cm long, compressed, woody with thick sutures.

Although the tree has been introduced by forest department of Assam during 80's it is now localised in many places.

Flowering: June - August

Fruit ripen: October - November

*Uses :* Flowers & tender leaves are cooked as vegetable by Garos in Lower Assam.

#### 103. Cassia tora L.

Vern : Soru-Medelua (As.) Hadi diga (Karbi) Adi diga (Bodo)

Habit & habitat: A softwooded undershrub or annual; branchlets glabrous. Leaflets 3-5 pairs, thin coriaceous, base oblique, apex obtuse, margin entire. Flowers in terminal racemes. petals 5, golden yellow. Stamens 10 including 3 staminodes. Pod short, compressed; seeds many. Fairly common in forest edges, waste lands upto 3000 ft. in the road side. Generally dies during winter.

Flowering: July to September

Fruit: Early winter.

*Uses :* Young leaves are used as vegetables by Bodos, favourable with pork / fish or as mixed vegetable. The leaves, seeds and roots are considered to having medicinal properties for skin diseases.

#### 104. Saraca ashoca (Roxb.) de Wilde

(S. indica Sensu Baker)

Vern: Ashok (As.)

46

Mir krem (Karbi)

Habit & habitat: A middle sized handsome tree. Leaves paripinnate, glabrous, leaflets 4-5 pairs, 10-20 cm long, margin slightly wavy. Flowers are fragrant, orange scarlet in terminal or axillary racemes. Pods are 5 - 10 inch compresed, tapering at the both ends. Very beautiful tree when flowers. The purplish pink new leaves appear at the intervals.

*Uses :* Although it is considered highly medicinal Karbis use to chew the fruit as substitute for arecanut. Usually planted for ornamental purposes.

#### 105. Tamarindus indica L.

Vern: Teteli (As.)

Habit & habitat: A large evergreen tree with rough bark, branchlets warty tomentose. Leaves even pinnate, leaflets 15-17 pairs, small, narrowly oblong, base and apex obtuse, margin entire. Racemes terminal on short peduncle. Flowers 1 cm across, pale yellow. Pods indehiscent, 3 - 8 inches, flat, usually curved, seeds dark brown and smooth. Mostly planted in the homestead. There is a common proverb to never plant tamarindus tree infront of house.

Flowers : April - June Fruit ripen : Cold season

*Uses :* Fruits are sour, eaten fresh or by drying prepare Jelly, pickles or eaten in curries & chutneys. Tender leaves

are eaten as vegetable by Mishings.

#### Mimosaceae

#### 106. Mimosa imbricata D.C.

Vern: Mekuri ghila (As.)

Tapo tapi ruibe (Mishing)

Habit & habitat: A large climber with slender branches; leaves compound, leaflets ovate-lanceolate, long petioled. Flowers are dull purple. Pods are 4 - 6 inch long, oblong, 2 - 4 seeded. Generally concentrate in Upper Assam.

Flowering: Rainy Season Fruit ripen: December - April.

*Uses :* Unripe / immature pods are eaten cooked as vegetable by Mishings; match with fishes.

### 107. Mimosa monosperma DC.

Vern.: Kauri kanta (As.)

Habit & habitat: Armed stragglers. leaves alternate, bipinnate; rachis prickly. Flower heads in axillary clusters. Stamens many, pinkish. Pods oblong, flat.

Uses: Sometimes seeds are eaten.

### 108. Parkia timoriana (A. DC) Merr.

(= P. roxburghii G. Don)

Vern: Kharial, Manipuri Urahi (As.)

Yonchak (Manipuri)

Thenuk (Karbi)

Habit & habitat: A middle sized unarmed tree with spreading branches. Leaves bipinnate. Flowers pale yellow; pod 10 - 20 inch. by 1- 5 inch., smooth, dark brown. Generally found in Sibsagar & Barak valley and in Karbi

48

Anglong.

*Uses :* The tender pods are eaten as vegetable especially with fishes.

#### Rosaceae

### 109. Fragraria indica Andrew

Vern : Gorukhish (As.) Gudali (Mishing)

Habit & habitat: A sliky pubescent herb with perennial rootstock and slender runner. Leaves dark green, 3-foliate. Flowers yellow, fruits are achenes on a fleshy red receptacle. Found almost all over the state generally near river banks upto 6000 ft.

Flowering & fruiting occur almost through out the dry season.

Uses: Ripe red fruits are eaten.

### 110. Potentilla nepalensis Hook. f.

Vern: Nepali Gorukhis (As.)

Habit & habitat: A prostrate or erect hirsute herb with perennial root stock found generally open up and shaddy areas rich in moisture. It is generally common in the Northern bank of Brahmaputra. Fruit is achene with elevated hairy receptacle.

Flowering and fruiting: October to February.

*Uses :* Ripe fruits are eaten.

### 111. Potentialla supina L.

Vern: Gorukhis (As.)

Habit & habitat: A prostrate or erect herb with slender, hairy stems. Leaves digitately 3 - 5 follolate. Flowers are

yellow. Fruit is achenes on an elevated villous receptacle. The plant is generally found in damp open grass lands or harvasted paddy field prefer partial shed.

Flowering & fruiting: March - July.

*Uses :* Ripe fruit is eaten. The young leaves can used as vegetable.

#### 112. Prunus domestica L.

Vern: Ahom bogori (As.)

Habit & habitat: A small deciduous shrub, domesticated or running as wild near the homestead gardens/scrub forest. Leaves lanceolate. Flowers are bluish white in colour. Fruit is drupe and hairy above, sightly hooked or pointed apex. Green-white when unripe turn red when ripe. Inner pulp is red when mature. Smelling strongly as almond.

Flowering: February - April

Fruit ripen: August - September.

*Uses :* Mature fruit is eaten. Slightly acidic to sweet in taste.

### 113. Prunus jenkinsii Hook f. & Th.

Vern: Bon thereju / Thereju tenga.(As.)

Habit & habitat: An evergreen medium sized tree mainly found in Upper Assam. Flowers are white. Fruit is a drupe, less than an inch, ovoid or obovoid.

Leaves turn yellow before falling hence two colours of leaves are found in the same tree.

Flowering:October

Fruit:February

Uses: Ripe fruits are eaten fresh.

### 114. Prunus persica (L.) Stokes

Vern: Nara Bogori (As.)

Habit & Habitat: A small moderate sized deciduous tree. Leaves lanceolate. Flowers are pink and solitary. Fruit is drupe and succulant. Usually planted as ornamental, almost found as wild.

Flowering: January - February

Fruit ripen: May - June.

Uses: Ripe fruit is eaten with delicacy.

#### 115. Rubus alcerifolius Poir.

(R. moluccanus sensu Hook. f.)

Vern : Jetulipoka (As.)

Inshumaring Kang (Karbi)

Habit & habitat: A straggling or sub-scandent shrub. Stem robust with hooked prickles scattered in branches, petiole, midrib of leaves, sometimes on leaf veins. Leaves broad and pubescent. Flowers small, white in axillary receme. Fruit succulant drupes, globose, scarlet. It is found all over Assam acending up to 6000 ft.

Flowering & fruiting time: June to September.

*Uses :* The ripe fruit smells sweet and is very tasty; eaten with much relish. The juice of root of the plant is used as medicine in fistula.

### 116. Rubus ellipticus Smith

Vern : Borjetulipoka (As.)

Habit & habitat: A large straggling shrub with stout prickles. Leaves are pinnately 3-foliate, prickly on the under side.

Flowers are small white, crowded in short terminal receme. Fruit about half inch, succulant drupe, orange-yellow in colour. It is mostly found in southern Assam usually in hilly terrain. It is very gregerious in open areas. It can grow up to 6000 ft.

Flowering: February - March

Fruit ripen: May - June.

Uses: The fruit has an excellent flavour and is eaten.

#### 117. Rubus lucens Focke

Vern: Jeheru Poka/Noga jhejheru (As.)

Habit & habitat: A stout scandent shrub. The plant has small hooked prickles scattered all over the boby. Leaves pinnate, 3-foliate. Flowers pink. Fruit drupe, enclosed in the calyx, juicy and red. It is mostly found in Northern Assam.

Flowering & fruiting: October to February.

Uses: Ripe fruits are delicious and eaten.

#### Crassulaceae

### 118. Kalanchoe pinnata (Roxb.) Pers.

(Bryophyllum Pinnatum Roxb.)

Vern: Pategoja, Dupar tenga (As.)

This is a succulent perennial plant distributed throughout the state. Young plants grow from the margins of old leaves. Leaves are thick, soft, juicy; basal leaves are simple but upper one become 3-5- foliate pinnate, margin slightly serrated. Flowers pinkish.

Flowering & fruiting: May - September

Uses: Leaves eaten as vegetable. It is acidic during

morning to midday and gradually reduces thereafter; also less acidic in April. Curry is prepared from the leaves of this plant with fish and other vegetables. It medicinal for kidney stone and constipation.

### Rhizophoraceae

#### 119. Carallia brachiata (Lour.) Merr.

Sy. C. lucida Roxb.

Vern : Mahithekera / Kathal boula / Daini Jam (As.)

Habit & habitat: A medium size small tree often with branches of advantitious roots on the trunk. Flowers sessile, creamy. Fruit is globose, small and one seeded. It Occurs almost all over the state more visible in Southern Assam.

Although fruits are small but sometimes large depressed gall fruits about one inch across are formed which are very succulent.

Flowering & fruiting: December - February

Uses: Fruits are eaten, acidic in taste.

#### Combretaceae

#### 120. Combretum decundrum Roxb.

Vern: Latachali / Dhuna chali / Jonari lewa / Jangta / Tuta chali / Dhenai chali / Droa chali / Dhoba lata / Boin lewa (As.)

Arkeng (Karbi)

Habit & habitat: A large evergreen woody climber with reddish brown bark peeling off in thin flakes. Leaves

opposite. Flowers greenish white. Fruit with papery wing. It is found throughout the province in the evergreen tracts or on the river bank.

Flowering: October to January

Fruit ripen: March to April

Uses: Bark is chewed as sustitute of betelnut in Upper Assam.

### 121. Terminalia arjuna (DC.) W.& A.

Vern: Arjun (As.)

Habit & habitat: A medium sized deciduous tree, branchlets pubescent. Leaves alternate to opposite, oblonglanceolate, thick coriaceous, margin crenate-serrate, apex obtuse; two glands on the petiole close to the leaf-blade. Flowers small, in axillary spikes. Fruit a 5-angled drupe, 5-winged.

Found generally in the hill slopes near the water bodies.

Flowers: May - June. Fruits: October - November.

Uses: It is considered highly medicinal for heart diseases, diabates and in lowering high blood pressure. In Western Assam barks are cut into small pieces dried and use as substitute of tea.

#### 122. Terminalia chebula Retz.

Vern: Silikha (As.)

Habit & habitat: A medium sized to large deciduous tree. Leaves alternate-opposite, thin coriaceous, ovate or elliptic obovate, entire, apex sub-acute. Flowers in axillary spikes, yellowish white and with offtensive smell. Fruit is drupe, Obovoid, more or less five ribbed. Commonly found

in deciduous forests of lower Assam. In Upper Assam it is commonly found near river bank or as planted tree.

Flowering: April - May

Fruiting: February - March of the next year.

Uses: It is considered as one of the best known medicinal plant or tanning material in world. The both unripe and ripe fruits as eaten raw or used as medicine. The fruits are boiled, sliced and sun dried and preserved for medicinal purposes; usually chewed after meal as digestive.

#### 123. T. citrina Roxb. ex Flem.

Vern: Silikha (As.)

Cheluka: Karbi

llikang (Mishing)

Selekhai (Bodo)

Habit & habitat : A medium to large deciduous tree often with buttressed steam. Leaves sub-opposite, lanceolate, pubescent when young. Flowers occur in the spikes. Fruit drupe, oblong, obscurely 5- ridged. The tree is found through out the state.

Flowering: June-July

Fruit ripen: November to January

Uses: Fruits are either eaten raw or dried mostly as masticator also medicinal in some diseases.

### **Myrtaceae**

### 124. Syzygium cumini (L.) Skeels

Vern: Kola jamu (As.) Jam esing (Mishing) Jangmi (Karbi)

Khorjam (Bodo)

Habit & habitat: An evergreen tree. Leaves smooth, glossy, elliptic to oblong or ovate. Found through out the state often gregarious in swamp. Cultivated trees have broader leaves. Flowers are greenish white; fruits are berry oblong, black, juicy shining when thouroughly ripe.

Flower : April - May Fruit : June - July

*Uses :* Ripe fruits are edible, barks are used as medicine for diabetics.

### 125. Syzygium formosum (Wall.) Masam

Vern: Bhukua Chepa / Labung garai (As.)

Mirte phong (Karbi) Kurak (Mishing)

Habit & habitat: It is a medium sized tree with large leaves about more than a foot found mostly in the Northern Assam and Southern Assam. Flowers are distinct rosy pink in corymbose cyme. Fruits berry, globose white or pink when ripe with persistant calyx limb.

Flowering & Fruiting :March - April

*Uses :* The fleshy calyx are eaten cooked either with other vegetable or with fish. It gives a delicious scent.

### 126. Syzygium fruticosum DC.

Verm: Kathiya Jamu (As.)

Habit & habitat: A shrub or small tree closely related to *S. cumini*.. Branches are glabrous. Generally found in the Southern Assam upto 3000 ft and. Flowers are small & sessile, white. Fruit berry, small, globose.

56

Flowering: March -- April

Fruit ripn: May - June.

Uses: Small ripe fruits are eaten.

### 127. Syzygium jamboos (L.)Alston

Vern: Golapi Jamu (As.)

Habit & habitat: A medium sized evergreen tree. Flowers white in terminal receme. Fruit is berry, globose crowned by intiexed calyx lobes, delicate, white, yellowish when ripe, scented and sweet.

Generally cultivated but it is found in forest as escape. Found throughout the state.

Flowering time: February - April

Fruit ripen : June - July.

Uses: Ripe fruits are eaten.

### 128. Syzygium kurzii (Duthie) Balak.

Vern: Bogi Jamu (As.)

Girgum datke (Mishing)

Habit & habitat: A large to moderate sized tree with pale grey compressed branches. Flowers are white in branched cyme. Fruit berry, crowned by spreading calyx limb. Found mostly in Eastern & Northern Assam and other district of Upper Assam.

Flowering & Fruiting: March to June.

Uses: Ripe fruits are eaten.

### 129. Syzygium malaccansis L.

Vern: Pani Jamu (As.)

Habit & habitat: A hand some tree with compressed branches. Leaves large oblanceolate. Flowers red or purple

distinct. Fruit berry, about 2 inch long. It is generally cultivated but in most cases found acclamatised in the forest.

Flowering time: April - May Fruits ripen: May - June Uses: Ripe fruits are eaten fresh.

### 130. Syzygium operculatam (Roxb.) Niedenzu

Vern : Godhajam (As.) Sumuk (Karbi)

Habit & habitat: A small evergreen tree; all parts are glabrous. Leaves are moderate sized, smell like mango when smeared. Flowers are small, sessile, greenish-white. Fruit small, berry, globose, white, with a truncated tip.

It is found in most parts of Assam, generally favours red lateristic soil.

Flowering time: April - May Fruiting time: June - July. *Uses:* The ripe fruit are eaten.

#### Lecythidaceae

### 131. Careya arborea Roxb.

Vern : Kumbhi, Panibhela, Kum Kumari (As.) Koring (Karbi) Khum (Bodo)

Habit & habitat: A medium sized deciduous tree, found in the most areas of the state especially lower Assam. Leaves large, alternate, glabrous, about one foot long. Leaf become red before falling. Flowers distinct with an unpleasant smell, white or pink. Fruit berry, globose 2 - 3 inch long with numerous seed.

Flowering: March - April

Fruiting: June.

*Uses :* The bark, flowers, juices and fruit are considered medicinal. Ripe fruits are eaten raw and seeds are eaten roasted by the Santhals.

#### Melastomaceae

### 132. Medinilla erythrophylla Lindl.

(M. rubicunda sensu Cl.)

Vern: Bogitenga (As.)

Habit & habitat: A shrub or small tree upto 15 ft. height, generally found in Upper Assam, Northern Assam. Leaves small lanceolate. Flowers are tetramerous, pink, fruit berry, very small

Flowering: August - October.

Fruiting time: January - February.

Uses: The leaves and fruits are eaten cooked as vegetable.

#### 133. Melastoma malabathricum L.

Vern: Phutuka / Phutkala (As.) Bit-Bit (Karbi) Thung khu (Bodo)

Habit & habitat: A shrub with mush branched, hard, 4-angled stem; young one armed with rigid, wedge shaped spinous outgrowth. Leaves simple, opposite, decusate, one of a pair sometimes smaller than other, broad, ovatelanceolate, coriacious, hispid; usually with 5 palmate

veins. Flowers in terminal dichasial cymes, pink. Stamens yellow, large, 10 of which 5 are straight and other five are bent. Fruit a loculicidal capsule. It is found generally in waste land, flood plains, sandy banks of the river and in degraded forests.

Flowering:February - June

Fruiting: November - December

*Uses :* Roots and leaves are used as medicine. Ripe fruits are eaten. In this plant generally preying moths prefer to lay eggs which are look like foam in early stages. It is there fore proverbial "phutukar phan" i.e. meaningless or "phutukani" i.e. scrub forest come out.

### Memecylaceae

# 134. *Memecylon umbellatum* Burm. f. var. *umbellatum* (*M. edule* Roxb.)

Vern: Lali Dimabo (Ass.)

A moderate sized tree mostly found in Southern Assam generally in low elevation. Leaves smaller and lanceolate. Flowers in cyme, small, bright blue. Fruit berry, globose, small.

Flowering time:March - June

Fruiting time: October - November

*Uses :* The ripe fruits are eaten.

#### **Trapaceae**

# 135. Trapa natans L. var. bispinosa (Roxb.) Makino

Vern: Bor singori / Paniphal (As.)

Habit & habitat: An aquatic floating herb, leaves dimorphic; submerged leaves are modified into thread like segments,

floating leaves in rossetes like segments, green & rhomboid. Flowers white, close to the surface of water. Fruit single seeded hard obovoid with two short beak and lateral sharp spines. Dark brown or black when ripe.

It is most common in all ponds and beels of the state.

Flowering & Fruiting: October to March.

Uses: Seeds are is eaten either raw or cooked.

# 136. Trapa natans L. var. quadrispinosa (Roxb.) Makino

Vern: Soru singori (As.)

Habit & habitat: Flowering leaves of this plant is small, sparingly hairy beneath on the nerves. Fruits have spines in all the four angles. Generally found in all over the state. Cows and buffaloes generally do not go to such type of ponds where this plant is plenty.

Flowering & Fruiting in cold season.

Uses: The seeds are eaten either raw or cooked.

#### **Passsifloraceae**

#### 137. Passiflora foetida L.

Vern: Lota bel/Koth bel/Mewa (As.)

Habit & habitat: A vine with densely hispid branchlets. Leaves usually 3-5-lobed to halfway, suborbicular -ovate, appressed glandular-pubescent, base cordate, margin subentire to ciliate, apex acute; stipules sub-reniform, deeply cleft into glandular processes. Flowers about 4 cm across, axillary, often solitary; bract and bracteoles 2-3 cm, deeply pinnateisect, glandular -pubescent. Calyx tube short, saucer shaped, lobes ovate-lanceolate. Petals slightly

shorter than the calyx lobes. Androgynophore 4-6 mm. Ovary globose. Fruit berry, subglobose, approximately 4 cm across.

Flowering: July - September

Fruiting: October

*Uses :* Pulp of the ripe fruit is eaten; it can also be taken as "shorbet".

#### Cucurbitaceae

### 138. Coccinia grandis (L.) Voigt.

Syn. C. cordifolia Cogn.

(Cephalandra indica Naud.)

Vern: Belipoka (As.)

Telkocha / Kauwa-luli (Beng.)

Habit & habitat: A herbaceous climber with branchlets apically pubescent, glabrous at base. Leaves simple, 5-lobed, glabrous, punctate above, glandular below; basal sinus subrotund-cordate, margin denticullate, apex obtuse, mucronate; tendril simple. Flower solitary, dioecious. Male flower: calyx-tube campanulate; corolla campanulate, white, petals 5, ca. 1 cm, glabrous without, villous within. Stamens 3, inserted at the base of calyx-tube, filaments connate into a column, about 3 mm, anthers connate, triplicate, flexous. Female flower: calyx and corolla campanulate. Ovary oblong, glandular-pubescent. placentae 3, ovule indefinite; stigma 3-partite, fimbriate; staminodes 3. Fruit ovoid-oblong, striped, seeds compressed.

Flowering & fruiting: June - August

Uses: Fruits and leaves are eaten cooked as vegetable.

### 139. Cucumis trigonus Roxb.

Vern: Jangli Indrayan / Ghimaru (As.)

Habit & habitat: A annual climber found generally in open areas or low scrubs, grows from persistant root stocks.. Stem quadrangular, hairy.Leaves 5-lobed, margin serrated. Male flowers in clusters while femal flowers solitary. Petals 5, stamens 5. Fruits almost round, 4 cm across, green with white stripes.

Flowering & fruiting: August - November.

Uses: Fruits are eaten raw or cooked as vegetable.

#### 140. Cucumis utilissimus Roxb.

Vern: Kakur (As.)

Habit & habitat: Annual climber. Leaves simple, broad, ovate. Flowers unisexual, axillary. Male flowers in clusters of 2-3 individuals while females are solitary, yellow. Fruits 12-15 cm long, 5-8 cm wide.

Cultivated for the fruit but also found as wild.

Flowering & fruiting : August to September.

*Uses :* Fruits are eaten raw, leaves also can be eaten as vegetable.

#### 141. Hodgsonia macrocarpa (Bl.) Congn.

(H. heteroclita Roxb.)

Vern: Thebou lata / Topou guti (As.)

Hanthar angpher (Karbi)

Tatar reibe (Mishing)

Til lou (Bodo)

Habit & habitat : A woody climber with extremely bitter

Generally found in foot hills and household gardens.

bark. Leaves large, palmately 3 - 5 lobed. Flowers large. both male & female flowers are distinct, out side brown, in side yellow. Fruit 4 - 5 inch wide, depressed globose, redbrown, closely tomentose, 12 grooved, seed usually six. It is found throughout the state, specially near river, hill streams etc.

**Apiaceae** 

Flowering time: February - March.

Fruit ripen: October - November.

Uses: The kernel of the seed is eaten. Empty seed coat like a shell is used as container for lime, tobacco etc.

### Begoniaceae

### 142. Begonia picta A. DC.

Vern: Maikhi Phagla (B)

Habit & habitat : An under growth in forest generally in the damp place. A hairy herb. Leaves ovate, oblique, hispid, ciliate. It is of 2-3 feet in height, branching occurs at the nodes. Roots tuberous. Flowers pale white; capsule hairy.

Flowering and fruiting during August to October.

Uses: The leaves which are succulent are slightly acidic, can be cooked and eaten as vegetable, either with fish or other vegetable; roots have medicinal value with bitter taste used in diarrhoea.

### Molluginaceae

## 143. Mollugo pentaphylla L.

Vern: Khet papra (As. - Beng)

Habit & habitat : A erect slender glabrous herb, leaves are very variable. Flowers in compound inflorescence.

Flowering and fruiting in June - July.

Uses: Young leaves are eaten cooked as vegetable.

#### 144. Centella asiatica (L.)Urban

Vern: Bor manimuni (As.)

Habit & habitat : A prostrate herb, leaves sub-orbicular, reniform, 1-4 cm in diametre, petioles 1-10 cm long. Inflorescence 3-5 flowered umbels. Flowers subsessile. petals obtuse. Mericarps laterally compressed.

Grows in open up areas, back yard or damp places. Flowering: April.

Uses: Leaves, young shoots are eaten as vegetable. It is considered medicinal in stomach complains and usually used locally as liver tonic making curry with small fishes. Pounded leaves are used to treat wounds, cuts etc.

### 145. Eryngium foetidum L.

Vern: Man dhania / Jangali Memedhu Brahma memedhu (As.)

Habit and habitat: A very aromatic, glabrous, erect, perennial herb. Basal leaves spathulate, spinous, toothed, leaves in the flowering branches are small, lanceolate, pointed, rossette. Flowers are white, in subsessile umbels. Fruit ellipsoid.

Flowering: May.

Fruit ripen :cold season.

Uses: This aromatic herb is used to increase taste in various curries. It is also used to add in chutneys, torka etc. for its attractive flavour and taste.

146. Hydrocotyle sibthorpioides Lamk.

Vern : Haru manimuni

Habit & habitat: A diffuse prostrate herb. Leaves small, hispid, orbicular, crodate, sub-entire or lobed; petiole 2-10 cm long. Peduncles very short. Bracts minute, flowers subsessile, 8-10 per umbel. Fruits orbicular.

Found generally in open areas or damp places.

Flowering: April-May.

*Uses :* Young leaves and shoots are cooked as vegetable specially with small fish etc., also prepare chutney. Leaves are used in healing wounds of man and animals.

#### **Araliaceae**

### 147. Trevesia palmata (Roxb.) Vis.

Vern: Bhotola (As.)

Chena thong (Garo)

Habit & habitat: An unbranched tree with sharp prickles, young shoots rusty pubescent and prickly. Leaves large, 1 - 2 feet long, palmate. Flowers polygamous, white. Fruit fleshy. Found generally in central Assam & N.C. hills.

Flowering: February to April

Fruit ripen: May.

*Uses :* Flower buds are eaten cooked by Garos and Bodos in Kamrup area.

### Caprifoliaceae

#### 148. Sambucus hookeri Rehd.

(*S.javanica* Bl.) Vern : Hukati (As.) Habit & habitat: A small tree or shrub, leaves imparipinnate with 2 - 6 leaflets. Flowers small in terminal receme. Fruit is drupe, globose, black, crowned by calyx teeth. Generally found in Upper, North & Central Assam, rare in Western Assam.

Flowering: May to August.

Fruiting time: October to December

*Uses :* Roots are used as medicine, leaves are used as vegetable.

#### Rubiaceae

### 149. Anthocephalus chinensis (Lamk.) A. Rich. ex. Walp.

[A. cadamba (Roxb.) Miq.]

Vern: Raghu / Kadam (As.)

Logehu Arong (Kerbi)

Nipang lulang esing (Mishing)

Habit & habitat: A common large fast growing tree in Assam generally found near water bodies or damp / wet places, very straight. Leaves large, elliptic-oblong. Flowers small, pentamerous, orange coloured. Fruit pseudocarp, large, fleshy, orange coloured.

Flowering: December - June

Fruiting ripen: May to October

*Uses :* Mild acidic fruit either eaten raw or cooked with fish or as vegetable by the Adivashis of Lower Assam.

### 150. Gardenia angusta L.

( G. jasminioides Ellis.)

Vern: Togor/Gandharaj (As., Beng.)

A deciduous shrub. Leaf dark green and shiny, opposite. Flowers are white with pleasant smell, fruit not

beaked, subglobose. Usually planted in household gardens as ornamental plant.

Flowering: March - April

Fruit ripen: October - November

Uses: Petals of the flower are eaten after fried with powdered rice or gram in the oil or some time it can be fried with egg.

### 151. Gardenia campanulata Roxb.

( G. florida L.)

Vern: Bitmora/Bihmona/Dhubia Khola (As.) Gandhaphaji (Bodo)

Habit & habitat : A large shrub or a small tree, leaves opposite. Flowers dimorphic. Fruit is subglobose, 5-ridged with fleshy pericarp.

The plant is commonly found through out the state ascending upto 1200 ft.

Fruit ripen: October - November Flowering:March - April Use: Leaves and young fruits are eaten cooked. Boiled fruit is used for washing purposes.

### 152. Hedyotis corymbosa (L.) Lamk.

Syn. Oldenlandia diffusa L.

Vern: Bonjaluk (As.)

Deushri Atheng (Bodo)

Habit & habitat: A small herb, leaves opposite and entire, lanceolate. Flowers white in long peduncled terminal cymes. Fruit is hermispheric capsule. It is generally found in the open areas often with grass or damp shady areas,

Flowering: July - August

Fruit ripen: October - November.

Uses: Young branches along with leaves are cooked as vegetable occassionally. It can be cooked with fish or meat. It is also considered medicinal.

### 153. Hedyotis diffusa (Willd.)Roxb.

(Oldenlandia diffusa Willd.)

Vern: Bonjaluk (As.)

Deusri Athena (Bodo)

Habit and habitat: A prostrate herb, small. Leaves small. opposite, alternate 2-3 cm long, 2-3 mm broad. Flowers solitary, small, short peduncled, white. Fruit almost round with persistant calvx.

Uses: Leaves are cooked with other vegetables occassionally. Leaves are considerd medicinal for stomach trouble.

### 154. Hedvotis scandens Roxb. ex G. Don

Vern. name: Bhedeli lota (As.)

Habit & habitat: Scandent herbaceous climber with aromatic smell in leaves. Grows on open areas or scrub forests

Uses: Leaves are eaten cooked with other vegetable or fish.

#### Menya spinosa Roxb. ex Link **155**.

Vern: Kotkora (As.)

Habit & habitat: A small tree with ascending branches. Leaves opposite, glabrous. Stem is covered with long spines. Flowers pale white. Fruit berry, greenish-yellow when young, yellow when ripe. It is occurs mainly on plain near water body or sometimes roadsides.

Flowering: March - June. Fruit ripen: Cold season

Uses: Ripe dried fruits are eaten with salts.

#### 156. Paederia foetida L.

Vern: Paduri lota / Bhedai lota (As.)

Bonki repuk (Mishing ) Pakhi bendang (Bodo)

Habit & habitat: A slender climber. Leaves opposite, ellipticovate. Flowers greyish-purple. Fruit ellipsoids & reddish. The climber is common throughout the state easily available near river banks. It has got unpleasant smell when any part is smeared.

Flowering: July to October

Fruit: Cold season.

*Uses:* Leaves, tender twigs are used as vegetable, suitable with fish. A pancake is prepared by pounding it with rice, which is blackish in colour. It is also considered medicinal for stomach ache, gastric problem etc..

#### 157. Paederia scandens (Lour.) Merr.

Syn. P. tomentosa Bl.

Vern: Paduri lota / Bhedai lota (As.)

Bonkiripuk (Mishing)

Oasibu (Karbi)

Daukhi bendung (Bodo)

Habit & habitat: A slender climber. Leaves opposite, ovatelanceolate sparcely pubescent, with unpleasant smell. Flower tomentose or velvety; fruit subglobose, yellow-brown 70

when ripe. It is found all over the state.

Flowering: July

Fruit ripen: Cold season

*Uses :* Young leaves are cooked as vegetable, also as medicine for indigestion.

### 158. Pavetta subcapitata Hook f.

Vern : Mir arong / Usupi ron (Karbi) Khem arkhu (Dimasa)

Patang esing (Mishing)

Habit & habitat: A shrub, with opposite, glabrous but pubescent beneath, elliptic-lanceolate leaves. Flowers white in terminal sessile capitate cyme. Fruit Berry, round. Generally found in the Southern Assam including Nowgaon, Sibsagar, Golaghat, Jorhat.

Uses: Young leaves and shoots are used as vegetable.

#### **Asteraceae**

### 159. Bidens pilosa Hook.

Vern : Deumeubai (Bodo) Nat bar (Mishing)

Habit & habitat: An annual herb with long sessile leaves, leaves are often hairy. Heads occur on terminal or axillary in long elongated peduncle from the main stem. Flowering & fruiting in cold season. Generally grows on open areas, partially shade places.

*Uses :* Young leaves & shoots are used as vegetable by Mishing & Bodos.

#### 160. Blumea balsamifera D.C.

Vern: Kaphur goch. (As.)

Habit & habitat: A large but short lived aromatic undershrub, very gregarious in open or jhum areas; branches and leaves are silky tomentose. Leaves oblonglanceolate. Flower head small, sessile. Fruit ribbed. Generally occur in hilly areas of Assam, sporadically found in South bank of Brahmaputra.

Flowering: October - November. Fruit: March - April.

*Uses :* The leaf has very pleasant aromatic smell. It is used in food to give pleasant smell.

### 161. Centipeda minima (L.) A. Br. & Asch.

Vern : Hachuti / Hansia bon (As.) Hansio bighang (Bodo)

Habit & habitat: A diffuse, often prostrate, annual weed of wet places. Leaves alternate, obovate, remotely dentate. Flower heads solitary, axillary, whitish. Fruit a cypsela. It is found throughout the state upto 200 ft.

Flowering: summer season

Uses: As vegetable or mixed vegetable by Bodos & Mishing.

### 162. Chromolaena odorata (L.) Voigt.

Syn. Eupatorium odoratum L.

Tongol loti

Vern: Bagh dhaka bon / Jarmani bon / Koli bon /

Nogor bera (As.)

Bangri lewa (Bodo)

Kal bun (Karbi)

Habit & habitat: A coarse perennial fast growing straggling shrub up to 2 metre tall. Stem fleshy but woody below.

Leaves opposite; ovate, lanceolate, acute, dentate. Flower heads corymbose. Flowers homogamous, ebracteate, sessile. Corolla 5-petalous, united 1.5 mm long, bluishwhite, hairy, complete. Calyx pappus white, hairy. Fruit truncate black with 5 ridges. Stamens syngeneceous. Ovary inferior.

It gives a unpleasent smell when bruished. Generally gregerious in open areas.

Uses: Tender leaves are eaten cooked with other vegetable by Bodos. It is also highly medicinal in intermitent fever and dysentery; also use externally in swellings, cuts and wounds.

#### 163. Eclipta prostrata L.

Vern: Keharaj (As.)

Habit & habitat: A diffuse or erect much branched hirsute annual dark green leaves. Heads small, axillary or terminal, receptacle flatened, pale. It is found in open up areas specially in the flood plains.

Flowering: August - September.

Fruit ripen: October - December

*Uses :* It is considered highly medicinal for liver problem. Tender leaves are used as vegetable.

#### 164. Enhydra fluctuans Lour.

Vern: Helonchi / Helchi (As. & Beng.)

Elashi moigong (Bodo)

Habit & habitat: A prostrate herb, glabrous, rooting at the nodes. Leaves opposite & sessile, lanceolate, entire. Flower heads terminal, small. Common throughout the

plains of Assam on rich damp soil or as aquatic.

Flowering & fruiting: December to January.

*Uses :* Leaves are eaten as vegetable. It is some what bitter in taste. It is also used as medicine.

#### 164. Erechthites valerianaefolia D.C.

Vern : Bon kapahi (As.) Ogen (Mishing)

Habit & habitat: A small annual herb with soft stem. Leaves simple, alternate, ovate-lanceolate, serrated, sometimes lobed. Highly aromatic. Flowers occur in long conical head. Upper portion red, pappus flew in a touch when achene is ripen. Generally found in Upper Assam foot hills of Himalaya.

Flowering & fruit: winter.

*Uses :* Tender leaves are used as vegetable or tastifier in other preparation.

### 165. Sonchus brachyotus DC.

(S. arvensis auct non L.)

Vern: Moira thiki (Bodo)

Habit & habitat: An annual milky herb with creeping root stock. Leaves radical, long serrated, mid vein prominent, slightly grooved. Flower heads terminal. It is commonly occur in open areas, grass land etc.

Flowering & fruiting: October to February.

*Uses :* Leaves are eaten cooked as curry; Santhals use the root for treatment of Jaundice.

#### 166. Spilanthes paniculata Wall. ex D.C.

[S. acmella var. paniculata (DC.) Cl.]

74

Vern : Bhringaraj/ Huhuni Sak (As.) Marchang (Mishing) Ushumoi (Bodo)

Habit & habitat: A trailing, annual herb, rooting at basal nodes. Leaves opposite, ovate, elliptic narrowed at base, margin distatntly serrate, obtuse or acute at apex. Heads with long peduncle, axillary or terminal, heterogamous and rayed or homogamous and disciform; ray florets ,when present, female, 1-seriate; disc florets hermaphrodite, all fertile. Involucre ovoid or campanulate, bracts 2-3 seriate. Calyx limb obseolate. Petals on ray florets connate in a yellow, ligulate corolla; of hermaphrodite florets regular tubular with 4-lid limb.

Found all over the state generally with partially shady moisture rich areas. Two varieties come under same place found side by side, other than large in size there is no morphological diferences.

Flowering & fruiting:cold season.

*Uses :* Young shoots and leaves are eaten cooked as vegetable also used as medicine in sore mouth, tooth ache and in wounds etc.

#### 165. Xanthium strumarium L.

Vern: Ogara (As.)

Parohanthor (Karbi)

Habit & habitat: It is an annual herb comes after rainy season is over. Stem hispid with black stripes arise later. Leaves broad trianguler, ovate, hispid. Flowers in clustered axillary heads. Fruits cypsela, enclosed in hardened cells of the utricle, hooked. It is common throughout the state.

Flowering: Winter, Fruiting: April.

*Uses :* Saplings, young shoots and leaves are used as vegetable usually with potato and other vegetables.

### Myrsinaceae

### 166. Aridisia polycephala Wall. ex A.DC.

Vern: Thaidi bu (Dimasha)

Habit & habitat: A small tree with brownish-grey, wrinkled & warty barks, inside reddish brown. Leaves moderate sized, oblong -lanceolate, or elliptic-lanceolate, acute, entire, membranous, glabrous.

Flowers in bracteate corymbose receme, pink coloured. Fruit berry, globose. This plant is mostly found in N. C. hills district.

*Uses :* Young plants are eaten as vegetable. Ripe fruits are eaten raw.

### 167. Ardisia thrysiflora D. Don.

Syn. A. floribunda Wall.

Vern: Pachala rong (As.)

Thengpi Chorleng (Karbi)

Habit & habitat: A small tree, leaves narrow lanceolate, entire, acute, membranous, glabrous & gland dotted. Flowers in panicles, reddish. Fruit depressed, red dotted, 5- angled.

Commonly found in South bank of Brahmaputra acending upto 4000 ft.

Flowering: June to October.

Fruit: Cold season.

76

Uses: Ripe fruit are eaten fresh.

#### 168. Embelia nahushia Don. Prodr.

Vern: Bonpui (As.)

Habit & habitat: An extensive woody climber. Leaves elliptic or obovate lanceolate, entire, acute or bluntly acuminate, glabrous, dark green, shiny. Flowers small, in simple receme. Fruit small, globose.

Flowering:March - May

Fruit ripen: September - December.

The species mostlly concentrated in central Assam, Kamrup, Nawgaon, Karbi Anglong.

*Uses :* Leaves are eaten cooked as vegetable especially with fish.

### 169. Embelia subcoriacea (Clarke) Mez.

Vern: Poimuri Tenga (As.)

Trimong ruibe (Mishing)

Habit & habitat: An extensive climber. Leaves small, usually acute with translucent bars & dots. Flowers in receme, usually erose from old stem. Fruits red. Generally found in Northern Assam.

Flowering: May - June

Fruit: Cold season.

Uses: Leaves are eaten cooked as vegetable.

#### 170. Maesa indica (Roxb.) A.DC. var. indica

Vern: Sesu / Awa pat / Machpora (As.)

Sirkhi (Bodo)

Kiso tanop

Tasing moni (Mishing)

Habit & habitat: A small tree common throughout the province. Leaves are elliptic, elliptic-lanceolate or elliptic-oblong, acute, or acuminate, coarsely toothed, glabrous. Flowers white & scented in axillary receme. Fruits are small succulant berry, pinkish white.

Flowering: December to March.

Fruit ripen :June to July.

Uses: Ripe fruit are edible.

#### 171. Maesa chisia L.

Vern: Susi Porma (As.)

Gonpuloda (Dimasha.)

Bilount (Nepali)

Habit & habitat: A gregerious shrub found in almost all areas of the state ascending upto 500 ft. Branches angled. Leaves small lanceolate, glabrous, distantly crenate or serrulate, acuminate. Flower in lax receme, shorter than leaves. Fruit white, spongy, juicy.

Flowering: January to February

Fruit ripen: October comes under.

*Uses :* Young shoots & leaves used as vegetable; ripe fruits are eaten.

#### Sapotaceae

# 172. Chrysophyllum lanceolatum (Bl.) D.C.

Vern: Bon pitha (As.)

Thaibon biphang (Dimasha)

Habit & habitat: An evergreen tree, with dark foliages young parts rusty, exudes milky juice. Leaves oblong-

lonceolate, caudate, shining, glabrous. Flowers small, shortly pedecellate. Fruit berry rusty tomentose when young, yellow and soft when ripe. Found throughout the state upto 3000 ft. Less common in Kamrup, Nalbari & Barpeta District.

Flowering: April - May

Fruit:cold season

Uses: The ripe fruits are eaten.

#### 173. Madhuca indica Gmel.

Vern. Mahua (As.)

Habit & habitat: A middle sized tree with broad leaves clustered towards end of branchlets. Flowers pale yellow, fruit a berry.

Flowering: October November

Fruit: February

Uses: Flowers are eaten as vegetable

It is not commonly occured plant, either cultivated or found as escape. In Western Assam it is generally found near the home stead.

### 174. Manilkara zapota (L.) van Royen

Vern.: Sopheda / Sopeta (As. & Beng.)

Habit & habitat: A small, evergreen tree having a crown of branches with milky latex in young parts. Leaves elliptic-lanceolate, smooth shining, dark green above and pale beneath arranged almost in whorl manner at the apex of branches. Flowers pale yellow, clustered at the apex of branches. Fruit a berry, globose, rusty and sweet scented

when ripe.

Flowering: August - October.

Fruit ripening: January onwards

Uses: Ripe fruits are eaten fresh.

175. Mimusops elengi Roxb.

Vern: Bakul (As.)

**Boal (Cachar Dist)** 

Habit & habitat: A large hand some evergreen tree with almost round crown. Leaves dark green, eliptic- acuminate, shining, glabrous. Flowers 8-merous, creamy white with pleasant fragrant star like, solitary. Fruit generally globose about 1 inch long, yellow- orange when ripe. Found throughout the state as cultivated plant near road side and home steads; often escape.

Flowering: March - July

Fruit: Cold weather.

Uses: Ripe fruits are eaten, very astringent. The fruit is considered rich in calcium content and have been used as medicine for toothache. Flowers are generally used for gerlands. The whole plant is used as ornamental and shade provider.

#### **Ebenaceae**

### 176. Diospyros kaki L.

Vern : Halwa tendu

Tendu pat (As.)

Habit & habitat: A moderate sized tree. Leaves bifarious, oblanceolate, obovate or ovate, acuminate, glabrous above, pubescent beneath. Flowers small, shortly pedicillate in small cymose clusters. Fruit shining globose, orange red

80

or yellow when ripe, about 2-3 inch across. Generally found in the hilly terrains of Upper and Central Assam.

Flowering: March to May

Fruit ripen: July to September.

Uses: Ripe fruit are eaten

### 177. Diospyros lancaefolia Roxb.

Vern.: Kendu (As.)

Habit & habitat: Evergreen tree, young shoots pubescent, branchlets and bark with peculiar pungent smell. bark blackish more or less with verrtical fissures. Leaves 2-farious, narrow-elliptic or lanceolate to oblong acuminate, glabrous, shining above, midrib depressed above, conspicuous beneath. Male flowers clustered, sessile; female ones solitary. Corolla rusty and silky. Stamens many. Ovary 8-celled, hairy. Fruit subglobose or ovoid, astringent.

Floweres: April- May,

Fruits: December- February.

Uses: Ripe fruits are eaten by Nepalese.

#### 178. Diospyros malabarica (Desr.) Kostel.

(Diospyros embryopteris Pers.)

Vern: Kandu (As.)

Habit & habitat: A middle sized evergreen tree with short trunk and spreading crown. Leaves generally glossy green, distichous, oblong or narrowly oblong, subacute or obtuse, coriaceous, smooth, glabrous. Flowers are tetramerous and white or green coloured; male flowers in clusters while female ones solitary. Fruit globose, about 2 inches across,

yellowish when ripe. Generally found all over the Brahmaputra valley.

Flowering time May - June

Fruit March-April in the next year.

*Uses :* Ripe fruits are astringent but edible.

#### Oleaceae

### 179. Nyctanthes arbor-tristis L.

Vern: Sewali (As.), Sephali(Beng.)

Habit & habitat: A deciduous shrub or small tree, some times found in forest fringe as escape. Branchlets pubescent, 4-angled. Leaves ovate, shortly acuminate, distantly toothed or entire, coriaceous, scabrid, base rounded, cuneate or acute. Flowers white, sweet scented, sessile, 3-7 together on hairy quadrangular peduncles arranged in cymose panicles. Calyx tube funnel shaped, 4-5 toothed; corolla tube cylindrical, orange red, lobes white, 5-8, contorted in bud. Anthers subsesile near the mouth of the corolla tube. Ovary two celled, style cylindric, bifid. Fruit is a compressed orbicular capsule. It is a very common ornamental species planted in many places for its fragrant flower. Atumn and flower of this plant is synonym to Assam.

Flowering: September - October.

Fruit ripen: February - March

Uses: Flowers are eaten as vegetable either as fresh or as dried one. The taste is pleasant bitter. Leaves are used in making curry. It is said to be antihelmenthic & aphrodisiac. Leaves are also used to treat skin diseases.

#### 82

### **Apocynaceae**

#### 180. Carissa carandus L.

Vern: Karenja (As. & Beng.)

Habit & habitat: A large shrub having paired (sometime branched) stout, spreading spines up to 2 inch long. Leaves oblong, distinctly nerved. Flowers scented, in corymbose cyme. Fruit is berry. Mostly planted, sometime found as escape in the forest.

Flowering: April to May Fruit ripen: December *Uses:* Fruits are either eaten raw or prepared pickle from it. They are known to have antiscorbutic properties.

### 181. Willoughbeia edulis Roxb.

Vern: Gedra phol/Laleng tenga/

Bel tota (As.)

Pabhoi Tenga (Bodo)

Lalong (Dimasha

Kenjet (Karbi)

Habit & habitat: A woody climber exuding milky juice. Branchlets ribbed, tendrils long branched. Leaves oblong, acuminate, coriaceous, dark above, reddish brown beneath. Flowers yellowlish cream coloured, fragrant in axillary cyme. Fruit pyriform, many seeded. Common in the Brahmaputra valley.

Flowering: May

Fruit: Winter.

Uses: Ripe fruits are eaten, the pulp is acidic but palatable.

#### 83 **Buddleiaceae**

#### 182. Buddleia asiatica Lour.

Vern : Agiachita / Posutia / Bonchini (As.)

Nuneheru-arong (Karbi) Markong-abang (Mishing)

Khundamora (Bodo)

Habit & habitat: A gregarious shrub. Leaves narrow lanceolate, acute, acuminate, glabrous, dark green above, white tomentose beneath. Flowers small, white, odorous, in cymose clusters in panicles. Fruit is a capsule, small, ellipsoid. Found almost all over the state ascending up to 5000 ft.

Flowering : January - June .

Fruit ripen: April - November

Uses: Flowers are eaten by Santhals & Syntengs as vegetable.

Also leaves are used in poisoning water to kill fishes by Karbis

### Menyanthaceae

# 183. Nymphoides hydrophyllum (Lour.) Kuntze

Vern: Panikola (As.)

Habit & habitat: An aquatic herb, stem rooting at the nodes. Leaves orbicular, floating, deeply cordate. Flowers dimorphic, white with yellowish tinge in dense cluster. Capsule sub globose. Found through out the state.

Flowering: April - May

Fruiting: Autumn.

Uses: Mature fruits are eaten either raw or cooked.

### 84 **Hydrophyllaceae**

### 184. Hydrolea zeylanica (L.) Vahl.

Vern: Leheti Bon / Indranil (As.)

Habit & habitat: A swamp weed making a matted covering often found in rice field. Stems sometimes swollen. Leaves lanceolate, acuminate, sessile. Flowers deep bluish purple, solitary or in cymose inflorescence. Calyx 5-partite, glandular. Corolla rotate, bright bluish purple with a greenish white centre. Anthers versatile. Fruit a many seeded berry. Mostly found in Upper Assam.

Flowering: November - December

Fruit ripen in hot weather.

*Uses :* Young shoots are used as vegetable by the plain tribes.

#### **Ehretiaceae**

#### 185. Cordia dichotoma Forest.

Vern: Kotra/Boal/Gobarhuta (As.)

Doba Khari (Bodo)

Siumung esing (Mishing)

Habit & habitat: A middle sized deciduous tree with drooping branches. Leaves are variable in shape, broad-ovate or elliptic-oblong, acute or acuminate, coriaceous, base rounded or cuneate.. Flowers white, small. Fruit conical when young, fragrant, yellow and glossy when ripe. Found through out Assam.

Flowering : March - April.

Fruit ripen: July - August.

Uses: Young leaves are used as vegetable; fruits are

eaten, pickles are prepared from unripe fruits. Bark is medicinal.

#### 186. Ehretia acuminata R. Br. var. serrata (Roxb.) Johns

Vern. Uzal / Pojar / Gual (As.)

Susang esing / Sishu-payang (Mishing)

Jasim-jola / Bojo (Bodo)

Bol-artok (Garo)

Chelwan-arong / Chorsing-soh (Karbi)

Habit& habitat: A tree with more or less fluted stem. Bark grey with vertical fissures, fibrous. Leaves elliptic to elliptic -oblong, acuminate, acute, sharply serrate, glabrescent, shining above. Flowers small, white with an unpleasent smell, in terminal dense panicles. Fruit small, ellipsoid with 2-celled pyrenes, 4-seeded.

*Uses :* Fruits are eaten and leaves are used as cattle fodder.

#### Convolvulaceae

### 187. Argyreia nervosa (Burm. f.) Bojr.

(A. speciosa Sweet.)

Vern: Jatak mashi / Bih dharak (As.)

Khawashang (Bodo)

Jomagpi danok soh / Ringkang (Karbi)

Habit & habitat: A large climber. Leaves ovate, or suborbicular, cordate, acute, chartaceous, glabrous above, grey tomentose beneath.; petiole white tomentose. Flowers in axillary capiate cymes, Corolla white tinged with light rose. Fruit depressed apiculate. Found generally in the foot hills and forest fringes.

Flowering: October.

*Uses :* It is considered medicinal by Bodos, leaves are eaten as vegetable.

### 188. Erycibe paniculata Roxb

Vern: Nigoni boal lota (As.)

Habit & habitat: A large evergreen woody climber. Leaves moderate size ovate, oblong, abruptly accuminate, entire coriaceous glabrous. Flowers fragrant, yellow. Fruit berry ellipsoid, small black when ripe.

Flowering: February to April.

Fruit ripen after a year.

*Uses :* The fruit is sweet and eaten ; it is also used as medicine, specially Santhals treat cholera with the bark of the climber.

### 189. Ipomoea alba L.

( I. bona-nox Boj.)

Vern. Dudh kolmou (As.)

Dudhia kalmi (Beng.)

Habit & habitat: A large, scandent twiner. Leaves large, cordate, entire or angled. Flowers solitary or in 2-flowered axillary cymes. Sepals 5, smooth. Petals 5, connate in a large, glabrous, white, salver shaped corolla. stamens exserted. Fruit a capsule.

Flowering and fruiting in summer season.

Uses: Leaves and calyxes are eaten cooked as vegetable.

#### 190. Ipomoea aquatica Forsk.

Vern: Kolmou (As.)

Mande maigong (Bodo)

*Habit & habitat :* A glabrous aquatic herb with milky juice; stem floating or trailing, rooting at the nodes. Leaves hestate or cordate, entire. Flowers bell shaped, pale rosy. It is common in the plains usually in ponds, low lying swampy localities.

Flowering and fruiting generally in rainy season, but in many cases flowering seen in many cases throughout the year.

Uses: The leaves and undershoots are eaten cooked as vegetable. Fruit are also eaten fried.

### 191. Ipomoea batatas (L.) Lamk.

Vern: Mitha Alu/Goria alu (As.)

Habit & habitat: A prostrate annual trailing on the ground with milky juice, leaves cordate. Flowers purple about 2 inch long. Roots are swollen due to storage of food materilas, they are usually redish in colour. Although the species is introduced and cultivated one but already naturalised in many areas, in many occassion found wild. Uses: Generally it is cultivated for tuberous root which are eaten fresh, boiled, fried; tender leaves are also used as vegetable.

### 192. Ipomoea quamoclit L.

Vern. Kunja lota (As.)

Habit & habitat: A beautiful slender climber. Leaves pinnate-partite; segments filiform. Corolla salver-shaped, bright red or white.

Though cultivated commonly, it is also found as wild. Flowering & fruiting: rainy season.

Uses: Leaves are occassionally eaten as vegetable.

#### 193. Merremia umbellata Hallier f.

Vern: Goria lota / Kolia lota (As.)

Turnaisa (Dimasha)

Bongki ripuk (Mishing)

Guna bendung (Bodo)

Habit & habitat: A variable scandent perennial somewhat angular, hairy or glabrous rooting at the nodes. Leaves ovate oblong lanceolate, acute entire pubescent on both surfaces. Flowers in axillary cymes, white or with a cream coloured yellow tinge, capsule globose, glabrous. Occur mostly in Brahmaputra valley and N.C. hills District.

Flowering: February - April

Fruit ripen: May - August.

Uses: Young shoots & leaves are used as vegetable; it is also considered medicinal and use to relive pain by tie round the pained area.

#### Solanaceae

### 194. Physalis minima L.

Vern: Pokmou (As.)

Habit & habitat: A bushy herbaceous annual, leaves soft glabrous, sometimes shallowly lobed, veins promionent violet. Flowers solitary, axillary. Fruit berry, with a cover of enlarged calyx like a bladder. It is a common weed in open areas, rice field, road sides etc.

Flowering and fruiting occur during winter.

*Uses :* Ripe fruits are eaten raw which is sweet scented and delicious.

#### 195. Solanum indicum L.

Vern: Bhot bengena / Deuri tita /

Tit bhek

uri / Bhekuri (As.)

Hecho (Karbi)

habit & habitat: A shrub up to 10 ft high, branches herbaceous. Stem and branches often with curved prickles; young parts, inflorescene, leaves with stellate tomentose. Leaves ovate or oblong, serrate or obtusely lobed. Flower bluish- purple in extra-axillary cyme. Fruit berry, globose, smooth about an inch in dia.. Generally found in all over the Brahmaputra valley.

Flowering: June to October

Fruit ripen in cold season

*Uses :* Fruits are eaten as vegetable, also used in preparation of starter in country liquor. Also considered medicinal for worm infection and skin diseases.

#### 196. Solanum kurzii Brace ex Prain

Vern : Bhekuri (As.)

Banko (Mishing)

Habit & habitat: A shrub up to 3 - 4 ft. high, extremities & leaves densely stellate tomentose. Leaves ovate, entire or more or less irregularly lobed. Flowers small in rusty woolly stellate pubescent sub-terminal recemose cyme. Berry glabrous globose, bitter.

90

Very common in the countryside.

Uses: Fruit is eaten cooked as vegetable or raw and roasted.

### 197. Solanum myriacanthum L.

(S. khasianum Cl.)

Vern :Bhekuri tita / Bilkuli tita (As.)

Banko (Mishing)

Habit & habitat: A shrub having leaves and stem armed with prickles. Leaves like eggplant, hairy. Flowers white, in clusters from the axils of leaves. Fruit small, berry, green with white stripe when unripe, yellow when ripe. It is common in open areas, scrub forests etc.

Flowering and fruiting: throughout the year.

*Uses :* Fruit are eaten cooked roasted, very bitter in taste, considered medicinal for worm infection and skin diseases but not recommended for persons having gastric trouble.

### 198. Solanum nigrum L.

Black night shade

Vern: Kochi / Los kochi (As.)

Habit & habitat: An annual herbaceous weed, leaves ovate lanceolate entire, sinuate, toothed acute, thin glabrous. Flowers white, small. Fruit berry, black when ripe, shining but some time yellow red when ripe. Found throughout the state ascending upto 5000 ft.

Flowering: March onwards

Fruiting: Summer

*Uses :* Young leaves are used as mixed vegetable with others. Ripe fruits are eaten. It is also considered highly

medicinal for burns.

### 199. Solanum spirale Roxb.

Vern : Titakuchi / Loya tita (As.)

Oko oing (Mishing)

Khunthai goukha (Bodo)

Habit & habitat: An undershrub up to 12 ft. with erect stem and sharp ridges. Leaves are generally subtended by small much reduced leaves. Flowers small in dense spirally arranged receme. Fruit globose berry, orange-yellow when ripe.

Flowering: May - September Fruit ripen in cold season.

*Uses :* Fruit & leaves are eaten cooked, fruit are also eaten raw. The root is considered medicinal for toothache, useful as an expectorant, cough and catarrhal affections.

#### 200. Solanum surattense Burm f.

(S. xanthocarpum Schard & Wendle)

Bitter brinjal

Vern: Bilkulitita (Ass) in Goalpara

Habit & habitat: It is a perennial herb. Both stem and leaves have sharp straight pickles also pubescent. Leaves pinnatified. Flowers distinct and deep blue in few flowered raceme. Calyx lobes recurved. Fruit is globose, yellow when ripe about 1 inch in dia variegated or green when young.

The species is commonly found in Western Assam.

*Uses :* It is considered one of the highly valuable medicinal species. Fruit are eaten as vegetable.

#### 201. Solanum torvum Swartz.

Vern: Bhit tita / Hati bhekuri (As.)

Khunthai Goukha / Khingathai-phang (Bodo)

Bongali-aheso-arong (Karbi)

Habit & habitat: A shrub of 8 - 12 ft. height, sparingly armed, sparsely stellate pubescent. Leaves ovate, serrate or lobed, shortly acuminate, sparsely stellate pubescant. Flowers white, in extra axillary cyme. Fruit berry, globose, seated on a persistant calyx. The plant is almost common in the entire state generally in scrub forests, road sides, foot hills etc..

Flowering & fruiting : August - October.

*Uses :* Fruit is eaten as vegetable, it is less bitter in taste than *S. myriacanthum*.

#### 202. Solanum viarum Dunal

(S. khasianum Cl.)

Vern. Tit-bhekuri / Hati-bhekuri (As.)

Habit & habitat: A stout undershrub with young parts densely yellowish hirsute and prickly. Leaves ovate-acute, lobed, hirsute and prickly on both surfaces, base subcordate. Inflorescence lateral, few flowered. Flowers about 1 cm across. Fruit berry, globose, about 2.5 cm in diameter, yellowish.

Flowering: July & fruiting: November

*Uses :* Leaves and fruits are eaten as vegetable, also considered medicinal.

### Scrophulariaceae

### 203. Bacopa monneri (L.) Pennel

Vern: Brahmisak (As.)

Habit & habitat: A common herb rooting at nodes. Leaves small, much incised, fleshy. Flowers white in recemose inflorescence. Fruits small, capsule. Generally grows on damp soil, often cultivated.

Flowering & fruiting: July - September.

Uses: Leaves and tender shoots are eaten cooked as vegetable, bitter in taste. Also considered as tonic for brain, believed to increase memory power if taken with milk.

### 204. Scoparia dulcis L.

Vern: Bon chini / Modhu-mehari (As.) Bongphang Rakhib (Bodo)

Habit & habitat: A small erect annual herb with semiwoody stem. Leaves opposite or ternately whorled, rhomboid or elliptic, serrate, punctate, sessile. Flower minute with longer pedicel, axillary, white. Capsule small, globose, green when unripe, red when ripe.

Flowering & fruiting: June to September, but in many cases it flowers throughout the year. Commonly in open areas.

Uses: Tender leaves are chewed, and are used as vegetable. It is considered highly medicinal specially for diabetic patient.

#### Gesneriaceae

### 205. Rhynchotechum ellipticum (Dietr.) A. DC

Vern: Japang esing (Mishing) Ja-Kharia (As.)

Habit & habitat: An erect undershrub, 3 - 5 ft high with

thickened stem. Young parts tomentose. Leaves opposite. large, broad elliptic. Flowers small; fruit is berry, juicy. It is generally found in Northern Assam & Cacher region.

Flowering: October, Fruit ripen: February - March. *Uses:* Leaves are used as vegetable.

### **Bignoniaceae**

### 206. Oroxylum indicum (L.) Vent.

Vern: Toguna / Bhatghila / Dingdinga (As.) Kharoi Khandai (Bodo) Napakban (Karbi)

Habit & habitat: A small tree with few branches and open crown. Leaves compound, bipinnate, 4 - 6 ft. long. Leaflets broad ovate, entire acuminate. Flowers large, fleshy purplish in long terminal lax. Fruit capsule, scabbard like, long about 1-3 ft. Seeds surrounded by pappery wing. It is very common tree throuhout the state.

Flowering: June - August.

Fruit: Cold season

Uses: Tender leaves and shoots are eaten cooked mostly with fishes. Flowers are also used as vegetable, considered medicinal. The whole plant is medicinal for various diseases.

#### **Acanthaceae**

#### Justicia adhatoda L. 207.

( Adhatoda vasica Nees.)

Vern: Boga bahak / Baska tita (As.) Barsikhe (Bodo)

Habit & habitat: An evergreen gregarious shrub up to 8ft.

with a peculiar smell. Leaves moderate, elliptic-lanceolate, sub-coriaceous, pubescent, shortly pefioled. Flowers white in a dense bracteate peduncled spike, solitary or terminal at the end of the branches. Capsule very small clavate. It is common troughout the state.

Flowers: February- April Fruit: Summer *Uses:* Flowers are eaten fried. The plant has got tremendous medicinal importance viz. in cough, cold, allergy etc..

### 208. Mackaya neesiana Nees

Vern: Obul oing (Mishing)

Habit & habitat: A small shrub mainly restricted to Northern Assam & Cachar. Leaves moderate, flowers in very elongate lax pubescent recemes up to 1.5 ft. Fruit capsule.

Flowering: March to September.

Fruit ripen: cold season.

Uses: Young shoots and leaves are used as vegetable by Mishings

### 209. Phlogocanthus curviflorus Nees

Vern: Dhapa tita (As.)

Ko-na oing (Mishing)

Mogang sudi (Dimasha)

A shrub with large leaf, mostly found in Upper & Southern Assam. Inflorescence are shorter with light rose or pink flowers. Capsule about an inch long.

Flowering: October - November

Fruiting: November - March.

Uses: Young inflorescence, flowers are eaten as vegetable.

### 210. Phlogocanthus thrysiformis (Hardow.) Mabb.

Vern: Ronga Bahak / Titaphul / Titabahak / Bonheka /Ram bahak (As.)
Jaogon (Karbi)

Habit & habitat: An evergreen shrub up to 8 ft. common along forest tracks of moist deciduous forests. It has quadrangular branch, leaves dark green, pale beneath, elliptic-lanceolate, pubescent, entire. Inflorecence 10 - 12 inch. long, flowers orange red. Capsule about inch long.

Flowering: December to February.

Fruit ripen: February to April

*Uses :* Flowers are eaten as vegetable, roasted by covering banana leaf, quite bitter in taste; also use in various medicinal purposes. Sometimes flowers are kept dried for future use.

#### 211. Strobilanthes scaber Nees

Vern : Raspatia (As.) Sam siphra (Garo)

Habit & habitat: A shrub up to 8 ft. height found generally in Northern Assam, Kamrup & Cacher. It is a gregerious species with pubescent stem having swollen joints. Leaves moderate sized, obovate, thinly coriaceous. Flowers yellow in hairy dense spikes often clustered. Fruit is small capsule.

Flowering & fruiting occur during February to June. *Uses :* Flowers are eaten as vegetable, prevalent among Garo communities.

### Thunbergiaceae

### 212. Thunbergia grandiflora Roxb.

Vern: Kokua lota / Kauri lota (As.)

Dengkhakhlu (Bodo)

Nong nonga (Karbi)

Habit & habitat: A large climber, leaves 3-7 by 1.5-6 inch sized, ovate or orbicular, subentire, angularly toothed, lower leaves deeply cordate, petiole long. Flowers large, bluishwhite in receme, bracteoles conspicuous. Capsule small with 4 quetrous back. It is common in all types of forests in the state.

Flowers: April - June.

Fruit ripen in cold weather.

Uses: Leaves are eaten cooked as vegetable.

#### Verbenaceae

### 213. Callicarpa arborea Roxb.

Vern: Gunmola/Bonmola/Mach Kotta (As.)

Selu (Mishing)

Arhi (Karbi)

Majonthi (Dimasha)

Habit & habitat: It is an evergreen small tree with pale green large leaves of 3-12 inch long and 1.5-5 inch in wide, eliptic-lanceolate, almost entire, glabrous above, tomentose beneath. Flowers are purple coloured, in axillary and terminal panicles. Fruits are also purple when ripe. It is common in open areas, along river / stream sides of scrub forests, mostly in moist deciduous ones.

Flowering: May - October.

Fruit: October - December.

Uses: Bark is used as substitute of betel nut and chewed

with betel leaf.

### 214. Callicarpa rubella Lindle

Vern : Gopura esing (Mishing) Bonmala (Ass.)

Habit & habitat: It is an erect shrub, stem whitish. Leaves smaller than the above species, oblong-lanceolate or elliptic-lanceolate, acuminate, crenate-serrate, hairy above, tomentose beneath. flowers red, drupe purple.

Flowering: Summer, Fruiting: Cold season.

Uses: Bark and roots are chewed like betel-nuts.

### 215. Callicarpa vestita Wall.

Vern: Yarpo esing (Mishing)

Habit & habitat: A small tree with dark brown stems; young shoots very shaggy with brown tomentum. leaves ovate-acuminate, sub-entire, glabrous above, thickly silky white, tomentose beneath, base rounded or shallow cordate. Inflorescence brownish pubescent cymes, flowers pinkish.

Flowering: April, Fruiting: Summer season

Uses: Bark and roots are chewed like betel-nuts.

#### 216. Clerodendrum colebrookianum Wall.

Vern : Nephaphu (As./Mishing) Lukhna biphang (Bodo)

Habit & habitat: A shrub up to 10 ft. height with a globose crown and disagreeable smell, bark shining light grey, leaves large, broad ovate, shinny with long petiole. Flowers white in broad terminal compound cyme. Fruit drupe, bluish green to deep green when ripe.

Common in Upper Assam, Nawgaon, Cachar, N.C. hills.

Flowering & fruiting occur during cold season *Uses :* Tender leaves are eaten as vegetable and highly recommended for curing high blood pressure.

### 217. Clerodendrum indicum (L.) O. Kuntze

(C. Siphonanthus R. Br.)

Vern : Akalbih / Akla brikhsa (As.) Hanmathucho (Karbi)

Ikhlabir (Bodo)

Habit & habitat: An erect shrub with fluted hollow stem. Leaves in whorls of 3-6, 3-8 by 0.5-1.5 inch., narrow-lanceolate, linear, entire or serrate, acuminate, glabrous, Flowers beautiful white or cream coloured, drooping on opposite or whorled few flowered cymes forming a large rigid panicle, bracts linear or linear-lanceolate. Fruit is drupe with blue colour.

It is found throughout the state common in open areas, near paddy field, sandy areas.

Flowering: October-May and

Fruit ripen: December - August.

*Uses :* Leaves are used as vegetable, it is quite bitter in taste.

#### 218. Clerodendrum serratum (L.) Spreng

var. serratum

Vern: Nangal Bhanga (As.)

Beja oti esing / Pumi aye (Mishing)

Phaleng hethoh (Karbi)

Habit & habitat: A shrub or an undershrub with woody root stock, young branches quadrangular. Leaves have a

foetid smell, oblong-ovate or elliptic oblong, coarsely serrate, acuminate, coriaceous, deep green. Flowers light red with tinge of violate in cyme inflorescence. Bracts persistant, corolla lobes 4, older one longer than the others. Fruit is drupe and become black when ripe. It occurs on hill slopes, in open grass lands, vicinity of paddy field etc.

Flowers and fruits: Through out the year *Uses:* Young shoots, leaves and flowers are eaten cooked as a vegetable. It is also considered highly medicinal.

#### 219. Gmelina arborea Roxb.

Vern : Gomari / Gameri (As.) Phang (Karbi)

Habit & habitat: A deciduous tree, generally bark exfoliating in irregular patches gives the tree a character to distinguish easily. Leaves large, broadly ovate, glabrous above tomentose beneath. Flowers are about 1 inch across, brownish yellow in decussate cyme. Fruit is drupe, succulent, ovoid, glossy and yellow when ripe.

The tree is common throughout the state and fast growing. Flowering: February - April. Fruit ripen: May - June.

*Uses :* Flowers are eaten cooked. Wood is valuable for furnitures.

### 220. Lippia javanica Spreng

Vern: Pichas bon (As.)

Lagachu take (Mishing)

Anthai bajab / Mouzi khoma /

Berma dari (Bodo)

Habit &habitat: A gregarious strongly aromatic shrub found

mainly near the water bodies along with reeds near river bank. Branches slender, quadriangular and hairy. Leaves small, ovate lenceolate, crenate serrate acute, hairy punctate above, petiole short. Flowers pink, scented, in dense sub capilate spike.

Flowering: February - March

*Uses:* Leves are used as vegetable by Mishing, Bodo & Karbi. Aromatic leaves are also added to various curries for flavour. Leaves are chewed by many people after return from cremation, believed to gain power against devils.

#### 221. Premna latifolia Roxb.

and Premna latifolia var. mucronata Clarke.

Vern: Gunaru / Gonderi (As.)

An kalok (Karbi)

Habit & habitat: Both are middle sized tree with spreading crown, young shoots pubescent, young stem spinose. Leaves have unpleasant smell, ovate or elliptic, entire, undulate, glabrescent above, shoftly pubescent beneath. Flowers greenish in compound corymbose vilous cymes. Fruit is small, drupe globose, black when ripened.

Common in road sides, open areas.

Flowering: April - June. Fruiting: Cold season

Uses: The barks are eaten during famine.

### 222. Pygmaeopremna herbacea (Roxb.) Moldenke

(Premna herbacea Roxb.)

Vern: Matiphesua / Matia jam (As.) Khera daphni/Machgaldeb (Bodo)

Habit & habitat: A small undershrub from a woody root

stock, shoots herbaceous, 5 - 6 inches only. Leaves sessile, often in rosettes near the ground, opposite in longer shoots, obovate, toothed, membranous. Flowers are white or greenish yellow in terminal corymbose penicles. Fruit drupe, globose, small, black and glossy.

The plant is common in grass lands mainly Northern bank of Brahmaputra also available in Upper Assam, Kamrup, N.C. hills. The leaves die back in winter and comes out during spring.

Flowering: January - April

Fruit ripen : May - July.

*Uses :* Leaves and young shoots are used as vegetable mostly during April - May. Ripe fruit are also eaten. It is considered high quality vegetable. It is considered medicinal in fever, sleeping sickness and jaundice.

### 223. Vitex negundo L.

Vern : Pachatia / Pasotia / A giachit (As.) Nishida (Beng)

Habiat & habitat: A large strongly aromatic deciduous shrub or small tree. Leaves digitately 3 - 5 foliate and pale green. Leaflets 1.5-5 by 0.5 - 1.5 inch., lanceolate or narrow lanceolate, acute, entire, crenulate. Flowers lavender to blue in opposite cymes arranged as panicles. Fruit is small, drupe, slightly ribbed, gland dotted.

It is common throughout the state mostly found in open areas.

Flowering : April to August. Fruit ripen in cold season

*Uses :* Tender leaves are used as vegetable, other wise the plant is considered highly medicinal, root is considered fabrifuge & tonic.

#### Lamiaceae

### 224. Hyptis suaveolens (L.) Poit.

Vern: Tokma tita (As.)

Habit & habitat: A gregarious undershrub or herb. Stem quadrangular, hairy. Leaves aromatic,ovate, tomentose, pale green, turn into purplish green. Calyx tube larger, hairy and persistant in verticillaster inflorescence.

Generally comes up in the open up areas, hill slopes etc. Flowering & fruiting occur during September to February commonly found in the entire state.

*Uses :* Leaves are used as vegetable. It has got medicinal value also specially considered for liver & skin deseases.

### 225. Leucas plukenetii (Roth) Spreng.

Syn. L. aspera L.

Vern: Doron / Kansisa (As.) Chardrongan (Karbi) Don kolosh (Beng.)

Habit & habitat: A silky tomentose aromatic herb with woody root stock, hair erect. Stem quadrangular, hairy. Leaves small, opposite-alternate, narow elliptic, distantly serrated, emit scent, when bruished, dark green. Flower bi-labiate, white with nectaries.

Flowering: cold season. Fruit:hot season.

Common in open areas, homesteads etc.

Uses: Leaves and flower buds are used as vegetable. It

is considered medicinal for liver ailments, snake bite, scorpion sting sinusitis, headache etc.

#### 226. Ocimum basilicum L. var. purpurascens

Vern: Ram tulosi (As.)

Take mare (Mishing)

Habit & habitat: A slender much scented much branched herb. Stem glabrous, more or less pubescent, hairy at the nodes. Leaves ovate, acute, entire, more or less lobed. Flower pale purple. Nutlets, small, ellipoides, black. Generally reported from Dhemaji District from the foot hills of Arunachal Pradesh, also found in foot hills of Meghalaya.

Flowering: August to February

*Uses :* Leafy tops which have fragrant taste are often used as a seasoning for culinary purposes. It is also of medicinal use.

#### 227. Perilla frutescens (L.) Brit.

Syn. P. occimoides L.

Vern: Arim (Garo)

Kenia (Angami Naga)

Naga Machala (As.)

Habit & habitat: Strongly aromatic bush about 2 - 4 ft. height. Stem, leaves and petiole covered with grey hairs. Leaves ovate, serrate, acuminate, membranous in axillary or terminal receme. Fruit nutlets, sub globose.

Generally found in Sibsagar but popular in Nagaland, Manipur.

Flowering & Fruiting is cold season.

Uses: Young shoots & leaves are eaten cooked as

vegetable. Leaves are also used to flavour various curries.

#### 228. Plectranthus ternifolius D.Don

Vern : Mirne Kotung (Mishing) Jiglaori (Bodo)

Habit & habitat: A gregarious, densely tomentose under shrub. Leaves about 6 inch long, ternately whorled, subsessile, lanceolate, acuminate, serrate, coriaceous, densely tomentose. Flower white in dense cymose, panicled spike. Fruit nutlets small.

Found in North bank of Brahmaputra & Kamrup district. It favour little shaddy and damp places.

Flowering: September - November

Fruit ripen: January - March

*Uses :* Pungent young shoots are eaten as vegetable, suited with fish, pork or meat- a popular vegetable.

# 229. Pogostemon benghalensis (Burm. f.) O. Kuntze

Vern: Suklati (As.)

Habit & habitat: A Shrub of 6 - 8 ft.height, young parts tomentose, mature branches light purplish. Leaves ovate, serrate. Flowers small, white or pale pink. Fruit nutlets, small, dark brown. Mostly common in Lower Assam.

Flowering occur in February. Fruit generally in hot season

*Uses :* Young leaves are used as vegetable, much suited with fish; also prepare pancake with pounded and powdered rice.

### Nyctaginaceae

106

#### 230. Boerhavia diffusa L.

Vern : Purnanava (As.) Laije (Bodo)

Habit & habitat: A diffuse herb with stout fusiform root, stem ascending or prostrate, thickened at the nodes. Leaves are in unequal pair, ovate or orbicular ovate. Flowers very small, dark pink, sessile. Fruit small, 5 ribbed. It is a common waste land weed in plains; it may ascend up to 3000 ft.

Flowering: April - June Fruit ripen: July - August.

*Uses :* Young leaves are eaten cooked as vegetable other wise the plant has much valued as medicinal. Generally used in treatment of dropsy and urinary disorders.

#### Amaranthaceae

### 231. Achyranthus aspera L.

Vern: Ulti hot/Obhat kata.(As.)

Habit & habitat: An erect undershrub up to 3 ft., lower portion perennial. Leaves opposite, variable. Branches pubescent, striate. Flowers greenish. It is common under growth, with sharp spiny bracteoles and pungent tips of the perianth which sticks to the cloths.

*Uses*: Young plant are used as vegetable during April - May, also it has some medicinal value.

### 232. Alternanthera philoxeroides (Mart.) Griseb.

Vern.: Menmeni (As.)

Habit & habitat : A gregarious herb with hairy internodes

along two longitudinal grooves on two sides. Leaves acute or rounded, base cuneate or attenuate, 6 cm by 1.5 cm. Flowers whitish in globose spikes. Grows in damp shady places, drains etc.

Flowering: January - September

*Uses*: Leaves and tender shoots are eaten as vegatable.

### 233. Alternanthera sessilis (L.) R. Br. ex. DC.

Vern: Matikaduri / menmeni / Sakraj (As.) *Habit & habitat;*: A prostrate herb. Leave dark green, elliptic-rhomboid or oval. Flowers pale white. Bracteoles

without spine.

It grows as weed in plains specially in moist localities, in shallow rice fields, on road sides and kitchen garden. *Uses:* Tender shoots and leaves are used as vegetable, suitable with fish, considered highly palatable vegetable. The plant is medicinal for liver.

#### 234. Amaranthus blitum L.

Vern. Khutura sak (As.)

Habit & habitat: : A procumbent herb. Leaves small, 2-lobed. Flowers in axillary clusters. Utricle membranous, orbicular or broadly ovate, indehiscent. Grows on open areas mixed with other herbs.

Flower: Autumn.

*Uses :* Leaves and tender shoots are used as vegetable.

### 235. Amaranthus hybridus L. ssp. cruentus (L.) Thell.

var. paniculatus (L.) Thell.

(A. caudatus L.)

Vern.: Moricha sak (As.)

108

Denga / data (Beng.)

Habit & habitat: A tall, robust annual herb. Stem green with longitudinal reddish stripes. leaves long petioled, ovate, acuminate.

Flowering: Winter.

*Uses*: Young leaves and tender shoots are eaten as vegetable.

#### 236. Amaranthus polygonoides L.

Vern. Mati Khutura (As.) Kudra sak (Beng)

Habit& habitat: A terrestrial prostrate herb with soft spikes on young shoots. Leaves ovate, long ptioled, apex deeply notched. Flowers simple in axillary spikes. A common plant in the house hold campus.

Flowers rainy season, fruit generally after October. *Uses :* Young shoots and leaves are used as vegetable through out the year.

#### 237. Amaranthus spinosus L.

Vern: Hatikhutura / kata khutura (As.)

Habit & habitat: An erect glabrous much branched weed armed with sharp axillary spines. Leaves up to 5 inch long, ovate, oblong lanceolate, cuneate at the base. Flowers in axillary clusters with extendery bracts. It is common homestead herb, found in open areas.

Flowering & fruit occur through out the year.

*Uses*: Tender shoots and young leaves are used as vegetable and available through out the year. mature stems are piled, cut into small pieces and cooked as vegetable

especially with small fishes.

#### 238. Amaranthus tricolor L.

Vern: Ronga Moricha / Datha (As.)

Habit & habitat; : An erect, often stout, herb up to 5 ft, it is generally red or bright pink in colour. Leaves upto 6 inch.long, ovate, oblong, decurrent at the base into petiole. Flowers in small clusters, bracts present. Though it is cultivated but in many cases it is found as escape to grow with other vegetables.

Uses: Leaves and shoots are ued as vegetable.

#### 239. Amaranthus viridis L.

Vern: Khutura Sak/Khuduna (As.)

Habit & habitat: A common herb, annual, leaves alternate, exstipulate. Flowers pale white in panciles; fruit is utricle. Mostly prefer wet places.

Flowering generally through out the year.

*Uses :*Tender shoots & leaves are eaten cooked and considered medicinal, mostly prescribed for urinary problem.

### 240. Celosia argentia L.

Vern: Mesor/Chare Maguri (As.)

Lasor (Mishing)

An erect glabrous annual up to 1 - 3 ft. high with linear or lanceolate leaves. Flower generally white or pink in spike. Seeds are small like mustard seed, black.

It is a common waste land weed which comes out during February - March when most of the paddy fields

are ploughed. Generally dries up in rainy season as water logs the areas. Flowering occurs during late April.

*Uses*: Young shoots and leaves are used as pot herb and very suitable vegetable. Seeds considered medicinal against diarrhoea.

#### 241. Deeringia amaranthoides (Lamk.) Merr.

Vern: Mathak thuka / Rangoli lota /

Men meni (As.)

Monbir (Bodo)

Handing (Karbi)

Onno ligbo reibe (Mishing)

Habit & habitat: A rambling shrub with long weak branches. Leaves altermate ovate, acuminate, entire, glabrate, membranous. Flowers greenish, close together spike like penicle. Fruit a globose scarlet berry. Common throughout the state ascending up to 3000 ft.

Flowering: August to September.

Fruit ripen: November to December

Uses: Tender leaves are eaten cooked as vegetable

#### Chenopodiaceae

#### 242. Atriplex hortensis L.

Vern: Pahari paleng (As. & Beng.)

Habit & habitat: A stout erect annual with glabrous striate stem. Leaves small, ovate or upper triangular. Flower monoecious, female without perianth. Fruit utricle, membranous. The plant is either cultivated or running wild, occur during winter.

Uses: Tender leaves are eaten cooked as vegetable.

Vern : Bathua (As. & Beng) Jilmil (As.)

Habit & habitat: An erect herb usually coated with meaty substance, stems and inflorescence sometime tinged with purple or red. Leaves variable, smaller upwards, lower one attaining 8-10 cm in length, pale green, oblong-lanceolate or rhomboid lanceolate, more or less toothed or lobulate. Flowers minute, bisexual, green in spikes.

It is a common weed in cultivation. Occurs mainly during winter.

Flowering & fruiting: February to March.

*Uses :* The leaves are eaten as pot herb, with fishes etc. It is rich in minerals and other nitrogenous compounds.

### 244. Chenopodium ambrosioides L.

Vern: Jilmil Sak (As.)

Habit & habitat: An erect branchy strong smelling undershrub or perennial herb up to 4 ft.heigh. Leaves smaller upwards, lower ones attaining average 6 cm in length, variable, oblong or lanceolate, obtuse, sinute-toothed, upper entire. Flowers minute, sessile, clustered in axillary and terminal panicled spikes in the axils of foliaceous bracts, which increase in size downwards, the whole of the upper portion of the plant being converted into a leafy panicle when flowering. Perianth segments usually 4-5, rarely 6, elliptic acute, connate below, incurved. Stamens 4-6. Ovary globose, stigmas 3-5, very minute.. Fruit utricles, enclosed in persistent perianth.

It is found through out the state. Flowering & fruiting occur almost through out the year.

*Uses :* Young leaves & shoots are eaten cooked as vegetable. The plant produce essential oil which is considered tonic and antispasmodic.

#### Basellaceae

### 245. Basella alba L. var. rubra (L.) Stewart.

(B. rubra L.)

Vern : Ronga Pui Sak / Ronga Puroi sak (As.) Maifrai (Bodo)

Habit & habitat: A glabrous climber with fleshy twining stem often red. Leaves broadly ovate, shining. Flowers bisexual, red or white in lax peduncled spikes. Utricle have the size of a small pea included within flesh perrianth which is black with red or purplish juice. Flowering during winter.

Although cultivated, often become wild near hedges. *Uses:* Leaves, stem and fruits are largely used as vegetable, considered good for anaemia patient, but not allowed to eaten to a person suffering from rheumatic pain.

#### 246. Basella alba L. var. alba

(B. alba sensu Hook. f.)

Vern: Puroi sak

Boga Puroi (Ass.)

Habit & habitat: Similar as Basella alba var. rubra but can easily distinguish from its colour of leaf and stem which is pale green.

Uses: Same as above.

## **Phytolaccaceae**

## 247. Phytolacca acinosa Roxb.

Vern. Jaiong (Khasi)

Habit & habitat: A succulent herb. Leaves 2-7 inch in length and 0.5-2.5 in width, elliptic or obovate, acuminate, entire, membranous, narrowed into petiole. Flowers in peduncled racemes, perianth sepaloid. Ripe fruits blueblack.

Flowering and fruiting: May - August.

Uses: The leaves are eaten cooked as spinach.

## Polygonaceae

## 248. Fagopyrum cymosum Meissn.

Vern : Taktir (Mishing)

Bon Choka / Bon Paleng (As.)

Moichunkha (Bodo)

Habit & habitat: A tall branching herb with perennial base. Inflorescence, petioles are thinly pubescent. Leaves in Upper portion smaller, deltoid, shortly acuminate. Flowers small white, recurved on the branches of terminal and axillary cymes. Perianth 5-partite, seeds 3-gonous. Found mainly in the foot hills of Himalaya & Karbi Anglong District. Uses: The tender leaves and young shoots are eaten cooked as vegetable.

## 249. Fagopyrum esculentum Moench.

Vern: Chutia Lofa / Dhemsi Sak (As.)

Habit & habitat: A glabrous annual, attaining about 3 ft.height. Leaves small, triangular, cordate. Flowers white or pink in dense subcapitate cyme.

#### 114

Although it is cultivated but in most cases runs in to wild. *Uses*: Young leaves and shoots are eaten cooked as vegetable.

## 251. Polygonum auriculatum Meissn.

(P. chinenseL. var. ovalifolium Meissn.)

Vern. Indrani (As.)

Habit & habitat: A shrub with herbaceous shoots and woody base, often scrambling. Leaves 3-6.5 inch. long, broadly oval or elliptic, glabrous or pubescent on the nerves beneath; peduncles conspicuousely glandular not slender. Flowers white or pink. Fruits nutlets, trigonous.

Flower & Fruit: September- December.

Uses: Tender leaves with shoots are eaten cooked.

## 252. Polygonum chinensis L.

Syn. Persicaria chinensis (L) Nakai

Vern : Behu (As.) Lorum (Mishing)

Habit & habitat: A shrub with herbaceous shoots & woody base often scrambling the bushes. Stem generally reddish coloured. Leaves variable, oblong to lanceolete, deltoid, ovate, base truncate. Inflorescence of peduncled heads arranged in panicles. Flowers white or pink. Nutlets trigonous, fruiting perianth fleshy or dry.

Common in the state.

Flowering: September - December

*Uses :* Young shoots eaten raw, slightly acidic. Leaves & shoots eaten cooked as vegetable with fishes. Nutlets with fleshy perianth are also eaten.

## 253. Polygonum glabrum Willd.

Syn. P. glabrum (wild) Gomez.

Vern.: Bonriya Ghehu (As.)

Habit & habitat: An annual herb with suberect, smooth, reddish stem. Leaves narrow, lanceolate. Stipules a little ragged. Stamens seven. Style three-cleft. Seeds round. Grows on shady moist places.

Uses:

Tender leaves and shoots are eaten as vegetable.

## 254. Polygonum kawagoeanum Makino

(P. minus auct non Hudson)

Vern: Chayang Marchang (Mishing)

Habit & habitat: It is an aromatic small plant up to 1 ft. in height. Leaves dark green above, pale beneath, lanceolate, acuminate, entire. A fine scent comes out when bruished. It is found as under growth, reported from Jonai area of Northern Assam.

Flower: October - November.

*Uses :* Aromatic leaves are added to other vegetables for flavour; also chutney is prepared from the leaf.

## 255. Polygonum microcephalum D. Don

Vern: Madhusuleng (As.)

Habit & habitat: A glabrous or sparesly hairy herb attaining 3 ft. height with a woody perennial root stock. Leaves hastately ovate, lanceolate, abruptly narrowed to the winged petiole, which is auricled at the base. Flowers in small heads in axillary or subterminal slender peduncles. Perianth 5 cleft; stamens 8. Styles 2-3, conate at base. Fruit nut,

3-gonous.

Flowering: June. Fruit ripen: August to September Found in most places of the state, common in Upper Assam.

*Use :* Leaves and tender shoots are eaten cooked, specially with fish, slightly acidic. Eaten during winter and spring.

## 256. Polygonum orientale L.

Vern: Taktir oing (Mishing) Bon kunhiar (Ass.)

Habit & habitat: A herb, generally grows on damp soil or marshy places. Leaves ovate, petioles long about 4 inches. Inflorescence terminal, recemose, elongated. Bracts coarsely hairy. Fruits nutlets, biconvex.

Flowers & fruits: August- December.

*Uses :* Young leaves with tender shoots are eaten as vegetable.

## 257. Polygonum perfoliatum L.

Vern. Bonoriya ghehu (As.)

Habit & habitat: A prickly climber or rambling shrub, stem herbaceous, base woody. Branches and petioles are armed with sharp recurved prickles. leaves peltate, deltoid, with obtuse or sub acute angles, membranous, glabrous and pale green above, glaucous green beneath. Petiole longer than the blade. Stipules foliaceous. Flowers white in simple racemes. Nut globose.

Lower portion is perennial while the upper portion die back every year.

Flower & fruits: July- October.

Uses: Tender leaves with young shoots are taken as vegetable.

## 258. Polygonum plebejum R. Br.

Vern.: Pani jaluk (As.)

Habit & habitat: It is an under shrub with prostrate stem. about 2 feet high, branches striate, glabrous. Leaves variable, 0.2-1.2 inch long, linear to linear oblong, obtuse, margin often revolute. Flowers pink or greenish, axillary.

Flower: March-July. Fruit: November

Uses: Tender leaves with young shoots are eaten as vegetable occassionally.

## 259. Polygonum runcinatum Ham.

Vern: Jathi Suleng / Jathi patia (As.)

Habit & habitat: A small glabrous herb, stem angled. Leaves hastate, 3.5-15 cm long, with two unequal lobes at base. Flowers white or pink in terminal oe axillary raceme. It is found generally in the vicinity of water bodies.

Common mostly in Upper Assam.

Flowering: June - July. Fruit: August - September. Uses: Leaves & tender shoots are eaten cooked as vegetable.

#### 260. Rumex maritimus L.

Vern.: Bon suka sak (As.)

Habit & habitat: An erect herb with perennial root stock... Leaves oblong or elliptic-ovate, base cordate, lower ones long stalked, upper smaller and nearly sessile. Whorls of flowers which are dense above, distinct below. Fruit nutlets, brown.

118

Generally grows on marshy, abandoned places.

Flower &fruit: February - May.

Uses: Sometimes leaves are eaten as vegetable in mixing with others.

## **Piperaceae**

## 261. Peperomia pellucida (L.) H.B.K.

Vern: Ponounuwa (As.)

Habit & habitat: A small erect herb, upto 6 inch height, stem pale green. Leaves cordate, glabrous, pale green. almost transparent when dry. Spikes terminal, flowers and fruits are minute.

Flowering & fruiting: rainy season.

It is very common in damp, shade or even in old roofs where generally bryophytes grow. In flora of Assam vol. IV, Kanjilal & Das mentioned it as American origin recorded from Sadiya in 1908. But it thrives well mostly in high rainfall areas, highly acclamatized.

Uses: The entire plant is eaten cooked as vegetable specially with small fishes. Also the paint is considered medicinal for various purposes.

## 262. Piper longum L.

Vern: Pipoli (As.)

Bithipokang (Karbi)

Habit & habitat: Aromatic herb, trailing either on ground or climbing on trees; leaves dark green, oblong. Male and female flowers are distinct, fruiting spike long fleshy. Flowering occur generally during rainy days.

Generally found in the evergreen tract of forests in

Northern Assam, now cultivated in some localities.

*Uses :* It is used as a condiment in various dishes. Also considered highly important in various ethnomedicines.

## 263. Piper thomsonii Hook. f.

Vern: Auni pan (As.)

Habit & habitat: A scandent, half woody plant rooting from the nodes, dark green, glabrous. Leaves generally ovate-oblong, acuminate, membranous, base shallow cordate, short petioled. Fruiting spike long.

Flowering occure in rainy season.

It is common in shaddy high rainfall areas.

*Uses :* Leaves are eaten with betel nut, substitute of generally betel leaf. In common situation betel leaf fall during February - March, in this period it is used in village areas. Sometimes fruits are added to curries, considered medicinal.

## Saururaceae

## 264. Houttuynia cordata Thunb.

Vern: Masundari / Mosondoi (As.)

Maisundri (Bodo)

Habit & habitat: A perennial herb with creeping root stock. It gives out a very unpleasent smell when bruishes its leaf. Leaves ovate acuminate, membranous, base deeply cordate with stipute. Flowers minute in dense flowered spike. Fruit sub-globose.

Flowering: April to June. Fruit ripen: July to August. It occur as under growth or mixed with other plant specially in wet places.

*Uses :* Leaves are eaten raw or cooked as vegetable. Roots are also edible, eaten as chutney. It is used in various Assamese dishes, considered medicinal also.

## Myristicaceae

## 265. Horsfieldia amygdalina (Wall.) Warb.

Syn. Myristica amygdalina Wall.

Vern: Amol (As.)

Pakhona kala (Dimasha)

Dettak (Karbi)

Habit & habitat: A big tree with bark reddish brown inside, exuding reddish juice. Leaves are moderate sized, aromatic, smell like mango, elliptic-lanceolate, entire, glabrous, shining above. Flower bud yellow, in branched spreading panicles. Fruit trigonous, ovoid, with a longitudinal ridge on back and a shallow channel on the opposite side; aril fleshy, yellowish. Flowering in winter, fruit ripen in January to May

*Uses :* Seeds are eaten, aril is sweet also eaten raw, mostly by Karbis.

## 266. Horsfieldia kingii (Hook. f) Warb.

(Myristica kingii Hook.f.)

Vern: Amol (As.)

Mijing Okum esing (Mishing)

Pandikachua (Dimasha)

Habit & habitat: A tree with pubescent young shoot. Bark with shallow vartical furrows exfoliating in square flakes, reddish. Leaf moderate sized, elliptic-obovate, acute or

bluntly acuminate, glabrous. Flower small. Fruit about an inch long, supported by presistent perianth, aril envelopes the seed.

It is found in all areas of Assam.

Flower: Rainy season.

*Uses :* Karnel of the fruit is used as substitute of arecanut. The gum is medicinal in mouth sores.

#### Lauraceae

## 267. Cinnamomum tamala (Buch.-Ham.) Nees& Eberm.

Vern : Jonken esing / Rapi esing (Mishing) Teipat (As.)

Habit & habitat: A medium sized branchy tree found in most of the forests of Assam. Bark rough, dark grey, aromatic. Leaves alternate or sub-opposite, ovate-oblong or elliptic, acuminate with the tip, glabrous, pink when young, aromatic. Flowers small, fruit is drupe.

Flower: February to May.

Fruit ripen: June to October.

New leaves comes out during March to May.

*Uses :* Leaves are used in curries, tea, polao etc. to add taste and flavour. The bark is also used.

#### Elaeagnaceae

## 268. Elaeagnus caudata Schl.ex Momiyana

Syn. E. latifolia L.

Vern: Mirika tenga / Bon Jora (As.) Solengi arikong (Karbi) Beerai esing (Mishing) Habit & habitat: A large woody evergreen scandent shrub with spine. Leaves variable, alternate, ovate-oblong, glabrous, clothed beneath with silvery or ferruginous scales. Flowers peduncled, small, scented, perianth are covered with ferruginous scales. Fruit about an inch long, ovoid, ribbed, red or yellow when ripe, succulant, silky inside.

Found in evergreen tracts of forests.

Flower: November to February.

Fruit ripen : April to May.

Uses: Ripe fruit is eaten, also prepare pickles.

## 269. Elaeagnus pyriformis Hook. f.

Vern : Doukhiguti (As.)

Dablut sitai (Bodo)

Habit & habitat: Woody shrub commonly found in North bank of Brahmaputra. Leaves smaller. Fruit pyriform small, yellow when ripe covered with coppery scales, glabrous not ribbed as in *E.latifolia*.

Flowering: November - January.

Fruit ripen: January to April.

Uses: Ripe fruit is eaten, less acidic. Unripe fruit is very

sour, can prepare pickles.

## Loranthaceae

## 270. Tolypanthus involucratus (Roxb.) van Tiegh

Vern: Roghumola / Birikhmora (As.)

Habit & habitat: A slender bushy parasite with purplish brown, tomentose, lenticellate branches. Leaves moderate

sized, opposite and alternate, ovate-lanceolate, or ellipticovate, glabrous, pubescent along the nerves. Flowers sessile, fruit oblong, truncate pubescent.

Flowering & fruiting: February to May.

*Uses :* Ripe fruit are eaten by Mishing, sweet and gummy.

#### Santalaceae

## 271. Pyrularia edulis A. DC.

Vern: Thing beng (Karbi)

Habit & habitat: A small, throny, deciduous tree, found mostly in Karbi Anglong and foot hills of Arunachal near Sadiya. Leaves elliptic -oblong or ovate-oblong, moderate and shining. Male flower in panicles, female solitary. Fruit Drupe, pyriform or globose, narrowed into a stout stalk, crowned with perianth lobes.

Flowering: April - June.

Fruit ripen: August - December

Uses: Ripe fruit is eaten.

#### Euphorbiaceae

## 272. Antidesma acidum Retz.

Syn. A. diandrum Roth) Rotz.

Vern: Abutenga/Nekhon tenga/Saru heloch (As.)

Lapha saikho (Bodo)

Ing-sum -arong (Karbi)

Habit & habitat: A deciduous small tree or shrub, with spreading branches, young parts rusty pubescant. Leave oblong to lanceolate, glabrous, shining above and turn deep red before falling. Flowers are minute, greenish yellow.

Fruit small, smooth, purple and become purple red when ripe, ovoid, acute.

Flowering: April - July. Fruit ripen: cold season. It is common in Brahmaputra valley usually in river banks. *Uses:* Leaves are eaten as vegetable, slightly acidic, also leaves can be preserved for later use. Fruits are acidic and edible.

#### 273. Antidesma acuminatum Wall.

Vern: Pani heloch (As.)

Habit & habitat: A shrub or small tree. Leaves are bifarious, elliptic-lanceolate, caudate- acuminate, entire. Both male & female flowers are in panicles but female one is distinctly larger. Fruit small, red when ripe, ultimately blackish, ellipsoid-acuminate, crowned by style.

Flowering: June to July. Fruit ripen: cold season. Found mainly in flood plains.

Uses: Ripe fruits are eaten.

## 274. Antidesma bunius (L.) Spreng.

Vern: Borheloch / Paniheloch (As.) Sonkong esing (Mishing)

Habit & habitat: It is an evergereen tree, young parts hairy. Leaves upto 6 inch, glossy green, oblong-lanceolate, obtuse. Flowers small in simple pubescent spikes. Fruits small ellipsoid, red, ultimately blackish when ripe.

Flowering: April - May. Fruit ripen: August to September. Found in riparian forests along river sides.

*Uses :* Ripe fruits are eaten. Leaves also eaten cooked as vegetable.

## 275. Antidesma ghaesembilla Gaertn.

Vern: Heloch / Mikhon tenga (As.)
Theng merok (Karbi)
Chomkong (Mishing)

Habit & habitat: A small deciduous tree or shrub with rusty tomentose young shoots. Leaves ovate, oblong, broadly elliptic, rouded, acuminate, generally dark green, entire, coriaceous. Flowers minute in densely pubescent terminal and axillary much branched spikes. Fruit is drupe, sub-globose, red, purplish black when ripe.

Uses: Ripe fruit is edible.

#### 276. Antidesma khasianum Hook. f.

Vern.: Kotia Heloch (As.)

Habit & habitat: It is a shrub with sparsely pubescent young shoots. Leaves 2-6 inch. long, bifarious, oblong-elliptic, acuminate, entire, dark green. Male raceme slender, female much stouter. Fruit sub-globose or ellipsoid, seed stone strongly reticulated.

Flower: July & fruit ripen: October - November. Found in flood plains of Brahmaputra valley.

*Uses :* Fruits are eaten. It is generally found during harvesting time of paddy.

## 277. Aporusa octandra (Buch.-Ham. ex D. Don) Vick.

(A. roxburghi Baill.)

Vern: Garo-khuta/Khokora/Bor heloch (As.)

Samphere / Khoidoi (Bodo)

Khempasi (Dimasha)

Tamsir (Karbi)

Habit & habitat: A middle size evergreen tree, almost glabrous, bark reticulately fissured, inside reddish. Leaves moderate, glabrous, elliptic-lanceolate, short petioled. Flower minute, unisexual. Fruit almost glabrous, usually ovoid-oblong with a beak at end, with reddish aril.

Flowers : cold season. Fruit ripen :April - May. Generally found all over the state, not common.

Uses: Ripe fruit is eaten, slight acidic.

#### 278. Baccaurea ramiflora Lour.

[B. sapida (Roxb.) Muell. Arg.]

Vern: Leteku (As.)

Buri (Mishing)

Dampiyu (Karbi)

Khusumai/Lerkho (Bodo)

Notko (Rajbangshi)

Khusmai (Dimasha)

Habit & habitat: A common species in the state, middle sized tree, young parts hairy, bark dark grey with vertical lenticels. Leaves moderate sized, elliptic-oblong, or obovate or elliptic lanceolate, glabrous, membranous. Flowers dioecious comeout from old trunk as receme inflorescens. Fruit is globose, capsular, yellowish brown, seeds orbicular, embedded in rose coloured pulp (arillus).

Flowering: April - May. Fruit ripen: May - July. *Uses:* The pulp of the fruit eaten and delicious often sold in the market.

## 279. Bischofia javanica Bl.

Vern: Urium (As.)

Takkir / Sintir (Mishing)

Thaiso (Bodo)

Phang put (Karbi)

Thaijilit (Dimasha)

Habit & habitat: A large deciduous tree with cylindric trunk with a spreading crown. Bark dark brown, inside reddish.Leaves alternate, 3 - 5 foliate,leaflets elliptic or ovate-oblong, acuminate, glabrous. Flowers greenish dioecious in paniculate receme. Fruit globose, fleshy, brown when fully ripe. It is a common species in the state which favours more rainfall areas.

Flowers: March to May. Fruits ripen: rainy season. *Uses:* Ripe fruits are sandy and sweet, eaten. Tender stem is acidic, eaten raw. Young leaves and shoots are eaten as vegetable by Mishing.

## 280. Bridelia stipularis (L.) Bl.

Vern: Lota mandi / Hom homali / Sagol laderi /

Mou silikha (As.)

Thebhi (Karbi)

Sepaph (Dimasa)

Hait & habitat: It is a climbing shrub or small tree. Leaves small, and it is much reduced in the flowering twigs, elliptic oblong. Flowers small, monoecious and greenish in numerous axillary clusters. Fruit is drupe, small, reddish and turn in to blue black when ripe, generally with the enlarged calyx.

Flowering : October-November. Fruit ripen :February - March.

It is a common species in the state ascending up to 1500 ft.

*Uses :* Fruits are eaten, taste like amla and also used to make pickles.

## 281. Drypetes assamica (Hook. f.) Paxet &Hoffm.

Vern: Dukaha (As.)

Phang-gait arong / Lali (Karbi)

Habit & habitat: A small middle sized evergreen tree, with slender pendent branches. Leaves narrow oblong, serrate, glossy green, coriaceous. Flower monoecious, in axillary clusters. Fruit globose, deep red when ripe. Common through out the state.

Flowering: October - January. Fruit ripen: March to April. *Uses:* Ripe fruits are eaten raw when ripe.

## 282. Euphorbia hirta L.

Vern : Gakhiroti bon (As.)

Nashrai khoro (Bodo)

Habit & habitat: An annual prostrate hispid herb with milky latex. Leaves opposite elliptic, base oblique, reddish, serrated, hairy. Flowers small in small cluster of cyathium.

Flowering through out the year.

Very common in open areas during summer.

*Uses :* Young shoots & leaves are used as vegetable by Bodos.

## 283. Phyllanthus acidus (L.) Skeels

Vern: Pora Amlokhi / Pom lokhi / Holpholi (As.) Habit & habitat: A small deciduous tree or shrub, glabrous. Leaf compound, leaflets subsessile, obovate, rounded or acute, light green. Flowers in cyathium, axillary, whitish. Fruit drupe, globose with six lobes, light green. Flower & fruit: June to July.

It is found in the plains of Brahmaputra valley.

Uses: Mature fruits are acidic, eaten fresh or as pickles.

## 284. Phyllanthus emblica L.

Vern : Amlokhi (As.)

Habit & habitat: A medium sized tree, deciduous. Leaves pinnate, leaflets small, sub-sessil, pale green. Flowers yellowish in axillary clusters, monoecious. Fruit drupe, globose, yellowish when ripen.

Flowering: March - May. Fruit ripen: Summer-Autumn. It is found in all forests of Assam, some time planted.

*Uses :* Fruit eaten raw, or dried; pickles are prepared. It is considered highly medicinal by Indian tradition.

## 285. Phyllanthus fraternus Webster

Syn. P. niruri sensu Hook.f.

Vern: Mati Amlokhi / Bhui Amlokhi (As.)

Habit & habitat: A small annual herb, branches angled, leaf pinnate, leaflets sessile. Flowers small, occur in the lower side of leaf rachis. Fruit small globose, like miniature of Amla. It is found all over the state in open ares with grass and other herbs. Flowering & fruiting: May - August. Uses: Tender leaves, shoots along with fruits are eaten raw or cooked as vegetable, considered good for liver function and used in treatment of jaundice.

## 286. Suregada multiflora (Juss.) Baill.

Syn. Gelonium multiflorum A . Juss.

Vern: Theng chek te (Karbi, Kuki)

#### 130

Midouma biphang (Dimasha)

Habit & habitat: A middle size tree, bark vertically fissured. Leaves moderate, oblong or elliptic -oblong, glabrous with pellucid dotted, base cuneate. Flowers yellowish, fragrant in pedunculate contracted cymes, unisexual. Fruit globose, 3-lobed, blackish when ripe.

Flowering: March - April. Fruit ripen: April - May.

Uses: Ripe fruits are eaten raw.

#### **Urticaceae**

## 287. Debregeasia longifolia (Burm.f.) Wedd.

Syn. D. velutina Wedd.

Vern: Bayo esing / Dalah esing (Mishing)

Habit & habitat: A spreading shrub or small tree, young shoots silky pubescent. Leaves moderate size, oblong-lanceolate or narrow - elliptic, dark green above, pale white beneath. Flowers in lateral dichotomous panicles, unisexual. Fruit is small achenes in clusters, contained in fleshy perianth, orange yellow.

Flowering: Summer& Autumn.

Fruit ripen :cold season.

Uses: The ripe fruit is eaten.

## 288. Debregeasia salicifolia (D. Don) Rendle

Syn. D. hypoleuca Wedd.

Vern: Sonsore / Dalah (As.)

Habit & habitat: An evergreen shrub, branchlets clothed with snow white wool. Leaves alternate, oblong or linear-lanceolate, serrulate, rather coriaceous, raised dotted above, thickly white pitted beneath. Flower small. Fruit an

aggregate of amber coloured achenes, in cluster, sweet but hispid and mucilaginous, succulent.

Generally found near the foot hills of Bhutan.

Flower: April- May. Fruit: June- August.

Uses: The ripe fruit is eaten.

#### 289. Dendrocnide sinuata (Bl.) Chew.

Syn. Laportea crenulata Guad.

Vern: Torash / Sorot gosh (As.)

Khoma (Bodo)

Paji (Mishing)

Tarmepi (Karbi)

Kerma (Dimasha)

Habit & habitat: A herbaceous stemed shrub, young parts clothed with stinging hairs. Leaves large ovate, or elliptic, more or less entire, sometimes crenulate towards the apex. Flowers white. It is common weed in open areas and degraded forests. The sting of the nettle is very virulent.

Flowering : August - October. Fruit ripen: cold season.

*Uses :* Flowers are picked carefully and used as vegetable with fishes, considered as medicinal by Bodo people.

#### 290. Pouzolzia viminea Wedd.

Vern: Mesaki jola phang (Bodo)

Khojo (Rabha)

Habit & habitat: A shrub with slender branches, pubescent or strigose. Leaves small, alternate, lanceolate ovate-lanceolate, acuminate, dentate or serrate, membranous, dark green. Fruit is achene.

Flower: November - March. Fruit ripen: August - January. *Uses:* Young leaves are eaten as vegetable.

## 291. Sarcochlamys pulcherrima Goud.

Vern : Mesaki (As.) Ambe (Mishing)

Adumbra (Bodo)

Habit & habitat: A small evergreen tree, branchlets pubescent. Leaves alternate, narrow lanceolate, toothed, caudate acuminate rather membranous, rugose, shining and rough above, white beneath; strongly three nerved, reticulation visible from outside, base acute, obtuse or rounded. Flowers dioecious, in axillary spikes. Fruit achene, enclosed in fleshy perianth.

It is common through out the province.

Flowering & fruiting: winter.

*Uses :* Young shoots, leaves and fruits are eaten as vegetable especially by Mishing people; favoured with pork.

#### Cannabaceae

#### 292. Cannabis sativa L.

Vern.: Bhang, ganja (As.)

Habit & habitat: A herb with woody base. Leaves 3-5 foliate, leaflets narrow elliptic, serrate, hairy with aromatic smell when bruished. Flowers in dense terminal racemes. Leaves contain nicotine. the plant is cultivated, though prohibited, and also run wild.

*Uses :* It is a common fumitory; young leaves along with tender shoots are sometimes eaten as vegetable mixing with others, gives a narcotic effect, not to be given to

children.

#### Moraceae

## 293. Artocarpus chama Buch-Ham.

Syn. Artocarpus chaplasha Roxb

Vern : Cham kathal (ass) Phong (Karbi)

Habit & habitat: A large deciduous tree, young shoots dotted with long stiff hairs. Leaves 12-30 cm by 6-16 cm, eliptic-ovate or sub round, entire or minutely dentate, obtuse, coriaceous, little hair present both dorsal & ventral surfaces, stipules large, amplexicaul. Flowering receptacle axillary, globose with long peduncle. Fruit globose about 3 - 4 inch dia

Flower: March - April. Fruit ripen: Summer season.

It is a common species in the state.

*Uses :* Ripe fruits are sweet and eaten.

## 294. Artocarpus lacucha Buch.-Ham.

Syn. A. lakoocha Roxb.

Vern : Dewa chali / Bohot (As.)

Lusuk salia (Mishing)

Habit & habitat: Large deciduous tree with spreading crown. Leaves about 4 - 12 inch. long, broadly oblong, coriaceous, rough above, soft pubescent beneath. Receptacle axillary, globose in short pubescent peduncle. Fruit irregularly lobed, velvety, yellow, orange red when ripe. Common in plains of Brahmaputra valley.

Flower: February - May. Fruit ripen :Summer

season.

*Uses*: The bark is chewed as betel nut with betel leaf, ripe fruit is eaten. Male flower heads are used to prepare pickle.

#### 295. Ficus auriculata Lour.

Syn. F. roxburghii Wall. ex Miq.

Vern: Mon dimoru / Altha Dimoru (As.)

Kukbal Takuk (Mishing)

Lothepi (Karbi)

Thaibor (Dimasha)

Habit & habitat: A middle sized tree with spreading crown, young parts pubescent, young branches are hollow. Leaves moderate sized, broad, ovate-orbicular, glabrous above, pubecent beneath. Receptable in fascicles on short thick leaf less branches or on trunk at lower protion. Fruits are 2 - 3 inch. large, purplish- orange when ripe.

Common in the state.

Fruit ripen : April - June.

Uses: Fruits are eaten when ripe and quite delicious.

#### 296. Ficus geniculata Kurz.

Vern.: Tengabor (As.)

Phrapso (Dimasha)

Habit & habitat: A large tree, generally glabrous. Leaves ovate, entire acuminate, coriaceous, glabrous. Both male flowers and female flowers are separate. Receptacle axillary in pendulous cluster on the stem. fruit small, yellow when ripe.

Flower: September - November.

Fruit ripen: Summer

Found generally Nawgaon, Karbi Anglong & N.C. hills District.

*Uses :* Leaf scales, which are acidic, are eaten cooked as vegetable.

#### 297. Ficus hirta Vahl.

Vern: Khongal dimoru (As.)

Tajik (Mishing)

Habit & habitat :

A small tree with hollow branchlets, young parts are hairy. Leaves variable, broad ovate, acuminate, serrate, 3 - 5 lobed, rough and hairy above, pubescent heneath especially on nerves. Receptacle axillary in pairs, globose, covered with hairs.

Found in almost all forests of Assam.

Flower: November. Fruit ripen: Summer.

*Uses :* Tender leaves are used as vegetable; ripe fruits are eaten.

## 298. Ficus hispida L.

Vern: Dimoru (As.)

Takpi (Mishing)

Engthum (Karbi)

Khoksha dumru (Bodo)

Habit & habitat: A shrub or small tree with hollow branchlets having milky latex. Leaves are large, opposite, obovate, serrate, hairy and scabrid above, hispid pubescent beneath, stipules ovate-lanceolate, about 2 cm long. Male flowers & female flowers are separate. Receptacle in pairs or clusters from old stem, hispid with short stalk, greenish yellow in

colour. Flowering & fruiting generally occur through out the year.

Common in plains throughout the state.

*Uses :* Young shoots, leaves and green fruits are eaten cooked as vegetable. Ripe receptacle can be eaten, considered good for liver.

## 299. Ficus nervosa Heyne ex Roth.

Vern: Khanpati Dimoru (As.)

Thebu (Karbi)

Habit & habitat: A very large tree with board crown, stem often butressed. Leaves variable, shining & glabrous above, dotted beneath. Receptable axillary, without hairs, globose, yellowish or reddish yellow, less than an inch.

Found in both valley of the state.

Flower: October - December. Fruit ripen : Hot season.

*Uses :* Ripe fruits are sweet and eaten.

## 300. Ficus oligodon Miq.

Syn. F. pomifera Wall. ex King

Vern: Tajik esing (Mishing)

Habit & habitat: A small tree, young shoots hairy. Leaves smaller, elliptic or broadly lanceolate, irregularly serrate, sub coriaceous, glabrous. Receptacle peduncled in short leaf less branches or on the trunk or large branches, about an inch long, reddish brown when ripe.

Mainly found in Upper Assam.

Fruit ripen: January.

Uses: Young leaves are cooked as vegetable, ripe fruits

are eaten.

#### 301. Ficus semicordata Buch.-Ham. ex J.E. Sm.

Syn. F.cunia Buch.-Ham.

Vern: Takuk esing (Mishing)

Taikhro (Bodo)

Amin-sep (Garo)

Habit & habitat: A small tree, young shoots are hairy, leaves are large and of variable size, thinly coriaceous, glossy green above, pubescent beneath. Receptable is in pairs or cluster on old stem even at the base of the tree. Reddish brown or white when ripe.

Common in the state.

Flowering & fruiting: Through out the year.

*Uses :* Young leaves and shoots are eaten cooked as vegetable; ripe fruit with beautiful aroma is eaten.

## 302. Maclura cochinchinensis (Lour.) Corner.

Syn. Cudrania javanensis Bl.

Vern: Pulikait (As.)

Tekum esing (Mishing)

Bapou chuni (Karbi)

Habit & habitat: An evergreen large subscandant shrub with spines. Leaves small and variable, generally oblong-elliptic, dark green above, pale beneath. Flower heads are greenish yellow. Fruit is about an inch across, velvety and orange when ripe.

Found generally all over the state, but now rare to locate.

Flower: April - June. Fruit ripen: July to September.

Uses: Ripe fruits are eaten.

#### 303. Morus australis Poir.

Syn. M. alba L.

Vern: Nuni / Kiskuri (As.)

Bongphang rakhep (Bodo)

Habit & habitat: A moderate sized deciduous tree, sometimes grows as shrub. Leaves ovate caudate-acuminate, lobed, membranous, pubescent when young. Flower appear with young leaves. Spikes lax flowered, hairy. Fruit ovoid or sub globose, greenish-yellow when young, red at maturity and ultimately black when ripe.

Although the plant is cultivated to rear silk worms, often escape to the forest, found wild in the river banks.

Flowering :March - April

Fruit ripen: June - August.

*Uses :* Ripe fruits are eaten fresh which are very delicious.

## 304. Poikilospermum suaveolens (Bl.) Merrill

Syn. (Conocephalus suaveolens Bl.

Vern : Gabong lota / Lata Dimoru (As.)
Agiq reibe (Mishing)

Habit & habitat: A large evergreen climber, stem woody. Leaves smaller alternate, ovate-elliptic or ovate-oblong, subcoriaceous, glabrous, cystolith present. Flowers fragrant, dioecious in axillary dense globose heads. Found in Northern Assam, Upper Assam, Western Assam, Kamrup, Darang & Sonitpur.

Flowering: January to March

Fruit ripen: March - April

*Uses :* Leaves & young shoots are eaten cooked as vegetable.

## 305. Streblus asper Lour.

Vern : Shoura / Seora (As.) Chir hesto (Karbi)

Habit & habitat: A small rigid evergreen tree with milky juice. Leaves alternate, elliptic, rhomboid or obovate, acute, obtuse or shortly acuminate, serrate, coriaceous & scabrid. Flower dioecious & axillary. Fruit is berry, yellow when ripe.

It is found in both plains and hills of the state, proved flood resistant.

Flower: February - April Fruit ripen: May - June.

*Uses :* Ripe fruits are sweet & eaten; twigs are used to clean teeth, considered medicinal. Leaves are used as fodder for cows and goat during flood.

## Myricaceae

## 306. Myrica esculenta Buch.-Ham.

Syn. M. nagi sensu Hook.f.

Vern: Noga tenga (As.)

Habit & habitat: A small or moderate sized evergreen tree. Leaves lanceolate, oblanceolate or obovate, nearly entire or sharply spinous serrate, acute, coriaceous, glabrous above with resinous dots beneath, aromatic scented when bruished. Flower minute, fruit about an inch, ovoid, reddish when ripe.

Generally found in Upper Assam.

140

Flowers : October - December. Fruit ripen : April - June.

*Uses :* The ripe fruits are eaten, also used to make a very refreshing drink in hot weather.

## Monocotyledons

## Hydrocharitaceae

#### 307. Ottelia alismoides (L.) Pers.

Vern: Panikola (As.)

Habit & habitat: An aquatic submerged herb, sometimes with partially floating leaves. Leaves radical, crowded, the submerged ones are narrow, the floating leaves are long-petioled, ovate-lanceolate, oblong or cordate. Flowers solitary, hermaphrodite, sessile within a tubular, long-peduncled spathe. Sepals 3, linear or oblong. Petals 3, larger, obovate or orbicular, with fleshy basal appendages, white. Stamens 6-15, 2-5-seriate; anthers erect. Carpels connate, ovary 6-celled, ovules many. Fruit oblong, enclosed in the spathe, 3-6 winged, seeds many.

Flowering & fruiting : Autumn.

It is found in stagnant water bodies all over the state. *Uses :* Fruits are eaten in upper Assam, quite agreeable in taste.

## Zingiberaceae

## 308. Achasma loroglossum (Gagnep) Larsen

Vern: Karphul/Gandh tora (As.)

Habit & habitat: A perennial herb with creeping horizontal root stock. The plant is aromatic, aerial stem short & leafy.

Leaves large in two rows. Flowers yellowish, comes out from root stock as flowering shoot. Fruit capsule, turns black when ripe.

It is found through out the state, presently become rare due to over exploitation. Some times cultivated.

Flowering: February - April. Fruit ripen: Hot season.

*Uses :* Rhizomes which are very aromatic, eaten fresh or with betelnut or as masticatory. Small bits are added in curries for flavour.

## 309. Alpinia nigra (Gaertn) Burt.

Syn. A. allughas (Retz.) Rosc.

Vern: Tora (As.)

Tareng (Mishing)

Tharai (Bodo)

Habit & habitat: A perennial herb most commonly occur in the swamp areas, gregarious in nature. It some times attains about 10 - 12 ft. in height. Aerial stem, shoot and leaves are slightly aromatic. Leaf blade large in two rows, little hair present along the rib. Flowers are white, fragrant, occur in the apex of the shoot. Fruit capsule, in cluster, green, black when ripe.

It is common through out the state.

Flowering: June - March. Fruit: June - July.

*Uses:* Young shoots and rhizomes are eaten either raw or cooked. Leaves have distinctive aromatic smell, used as wrappers in roasting or boiling of various food item.

#### 310. Curcuma amada Roxb.

Vern: Am haladhi/ am-ada (As.)

Habit & habitat: A perennial herb with creeping tuberous rhizome, scented like mangoo when bruished. Leafy aerial portion dies on advent of winter during January to March, Flower occur in a spike, showy, yellowish blue in colour. Fruit is capsule. Mostly found in the Western Assam and Central Assam, some times cultivated.

Uses: Rhizome is used to prepare salad or chutney or eaten raw. It is also used as medicinal for its zeodary content.

## 311. Curcuma zedoaria (Berg.) Rosc.

Vern.: Kochura (As.)

Habit & habitat: A large rhizomatous herb. Leaves with a large, persistant cloud down the centre of the blade. Pseudo stem and leaf-stalks green. Tubers yellow within. Flowers not longer than the bracts.

A shade lover herb, favours its growth in high humid and rich in humus soil.

*Uses :* Leaves are eaten cooked generally as mixer with other vegetable.

#### Musaceae

## 312. Musa balbisiana Colla.

Syn. M. sapientum auct non L.

Vern : Athia Kol / Guti kol (As.)

Bhim thalit (Bodo)

Habit & habitat: A very large and tall banana usually cultivated in assamese home steads. Generally grow uncared or as an escape. Found through out the state. Spadix drooping. spathe ovate, deciduous. The fruit have

many seeds embeded in large greenish yellow pulp when ripe.

Uses: The pulp of ripe fruit is eaten, considered highly medicinal to feed infant and patients. Young shoots (pseudo stem) are eaten as vegetable known as "pochola". Flowering part known as "koldil" is also used as vegetable. Its dried leaf, and outer cover of fruit are dried, burnt and prepare an alkaline substance known as "Kalakhar". Leaves and leaf sheaths are used as good fodder for cow. The whole plant and parts are used in different religious as well as domestic celebrations.

## 313. Musa Velutina H. Wendl & Drude

Vern : Ramkal (As.)

Doge kopak (Mishing.)

Habit & habitat: A wild banana found in some part of Assam. The plant is up to 3-6 ft. high. Root perennial from which new plantlets arise every year. Pseudostem thin, only thick as a man's arm. Leaves petioled, smaller than common banana. Spadix erect and donot bend like other species, spathes partial, alternate, boat shaped, obtuse, smooth, striated, light purple or lilac; two or three flowered, deciduous, length from 4-6 inches. Basal few spathes are occupied by female-hermaphrodite flowers, all the rest are male-hermaphrodite flowers. Berry linear-oblong, slightly incurved, 4-5-sided, thin, dull-yellowish green when ripe. Uses: Inflorescence or pink flowering parts and young stems are cooked as vegetable. The plant is planted in gardens for ornamental purposes.

#### 144

#### Costaceae

## 314. Costus speciosus (Koen. ex Retz.) Smith

Vern : Jam lakhuti / Devi tokon (As.) Burhi thokon (Bodo)

Habit & habitat: A fleshy herb of about 5 - 6 ft. high. Aerial stem round, with distinct nodes and internodes. Leaves pale green with silvery tinge, leaf sheath coveres the aerial stem. Flowers are big, showy in dense head, white. Fruit is capsule, quite distinct, green.

It grows well in relatively drier sandy soil but rich in humus, found all over the state.

Flowers: Summer

Uses: Tender shoots are eaten as vegetable. Rhizome juice is used as medicine for treatment of Jaundice. The stem which is rich in water can be used as a source of water.

## Marantaceae

#### 315. *Maranta arundinacea* L.

The Arrow root

Vern: Tora Alu (As.)

Khaita Alu (Boro)

Nginti Ali (Mshing)

Habit & habitat: A perennial herb with a sympodial rhizome and leafy aerial stems. Leaves distinctly petioled, radical, distichous with swollen joint at the junction of blade & sheath. Flowers in panicles, white, fruit capsule.

Flowers and fruit ripen: Summer.

Uses: Although it is planted but found as wild also, tuberous

rhizomes are source of arrowroot, eaten cooked or raw.

#### Discoreaceae

#### 316. Dioscorea alata L.

Vern: Kath Alu (As.)

Habit & habitat: A climber, leaf cordate, dark green stem angular. Flower small. It is either planted or found wild. Tubers are hairy with small rootlets, stem also produce black tubers. stem winged, tubers white or yellowish white, oblong or tapering.

Flower: July - October.

Fruit ripen: November - December.

Apart from this the following are commonly found species with same use and slightly different character.

## D. alata L. var. globosa

Tubers globose. Cultivated and found as wild also.

#### D. alata L. var.rubella

Tubers purple out side, flesh also purple. Cultivated and wild.

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

#### 317. Dioscorea bulbifera L.

Vern: Gosh Alu. (As.)

Habit & habitat: A large climber, found wild or domesticated. Stem angled. Leaf cordate, small, nerves prominent. Stem produce axillary bulbils.

Uses: Root tubers are eaten cooked as vegetable during winter.

#### 146

## 318. D. esculenta (Lour.) Burkil

var. fasciculata (Roxb.) Prain & Burkil

Vern: Moa Alu (As.)

Habit & habitat: A climbing shrub. Leaves pubescent, reniform or orbicular cordate, with sharp stipular thorns. Tubers are small sweet, numerous, spiny roots absent. The tubers of the plants are starchy and free from dioscorine. Sweet in flavour, mealiness, closely related to potato.

Uses: Tubers are used as vegetable.

## 319. Dioscorea pentaphylla L.

var. communis Prain. & Burkill

Vern: Pachpotia Alu.(As.)

Habit & habitat: A climber with underground tuber. Leaf with five oblong lanceolate leatlets, sparsely pubescent, glabrous beneath, pinnately veined. The tubers of this plant are hairy, black out side, inner fleshy and white.

Uses: Tubers are used as vegetable occassionally.

## 320. Dioscorea sativa L.

Vern: Kath Alu (As.)

Habit & habitat: Climber, leaves simple. Stem with axillary bulbils, smooth. Capsules longer than broad, seeds winged at base only.

The climber species found in the foot hills ascending up to 5000 ft. is also cultivated.

Uses: Tubers are eaten cooked as vegetable.

#### Liliaceae

## 321. Asparagus recemous Wild.

Vern: Satmul (As.)

Habit & habitat: A small annual climber with tuberous root. Leaves are small, reduced to minute needle like scales. Small prickle present in the stem. Flowers yellowish green, very small, born on simple receme. Fruits are capsule about half inch. long, green, yellow when ripe.

Flowering and fruiting during April - June.

Found in mostly deciduous forest, in bamboo brakes as wild.

*Uses :* Young shoots are eaten cooked or raw; tuberous root has medicinal value.

#### **Smilacaceae**

## 322. Smilax ovalifolia Roxb.

Syn. S. macrophylla Roxb.

Vern: Yorit (Mishing)

Kumbhi / Kumarika /Bagh Achura lota (As)

Habit & habitat: A large and extensive climber, stem and branches cyldric and prickly. Stem sometimes biennial or even perennial. Leaves alternate, oblong-ovate, sub-round or round, short petioled, entire, glossy, five nerved; stipules modified in to tendril. Peduncles axillary, solitary, divided into two or three branches, each supporting a single, globular, umbellate of large greenish yellow pedicelled flowers inserted on a round scorbiculate receptacle.

Flowering & fruiting: December.

Uses: Tender leaves are eaten cooked as vegetable, quite

148

bitter in taste. Fleshy young shoots are eaten raw.

## 323. Smilax zeylanica L.

Vern: Kumarika / Tikoni borual (As.)
Soima Jaseb (Bodo)
Hosti-karna lota (Beng.)
Yorit (Mishing)

Habit & habitat: An annual woody climber with hooked prickles. Leaves large, oval with apex blunt acuminate, 5-nerved, glossy, entire, base round; stipules modified into tendril.

Common in deciduous belt of forests, dies in winter, but new plant comes out in March - April.

Flowering & fruiting :September - December.

*Uses :* New shoots or young leaves are eaten cooked as vegetable. It is also eaten as mixed vegetable.

## **Pontederiaceae**

#### 324. Monochoria hastata (L.) Sloms.

Vern: Jonaki phul/Bhat meteka (As.)

Habit & habitat: An erect herb with creeping root stock. Leaves hastate, sagittate or cordate with long spongy petiole and sheathing leaf base. Flowers long-pedicelled, subumbellate or racemose, blue-violet, spathe complicate below the raceme. Perianth lobes 6, stamens 6, carpels 3, stigma 2-lobed. Fruit an oblong loculicidal capsule.

It usually grows in swamp or shallow water bodies like beels, pond etc., also found in rice fields during summer.

Flower: March- August.

*Uses :* Flowers and young flowers with inflorescens are eaten cooked as vegetable, or with fish by Bodos, Koch-Rajbongshis etc. espacially in lower Assam.

## 325. Monochoria vaginalis (Burm.) Presl.

Vern: Bhat meteka (As.)

Habit & habitat: Same as the above species but here the root stock is short, leaves ovate or ovate-cordate, flowers short-pedicelled and number of flower in the raceme is more.

Flowering: March-July

*Uses :* Young inflorescence & flowers are eaten mostly in lower Assam especially by Bodo, Koch-Rajbongshi etc.

#### Commelinaceae

## 326. Commelina benghalensis L.

Vern: Kona Simolu (As.)

Habit & habitat: A small herb, most commonly found in shaddy & damp places, succulant, perennial. Leaves alternate, entire with parallel veins, smooth or hairy. Flowers bluish white in spathe like boat shaped bract. Small clistogamic flowers are borne on subterranean branches of rhizome. Fruit is capsule.

Flowering & fruiting through out the year.

*Uses :* Young leaves and young shoots are eaten as vegetable during scarcity or coated with rice flour as cultets.

#### Arecaceae

#### 327. Calamus erectus Roxb.

Vern: Raidang bet (As.)

Habit & habitat: A large cane having armed, erect, stout and tufted stem. Leaves alternate, pinnatisect; segments acuminate; leaflets almost equidistant, their margins and midrib beneath remotely ciliolate. Petioles and rachis of the leaf are also armed below with flat, straight and pale spines. Sheath armed, produce into a ligule or ochrea. Flowers in axillary spadix. Fruit ellipsoid, clothed with adpressed, deflexed, closely imbriacte, shining scales, pericarp thin; larger than *Calamus tenuis*.

Common in evergreen tract ascending up to 5000 ft.

*Uses :* Soft and fleshy inner of the young shoots are eaten as vegetable, bitter in taste. Ripe fruit is eaten.

## 328. Calamus flagellum Griff.

Vern: Jeng bet / Noga gola bet (As.)

Habit & habitat: Taller & thinner than C. erectus and often gregerious with blackish coloured stem. Prickle longer and located more closely than in C. erectus. Found in evergreen tract of forests along Assam-Arunachal border.

*Uses*: Soft inner of the young shoots are eaten as vegetable, ripe fruit is eaten.

#### 329. Calamus tenuis Roxb.

Vern : Jatibet (As.)
Jeing (Mishing)
Garla bithra (Bodo)

Habit & habitat: A prickly climbing shrub with spines all over the plant. They often scramble over surrouding vegetation. Leaves alternate, shiny, pale green, short petioled margined with straight spines.Rachis with one row

of short, recurved spines below. Inflorescence axillary, flowers small.

Fruit drupe, globose or ellipsoid ,clothed with adpressed, deflexed, closely imbricate shining scales.

Mainly found in law laying areas or river banks. Flowering: Rainy season, fruit :cold season.

*Uses :* Soft and fleshy inner of the young shoots are eaten as vegetable. Ripe fruits along with seeds are also eaten fresh.

## 330. Caryota urens L.

Vern: Chao tamol / Sowat goch.(As.) Gol sago (Beng.)

Habit & habitat: Tall unbranched palm with peristant scars of leaf bases. Leaves in terminal clusters, few, large, bipinnatisect, leaf-sheaths large, clasping basaly the trunk. Flower in much branched spadix of 8-10 ft. long, arise from the upper leaf-sheaths and then successively come downwards, monoecious. Fruit globose, 1-2-seeded, pulp pungent; seeds with hard testa.

Flower: Summer

Comonly found all over the state, usually along hill streams.

*Uses :* Seeds eaten, but its pericarp is notorious for irritation, precautions are taken during taking out the seed. Not so sweet, little bitterness is there.

## 331. Livistona jenkinsiana Griff.

Vern: Tokou (As.)

Habit & habitat: Tall unbranched palm with persistant scars

of leaf bases on the trunk. Leaves in terminal cluster, orbicular, flabellately plicate, split to the middle into slender, 2-fid, narrow lobes; petiole long, with spinous margins. Flowers minute, loosely arranged in panicles on long peduncled spadix arise from upper leaf sheaths. Panicles erect in flowers, pendulous in fruiting stage, spathes many, sheathing, tubular. Fruit globose drupe with the style subterminal; seeds erect, ventral face hollow.

Common in plains.

*Uses :* Seeds are eaten like areca nut, but very hard, sweet.

## 332. Pinanga gracilis Bl.

Vern : Geruka tamul / Mumai tamul (As.) Ram gua (Beng.)

Habit & habitat: A slender palm with erect, annualte stems. leaves pinnatisect, with the upper segments confluent. Flowers monoecious, a female between two males, in cluster of 2 or 4 or 6 series, on intrafoliar spadices; spathe single. Fruit ovoid or ellipsoid with fibrous pericarp, yellow when ripe; seeds ovoid or ellipsoid with ruminate albumen.

Uses: Ripe seeds are eaten like areca nut.

#### **Pandanaceae**

## 333. Pandanus fascicularis Lam.

Syn. P. tectorius Soland. ex Parkinson

Vern.: Keteki phul / Keya kathal (As.)

Habit & habitat: A gregarious shrub, with a crown of narrow long leaves, spinous at apex, below the midrib and margins. Flowers very fragrant, yellowish green, enclosed by spathe. Fruits syncarp. Grows in damp soil, along

river or hill streams, often form a patch in the jungle, also in open areas.

Flowering & Fruiting: April - May.

Uses: It is very important flower in Assamese village life. but who rear Endi moth, it is not allowed to bring home because its pollen kills endiworms.

Endocarp is fleshy and orrange red; pulp of the fruit is eaten.

## **Typhaceae**

## 334. Typha angustata Chaub. & Bory.

Vern.: Googol bon / Hati ghah (As.)

Habit & habitat: It is a marsh land herb; tall bush like habit, 6-10 ft. high. Leaves erect, spongy, base sheathing, . Flowers small, in very dense, superposed, cylindric spikes, bright greyish-brown in colour, often intermixed with dilated -tipped hairs. Perianth of capillary hairs, or in male flowers obsolete. Stamens one or more, tip of connective thickened. Ovary often reduced to a hair with clavate tip, long stalked, narrowed into a capilary style, with a filiform stigma. Fruit very minute, pericarp membranous, indehiscent or follicular. Seeds with striate testa, albumen floury.

Flower: August- September.

Grows on marshy habitat, river beds, often found near roads.

Uses: Rhizome, young shoots and inflorescence are eaten.

154

## 335. Typha elephantina Roxb.

Vern.: Googol bon (As.)

Habit & habitat: Same as T. angustata but the leaves trigonous above the sheath and it is about 8-12 ft. high. *Uses:* Young shoots are used as vegetable.

#### Araceae

#### 336. Alocasia acuminata Schott.

Vern: Kochu (As.) Thaso (Bodo) Ange (Mishing)

Habit & habitat: A perennial, terrestrial tuberous herb, without aerial stem, roots adventitious. Leaves peltate, ovate, acuminate, long petioled, base sheathing, pale green. Flowers yellowish in spadix, spathe yellow.

Flowering and fruiting: summer. Generally grows on damp places, often found along the road sides.

Uses: Young shoots, tender leaves and tubers are eaten cooked mostly with acidic fruit.

## 337. Alocasia cucullata (Lour.) Schott.

Vern: Panchamukhi Kochu / Boga kachu (As.) Habit & habitat: An annual tuberous herb. leaves long petioled, peltate, cordate, pointed, entire, smooth on both sides; large prominent nerves underneath; lobes semicircular; petoles sheathing for a little way near base, the rest round and green. Spathe convolute, fleshy, green at the base, above open, boat shaped and yellow. Spadix shorter than the spathe, cylindric.

Grows on damp soil, favours soil rich in humus.

Uses: Tubers are eaten as vegetable, taste like potato. edible during November - March. Chips can also be prepared from it.

## 338. Alocasia fornicata (Roxb.) Schott.

Vern.: Bez kachu / bees kachu (As.& Beng) Habit & habitat: A stout herb, roots fibrous; stem 1-3 ft. in length, marked with cicatrices of fallen leaves, 4-5 inches in circumference; the height of the whole plant is about 3-6 ft. Leaves petioled, narrow cordate, peltate, acutepointed; lobes angular, margins a little waved, smooth, shining. Petioles sheathing at the base, the rest round, smooth, tapering. The lower portion of the spathe is permanent, green, ovate, fleshy and closely enveloping the germs; the upper portion expands into an oblong, pale green vault, crowned with a subulate pint, deciduous. Spadix clavate, shorter than the spathe, sub-cylindric, with nectaries.

Grows on partially shady places, on slopes of foot hills of moist areas.

Flower: Rainy season.

Uses: Petioles and tubers are eaten cooked with much acidic fruit like "Thekera" or tamarind; not of frequent use.

#### 339. Alocasia indica (Lour.) Koch.

Giant alocasia

Vern: Man kachu (As. & Beng.)

Habit & habitat: An erect, cormous herb; roots with numerous suckers ended in little edible bulbs particularly near the surface of soil. Lower part of the stem has

numerous fleshy fibres. Stem is round, 1-2 ft. in circumference, various in length, usually more than a foot. Leaves with erect long petioles, cordate, bifid at the base, with the lobes rounded, apex also round with a bent down dagger shaped point, margin waved. Lower part of the petiole sheathing, uper round, tapering. Flowers in pairs, axillary, large with a little smell; bracts large. Spathes linear, sub-cylindric before open, greenish-yellow, 8-12 inches long. Spadix cylindric, almost equal in length with the spathe, pale yelow.

It is commonly found as wild but also cultivated. Uses: Tubers, rhizome and shoots are eaten cooked by many comunities with acidic fruits. It can also be preserved by slicing and drying.

## 340. Alocasia odora (Roxb.) Koch.

Vern.: Dahi Kochu / Dudh Kochu (As., Beng.) Habit & habitat: A stout herb with spreading roots covered with long fleshy fibers without bulbs. Stem simple, straight, as thick as a man's arm, marked with circular cicatricesof fallen leaves. Leaves cordate, base bifid, lobes rounded. Petiole 2-3 ft. long, base sheathing. Peduncles axillary. spathe erect, the lower part thick, convolute and permanent; the upper part boat shaped with a short acute apex, both sides smooth and pale green in colour, this portion drops soon after flowering time. Spadix subcylindric. The flower posses a considerable degree of fragrance. Grows in wild in humus rich moist soil:

flowers in rainy season and fruits ripen during

March-April.

*Uses:* Petioles are eaten cooked, especially with small fishes.

## 341. Amorphophallus paeoniifolius (Dennst.) Nicolson

Syn. A. campanulatus Bl.

Elephant foot

Vern: Ol kochu / Baghraj /Ol (As., Beng)

Habit & habitat: Annual soft tuberous herb. Leaves decompound, radical, only one or two, thrice-bifid; divisions outwardly pinnatisect; segments obliquely oblong, pointed, smooth, size very unequal; always longer than the interior. The whole leaf is about one to three feet long. Petioles long, round, tapering, with darker green coloured, pretty smooth, clouded as long as leaf. Flowers monoecious, sessile in spadix, attached to the ground and appear when the plant is destitute of leaves. Spathe very large, leathery, campanulate, border curled; the out side near the base pale green, middle part deepr green, margin greenish purple, bottom deep dotted purple.

It grows as wild in moist deciduous forests and also cultivated in some part of the state.

*Uses :* The whole plant or paint parts are eaten cooked as vegetable. It is considered medicinal in various disease like anaemia, constipation etc.

## 342. Colocasia esculenta (L.) Schott

Vern: Kola Kochu / Kolia Kochu (As.)

Habit & habitat:

It is a very common tuberous-rhizomatous herb

found in wild in open and damp areas. Leaves with stout petioles, sheathing below; lamina peltate, ovate, cordate. Leaf and petiole are purple coloured. Flowers monoecious; spathe yellow, on a stout axillary peduncle; spadix shorter than the spathe, male and female inflorescence with usually interposed, flat neuters. Fruit of small oblong berries.

*Uses :* Tender leaves and tubers are eaten as vegetable, specially with acidi fruit in various forms.

## 343. Homalomena aromatica (Roxb.) Schott.

Vern: Gandh Kochu / Gandhi (As.)

Habit & habitat: A stout herb with spreading roots covered with long fleshy fibers without bulbs. Stem simple, straight, smaller than *Alocasia. indica.* Leaves cordate, base bifid, lobes equal, almost rounded, lamina shining and smooth. Petiole about one foot long, base sheathing. Peduncles axillary. spathe erect, greenish. Spadix sub-cylindric. The flower posses a considerable degree of fragrance.

Grows in wild in humus rich moist soil; flowers in rainy season and fruits ripen during March- April.

Common in the forests of Northern Assam, Karbi Anglong & N.C. hills, grows well on slopes or on foot hills. It is highly aromatic.

*Uses :* Petioles are eaten cooked as vegetable. It has high demand for its aromatic character in the market.

## 344. Lasia spinosa (L.) Thaw.

Vern : Chengmora (As.) Chibru (Bodo)

Habit & habitat: A stout, spinous, aquatic or marsh herb;

root stock branched. Petiole long, prickly; leaf balde hastate, entire or pedately lobed and cut, nerves beneath prickly. Flower hermaphrodite, all fertile. Spathe long, narrow, fleshy, twisted; base convolute, deciduous. Spadix short, cylindric, dense-flowered. Perianth segments 4-6, obovate, tips incurved. Stamens 4-6, filaments short, flat. Ovary ovoid, 1-celled, ovule solitary. Fruit a cluster of six-sided, obpyramidal berries with warted or muricate tips. Comes out in damp, low laying areas.

*Uses:* Leaf petioles are eaten cooked as vegetable; flower spadix also eaten cooked as vegetable

## 345. Typhonium trilobatum (L.) Schott.

Vern: Syam kachu / Sam ghas / Sam kochu (As.) Habit & habitat: A tuberous herb. Leaves entire, 3-lobed. Petioles green, base sheathing. Tube of spathe short, convolute, with a constricted mouth, persistent; limb of the spathe broadely ovate, dark red- purple, limb deciduous; spadix exserted with a long, smooth barren appendage, appendage bright red.

Grows on grass lands after rain in April; flowers comes in June.

*Uses :* Leaf blade, petiole, tubers and spadix are eaten cooked as vegetable by Bodo and Rajbongshi people..

## Cyperaceae

## 346. Scirpus tuberosus Roxb.

Vern : Chechur (As.) Khitro (Bodo)

Habit & habitat: A seasonal grass with round turnip shaped

root tubers. Culms columnar, erect, naked, slightly twisted to the right, inwardly intercepted by slender, membranous line visible on the out side, jointed. Leaves none except a slender short sheath or two at the base of each culm. Spike terminal, solitary, cylindric, naked. Scales oblong, membranous, margined. Stamens three, style two or three cleft, seed rounded.

Common in paddy field, seasonal wet lends and grass land.

*Uses :* Root tubers are sweet and eaten fresh especially in Upper Assam, also can be cooked as vegetable with potato & chicken.

#### **Poaceae**

#### 347. Bambusa balcooa Roxb.

Vern: Bhaluka bah (As.)

Habit & habitat: A large bamboo. Leaves short petioled, sheaths broad; ligules broadly triangular, membraous. Stem -sheath broad, toothed; blade of stem-sheath 2-morphic, lower short, wide, ciliate with round top, upper short, triangular. Rarely flowers. Common in the valley in plains as well as hills, also cultivated.

*Uses :* Young offshoots are eaten after slicing, sun drying and grinding. proper processing is required because bamboo shoots contain cynoglucoside acid. Various food preparation are made like pickles, a native dish called "kharisa" etc.

#### 348. Bambusa pallida Munro

Vern: Mokal bah (As.)

Habit & habitat: A large bamboo growing in thick clump,

culms olive green in colour. Stem sheath one type, broad, straight, truncate at the top, glabrous, covered with hairs when young . Flowering occassionally, inflorescence in large branching very pale panicle, common in the valleys, also cultivated.

*Uses :* Young rhizomes are eaten as vegetable after processing.

#### 349. Bambusa tulda Roxb.

Vern: Jati bah (As.)

Habit & habitat: A tufted bamboo, lower branches leaf less, rigid. Stem- sheath covered with appressed white or brown hairs, blade of stem-sheath is triangular with cordate base. Ligules narrow, obscure. Flowering rare, if flowered it is big in leafless panicles.

A common species in Assam in plains and hily areas, also cultivated..

*Uses :* Young rhizomes are eaten as vegetable after proper processing.

## 350. Saccharum spontaneum L.

Vern : Khagori (As.) Mojora (Mishing)

Habit & habitat: A tall perennial grass with rhizomatous stock. Leaves narrow, flat. Culms erect, 1 - 2 mts height with nodes and internodes prominent. Spikelets minute, 1-flowered, disposed in large, silky-white, much and densely branched panicles, with spreading fragile branches and spikes. Spikelets in pairs, one sessile, one pedicelled; stem silky below the panicle; hairs white, longer than spikelets.

A common grass found mostly near the river bank,

river islands and also in hills.

*Uses :* Young shoots and rhizomes are eaten as sugarcane, sweet in taste.

# CRYPTOGAMS PTERIDOPHYTES

## 1. Ceratopteris thalictroides (L.) Parkeriaceae

Vern.: Pani dhekia (As.)

An aquatic fern with much dissected frond; common in stagnant water bodies. Fronds are eaten cooked by Mishings.

## 2. Diplezium asperum Bl. Woodsiaceae

Vern.: Dhekia sak (As.)

A rhizomatous fern with shining pinnae. Tender frond is circinate which is much eaten cooked by almost all communities

## 3. Diplezium esculentum (Retz. )Sw. Woodsiaceae

Vern.: Dhekia sak (As.)

A rhizomatous fern with shining pinnae. Tender frond is circinate which is much eaten cooked by almost all communities.

# 4. Helminthostachys zeylanica (L.) Hook. Ophioglossaceae

A rhizomatous fern with pinnatisect frond, rachis longer with a crown of pinnules at apex; climbing tendency is seen. Tender fronds are reddish in colour which are eaten cooked by Mishings.

## 5. Lygodium microphyllum (Cav.) R. Br. Schizaeaceae

Vern.: Lota dhekia (As.)

Kishor kosak (Mishing)

A climber with much pinnatisect leaf, young pinnae bright green which are eaten as vegetable by Mishings and also considered important ingradient in preparation of starter used in country liquor.

#### 6. Marsilea minuta L. Marsileaceae

Vern.: Pani tengesi (As.)

An aquatic or sub-aquatic creeping fern with four leaflets at the top of rachis arise from horizontal stem. Similar with *Oxalis* sp. (Tengesi/ Sangoi tenga). Spores are produced within sporocarps. Sporocarp in group of three, each pedicelled, pedicels free or slightly connate and attached to the base of the petiole.

Leaves with petioles are eaten as vegetable by many communities.

## 7. Marsilea quadrifolia L. Marseliaceae

Vern.: Pani tengesi (As.)

Same as above but here the pedicel of sporocarps are united with one another and then jointly inserted on the petiole. Leaves with petioles are eaten as vegetable by many communities.

## 8. Chrystella parasitica (L). Lev. Thelypteridaceae.

Vern.: Bihlongoni (As.)

A marshland or damp soil dweller, frond erect with a brownish and hairy appearence. It gives out peculiar smell when bruished. It is used in various folk medicine and to ward of evil spirit. Young frond and rhizomes are eaten cooked by Mishings and prepared special soup with chicken and given to the mother who has recently given birth and to the weak person after desease

## 9. Ophioglossum reticulatum L. f. Ophioglossaceae

Vern: Apatia (As.)

Bilai gangse/Lai gangse (Bodo)

A small fern like plant with fleshy simple leaf, leathery; spores are produced within terminal spikes. Commonly grows on shady partially shade places with much leaf mould, amidst grasses.

Whole plant with spike is eaten as vegetable.

## 10. Pteridium aquilinum (L.) Kuhn. Dennstaedtiaceae

Vern. - Okang oing (Mishing)

A fern with long frond, usually grows on hill slops and bamboo patches. Rhizomes of it are eaten sometimes as vegetable by Mishing people.

#### 11. Pteris ensiformis Burm.f.

Pteridaceae

A fern with frond having long segments with marginal sori. Usualy grow along hill streams and bank of rivers where shade and sandy soil are available. Young fronds are eaten as vegetable mixing with others.

## 12. Stenochlaena palustris (Burm.f.) Bedd.

Blechnaceae

Vern.: Dhekia lota (As.)

Tarong (Mishing)

A large climber with large fronds, drooping from the host plant; young fronds are reddish in colour which are eaten by Mishing people mixing with others as vegetable. \*\*\*

## REFERENCES

- Barua, I.C. (1992): *Systematic studies of the Angiosperms of Kamrup district, Assam*, Ph.D. Thesis, G. U. (unpublished).
- Barua, I.C., Baishya, A.K. & B. Neogi (1989): Contribution to the Pteridophytic flora of Kamrup district, Asam in Indian Fern Journ. 6: 160-180.
- Baruah, P. & G.C. Sarma (1984): Studies on the medicinal uses of plants by the Boro tribals of Assam-II in Journ. Econ. Tax. Bot. 5(3): 599-604.
- Bennet, S.S.R. (1987): Name changes in flowering plants of India and adjacent regions. Dehra Dun.
- Bor, N.L. (1940): Flora of Assam, vol.5. Calcutta.
- Bora, A.K. (1998): *Ethno-medico Botanical aspects of Lalung (Tiwa) tribe of Morigaon district of Assam*, Ph.D. Thesis, G.U. (unpublished).
- Borah, A. & M. Das (2000): A report on medicoethnobotanical use of Premna herbacea Roxb.

  (Verbenaceae) in Bongaigaon District, Assam in UGC Sponsored national seminar at Cotton College, Guwahati.
- Borah, A. (2003): *A handbook of Scientific and Assamese Names of Plants*. Aaranyak, Guwahati.
- Borah, A. and G.C. Sarmah (2003): Flora of Kakoijana (proposed) wildlife sanctuary in *Biodiversity of*

- Eastern Himalayan Protected Areas (ed. P.P. Boruah), Handique Girls' College, Guwahati.
- Borah, A. & Sarkar, P.P. (2005): A preliminery study on wild vegetables of Bongaigaon District of Assam presented in National seminar and 50th Annual Technical session of Assam Science Society at Gauhati University.
- Borooah, C. and S. K. Borthakur (2003): *Diversity and Distribution of Bamboos in Assam,* Dehra Dun.
- Brahma, B.K. (1992): A study on the Ethnobotany of the Bodos of Kokrajhar District, Assam. Ph.D. Thesis, G.U. (unpublished).
- Chowdhury, S. (1977): *Certain aspects of Chemotaxonomy of Amaranthaceae and Chenopodiaceae*. Ph.D. Thesis, G.U. (unpublished).
- Chowdhury, S., Borah, A., Das, P.S. and C. Borooah (1997): *Ex-situ* conservation of Rare, Threatened and Endangered medicinal plants of Assam in UGC seminar on Environment Protection and Conservation of Nature & Natural Resources of North-East India, in *Bull*. Sibsagar college, P-11.
- Chowdhury, S., Nath, A.K., Borah, A., Das, P.P. and U. Phukan (2005): *Assam's Flora (Present Status of Vascular Plants)*.

  Assam Science, Technology and Environment Council, Guwahati.
- Das, S., Dutta, P.K. & B.K. Dutta (2002): Ethnobotanical studies of Barak Valley, Assam, India in *Biodiversity of Assam and its conservation*. Dept. of Botany, Karimganj College, Karimganj.
- Dutta, A. C. (2004): Axamar Gos-Gosoni pratham khanda,

- Assam Science Society, Guwahati.
- Dutta Choudhury, M. and S. Chowdhury (2002): Ethnomedicobotanical aspects of reang tribe of Assam,
  India: part-II: new ethnobotanical claims in
  Biodiversity of Assam and its conservation. Dept.
  of Botany, Karimganj College, Karimganj.
- Forest Survey of India (2003): State of Forest report, Dehradun.
- Gait, Edward (1881): A history of Assam.
- Gogoi, A.B. (1997): Floristic composition of Tinsukia district of Assam; A systematic study. Ph.D. Thesis, G.U. (unpublished)
- Gogoi, P. (1978): A detailed study of Golaghat subdivision and its neighbouring areas. Ph.D. Thesis, G.U. (unpublished)
- Goswami, U.N. (2000): BHASA VIJNAN. Mani Manik Prakash. Guwahati.
- Handique, P.J., Medhi, K.K. Goswami, P.K., Goswami, L. & S.
- Chowdhury (1987): A preliminery study on utilization of indigenous plants of Karbi-Anglong district of Assam in *Journ. Assam Sc. Soc.* Guwahati, 29(2): 8-15.
- Hooker, J.D. (1872-1897): Flora of British India, vols. 1-7, London.
- Islam, M. (1990): The Flora of Majuli, Dehra Dun.
- Islam, M. (1991): Certain fodder plants of North-Eastern Region, India in Journ. Econ. Tax. Bot. 5(4):
- Jain, S.K. & P.K. Hajra (1975): On the botany of Manas Wildlife Sanctuary of Assam in *Bull. Bot. Surv. India*, Calcutta 17:75-86. (1978).

- Kanjilal, U.N., Kanjilal, P.C. & A. Das (1934): *Flora of Assam*, vol. I (1). Calcutta.
- Kanjilal, U.N., Kanjilal, P.C. & A. Das (1936): *Flora of Assam*, vol. I (2). Calcutta.
- Kanjilal, U.N., Kanjilal, P.C. & A. Das (1938): *Flora of Assam*, vol. 2. Calcutta.
- Kanjilal, U.N., Kanjilal, P.C., Das A. and R.N. De (1939): *Flora of Assam*, vol. 3. Calcutta.
- Kanjilal, U.N., Kanjilal, P.C. & A. Das (1940): *Flora of Assam*, vol. 4. Calcutta.
- Malakar, N.C. (1995): Aquatic angiosperms of Cachar district, Assam, Ph.D. Thesis, G.U. (unpublished).
- Nagi, K.S. and Gaud, R.D. (1994): Principal food plants of Western Himalaya, Uttar pradesh, India. *Higher Plants of Indian Subcontinent*. vol.III:233-241. Dehra Dun.
- Patiri, B. (2000): *Medicinal plants of Bodos*. All Assam Bodo Sahitya Sabha, Kokrajhar.
- Phukan, U., Bezbarua, P., Sarma, G.C. and C.K. Baruah (2003): Important medicinal plants of Manas Biosphere reserve, Assam in *Biodiversity of Eastern Himalayan Protected Areas* (ed. P.P. Boruah), Handique Girls' College, Guwahati.
- Prain, D. (1981): Bengal Plants. vols.I-II. Dehra Dun.
- Roxburgh, W. (1832): Flora Indica, vols. 1-3, (ed. W. Carey), Srerampore.
- Sarkar, S. (1993): Studies on the herbaceous plants of Karbi-Anglong District of Assam with reference to their taxonomy and economic utilization, Ph.D. Thesis, G.U. (unpublished).

I

Sarma, B.(2002): UDBHID GYANKOSH, Guwahati.

Sarma, C.K and Gupta, B.K. (1994): Note on some ethnobotanical plants of Billawar and Tehsils of Kathua district (J & K). *Higher Plants of Indian Subcontinent*. vol.III:233-241. Dehra Dun.

- Sarma, J.N. (1989): A detailed study of the Flora of Sibsagar district (At present Jorhat and Sibsagar districts) Ph.D. Thesis, G.U. (unpublished).
- Sing, L.B. and Sing, C.L. (1994): An ethnobotanical study of Deoghar district (Bihar). *Higher Plants of Indian Subcontinent*. vol.III:233-241. Dehra Dun.
- Singh, R. (1992): Studies on the dicotyledonous plants of Lakhimpur distrrict, Assam. Ph.D. Thesis, G.U.
- Usher, G. (1984): A Dictionery of plants used by man. Delhi.
- Uthaiah, B.C. (1994): Wild edible fruits of Western Ghat- a survey. *Higher Plants of Indian Subcontinent*. vol.III:233-241. Dehra Dun.
- Vasishta, P.C. (1999): *Botany (for degree students) part IV Pteridophyta*. New Delhi.
- Goswami. U. N. (2000): BHASHA VIJNAN. Mani Manik Prakash, Guwahati.
- Gait Edward (1881): A history of Assam.
- Forest Servey of India: (2003) State of Forest Report, (Deradun).

---XXX---

## Index for the Vernicular Name

	(A)	
Abori esing (M)		32
Adidiga (B)		58
Agiachita (A)		108
Akalbih (A)		129
Akla brikhsa (A)		129
Altha dimoru (A)		174
Abutenga (A)		166
Ahom bogori (A)		63
Am ada (A)		184
Am haldhi (A)		184
Am(A)		41
Amin sep (G)		178
Amol(A)		156
Amlakhi (A)		167
Amora (A)		45
Ampri arong (K)		15
Ange (M)		200
An kalok (K)		131
Anthai bajab (B)		131
Amlai lewa (B)		48
Arim (G)		136
Arjun (A)		68
Atlas (A)		4
Ata kathal (A)		4
Athia kol (A)		185
, ,	<b>(B)</b>	
Baghdhaka bon (A)		93
Bagh raj (A)		204
Bajarmoni (A)		27
Bajramoni (A)		27
Bajruli (B)		27
Bakal bih (A)		49
Bakul (A)		103
Bander kekua (A)		50
Banoria urohi (A)		54
Bangri lewa (B)		93
Banko (M)		116
Barsikhe (B)		123
Baska tita (A)		123
Bathua (A)		144
Bapou chuni (K)		178
Bata bakuri (K)		35
Bayo esing (M)		169
Bel (A)		27
Belum (M)		49
Beli poka (A)		79

 $\mathrm{I\hspace{-.1em}I}$ 

J	Ш		Ш	
Bel lota (A)	107	Bon mala (A)		126
Bejaoti esing (M)	129	Bon pitha (A)		101
Bees kachu (A)	201	Bon thereju (A)		63
Berma dari (B)	131	Bonoria ghehu (A)		149,151
Bez kachu (A)	201	Bor heloch (A)		161,163
Beerai esing (M)	158	Bor manimuni (A)		82
Bhukua chepa (A)	71	Bor Jetulipoka (A)		65
Bhotola (A)	84	Bor thekera (A)		15
	119	Bor tinekera (A) Bor tengeshi (A)		26
Bhit tita (A)		9 , ,		
Bhekuri (A)	116	Bor singori (A)		77
Bhang (A)	172	Brahma memedhu (A)		83
Bhaluka bah (A)	208	Brahmi sak (A)`		120
Bhat meteka (A)	192, 193	Buri (M)		164
Bhim thalit (B)	185	Burhi thokon (B)		186
Bhat ghila (A)	122		(C)	
Bhot bengena (A)	115	Chagol ladi (A)		29
Bhringaraj (A)	96	Chao tamol (A)		196
Bih dharak (A)	111	Cham kathal (A)		172
Bilkuli tita (A)	116	Chaul dhuwa (A)		29
Bilai gangse (B)	212	Chare magori (A)		143
Bhui amlokhi (A)	168	Chardron gan (K)		134
Bithi po kank (K)	154	Cheluka (K)		69
Bilount (N)	100	Chekong (K)		22
Bihmona (A)	87	Chetia bula (A)		34
Bit mora (A)	87	Chena thong (G)		84
Bit-bit (K)	75	Chelw an arong (K)		110
Bilimbi tenga (A)	27	Cherg mora (A)		206
9 , ,	23	9 , ,		
Bipu bun tha (K)		Chechur (A)		207
Boal (A)	103	Chibri (B)		206
Boin lewa (A)	68	Chir hesto (B)		180
Bogi jamu (A)	72	Chiming (K)		45
Bogi tenga (A)	75	Chirimpi (K)		3
Boga puroi (A)	146	Chirinso (K)		3
Boga bahak (A)	123	Chuchi am (N)		42
Bok phul (A)	52	Chutia lota (A)		148
Boga bhet (A)	6	Chomkong (M)		162
Bogori (A)	34	Chorising soh (K)		110
Bol artok (G)	110	Chutti lewa (N)		43
Bon am (A)	42		<b>(D)</b>	
Bon chuka (A)	147	Dablut sitai (B)		158
Bon chini (A)	121	Daibri (B)		17
Bon bogori (A)	35	Dampiya (K)		164
Bon jaluk (A)	87	Daukhiguti (B)		158
Bonki ripuk (M)	89,90,114	Dauphenda (B)		9
Bon kapah (A)	95	Dupar tenga (A)		66
Bong bong (K)	19	Dainijam (A)		67
Bong dor so (K)	23	Daukhi bendung (B)		90
Bongali Ahaso arong (K)	119	Dat bijal (A)		49
9 1 /	121	. ,		169,170
Bong phang rakhib (B)	121	Dalan esing (M) Dahi kachu (A)		203
Bon paleng (A)	153	· /		203
Bon suka sak (A)	133	Dudh kachu (A & Ben.)		203

	IV	V
Demshri (B)	37	Geruka tamul (A)
Denga/data (A & B)	140	Garu khuta (A) 163
Denghakhlu (B)	126	Ghimoru (A) 80
Dermi esing (M)	40,44	Ghora neem (A) 32
Deumeubai (B)	91	Girgume datke (M) 72
Deushri atheng (B)	87,88	Gobinda phal (A) 8
Devi tokon (B)	186	Godhajam $(A)$ 73
Dewa chali (A)	173	Gomari (A) 130
Deuri tita (A)	115	Gomeri (A) 130
Dhekia sak (A)	210	Gongamala (B) 8
Dhekia lota (A)	213	Gonaru (A) 139
Dhadujela (B)	164	Gonderi (A) 139
Dhemsi sak (A)	148	Gunmola (A) 126
Dettak (K)	158	Gol sago (Be.) 196
Dhapatita (A)	112	Googol bon (A) 199-200
Dhapa patia (A)	40	Gosh alu (A) 189
Dhindao bogori lota (A)	43	Gopura esing (M) 127
Dhenai chali (A)	68	Guna lota (A) 114
Dhubia khola (A)	87	Gon puloda (D)
Ding dinga (A)	112	Goru khis (A) 61-62
Doge kopak (M)	186	Gual (A) 110
Dimoru (A)	176	Gubar huta (A) 109
Dabakhari (B)	109	Gudali (M) 61-62
Dhuna chali (A)	68	Guna bendang (B)
Dhoba (A)	68	Gurban (M) 40
Dorge (M)	45	(H)
Don kolosh (Ben.)	134	Hahthengia (A)
Doron (A)	134	Halim (A) 7
Dudh kalmi (A)	112	Hechuti (A) 92
Dudh kolmou (A)	112	Han-bo-arong(K) 9
Dupar tanga (A)	66	Hadi diga (K) 58
Durong (A & B)	22	Hanther-angpher (K) 81
Droa chali (A)	68	Hanther(K) 55
` '	(E)	Hansia ban (A) 92
Elashi moigong (B)	94	Hansio biphang (B) 92
Engthum (K)	176	Halwa tendu (A) 103
Etam chali (A)	49	Handing(K) 143
· /	(F)	Han mathucho (K) 123
Finel (A)	10	Hati khutora (A)
	(G)	Harjhora (A) 36
Gaban (N)	17	Hecho (K) 115
Gabong lota (A)	180	Heloch (A) 162
Gajai lota (A)	48	Helchi (A) 94
Gakhiroti bon (A)	166	Helonchi (A) 94
Gandhi (A)	205	$Heko \ keko \ (A)$ 39
Gand kachu (A)	205	Hengna poka (A) 29
Garla bithra (B)	195	Hengunia (A) 40
Gandharaj (A)	87	Hed vekuli (A) 5
Gandha phaji (B)	87	Hikotimah (A) 53
Garo deo sal (B)	49	Hiru alu (K) 49
Gedra phul (A)	107	Holpholi (A) 167

VI

	VI			VII
Hong ding (K)		43	Kamranga (A&B)	26
Hom humali (A)		165	Kamtal urahi (A)	44
Hasti karna lota (Be)		192	Kalbun(K)	93
Hukta pata (A)		24	Kanchan (A)	56
Huhuni Sak (A)		96	Kang (K)	64
Timum Sun (11)	<i>(I)</i>	, ,	Kath lichu (A)	38
Indrani (A)	(2)	148	Kath thengia (A)	38
Indranil (A)		109	Kathal boula (A)	67
Ikhlabir (B)		129	Kathia jam (A)	71
		160	Kama jam (A) Kansisa (A)	134
Ingsum arong (k)				141
Inku (K)		56	Kata khutura (A)	
Insum aring (K)	(*)	64	Katia heloch (A)	163
	(J)	121	Kath alu (A)	188-190
Japang esing (M)		121	Kau thekera (A)	13
Jabshri (B)		11	Kauri kanta (A)	60
Ja-kharia (A)		121	Kauwa tuli (Be)	79
Jalphai (A)		25	Kauri lota (A)	126
Jam esing (M)		70	Kar phul (A)	183
Jam lakhuti (A)		186	Kardoi (A)	26
Jaiong (Kh)		147	Kedi (M)	91
Jonari lewa (A)		68	Kaphur gach (A)	92
Jankta (A)		68	Kehraj (A)	94
Jangmi (K)		70	Kendu (A)	104-105
Jangli memedhu (A)		83	Kenjet (K)	107
Jangali indrayan (A)		80	Kenia (An.Na)	136
Jao gon (K)		124	Kerma (D)	170
Jathi suleng (A)		152	Keteki phul (A)	198
Jathi patia (A)		152	Keya kathal (A)	198
Jaratenga (A)		28	Kisianthor (K)	37
Jayantiphul (A)		53	Kiskuri (A)	179
Jarmani bon (A)		93	Khaita alu (A)	187
Jasim bola (B)		110	Khemarkhu (D)	91-209
Jatak mashi (A)		111	Khet papra (A & Ben.)	82
Jeging reibe (M)		1	Khawashang (B)	111
Jeheru poka (A)		66	Kharoi khandai (B)	122
Jomagri danok soh (K)		69	Khanpati Dimoru (A)	177
Jiglaori (B)		111	Kishor kasak (M)	211
Jilmil (A)		144-145	Khera daphni (B)	132
		195	Khera aaphni (B) Khempasi (D)	163
Jeng bet (A)		193	1 1 /	61
Jati bet (A)			Kharial (A)	
Jati bah (A)		209	Khamoti chali (A)	44
Jeing (M)		190	Khormang (B)	55
Jonaki phul (A)		192	Khundamora (B)	56
Jomken esing (M)	(77)	152	Khunthai goukha (B)	108
<b>77 1</b> (4)	<i>(K)</i>		Khungathai phang (B)	118-119
Kachura (A)		184	Karenja (As. & Be.)	119
Kadam (A)		86	Khutura sak (A)	106
Kakur (A)		80	Khuduna (A)	139-142
Kakua lota (A)		126	Khokora (A)	142
Kalia kachu (A)		205	Kholdoi	163
Kala jamu (A)		70	Khongal Dimoru (A)	163

VIII			IX	
Khoksha Dimoru (B)	163	Lata bel (A)		

Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)		A TIT			17.1	
Riso campo (M)	Khoksha Dimoru (B)		163	Lata bel (A)		78
Kiso Radog (M)	Khanpati Dimoru (A)		175			48
Kon kelo (K) Kolmu (M)  Kolmu (M)  Kolmu (M)  Kolthon (A)  Kon a unit (M)  K				Lasuk salia (M)		173
Kolman (M)						180
Korlam (B)	. /			` /		184
Rolling (4)	1 1					164
Rollman (A)	• /					86
Kochi (A)   112						149
Kono oin Kulo	' /			` /		117
Kokhu lakuk (A)				. ,		165
Rona simulu (A)	1 /			1 /		174
Rochu (4)	. ,			1 1 /		118
Kalto (d) Khitro (B)  Konsuri (K)  201  Machpare (A)  Korsuri (K)  201  Machpare (A)  Kotre (A)  Kotre (A)  10  Macha (B)  Kotora (A)  11  Mathit bander dima (A)  Kotora (A)  13  Maiki bander dima (A)  Kotora (A)  Kotora (A)  So Maiki (A)  Kotora	1 /			• • • • • • • • • • • • • • • • • • • •		128
Khiro (B)				Lokana orphung (b)	(M)	120
Kronsurt (K)	the state of the s			Machana (4)	(M)	100
Kuji thekera (A)       207       Madhus uleng (A)         Kotra (A)       10       Mahue (B)         Kotora (A)       13       Maiki bander dima (A)         Koth bel (A)       55       Maikin phagla (A)         Kring (K)       56       Maifin         Kotora (A)       74       Mako sopa (B)         Kotota (A)       89       Malbhog khutora (A)         Kolia lota (A)       89       Malbhog khutora (A)         Kurol (A)       114       Mamoi (B)         Kurak (M)       171       Mamoi (B)         Kurak (M)       74       Manipair (A)         Kurak (M)       74       Manipair (A)         Kumi (B)       74       Manipair (A)         Kunja lata (A)       74       Mandmair (A)         Kunja la	1 /			1 ' '		
Notro (A)	1 /					132
Kotra (4) Koth bel (4) Koth bel (4) Koth bel (4) Koth bel (5) Kring (K) So 6 Maikit plagla (4) Kotkora (4) T4 Makot sopa (B) Kolia lota (4) Kurak (M) I14 Mamoi loti (4) Kurak (M) I171 Mamoi (B) Kumbhi (4) Koring (K) T1 Mambi (4) Koring (K) T1 Mambi (4) Mahipuri urohi (4) Kumkumari (4) Kumi (B) Kundi ata (5) Kundi ata (6) Kundi ata (7) Man kora (4) Kumi (8) Kundi ata (8) Kundi ata (9) Kundi ata (1) Kumbhi (4) Kumarika (A)  Kumarika (A)  Lai jabori (A) Lui jabori (B) Lui jabori				9 ( )		150
Koth bel (A) Kring (K) Kring (K) Kotkora (A) 78 Makhin (B) Kotra (A) Kotra (A) Kotla lota (A) Kotla lota (A) Khoja (K) Kotla lota (A) Khoja (K) Kural (A) Khoja (K) Hoja (Kurak (M) Kurak (M) Kumari (A) Kurak (M) Kumari (A) Kurak (M) Kura	1 /			1 /		102
Kring (K) Kotkora (A) Kotkora (A) Kotkora (A) Kotkora (A) Kota (B) Kurol (A) Kurak (M) I114 Mamoi loti (A) Kurak (M) Mamoi (B) Kurol (A) Kumbin (A) Kumbin (A) Koring (K) For (A) Koring (K) For (A) Koring (K) For (A) Koring (K) For (A) Koring (B) For (A) Koring (C) Kumbin (A) Koring (C) Kumbin (A) Kunda lata (A) Kunda lata (A) Kunda lata (A) Kunda lata (A) Kunda sak (Ben.) For (A) Kumbin (A) Kumbin (A) Kumbin (A) Kumbin (A) Kumbin (A) Kumarika (A)  Lai jabori (A) Lai jab	1 /			· · · · · · · · · · · · · · · · · · ·		39
Kotra (4) Kora (A) Kora (B) Kora (A) Kora (C) Ko				1 0 17		81
Koria (A) Kolia lota (A) Kuro (A)  Kuro (A)  Kuro (A)  Kuro (A)  Kuro (M)  I14  Mamoi loti (A)  Kumbhi (A)  Kumbhi (A)  Koring (K)  Koring (K)  Koring (K)  Koring (K)  Kumi (B)  Kulra sak (Ben.)  Kudra sak (Ben.)  Kudra sak (Ben.)  Kumohi (A)  Kumsai (D)  Kumohi (A)  Kumarika (A)  Kumarika (A)  Kumarika (A)  Lai jabori (B)  Lai jabori (A)  Matikhutora (A)  M	9 1 /					146
Kolia İota (A) 89 Malbhog khutora (A) Khojo (K) 109 Maisundri (B) Kurol (A) 114 Mamoi Ioti (A) Kurak (M) 171 Mamoi (B) Kumbhi (A) 57 Makoi Iota (A) Kumkumari (A) 71 Man İyial (A) Koring (K) 74 Manipuri urohi (A) Khum (B) 74 Mandhania (A) Kunja Iata (A) 74 Mandhania (A) Kunja Iata (A) 74 Mandhania (A) Kunja Iata (A) 74 Man kachu (A) Kumarika (Ben.) 74 Man kachu (A) Kumarika (A) 113 Mati kotora (A) Kumarika (A) 164 Markong abang (M) Kumarika (A) (L) 11 Mati Jaberiu (A) Lai Jabori (A) 11 Mati Jaberiu (A) Lai Jabori (A) 11 Mati Jaberiu (A) Laije (B) 137 Mati Khutora (A) Laigangse (B) 137 Mati Khutora (A) Laigangse (B) 137 Mati Khutora (A) Laleng chali (A) 48 Markong (K) Labang garai (A) 71 Masundari (M) Lali dimabo (A) 76 Mati amlokhi (A) Laleng tenga (A) 107 Megong aphal (G) Lalong (D) 107 Mekuri ghila (A) Lagachu take (M) 131 Mesor (A)				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		5
Khojo (K) 109 Maisundri (B) Kurol (A) 114 Mamoi loti (A) Kurak (M) 171 Mamoi (B) Kumbhi (A) 57 Makoi lota (A) Kum kumari (A) 71 Mamoi jul (A) Koring (K) 74 Manipuri urohi (A) Khum (B) 74 Mandhania (A) Kunja lata (A) 74 Mandhania (A) Kunja lata (A) 74 Mandhania (A) Kunsai (D) 113 Mati kotora (A) Kumsai (D) 113 Mati kotora (A) Kumohi (A) 140 Mati thekera (A) Kumarika (A) 164 Markong abang (M)  Lai jabori (A) 11 Matiajam (A) Laijabori (B) 137 Mati khutora (A) Laijagngse (B) 137 Mati khutora (A) Laigangse (B) 138 Mari (A) Lail dimabo (A) 148 Marchang (K) Labang garai (A) 171 Masundari (M) Lail dimabo (A) 76 Masundari (M) Lail dimabo (A) 76 Masundari (M) Lail dimabo (A) 107 Megong aphal (G) Lali (K) 166 Men meni (A) Lagachu take (M) 131 Mesor (A)	* /			± 1, 7		54
Kurol (A)       114       Mamoi (Dit (A)         Kurak (M)       171       Mamoi (B)         Kumbhi (A)       57       Makoi lota (A)         Kum kumari (A)       71       Man bijal (A)         Koring (K)       74       Manipuri urohi (A)         Khum (B)       74       Mandhania (A)         Kunja lata (A)       74       Mande mojoong (B)         Kudra sak (Ben.)       74       Man kachu (A)         Kumbi (D)       113       Mati kotora (A)         Kumbhi (A)       140       Mati thekera (A)         Kumarika (A)       164       Markong abang (M)         Lai jabori (A)       11       Mati phesua (M)         Lai jabori (B)       40       Matikaduri (A)         Laije (B)       137       Mati khutora (A)         Laigangse (B)       137       Mati khutora (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Laleng tenga (A)       71       Masundari (M)         Lali (dimabo (A)       48       Marchang (K)         Lali (mabo (A)       48       Marchang (K)         Lali (mabo (A)       48       Marchang (K)         La	, ,			ě v		12
Kurak M   171	Khojo (K)			Maisundri (B)		155
Kumbhi (A)       57       Makoi lota (A)         Ku kumari (A)       71       Man bijal (A)         Koring (K)       74       Manipuri urohi (A)         Khum (B)       74       Mandhania (A)         Kunja lata (A)       74       Mande moigong (B)         Kudra sak (Ben.)       74       Man kachu (A)         Khumsai (D)       113       Mati kotora (A)         Kumbhi (A)       140       Mati hekera (A)         Kumrika (A)       164       Markong abang (M)         Lai jabori (A)       11       Mati phesua (M)         Lai jabori (B)       40       Matikaduri (A)         Laigangse (B)       137       Mati khutora (A)         Laigangse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Megong aphal (G)         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)	Kurol (A)			Mamoi loti (A)		1
Kum kumari (A)       71       Man bijal (A)         Koring (K)       74       Manipuri urohi (A)         Khum (B)       74       Mandhania (A)         Kunja lata (A)       74       Mande moigong (B)         Kudra sak (Ben.)       74       Man kachu (A)         Khumsai (D)       113       Mati kotora (A)         Kumbhi (A)       140       Mati kotora (A)         Kumrika (A)       164       Markong abang (M)         Lai jabori (A)       11       Mati phesua (M)         Laidabri (B)       40       Matikaduri (A)         Laige (B)       137       Mati khutora (A)         Laigengse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati andokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)	Kurak (M)		171	Mamoi (B)		40
Koring (K)   74	Kumbhi (A)			Makoi lota (A)		47
Khum (B)       74       Mandhania (A)         Kunja lata (A)       74       Mande moigong (B)         Kudra sak (Ben.)       74       Man kachu (A)         Khumsai (D)       113       Mati kotora (A)         Kumbhi (A)       140       Mati hekera (A)         Kumarika (A)       164       Markong abang (M)         Kumarika (A)       11       Mati phesua (M)         Lai jabori (A)       11       Matinajam (A)         Laije (B)       137       Mati khutora (A)         Laigangse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)	Kum kumari (A)			Man bijal (A)		23
Kunja lata (A)       74       Mande moigong (B)         Kudra sak (Ben.)       74       Man kachu (A)         Khumsai (D)       113       Mati kotora (A)         Kumbhi (A)       140       Mati thekera (A)         Kumarika (A)       164       Markong abang (M)         Kumarika (A)       11       Mati phesua (M)         Lai jabori (A)       11       Matiajam (A)         Laije (B)       137       Mati khutora (A)         Laigangse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lali (K)       166       Men meni (A)         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)	Koring (K)		74	Manipuri urohi (A)		66
Kunja lata (A)       74       Mande moigong (B)         Kudra sak (Ben.)       74       Man kachu (A)         Khumsai (D)       113       Mati kotora (A)         Kumbhi (A)       140       Mati thekera (A)         Kumarika (A)       164       Markong abang (M)         Kumarika (A)       11       Mati phesua (M)         Lai jabori (A)       11       Matiajam (A)         Laije (B)       137       Mati khutora (A)         Laigangse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lali (K)       166       Men meni (A)         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)	Khum (B)		74	Mandhania (A)		83
Kudra sak (Ben.)       74       Man kachu (A)         Khumsai (D)       113       Mati kotora (A)         Kumbhi (A)       140       Mati thekera (A)         Kumarika (A)       164       Markong abang (M)         (L)         Lai jabori (A)       11       Mati ajam (A)         Laidabri (B)       40       Matikaduri (A)         Laigangse (B)       137       Mati khutora (A)         Lalegn chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)       1         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)	Kunja lata (A)		74			112
Khumsai (D)       113       Mati kotora (A)         Kumbhi (A)       140       Mati thekera (A)         Kumarika (A)       164       Markong abang (M)         (L)         Lai jabori (A)       11       Mati phesua (M)         Laidabri (B)       40       Matikaduri (A)         Laije (B)       137       Mati khutora (A)         Laigangse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)	Kudra sak (Ben.)		74	Man kachu (A)		201
Kumbhi (A)       140       Mati thekera (A)         Kumarika (A)       164       Markong abang (M)         (L)       Mati phesua (M)         Lai jabori (A)       11       Matiajam (A)         Laidabri (B)       40       Matikaduri (A)         Laije (B)       137       Mati khutora (A)         Laigangse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)       I         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)						54
Kumarika (A)       164       Markong abang (M)         Lai jabori (A)       11       Matiajam (A)         Laidabri (B)       40       Matikaduri (A)         Laije (B)       137       Mati khutora (A)         Laigangse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)       I         Lali (K)       166       Men meni (A)       I         Lagachu take (M)       131       Mesor (A)	1 /			1 /		67
(L)       Mati phesua (M)         Lai jabori (A)       11       Matiajam (A)         Laidabri (B)       40       Matikaduri (A)         Laije (B)       137       Mati khutora (A)         Laigangse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)       1         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)				1 /		108
Lai jabori (A) Laidabri (B) Laije (B) Laije (B) Laigangse (B) Laleng chali (A) Labang garai (A) Labang garai (A) Lali dimabo (A) Laleng tenga (A) Laleng tenga (A) Laleng tenga (A) Lalong (D) Lali (K) Lagachu take (M)  11  Matikaduri (A)  Mati khutora (A)  Marchang (K)  Marchang (K)  Masundari (M)  Masundari (M)  Megong aphal (G)  Mekuri ghila (A)  Mesor (A)		<i>(L)</i>		0 0 1		132
Laidabri (B)       40       Matikaduri (A)         Laije (B)       137       Mati khutora (A)         Laigangse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)       1         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)	Lai jahori (A)	(-)	11	• • • • • • • • • • • • • • • • • • • •		132
Laije (B)       137       Mati khutora (A)         Laigangse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)       1         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)	, ,					139
Laigangse (B)       212       Marli (A)         Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)       1         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)						140
Laleng chali (A)       48       Marchang (K)         Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)       1         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)						38
Labang garai (A)       71       Masundari (M)         Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)       1         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)				. ,		96
Lali dimabo (A)       76       Mati amlokhi (A)         Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)       1         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)	9 , ,			9 1 7		165
Laleng tenga (A)       107       Megong aphal (G)         Lalong (D)       107       Mekuri ghila (A)       1         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)				, ,		54
Lalong (D)       107       Mekuri ghila (A)       1         Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)				* *		66
Lali (K)       166       Men meni (A)         Lagachu take (M)       131       Mesor (A)				0 0 1		139-143
Lagachu take (M)  131  Mesor (A)						139-143
	1 /			· ·		
I = I = I + I + I + I + I + I + I + I +				· ·		48
Lapha saikho (B)  160  Mermeri lota (A)  Marta tanan (A, B, B, n)	1 ' /			` /		18
Laru budha (A)  Mesta tenga (A & Ben.)	* *			9 1		143
Lasor (M) 142 Methak thuka (A)	Lasor (M)		142	Methak thuka (A)		171

X

Λ			$\Lambda$ l	
Mesaki (A)	78	Nepali gorukhis (A)		62
Mesaki jola phong (B)	171	Neoli (B)		13
Mewa (A)	30	Nigoni boal lota (A)		111
Midiltakkir (M)	43	Nikori (A)		5
Mijing okun esing (M)	156	Nishinda (BeN.)		133
Mikhon tenga (A)	158	Nipang lulang esing M)		86
Midouma biphang (A)	158	Nitak (M)		40
Mirika tenga (A)	136	Noga lichu (A)		38
Mirne kotung (M)	71	Noga jhejheru (A)		66
Mirte phong (K)	59	Nong nonga (K)		126
Mir kre (A)	31	Noga tenga (A)		181
Mirgoch (A)	38	Notko (Rajbagnshi) (K)		164
Minong omak (G)	21	Nonther arong (K)		17
Mitha amora (A)	44	Noga gola bet (A)		195
Mir arong (K)	91	Nginti ali (M)		187
Mitha alu (A)	113	Nuni (A)		179
Mokua (A)	6	Nuneheru arong (K)		108
Moha neem (A)	32	Trunenera arong (K)	<i>(0)</i>	100
Moira thik (B)	95	Oasibu (K)	(0)	90
	121	· /		123
Modhumehari (A)		Obul oing (M)		
Mogang sudi (D)	124	Obhat kata (A)		138
Moa alu (A)	189	Ogen (M)		95
Mojora (M)	209	Ogora (A)		97
Mon dimori (A)	174	Oko-oing (M)		118
Mou silikha (A)	165	Ol kachu (A)		204
Mosondari (A)	155	Okang oing (M)		212
Mou silikha (A)	147	Onger (M)		30-31
Moisonkha (B)	147	Onno ligbo reibe (M)		143
Monbir (A)	143	Oupat (A)		33
Moricha sak (A)	140	Okshi (A)		3
Morolia (A)	11	Ou tenga (A)		2
Mumai tamul (A)	197		(P)	
(N)		Pachala rong (A)		98
Nag champa (A)	1	Pachatia (A)		133
Nagorbera (A)	93	Padum (A)		7
Nagphana (A)	1	Paduri lata (A)		89
Nagasul (A)	19	Pabhoi tenga (B)		107
Nagphona (A)	21	Pahari udal (A)		19
Nak sepeta (A)	20	Pahari paleng (A&Ban)		144
Naga tenga (A)	43	Pakhi bendung (B)		89-90
Nal tenga (A)	37	Pakhona Kola (D)		156
Napak ban (K)	122	Paji (D)		170
Nangal bhanga (A)	129	Panchamukhi Kachu (M)		201
Naga machala (A)	136	Pani heloch (A)		161
Nashrai khoro (B)	167	Pand Kachua (D)		156
Nathar (M)	91	Panijaluk (A)		152
Nara bogori (A)	64	Panikola (A)		108-182
Neem tita (K)	32	Pani tengeshi (A)		211
Nekung (M)	37	Pani dhekia (A)		211
Nekhon tenga (A)	160	Paniphal (A)		77
	128			51-52
Nephaphu (A & M)	120	Pani alu (A)		31-32

XII

	XII	XII	$\mathbf{I}$
Pani pachala (A)	17	Raspatia (A)	125
Panilewa (A)	3	Ring kang (A)	111
Panchkol (A)	2	Ranga bhet (K)	6
Pani jamu (A)	73	Rohdoi (A)	27
Parbatia sengunia (A)	16	Ronga kanchan (A)	55
Parbatia hengunia (A)	74	Ronga banak (A)	124
Paro nanther (K)	97	Rong moricha (A)	141
Pasotia (A)	133	Ronga puisak (A)	146
Pata goja (A)	99	Ronga puroi sak (A)	146
Patang esing (M)	71	Rupahi thekera (A)	000
Phaglanjan (K)	40	(S)	
Pheng put (K)	163	Sabina rinkang (K)	49
Pheng gait arong (K)	166	Sagal laderi (A)	165
Phaleng hethon (K)	129	Sagla papio (M)	2
Pharkong (K)	16	Sajina (A)	16
Phuhura (A)	23	Sariaj (A)	139
Phoko (A)	40	Sampa (M)	2
Phong (K)	173	Sampa (M) Sam siphra (G)	125
Phang (K)	130	Sam siphra (G) Samphere (B)	163
Phukri (B)	48	Satmul (A)	190
. ,	75	1 /	
Phutuka (A)	75	Sargik esing (M)	22 6
Phutukola (A)	13	Seluk (A)	
Pinke esing (M)		Sen gunia	46
Pichas bon (A)	137 154	Sesu (A)	100
Pipoli (A)		Sephali (Ben.)	105
Pojar (A)	110	Sewali (A)	162
Pokomou (A)	115	Senkong esing (M)	19
Poimuri tenga (A)	99	Simla (M)	19
Pohu udal (A)	20	Simalu (B)	57
Ponial (A)	10	Sia sonaru (A)	69
Porounuwa (A)	153	Silikha (A)	100
Ponlokhi (A)	167	Sirikh (A)	109
Pora amlokhi (A)	167	Sumung esing (B)	110
Posutian (A)	108	Sishu payang (M)	19
Prangso (A)	13	Singi(M)	4
Phrapso (D)	175	Sitaphal (M)	15
Pumi aye (M)	23-129	Sochopa tenga (A)	100
Purnanwa (A)	137	Sinkhi (A)	102
Purui sak (A)	146	Sophedi (B)	12
Puli kait (A)	178	Sopeta (A)	158
	(R)	Solengi arikong (A)	117
Raidang bet (A)	194	Sonsore (K)	192
Raghumola (A)	157	Soima jaseb (A)	160
Raghu (A)	86	Sorot goch (B)	165
Ramkol (A)	186	Sepan (A)	25
Ram banak (A)	124	Soru tengeshi (B)	36
Ram tulasi (A)	135	Soru harjhora (A)	12
Ranggoli lota (A)	143	Sonaphuli (A)	56
Ramgoa (A)	137	Sonaru (B)	56
Rapi esing (Be.)	157	Sonalu (A)	77
Rata gagan (M)	13	Soru smguri (A)	58

XIV

	XIV			XV	
Soru medeluwa (A)		196	Thaidi bu (D)		97
Sowai goch (A)		160	Thaibon biphang (M)		101
Soru heloch (A)		18/0	Thakkir (B)		165
Sherphang $(B)$		180	Tharso (D)		165
Shoura (A)		180	Thaijilit (D)		165
Seora (A)		137	Thaibor (B)		174
Suklati (A)		110	Tharai (B)		183
Susang esing (M)		100	Thaso (A)		200
Susi parama (A)		100	Theboe lota (K)		81
± ' ' '		1054	Thebie (K)		165
Siumung esing (M)	(T)	1034	1 /		103
T. 1:	(T)	1.5	Thebu (K)		
Tabing esing (M)		15	Theng koreng (K)		25
Tadi ripum (M)		36	Theng lokso (K)		29
Tajik (M)		175-177	Then husko (K)		20
Takpi (M)		176	Thenuk (K)		61
Takuk esing (M)		178	Thengpi chorleng (K)		98
Taikhro (B)		178	Theng chek te (K)		169
Takemare (M)		135	Thepa (A)		47
Taktir (M)		147	Thereju tenga (A)		61
Tamsir (K)		163	Thesali (K)		44
Tanting (A)		39	Thow thowa (A)		401
Tapo tapi reibe (M)		60	Thoura gutr (A)		23
Target ruibe (M)		33	Thusura (K)		23
Tarmepi (K)		170	Theng khu (B)		75
Tareng (A)		183	Thing beng (K)		160
Tarong (A)		213	Thing being (K)  Thing merok (K)		162
Tasing moni (A)		100	Tokra (A)		38
. ,		81	* *		86
Tatar ruibe (A)			Togor (A)		
Takum esing (A)		178	Toguha (A)		122
Telchupi (B)		1	Tokma tita (A)		134
Tel kocha (Ben.)		79	Tokou (A)		197
Tajpat (A)		157	Tora alu (A)		1897
Tangamora (A)		18	Tora (A)		183
Tenganank (K)		31	Tultha poka (A)		29
Tenga kotorta (A)		55	Tuma hanthar (K)		28
Tendupat (A)		103	Topou guti (A)		81
Tengabor (A)		175	Tota chali (A)		68
Tepor tenga (A)		16	Turnarsa (D)		114
Tegonog (M)		38		(U)	
Teteli (A)		59	Uadal (A & B)	, ,	22
Til lou (B)		81	Ulucha (A & M)		50
Tit bhekuri (A)		115	Ultihot (A)		138
Tita phul (A)		125	Urahi alu (A)		51
Tita bahak (A)		124	Urium (A)		167
Tikoni borual (A)		192	Ushumoi (B)		96
Thaijimura (B)		1	Usupi ron (K)		91
Thaigir (B) Thaigir (B)		2	Utpal (A)		5
9 , ,		14	Oipai (A)	(V)	3
Thaika (K)			Vauna agin - (M)	<i>(Y)</i>	120
Thakri (B)		34	Yarpo esing (M)		128
Thaikhrok (K)		39	Yonchak (manipuri)		61
Tharbi (D)		41	Yorit (M)		191-192

## XVI

#### Abbreviation used

4	=	Assamese Nam
В	=	Bodo
D	=	Dimasha
K	=	Karbi
G	=	Garo
M	=	Mishing
Ben.	=	Bengali
R	=	Rabha
KH	=	Khasi
Iajbongshi	=	Jajbongshi
Manipuri	=	Manipuri

## XVII

## **INDEX FOR BOTANICAL NAME**

A

Acanthaceae	94
Achasma loroglossum	141
Achyranthus aspera	106
Adhatoda vasica	94
Aegle mermelose	21
Alternanthera philoxeroides	106
A. sessilis	107
Alocasia acuminata	154
A. cucullata	154
A.fomicata	155
A. indica	155
A. odora	156
Alpinia nigra	141
A. allughas	141
Amaranthaceae	106
Amaranthus blitum	107
A. hybridus	107
A. caudatus	107
A. polygonoides	108
A. spinosus	108
A.tricolor	109
A.viridis	109
Amorphophallus paeoniifolius	157
A. campaulatus	157
Anacardiaceae	3
Annonaceae	3
Annona squamosa	3
Anthocephalus chinensis	66
A. cadamba	66
Antidesma acidum	123
A. diandrum	123
A.acuminatum	124
A. bunius	124
A.ghaesembilla	124
A. khasiana	125
Aphania rubra	30
Apiaceae	64
Apocynaceae	82
Aporusa octandra	125
A. roxburghii	125
Araliaceae	65
Ardisia polycephala	75
A. thrysifolia	75
A.floribunda	75
Argyreia nervosa	85
A speciosa	8.5

XVIII

Arecaceae	850	Canavalia cathartica	30
Atriplex hortensis L.	110	C. ensiformis	36
Araceae		Cannabaceae	132
Artocarpus chama	133	Cannabis sativa	132
A.chaplasha	133	Capparaceae	6
A.locucha	133	Capparis zeylanica	6
A.lokoocha	133	Carallia brachiata	52
Asteraceae	70	C. lucida	5.2
Averrhoaceae	20	Careya arborea	5 7
Averrhoa carambula	20	Carissa carandus	82
A.bilimbii	20	Caryota urens	151
Azadiracta indica	24	Caryophyllaceae	8
		Casearia glomerata	7
В		C. esculenta	7
Baccaurea remiflora	126	Cassia fistula	44
B. sapida	126	C. siamea	44
Bacopa monneri	82	C. tora	45
Bambusa balcooa	166	Celosia argentia	109
B. pallida	161	Centella asiatica	64
B. tulda	161	Centipeda minima	7.1
Basella alba	112	Ceratopteris thalictroides	162
B. rubra	112	Cephalandra indica	162
Bauhinia acuminata	42	*	110
	42	Chenopodiaceae Chenopodium album	111
B. malabarica			111
B. variegata	43	Chenopodium ambrosiodes	
Bedem pilosa	63	Chinnamomum tamala	121
Begoniaceae	63	Chrysophyllum lanceolatum	77
Begonia picta	23	Chromolaena odorata	71
Burseraceae	23	Citrus medica	21
Bursera serrata	23	Cissus quadrangular	27
Bignoniaceae	94	C. repens	27
Bischofia javanica	94	Clerodendrum colebrookianum	98
Blechnaceae	94	C. indicum	99
Blumea balsamifera	70	C. siphonanthus	99
Boerhavia diffusa	105	C. serratum	99
Bombacaceae	14	Clusiaceae	10
Bombax ceiba	146	Coccinia grandis	61
Brassicaceae	146	C. cordifolia	61
Bridelia stipularis	127	Colocasia esculenta	158
Bryphyllum pinnatum	127	Combretaceae	52
Buddleiaceae	83	Combretum decumdrum	52
Buddleia asiatica	83	Commelinaceae	149
C		Commelina benghalensis	149
Caesalpiniaceae	42	Conocephalus suaveolens	138
Calamus erectus	150	Connaraceae	36
C. flagellum	150	Convolvulaceae	83
C. tenuis	150	Cordia dichotoma	84
Callicarpa arborea	98	Costaceae	144
Callicarpa rubella Lindle	98	Costus speciosus	144
C. rubella	98	Crassulaceae	5 1
C. vestita	98	Cryptograms	162

XX XXI Cucurbitaceae 61 E. latifolia 121 62 E. pyriformis 122 Cucumis trigonus Cucumis utilissimus 62 Elaeocarpaceae 19 137 Elaeocarpus floribundus 19 Cudrania javanensis 142 Curcuma amada Embelia nahushia 76 C. zeodoaria 142 Embelia subcoriacea 76 Cvcadaceae Enhydra fluctuans 72 Erechthites valerianaefolia 73 Cycas pectinata Cyperaceae 166 Ervcibe paniculata 86 Eryngium foetidum 64 DEupatorium odoratum 71 Dalbergia pinnata 37 Euphorbiaceae 123 D. tamarandifolia 37 Euphorbia hirta 128 37 D. rimosa Euphoria longan 29 D. stipulacea 38 Euryl ferox 29 Deeringia amaranthoides 110 Dendrocnide sinuata 131 F Dennstaedtiaceae 131 Fagopyrum cymosum 113 Derris eliptica 38 F. esculentum 113 38 134 Desmodium triquetrum Ficus auriculata 38 Ssp pseudotriquetrum F. cunia 134 Dilleniaceae 2 F. geniculata 135 Dillenia indica 2 F. hispida 135 D. pentagyna 2 F. hirta 136 D. scabrella 3 F. oligodon 136 Dioscoreaceae 145 F. pomifera 136 Dioscorea alata 145 Ficus nervosa 136 D. bulbifera 145 134 F. roxburghii D. esculenta 146 F. semicordata 137 D. pentaphylla 146 Fissistigma verucossum 4 D. sativa 146 Flacourtiaceae 8 Diospyros kaki 79 Flacourtia cataphracta 80 8 D. lancaefolia Flacourtia jangomas D. malabarica 80 Fragaria indica 48 80 D. embryopteris GDiphezium asperuinus 162 D. esculentum 162 Garcinia cowa 10 Drymaria cordata 8 G. lanceaefolia 10 Drypetes assamica 128 G. morella 11 D. velutina 130 G. penniculata 11 Debregeasia longifolia 130 G. pedunculata 12 D. salicifolia 130 G. xanthochymus 12 D. hypoleuca 130 Gardenia angusta 66 G. jasminioides 66 EG. campunalata 67 G. florida Ebenaceae 79 67 Eclipta prostrata 72 Gelonium multiflorum 67 Ehretiaceae 84 93 Gesneriaceae Ehretia acuminata 85 Glycosmis arborea 22 121 G. pentaphyla 22 Elaeagnaceae 100

Gmelina arborea

121

Elaeagnus caudata

XXII

AAII		AAIII	
Gnetaceae	1	Lepidium sativum	6
Gnetum montanum	1	Leucas plukenettii	103
Grewia elastica	17	L. aspara	103
G. sapida	18	Liliaceae	147
G. hirsuta	18	Lippia javanica	100
	18	Livistona jenkinsiana	152
G. selerophylla	10		
**		Loranthaceae	122
Н		Lygodium microphyllum	163
Hedyotis corymbosa	67		
H. diffusa	68	M	
H. scandense	68	Maclura cochinchinensis	137
Helminthostachys zeylenica	163	Mackaya neesiana	95
Hibiscus subderifa	14	Madhuca indica	78
Hodsonia macrocarpa	62	Maesa indica	76
H. heteroclita	62	M. chisia	77
Homalomena aromatica	158	Malvaceae	14
Horsfieldia amygdalina	120	Mangifera indica	31
			32
H. kingii	120	M. sylvetica	
Houttunia cordata	119	Manilkara zapota	78
Hovenia dulcis	26	Marantaceae	144
Hydrocharitaceae	140	Maranta arundinaceae	144
Hydrocotyle sibthorpioides	65	Marseleaceae	163
Hydrophyllaceae	84	Marselea minuta	163
Hydrolea zeylnica	84	Marselea quadrifolia	163
Hypericaceae	9	Medinilla erythrophylla	58
Hypericum japonicum	9	Medinilla rubicunda	58
Hyptis suaveolens	103	Melastomaceae	58
11)pius suureotens		Melastoma malabathricum	58
I		Meliaceae	24
Icacinaceae	25	Melia azedarach	24
Ipomoea alba	86	Meliosoma pinnata	30
I. aquatica	86	M. simplicifolia	31
I.bona nox	86	Memecylaceae	59
I. batatas	87	Memecylon umbellatum	59
I. quamoclit	87	M. edule	59
		Menya spinosa	68
J		Menyanthaceae	83
Justicia adhatoda	94	Merremia umbellata	88
		Mimosaceae	45
K		Mimosa inbricata	47
Kalanchoe pinnata	51	M. monosperma	47
		Mimusops elengi	79
L		Molluginaceae	63
L		Mollugo pentaphylla	63
Lamiaceae	103	Monochoria hastata	148
	131	M. viginalis	149
Laportea crenulata	131 159		
Lasia spinosa		Monocotyledons	149
Lauraceae	121	Moraceae	133
Lecythidaceae	57	Moringaceae	35
Leeaceae	29	Moringa oleifera	35
Leea macrophylla	29	Morus australis	138

XXIV

Morus alba	138	Parkia timoriana	47
Mucuna prureins	39	P. roxburghi	47
Musa Bulbisiana	142	Passifloraceae	60
M. sapientum	142	Passiflora foetida	60
M. velutina	143	Pavetia sub capitata	70
Murrya koenigii	22	Pegia nitida	33
Myricaceae	139	Peperomia pellucida	118
Myrica esculenta	139	Perilla frutescens	104
M. negi	139	P. ocimoides	104
Myristicaceae	120	Phlogocanthus curviflorus	93
Myristica kingii	120	P. thrysiformes	93
Myrtaceae	54	Phyllanthus emblica	129
Myrsinaceae	75	P. fraternus	129
		P.niruri	129
N		P. acidus	128
		Physalis minima	88
Nasturtium indicum	25	Phytolaccaceae	113
Natriatum heapeticum	25	Phytolacca acinosa	113
Nelumbonaceae	5	Pinanga gracilis	152
Nelumbo nucifera	5	Piperaceae	118
Nephalium longana	5	Piper longum	118
Nephrolepis biserrata	5	P. thomsonii	119
Nyctaginaceae	105	Plectoranthus ternifolius	105
Nyctanthes arbor-tristis	81	Poaceae	160
Nymphaeaceae	4	Pogostemon benghalensis	105
Nymphaea nouchali	4	Poikilospermum suaveolens	138
N. rubra	5	Polygonaceae	113
Nymphoides hydrophyllum	83	Polygonum auriculatum	114
y 4		P. chinensis	114
O		P. glabrum	113
Ocimum basilicum	104	P. kawagoeanum	113
Oleaceae	81	P. minus	113
Oldenlandia diffusa	81	P. microcephalum	113
Oleandraceae	81	P. orientale	110
Ophioglossaceae	164	P. perfoliatum	110
Ophioglossum reticulata	164	P. plebejum	117
Oroxylon indicum	94	P. runcinatum	117
Ottelia alismoides	140	Pontederiaceae	148
Oxalidaceae	19	Portulacaceae	9
Oxalis corniculata	19	Portulacea oleracea	ģ
O. debilis	19	Potentila nepalensis	48
o. webitis	17	P. supina	48
P		Pouzolzia viminea	131
Paederia foetida	69	Premna latifolia	101
P. scandens	69	P. herbacea	101
P. tomentosa	69	Prunus domestica	49
Pandanaceae	152	P. jenkinsii	10
Pandanus fascicularis	152	P. persica	49 50
P. tectorius	152	Pteridophytes	162
Papilionaceae	36	Pteridins aquilinum	164
Parkeriaceae	36	Pteridaceae	164
1 aincitactac	30	1 10114440646	105

XXVI

AXVI		AAVII	
Pteris ensiformes	164	Solanum indicum	89
Pureria phaseoloides	39	S. kurzii	89
P. tuberosa	40	S. khasiana	89
P. thomsonii	40	S. myriacanthum	90
Pygmaeopremna herbacea	101	S. nigrum	90
Pyrularia edulis	123	S. spirale	90
1 yr marta canto	123	S. syrate S. surattense	91
R		S. torvum	91
K		S.khasianum	92
Rhamanaceae	26	S. viarum	92
Rhus chinensis	33	S. xanthocarpum	91
R. semiculata	33		73
		Sonchus brachyotus	
R. griffithii	3.4	S. arvensis	73
Rhizophoraceae	34	Smilacaceae	147
Rhynchotechum ellipticum	93	Smilex ovalifolia	147
Roripa indica	6	S. macrophylla	147
Rosaceae	48	S. zeylenica	148
Rourea minor	36	Spilanthes paniculata	73
R. comulata	36	S. achmella	73
Roydsia suaveolens	36	Spondias axillaris	34
Rubiaceae	66	S. pinnata	35
Rubus alcerifolius	50	Stellaria media	9
R. ellipticus	50	Stenochlaena palustris	9
R. lucens	51	Sterculiaceae	15
R. moluccanus	50	Sterculia alata	15
Rumex maritimus	117	S. coccinia	15
Rutaceae	21	S. foetida	16
S		S. guttata	16
Sabiaceae	30	S. roxburghii	16
Saccharum spotaneum	161	S. versicolor	16
Sambucus hookeri	56	S. villosa	17
S. javanica	56	Stixis suaveolens	7
Santalaceae	123	Streblus asper	139
Sapindaceae	29	Strebilanthes scaber	96
Sapotaceae	77	Suregada multiflora	129
Sarcochlamys pulcherrima	132	Syzygium cumini	54
Saurauiaceae	132	S. formusum	55
		v	55
Saurauria ornata	13	S. fruticosum	
S. caryea	13	S. jamboos	56
S. panduana	13	S. kurzii	56
S. roxburghii	13	S. malaccansis	56
Scirpus tuberosus	160	S. operculatum	57
Scrophulariaceae	92	T	
Scoparia dulcis	93	Tamarindus indica	46
Schizaeaceae	93	Tapiria hirsuta	46
Sesbania grandiflora	40	Terminalia arjuna	53
Sarala. aegyptica	45	T. chebula	53
S. ashoca	45	T. citrina	54
S. indica	41	Tetrastigma lanceolarium	28
S. sesban	88	T . thomsonium	28
Solanaceae	88	Thespesia populnea	14

## XXVIII

$\Lambda\Lambda$ VIII	
Thunbergiaceae	96
Thunbergia grandiflora	96
Tiliaceae	17
Tolypantus involucratus	122
Trapaceae	59
Trapa natans	59
Var.quadrispinosa	60
Trevesia palmata	65
Typhaceae	153
Typha angustata	153
Typha elephantine	154
Typhonium trilobatum	159
U	
Uraria rufescens	41
Urticaceae	130
V	
Verbenaceae	97
Vitaceae	27
Vigna vexillata	41
Vitex nigundo	102
Vitis lanceolaria	102
V. angustifolia	102W
Willoughbeia edulis	82
Woodsiaceae	82
X	
Xanthium strumarium	7.4
Z	
Zanthoxyllum oxyphyllum	23
Z. budrunga	23
Z. rhesta	23
Ziziphus mauritiana	26
Z. rugosa	27
Zinziberaceae	141

-----XXX-----