

ETHNOBOTANY OF DADRA, NAGAR HAVELI AND DAMAN (Union Territories)



P.P. Sharma
N.P. Singh

BOTANICAL SURVEY OF INDIA
Ministry of Environment and Forests

**ETHNOBOTANY OF DADRA,
NAGAR HAVELI AND DAMAN
(Union Territories)**

Authors:

P.P. Sharma

N.P. Singh



भारतीय वनस्पति सर्वेक्षण
BOTANICAL SURVEY OF INDIA

BOTANICAL SURVEY OF INDIA
Ministry of Environment and Forests

© Govt. of India

Date of Publication : 15, August, 2001

Price :

No part of this publication can be reproduced, stored in a retrieval system, or transmitted, in any form or means by electronic, mechanical, photocopying, recording, or otherwise, without prior written permission of the Director, Botanical Survey of India.

Published by the Director, Botanical Survey of India, P-8, Brabourne Road, Calcutta-700 001; Composed and Printed at Shiva Offset Press, 14, Old Connaught Place, Dehra Dun - 248 001. Phone (0135) 655748.

PREFACE

Plants have played important role in human life. All earlier knowledge regarding plant uses was outcome of the early man's observations and experiences through trial and error. This knowledge was transferred orally from one generation to another. Their understandings and perfections in using plant resources were unique and are being preserved in tribal communities since ages. But due to intrusion of modern civilisation, the living standard of tribals is changing very fast. To assemble and record this vast knowledge ethnobotanists are making significant contributions all over the country.

The Government of India, Ministry of Environment and Forests, New Delhi has recognised the need of documenting this dwindling information, and funded an "All India Co-ordinated Research Project on Ethnobiology" the Phase-I of which was completed in early nineties. In the IInd Phase of the project, Botanical Survey of India Western Circle, Pune had taken up the ethnobotanical studies on Dadra, Nagar Haveli and Daman, areas in Western Ghats which are rich in both, floristic as well as ethnic diversity. The present book is an outcome of intensive studies carried out in the region from 1994-98.

The introductory part of the book includes all the available information on general topography, climate, vegetation and ethnic communities inhabiting the region. The enumeration part deals with ethnobotanical information on 305 species. Notes on chemical constituents, distribution, phenology and field collection numbers have been provided for each species. Reference to the uses reported earlier, has also been mentioned.

The authors wish to record their sincere thanks to Dr. S.K. Jain, FNA, former Director, Botanical Survey of India, Kolkata and presently Hon. Director, Institute of Ethnobiology, Lucknow for constant encouragement and valuable suggestions throughout the course of this work.

The author's are thankful to Dr. P.K. Hajra, ex-Director, Botanical Survey of India for facilities and the encouragements. One of us (PPS) is also grateful to the Ministry of Environment and Forests, Government of India, New Delhi for financial support.

Authors are also thankful to the authorities of Forest Department Dadra, Nagar Haveli and Daman and Tribal Sub-Plan Cell, Daman for their kind co-operation and facilities during the field work.

One of us (PPS) is also thankful to Mr. Shashidharan, Botanical Survey of India, Pune and Mr. Sanjeeva Naika, National Botanical Research Institute, Lucknow for computerisation of data and to all staff members, Botanical Survey of India, Pune who have contributed to my thesis either directly and indirectly.

Finally we thank Shri Gajendra Singh Gahlot of M/s Shiva Offset Press, Dehra Dun for quick printing of the book in present form.

P.P. SHARMA
N.P. SINGH

CONTENTS

Preface	.....	iii
INTRODUCTION	.....	1
Ethnobotany-Aims & Objectives		
General note including reasons for undertaking the present work		
Present work		
REVIEW OF LITERATURE	.....	8
TOPOGRAPHY		
Location & Boundaries	.....	11
Drainage	.....	15
Geology & Soil	.....	15
CLIMATE	.....	16
VEGETATION	.....	19
TRIBALS	.....	26
ETHNO-MUSICO-BOTANY	.....	39
METHODOLOGY	.....	50
ABBREVIATIONS	.....	54
ENUMERATION	.....	55
DISCUSSION & CONCLUSION	.....	242
REFERENCES	.....	289
INDEX TO BOTANICAL NAMES	.....	309
INDEX TO LOCAL NAMES	.....	319

INTRODUCTION

Ethnobotany deals with studies undertaken amongst the tribals and other aboriginal people for gathering their unexplored knowledge about plant wealth.

The word 'Ethnobotany' is derived from two Greek words *ethnikos/ethnos* i.e. nation and *botanikos/botane* i.e. plant. Thus the etymological meaning of the word ethnobotany is the study of plants related to nation(s). Stephan Powers (1875) seems to be the first to have used the term 'Aboriginal Botany', which included the total aboriginal dependence on plants for medicine, food, etc. Rochebrune (1879), a French botanist, used the term 'Ethnographie botanique' for plant studies from archaeological sites. However, these terms are not accepted universally. In fact, it was Harshberger (1895), who coined the term 'Ethnobotany' for the first time, for the study of plants used by primitive and aboriginal people. Subsequently, several other workers all over the world accepted and independently interpreted this term.

According to Jones (1941), "Ethnobotany is the study of inter-relationships of primitive man and plants". Carter (1950) defined "Ethnobotany as an ecological science capable of forging a link between geography, botany and ecology". Schultes (1962), states, "Ethnobotany is the study of the relationships which exist between people of a primitive society and their plant environment". Alcorn (1984) defined, "Ethnobotany as the study of contextualized plant use". Jain (1987) states it as "the total natural and traditional relationships and the interactions between man and his surrounding plant wealth". Later on, Wickens (1990) defined ethnobotany as "the study of useful plants prior to their commercial exploitation and eventual domestication".

During the above said long period, all the ethnobotanical investigations continued to aim at tapping the heritage of primitive people with a view to find out plant resources for food, medicine and other purposes.

The Indian subcontinent is inhabited by over 53 million tribals belonging to over 550 tribal groups or communities that come under 227 linguistic groups (Pushpangadan, 1994). But, the organised study of ethnobotany is relatively new and most of the work has been done during the last three decades.

Human beings have since ancient times always been largely dependent on plant resources for their basic needs like food, medicine, fibre, fodder, shelter, etc. Formerly, they were directly dependent on plants. But due to modernization and with advancement of science and technology this dependence on plants as a direct source has been slightly reduced. All the same, the tribals and other aboriginal people, who have traditionally lived in the forests, continue to remain fully dependent on plants for survival.

Living close to the nature, the tribal people have assimilated unique knowledge about plant utilization for different purposes through the course of their centuries old experience. Therefore, ethnobotanical studies of different tribal localities may lead to find new information on unexploited natural resources and new uses of existing resources as sources of medicine, food, etc. But at some places recent changes in tribal attitude due to habitat displacement, deforestation, modernization, etc. have led to decline and even disappearance of this rich knowledge system. Therefore, it is essential to gather their entire knowledge on plant use before losing it forever.

It is well known that in one or more ways man's life has always been intimately connected with the plants. There is practically no human activity in which plants do not play a role. Therefore, in widest sense, ethnobotany has a linkage with almost every other faculty of science and field of knowledge. Today ethnobotany has become an important and crucial area of research and development in medicine research, conservation of biodiversity at genetic, specific and ecosystem level and in socio-economic development of the region. In the recent past there has been a global trend towards revival of interest in the indigenous system of medicine. Even the developed countries equipped with modern allopathic medicines, have started realising the potentialities of traditional system of medicine. Furthermore, the search for new herbal drugs have been strengthened by the wide spread rejection of chemicals and the growing attraction for herbal remedies. There is an increasing awareness among the people about the use of herbal drugs, which are believed to be safe and do not produce undesirable side effects like most of the modern synthetic drugs and this awareness is one of the reasons, which created enormous worldwide demand for herbal drugs.

Presently, the importance of ethnobotanical research mainly for medicine and food is keenly felt, as it represents one of the best avenues for searching new economic plants for food and medicine. In recent years several workers became attracted in ethnobotanical studies and a lot of information about different uses of plants prevalent among the various tribes have been gathered.

The recent rediscoveries of certain remarkable uses of plants gave new life to this ancient science of ethnobotany. Several plants (e.g. cocoa, maize, rubber, etc.) used in industrialized countries today were originally identified and developed through indigenous knowledge, the chemical constituents like tranquilizers, rescinnamine and reserpine have been obtained from the roots of *Rauvolfia serpentina*-used in India for more than a thousand years in folk medicine for snake bite (Maheshwari, 1996).

A recent drug, 'Jeevani' is being produced from the plant *Trichopus zeylanicus* ssp. *travancoricus* which is having strong energy enhancing properties. The drug is seen as a rival to the South Korean root ginseng (*Panax ginseng*). Other examples where ethnomedicines have provided lead in the development of drugs used in modern system of medicine are cocaine, morphine, quinine, colchicine, atropine, ephedrine, codeine, emetin, caffeine, reserpine, vinblastin, vincristine, guggulin and taxol, etc. (Mehrotra, Shanta, *et al.*, 1996).

The importance of primitive attempts in ethnobotany for medicinal uses of plants were based on speculations only but in present age such medicinal plants have great importance due to the fact that many alkaloids and other important chemicals are being isolated from plants by using better techniques of chemical analysis and isolation methods, however, much work has still to be done, as new medicinal uses of plants are being reported continuously by several workers from different localities.

Intellectual Property Rights of Tribals: It includes system of rewarding or providing economic benefits to tribals or indigenous people, who have provided information.

The patent system as it exists today does not recognise community based knowledge, it does not accept the folk uses as scientific use. On

the other hand the products developed from traditional practical skills, which are modified and verified through modern scientific process can become the property of a company or an individual, even though they are based on indigenous knowledge. To avoid the tribals or indigenous people losing their knowledge to commercial interests, encouragement through economic benefits should be given. So, they will learn to extract a price, however, small or inadequate for what is taken from them. In this connection, The Convention of Biodiversity signed at the Earth Summit in Rio de Janeiro, (Brazil) in 1992, seeks to protect the rights of indigenous people and directs Governments to enact laws for documenting traditional knowledge and prevent its unregulated use.

In Kenya, petty patents have been allowed for traditional knowledge of herbal medicine as well as nutritional formulations which give new effects (Mehra, 1996). An Indian example of attempt to reward a community is 'Kani' tribals in Kerala, who are supposed to get Rs. 5 lakh plus two percent of profits and payments on a regular basis, for the plant *Trichopus zeylanicus* ssp. *travancoricus* from which drug 'Jeevani' is produced. Like this, if communities will get suitable price, the ownership of biological resources can be transferred from the common heritage of mankind to national property.

Recently, interdisciplinary nature of ethnobotany has given rise to the terms such as ethnotaxonomy, ethnomycology, ethnomusicology, ethnoecology, ethnobryology, ethnopteridology, ethnolichenology, ethnomedicobotany and palaeoethnobotany, etc., which came into use to describe specialised subdisciplines or subdivisions of the subject. For each subdiscipline the source of data remains the same but only the methods of study vary. Some of these segments are discussed below briefly.

Ethnotaxonomy : It deals with the folk concepts of plant classification by habit, habitat, usage or some other parameters. Interesting observations have been made on use of prefixes or suffixes in local names for distinction in habit, like trees, climbers, bushes, etc. (Berlin, Breedlove, 1974).

Ethnomycology: It deals with the origin and antiquity of the human use of fungi (including mushrooms, rusts, smuts, truffles, yeasts, etc.) for food or for preparation of drinks, medicine, etc. (Jain, 1995).

Ethnoecology: It is the study of the past and present inter relationships between human societies and their living and non-living environment (Jain, 1995).

Ethnomusicology : It includes study of music among the tribals and other aboriginals, documentation of forms of musical instruments and the contents used in preparing it.

Ethnopharmacology : It is an interdisciplinary field of research that deals with the identification, description, observations and experimental investigations of the ingredients used in various recipes prepared by aborigines and the effects of indigenous drugs on laboratory animals and man (Holmstedt & Bruhn, 1983).

Ethnomedicine : It is an area of research that deals with medicines derived from plants, animals, minerals, etc. and used in the treatment of various diseases and ailments, based on indigenous pharmacopoeia, folklore and herbal charms (Weiner, 1971).

Ethnotoxicology : It deals with the use of various toxic plants as fish poison (ichthyotoxic), arrow poison, etc. in human societies (Schultes 1970).

Palaeoethnobotany : It deals with the identification of fossilized plant materials and remains for studies on ancient plant economy, palaeobotanical history of crops and changing patterns on the use of plant life by human culture (Stewart, 1976).

Subdisciplines like Ethnobotany, Ethnopteridology and Ethnolichology include different folk uses of bryophytes, pteridophytes and lichens respectively.

AIMS AND OBJECTIVES OF ETHNOBOTANY

AIMS : Man has depended on plants since times immemorial and the search of the first man for natural products from forest as food to satisfy hunger and as a drug to cure ailments was the birth of this science. The knowledge of intimate relationship between early man and plants has come to us through surviving traditions of tribals and other aboriginals, who stay in remote forest areas. They have distinct traditions, beliefs,

dialects, ways of life and unique knowledge about use of plants for various purposes. Therefore, the knowledgeable people among tribals are considered as main source for ethnobotanical data collection.

There are many subdisciplines of the subject ethnobotany and also there is a slight difference in the method of work for each subdiscipline, but the common main aim remains to tap the entire knowledge regarding the plant use existing among the tribals and other aboriginals.

OBJECTIVES : The main objectives of ethnobotanical studies are -

Survey of tribal areas for collection, identification and documentation of plants used for food, medicine, fodder, etc.

To study the impact of tribal culture on vegetation which includes primitive agricultural and forestry operations to preserve genetic resources of useful plants for developing new crops.

Collection and conservation of plants used by tribals with special reference to wild relatives of cultivated plants.

Literature survey of screening for phytochemical and pharmacological aspects of plants for investigation of active principles of the plant parts or plants used in medicine, pesticide and fish poison etc.

Inventorisation of the wild edibles like fruits, roots, tubers, seeds, etc.

To study the conservation practices among the tribals by investigating the impact of several myths, totems, sacred groves and taboos, etc.

To document the ethnobotanical data from existing literature and from actual field work and a comparison to be made to find the similar and less known uses.

Reasons for Undertaking the Present Work:

The indigenous knowledge of plants used in medicine and food purposes is based and built on many years of experience.

Tribal people use enormous range of plants for their livelihood. Their understanding and perfections in using forest resources is unique and

which is passed on by their traditions, taboos, totems, folklore, etc., by means of oral communication from one generation to another. They have developed strong belief in their own recipes. The plant knowledge gathered by trial and error, in the course of centuries is being preserved in the tribal communities since ages. But due to intrusion of modern civilization and the activities like deforestation, resettlement projects, industrialization and changing subsistence economies, the living standard of tribals in affected areas is changing very fast, even the idea of herbal remedies is being abandoned by most of the people belonging to new generation. The old people and the people who practice herbal drugs are the only remaining sources.

The medicine men generally inhabit in remote areas. They are experts for one or the other diseases. Their vast knowledge needs to be assembled and recorded.

The identical uses of certain plants for various purposes by the indigenous people in different places may not be a mere coincidence but a positive indication of some useful properties in these plants, as most of the plant uses recorded are already reported from different areas. Discovery of many more such uses will be helpful in discovering some regularities in ethnobotanical uses of plants.

One of the reasons to undertake the present ethnobotanical studies is the richness of these areas from ethnobotanical point of view, as these are also rich in floristic as well as in ethnic diversity.

Considering all these facts and the importance of such plant uses, it is felt that detailed ethnobotanical studies should be undertaken in these areas to evaluate the data before it is buried forever.

Present study area:

Present study area comprises Dadra, Nagar Haveli and Daman situated on west coast of India. Of these, Dadra and Nagar Haveli have a larger area of 491 sq km, while Daman has 72 sq km only. These areas are separated from each other by a belt of land from Valsad district, Gujrat state.

Forests in Dadra and Nagar Haveli are of moist deciduous type, the area under forests is 20852 ha (208 sq km) that is 43% of total area of Nagar Haveli. The area of the forests is spread over 58 villages out of 68 villages (Bhatt, 1997). However in Daman there is no natural forest as such. Major part of land in Daman and Dadra is under cultivation.

Though tribes are the same in these areas, the percentage of their occurrence varies. The tribals are Warli, Konkana, Dhodia, Dubala, Kathudi, Naika and Koli and constitute 80% of total population of Dadra and Nagar Haveli and 20.24% of Daman.

REVIEW OF LITERATURE

Though the emergence of ethnobotany as an independent discipline is century old but the studies in India have been carried out mainly in the last three decades. The ethnobotanical literature in the world has been growing rapidly over the last hundred years. There are now several journals, magazines and bulletins like *Ethnobotany*, *Bulletin of Medico-Ethno-Botanical Research*, *Ethnology*, *Economic Botany*, *Journal of Economic and Taxonomic Botany*, *Vanyajati*, *Ethnomusicology*, *Asian Folklore Studies*, *Ethnohistory*, *Acta Ethnographica*, *Ancient Science of Life*, etc.

The maximum work in this field is being done in the United States of America. At present ethnobotanical researches at different centres of the world are being undertaken at several places. The Botanical Museum of Harvard University in Massachusetts, The Museum of Anthropology, University of Michigan, The Richard Spruce Foundation at Massachusetts and Department of Anthropology, California State University are the main centres in United States of America.

In India, ethnobotanical research has been intensified at different research centres. The main institutions/organisations, engaged in research are different regional offices of Botanical Survey of India, Institute of Ethnobiology, National Botanical Research Institute, Central Drug Research Institute, Central Institute of Medicinal and Aromatic Plants and Birbal Sahni Institute of Palaeobotany, Lucknow, Central Council for Research in Ayurveda and Siddha, Central Council for Research in Unani Medicine and National Bureau of Plant Genetic Resources, New Delhi, Regional Research Laboratory, Jammu Tawi, Tropical Botanical Garden

and Research Institute-Thiruvananthapuram (Kerala), M.S. Swaminathan Research Foundation-Chennai and in several colleges and Universities. The project entitled "All India Co-ordinated Research project on Ethnobiology sponsored by Department of Environment, Government of India was initiated at several research centres resulting in exhaustive work. The studies are still continuing in a number of research centres in India.

Several books have been published on the subject covering various aspects. Among the books worth mentioning are *An Introduction to Ethnobotany* by Faulks (1958), which is the first book on ethnobotany and contains various topics of economic plants in general. *The Ethnobotany of Western Washington* by Gunther (1945), is one of the volumes of University of Washington Publications in Anthropology, devoted to the ethnobotany of specific area. The book *American Indian Medicine* by Vogel (1970), includes uses of Medicinal Plants of American Indians. *Nature and Status of Ethnobotany* by Ford (1978), included 17 manuscripts on various issues of ethnobotany. *Bibliography of Interest in Utilization of Vascular Aquatic Plants* by Boyd (1972) and *Bibliography on Botany and Ethnobotany of China* by Metailie (1981) were the bibliographic references have been given. While the dictionaries on ethnobotany published in the world outside India are *Dariene Ethnobotanical Dictionary* by Duke (1968) and *Isthmian Ethnobotanical Dictionary* by Duke (1986).

In India, though the records of plant utilization for medicine, food and other purposes are of ancient times but work under the title 'Ethnobotany' were initiated by 1954 and till date more than 9000 plant species used by tribals or aboriginals for different purposes from different regions of India have been recorded. The studies on ethnobotany in India were initiated by Dr. E. K. Janaki Ammal, as an official programme of the Botanical Survey of India, she studied subsistence of food plants of certain tribals of South India. While Dr. S.K. Jain, who took the lead and streamlined the subject with his numerous books and papers on the subject, worked on central India and contributed a lot to our present knowledge of the subject. The first book on Indian Ethnobotany by Jain (1981) *Glimpses of Indian Ethnobotany*, gave a comprehensive view of current ethnobotanical studies in India, with folk uses of about 1,500 plant species. Later, the same book has been revised under the title *Contributions to Indian Ethnobotany* (1990). The book, *Methods and*

Approaches In Ethnobotany by Jain *et al.* (1989) is also worth mentioning. *Bibliography of Ethnobotany* by Jain *et al.* (1984), includes about 2000 references covering almost all the publications on ethnobotany. The *Dictionary of Indian Folk Medicine and Ethnobotany* by Jain (1991), and *Dictionary of Ethnoveterinary Plants of India* by Jain (1999) provides information assembled from published literature. *A Manual of Ethnobotany* (second edition) edited by Jain (1995), included 16 papers covering different topics on ethnobotany and workshop exercises. *Notable Plants in Ethnomedicine of India*, by Jain *et al.* (1991) and *Medicinal Plants of India* (Vols. I and II) by Jain and De Filippis (1991), are some of the publications by Jain. The recent publications of several other workers, which gave supplementary information on ethnobotany are *Cross Cultural Ethnobotany of North-East India* by Saklani and Jain (1994), which contains comparative and deductive study of seven states. It is the first cross cultural ethnobotanical study in India. *Applied Ethnobotany - A case study among the Kharias of Central India* by Varghese (1996), gives specific information on 280 plant species. *Ethnobotany The Renaissance of Traditional Herbal Medicine* by Sinha (1996). *The Ethnobotany of Eastern Ghats In Andhra Pradesh, India* by Rama Rao and Henry (1996). *Ethnobotany of Primitive Tribes in Rajasthan* by Joshi, Prabhakar (1995). *Ethnobotany in South Asia* edited by Maheshwari (1996), which is reprinted from *Journal of Economic and Taxonomic Botany*, Additional Series No.12. *Ethnobiology in Human Welfare*, edited by Jain (1996), includes proceedings of the IVth International Congress of Ethnobiology held at Lucknow, in November 1994, which contains 100 papers of authors from 20 countries. The *Journal of Ethnobotany* by the society of ethnobotanists, Lucknow, is the only International Journal being published in India.

In the present study area, there is no specific ethnobotanical work (till 1998) except only two papers by Bennet (1978) and by Sabnis and Bedi (1983).

The books used for comparing the uses recorded during field studies and for chemical constituents of plant or plant parts used in medicine are *Glossary of Indian Medicinal Plants* by Chopra *et al.* (1956) and its supplement in (1969); *Glossary of Indian Medicinal Plants with Active Principles, Part I, (A-K)* (1965-81) by Asolkar *et al.* (1992); *Indian Medicinal Plants, Vols. 1-4* (second edition) by Kirtikar and Basu (1933);

Compendium of Indian Medicinal Plants. Vols. 1-5 by Rastogi and Mehrotra (1991-1995); *Medicinal Plants of India and Pakistan* by Dastur (1964); *Santal Medicine* by Bodding (1927); *Herbs that Heal Natural Remedies for Good Health* by Bakhru (1993); *A Dictionary of the Economic Products of India*. Vols. 1-6 by Watt (1889-1893); *Wealth of India*. Vols. I-XI : *A Dictionary of Indian Raw Materials and Industrial Products* (1948-76) Published by Council for Scientific and Industrial Research, etc, besides this several papers published in different journals.

TOPOGRAPHY

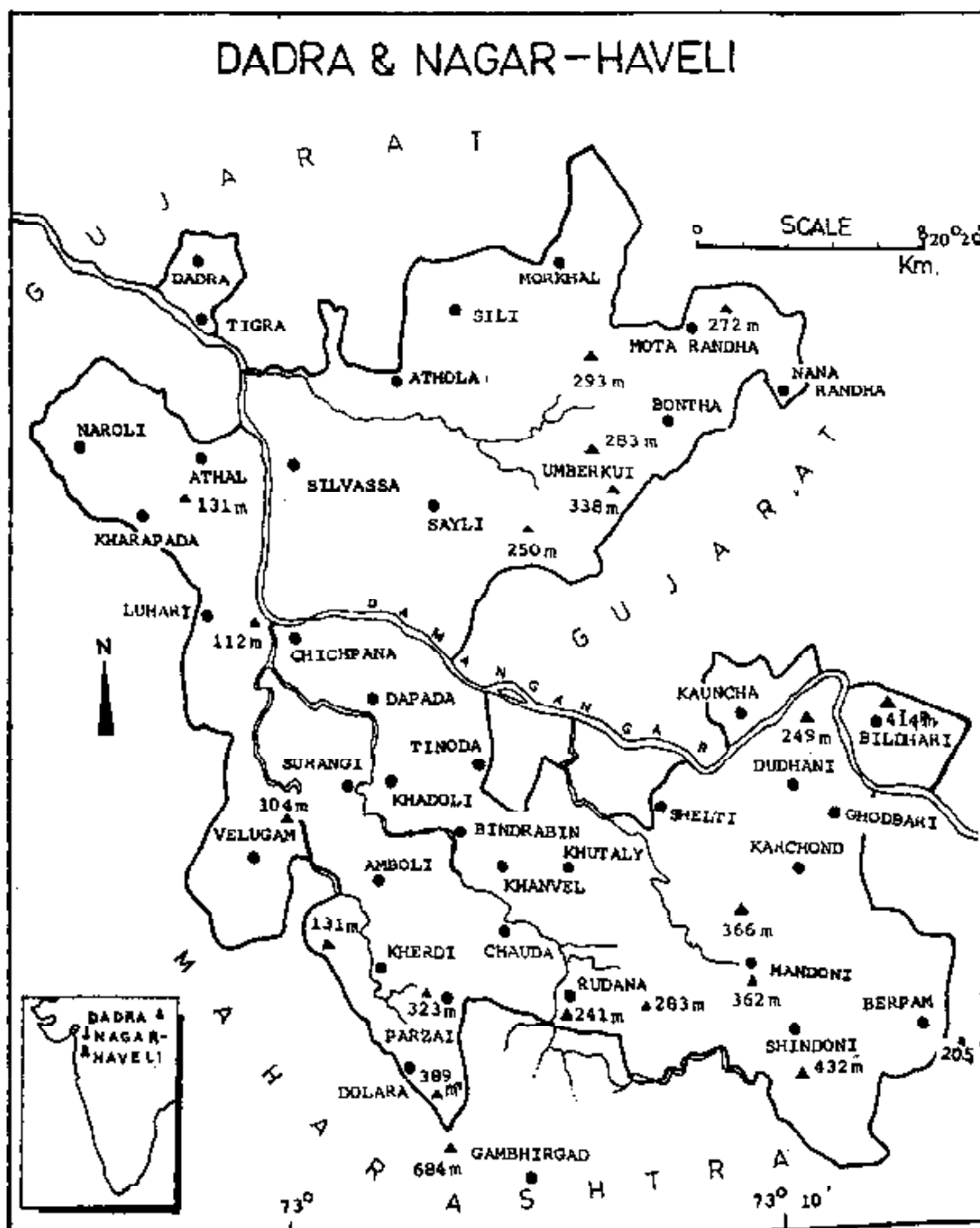
The present study area comprises the union territories of Dadra, Nagar Haveli and Daman, which covers a total of 563 sq km. Out of this, Dadra and Nagar Haveli have a larger area of 491 sq km, while Daman has only 72 sq km.

The liberation of Dadra from Portuguese regime was effected on July, 1954 and of Nagar Haveli in August, 1954. Though Dadra and Nagar Haveli were previously a part of Daman district during the Portuguese regime, due to its earlier liberation, it is now administered as a separate union territory. Daman, one of the former Portuguese colony, came into existence after delinking from Goa on 30th May, 1987, as an independent union territory comprising two distant land blocks namely Daman and Diu. But Diu is not included in the present study area because tribal population is only 0.67% and no aboriginals are found.

Location and Boundaries:

Dadra and Nagar Haveli is situated on the west coast of India, between latitudes of 20° 0' – 20° 25' north and longitudes of 72° 50' – 73° 15' east. The total area of 491 sq km comprises of two enclaves (pockets), viz: Dadra with 3 villages and Nagar Haveli with 68 villages and one town Silvassa, which is the head quarters of the territory. The two pockets are separated from each other by about 4 km belt of land from Valsad district, Gujarat state. (Map-I). The territory is bounded from various sides as follows :

North : Pardi and Dharampur talukas of Valsad district, Gujarat state.



Map -I : Dadra & Nagar Haveli

- East : Dharampur taluka of Valsad district, Gujarat and Jawhar taluka of Thane district, Maharashtra state.
- South : Dahanu taluka of Thane district, Maharashtra state.
- West : Dahanu taluka of Thane district, Maharashtra and Umargaon taluka of Valsad district, Gujarat state.

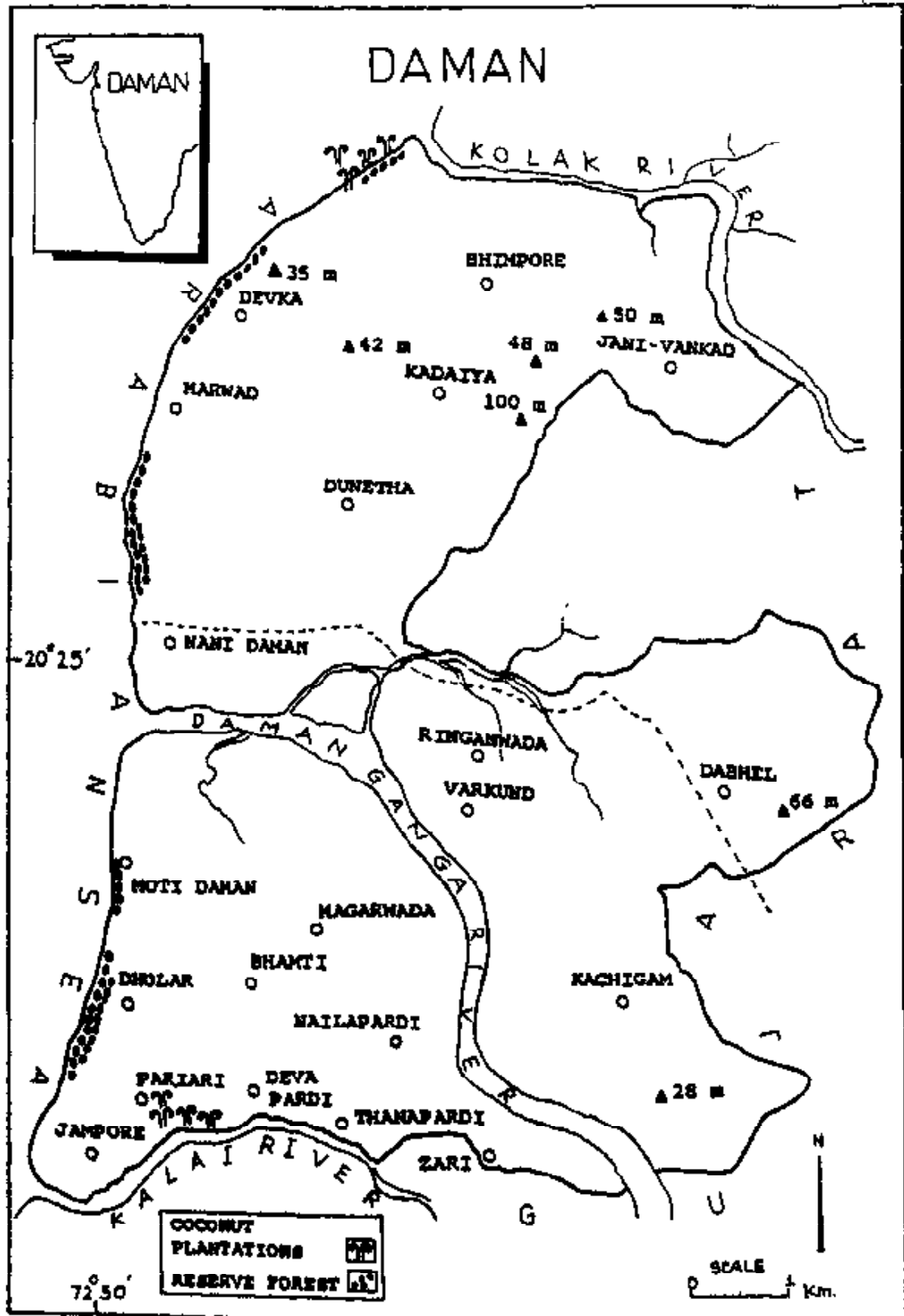
In Dadra and Nagar Haveli except for a small portion of plain land towards north-west, the remaining area is hilly and extremely undulating. The altitudes range from 250 to 432 m. 'Gambhirgad', the highest region with 684 m altitude is just outside the border towards south. The hilly terrains in Nagar Haveli are found specially towards the south and north-east and East, which forms the footspurs of the 'Sahyadri' mountains (Western Ghats).

Daman is a small enclave, situated on the west coast of India, in between $20^{\circ} 12'$ – $20^{\circ} 28'$ north latitude and $72^{\circ} 50'$ – $72^{\circ} 54'$ east longitude. It has 26 villages and one town Daman, which is the head quarters of the territory.

The territory is divided into two parts 'Moti Daman' in the south and 'Nani Daman' in the north by the river 'Damanganga'. In the north-east and south it is surrounded by Valsad district of Gujarat state. (Map-II). The clear demarcation lines between Valsad district of Gujarat and Daman are as follows :

- North : The river 'Kolak' sets up a natural boundary of about 6 km.
- South : The river 'Kalai' provides a boundary for about 4 km from sea shore to the interior.
- East : The land from Valsad district, Gujarat state forms a boundary of about 25 km.
- West : The Arabian sea frontage extends for about 12.25 km.

The distance from Daman to Dadra is about 17 km by road and the area falling in between these two belongs to 'Valsad' district, Gujarat state.



Map-II : Daman

Drainage:

The main river passing through both the areas is 'Damanganga' which originates from the ranges of 'Sahyadri' mountains (Western Ghats) at 'Trimbakeshwar' in Nasik district (Maharashtra), 64 km away from the coast and discharges itself in the Arabian sea at the port of Daman. This river intersects Dadra and Nagar Haveli with its three tributaries viz. Piparia, Sakaltod and Varna, which dry up during the summer months; while in Daman the other two rivers are river 'Kolai' in the south and 'Kolak' in the north, which also dry up during summer months.

A major irrigation project on river 'Damanganga', viz. Damanganga Irrigation Project is situated in Nagar Haveli near the village 'Sayli'. Though the reservoir of the project and major part of the dam falls in Gujarat state, 40 km of its main canal passes through the Dadra and Nagar Haveli, creating a new potential for irrigation.

Geology and Soils:

The hills of Dadra and Nagar Haveli, made up of Deccan Trap Zone have different types of basaltic underlying rocks. Dolorite, Trap and Conglomerate (Pyroclastic rocks) are observed. Traps are of two types viz. Perophoratic and Vesicular. The vesicals are with Zeolite fillings. In Daman the extensive alluvium deposition associated with the presence of lime, occupies inland area, while gravel type of soil occupies the sea shore area.

Soils in Dadra and Nagar Haveli are mostly formed by disintegration of the Deccan Trap rocks, occurring as thin finely broken well serrated mantle mixed up with decayed organic matter.

Ferromagnes concretions are observed in the soils and parent material (Shende, *et al.*, 1979). The soils mixed with clay are generally of residual type varying in texture and depth according to the degree of disintegration and extent of erosion and the range. Colour of soils vary from brick-red to black. Majority of the soils in this area remain moist atleast for 120-150 days during the year favouring growth of most of the cultivated crops.

In Daman, the soils derived from Deccan Trap rocks are alluvium with the presence of lime in the form of kankar nodules or clay and medium

black soils, which forms gravelly loam specially in lower layers. The soil is mostly near neutral to slightly alkaline.

CLIMATE

The climate of these areas is of subtropical monsoon Type, characterised by mild winter and hot summer. In broad pattern the climatic conditions of Dadra, Nagar Haveli and Daman are similar to Gujarat coastal area and slightly to its interior.

The climate in Dadra and Nagar Haveli is moderate and generally healthy in the central zone. While the climate of Daman is mild and warm. Climatic conditions of these areas though humid is generally pleasant. In both areas climate can be divided into four main seasons; the summer season from March to May, the south-west monsoon season from June to September, the post monsoon from October to November and the winter season from December to February.

Temperature:

Temperature in Dadra and Nagar Haveli ranges from 20°C to 34°C and in Daman it varies between 20°C to 33°C. In these areas temperature begins to increase steadily from February onwards; May is generally the month of highest temperature. In the late summer, before the advance of monsoon, the day temperatures may occasionally exceed 36°-37°C. After November in both the areas the temperature drops rapidly till January, which is the coldest month.

Rainfall:

The rainy season in Dadra, Nagar Haveli and Daman normally starts from June and continues till September. The average annual rainfall in Dadra and Nagar Haveli is about 2500 mm, while in Daman it is about 2000 mm. July is the rainiest month of the year when the average rainfall is about 45% of the annual average.

The data on temperature and rainfall are given in Table I and II.

Table I
Showing maximum and minimum temperature, rainfall and
number of rainy days for 5 year period (1980-84)
at Silvassa (Nagar Haveli).

Sr. No.	Year	Temperature		Rain fall in mm	No. of Rainy days.
		Maximum Temperature °C	Minimum Temperature °C		
1.	1980	34.0	20.0	2600	67
2.	1981	34.0	21.0	2700	74
3.	1982	33.0	21.0	2000	65
4.	1983	34.0	21.0	3300	85
5.	1984	32.5	21.0	1900	73
Average		33.5°C	20.8°C	2500 mm	73

(Source : Pandey and Ladwa, 1989).

Humidity:

The average humidity in Dadra and Nagar Haveli ranges from 30% in May to 85% in August. While in Daman during the south-west monsoon season the relative humidity generally exceeds 87% and decreases after south-west monsoon. The driest part of the year being November to March but relative humidity is generally above 55%, may be due to comparatively more proximity of the sea than Dadra and Nagar Haveli.

Winds:

Winds are generally light to moderate in both the areas. However, moderate to strong winds blow during the late summer and monsoon months in Daman. In both areas during May and the monsoon months, winds blow from directions between south-west to north-east. In the rest of the year winds blow generally from directions between north and east in the mornings and between north-west and north in the afternoons.

Table II
Showing average of maximum and minimum temperature and rainfall
for 30 year's period (1941-76) for Daman.

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Temperature : °C												
Max.	27.4	28.4	31.0	33.0	34.0	32.7	29.8	29.5	30.2	32.3	31.3	29.0
Min.	15.6	15.8	19.3	23.2	26.2	25.5	25.2	25.0	24.5	22.4	18.8	15.7
Rain fall : mm	2.4	0.9	0.2	9.2	8.7	399.4	932.4	451.2	334.6	54.8	18.0	0.7

Total average annual rainfall) = 2210.5 mm

(Source : Rao, 1979).

Clouds:

During the monsoon months in both the areas the skies are generally heavily clouded to overcast and the rest of the year, the skies are clear to lightly clouded.

Special Weather Phenomena:

Sometimes the disturbances like depressions and tropical storms, originating in the Arabian sea affect Daman in May and during the post monsoon months causing heavy rain and gusty winds.

VEGETATION

Dadra and Nagar Haveli:

The forests of Dadra and Nagar Haveli are of the moist deciduous type dominated by *Teak-Terminalia* community. According to the classification of Champion and Seth (1968), the forests fall under Group 3B C2 South Indian Tropical Moist (mixed) Deciduous forest (Pandey and Ladwa, 1989), but the dominance of *Tectona grandis* however, indicates its nearness to teak-bearing types of forests.

In Dadra most part of the land is under cultivation, though there are few open grasslands. While in Nagar Haveli, area under forest cover is about 43% of total area. Food crop cultivation is limited to plains and valleys only. The land of Daman is devoid of natural forests as such. Major part of the area is under cultivation. The undulating terrain and hillocks of Daman with different kinds of habitats show scrubby vegetation. The different habitats found in the area are: sandy belt along sea shore, the slopes of hillocks, soil filled rocky creeks, sand stone pits, salt pans, swampy back water area and road sides.

Dadra and Nagar Haveli : The area under forest cover is 20,852 ha (208 sq km) and out of overall forest area, 9,216.83 ha (92 sq km) is covered by Wildlife Sanctuaries including 'Dapada Wildlife Sanctuary', forest areas of Bontha and Umerkui and Deer Park, Khanvel.

The vegetation of these areas is allied to the hilly flora of Gujarat state. *Tectona grandis* and *Terminalia crenulata* are found to be most dominant species in the overall forests.

However, the percentage of dominance of these species is comparatively low in the sanctuary areas, which are dominated by the community formed by *Bridelia retusa*, *Lannea coromandelica*, *Mallotus philippensis*, *Mangifera indica*, *Mitragyna parvifolia*, *Syzygium cumini* and *Terminalia bellirica*. Besides *Tectona grandis* and *Terminalia crenulata*, other species found in the forests are *Acacia catechu*, *Acacia chundra*, *Anogeissus latifolia*, *Dalbergia latifolia*, *Haldina cordifolia*, *Lagerstroemia parviflora*, *Madhuca longifolia* var. *latifolia*, *Mitragyna parvifolia* and *Sterculia urens*, etc. These species commonly form the top canopy or Upper storey. While *Bombax ceiba*, *Butea monosperma*, *Cassia fistula*, *Holarrhena pubescens* and *Wrightia tinctoria* are some of the dominant species forming the Second storey.

Besides the above mentioned plant species some other plants which occur in the first and second stories in various combinations are *Bridelia retusa*, *Careya arborea*, *Cassine glauca*, *Diospyros melanoxylon*, *Heterophragma quadriloculare*, *Morinda tinctoria*, *Oroxylum indicum* and *Trewia polycarpa*, etc.

The shrubby undergrowth or ground flora, which forms the third storey in the forest clearings are *Abelmoschus* spp., *Calycopteris floribunda*, *Carissa congesta*, *Dioscorea* spp., *Grewia tiliaefolia* var. *leptopetala*, *Helicteres isora*, *Leea indica*, *Pimpinella* spp., *Rungia elegans*, *Sida acuta*, *Thespesia lampas* and *Urena lobata*, etc.

Some of the common grass species found in the ground flora are *Arundinella pumila*, *Eulalia fimbriata*, *Ischaemum* spp., *Oplismenus* spp. and *Spodiopogon rhizophorus*, etc. Commonly found epiphytic orchids are species of *Aerides*, *Dendrobium* and *Oberonia*, etc. *Viscum articulatum* is the common stem parasite. While commonly found pteridophytes are *Adiantum philippense*, *Ceratopteris thalictroids* and *Lygodium flexuosum*. Vegetation along the banks of the river Damanganga' and its tributaries is dominated by *Ammania baccifera*, *Bacopa monnieri*, *Canscora diffusa*, *Cyathocline purpurea*, *Homonoia riparia*, *Hygrophila serpyllum*, *Polygonum glabrum*, *Rotula serpyllifolia*, *Rotula aquatica* and *Tamarix ericoides*, etc. mixed with grasses and sedges such as species of *Arundinella*, *Cyperus*, *Eleocharis* and *Fimbristylis*, etc.



A view of deciduous forests of 'Karchond' (Nagar Haveli) with *Tectona grandis*, *Terminalia crenulata* and *Madhuca longifolia* var. *latifolia* associated with low bushes of *Carissa congesta* and *Dendrocalamus strictus*, etc.



A close view of *Calycopteris floribunda* in full bloom, on *Dendrocalamus strictus*, common in Nagar Haveli forest.



Hyphaene dichotoma - the Indian Doum palm, along Daman sandy shore; small ones on the ground show regeneration.

Daman:

Major part of the area as already mentioned is under cultivation either for food crops or cash crops like coconut. The vegetation is scattered over different types of habitat. Based on the habitat preference of different plant communities, vegetation can be classified as : Rock strand vegetation; Sandy sea shore vegetation; and Inland sandy plain vegetation.

Rock strand vegetation in the rocky habitat along the sea shore is confined to the northern part of Daman, while the Sandy sea shore vegetation appears all along the sandy beach mixed with undulating gravelly mounds or small hillocks with low scrubby vegetation. The rivers 'Damanganga', 'Kolak' and 'Kolai' with narrow strips of muddy flats at the estuarine region intercept the sea shore. Common plants forming large populations in such a habitat are *Acacia nilotica* ssp. *indica*, *Aloe vera*, *Celosia argentea*, *Ipomoea pes-caprae*, *Jatropha gossypifolia*, *Lantana* sps., *Lepidagathis trinervis*, *Sericostoma pauciflorum*, *Solanum surattense* and *Statice stocksii*, etc.

Muddy flats at the estuarine region of rivers harbour mangrove species *Avicennia marina* var. *acutissima* associated with species of *Acanthus ilicifolius*, *Aegiceras corniculatus*, *Salicornia* sps., *Sonneratia apetala* and few members of Cyperaceae and Poaceae like *Apluda mutica*, *Arthraxon lancifolius*, *Digitaria ciliaris*, *Eragrostis ciliaris* and *Fimbristylis polytrichoides*, etc.

Inland sandy plain vegetation on undulating terrain and hillock of Daman is dominated by scrub jungle. A few shrubs and many grasses dominate such a habitat.

The common plant species which dominate over Wastelands, open grassy fields and the hillock slopes in Daman are *Themeda-Pseudanthistiria* community with common associates like *Chloris barbata*, *Digitaria* sps., *Eragrostis viscosa*, *Heteropogon contortus*, *Ischaemum* sps. and *Iseilema laxum* with few other species, viz. *Alysicarpus bupleurifolius*, *Celosia argentea*, *Geissaspis cristata* and *Sopubia delphinifolia*, etc. Plants like *Adhatoda zeylanica*, *Bombax ceiba*, *Erythrina stricta*, *Euphorbia nerrifolia*, *Grewia tiliaefolia*, *Vitex negundo*, *Woodfordia fruticosa* and *Ziziphus mauritiana*, etc. are found to be common.

The branched palm *Hyphaene dichotoma* grows singly or in small groups along the southern coastal belt. Other palms and trees like *Borassus flabellifer*, *Phoenix sylvestris*, *Pithecellobium dulce*, *Pongamia pinnata*, *Tamarindus indica* and *Thespesia populnea*, etc. are common. *Phoenix sylvestris* is abundant in the territory, while most of the area of northern part is under coconut cultivation.

Common climbers found in Daman are *Cayratia trifolia*, *Clitoria ternatea*, *Cocculus hirsutus*, *Ipomoea sepiaria* and *Mukia maderaspatana*. Near salt pans, halophytes like *Suaeda* sps. and *Anthrocnemum* sps. are found together with grasses and sedges like *Aeluropus lagopoides*, *Chloris montana*, *Cymbopogon parkeri*, *Fimbristylis polytrichoides* and *Urochondra setulosa*, etc.

Endemism:

There is no endemic or threatened taxa reported so far from Dadra, Nagar Haveli and Daman. However, some of the endemic plants occurring in different localities of India are also distributed in these areas.

List of endemic plants of India distributed in Dadra, Nagar Haveli and Daman.

PLANT NAME	DISTRIBUTION
<i>Anisomeles heyneana</i>	Nagar Haveli
<i>Argyria sericea</i>	Nagar Haveli
<i>Arisaema murrayii</i>	Nagar Haveli
<i>Asystasia dalzelliana</i>	Nagar Haveli
<i>Barleria prattensis</i>	Nagar Haveli
<i>Blepharis asperrima</i>	Nagar Haveli
<i>Crotalaria filipes</i>	Dadra, Nagar Haveli and Daman.
<i>Curcuma decipiens</i>	Nagar Haveli
<i>Dendrobium ovatum</i>	Nagar Haveli
<i>Dimeria stapfiana</i>	Nagar Haveli
<i>Ensete superbum</i>	Dadra, Nagar Haveli

PLANT NAME	DISTRIBUTION
<i>Eriocaulon diana</i> var. <i>diana</i>	Dadra, Nagar Haveli and Daman.
<i>Erythrina variegata</i> var. <i>orientalis</i>	Nagar Haveli and Daman
<i>Hemigraphis latebrosa</i> var. <i>heyneana</i>	Nagar Haveli
<i>Hyphaene dichotoma</i>	Daman
<i>Ixora brachiata</i>	Daman
<i>Jasminum malabaricum</i>	Nagar Haveli
<i>Neanotis rheedii</i>	Nagar Haveli, Daman
<i>Neuracanthus sphaerostachyus</i>	Nagar Haveli
<i>Oberonia brunoniana</i>	Nagar Haveli
<i>Rhampicarpa longiflora</i>	Nagar Haveli
<i>Sericostoma pauciflorum</i>	Daman
<i>Torenia indica</i>	Dadra and Nagar Haveli
<i>Trewia polycarpa</i>	Nagar Haveli
<i>Trilobachne cookei</i>	Nagar Haveli

(Source : Ahmedullah and Nayar, 1986).

Past Work done:

Three small books on the plants of Nagar Haveli and Daman were published in Portuguese by Caetano Gracias (1899) and C.F. Xavier Gracias (1902 and 1927), but they are of no practical utility and are much out dated.

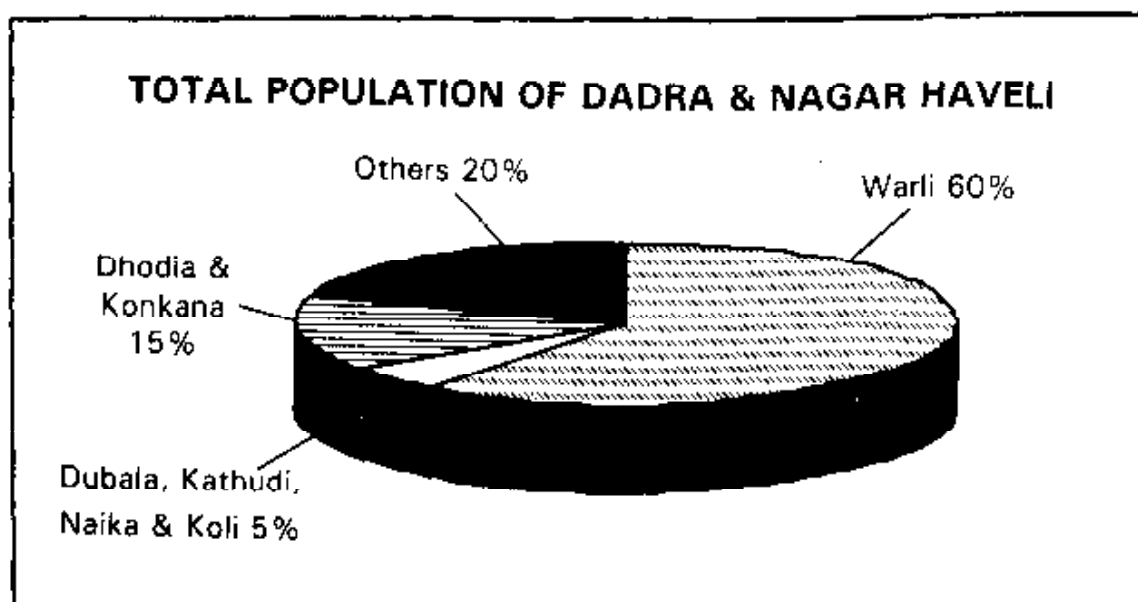
Previously the plant account of Dadra, Nagar Haveli and Daman were not worked out thoroughly even though some workers like Cooke (1901-1908), Talbot (1909-1911), Indrajit Thakar (1910), Saxton and Sedgwick (1918) and several others made notable contributions to the floristic studies of Western India. Though there were such authentic works on the plants of Western India, data on the plants of Dadra, Nagar Haveli and Daman based on authentic herbarium material were lacking, except for few from Daman by Bhide (Rao, 1985).

Rao, 1985 had worked out the flora of Goa, Diu, Daman, Dadra and Nagar Haveli with extensive exploration of these areas. While working for the flora, Rao (1985), has recorded 574 angiospermic species belonging to 361 genera and 89 families from Dadra, Nagar Haveli and Daman alone. Of these, 423 species belong to 276 genera under 71 dicot families and 151 species belong to 85 genera under 18 monocot families. Pteridophytic species numbering 3 belonging to 3 genera and arranged under 3 families have also been recorded.

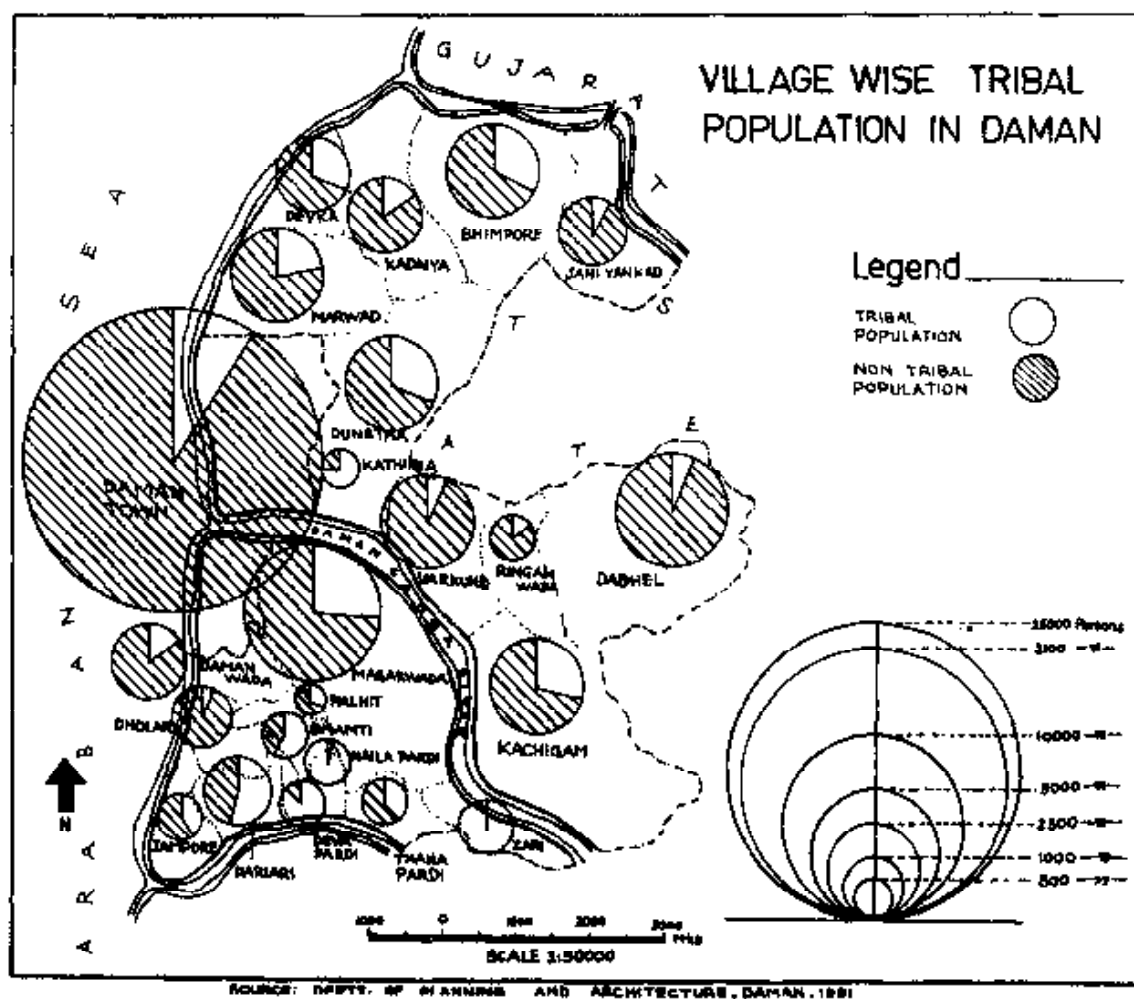
TRIBALS

Tribals, being Warli, Konkana, Dhodia, Dubala (Halpati) with very small groups of Kathudi (Katkari), Naika and Koli, constitute 80% of total population of Dadra and Nagar Haveli and 20.24% of Daman.

The tribes Warli and Konkana are found over the entire Territories, whereas the Dhodia and Dubala are mainly confined to the northern part of Dadra and Nagar Haveli and in Daman.



In Dadra and Nagar Haveli major chunk (nearly 60%) of the tribal population consists of Warli's giving second position to Konkana and Dhodia which approximately constitute 15%. The Kathudi, Dubala, Naika and Koli being the smallest groups representing 5% population. While in Daman, it is seen that only in one village viz. Zari, the entire population is of tribals. Though in some other villages like Naila Pardi, Deva Pardi and Bhamti, they comprise the majority. (Map-III).



Map -III : Village wise Tribal Population in Daman

It was observed during various field tours that the Warli and Konkana tribals have a good knowledge of plant drugs and they use them extensively. Dhodia and Koli are comparatively civilized and most of the time they prefer regular doctors. Dubala, Kathudi and Naika have also got the knowledge of plant medicine.

The language they speak is neither pure 'Gujarati' nor pure 'Marathi'. It is mixed and akin to 'Gujarati' in the north, while akin to 'Marathi' in the south of Nagar Haveli. The people in Daman and Dadra speak a dialect which is akin to 'Gujarati'

The main occupation of Tribals in these areas is Agriculture, which they do without using modern agricultural equipments. Previously the tribal cultivation was generally a 'shifting cultivation', but due to determination of the ownership of land, tribals have now confined their activities to limited land.

The tribals in Dadra and Nagar Haveli are not only farmers but like all aboriginals. Hunting is the main part time of their lives. In ancient times, they were hunting mainly for food, now it is done only as a custom and merriment. The tools mostly used 'Bhala', 'Dhanush', 'Traps' and 'Catapult'. The birds are caught alive with the help of a Trap called 'Chikata' where sticky substance (eg. gum) from trees is applied on sticks and mice are kept at the side to attract the birds. The birds in their sweep to catch the mice get stuck to the trap and are safely caught. The other tool used is a rubber catapult which is mostly carried by tribal boys.

The Tribals know a number of natural products, which they gather without cultivation. Fruits, nuts, tubers, roots, leafy vegetables, etc., are eaten raw or cooked.

Tribals equally love fishing and often spend whole day with their families in catching small quantities. For poisoning fish they use their knowledge of wild plants, which stuns the fish momentarily and it floats on water surface and is captured.

Almost every tribal distil liquor for his own use in his house from flowers of *Madhuca longifolia* var. *latifolia*.

The following are some of the other details tribe wise.

1) WARLI:

The Warli is an aboriginal tribe of non-aryan origin, who lived in the country near the Vindhya and Satpuras from where they came southwards towards Konkan. At present they are spread over Daman, Valsad and Dangs districts of Gujarat state, Thane and Nasik districts of Maharashtra state, besides Dadra and Nagar Haveli, which Warlis claim as their original home.

Warlis have a dark, sun-burnt skin and have a scanty growth of hair on the body especially on the chest and grow fancy tuft of hair on the head. They wear scanty cloths consisting of Loin cloth, a small waist coat and a turban. Women wear a yard saree called 'Lugden' and tie it around waist up to knee. A separate piece of cloth is used as 'Padar'. Women adorn themselves with silver and white metal ornaments. The main festival

they celebrate is 'Holi' Their gods are - 'Waghya', in the form of carved wooden block or standing stone, 'Narandev', in the form of an arecanut smeared with red lead (Kumkum) are placed in baskets, half filled with rice. While 'Hirva' is a small piece with human figure embossed on it.

2) KONKANA:

The Konkana derive their name from 'Konkan' a region of Western India from sea coast to foothills of 'Western ghats'

The men and women are well built. Men wear 'dhoti' up to Knees, waist coat/shirt and turban on their head. Women wear colourful sarees below knees or up to toes. The Konkana men and women often tattoo on their forehead and other parts of body.

Festivals celebrated by Konkanas are 'Holi', 'Diwali', 'Akhatrij', 'Bhavada' and the gods worshiped are the same as in other tribes.

3) DHODIA:

The term Dhodia seems to be derived from 'Dhundi' meaning a small thatched hut and hence Dhodias are hut dwellers. They are well built and fairer than other tribes. Men wear white 'dhoti' up to knees and waist coat on the upper part of body. They also wear white or coloured caps on their heads, signifying the advancement and sociocultural changes. The traditional dress of Dhodia women consists of dark blue saree up to knees and 'aanchal' taken from front and left at back side.

Men use few ornaments like ear rings and silver chain around the waist while, women adore themselves with colourful bead-necklaces and other silver ornaments. They wear metal bangles in bunches in their hand and thick metal 'kada' on toes. They are educationally advanced than other tribes of territories. Besides Daman, Dadra and Nagar Haveli, Dhodias are mostly found in the southern Gujarat and few in adjoining areas of Maharashtra state.

Festivals celebrated by Dhodia tribe are 'Holi', 'Divasa' and 'Narial Poornima'. The gods and goddesses worshiped are 'Baramdev', 'Narandeo' and 'Kansari mata'.

4) KATHUDI (KATKARI):

The name Kathudi is derived from their profession of 'Katha' or Catechu making. Kathudis lead and love forest life. Majority of them are unsettled and nomadic in nature. Most of them are wood cutters and charcoal makers. The men and women are dark skinned. They dress scantily and similar to that of Warlis. They possess few ornaments and mostly women folk adore them.

Main festivals celebrated by Kathudi tribe are 'Holi', 'Diwali' and 'Khadipuja'. The gods worshiped are 'Waghdeo' and 'Dongardeo'

5) DUBALA (HALPATI):

Dubala, as the name suggests are not weak as they are made out to be, but are obstinate in nature taking from the meaning of Sanskrit word 'Durvala'. Dubalas are also called Halpati which is more akin to their profession of ploughing (Hal).

Dubalas are distributed unevenly in these areas and also in south Gujarat and Thane district of Maharashtra. They live in the vicinity of villages, more especially on the coastline and are not so much forest dwellers as Warli and Konkana. Most of them work as field labourer and are hereditary servants.

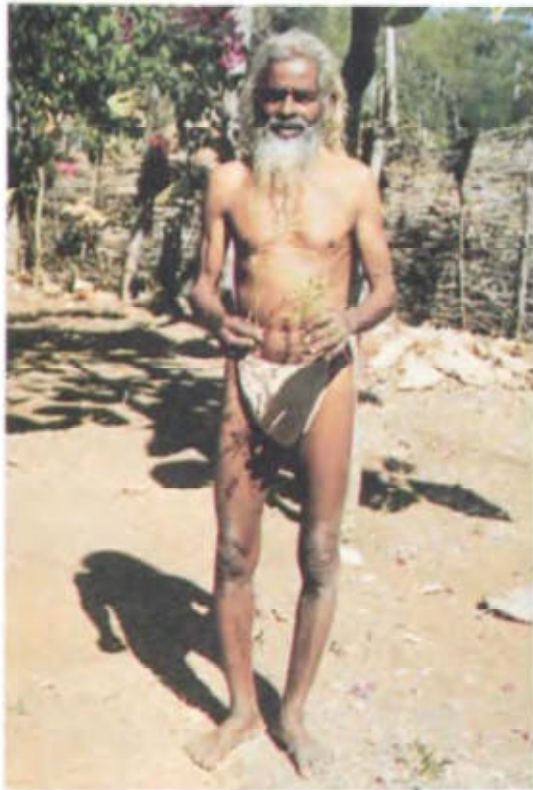
They are of medium built and have thin frame. The men dress themselves in 'dhoti' and 'shirt'. The women folk wear coloured sarees up to knees and put 'aanchal' over the head. The women adore themselves with ear rings, bangles, metal necklaces and thick metal bangle 'kada' on toes.

Main festivals are 'Holi' and 'Diwali'.

6) NAIKA and KOLI:

Tribe Naika and Koli are very less in number in Dadra, Nagar Haveli and Daman. Most of them are civilized and are no more forest dwellers.

The main festivals celebrated by Naika are 'Holi' and 'Diwali' and by Koli tribes are 'Holi', 'Bhavada' and 'Diwali'



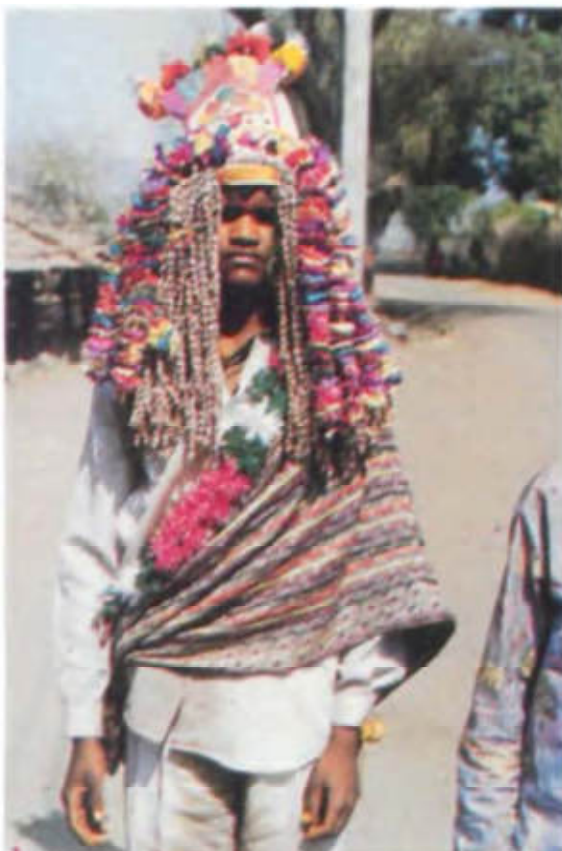
'Warli' tribal medicineman.



'Warli' woman in traditional dress.



'Ghongadi' - from leaves of *Tectona grandis* used for protection from rain.



Bridegroom (Konkana tribe) with marital decoration on forehead by flowers of *Calotropis gigantea*.



Tribal man at fishing with floating device made from *Erythrina variegata*.



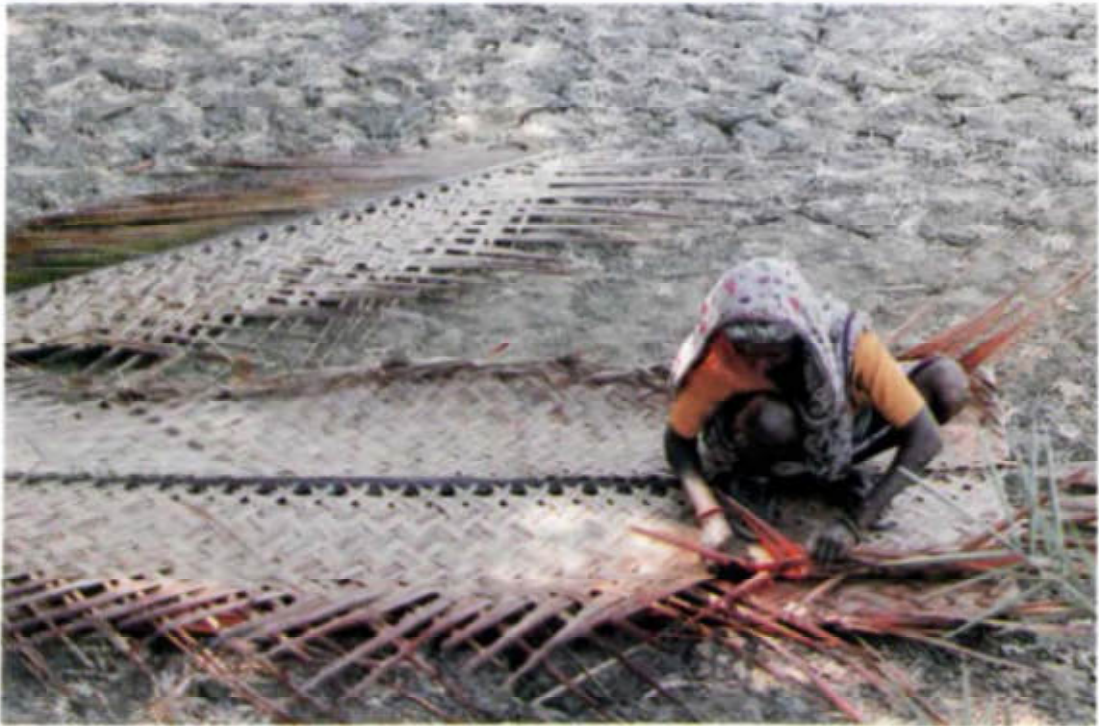
'Tonde', a device for catching fish, made from Bamboo strips and tied by threads (made from fibre of *Hibiscus cannabinus*), with one open end kept in a slanting position in flowing waters.



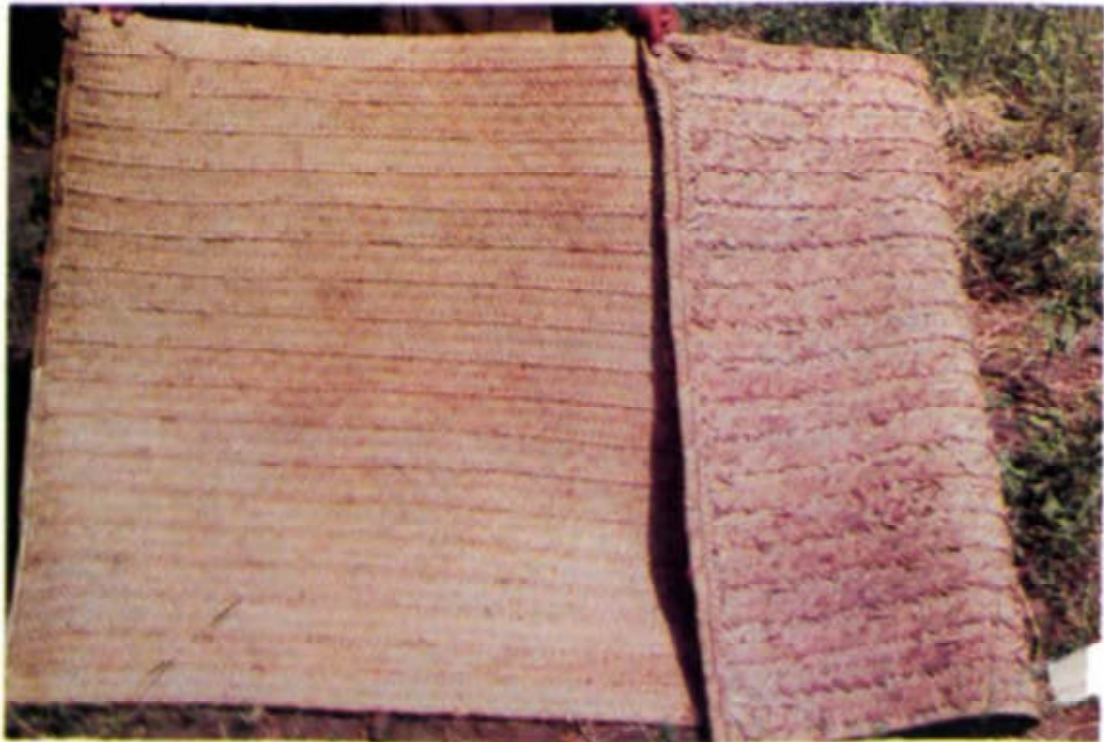
'Bhot', a device for catching fish in bulk amount, made from Bamboo strips, tied by threads (made from fibre of *Hibiscus cannabinus*)



'Satha' and 'Bhot'; 'Satha' made from stems of *Carvia callosa* tied together in the form of mat by threads (made from fiber of *Hibiscus cannabinus*), gives direction to flowing water through open end of 'Bhot'.



A 'Dhodia', tribal woman at work in Daman weaving the leaves of *Cocos nucifera*, which is used for thatching purposes.



A mat, made from leaves of *Phoenix sylvestris*.



Hats made from grass, *Eulalia fimbriata*.



'Tumbada', containers made from dried, scooped out fruits of *Lagenaria siceraria*.



'Sher, Athwa & Payali', containers made from Bamboo strips, pasted with cowdung and used for measuring cereals and pulses.



'Jatya' - A grinder with flour gatherer at bottom and handle of grinder, made from the wood of *Tectona grandis*.



An apparatus set up for distillation of liquor from flowers of *Madhuca longifolia* var. *latifolia*.



'Karanda', basket made of Bamboo strips and pasted with cowdung, used for keeping chicken to protect them from prey birds & other animals.



Candles, made by piercing seed endosperms of *Ricinus communis* in thin sticks.



'Parat', a dish made from wood of *Acacia catechu*, used as kitchen item.

'Dhowadi', made from dried, scooped out fruit of *Lagenaria siceraria*, used for serving toddy and water.

ETHNO-MUSICO-BOTANY

Tribal people of Dadra, Nagar Haveli and Daman have a flair for music and dance, their lives are full of rhythm. Music is the most important aspect of their culture which makes them more lively, otherwise a humdrum life.

One can very well feel that on each and every festival, feast and fair there is some kind of performance of music and dance. They dance to the melodious tune of musical instruments, which are prepared by the tribals themselves with the locally available materials like gourd, wood, bamboo, plant fibres, etc. Different tribes use different musical instruments, of which most common are Tarpa, Ghangdi, Dhol, Madal, Sambal, Pava, Sur, Tur and Thali, etc. and the same are described below briefly.

1. TARPA:

Tarpa is the most popular musical instrument of Warli and Konkna tribes of Dadra and Nagar Haveli. The Tarpa is used in 'Tarpa dance' which generally takes place after the harvesting of new crops and continues up to Diwali festival. Basically this instrument is used for invoking the Gods and Deities. In Thane district (Maharashtra) also it is known as 'Tarpa' or commonly as 'Dev-vajantra' whereas it is called "Pavuri" in Nasik district of Maharashtra.

Men and women dance to the tunes of Tarpa. The man with Tarpa stands in the middle and the party circles around him. The first man in line holds a stick of *Dendrocalamus strictus* locally called 'Ghol-Kathi' for maintaining rhythm. While dancing, the movement of steps change as tunes of Tarpa changes.

Materials used:

- 1) Dried, scooped out, narrowly oblong, fruit of *Lagenaria siceraria* (Dudhi-bhopla).
- 2) Two thin bamboo (*Dendrocalamus strictus*) culms with holes.
- 3) Leaves of *Borassus flabellifer* are wrapped around the horn to fill up the gaps between it and the bamboo culms and so also to decorate it.

The length of Tarpa vary from 1.0 to 1.5 m depending upon the length of *Lagenaria siceraria* fruit. In Dadra and Nagar Haveli Tarpa is played from the open end of the 'Dudhi-bhopla', while tribals of Maharashtra (Lakshminarasimhan and Sharma, 1990) and Rajasthan (Joshi, Prabhakar, 1995) blow the air through the mouth piece which is inserted in the centre of the dried fruit. While playing, the instrument is held by the bamboo culms, covering the holes by fingers to regulate the sound like flute.

2. GHANGDI:

This musical instrument is used by all the tribes while worshiping god before harvest by singing 'bhajans' and other devotions. Ghangdi resembles the 'Tamboora' but differs in one respect, that it has two gourds instead of one.

Materials used:

- 1) Two bottle-gourds (Dried, scooped out fruits of *Lagenaria siceraria*) of slightly different sizes, with swollen basal portion and smaller less swollen upper portion with a neck like constriction in between.
- 2) Bamboo pipe of about 1 m with one end curved.
- 3) Two wooden or bamboo pegs and a slender wooden stick (*Tectona grandis* or *Terminalia crenulata*) of about 30 cm.
- 4) One wooden block (*Tectona grandis*).
- 5) Strings (Steel wires).
- 6) Bee wax and charcoal powder.

Construction : The two bottle-gourds are fixed at a distance of 30 to 50 cm by passing the bamboo pipe through the holes bored on the upper swollen portion of the gourds. The slender wooden stick is fixed passing through the tip of the upper gourd to appropriate sized holes in the bamboo pipe. Two wooden pegs of different sizes are attached on bamboo pipe beyond the upper gourd. One wooden block is attached on bamboo pipe in between two gourds to give support and tension to string. Strings are tied to the instrument from the upper end of the pegs to the end of the curve of the bamboo pipe below the lower gourd. The other end of pipe is decorated with peacock feathers.

While playing, a person in sitting position holds the instrument horizontally with gourds resting on the knees and strings away from the player. The strings played are by finger at the level of lower gourd. The vibrations of the strings are passed on to the gourds by the bamboo pipe, which function as resonators.

3. DHOL:

It is a barrel shaped instrument consisting of a hollow wooden cylinder leathered on both sides.

The menfolk of 'Warli' and 'Konkana' tribes perform 'Dhol Dance' by singing solo and chorus lines in accompaniment of rhythmic sound of 'Dhol'. The dancers face the drummers and dance in jerks, twists and jumps. The dance is performed in several formations with acrobatics and human pyramids from rice harvest season up to 'Holi' festival to propitiate village Deities. 'Dhol' is also played by other tribes in different communal gatherings.

Materials used:

- 1) Hollow wooden cylinder of *Pterocarpus marsupium* or *Tectona grandis*.
- 2) Cord made by plant fibres of *Hibiscus cannabinus*.
- 3) Leather parchment (goat skin).

Construction : Leather parchment is tightly stretched over both the sides of the wooden cylinder with the help of cords and the tension on the cords for stretching leather is altered as per need by inserting small wooden blocks. While playing, the 'Dhol' is slung by a cord from the neck and played by striking it with bamboo sticks.

4. MADAL:

It is a barrel shaped hollowed wooden cylinder with both the sides little narrowed towards the ends, over which leather parchment is tightly stretched.

Menfolk of 'Warli' and 'Konkana' tribe use this instrument during 'bhajans' and social ceremonies.

Materials used:

- 1) Hollow wooden cylinder of *Tectona grandis* or *Desmodium oojeinensis*.
- 2) Cord made by plant fibres of *Hibiscus cannabinus*.
- 3) Leather parchment (goat skin).

Construction : As like Dhol, this too is tightly stretched by leather parchment over both the sides with the help of cords. Flour paste is applied on the parchment. This is played by using different parts of hand for striking eg. Fingers, knuckles and part of palm for bringing variations in sound.

5. SAMBHAL:

Sambhal is an instrument of Warli's, used during the marriages and also used in 'Mask dance' or 'Bohada'.

Materials used:

- 1) Two hollow wooden cylinders of *Tectona grandis* or *Dalbergia sissoo*, in the shape of semisphere and rounded at the base.
- 2) Cord made from plant fibres of *Hibiscus cannabinus*.
- 3) Six wooden blocks.
- 4) Four metal rings of slightly larger diameter than the wooden cylinders.
- 5) Leather parchment (goat skin).

Construction : Two hollow wooden semispheres of unequal size with one open end.

Basal part of wooden vessels / cylinders are supported by three wooden blocks each, which is kept on basal metal rings. Upper metal rings covered with leather parchment are tied to lower metal rings.

The Sambhal is slung by a cord from the neck and played by striking it with two small elastic, curved bamboo sticks.

6. KASALI OR SUR:

Kasali is an instrument like 'Shahnai' and is always played to the accompaniment with Sambhal.

Materials used:

- 1) One hollow wooden piece of *Dalbergia sissoo* with one end narrower or a bamboo piece.

Construction : One side of wooden/bamboo piece is cut in to lanceolate shape. In the narrower side a 'tongue' (wooden chip) is inserted, through which air is blown. Five equidistance holes are perforated on the main body. The other broad side converges sharply into a constriction, widening again by attaching separate circular wooden pieces.

The dance with 'Kasali' and 'Sambhal' is generally a community dance in which all male, female and children take part.

7. PAVA (Flute):

Pava is used by all the tribes in Dadra, Nagar Haveli and Daman. There are several kinds of Pavas varying in their lengths and degrees of perfection.

Materials used:

- 1) Bamboo stem (*Dendrocalamus strictus*).
- 2) Bamboo strips (1 cm x 2 cm).
- 3) Bamboo piece (ca 3 to 5 cm long).
- 4) Bee wax.

Construction : Five equidistant holes are perforated on each end of bamboo stem which is preferably three internodes long with septa of middle one intact. Outside and inside the septa of middle internode a hole is made on either side of each septum. Using bee wax the two bamboo strips are attached in such a way so as to cover the holes made into the middle internodal chamber and just over adjacent internodes forming passages of

air from the middle chamber to the outer one through the holes on the outside of the septa of middle internode.

Another hole is made in the centre of middle internode to fix a mouthpiece, through which air is blown, which passes towards its two opposite ends and produces melodious notes. A simple Pava is made by bamboo stem with one end plugged and five equidistant holes are perforated on it. The other end of bamboo piece is cut obliquely and a 'tongue' (wooden/bamboo chip) is inserted, through which air is blown.

8. TUR and THALI:

Musical instrument Tur and Thali are used in 'Tur and Thali Dance', which is performed mostly during the marriages and other festive occasions by the tribes Dhodia and Dubala. Men and Women folk dance together to the tune of the instrument. The person who beats the 'Tur' is called 'Turwala' and the person beating the metal dish (Thali) by wooden stick is called 'Thaliwala'. The dancers perform the dance in rhythm and by making to and fro movements.

Materials used:

- 1) Two faced drum made out of clay with two open ends of unequal diameter.
- 2) Leather parchment (skin of goat).
- 3) Cords made by plant fibre *Hibiscus cannabinus* or leather strips.
- 4) Rice flour (*Oryza sativa* grains).
- 5) Wooden stick of about 25-30 cm (*Terminalia crenulata*).
- 6) Dish of copper alloy metal.

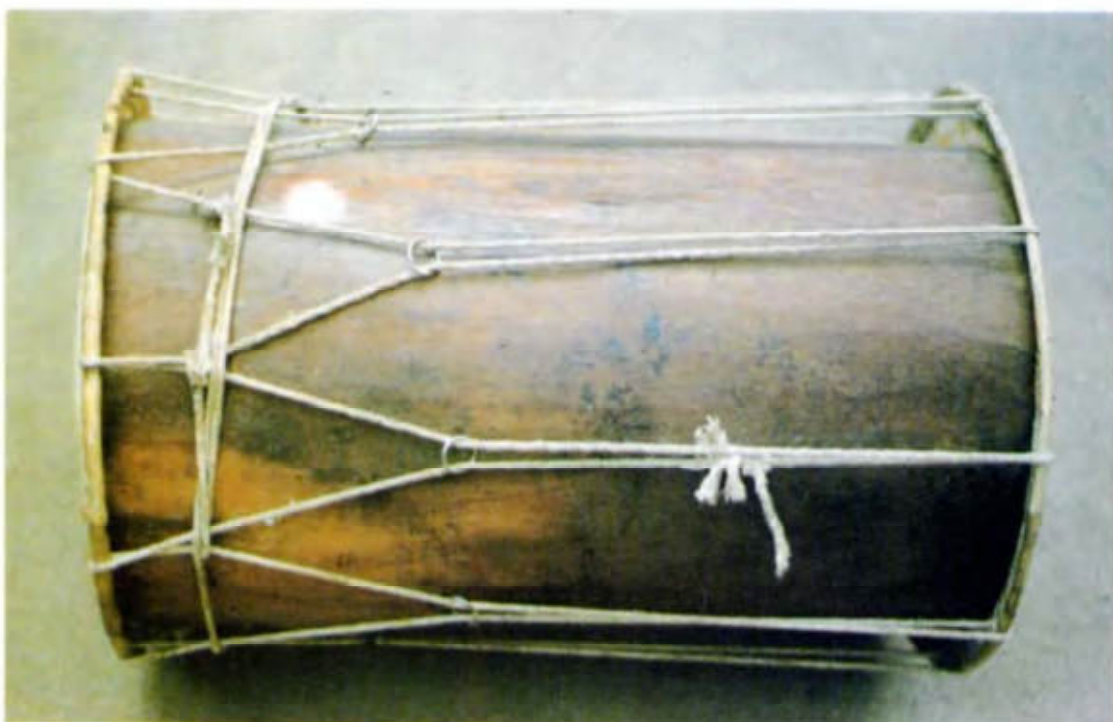
Construction : Leather parchment is tightly stretched over two open ends of drum/cylinder (which is made out of clay) with the help of cords. As shown in photograph, the leather parchments are tied by leather strips but sometimes it is also stretched by cords made by plant fibres of *Hibiscus cannabinus*. To make the leather parchment more stretched and sensitive to touch of the musicians fingers, an additional paste of rice is applied from both sides.



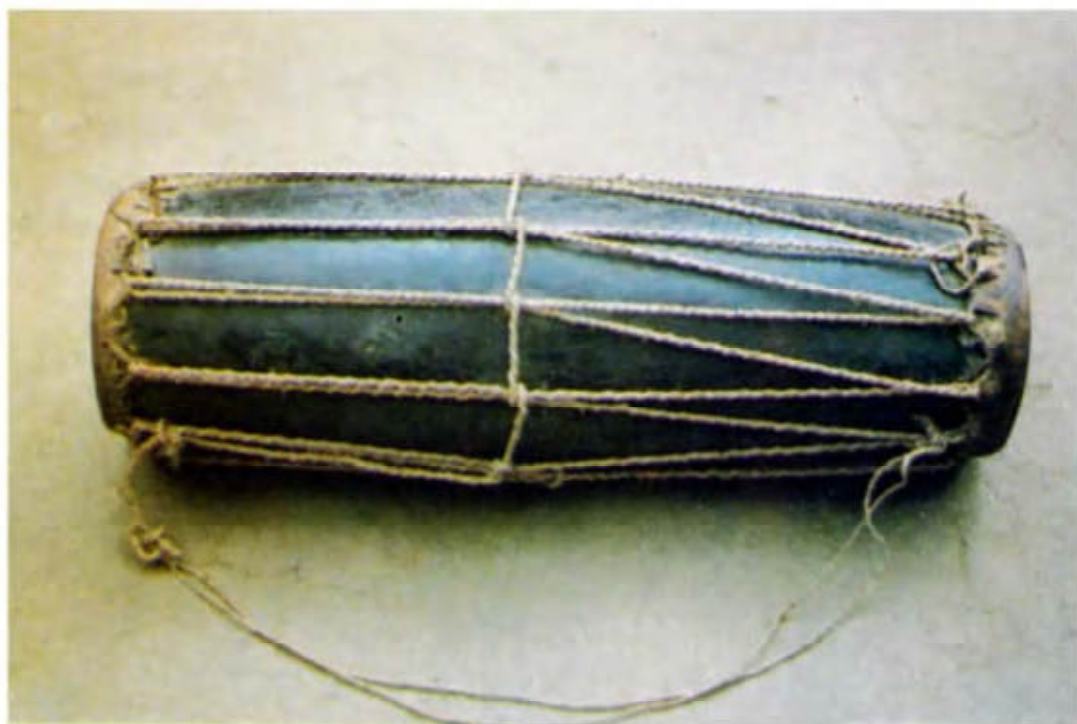
Tarpa.



Ghangdi.



Dhol.



Madal.



Sambhal.



Tur & Thali.



A Song (Mask).



Dhol-dance.

A Thali of copper alloy metal is played by wooden stick.

9. 'SONG' (MASK):

The masks locally called 'Song' are carved out from a single piece of *Sterculia urens* wood and decorated with *Dendrocalamus strictus* strips and coloured papers. The Masks or 'Song' are painted with bright colours such as red, green, yellow and white. The masks are made for Hindu Gods and Goddesses besides the tribal deities like 'Kaloba' 'Mhasoba', 'Rangatai', etc.

Masks used in 'Mask-dance' which is also called as 'Bohada', is mostly performed by the Warli and Konkana tribe's men. The dance performances are held during the night in torch lights in accompaniment of music of 'Sambhal' and 'Sur'. The performers wear the 'Song' and dance in typical steps, which are separate for each Mask/Song.

PLANTS USED FOR MAKING MUSICAL INSTRUMENTS

Plant Name	Part Used	Musical Instrument
<i>Borassus flabellifer</i>	Leaves	Tarpa
<i>Dalbergia sissoo</i>	Wooden cylinder or wooden piece	Sambhal and Kasali
<i>Dendrocalamus strictus</i>	Stem	Tarpa and Pava
<i>Desmodium oojeinensis</i>	Wooden cylinder	Madal
<i>Hibiscus cannabinus</i>	Stem fibre	Dhol, Madal, Sambhal and Tur and Thali
<i>Legenaria siceraria</i>	Fruit	Tarpa and Ghangdi
<i>Oryza sativa</i>	Rice flour	Tur and Thali
<i>Pterocarpus marsupium</i>	Wooden cylinder	Dhol
<i>Tectona grandis</i>	Wooden pegs/ block/cylinder	Dhol, Madal & Sambhal
<i>Terminalia crenulata</i>	Wooden block/stick	Ghangadi, Tur & Thali

METHODOLOGY

The data presented here is based on personal observations and interviews of informants. The indigenous knowledge of tribals regarding plants was gathered by intensive ethnobotanical explorations. The areas visited annually for 3-4 times during the period January 1995 to March 1998 for covering different villages of Dadra, Nagar Haveli and Daman and each visit lasted about 20-25 days. Since the major tribal population is concentrated in Nagar Haveli, the major part of the field work was confined to this area.

The informants interviewed were of following categories: The medicinemen, local healer, village head and old experienced and knowledgeable men and women. During the field survey, for plant collection and documentation of data on plants in the forest, the informant accompanied the author. Sometimes more than one informants were included in the team.

Each medicinal and edible use of the plant has been confirmed and verified during different visits to different localities in the area and even with the same informants on different occasions. The uses were considered valid if atleast 3 informants had similar comments about the uses of the plant. For getting close to the local people and to win their confidence the senior author has participated in their marriages, festivals, social events, etc. which was of great use in observing their using various things.

During the field work 3-4 voucher specimens of each ethnobotanically important plant and plant part used in medicine were collected and numbered. The voucher specimens were made mostly at flowering and fruiting stage according to standard methods (Jain and Rao, 1977). Their description, ethnobotanical uses and other details were recorded in the field book and in ethnobotany data sheet, which is based on Jain (1995). Collected plant specimens were identified with the help of keys to families, genera and species provided in standard floras like, Cooke (1958), Rao (1985), L. Narasimhan (1991), etc. and specimens were matched with the authentic herbarium specimens of Botanical Survey of India, Western circle, Pune herbarium (BSI).

Altogether 305 plants used by natives for different purposes have been enumerated and arranged in families according to Bentham and Hooker's (1862-1883) system of classification with slight adjustment according to their present delimitation.

The genera under each family and species under each genus are arranged alphabetically for the sake of easy reference. The citation includes the correct botanical name followed by references of the Flora of the Presidency of Bombay by Cooke (1958) besides, Rao (1985) and Jain (1991) are given. If the name is not given in the Flora by Cooke (1958), then the reference of the Flora of British India by J.D. Hooker (1872-96) is indicated. The local names are given in inverted commas, just after citations but separated by atleast one space.

A brief description of the species is given after citation and local name. In case of the plants having medicinal uses, the available chemical constituents of the plant or of the part used have been given after description.

The phenological data of the plant has been furnished after plant's description or chemical constituents. Reference to the illustration of the plant in literature has been provided thereafter. Then the distribution of the plant has been given, which is followed by locality and field collection number/s. For some species particularly cultivated, which were not collected, reference has been given from Herbarium, BSI, Pune.

If available, the information regarding some religious and sacred plants has been indicated under the heading, Folklore.

The detailed preparation of formulation, dosage, mode of use, etc. has been given under Uses.

For most of the medicinal uses of plants mentioned here are also reported in earlier literature, reference has been given under the heading, Literature. After scrutiny of literature several uses are not found to be reported so far in major literature on ethnobotany and medicinal plants and hence, these uses are treated as less known or new uses and therefore, marked by an asterisk (*). In some uses the method of administration, plant part used or formulation made by mixing parts of more than one

plant are quite different than those of uses reported in literature. These uses are marked by a plus (+) sign. The uses are finally followed in parenthesis by the name of the tribe using it.

To confirm the less known or new uses and to verify the other uses the major literature referred is : Anonymous (1948-76), Asolkar, *et al.* (1992), Chopra, *et al.* (1956 and 69), Dastur (1964), Jain, (1991, 1999), Jain and De Philipps (1991), Jain *et al.* (1991), Kirtikar and Basu (1933), Rastogi and Mehrotra (1991a, 1991b and 1993), Saklani and Jain (1994), Sinha (1996), Varghese (1996), besides several papers published in different journals.

A proforma was designed for recording information on Medicinal, edible and other uses of plants, which is mostly based on Jain (1995) and the same is given below :

Proforma: I.

INFORMATION ON PLANTS USED IN MEDICINE

Place	:	Collection No.	:
Recorded by	:	Date	:
Informer's Name	:		
Tribe	:	Age :	Sex :
Local Name	:		
Botanical Name	:		
Part Used	:		
Preparation of drug	:		
Dose	:		
Use	:		
Cultivated / Wild	:		

Proforma II:

**INFORMATION ON PLANTS USED FOR FOOD AND
OTHER PURPOSES**

Place	:	Collection No	:
Recorded by	:	Date	:
Informer's Name	:		
Tribe	:	Age :	Sex :
Local Name	:		
Botanical Name	:		
Part used	:		
Uses	:		
Cultivated / Wild	:		

ABBREVIATIONS USED IN THE TEXT

Abbreviations used in the text are as follows as:

Anon.	:	Anonymous,
bk	:	Bark.
ca	:	<i>Circiter.</i>
cm	:	Centimeter.
Dict. Ethn.	:	Dictionary of Indian Folk Medicine and Ethnobotany.
distrib.	:	Distribution of collections with field numbers.
Ed	:	Edible.
<i>et al.</i>	:	<i>et alii.</i>
etc.	:	<i>et cetera.</i>
fl	:	Flower.
Fls.	:	Flowering period.
fr	:	Fruit
Frts	:	Fruiting period.
Illus.	:	Illustration.
ha	:	Hectare.
infl	:	Inflorescence.
km	:	Kilometer/s.
la	:	Latex.
lf	:	Leaf.
m	:	metre.
mm	:	millimetre.
Med	:	Medicinal.
Misc	:	Other (all uses except for medicinal and edible uses).
N.H.	:	Nagar Haveli.
<i>Op. cit.</i>	:	<i>Opere citato.</i>
pd	:	Pod.
Plt/wp	:	Whole plant.
rh	:	Rhizome.
rt	:	Root.
sd	:	Seed.
sq km	:	Square Kilometers.
sps	:	Species.
ssp	:	Sub species.
st	:	Stem.
tu	:	Tuber.
var.	:	Variety.
Vet	:	Veterinary.
wd	:	Wood.

ENUMERATION

DILLENACEAE

Dillenia pentagyna Roxb., Pl. Cor. t.20. 1795; Cooke, Fl. Pres. Bombay 1:7. 1958 (Repr.ed.); Rao, Fl. Goa 1:92. 1985; Jain, Dict. Ethn. 74. 1991. 'Karvela'

Trees, ca 10 m high. Leaves elliptic or lanceolate, downy, with nerves ending in sharp teeth, reddish when young, smooth, shining at maturity. Flowers yellow, fascicled on leafless branches. Fruits small, subglobose, orange or red.

Bark and leaves contain tannin (Chopra, *et al.*, 1956).

Fls. & Frts.: March - July.

Illus.: Roxb., Pl. Cor. t.20. 1795.

Distrib.: Frequent on hill slopes, found associated with *Terminalia crenulata*; Dudhni (N. H.), 176464.

Uses: Med : Measles; 20-30 ml decoction made from its bark along with the bark of *Tectona grandis* taken in proportion of 3: 1, is given twice a day. (Warli).

Ed : Fruit is eaten by locals. (Warli).

Misc : Leaves are used for thatching roof of huts. (All tribes).

Literature : Sabnis & Bedi, 1983 - (bk) measles. Jain, 1991-(fr) edible.

MAGNOLIACEAE

Michelia champaca L., Sp. Pl. 536, 1753; Cooke, Fl. Pres. Bombay 1:8. 1958 (Repr. ed.); Rao, Fl. Goa 1:2. 1985; Jain, Dict. Ethn. 124. 1991 'Sonchafa', 'Chafa'.

Trees, up to 7.5 m high, evergreen with a straight trunk; bark brown. Leaves lanceolate, acute, entire. Flowers yellow, fragrant, axillary, solitary. Capsules orbicular, warted. Seeds & flowers contain essential oil (Chopra, *et al.*, 1956).

Fls. & Frts.: April - November.

Illus.: Matthew, Ill. Fl. Timalnadu Carnatic 2:t. 3. 1982.

Distrib.: Commonly planted; Umberkui (N.H.), 173395.

Uses: Med : Foot cracks; paste made from seeds and fruits is applied for healing cracks on foot. (Warli, Dhodia).

Misc : Wood is used in ceiling of huts. (All tribes).

Literature : Chopra, *et al.*, 1956 and Kirtikar & Basu, 1933- (sd & fr) foot cracks.

ANNONACEAE

***Annona squamosa* L.**, Sp. Pl. 537. 1753; Cooke, Fl. Pres. Bombay 1:15. 1958 (Repr.ed.); Rao, Fl. Goa 1:2. 1985; Jain, Dict. Ethn. 23. 1991. 'Sitaphal'.

Trees, 5-6 m high. Leaves elliptic, apex acute-subacute. Flowers solitary or 2-4 together on extra axillary branches. Fruits globose, yellowish-green when ripe.

Plant contains an amorphous alkaloid-annonaine, toxic resins and oil (Chopra, *et al.*, 1956). Leaves contain pleasant smelling essential oil [Chopra, *et al.*, 1969].

Fls. & Frts.: May - November.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 2. 1988.

Distrib.: Mostly cultivated near villages, sometimes found on hill tops; Dolara (N. H.), 176465.

Uses: Med : To expel lice; leaves crushed in water and applied in hairs. (Warli).

Wound worms; paste of its leaves along with *Momordica charantia* leaves is applied on wounds to expel worms. (Warli, Kathudi).

Cuts: fresh leaf juice is applied. (Warli, Kathudi).

Ed : Fruits. (All tribes).

Literature : Duke, 1986 -(lf) guinea worms. Kulkarni & Kumbhojkar, 1996 - (lf) wound maggots. Varghese, 1996 - (lf) expels lice. Jain, 1991 (fr) edible, -(lf) cuts.

Miliusa tomentosa (Roxb.) Sinclair in Gardn. Bull. Singapore 14:378. 1955; Jain, Dict. Ethn. 125. 1991. *Saccopetalum tomentosum* Hook.f. and Thoms., Fl. Ind. 152. 1855; Cooke, Fl. Pres. Bombay 1:17. 1958 (Repr.ed.); Rao, Fl. Goa 1:4. 1985. 'Humb'.

Trees, 6-12 m tall. Leaves alternate, ovate-oblong, glabrescent above, glabrous beneath. Flowers ca 1.5 cm long, pedicels 5.5 - 6.0 cm long, slender. Fruits, subglobose or globose, stalked.

Fls. & Frts.: March - June.

Illus. : Talbot, For. Fl. Bombay Pres. & Sind 1: f.21.1909 (*Saccopetalum tomentosum*).

Distrib.: Few, on the outskirts of forests; Saily (N. H), 89073 (R.S.Rao).

Uses: Ed : Ripe fruits are eaten by tribals. (All tribes).

Misc : Wood is considered as a valuable timber. (All tribes).

Literature : Laxminarasimhan & Sharma, 1991 - (fr) edible.

MENISPERMACEAE

Cissampelos pareira var. **hirsuta** (Buch.Ham. ex DC.) Forman in Kew Bull. 22:356. 1968. *C. pareira* L., Sp. Pl. 1031. 1753; Cooke, Fl. Pres. Bombay 1:24. 1958 (Repr.ed.); Rao, Fl. Goa 1:6. 1985; Jain, Dict. Ethn. 53. 1991. 'Venivel'.

Climbers; branches striate. Leaves reniform or orbicular. Flowers greenish-yellow & minute. Drupes 3-6 mm in diam., subglobose, incipient drupes green, ripens orange.

Root bark contains eleven quaternary alkaloids, three of which were termed menismine, cassamine & pareirine in addition to known l-bebeerine,

hayatinine, hayatin and d-isochondrodendrine; five more tertiary alkaloids present in root bark. Besides these alkaloids, plant also contains saponin [Jain, *et al.*, 1991].

Fls. & Frts.: June - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 12. 1982.

Distrib.: Common in the forest undergrowth; Karchond (N. H.), 176477.

Uses: Med : Headache; root paste applied on forehead. (Konkana).
Loose motions; 10-20 ml of root extract given twice/thrice a day. (Warli, Konkana).

Literature : Jain, 1991 -(rt) headache, loose motions. Painuli & Maheshwari, 1996 -(rt) dysentery.

Cocculus hirsutus (L.) Diels in Mason, Burma ed. Theob. 2:657. 1883; Rao, Fl. Goa 1:6. 1985; Jain, Dict. Ethn. 57. 1991. *C. villosus* (Lam.) DC., Syst. Nat. 1:525. 1817; Cooke, Fl. Pres. Bombay 1:22. 1958 (Repr.ed.). 'Tanoli'.

Shrubs, climbing; branches striate. Leaves alternate, ovate-oblong or subhastate. Flowers dioecious, greenish-yellow, small. Drupes 3, grouped together, globose, green when young, ripens purple.

Root contains D-trilobene & DL-cocclaurine, alkaloids, glycosides & sterols [Chopra, *et al.*, 1969].

Fls. & Frts.: September - February.

Illus. : Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 13. 1982.

Distrib.: Common in plains & on hill tops; Dudhani (N. H.), 173308.

Uses: Med : * Skin burns; paste of leaves crushed with little quantity of water is applied. (Konkana).

* Scorpion sting; 30-50 ml of leaf extract given orally. (Konkana).

+ Dyspepsia; 10-20 ml root extract given twice / thrice. (Konkana).

Cooling effect; a) crushed leaves kept on head of children for 30-60 minutes. (Konkana).

+ b) Thin stem tied around the arm to reduce body heat. (Warli).

Headache; crushed leaves applied on forehead. (Konkana).

Literature : Jain, 1991 -(lf) Stomach disorders, cooling. Shah, *et al.*, 1983 (st) stomach ailments. Sabnis & Bedi, 1983 (lf) headache.

Stephania japonica (Thunb.) Miers in Ann. Nat. Hist. (Ser.3) 18:14. 1866; Rao, Fl. Goa 1:8. 1985; Jain, Dict. Ethn. 171. 1991. *S. hernandifolia* Hook. f. & Thoms., Fl. Ind. 196. 1855; Cooke, Fl. Pres. Bombay 1:23. 1958 (Repr.ed.). 'Padmurya'.

Slender, twining herbs. Leaves peltate, ovate. Flowers greenish, in compound umbels. Male flowers: calyx 6-10 lobed, oblanceolate. Female flowers: calyx 3-5 lobed, free, oblong. Drupes 6-7 mm across, globose, red.

Alkaloids, hypoeπισtephanine, metaphanine, aknadine, stephanine, stephanoline, homostephanoline, protostephanine, hasubanonine, steponine chloride, insularine, cycloanoline, hernandoline, aknadicine are the chemical constituents of the plant [Anonymous, 1976].

Fls. & Frts.: July - January.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.17. 1982.

Distrib.: Occasionally found in open situations; Zari (Daman), 173961.

Uses: Med : Loose motions; 20-25 ml of root extract is given twice a day. (Dhodia).

Literature : Anonymous, 1976 -(rt) diarrhoea; Saklani & Jain, 1994 (lf) diarrhoea.

Tinospora cordifolia (L.) Miers & Thoms., Fl. Ind. 184. 1855; Cooke, Fl. Pres. Bombay 1:20. 1958 (Repr.ed.); Rao, Fl. Goa 1:8. 1985; Jain, Dict. Ethn. 179. 1991. 'Gulvel'.

Shrubs, climbing, woody; stems & branches lenticelled; latex watery. Leaves cordate with a broad sinus, 7-nerved. Flowers yellow. Drupes globose, green and hanging in bunches from leafless stems.

Chief alkaloid reported is berberine and the chief glycoside is giloin. Non glycosidic bitter principle is giloinin. Other bitter principles reported are columbin, chasmanthin, palmarin, tinosporic acid and tinosporol. Sterol is gilo-sterol [Sinha, 1996].

Fls. & Frts.: January - June.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 19. 1982.

Distrib.: Sparse on hill slopes; Dudhni (N. H.), 176468.

Uses: Med :Intermittent fever; 10-25 ml of root decoction given twice a day. (Warli, Konkana).

Ed : Fodder; leaves are relished by cattle. (Warli, Konkana).

Literature : Jain & De Filippis, 1991 -(rt) intermittent fever; Varghese, 1996 -(wp) malaria.

NYMPHAEACEAE

Nymphaea pubescens Willd., Sp. Pl. 2:1154. 1799; Rao, Fl. Goa 1:10, 1985; Jain, Dict. Ethn. 132. 1991. *N. lotus* Hook. f. & Thoms., Fl. Ind. 241. 1855 *auct. non* L.; Cooke, Fl. Pres. Bombay 1:26. 1967 (Repr.ed.) [incl. var. *pubescens* Hook. f. & Thoms. l.c.]. 'Kamal'.

Aquatic, stoloniferous herbs. Leaves peltate, deeply cordate at the base. Flowers white. Fruits fleshy, globose, green, ripening beneath the water.

Fls. & Frts.: Almost throughout the year.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.22. 1982.

Distrib.: Very common in ponds at Daman, 176469.

Uses: Ed :Rootstocks, petioles & peduncles are eaten by locals. (Dhodia, Naika).

Literature : Varghese, 1996 - (petiole, peduncle & rootstock) edible.

PAPAVERACEAE

Argemone mexicana L., Sp. Pl. 508. 1753; Cooke, Fl. Pres. Bombay 1:29. 1958 (Repr.ed.); Rao, Fl. Goa 1:11. 1985; Jain, Dict. Ethn. 26. 1991. 'Pivaladhotra', 'Badiringanee'.

Herbs, 40-80 cm tall, prickly. Leaves pinnatifid, subsessile, margins spiny. Flowers axillary and terminal, solitary, bright yellow. Capsules dehiscent by valves. Seeds numerous, bluish-brown and deeply reticulate-scribbulate.

Fls. & Frts.: Almost throughout the year.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 23. 1982.

Distrib.: Common weed in wastelands; Kawacha (N. H.), 173979.

Uses: Med.: Tooth decay; seed paste applied on affected tooth. (Warli, Konkana).

Ed: Vegetable; stem of the young plants is chopped to remove prickles and cooked. (Warli, Konkana).

Literature : Jain, 1991 -(st) vegetable, -(sd) toothache.

CAPPARACEAE

Capparis sepiaria L., Syst. ed. 10, 2:1071. 1759; Cooke, Fl. Pres. Bombay 1:51. 1958 (Repr.ed.); Rao, Fl. Goa 1:14. 1985; Jain, Dict. Ethn. 43. 1991. 'Waghoti'.

Trees, 3-4.5 m tall, armed with spines. Leaves ovate-elliptic, apex emarginate. Flowers white. Fruits globose, ca 2 cm in diam., ripens purple. Seeds embedded in fleshy pulp.

Root contains alkaloid, glycoside, flavonoid, sterols, terpenes, anthocyanin & amino acids [Jain, *et al.*, 1991].

Fls. & Frts.: February - June.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t.9. 1988.

Distrib.: Common in hedges around the fields & on the slopes; Kawacha (N. H.), 173978.

Uses: Med : *Headache; 2-3 drops of root juice poured in nasals. (Konkana).

Ed : Vegetable; fruits cut into slices, kept overnight in water to remove bitterness & cooked. (Warli, Konkana).

Fruits pickled. (Warli, Konkana).

Literature : Saini, 1996 -(fr) edible.

FLACOURTIACEAE

Casearia graveolens Dalz. in *Kew J. Bot.* 4:107. 1852; Cooke, *Fl. Pres. Bombay* 1:553. 1958 (Repr. ed.); Rao, *Fl. Goa* 1:20. 1985; Jain, *Dict. Ethn.* 45. 1991. 'Bhokara'.

Shrubs or small trees; stems & branches lenticelled. Flowers green in axillary clusters on leafless branches. Fruits 1.5 - 2.5 cm long, greenish-yellow, ellipsoid, 3-valved.

Fls. & Frts.: March - September.

Distrib.: Few on hill slopes; Dudhni (N. H.), 176466.

Uses: Fish poison; fruits used as fish poison. (All tribes).

Misc : Wood used in carving work. (All tribes).

Literature : Jain, 1991; Rao, 1985 -(fr) fish poison.

Flacourtia indica (Burm.f.) Merr., *Interpr. Rumph. Herb. Amb.* 377. 1917; Rao, *Fl. Goa* 1:21. 1985; Jain, *Dict. Ethn.* 91. 1991. *F. sepiaria* Roxb., *Pl. Cor.* 1:48. 1795; Cooke, *Fl. Pres. Bombay* 1:60. 1958 (Repr.ed.). 'Gela'.

Trees, stout, up to 4 m high. Leaves broadly elliptic, ovate or obovate. Flowers greenish-yellow, in clusters on thorns. Drupes 5-celled, black or dark red, hairy, sepals persistent.

Chemical constituents of the plant are alkaloidal substances, glycoside & enzyme [Gopakumar, *et al.*, 1991].

Fls. & Frts.: January - October.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t. 14. 1988.

Distrib.: Occasional in forests; Amboli (N. H.), 173995.

Uses: * Fish poison; Unripe fruits crushed & used as fish poison. (Warli, Konkana).

Ed: Ripe fruits are eaten by locals. (Konkana).

Literature: Saini, 1996 -(fr) edible.

PORTULACACEAE

Portulaca oleracea L., *Sp. Pl.* 445. 1753; Cooke, *Fl. Pres. Bombay* 1:72. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:26. 1985; Jain, *Dict. Ethn.* 149. 1991. 'Motiluni'.

Herbs, annual, succulent, prostrate; stems reddish; nodes swollen. Leaves spatulate, fleshy, subsessile cuneiform. Flowers yellow. Capsules ovoid.

Fls. & Frts.: July - October.

Illus.: Matthew, *Ill. Fl. Tamilnadu Carnatic* 2:t.49. 1982.

Distrib.: Common weed in waste places & cultivated fields; Kawacha (N. H.), 176467.

Use: *Ed*: The leaves and young shoots are used as vegetable due to their nutritive value. (Warli, Konkana).

Literature: Jain, 1991 -(lf,sh) vegetable.

TAMARICACEAE

Tamarix ericoides Rottl. in Ges Naturf. Fr. Berl. Neue Schr. 4:214. 1803; Cooke, Fl. Pres. Bombay 1:76. 1958 (Repr.ed.); Rao, Fl. Goa 1:26. 1985; Jain, Dict. Ethn. 176. 1991. 'Sherni'.

Shrubs, 1.0-1.5 m tall, bushy; bark cracked. Inflorescence of dense, terminal racemes. Flowers ca 0.4 x 0.5 cm; stamens 10, with disc glands in between. Capsules beaked, 3-valved.

Fls. & Frts.: October - January.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 1: f.56. 1909.

Distrib.: Common on the rocky beds of rivers; Amboli (N.H.), 176461.

Uses: Med : Cough; leaf extract given for treating cough. (Warli).

Misc : Twigs are used for making brooms. (All tribes).

Literature : Anonymous, 1976 & Jain, 1991 -(lf) cough.

MALVACEAE

Abelmoschus esculentus (L.) Moench., Meth. Pl.617. 1794; Rao, Fl. Goa 1:33. 1985; Jain, Dict. Ethn. 7. 1991. *Hibiscus esculentus* L., Sp. Pl. 696. 1753; Cooke, Fl. Pres. Bombay 1:119. 1958 (Repr.ed.). 'Bhendi'

Herbs, annual, 0.5-1.0 m tall, prickly. Leaves 5-lobed, lobes coarsely toothed. Flowers yellow, purple at centre. Capsules oblong, 6-8 ribbed. Seeds striate, hairy.

Fls. & Frts.: August - October.

Illus.: K. Schum. in Engl. & Prantl, Pflanzenf. 3(b):48, f.20. 1890.

Distrib.: Cultivated; Zari (Daman), 177344.

Use : Ed : fruits are used as vegetable. (All tribes).

Literature : Jain, 1991 & Rao, 1985 -(fr) vegetable.

Abelmoschus manihot (L.) Medik., Malv. Fam. 46. 1787; Rao, Fl. Goa 1:32. 1985; Jain, Dict. Ethn. 7. 1991. *H. tetraphyllus* Roxb. ex Horn., Hort. Hafn. 661. 1815; Cooke, Fl. Pres. Bombay 1:118. 1958 (Repr. ed.). 'Ranbhindo' 'Bambuda'.

Herbs, annual, erect, unarmed; stems sparsely, stiff hairy. Leaves palmately 3-7 lobed or angled, scabrous. Flowers yellow or pinkish.

Roots contain mucin, mucilage named "Abelmoschus-mucilage M" composed of 82% polysaccharide & 17% protein. (Asolkar, *et al.*, 1992).

Fls. & Frts.: September - December.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.31. 1988.

Distrib.: Frequent on hill slopes & bunds of fields; Dapada, Amboli (N. H.), 173375, 176416.

Uses: Med : *Cuts & Wounds; root paste applied for treating cuts, injuries & for healing wounds. (Warli).

Ed : Ripe fruits edible. (All tribes).

Literature : Jain, 1991 -(fr) edible.

Abutilon indicum (L.) Sweet, Hort. Brit. 54. 1826; Cooke. Fl. Pres. Bombay 1:102. 1958 (Repr.ed.); Rao, Fl. Goa 1:33. 1985; Jain, Dict. Ethn. 8. 1991. 'Mudra'.

Undershrubs, ca 1 m tall, erect, suffruticose, hairy-tomentose. Flowers axillary, solitary on pedicels jointed near the apex; corolla orange-yellow.

Plant contains mucilage & asparagin [Chopra, *et al.*, 1956].

Fls. & Frts.: August - March.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.33. 1988.

Distrib.: Occasional in hedges & waste places; Fort area (Daman), 174000.

Uses: Med : Diabetes; one leaf taken on empty stomach early in the morning for seven days. (Dhodia).

Scabies; crushed leaves applied. (Dhodia).

Literature : Upadhye, *et al.*, 1994 -(lf) diabetes. Sabnis & Bedi, 1983 (lf) skin disease.

Hibiscus cannabinus L., Cyst. Nat. ed. 10,2:1149. 1759; Cooke, Fl. Pres. Bombay 1:116. 1958 (Repr.ed.); Rao, Fl. Goa 1:37. 1985; Jain, Dict. Ethn. 102. 1991. 'Ambadi'

Shrubs, erect with minute prickles. Leaves glabrous, cordate, roundish-ovate, the upper deeply palmately 3-5 lobed. Flowers yellow with purple centre. Fruits ovoid, covered with bristles.

Fls. & Frts. : January - March.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.35. 1988.

Distrib.: Commonly cultivated; (N. H.), 173357.

Uses: Ed :Vegetable; leaves and flowers are cooked. (Warli).

'Chutney' made from calyx. (Warli, Konkana).

Misc : Cordage; the fibres are extracted by repeated washing and drying of mature plants after soaking in water for few days. Fibres obtained are used to prepare ropes and nets. (All tribes).

Literature : Jain, 1991 -(lf) vegetable. Saini, 1996 -(st fibre) cordage.

Hibiscus talbotii (Rakshit) Paul & Nayar in Bull. Bot. Surv. India 22:198 (1980) 1982. *H. hirtus* var. *talbotii* Rakshit in Sci. & Cult. 27:193, f.2. 1961; Rao, Fl. Goa 1:36, 1985. *H. hirtus* Wight & Arn. Prodr. 51. 1834, *auct. plur.* non L.; Cooke, Fl. Pres. Bombay 1:113. 1958 (Repr.ed.). 'Barikalibhendi'.

Shrubs, 1-2 m tall, erect, woody, hairy. Leaves oblong, acute or acuminate. Inflorescence of axillary or terminal panicles. Flowers white. Fruits globose, hairy, 5-valved.

Fls. & Frts.: October - May.

Illus.: Rakshit in *Sci. & Cult.* 27:193, f.2. 1961.

Distrib.: Common along hill slopes and in forest undergrowth; Ghodbari (N. H.), 173307.

Use: Med : *Menorrhagia; 10-30 ml of root extract given twice a day is said to be effective in treating excess bleeding during menstruation. (Konkana).

Malachra capitata (L.) L., *Syst. ed.* 12,2:458. 1767; Cooke, *Fl. Pres. Bombay* 1:105. 1958. (Repr.ed.); Rao, *Fl. Goa* 1:38. 1985. 'Nanobhindo'

Herbs. Leaves cordate, crenate. Flowers subsessile, yellow. Carpels 5, rounded on the back, white when ripe, reticulated with brown veins. Seeds smooth, brown-black.

Fls. & Frts.: September - December.

Illus. : Matthew, *Ill. Fl. Tamilnadu Carnatic* 2:t. 64. 1982.

Distrib.: Common weed on wastelands and along roadsides; Patalara (Daman), 173908.

Uses: Med : * Haematuria; one glass of root extract is given once a day to check bleeding through urine. (Dhodia).

Wounds; dry plant powder mixed with coconut oil and applied. (Dhodia).

Literature : Sabnis & Bedi, 1983 -(wp) - wounds.

Sida acuta Burm. f., *Fl. Ind.* 147. 1768; Cooke, *Fl. Pres. Bombay* 1:98. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:39. 1985; Jain, *Dict. Ethn.* 164. 1991. 'Chikana'.

Undershrubs, perennial, much branched, branches stellately hairy. Leaves lanceolate, base rounded. Flowers yellow. Fruits 1.2 cm in diam. Seeds subglobose, brown, smooth.

Plants contain a major alkaloid - ephedrine [Sinha, 1996].

Fls. & Frts. : September - December.

Illus. : Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.68. 1982.

Distrib. : Common on hill tops, hill slopes & in forest undergrowth; Deva Pardi (Daman), 173910.

Uses: Misc : Tender stem pieces used like 'tooth brush' for cleaning teeth. (All tribes).

Brooms; a bunch of stems bound together used as broom. (All tribes).

Sida cordata (Burm.f.) Borssum in Blumea 14:182. 1966; Rao, Fl. Goa 1:40. 1985; Jain, Dict. Ethn. 165. 1991. *S. veronicifolia* Lam., Encycl. 1:5. 1783; Cooke, Fl. Pres. Bombay 1:97. 1958 (Repr.ed.). 'Bhoybal'.

Perennials, ca 5 m long, much branched. Leaves ovate or orbicular. Flowers yellow, axillary, solitary or 2-3 together; corolla yellow.

Major chemical constituent of plant is ephedrine (Anonymous, 1972).

Fls. & Frts. : October - January.

Illus. : Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.45. 1988.

Distrib. : Common in forest undergrowth; Deva Pardi (Daman), 173909.

Use: Med : Wounds; paste made by crushing the leaves with water applied for treating injuries & healing wounds. (Dubala).

Literature : Hosagoudar & Henry, 1996a, Jain, 1991 and Jain & De Filipps, 1991 - (lf) wounds.

Sida cordifolia L., Sp. Pl. 684. 1763; Cooke, Fl. Pres. Bombay 1:99. 1958. (Repr.ed.); Rao, Fl. Goa 1:40. 1985; Jain, Dict. Ethn. 165. 1991. 'Khiranti'

Woody herbs; stems with spreading hairs. Leaves cordate, ovate-oblong, crenate, obtuse or subacute. Flowers axillary, solitary; calyx lobes triangular, acute, densely pubescent outside.

Plant contains alkaloid ephedrine [Dastur, 1964].

Fls. & Frts.: October - March.

Illus. : Mathew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.46. 1988.

Distrib.: Grows as a weed; Morkhal (N. H.), 177345.

Use: Med : Wounds; root & leaf paste applied on wounds to promote healing. (Warli).

Literature : Jain, 1991 & Rao, 1985-(lf) wound.

Thespesia lampas (Cav.) Dalz. & Gibs., Bombay Fl. 19. 1861; Rao, Fl. Goa 1:42. 1985; Jain, Dict. Ethn. 179. 1991. *T. macrophylla auct. non* Bl. 1825; Cooke, Fl. Pres. Bombay 1:121. 1958 (Repr. ed.). 'Chopada-bhendi'

Trees or shrubs, 2-5 m high. Leaves 3-lobed, black glandular on the lower surface. Flowers yellow, axillary, solitary or 1-3 together. Capsules ovoid, pointed, 4-5 valved.

Plant contains quercetin and protocatechuic acid [Jain *et al.*, 1991].

Fls. & Frts.: September - January.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.50. 1988.

Distrib.: Common on hill slopes and along roadsides; Beldhari (N. H.), 173335.

Uses: Med : * Bad breath; twigs used as tooth brush are helpful to cure bad breath. (Konkana).

Gonorrhoea; root paste applied on sex organ of male. (Konkana).

Ed : Fodder; plant leaves used as fodder for sheep & goat. [Konkana].

Literature : Anonymous, 1976, Jain & De Philipps, 1991 and Siwakoti & Varma, 1996 - (rt) syphilis. Agarwal & Ghosh, 1985 -(rt) gonorrhoea.

Thespesia populnea (L.) Soland. ex Corr. in Ann. Mus. Herb. Paris 9:290, t. 8, f.1. 1807; Cooke, Fl. Pres. Bombay 1:121 (Repr. ed.); Rao, Fl. Goa 1:43. 1985; Jain, Dict. Ethn. 179. 1991. 'Paraspipla'

Trees, ca 4 m tall. Leaves broadly ovate, cordate, acuminate, stellate-tomentose beneath with red dots. Flowers axillary, solitary. Capsules enclosed by persistent calyx.

Fls. & Frts.: November - May.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2: t. 69. 1982.

Distrib.: Commonly planted along roadsides & in villages; (Daman), 176474.

Uses: Ed : Fodder; Leaves and flowers eaten by cattle. (All tribes).

Misc : Wood is used for making cheap furniture. (All tribes).

Urena lobata L., Sp. Pl. 692. 1753; Cooke, Fl. Pres. Bombay 1:66. 1958. (Repr.ed.); Rao, Fl. Goa 1:43. 1985; Jain, Dict. Ethn. 183. 1991. 'Chikana'.

Herbs, ca 1 m high. Leaves irregularly lobed below the middle; lobes 3-5 or more, stellate-hairy on both surfaces, nerves with a gland at the base of midrib beneath. Flowers pink with purple centre.

Plant contains urease (Chopra, *et al.*, 1956).

Fls. & Frts.: November - December.

Illus. : Matthew, Ill. Tamilnadu Carnatic 2: t. 70. 1982.

Distrib.: Frequent on hill slopes; Rudana (N. H.), 173342.

Uses: Med : * Tooth brush; stem cuttings used for brushing teeth, for healthy gums. (Warli).

Misc : branches used for making brooms. (All tribes).

Cordage, bark yields fibre, is suitable for manufacture of twine. (All tribes).

Literature : Kulkarni and Kumbhojkar, 1992a -(bk) cordage.

BOMBACACEAE

Bombax ceiba L., Sp. Pl. 511. 1753, *p.p.*; Rao, Fl. Goa 1:44. 1985; Jain, Dict. Ethn. 37. 1991. *B. malabaricum* DC., Prodr. 1:479. 1824; Cooke, Fl. Pres. Bombay 1:127. 1958 (Repr. ed.). 'Sawar'

Trees, ca 15 m tall; bark covered with conical prickles. Leaves large, digitately 5-7 foliolate; leaflets 5-10 cm long, elliptic or ovate. Flowers bright red, crowded near the apex of the leafless branchlets.

Chemical constituent of gum is catechutannic acid & seeds contain 22% crude fat with stearin [Chopra, *et al.*, 1956].

Fls. & Frts.: February - April.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 71. 1982.

Distrib.: Common in deciduous forests of Amboli (N. H.), 176470.

Uses: Med :Menorrhagia; 10-15 ml of diluted root paste given once a day for 7 days. (Warli).

Tonic; gum along with sugar dissolved & one glass taken every morning. (Warli, Konkana).

Misc : Cotton from fruits used for stuffing. (Warli, Konkana).

Literature : Kirtikar & Basu, 1933 and Sabnis & Bedi, 1983 -(rt) menorrhagia. Jain, 1991 -(gum) tonic.

STERCULIACEAE

Helleteres isora L., Sp. Pl. 963. 1753; Cooke, Fl. Pres. Bombay 1:136. 1958 (Repr.ed.); Rao, Fl. Goa 1:46. 1985; Jain, Dict. Ethn. 100. 1991. 'Muradseng, Atai'.

Shrubs, 2-3 m tall; young shoots stellate hairy. Inflorescence cymose, axillary. Flowers bright red, distinctly bilabiate. Follicles 5, beaked, stellately tomentose.

Chemical constituents of stem bark are phytosterol, hydroxy-carboxylic acid, saponins, phlobotanins & lignin [Anonymous, 1959]. Seeds contain diosgenin [Gopakumar, *et al.*, 1989].

Fls. & Frts.: July - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 76. 1982.

Distrib.: Common on hill slopes; Beldhari (N. H.), 173336.

Uses: Med :Dysentery; 10-25 ml pod & root extract given twice. (Konkana).

Stomachache : 10-20 ml of paste of pods is given to children, twice a day to relieve pain. (Konkana).

+ Snake bite; stem bark or root bark with bark of *Woodfordia fruticosa* 20-40 ml extract given as antidote. (Konkana).

Tonic; 1-2 teaspoonful of pod extract is given regularly as a tonic to small babies & weak children. (Konkana).

Ed : Fodder; leaves are eaten greedily by cattle. (All tribes).

Misc : Fresh bark used for tying purposes. (All tribes)

Literature : Bennet, 1978 (fr) tonic. Chopra, *et al.*, 1956 -(rt) snake bite & (bk) dysentetery. Jain, 1991 -(fr) stomachpain, dysentery & (bk) snake bite.

Sterculia foetida L., Sp. Pl. 1008. 1753; Cooke, Fl. Pres. Bombay 1:130. 1958 (Repr. ed.); Rao, Fl. Goa 1:50. 1985; Jain, Dict. Ethn. 171. 1991. 'Ran-badam'.

Trees, ca 10 m high. Leaves crowded at the ends of branches, digitate. Flowers flesh coloured in axillary racemes. Follicles boat-shaped, woody, bright red when ripe.

Chemical constituents of seeds are proteins, fats, sugars, calcium phosphate, iron, magnesium, potassium, sulfur, copper, thiamine, riboflavin, nicotinic acid and vit.c [Kirtikar & Basu, 1933].

Fls. & Frts.: March - May.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.82. 1982.

Distrib.: Cultivated in some residential back yards; Silvassa (N. H.), 176446.

Uses: Med :Constipation; oil extracted by pressing crushed dry seeds in between two wooden chips, given as a laxative. (Konkana, Kathudi).

Misc : Wood is used in making mats for boat. (Konkana, Kathudi, Warli).

Literature : Jain & De Filipps, 1991 and Kirtikar & Basu, 1933-(sd oil) laxative.

Sterculia urens Roxb., Pl. Cor. 1:25, t.24. 1795; Cooke, Fl. Pres. Bombay 1:313. 1958 (Repr.ed.); Rao, Fl. Goa 1:48. 1985; Jain, Dict. Ethn. 171. 1991. 'Kahandol'.

Trees, up to 10 m high, deciduous, trunk erect, straight. Leaves crowded at the tips of branches. Flowers yellow. Follicles covered with stinging bristles.

Bark contains tannin, sacopoletin, while chemical constituents of gum are protein, fat, crude fibre, acetyl group, uronic acid, D-galacturonic acid & sugars (Anonymous, 1976).

Fls. & Frts.: November - May.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 55. 1988.

Distrib.: Common in the deciduous forests on the hills (N. H.), 173917.

Uses: Med : * Vomiting; powdered bark in 10-30 ml of water is given. (Konkana).

* Cooling effect; gum mixed in water with little quantity of sugar taken orally. (Konkana, Warli).

Cracks on foot; people rub foot on the trunk-bark to get relief from cracked foot. (Konkana).

* For contraction of uterus & for good health; gum with sugar mixed

in water or 'Laddus' prepared of fried gum are given to women after delivery. (Konkana).

+ Delivery pains; extract of its bark with bark of *Madhuca longifolia* var. *latifolia* & *Hymenodictyon orixense* [taken in same proportion] given to women to minimise the pains during delivery. (Konkana).

Note: *Sterculia* bark has to be taken from the side which is opposite to sunlight.

Ed : Roasted kernels are edible. (All tribes).

Misc : Wood is used for preparing face masks which are locally called 'Song'. (All tribes).

Literature : Jain, 1991-(sd) edible. Jain & De Philipps, 1991-(bk) foot crack & delivery pains. Shah, *et al.*, 1983- (gum) tonic.

TILIACEAE

Corchorus capsularis L., Sp. Pl. 529. 1753; Cooke, Fl. Pres. Bombay 1:157. 1958 (Repr.ed.); Rao, Fl. Goa 1:51. 1985; Jain, Dict. Ethn. 60. 1991. 'Chunch'.

Herbs, erect, woody. Leaves lanceolate, acute or acuminate, glabrous, serrate. Flowers yellow. Capsules 0.5-1.2 cm in diam., prominently echinate. Seeds wedge-shaped, smooth, brown.

Fls. & Frts.: September - November.

Illus.: Maheshwari, Ill. Fl. Delhi F. 37. 1966.

Distrib.: Cultivated in few places for jute fibre, some times found escape from cultivation; Khanvel (N. H.), 176496.

Use: Misc : Cordage; fibre from stem bark used to make ropes. (All tribes).

Note - Fibre extraction : Mature plants are bundled and soaked in water for rotting. Consequently, after cleaning & washing fibre is extracted.

Literature : Anonymous, 1950. - (st) yields fibre.

Corchorus olitorius L., Sp. Pl. 529. 1753; Cooke, Fl. Pres. Bombay 1:158. 1958 (Repr. ed.); Rao, Fl. Goa 1:52. 1985; Jain, Dict. Ethn. 60. 1991. 'Mothichunch'.

Herbs, erect, suffruticose. Inflorescence of extra-axillary or leaf-opposed cymes. Flowers yellow. Capsules 10-ribbed, transversly partitioned between valves.

Fls. & Frts.: September - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.85. 1982.

Distrib.: An occasional plant in open areas; Khanvel (N. H.), 94202 (M. Y. Ansari).

Uses: Ed : Vegetable; leaves are cooked, also used in 'Dal' preparation. (Konkana).

Misc : Cordage; jute fibre extracted & used for making ropes. (All tribes).

Literature : Jain, 1991-(st fibre) cordage. Yadav & Bhamre, 1989 -(lf) vegetable.

Grewia abutilifolia Vent. ex A. Juss. in Ann. Mus. Natl. Hist. Nat. 4:92. 1804; Cooke, Fl. Pres. Bombay 1:152. 1958 (Repr.ed.); Rao, Fl. Goa 1:53. 1985; Jain, Dict. Ethn. 97. 1991. 'Kharbat'.

Shrubs, straggling, up to 4 m high; young parts stellate hairy. Leaves roundish-ovate, acute or acuminate. Flowers yellow. Drupes dark green, ca 1 cm in diam., obscurely 4-lobed, wrinkled.

Fls. & Frts.: March - December.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 61. 1988.

Distrib.: Common on hill slopes & hill tops; Rudana (N. H.), 173913.

Use: Med : * Stomachache; 10-15 ml root extract given twice a day. (Warli).

Grewia serrulata DC., Prodr. 1:510. 1824; Rao, Fl. Goa 1:53. 1985. *G. laevigata auct. pl. non Vahl*, 1790; Cooke, Fl. Pres. Bombay 1:152. 1958 (Repr.ed.). 'Khad-dhamani'.

Trees, small, 3-5 m tall; branches terete. Leaves ovate-lanceolate, 3-nerved. Inflorescence of umbellate cymes. Flowers yellow or white. Drupes deeply 2-lobed.

Fls. & Frts.: September - November.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 1:164, f.101. 1909.

Distrib.: Common in cleared areas of moist deciduous forests; Damanganga river, Tighra (Dadra), 173384.

Use: Med : * Bone fracture; 30 ml root extract taken orally, twice-a-day, for 15-20 days, useful for man as well as cattle also (Warli).

Note: Fractured leg/hand should be bandaged externally with the help of bamboo strips. Treatment useful for both, cattle as well as man.

Grewia tiliaefolia Vahl var. ***leptopetala*** (Brandis) T. Cooke, Fl. Pres. Bombay 1:150. 1958 (Repr.ed.); Rao, Fl. Goa 1:54. 1985. *G. tiliaefolia* Vahl, Brandis, For. Fl.N.W. & Central India 41. 1874, p.p.; Jain, Dict. Ethn. 97. 1991. 'Dhaman'.

Trees, up to 4.5 m high. Leaves ovate, acuminate at apex. Inflorescence of umbellate cymes. Flowers yellow; corolla notched at apex. Drupes globose or 2-celled.

Fls. & Frts.: April - September.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 70. 1988.

Distrib.: Scarce on hill slopes; Tighra (Dadra), 173322.

Uses: Ed : Ripe fruits are eaten by locals.

Fodder; leaves eaten by cattle. (Warli, Dhodia).

Misc : Bark & thin, long twigs used for tying purposes. (All tribes).

Literature : Jain, 1991 & Tosh, 1996 - (fr) edible.

Triumfetta rotundifolia Lam., *Encycl.* 3:421. 1789; Cooke, *Fl. Pres. Bombay* 1:157. 1958. (Repr. ed.); Rao, *Fl. Goa* 1:56. 1985. 'Jhipato'

Herbs, 30-45 cm tall, suffruticose. Leaves orbicular, base rounded or cuneate. Flowers yellow. Fruits ovoid, spines pubescent with hooked bristle-points.

Plant contains palmitate, stearet, oleate, limoleate [Anonymous, 1976].

Fls. & Frts.: August - October.

Illus : Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t.74. 1988.

Distrib.: Occasional in open grassy areas; Tighra (Dadra), 177325.

Uses: Med : Dysentery; 20-30 ml leaf extract given twice a day. (Dhodia).

Misc : Cordage; jute like fibre extracted from stem bark and used for making twines. (Dhodia).

Literature : Chopra, *et al.*, 1956, -(lf) dysentery.

RUTACEAE

Aegle marmelos (L.) Corr. in *Trans. Linn. Soc.* 5:223. 1800; Cooke, *Fl. Pres. Bombay* 1:204. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:65. 1985; Jain, *Dict. Ethn.* 14. 1991. 'Bel'.

Trees, up to 10 m high. Leaflets elliptic, acuminate at apex, glabrous. Inflorescence paniced, axillary. Flowers greenish-white or yellow, fragrant. Fruits globose with grey or yellowish rind; pulp orange coloured.

Fruits contain mucilage, pectin, sugar, tannin, volatile oil & marmelosin [Saxena, 1989].

Fls. & Frts.: April - September.

Illus. : Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.101. 1982.

Distrib.: Cultivated. However, in Nagar Haveli the plant is met occasionally with in the forest areas; Beldhari (N. H.), 173333.

Folklore : Tree worshipped by 'Hindus' as incarnation of Lord 'Shiva' Tribals also venerate this tree. They worship 'Shiva' by offering leaves.

Uses: Med : Dysentery; fleshy part of ripened fruit eaten, which is said to be effective. (Konkana).

Ed : Boiled fruits are edible. (All tribes). Fruits pickled. (All tribes).

Misc : Leaves offered to worshipping Lord 'Shiva'. (All tribes).

Literature : Jain, 1991 & Varghese, 1996 - (fr) dysentery, edible.

Citrus medica L., Sp. Pl. 782. 1753; Cooke, Fl. Pres. Bombay 1:200. 1958 (Repr. ed.); Rao, Fl. Goa 1:66. 1985; Jain, Dict. Ethn. 54. 1991. 'Limbu'.

Trees, 4-6 m tall; young shoots glabrous, purple. Flowers white, tinged with red. Fruits globose with mamillate apex, surrounded with 5, persistent sepals.

Fruit juice contain citric acid (Anonymous, 1950).

Fls. & Frts.: May - October.

Illus. : Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.104. 1982.

Distrib.: Cultivated; Dudhni (N. H.), 173310.

Uses: Med : Sunstroke; fruit juice with salt & cold water taken for sunstroke. (Konkana).

Indigestion; a drink prepared from fruit juice with sugar and edible soda given in indigestion. (Konkana).

Ed : Fruits pickled. (All tribes).

Literature : Jain, 1991 (fr) edible, pickled. Anonymous, 1950 -(fr) indigestion, refrigerant.

Limonia acidissima L., Sp. Pl. ed. 2, 554. 1762; Rao, Fl. Goa 1:66. 1985; Jain, Dict. Ethn. 117. 1991. *Feronia elephantum* Corr. in Trans. L. Soc. 5:225. 1800; Cooke, Fl. Pres. Bombay 1:203. 1958 (Repr. ed.). 'Kavath'

Trees, moderate sized; spines straight, sharp. Leaves imparipinnate. Flowers small, numerous, red. Fruits ca 5 cm or more in diam., globose, pericarp woody, rough.

Fls. & Frts.: March - August.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.79. 1988.

Distrib.: Plant mostly seen under cultivation; Khanvel (N. H.), 176475.

Uses: Ed : Ripe fruits eaten by locals. (All tribes).

Fruits pickled. (All tribes).

Literature : Jain, 1991 - (fr) edible.

BURSERACEAE

Garuga pinnata Roxb., Pl. Cor. 3:5, t.208. 1811; Cooke, Fl. Pres. Bombay 1:211. 1958 (Repr.ed.); Rao, Fl. Goa 1:68. 1985; Jain, Dict. Ethn. 93. 1991. 'Kakad'.

Trees, up to 10 m high. Inflorescence lateral, clustered at the tips of branchlets, paniculate. Flowers yellow. Drupes irregularly globular, greenish-yellow, black when dry. 'Kakad'.

Leaves contain amentoflavone [Jain, *et al.*, 1991].

Fls. & Frts.: February - August.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 122. 1982.

Distrib.: Common on hill slopes in deciduous forests; Chauda (N. H.), 173316.

Uses: Med : + Stomachache; bark & leaf paste is applied externally over stomach region to relieve pain. (Warli).

Ed : Fruits soaked in water for 2-4 days and eaten. (Warli, Konkana).

Fruits pickled. (Warli, Konkana).

Fodder; young leaves eaten by cattle. (All tribes).

Literature : Balasubramanian & Narendraprasad, 1996- (rt) stomachache. Chopra, *et al.*, 1956 -(bk) stomachache. Chhetri, 1994 -(fr) indigestion. Jain, 1991 -(fr) edible.

MELIACEAE

Azadirachta indica A. Juss. in Mem. Mus. Hist. Nat. Paris 19:221, t. 2, f.5. 1830; Cooke, Fl. Pres. Bombay 1:220. 1958 (Repr.ed.); Rao, Fl. Goa 1:69. 1985; Jain, Dict. Ethn. 31. 1991. 'Nimb'.

Trees, up to 6 m high. Leaves crowded near branch endings. Inflorescence of panicles, axillary, glabrous. Flowers white, fragrant. Drupes ca 1.5 cm long, glabrous.

Leaves contain inulin, fat, oil, tannin & saponin, while chemical constituents of stem bark are volatile oil, tannin, nimbin, nimbinin, nimbidin, nimbosterol & margosine [Kirtikar & Basu, 1933].

Fls. & Frts.: April - July.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.125. 1982.

Distrib.: Planted in gardens and near houses, few trees were seen wild in Dudhni forest (N. H.), 176453.

Uses: Med : Skin diseases; leaves boiled in water & used for bathing, are said to be effective. (Warli, Konkana).

Blood purifier; 20-30 ml leaf extract taken on empty stomach for 10-15 days, 4-times per year with regular intervals. (Warli, Konkana).



Sterculia urens in flowers.



Tinospora cordifolia in fruits.



Mucuna pruriens in fruits.



A twig of *Argyreia nervosa* in flowers & fruits.



Butea monosperma in flowers.



Plumbago zeylanica in flowers.



Ricinus communis in fruits.



Barleria prattensis in flowers.



Cassia fistula in fruits.



Wrightia tinctoria in fruits.

Wounds; bark paste applied for treating unhealthy wounds. (Warli, Konkana).

Tooth brush; tender twigs used like tooth brush for healthy teeth & gums. (Warli, Konkana).

Literature : Jain, 1991 & Varghese, 1996 -(lf) blood purifier, (bk, lf) skin disease, wounds & -(st) tooth brush.

Melia dubia Cav., Diss. 7:364. 1789; Jain, Dict. Ethn. 123, 1991. *M. composita* Willd., Sp. Pl. 2:559. 1799; Cooke, Fl. Pres. Bombay 1:218. 1958. (Repr. ed.). 'Nimbara'.

Trees, ca 15 m tall; young shoots stellate-hairy. Inflorescence paniced, stellately pubescent. Flowers greenish-white. Drupes ovoid, green, glabrous.

Plant contains glucoside (Chopra, *et al.*, 1956).

Fls. & Frts.: April - July.

Illus. : Bedd., Fl. Sylv. t. 1869 (*M. composita*).

Distrib.: Scarce on hill slopes; Bildhari forest (N. H.), 173976.

Uses: Med: To expel intestinal worms; 10-30 ml bark extract given to children as anthelmintic. (Warli).

* Stomach pain; 10-20 ml barks extract given twice a day. (Warli).

Literature : Saklani & Jain, 1994 - (bk) intestinal worms.

Soymida febrifuga A. Juss., Mem. Mus. Par. 5:19. 1830; Cooke, Fl. Pres. Bombay 1:228. 1958 (Repr. ed.); Fl. Goa 1:70. 1985; Jain, Dict. Ethn. 170. 1991. 'Rohan'.

Trees. Leaves crowded towards the end of branches; leaflets 3-6 pairs, opposite. Flowers in large terminal or axillary, divaricately branched panicles. Capsules 5-celled, 5-valved. Seeds winged.

Plant contains resinous bitter principle, tannin (Anonymous, 1972).

Fls. & Frts.: March - May.

Illus.: Roxb., Cor. Pl. 1:t. 17. 1795.

Distrib.: Few in the deciduous forests. Khutali (N. H.), 173348.

Uses:Med : Dysentery; 20-30 ml bark extract given twice a day. (Warli).

* Pesticide : bark crushed or powdered, kept in home to control pests. (Warli, Konkana).

+ Stomach pain; bark along with bark of *Radermachera xylocarpa* taken in equal proportions, 20-30 ml extract given twice a day. (Warli).

Literature : Jain, 1991 -(bk) dysentery.

CELASTRACEAE

Celastrus paniculatus Willd., Sp. Pl. 1. 1125. 1797; Cooke, Fl. Pres. Bombay 1:245. 1958 (Repr. ed.); Rao, Fl. Goa 1:75. 1985; Jain, Dict. Ethn. 48. 1991. 'Kanguni'.

Climbers. Leaves broadly elliptic -ovate, apex acuminate, margins crenate - serrate. Flowers greenish-white or yellow, in axillary and terminal panicles. Capsules *ca* 0.5 cm in diam., subglobose, 3-4 valved. Seeds 1-6, brown, ovoid, scarlet-red, aril.

Fls. & Frts.: March - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t. 192. 1982.

Distrib.: Occasional, in the forests; Khanvel forests (N. H.), 177322.

Use: Misc : Cordage; climber used for tying purpose. (Warli).

RHAMNACEAE

Ventilago denticulata Willd. in Ges. Naturf. Fr. Neue Schr. 3:417. 1801; Rao, Fl. Goa 1:79. 1985; Jain, Dict. Ethn. 186. 1991. *V. calyculata* Tul. in Ann. Sci. Nat. 4,8:124. 1857; Cooke, Fl. Pres. Bombay 1:254. 1958 (Repr.ed.). 'Pival'.

Climbers, woody. Leaves elliptic-oblong, subacute, crenate-serrate. Flowers yellowish or greenish. Fruits with a girt in the middle of pubescent calyx, wing *ca* 1.2 cm broad.

Stem contains chrysophanol, physcion, emodin, friedelin, lupeol. β -sitosterol, its glucoside and emodin glucoside (Asolkar, *et al.*, 1992).

Fls. & Frts.: November - February.

Illus. : Talbot, For. Fl. Bombay Pres. & Sind 1:292, f.174. 1902 (*V. calyculata*).

Distrib.: Occasional, climbing on trees; Karchond (N. H.), 173370.

Uses: Med : *Vet Fracture; 30 ml bark decoction given once for 7-10 days for treating bone fracture in cattle.

Externally bamboo strips are bandaged for support. (Warli).

Misc: Long climbing stem are used as substitute for rope for tying purposes. (All tribes).

Ziziphus mauritiana Lam., Encycl. 3:319. 1789; Rao, Fl. Goa 1:80. 1985; Jain, Dict. Ethn. 191. 1991. *Z. jujuba* Lam., *op. cit.* 318. 1789; Cooke, Fl. Pres. Bombay 1:256. 1958 (Repr. ed.), *non* Mill. 1768. 'Bor'

Trees or shrubs, *ca* 3.5 m tall. Leaves elliptic or ovate-elliptic, rounded at both ends. Flowers greenish-white or yellow. Drupes globose, fleshy, yellowish-brown when ripe.

Fls. & Frts.: September - March.

Illus. : Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.93. 1988.

Distrib.: Frequent in plains near villages, cultivated fields & hill slopes; Khanvel (N.H.), 177346.

Uses: Ed : Fruits are eaten by locals. (All tribes).

Fodder; leaves used as fodder for cattle. (All tribes).

Literature : Varghese, 1996 - (fr) edible.

Ziziphus oenoplia Mill., Gard. Dict. ed. 8, no.3, 1768; Cooke, Fl. Pres. Bombay 1:257. 1958 (Repr.ed.); Rao, Fl. Goa 1:80. 1985; Jain, Dict. Ethn. 192. 1991. 'Chinibor'.

Shrubs, 4-6 m high. Leaves numerous, distichous, ovate or ovate-lanceolate, acute or subacuminate, with pubescent or tomentose tips. Flowers greenish. Drupes obovoid, reddish-black, shining.

Bark contains zizyphinine, zizyphine C, D & E isolated along with zizyphines A & B & abyssinines A & B (Rastogi & Mehrotra, 1991b).

Fls. & Frts.: August - November.

Illus.: Matthew, Fur. III. Fl. Tamilnadu Carnatic 4:t.94 1988.

Distrib.: Common in forest areas & village surroundings; Luhari (N. H.), 173922.

Use: Med : +Cough; one tea cup bark decoction given twice a day. Bark can be eaten directly also. (Konkana).

Literature : D'souza, 1993 -(rt) cough.

Ziziphus rugosa Lam., Encycl. 3:319. 1789; Cooke, Fl. Pres. Bombay 1:258. 1958 (Repr.ed.); Rao, Fl. Goa 1:81. 1985; Jain, Dict. Ethn. 192. 1991. 'Toran'.

Shrubs, armed; young branches fulvous tomentose. Leaves ovate or elliptic; prickles solitary & recurved. Flowers yellow. Drupes ca 0.7 cm in diam; incipient fruits green, ripens white.

Fls. & Frts.: December - May.

Illus.: Matthew, Fur. III. Fl. Tamilnadu Carnatic 4:t.95. 1988.

Distrib.: Frequent in open forest area; Amboli (N. H.), 173315.

Use : Ed : Fruits eaten by locals. (Warli, Konkana).

Literature : Jain, 1991-(fr) edible.

VITACEAE

Cayratia trifolia (L.) Domin., Bot. 89:371. 1927; Rao, Fl. Goa 1:83. 1985; Jain, Dict. Ethn. 48. 1991. *Vitis trifolia* L., Sp. Pl. 203. 1753; Cooke, Fl. Pres. Bombay 1:271. 1958 (Repr. ed.). 'Khat'.

Climbers, extensive; young branches densely pubescent. Inflorescence of corymbose panicles. Flowers greenish-white. Berries ca 1 cm in dia., turbinate, fleshy, ripening purple.

Plant contains hydrocyanic acid [Anonymous, 1950].

Fls. & Frts.: May - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 156. 1982.

Distrib.: Common, found on *Carissa congesta*, *Acacia chundra*, etc.; Dolara (N. H.), 127211 (M.Y. Ansari).

Use: Med : + Boils; roots used as a poultice on boils. (Warli).

Literature : Jain, 1991 & Anonymous, 1950 -(lf) boils.

Cissus adnata Roxb., Fl. Ind. 1:405. 1820; Rao, Fl. Goa 1:84. 1985; Jain, Dict. Ethn. 53. 1991. *Vitis discolor* Dalz. in Hook. Kew Journ. Bot. 2:39. 1850; Cooke, Fl. Pres. Bombay 1:266. 1958. (Repr. ed.). 'Nandanya'

Shrubs, scandent. Leaves broadly ovate, shortly acuminate, densely clothed with orange-red, pubescence beneath, stipules suborbicular. Flowers greenish-yellow. Berries obovoid or subglobose, black when ripe.

Fls. & Frts.: November - January.

Distrib.: Few in the forests; Khanvel (N. H.), 177323.

Use: Misc : Cordage; stem fibres used for making ropes. (All tribes).

Cissus quadrangularis L., Mant. 39. 1767; Rao, Fl. Goa 1:85. 1985; Jain, Dict. Ethn. 54. 1991. *Vitis quadrangularis* Wall. ex Wt. & Arn., Prodr. 125. 1834; Cooke, Fl. Pres. Bombay 1:266. 1958 (Repr. ed.). 'Kandvel'.

Shrubs, stem 4-angled, up to 2 m high. Leaves broadly ovate or reniform, sometimes 3-7 lobed, cordate. Flowers in short-peduncled cymes with spreading umbellate branches. Berries obovoid or globose, red when ripe.

Plants contain calcium oxalate, carotene, ascorbic acid with 3-ketosteroid, a steroidal principle [Chopra, *et al.*, 1956 & 1969].

Fls. & Frts.: June - September.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t. 102. 1988.

Distrib.: Sometimes grown in gardens; Doler (Daman), 177352.

Uses: Med :Indigestion; leaves dried, powdered and administered. (Konkana).

Ed :Tender stems used in curries. (Konkana).

Literature : Chopra, *et al.*, 1956 & Kumbhojkar, *et al.*, 1991 -(lf) indigestion.

Cissus trilobata Lam., *Encycl.* 1:31. 1783; Rao, *Fl. Goa* 1:86. 1985. *Vitis rheedei* Wt. & Arn., *Prodr.* 127. 1834; Cooke, *Fl. Pres. Bombay* 1:270. 1958 (Repr.ed.). 'Vamsa'.

Shrubs; stems stout, cylindrical or tetragonous. Leaves variable, usually 3-foliolate. Flowers numerous near the ends of branches. Berries obovoid, 1-seeded, black.

Fls. & Frts.: July - October.

Distrib.: Occasional, in the deciduous forests; Amboli (N. H.), 176410.

Use: Med : Itch; leaf paste applied for treating itch. (Warli, Konkana).

Literature : Jain & De Philipps, 1991 -(lf) itch.

LEEACEAE

Leea indica (Burm.f.) Merr. in Phil. J. Sci. Bot. 14:245. 1919; Rao, Fl. Goa 1:87. 1985; Jain, Dict. Ethn. 114. 1991. *L. sambucina* Willd., Sp. Pl. 1:1177. 1797; Cooke, Fl. Pres. Bombay 1:277. 1958 (Repr.ed.). 'Dini'

Shrubs, 2.5 m high. Leaves bi-or tri-pinnately compound; leaflets 3-8, oblong or elliptic-oblong, acuminate, glabrous. Flowers white. Berries globular, purple-black when ripe.

Plant contains amorphous froth forming acid (Gopakumar, *et al.*, 1989).

Fls. & Frts.: Almost throughout the year.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 960, 966b. 1982.

Distrib.: Very common, found on the outskirts of the forests; Tinoda (N. H.), 173386.

Uses: Med : Wounds & cuts; Leaf paste applied. (Konkana).

Ed : Sometimes tender stem parts and shoots are used as vegetable. (Warli).

Literature : Sinha, *et al.*, 1996 -(lf) wounds. Rao, 1985 -(st) vegetable.

Leea macrophylla Roxb. ex Horn., Hort. Hafn. 1:231. 1813; Cooke, Fl. Pres. Bombay 1:276. 1958 (Repr.ed.); Rao, Fl. Goa 1:87. 1985; Jain, Dict. Ethn. 115. 1991. 'Mothidini'.

Herbs or shrubs, up to 1.5 m tall. Leaves unifoliate or 1-2- pinnate, leaflets broadly ovate when unifoliate, margins serrate. Flowers greenish white. Fruits 2-6 lobed.

Fls. & Frts.: July - October.

Illus.: Ic. Roxb. Fasc. 4, t.2 (*L. macrophylla*) & t.3 (*L. robusta*) 1970 (Repr. ed.).

Distrib.: Frequent in the forest undergrowth; Tinoda (N. H.), 173385.

Use : Ed :Tender stems are cooked as vegetable. Stem pieces also used in 'dal' preparation. (Konkana).

Literature : Jain, 1991 -(st) vegetable.

SAPINDACEAE

Sapindus laurifolius Vahl, *Symb.* 3:54. 1794; Cooke, *Fl. Pres. Bombay* 1:284. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:91. 1985; Jain, *Dict. Ethn.* 159. 1991. 'Ritha'

Trees, up to 8 m high. Leaves abruptly pinnate; leaflets 2-3 pairs, elliptic. Flowers white. Fruits fleshy, incipients clothed with fulvous hairs.

Fruits contain saponin and mucrosin [Chopra, *et al.*, 1956].

Fls. & Frts.: February - July.

Illus.: Talbot, *For. Fl. Bombay Pres. & Sind* 1:337, f.199. 1909 (*S. trifoliatum*).

Distrib.:Occasionally planted near villages and found occasional in waste places; Moti Daman (Daman), 173329.

Use: Misc :Detergent; fruits are used as substitute for soap. (Dubala).

Literature : Rao, 1985 -(fr) detergent.

Schleichera oleosa (Lour.) Oken., *Allg. Naturgesch.* 3(2): 1341. 1841; Rao, *Fl. Goa* 1:91. 1985; Jain, *Dict. Ethn.* 161. 1991. *S. trijuga* Willd., *Sp. Pl.* 4:1096. 1805; Cooke, *Fl. Pres. Bombay* 1:283. 1958 (Repr.ed.). 'Kusumb'.

Trees, ca 10 m high; bark grey. Leaves abruptly pinnate. Inflorescence fascicled in slender, pendulous, interrupted racemes. Flowers greenish-white or yellow. Fruits ovoid, echinate with blunt prickles.

Fls. & Frts.: March - June.

Illus.: Matthew, *Ill. Fl. Tamilnadu Carnatic* 2:t. 168. 966c. 1982.

Distrib.: Occasional; Silvassa (N. H.), 177347.

Use : Ed : Raw fruits pickled. (Konkana).

Literature : Varghese, 1996 -(fr) pickled.

ANACARDIACEAE

Anacardium occidentale L., Sp. Pl. 533. 1753; Cooke, Fl. Pres. Bombay 1:292. 1958 (Repr.ed.); Rao, Fl. Goa 1:92. 1985; Jain, Dict. Ethn. 22. 1991. 'Kaju'.

Trees, 4 m tall; branches terete. Inflorescence of compound panicles, terminal & sub-terminal. Fruits reniform, fleshy, dark coloured. Seeds reniform.

Stem bark contains lignin, inulin, saponin, tannin, fat & starch (Karatela, *et al.*, 1991).

Fls. & Frts.: November - May.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.170. 1982.

Distrib.: Cultivated near villages; Amboli (N. H.), 173313.

Uses: Med : * Piles; bark paste applied on piles. (Warli, Dhodia).

Ed : Kernel is edible. (All tribes).

Literature : Jain, 1991 - (kernel) edible.

Lanea coromandelica (Houtt.) Merr. in J. Arnold Arbor. 19:353. 1938; Rao, Fl. Goa 1:94. 1985; Jain, Dict. Ethn. 112. 1991. *Odina woodier* Roxb., Fl. Ind. 2:293. 1832; Cooke, Fl. Pres. Bombay 1:296. 1958 (Repr.ed.). 'Madhal'.

Trees, up to 10 m high. Leaves crowded at the tips of branches. Inflorescence of terminal or subterminal panicles. Flowers purplish or yellowish, tinged with red. Drupes reniform, compressed, incipient fruits green, ripens red.

Phlobatannin is constituent of its stem bark (Chopra, *et al.*, 1956).

Fls. & Frts.: February - June.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.172. 1982.

Distrib.: Common on hill tops & slopes; Bildhari (N. H.), 173973.

Uses: Med :Stomach pain; one tea cup bark extract given twice a day to cure stomach pain. (Warli, Konkana).

+ Wounds; inner bark decoction taken orally & bark paste applied externally on wounds. (Konkana).

+ Bone fracture; bark with bark of *Ziziphus rugosa* & *Radermachera xylocarpa* taken in same proportion, crushed together with little quantity of water to make a paste, applied at fractured bone & bandaged with bamboo strips. (Konkana).

* Fish poison; Powdered or crushed fruits used as fish poison. (Warli, Konkana).

Ed : Gum edible. (Warli, Konkana).

Literature : Jain, 1991 -(bk) fracture, stomachache and (gum) edible. Varghese, 1996 -(bk) stomachache. Siwakoti & Varma, 1996 -(bk) wounds.

Mangifera indica L., Sp. Pl. 200. 1753; Cooke, Fl. Pres. Bombay 1:291. 1958 (Repr.ed.); Rao, Fl. Goa 1:94. 1985; Jain, Dict. Ethn. 122. 1991. 'Amba'.

Trees, 10-15 m tall. Leaves crowded at branch tips. Inflorescence of pubescent panicles. Drupes 4-10 cm long, obliquely pyriform or subovoid, stones hard.

Fls. & Frts.: January - May.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.173, 367a. 1982.

Distrib.: Planted in villages but in Nagar Haveli forests it is found running wild; Khanvel (N.H.), 177357.

Uses: Ed : Fruits edible and used for pickles. (All tribes).

Misc : Stems for making drums. (All tribes).

Literature : Jain, 1991 -(fr) edible.

Semecarpus anacardium L.f., Suppl. 182. 1781; Cooke, Fl. Pres. Bombay 1:296. 1958 (Repr.ed.); Rao, Fl. Goa 1:95. 1985; Jain, Dict. Ethn. 162. 1991. 'Bibba'

Trees, 6 m tall. Leaves coriaceous, broadly oblong, entire, 13-15 nerved. Flowers greenish-yellow. Drupes obliquely ovoid or oblong, 1-3 cm long, ripens black, seated on fleshy receptacles.

Chemical constituents of the plant are anacardic acid, cardol, catechol, anacardol & fixed oil (Chopra, *et al.*, 1956). Phenols, bhilawanol & catechol are constituents of fruit's pericarp, while kernels contain oil with fatty acid composition [Anonymous, 1972].

Fls. & Frts.: May - February.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.176. 1982.

Distrib.: Occasional on the hill slopes of deciduous forests; cultivated; Beldhari (N. H.), 173338.

Uses: Med : Dysentery; hypocarp of unripe fruits are eaten. (Konkana).

Wounds; seed oil with melted jaggery is applied over the injured body parts, in case of pierced thorn to expel it out & healing wound. (Konkana).

Ed : Hypocarp of ripe fruit. (Warli).

Literature : Aminuddin & Girach, 1993 -(sd oil) wounds. Jain, 1991 (fr) edible. Kirtikar & Basu, 1933 -(fr) dysentery.

Spondias pinnata (L.f.) Kurz, Prelim. Rep. For. & Veg. Pegu Append. A. 44 & B. 42. 1875; Rao, Fl. Goa 1:95. 1985; Jain, Dict. Ethn. 171. 1991. *S. mangifera* Willd., Sp. Pl. 2:751. 1799; Cooke, Fl. Pres. Bombay 1:299. 1958 (Repr. ed.). 'Amboda'.

Trees, 9-5 m high. Leaves imparipinnate; leaflets oblong or elliptic-oblong, acuminate at apex, margins entire. Flowers numerous, pinkish-green, in terminal clustered panicles. Drupes *ca* 3 cm long, ovoid, yellow, stones woody, hard.

Fls. & Frs.: January - May.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.177 & 967b. 1982.

Distrib.: Few in deciduous forests; Khanvel, way to Amboli (N. H.), 173990.

Use: Ed: The ripe fruits are eaten. (Warli).

Unripe, green fruits used as vegetable and pickled. (Warli).

Literature : Jain, 1991 -(fr) edible.

MORINGACEAE

Moringa concanensis Nimmo ex Dalz. & Gibs., Bombay Fl. 311. 1861; Cooke, Fl. Pres. Bombay 1:301. 1958 (Repr. ed.); Rao, Fl. Goa 1:96. 1985; Jain, Dict. Ethn. 127. 1991. 'Ranshevaga', 'Kadushegut'

Trees, 6-8 m tall. Leaves 2-pinnate; leaflets 4-6 pairs and an odd one. Sepals white, oblong. Petals yellow, veined with red. Capsules straight, acutely triquetrous with slight constriction between the seeds. Seeds 3-angled, white or pale yellow.

Plant contains alkaloids moringine & moringinine [Chopra, *et al.*, 1956].

Fls. & Frts.: November - April.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 178, 967c, d. 1982.

Distrib.: Few in the forests, near villages; Dudhni (N. H.), 173949.

Uses: Med: Stomach pain; 10-30 ml bark extract given twice a day. (Warli).

* Blood purifier; 20-25 ml bark extract given twice a day for 2-3 days. (Warli).

* Paralysis; bark paste, heated and bandaged to paralysed leg or hand for 15-20 days, is said to be effective. (Warli, Konkana).

* Vomiting; bark is removed in top to bottom direction from plant & its extract is given to check vomiting. (Warli).

* Loose motions; bark removed from plant in bottom to top direction & 20-30 ml extract given thrice a day. (Warli).

Ed :Vegetable; Leaves and fruits are cooked as vegetable. (Warli, Konkana).

Literature : Kirtikar & Basu, 1933 -(bk) stomachache.

Moringa oleifera Lam., Encycl. 1:398. 1785; Rao, Fl. Goa 1:96. 1985; Jain, Dict. Ethn. 127. 1991. *M. pterygosperma* Gaertn., Fruct. 2:314. 1791; Cooke, Fl. Pres. Bombay 1:301. 1958 (Repr.ed.). 'Shegut', 'Shevaga'

Trees, 10-12 m high. Leaves 3-pinnate; leaflets elliptic to obovate, deciduous. Inflorescence of large, puberulous, terminal, panicles. Flowers white. Pods elongate, ribbed.

Fls. & Frts.: December - May.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.111. 1988.

Distrib.: Cultivated in villages; Dudhni (N. H.), 173947.

Uses: Ed : Vegetable; fruits. (All tribes).

Flowers & leaves used in 'dal' preparation. (Warli, Konkana).

Fodder; leaves eaten by cattle. (All tribes).

Literature : Jain, 1991 -(lf & fl) vegetable.

FABACEAE

Abrus precatorius L., Syst. Nat. ed. 12, 472. 1767; Cooke, Fl. Pres. Bombay 1:382. 1958 (Repr.ed.); Rao, Fl. Goa 1:100. 1985; Jain, Dict. Ethn. 8. 1991. 'Gurj'.

Perennials; branches terete, climbing. Leaves 8-12 cm long; leaflets oblong to elliptic. Flowers white or pinkish. Pods oblong, beaked, silky pubescent. Seeds red with a black spot near hilum.

Plant contains abrin, agglutinin, glycyrrhizin and abric acid (Gill & Nyawuame, 1994).

Fls. & Frts.: August - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 179. 1982.

Distrib.: Common in forests on hill slopes; Chauda (N. H.), 173330.

Uses: Med : Cough & Sore throat; leaves eaten raw. (Konkana). Blood purifier; leaf extract given or sometimes leaves eaten raw. (Konkana).

Literature : Jain, 1991; Siwakoti & Varma, 1996 -(lf) cough, blood purifer & sore throat.

Alhagi maurorum Medik. in Vorles. Chrupf. Phys. Oek. Ges. 2: 397. 1787. *A. pseudalhagi* (Bieb.) Desv. in Journ. Bot. 1:120. 1813; Rao, Fl. Goa 1:100. 1985; Jain, Dict. Ethn. 17. 1991. *A. camelorum* Fisch., Ind. Hort. Pl. Gorenk. ed. 2:72. 1812; Cooke, Fl. Pres. Bombay 1:355. 1958 (Repr.ed.). 'Javaso'

Shrubs, erect, armed with sharp spines. Leaves simple, coriaceous, obovate-oblong. Flowers red. Pods linear, jointed, usually constricted between seeds, glabrous. Seeds blackish-brown, smooth, polished.

Isolation of catechin, gallicocatechin, epigallocatechin, leucodelphinidin and cholesterol from aerial parts [Rastogi & Mehrotra, 1993].

Fls. & Frts.: March - June.

Illus.: Maheshwari, Ill. Fl. Delhi. f. 66. 1966.

Distrib.: Occasional, on hill slopes; Bimalpur (Daman), 176491.

Uses: Med : Fever; 10-20 ml leaf extract given twice a day for 2-3 days. (Dhodia).

Cuts; leaf and flower juice is applied to stop bleeding. (Dhodia).

Literature : Jain, 1991 -(lf) fever, -(lf, fl) cuts.

Alysicarpus bupleurifolius (L.) DC., Prodr. 2:352. 1825; Cooke, Fl. Pres. Bombay 1:370. 1958 (Repr. ed.); Rao, Fl. Goa 1:101. 1985; Jain, Dict. Ethn. 20. 1991. 'Khad-samervo'

Herbs, prostrate or suberect. Leaves unifoliate; leaflets linear, linear-lanceolate or oblong. Flowers purplish in lax racemes. Pods *ca* 1.2 cm long, apiculate, cylindric, smooth, 4-7 jointed.

Fls. & Frts.: September - December.

Illus.: Matthew, Fl. Tamilnadu Carnatic 3:t. 19a. 1982.

Distrib.: Common in rice fields; Dolará (N. H.), 176420.

Use: Med: *Asthma; 10-25 ml root extract given twice a day for 7-9 days. (Konkana).

Arachis hypogaea L., Sp. Pl. 741. 1753; Cooke, Fl. Pres. Bombay 1:435. 1958 (Repr. ed.); Rao, Fl. Goa 1:138. 1985. 'Bhui-mung'

Herbs, annual, decumbent. Leaves pinnate; leaflets generally in pairs, ovate or ovate-lanceolate. Inflorescence of sessile, axillary, capitate spikes. Flowers yellow or white. Pods underground, 1-5 seeded, indehiscent, constricted between the seeds.

Fls. & Frts.: September - October.

Distrib.: Cultivated for the seeds. Naila Pardi (Daman), 177329.

Uses: Ed: The seeds are roasted and eaten. (All tribes).

Seeds used in curries. (All tribes).

Literature : Anonymous, 1948 -(sd) edible.

Butea monosperma (Lam.) Taub. in Engl. & Prantl, Pflanzenf. 3(3):366. 1894; Rao, Fl. Goa 1:104. 1985; Jain, Dict. Ethn. 40. 1991. *B.*

frondosa Koen. ex Roxb., As. Res. 3:469. 1792 & Pl. Cor. 1:21, t.21. 1795; Cooke, Fl. Pres. Bombay 1:395. 1958 (Repr.ed.). 'Palas'.

Trees, 10-15 m high, bark rough, ash coloured. Leaflets broadly obovate, entire. Flowers orange-scarlet. Pods oblong, 10-15 cm long, thickened at the sutures with reticulate veins.

Fls. & Frts.: January - April.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 184. 1982.

Distrib.: Common on hill slopes; Khutali (N. H.), 173916.

Folklore : Pods woven together and tied at the top of a pillar, locally called 'Holikhamb' & worshiped during 'Holi' festival.

Uses: Ed : Fodder; tender leaves eaten by cattle. (Warli, Konkana).

Misc : Leaves are used for making plates, cups, containers (Locally known as 'Topala') and for thatching. (Warli, Konkana, Dhodia).

Rain cap locally known as 'Ghongadi' made by leaves and bamboo strips. (Warli, Konkana, Dhodia).

Literature : Jain, 1991 -(1f) plates, bowls.

Cajanus cajan (L.) Millsp. in Publ. Field Mus. Nat. Hist. Bot. Ser., 2:53. 1900; Rao, Fl. Goa 1:138. 1985; Jain, Dict. Ethn. 41. 1991. *C. indicus* Spreng., Syst. 3:248. 1826; Cooke, Fl. Pres. Bombay 1:435. 1958 (Repr.ed.). 'Tur'.

Shrubs, up to 15 m tall, erect. Leaves alternate, trifoliate; leaflets elliptic-oblong, entire. Flowers yellow. Pods pubescent and glandular, tipped with base of style. Seeds rounded.

Fls. & Frts.: October - February.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.116. 1988.

Distrib.: Cultivated; Naila Pardi (Daman), 173963.

Uses: Ed : Edible pulse, used as vegetable. (All tribes).

Fodder; leaves used as fodder for cattle. (All tribes).

Literature : Jain, 1991 -(sd) vegetable.

Cicer arietinum L., Sp. Pl. 38. 1753; Cooke, Fl. Pres. Bombay 1:435. 1958 (Repr.ed.); Rao, Fl. Goa 1:138. 1985; Jain, Dict. Ethn. 52. 1991. 'Harbara'

Herbs, erect, much branched, hairy. Leaflets ovate, elliptic, pubescent, margins dentate. Flowers pink, blue or white, solitary in leaf axils. Pods pubescent, inflated, 1-2 seeded, hairy.

Fls. & Frts.: August - March.

Distrib.: Cultivated; Tighra (Dadra), 177330.

Use: Ed : Seeds used as a vegetable. (All tribes).

Literature : Jain, 1991 -(sd) edible.

Clitoria biflora Dalz. in Kew J. Bot. 2:35. 1850; Cooke, Fl. Pres. Bombay 1:406. 1958 (Repr.ed.); Rao, Fl. Goa 1:106. 1985; Jain, Dict. Ethn. 57. 1991. 'Dhaktisupli'.

Herbs, 30-70 cm high, stems angular, striate with lines of hairs. Leaves imparipinnate; leaflets elliptic-oblong or ovate-lanceolate. Inflorescence of axillary, 2-flowered racemes. Pods flat, beaked, shortly stalked with 5 persistent sepals.

Fls. & Frts.: July - November.

Distrib.: Common on hill slopes; Shindoni (N. H.), 176492.

Use: Ed : Pods occasionally used as vegetable. (Warli).

Literature : Jain, 1991 -(pd) vegetable.

Clitoria ternatea L., Sp. Pl. 738. 1753; Cooke, Fl. Pres. Bombay 1:405. 1958 (Repr. ed.); Rao, Fl. Goa 1:106. 1985; Jain, Dict. Ethn. 57. 1991. 'Kajli'.

Perennials, pubescent. Leaves imparipinnate; leaflets 7, elliptic-oblong, apex obtuse, sparsely appressed hairy. Flowers blue or white, solitary, axillary. Pods linear-oblong. Seeds 6-10, yellowish-brown, smooth.

Root contains tannin (Anonymous, 1950).

Fls. & Frs.: August - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 188. 1982.

Distrib.: Common in cultivated fields and sandy sea shore. Airport area (Daman), 177321.

Uses: Med : Fever; 10-20 ml root decoction given twice a day for 2-3 days. (Dhodia).

Ed : Fodder; leaves are used as fodder for sheep. (Dhodia).

Literature : Sabnis & Bedi, 1983 -(rt) fever.

Crotalaria fulva Roxb., Fl. Ind. 3:266. 1832; Cooke, Fl. Pres. Bombay 1:321. 1958; Rao, Fl. Goa 1:107. 1985. 'Tag'

Undershrubs, 1.0-2.0 m high, golden silky. Leaves oblong or oblanceolate, obtuse or subacute. Flowers in leafy panicles, yellow. Pods silky-pubescent, 2-seeded.

Fls. & Frts.: February - May.

Distrib.: Occasional; Chisda (N. H.), 176439.

Use: Misc : Cordage; rope is made by bark fibre. (All tribes).

Crotalaria juncea L., Sp. Pl. 714. 1753; Cooke, Fl. Pres. Bombay 1:320. 1958 (Repr.ed.); Rao, Fl. Goa 1:110. 1985; Jain, Dict. Ethn. 63. 1991. 'Tag'.

Annuals, 0.7 - 2.5 m tall, branches numerous, striate, silky pubescent. Leaves linear-oblong, obtuse or subacute. Flowers yellow. Pods sessile. Seeds 10 - 15.

Plant contains corchorin [Chopra, *et al.*, 1969].

Fls. & Frts.: October - November.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t.127. 1988.

Distrib.: Occasionally found as an escape from cultivation; Khutaly (N. H.), 173351.

Uses: Med : *Measles; 10-20 ml root decoction given twice a day for 7-10 days. (Warli).

Ed : Fodder; Leaves and tender twigs are eaten by cattle.

Misc : Cordage; bark fibre used for making ropes. (All tribes).

Literature : Jain, 1991 -(bk) cordage.

Cyamopsis tetragonoloba (L.) Taub. Syn., in Engl. & Prantl, *Nat. Pflanzenfam*, 3, 3:259; 1894; Jain, *Dict. Ethn.* 66. 1991. *C. psoraleoides* DC., *Prodr. V.* 2:216. 1825; Cooke, *Fl. Pres. Bombay* 1:328. 1958. (Repr. ed.) 'Gawar'

Annual herbs, 0.7 - 1.0 m high; stems grooved. Leaves 3-foliolate. Flowers small, purplish, bracts persistent. Pods thick, fleshy, subtetragonal, slightly pubescent. Seeds slightly compressed.

Fls. & Frts.: Almost throughout the year.

Distrib.: Cultivated for its pods; Dolara (N.H.), 173956.

Uses: Ed : The cooked pods are used as food. (Konkana).

Fodder; whole plant used as green fodder for cattle. (Konkana).

Literature : Jain, 1991 - (pod) vegetable.

Dalbergia lanceolaria L.f., *Suppl.* 316. 1781; Cooke, *Fl. Pres. Bombay* 1:425. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:110. 1985; Jain, *Dict. Ethn.* 69. 1991. 'Dandosi'

Trees, 3-10 m high, bark smooth. Leaves 8-12 cm long; leaflets elliptic or oblong, glabrous above, puberulous beneath. Flowers pinkish-white. Pods stalked.

Stem bark contains 14% tannin (Anonymous, 1952). Bark contains isoflavone, and glycoside - lanceolarin (Asolkar, *et al.*, 1992).

Fls. & Frts.: March - October.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t.148. 1988.

Distrib.: Few on hill slopes & in open fields; Beldhari (N. H.), 173974.

Uses: Med : Jaundice;

* (a) One tea cup extract of its bark with bark of *Oroxylum indicum*, *Albizia lebbeck* & *Pterocarpus marsupium* taken in equal proportions, given twice a day for 8-10 days. (Warli).

* (b) 20-40 ml extract of the bark with prop roots of *Ficus benghalensis* and bark of *Oroxylum indicum* in similar proportions is given twice a day for 7-8 days. (Warli).

* (c) 20-40 ml extract of the bark with bark of *Pterocarpus marsupium*, *Bridelia retusa*, *Oroxylum indicum* & *Albizia lebbeck*, taken in equal proportions is given twice a day for 3-5 days. (Warli).

Misc : Tooth brush; occasionally twigs are used for cleaning teeth. (Warli).

Dalbergia latifolia Roxb., *Pl. Cor.* 2:7, t. 113. 1799 & *Fl. Ind.* 3:221. 1832; Cooke, *Fl. Pres. Bombay* 1:422. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:110. 1985; Jain, *Dict. Ethn.* 69. 1991. 'Sisav'.

Trees, ca 10 m tall. Leaves imparipinnate; leaflets broadly ovate or suborbicular. Inflorescence of lax divaricate panicles, axillary or extra-axillary. Pods, 1-3 seeded, strap-shaped.

Fls. & Frts.: March - November.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t. 149. 1988.

Distrib.: Common on hill slopes; Dudhni (N. H.), 177314.

Use: Misc : Timber used in furniture & house construction.

Dalbergia sissoo Roxb. ex DC., Fl. Ind. (Carey ed.). 3:223. 1832; Cooke, Fl. Pres. Bombay 1:421. 1958 (Repr.ed.); Rao, Fl. Goa 1:112. 1985; Jain, Dict. Ethn. 69. 1991.

Trees, 12-15 m high. Leaves alternate, imparipinnate; leaflets 3, broadly ovate, apex acuminate. Flowers in axillary panicles. Pods stalked, ca 3.5 x 0.5 cm. Seeds 1-4.

Leaves contain ether extract, calcium, crude protein, etc. (Anonymous, 1952).

Fls. & Frts.: April.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.152. 1988.

Distrib.: Cultivated for wood; Bindrabin (N. H.), 173366.

Uses: Med :Skin eruptions; leaves crushed & applied externally. (Warli).

Misc : Wood is next to teak, used for furniture. (All tribes).

Literature : Jain, 1991 -(lf) eruptions.

Desmodium gangeticum (L.) DC., Prodr. 2:327. 1825; Cooke, Fl. Pres. Bombay 1:379. 1958 (Repr.ed.); Rao, Fl. Goa 1:114. 1985; Jain, Dict. Ethn. 72. 1991. 'Asud'.

Undershrubs, up to 1.2 m high. Leaves unifoliate, ovate, apex acute. Flowers, bluish-violet. Pods subfalcate, indehiscent, sparsely clothed with hirsute, hooked hairs.

Plant contains hypaphorine, hordenin, candocine, N-methyl tyramine & N-dimethyl tryptamine; desmodin is a miscellaneous compound present [Sinha, 1996]. New pterocarpan-gangetin isolated from plant (Rastogi & Mehrotra, 1991b).

Fls. & Frts.: October - December.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t.155. 1988.

Distrib.: Common in open forest areas; Khanvel (N. H.), 177310.

Uses: Med : Urinary disorders; one tea cup of infusion made from leaves is given twice a day for 7-10 days. (Warli).

Literature : Chopra, 1956 -(rt) diuretic. Gill & Nyawuame, 1994 -(lf) urinary disorders.

***Desmodium laxiflorum* DC.** in *Ann. Sci. Nat. Paris.* 1,4:100. 1825; Cooke, *Fl. Pres. Bombay* 1:376. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:115. 1985; Jain, *Dict. Ethn.* 72. 1991. 'Lipatue'

Undershrubs, ca 2 m high, erect, hairy. Leaflets glabrous above, appressed hairy beneath. Flowers white or bluish-violet. Pods scarcely constricted between seeds, minutely hooked, hairy.

Fls. & Frts.: October - December.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t.156. 1988.

Distrib.: Common in forest undergrowth and on rocky, dry, exposed areas; Zari (Daman), 173400.

Use: Med : Dysentery; 30-40 ml root extract is given twice a day. It also relieves stomach pain. (Dhodia).

Literature : Varghese, 1996 -(rt) dysentery.

***Desmodium ojeinensis* (Roxb.) Ohashi** in *Ginkgoana* 1:177. 1973. *Ougeinia oogeinensis* (Roxb.) Hochr. in *Bull. Bot. Geneve* 13 & 14:51. 1909; Rao, *Fl. Goa* 1:127. 1985; Jain, *Dict. Ethn.* 136. 1991. *O. dalbergioides* Bth., *Pl. Jungh.* 216. 1851-55; Cooke, *Fl. Pres. Bombay* 1:373. 1958 (Repr.ed.). 'Tiwas'.

Trees, 6-12 m tall; trunk crooked. Leaves pinnately 3-foliolate; leaflets terminal broadly elliptic or roundish, lateral obliquely ovate. Flowers whitish, numerous. Pods 5-7 cm long; joints reticulately veined.

Fls. & Frts.: February - June.

Illus.: Wight, Ic. t. 391. 1840 (*Dalbergia oojeinensis*).

Distrib.: Few on hill slopes of deciduous forests; Dudhni (N. H.), 177316.

Use: Misc : Timber used for furniture and house construction. (All tribes).

Desmodium triangulare (Retz.) Merr. in Journ. Arn. Arb. 23:170. 1942; Rao, Fl. Goa 1:115. 1985; Jain, Dict. Ethn. 72. 1991. *D. cephalotes* Wall., Cat. 5721. 1828; Cooke, Fl. Pres. Bombay 1:375. 1958 (Repr.ed.).

Shrubs, up to 1.5 m high; branches triquetrous. Leaves 3-foliolate; leaflets elliptic-oblong, acuminate. Flowers crowded in dense, axillary, peduncled, umbellate heads, white or red. Pods green, constricted between the seeds, pubescent.

Roots contain phenethylamine, solsolidine, hordenine, tyramine, candicine & choline (Rastogi & Mehrotra, 1991b).

Fls. & Frts.: August - December.

Illus.: Wight, Ic. t. 209. 1839 (*D. congestum*).

Distrib.: Common as an undergrowth of forests; Dolara (N. H.), 176424.

Use: Med : * Snake bite; 30-40 ml root extract is given as antidote for snake bite, which causes vomiting. (Konkana).

Desmodium triquetrum (L.) DC., Prodr. 2:326. 1825; Cooke, Fl. Pres. Bombay 1:378. 1958 (Repr.ed.); Rao, Fl. Goa 1:116. 1985; Jain, Dict. Ethn. 72. 1991. 'Asud'.

Shrubs, ca 1 m high, erect; branches triquetrous, grooved. Leaflets ovate or oblong-lanceolate, apex acute. Flowers red, bluish or purplish. Pods linear, oblong, beaked, densely appressed hairy.

Plant contains 8% of tannin (Chopra, *et al.*, 1956).

Fls. & Frts.: October - December.

Distrib.: Common in forest undergrowth and in open forest areas amidst grasses; Dolara (N. H.), 176432.

Use: + Pesticide & Insecticide; root extract is sprayed over cereals stored at home. (Warli, Konkana).

Literature : Saklani & Jain, 1994 -(1f) insecticide.

Erythrina variegata L., Herb. Amb. 10. 1754 & Amoen. Acad. 4:122. 1759; Rao, Fl. Goa 1:118. 1985; Jain, Dict. Ethn. 85. 1991. *E. indica* Lam., Encycl. Method. 2:391. 1786; Cooke, Fl. Pres. Bombay 1:390. 1958 (Repr.ed.). 'Pangara'

Trees, 10-12 m high. Leaflets rhomboid-ovate, apex acute, pubescent when young. Flowers scarlet red in dense racemes, arranged in clusters of 1-3 on tomentose rachis. Pods subcylindric, glabrous. Seeds 4-8, ellipsoid-oblong.

Stem bark contains alkaloids hypaphorine, betaine & choline (Gopakumar, 1991).

Fls. & Frts.: April - June.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.162. 1988.

Distrib.: Few, mostly observed in the open deciduous forests; Amboli (N. H.), 176476.

Use: Med : Joint pain; inner bark is made warm over fire & repeatedly kept at joints. (Warli).

Literature : Jain, 1991 -(bk) rheumatism.

Indigofera glandulosa Wendl., Bot. Beob. 55. 1798; Cooke, Fl. Pres. Bombay 1:332. 1958 (Repr.ed.); Rao, Fl. Goa 1:124. 1985; Jain, Dict. Ethn. 107. 1991. 'Borupdi'

Herbs, annual, erect, up to 1 m high, pubescent when young. Leaflets obovate or oblanceolate, glabrous above, hairy beneath. Pods oblong, with 4-toothed wings, pubescent. Seeds 1-2.

Seeds contain protein 37.6 %, fat 4.89 %, carbohydrate 36.5 % (Anonymous, 1959).

Fls. & Frts.: August - November.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t. 172. 1988.

Distrib.: Occasional on grassy areas in open places; Khanvel (N. H.), 177331.

Use: Med : Seeds eaten as nutritious tonic. (Naika).

Literature : Jain & De Filipps, 1991 and Kirtikar & Basu, 1933 -(sd) tonic.

Indigofera tinctoria L., *Sp. Pl.* 751. 1753; Cooke, *Fl. Pres. Bombay* 1:339. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:125. 1985; Jain, *Dict. Ethn.* 107. 1991 'Jilya'

Shrubs, 1-2 m high. Leaflets oblong or oblanceolate, apex rounded, base acute. Flowers numerous. Pods 2-3 cm long, linear, apiculate at apex, thickened at the sutures. Seeds 8 - 12.

Leaves contain nitrogen, phosphoric acid, potash, lime & potassium salts (Anonymous, 1959). Glycoside indican is isolated from plant (Duke & Ayensu, 1985).

Fls. & Frts.: August - October.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t.179. 1988.

Distrib.: Found growing as a weed in waste places and on sandy soils; Tighra (Dadra), 173380.

Use: Med : * Joint pain; leaf paste made warm & applied over joints. (Warli).

Indigofera trita L.f., Suppl. 335. 1781; Cooke, Fl. Pres. Bombay 1:335. 1958 (Repr.ed.); Rao, Fl. Goa 1:126. 1985; Jain, Dict. Ethn. 107. 1991. 'Vekharo'

Undershrubs, up to 2 m high, appressed hairy. Leaflets obovate-oblong, broadly lanceolate or elliptic, base acute, apex emarginate, hairy. Pods linear, mucronate, tetragonous, silvery appressed hairy. Seeds 6-10, oblong.

Fls. & Frts.: September - November.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.181. 1988.

Distrib.: Few in open fields; Dabel (Daman), 176500.

Uses: Med :Dysentery; 20-30 ml of root paste given to children. (Kathudi).

Tonic ; seeds are eaten for good health. (Kathudi).

Literature : Rao, 1985 and Jain & De Philipps, 1991 -(sd) tonic. Jain, 1991 -(rt) dysentery.

Lablab purpureus (L.) Sw., Hort. Brit. ed. 1, 481. 1827; Jain, Dict. Ethn. 112. 1991. *Dolichos lablab* L., Sp. Pl. 725. 1753; Cooke, Fl. Pres. Bombay 1:406. 1958 (Repr.ed.). *Lablab niger* Medic. in Vorles. Churpf. Phy. C. 21354. 1787; Rao, Fl. Goa 1:138. 1985. 'Valpapdi'

Herbs, twining. Leaves trifoliolate; leaflets ovate-acuminate. Inflorescence an axillary raceme; corolla white. Fruit a long, narrow, beaked pod. Seeds 2-4.

Fls. & Frts.: November.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.183. 1988.

Distrib.: Mostly cultivated in backyards & as a dry crop in rice fields; Naila Pardi (Daman), 173964.

Use: Ed : Pods cooked as vegetable. (Kathudi).

Literature : Jain, 1991 -(pod) vegetable.

Macrotyloma uniflorum (Lam.) Verdc. in Kew Bull. 24:322,401. 1970 & in Hook. Ic. Pl. 38:37. 1982; Jain, Dict. Ethn. 120. 1991. *Dolichos biflorus auct. non L.* 1753; Cooke, Fl. Pres. Bombay 1:407. 1958 (Repr.ed.); Rao, Fl. Goa 1:117. 1985. 'Kulith'

Climbers. Leaflets rhomboid, obovate or elliptic. Flowers creamish with purple dot on standard petal, solitary or paired, axillary. Pods lunulate, oblong, with pointed beak, curved, appressed-pubescent. Seeds slightly compressed.

Fls. & Frts.: October - December.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.185. 1988.

Distrib.: Found on poor soils; Chisda (N. H.), 176445.

Uses: Med :Toothache; leaves & seeds crushed and kept on affected tooth. (Warli, Konkana).

Ed : Seed flour used like 'Besan'. (Warli, Konkana).

Literature : Jain, 1991 -(lf,sd) toothache, (pulse) edible.

Mucuna pruriens (L.) DC., Prodr. 2:405. 1825; Cooke, Fl. Pres. Bombay 1:389. 1958 (Repr.ed.); Rao, Fl. Goa 1:126. 1985; Jain, Dict. Ethn. 128. 1991. 'Khaj-kuiiri'

Twinnings; stems pubescent when young. Leaflets ovate-oblong, base cuneate, lateral truncate, pubescent. Flowers purple, hairy. Pods 6-7 cm long with longitudinal ribs. Seeds 5-6.

Plant contains alkaloids mucunine & mucunadine, mucuadine, prurienidine, small amount of nicotine & steroid is β -sitosterol (Sinha, 1996).

Fls. & Frts.: November - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.207. 1982.

Distrib.: Frequent in forests; Dapada (N. H.), 176414.

Uses: Med : Boils; Crushed leaves applied externally. (Warli).

Misc : Climber used for tying purposes when not in fruiting. (All tribes).

Literature : Jain, 1991 and Varghese, 1996 -(lf) boils.

Paracalyx scariosa (Roxb.) Ali in Univ. Studies, Karachi 5(3):45. 1968; Jain, Dict. Ethn. 137. 1991. *Cylista scariosa* Roxb., Pl. Cor. t. 92. 1795; Cooke, Fl. Pres. Bombay 1:412. 1958 (Repr. ed). 'Ranghevada'

Twinnings; branches striate, finely hairy. Leaflets terminal rhomboid-ovate, lateral obliquely ovate, apex acute. Flowers yellow, in axillary racemes. Pods small, oblong, pubescent, enclosed in calyx, 1-seeded.

Root contains 10 % tannin (Anonymous, 1950).

Fls. & Frts. : November - March.

Illus. : Matthew, Ill. Fl. Tamilnadu Carnatic t. 211. 1982.

Distrib. : Occasional in deciduous forests along slopes; Sily (N.H.), 177303.

Uses: Med :Dysentery; 10-20 ml root decoction given twice a day. (Dhodia).

Stomach pains; 20-30 ml of root extract given twice or thrice a day. (Dhodia).

Literature :Anonymous, 1950 -(rt) dysentery. Jain, 1991 -(rt) stomachache.

Pongamia pinnata (L.) Pierre, Fl. For. Cochinch, t.385. 1899; Rao, Fl. Goa 1:128. 1985; Jain, Dict. Ethn. 148. 1991. *P. glabra* Vent. Jard. Malm. t.28. 1803; Cooke, Fl. Pres. Bombay 1:429. 1958 (Repr.ed.). 'Karanj'.

Trees, ca 10 m high. Leaflets ovate-oblong or elliptic. Flowers whitish pink. Pods elliptic to oblong or obliquely oblong, flattened, narrowed at base, with a short, decurved mucro at apex. Seeds reddish-brown, reniform.

Seeds contain bitter fatty oil & essential oil, four furanoflavones-karanjin, pongapin, karnjone & pongaglabrone and a diketone pongamol (Anonymous, 1969).

Fls. & Frts.: Almost throughout the year.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.212. 1982.

Distrib.: Occasional along river banks, on hill slopes and also planted as avenue trees; Rudana (N. H.), 173345.

Use : Med : Scabies; Seed oil is applied [extracted by dry crushed seeds wrapped in a piece of cloth & kept in boiling water for half an hour. The oil is extracted by pressing the mixture in two wooden chips] on affected skin. (Warli).

Literature : Jain, 1991, Varghese, 1996 and Tosh, 1996 -(sd) scabies.

Pterocarpus marsupium Roxb. var. **acuminatus** Prain in J. As. Soc. Beng. 66. 455. 1898; Cooke, Fl. Pres. Bombay 1:428. 1958 (Repr.ed.); Rao, Fl. Goa 1:129. 1985; Jain, Dict. Ethn. 152. 1991. 'Biwala'

Trees, ca 10 m tall, deciduous. Leaflets ovate-oblong or lanceolate, cuspidately acuminate at apex. Inflorescence of short, lateral and terminal, paniculate racemes. Pods 2-5 cm in diam., round. Seeds small.

Gum kino contains kino-tannic acid, pyrocatechin, gallic acid, pectin, resin, protocatechuic acid (Saxena & Tripathi, 1989).

Fls. & Frts.: June - January.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind, f. 242. 1909.

Distrib.: Common in deciduous forests; Umberkui (N. H.), 173396.

Uses: Med : + Menorrhagia; gum boiled in water, given twice a day to women for treating excess bleeding during menstruation. (Konkana).

* Diabetes; 20-30 ml bark extract given once a day regularly for 15-20 days regularly at intervals of three months. (Warli).

Literature : Jain & De Filippis, 1991 -(bk) menorrhagia.

Rhynchosia minima (L.) DC. var. **laxiflora** Baker in Hook. f., Fl. Brit. India 2:223. 1816; Cooke, Fl. Pres. Bombay 1:414. 1958 (Repr.ed.); Rao, Fl. Goa 1:130. 1985. 'Supalseng'.

Twinnings, pubescent when young. Leaves 3-foliolate; leaflets lanceolate-rhomboid, apex acute or acuminate. Corolla yellow with red streaks. Pods ca 1.5 x 0.5 cm, oblong, compressed. Seeds-2.

Fls. & Frts.: August - October.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 193. 1988.

Distrib.: Occasional on hedges, few as forest undergrowth; Jampore (Daman), 176417.

Use: * Ed : Pods edible. (Warli).

Samanea saman (Jacq.) Merr., J. Wash. Acad. Sci. 6:46. 1916. *Pithecellobium saman* (Willd.) Bth. in Hook., London J. Bot. 3:199. 1844; Cooke, Fl. Pres. Bombay 1:485. 1958 (Repr. ed.). 'Raintree'.

Trees, 20-25 m high, with broad spreading crown. Leaves bipinnate; leaflets oblique, ovate-oblong. Flowers solitary, pinkish, grouped in globose heads. Pods sessile, indehiscent, straight. Seeds embedded in sugary pulp.

Fls. & Frts.: January - June.

Distrib.: Cultivated all along the roadsides; Tighra (N.H.), 173318.

Uses: Ed : Fodder; leaves relished by cattle. (Dhodia).

Misc : Pods occasionally used for making liquor by fermentation. (Dhodia, Warli).

Smithia conferta J. E. Sm. in Rees, Cylop. 33. no.2. 1819; Cooke, Fl. Pres. Bombay 1:358. 1958 (Repr.ed.); Rao, Fl. Goa 1:132. 1985; Jain, Dict. Ethn. 167. 1991. 'Kavalu'.

Herbs, annual, erect, diffuse. Leaflets subsessile, densely bristly along the margins & midrib beneath. Flowers axillary, on short hairy pedicels. Pods jointed, turgid, papillose.

Fls. & Frts.: August - November.

Distrib.: Common in open fields, cultivated fields and grasslands; Dapada (N. H.), 176418.

Uses: Med : +Body pain; stem & leaves made into a paste, heated and applied externally on body parts. (Warli).

Ed : Leaves of young plants used in 'dal' preparation. (Warli).

Literature : Jain, 1991 -(lf) vegetable. Anonymous, 1972 -(lf) rheumatism.

Tephrosia purpurea (L.) Pers., Syn. Pl. 2:329. 1807; Cooke, Fl. Pres. Bombay 1:346. 1958 (Repr.ed.); Rao, Fl. Goa 1:133. 1985; Jain, Dict. Ethn. 177. 1991. 'Unhal'

Herbs, 30-50 cm high. Leaflets 13-21, oblanceolate, obtuse or retuse, mucronate, glabrous above, puberulous beneath. Flowers violet, in 3-5 cm long, leaf opposed racemes. Pods 3-5 cm long, sparsely hairy. Seeds 5-6.

Plant contains rutin, β -sitosterol & lupeol [Rastogi & Mehrotra, 1991b].

Fls. & Frts.: August - November.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 205. 1988.

Distrib. : Occasional along the riverbanks & open areas; Damanganga river bank (Dadra), 176471.

Uses: Med : Tonic; 20-30 ml of leaf extract is given to children, once a day for 10-12 days. (Dhodia).

* Joint pain; warm leaf or plant paste applied. (Dhodia).

Literature : Rao, 1985, Jain, 1991 and Bhalla, *et al.*, 1992 -(wp) tonic.

Uraria picta (Jacq.) Desv. in Journ. Bot. 1:123, t. 5, f. 19. 1813; Cooke, Fl. Pres. Bombay 1:367. 1958 (Repr.ed.); Rao, Fl. Goa 1:135. 1985; Jain Dict. Ethn. 183. 1991. 'Udid'

Herbs, 1-2 m tall. Leaflets rigidly subcoriaceous, linear-oblong, acute. Racemes cylindric, up to 18 cm long, corolla purple. Pods with 3-6 joints, glabrous, pale lead-coloured.

Leaves contain glucoside osyritin (Gopakumar, 1989).

Fls. & Frts.: August - September.

Distrib.: Few, along the roadsides; Dapada (N. H.). 177332.

Use: Med: Joint pain; leaf or plant paste applied externally. (Warli, Konkana).

Literature: Varma, 1995 -(lf,rt,st) joint pains.

Vigna radiata (L.) R. Wilczek, Fl. Congo Belge. & Ruanda Urandi 6:386. 1954; Rao, Fl. Goa 1:136. 1985; Jain, Dict. Ethn. 187. 1991. *Phaseolus radiatus* L., Sp. Pl. 725. 1753; Cooke, Fl. Pres. Bombay 1:403. 1958 (Repr.ed.). 'Udid'.

Herbs, hirsute. Leaflets ovate or rhomboid-ovate, apex acute, silky hairy on both sides. Flowers yellow in racemes. Pods subcylindric. Seeds 10-15, green.

Fls. & Frts.: August - October.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 211. 1988.

Distrib.: Common in grasslands & along forest edges; Khanvel (N. H.), 177333.

Use: Ed: Important pulse in Nagar Haveli. (All tribes).

Literature: Jain, 1991 -(sd) edible.

CAESALPINIACEAE

Bauhinia racemosa Lam., *Encycl.* 1:390. 1787; Cooke, *Fl. Pres. Bombay* 1:459. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:140. 1985; Jain, *Dict. Ethn.* 33. 1991. 'Apta'

Trees, 3-5 m high. Leaves cordate at base, glabrous above, whitish-tomentose beneath. Inflorescence of elongate, slender racemes, *ca* 6 cm long. Flowers white or yellow. Pods 9-17 cm long, flat, turgid, veinless.

Bark contains octacosane, β -amyryne & β -sitosterol [Asolkar, *et al.*, 1992).

Fls. & Frts.: September - March.

Illus.: Matthew, *Ill. Fl. Tamilnadu Carnatic* 2:t.229. 1982.

Distrib.: Common in forests, roadsides and hedges; Dolaria (N. H.). 176425.

Folklore : After cure of a disease tribals put various medicinal plant parts near the trunk of this tree, as a mark of respect.

Uses: Med : * Indigestion; 10-30 ml of bark extract is given after meals. (Warli, Konkana).

* Stomach ache; bark paste, warmed and applied at stomach region. (Warli, Konkana).

Misc : Leaves used for making beedies. (All tribes).

Literature : Jain, 1991 -(1f) beedies.

Caesalpinia bonduc (L.) Roxb., *Fl. Ind.* 2:362. 1832 *emend.* Dandy et Exell in *J. Bot.* 76:179. 1938; Rao, *Fl. Goa* 1:141. 1985; Jain, *Dict. Ethn.* 41. 1991. *C. bonducella* (L.) Flem. in *As. Res.* 11:159. 1810; Cooke, *Fl. Pres. Bombay* 1:431. 1958 (Repr.ed.). 'Sagargota'.

Shrubs, climbing, pubescent, armed with hooked, yellowish prickles. Inflorescence of racemes, dense at top and lax at bottom, long peduncled, terminal and supra-axillary. Flowers yellow. Pods oblong-elliptic, dehiscent, valves coriaceous.

Plant contains glycoside, bonducin, fatty acids [Anonymous, 1950].

Fls. & Frts.: July - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 230. 1982.

Distrib.: Few on hedges around fields; Naila Pardi (Daman), 173912.

Uses: Med : + Fever; 10-20 ml of leaf extract given twice a day. (Dubala).

Anthelmintic; 10-30 ml of leaf extract given to children to expel intestinal worms. (Dubala).

Ed : Leaves used as vegetable occasionally. (Dubala).

Literature :Jain, 1991 and Kapur, 1991 -(sd) intermittent fever. Saklani & Jain, 1994 -(lf) anthelmintic & as vegetable.

Cassia fistula L., Sp. Pl. 377. 1753; Cooke, Fl. Pres. Bombay 1:444. 1958 (Repr.ed.); Rao, Fl. Goa 1:144. 1985; Jain, Dict. Ethn. 46. 1991. 'Bahawa'.

Trees, up to 10 m high. Leaflets 4-8 pairs, ovate or ovate-oblong, base acute, apex emarginate. Inflorescence of lax racemes. Flowers yellow. Pods indehiscent. Seeds numerous, obovate, embedded in dark coloured pulp.

Leaves contain anthraquinone derivatives & tannin. While fruit pulp contains rhein, major anthraquinone derivative, volatile oil, 3-waxy substances & resinous substances (Chopra, *et al.*, 1956). According to Asolkar, *et al.*, 1992, leaves contain sennoside A & B, flavons and pod contains aloemodin, emodin, chrysophanol, rhein, sennidin A & B.

Fls. & Frts.: April - October.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.224 & 225. 1988.

Distrib.: Occasional, in the deciduous forests; Khanvel (N. H.), 173364.

Uses: Med : Constipation; fruit pulp along with breast milk given to infants. (Warli).

* Scabies; crushed leaf paste applied. (Warli).

Misc : Wood is used for house construction. (All tribes).

Literature : Jain, 1991 and Sharma, 1996 -(fr) laxative for cattle. Duke, 1986 and Tiwari, 1996 -(fr) laxative. Chopra, *et al.*, 1956 -(lf) scabies.

Cassia tora L., Sp. Pl. 376. 1753; Cooke, Fl. Pres. Bombay 1:447. 1958 (Repr.ed.); Rao, Fl. Goa 1:147. 1985; Jain, Dict. Ethn. 46. 1991. 'Povadya'

Herbs, annual, erect, 30-60 cm high. Leaflets obovate-oblong, apex obtuse, base oblique. Flowers yellow, axillary or in pairs. Pods obliquely septate. Seeds 20-30, rhomboid.

Plant contains sterol, myricyl alcohol, a new rubrofusarin glycoside & fixed oil. Leaves contain flavanol glucoside. While constituents of seeds are rhein, oleo-emodin & chrysophenol, besides β -sitosterol and an oxylocic principle is also present [Jain, *et al.*, 1991].

Fls. & Frts.: August - November.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 238. 1988.

Distrib.: Common in open fields & hill tops; Khadoli (N. H.), 173389.

Uses: Med : Jaundice; one glass of plant extract or decoction, given once a day for 7 days. (Konkana).

Eyepain; leaf juice put in eyes. (Konkana).

Ed : Mature seeds are used as a substitute for coffee. (Konkana).

Literature : Jain, 1991; Varghese, 1996 -(wp) jaundice, -(sd) substitute for coffee.

Piliostigma foveolatum (Dalz.) Thothathri in Bull. Bot. Soc. Bengal 19:131. 1965; Rao, Fl. Goa 1:141. 1985. *Bauhinia foveolata* Dalz. in J. Linn. Soc. 13:188. 1873; Cooke, Fl. Pres. Bombay 1:460. 1958 (Repr.ed.). 'Chameli'

Trees, ca 5 m high. Leaves 14.5 - 17.0 x 14.5 - 17.0 cm, shortly divided at the apex into 2 subacute lobes. Flowers subsessile, scarlet red. Pods stalked, linear - oblong, twisted, red, tomentose, rostrate with the style.

Fls. & Frts.: November - January.

Distrib.: Occasional on hill slopes; Bontha (N. H.), 173939.

Uses: Med: * Stomach pain; paste made from inner bark, heated and externally applied at stomach region. (Warli).

Misc: Leaves for making dishes, in which food is served during marriages and festivals. (Warli, Konkana).

Tamarindus indica L., Sp. Pl. 34. 1753; Cooke, Fl. Pres. Bombay 1:457. 1958 (Repr.ed.); Rao, Fl. Goa 1:148. 1985; Jain, Dict. Ethn. 175. 1991. 'Chinch'.

Trees, ca 15 m tall. Leaflets oblong, base and apex obtuse. Inflorescence of lax, few flowered racemes at tips of branches. Pods subcompressed, brown. Seeds up to 12, obovate-oblong, truncate at the ends.

Fruits contain oxalic acid (Chopra, *et al.*, 1956).

Fls. & Frts.: May - September.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 238. 1982.

Distrib.: Common around villages & fields. Occasional in forests; Dolara (N. H.), 173957.

Uses: Med: Indigestion; Fruits taken as carminative. (Konkana).

Ed: Acidic, gummy pulp around the seeds is eaten and used in curries. (All tribes).

Literature: Dastur, 1964 and Jain, 1991 -(fr) edible, carminative.

MIMOSACEAE

Acacia suriculiformis A. Cunn. ex Bth. in Hook. London J. Bot. 1:377. 1877. 'Bangali-bawar'

Trees, ca 9 m high; branches drooping. Leaves falcate, base attenuate, apex obtuse. Flowers yellow in axillary 6-8 cm long spikes. Pods 8-10 cm long, coiled.

Fls. & Frts.: May - December.

Illus.: Maheshwari, Fl. Delhi 81, f.81. 1966.

Distrib.: Planted, mostly along the roadsides. Amboli (N.H.), 177334.

Use: * Fish poison; crushed fresh pods used for stupefying fish. (Warli).

Acacia catechu (L.f.) Willd., Sp. Pl. 4:1079. 1805; Cooke, Fl. Pres. Bombay 1:476. 1958 (Repr.ed.); Rao, Fl. Goa 1:150. 1985; Jain, Dict. Ethn. 9. 1991. 'Khair'

Trees, 10-14 m high; branches dark brown, glabrous, with stipular spines. Leaves bipinnate; leaflets linear, subacute, sessile, often ciliate. Flowers in spikes. Pods flat, smooth, stalked, 7 x 1.6 cm. Seeds 3-10.

Plant contains catechin, catechutannic acid and tannin (Chopra, *et al.*, 1956).

Fls. & Frts.: August - October.

Illus.: Roxb., Cor. Pl. t. 175. 1802.

Distrib.: Planted at several places in Nagar Haveli forests; Karchond (N. H.), 176497.

Uses: Med : Sore throat; catechu powder mixed in jaggery and pills are prepared, which are used as lozenges. (Konkana).

Note : For extraction of catechu, wood pieces are boiled in water for several hours and the decoction evaporated, the residue remains is catechu (Kattha).

Toothache; catechu powder kept in the cavity of aching tooth to relieve pain. (Konkana).

Misc : Timber for house construction & furniture. (All tribes).

Literature : Dastur, 1964 and Jain, 1991 (catechu) sore throat. Varghese, 1996 - (catechu) toothache.

Acacia chundra (Roxb. ex Rottl.) Willd., Sp. Pl. 4:1078. 1806; Rao, Fl. Goa 1:151. 1985; Jain, Dict. Ethn. 9. 1991. *A. catechu* Willd. var. *sundra* (Roxb.) Prain in J. As. Soc. Beng. 66:508. 1898; Cooke, Fl. Pres. Bombay 1:477. 1958 (Repr.ed.) 'Lalkhair'.

Trees, 3-8 m high; bark dark coloured. Leaves bipinnate; stipular spines from a broad triangular base; leaflets sessile, elliptic. Flowers sessile, pale yellow. Pods flat, brownish, beaked at apex, stalked. Seeds 3-10.

Fls. & Frts.: May - September.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 242. 1988.

Distrib.: Fairly Common in deciduous forests; Dudhni (N. H.), 173942.

Uses: Med :Boils; bark paste applied externally. (Warli).

Misc : Timber used for making furniture. (All tribes).

Literature : Jain, 1991 -(bk) boils.

Acacia ferruginea DC., Prodr. 2:458. 1825; Cooke, Fl. Pres. Bombay 1:477. 1958 (Repr.ed.); Rao, Fl. Goa 1:151. 1985; Jain, Dict. Ethn. 9. 1991. 'Kanti'.

Trees, up to 12 m high; bark rough, rusty-brown. Leaves bipinnate; leaflets linear-oblong. Flowers creamy-white, sessile. Pods brown, glabrous, reticulately veined, beaked. Seeds 4-8.

Pod contains 23% tannin [Chopra, *et al.*, 1956].

Fls. & Frts.: January - March.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.245. 1988.

Distrib.: Occasional in the forests; Shelti (N. H.), 173933.

Uses: * Fish poison; Pods used for stupifying fish. (Konkana).

Ed : Fodder; leaves used as fodder for sheep. (Konkana).

***Acacia leucophloea* (Roxb.) Willd., Sp. Pl. 4:1083. 1806; Cooke, Fl. Pres. Bombay 1:475. 1985 (Repr.ed.); Jain, Dict. Ethn. 9. 1991. 'Chilari'**

Trees, 1-6 m high; bark yellowish. Leaves bipinnate, pinnae subsessile; leaflets 11-20 pairs, linear-oblong. Flowers whitish-yellow. Pods flat, linear-oblong, yellowish brown, tomentose. Seeds 10-20.

Bark contains tannin [Saxena & Tripathi, 1989].

Fls. & Frts.: September - December.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 247. 1988.

Distrib.: Frequent on hill slopes; Karchond (N. H.), 173372.

Use: Misc : Bark used for tanning the fishing nets. (Warli).

***Acacia nilotica* ssp. *indica* (Bth.) Brenan in Kew Bull. 12:84, 1957; Rao, Fl. Goa 1:152. 1985; Jain, Dict. Ethn. 9. 1991. *A. arabica* auct. non (Lam.) Willd. 1808; Cooke, Fl. Pres. Bombay 1:472. 1958 (Repr. ed.). 'Babul', 'Bawara'.**

Trees, up to 6 m high; bark deeply cracked. Leaves bipinnate, pinnae 4-6 pairs; leaflets sessile, linear-oblong. Flowers yellow. Pods green, flat, shortly stalked. Seeds 2-12 per pod.

Plant contains tannins -gallotannins & catechins (Gill & Nyawaune, 1994).

Fls. & Frts.: April - October.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 248. 1988.

Distrib.: Common along roadsides and edges of fields; Naila Pardi (Daman), 173962.

Uses: Med : Tender stem parts used for cleaning teeth as a toothbrush, for healthy gums. (Kathudi).

Wounds; paste made from inner stem bark is applied. (Kathudi).

Ed : Gum is edible. (Kathudi).

Misc : Wood used as fuel. (All tribes).

Literature : Jain, 1991 -(st) tooth brush. Kulhari, 1992 -(bk) wounds.

Acacia pennata (L.) Willd., Sp. Pl. 4:1090. 1806; Cooke, Fl. Pres. Bombay 1:480. 1958 (Repr.ed.); Rao, Fl. Goa 1:152. 1985; Jain, Dict. Ethn. 10. 1991. 'Chilari'.

Shrubs; young branches pubescent. Leaves bipinnate; leaflets sessile, 40-50 pairs, elliptic, base truncate, apex acute. Flowers white or pale yellow. Pods stalked, strap-shaped, brown. Seeds 6-10.

Stem bark contains tannin (Anonymous, 1948).

Fls. & Frts.: May - October.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.249. 1988.

Distrib.: Frequent on hill slopes; Ghodbari (N. H.), 173944.

Uses: Fish poison; bark used as fish poison. (Warli).

Misc : Bark used for tanning fishing nets. (Warli).

Literature : Lalramnghinglova, 1996 and Varghese, 1996 -(bk) fish poison. Chhetri, *et al.*, 1996 -(fr & lf) fish poison.

Acacia sinuata (Lour.) Merr. in Trans. Amer. Phil. Soc. 24:186. 1935; Jain, Dict. Ethn. 10. 1991. *A. concinna* (Willd.) DC., Prodr. 2:464. 1825; Cooke, Fl. Pres. Bombay 1:479. 1958 (Repr.ed.). 'Shikakai'.

Shrubs; branches yellowish-pubescent. Leaves bipinnate; leaflets subsessile, 15-20 pairs, linear, base oblique, apex apiculate. Flowers creamish, in globose heads. Pods oblong, 7-10 cm long.

Pod contains saponins (20.8%) [Asolkar, *et al.*, 1992].

Fls. & Frts.: March - May.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t. 251. 1988.

Distrib.: Found near near villages and also cultivated in villages; Jampur (Daman), 176478.

Uses: Fish poison : Pods used as fish poison. (Dhodia).

Misc : Bark & pods are used like soap for washing hair. (Dhodia).

Literature : Jain, 1991 - (pod) fish poison.

Acacia torta (Roxb.) Craib in *Kew Bull.* 1915:410. 1915; Rao, *Fl. Goa* 1:153. 1985; Jain, *Dict. Ethn.* 10. 1991. *A. intsia auct. non Willd.* 1806; Cooke, *Fl. Pres. Bombay* 1:479. 1958 (Repr.ed.), 'Chilar'

Shrubs; branches grooved, yellow or dark brown. Leaves bipinnate, pinnae 5-10 pairs; leaflets sessile, 15-20 pairs, linear. Flowers yellowish-white. Pods dark brown to pale brown, flat, linear, apiculate. Seeds 9-11.

Bark contains an aliphatic hydroxy compound, mp 104°, a triterpenoid, stigmasterol, acacinoic acid and lupeol (Rastogi & Mehrotra, 1991a).

Fls. & Frts.: October - May.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t. 252. 1988.

Distrib.: Frequent on hill slopes; Dolara (N. H.), 173921.

Use: * Fish poison; bark powder used as fish poison. (Konkana).

Albizia lebeck (L.) Bth. in *Hook. London J. Bot.* 3:87. 1844; Cooke, *Fl. Pres. Bombay* 1:481. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:154. 1985; Jain *Dict. Ethn.* 17. 1991. 'Sirus'.

Trees, up to 12 m high. Leaves abruptly bipinnate; leaflets 3-5 pairs, elliptic-oblong. Flowers white, fragrant. Pods linear-oblong, bluntly pointed, pale yellow. Seeds 4-12.

Chemical constituents of the bark are tannin & saponin (Gopakumar, 1991).

Fls. & Frts.: March - September.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 241. 1982.

Distrib.: Few in the deciduous forests; Dudhni (N. H.), 173943.

Uses: Med : Dysentery; 10-30 ml bark extract given twice a day. (Warli).

+ Jaundice; bark along with bark of *Dalbergia lanceolaria*, *Oroxylum indicum* and *Pterocarpus marsupium* taken in equal proportions. One tea cup of extract given twice for about 8-10 days. (Warli).

Misc : Wood is a good quality timber, used for building houses & huts. (All tribes).

Literature : Dastur, 1964 and Jain & De Filippis, 1991 -(bk) dysentery.

Albizia procera (Roxb.) Bth. in Hook. London J. Bot. 3:89. 1844; Cooke, Fl. Pres. Bombay 1:482. 1958. (Repr.ed.); Rao, Fl. Goa 1:155. 1985; Jain, Dict. Ethn. 17. 1991. 'Kinhay'.

Trees, 5-18 m tall. Leaves abruptly bipinnate; leaflets 12-20 pairs, narrowly linear-oblong. Flowers yellowish. Pods flat, brown or green, tinged with red; seeds 3-8.

Chemical constituents of this plant are saponin & sapogenin (Chopra, et al., 1956).

Fls. & Frts.: May - October.

Illus. : Roxb., Pl. Cor. 2:12, t.121. 1798.

Distrib.: Common on hill slopes; Dudhni (N. H.), 173941.

Uses: Med : * Snake bite; 20-40 ml decoction of its bark with *Blumea eriantha* root and bark of *Combretum ovalifolium* & *Acacia ferruginia* is taken in equal proportions and given as an antidote for snake bite. (Warli).

Fish poison; bark powder used for poisoning fish. (Warli).

Literature : Jain, 1991 -(st bk) fish poison.

Leucaena glauca Bth. in Hook., Journ. Bot. 4:416. 1842; Cooke, Fl. Pres. Bombay 1:469. 1958 (Repr.ed.); Jain, Dict. Ethn. 116. 1991. *L. leucocephala* (Lam.) de Wit in Taxon 10:53. 1961; Rao, Fl. Goa 1:156. 1985. 'Subabhul'

Trees, up to 15 m tall, spineless. Leaves bipinnate, pinnæ 3-6 pairs; leaflets 10-15 pairs, linear-oblong. Flowers white, in globose heads. Pods 12-15 cm long and 3-5 cm wide. Seeds 15-20.

Fls. & Frts.: July - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.245. 1982.

Distrib. : Few in waste places; planted or as an escape; Tighra (Dadra), 173323.

Uses. : Ed : Fodder; leaves are used as fodder for cattle. (Dhodia).

Misc : Fuel; wood. (All tribes).

Literature : Jain, 1991. -(lf, twigs) edible.

Pithecellobium dulce (Roxb.) Bth. in Hook. London J. Bot. 3:199. 1884; Cooke, Fl. Pres. Bombay 1:485. 1958 (Repr.ed.); Rao, Fl. Goa 1:157. 1985; Jain, Dict. Ethn. 145. 1991. 'Vilayati-chinch'

Trees, up to 10 m high. Leaves bipinnate; petiole with a gland at the tip. Corolla white. Pods spiral, moniliform, 1 cm wide. Seeds enclosed in sweet whitish aril.

Bark contains tannins 37% of a catechol type (Anonymous, 1962).

Fls. & Frts.: January - May.

Illus. : Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.249. 1982.

Distrib. : Cultivated as a hedge plant & is also found to run wild; Rudana (N. H.), 173346.

Uses: Med : * Scorpion sting; bark paste applied externally at the site of scorpion sting. (Warli).

Ed : The sweet & juicy aril which surrounds the seed is a much favourite of children of the tribal community. (All tribes).

Literature : Jain, 1991 -(fr) edible.

COMBRETACEAE

Anogeissus latifolia (Roxb. ex DC.) Wall. ex Guill. & Perr., Fl. Seneg. Tent. 1:280. 1832; Cooke, Fl. Pres. Bombay 1:512. 1958 (Repr.ed.); Rao, Fl. Goa 1:163. 1985; Jain, Dict. Ethn 24. 1991. 'Dhamoda'.

Trees, 9-18 m high, bark smooth, whitish grey. Leaves elliptic, base cuneate, apex obtuse. Flowers yellowish, sessile. Fruits with persistent calyx, stalked, curved wings entire.

Stem bark contains sitosterol, flavilagic acid, quercetin, myricetin & procyanidin along with gallotannins, shikimic acid, quinic acid, ellagic acid, free sugars & amino acids, alanine & phenylalanine (Jain, *et al.*, 1991). Tannin (50%) from plant (Chopra, *et al.*, 1956).

Fls. & Frts. : May - October.

Illus. : Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.261. 1982.

Distrib. : Occasional in open forests; Parzai (N. H.), 173362.

Uses: Med : Cough; 20-30 ml bark extract given twice a day. (Konkana).

* Paralysis; bark paste, warmed and applied at paralysed body part. (Konkana).

* To expel ticks; seed extract sprayed in the cattle shed or seeds are powdered, boiled & decoction used for bathing cattle. (Warli, Konkana).

Ed : Gum is edible. (Warli, Konkana).

Misc : Wood used for making central axis of bullock-cart. (All tribes).

Literature : Jain, 1991 -(gum) edible, -(bk) cough. Varghese, 1996 (bk) cough.

Calycopteris floribunda (Roxb.) Poir. in Lam. Encycl. Suppl. 2:41. 1811; Cooke, Fl. Pres. Bombay 1:512. 1958 (Repr.ed.); Rao, Fl. Goa 1:163. 1985; Jain, Dict. Ethn. 42. 1991. 'Uksi'.

Shrubs climbing; young branches rusty-puberulous. Inflorescence of dense, fulvous-pubescent panicles, terminal. Flowers yellowish-green. Fruits oblong or ellipsoid, 5-ribbed, pubescent with a crown of calyx lobes.

Leaves contain n-octacosanol, sitosterol, calycopterin, 3'-o-methyl calycopterin, ellagic acid, quercetin and proanthocynadin [Rastogi & Mehrotra, 1991b].

Fls. & Frts.: March - May.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.262,969a. 1982.

Distrib.: Very common in deciduous forests; Karchond (N. H.), 176472.

Uses : Med : Laxative; one tea cup of leaf extract given twice a day. (Konkana).

To expel parasitic flies from cattle; stem pieces woven together and tied around the neck of infested cattle. (Konkana).

Literature : Bennet, 1978 -(st) flies; Jain & De Philipps, 1991 -(lf) laxative.

Combretum ovalifolium Roxb., Fl. Ind. 2:226. 1832; Cooke, Fl. Pres. Bombay 1:515. 1958 (Repr.ed.); Rao, Fl. Goa 1:164. 1985. 'Bokadvel'

Shrubs; branches terete. Leaves broadly elliptic, ovate or almost suborbicular. Inflorescence of paniced spikes, axillary & terminal. Flowers yellow. Fruits pale golden-brown with horizontal striations.

Plant contains cyanogenic glycosides, saponins, tannins, alkaloids and amines (Gibbs, 1974).

Fls. & Frts.: January - May.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.263. 1982.

Distrib.: Along riverside; Amboli. (N. H.), 173983.

Uses: Med :Urinary complaints & Cooling effect; bark with *Oroxylum indicum* bark, extract (30-60 ml) given twice for reducing body heat and also for treating urinary problems. (Warli).

Headache; dry root powder is inhaled like snuff. (Warli).

Misc : Climber is used for tying purposes. (All tribes).

Literature : Sabnis & Bedi, 1983 -(rt) headache. Asolkar, *et al.*, 1992 (px) diuretic.

Terminalia bellirica (Gaertn.) Roxb., Pl. Cor.t.198. 1805; Cooke, Fl. Pres. Bombay 1:508. 1958 (Repr.ed.); Rao, Fl. Goa 1:165. 1985; Jain, Dict. Ethn. 177. 1991. 'Behada'.

Trees, up to 15 m high. Leaves collected at branchlet tips, alternate, elliptic-obovate. Flowers white or greenish-yellow. Drupes minutely pale tomentose, obscurely angled when dry.

Bark & fruit contains 17 % tannin, gallic acid (Chopra, *et al.*, 1969).

Fls. & Frts.: March - November.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.262. 1988.

Distrib.: Few on the hill slopes; Zari (Daman), 173903.

Uses: Med : * Ranikhet disease of hen; bark & fruit extract given to hen. (Warli).

+ Scorpion sting : bark extract applied externally at the site of scorpion sting to relieve pain. (Dhodia).

Ed : Kernels are eaten raw by locals. (Warli).

Fodder; leaves used as fodder for cattle. (All tribes).

Literature : Jain, 1991 and Saklani & Jain, 1994 -(kernel) edible. Chourasia & Roy, 1992 -(fr) scorpion sting.

Terminalia catappa L., Mant. 579. 1771; Cooke, Fl. Pres. Bombay 1:511. 1958 (Repr. ed.); Rao, Fl. Goa 1:167. 1985; Jain, Dict. Ethn. 177. 1991. 'Badam'

Trees, up to 12 m high, with brownish-grey bark. Leaves alternate or subopposite, entire or slightly crenulate, base cordate. Flowers greenish-white. Fruits broadly oval, flattened, greenish or reddish. Seeds oblong-ellipsoid.

Leaves contain gallic acid, ellagic acid, corilagin & unidentified flavonoids [Rastogi & Mehrotra, 1991a].

Fls. & Frts.: November - July.

Illus.: Matthew, Fur. III. Fl. Tamilnadu Carnatic 4:t. 263. 1988.

Distrib.: Cultivated in villages; Daman, 177313.

Uses: Med : Scabies; juice of young leaves applied externally. (Warli).

Ed : Kernels are eaten. (All tribes).

Literature : Chopra, *et al.*, 1956 and Jain & De Filipps, 1991 -(lf) scabies. Jain, 1991 (kernel) edible.

Terminalia chebula Retz., Obs. Bot. 5:31. 1788; Cooke, Fl. Pres. Bombay 1:509. 1958 (Repr.ed.); Rao, Fl. Goa 1:165. 1985; Jain, Dict. Ethn. 177. 1991. 'Hirda'.

Trees, 6-9 m tall. Leaves ovate or elliptic-oblong, base rounded, apex obtuse, apiculate; petioles with 2 glands near the tip. Flowers white or pale-yellow. Drupes yellowish-green, faintly ribbed; stone oblong.

Fruit contains chebulinic acid & chebulagic acid, corilagin, tannic acid, gallic acid, resin, sugars, amino acid, etc. (Saxena & Tripathi, 1989).

Fls. & Frts.: March-August.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 266 & 969 c. 1982.

Distrib.: Few on hill slopes; Bindrabin (N. H.), 173930.

Uses: Med : Cough; fruits chewed & eaten raw. (Warli).

Dysentery; 20-40 ml of unripe fruit extract given twice a day. (Konkana).

Literature : Jain & De Filippis, 1991, Kapur, 1991 and Varghese, 1996 (fr) cough & dysentery.

Terminalia crenulata Roth, Nov. Pl. Sp. 380. 1821; Rao, Fl. Goa 1:166. 1985; Jain, Dict. Ethn. 178. 1991. *T. tomentosa* (DC.) Wight & Arn. Prodr. 314. 1834; Cooke, Fl. Pres. Bombay 1:510. 1958 (Repr.ed.). 'Sadad'

Trees, up to 25 m tall. Leaves ovate or elliptic-oblong, softly tomentose when young, glabrous at length. Flowers white or dull yellow. Drupes 3.5 cm long, greenish-brown, coriaceous.

Fls. & Frts.: March - August.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 265. 1988.

Distrib.: Common plant along road sides; Zari (Daman), 173904.

Use: Misc : Timber is useful in making furniture & house building. (All tribes).

MYRTACEAE

Psidium guajava L., Sp. Pl. 470. 1753; Cooke, Fl. Pres. Bombay 1:529. 1958 (Repr.ed.); Rao, Fl. Goa 1:168. 1985; Jain, Dict. Ethn. 151. 1991. 'Peru'

Trees, 4-6 m tall, bark smooth, deciduous. Leaves oblong, elliptic-oblong or obovate, entire, softly hairy beneath. Flowers white, 1-3 on axillary peduncles. Berries pyriform, dark green.

Stem bark contains tannins (11-27%), leucocyanidin, luteic acid, ellagic acid & amritoside (Anonymous, 1969).

Fls. & Frts.: Throughout the year.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.270. 1982.

Distrib.: Commonly cultivated near villages for edible fruits; Khanvel (N. H.), 176479.

Uses: Med : Loose motions; 10-20 ml bark decoction given twice a day. (Konkana).

Ed : Fruits are eaten. (All tribes).

Literature : Borthakur, 1993 and Saklani & Jain, 1994 -(bk) diarrhoea.

Syzygium cumini (L.) Skeels in U.S. Dept. Agric. Bur. Pl. Ind. Bull. 248:2. 1912; Rao, Fl. Goa 1:169. 1985; Jain, Dict. Ethn. 174. 1991. *Eugenia jambolana* Lam., Encycl. 3:198. 1789; Cooke, Fl. Pres. Bombay 1:525. 1958 (Repr.ed.). 'Jambul'.

Trees, 10 m tall. Leaves coriaceous, elliptic-oblong or elliptic-lanceolate. Inflorescence of cymes from axil of fallen leaves. Flowers creamish-white. Berries ca 2 cm in diam., globose, purple.

Seeds contain glycoside jambolin, ellagic acid, tannin, gallic acid, fatty oil, resin, sugar [Chopra, *et al.*, 1969]. Leaves contain heptacosane, nonacosane, triacontane, octacosanol, tricosanol & dotriaicosanol, while seeds contain corilagin, ellagitannins, resorsinol dimethyl ether, veratrole, quercetin, gallic and ellagic acid [Rastogi & Mehrotra, 1991b]. Seeds contain bornyl acetate & leaves contains α -pinene and β -pinene [Rastogi & Mehrotra, 1993].

Fls. & Frts.: March - August.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.271. 1982.

Distrib.: Common along the streams & sometimes cultivated; Rudana (N. H.), 176173.

Uses: Med : Diabetes; seeds boiled in water, decoction mixed in warm milk, taken once a day regularly without sugar. (Warli).

Dysentery; 10-20 ml leaf juice is given twice a day. (Warli).

Ed : Fruits are eaten. (All tribes).

Misc : Wood for making agricultural implements & house building. (All tribes).

Literature : Jain & De Filippis, 1991 -(sd) diabetic. Mandal & Basu, 1996 -(lf) dysentery.

LECYTHIDACEAE

Careya arborea Roxb., Pl. Cor. 3:14, t. 218. 1819; Cooke, Fl. Pres. Bombay 1:528. 1958 (Repr. ed.); Rao, Fl. Goa 1:172 1985; Jain, Dict. Ethn. 44. 1991. 'Kumbia'

Trees, 5-6 m tall, bark greyish. Leaves broadly obovate, apex acuminate, base tapering. Flowers yellowish-white, in terminal spikes. Fruits ca 5 cm in diam., globular, green.

Fls. & Frts.: April - June.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:49, f. 316. 1991.

Distrib.: Few in deciduous forests; Tighra (Dadra), 177327.

Uses: Ed : Fodder; leaves eaten by cattle. (All tribes).

Misc : Cordage; bark yields a fibre in broad bands for coarse cordage and for tying purposes. (Dhodia).

Literature : Jain, 1991 -(fibre) cordage.

LYTHRACEAE

Lagerstroemia parviflora Roxb., Pl. Cor. t. 66. 1795; Cooke, Fl. Pres. Bombay 1:545. 1958 (Repr.ed.); Rao, Fl. Goa 1:175. 1985; Jain, Dict. Ethn. 112. 1991. 'Bondar'

Trees, up to 10 m tall. Leaves elliptic-oblong, ovate or lanceolate, apex acute or acuminate. Inflorescence of few or many flowered panicles, axillary & terminal. Flowers white. Capsules ellipsoid. Seeds deep brown.

Leaves contain 16% tannin (Anonymous, 1962).

Fls. & Frts.: March - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.279 & 970d. 1982.

Distrib.: Common on hill slopes & in open fields; Shelti (N. H.), 173932.

Uses: Med : * Leaves mixed with sliced tubers of *Dioscorea bulbifera* and cooked as vegetable. Mixing of leaves in preparation prevents throat irritation after eating. (Konkana).

Ed : Fodder; leaves used as fodder for cattle. (All tribes).

Lawsonia inermis L., Sp. Pl. 349. 1753; Cooke, Fl. Pres. Bombay 1:544. 1958 (Repr.ed.); Rao, Fl. Goa 1:177. 1985; Jain, Dict. Ethn. 114. 1991. 'Mehndi'

Shrubs, spiny. Leaves elliptic or broadly lanceolate, acute or obtuse, often mucronulate, base tapering, sessile. Flowers white, in terminal and axillary cymes. Capsules globose.

Leaves contain lawsone, gallic acid, mannitol, resin, fat, mucilage & alkaloid (Anonymous, 1962).

Fls. & Frts.: June - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.280. 1982.

Distrib.: Commonly cultivated as hedge plant; Rudana (N. H.), 173343.

Uses: Med : Headache; leaves crushed and applied on fore-head. (Warli).

Misc : Colouring matter from leaves used as ornament to dye hands & feet. (Warli, Konkana).

Hedge plant; planted around huts of tribals. (All tribes).

Literature : Chopra, *et al.*, 1956 and Jain & De Filipps, 1991 -(If) headache. Jain, 1991 -(If) dye palms.

Woodfordia fruticosa (L.) Kurz in J. As. Soc. Beng. 40:56. 1878; Rao, Fl. Goa 1:177. 1985; Jain, Dict. Ethn. 189. 1991. *W. floribunda* Salisb., Parad. London t.42. 1806; Cooke, Fl. Pres. Bombay 1:543. 1958 (Repr.ed.). 'Dhayati'.

Shrubs, up to 3.5 m high. Flowers orange, in axillary clusters, mostly from axils of fallen leaves. Capsules ca 1 cm long, dehiscent irregularly. Seeds cuneate-obovoid, brown, smooth.

Bark contains 20-27% tannin (Anonymous, 1976). Plant contains novel c-glycoside of gallic acid called norbergenin [Kalidhar, *et al.*, 1981].

Fls. & Frts.: November - April.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:59, f. 322. 1911.

Distrib.: Common on hill slopes; Rudana (N. H.), 173303.

Uses: Med : * Jaundice; 15-30 ml bark extract with bark of *Oroxylum indicum*, *Mangifera indica*, *Bauhinia racemosa* and *Dalbergia lanceolaria* taken in equal proportions, is given twice a day for 4-5 days. (Warli).

*Snake bite; root extract with *Helicteres isora* roots is given as an antidote. (Warli).

PUNICACEAE

Punica granatum L., Sp. Pl. 472. 1753; Cooke, Fl. Pres. Bombay 1:548. 1958 (Repr.ed.); Rao, Fl. Goa 1:178. 1985; Jain, Dict. Ethn. 152. 1991. 'Dalimb'.

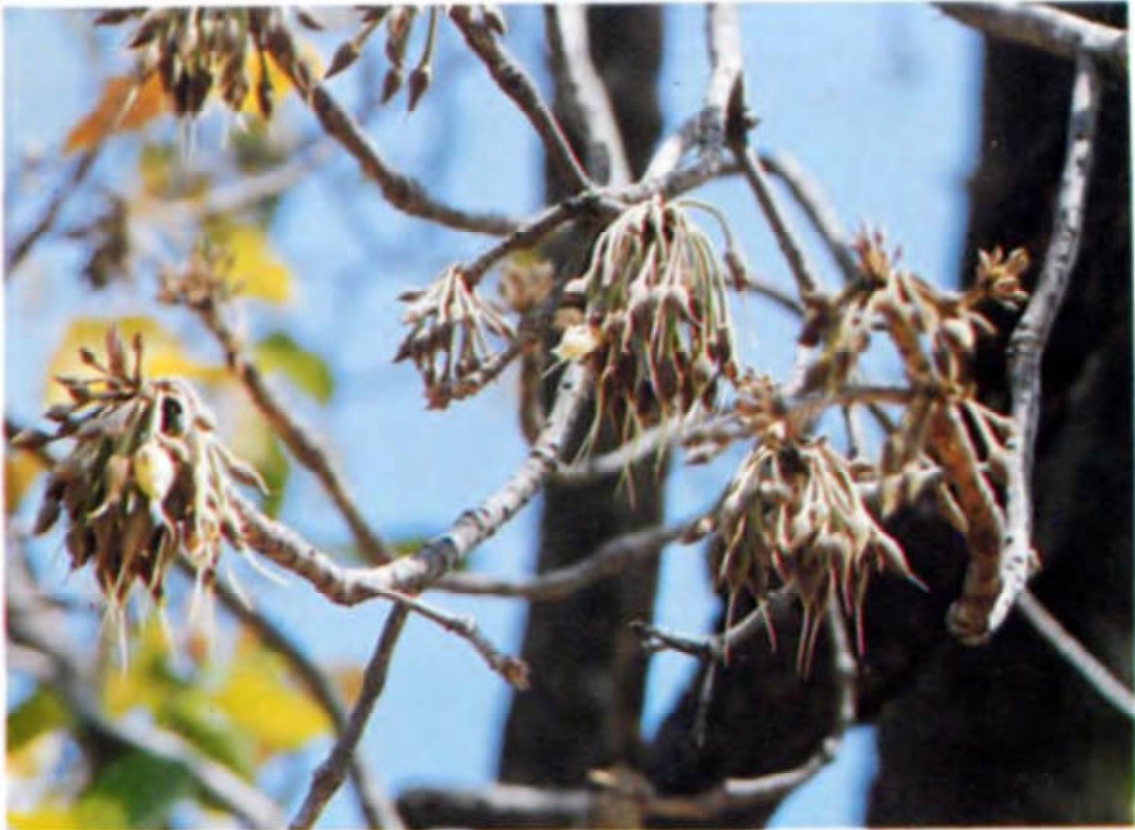
Trees, up to 6 m tall; branches armed. Leaves opposite or clustered, oblong-obovate. Flowers orange-red, axillary, solitary or clustered. Fruits globose. Seeds angular.

Fls. & Frts.: July - November.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 2:t. 276. 1988.

Distrib.: Cultivated near villages; Khanvel (N. H.), 176463.

Use: Ed : Fruits are edible. (All tribes).



Madhuca longifolia var. *latifolia* in flowers.



Dioscorea bulbifera.



A fruiting twig of *Bridelia retusa*.



Gloriosa superba in flowers.



A fruiting twig of *Catunaregam spinosa*.



Centella asiatica.



A flowering twig of *Sterculia foetida*.



A fruiting twig of *Helicteres isora*.



Garuga pinnata in fruits.

Literature : Jain, 1991 -(fr) edible.

CARICACEAE

Carica papaya L., Sp. Pl. 1036. 1753; Cooke, Fl. Pres. Bombay 1:557. 1958 (Repr.ed.); Rao, Fl. Goa 1:182. 1985; Jain, Dict. Ethn. 44. 1991. 'Papai'

Trees. Leaves large, glabrous, pinnatifid and palminerved. Flowers unisexual; female in axillary clusters, male in drooping panicles. Fruits fleshy, many seeded.

Roots contain carpaine, sinigrin (glycoside) (Anonymous, 1950).

Fls. & Frts.: Almost throughout the year.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.290. 1882.

Distrib.: Widely cultivated for edible fruits; Bedapa (N. H.), 176452.

Uses: Med : + Abortifacient; 20-30 ml root extract with roots of *Ricinus communis* is given twice or thrice to women. (Warli, Konkana).

+ Birth control; 20-30 ml of root decoction with the roots of *Plumeria acuminata* is given to women, twice/thrice in 6 months with regular intervals to check conception. (Warli, Konkana).

Ed : Ripe fruits are eaten. (Warli, Konkana).

Literature : Dastur, 1964 and Jain, 1991 -(rt) abortifacient. Saklani & Jain, 1994 -(rt) abortifacient & for temporary sterilization. Jain, 1991 -(fr) edible.

CUCURBITACEAE

Citrullus lanatus (Thunb.) Mats. & Nakai in Cat. Sem. et Spor. Hort. Bot. Univ. Imp. Tokyo, 1916. *C. vulgaris* is Schrad. ex Ectl. & Zeyh. Enum. 2:279. 1836; Cooke, Fl. Pres. Bombay 1:571. 1958 (Repr.ed.); Rao, Fl. Goa 1:183. 1985; Jain, Dict. Ethn. 54. 1991. 'Tarbuj'

Herbs, prostrate. Leaves, 3-6 cm long, cordate, scabrid, 3-lobed. Flowers greenish white, axillary, solitary, unisexual. Fruits globose-ellipsoid.

Fls. & Frts.: September - October.

Distrib.: Cultivated; along riverbank of Damanganga (N. H.).

Use : Ed : Fruits edible. (All tribes).

Literature : Jain, 1991 -(fr) edible.

Coccinia grandis (L.) Voight, Hort. Suburb. Calc. 59. 1845; Rao, Fl. Goa 1:184. 1985; Jain, Dict. Ethn. 57. 1991. *C. indica* Wight & Arn., Prodr. 347. 1834; Cooke, Fl. Pres. Bombay 1:572. 1958 (Repr.ed.). Rao, Fl. Goa 1: 184, 1985. 'Tondli'

Herbs, scandent. Leaves rhomboid-cordate, angled, margin minutely denticulate. Flowers white. Fruits subglabrous with rounded ends, pulp red. Seeds ca 0.5 x 0.2 cm, oblong, yellowish.

Fls. & Frts.: November - January.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 293. 1882.

Distrib.: Few in dry places; Cale (Daman), 177335.

Use: Ed :Vegetable; young fruits cooked and used as vegetable. (All tribes).

Literature : Saini, 1996 -(fr) vegetable.

Cucumis callosus (Rottl.) Cogn. ex Cogn. & Harms in Pflanzenr. 88:129. 1924; Rao, Fl. Goa 1:184. 1985; Jain, Dict. Ethn. 64. 1991. *C. trigonus* Roxb., [Hort. Beng. 70. 1814 (*nom. nud.*)] Fl. Ind. 2:619, 1832 (excl. syn.); Cooke, Fl. Pres. Bombay 1:569. 1958 (Repr.ed.). 'Kachara'

Herbs, ca 1 m tall, prostrate. Leaves suborbicular, hispid, cordate, 5-lobed. Flowers axillary, solitary, yellow. Fruits obovoid, rounded, faintly trigonous. Seeds ellipsoid, white.

Fls. & Frts.: August - May.

Illus.: Wight, Ic. t.497. 1841 (*C. trigonus*).

Distrib.: Common in hedges; Khutaly (N. H.), 173350.

Use : Ed :Fruits mixed with salt to remove bitterness & then pickled. (Warli).

Literature : Jain, 1991 -(fr) vegetable.

Cucurbita maxima Duchesne ex Lam., *Encycl.* 2:151. 1786; Cooke, *Fl. Pres. Bombay* 1:582. 1958 (Repr. ed.); Rao, *Fl. Goa* 1:190. 1985; Jain, *Dict. Ethn.* 64. 1991. 'Tambdabhopla'

Herbs, prostrate. Leaves alternate, more or less rounded. Flowers yellow, axillary, solitary, unisexual. Fruits variously coloured from green to yellowish grey-brown; pulp red. Seeds yellowish.

Fls. & Frts.: February - April.

Distrib.: Cultivated near villages; Chauda. (N. H.), 93964 (M.Y.Ansari).

Use : Ed : Vegetable; fruits used as vegetable. (All tribes).

Literature : Jain, 1991 -(fr) vegetable.

Cucurbita moschata (Duchesne ex Lam.) Poir., *Dict. Sci. Nat.* 8:234. 1818; Cooke, *Fl. Pres. Bombay* 1:582. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:190. 1985; Jain, *Dict. Ethn.* 64. 1991. 'Bhopla'.

Herbs, long-running. Leaves limpish and velvety. Corolla with wide-spreading crinkly lobes. Seeds thin, margins usually hyaline when fresh.

Fls. & Frts.: September - March.

Distrib.: Cultivated; (N. H.), 88936 (R.S.Rao).

Use : Ed : Fruits are cooked as vegetable. (All tribes).

Literature : Jain, 1991 -(fr) vegetable.

Cucurbita pepo L., *Sp. Pl.* ed. 1, 1010. 1753; Cooke, *Fl. Pres. Bombay* 1:582. 1958 (Repr.ed.); Rao, *Fl. Goa* 1:190. 1985; Jain, *Dict. Ethn.* 64. 1991. 'Kashi-bhopla'.

Herbs, long-running, with sharp, stiff, translucent, harsh hairs. Leaves stiff, triangular or ovate-triangular in outline. Corolla mostly with erect or spreading pointed lobes. Fruits large, orange, furrowed, perishable.

Fls. & Frts.: September - April.

Distrib.: Cultivated; (N. H.).

Use : Ed : Fruits edible, used as vegetable. (All tribes).

Literature : Jain, 1991 -(fr) vegetable.

Diplocyclos palmatus (L.) C. Jeffrey in Kew Bull. 15:352. 1962; Rao, Fl. Goa 1:185. 1985; Jain, Dict. Ethn. 76. 1991. *Bryonopsis laciniosa* L., Sp. Pl. 1013. 1753, *p.p.*; Cooke, Fl. Pres. Bombay 1:568. 1958 (Repr.ed.). 'Shivling'

Climbers, tendrillar. Leaves palmately 3-5 lobed, scabrid above, smooth beneath, base deeply cordate. Flowers greenish yellow. Fruits 0.5-1.5 cm in diam. bluish-green with white stripes when tender. Seeds obovate, pale yellow.

Seeds contain punicic acid [38.2 %] [Asolkar, *et al.*, 1992].

Fls. & Frts.: August - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 257. 1982.

Distrib.: Few on hill slopes & on bushes; Bedapa (N. H.), 176447.

Uses: Med : Snake bite; fruits eaten as antidote for snake bite. (Warli, Konkana).

Ed : Fodder; Plant is good fodder for cattle. (Warli, Konkana).

Literature : Varghese, 1996 -(fr) snake bite.

Lagenaria siceraria (Molina) Standl. in Publ. Field Mus. Nat. Hist. Chicago Bot. Ser. 3:435. 1930; Rao, Fl. Goa 1:190. 1985; Jain, Dict. Ethn. 112. 1991. *L. vulgaris Seringe*, Mem. Soc. Phys. Hist. Nat. Genve, III. 1;

25, t.2. 1825; Cooke, Fl. Pres. Bombay 1:581. 1958 (Repr.ed.). 'Dudhibhopla'.

Herbs, climbing, with branched tendrils. Leaves cordate-ovate to reniform-ovate, broad-cordate at base. Fruits 9 cm to 1 m and more long, disk-like to nearly globular, bottle-shaped, dumbbell-shaped, club-shaped or coiled.

Fls. & Frts.: September - March.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 299. 1982.

Distrib.: Cultivated, found on hedges & fields (N. H.), 176499.

Uses: Ed : Vegetable; fruits cooked as vegetable. (All tribes).

Misc : Fruit shell dried and used as water bottle, for making musical instruments and as spoon for rice & dal. (All tribes).

Literature : Jain, 1991 -(fr) containers, vegetable.

Luffa acutangula (L.) Roxb., Fl. Ind. 3:713. 1832; Cooke, Fl. Pres. Bombay 1:566. 1958 (Repr.ed.); Rao, Fl. Goa 1:186. 1985; Jain, Dict. Ethn. 119. 1991. 'Dodka'.

Climbers, extensive. Leaves palmately 5-7 angled or sublobate, broadly orbicular or ovate in outline. Flowers pale-yellow. Fruits obovoid, obtusely conical at both ends, 10-ribbed, green.

Fls. & Frts.: September - October.

Illus.: Ic. Roxb. Fasc. 8, t. 11. 1978 [Repr.ed. (*L. acutangula* var. *amara*)].

Distrib.: Occasional on hill slopes; Silvassa (N. H.), 177337.

Use: Ed : Fruits used as vegetable. (All tribes).

Literature : Jain, 1991 -(fr) vegetable.

Luffa cylindrica (L.) M. J. Roem., Syn. Mon. 2:63. 1846; Rao, Fl. Goa 1:186. 1985. *L. aegyptiaca* Mill., Gard. Dict. ed. 8. 1768; Cooke, Fl. Pres. Bombay 1:565. 1958 (Repr.ed.); Jain, Dict. Ethn. 119. 1991. 'Ghosale'.

Climbers; branches 5-angled, twisted, extensive. Leaves palmately 5-lobed, broadly ovate, 7 - 10 cm long, base cordate. Flowers yellow. Fruits cylindrical, green, striate.

Fls. & Frts.: June - September.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.300. 1982.

Distrib.: Cultivated for its fruits; Khanvel (N. H.), 177340.

Use : Ed : Fruits are used as vegetable. (All tribes).

Literature : Jain, 1991 -(fr) vegetable.

Momordica charantia L., Sp. Pl. 1009. 1753; Cooke, Fl. Pres. Bombay 1:562. 1958 (Repr.ed.); Rao, Fl. Goa 1:186. 1985; Jain, Dict. Ethn. 126. 1991. 'Karale'.

Climbers. Leaves alternate, pubescent, deltoid-ovate, 3-5 lobed. Flowers yellow, solitary, axillary. Fruits fusiform, beaked, tuberculate. Seeds red.

Fls. & Frts.: May - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 301. 1982.

Distrib.: Cultivated for its fruits; Chisda (N. H.), 176438.

Use :Ed : Fruits used as vegetable. (All tribes).

Literature : Jain, 1991 -(fr) vegetable.

Solena amplexicaulis (Lam.) Gandhi in Sald. & Nicol. Fl. Hassan Dt. 179. 1976; Jain, Dict. Ethn. 168. 1991. *S. heterophylla* Lour., Fl. Cochinch. 1:514. 1990; Rao, Fl. Goa 1:187. 1985. *Melothria heterophylla* (Lour.) Cogn. in DC. Monogr. Phan. 3:618. 1881; Cooke, Fl. Pres. Bombay 1:575. 1958 (Repr.ed.). 'Gomet'

Herbs, slender, scandent. Leaves ovate-deltoid, undivided, apex acute or acuminate, base cordate and hastate. Flowers yellow. Fruits oblong, brown, many seeded. Seeds obovoid or subglobose, smooth, white.

Plant contains steroid & a mixture of lignoceric, tricosanoic and behenic acids [Rastogi & Mehrotra, 1991b].

Fls. & Frts.: April - October.

Illus. : Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 303. 1982.

Distrib.: Occasional, climbing on hedges or shrubs; Khadoli (N. H.), 173390.

Uses: Med : * To induce menstruation; 15-20 ml root extract given thrice a day for 3 days. (Konkana).

Ear complaints; 2-3 drops of root extract instilled in ear. (Konkana).

Literature : Jain, 1991 -(rt) ear complaints.

APIACEAE

***Centella asiatica* (L.) Urb.** in Mart. Fl. Braz. 11:287. 1879; Rao, Fl. Goa 1:194. 1985; Jain, Dict. Ethn. 49. 1991. *Hydrocotyle asiatica* L., Sp. Pl. 234. 1753, *p.p.*; Cooke, Fl. Pres. Bombay 1:598. 1958 (Repr.ed.). 'Bramhi'.

Herbs; stem slender, reddish; internodes long, rooting at nodes. Leaves orbicular-reniform, apex rounded, cordate at base. Flowers sessile. Mericarps brown, laterally compressed.

Plant contains alkaloid-hydrocotyline. Glycosides-asiaticoside, brahamoside, brahaminoside, flavones-kaempferol, quercetin. Organic acids-brahmic acid, centric acid, centrillic acid, thankunic acid & ascorbic acid (Sinha, 1996).

Fls. & Frts.: February - August.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 315. 1982.

Distrib.: Occasional, on moist ground; Airport area (Daman), 176433.

Use: Med : Brain tonic; plant extract given regularly for good memory. (Konkana).

Literature : Dustur, 1964 and Sinha, 1996 -(wp) brain tonic.

Coriandrum sativum L., Sp. Pl. 256. 1753; Cooke, Fl. Pres. Bombay 1:609. 1958. (Repr.ed.); Rao, Fl. Goa 1:196. 1985; Jain, Dict. Ethn. 60. 1991. 'Kothmir'.

Herbs, up to 30 cm high, aromatic. Leaves pinnatifid or decomposed. Inflorescence a terminal, compound umbel. Fruit a schizocarp; mericarps 5-ridged, with secondary ridges between them.

Plant contains essential oil, coriandrol, oxalic acid, vit. C and carotene (Chopra, *et al.*, 1956).

Fls. & Frts.: Almost throughout the year.

Illus. : Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 316 1982.

Distrib.: Cultivated; Khanvel (N. H.), 176480.

Uses : *Med* : Stomachache; fruit powder is given with water. (Warli, Konkana).

Ed : Dried fruits and green leaves used as condiments. (Warli, Konkana).

Literature : Jain, 1991 -(sd) stomachache.

Daucus carota L., Sp. Pl. 242. 1753; Cooke, Fl. Pres. Bombay 1:699. 1958 (Repr.ed.); Rao, Fl. Goa 1:196. 1985; Jain, Dict. Ethn. 71. 1991. 'Gajar'.

Herbs, more or less bristly, erect with thick fleshy tap-root. Leaves mostly on long petiole with expanded base. Flowers white or yellowish, small and numerous. Fruits oblong.

Fls. & Frts.: October - March.

Distrib. : Cultivated; Jampur (Daman), 177336.

Uses : Ed : Leaves used in vegetable. (All tribes).

Tap root is edible. (All tribes).

Literature : Jain, 1991 -(tu) edible.

Foeniculum vulgare Mill., Dict. ed. 8. 1768; Cooke, Fl. Pres. Bombay 1:609. 1958 (Repr.ed.); Rao, Fl. Goa 1:196. 1985; Jain, Dict. Ethn. 92. 1991. 'Badishep'

Herbs, erect, branching. Leaves 3-4 pinnately compound, very narrow and thread-like. Flowers yellow. Fruits linear-oblong, glabrous, terete, carpels prominently ribbed.

Fruits contain iodine, vita. A, thiamin, riboflavin, niacin, ascorbic acid (Anonymous, 1956).

Fls. & Frts. : Almost throughout the year.

Illus. : Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 317. 1982.

Distrib. : Occasionally cultivated in backyards of houses; Moti Daman (Daman), 177354.

Use : Med : Indigestion; fruits used as carminative. (Dhodia).

Literature : Jain, 1991 -(fr) carminative.

Pimpinella heyneana (DC.) Kurz in J. As. Soc. Beng. 46:115. 1877; Cooke, Fl. Pres. Bombay 1:601. 1958 (Repr.ed.); Rao, Fl. Goa 1:195. 1985; Jain, Dict. Ethn. 144. 1991. 'Dongar-jeera'.

Herbs, annual, erect. Leaves trifoliate; leaflets deeply lobed, chartaceous. Inflorescence umbellate. Flowers white. Fruits *ca* 0.1-0.2 cm in diam., subglobose, glabrous.

Plant contains essential oil (Chopra *et al.*, 1956). Plant contains seselin (0.5%), [Rastogi & Mehrotra, 1991a].

Fls. & Frts.: August - December.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t.294. 1988.

Distrib.: Frequent on hill slopes; Bontha (N. H.), 173937.

Uses:Med : * Stomach pain; one tea cup of plant extract given once a day, which is said to be effective in indigestion also. (Warli).

Ed : Plant is pickled. (Warli).

Literature : Jain, 1991 -(wp) pickled.

ALANGIACEAE

Alangium salvifolium (L.f.) Wang. in *Pflanzenf.* 41:9, f.2A-E. 1910; Rao, *Fl. Goa* 1:197. 1985; Jain, *Dict. Ethn.* 16. 1991. *A. lamarckii* Thw., *Enum.* 133. 1859; Cooke, *Fl. Pres. Bombay* 2:1. 1958 (Repr.ed.). 'Ankoli'

Trees, up to 10 m high. Leaves narrowly oblong or ovate lanceolate, entire. Inflorescence a panicle, axillary and terminal, sweet-smelling. Fruits a berry, green when young, purplish-red at maturity, crowned by persistent calyx.

Stem bark contains alangine (Dastur, 1964). Bark contains lamarckinine, N-methylcephaeline & deoxytubulosine [Rastogi & Mehrotra, 1991a].

Fls. & Frts.: March - May.

Illus.: Matthew, *Ill. Fl. Tamilnadu Carnatic* 2:t. 323. 1982.

Distrib.: Few along stream beds on forest edges; Dudhni (N. H.), 173309.

Uses:Med : * Tuberculosis; 10-30 ml bark decoction given once a day for 10-15 days is said to be effective. (Warli).

RUBIACEAE

Canthium rheedii DC., Prodr. 4:474. 1830. *C. angustifolium* Roxb., Fl. Ind. 2:169. 1824; Rao, Fl. Goa 2:202. 1985. *Plectronia rheedii* (DC.) Bedd., Fl. Sylv. 134. 1872; Cooke, Fl. Pres. Bombay 2:34. 1958 (Repr.ed.). 'Aliv'.

Shrubs, spines *ca* 1.5 cm long. Leaves ovate, apex acute or acuminate, glabrous on both sides. Flowers greenish; calyx truncate or obscurely toothed; corolla lobes linear-lanceolate. Drupes obcordate, didymous, rugose.

Fls. & Frts.: February - December.

Illus.: Wight, Ic. t. 826. 1845.

Distrib. : Frequent in deciduous forests; Kawancha (N. H.), 173977.

Use: Ed : * Ripe reddish fruits are eaten by locals. (Warli).

Catunaregam spinosa (Thunb.) Trivengadam in Taxon 27:515. 1978; Jain, Dict. Ethn. 47. 1991; *Randia dumetorum* (Retz.) Pois. in Lam. Encycl. Suppl. 2:829. 1811; Cooke, Fl. Pres. Bombay 2:27. 1958 (Repr. ed.). *Xeromphis spinosa* (Thunb.) Keay in Bull. Jard. Bot. Etat. 28:37. 1958; Rao, Fl. Goa 2:217. 1985. 'Gal'.

Shrubs or trees 3-5 m high, leaves fascicled at the end of branches, obovate, apex obtuse, base cuneate. Flowers white or yellow. Fruits ovoid. Seeds many, embedded in sticky pulp.

Fls. & Frts.: May - September.

Illus.: Wt. Ic. T. 580; T. 2: f. 341.

Distrib.: Common on hill slopes; Shelti (N.H.). 177389

Use: Fish poison. Unripe, fruits are crushed and sprayed in water. (Warli).

Literature: Jain, 1991 (sd) fish poison.

Haldina cordifolia (Roxb.) Ridsdale in Blumea 24:361. 1978. *Nauclea cordifolia* Roxb., Pl. Cor. 1:40, t.53. 1795; Jain, Dict. Ethn. 98. 1991. *Adina cordifolia* (Roxb.) Hook.f. ex Brandis, For. Fl. 263, t.33. 1874; Cooke, Fl. Pres. Bombay 2:7.1958 (Repr.ed.); Rao, Fl. Goa 2:200. 1985. 'Hed'.

Trees, up to 15 m high. Leaves broadly ovate, upper surface sparsely hirsute, lower surface densely pubescent. Flowers yellow. Fruitlets cuneate, pubescent. Seeds winged.

Bark contains tannin 7-9 % and yellow pigment adinin, (Chopra, *et al.*, 1956). An indole alkaloid-cordifoline, 10-deoxyadifoline and 10-deoxycordifoline isolated from heartwood. (Rastogi & Mehrotra, 1991b).

Fls. & Frts.: July - October.

Illus. : Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 333. 1982.

Distrib.: Common in deciduous forests; Bindrabin (N. H.), 173365.

Uses: Med : *Stomach pain; 25-30 ml of bark extract given twice a day. (Warli).

Misc : Wood is good quality timber used for house building. (Warli, Konkana).

Hymenodictyon orixense (Roxb.) Mabberly in Taxon 31. 66. 1982; Rao, Fl. Goa 2:207. 1985; Jain, Dict. Ethn. 105. 1991. *H. excelsum* (Roxb.) Wall. in Roxb., Fl. Ind. 2:149. 1824; Cooke, Fl. Pres. Bombay 2:9. 1958 (Repr.ed.). 'Kadwai'.

Trees, 9-12 m high. Leaves 8-16 x 4-9 cm, ovate-elliptic, apex abruptly acuminate; stipules broadly oblong, recurved, deciduous. Flowers greenish-white. Capsules ellipsoid on decurved pedicels.

Plant contains toxic alkaloid hymenodictine & aesculin (Chopra, *et al.*, 1956). Bark contains alkaloid hymenodictyonin and the presence of aesculin & scopoletin also reported [Anonymous, 1959].

Fls. & Frts.: July - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.336. 1982.

Distrib.: Few on hill slopes; Luhari (N. H.), 173920.

Uses: Med : * Labour pains; 25-30 ml decoction of its bark with bark of *Sterculia urens* & *Madhuca longifolia* var. *latifolia* and root of *Carrisa congesta* taken in equal proportions, given to minimise pains and to facilitate delivery. (Konkana).

Ed : Fodder; leaves used as fodder for cattle. (All tribes).

Ixora arborea Roxb. ex J.E. Sm. in Rees, Cyclop. 19:5. 1811; Rao, Fl. Goa 2:208. 1985; Jain, Dict. Ethn. 109. 1991. *I. parviflora* Vahl, Symb. Bot. 3:11, t. 52.1794 (*non* Lam.); Cooke, Fl. Pres. Bombay 2:39. 1958 (Repr.ed.). 'Raghali'

Trees, 4-5 m high, much branched; bark thick, reddish-brown. Leaves oblong-elliptic, coriaceous, base rounded, apex obtuse. Flowers white in trichotomous cymes. Fruits *ca* 0.5 cm across, didymous.

Fls. & Frts.: January - June.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 337. 1982.

Distrib.: Common in forests; Tighra (Dadra), 173319.

Use: Misc :Leaves used by tribal 'Bhagats' to drive out evil spirits from the body of children. (Dhodia).

Ixora brachiata Roxb., Fl. Ind. 1:391. 1820; Cooke, Fl. Pres. Bombay 2:39. 1958 (Repr.ed.); Rao, Fl. Goa 2:208. 1985. 'Tembhrun'

Trees, 3.0-4.5 m tall. Leaves elliptic-oblong, base attenuate, apex obtuse. Flowers white, on puberulous branches. Fruits 0.2-0.7 cm in diam., globose or didymous, purple-black when ripe.

Fls. & Frts.:February - May.

Illus.: Wight, Ic. t. 710. 1843.

Distrib.: Common on slopes; Dolara (N. H.), 173988.

Uses: * Ed : Fruits are eaten. (Konkana).

Misc :Leaves used for making 'beedies'. (All tribes).

Meyna laxiflora Robyns in Bull. Jard. Bot. Brux. 11:228. 1928; Rao, Fl. Goa. 2:210. 1985; Jain, Dict. Ethn. 124. 1991. *Vangueria spinosa* Roxb., Fl. Ind. 2:172. 1824, *p.p.*, excl. type; Cooke, Fl. Pres. Bombay 2:36. 1958 (Repr.ed.). 'Alu'

Trees, *ca* 5 m tall. Leaves elliptic-oblong, 5-9 x 2.5 cm, apex acuminate. Inflorescence of lax cymes. Flowers greenish-white. Fruits *ca* 2.5 cm in diam., stalked, globose, green.

Fls. & Frts.: January - May.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:110, f. 348. 1911.

Distrib.: Common on hill slopes and hill tops; Dudhni (N. H.), 176493.

Use: Ed : Ripe fruits eaten by villagers. (Warli).

Literature : Jain, 1991 and Rao, 1985 -(fr) edible.

Mitragyna parvifolia (Roxb.) Korth, Obs. Naocl. Ind. 19. 1839; Cooke, Fl. Pres. Bombay 2:8. 1958 (Repr.ed.); Rao, Fl. Goa 2:210. 1985; Jain, Dict. Ethn. 126.1991. 'Kalamb'.

Trees, up to 25 m high, deciduous. Leaves elliptic-obovate, subcoriaceous, apex acute or acuminate. Flowers greenish-yellow, fragrant. Fruiting heads *ca* 1.2 cm in diam.

Bark contains mitraversine, rhyncophylline, mitrinermine, mitragynol, rotundifoline (Chopra, *et al.*, 1956).

Fls. & Frts.: April - July.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 340. 1982.

Distrib.: Common on hill slopes and along roadsides; Dolara (N. H.), 173986.

Uses: Med : * Menorrhagia; 20-30 ml extract of its bark with bark of *Dalbergia lanceolaria*, *Desmodium oojeinensis* and *Pterocarpus marsupium*, given twice a day to women for 5-6 days. (Konkana).

Ed : Fodder; leaves relished by cattle. (All tribes).

Morinda pubescens J. E .Sm. in Rees, Cyclop. 24 n. 3. 1813.; Jain, Dict. Ethn. 127. 1991. *M. tomentosa* Heyne ex Roth, Nov. Pl. Sp. 147. 1821; Rao, Fl. Goa 2:211. 1985. *M. tinctoria* Roxb. var. *tomentosa* Hook. f., Fl. Brit. India 3:156. 1880; Cooke, Fl. Pres. Bombay 2:43. 1958 (Repr.ed.). 'Alai'

Trees, 3.0-4.5 m tall. Leaves elliptic-oblong, obovate-oblong or oblong-lanceolate. Flowers white, in globose heads. Fruits 0.5-2.5 cm in diam., globose or ellipsoid, fleshy, stalked. Seeds oblong.

Plant contains glycoside morindin (Chopra, *et al.*, 1956). Heartwood contains morindone, damnacanthal & nordamnacantal [Rastogi & Mehrotra, 1991a].

Fls. & Frts.: May - September.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:122, f. 356. 1911 (*M. tinctoria* var. *tomentosa*).

Distrib.: Few on hill slopes; Khadoli (N. H.), 173388.

Use: Med :* Jaundice; 20-30 ml extract of its bark with bark of *Oroxylum indicum*, *Adina cordifolia* & *Terminalia bellirica*, given twice for 8-9 days. (Konkana).

Spermacoce hispida L., Sp. Pl. 102. 1753; Cooke, Fl. Pres. Bombay 2:53. 1958 (Repr. ed.). *Borreria articularis* (L.f.) F.N. Williams in Bull. Bot. Herb. Boiss. II, 5:956. 1905; Rao, Fl. Goa 2:201. 1985; Jain, Dict. Ethn. 38. 1991. 'Kardo'

Herbs, woody and branched from base. Leaves opposite, subsessile. Flowers white with pinkish tinge, in axillary whorls. Capsules obovoid, hispid. Seeds dark brown, grooved on ventral side.

Fls. & Frts.: August - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 327. 1982.

Distrib.: Common in waste lands and in fields; Amboli (N. H.), 176409.

Use: Med : Stomach pains; 20-30 ml of leaf extract given twice a day. (Warli, Konkana).

Literature :Jain, 1991 and Varghese, 1996 -(lf) stomach complaints.

ASTERACEAE

Artemesia nilagirica (C.B.Cl.) Pamp. in Nuovo. Giorn. Bot. Ital. 33:452. 1926; Rao, Fl. Goa 2:223. 1985; Jain, Dict. Ethn. 28. 1991. *A. vulgaris auct. non*. L. 1753; Cooke, Fl. Pres. Bombay 2:105. 1958 (Repr. ed.). 'Dhor-davana'.

Shrubs, 2-3 m high, villous. Leaves 5-9 x 3-4 cm, petioled, deeply lobed with stipule-like appendages at base. Heads greenish-yellow, ovoid, sessile or shortly pedicelled, solitary or 2-3 together. Achenes oblong, ca 0.1 cm long.

Leaves contain essential oil, monoterpenes containing ether artemisyl or santolinyl skeleton isolated from essential oil [Rastogi & Mehrotra, 1993].

Fls. & Frts.: October - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 354. 1982.

Distrib.: Common on hill slopes; Umberkui (N.H.), 177308.

Use: Med : Wounds; Leaf paste applied on wounds. (Warli).

Literature : Jain, 1991 -(lf) wounds.

Blumea eriantha DC. in Wight, Contrib. Bot. Ind. 15. 1834; Cooke, Fl. Pres. Bombay 2:78. 1958 (Repr.ed.); Rao, Fl. Goa 2:224. 1985. 'Killar'

Herbs, 20-40 cm high, erect. Lower leaves obovate, upper elliptic-oblong. Heads yellow; pappus white, longer than achenes, scanty. Achenes minute, angled with a few hairs on the angles.

Plant contains essential oil and camphor (Chopra, *et al.*, 1956).

Fls. & Frts.: September - March.

Distrib.: Frequent in open areas amidst grasses; Tighra (Dadra), 173968.

Use: Ed : * Leaves mixed with *Lablab purpureus* pods and cooked; it gives good flavour to preparation. (Dhodia).

Blumea membranacea DC., Prodr. 5:440. 1836; Cooke, Fl. Pres. Bombay 2:77. 1958 (Repr.ed.); Rao, Fl. Goa 2:225. 1985; Jain, Dict. Ethn. 36. 1991. 'Nanikillar'.

Herbs, ca 1 m high. Leaves sessile, obovate, membranous. Heads small, numerous in branched panicles, on glandular-hairy peduncles. Involucral bracts lanceolate, acute, glandular hairy. Achenes angled, hairy.

Fls. & Frts.: March - November.

Distrib.: Common in open areas amidst grasses; Deva Pardi (Daman), 173965.

Use: Ed : * Leaves used in 'dal' preparation for good taste & flavour. (Kathudi).

Blumea obliqua (L.) Druce in Rep. Exch. Club Brit. Isles 4:609. 1917; Rao, Fl. Goa 2:225. 1985. *B. amplexans* DC. in Wight Contrib. 13. 1834; Cooke, Fl. Pres. Bombay 2:75. 1958 (Repr. ed.). 'Buradyo'.

Annual herbs. Leaves sessile, elliptic-oblong, acute. Heads small, few, terminal; flowers yellow. Pappus pink. Achenes minute, oblong, compressed, microscopically hairy.

Fls. & Frts.: August - November.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 334. 1988.

Distrib.: Common amidst grasses; Chauda (N. H.), 173931.

Use : Ed : * Leaves mixed with *Lablab purpureus* pods and roasted or cooked; it gives delicious taste and smell. (Warli).

Caesulia axillaris Roxb., Pl. Cor. 1:64, t.93. 1795; Cooke, Fl. Pres. Bombay 2:92. 1958 (Repr.ed.); Rao, Fl. Goa 2:226. 1985; Jain, Dict. Ethn. 41. 1991. 'Borasda'

Annual herbs, prostrate or suberect. Leaves sessile, oblong-lanceolate, apex acute, narrowed at base. Heads white or purplish ca 1 cm in diam., globose. Achenes flat, obovate, slightly notched, sparsely hairy.

Plant contains limonene [34.4%] & γ -asarone [Asolkar, *et al.*, 1992].

Fls. & Frts.: September - November.

Illus.: Bhandari, Fl. Indian Desert 196, f. 62. 1978.

Distrib.: Frequent in moist areas along nallahs and rice fields; Dolara (N. H.), 173951.

Uses: Med : + Vet stomach disorders; Inflorescence mixed with Hare pillates and given to goat. (Konkana).

Insecticide and Pesticide : Leaves kept in pulses as insecticide and pesticide. (Konkana).

Literature : Jain, 1991 -(1f) vet stomach complaints.

Carthamus tinctorius L., Sp. Pl. 830. 1753; Cooke, Fl. Pres. Bombay 2:126. 1958 (Repr.ed.); Rao, Fl. Goa 2:238, 1985. 'Kusumba'.

Herbs, ca 1 m high. Leaves spiny. Heads orange-yellow, solitary or in terminal corymbs.

Seed contains glucopyranoside of tracheloside, β -sitosterol, campesterol, glucose, maltose & raffinose. The new serotonin-N-feruloyl(serotonin, N-[p-cou-maroyl] serotonin & N-(P-coumaroyl) serotonin-mono- β -D-glucopyranoside isolated from seeds along with 2-hydroxyarctin, matairesinol mono- β -D-glucopyranoside and acacetin [Rastogi & Mehrotra, 1993].

Fls. & Frts.: March - May.

Distrib.: Annuals, cultivated for its oil seeds; Nagar Haveli, 177338.

Use: Med : * Diuretic; 30-40 ml of fresh seed juice is given. (Warli).

Cyathocline purpurea (D. Don) O. Ktze., Rev. Gen. Pl. 333. 1891; Rao, Fl. Goa 2:227. 1985; Jain, Dict. Ethn. 66. 1991. *Tanacetum purpureum* Buch.-Ham. ex D. Don, Prodr., Fl. Nepal 181. 1825; Cooke, Fl. Pres. Bombay 2:71. 1958 (Repr.ed.).

Herbs, 30-50 cm high. Leaves sessile, ca 6 cm long, segments toothed, pubescent. Heads small, rounded, corymbose panicles. Achenes smooth, shining, light brown, faintly ribbed.

Fls. & Frts.: November - April.

Illus.: Wight, Ic. t. 1098. 1846 (*C. lyrata*).

Distrib.: Common in open fields & also along river beds; Shelti (N. H.), 173935.

Use: * Crab poison : Plant stuffed in to holes of crabs to stupefy them. (Konkana).

Eclipta prostrata (L.) L., Mant. 2:286. 1771; Jain, Dict. Ethn. 80. 1991. *E. erecta* L., Mant. 2:286. 1771; Cooke, Fl. Pres. Bombay 2:95. 1958 (Repr.ed.). *E. alba* (L.) Hassk., Pl. Jav. Rar. 528. 1848; Rao, Fl. Goa 2:228. 1985. 'Malliya-bhaji'.

Herbs, annual, ca 40 cm high, erect or prostrate. Heads yellow, solitary or 2 -together on unequal, axillary peduncles. Achenes oblong-obovate, tubercled all over, trigonous, light brown to black.

Plant contains alkaloids ecliptine and nicotine (Chopra, *et al.*, 1956).

Fls. & Frts.: August - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 365. 1982.

Distrib.: Frequent in moist areas, along cultivated fields; Tighra (Dadra), 173967.

Uses : Med : * Foot cracks & sores between toes during rainy season; leaves crushed and applied on foot cracks and also for sores (Konkana).

Tonic; seeds taken as a tonic. (Dhodia).

Ed : Leaves used in 'dal' preparation for good taste. (Dhodia).

Literature : Jain, 1991 -(rt) tonic, -(lf) edible.

Elephantopus scaber L., Sp. Pl. 814. 1753; Cooke, Fl. Pres. Bombay 2:68. 1958 (Repr.ed.); Rao, Fl. Goa 2:229. 1985; Jain, Dict. Ethn. 82. 1991. 'Randho'

Herbs, erect, softly pubescent, 20-30 cm high. Flowers bluish in compound heads, arranged in terminal dichotomous cymes; pappus 5, scaly, antrosely scabrid. Achenes tapering at base, hairy between ribs.

Plant contains epifriedelinol, lupeol, stigmasterol & a mixture of triacontan -1-ol & dotricontan -1-ol. Yields 2-sesquiterpene dilactones, deoxyelephantopin & iso-deoxyelephantopin (Jain, *et al.*, 1991).

Fls. & Frts.: September - November.

Illus.: Metthew, Ill. Fl. Tamilnadu Carnatic 2:t.366. 1982.

Distrib.: Frequent in waste places along roadsides; Umberkui, Dolara (N. H.), 173394, 173950.

Uses: Med : Stomach pain;

+ a) 20-30 ml extract of its root with bark of *Tectona grandis* & *Dalbergia lanceolaria* and *Helicteres isora* fruit, given twice a day. (Warli, Konkana).

b) 10-20 ml root decoction given twice a day for 2-3 days. (Warli).

Toothache; crushed roots kept on tooth. (Konkana).

Mouth ulcer; root paste applied in mouth. (Warli).

Vermicide : 10-20 ml root extract given twice a day to children. (Konkana).

Literature : Jain, 1991 -(rt) stomach pain. Jain, *et al.*, 1991 -(rt) tooth worms & stomach pain. Varghese, 1996 -(rt) mouth ulcer. Duke & Ayensu, 1985 -(rt) vermifuge.

Guizotia abyssinica (L.f.) Cass. in Dict. Sci.Nat. 59:248. 1829; Cooke, Fl. Pres. Bombay 2:125. 1958 (Repr.ed.); Rao, Fl. Goa 2:230. 1985; Jain, Dict. Ethn. 97. 1991. 'Kurasni'

Herbs, stout, erect. Leaves sparsely hairy on both sides. Heads 2-3 cm in diam. Achenes 4-angled, black, shining, oblong, slightly curved or straight, finely striate.

Fls. & Frts.: October - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t. 375. 1982.

Distrib.: Cultivated for oil seeds, occasionally found as an escape; Dolara (N. H.), 176421.

Use: Ed : Oil from seeds is employed as a substitute for ghee & cooking oil. (Konkana).

Literature : Jain, 1991 -(sd oil) edible.

Launaea procumbens (Roxb.) Ramayya & Rajagopal in Kew Bull. 23:465. 1969; Jain, Dict. Ethn. 113. 1991. *L. nudicaulis* (L.) Hook. f., Fl. Brit. India 3:416. 1881; Cooke, Fl. Pres. Bombay 2:122. 1958 (Repr.ed.). *L. fallax* (Jaub. & Spach.) Kuntze, Rev. Gen. Pl. 351. 1891; Rao, Fl. Goa 2:232. 1985. 'Pathari'

Herbs, annual, 15-30 cm high. Leaves oblong, pinnatifid, segments rounded. Heads yellow in terminal long branched or unbranched erect or nodding scapes. Pappus copious. Achenes ca 1 mm long, brown.

Plant contains β -sitosterol, campesterol, stigmasterol, cholesterol, 28-isofucosterol, brassicasterol and glucoside isolated from leaves [Satyavati, *et al.*, 1987].

Fls. & Frts.: August - October.

Illus.: Maheshwari, Ill. Fl. Delhi f. 99, 1966 (*L. nudicaulis*).

Distrib.: Common along road sides; Zari (Daman), 173399.

Uses : Med : * Tooth ache; crushed roots kept on tooth for 2-3 days. (Dhodia).

* Abdominal colic; 10-30 ml of leaf decoction given once for 2-4 days. (Dhodia).

Pentanema indicum (L.) Ling in Acta Phytotax. Sin. 10. 179. 1965. *Vicoa indica* (L.) DC. in Wight, Contrib. Bot. Ind. 10. 1834; Rao, Fl. Goa 2:237. 1985; Jain, Dict. Ethn. 139. 1991. *V. auriculata* Cass., Ann. Sci. Nat. 1, 17:418. 1829; Cooke, Fl. Pres. Bombay 2:88. 1958 (Repr. ed.). 'Sonakadi'.

Herbs, perennial, erect, ca 1 m high. Leaves sessile, oblong-lanceolate, 1.5-2.5 x 0.1-0.5 cm. Heads purple, ca 0.5 cm across. Involucral bracts multiseriate, narrow, scarious. Achenes small, ca 0.2 cm long, brown, sparsely hairy.

Plant contains a new germacranolid-inuolide & vicolides A, B & C isolated [Rastogi & Mehrotra, 1993].

Fls. & Frts.: November - February.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 395. 1982.

Distrib.: Occasional in fields; Umberkui (N.H.), 177305.

Uses : Med : Headache; Crushed leaves applied on forehead. (Warli).

Ed : Fodder; leaves relished by cattle. (Warli).

Literature :Jain, 1991 -(lf) headache.

Phyllocephalum phyllolaenum (DC.) Narayana in Curr. Sci. 51.438. 1982. *Centratherum phyllolaenum* (DC.) Bth. ex C.B.Cl., Comp. Ind. 4. 1876; Cooke, Fl. Pres. Bombay 2:62. 1958 (Repr.ed.); Rao, Fl. Goa 2:226. 1985. 'Kali'.

Herbs, erect; stems violet. Leaves broadly elliptic, base tapering, apex acuminate, margins spinous-serrate. Heads purple, axillary and terminal on slender peduncles. Pappus pale red. Achenes deeply 10-ribbed, brown.

Fls. & Frts.: September - November.

Distrib.: Frequent in open areas along forest edges; Chisda (N. H.), 176441.

Use: Med : *Throat inflammation; stem pieces with *Tricholepis glaberrima* stem pieces, woven together in cotton thread and tied around neck. (Warli, Konkana).

Sphaeranthus indicus L., Sp. Pl. 927. 1753; Cooke, Fl. Pres. Bombay 2:84. 1958 (Repr.ed.); Rao, Fl. Goa 2:234. 1985; Jain, Dict. Ethn.170. 1991. 'Borasda', 'Bhutedo'

Herbs, 30-50 cm high, spreading. Leaves sessile, glandular-pubescent. Heads purple ca 1 cm in diam., compound, on solitary glandular peduncle. Achenes, 0.2 cm long, stalked.

Plant contains alkaloid sphaeranthine. Steroids - β -sitosterol, stigmasterol. Miscellaneous compounds are codinene, β -caryophyllene, eugenol, ocimene and essential oils (Sinha, 1996).

Fls. & Frts.: October - March.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.386. 1982.

Distrib.: Occasional, in open fields, waste-lands and along river banks; Zari, Patalara (Daman), 173994, 173907.

Uses : Med : Cancer; plant extract said to be effective in primitive stages of cancer. (Dhodia).

* Vet indigestion and stomach disorders; inflorescence mixed with Hare pillates, extract given to goat. (Konkana).

* Boils; leaf dipped in oil, warmed on fire and then kept on boils. (Dhodia).

Crab poison; plant stuffed into holes of crabs to stupefy them. (Dhodia).

Literature : Dastur, 1964 -(plt) tumours. Anonymous, 1976 -(plt) crab poison.

Spilanthes paniculata Wall. ex DC., Prodr. 5:625. 1836; Rao, Fl. Goa 2:235. 1985; Jain, Dict. Ethn. 170. 1991. *S. acmella* auct. plur. [non (L.) Murr. 1774]; Cooke, Fl. Pres. Bombay 2:99. 1958 (Repr.ed.). 'Akalkara'

Herbs; stems decumbent, glabrescent. Leaves ovate, base narrowed into petioles, apex obtuse or acute, margins serrate. Heads ovoid-conical in axillary panicles. Involucral bracts 2-seriate. Achenes obovate, sparsely scabrid.

Flower contains spilonthol, sterol and non-reducing polysaccharide [Chopra, *et al.*, 1956].

Fls. & Frts.: November - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.387. 1982 (*S. acmella*).

Distrib.: Few along roadsides in moist, shady places; Silvassa (N. H.), 176457.

Use: Med :Stuttering speech; Inflorescence chewed for improving speech of stuttering children. (Warli).

Literature :Kumar & Mathur, 1992 -(fl) stammering defects.

Tagetes erecta L., Sp. Pl. 887. 1753; Cooke, Fl. Pres. Bombay 2:125. 1958 (Repr.ed.); Rao, Fl. Goa 2:239. 1985; Jain, Dict. Ethn. 175. 1991. 'Zendu'

Herbs, 20-30 cm high. Leaves 3-6 cm long, deeply pinnatifid, margins distantly serrate. Heads orange, terminal, solitary.

Fls. & Frts.: Almost throughout the year.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.333. 1988.

Distrib.: Common ornamental herb; Khanvel (N. H.), 177317.

Uses : Ed : Flower thallamus is edible. (Konkana).

Misc : Flowers used for worship. (All tribes).

Literature : Jain, 1991 -(fl thallamus) edible.

Tricholepis glaberrima DC., Prodr. 6:564. 1837; Cooke, Fl. Pres. Bombay 2:114. 1958 (Repr.ed.); Rao, Fl. Goa 2:235. 1985; Jain, Dict. Ethn. 182. 1991. 'Brahmandandi'.

Herbs, 1-2 m high, branches ribbed, angular. Leaves sessile, spinous-toothed, punctate. Heads solitary, terminal. Involucral bracts linear-lanceolate, aristate, ciliate; pappus sub-paleaceous, yellowish-brown.

Plant contains 11, 13-Dihydrodesa cynaropiorin isolated along with cynaropicrin [Rastogi & Mehrotra, 1993]. While plant lipid fraction contains mixture of sitosterol, stigmasterol and campesterol [Rastogi & Mehrotra, 1991b].

Fls. & Frts.: October - November.

Distrib.: Infrequent on hillocks, near streams and rice fields; Umberkui (N. H.), 176498.

Use: Med :Skin diseases; plant paste/juice applied on affected part. (Warli).

Literature : Jain, 1991 and Chopra, *et al.*, 1956 -(plt) skin diseases.

Tridax procumbens L., Sp. Pl. 900. 1753; Cooke, Fl. Pres. Bombay 2:102. 1958 (Repr.ed.); Rao, Fl. Goa 2:236. 1985; Jain, Dict. Ethn. 182. 1991. 'Kurhadu'.

Herbs, straggling, hispid. Leaves ovate-elliptic, base and apex acute. Heads solitary, terminal on slender peduncles; pappus of numerous aristate bristles. Achenes ca 0.3 cm long, oblong, densely pilose, black.

Plant contain β -sitosterol & tannin, while fumeric acid is isolated from leaves [Anonymous, 1976].

Fls. & Frts.: Throughout the year.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.391. 1982.

Distrib.: Common on hill slopes and in wastelands; Tighra (Dadra), 173383.

Uses : Med :Cuts & Wound healing; crushed leaves applied on fresh injuries. (Warli).

+ Stomach pain; 20-30 ml extract of its root with bark of *Garuga pinnata*, *Butea monosperma* and *Petrocarpus marsupium* taken in equal proportions, given twice a day. (Warli).

Literature : Jain, 1991 and Varghese, 1996 -(lf) cuts, wounds, stomachache.

PLUMBAGINACEAE

***Plumbago zeylanica* L.**, Sp. Pl. 151. 1753; Cooke, Fl. Pres. Bombay 2:136. 1958 (Repr.ed.); Rao, Fl. Goa 2:241. 1985; Jain, Dict. Ethn. 146. 1991. 'Chitrak'.

Undershrubs, ca 1 m high, perennial, erect or straggling. Leaves ovate, apex subacute, base attenuated into a petiole. Inflorescence oblong, pointed with persistent calyx. Capsules oblong, membranous.

Root contains plumbagin, free glucose and fructose, enzymes protease and invertase (Anonymous, 1969).

Fls. & Frts.: September - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 403. 1982.

Distrib.: Few on hill slopes and in open fields; Luhari, Tighra (N. H.), 173923, 173381.

Uses : Med : * Measles; coconut oil is applied on skin and then root paste is applied. (Dhodia).

Joint pains; root paste is warmed and applied. (Dhodia).

Stomach pains; 2-4 ml of root extract given twice a day with water. (Dhodia).

* Jaundice; 20-30 ml decoction of its roots with *Oroxylum indicum* bark and *Carissa congesta* roots, given twice for 5-6 days. (Konkana).

Ed : *Leaves used as vegetable. (Konkana, Dhodia).

Literature : Jain, 1991 -(rt) rheumatism. Varghese, 1996-(rt) stomach pain, bone pains. Siwakoti & Varma -(rt) stomach ailments.

SAPOTACEAE

Madhuca longifolia (Koen.) Mac Bride var. **latifolia** (Roxb.) Chevalier in Rev. Bot. Appl. 23:149. 1943; Rao, Fl. Goa 2:244. 1985; Jain, Dict. Ethn. 121. 1991. *Bassia latifolia* Roxb., Pl. Cor. 1:20. 1795; Cooke, Fl. Pres. Bombay 2:152. 1958 (Repr.ed.). 'Mohwa'.

Trees, up to 10 m high. Leaves clustered near branch tips, elliptic or elliptic-oblong. Flowers cream coloured, in 3-5-flowered axillary clusters. Berries ovoid, stalked. Seeds 1-4.

Bark contains saponin, mowrin. Fruit contains essential oil with ethyl cinnamate [Chopra, *et al.*, 1956].

Fls. & Frts.: March - June.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 412. 1982.

Distrib.: Common on hill slopes and in open fields; Khanvel (N. H.), 173302.

Note : Liquor from flowers is a unifying element in the society. It is used in all the social gatherings, religious sites and ceremonies.

Uses : Med : Joint pain; bark paste warmed and applied at joints. (Warli).

* Muscular pain; bark paste warmed and applied. (Warli).

Foot cracks; latex is applied on foot. (Warli).

Ed : Fruit epicarp & mesocarp is edible. (Warli).

Fruit pericarp used as vegetable. (Warli).

Seed oil used for cooking. (Warli).

Misc : Beverage; flowers are fermented to make 'daru' (Warli).

Literature : Varma, *et al.*, 1995 -(sd oil) joint pain. Upadhye & Kumbhojkar, 1992 -(la) foot cracks. Jain, 1991 -(fr) edible, vegetable.

Manilkara zapota (L.) Van Royen in *Blumea* 7:410. 1958; Jain, *Dict. Ethn.* 122. 1991. *Achras zapota* L., *Sp. Pl.* 1190. 1753; Cooke, *Fl. Pres. Bombay* 2:156. 1958 (Repr.ed.); *M. achras* (Mill.) Fosberg in *Taxon* 13:255. 1964; Rao, *Fl. Goa* 2:246. 1985. 'Chiku'

Trees, up to 6 m tall. Leaves in terminal clusters, simple, glabrous. Flowers greenish-yellow. Fruits brown, globose.

Fls. & Frts.: Almost throughout the year.

Illus.: Matthew, *Ill. Fl. Tamilnadu Carnatic* 2:t.413. 1982.

Distrib.: Cultivated near villages; Khanvel (N. H.), 177339.

Use: Ed : Fruits eaten. (All tribes).

Literature : Jain, 1991 -(fr) edible.

EBENACEAE

Diospyros melonoxylon Roxb., *Pl. Cor.* 1:36, t.46. 1795; Cooke, *Fl. Pres. Bombay* 2:159. 1958 (Repr. ed.); Rao, *Fl. Goa* 2:247. 1985; Jain, *Dict. Ethn.* 76. 1991. 'Tendu'.

Trees, 4-6 m high. Leaves elliptic or elliptic-oblong, alternate or subopposite. Flowers white; male flowers in paniced cymes; females solitary. Fruits *ca* 2.5 cm across, orange when ripe. Seeds 2-8, compressed, oblong.

Fls. & Frts.: June - December.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:170, f. 377. 1911.

Distrib.: Occasional in the forests; Khanvel (N.H.), 177324.

Use: Ed : Ripe fruits are eaten by locals. (Warli).

Literature : Jain, 1991 -(fr) edible.

APOCYNACEAE

Carissa congesta Wight, Ic. t.1289. 1848; Rao, Fl. Goa 2:254. 1985; Jain, Dict. Ethn. 45. 1991. *C. carandas auct. non. L.* 1761; Cooke, Fl. Pres. Bombay 2:186. 1958 (Repr.ed.). 'Karwand'

Shrubs, large, evergreen. Leaves broadly ovate, 3-6 x 3-4 cm, base acute or cuneate, apex mucronate. Flowers white. Fruits ellipsoid, purplish-black when ripe, 4 or more seeded.

Plant contains alkaloid salicylic acid (Chopra, *et al.*, 1956). Plant contains terpenoid-carindone [Rastogi & Mehrotra, 1991b].

Fls. & Frts.: December - June.

Illus.: Maheshwari, Ill. Fl. Delhi f.120. 1966.

Distrib.: Common on hill slopes and in waste lands; Rudana (N. H.), 173301.

Uses: Med : + Stomach pain; a) 10-20 ml decoction of its roots with roots of *Oroxylum indicum* & *Hymenodictyon orixense*, taken in equal proportions, given for 2 to 3 days. (Konkana).

b) 20-30 ml root extract given twice a day. (Warli).

Ed : Fruits are eaten. (Warli).

Fruits are also used for making pickle. (Warli).

Literature : Kirtikar & Basu, 1933 -(rt) stomach pain. Jain, 1991 -(fr) edible.

Holarrhena pubescens (Buch.-Ham.) Wall. ex G. Don, Gen. Syst. 4:78. 1837. *H. antidysenterica* Wall. ex A. DC. in DC. Prodr. 8:413. 1844; Cooke, Fl. Pres. Bombay 2:195. 1958 (Repr.ed.); Rao, Fl. Goa 2:257. 1985; Jain, Dict. Ethn. 103. 1991. 'Kuda'

Shrubs or small trees, 4-6 m high. Leaves elliptic-oblong, 9-18 x 3-7 cm, base rounded, apex acuminate. Flowers white in paniculate cymes. Follicles twin, curved at apex.

Bark contains alkaloid conessine, consessimine, holarrhimine, kurchine, kurchicine, holarrhine, conamine and conimine (Sinha, 1996).

Fls. & Frts.: April - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.430. 1982 (*H. antidysenterica*).

Distrib.: Common component of deciduous forests; Parzai (N. H.), 173361.

Uses : Med : Dysentery & Stomach pain; 30 ml of bark extract given twice a day. (Konkana).

* Skin diseases; latex applied. (Konkana).

Snake bite; bark peeled off in down to up direction, extract given as an antidote, which causes vomiting. (Konkana).

+ Lactation; 10-20 ml root extract given to women for 8-15 days, once a day. (Konkana).

Literature : Jain, 1991 -(bk) stomachache, dysentery & snake bite. Kirtikar & Basu, 1933 -(bk) galactagogogue.

Wrightia tinctoria R. Br. in Mem. Wern. Soc. 1:74. 1811; Cooke, Fl. Pres. Bombay 2:200. 1958 (Repr.ed.); Rao, Fl. Goa 2:258. 1985; Jain, Dict. Ethn. 190. 1991. 'Kalakuda'.

Trees, ca 3 m high. Leaves elliptic or oblong-lanceolate. Inflorescence of terminal, dichotomously branched cymes. Flowers white. Seeds pointed at the apex, with a deciduous coma at base.

Plant contains alkaloid indican (Chopra, *et al.*, 1956). Bark contains β -sitosterol, β -amyrin & its acetate & lupeol-benzoate [Rastogi & Mehrotra, 1991a].

Fls. & Frts.: March - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 435. 1962.

Distrib.: Frequent in the forest undergrowth; Umberkui, Dolara (N. H.), 173398, 173954.

Uses : Med : + Dysentery & Stomach pain; 20-30 ml extract of its bark with *Helicteres isora* fruits & *Radermachera xylocarpa* bark, given twice a day. (Warli).

* Lactation; bark extract given to women for 6-7 days. (Warli).

Snake bite; bark extract given as an antidote for snake's poison (Krait & Viper). (Konkana).

Literature : Jain, 1991-(bk) snake bite, dysentery. Hosagoudar & Henry, 1996 -(bk) snake bite.

ASCLEPIADACEAE

***Calotropis gigantea* (L.) R. Br. in Ait. Hort. Kew ed. 2, 2:78. 1811; Cooke, Fl. Pres. Bombay 2:214. 1958 (Repr.ed.); Rao, Fl. Goa 2:261. 1985; Jain, Dict. Ethn. 41. 1991. 'Rui'.**

Shrubs, up to 3 m high. Leaves fine cottony tomentose on either side. Flowers purplish or white. Follicles fleshy, ventricose.

Plant contains bitter resins akundarin, calotropin, latex contains uscharin, calotoxin, calactin, α -calotropeol, β -calotropeol, β -amyrin and calcium oxalate, gigantol (Chopra, *et al.*, 1956).

Fls. & Frts.: Almost throughout the year.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 437. 1982.

Distrib.: Frequent on wastelands and along roadsides; Khadoli (N. H.), 173378.

Folklore: Flowers woven together and used as bridal decoration during marriages, said to be auspicious.

In case of widow marriage, bachelor should get married with this plant before marrying a widow.

Uses: Med : + Partial headache; before sun rise 1-2 drops of latex poured in nasal cavity of the side head is aching. (Warli).

Note: Excess quantity can cause severe irritation to mucus membrane.

+ Headache; dry stems smoked like cigarette. (Warli).

* Stomach pain; abaxial side of leaf applied with oil, heated and kept over stomach. (Warli).

+ Intestinal worms; 2 drops of latex mixed with jaggery (for 3 year old child) & 3-4 drops (for adults), made in to pills; One or two pills given on empty stomach in the morning. (Warli).

Note : It is poisonous in large doses.

Literature : Jain, 1991 -(lf,rt) intestinal worms. Aminuddin & Girach, 1993 - (rt) headache. Alam, 1992 -(lf) pains. Saklani & Jain, 1994 -(lf) stomach pain.

Holostemma ada-kodien Schultes in L. Syst. Veg. 6:95.1820; Jain, Dict. Ethn. 103. 1991. *H. rheedianum* Spr., Syst. 1:851. 1825; Cooke, Fl. Pres. Bombay 2:220. 1958 (Repr.ed.). *H. annulare* (Roxb.) K. Schum. in Pfam. 4(2):250, f. 71, J.-k. 1895; Rao, Fl. Goa 2:264. 1985. 'Shernee'

Shrubs, twining, large. Leaves broadly ovate, 6-12 x 4-6 cm, apex shortly acuminate, base cordate with broad sinus and rounded lobes. Flowers white with violet patches within, fragrant. Follicles linear cylindric.

Fls. & Frts.: August - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 448. 1982.

Distrib.: Occasional, in the forests; Khadoli (N. H.), 173392.

Use: Ed : Fruits and ovules eaten by locals. (Konkana).

Literature : Jain, 1991 -(fl) edible.

Pergularia daemia (Forssk.) Chiov., Result. Sc. Miss. Stefan. -Paoli Somal. Ital. 1:115. 1916; Rao, Fl. Goa 2:265. 1985; Jain, Dict. Ethn. 140. 1991. *Daemia extensa* R. Br. in Mem. Wern. Soc. 5:50. 1811; Cooke, Fl. Pres. Bombay 2:219. 1958 (Repr. ed.). 'Utaran'

Climbers, perennial, juice milky. Leaves 2.0 - 7.0 x 1.3 - 6.0 cm, ovate-cordate. Flowers greenish-white, in lateral cymes on 6-8 cm long peduncles. Follicles lanceolate, 6-7 cm long, echinate. Seeds ovate, velvety hairy with coma ca 3 cm long.

Plant contains hentriacontane, lupeol, α -& β -amyrins, β -sitosterol, calactin, calotropin and calotropagenin [Anonymous, 1966].

Fls. & Frts.: August - December.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:244, f. 412. 1911 (*Daemia extensa*).

Distrib.: Frequent on shrubs in scrub forests; Zari (Daman), 177312.

Uses : Med : Wounds; Leaf paste is applied. (Warli).

Urinary complaints : 20-30 ml of leaf decoction given twice for 5-7 days. (Warli).

Ed : Flowers and inflorescence used as vegetable. (Warli).

Literature :Jain, 1991 -(fl, rt) wounds, urinary complaints, -(fl, infl.) vegetable.

Wattakaka volubilis (L.f.) Stapf in Curtis, Bot. Mag. sub. t. 8976. 1923. *Dregia volubilis* (L.f.) Bth. ex Hook. f., Fl. Brit. India 4:46. 1883; Rao, Fl. Goa 2:263. 1985; Jain, Dict. Ethn. 78. 1991. *Marsdenia volubilis* (L.f.) Cooke, Fl. Pres. Bombay 2:166. 1904 [2:230.1958 (Repr.ed.)]. 'Ekota'

Twinnings, extensive, perennial, woody, sap watery. Inflorescence of lateral pendulous umbels. Flowers green. Follicles ovoid, tapering to a blunt point. Seeds broadly ovate, coma long, copious.

Plant contains glucoside, dregein and alkaloids (Chopra, *et al.*, 1956).

Fls. & Frts.: July - September.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 458. 1982.

Distrib.: Frequent on hill slopes; Khutaly (N. H.), 173304.

Use: Med : *Bone fracture; 10-30 ml extract of its bark with barks of *Soymida febrifuga* and *Ficus benghalensis* taken twice for 5-8 days. (Warli).

PERIPLOCACEAE

Cryptolepis buchanani R. & S., Syst. 4:409. 1819; Cooke, Fl. Pres. Bombay 2:210. 1958 (Repr.ed.); Rao, Fl. Goa 2:267. 1985; Jain, Dict. Ethn. 64. 1991. 'Kavali'

Shrubs, climbing. Leaves elliptic-oblong, 6-12 x 3-6 cm, green above, whitish beneath. Flowers small, greenish. Follicles divaricate, 6-10 cm long. Seeds *ca* 0.5 cm long, ovate, black with long, white, silky coma at apex.

Latex contains caoutchouc, coagulum contains-caoutchouc & resins (Anonymous, 1950).

Fls. & Frts.: April - June.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.441. 1982.

Distrib.: Infrequent in the forests; Karchond (N. H.), 173317.

Use: Med : Cuts; latex applied to cure cuts. (Warli).

Literature : Jain, 1991 -(la) cuts.

Cryptostegia grandiflora R. Br. in Bot. Reg. 5: t. 435. 1819; Cooke, Fl. Pres. Bombay 2:245. 1958 (Repr. ed.); Rao, Fl. Goa 2:268. 1985. 'Vilayati-bakundi'

Shrubs, suberect or climbing. Leaves elliptic-oblong. Flowers large, showy, pale purple, in terminal, dichotomous cymes. Follicles thick, divaricate, 8-12 cm long, 3-winged.

Fls. & Frts.: June - September.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t.370. 1988.

Distrib.: Infrequent in the forests; Dolará (N. H.), 173987.

Uses: Med : * Snake bite; 20-40 ml extract of its roots with bark of *Holarrhena pubescens* and *Blumea eriantha* taken in equal proportions, given as antidote. (Konkana).

* Refresher; root extract with sugar is taken. (Konkana).

Hemidesmus indicus (L.) Schultes in R. & S. *Syst. Veg.* 6:126. 1819; Cooke, *Fl. Pres. Bombay* 2:210. 1958. (Repr.ed.); Rao, *Fl. Goa* 2:267. 1985; Jain, *Dict. Ethn.* 101. 1991. 'Mendhval'.

Shrubs, prostrate or twining, perennial. Leaves very variable, elliptic-oblong to linear-lanceolate, apiculate. Inflorescence of sessile cymes in the opposite axils. Flowers greenish. Follicles cylindrical, striate. Seeds ovate-oblong, coma silvery-white.

Root contains essential oil, saponin, resin, tannin, F-sitosterol, β -amyryns and glucoside (Gopakumar, *et al.*, 1991).

Fls. & Frts.: September - May.

Illus.: Talbot, *For. Fl. Bombay Pres. and Sind* 2:233, f.403. 1911.

Distrib.: Frequent in open forest areas; Khadoli (N. H.), 173377.

Use: Med : Abdominal colic; 10-30 ml root extract is given twice for two days. (Warli).

Literature : Jain, S.P., 1996 -(rt) stomach disorder. Varghese, 1996 (rt) stomachache.

GENTIANACEAE

Canscora diffusa (Vahl) R. Br. Prodr. 451. 1810. (in Obs.); Cooke, Fl. Pres. Bombay 2:257. 1958 (Repr. ed.); Rao, Fl. Goa 2:270. 1985; Jain, Dict. Ethn. 43. 1991.

Annual herbs, highly branched up to 30 cm high. Leaves broadly ovate, membranous, apex acute, 3 nerved. Flowers pink in lax. Capsules ca 0.5 cm long, membranous, narrowly oblong.

Fls. & Frts.: September - February.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 373. 1988.

Distrib.: Common among grasses, in moist shady areas; Athal (N. H.), 176462.

Use: Med : Tonic; plant extract given as a tonic. (Warli).

Literature : Siwakoti & Varma, 1996-(plt.) nerve tonic.

Enicostema axillare (Lam.) Raynal in Adansonia 9:75. 1969. *E. hyssofolium* (Willd.) I.C. Verdoorn in Bothalia 7:462. 1961; Rao, Fl. Goa 2:271. 1985; Jain, Dict. Ethn. 83. 1991. *E. littorale auct. non Bl.*, 1826; Cooke, Fl. Pres. Bombay 2:225. 1958 (Repr.ed.). 'Nay'

Herbs, erect, perennial. Leaves sessile, linear-oblong, elliptic-oblong or lanceolate, 3-nerved. Flowers white, in axillary clusters all along the stem. Capsules ca 4 cm long, ellipsoid.

Plant contains ophelic acid (Anonymous, 1992).

Fls. & Frts.: August - January.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.463. 1982.

Distrib.: Occasional, found in small patches in grassy meadows and in cultivated fields; Patalara (Daman), 173905.

Use : Med : * Blood pressure; 10-30 ml plant extract is given twice a day. (Dhodia).

BORAGINACEAE

Cordia dichotoma Forst. f., Prodr. 18. 1786; Rao, Fl. Goa 2:276. 1985; Jain, Dict. Ethn. 60. 1991. *C. myxa auct. plur. non.* L., 1753; Cooke, Fl. Pres. Bombay 2:265. 1958 (Repr.ed.). 'Bhokri'

Trees, ca 6-9 m high. Leaves broadly ovate, upper surface scabrous & lower surface paler, 3-nerved. Flowers white. Drupes ovoid, 1-2 cm long, pinkish, becoming black, with persistent calyx.

Bark contains tannin 20 % (Saxena & Tripathi, 1989).

Fls. & Frts.: March - May.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:270, f.422. 1911.

Distrib.: Few in deciduous forests; Shelti (N. H.), 176455.

Uses : Med : + Dysmenorrhoea; 20-30 ml extract of its bark with bark of *Ficus racemosa* and *Ficus benghalensis* prop roots given twice a day. (Warli, Konkana).

Ed : Raw fruits pickled. (Warli, Konkana).

Fodder; leaves relished by cattle. (All tribes).

Literature : Chopra, *et al.*, 1956 -(pl) painful menstruation. Jain, 1991-(fr) edible.

Trichodesma sedgwickianum S.P. Banerjee in Bull. Bot. Soc. Bengal 16:10. 1962; Rao, Fl. Goa 2:279. 1985. *T. indicum* R. Br. var. *amplexicaule* (DC.) Cooke, Fl. Pres. Bombay 2:215. 1904 [2:282. 1958 (Repr.ed.)], *p.p.*

Herbs, erect, 30-60 cm high. Leaves ovate or lanceolate-oblong, base cordate, apex subacute or obtuse. Flowers pink, white or pale blue. Nutlets 4, ovoid, rugose on inner face.

Fls. & Frts.: August - October.

Illus.: Matthew, Fur. III. Fl. Tamilnadu Carnatic 4:t. 381. 1988.

Distrib.: Common in open places during monsoon; Dolara (N. H.), 176422.

Uses : Med : Anti-inflammatory; root paste warmed and applied. (Warli, Konkana).

* Superficial injuries on skin; root paste is applied. (Warli, Konkana).

Literature : Chopra, *et al.*, 1956 -(rt) anti-inflammatory to joints.

HELIOTROPIACEAE

Heliotropium ovalifolium Forssk., Fl. Aeg.-Arab. 38. 1775; Cooke, Fl. Pres. Bombay 2:278. 1958 (Repr.ed.); Rao, Fl. Goa 2:278. 1985. 'Nanganee'

Herbs, 30 cm high, appressed white, hairy. Leaves ovate-oblong or obovate, appressed hairy, base tapering into petiole. Flowers white. Nutlets 4, densely hairy, brown, subglobose.

Plant contains helioline & retronecine alkaloids (Rastogi & Mehrotra, 1993).

Fls. & Frts.: July - September.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 473. 1982.

Distrib.: Frequent in open, dry, grassy areas; Patalara (Daman), 173991.

*Use: Med :** Snake bite; inflorescence & leaf extract given as antidote which causes vomit. (Dhodia).

EHRETIACEAE

Rotula aquatica Lour., Fl. Cochinch. 121. 1790; Rao, Fl. Goa 2:278. 1985. *Rhabdia lycioides* Mart., Nov. Gen. & Sp. 2:137, t.195. 1826; Cooke, Fl. Pres. Bombay 2:272. 1958 (Repr.ed.). 'Sherni'.

Shrubs, small, much branched. Leaves almost sessile, spatulate. Flowers pink, solitary or 2 or 3, terminating short lateral racemes. Fruits subglobose, tipped with remains of the style, orange when ripe.

Root contains allantoin, sterol (rhabdiol), (Anonymous, 1972).

Fls. & Frts.: September - March.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 474. 1982.

Distrib.: Frequent in rocky crevices along water courses; Amboli (N. H.), 176408.

Use: Med : Diuretic; root decoction is given. (Warli, Konkana).

Literature : Jain & De Philipps, 1991 -(rt) diuretic.

CONVOLVULACEAE

Argyrela nervosa (Burm.f.) Boj., Hort. Maurit. 224. 1837; Rao, Fl. Goa 2:282. 1985; Jain, Dict. Ethn. 26. 1991. *A. speciosa* Sweet, Hort. Brit. 289. 1827; Cooke, Fl. Pres. Bombay 2:324. 1958 (Repr.ed.). 'Samudrasoka'

Lianas with grey-white, tomentose stems. Leaves ovate, acute, base cordate. Flowers purplish-white in axillary, capitate cymes. Fruits indehiscent, subglobose. Seeds brown, glabrous.

Leaves contain 1-triacontanol, β -sitosterol, epifriedelinol (Asolkar, *et al.*, 1992).

Fls. & Frts.: August - September.

Distrib.: Occasional, along forest edges; Sily (N. H.), 176434.

Uses : Med :Boils; leaves crushed and applied. (Konkana).

*Urinary disorders; one tea cup of root extract given twice a day. (Warli).

Cooling effect; 30-40 ml of leaf & root extract given twice a day.

Literature: Jain, 1991 -(lf) boils.

Argyrea strigosa (Roth) Roberty in *Candollea* 14:44. 1952; Rao, Fl. Goa 2:282. 1985. *Lettsomia setosa* Roxb., Fl. Ind. 1:490. 1832; Cooke, Fl. Pres. Bombay 2:330. 1958 (Repr.ed.). 'Chobadvel'

Climbers, large, latex milky, young branchlets appressed, strigose hairy. Leaves broadly ovate, apex acute, base cordate. Inflorescence of dense, hairy, corymbose cymes. Flowers pink. Capsules enclosed by accrescent calyx, ovoid, hairy.

Fls. & Frts.: October - November.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:291, f. 430. 1911.

Distrib.: Few in open situations; Luhari (N. H.), 176458.

Use: Med : * Stomach pain; 10-20 ml root extract given twice for two days. (Warli).

Evolvulus alsinoides (L.) L., Sp. Pl. ed. 2:392. 1762; Cooke, Fl. Pres. Bombay 2:297. 1958 (Repr.ed.); Rao, Fl. Goa 2:284. 1985; Jain, Dict. Ethn. 88. 1991. 'Vishnukranta'.

Herbs, small, prostrate to suberect; rootstock small, woody, branched. Leaves sessile, elliptic-oblong, silky hairy. Flowers solitary, blue. Capsules globose, 4-loculed, 4-seeded.

Plant contains alkaloids evolvine, betaine, shankpushpine. Miscellaneous compounds are free amino acids, phenols & tannins (Sinha, 1996).

Fls. & Frts.: September - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.479. 1982.

Distrib.: Occasional in open places; Fort area (Daman), 176495.

Use: Med : Brain tonic; plant extract is given as brain tonic. (Warli, Dhodia).

Literature : Upadhye, *et al.*, 1994 and Sinha, 1996-(plt) brain tonic.

Ipomoea mauritiana Jacq., Coll. 4:216. 1791; Rao, Fl. Goa 2:287. 1985; Jain, Dict. Ethn. 107. 1991. *I. digitata auct. non L.*, 1759; Cooke, Fl. Pres. Bombay 2:318. 1958 (Repr.ed.). 'Dudhvel'

Twiners, perennial, large. Leaves often broader than long, palmately divided into 5-7 lobes, ovate-lanceolate, acute or acuminate. Flowers pale purple. Capsules ovoid, obtuse, 2-celled, 4-valved. Seeds ca 0.6 cm long.

Tuber contains β -sitosterol & glycoside-paniculatin (Asolkar, *et al.*, 1992).

Fls. & Frts.: August - October.

Illus.: Ooststr. in Steenis, Fl. Males. 1,4:483, f.55. 1953.

Distrib.: Few on hill slopes; Tinoda (N. H.), 173387.

Use: Med : Lactation; tuber extract given to women & cattle also as a galactagogogue. (Konkana).

Literature : Jain & De Philipps, 1991 -(tu) lactation.

Ipomoea pes-caprae (L.) Sweet, Hort. Sub. London 35. 1818; Rao, Fl. Goa 2:288. 1985; Jain, Dict. Ethn. 108. 1991. *I. biloba* Forssk., Fl. Aeg.-Arab. 44. 1775; Cooke, Fl. Pres. Bombay 2:317. 1958 (Repr.ed.). 'Maryadvel'.

Herbs, long trailing, perennial. Leaves fleshy, deeply 2-lobed, apex emarginate, base cuneate or attenuate. Flowers pink to lavender-purple. Fruits ovoid, glabrous. Seeds villous.

Roots contain alkaloids, pentatriacontane, triacontane, sterol [Chopra, *et al.*, 1956].

Fls. & Frts.: February - September.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 395. 1988.

Distrib.: Found in a patch on sandy soil; Devaka beach (Daman), 173970.

Use :Med : Indigestion; 20-30 ml root extract is given. (Dubala).

Literature : Anonymous, 1959 -(rt) purgative.

CUSCUTACEAE

Cuscuta reflexa Roxb., Pl. Cor. 2:3, t.104. 1798; Cooke, Fl. Pres. Bombay 2:292. 1958 (Repr.ed.); Rao, Fl. Goa 2:283. 1985; Jain, Dict. Ethn. 66. 1991. 'Amrvel'.

Twiners; stem creamy-yellow or greenish-yellow, thick, fleshy, leafless. Flowers greenish-yellow. Capsules globose, circumscissile near base. Seeds 2-4 large, black, glabrous.

Plant contains cuscotalin and cuscutin [Chopra, *et al.*, 1956]. Stem contains dulcitol, luteolin, quercetin & a glycoside of luteolin (Rastogi & Mehrotra, 1991a).

Fls. & Frts.: January - April.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.391. 1988.

Distrib.: Parasitic on bushes and trees; Bontha (N. H.), 173940.

Use: Med : + Ranikhet disease of hen; its extract with bark of *Terminalia bellirica* is given to Hen. (Warli).

Literature :D'Souza Marie, 1993 -(wp) chickens diseases.

SOLANACEAE

Capsicum annum L., Sp. Pl. 188. 1753; Cooke, Fl. Pres. Bombay 2:347. 1958 (Repr.ed.); Rao, Fl. Goa 2:297. 1985; Jain, Dict. Ethn. 43. 1991. 'Mirchi'.

Herbs, erect, annual or biennial, up to 1 m high. Leaves 3.5-6.0 x 1.5-2.0 cm, ovate-lanceolate. Flowers solitary, white. Berries ca 8.5 x 0.8 cm, red when ripe. Seeds orbicular, flat.

Fls. & Frts.: July - August.

Distrib.: Cultivated in the backyards of houses; Dudhni (N.H.), 177341.

Use: Ed : Fruits used as condiments in curries. (All tribes).

Literature : Jain, 1991 -(fr) condiments.

Datura metel L., Sp. Pl. 179. 1753; Cooke, Fl. Pres. Bombay 2:344. 1958 (Repr. ed.); Rao, Fl. Goa 2:293. 1985; Jain, Dict. Ethn. 70. 1991. 'Dhotra'

Herbs, annual, *ca* 1 m high; stem divaricately branched, pubescent. Leaves ovate-triangular or shallowly lobed. Flowers dark purple, solitary, axillary. Capsules *ca* 3 cm across, globose, nodding on curved pedicels.

Leaves contain scopolamine, nicotianamine, hyosyamine & a mixture of two unidentified alkaloids from leaves (Rastogi & Mehrotra, 1991 b), while according to Rastogi & Mehrotra, 1991 a, leaves contain hyosyamine, hyoscine & scopolamine.

Fls. & Frts.: September - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 488. 1982.

Distrib.: Occasional in waste places and along roadsides; Amboli (N.H.), 177328.

Uses : Med : Cough; dry leaves smoked to cure cough. (Konkana).

Toothache; stem cuttings used as tooth brush or crushed stem kept on affected tooth. (Konkana).

Boils; crushed leaf or leaf paste applied on boils. (Konkana).

Literature : Asolkar, *et al.*, 1992 -(lf) cough, boils -(rt) toothache.

Physalis minima L., Sp. Pl. 183. 1753; Cooke, Fl. Pres. Bombay 2:340. 1958 (Repr.ed.); Rao, Fl. Goa 2:294. 1985; Jain, Dict. Ethn. 143. 1991. 'Chirmuth'.

Annual herbs, erect, up to 30 cm high. Leaves ovate-elliptic, base rounded, apex acute. Flowers yellow. Berries enveloped in bladder-like calyx teeth.

Fls. & Frts.: August - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.490. 1982.

Distrib.: Frequent on hill slopes, along roadsides and in cultivated fields; Parazai (N. H.), 173356.

Use: Ed : Ripe, red berries are eaten by children. (Konkana).

Literature : Jain, 1991 -(fr) edible.

Solanum aŋguivi Lam., Ill. 2:23. 1794; Jain, Dict. Ethn. 167. 1991. *S. indicum auct. non L.*, 1753; Cooke, Fl. Pres. Bombay 2:336. 1956 (Repr.ed.); Rao, Fl. Goa 2:296. 1985. 'Jangliwanga'

Undershrubs or shrubs, up to 1.5 m high. Leaves broadly elliptic or elliptic-oblong or ovate. Inflorescence of extra-axillary, racemose cymes. Flowers blue. Berries globose, yellowish-red when ripe. Seeds orange, spherical, flat.

Plant contains diosgenin, β -sitosterol, lanosterol, solasonine, solamargine and solasodine (Rastogi & Mehrotra, 1993).

Fls. & Frts.: August - November.

Illus.: Maheshwari, Ill. Fl. Delhi F. 151. 1966.

Distrib.: Common in open situations, along outskirts of forests; Bontha (N. H.), 173938.

Uses : Med : Stomach pain; 15-25 ml of root extract given twice a day. (Warli).

Earache; 3-4 drops of root juice are put in the ear. (Warli).

* Dog bite; 20-40 ml bark extract is given. (Warli).

Ed : Leaves used as vegetable. (Warli).

Literature : Jain, 1991 -(rt) ear ache, -(lf) vegetable. Balasubramanian & Narendraprasad, 1996 -(rt) stomach pain.

Solanum melongena L., Sp. Pl. 186. 1753; Cooke, Fl. Pres. Bombay 2:339. 1958 (Repr.ed.); Rao, Fl. Goa; 2:297. 1985; Jain, Dict. Ethn. 167. 1991. 'Wange'

Shrubs, up to 1 m high, grey, stellate-tomentose. Leaves pinnatifid, stellate pubescent. Flowers 1.0-1.5 cm long, violet, in short, extra axillary racemes.

Fls. & Frts.: Throughout the year.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 412. 1988.

Distrib.: Common, cultivated for vegetable; Khanvel (N. H.), 177353.

Use: Ed :Unripe fruits are fried and relished as vegetable. (All tribes).

Literature: Jain, 1991 -(fr) vegetable.

Solanum surattense Burm. f., Fl. Ind. 57. 1768; Rao, Fl. Goa 2:296. 1985; Jain, Dict. Ethn. 168. 1991. *S. xanthocarpum* Schrad. & Wendl., Sert. Hannov. 1:8, t.2. 1795; Cooke, Fl. Pres. Bombay 2:335. 1958 (Repr.ed.). 'Ringnee'.

Herbs, prostrate or decumbent - ascending, widely branched. Leaves ovate-elliptic, prickly on nerves. Flowers purple. Berries ca 1 cm across, yellow with enlarged calyx. Seeds numerous, yellow.

Dry fruit contains solasodine, solasonine, solamargine, β -solamargine, isochlorogenic, neochlorogenic & chlorogenic acids & caffeic acid (Rastogi & Mehrotra, 1991 b).

Fls. & Frts.: September - March.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.415. 1988.

Distrib.: Frequent along dry nallahs, wastelands and roadsides; Tighra (Dadra), 173321.

Uses: Med : + Toothache; dry seeds soaked overnight in water, mixed with coconut oil & applied externally on chicks. (Dhodia).

+ Tooth decay; dry seeds mixed in water taken in a plate and kept on live coal; one earthen pot with a hole put inverted over plate & with the help of hollow tube the fumes are inhaled through mouth for the decayed tooth, which kills the worms. (Warli).

Literature : Jain, 1991 -(sd) toothache & tooth decay. Singh & Sharma, 1998 and Ranjan, 1996 -(fr) toothache.

Solanum tuberosum L., Sp. Pl. 185.1753; Cooke, Fl. Pres. Bombay 2:339. 1958 (Repr.ed.); Rao, Fl. Goa 2:297. 1985; Jain, Dict. Ethn. 168. 1991. 'Batata'

Annual herbs. Leaves odd-pinnate with 3-4 pairs of entire leaflets. Flowers white to bluish, in forking clusters.

Fls. & Frts.: Almost throughout the year.

Illus.: Matthew, Ill. Fl. Palni Hills, South India 543. 1996.

Distrib.: Cultivated in some places, Nagar Haveli.

Use: Ed : Tubers edible. (All tribes).

Literature : Jain, 1991 -(tu) edible.

Withania somnifera (L.) Dunal in DC. Prodr. 13:453. 1852; Cooke, Fl. Pres. Bombay 2:341. 1958 (Repr.ed.); Rao, Fl. Goa 2:296. 1985; Jain, Dict. Ethn. 189. 1991. 'Askand'.

Undershrubs, 90 cm high, much branched. Leaves ovate, pubescent on nerves. Flowers yellow. Berries red, globose, slightly 5-angled, pointed with the connivent calyx-teeth & scurfy-pubescent outside.

Plant contain alkaloids withasome, nicotine, tropine, anahygrene, cuscohygrine & visamine. Glycoside withaniol. Leaves contains withanolidine a steroidal lactone and withaferin-A (Sinha, 1996).

Fls. & Frts.: July - March.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 492. 1982.

Distrib.: Few along roadsides; Luhari (N. H.), 176494.

Uses : Med : Sprains; leaf paste/crushed leaf applied. (Konkana).

Wounds : root paste applied for healing wounds. (Konkana).

Literature : Chopra, *et al.*, 1956 and Khanna, *et al.*, 1996 -(plt) sprains. Jain, 1991 -(rt) wounds.

SCROPHULARIACEAE

Centranthera indica (L.) Gamble, Fl. Pres. Madras 971.1924 (Repr.ed. 2:683.1967); Rao, Fl. Goa 2:299. 1985. *C. hispida* R. Br., Prodr. 438. 1810; Cooke, Fl. Pres. Bombay 2:381. 1958 [Repr. ed.]. 'Kalijeeri'

Herbs, 10-40 cm long; stems quadrangular. Leaves elliptic-oblong, *ca* 1.5 x 0.5 cm, scabrid. Flowers purplish, solitary, axillary, calyx ovoid, hispid. Capsules *ca* 1 cm long, ovoid, often tipped by style.

Fls. & Frts.: August - October.

Distrib.: Common in damp, grassy situations and parasitic on grasses; Amboli (N. H.), 176407.

Use: Med : Fever; dry plant powder mixed with water & given as antipyretic. (Warli, Konkana).

Literature : Sabnis & Bedi, 1983 -(plt) antipyretic.

Stemodia viscosa Roxb., Pl. Cor. 2:33, t.163. 1798 & in Fl. Ind. 3:94. 1832; Cooke, Fl. Pres. Bombay 2:359. 1958 (Repr.ed.); Rao, Fl. Goa 2:304. 1985; Jain, Dict. Ethn. 171. 1991. 'Nukachuni'.

Herbs, *ca* 35 cm high, aromatic, diffuse. Leaves sessile, usually oblong, acute. Flowers blue or purple, axillary, solitary or in terminal racemes. Capsules ovoid, apiculate, glabrous, 4-valved. Seeds oblong, pale brown.

Leaves contain diosmetin, its glucuronide & luteolin-7-0- β -D-glucuronide (Rastogi & Mehrotra, 1991 b).

Fls. & Frts.: September.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 506. 1982.

Distrib.: Occasional in wet places and cultivated fields; Patalara (Daman), 173992.

Use: Med : * Fever; crushed leaves applied on forehead to reduce body temperature; it is also effective in treating headache. (Dhodia).

BIGNONIACEAE

Heterophragma quadriloculare (Roxb.) K. Schum. in Engl. & Prantl, Pflanzenf. 4(3b):243. 1895; Rao, Fl. Goa 2:310. 1985; Jain, Dict. Ethn. 101. 1991. *H. roxburghii* A. DC., Prodr. 9:210. 1845; Cooke, Fl. Pres. Bombay 2:404. 1958 (Repr.ed.). 'Murus'

Trees, up to 15 m high. Leaves crowded at tips of branches. Inflorescence of large, terminal, many flowered, densely fulvous tomentose panicles. Flowers white, fragrant. Capsules straight, linear, pointed, tender ones velvety. Seeds 3.0 x 1.5 cm.

Fls. & Frts.: January - April.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:311, f. 437. 1911.

Distrib.: Few in the deciduous forests; Dudhni (N. H.), 173989.

Uses : Med : + Sores on toe; inner bark paste is applied. (Konkana).

Misc : Wood is used as fuel. (Konkana).

Literature : Jain, 1991 -(lf) sores on toe.

Oroxylum indicum (L.) Vent., Dec. Gen. Nov. 8. 1808; Cooke, Fl. Pres. Bombay 2:401. 1958 (Repr.ed.); Rao, Fl. Goa 2:311. 1985; Jain, Dict. Ethn. 135. 1991. 'Tetav'.

Trees, small, 5-10 m high. Leaves 2-3 pinnate; leaflets broadly elliptic. Inflorescence of compact terminal racemes. Flowers yellowish-purple or

yellowish-red. Capsules flat, tapering at both ends. Seeds numerous, winged all around except at the base.

Bark contains oroxylin-A, baicalein and chrysin, alkaloids tannic acid, sitosterol & galactose (Anonymous, 1966).

Fls. & Frts.: July - March.

Illus.: Wight, Ic. tt. 1337 & 1338. 1848.

Distrib.: Few on hill slopes; Karchond (N. H.), 173371.

Uses: Med :Jaundice;

+ a) 20-40 ml decoction of its bark with bark of *Madhuca longifolia* var. *latifolia* & *Carrisa congesta* taken in proportions of 2:1:1 respectively, given twice for 7-8 days. (Warli).

+ b) 10-20 ml extract of its bark with bark of *Haldina cordifolia*, *Morinda pubescens* & *Terminalia bellirica* given for 3-7 days. (Konkana).

+ Joint pain; bark paste heated & applied. (Warli).

* Muscular pain; bark paste heated & applied. (Warli).

Ed : Vegetable; seeds used as vegetable. (Warli).

Literature : Jain, 1991 and Pandey, *et al.*, 1996 -(bk) jaundice. Jain & De Filippis, 1991 and Girach & Aminuddin, 1995 -(rt, sd oil) joint pain. Jain, 1991 -(fr) edible.

Radermachera xylocarpa (Roxb.) K. Schum. in *Pflanzenf.* 4(3b):243. 1895; Cooke, *Fl. Pres. Bombay* 2:407. 1958 (Repr.ed.); Rao, *Fl. Goa* 2:311. 1985. 'Kharsing'.

Trees, 10-15 m high, bark light grey. Leaves bipinnate; leaflets 2-4 pairs, elliptic-oblong. Flowers yellowish-white, in terminal panicles. Fruits woody, curved, rough with numerous tubercles.

Plant contains dinatin-7-glucuronide and acetyloleanolic acid (Rastogi & Mehrotra, 1993).

Fls. & Frts.: April - June.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.513. 1982.

Distrib.: Occasional in the forests; Khutaly (N. H.), 173305.

Uses: Med : * Snake bite; 50-60 ml extract of its bark with *Soymida febrifuga* bark, given as antidote which causes vomit. (Warli).

* Stomach pain; a) bark with bark of *Holoptelea integrifolia* & *Moringa concanensis* crushed to powder, taken in cloth piece, heated on fire and touched at stomach region. (Warli).

* b) 10-20 ml extract of its bark with *Soymida febrifuga* bark given twice a day. (Konkana).

* c) 5-10 ml pod decoction is given twice a day, which is also effective in dysentery. (Warli).

* Bone fracture; bark with *Lannea coromandelica* & *Ziziphus rugosa* bark crushed into paste, applied and bandaged at fractured bone. (Warli).

* Jaundice; 10-20 ml decoction of its bark with bark of *Oroxylum indicum* given for 2-3 days. (Konkana).

* Urinary complaints; bark extract given on empty stomach. (Konkana).

Menorrhagia; 20-30 ml of bark decoction, for 6-7 days. (Warli).

Literature : Sabnis & Bedi, 1983 -(bk) menorrhagia.

Sterospermum colais (Dillw.) Mabberley in *Taxon* 27:553. 1978. *S. chelonoides* DC., *Bibl. Univ. Geneve* 2, 17:125. 1838 *quoad* ref. Rheede t. 26 & *Prodr.* 9:210. 1845, *p.p.*; Cooke, *Fl. Pres. Bombay* 2:405. 1958 (Repr.ed.); Jain, *Dict. Ethn.* 171. 1991. *S. personatum* (Hassk.) Chatterjee in *Bull. Bot. Soc. Bengal* 2:70. 1948; Rao, *Fl. Goa* 2:311. 1985. 'Kud', 'Kirsal'.

Trees, 10 m high. Leaves pinnate; leaflets imparipinnate, elliptic. Inflorescence of lax, drooping, terminal, glabrate panicles. Flowers yellow. Capsules subquadrangular, curved, terete.

Bark contains glycoside-specioside (Rastogi & Mehrotra, 1993).

Fls. & Frts.: April - July.



Coix lachryma-jobi in flowers.



Coccinia grandis in flowers & fruits.



Holarrhena pubescens in fruits.



A fruiting twig of *Piliostigma foveolata*.



Ocimum americanum in fruits.



Ipomoea pes-capre in flowers.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 514. 1982 (*S. personatum*).

Distrib.: Infrequent in the forests; Amboli (N. H.), 176406.

Use: Med : Stomach pain; 10-30 ml bark extract given twice a day. (Warli, Konkana).

Literature : Jain, 1991 -(bk) stomachache. Jain & De Filippis, 1991 (bk) dyspepsia.

MARTYNIACEAE

Martynia annua L., Sp. Pl. 618. 1753; Rao, Fl. Goa 2:313. 1985; Jain, Dict. Ethn. 122. 1991. *M. diandra* Gloxin, Obs. 14, t.1. 1785; Cooke, Fl. Pres. Bombay 2:414. 1958 (Repr.ed.). 'Wagnakhi'

Herbs, viscidly pubescent. Leaves broadly ovate or suborbicular, silky, viscid pubescent. Inflorescence of small, axillary racemes. Flowers rose coloured. Drupes with a stout upturned beak; endocarp black, deeply longitudinally ribbed with two sharp hooks.

Plant contains pelargondin-3, 5-diglucoside & cynidine-3 galactoside (Jain, *et al.*, 1991).

Fls. & Frts.: August - October.

Illus.: Matthew, Illu. Fl. Tamilnadu Carnatic t.515. 1982.

Distrib.: Infrequent in wastelands and roadsides; Sily (N. H.), 176436.

Use: Med :* Toothache; roots crushed and kept on tooth or 20-30 ml of root extract is given. (Konkana).

PEDALIACEAE

Sesamum orientale L., Sp. Pl. 634. 1753; Jain, Dict. Ethn. 163. 1991. *S. indicum* L., Sp. Pl. 634. 1753; Cooke, Fl. Pres. Bombay 2:413. 1958 (Repr.ed.); Rao, Fl. Goa 2:313. 1985. 'Til'

Annual herbs, 1.5 m high, glandular pubescent. Lower leaves opposite, 2-3 lobed, upper alternate. Inflorescence of terminal, leafy racemes. Flowers pink. Capsules 4-angled, beaked, glandular-pubescent. Seeds reticulated rugose.

Fls. & Frts.: August - November.

Illus.: Maheshwari, Ill. Fl. Delhi f. 161. 1966.

Distrib.: Common on hill slopes as escape from cultivation; Parzai (N. H.), 176481.

Use: Ed : Seeds edible, 'Laddus' made from seeds by mixing with jaggery. (All tribes).

Literature : Jain, 1991 -(sd) edible.

ACANTHACEAE

Adhatoda zeylanica Medic., Hist. & Commentat. Acad. Elect. Sci. Theod.-Palat. 6:393. 1790; *Justicia adhatoda* L., Sp. Pl. 1753; Jain, Dict. Ethn. 110. 1991. *A. vasica* Nees in Wall. Pl. As. Rar. 3:103. 1832; Cooke, Fl. Pres. Bombay 2:493. 1958 (Repr.ed.); Rao, Fl. Goa 2:317. 1985. 'Adulsa'

Shrubs, 1-1.5 m tall, foetid smelling. Leaves elliptic -lanceolate, acute to acuminate at apex, narrowed at base. Flowers creamish-white, in terminal spikes; bracts longer than calyx. Capsules clavate, pubescent.

Leaves contain alkaloids visicine (Chopra, *et al.*, 1956) and visicinone (Chopra, *et al.*, 1969).

Fls. & Frts.: September - April.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.519. 1982.

Distrib.: Occasional, in cultivation; Zari (Daman), 177311.

Use: Med : Cough; crushed leaves & wood ash mixed with honey given once a day till relief. (Dhodia).

Literature : Chopra, *et al.*, 1956, Dastur, 1964 and Varghese, 1996 (lf,rt) cough.

Barleria prattensis Sant. in Kew Bull. 3:487. 1949 & in Univ. Bombay Bot. Mem. 2:62. 1952; Rao, Fl. Goa 2:319. 1985; Jain, Dict. Ethn. 33. 1991. 'Sarmal'

Herbs, 30 cm high. Leaves membranous, ovate or elliptic, decurrent into petioles. Flowers axillary, solitary or in terminal, leafy racemes, corolla pink. Capsules *ca* 2 cm long, brown. Seeds black, orbicular.

Fls. & Frts.: September - October.

Illus.: Sant. in Univ. Bombay Bot. Mem. 2:f. opp. page 64. 1952.

Distrib.: Frequent on hill slopes in shady areas; Karchond (N. H.), 173367.

Use: Ed : Leaves used as vegetable. (Warli).

Literature : Jain, 1991 -(lf) edible.

Carvia callosa (Nees) Bremek. in Verh. Nederl. Acad. Wet. 2,40: 187. 1944; Rao, Fl. Goa 2:321. 1985. *Strobilanthes callosus* Nees in Wall. Pl. As. Rar. 3:85. 1832; Cooke, Fl. Pres. Bombay 2:444. 1958 (Repr.ed.). 'Karvi'

Shrubs, up to 3.5 m high. Leaves elliptic-lanceolate, tapering wing-like into petioles at base. Inflorescence of axillary, solitary spikes. Corolla with white tube and purple limb. Seeds densely white, appressed hairy.

Fls. & Frts.: August - June.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:331, f. 446. 1911 (*Strobilanthes callosus*).

Distrib.: Frequent on hill slopes; Umberkui (N. H.), 176482.

Use: Misc : Karvi sticks are used extensively for making huts. (All tribes).

Eranthemum roseum (Vahl) R. Br., Prodr. 477. 1810; Rao, Fl. Goa 2:324. 1985; Jain, Dict. Ethn. 84. 1991. *Daedalacanthus roseus* T. And. in J. Linn Soc. 9:487. 1867; Cooke, Fl. Pres. Bombay 2:439. 1958 (Repr.ed.). 'Tayada'.

Herbs, up to 90 cm high. Leaves oblong-lanceolate, base narrowed, apex acuminate. Inflorescence of long, simple or paniculate spikes, terminal and axillary. Flowers pink or blue. Capsules clavate, pointed. Seeds hygroscopically hairy.

Fls. & Frts.: December - February.

Distrib.: Frequent; Zari (Daman), 173325.

Use: Med : * Scabies; dried roots crushed to powder, mixed with oil and applied externally. (Dhodia).

Hygrophila auriculata (Schum.) Heine in kew Bull. 16:172. 1962; Rao, Fl. Goa 2:325. 1985; Jain, Dict. Ethn. 105. 1991. *Asteracantha longifolia* (L.) Nees in Wall. Pl. As. Rar. 3:90. 1832; Cooke, Fl. Pres. Bombay 2:428. 1958 (Repr. ed.). 'Kolusta', 'Akhiryo'

Herbs, perennial, stout, thorny, hispid. Leaves sessile, opposite, 3 pairs at each node, lanceolate. Flowers blue, many flowered axillary whorls. Capsules oblong, ca 1 cm long.

Root contains phytosterol and essential oil (Chopra, *et al.*, 1956).

Fls. & Frts.: September - February.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 530. 1982.

Distrib.: Common in marshy areas; Zari (Daman), Rudana (N.H.), 173959, 173344.

Uses: Med : * To surface the thorn from foot & wound healing; 2-3 small root pieces eaten for 3-4 days. (Warli).

+ Swelling due to pierced thorn and to surface thorn from foot; 2-3 leaves along with jaggery taken orally. (Dhodia).

Literature : Sen, *et al.*, 1994 -(rt) swelling.

Lepidagathis cuspidata Nees in Wall. Pl. As. Rar. 3:97. 1832; Cooke, Fl. Pres Bombay 2:474. 1958 (Repr.ed.); Rao, Fl. Goa 2:328. 1985.

Undershrubs, erect, 30-90 cm high. Leaves oblong-lanceolate. apex acute, base cuneate. Inflorescence of axillary and terminal spikes. Flowers white. Capsules ovoid-lanceolate. Seeds ovoid, hygroscopically hairy.

Fls. & Frts.: March - May.

Illus.: Bedd., Ic. Pl. Ind. Or. t. 227. 1872.

Distrib.: Occasional on hill slopes; Dolará (N. H.), 173985.

Use: Med : * Toothache; crushed root kept on tooth. (Konkana).

Rungia pectinata (L.) Nees in DC. Prodr. 11:469. 1847; Rao, Fl. Goa 2:332. 1985; Jain, Dict. Ethn. 158. 1991. *R. parviflora* Nees var. *pectinata* (L.) C.B.Cl. in Hook. f., Fl. Brit. India 4:550. 1885; Cooke, Fl. Pres. Bombay 2:478. 1958 (Repr. ed.). 'Kambra'.

Herbs, ca 20 cm high, branched, straggling. Leaves elliptic-lanceolate or oblong-lanceolate, apex acute or subobtuse. Flowers blue. Capsules ovoid, acute, pubescent at tip, faces scarious. Seeds orbicular, yellow.

Fls. & Frts.: October - April.

Illus.: Maheshwari, Ill. Fl. Delhi f. 167. 1966.

Distrib.: Frequent on hill slopes and in moist open fields; Zari (Daman), 173326.

Use : Med : *-Jaundice; 30-40 ml of plant decoction is given regularly for 10-15 days. (Dhodia).

Thunbergia laevis Nees in Wall. Pl. As. Rar. 3:77. 1832; Rao, Fl. Goa 2:333. 1985. *T. fragrans auct. Pl. non Roxb.* 1795; Jain, Dict. Ethn. 179. 1991; Cooke, Fl. Pres. Bombay 2:417. 1958 (Repr.ed.). 'Warva'

Undershrubs, climbing. Leaves deltoid-ovate, apex acute or obtuse, base rounded, cordate or hastate. Flowers white, axillary, solitary or 2 together. Capsules glabrous, basal part globose. Seeds hemispheric, reticulate-rugose.

Fls. & Frts.: August - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 547. 1982 (*T. fragrans*).

Distrib.: Occasional in the forests; Dolara (N. H.), 173984.

Use: Med : * Vesicles; seven small stem pieces woven together in cotton thread, tie at the arm or neck of children & kept for 9 days. (Konkana).

AVICENNIACEAE

Avicennia marina (Forsk.) Vierh in Denksr. Akad. Wien. Math.-Nat. 71:435. 1907; Jain, Dict. Ethn. 31. 1991. *A. alba auct. non* Bl. 1825; Cooke, Fl. Pres. Bombay 2:517. 1958 (Repr.ed.). *A. marina* var. *acutissima* Stapf & Moldenke in Phytologia 1:411. 1940 et 7:225. 1960; Rao, Fl. Goa 2:335. 1985. 'Tiwari'

Shrubs, 1-2 m high. Leaves glabrous and shining above, whitish-tomentose beneath. Flowers yellow to reddish-yellow, sessile. Fruits 1.5-2.0 cm in diam., ellipsoid, apiculate, bright yellow, smooth when ripe.

Fls. & Frts.: February - June.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 481. 1988.

Distrib.: Frequent along the sea coast; Daman, 176483.

Uses: Ed : Ripe fruits are eaten. (Dubala).

Leaves used as fodder. (All tribes).

Literature : Sen, *et al.*, 1994 -(fr) edible.

VERBENACEAE

Lantana camara var. **aculeata** (L.) Moldenke in *Torreyia* 34:9. 1934 & in *Ann. Missouri Bot. Gard.* 60:58. 1973; Rao, *Fl. Goa* 2:338. 1985. *L. camara auct. non L.* 1753; Cooke, *Fl. Pres. Bombay* 2:498. 1958 (Repr.ed.); Jain, *Dict. Ethn.* 113. 1991. 'Tantani'

Shrubs, 2-3 m high with strong, disagreeable smell. Leaves ovate, apex acute. Inflorescence of axillary and terminal short spikes. Flowers white or crimson. Drupes globose, fleshy, ripens black, ca 0.5 cm across.

Leaves contain essential oil containing camerene, isocamerene and micranene, lantanine (Chopra, *et al.*, 1956).

Fls. & Frts.: Almost throughout the year.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t. 472. 1988.

Distrib.: Common along sea shore, in back waters and in hedges; Devaka (Daman), 173971.

Uses: Med : Fever; crushed leaves applied on forehead, said to be effective in reducing body temperature. (Dubala).

* Headache; leaves crushed & applied on forehead. (Dubala).

Literature : Hosagoudar & Henry, 1996 -(1f) fever.

Tectona grandis L.f., *Suppl.* 151. 1781; Cooke, *Fl. Pres. Bombay* 2:503. 1958 (Repr.ed.); Rao, *Fl. Goa* 2:340. 1985; Jain, *Dict Ethn.* 176. 1991. 'Sagwan'.

Trees, large, ca 15 m high, branches quadrangular, pubescent. Leaves elliptic-ovate, 20-50 x 15-35 cm, acute at apex. Inflorescence of terminal panicles. Flowers white. Drupes ca 1.2 cm in diam., subglobose, enclosed in enlarged calyx.

Fls. & Frts.: June - November.

Illus.: Matthew, *Ill. Fl. Tamilnadu* 2:t. 558. 1982.

Distrib.: Common on hill slopes and tops; Parazai (N. H.), 173360.

Uses: Misc : Wood is used for making furniture and for house building. (All tribes).

Wood is used for making musical instruments, like 'Dhol' 'Madal' etc. (All tribes).

Rain cap or Umbrella made by leaves and bamboo strips. (All tribes).

Vitex negundo L., Sp. Pl. 638. 1753; Cooke, Fl. Pres. Bombay 2:508. 1958 (Repr.ed.); Rao, Fl. Goa 2:341. 1985; Jain, Dict. Ethn. 187. 1991. 'Nirgudi'

Shrubs, 2-3 m high, branches quadrangular. Leaflets lanceolate, margins entire, apex acute. Inflorescence of terminal, branched paniculate cymes. Flowers bluish. Drupes black when ripe.

Leaves contain alkaloid nishindine & hydrocotylene (Anonymous, 1976).

Fls. & Frts.: Throughout the year.

Illus.: Wight, Ic. t. 519. 1842.

Distrib.: Common on hill slopes & near the villages; Parzai (N. H.), 173359.

Uses: Med : Fever; leaves boiled in water and vapours inhaled. (Konkana).

Muscular pain & Joint pain; leaves boiled and water poured over body part. (Konkana).

Rheumatism; one gram of powdered roots mixed with two grams of *Sesamum orientale* oil, taken twice a day. (Konkana).

Literature : Chopra, *et al.*, 1956, Jain, 1991 and Varghese, 1996 -(lf, rt), fever, bodyache, rheumatism.

LAMIACEAE

Anisomeles heyneana Bth. in Wall. Pl. As. Rar. 1:59. 1830; Cooke, Fl. Pres. Bombay 2:543. 1958 (Repr.ed.); Rao, Fl. Goa 2:344. 1985; Jain, Dict. Ethn. 23. 1991. 'Phangurta'

Herbs, much branched ca 1.5 m high. Leaves ovate-lanceolate, apex acuminate, margins crenate. Flowers in axillary and terminal cymes, bracts linear. Nutlets dark brown, broadly ovoid.

Chemical sitosterol is isolated from plant (Rastogi & Mehrotra, 1991 b).

Fls. & Frts.: September - January.

Distrib.: Few on hill slopes; Chisda (N. H.), 176443.

Uses: Med: * Urinary complaints; 10-20 ml of stem juice or extract given twice for 4-5 days. (Warli, Konkana).

Headache; leaves crushed and applied on forehead. (Warli, Konkana).

Literature : Jain, 1991 -(lf) headache. Duke & Ayensu, 1985 -(px) urinary disorders.

Anisomeles indica O. Ktze., Rev. Gen. Pl. 2:512. 1891; Rao, Fl. Goa 2:344. 1985; Jain, Dict. Ethn. 23. 1991. *A. ovata* R.Br. in Ait. Hort Kew. ed. 2. 3:364. 1811; Cooke, Fl. Pres. Bombay 2:543. 1958 (Repr.ed.). 'Gopali'.

Undershrubs, ca 2 m high. Leaves ovate, base rounded, apex acute. Flowers sessile; bracts linear, hairy; calyx teeth lanceolate, acute, hirsute. Nutlets ovoid, blackish-brown, smooth, polished.

Leaf contains a macrocyclic diterpene-ovatodioid (Rastogi & Mehrotra, 1991 a).

Fls. & Frts.: August - February.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t.562. 1982.

Distrib.: Infrequent along forest clearings; Morkhal (N. H.), 177351.

Use: Med : + Fever; leaves crushed and applied on body to reduce temperature. (Warli).

Literature : Jain, 1991 and Varghese, 1996 -(px) fever.

Anisomeles malabarica (L.) R. Br. ex Sims. in Curtis, Bot. Mag. t. 2071. 1819; Cooke, Fl. Pres. Bombay 2:544. 1958 (Repr.ed.); Rao, Fl. Goa 2:344. 1985. 'Chodara'.

Herbs. Leaves oblong-lanceolate, apex acute, base rounded or shortly cuneate. Flowers purple. Nutlets ca 0.2 cm long, ellipsoid, brown, shining, compressed, inner surface slightly angular.

Leaves contain essential oil and betulinic acid (Chopra, *et al.*, 1956).

Fls. & Frts.: October - November.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t.482. 1988.

Distrib.: Infrequent on hill slopes; Khanvel (N. H.), 177318.

Use: Med : Rheumatism; leaves boiled and hot water poured regularly on rheumatic areas of body. (Konkana).

Literature : Jain & De Filippis 1991 and Kirtikar & Basu 1933 -(lf) rheumatism.

Hyptis suaveolens (L.) Poit. in Ann. Mus. Nat. Hist. Paris 7:472, t. 29. f.2. 1806; Cooke, Fl. Pres. Bombay 2:560. 1958 (Repr.ed.); Rao, Fl. Goa 2:345. 1985; Jain, Dict. Ethn. 105. 1991. 'Gandhurtya', 'Dhurmodo'

Herbs, ca 1 m high with a strong smell. Leaves ovate-cordate, strigose, obtuse at apex, rounded at base. Flowers in axillary or terminal umbels; corolla blue, calyx glandular-hairy. Nutlets 2, ovoid, blackish-brown.

Leaves contain essential oil with menthol, essential oil containing 6-sabinene, limonene and azulenic sesquiterpene [Chopra, *et al.*, 1956].

Fls. & Frts.: August - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 567. 1982.

Distrib.: Occasional in wastelands and along roadsides; Tighra (Dadra), Luhari (N.H.), 173382, 173919.

Uses: Med : Fever; crushed leaves rubbed and massaged over body. (Konkana).

* Sprain & Swellings; leaves crushed and applied. (Dhodia).

* Measles; leaf extract or juice is applied. (Dhodia).

Literature : Jain, 1991 and Varghese, 1996 -(lf) fever:

Lavandula bipinnata O. Ktze., Rev. Gen. Pl. 521. 1891; Rao, Fl. Goa 2:346. 1985; Jain, Dict. Ethn. 114. 1991. *L. burmanni* Bth., Lab. Gen. & Sp. 151. 1833; Cooke, Fl. Pres. Bombay 2:534. 1958 (Repr. ed.). 'Gorya'

Herbs, ca 1 m high, slender, erect. Leaves 2-6 cm long; lobes linear, pubescent. Corolla tube white, lobes blue. Nutlets oblong-ellipsoid, yellowish-brown, smooth.

Fls. & Frts.: August - February.

Illus.: Wight, Ic. t.1438. 1849 (*L. burmanni*).

Distrib.: Occasional on hill slopes; Dudhni (N. H.), 177301.

Use: Ed : Fodder; plant relished by cattle.

Leucas indica (L.) R. Br. ex Vatke in Oest. Bot. 25:95. 1875; Jain, Dict. Ethn. 116. 1991. *L. lavandulifolia* J.E. Sm. in Rees, Cyclop. 20. 1819; Rao, Fl. Goa 2:347. 1985. *L. linifolia* Spr., Syst. 2:743. 1825; Cooke, Fl. Pres. Bombay 2:465. 1958 (Repr. ed.). 'Barikali-buradi'

Herbs, 30-50 cm high, pubescent. Leaves linear-lanceolate, finely puberulous, apex obtuse, base tapering. Inflorescence of flowers, in axillary whorls. Flowers white. Nutlet oblong-obovoid, brown, 3-angled, acute.

Fls. & Frts.: August - April.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 569. 1982.

Distrib.: Common near cultivated fields; Amboli (N. H.), 173376.

Use: Med : * Scabies; plant ash mixed with coconut oil and applied. (Warli).

Ocimum americanum L., Cent. Pl. 1:15. 1755; Cooke, Fl. Pres. Bombay 2:521. 1958 (Repr.ed.); Rao, Fl. Goa 2:348. 1985; Jain, Dict. Ethn. 133. 1991. 'Azola'.

Herbs, 20-50 cm high, perennial, branched. Leaves elliptic-ovate, acute at both ends, gland dotted beneath. Flowers white in close whorls, forming spiciform racemes. Nutlets oblong or ellipsoid, black dotted.

Plant contains essential oil with camphor [Chopra, *et al.*, 1956].

Fls. & Frts.: August - November.

Illus.: Maheshwari, Ill. Fl. Delhi f. 174. 1966.

Distrib.: Common in cultivated fields & roadsides; Dudhni (N. H.), 173946.

Uses: Med : * Indigestion; leaves eaten as a purgative. (Warli).

Ed : Leaves used in making chuteny. (Warli).

Ocimum basilicum L., Sp. Pl. 597. 1753; Cooke, Fl. Pres. Bombay 2:523. 1958 (Repr. ed.); Rao, Fl. Goa 2:349. 1985; Jain, Dict. Ethn. 133. 1991. 'Sabja'.

Herbs, ca 1 m high, hispid. Leaves elliptic-lanceolate or ovate 4.5-10.5 x 1.5-3.5 cm. Flowers white in dense whorls. Nutlets ellipsoid, brown, pitted.

Plant contains essential oil, cineole, eugenol, sesquiterpens and d-terpene [Chopra, *et al.*, 1956].

Fls. & Frts.: August - October.

Distrib.: Cultivated in backyards of houses; Beldhari (N. H.), 173340.

Uses: Med : Cooling effect : seeds soaked overnight in water or milk and taken. (Konkana).

Headache; leaf and flower paste applied over forehead. (Warli).

Literature: Jain, 1991 -(lf) headache. Rao, 1985 -(sd) cooling effect.

Ocimum sanctum L., Mant. 1:85. 1767; Cooke, Fl. Pres. Bombay 2:521. 1958 (Repr.ed.); Rao, Fl. Goa 2:349. 1985; Jain, Dict. Ethn. 133. 1991. 'Tulash'

Herbs, ca 1 m high, branched. Leaves elliptic-oblong, apex acute, gland dotted. Flowers white in distant, 6-flowered whorls of short racemes. Nutlets ca 2.5 cm in diam., ellipsoid, smooth, brownish.

Fls. & Frts.: July - February.

Illus.: Maheshwari, Ill. Fl. Delhi f. 175. 1966.

Distrib.: Commonly cultivated, also found wild in wastelands; Amboli (N.H.), 177355.

Note : Sacred plant, worshiped by 'hindus'.

Uses: Med : Headache; leaf paste applied over forehead. (Konkana).

Cough; 10-15 leaves are chewed and eaten early morning for 4-5 days. (Konkana).

Scabies; leaf juice is applied over affected body part. (Konkana).

Ed : Leaves and inflorescence added in tea preparation for good flavour and taste. (All tribes).

Literature : Jain, 1991 -(lf) headache, cough & scabies, -(infl & lf) edible as tea.

Pogostemon bengalense (Burm.f.) O. Ktze., Rev. Gen. Pl.2:529. 1891; Rao, Fl. Goa 2:350. 1985; Jain, Dict. Ethn. 146. 1991. *P. plectranthoids* Desf. in Ann. Mus. Paris 2:155, t.6. 1803; Cooke, Fl. Pres. Bombay 2:536. 1958 (Repr.ed.). 'Phangurta', 'Pangli'

Shrubs, erect, up to 1.5 m high. Leaves ovate, margins of double serratures. Inflorescence of dense, terminal and axillary, paniced cymes. Flowers purple. Nutlets minute, shining brown.

Leaves contain alkaloids pogostemonine, trimethylamine, resin and some astringent matter (Anonymous, 1969).

Fls. & Frts.: November - April.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 574. 1982.

Distrib.: Common on hill slopes; Dudhni (N. H.), 173945.

Use: Med : Fever; leaf paste applied on forehead once or twice a day till relief. (Warli).

Literature : Jain & De Filippis, 1991 and Upadhye, *et al.*, 1994 -(lf) fever.

NYCTAGINACEAE

Boerhavia diffusa L., Sp. Pl. 3. 1753; Cooke, Fl. Pres. Bombay 2:563. 1958 (Repr.ed.); Rao, Fl. Goa 2:353. 1985; Jain, Dict. Ethn. 37. 1991. 'Hatodi'

Herbs, diffuse, roots fusiform. Leaves ovate-oblong or suborbicular. Inflorescence capitate or paniculate. Flowers pink. Fruits clavate, turbinate, fusiform or obovoid, 5-ribbed.

Root contains hentriacontane, β -sitosterol, ursolic acid, glucoprotein and alkaloid punarnavin (Jain, *et al.*, 1991).

Fls. & Frts.: April - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 578. 1982.

Distrib.: Occasional along roadsides; Fort area (Daman), 173328.

Uses: Med : Jaundice; 20-30 ml of root decoction given twice for 7-9 days. (Dubala).

Wounds; freshly crushed roots applied on wounds. (Dubala).

Urinary complaints; 20-30 ml of root extract/decoction given twice for 4-5 days. (Dubala).

Literature : Jain, 1991 -(rt) urinary complaints & jaundice. Kapur, *et al.*, 1992 -(rt) wounds. Chopra, *et al.*, 1956 (rt) - jaundice.

AMARANTHACEAE

***Achyranthes aspera* L.**, Sp. Pl. 204. 1753; Cooke, Fl. Pres. Bombay 2:580. 1958 (Repr. ed.); Rao, Fl. Goa 2:354. 1985; Jain, Dict. Ethn. 11. 1991. 'Agheda'

Herbs, ca 1 m high; stems quadrangular, striate. Leaves elliptic-oblong. Flowers green with pink apex in axillary and terminal, long spikes. Utricles oblong-ovoid, enclosed in hardened perianth.

Root contains aleanolic acid [Chopra, *et al.*, 1956].

Fls. & Frts.: September - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 581. 1982.

Distrib.: Common in wastelands and roadsides; Bindrabin (N. H.), 173928.

Uses: Med : Headache; crushed roots & leaves taken in cloth piece and consequently heated & kept on forehead. (Warli).

Wounds; root paste applied on wound. (Warli).

Literature : Jain, 1991 -(plt) headache, -(rt) wounds. Varghese, 1996 - (plt) migraine.

Alternanthera sessilis (L.) DC., Cat. Hort. Monsp. 77. 1813; Rao, Fl. Goa 2:356. 1985; Jain, Dict. Ethn. 19. 1991. *A. triandra* Lam., Encycl. 1:95. 1783; Cooke, Fl. Pres. Bombay 2:584. 1958 (Repr. ed.). 'Ran'

Herbs, branches with purple tinge, rooting at nodes. Leaves linear-lanceolate, linear-oblong, subsessile. Flowers sessile, white. Utricles compressed with thickened margins. Seeds orbicular.

Isolation of 24-methylene cycloartanol, cycloeucalenol, campesterol, α -spinasterol, β -sitosterol, stigmasterol, 5- α -stigmast-7-enol & the respective palmitates, nonacosane, 16-hentriocontane, β -sitosterol & handianol from plant (Rastogi & Mehrotra, 1993).

Fls. & Frts.: Throughout the year.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 584. 1982.

Distrib.: Common in moist areas and along roadsides; Shelti (N. H.), 176456.

Use: Med: Indigestion; infusion of leaves is given. (Warli).

Literature: Jain & Saklani, 1992 -(If) indigestion.

Amaranthus cruentus L., Syst. Nat. ed. 10:1269. 1759. *A. paniculatus* L., Sp. Pl. ed. 2. 1406. 1763; Cooke, Fl. Pres. Bombay 2:573. 1958 (Repr. ed.). *A. hybridus* L. ssp. *cruentus* (L.) Thell. var. *paniculatus* (L.) Thell. in Asch. & Gr. Syn. 5:247. 1914; Rao, Fl. Goa 2:357. 1985; Jain, Dict. Ethn. 20. 1991. 'Rajgira'

Herbs, 1.0-1.5 m high. Leaves ovate-lanceolate, apex acute. Flowers pinkish in dense, 2-15 cm long spikes; perianth lobes oblong-lanceolate, awned. Capsules ovoid. Seeds subglobose, dark brown or black.

Fls. & Frts.: February - September.

Illus.: Wight, Ic. t. 720. 1843 (*A. frumentaceus*).

Distrib.: Cultivated, sometimes found as an escape; Tinoda (N. H.), 176402.

Use: Ed : Plant used as vegetable when young. (Warli).

Literature : Jain, 1991 -(lf) vegetable.

Amaranthus tricolor L., Sp. Pl. 989. 1753; Jain, Dict. Ethn. 20. 1991. *A. gangeticus* L., Syst. Nat. ed. 10. 1268. 1759; Cooke, Fl. Pres. Bombay 2:574. 1958 (Repr. ed.); Rao, Fl. Goa 2:357. 1985. 'Mathbhaji'

Herbs, up to 1 m high; stems grooved with purple tinge. Leaves ovate-rhomboid. Spikes greenish-yellow. Utricles ovoid, rugose, crowned. Seeds black, smooth, lenticular.

Fls. & Frts.: September - January.

Illus.: Maheshwari, Ill. Fl. Delhi f. 178. 1966.

Distrib.: Commonly found in wastelands and in cultivated fields; Khutaly (N. H.), 173352.

Uses:Med : * Vomiting; root extract is given to check vomiting. (Warli).

Ed : Leaves and stem used as vegetable. (Warli).

Literature : Jain, 1991 -(lf) vegetable.

Celosia argentea L., Sp. Pl. 1205. 1753; Cooke, Fl. Pres. Bombay 2:570. 1958 (Repr. ed.); Rao, Fl. Goa 2:358. 1985; Jain, Dict. Ethn. 48. 1991. 'Kurudu'

Herbs, 30-50 cm high. Leaves, broadly ovate or linear-lanceolate. Inflorescence of dense terminal lanceolate spikes. Flowers white or pink. Utricles ellipsoid, circumscissile at the middle. Seeds sub-reniform, black, shining.

Fls. & Frts.: August - February.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 586. 1982.

Distrib.: Common weed in fields & along roadsides; Beldhari (N. H.), 173339.

Use: Ed : Leaves and tender shoots of young plants used as vegetable. (Konkana).

Literature : Jain, 1991 and Sadhale, *et al.*, 1991 -(plt) vegetable.

CHENOPODIACEAE

***Spinacia oleracea* L.**, Sp. Pl. 1027. 1753; Cooke, Fl. Pres. Bombay 2:995. 1958 (Repr.ed.); Rao, Fl. Goa 2:361. 1985. Jain, Dict. Ethn. 171. 1991. 'Palak'

Herbs, annual, erect, up to 30 cm high. Leaves alternate, deltoid, ovate, acuminate, broadly pinnatifidly lobed, fruiting perianths free, 2-spinous. Seeds vertical, testa thin.

Leaves contain 3-trimethoxy flavone, 5,3,4-trihydroxy -3-methoxy -6,7-methylenedioxy flavone & 5,4-dihydroxy-3,3 dimethoxy -6,7 -methylenedioxy flavone (Rastogi & Mehrotra, 1993). Leaves contain stigmasterol, stigmastanol & α -spinasterol (Rastogi & Mehrotra, 1991 b).

Fls. & Frts.: Almost throughout the year.

Illus.: Wight, Ic. t.818. 1843.

Distrib.: Cultivated in fields and backyards of houses; Patalara (Daman), 176484.

Uses: Med : Cooling effect; leaf extract is given. (Dhodia).

Ed : Leaves used as vegetable. (All tribes).

Literature : Chopra, *et al.*, 1956 and Jain & De Filippis -(lf) cooling effect & vegetable.

POLYGONACEAE

Polygonum barbatum* L. var. *gracile Steward in Contr. Gray Herb. 88:55. 1930; Rao, Fl. Goa 2:362. 1985. *P. serrulatum* Hook. f., Fl. Brit. India 5:38. 1886; Cooke, Fl. Pres. Bombay 3:7. 1958 (Repr.ed.), 'Dhakta-sheal'.

Herbs, *ca* 1 m high, slender, glabrous; often reddish. Leaves lanceolate or linear-lanceolate, 6-10 x 1-2 cm, hairy on midrib beneath. Flowers white in slender racemes. Nutlets *ca* 0.2 cm long.

Plant contains polygonic acid and essential oil (Chopra, *et al.*, 1956).

Fls. & Frts.: August - November.

Illus.: Wight, Ic. t. 1798. 1852.

Distrib.: Occasional along water courses; Nana Randha (N. H.), 177356.

Use: Med : Cooling effect; root extract given. (Warli).

Literature : Das, *et al.*, 1996; Jain & De Filipps, 1991 -(rt) cooling effect.

ARISTOLOCHIACEAE

Aristolochia indica L., Sp. Pl. 960. 1753; Cooke, Fl. Pres. Bombay 3:16. 1958 (Repr.ed.); Rao, Fl. Goa 2:364. 1985; Jain, Dict. Ethn. 27. 1991. 'Nagdhavan'.

Shrubs, twining; stems slender, woody at the base, grooved, glabrous. Leaves linear-oblong to obovate-oblong, entire with somewhat undulate margins. Flowers greenish-white. Seeds deltoid-ovate, acute, flat, winged.

Root contains an alkaloid aristolochin, isoaristolochic acid, allantoin and seaquiterpenoid compounds with trace of camphor (Anonymous, 1948).

Fls. & Frts.: October - November.

Illus.: Wight, Ic. t. 1858.

Distrib.: Few in the deciduous forests; Athal (N.H.), 177320.

Uses: Med : Sanke bite; 30-50 ml of root juice is given as antidote, which causes vomiting. (Warli).

Scabies; paste made from root bark or stem bark is applied. (Warli).

Literature : Sabnis & Bedi, 1983 -(lf) snake bite. Anonymous, 1948 (rt) snake bite, -(rt) scabies.

LORANTHACEAE

Dendrophthoe falcata (L.f.) Etting., Denkschr. Kaiserl. Akad. Wiss. Math. Naturwiss. Kl. 32:52-53, 58. t. 13, f. 14. 1872; Rao, Fl. Goa 2:372. 1985; Jain, Dict. Ethn. 72. 1991. *L. longiflorus* var. *amplexifolia* (DC.) Thw., Enum. Pl. Zeyl. 134. 1859; Cooke, Fl. Pres. Bombay 3:43. 1958 (Repr.ed.). 'Bandgul'

Shrubs, bushy, stem parasites. Leaves oblong-lanceolate, sessile, coriaceous. Flowers red in axillary, solitary or fascicled racemes. Berries red, covered by cupular calyx, oblong.

Fls. & Frts.: September - March.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 616. 1982.

Distrib.: Common in forests on *Ficus* sps. & *Mangifera indica*; Khutaly (N. H.), 173914.

Uses: Ed : Ripe fruit pulp is edible. (Konkana).

Misc : Fruit pulp is used for hunting small birds. (Konkana).

Literature : Kulkarni & Kumbhojkar, 1992c -(fr) edible.

EUPHORBIACEAE

Baliospermum montanum (Willd.) Muell.-Arg. in DC. Prodr. 15(2): 1125. 1866; Rao, Fl. Goa 2:379. 1985; Jain, Dict. Ethn. 32. 1991. *B. axillare* Bl., Bijdr. 604. 1825; Cooke, Fl. Pres. Bombay 3:106. 1958 (Repr.ed.). 'Hagara'.

Undershrubs, ca 1-2 m high, stout, monoecious. Leaves sinuate, toothed. Inflorescence of axillary racemes or condensed panicles. Flowers greenish-yellow. Capsules ovoid, hairy. Seeds ellipsoid, smooth.

Root contains new phorbol esters montanin, 12-deoxyphorbol-13-palmitate, baliospermin, 12-deoxy-5- β -hydroxyphorbol-13-myristate & 12-deoxy-16-hydroxyphorbol-13-palmitate (Rastogi & Mehrotra, 1991 b).

Fls. & Frts.: September - April.

Illus.: Wight, Ic. t. 1885. 1852 (*B. polyandrum*).

Distrib.: Few in forest undergrowth; Dolara (N. H.), 173955.

Uses: Med : +Constipation; 20-30 ml of root extract is given as a laxative. (Warli).

Vomiting; 10-15 ml of freshly crushed root juice given. (Warli).

Literature :Jain, 1991 and Singh & Sharma, 1998 -(sd) laxative. Sabnis & Bedi 1983 -(rt) vomit.

Breynia retusa (Dennst.) Alst. in Ann. Roy. Bot. Gard. Peradeniya 11:204. 1929; Rao, Fl. Goa 2:382. 1985; Jain, Dict. Ethn. 38. 1991. *B. patens* (Roxb.) Rolfe in J. Bot. 11:359. 1882; Cooke, Fl. Pres. Bombay 3:79. 1958 (Repr. ed.). 'Abodipithuni'

Shrubs, ca 1.5 m high. Leaves broadly elliptic. Flowers minute, greenish, axillary on the undersurface of branches. Capsules globose, orange-red, 3-angled, seated on enlarged calyx. Seeds triquetrous, orange yellow.

Fls. & Frts.: June - September.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t. 628. 1982.

Distrib.: Few on hill slopes; Beldhari (N. H.), 173337.

Use: Med : * Vet illness; leaves given to sheep as fodder to recover from illness. (Konkana).

Bridelia retusa (L.) Spr., Syst. Veg. 3:48. 1826; Cooke, Fl. Pres. Bombay 3:68. 1958 (Repr.ed.); Rao, Fl. Goa 2:383. 1985. *B. squamosa* (Lamk.) Gaertn. in Engl. Bot. Jahrb. 41, Beibl. 95:30. 1908; Jain, Dict. Ethn. 38. 1991. 'Asan'

Trees, 5-6 m high. Leaves ovate-elliptic or elliptic-oblong. Flowers reddish, yellowish or whitish. Drupes *ca* 0.6 cm in diam., globose, seated on the enlarged perianth, ripens greenish-purplish to black.

Chemical constituents of bark are gingili oil and tannins 16-40 % (Chopra, *et al.*, 1956).

Fls. & Frts.: July - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 629. 1982.

Distrib.: Common on hill slopes and roadsides; Sity (N. H.), 177304.

Uses: Med : Cuts; bark juice applied as antiseptic. (Konkana).

Ear pain; bark juice 2-3 drops put in ear. (Konkana).

Ed : Ripe fruits edible. (Konkana).

Fodder; leaves used as fodder for cattle. (All tribes).

Literature : Jain, 1991 -(bk) cuts, earache. Goud & Pullaiah, 1996 - (fr) edible.

Emblia officinalis Gaertn., Fruct. 2:122, t.108. 1790. *Phyllanthus emblica* L., Sp. Pl. 982. 1753; Cooke, Fl. Pres. Bombay 3:81. 1958 (Repr. ed.); Rao, Fl. Goa 2:395. 1985; Jain, Dict. Ethn. 142. 1991. 'Avla'

Trees, *ca* 5 m high, bark greenish, rough. Leaves pinnate; leaflets subsessile, distichous, linear. Flowers greenish-yellow. Fruits fleshy, globose with 6 obscure vertical furrows, yellow.

Fruit contains vit.C, gallic acid, tannic acid, albumin, cellulose, etc. (Saxena and Tripathi, 1989).

Fls. & Frts.: February - August.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.648. 1982.

Distrib.: Common in deciduous forests; Shelti (N. H.), 173934.

Uses: Med : Cough; fruits eaten. (Warli).

* Blood purifier; fruits eaten. (Konkana).

Ed : Fruits eaten by locals. (All tribes).

Fruits pickled. (All tribes).

Literature : Jain, 1991 -(fr) edible. Singh, *et al.*, 1992 -(fr) cough.

Jatropha curcas L., Sp. Pl. 1006. 1753; Cooke, Fl. Pres. Bombay 3:95. 1958 (Repr. ed.); Rao, Fl. Goa 2:392. 1985; Jain, Dict. Ethn. 109. 1991. 'Chandrajyoti'.

Shrubs, erect, ca 3 m high. Leaves palmately lobed. Flowers yellowish-green, axillary, terminal. Capsules subglobose, rugose. Seeds oblong.

Plant contains toxic principle curcin (Chopra, *et al.*, 1956).

Fls. & Frts.: April - November.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 570. 1988.

Distrib.: Occasional near villages and in open fields; Parzai (N. H.), 173358.

Uses: Med : Scabies; leaf juice is applied. (Konkana).

Misc: Seed cotyledons are pierced in thin & long stick to make handmade candle. (Konkana).

Literature :Chopra, *et al.*, 1956 -(lf) scabies. Duke, 1986 -(sd) candle.

Jatropha gossypifolia L., Sp. Pl. 1006. 1753; Cooke, Fl. Pres. Bombay 3:94. 1958 (Repr. ed.); Rao, Fl. Goa 2:392. 1985; Jain, Dict. Ethn. 109. 1991. 'Devanupatru'.

Shrubs. Leaves palmately 3-5 lobed, brownish-green, petioles long. Flowers in terminal, trichotomous cymes; corolla red. Capsules greenish-yellow, 3-lobed.

Bark contains alkaloid jatropine, resins, siophytosterol & tannin (Anonymous, 1959).

Fls. & Frts.: February - June.

Illus.: Matthew, *Fur. Ill. Fl. Tamilnadu Carnatic* 4:t. 571. 1988.

Distrib.: Occasional near villages; Tighra (Dadra), 173969.

Use: Misc : Leaves along with flowers are offered to god during worship. (Dhodia).

Kirganelia reticulata (Poir.) Baill., *Etude Euphorb.* 614. 1858; Jain, *Dict. Ethn.* 111. 1991. *Phyllanthus reticulatus* Poir. in *Lam. Encycl.* 5:298. 1804; Cooke, *Fl. Pres. Bombay* 3:81. 1958 (Repr. ed.); Rao, *Fl. Goa* 2:396. 1985. 'Pavan'

Shrubs, scandent. Leaves oblong-elliptic, base acute or rounded; stipules ovate, acute, bristle-tipped. Flowers axillary. Berries globose, purple, ca 0.3 cm across, smooth, shining.

Leaves contain tannic acid (Chopra, *et al.*, 1956).

Fls. & Frts.: April - November.

Illus.: Matthew, *Ill. Fl. Tamilnadu Carnatic* 2:t. 643. 1982.

Distrib.: Occasional on hill slopes; Khanvel (N. H.), 176411.

Uses: Med : * Fever; leaf paste applied on forehead. (Warli, Konkana). Headache; application of leaf paste / juice relieves headache. (Warli, Konkana).

Literature : Girach, 1992 -(lf) headache.

Macaranga peltata (Roxb.) Muell.-Arg. in *DC. Prodr.* 15 (2) : 1010. 1866; Rao, *Fl. Goa* 2:392. 1985; Jain, *Dict. Ethn.* 120. 1991. *M. tomentosa* Wight, *lc.* 5:23. 1852 & 6 :t.1. 1949, f.1. 1853; Cooke, *Fl. Pres. Bombay* 3:117. 1958 (Repr.ed.). 'Chand-diva'.

Trees, much branched, ca 5 m high. Leaves deltoid-ovate, acuminate at apex. Inflorescence of axillary panicles. Flowers yellow, small. Capsules globose, hairy, glandular, ca 0.6 cm in diam.

Bark contains tannin 18% (Chopra, *et al.*, 1956).

Fls. & Frts.: January - May.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.644. 1982.

Distrib.: Few on hill slopes; Bedpa (N. H.), 176448.

Uses: Med : Cuts; latex is applied. (Warli, Konkana).

+ To expel worms from wounds; bark with bark of *Pterocarpus marsupium*, *Wattakaka volubilis*, extract about ½ litre, given to cattle.(Warli, Konkana).

Misc : Leaves used as meal plate. (All tribes).

Literature : Jain, 1991 - (1a) wounds, cuts.

Mallotus philippensis (Lam.) Muell.-Arg. in *Linnæa* 34:196. 1865; Cooke, Fl. Pres. Bombay 3:113. 1958 (Repr.ed.); Rao, Fl. Goa 2:393. 1985; Jain, Dict. Ethn. 121. 1991. 'Lokhadi'.

Trees, 9-12 m high, much branched. Leaves ovate - lanceolate, glabrous above, pubescent and with red glands beneath. Inflorescence of rusty pubescent spikes. Flowers greenish-yellow. Capsules *ca* 1 cm in diam., 3-valved, covered with a bright red powder of minute stellate hairs and fine grain of red-resinous substances.

Bark contains hydrocyanic acid and tannin (Anonymous, 1962).

Fls. & Frts.: November - February.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.645. 1982.

Distrib.: Frequent on hill slopes; Khutaly (N. H.), 173915.

Uses: Med : * Dysentery; 5-10 ml of inner bark juice is given. (Konkana).

* Toothache; bark paste applied on tooth. (Konkana). * Muscular pains; bark paste heated and applied. (Konkana).

Stomachache; 5-10 ml of inner bark juice given thrice a day. (Konkana).

Literature : Hosagoudar & Henry, 1996 -(bk) stomachache.

Ricinus communis L., Sp. Pl. 1007. 1753; Cooke, Fl. Pres. Bombay 3:125. 1958 (Repr.ed.); Rao, Fl. Goa 2:400. 1985; Jain, Dict. Ethn. 155. 1991. 'Erاند'.

Shrubs or small trees, 3-4 m high. Leaves plamately lobed. Flowers in terminal, sub-paniculate racemes; male flowers crowded at apex; female flowers at base of racemes. Capsules of 3,2-valved cocci, subglobose, echinate.

Chemical constituents of plant are alkaloids ricinine, toxalbumin, ricin [Chopra, *et al.*, 1956].

Fls. & Frts.: January - July.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.652. 1982.

Distrib.: Cultivated near villages; Dudhni (N. H.), 173948.

Uses: Med :Jaundice; 10-30 ml of leaf extract given twice for 7-9 days. (Warli).

Headache; leaves crushed and applied over scalf of children. (Warli).

* Abortifacient; 20-30 ml of root juice given twice/thrice for abortion in early months of pregnancy. (Warli).

Misc : Hollow stem used as pipe for liquor distillation. (Warli, Konkana).

Literature : Jain, 1991 and Chopra, *et al.*, 1956 -(lf) headache. Varghese, 1996 -(lf) jaundice.

ULMACEAE

Holoptelea integrifolia (Roxb.) Planch. in Ann. Sci. Nat. Bot. 3,10:269. 1848; Cooke, Fl. Pres. Bombay 3:128. 1958 (Repr.ed.); Rao, Fl. Goa 1:401. 1985; Jain, Dict. Ethn. 103. 1991. 'Papada'.

Trees, 15 m high, spreading. Leaves elliptic, apex acuminate, base cordate or rounded. Flowers greenish-yellow. Samara nearly orbicular, deeply notched at apex. Seeds ovate or ovate-oblong.

Leaves contain hexacosanol, octacosanol, β -sitosterol and β -amyirin. Chemical constituents of bark are friedelin and friedelan-3- β -ol (Jain, *et al.*, 1991).

Fls. & Frts.: March - May.

Illus.: Matthew, Ill. Tamilnadu Carnatic t.672. 1982.

Distrib.: Few in deciduous forests; Beldhari (N. H.), 173975.

Uses: Med :+ Wounds; inner bark pieces tied around neck of the cattle for healing wounds. (Warli).

Fish poison; crushed leaves used for stupefying fish. (Warli).

Literature : Jain, 1991; Sabnis & Bedi, 1983 -(lf,bk) fish poison. Upadhye, *et al.*, 1994 -(bk) wounds.

MORACEAE

Artocarpus heterophyllus Lam., Encycl. 3:210. 1789; Rao, Fl. Goa 2:406. 1985; Jain, Dict. Ethn. 29. 1991. *A. integrifolius non L. f.*, 1781; Cooke, Fl. Pres. Bombay 3:158. 1958 (Repr. ed.). 'Phanas'

Trees, 12-15 m high. Leaves oblong-elliptic, coriaceous, base acute or rounded, apex subacute. Flowers unisexual in heads. Fruits oblong-globose, reaching up to 50 x 20 cm on stout drooping peduncles.

Fls. & Frts.: April - June.

Illus.: Ramam. & Gandhi in Sald. & Nicol. Fl. Hassan Dt. 76, f.15. C-cb. 1976.

Distrib.: Cultivated in gardens; Kanvel (N. H.).

Uses: Ed : Ripe fruits are eaten. (All tribes).

Unripe fruits used as vegetable. (All tribes).

Misc : Wood is used for making furniture. (All tribes).

Literature :Jain, 1991 -(fr) edible.

Ficus benghalensis L., Sp. Pl. 1059. 1753; Cooke, Fl. Pres. Bombay 3:145. 1958 (Repr. ed.); Rao, Fl. Goa 2:408. 1985; Jain, Dict. Ethn. 89. 1991. 'Wad'

Trees, 8-15 m high. Leaves ovate, coriaceous, glabrescent above, glabrous or minutely pubescent beneath. Receptacles 1.5-2.0 cm in diam., sessile in pairs, axillary.

Latex contains 3.77% caoutchouc, unsaturated sterol like compound - ficosterol and glutathione (Anonymous, 1956).

Folklore : Sacred religious tree, people pray to the tree as their god. The use of the tree as fire wood is being restricted.

Receptacles : July - May.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:508, f.518. 1911.

Distrib.: Frequent along road sides and near temples; Silvassa (N. H.), 176185.

Use: Med : Expelling worms from wounds of cattle; latex is applied. (Konkana).

Literature : Singh & Sharma, 1998 - (latex) wound maggots.

Ficus carica L., Sp. Pl. 1059. 1753; Cooke, Fl. Pres. Bombay 3:155. 1958 (Repr. ed.); Rao, Fl. Goa 2:411. 1985; Jain, Dict. Ethn. 89. 1991. 'Anjir'.

Trees, small. Leaves cordate, 3-5 nerved, dentate, more or less lobed, hispid. Receptacles 3-5 cm in diam., pubescent.

Receptacles : November.

Distrib.: Under cultivation near villages; Daman, 127211 (M.Y Ansari).

Use: Ed : Syncarps are eaten. (All tribes).

Literature : Jain, 1991 -(ft) edible.

Ficus exasperata Vahl, Enum. Pl. 2:197. 1806. *F. asperrima* Roxb., Fl. Ind. 3:554. 1832; Cooke, Fl. Pres. Bombay 3:153. 1958 (Repr.ed.); Rao, Fl. Goa 2:408. 1985. 'Bhui-umbar'

Trees, 5-8 m tall. Leaves elliptic-oblong or obovate. Receptacles 1.0-1.5 cm in diam., solitary, pubescent, globose, pedunculate, ripens orange-yellow.

Receptacles : February - August.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:523, f.529. 1991 (*F. asperrima*).

Distrib.: Few on hill slopes; Amboli (N. H.), 173982.

Use: Med : + For promoting fertility; stem bark with bark of *F. racemosa*, 20-30 ml of extract taken from fifth day of menstruation and continued it up to fifteenth day. Like this it should be taken repeatedly for 2-3 months or till conception takes place. (Warli).

Literature : Hosagoudar & Henry, 1993 -(bk) fertility.

Ficus hispida L.f., Suppl. 442. 1781; Cooke, Fl. Pres. Bombay 3:154. 1958 (Repr. ed.); Rao, Fl. Goa 2:409. 1985; Jain, Dict. Ethn. 90. 1991. 'Khakri', 'Gandaambar'.

Trees, small, ca 6 m high, hispid, pubescent, bushy. Leaves ovate, oblong or subovate, scabrid above, hispid beneath. Receptacles 1-2 cm in diam., hispid, yellow when ripe.

Plant contains saponin, tannin, caoutchouc and a glucosidic principle (Gopakumar, *et al.*, 1991).

Receptacle : May - August.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:524, f. 530. 1911.

Distrib.: Few on hill slopes; Zari (Daman), Bindrabin (N. H.), 173929, 173958.

Uses: Med :+ Stomach pain; 10-20 ml of root extract given twice a day. (Warli).

* Throat inflammation; fruit paste applied on neck of children. (Dhodia).

Misc : Leaves used for drinking toddy. (Dhodia).

Literature : Duke & Ayensu, 1985 -(bk) stomachache.

Ficus racemosa L., Sp. Pl. 1060. 1753; Rao, Fl. Goa 2:409. 1985; Jain, Dict. Ethn. 90. 1991. *F. glomerata* Roxb., Pl. Cor. t.123. 1798; Cooke, Fl. Pres. Bombay 3:154. 1958 (Repr.ed.). 'Umbar'.

Trees, ca 10 m high. Leaves 5-11 x 3-6 cm, ovate or ovate-oblong, base cuneate, apex subacute. Receptacles ca 2.5 cm in diam., ovoid, subglobose or subturbinate, red, tomentose.

Stem bark contains ceryl behenate, lupeol, its acetate α -amyrin acetate and 3 unidentified compounds (Jain, *et al.*, 1991).

Receptacles : July - August.

Illus.: Talbot, For. Fl. Bombay Pres. & Sind 2:525, f.531. 1911 (*F. glomerata*).

Distrib.: Few on hill slopes; Khadoli (N. H.), 173391.

Uses: Med : +Unusual and painful menstruation; bark with bark of *Cordia dichotoma* and *Ficus benghalensis* prop roots taken in equal proportions, 20-40 ml extract given twice for 4-5 days. (Konkana).

+ Menorrhagia; bark with prop roots of *Ficus benghalensis*, taken in equal proportions 10-30 ml of extract given twice a day. (Konkana).

Ed : Receptacles are eaten. (All tribes).

Literature :Jain, 1991 and Varghese, 1996 -(px) menstrual complaints.
Jain, 1991 -(fr) edible.

Ficus religiosa L., Sp. Pl. 1059. 1753; Cooke, Fl. Pres. Bombay 3:149. 1958 (Repr. ed.); Rao, Fl. Goa 2:411. 1985; Jain, Dict. Ethn. 90. 1991. 'Pipal'

Trees, 10-15 m high. Leaves broadly ovate, coriaceous, cuspidate, 7.5-12.5 x 5-11 cm. Receptacles in axillary pairs, sessile, smooth, purple when ripe.

Bark contains tannins and β -sitosterol, D-glucoside (Jain, *et al.*, 1991).

Folklore : Religious tree, venerated by 'Hindus' Taboo on cutting this tree.

Receptacles : May - July.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic t.606. 1988.

Distrib.: Normally planted in the villages and near temples; Beldhari (N. H.), 173972.

Use: Med : + Leucorrhoea; bark with prop roots of *Ficus benghalensis* and *Ficus virens* bark taken in equal proportions, 10-20 ml of extract given twice a day to women for 10-15 days. (Warli, Konkana).

Literature : Jain & De Filippis, 1991 -(px) leucorrhea.

Ficus virens Ait., Hort. Kew 3:451. 1789; Rao, Fl. Goa 2:410. 1985; Jain, Dict. Ethn. 91. 1991. *F. infectoria* Roxb., Fl. Ind. 3:551. 1832, *non* Willd. 1806; Cooke, Fl. Pres. Bombay 3:151. 1958 (Repr.ed.). 'Payar'

Trees, 5-10 m high. Leaves ovate-lanceolate, 7-17 x 2.5-8.0 cm, obtusely acuminate at apex, rounded or subcordate at base. Receptacles 1.0-1.5 cm in diam., axillary or on old wood, shortly peduncled.

Receptacles :February - September.

Illus. : Matthew, Fur. Ill. Fl. Tamilnadu Carnatic t.610. 1988.

Distrib.: Infrequent on hill slopes; Shelti (N. H.), 173936.

Uses:Med : * Bone fracture; bark with barks of *Wattakaka volubilis* and *Ficus benghalensis*, 10-30 ml of extract given for 5-8 days. Fractured part should be bandaged with bamboo stripe. (Konkana).

Note : Effective for cattle also.

Ed : Fruits are eaten raw & pickled. (Konkana).

Fodder; leaves are fed to cattle in scarcity. (All tribes).

Literature : Saklani & Jain, 1994 -(fr) edible.

CASUARINACEAE

Casuarina equisetifolia Forst. & Forst. f., Char. Gen. Pl. 104, t. 53. 1776; Cooke, Fl. Pres. Bombay 3:161. 1958 (Repr.ed.); Rao, Fl. Goa 2:413. 1985. *C. litorea* L. Jain, Dict. Ethn. 47. 1991. 'Suru'

Trees, 15-20 m high. Leaves alternate, scaly. Male spikes terete, terminal; female spikes ovoid, axillary, pedicellate. Fruits oblong, ca 1 cm in diam., achenes winged.

Fls. & Frts.: September - June.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t. 681. 1982.

Distrib.: Planted near villages and roadsides; Silvassa (N. H.).

Use: Misc : The wood is used for building huts and also used as fuel. (All tribes).

ORCHIDACEAE

Vanda tessellata (Roxb.) Hook. ex G. Don in Lond. Hort. Brit. 372. 1830; Rao, Fl. Goa 2:424. 1985; Jain, Dict. Ethn. 185. 1991. *V. roxburghii* R. Br. in Bot. Reg. 6:t.506. 1820; Cooke, Fl. Pres. Bombay 3:208. 1958 (Repr. ed.). 'Bendola'.

Epiphytic herbs, ca 30-60 cm long, scandent, stout. Leaves thickly coriaceous. Flowers yellow. Capsules narrowly clavate-oblong with acute ribs and a short pedicel.

Plant contains tannins, resin, saponin, sitosterol, fatty oil, hepatacosanol and octaconsanol (Anonymous, 1976).

Fls. & Frts.: June - September.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.717. 1982.

Distrib.: A common epiphyte; Chauda (N. H.), 173925.

Uses: Med : + Stomach pain; roots with the bark of tree on which it grows, extract given. (Warli).

+ Joint pain; 10-20 ml of leaf and flower decoction given twice a day. (Warli).

Literature : Jain & De Filipps, 1991 and Varghese, 1996 -(rt) rheumatism. Anonymous, 1976 -(rt)-dyspepsia.

ZINGIBERACEAE

Costus speciosus (Koenig) J.E. Sm. in Trans. Linn. Soc. 1:249. 1791; Cooke, Fl. Pres. Bombay 3:243. 1958 (Repr.ed.); Rao, Fl. Goa 2:424. 1985. Jain, Dict. Ethn. 61. 1991. 'Mothapeva'

Shrubs, erect, 1.5-2.0 m tall. Leaves subsessile, oblong or oblanceolate-oblong. Inflorescence of dense spikes. Flowers white. Capsules globose-trigonous, reddish. Seeds black with a white aril.

Rhizome contains diosgenin & tigogenin (Duke & Ayensu, 1985).

Fls. & Frts.: September - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.726. 1982.

Distrib.: Frequent on moist, shady hill slopes; Khadoli (N. H.), 173379.

Uses: Med : Ear complaints; 2-3 drops of rhizome juice is instilled once a day in ear for 3-5 day to cure pus formation and pain. (Konkana).

* Fish poison; rhizome crushed and used for stupefying fish. (Warli).

Literature : Saklani & Jain, 1994 and Varghese, 1996-(rh) ear complaints. Singh & Sharma, 1998 -(rh) fish poison.

Curcuma longa L., Sp. Pl. 2. 1753; Cooke, Fl. Pres. Bombay 3:238. 1958 (Repr.ed.); Rao, Fl. Goa 2:426. 1985; Jain, Dict. Ethn. 65. 1991. 'Halad'

Herbs, tall, rootstock large, ovoid. Leaves very large, in tufts. Flowers in autumnal spikes; flowering bracts pale green; bracts of coma tinged with pink.

Rhizome contains dihydrocurcumin, diferuloylmethane, feruloyl-p-coumaroyl methane & β -pinenes, camphene, limonene, terpinene, caryophyllene, curcumene, linalool, turmerone, borneol, isoborneol, camphor, eugenol, cineole, curdione, curzerenone, curcumin and curlone (Rastogi & Mehrotra, 1993). Rhizome contains campesterol, stigmasterol, β -sitosterol, cholesterol & fatty acids (Rastogi & Mehrotra, 1991b).

Fls. & Frts.: June - September.

Distrib.: Cultivated for turmeric; Zari (Daman), 176486.

Uses: Med : Cuts & Wounds; rhizome paste or powder applied. (Dhodia).

Ed : Rhizome powder used in curries as additive. (All tribes).

Literature : Jain, 1991 -(rh) wounds, condiment.

Zingiber officinale Roscoe in Trans. Linn. Soc. 8:348. 1807; Cooke, Fl. Pres. Bombay 3:242. 1958 (Repr.ed.); Rao, Fl. Goa 4:428. 1985; Jain, Dict. Ethn. 191. 1991. 'Ale'

Herbs, slender, leafy stems, ca 1 m high. Leaves linear, sessile, glabrous, oblong. Flowers greenish-yellow.

Fls. & Frts.: Almost throughout the season.

Distrib.: Cultivated in backyard of houses; Patalara (Daman), 177360.

Uses: Med : Sore throat; fresh rhizome is eaten in small amount. (Dhodia).

Ed : Rhizome used to make chuteny. (All tribes).

Literature : Jain, 1991 -(rh) throatache. Anonymous, 1976 -(rh) pickle.

TACCACEAE

Tacca leontopetaloides (L.) O. Ktze., Rev. Gen. Pl. 2:704. 1891; Rao, Fl. Goa 2:431. 1985; Jain, Dict. Ethn. 175. 1991. *T. pinnatifida* Forst., Char. Gen. Pl. 35:t. 35. 1775; Cooke, Fl. Pres. Bombay 3:262. 1958 (Repr.ed.): 'Sethaltad'

Herbs, perennial, erect; tubers globose. Leaves radical, palmately 3-sect, with the 3 segments lobed to dissected. Flowers greenish-yellow. Fruits ovoid, 6-ribbed. Seeds many, flattened, ribbed.

Tubers contain β -sitosterol, ceryl alcohol and taccalin (Anonymous, 1976).

Fls. & Frts.: August - November.

Illus.: Forst., Char. Gen. Pl. 35:t. 35. 1775 (*T. pinnatifida*).

Distrib.: Frequent on hill slopes; Chauda (N. H.), 173331.

Uses: Med : * Labour pain; tuber slices warmed on fire and kept over abdominal region after delivery. (Konkana).

* Vet mouth ulcer; tuber paste applied inside mouth or tuber's slices are rubbed inside the mouth of cattle. (Konkana).

DIOSCOREACEAE

Dioscorea bulbifera L., Sp. Pl. 1033. 1753; Cooke, Fl. Pres. Bombay 3:265. 1958 (Repr.ed.); Rao, Fl. Goa 2:432. 1985; Jain, Dict. Ethn. 75. 1991. 'Kand'

Climbers, stout, tuberous, bulbils warted. Leaves, alternate, broadly ovate-cordate. Flowers greenish-yellow. Capsules reflexed, the wings rounded at both ends. Seeds winged on basal side only.

Fls. & Frts.: August - November.

Illus.: Wight, Ic. t. 813. 1844.

Distrib.: Common inside the forest; Khutaly (N. H.), 173354.

Uses: Ed :Bulbils sliced, kept overnight in water and eaten. (Warli).
Tubers cooked and eaten at times of scarcity. (Warli).

Literature : Jain 1991 and Saini, 1996 -(tu, bulbils) edible.

Dioscorea pentaphylla L., Sp. Pl. 1032. 1753; Cooke., Fl. Pres. Bombay 3:264. 1958 (Repr. ed.); Rao, Fl. Goa 2:433. 1985; Jain, Dict. Ethn. 75. 1991. 'Lundha'

Climbers, large. Leaves alternate, 3-5 foliate; leaflets 3.5-12.0 x 1.0-5.0 cm., ovate or obovate. Flowers white or greenish-white. Capsules quadrately-oblong, ca 1.5 - 2.0 cm long, winged.

Fls. & Frts.: September - November.

Illus.: Matthew, Fur. III. Fl. Tamilnadu Carnatic t. 613. 1988.

Distrib.: Common among forest undergrowth; Umberkui, Chisda (N. H.), 173397, 176444.

Uses: Ed :Tubers eaten after repeated boiling and washing. (Warli & Konkana).

Leaves, flowers and fruits are used as vegetable. (Warli).

Leaves used in 'dal' preparation. (Warli & Konkana).

Literature :Jain, 1991 -(tu, fr) vegetable.

Dioscorea wallichii Hook. f., Fl. Brit. India 6:295. 1892; Rao, Fl. Goa 2:434. 1985. Jain, Dict. Ethn. 76. 1991. 'Kadukand'

Climbers, stem stout, prickly towards base. Leaves alternate 7-nerved. Flowers white or brown. Capsule wings truncate above and below, rounded along margins. Seeds with brown wings.

Fls. & Frts.: October - February.

Distrib.: Occasional, found on *Carissa congesta*, *Leea indica*, etc.; Sily (N. H.), 176431.

Uses: Ed : Tubers sliced, kept overnight in water and then eaten. (Konkana).

Literature : Saklani & Jain, 1994 -(tu) edible.

LILIACEAE

Allium cepa L., Sp. Pl. 300. 1753; Cooke, Fl. Pres. Bombay 3:284. 1958 (Repr. ed.); Fl. Goa 2:438. 1985; Jain, Dict. Ethn. 17. 1991. 'Kanda'

Herbs. Leaves fistular, subdistichous, leaf base sheathing. Heads dense, with flowers and bulbils. Capsules small. Seeds black.

Bulb contains glycollic acid, essential oil and organic sulphides [Chopra, *et al.*, 1956].

Fls. & Frts.: February - October.

Distrib.: Cultivated for its edible bulbs; Jampore (Daman), 176487.

Uses: Med : Fainting; bulb crushed and sniffed by nostrils, in temporary unconsciousness. (Dubala).

Ed : Bulbs used as condiment, and also cooked as vegetable. (All tribes).

Literature : Dastur, 1964-(bulb) - fainting. Jain, 1991 -(bulb) edible.

Allium sativum L., Sp. Pl. 296. 1753; Cooke, Fl. Pres. Bombay 3:284. 1958 (Repr.ed.); Rao, Fl. Goa 2:438. 1985; Jain Dict. Ethn. 18. 1991. 'Lasun'.

Herbs. Leaves flat, several at base, spathes long beaked. Heads lax, bearing both flowers and bulbils. Bulb short, compressed.

Bulb contains essential oil allim, a sulphur containing amino acid, allicin-allyl sulphide and poly sulphides [Gopakumar, *et al.*, 1991].

Fls. & Frts.: November - April.

Distrib.: Cultivated for edible bulbs; Zari (Daman), 177319.

Uses: Med : Bulb clove are taken regularly to increase sexual potency. (Dhodia).

Ed : Bulb clove used as condiment. (All tribes).

Literature : Dastur, 1964 and Singh & Pandey, 1996 -(bulb) sexual potency. Jain, 1991 -(bulb) condiment.

***Asparagus racemosus* Willd. var. *Javanicus* Baker in Journ. Linn. Soc. 14:624. 1874; Cooke, Fl. Pres. Bombay 3:270. 1958 (Repr.ed.); Rao, Fl. Goa 2:435. 1985; Jain, Dict. Ethn. 30. 1991. 'Shatavari'**

Undershrubs, spinous. Leaves with stout, conical, spinous spurs, straight. Cladodes spinous pointed, linear, needlelike. Flowers white, fragrant. Berries globose, red when ripe.

Root contains saponins - shatavarin -I, II, III and IV, the steroids and sitosterol, some glycosides and sapogenins (Sinha, 1996).

Fls. & Frts.: September - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.740. 1982.

Distrib.: Infrequent, along forest edges in cleared areas; Saily (N. H.), 176435.

Uses: Med : Dysentery and Stomach pain; 10-20 ml of root extract given twice a day. (Konkana).

Swelling; crushed roots bandaged on body to reduce swelling. (Konkana). *Literature* : Chopra, *et al.*, 1956 -(rt) antidysenteric. Mohanty

& Padhye, 1996 -(rt) dysentery and gastric complaints. Jain, 1991 -(rt) swellings.

Gloriosa superba L., Sp. Pl. 305. 1753; Cooke, Fl. Pres. Bombay 3:274. 1958 (Repr.ed.); Rao, Fl. Goa 2:437. 1985; Jain, Dict. Ethn. 95. 1991. 'Kal-lawi'

Climbers, herbaceous. Leaves sessile, alternate, apex ending in a tendril, ovate-lanceolate. Flowers large, reddish-yellow, solitary or in subcorymbose cymes, towards the ends of branches. Capsules linear oblong.

Tuber contains gloriosine, colchicine, essential oil, phytosterols including stigmosterol (Gopakumar, *et al.*, 1991).

Fls. & Frts.: August - November.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.743. 1982.

Distrib.: Common on hill slopes of open forests and on hedges; Chauda (N. H.), 173332.

Uses:Med :* Wounds; tuber paste applied on wound for healing without leaving permanent scar on skin. (Konkana).

+ To expel worms from wounds; roots tied around the neck or horns of cattle. (Konkana).

Literature : Jain & De Philipps, 1991 -(rt) worms.

ARECACEAE

Areca catechu L., Sp. Pl. 1189. 1753; Cooke, Fl. Pres. Bombay 3:319. 1985. (Repr. ed.); Rao, Fl. Goa 2:451. 1985. Jain, Dict. Ethn. 26. 1991. 'Supari'.

Trees, up to 15 m high. Leaves 4-6 long; leaflets numerous. Spadix much branched. Fruits ovoid or oblong, smooth, orange or scarlet. Seeds truncate.

Fls. & Frts.: June - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 754. 1982.

Distrib.: Cultivated for the fruits; Jampore (Daman).

Use : Ed : Nut is used as a masticator, chewed along with leaves of *Piper betle*.

Literature : Anonymous, 1948 -(nut) masticator.

Borassus flabellifer L., Sp. Pl. 1187. 1753; Cooke, Fl. Pres. Bombay 3:321. 1958 (Repr.ed.); Rao, Fl. Goa 2:451. 1985; Jain, Dict. Ethn. 37. 1991. 'Tad'.

Trees, ca 28-30 m high. Leaves shining, linear-lanceolate. Flowers dioecious. Fruits subglobose, brown, enclosed by perianth. Seeds oblong, 3-lobed at the top.; albumen uniform, hollow.

Fls. & Frts.: September.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t.755. 1982.

Distrib.: Cultivated near villages; Daman.

Uses: Ed : Wood sap-'toddy' taken as an alcoholic drink. (All tribes). Fruit pulp, cotyledons of germinating seeds and seeds are eaten by locals. (All tribes).

Misc : Leaves used for making mats, baskets, hand made fans and for thatching. (All tribes).

Literature : Jain, 1991 -(sap) drink, (fr, sd) edible.

Cocos nucifera L., Sp. Pl. 1188. 1753; Cooke, Fl. Pres. Bombay 3:322. 1958 (Repr. ed.); Rao, Fl. Goa 2:451. 1985; Jain, Dict. Ethn. 58. 1991. 'Narel'.

Trees, ca 24-25 m high. Leaves linear-lanceolate, coriaceous. Spadix stout, androgynous, branches bearing scattered female flowers towards their

bases and numerous males above. Fruits 3-gonously obovoid, green or yellowish.

Fls. & Frts.: Throughout the year.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 758. 1982.

Distrib.: Cultivated. Daman.

Note: Taboo to be cut or used as fuel.

Uses: Med : Urinary complaints; coconut water is given. (Dhodia).

Ed : Toddy from spadix of inflorescence is common beverage. (All tribes).

Fruit endosperm eaten raw and in various preparations. (All tribes).

Misc : Bark used as trays or boxes for keeping household articles. (All tribes).

Leaves for thatching. (All tribes).

Empty coconut shell used as container for drinking toddy as a cup. (All tribes).

Dry husk used for making rope. (All tribes).

Tender leaves used for decoration during socio-religious ceremonies. (All tribes).

Fruit - used for worship. (All tribes).

Literature : Chopra, *et al.*, 1956 and Jain, 1991 - (coconut water) diuretic, -(fr) edible.

Hyphaene dichotoma (White) Furtado in Gard. Bull. Singapore 25:301. 1970; Rao, Fl. Goa 2:450. 1985. *H. indica* Becc., L' Agr. Colon. Florence 2:137-183. 1908; Seshagiri Rao Rolla in Journ. Bombay nat. Hist. Soc. 60:761. 1963. 'Rawan-tad'.

Trees, 12-15 m high, dichotomously branched, cylindrical or ventricose. Leaves flabellate-multifid, suborbicular. Male spadix stout, about 3 feet long. Fruits obovate-pyriform, attenuate towards base.

Fls. & Frts.: September - December.

Distrib.: Occasional, along the sea shore in Daman.

Uses: Ed : Epicarp of ripe fruit is edible. (Kathudi).

Misc : Mature hard endosperm is used in making scent & snuff containers.

Literature : Rao, 1985 -(fr) edible.

Phoenix sylvestris (L.) Roxb., Fl. Ind. (Carey ed.) 3:787. 1832; Cooke, Fl. Pres. Bombay 3:311. 1958 (Repr.ed); Rao, Fl. Goa 2:450. 1985; Jain, Dict. Ethn. 141. 1991. 'Khajuri'.

Trees, ca 15 m high, trunk straight or crooked. Leaves pinnate; leaflets fasciculate, 2-4 farious, rigid. Flowers yellow, in several, branched, erect or drooping spadix. Fruits oblong-ellipsoid.

Fls. & Frts.: January - April.

Distrib.: Sparse, often cultivated near villages and in fields; Tighra (Dadra), 176488.

Uses: Ed : Wood sap, 'toddy' taken all over the area as an alcoholic drink. (All tribes).

Ripe fruits are eaten by locals. (All tribes).

Misc : Leaves used for making brooms, mats, baskets, etc. (All tribes).

Literature : Jain, 1991 and Goud & Pulluiah, 1996-(fr, wood sap) edible, beverage -(lf) basketry.

ARACEAE

Arisaema murrayi (Grah.) Hook. in Bot. Mag. t. 3488. 1848; Cooke, Fl. Pres. Bombay 3:332. 1958 (Repr.ed); Rao, Fl. Goa 2:453. 1985; Jain, Dict. Ethn. 27. 1991. 'Lothi'.

Herbs, perennial, tuberous. Leaves solitary, segments 5-8 broadly, lanceolate, acuminate at apex. Spathes striate, white, violet at base; spadix appendage curved. Berries red at maturity.

Fls. & Frts.: June - October.

Distrib.: Common monsoon herb; Dapada (N. H.), 176419.

Use : Ed : Tender stem pieces used as vegetable. (Warli).

Literature : Jain, 1991 -(tu) vegetable.

Arisaema tortuosum (Wall.) Schott in Schott & Endl. Melet. Bot. 1:17. 1832; Cooke, Fl. Pres. Bombay 3:332. 1958 (Repr.ed.); Rao, Fl. Goa 2:453. 1985; Jain, Dict. Ethn. 27. 1991. 'Peva'.

Herbs, ca 1 m high, perennial. Leaflets linear-lanceolate or ovate-lanceolate. Spathes striate, green, cucullate; spadix with smooth, purple appendage. Berries ovoid, 4-5 seeded.

Plant contains mallic acid (Chopra, *et al.*, 1956).

Fls. & Frts.: July - September.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic t. 619. 1988.

Distrib.: Occasional, occurring in forest outskirts in shady areas; Karchond (N. H.), 173369.

Use: Med : *Earpain; 2-3 drops of rhizome juice instilled in ear. (Warli).

Colocasia esculenta (L.) Schott in Schott & Endl. Melet. Bot. 1:18. 1832; Rao, Fl. Goa 2:453. 1985; Jain, Dict. Ethn. 59. 1991. *C. antiquorum* Schott, op. cit.; Cooke, Fl. Pres. Bombay 3:340. 1958 (Repr. ed.). 'Alu'

Herbs, rootstock tuberous. Leaves large, peltate-ovate, with a broad, triangular basal sinus, apex acute, base cordate. Spathes, 20-40 cm long, caudate-acuminate, erect, pale yellow.

Fls. & Frts.: August - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic 2:t. 766 & 979c. 1982.

Distrib.: Widely cultivated; Dudhni (N. H.), 177342.

Uses: Ed : Stem & rootstock are used as vegetable.

Tribals of Nagar Haveli eat a curry prepared by its stem and rootstock on the occasion of 'Diwali'. (Warli, Konkana).

Literature : Jain, 1991 - (st,rt) vegetable.

CYPERACEAE

Cyperus pangorei Rottb., Descr. et. Ic. Rar Nov. Pl. 31, t. 7, f.3. 1773; Jain, Dict. Ethn. 68. 1991. *C. tegetum* Roxb., Fl. Ind. 1:208. 1832; Cooke, Fl. Pres. Bombay 3:384. 1958 (Repr.ed.). 'Gundhan'.

Herbs, perennial, 75-90 cm high; rhizomes short, woody. Leaves linear. Spikelets reddish-brown, compressed. Nuts oblong-obovoid, punctate, blackish-brown.

Fls. & Frts.: October - January.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic t.642, 643. 1988.

Distrib.: Few near nallahs; Khanvel (N. H.), 173926.

Uses: Med : * Stomach pain; 3-6 ml of root extract given to children up to one year of age. (Warli).

POACEAE

Coix lachryma-jobi L., Sp. Pl. 972. 1753. Cooke, Fl. Pres. Bombay 3:517. 1958 (Repr.ed.); Rao, Fl. Goa 2:494. 1985. Jain, Dict. Ethn. 58. 1991. 'Kasu'.

Annual herbs, up to 1.5 m high. Leaves linear-lanceolate. Racemes 1-many, peduncles flat. Female spikelets solitary, ca 1 cm long; males ca 1.2 cm long. Grains flat, reddish-brown.

Fls. & Frts.: September - December.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic. 834,835. 1982.

Distrib.: Frequent in moist places along the nallahs; Parzai (N. H.), 173355.

Uses: Ed : White bracts (beads) roasted like popcorn and eaten. (Konkana).

Fodder; whole plant is eaten by cattle. (All tribes).

Misc : Seeds for making necklaces. (Konkana).

Literature :Jain, 1991 -(sd) edible, ornament (beads).

Dendrocalamus strictus (Roxb.) Nees in *Linnaea* 9:476. 1834; Cooke, *Fl. Pres. Bombay* 3:572. 1958 (Repr. ed.). 'Bas', 'Bambu'.

Trees, 6-15 m high, culms tufted. Leaves linear-lanceolate or ovate-lanceolate. Spikelets 0.8-1.0 cm long, hairy, spinescent. Caryopsis ca 0.7 cm long, ovoid to subglobose, brown, beaked with persistent style bases.

Fls. & Frts.: July - April.

Illus.: Gamble in *Ann. Roy. Bot. Gard. Calcutta* 7:t. 68 & 69. 1896.

Distrib.: Common on hill slopes; Khanvel (N.H.), 177361.

Use: Misc : Bamboo culms used in making various musical instruments. (All tribes).

Eleusine coracana (L.) Gaertn., *Fruct.* 1:8. t. 1. f. 11. 1789; Cooke, *Fl. Pres. Bombay* 3:561. 1958 (Repr.ed.); Rao, *Fl. Goa* 2:385. 1985; Jain, *Dict. Ethn.* 133. 1991. 'Nachni', 'Nagli'.

Herbs, stout, 0.7 to 1.7 m high, often as thick as thumb. Leaves broad, linear. Spikes 7-10, stout, dense. Seeds globose.

Fls. & Frts.: September to February.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic 4:t. 768, 769. 1988.

Distrib.: Cultivated along the hill slopes and in plain lands; Dudhni (N. H.), 177343.

Use: Ed: Grain flour used for making 'roti'. (All tribes).

Literature : Jain, 1991 -(sd) edible.

Eulalia fimbriata (Hack.) O. Ktze., Rev. Gen. Pl. 2:775. 1891; Rao, Fl. Goa 2:502. 1985. *Pollinia fimbriata* Hack. in DC. Mon. Phan. 6:164. 1898; Cooke, Fl. Pres. Bombay 3:468. 1958 (Repr.ed.), 'Ghas'

Annual grasses, 0.5-0.8 m high. Leaves flaccid, sparsely hairy above. Racemes 2-4, rachis slender, silky hairy. Spikelets silky-villous with long white hairs.

Fls. & Frts.: September - November.

Distrib.: Common on gravelly areas; Umberkui (N. H.), 173393.

Use : Misc : Grass (culms) used for making Hat. (Warli, Konkana).

Oryza sativa L., Sp. Pl. 333. 1753; Cooke, Fl. Pres. Bombay 3:565. 1958 (Repr.ed.); Rao, Fl. Goa 2:509. 1985; Jain, Dict. Ethn. 135. 1991. 'Bhat'

Herbs, 30-35 cm high; stem erect, smooth hard and polished. Leaves linear, acuminate. Spikelets lanceolate, ca 0.75 cm long. Grains oblong, yellow or white.

Fls. & Frts.: September - October.

Illus.: Blatt. & Mc C. Bombay Grass. 274, t.187. 1935.

Distrib.: Common cereal; Mandoni (N. H.), 176489.

Uses: Ed : It constitutes the main staple food of people. (All tribes).

Misc : The straw is used for making ropes. These ropes are used for weaving storage grain baskets. (All tribes).

Literature : Jain, 1991-(grain) edible.

Panicum notatum Retz., Obs. Bot. 4:18. 1786; Rao, Fl. Goa 2:509. 1985. *P. montanum* Roxb., Fl. Ind. 1:315. 1820; Cooke, Fl. Pres. Bombay 3:454. 1958 (Repr.ed.). 'Varai'

Herbs, perennial, erect, ca 2 m high. Leaves sparsely hairy. Spikelets ca 0.2 cm long, ellipsoid. Grains compressed, enclosed by hardened lemma & palea.

Fls. & Frts.: September - November.

Illus.: Matthew, Fur. Ill. Fl. Tamilnadu Carnatic t. 801. 1988.

Distrib.: Occasional, growing on sandy soils; Sily (N. H.), 176429.

Use : Ed : Seeds used as a cereal. (Warli).

Literature : Jain, 1991 -(sd) edible.

Vetiveria zizanioides (L.) Nash in Small, Fl. South-East U.S. 67. 1903; Rao, Fl. Goa 2:518. 1985; Jain, Dict. Ethn. 186. 1991. *Andropogon squarrosus* L.f., Suppl. 433. 1781; Cooke, Fl. Pres. Bombay 3:511. 1958 (Repr.ed.). 'Kanchora'.

Herbs, perennial, tufted up to 2 m high. Leaves linear, margins ciliate. Spikes purple. Sessile spikelets, narrowly linear, lower glumes spinulose; pedicelled spikelets smaller, male.

Root contains essential oil, ketone fraction of essential oil varies from 2-49% and yields β -vetivone (Chopra, *et al.*, 1956).

Fls. & Frts.: September - October.

Illus.: Matthew, Ill. Fl. Tamilnadu Carnatic t. 955, 956. 1982.

Distrib.: Few in cultivated fields; Bedpa (N. H.), 176449.

Uses: Med :* To prevent abortion; roots with roots of *Pennisetum pedicellatum*, packed together as an amulate (tawit) and tied around neck of pregnant ladies and kept till delivery. (Warli, Konkana).

Headache; root paste applied on forehead. (Warli, Konkana).

Misc : Roots used to make mats to cover doors & windows in summer for cooling rooms, etc. (Warli, Konkana).

Literature : Molla & Pal, 1992 -(rt) headache.

Zea mays L., Sp. Pl. 971. 1753; Cooke, Fl. Pres. Bombay 3:574. 1958 (Repr.ed.); Rao, Fl. Goa 2:520. 1985; Jain, Dict. Ethn. 191. 1991. 'Maka'

Annual grasses, stout, monoecious. Male inflorescence terminal or paniced spike like racemes with spikelets shortly unequally pedicelled or one sessile on the inarticulate rachis. Female spikelets 2-nate in 4-11 longitudinal rows. Grains large, subglobose.

Fls. & Frts.: July - December.

Illus.: Matthew, Fur. III. Fl. Tamilnadu Carnatic t.834. 1988.

Distrib.: Cultivated in the backyard of houses; Zari (Daman), 176990.

Uses: Ed : Unripe kernels, boiled or roasted and eaten. (All tribes).

Kernel flour for making 'roti'. (All tribes).

Literature : Jain, 1991 -(grain) edible.

LYGODIACEAE

Lygodium flexuosum (L.) Swartz, Schrad. Journ, 1801 (2) : 106. 1801; Rao, Fl. Goa 2:522. 1985; Jain, Dict. Ethn. 120. 1991. 'Vanzi'.

Rhizomes creeping, glabrous. Fronds glabrous; fertile fronds unipinnate; pinnac often 3-lobed or clefted at the base, terminal lobe elongate, linear-oblong, margin of pinnac serrulate, often clefted at apex. Sori protruding from the margin of pinnules.

Leaves contain tryptophan, tryptamine, indole-3-acetic acid, 3-propionic acid, 3-butyric acid & 3-acetanitrile (Rastogi & Mehrotra, 1993).

Sori : October.

Illus.: Holt., Fl. Malaya 2:57, f.11.1954.

Distrib.: Few in dense forest undergrowth; Dolara (N. H.), 176428.

Uses: Med : + Vet indigestion; plant is given with fodder to cattle. (Konkana).

+ Vet wounds; root paste applied for healing and to expel worms. (Konkana).

Fever; 30-40 ml of plant juice given twice to relive fever. (Konkana).

Literature : Jain, 1991 -(rt) indigestion, wounds, (frond) fever. Sinha, 1996 and Varghese, 1996 -(rt) wounds. Manandhar, 1996 -(frond) fever.

ADIANTACEAE

Adiantum philippense L., Sp. Pl. 1094. 1753; Rao, Fl. Goa 2:523. 1985; Jain, Dict. Ethn. 14. 1991. 'Ran'.

Rhizome short or wide creeping, densely clothed with brown, linear scales. Lamina tripinnate to decompose, spreading, glabrous, pinnules shortly stalked, margins 2-3 lobed & finely dentate. Sori large; sporangia small, globose; spores tetrahedral, triangular, yellow, hyaline.

Sori : September - November.

Illus.: Blatt. & Almedia, Ferns Bombay 60, f.19. 1922.

Distrib.: Common in moist rocky crevices, near streams; Tinoda (N. H.), 176401.

Use : Misc : Rachis used for making 'Hat' with the grass *Eulalia fimbriata*. (Warli, Konkana).

DISCUSSION AND CONCLUSION

Present work is the result of intensive, systematic, ethnobotanical explorations of Dadra, Nagar Haveli and Daman, made during the period from January, 1995 to March, 1998.

Except for some pioneering work done in the past by Bennet (1978) and Sabnis & Bedi (1983), these areas remained underexplored ethnobotanically. Consequently no comprehensive account on ethnobotany of these areas has been prepared so far.

In the present study, ethnobotanical information is collected on 305 plant species used by tribals of Dadra, Nagar Haveli and Daman. Out of these 126 species are used for human consumption, 199 species are of medicinal value, 29 as a fodder, 14 for fish poison and carb poison and 78 species are having miscellaneous uses like building furniture, house construction, cordage, implements and religious purposes, etc. Several species have more than one use.

Table 1
Showing Ethnobotanically important plant groups

Number of	Species	Genera	Families
Monocots	28	25	9
Dicots	275	197	69
Pteridophytes	2	2	2
Total	305	224	80

Out of a total of 305 species collected, 28 species included in 25 genera of 9 families belong to Monocotyledonae and 275 species included in 197 genera of 69 families belong to Dicotyledonae, while 2 pteridophytic species included in 2 genera of two families have been collected.

Total number of ethnobotanically important plants used for different purposes and total number of uses for different purposes have been shown below in Figures 1 & 2 respectively.

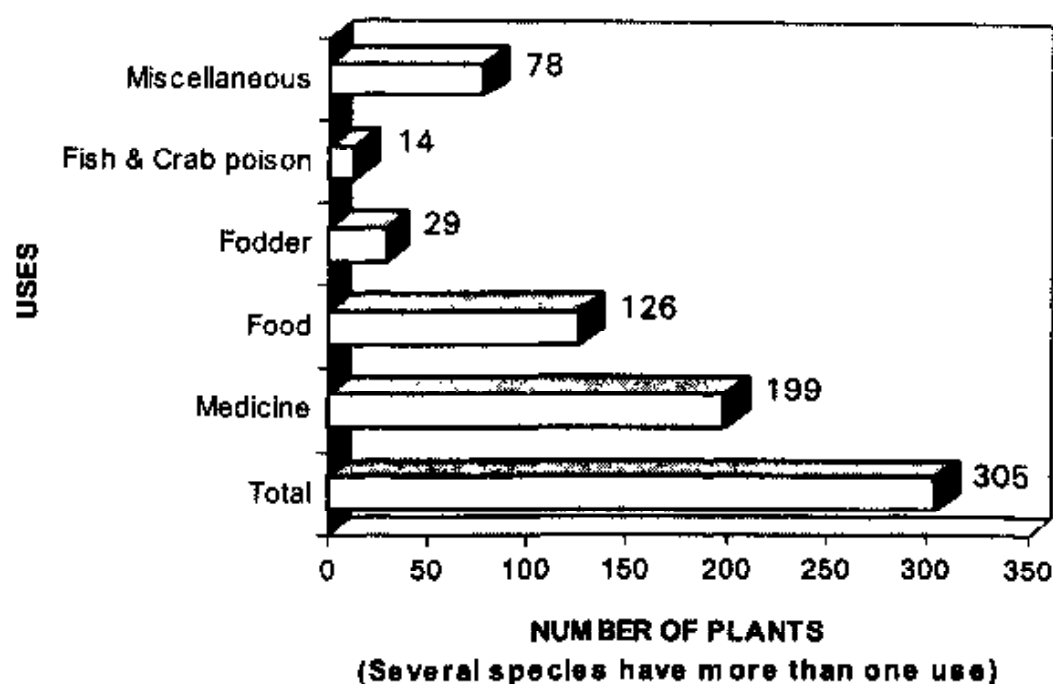


Fig. 1: Shows that total ethnobotanically important plants are 305, of these maximum number (199) plant species are used in medicine, which is followed by plant species used for food, fodder, then for fish poison and crab poison, while 78 plants have miscellaneous uses.

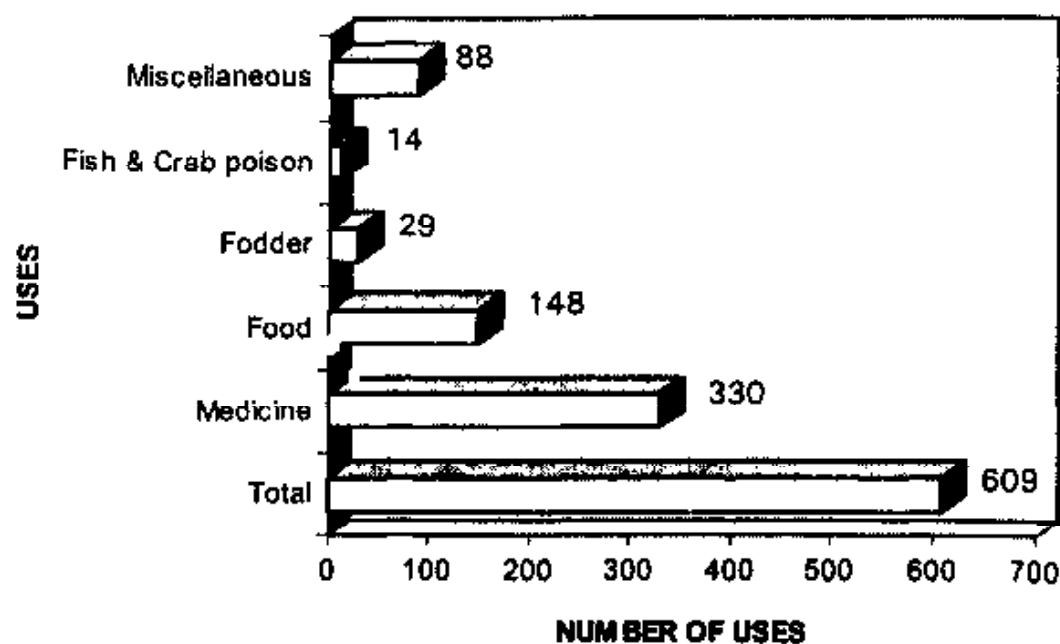


Fig. 2: Shows that out of a total of 609 uses, 330 are medicinal, which is above 50 % of total uses recorded, 148 are for food, 29 for fodder, 14 are for fish poison & crab poison and 88 uses are miscellaneous.

The tribals generally depend on plants for food, health care, etc. and prefer the use of local plants for food and in various ailments on account of their distant location from cities as well as absence of modern medical facilities. Several plant species have more than one use and the belief is also substantiated by tribals, as some of the plants used as food also have medicinal values. For such reasons plants used especially for food and medicine are discussed in detail.

Table 2.
Five dominant families for medicine and food

Family Name	No. of Genera	No. of Species
A) Medicine:		
Fabaceae	17	22
Asteraceae	12	12
Euphorbiaceae	9	9
Malvaceae	7	9
Lamiaceae	5	9
B) Food:		
Cucurbitaceae	8	11
Fabaceae	10	10
Asteraceae	5	7
Poaceae	5	5
Solanaceae	3	5

The five dominant families of which maximum number of species used for medicine in the region are Fabaceae (22 species) & Asteraceae (12 species). Since the number of species are same (9 species each) for the families like Euphorbiaceae, Malvaceae and Lamiaceae, the position in first five dominant families has been given on the basis of number of genera. While the five dominant families for food are Cucurbitaceae (11 species), Fabaceae (10 species), Asteraceae (7 species), family Poaceae is on fourth position as it is with (5 species and 5 genera), while family

Solanaceae, though have 5 number of species have lesser number of genera (3 genera) has been given fifth position.

Total plant species used in medicine are 199. Of these, herbaceous species are 79, tree species 63, shrubs 36 and 21 climbers. While the plants used for human consumption are 126 of which 58 are herbs, 47 are tree species, 10 shrubs and 11 climbers.

Table 3
Showing Habitwise break-up of total plant species used in medicine and food

Plant Groups	Total No. of Plant Species	Plants used in Medicine	Plants used in Food
Trees	100	63	47
Shrubs	47	36	10
Herbs	121	79	58
Climbers	37	21	11
Total	305	199	126

This shows, in medicine as well as in food the maximum species used are herbs, which is followed by trees. In case of medicine, shrubs are on the third position and climbers on fourth, while in food, climbers are on third position and shrubs on fourth.

FOOD

Although *Oryza sativa* (Rice) constitutes main food of the tribals in the region, the wild edible plants occurring in the nearby areas are also taken as supplementary food.

The total plants used for human consumption in the region are 126. The five dominant families in respect of maximum number of species used for food are Cucurbitaceae, followed by Fabaceae, Asteraceae, Solanaceae and Poaceae (as shown in Table 2, B).

Table 4.
Details of plants consumed by humans

A)

Uses	Vegetable	Fruit	Grain/Cereal / Pulse	Others	Total
No. of Species	58	55	7	6	126

B)

EDIBLE PARTS										
	Whole plant	Rhizome/ tuber/ root	Stem/ shoot	Leaf	Flower	Fruit	Seed	Gum	Wood sap	Total
No. of Species	2	12	11	22	11	64	19	3	2	146

Out of the total 126 species used for human consumption, 47 are cultivated and 79 species are wild. The species used as vegetables are 58, fruits are consumed of 55 plant species, 7 species are used as grain/cereal/pulse and for 6 species other plant parts are consumed. (as shown in Table 4, A).

The data on plant parts (Table 4, B) used for human consumption shows that maximum use of plant parts by tribals are fruits (of 64 species), followed by leaf (of 22 species) and seeds (of 19 species), underground parts (of 12 species), tender stems and flowers of 11 species each, gum of 3 species and the whole plant and wood sap of 2 species each.

Wood sap in the form of 'toddy' from plant species like *Phoenix sylvestris* and *Borassus flabellifer* is the most consumed alcoholic beverage besides the liquor prepared from the flowers of *Madhuca longifolia* var. *latifolia*. Sometimes the liquor is also prepared from pods of *Samanea saman*.

All the information thus gathered on plant species used in human consumption is given at a glance, along with their family names, plant parts used and name of tribe(s) by which it is used, in Table 12.

MEDICINE :

The tribals are dependent on plants growing in nearby forests. The indigenous knowledge and efficacy of plants having medicinal values have been proven in their communities since times immemorial and hence, they exploit plants for the treatment of a wide variety of ailments, whether major or minor.

The treatment of several diseases by herbal drugs indicate that the rural people often come across with a number of diseases associated with poor sanitary conditions. Although, medical facilities are available at some places in the region, they believe in herbal drugs and use them to counter various diseases.

In this area, enough attention to the traditional herbal remedies has not been given by previous workers. During the present work, it is evident from the findings, that 330 medicinal uses of 199 plant species recorded amongst the tribals in the region are of significance, since these cover the

treatment of a variety of ailments. Analysis of data also reveals that 105 ethnomedicinal uses recorded are less known or not reported so far.

The efficacy of the plants for treating different diseases is proved during the course of investigations, that a particular plant is prescribed for different ailments and some medicinemen give a mixture of plants for treating diseases, which may be giving composite impact in curing the diseases.

A total of 330 medicinal uses of 199 plant species are reported here by tribals of Dadra, Nagar Haveli and Daman. Of these 105 uses are new to the science of ethnobotany and are marked with an asterisk (*), while some of the uses having different plant parts in use or given as a mixture of more than one plant or mode of administration is different than that given in literature, such medicinal uses of plants are marked with a plus mark (+) in the text. A comparison for number of medicinal uses recorded among the tribes of the region is given below.

Table 5 :
Number of medicinal uses Tribewise.

Sr.No.	Tribe	No. of Medicinal uses
1	Warli	163
2	Konkana	154
3	Dhodia	42
4	Dubala/Halpati	10
5	Kathudi/Katkari	7
6	Naika	1
7	Koli	—
8	Total	377

(Some uses are for more than one tribe.)

In the present study, it is seen that the 'Warli's use the maximum number of plant species in medicine - 163, then 154 plant species are used by 'Konkana', 42 used by 'Dhodia', 10 species used by 'Kathudi' and 1 species used by 'Naika'.

The maximum number of plants used for 10 diseases/ailments are stomach pains (37 species), jaundice (20 species), wounds (19 species), headache (16 species), dysentery & snakebite (15 species each), teeth problems (14 species), fever and skin diseases (13 species each) & for urinary complaints (12 species).

Table 6
Showing ten dominant diseases, in which maximum number of plant species are used.

Sr. No.	Disease Name	No.of the plants used
1	Stomach pains/stomach ache	37
2	Jaundice	20
3	Wounds	19
4	Head ache	16
5	Dysentery	15
6	Snake bite	15
7	Teeth problems	14
8	Fever	13
9	Skin diseases-scabies, itching	13
10	Urinary complaints	12

From the data given in table 6, it is revealed that the maximum number of plants are used in treating stomach pains, followed by jaundice, which shows the widespread occurrence of the ailments in the region.

It is observed that the plant species used as antidote for snake bite are 15 and scorpionsting are 3. This may be on account of the fact that rural people often face the threat of snakes and scorpions.

The use of the plants for curing various diseases are generally oral or through external application. The 185 prescriptions are administered orally in the form of decoction, extract, juice, latex, powder, etc. 101 prescriptions are applied externally in the form of paste, juice, powder, extract, poultice, ash of plant part, etc. 25 prescriptions are administered internally through

nose, ear, eye, etc. 4 prescriptions are administered by taking bath by water boiled with the plants for example, the plant *Vitex.negundo* is boiled in water & bath is taken for joint pains. 4 prescriptions are administered by inhaling the vapours from water boiled with the plants and also by smelling crushed plant parts, for example crushed bulb of *Allium cepa* is inhaled in fainting. 2 prescriptions are administered by smoke of plant parts, for example, dry stems of *Calotropis gigantea* are smoked like cigarette in headache. While 9 prescriptions are recommended to be tied to body parts directly or in the form of amulets and armlets.

Table 7
Mode of Administration of medicine used by Tribals.
(Total uses : 330 of 199 plants).

Sr. No.	Mode of Administration	No.of uses
1	Oral	185
2	External application	101
3	Internal application	25
4	Bath	4
5	Inhaled	4
6	Smoking	2
7	Tied to Body parts	9
Total		330

Different plants parts are used in the preparation of formulations. Generally the plant part from one plant is used in treating particular disease, but in some cases a mixture of more than one plant (with different plant parts) are included in preparation of formulations. On the basis of analysis, data reveals the most used plant part in medicine is leaf, which is used 85 times in various ailments and is followed by root/rootbark and stembark (for 81 ailments each), fruit (for 22 ailments), entire plant (for 15 ailments), seed (for 14 ailments), rhizome/tuber (for 10 ailments), stem (for 9 ailments), latex (for 7 ailments), flower & gum (for 4 ailments each) and twigs (for 3 ailments).

Table 8
Showing Habitwise break-up of frequency of plant parts used
in 330 medicinal uses of 199 plants

Sr. No.	Plant Part/s	Trees	Shrubs	Herbs	Climbers	Total
1	Leaf	12	25	37	11	85
2	Root/Root bark	5	20	45	11	81
3	Stem bark	72	5	1	3	81
4	Fruit	14	4	3	1	22
5	Entire plant			12	3	15
6	Seed	6		7	1	14
7	Rhizome/Tuber		1	7	2	10
8	Stem		3	4	2	9
9	Latex	3	4			7
10	Flower/Inflorescence			4		4
11	Gum	4				4
12	Twig	2	1			3
13	Others					3
Total		118	63	120	34	338

(Some uses include more than one plant part)

The habitwise break-up of plant parts used in medicine shows that the plant part leaf is used in maximum prescriptions. Out of the 85 prescriptions on leaf, 37 belong to herbaceous species, 25 to shrubs, 12 to trees and 11 to climbers. In case of 81 prescriptions on roots, 45 belong to herbaceous species, 20 to shrubs, 11 to climbers and 5 to trees. The less use of roots from tree species & shrubs show their tendency towards conservation of species. From tree species maximum prescriptions are of bark and fruits. While in case of herbaceous species and climbers maximum prescriptions are of leaf & root.

The information gathered on folk medicinal plants, diseaseswise at a glance, along with their families, botanical name, local name, part used

and name of the tribe by which it is practised is given under 59 major and minor diseases/ailments which are arranged alphabetically in Table 9.

VETERINARY MEDICINE

The tribals inhabiting the remote villages of the region are conscious about the health of their live stock. They very much depend on their domestic animals to substantiate their livelihood.

Total plant species used in veterinary medicine are 16 for treating bone fracture, wounds, indigestion, mouth ulcer, illness, to expel parasitic flies from cattle and for lactation, etc. Diseasewise details of the plant species used are given in Table 10.

FISH POISON & CRAB POISON

Fishing for food is part time activity of tribals and they use several plants for stupefying fish. A total of 12 plants are used as fish poison of which 6 plant species belong to family Mimosaceae. (as listed in Table 11). Other plants belong to the families like Flacourtiaceae (2 species), Zingiberaceae, Ulmaceae, Rubiaceae and Anacardiaceae (1 species each). Besides, 2 plant species are used as crab poison viz. *Cyathocline purpurea* and *Sphaeranthus indicus*.

As it is already explained, 78 species are used for miscellaneous purposes; of these 17 species are used for house/hut construction and furniture for which tribals use stem, branches and leaves for thatching roofs. The plants used for religious purposes are *Ficus religiosa*, *Ocimum sanctum*, *Agle marmelos*, etc.

Plant species used in cordage include plant parts like inner bark, outer bark, straw and sometimes even whole climbers are used for rope making. The use of the stembark fibre is most common in the region. The fibre from plant *Hibiscus cannabinus* is extensively used for rope making. The total species including climbers used for tying purposes are 17.

USES REPORTED FOR FIRST TIME

All the uses reported by the tribals of Dadra, Nagar Haveli and Daman for food and medicinal purposes were compared with those mentioned from other parts of India in ethnobotanic literature and with the major

literature on medicinal plants. A total of 120 uses reported here are not seen to be recorded in the literature. Of these, 105 uses are medicinal, 7 less known uses of plant species consumed by humans, 5 species having less known uses of fish poison, 1 species having less known use for crab poison & 2 species of pesticides.

Some uses are reported earlier, but the plant part or mode of administration or preparation of formulations by using more than one plant part of different plants are quite different than that of the uses seen in literature. Such uses are marked by a plus (+) sign.

While working on ethnobotany of Dadra, Nagar Haveli and Daman, a total of 305 plants have been collected. Out of these 26 plant species are additions to the species reported earlier by Rao, 1985 from the area Dadra and Nagar Haveli, whereas 7 species are additions to the species earlier reported from Daman. The list of plants, which are additions to the flora of Dadra, Nagar Haveli and Daman are given alphabetically with their family names in Table 13.

CONCLUSION

Dadra, Nagar Haveli and Daman are rich from ethnobotanical point of view. Tribals in the region use several plants for food, medicine, fodder, house construction and other purposes. Their life is clearly related to the plants growing in nearby areas. Although, medicinal uses of plants reported in the present work to be less known or new to ethnobotany science are much less than what still remains with tribals.

Ethnobotanical explorations during the period from January 1995 to March 1998 in the present study area lead to the following conclusions.

- Non-availability of 120 uses in major literature adds significance to present work and indicates the need of thorough scrutiny or investigations for the active principles in medicinal sciences.
- Such studies may provide information to the workers in the field of pharmacology and phytochemistry in screening of individual species.
- Further investigations on ethnomedicinal plants to check their efficacy and safety are necessary, so that those can be further utilized for medicinal purposes.

- The formulation and standardization of some herbal drugs either with single plant or a mixture of more than one plant, with appropriate mode of use and dosage should be encouraged.
- As the plants are being used successfully by the tribals, their properties can also be confirmed with the biological screening experiments.
- Although, the tribals have some sense of plant conservation, there is need to take necessary steps for the conservation of plants, which are the potential source of herbal medicine and food.
- The plant species like *Radermachera xylocarpa* (with 7 less known uses), *Moringa concanensis* (with 4 less known uses), *Dalbergia lanceolaria*, *Mallotus philippensis*, *Plumbago zeylanica* and *Sterculia urens* (with 3 less known uses each) need more investigations for chemical constituents and for biological screening.
- Ethnobotanical investigations would be helpful in identifying basic needs of the tribal people, so that steps could be taken to cultivate these plants in the forests around villages or to persuade tribal communities to domesticate the plants which they need most, so that they need not depend and disturb the forests.

Table 9:
Disease-wise Plant uses

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
1) ABDOMINAL COLIC					
<i>Hemidesmus indicus</i>	Periplocaceae	Mendhval	rt	Warli	oral
<i>Launaea procumbens</i>	Asteraceae	Pathari	lf	Dhodia	oral
2) ABORTIFACIENT					
<i>Carica papaya</i>	Caricaceae	Papai	rt	Warli, Konkana	oral
<i>Ricinus communis</i>	Euphorbiaceae	Erant	rt	Warli, Konkana	oral
3) ASTHMA					
<i>Alysicarpus bupleurifolius</i>	Fabaceae	Khadsamervo	rt	Konkana	oral
4) BIRTH-CONTROL					
<i>Carica papaya</i>	Caricaceae	Papai	rt	Warli, Konkana	oral
<i>Plumeria acuminata</i>	Apocynaceae		rt	Warli, Konkana	oral
5) BLOOD PRESSURE					
<i>Enicostema axillare</i>	Gentianaceae	Nay	wp	Dhodia	oral
6) BLOOD-PURIFIER					
<i>Abrus precatorius</i>	Fabaceae	Gunj	lf	Konkana	oral
<i>Azadirachta indica</i>	Meliaceae	Nimb	lf	Warli, Konkana	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Adm.
<i>Emblica officinalis</i>	Euphorbiaceae	Avla	fr	Konkana	oral
<i>Moringa concanensis</i>	Moringaceae	Kadushegut	bk	Warli	oral
7) BOILS					
<i>Acacia chundra</i>	Mimosaceae	Lalkhair	bk	Warli	external
<i>Argyrea nervosa</i>	Convolvulaceae	Samudrasoka	lf	Konkana	external
<i>Cayratia trifolia</i>	Vitaceae	Khat	rt	Warli	external
<i>Datura metel</i>	Solanaceae	Dhotra	lf	Konkana	external
<i>Mucuna pruriens</i>	Fabaceae	Khaj-kuiri	lf	Warli	external
<i>Sphaeranthus indicus</i>	Asteraceae	Borasda, Bhutedo	lf	Dhodia	external
8) BONE FRACTURE					
<i>Ficus benghalensis</i>	Moraceae	Wad	bk	Warli, Konkana	oral
<i>Ficus virens</i>	Moraceae	Payar	bk	Konkana	oral
<i>Grewia serrulata</i>	Tiliaceae	Khad-dhamni	rt	Warli	oral
<i>Lannea coromandelica</i>	Anacardiaceae	Madhal	bk	Konkana, Warli	external
<i>Radermachera xylocurpa</i>	Bignoniaceae	Kharsing	bk	Konkana, Warli	external
<i>Saymida febrifuga</i>	Meliaceae	Roban	bk	Warli	oral
<i>Ventilago denticulata</i>	Rhamnaceae	Pival	bk	Warli	oral
<i>Wattakaka volubilis</i>	Asclepiadaceae	Ekota	bk	Warli, Konkana	oral
<i>Ziziphus rugosa</i>	Rhamnaceae	Toran	bk	Warli, Konkana	external
9) CANCER					
<i>Sphaeranthus indicus</i>	Asteraceae	Borasda	wp	Dhodia	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Adm.
10) CONTRACTION OF UTERUS					
<i>Sterculia urens</i>	Sterculiaceae	Kahandol	gum	Konkana	internal
11) COOLING EFFECT					
<i>Argyrea nervosa</i>	Convolvulaceae	Samudra-soka	rt, lf	Konkana	oral
<i>Coccidus hirsutus</i>	Menispermaceae	Tanoli	lf, st	Konkana, Warli	external
<i>Combretum ovalifolium</i>	Combretaceae	Bokadvel	bk	Warli	oral
<i>Ocimum basilicum</i>	Lamiaceae	Subja	sd	Konkana	oral
<i>Oroxylum indicum</i>	Bignoniaceae	Tetav	bk	Warli	oral
<i>Polygonum barbatum</i> <i>var. gracile</i>	Polygonaceae	Dhaktasheral	rt	Warli	oral
<i>Spinacia oleracea</i>	Chenopodiaceae	Palak	lf	Dhodia	oral
<i>Sterculia urens</i>	Sterculiaceae	Kahandol	gum	Konkana, Warli	oral
12) COUGH					
<i>Abrus precatorius</i>	Fabaceae	Gunj	lf	Konkana	oral
<i>Adhatoda zeylanica</i>	Acanthaceae	Adulsa	lf, wd	Dhodia	oral
<i>Anogeissus latifolia</i>	Combretaceae	Dhamoda	bk	Konkana	oral
<i>Datura metel</i>	Solanaceae	Dhotra	lf	Konkana	internal
<i>Emblica officinalis</i>	Euphorbiaceae	Avla	fr	Warli	oral
<i>Ocimum sanctum</i>	Lamiaceae	Tufash	lf	Konkana	oral
<i>Tamarix ericoides</i>	Tamaricaceae	Shermi	lf	Warli	oral
<i>Terminalia chebula</i>	Combretaceae	Hirda	fr	Warli	oral
<i>Ziziphus oenoplia</i>	Rhamnaceae	Chinibor	bk	Konkana	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Adm.
13) CUTS/INJURIES/SKIN ERUPTIONS					
<i>Abelmoschus manihot</i>	Malvaceae	Bambuda/ Ranbhindo	rt	Warli	external
<i>Alhagi maurarizak</i>	Fabaceae	Javaso	lf, fl	Dhodia	external
<i>Annona squamosa</i>	Annonaceae	Sitaphal	lf	Warli, Khandi	external
<i>Briedelia retusa</i>	Euphorbiaceae	Asan	bk	Konkana	external
<i>Cryptolepis buchanani</i>	Periplocaceae	Kavali	latex	Warli	external
<i>Curcuma longa</i>	Zingiberaceae	Halad	rh	Dhodia	external
<i>Dalbergia sissoo</i>	Fabaceae	Shisav	lf	Warli	external
<i>Leea indica</i>	Leeaceae	Dini	lf	Konkana	external
<i>Macaranga peltata</i>	Euphorbiaceae	Chand-diva	latex	Warli, konkana	external
<i>Trichoderma sedgwickianum</i>	Boraginaceae		rt	Warli, konkana	external
<i>Tridax procumbens</i>	Asteraceae	Kurbadu	lf	Warli	external
14) DIABETES					
<i>Abutilon indicum</i>	Malvaceae	Mudra	lf	Dhodia	oral
<i>Pterocarpus marsupium</i>	Fabaceae	Biwala	bk	Warli	oral
<i>Syzygium cumani</i>	Myrtaceae	Jambul	sd	Warli	oral
15) DOG-BITE					
<i>Solanum anguivi</i>	Solanaceae	Jangli-wanga	bk	Warli	oral
16) DYSMENORRHOEA					
<i>Cardia dichotoma</i>	Boraginaceae	Bhokri	bk	Warli, Konkana	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
<i>Ficus benghalensis</i>	Moraceae	Wad	prop-rt	Warli, Konkana	oral
<i>Ficus racemosa</i>	Moraceae	Umber	bk	Warli, Konkana	oral
17) EAR-COMPLAINTS					
<i>Arisaema tortuosum</i>	Araceae	Peva	rh	Warli	internal
<i>Bridella retusa</i>	Euphorbiaceae	Asan	bk	Konkana	internal
<i>Costus speciosus</i>	Zingiberaceae	Mothapeva	rh	Konkana	internal
<i>Solanum anguivi</i>	Solanaceae	Jangliwanga	Pit- juice	Warli	internal
<i>Sotena amplexicaulis</i>	Cucurbitaceae	Gomet	rt	Konkana	internal
18) EYE PAIN,					
<i>Cassia tora</i>	Caesalpinaceae	Povadya	lf	Konkana	internal
19) FEVER/ INTERMITTENT FEVER					
<i>Alhagi maurorum</i>	Fabaceae	Javaso	lf	Dhodia	oral
<i>Anisomeles indica</i>	Lamiaceae	Gopali	lf	Warli	external
<i>Caesalpinia bonduc</i>	Caesalpinaceae	Sagargota	lf	Dubala	oral
<i>Centranthera indica</i>	Scrophulariaceae	Kali-jeeri	wp	Warli, Konkana	oral
<i>Citroia ternatea</i>	Fabaceae	Kajali	rt	Dhodia	oral
<i>Hyptis suaveolens</i>	Lamiaceae	Dhurmado	lf	Konkana	external
<i>Kirganelia reticulata</i>	Euphorbiaceae	Pavan	lf	Warli, Konkana	external
<i>Lagerstroemia parviflora</i>	Lythraceae		lf	Dhodia	oral
<i>Lantana camara var. aculeata</i>	Verbenaceae	Tantani	lf	Dubala	external

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Adm.
<i>Lygodium flexuosum</i>	Lygodiaceae	Vanzi	lf	Konkana	oral
<i>Pogostemon benghalense</i>	Lamiaceae	Phangurta, Pangli	lf	Warli	external
<i>Stemodia viscosa</i>	Scrophulariaceae	Nukachmi	lf	Dhodia	external
<i>Tinospora cordifolia</i>	Menispermaceae	Gulvel	rt	Warli, Konkana	oral
<i>Vitex negundo</i>	Verbenaceae	Nirgudi	lf	Konkana	internal
20) FOOT CRACKS					
<i>Eclipta prostrata</i>	Asteraceae	Malliyabhaji	lf	Konkana	external
<i>Madhuca longifolia</i> <i>var. latifolia</i>	Sapotaceae	Mohwa	latex	Warli	external
<i>Michelia champaca</i>	Magnoliaceae	Sonchafa	sd, fr	Warli, Dhodia	external
<i>Sterculia urens</i>	Sterculiaceae	Kahandol	bk	Konkana	external
21) FOR PROMOTING FERTILITY					
<i>Ficus exasperata</i>	Moraceae	Bhui-umber	bk	Warli	oral
<i>Ficus racemosa</i>	Moraceae	Umbur	bk	Warli	oral
22) GONORRHOEA					
<i>Thespesia lampas</i>	Malvaceae	Chopada- bhendi	rt	Konkana	external
23) HEAD ACHE					
<i>Achyranthes aspera</i>	Amaranthaceae	Agheda	rt, lf	Warli	external
<i>Anisomeles heyneana</i>	Lamiaceae	Phangurta	lf	Warli, Konkana	external

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Adm.
<i>Calotropis gigantea</i>	Asclepiadaceae	Rui	st, latex	Warli	internal
<i>Capparis sepiaria</i>	Capparaceae	Waghodi	rt	Konkana	internal
<i>Cissampelos pareira</i> var. <i>hirsuta</i>	Menispermaceae	Venivel	rt	Konkana	external
<i>Cocculus hirsutus</i>	Mesitertmaceae	Tanoli	lf	Konkana	external
<i>Combretum ovalifolium</i>	Combretaceae	Bokachvel	rt	Warli	internal
<i>Kirganelia reticulata</i>	Euphorbiaceae	Pavan	lf	Konkana, Warli	external
<i>Lantana camara</i> var. <i>aculeata</i>	Verbenaceae	Tantani	lf	Dubala	external
<i>Lawsonia inermis</i>	Lythraceae	Mehndi	lf	Warli	external
<i>Ocimum basilicum</i>	Lamiaceae	Subja	lf, fl	Warli	external
<i>Ocimum sanctum</i>	Lamiaceae	Tulash	lf	Konkana	external
<i>Ricinus communis</i>	Euphorbiaceae	Erand	lf	Warli	external
<i>Sternodia viscosa</i>	Scrophulariaceae	Nukachumi	lf	Dhodia	external
<i>Vetiveria zizanioides</i>	Poaceae	Kanchora	rt	Warli, Konkana	external
<i>Vicia indica</i>	Asteraceae	Sanakadi	lf	Warli	external
24) INTESTINAL WORMS / ANTHELMINTIC					
<i>Caesalpinia bonduc</i>	Caesalpinaceae	Sagargota	lf	Dubala	oral
<i>Calotropis gigantea</i>	Asclepiadaceae	Rui	latex	Warli	oral
<i>Elephantopus scaber</i>	Asteraceae	Randho	rt	Konkana	oral
<i>Melia dubia</i>	Meliaceae	Nimbara	bk	Warli	oral
25) JAUNDICE					
<i>Albizia lebeck</i>	Mimosaceae	Sirus	bk	Warli	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Adm.
<i>Bauhinia racemosa</i>	Caesalpiniaceae	Apta	bk	Warli	oral
<i>Boerhaavia diffusa</i>	Nyctaginaceae	Hatodi	rt	Dubala	oral
<i>Bridelia retusa</i>	Euphorbiaceae	Asan	bk	Warli	oral
<i>Carissa congesta</i>	Apocynaceae	Karvand	bk	Warli, Konkana	oral
<i>Cassia tora</i>	Caesalpiniaceae	Povadya	wp	Konkana	oral
<i>Dalbergia lanceolaria</i>	Fabaceae	Dandosi	bk	Warli	oral
<i>Ficus benghalensis</i>	Moraceae	Wad	Prop-rt	Warli	oral
<i>Adina cordifolia</i>	Rubiaceae	Hed	bk	Warli	oral
<i>Madhuca longifolia</i> var. <i>latifolia</i>	Sapotaceae	Mohwa	bk	Warli	oral
<i>Morinda pubescens</i>	Rubiaceae	Alai	bk	Konkana	oral
<i>Oroxylum indicum</i>	Bignoniaceae	Tetav	bk	Warli, Konkana	oral
<i>Plumbago zeylanica</i>	Plumbaginaceae	Chitrak	rt	Konkana	oral
<i>Pterocarpus marsupium</i>	Fabaceae	Biwalo	bk	Warli	oral
<i>Radermachera xylocarpa</i>	Bignoniaceae	Kharsing	bk	Konkana	oral
<i>Ricinus communis</i>	Euphorbiaceae	Erand	lf	Warli	oral
<i>Rungia pectinata</i>	Acanthaceae	Kambra	wp	Dhodia	oral
<i>Terminalia bellirica</i>	Combretaceae	Behada	rt	Konkana	oral
<i>Woodfordia fruticosa</i>	Lythraceae	Dhayari	bk	Warli	oral
26) JOINT PAIN					
<i>Erythrina variegata</i>	Fabaceae	Pangara	bk	Warli	external
<i>Indigofera tinctoria</i>	Fabaceae	Jilya	lf	Warli	external

Botanical Name of Taxa	Family	Local Name/s	Parts used	Used by tribe/s	Mode Admn.
<i>Madhuca longifolia</i> var. <i>latifolia</i>	Sapotaceae	Mohwa	bk	Warli	external
<i>Oroxylum indicum</i>	Bignoniaceae	Tetav	bk	Warli	external
<i>Plumbago zeylanica</i>	Plumbaginaceae	Chitrak	rt	Dhodia	external
<i>Tephrosia purpurea</i>	Fabaceae		lf	Dhodia	external
<i>Ururira picta</i> *	Fabaceae	Udid	lf	Warli, Konkana	external
<i>Vanda tessellata</i>	Orchidaceae	Bendola	lf, fl	Warli	oral
<i>Vitex negundo</i>	Verbenaceae	Nirgudi	lf	Konkana	external
27) LABOUR PAINS/DELIVERY PAINS					
<i>Carissa congesta</i>	Apocynaceae	Karvand	rt	Konkana	oral
<i>Hymenodictyon orixense</i>	Rubiaceae	Kadwai	bk	Konkana	oral
<i>Madhuca longifolia</i> var. <i>latifolia</i>	Sapotaceae	Mohwa	bk	Konkana	oral
<i>Sterculia urens</i>	Sterculiaceae	Kahandoi	bk	Konkana	oral
<i>Tacca leontopetaloides</i>	Taccaceae	Sethal-tad	tu	Konkana	external
28) LACTATION					
<i>Holarrhena pubescens</i>	Apocynaceae	Kuda	rt	Konkana	oral
<i>Ipomoea mauritiana</i>	Convolvulaceae	Dudhvel	tu	Konkana	oral
<i>Wrightia tinctoria</i>	Apocynaceae	Kalakuda	bk	Warli	oral
29) LEUCORRHOEA					
<i>Ficus benghalensis</i>	Moraceae	Wad	prop-rt	Warli, Konkana	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
<i>Ficus religiosa</i>	Moraceae	Pipal	bk	Warli, Konkana	oral
<i>Ficus virens</i>	Moraceae	Payar	bk	Warli, Konkana	oral
30) Muska					
<i>Crotalaria juncea</i>	Fabaceae	Tag	rt	Warli	oral
<i>Dillenia pentagyna</i>	Dilleniaceae	Karvela	bk	Warli	oral
<i>Hypis surveolens</i>	Lamiaceae	Ohurmado	lf	Dhodia	external
<i>Plumbago zeylanica</i>	Plumbaginaceae	Chittrak	rt	Dhodia	external
<i>Tectona grandis</i>	Verbenaceae	Sagwan	bk	Warli	oral
31) MENORRHAGIA					
<i>Bombax ceiba</i>	Bombacaceae	Sawar	rt	Warli	oral
<i>Dalbergia lanceolaria</i>	Fabaceae	Dandosi	bk	Konkana	oral
<i>Desmodium oofeinensis</i>	Fabaceae	Tiwas	bk	Konkana	oral
<i>Ficus benghalensis</i>	Moraceae	Wad	prop rt	Konkana	oral
<i>Ficus racemosa</i>	Moraceae	Umber	bk	Konkana	oral
<i>Hibiscus talbotii</i>	Malvaceae	Barikalibhendi	rt	Konkana	oral
<i>Mitragyna parvifolia</i>	Rubiaceae	Kalamb	bk	Konkana	oral
<i>Pterocarpus marsupium</i>	Fabaceae	Biwala	gum	Konkana	oral
var. <i>acuminatus</i>					
<i>Radermachera xylocarpa</i>	Bignoniaceae	Kharsing	bk	Warli	oral
32) MOUTH ULCER					
<i>Elephantopus scaber</i>	Asteraceae	Randho	rt	Warli	internal

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
33) MUSCULAR PAIN					
<i>Madhuca longifolia</i> <i>var. latifolia</i>	Sapotaceae	Mohwa	bk	Warli	external
<i>Mallotus philippensis</i>	Euphorbiaceae	Lokhadi	bk	Konkana	external
<i>Oroxylum indicum</i>	Bignoniaceae	Tetav	bk	Warli	external
<i>Smithia conferta</i>	Fabaceae	Kavalu	st, lf	Warli	external
<i>Vitex negundo</i>	Verbenaceae	Nirgudi	bk	Konkana	external
34) PARALYSIS					
<i>Anogeisus latifolia</i>	Combretaceae	Dhamoda	bk	Konkana	external
<i>Moringa boncuensis</i>	Moringaceae	Kadushegut	bk	Warli, Konkana	external
35) PILES					
<i>Anacardium occidentale</i>	Anacardiaceae	Kaju	bk	Warli, Konkana	external
36) REFRESHER					
<i>Cryptostegia grandiflora</i>	Periplocaceae	Vilayati- bakundi	rt	Konkana	oral
37) RHEUMATISM					
<i>Anisomeles malabarica</i>	Lamiaceae	Chodara	lf	Konkana	external
<i>Sesamum orientale</i>	Pedaliaceae	Til	sd oil	Konkana	oral
<i>Vitex negundo</i>	Verbenaceae	Nirgudi	rt	Konkana	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
38) SKIN DISEASES/SCABIES/ITCHING					
<i>Abutilon indicum</i>	Malvaceae	Mudra	lf	Dhodia	external
<i>Aristolochia indica</i>	Aristolochiaceae	Nagdhavan	rt bk, st bk	Warli	external
<i>Asadrachta indica</i>	Meliaceae	Nimb	lf	Warli, Konkana	external
<i>Cassia fistula</i>	Caesalpinisaceae	Bahawa	lf	Warli	external
<i>Cissus trilobata</i>	Vitaceae	Vamsa	lf	Warli, Konkana	external
<i>Eranthemum roseum</i>	Acanthaceae	Tayada	rt	Dhodia	external
<i>Holarrhena pubescens</i>	Apocynaceae	Kuda	latex	Konkana	external
<i>Jatropha curcas</i>	Euphorbiaceae	Chadra Jyoti	lf	Konkana	external
<i>Leucas indica</i>	Lamiaceae	Barikali-burodi	wp	Warli	external
<i>Ocimum sanctum</i>	Lamiaceae	Tulash	lf	Konkana	external
<i>Pongamia pinnata</i>	Fabaceae	Karanj	sd oil	Warli	external
<i>Terminalia catappa</i>	Combretaceae	Badam	lf	Warli	external
<i>Tricholepis glaberrima</i>	Asteraceae	Brahmandandi	wp	Warli	external
39) SCORPION STING					
<i>Coccolus hirsutus</i>	Menispermaceae	Tanoli	lf	Konkana	oral
<i>Pithecellobium dulce</i>	Mimosaceae	Vilayati-chinch	bk	Warli	external
<i>Terminalia bellirica</i>	Combretaceae	Behada	bk	Dhodia	external
40) SKIN BURNS					
<i>Coccolus hirsutus</i>	Menispermaceae	Tanoli	lf	Konkana	external

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
41) SNAKE-BITE					
<i>Acacia ferruginea</i>	Mimosaceae	Kanti	bk	Warli	oral
<i>Albizia procera</i>	Mimosaceae	Kinhay	bk	Warli	oral
<i>Aristolochia indica</i>	Aristolochiaceae	Nagdhavan	rt	Warli	internal
<i>Blumea eriantha</i>	Asteraceae	Killar	rt,bk	Warli, Konkana	oral
<i>Combretum ovalifolium</i>	Combretaceae	Bokadvel	bk	Warli	oral
<i>Cryptostegia grandiflora</i>	Periplocaceae	Vilaysti- bakundi	rt	Konkana	oral
<i>Desmodium triangulare</i>	Fabaceae		rt	Konkana	oral
<i>Diptocyclos palmatus</i>	Cucurbitaceae	Shivling	fr	Warli, Konkana	oral
<i>Helicteres isora</i>	Sterculiaceae	Muradseng, Atai	bk/rt-bk	Konkana, Warli	oral
<i>Heliotropium ovalifolium</i>	Heliotropiaceae	Nanganee	inflo, lf	Dhodia	oral
<i>Holarrhena pubescens</i>	Apocynaceae	Kuda	bk	Konkana	oral
<i>Radermachera xylocarpa</i>	Bignoniaceae	Kharsing	bk	Warli	oral
<i>Soyimida febrifuga</i>	Meliaceae	Rohan	bk	Warli	oral
<i>Woodfordia fruticosa</i>	Lythraceae	Dhayati	rt, bk	Konkana, Warli	oral
<i>Wrightia tinctoria</i>	Apocynaceae	Kalakuda	bk	Konkana	oral
42) SORES ON TOE					
<i>Heterophragma quadriloculare</i>	Bignoniaceae	Murus	bk	Konkana	external
43) SPRAINS					
<i>Hyptis suaveolens</i>	Lamiaceae	Dhurmodo	lf	Dhodia	external
<i>Withania somnifera</i>	Solanaceae	Askand	lf	Konkana	external

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
44) STOMACH AILMENTS					
a) Constipation/Laxative					
<i>Euphorbia montanum</i>	Euphorbiaceae	Hagara	rt	Warli	oral
<i>Calycophorus floribundus</i>	Combretaceae	Uksi	lf	Konkana	oral
<i>Cassia fistula</i>	Caesalpiniaceae	Bahawa	fr pulp	Warli	oral
<i>Sterculia foetida</i>	Sterculiaceae		sd oil	Konkana, Kathudi	oral
b) Dysentery					
<i>Asclepias curassavica</i>	Rutaceae	Bel	fr	Konkana	oral
<i>Albizia lebbekii</i>	Mimosaceae	Sirus	bk	Warli	oral
<i>Asparagus racemosus</i> var. <i>javanicus</i>	Liliaceae	Shatavari	rt	Konkana	oral
<i>Desmodium laxiflorum</i>	Fabaceae	Lipatue	rt	Dhodia	oral
<i>Helicteres isora</i>	Sterculiaceae	Muradseng, Atai	fr, rt	Konkana, Warli	oral
<i>Holarrhena pubescens</i>	Apocynaceae	Kuda	bk	Konkana	oral
<i>Indigofera trita</i>	Fabaceae	Vekharu	rt	Kathudi	oral
<i>Mallotus philippensis</i>	Euphorbiaceae	Lokhadi	bk	Konkana	oral
<i>Radermachera xylocarpa</i>	Bignoniaceae	Kharsing	fr, bk	Warli	oral
<i>Semecarpus anacardium</i>	Anacardiaceae	Bibba	fr	Konkana	oral
<i>Synsida febrifuga</i>	Meliceae	Rohan	bk	Warli	oral
<i>Syzygium cumini</i>	Myrtaceae	Jambul	lf	Warli	oral
<i>Terminalia chebula</i>	Combretaceae	Hirda	fr	Warli	oral
<i>Triumfetta rotundifolia</i>	Tiliaceae	Jhipato	lf	Dhodia	oral
<i>Wrightia tinctoria</i>	Apocynaceae	Kala-kuda	bk	Warli	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
c) Indigestion/Dyspepsia:					
<i>Alternanthera sessilis</i>	Amaranthaceae	Ran	lf	Warli	oral
<i>Bauhinia racemosa</i>	Caesalpiniaceae	Apta	bk	Warli, Konkana	oral
<i>Cissus quadrangularis</i>	Vitaceae	Kandvel	lf	Konkana	internal
<i>Citrus medica</i>	Rutaceae	Limbu	fr	Konkana	oral
<i>Coccolus hirsutus</i>	Menispermaceae	Tanoli	rt	Konkana	oral
<i>Foeniculum vulgare</i>	Apiaceae	Badishep	fr	Dhodia	oral
<i>Ipomoea pes-caprae</i>	Convolvulaceae	Maryadvel	rt	Dubala	oral
<i>Ocimum americanum</i>	Lamiaceae	Azola	lf	Warli	oral
<i>Tamarandthus indica</i>	Caesalpiniaceae	Chinch	fr	Konkana	oral
d) Loose motions:					
<i>Cissampelos pareira</i> var. <i>hirsuta</i>	Menispermaceae	Venivel	rt	Warli, Konkana	oral
<i>Moringa concanensis</i>	Moringaceae	Kadusbegut	bk	Warli	oral
<i>Psidium guajava</i>	Myrtaceae	Peru	bk	Konkana	oral
<i>Stephania japonica</i>	Menispermaceae	Padmurya	rt	Dhodia	oral
e) Stomach ache/Stomach pain:					
<i>Argyreia strigata</i>	Convolvulaceae	Chobadvel	rt	Warli	oral
<i>Asparagus racemosus</i> var. <i>javanicus</i>	Liliaceae	Shatavari	rt	Konkana	oral
<i>Bauhinia racemosa</i>	Caesalpiniaceae	Apta	bk	Warli, Konkana	external
<i>Butea monosperma</i>	Fabaceae	Palas	bk	Warli	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
<i>Calotropis gigantea</i>	Asclepiadaceae	Rui	lf	Warli	external
<i>Carissa congesta</i>	Apocynaceae	Karwand	rt	Konkana, Warli	
<i>Coriandrum sativum</i>	Apiaceae	Kothmir	fr	Warli, Konkana	oral
<i>Cyperus pangurei</i>	Cyperaceae	Gundhan	rt	Warli	oral
<i>Dalbergia lanceolaria</i>	Fabaceae	Dhandosi	bk	Warli, Konkana	oral
<i>Elephantopus scaber</i>	Asteraceae	Randhu	rt	Warli, Konkana	oral
<i>Ficus hispida</i>	Moraceae	Khakri, Gandaumber		rt	Warli oral
<i>Garuga pinnata</i>	Burseraceae	Kakad	bk, lf	Warli	ext/oral
<i>Grewia abutilifolia</i>	Tiliaceae	Kharbat	rt	Warli	oral
<i>Haldina cordifolia</i>	Rubiaceae	Hed	bk	Warli	oral
<i>Helicteres isora</i>	Sterculiaceae	Muradseng, Ataj	Pod	Warli, Konkana	oral
<i>Holarrhena pubescens</i>	Apocynaceae	Kuda	bk	Konkana	oral
<i>Holoptelea integrifolia</i>	Ulmaceae	Papada	bk	Warli	external
<i>Hymenodictyon orixense</i>	Rubiaceae	Kadwai	rt	Konkana	oral
<i>Lannea coromandelica</i>	Anacardiaceae	Madhal	bk	Warli, Konkana	oral
<i>Mallotus philippensis</i>	Euphorbiaceae	Lokhadi	bk	Konkana	oral
<i>Melia dubia</i>	Meliaceae	Nimbera	bk	Warli	oral
<i>Moringa concanensis</i>	Moringaceae	Kadusbegut	bk	Warli	oral/ext
<i>Oroxylum indicum</i>	Bignoniaceae	Tetav	rt	Konkana	oral
<i>Paracalyx scariosa</i>	Fabaceae	Ranghevada	rt	Dhodia	oral
<i>Ptilostigma foveolata</i>	Caesalpiniaceae	Chamoli	bk	Warli	external
<i>Pimpinella heyneana</i>	Apiaceae	Dongarjerra	wp	Warli	oral
<i>Plumbago zeylanica</i>	Plumbaginaceae	Chitrak	rt	Dhodia	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
<i>Pterocarpus marsupium</i>	Fabaceae	Biwalo	bk	Warli	oral
<i>Radermachera zyllocarpa</i>	Bignoniaceae	Kharsing	bk	Warli	ext/oral
<i>Solanum angulvi</i>	Solanaceae	Jangliwanga	rt	Warli	oral
<i>Soymida febrifuga</i>	Meliaceae	Ruhan	bk	Konkana	oral
<i>Spermocoe hispida</i>	Rubiaceae	Kardo	lf	Warli, Konkana	oral
<i>Stereospermum colais</i>	Bignoniaceae	Kirsej	bk	Warli, Konkana	oral
<i>Tectona grandis</i>	Verbenaceae	Sagwan	bk	Warli, Konkana	oral
<i>Tridax procumbens</i>	Asteraceae	Kurhadu	rt	Warli	oral
<i>Vanda tessellata</i>	Orchidaceae	Bendola	rt	Warli	oral
<i>Wrightia tinctoria</i>	Apocyanaceae	Kalakuda	bk	Warli	oral
45) STUTTERING SPEECH					
<i>Spilanthes paniculata</i>	Asteraceae	Akalkara	inflo	Warli	internal
46) SUN STROKE					
<i>Citrus medica</i>	Rutaceae	Limbu	fr	Konkana	oral
47) ANTI-INFLAMMATORY /SWELLING					
<i>Asparagus racemosus</i>	Liliaceae	Shatavari	rt	Konkana	external
var. <i>javanicus</i>					
<i>Hygrophila auriculata</i>	Acanthaceae	Akhiryo	lf	Dhodia	oral
<i>Hyptis suaveolens</i>	Lamiaceae	Dhurmodo	lf	Dhodia	external
<i>Trichodesma sedgwichianum</i>	Boraginaceae		rt	Warli, Konkana	external

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
48) THROAT PROBLEMS					
<i>Abrus precatorius</i>	Fabaceae	Gunj	lf	Konkana	oral
<i>Acacia catechu</i>	Mimosaceae	Khair	catechu	Konkana	oral
<i>Ficus hispida</i>	Moraceae	Kharki, Gandaumber	fr	Dhodia	external
<i>Lagerstroemia parviflora</i>	Lythraceae	Bondar	lf	Konkana	oral
<i>Phyllocephalum phyllolaenum</i>	Asteraceae	Kaji	st	Warli, Konkana	external
<i>Tricholepis glaberrima</i>	Asteraceae	Brahmandandi	st	Warli, Konkana	external
<i>Zingiber officinale</i>	Zingiberaceae	Ale	rh	Dhodia	external
49) TO EXPEL LICE					
<i>Annona squamosa</i>	Annonaceae	Sitaphal	lf	Warli	external
50) TO INDUCE MENSTRUATION					
<i>Solanum amplexicaulis</i>	Cucurbitaceae	Gomet	rt	Konkana	oral
51) TONIC					
a) General tonic					
<i>Bambusa ceiba</i>	Bombacaceae	Sawar	gum	Warli, Konkana	oral
<i>Canscora diffusa</i>	Gentianaceae		wp	Warli	oral
<i>Eclipta prostrata</i>	Asteraceae	Malliya-bhaji	sd	Dhodia	oral
<i>Helicteres isora</i>	Sterculiaceae	Muradsong, Atai	pd	Konkana	oral
<i>Indigofera glandulosa</i>	Fabaceae	Burupdi	sd	All tribes	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
<i>Indigofera wita</i>	Fabaceae	Vekharo	sd	Kathodi	oral
<i>Sterculia urens</i>	Sterculiaceae	Kahandol	gum	Konkana	oral
<i>Tephrosia purpurea</i>	Fabaceae	Unhal	lf	Dhodia	oral
b) Brain tonic:					
<i>Centella asiatica</i>	Apiaceae	Bramhi	wp	Konkana	oral
<i>Evolvulus alsinoides</i>	Convolvulaceae	Vishnu-Kranta	wp	Warli, Dhodia	oral
52) TOOTH PROBLEMS/ BAD BREATH/ GUM PROBLEM					
<i>Acacia catechu</i>	Mimosaceae	Khair	catechu	Konkana	internal
<i>Acacia nilotica ssp. indica</i>	Mimosaceae	Babul, Bawara	st	Kathodi	internal
<i>Argemone mexicana</i>	Papaveraceae	Badiringanec	sd	Konkana, Warli	internal
<i>Azadirachta indica</i>	Meliaceae	Nimb	twig	Warli, Konkana	internal
<i>Datura metel</i>	Solanaceae	Dhotra	st	Konkana	internal
<i>Elephantopus scaber</i>	Asteraceae	Randho	rt	Konkana	internal
<i>Launaea procumbens</i>	Asteraceae	Pathari	rt	Dhodia	internal
<i>Lepidagathis cuspidata</i>	Acanthaceae	-	rt	Konkana	internal
<i>Macrotyloma uniflorum</i>	Fabaceae	Kulith	lf, sd	Warli, Konkana	internal
<i>Mallotus philippensis</i>	Euphorbiaceae	Lokhadi	bk	Konkana	internal
<i>Martynia annua</i>	Martyniaceae	Waghnaeki	rt	Konkana	internal
<i>Solanum surattense</i>	Solanaceae	Ringnee	sd	Dhodia, Warli	external
<i>Thespesia lampas</i>	Malvaceae	Chopadi- bhendi	twig	Konkana	internal
<i>Urena lobata</i>	Malvaceae	Chikana	st	Warli	internal

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
53) TO PREVENT ABORTION					
<i>Pennisetum pedicellarum</i>	Poaceae	Garbhasod	rt	Warli, Konkana	external
<i>Vesuvria stansoides</i>	Poaceae	Kanchora	rt	Warli, Konkana	external
54) TUBERCULOSIS					
<i>Alangium sativifolium</i>	Alangiaceae	Ankoli	bk	Warli	oral
55) FAINTING					
<i>Allium cepa</i>	Liliaceae	Kanda	bulb	Dubala	internal
56) URINARY DISORDERS / URINARY COMPLAINTS					
<i>Anisomeles heyneana</i>	Lamiaceae	Phangurta	st	Warli, Konkana	oral
<i>Argyreia nervosa</i>	Convolvulaceae	Samudrasoka	lf, rt	Konkana	oral
<i>Boerhaavia diffusa</i>	Nyctaginaceae	Halodi	rt	Dubala	oral
<i>Carthamus tinctorius</i>	Asteraceae	Kusumba	sd	Warli	oral
<i>Cocos nucifera</i>	Arecaceae	Narel	Coconut water	Dhodia	oral
<i>Combretum ovalifolium</i>	Combretaceae	Bokadvel	bk	Warli	oral
<i>Desmodium gangeticum</i>	Fabaceae	Asud	lf	Warli	oral
<i>Malachra capitata</i>	Malvaceae	Nanobhindo	rt	Dhodia	oral
<i>Oroxylum indicum</i>	Bignoniaceae	Tetav	bk	Warli	oral
<i>Pergularia daemia</i>	Asclepiadaceae	Utaran	lf	Warli	oral
<i>Radermachera zyllocarpa</i>	Bignoniaceae	Kharsing	bk	Konkana	oral
<i>Rotula aquatica</i>	Ebretaceae	Sherri	rt	Warli, Konkana	oral

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Adm.
57) VESICLES					
<i>Thunbergia laevis</i>	Acanthaceae	Warva	st	Konkana	external
58) VOMITING					
<i>Amaranthus trico/or</i>	Amaranthaceae	Mathbhaji	rt	Warli	oral
<i>Baliaspernum montanum</i>	Euphorbiaceae	Hagara	rt	Warli	oral
<i>Moringa concanensis</i>	Moringaceae	Kadushegut	bk	Warli	oral
<i>Sterculia urens</i>	Sterculiaceae	Kahandol	bk	Konkana	oral
59) WOUNDS					
<i>Abelmoschus manihot</i>	Malvaceae	Bambuda, Ranbhido	rt	Warli	external
<i>Acacia nilotica ssp. indica</i>	Mimosaceae	Bawara	st, bk	Kathudi	external
<i>Achyranthes aspera var. aspera</i>	Amaranthaceae	Agheda	rt	Warli	external
<i>Annona squamosa</i>	Annonaceae	Sitaphal	lf	Warli, Kathudi	external
<i>Artemisia nilagirica</i>	Asteraceae	Dhordavana	lf	Warli	external
<i>Azadirachta indica</i>	Meliaceae	Nimb	bk	Warli, Konkana	external
<i>Boerhaavia diffusa</i>	Nyctaginaceae	Hatodi	rt	Dubala	external
<i>Gloriosa superba</i>	Liliaceae	Kal-lawi	tu	Konkana	external
<i>Hygrophila auriculata</i>	Acanthaceae	Akhryo	rt	Warli	external
<i>Lannea coromandelica</i>	Anacardiaceae	Madhal	bk	Konkana	external
<i>Lea indica</i>	Leeaceae	Dini	lf	Konkana	oral & external
<i>Malaehra capitata</i>	Malvaceae	Nanobhindo	wp	Dhodia	external

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Adm.
<i>Momordica charantia</i>	Cucurbitaceae	Karle	lf	Warli	external
<i>Pergularia daemia</i>	Asclepiadaceae	Utaran	lf	Kathodi	external
<i>Semecarpus anacardium</i>	Anacardiaceae	Bibba	sd, oil	Konkana	external
<i>Sida cordata</i>	Malvaceae	Bhoybal	lf	Dubala	external
<i>Tridax procumbens</i>	Asteraceae	Kurhadu	lf	Warli	external
<i>Withania somnifera</i>	Solanaceae	Askand	rt	Konkana	external

Table 10
Plants used in Veterinary Medicine

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
a) BONE FRACTURE					
<i>Ficus virens</i>	Moraceae	Payar	bk	Konkana	oral
<i>Grewia serrulata</i>	Tiliaceae	Khaddhamni	rt	Warli	oral
<i>Ventilago denticulata</i>	Rhamnaceae	Pival	bk	Warli	oral
b) INDIGESTION					
<i>Lygodium flexuosum</i>	Lygodiaceae	Vanzi	wp	Konkana	oral
<i>Sphaeranthus indicus</i>	Asteraceae	Borasda, Bhutedo	inflo	Konkana	oral
c) LACTACTION					
<i>Ipomoea mauritiana</i>	Convolvulaceae	Dudhvel	tu	Konkana	oral
d) MOUTH ULCER					
<i>Tacca leantopetaloides</i>	Taccaceae	Shetal -Tad	tu	Konkana	internal
e) TO EXPBL TICKS AND PARASITIC FLIES:					
<i>Anogeissum latifolia</i>	Combretaceae	Dhamoda	sd	Warli, Konkana	external
<i>Calycotris flarbunda</i>	Combretaceae	Uksi	st	Konkana	external

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s	Mode Admn.
f) VETERINARY ILLNESS					
<i>Breynia tetanum</i>	Euphorbiaceae	Abodi- pithuni	lf	Konkana	oral
<i>Cuscuta reflexa</i>	Cuscutaceae	Amervel	wp	Warli	oral
<i>Terminalia bellirica</i>	Combretaceae	Bchada	bk, fr	Warli	oral
g) WOUNDS					
<i>Ficus benghalensis</i>	Moraceae	Wad	latex	Konkana	external
<i>Holoptelea integrifolia</i>	Ulmaceae	Papada	bk	Warli	external
<i>Lygodium flexuosum</i>	Lygodiaceae	Vanzi	rt	Konkana	external
<i>Macaranga peltata</i>	Euphorbiaceae	Chand-diva	bk	Warli, Konkana	oral

Table 11
Plants used as Fish Poison & Crab Poison

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s
A) FISH POISON				
<i>Acacia suriculiformis</i>	Mimosaceae	Bangali- bawar	pd	Warli, Konkana
<i>Acacia ferruginea</i>	Mimosaceae	Kanti	pd	Konkana
<i>Acacia pennata</i>	Mimosaceae	Chilari	bk	Warli
<i>Acacia sinuata</i>	Mimosaceae	Shikakai	pd	Dhodia
<i>Acacia torta</i>	Mimosaceae	Chilar	bk	Konkana
<i>Albizia procera</i>	Mimosaceae	Kinbay	bk	Warli
<i>Cassia graveolens</i>	Flacourtiaceae	Bhokara	fr	All tribes
<i>Catunaregam spinosa</i>	Rubiaceae	Gai	fr	Warli
<i>Costus speciosus</i>	Zingiberaceae	Mothapeva	rh	Warli
<i>Flacourtia indica</i>	Flacourtiaceae	Gela	unripe- fr	Warli, Konkana
<i>Holoptelea integrifolia</i>	Ulmaceae	Papada	lf	Warli
<i>Lannea coromandelica</i>	Anacardiaceae	Madhal	fr	Warli, Konkana
B) CRAB POISON				
<i>Cyathocline purpurea</i>	Asteraceae	Borasda	wp	Konkana
<i>Sphaeranthus indicus</i>	Asteraceae	Bhutedo	wp	Dhodia

Table 12
Edible Plants

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s
<i>Abelmoschus esculentus</i>	Malvaceae	Bhendi	fr	All tribes
<i>Abelmoschus manihot</i>	Malvaceae	Ran-bhindo, Bambuda	fr	All tribes
<i>Acacia nilotica</i> ssp. <i>indica</i>	Mimosaceae	Bawara	gum	Kathodi
<i>Aegle marmelos</i>	Rutaceae	Bel	fr	All tribes
<i>Allium cepa</i>	Liliaceae	Kanda	bulb	All tribes
<i>Allium sativum</i>	Liliaceae	Lasun	bulblets	All tribes
<i>Amaranthus cruentus</i>	Amaranthaceae	Rajgira	wp	Warli
<i>Amaranthus tricolor</i>	Amaranthaceae	Mathbhaji	lf, st	Warli
<i>Anacardium occidentale</i>	Anacardiaceae	Kaju	sd	All tribes
<i>Annona squamosa</i>	Annonaceae	Sitaphal	fr	All tribes
<i>Anogeissus latifolia</i>	Combretaceae	Dhamoda	gum	Warli, Konkana
<i>Arachis hypogea</i>	Fabaceae	Supari	nut	All tribes
<i>Areca catechu</i>	Arecaceae	Bhui-mung	sd	All tribes
<i>Argemone mexicana</i>	Papaveraceae	Pivala-dhotra	st	Warli, Konkana
<i>Arisaema murrayi</i>	Araceae	Lothi	st	Warli
<i>Artocarpus heterophyllus</i>	Moraceae	Phanas	fr	Warli, Konkana

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s
<i>Avicennia marina</i>	Avicenniaceae	Tiwar	fr	Dubala
<i>Barleria prettensis</i>	Acanthaceae	Sarmal	lf	Warli
<i>Blumea eriantha</i>	Asteraceae	Killar	lf	Dhodia
<i>Blumea membranacea</i>	Asteraceae	Nani-killar	lf	Kathodi
<i>Blumea obliqua</i>	Asteraceae	Buradyo	lf	Warli
<i>Borassus flabellifer</i>	Araceae	Tad	woodsap, fr-cotyledon	All tribes
<i>Bridelia retusa</i>	Euphorbiaceae	Asari	fr	Konkana
<i>Caesalpinia bonduc</i>	Caesalpiniaceae	Sagargota	lf	Dubala
<i>Cajanus cajan</i>	Fabaceae	Tur	sd	All tribes
<i>Canthium rheedi</i>	Rubiaceae	Aliv	fr	Warli
<i>Capparis sepiaria</i>	Capparaceae	Waghote	fr	Warli, Konkana
<i>Capsicum annum</i>	Solanaceae	Mirachi	fr	All tribes
<i>Carica papaya</i>	Caricaceae	Papai	fr	Warli, Konkana
<i>Carissa congesta</i>	Apocynaceae	Kanwand	fr	Warli
<i>Cassia tora</i>	Caesalpiniaceae	Poadya	sd	Konkana
<i>Celosia argentea</i>	Amaranthaceae	Kundu	lf, shoot	Konkana

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s
<i>Cicer arietinum</i>	Fabaceae	Harbara	sd	All tribes
<i>Cissus quadrangularis</i>	Vitaceae	Kandvel	st	Konkana
<i>Citrullus lanatus</i>	Cucurbitaceae	Tarbuj	fr	All tribes
<i>Citrus medica</i>	Rutaceae	Limbu	fr	All tribes
<i>Clitoria biflora</i>	Fabaceae	Dhakti-supli	pd	Warli
<i>Coccinia grandis</i>	Cucurbitaceae	Tondli	fr	All tribes
<i>Coccoloba nucifera</i>	Arecaceae	Narel	inflo, fr	All tribes
<i>Cotx lachryma-jobi</i>	Poaceae	Kasu	bracts (beads)	Konkana
<i>Colocasia esculenta</i>	Araceae	Alu	st, rt	Warli, Konkana
<i>Corchorus olitorius</i>	Tiliaceae	Mothichunch	lf	Konkana
<i>Cardia dichotoma</i>	Boraginaceae	Bhokri	fr	Warli, Konkana
<i>Coriandrum sativum</i>	Apiaceae	Kothmir	fr, lf	Warli, Konkana
<i>Cucumis callosus</i>	Cucurbitaceae	Kachara	fr	Warli
<i>Cucurbita maxima</i>	Cucurbitaceae	Tambda - bhopla	fr	All tribes
<i>Cucurbita moschata</i>	Cucurbitaceae	Bhopla	fr	All tribes
<i>Cucurbita pepo</i>	Cucurbitaceae	Kashi-bhopla	fr	All tribes
<i>Curcuma longa</i>	Zingiberaceae	Halad	rh	All tribes
<i>Cyamopsis trigonoloba</i>	Fabaceae	Gawar	pd	Konkana

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s
<i>Daucus carota</i>	Apiaceae	Gajar	lf, tu	All tribes
<i>Dendrophthoe falcata</i>	Loranthaceae	Bandgul	fr	Konkana
<i>Dillenia pentagyna</i>	Dilleniaceae	Karvela	fr	Warli
<i>Dioscorea bulbifera</i>	Dioscoreaceae	Kand	bulbil	Warli
<i>Dioscorea pentaphylla</i>	Dioscoreaceae	Dukarkand	tu, bulbs, lf, fl, fr	Warli, Konkana
<i>Dioscorea wallichii</i>	Dioscoreaceae	Kadukand	tu	Warli, Konkana
<i>Diospyrus melanoxylon</i>	Ebenaceae	Tendu	fr	Dhodia
<i>Eclipta prostrata</i>	Asteraceae	Malliyabhaji	lf	All tribes
<i>Emblica officinalis</i>	Euphorbiaceae	Avla	fr	All tribes
<i>Ficus carica</i>	Moraceae	Anjir	Syncarps	All tribes
<i>Ficus racemosa</i>	Moraceae	Umbar	receptacles	All tribes
<i>Ficus variens</i>	Moraceae	Payar	receptacles	Konkana
<i>Flacourtia indica</i>	Flacourtiaceae	Gela	fr	Konkana
<i>Garuga pinnata</i>	Burseraceae	Kakad	fr	Warli, Konkana
<i>Grewia tiliaefolia</i> <i>var. leptopetala</i>	Tiliaceae	Dhaman	fr	Dhodia, Warli
<i>Gutzotia abyssynica</i>	Asteraceae	Khurasani	sd oil	Konkana
<i>Hibiscus cannabinus</i>	Malvaceae	Ambadi	lf, fl, calyx	Warli, Konkana

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s
<i>Holostemma ada-kodien</i>	Asteraceae	Shernee	fr, ovules	Konkana
<i>Ixora brachiata</i>	Rubiaceae	Tembhrun	fr	Konkana
<i>Labiab purpureus</i>	Fabaceae	Valpapdi	pd	All tribes
<i>Larrea coromandelica</i>	Anacardiaceae	Madhal	gum	Warli, Konkana
<i>Leea indica</i>	Leeaceae	Dini	st, shoot	Warli
<i>Leea macrophylla</i>	Leeaceae	Mothi-dini	st, shoot	Konkana
<i>Limonia acidissima</i>	Rutaceae	Kavath	fr	All tribes
<i>Luffa acutangula</i>	Cucurbitaceae	Dodaka	fr	All tribes
<i>Luffa cylindrica</i>	Cucurbitaceae	Ghosale	fr	All tribes
<i>Macrotyloma uniflorum</i>	Fabaceae	Kulith	sd	Warli, Konkana
<i>Madhuca longifolia</i> var. <i>latifolia</i>	Sapotaceae	Mohwa	fr, pericarp	Warli
<i>Mangifera indica</i>	Anacardiaceae	Ajba	fr	All tribes
<i>Manilkara zapota</i>	Sapotaceae	Chiku	fr	All tribes
<i>Meyna laxiflora</i>	Rubiaceae	Alu	fr	Warli
<i>Miliusa tomentosa</i>	Annonaceae	Humb	fr	All tribes
<i>Momordica charantia</i>	Cucurbitaceae	Karale	fr	All tribes
<i>Moringa concanensis</i>	Moringaceae	Kadushegut	lf, fr	Warli, Konkana
<i>Moringa oleifera</i>	Moringaceae	Shevaga	fr, fl, lf	All tribes

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s
<i>Nymphaea pubescens</i>	Nymphaeaceae	Kamal	rt stock	Dhodia, Naika
<i>Ocimum americanum</i>	Lamiaceae	Azola	lf	Warli
<i>Ocimum sanctum</i>	Lamiaceae	Tulas	lf, inflo	Warli, Konkana
<i>Oroxylum indicum</i>	Bignoniaceae	Tetav	sd	Warli
<i>Oryza sativa</i>	Poaceae	Bhat	grain	All tribes
<i>Panicum notatum</i>	Poaceae	Varai	grain	Warli
<i>Pergularia daemia</i>	Asclepiadaceae	Utaran	fl, inflo	Konkana
<i>Phoenix sylvestris</i>	Arecaceae	Khajuri	woodsap, fr	All tribes
<i>Physalis minima</i>	Solanaceae	Chirmuth	fr	Konkana
<i>Pimpinella heyneana</i>	Apiaceae	Donger-joera	wp	Warli
<i>Pithecellobium dulce</i>	Mimosaceae	Vilayati-chinch	sd aril	All tribes
<i>Plumbago zeylanica</i>	Plumbaginaceae	Chitrak	lf	Dhodia
<i>Portulaca oleracea</i>	Portulacaceae	Mothihuni	lf, shoots	Konkana
<i>Psidium guajava</i>	Myrtaceae	Jambul	fr	Warli, Konkana
<i>Punica granatum</i>	Punicaceae	Dalimb	fr	All tribes
<i>Rhynchosia minima</i> var. <i>laxiflora</i>	Fabaceae	-	pd	All tribes
<i>Schleichera oleosa</i>	Sapindaceae	Kusumb	fr	Warli, Konkana
<i>Semecarpus anacardium</i>	Anacardiaceae	Bibba	fr, hypocarp	Warli

Botanical Name of Taxa	Family	Local Name/s	Part/s used	Used by tribe/s
<i>Sesamum orientale</i>	Pedaliaceae	Til	sd	All tribes
<i>Smithia conferta</i>	Fabaceae	Kavalu	lf	Warli
<i>Solanum anguivi</i>	Solanaceae	Jangliwanga	lf	Warli
<i>Solanum melongena</i>	Solanaceae	Wange	lf	All tribes
<i>Solanum tuberosum</i>	Solanaceae	Batata	tu	All tribes
<i>Spinacia oleracea</i>	Chenopodiaceae	Palak	lf	All tribes
<i>Spondias pinnata</i>	Anacardiaceae	Amboda	fr	Warli
<i>Sterculia urens</i>	Sterculiaceae	Kahandol	Kernels	All tribes
<i>Syzygium cumini</i>	Myrtaceae	Jambul	fr	All tribes
<i>Tagetes erecta</i>	Asteraceae	Zendu	fl, thallamus	Konkana
<i>Tamarindus indica</i>	Caesalpinjiaceae	Chinch	sd pulp	All tribes
<i>Terminalia bellirica</i>	Combretaceae	Behada	Kernels	Warli
<i>Terminalia catappa</i>	Combretaceae	Badam	Kernels	All tribes
<i>Vigna radiata</i>	Fabaceae	Udid	sd	All tribes
<i>Zea mays</i>	Poaceae	Maka	sd	All tribes
<i>Zingiber officinale</i>	Zingiberaceae	Ale	rhizome	All tribes
<i>Ziziphus mauritiana</i>	Rhamnaceae	Bor	fr	All tribes
<i>Ziziphus rugosa</i>	Rhamnaceae	Toran	fr	Warli, Konkana

Table 13

A) ADDITIONS TO THE FLORA OF DADRA & NAGAR HAVELI	
<i>Acacia leucophloea</i>	Mimosaceae
<i>Acacia torta</i>	Mimosaceae
<i>Argyreia nervosa</i>	Convolvulaceae
<i>Arisaema tortuosum</i>	Araceae
<i>Azadirachta indica (naturalized)</i>	Meliaceae
<i>Blumea obliqua</i>	Asteraceae
<i>Canthium rheedii</i>	Rubiaceae
<i>Capparis sepiaria</i>	Capparaceae
<i>Cissus trilobata</i>	Vitaceae
<i>Cuscuta reflexa</i>	Cuscutaceae
<i>Cyperus pangorei</i>	Cyperaceae
<i>Ixora arborea</i>	Rubiaceae
<i>Jatropha gossypifolia</i>	Euphorbiaceae
<i>Leucaena glauca</i>	Mimosaceae
<i>Macaranga peltata</i>	Euphorbiaceae
<i>Melia dubia (naturalized)</i>	Meliaceae
<i>Moringa concanensis</i>	Moringaceae
<i>Physalis minima</i>	Solanaceae
<i>Semecarpus anacardium</i>	Anacardiaceae
<i>Spilanthus paniculata</i>	Asteraceae
<i>Stereospermum colais</i>	Bignoniaceae
<i>Terminalia chebula</i>	Combretaceae
<i>Thunbergia laevis</i>	Acanthaceae
<i>Tinospora cordifolia</i>	Menispermaceae
<i>Wattakaka volubilis</i>	Asclepiadaceae

B) ADDITIONS TO THE FLORA OF DAMAN

<i>Caesalpinia bonduc</i>	Caesalpiniaceae
<i>Desmodium laxiflorum</i>	Fabaceae
<i>Eranthemum roseum</i>	Acanthaceae
<i>Sphaeranthus indicus</i>	Asteraceae
<i>Stephania japonica</i>	Menispermaceae
<i>Terminalia bellirica</i>	Combretaceae
<i>Terminalia crenulata</i>	Combretaceae

REFERENCES

- Agarwal, V. S. and Barin Ghosh, 1985. *Drug Plants of India (Root Drugs)*. Kalyani Publ., New Delhi.
- Ahmedullah, M. and M. P. Nayar. 1987. *Endemic Plants of Indian Region*. Vol. I. B.S.I. Calcutta.
- Akerele, Olayiwola, Vernon Heywood & Hugh Synge, 1991. *The Conservation of Medicinal Plants*. Cambridge Univ. Press. Cambridge, New York.
- Alcorn, J. B. 1984. *Huaste Mayan Ethnobotany*. Univ. Texas Press, Austin.
- Alam, M. K. 1992. Medical Ethnobotany of The Marma Tribe of Bangladesh *Eco. Bot.* 46(3) : 130-135.
- Aminuddin & R. D. Girach, 1991. Pluralistic folk uses of *Hemidesmus indicus* (L.) R. Br. from S - E India *J. Econ. Tax. Bot.* 15(3) : 715-718.
- Aminuddin & R. D. Girach, 1993. Observations on Ethnobotany of Bhunjia - A Tribe of Sonabera Plateau *Ethnobot.* 5 : 84.
- Anonymous. 1948-1976. *The Wealth of India : Raw Materials*, Vol. I XI. Publication & Informations Directorate, CSIR, New Delhi.
- Anonymous. 1991. *Eighth Five Year Plan 1992-97 and Annual Plan 1992-93 Of Tribal Sub Plan, Daman*. Prepared by Collectorate Daman, Tribal Sub Plan Cell, Admin. of Daman & Diu, Daman.
- Anonymous. 1992 (a). *Standardisation of Single Drugs of Unani Medicine*. Part-II. by Central Council for Research in Unani Medicine, New Delhi.
- Anonymous. 1992 (b). *The Useful Plants of India*. Publications & Informations Directorate, CSIR, New Delhi.
- Anonymous. 1993. *Indian Medicinal Plants*, (Ed) Arya Vaidya Sala, Kottakkal. Orient Longman Limited, Hyderabad.

- Anonymous. 1994. *Ethnobotany & The Search for New Drugs*, Ciba Foundation Symposium 185. John Wiley & Sons Ltd.
- Arora, R. K., M. L. Maheshwari, K. P. S. Chandel, & R. Gupta, 1980. *Mano (Inula racemosa)*: Little known aromatic plants of Lahul Valley, India *Econ. Bot.* 34:175-180.
- Asolkar, L. V., K. K. Kakkar & O. J. Charkre, 1992. *Glossary Of Indian Medicinal Plants with Active Principles. Part-I (A-K) (1965-1981)*. Publication & Informations Directorate, CSIR, New Delhi.
- Audu, James A. 1993. Observation on the Efficacy & Palliative action of Medicinal herbs used by Traditional herbal practitioners in Bauchi-State-I *J. Econ. Tax. Bot.* 17 (3) : 501 - 508.
- Bakhr, H. K. 1993. *Herbs That Heal-Natural Remedies For Good Health*. Orient Paper books, New Delhi.
- Balasubramanian, P. & S. Narendra Prasad, 1996. Medicinal Plants Among the Irulars of Attappady & Boluvampatti Forests in The Nilgiri Biosphere Reserves *J. Econ. Tax. Bot. Addl. Ser.* 12 : 258.
- Banerjee, D. K. 1977. Observations on the ethnobotany of Araku Valley. Visakhapatnam district, Andhra Pradesh *J. Sci. Club.* 31:14-21.
- Baruah, Parukutty & G. C. Sarma, 1984. Studies on the medicinal uses of plants by the Boro tribals of Assam. II *J. Econ. Tax. Bot.* 5:599-604.
- Bedi, S. J. 1978. Ethnobotany of the Ratan Mahal hills Gujarat, India in *Econ. Bot.* 32 : 278-284.
- Bedi, R. 1952. The Sacred Plant of India. Is it Foreign to the People of this Country? *Indian For.*, 78:576-581.
- Bennet, S. S. R. 1978. Ethnobotanical Studies in Nagar Haveli Forests - Some Interesting Native Drugs *Indian For.*, 104(10):676-681.
- Bennet, S. S. R. 1983. Ethnobotanical Studies in Sikkim, *Ind. For.* 109 : 477.

- Berlin, B., D. E. Breedlove & H. R. Peter, 1974. *Principles of Tzeltal Plant Classification : An Introduction to the Botanical Ethnography of a Mayan Speaking People of Highland Chiapas*. Academic Press, New York.
- Bhalla, S., J. R. Patel & N. P. Bhalla, 1992. Ethnomedicinal herbal Legumes of Bundelkhand Region, Madhya Pradesh *J. Econ. Tax. Bot. Addl. Ser.* 10 : 105-109.
- Bhargava, N. 1983. Ethnobotanical Studies of the tribes of Andaman and Nicobar Islands, India. I *Onge Econ. Bot.* 37 : 110-119.
- Bhatt, S. C. 1997. *The Encyclopaedic District Gazetteers of India, Western Zone*. Vol.7. Gyan Publ., New Delhi.
- Bhattacharya, Goutam, 1996. Medico-Ethno-Botanical Value of Saurashtra Weeds *J. Econ Tax. Bot. Addl. Ser.* 12 : 166-168.
- Binu, S., T. S. Nayar & P. Pushpangadan, 1992. An Outline of Ethnobotanical Research in India *J. Econ. Tax. Bot. Addl. Ser.* 10 : 405-428.
- Bodding, P. O. 1927. *Santal Medicine*. The Book Trust, Calcutta, 700078.
- Borthakur, S. K. 1993. Native Phytotherapy for Child & Women Diseases from Assam *Ethnobot.*, 5 : 87.
- Boyd, C. E. 1972. A Bibliography of Interest in the Utilization of Vascular Aquatic Plants *Econ. Bot.* 26:74.
- Champion, H. G. & S. K. Seth. 1968. *A Revised Survey of the Forest Types of India*. Manager of Publications, Delhi.
- Chaudhuri, Rai H. N. & D. C. Pal, 1975. Notes on magico-religious belief about plants among Lodhas of Midnapur, W. Bengal *Vanyajati*. 13:210-222.
- Chhetri, R. B. 1994. Further Observations on Ethnomedicobotany of Khasi Hills in Meghalaya, India *Ethnobot.* 6 : 33-36.

- Chhetri, R. B., S. K. Katakai & C. L. Boissya. 1992. Ethnobotany of some Ichthyotoxic Plants in Meghalaya, North-Eastern India *J. Econ. Tax. Bot.*, Addl. Ser. 10 : 285-288.
- Chopra, R. N., I. C. Chopra & B. S. Varma, 1969. *Supplement To The Glossary of Indian Medicinal Plants*. CSIR, New Delhi.
- Chopra R. N., S. L. Nayar & I. C. Chopra, 1956. *Glossary of Indian Medicinal Plants*. CSIR Publication, New Delhi.
- Chourasia, H. K. and A. K. Roy, 1992. A Survey of Drug Plants of Bhagalpur and Santhal Pargana Division, Bihar for Therapeutic Potentiality *J. Econ. Tax. Bot.*, Addl. Ser. 10 : 323-330.
- Cooke, T. 1901-1908. *The Flora of the Presidency of Bombay*. 2 Vols. London.
- Dam, D. P. & P. K. Hajra, 1981. Observation on Ethnobotany of the Mompas of Kameng district, Arunachal Pradesh in S. K. Jain (Ed.) *Glimpses of Indian Ethnobotany*. pp. 107-114.
- Dar, G. H., Vir Jee, P. Kachroo & G. M. Buth, 1984. Ethnobotany of Kashmir - I. Sind Valley *J. Econ. Tax. Bot.* 5:668-675.
- Das, H. S., P. C. Panda & S. N. Patnaik, 1996. Traditional Uses of Wetland Plants of E. Orissa *J. Econ. Tax. Bot.* Addl. Ser., 12 : 306.
- Dastur, J. F. 1964. *Medicinal Plants of India & Pakistan*. D. B. Taraporeval Sons & Co., Pri. Ltd. 1st Indian edition, Bombay.
- Datta, S. C. & B. Mukerji, 1950. *Pharmacognosy of Indian Root & Rhizome Drugs*. Manager of Publications, Delhi.
- Deokule, S. S. & D. K. Magdum, 1992. Enumeration of Medicinal Plants from Baramati area, Dist. Pune, Maharashtra State *J. Econ. Tax. Bot.* Addl. Ser. 10.
- Dixit, R. S. & H. C. Pandey, 1984. Plant used of folk-medicine in Jhansi & Lalitpur sections of Bundelkhand, U. P. *Int. J. Crude Drugs Res.* 22:47-51.

- D'Souza, Marie, 1993. *Tribal Medicine*. Soci. for Promotion of Wastelands Develoment, Shriram Bharatiya Kala Kendra Bldg., Copernices Marg, New Delhi - 1.
- Duke, J. A. 1968. *Dariene Ethnobotanical Dictionary*. Battelle Memorial Institute, Columbus Laboratories, U. S.
- Duke, J. A. 1986. *An Isthmian Ethnobotanical Dictionary*. Sci. Publ., Jodhpur.
- Duke, James A. & Edward S. Ayensu, 1985. *Medicinal Plants of China* Vol. I. & II. Reference Publ., Inc. 218 St. Clair Drive, Algonac, Michigan - 48001.
- Faulks, P. J. 1958. *An Introduction to Ethnobotany*. Moredale, London.
- Ford, Richard I. (Ed.). 1978. *The Nature & Status of Ethnobotany*. Mus. Anthropol., Univ. of Michigan.
- Gibbs, R. D. 1974. *Chaemotaxonomy of Flowering Plants*. Vol. I-IV McGill-Queen's Univ. Press, Montreal.
- Gill, L. S. & H. G. K. Naywuame, 1994. Leguminosae in Ethnomedicinal Practices of Niegeria *Ethnobot.* 6 : 51-64.
- Girach, R. D. 1992. Medicinal Plants Used by Kondh Tribe of Dist. Phulbani, Orissa *Ethnobot.* 4:60.
- Girach, R. D. & Aminuddin, 1995. Ethnomedicinal Uses of Plants Among the Tribals of Singbhum Dist., Bihar, India *Ethnobot.* 7 : 105.
- Godbole, Archana, 1996. Role of Tribals in Preservation of Sacred Forests in *Ethnobiology in Human Welfare* (Ed, S. K. Jain) : 345-348. Deep Publications, New Delhi.
- Goel, A. K., A. K. Sahoo & V. Mudgal, 1984. *A Contribution to the Ethnobotany of Santal Pargana*. BSI, Howrah.
- Goel, A. K. & B. S. Aswal, 1990. Less Known uses of some Plants in Indigenous Folk-Lore from Nothern India *J. Econ. Tax. Bot.* 14 (1) : 185-188.

- Gopakumar, K., S. N. Yoganarasimhan, K. V. Nair, K. R. K. Murthy, T. R. Shantha & B. Vijayalakshmi, 1989. Plants Used in Ayurveda from Chikmagalur Dist., Karnataka, India *J. Econ. Taxa. Bot.* 13 (2) : 367-375.
- Gopakumar, K., B. Vijayalakshmi, T. R. Shantha & S. N. Yoganarsimhan, 1991. Plants used in Ayurveda From Chikmagalur Dist., Karnataka-II *J. Econ. Tax. Bot.* 15 (2) : 379-391.
- Goud, P. S. & T. Pullaiah, 1996. Ethnobotany of Kurnool Dist. Some Wild Plants Used as Food *J. Econ. Tax. Bot., Addl. Ser.*, 12 : 126.
- Gracias, C. 1899. *Os legumes e os Cereaes de Goa e Damao. Suas propriedales usos economicos e therapeuticos e analyse Chimica*, 1-23, Bombay.
- Gracias, C. 1927. *Catalogo descritivo dos produtos uteis da Flora de Goa e do distrito de Damao*, Bastora, Goa.
- Gracias, C.F.X. 1896. *Memoria sobre Pogostemon parviflorus*, 1-10, Margao, Goa, 1896.
- Gracias, C.F.X. 1902. *Flora Economica e Industrial da Provincia de Pragana Nagar Haveli. (India Portugueza). Memorias da Academia Real das Sciencias de Lisba*, nov. ser. Classe de Sciencias Mathematicas.
- Gunjatkar, N. & V. D. Vartak, 1982. Enumeration of Wild Edible Legumes from Pune District, Maharashtra State *J. Econ. Tax. Bot.* 3 : 1-8.
- Gunther, E. 1945. *Ethnobotany of Western Washington*. Univ. Washington Publ. Anthropol., Washington (2nd Ed. 1973).
- Gupta, R. 1964. Survey record of medicinal & aromatic plants of Chamba forest division, Himachal Pradesh *Ind. For.* 90:454-468.
- Gupta, R. 1971. Medicinal & aromatic plants of Bhandal ranges Chura forest division, Chamba district, Himachal Pradesh *J. Bomb. nat. Hist. Soc.* 68:791-803.

- Hajra, P. K. & P. Chakraborty, 1982. A Survey of wild plants in Lal market of Gangtok *Ind. Journ. For.* 4:217-220.
- Harshberger, J. W. 1895. The purposes of ethnobotany *Bot. Gaz.* 21:146-158.
- Hemadri, K., Raj, P. V., Sasibhusana Rao, S. & C. R. P. Sharma, 1980. Folklore claims from Andhra Pradesh *Sci. Res. Plant* 1:37-49.
- Holmstedt, B. & J. G. Bruhn, 1983. Ethnopharmacology A Challenge *Journ. Ethnopharmacology* 8:251-256.
- Hosagoudar, V. B. & A. N. Henry, 1993. Plants Used in-Birth Control & Reproductive Ailments by Ethnobotanists *Ethnobot.* 5 : 118.
- Hosagoudar, V. B. & A. N. Henry, 1996(a). Ethnobotany of Kadaras, Malasars & Muthavans of the Anamalai in Coimbatore Dist., Tamilnadu, India *J. Econ. Tax. Bot., Addl. Ser.* 12 : 263.
- Hosagoudar, V. B. & A. N. Henry, 1996(b). Ethnobotany of Tribes Irular Kurumban & Paniyan of Nilgiris in Tamilnadu, S. India *J. Econ. Tax. Bot., Addl. Ser.* 12 : 279.
- Jain, Pratibha & T. R. Sahu, 1993. Ethnobotanical Study of Noradehi Sanctuary Park of M. P., India : Native Plant Remedies for Scorpionsting & Snakebite *J. Econ. Tax. Bot.* 17 : 315-328.
- Jain, S. K. 1963. Observations on Ethnobotany of Tribals of Madhya Pradesh *Vanyajati*, 11 : 177-183.
- Jain, S. K. 1964. The role of a botanist in folk-lore research *Folklore* 5:145-150.
- Jain, S. K., 1965. Medicinal Plantlore of the Tribals of the Bastar *Econ. Bot.*, 19 : 236-250.
- Jain, S. K. 1968. *Medicinal Plants*. National Book Trust, India, New Delhi.
- Jain, S. K. (Ed). 1981. *Glimpses of Indian Ethnobotany*. Botanical Survey of India, Calcutta.

- Jain, S. K. 1987. *Ethnobotany - Its concepts and relevance in Pros. Add. X Bot. Conf.* pp 1-12.
- Jain, S. K. (Ed). 1989. *Methods & Approaches in Ethnobotany*. Society of Ethnobotanists, Lucknow.
- Jain, S. K. 1990. *Contributions to Indian Ethnobotany*. Deep Publ., New Delhi.
- Jain, S. K. 1991. *Dictionary of Indian Folk Medicine & Ethnobotany*. Deep Publ., New Delhi.
- Jain, S.K. 1999. *Dictionary of Ethnoveterinary Plants of India*. Deep Publications, New Delhi.
- Jain, S. K. 1995. (Ed). *A Manual of Ethnobotany (Second Edition)*. Scientific Publ., Jodhpur.
- Jain, S. K. (Ed). 1996. *Ethnobiology in Human Welfare*. Deep Publ., New Delhi.
- Jain, S. K., B. K. Sinha & R. C. Gupta, 1991. *Notable Plants in Ethnomedicine of India*. Deep Publ., New Delhi.
- Jain, S. K. & C. R. Tarafdar, 1970. Medicinal Plant-lore of the Santals. A revival of P. O. Boddings work *Econ. Bot.* 24:241-278.
- Jain, S. K. & Robert A. De Filippis, 1991. *Medicinal Plants of India (Vol. I & II)*. Reference Publ., INC. Algonac, Michigan-48001.
- Jain, S. K. & R. R. Rao, 1977. *A Handbook of Field & Herbarium Methods*. Today & Tomorrows Printer, & Publ., New Delhi.
- Jain, S. K. & S. K. Borthakur, 1980. Ethnobotany of Mikirs of India *Econ. Bot.* 34:264-272. -(1).
- Jain, S. K., V. Mudgal, D. K. Banerjee, A. Guha, D. C. Pal & D. Das, 1984. *Bibliography of Ethnobotany*. BSI, Howrah.

- Jain, S. K., Vinay Ranjan, R. L. S. Sikarwar & A. Saklani, 1994. Botanical Distribution of Psychoactive Plants of India *Ethnobot.*, 6 : 65-75.
- Jain, S. P. 1984. Ethnobotany of Morni and Kabsar (district Ambala, Haryana) *J. Econ. Tax. Bot.* 5:809-813.
- Jain, S.P. 1996. Ethnomedicobotanical Survey of Chaibasa, Singhbhum, Dist. Bihar *J. Econ. Tax. Bot. Addl. Ser.*, 12 : 406.
- Janaki Ammal, E. K. 1955. *An Introduction to the Subsistence Economy of India*. Background paper No. 10. Wenner-Gref Foundation International Symposium on "Man's Role in Changing the Face of the Earth", Princeton Inn., Princeton, N. J. June 16-22.
- John, D. 1984. One hundred useful drugs of the Kani tribes of Trivandrum forest division, Kerala. India *J. Crude Drug. Res.* 22:17-39.
- Johns, Timothy, 1990. *With Bitter Herbs They Shall Eat it*. (Chemical Ecology & the Origins of Human Diet & Medicine). The univ. of Arizona Press.
- Jones, V. H. 1941. The Nature & Status of Ethnobotany *Chron. Bot.* 6:219.
- Joshi, M. C., M. B. Patel & P. J. Mehta, 1980. Some folk medicines of Dangs, Gujarat State *Bull. Med. Ethn. bot. Res.* 1:8-24.
- Joshi, Prabhakar, 1982. Ethnobotanical Study of Bhills. A Priliminary Survey *J. Econ. Tax. Bot.* 3:257-266.
- Joshi, Prabhakar, 1995. *Ethnobotany of the primitive Tribes in Rajasthan*, Printwell, Jaipur (India).
- Kalidhar, S. B., M. R. Parthasarthy & P. Sharma, 1981. Norbergenin, A New C-Glycoside from *Woodfordia fruticosa* (L.) Kurz *Indian Journ. Chem. Sect. B.* 20 : 720-721.
- Kamble, S. Y. & S. G. Pradhan, 1980. Ethnobotany of 'Korkus' in Maharashtra *Bull. Bot. Surv. India*, 22 (1-4) : 201-202.

- Kapoor, S. K. & Y. K. Sarin, 1977. Useful medicinal ferns of Jammu & Kashmir *Ind. Drugs*. 14:136-140.
- Kapur, S. K. 1991. Traditionally Important Medicinal Plants of Dudu Valley of Jammu *J. Econ. Tax. Bot.* 15 (1) : 1-10.
- Kapur, S. K., S. Nanda & Y. K. Sarin 1992. Ethnobotanical Uses of RRL Herbarium-I *J. Econ. Tax. Bot., Addl. Ser.* 10 : 461-477.
- Karatela, Y. Y., B. A. Omokafe & M. A. Nurani, 1991. Survey of Folk Medicinal Plants Used by Okpameri Tribe in Akoko Edo Area of Bendel State of Nigeria *Ethnobot.* 3:51.
- Khanna, K. K., P. K. Srivastava and V. Mudgal, 1996. Noteworthy Medicinal Plant Uses from Rural Folklore of Raebareli Dist., Uttar Pradesh *J. Econ. Tax. Bot., Addl. Ser.* 10 : 19-22.
- Kirtikar, K. R. & B. D. Basu, 1933. *Indian Medicinal Plants* (Vols. 1-4). Second edition. Publ. L. M. Basu, Allahbad.
- Koelz, W. N. 1979. Notes on Ethnobotany of Lakul, a province of the Punjab *J. Crude Drug Res.* 17:1-56.
- Kothari, M. J. & S. Moorthy, 1996. Ethnobotany in Human Welfare of Raigad District in Maharashtra State, India in *Ethnobotany in Human Welfare* (Ed S. K. Jain) : 403-407. Deep Publications, New Delhi.
- Kulhari, O. P. 1992. The Ethnobotany of Field Fencing in Western Rajasthan *J. Econ. Tax. Bot., Addl. Ser.* 10 : 163-171.
- Kulkarni, B. G. 1968. Medicinal Plants from Vangurla-Sawantwadi Phonda area, Ratnagiri Dist. Maharashtra State *M. V. M. Patrika.* 3:17-24.
- Kulkarni, D. K. & M. S. Kumbhojkar, 1992(a). Ethnobotanical Studies on Mahadeokoli tribe in Western Maharashtra - Part-I. Cordage Plants *J. Econ. Tax. Bot., Addl. Ser.* 10 : 111-115.
- Kulkarni, D. K. & M. S. Kumbhojkar, 1992(b). Ethnobotanical Studies on Mahadeokoli tribe in Western Maharashtra. Part-II. Fodder Plants *J. Econ. Tax. Bot., Addl. Ser.* 10:123-128.

- Kulkarni, D. K. & M. S. Kumbhojkar, 1992(c). Ethnobotanical Studies on Mahadeokoli Tribe in Western Maharashtra. Part-III. Nonconventional wild edible Fruits *J. Econ. Tax. Bot.*, Addl. Ser. 10 : 151-158.
- Kulkarni, D. K. & M. S. Kumbhojkar, 1996. Pest Control in Tribal Areas of Western Maharashtra-An Ethnobotanical Approach *Ethnobot.*, 8:56-59.
- Kumar, S. & (Mrs.) R. Mathur, 1992. Perspectives in Tribal Medicines with Special Reference to some Asteraceous Plants in India *J. Econ. Tax. Bot.*, Addl. Ser. 10 : 19-22.
- Kumbhojkar, M. S., A. S. Upadhye & D. K. Kulkarni, 1996. Religious Forest Patches Among Mahadeokoli Tribal Localities-Social, Cultural & Environmental Relationship in *Ethnobiology in Human Welfare*. (Ed., S. K. Jain) : 349-351.
- Kumbhojkar, M. S., D. K. Kulkarni and A. S. Upadhye, 1991. Ethnobotany of *Cissus quadrangularis* L. from India *Ethnob.*, 3 : 21-25.
- Kumbhojkar, M. S. & V. D. Vartak, 1984. Floristic Studies on the Families Vitaceae & Leeaceae Along the Western Ghats From Maharashtra & Goa Part-I. Enumeration *J. Univ. of Poona. Sci., Tech.* 56 : 1-15.
- Lakshmanan, K. K. & A. S. Sankara Narayanan, 1990. Antifertility Herbals used by the Tribals in Anaikkatty Hills, Coimbatore District, Tamilnadu *J. Econ. Tax. Bot.* 14 (1) : 171-173.
- Lakshminarasimhan, P. & B. D. Sharma, 1988. 'Pawri', An Adivasi Musical Instrument, Short Communications : *Bull. Bot. Surv. India.* 30 (1-4).
- Lakshminarasimhan, P. and B. D. Sharma, 1991. *Flora of Nasik District*. B.S.I., Calcutta.
- Lal, S. D. & B. K. Yadav, 1983. Folk medicines of Kurukshetra district (Haryana) India *Econ. Bot.* 37:299-305.
- Lal, S. D. & K. Lata, 1980. Plants used by the Bhat Community for regulation fertility *Econ. Bot.* 34:273-275.

- Lalramnghinglova, S. H. 1996. Ethnobotany of Mizoram - A Preliminary Survey *J. Econ. Tax. Bot., Addl. Ser.*, 12 : 439-459.
- Lele, P. S. 1987. *Dadra & Nager Haveli Past & Present*. Publ. Mrs. Usha P. Lele Sampada, Silvassa U.F. or DNH.
- Maheshwari, J. K. 1996. (Ed) *Ethnobotany in South Asia*. Scientific Publ., Jodhpur.
- Maheshwari, J. K. 1996. New Vistas in Ethnobotany in South Asia in *Ethnobotany in South Asia* Scientific Publ., Jodhpur, (Ed) Maheshwari J. K., pp 1-11.
- Maheshwari, J. K., Singh, K. K. & S. Saha, 1981. *The Ethnobotany of the Tharus of Kheri district*, U. P., National Botanical Research Institute. Lucknow.
- Manandhar, N. P. 1996. Ethnobotanical observations on Ferns & Fern Allies of Nepal *J. Econ. Tax. Bot., Addl. Ser.* 12 : 414 - 422.
- Manilal, K. S. 1989. Linkage of Ethnobotany with other Sciences & Disciplines *Ethnobot.* Vol.I : 15-24.
- Mandal, S. K. & S. K. Basu, 1996. Ethnobotanical Studies Among Some Tribals of Nilgiri Dist., Tamilnadu *J. Econ. Tax. Bot., Addl. Ser.* 12 : 271.
- Mehra, K. L. 1996. Intellectual Property Rights for Informal Innovators : Biodiversity Conservators in *Ethnobiology in Human Welfare* (Ed) S. K. Jain. Deep Publ., New Delhi.
- Mehra, K. L., K. C. Kanodia & R. N. Srivastava. 1975. Folk Uses of Plants for Adornment in India *Econ. Bot.* 29 : 39-46.
- Mehrotra, B. N. 1990. Quality Control Requirements of Medicinal Plants Used in Traditional Medicines *Ethnobot.* 2 : 19-24.
- Mehrotra, Shanta, A. K. S. Rawat & Usha Shome, 1996. 'Picroliv'-From Indigenous Knowledge to Modern Drug in *Ethnobiology in Human Welfare* (Ed) S. K. Jain, Scientific Publ., New Delhi.

- Metailie, G. 1981. Bibliography on botany & ethnobotany of China (ancient & contemporary) *J. Agri. Trad. Bot. Appl.* 28:253-268.
- Mishra, R. & K. V. Billore, 1983. Some Ethnobotanical uses from Banswara district *Nagarjun.* 26:229-231.
- Mohanty, R. B. & S. N. Padhy, 1996. Traditional Phytotherapy for Diarrhoeal Diseases, in Ganjam & Phulbani, Dist. of South Orissa, India *Ethnobot.* 8 : 6065.
- Molla, H. A. & D. C. Pal, 1992. Observation *Vetiveria zizanoides* (L.) Nash (Khas-Khas) *J. Econ. Tax. Bot. Addl. Ser.* 10.
- Mudgal, V. & D. C. Pal, 1980. Medicinal Plants used by tribals of Mayurbhanj (Orissa) *Bull. Bot. Surv. India.* 22:59-62.
- Mudgal, V. & S. K. Jain, 1980. *Coptis teeta* Wall.-Local uses, distribution and cultivation *Bull. Bot. Surv. India* 22:179-180.-(57).
- Painuli, R. M. & J. K. Maheshwari, 1996. Some Interesting Ethnomedicinal Plants used by Sahariya Tribe of Madhya Pradesh in *Ethnobotany in South Asia* (Ed.) J. K. Maheshwari, (179-185) Sci. Publ. Jodhpur.
- Pal, D. C. 1972. Magico-religious belief about plants among Adibasis of Bihar *Folklore* 13:479-483.
- Pal, D. C. 1980. Observations of folklore about plants used in veterinary medicine in Bengal, Orissa & Bihar *Bull. Bot. Surv. India* 22:96-99.
- Pal, D. C. & V. Mudgal, 1985. *Conservational Practices of Tribals of Purulia & their Relevance in Eco-development Programme* in Proc. Eco-development Comp, Bayhmund (Purulia) 37-42.
- Palit, S. 1990. Tribals & Conservation of Forests *The Indian For.* 116 (2).
- Paliwal, G. S. & A. K. Badoni, 1990. Ethnobotany of the Hill Tribes of Uttarkashi. I Medicinal Plants *J. Econ. Tax. Bot.*, 14:2.
- Pandey, A. K., H. R. Bora & S. C. Deka, 1996. An Ethno-Medico-Botanical Study of Golaghat Dist Assam : Native Plant Remedies for Jaundice *J. Econ. Tax. Bot.*, Addl. Ser. 12 : 347.

- Pandey, C. N. & Y. R. Ladwa, 1989. *Working Plan for the Forests of Dadra & Nagar Haveli* (1986-87 to 1995-96). Vol. I & II.
- Powers, Stephan, 1875. Aboriginal Botany in *Proc. Calif. Acad. Sci.* 5:373-379.
- Pushpangadan, P. 1994. *Ethnobiology in India - A Status Report, All India Co-ordinated Research Project on Ethnobiology*. Ministry of Environment & Forests, Govt. of India, New Delhi.
- Pushpangadan, P. & C. K. Atal, 1984. Ethno-medico-botanical investigations in Kerala - I. Some primitive tribals of Western Ghats & their herbal medicine *J. Ethno-Pharmacol.* 11:59-77.
- Rajendran, A. & A. N. Henry, 1994. Plants Used by the Tribe Kadar in Anamalai Hills of TamilNadu *Ethnobot.*, 6:19-24.
- Ramachandran, V. S. & N. C. Nair, 1981. Ethnobotanical observation on Irulars of Tamil Nadu, India *J. Econ. Tax. Bot.* 2:183-190.
- Ranjan, Vinay, 1996. Some Ethnomedicinal Plants of Lalitpur District, U. P. India in *Ethnobiology in Human Welfare* (Ed.) S. K. Jain, 149-150.
- Rao, N. Rama & A. N. Henry, 1996. *The Ethnobotany of Eastern Ghats In Andhra Pradesh, India*. B.S.I. Howrah.
- Rao, R. R. 1981. Ethnobotany of Meghalaya, medicinal plants used by Khasia & Garo tribes *Econ. Bot.* 35:4-9.
- Rao, R. R. 1996. Traditional Knowledge & Sustainable Development : Key Role of Ethnobiologists *Ethnobot.*, 8:14-24.
- Rao, R. S., 1969. *The Flora of Diu, Daman and Dadra & Nagar Haveli*, Thesis submitted at The University of Agra, India.
- Rao, R. S. 1985. *Flora of Goa, Daman, Diu, Dadra & Nagar Haveli* Vol. I & II. Botanical Survey of India, Calcutta.

- Rastogi, Ram P. & B. N. Mehrotra, 1991(a). *Compendium of Indian Medicinal Plants Vol.-I (1960-69)*. CDRI & Publications & Informations Directorate, New Delhi.
- Rastogi, Ram P. & B. N. Mehrotra, 1991(b). *Compendium of Indian Medicinal Plants Vol.-II (1970-79)*. CDRI & Publications & Informations Directorate, New Delhi.
- Rastogi, Ram P. & B. N. Mehrotra, 1993. *Compendium of Indian Medicinal Plants Vol. III (1980-1984)*. CDRI & Publications & Informations Directorate, New Delhi.
- Razi, B. A. & K. Subramaniam, 1978. Collection, Cultivation & Conservation of Medicinal Plants in Karnataka State *Agri. Agro. Ind.* II:9-16.
- Rochebrune, E. T. de. 1879. Recherches d' ethnographie botanique sur la flore des sepultures Peruviennes d' Ancon *Actes Soc. Linn. Bordeaux* 33:343-358.
- Sabnis, S. D. & S. J. Bedi, 1983. Ethnobotanical Studies in Dadra, Nagar Haveli & Daman *Indian Journal of Forestry*, 6 (1) : 65-69.
- Sadhale, Archana, A. M. Mujumudar & G. S. Pendse, 1991. Ethnobotanical Studies of Sacred Grove at Ajiwali, Pune District *J. Econ. Tax. Bot.* 15 (1) : 167-72.
- Sahu, T. R. 1982. An ethnobotanical study of Madhya Pradesh. I. Plants used against various disorder among tribal women *Ancient Sci. Life.* 1:178-181.
- Saini, D. C. 1996. Ethnobotany of Thanos of Basti District of U. P. *J. Econ. Tax. Bot., Addl. Ser.*, 12 : 149.
- Saini, D. C. & S. K. Singh, 1990. Additions to the flora of Upper Gangetic Plain with their Ethnobotanical Studies *J. Econ. Tax. Bot.* 14 (1) : 83-104.
- Saklani, Arvind & S. K. Jain, 1994. *Cross-Cultural Ethnobotany of North-East India*. Deep Publ., New Delhi.

- Satyavati, G. V., Ashok K. Gupta & Neeraj Tandon (Eds), 1987. *Medicinal Plants of India*, Vol.-2. Indian Council of Medicinal Research, New Delhi.
- Saxena, S. K. & J. P. Tripathi, 1989. Ethnobotany of Bundelkhand - Studies on the Medicinal Uses of Wild Trees by the Tribal Inhabitants of Bundelkhand Region *J. Econ. Tax. Bot.* 13 (2) : 381-90.
- Saxena, S. K. & J. P. Tripathi, 1990. Ethnobotany of Bundelkhand-II. Folklore Therapy Through Herbs Among Inopulent Parishioners and Aboriginal Tribes *J. Econ. Tax. Bot.*, 14 (2) : 263-70.
- Saxton, W. T. & L. J. Sedgwick, 1918. Plants of North Gujarat *Rec. Bot. Surv. India.* 6 : 207-323.
- Schultes, Richard Evans, 1962. The role of the ethnobotanist in the search for new medicinal plants *Lloydia* 25:257-266.
- Schultes, Richard Evans, 1970. Several Ethnotoxicological Notes from the Colombian Amazon *Bot. Mus. Leaflets Harvard Univ.* 22:345-352.
- Schultes, Richard Evans & Sirivon Reis, 1995. *Ethnobotany-Evolution of a Discipline*. Dioscorides Press. Theodore R. Dudley.
- Sen, R. 1990. Ethnobotanical Uses of Herbaria -IX *J. Econ. Tax. Bot.* 14 (2) : 335-340.
- Sen, R., P. Sur, S. Bandyopadhyaya & D. C. Pal, 1984. Ethnobotanical Uses of Herbaria-III *J. Econ. Tax. Bot.* 5 (4) : 795-799.
- Shah, G. L., Menon, A. R. & G. V. Gopal, 1981. An account of the ethnobotany of Saurashtra in Gujarat State (India) *J. Econ. Tax. Bot.* 2:173-182.
- Shah, G. L., S. S. Yadav & V. Badri Nath, 1983. Medicinal Plants from Dahanu Forest Division in Maharashtra State *J. Econ. Tax. Bot.*, 4(1) : 141-151.
- Sharma, B. D. & P. Lakshminarasimhan, 1986. Ethnobotanical Studies on the tribals of Nasik Dist. (Maharashtra) *J. Econ. Tax. Bot.* 8 (2) : 439-454.

- Sharma, B. D. & S. K. Malhotra, 1984. A Contribution to Ethnobotany of Tribal Areas in Maharashtra *J. Econ. Tax. Bot.* 5 (3) : 533-537.
- Sharma S.C. 1996. A Medicobotanical Study in Relation to Veterinary Medicines of Shahajahanpur Dist., U. P. *J. Econ. Tax. Bot., Addl. Ser.*, 12 : 124.
- Shende, N. K., R. R. Biswas, J. S. Lamdhade & G. H. Sapate, 1979. *Report on Detailed Soil Survey & Land use of Some Villages in The U. T. of Dadra & Nagar Haveli.* Prepared by Dept. of Agriculture, Govt. of India, New Delhi.
- Singh, K. K. & Anand Prakash, 1994. Indigenous Phytotherapy Among the Gond Tribe of U. P., India *Ethnobot.* 6 : 37-41.
- Singh, L. B., A. K. Verma & S. S. N. Sinha, 1992. Preliminary Observations on the Ethnomedicinal Plants of Godda District (Bihar) *J. Econ. Tax. Bot., Addl. Ser.* 10 : 205-208.
- Singh, N. P. & P. P. Sharma, 1998. Checklist of Ethnobotanically Important Plants, in *Biodiversity of The Western Ghats of Maharashtra*, edited by A. P. Jagtap. (211-261). World Wide Funds for Nature-India, Pune.
- Singh, N. P. & P. P. Sharma, 1999. Floristic Diversity of Dadra & Nagar Haveli in *Floristic Diversity & Conservation Strategies of India. 2* : 715-730. (edited by V. Mudgal & P. K. Hajra) Botanical Survey of India, Calcutta.
- Singh, N. P., P. P. Sharma & P. G. Diwakar, 1999. Floristic Diversity of Daman & Diu in *Floristic Diversity & Conservation Strategies of India. 2*: 731-744. (edited by V. Mudgal & P. K. Hajra) Botanical Survey of India, Calcutta.
- Singh, V. 1995. Lesser Known Wild Edibles of Sikkim Himalaya *J. Econ. Tax. Bot.* 19 (2) : 385-90.
- Singh, V. & R. P. Pandey, 1982. Plants used in religion & magico-religious beliefs in Rajasthan *J. Econ. Tax. Bot.* 3:273-278.

- Singh, V. & R. P. Pandey, 1996. Ethnomedicinal Plants used for Venereal & Gynaecological Diseases in Rajasthan (India) *J. Econ. Tax. Bot.*, Addl. Ser. 12 : 154-165.
- Sinha, B. K., Vinod Maina & P. M. Padhye, 1996. Ethnomedicinal Plants of Bay Islands for skin care *J. Econ. Tax. Bot.*, Addl. Ser. 12 : 375-380.
- Sinha, Rajiv K. 1996. *Ethnobotany the Renaissance of Traditional Herbals Medicine*. INA Shree Publishers, Jaipur.
- Siwakoti, M. & S. K. Varma, 1996. Medicinal Plants of the Terai of Eastern Nepal *J. Econ. Tax. Bot.*, Addl. Ser., 12 : 423-438.
- Stewart, R. S. 1976. Palaeoethnobotanical Report Cayonu 1972 *Econ. Bot.* 30:219-225.
- Talbot, W. A. 1909-1911. *Forest Flora of the Bombay Residency & Sind*. 2 Vols., Poona.
- Thakur, M. J. 1992. Ethnobotanical Studies of some Plants of Madhubani District (Bihar) (Part I) *J. Econ. Tax. Bot.*, 16 (2) : 383-90.
- Thothathri, K. 1974. Interesting & useful plants of the Andaman & Nicobar Islands *Indian Mus. Bull.* 9:26-28.
- Tiwari, D. N. 1991. Forest & Tribal in Indian For. 117 (11) : 984-989.
- Tiwari, K. C. & V. P. Tiwari, 1996. Some Important Medicinal Plants of the Tropical, Sub-Tropical & Temperate Region of Siang Subansiri & Tirap Dists. of Arunachal Pradesh *J. Econ. Tax. Bot.*, Addl. Ser. 12 : 360.
- Tosh, Jayanand, 1996. Ethnobotanical Study of Western Maharashtra *J. Econ. Tax. Bot.*, Addl. Ser., 12 : 169-174.
- Upadhye, A. S. & M. S. Kumbhojkar, 1992. Ethnobotany of Madhuca from W. Maharashtra *J. Econ. Tax. Bot.*, Addl. Ser. 10 : 77-81.

- Upadhye A. S., V. D. Vartak & M. S. Kumbhojkar, 1994. Ethno-Medico Botanical Studies in Western Maharashtra, India *Ethnobot.* 6 : 25.
- Varghese SVD, E. 1996. *Applied Ethnobotany - A case study Among the Kharias of Central India*. Deep Publ., New Delhi.
- Varma, S. K. & A. K. Pandey, 1990. Ethnobotanical Notes on Certain Medicinal Plants Used by The Tribals of Lohardaga District, Bihar *J. Econ. Tax. Bot.* 14 (2) : 329-333.
- Vartak, V. D. & Madhav Gadgil, 1991. Studies on Sacred Grooves Along the Western Ghats from Maharashtra & Goa, Role of beliefs & folklores in *Contribution to Indian Ethnobotany* (Ed, S. K. Jain) Scientific Publishers, Jodhpur.
- Ved Prakash & B. N. Mehrotra, 1987. Ethnobotanical Studies on the Flora of Khandala, Maharashtra State *J. Econ. Tax. Bot.* 9 (1) : 205-208.
- Verma, P., A. A. Khan & K. K. Singh, 1995. Traditional Phytotherapy Among the Baiga Tribe of Shandol Dist. of M. P., India *Ethnobot.* 7 : 69.
- Vogel, Virgil I. 1970. *American Indian Medicine*. Ballantine Books, New York.
- Watt, G. A. (1889-1893). *Dictionary of the Economic Products of India*, 1-6 Volumes. Calcutta.
- Weiner, M. A. 1971. Ethnomedicine in Tonga *Econ. Bot.* 25:423-450.
- Wickens, G. E. 1990. What is economic botany ? *Econ. Bot.* 44:12-28.
- Yadav, S. S. & P. B. Bhamre, 1989. Ethno-medico-botanical Studies of Dhule forests in Maharashtra State *J. Econ. Tax. Bot.*, 13(2) : 455-460.
- Yoganarasimhan, S. N., T. R. Shantha, K. R. Keshava Murthy, & K. Vasudevan Nair, 1984. Medicobotany of Andaman & Nicobar Islands - II. Elucidation of medicinal Plants *J. Econ. Tax. Bot.* 5:297-320.

- Yoganarasimhan, S. N., V. S. Togunashi, K. R. Keshava Murthy, & Govindaih, 1982. Medicobotany of Tumkur district, Karnataka, *J. Econ. Tax. Bot.* 3:391-406.
- Yoganarasimhan, S. N., K. R. Keshva Murthy, V. Cheiladurai, & V. S. Togunashi, 1983. Medico-botany of Andaman & Nicobar Islands - I *J. Econ. Tax. Bot.* 4:685-697.

INDEX TO BOTANICAL NAMES

- Abelmoschus esculentus** (L.)
 Moench 64, 280
manihot (L.) Medik. 65, 258, 275, 280
Abrus precatorius L. . 97, 255, 257, 272
Abutilon indicum (L.) Sweet 65,
 258, 266
Acacia arabica auct. non (Lam.)
 Willd. 123
auriculiformis A. Cunn ex Bth. 120,
 279
catechu (L.f.) Willd. 20, 38, 121,
 272, 273
catechu Willd. var. *sundra*
 (Roxb.) Prain 122
chundra (Roxb. ex Rottl.) Willd.
 20, 89, 122, 256
concinna (Willd.) DC. 124
ferruginea DC. 122, 126, 267, 279
intsia auct. non Willd. 124
leucophloea (Roxb.) Willd. . 123, 287
nilotica (L.) Willd. ssp. *indica* (Bth.)
 Brenan 23, 123, 273, 275, 280
pennata (L.) Willd. 124, 279
sinuata (Lour.) Merr. 124, 279
torta (Roxb.) Craib 125, 279, 287
ACANTHACEAE 194
Acanthus ilicifolius L. 23
Achras zapota L. 168
Achyranthes aspera L. ... 207, 260, 275
Adhatoda zeylanica Medic. 23, 194, 257
vasica Nees 194
ADIANTACEAE 241
Adiantum philippense L. 20, 241
Adina cordifolia (Roxb.) Hook.f.
 ex Brandis 152, 155, 262
Aegiceras corniculatus (L.) Blanco... 23
Aegle marmelos (L.) Corr. 77, 252,
 268, 280
Aeluropus lagopodloides Trin. 24
Aerides Lour. 20
ALANGIACEAE 150
Alangium lamarckii Thw. 150
salvifolium (L.f.) Wang. 150, 274
Albizia lebbek (L.) Bth. 104,
 125, 261, 268
procera (Roxb.) Bth. ... 126, 267, 279
Alhagi camelorum Fisch. 98
maurorum Medik. 98, 258, 259
pseudalhagi (Bieb.) Desv. 98
Allium cepa L. 229, 250, 274, 280
sativum L. 229, 280
Aloe vera (L.) Burm. f. 23
Alternanthera sessilis (L.) DC. 208, 269
triandra Lam. 208
Alysicarpus bupleurifolius (L.)
 DC. 23, 99, 255
AMARANTHACEAE 207
Amaranthus cruentus L. 208, 280
frumentaceus Buch.-Ham. 208
gangeticus L. 209
hybridus L. ssp. *cruentus* (L.)
 Thell. 208
 var. *paniculatus* (L.) Thell. 208
paniculatus L. 208
tricolor L. 209, 275
Ammannia baccifera L. 20
ANACARDIACEAE 93
Anacardium occidentale L. 93, 265, 280
Andropogon squarrosus L.f. 239
Anisomeles heyneana Bth. 14, 201,
 260, 274
indica O. Ktze. 201, 259
malabarica (L.) R. Br.
 ex Sims. 202, 265
ovata R. Br. 201
ANNONACEAE 56
Annona squamosa L. 56, 258, 272,
 275, 280
Anogeissus latifolia (Roxb. ex DC.)
 Wall. ex Guill. & Perr. 20, 128,
 257, 265, 277, 280
Anthrocnemum Moq. 24
APIACEAE 147
Apluda mutica L. 23
APOCYNACEAE 169
ARACEAE 234
Arachis hypogea L. 99, 280
Areca catechu L. 231, 280
ARECACEAE 231
Argemone mexicana L. 61, 273, 280

- Argyreia nervosa* (Burm. f.) Boj. 82,
 179, 255, 257, 274, 287
sericea Dalz. 24
speciosa Sweet..... 179
strigosa (Roth) Roberty 180, 269
Arisaema murrayi (Grah.) Hook. 24,
 234, 280
tortuosum (Wall.) Schott ... 235, 259,
 287
 ARISTOLOCHIACEAE 211
Aristolochia indica L. 211, 266, 267
Artemesia nilagirica (C.B.Cl.)
 Pamp. 156, 275
vulgaris auct. non L. 156
Arthraxon lancifolius (Trin.) Hochst. ...23
Artocarpus heterophyllus Lam. 219, 280
integrifolius non L.f. 219
Arundinella Raddi 20
pumila (Hochst. ex A. Rich.) Steud. 20
 ASCLEPIADACEAE 171
Asparagus racemosus Willd.
 var. *javanicus* Baker 230, 268,
 269, 271
 ASTERACEAE 156
Asteracantha longifolia (L.) Nees 196
Asystasia dalzelliana Sant. 24
 AVICENNIACEAE 198
Avicennia alba auct. non Bl. 198
marina (Forsk.) Vierh 198, 281
 var. *acutissima* Stapf &
 Moldenke 23, 198
Azadirachta indica A. Juss. 80,
 255, 266, 273, 275, 287

Bacopa monnieri (L.) Pennell 20
Baliospermum montanum
 (Willd.) Muell.-Arg. 212, 268, 275
axillare Bl. 212
polyandrum Wight 213
Barleria prattensis Sant. 24, 84, 195, 281
Bassia latifolia Roxb. 167
Bauhinia foveolata Dalz. 119
racemosa Lam. 117, 136, 262, 269
 BIGNONIACEAE 188
Blepharis asperima Nees 24
Blumea amplexans DC. 157
eriantha DC. . 126, 156, 175, 267, 281
membranacea DC. 157, 281
obliqua (L.) Druce 157, 281, 287
Boerhaavia diffusa L. 206, 262, 274, 275
 BOMBACACEAE 71
Bombax ceiba L. 20, 23, 71, 264, 272
malabaricum DC. 71
 BORAGINACEAE 177
Borassus flabellifer L. 24, 39, 49,
 232, 247, 281
Borreria articularis (L.f.)
 F.N. Williams 155
Breynia patens (Roxb.) Rolfe 213
retusa (Dennst.) Alst. 213, 278
Bridelia retusa (L.) Spr. 20, 104, 138,
 213, 258, 259, 262, 281
squamosa (Lam.) Gahrn. 213
Bryonopsis laciniata L. 144
 BURSERACEAE 79
Butea frondosa Koen. ex Roxb. 99
monosperma (Lam.) Taub. 20, 82,
 99, 166, 269

Caesalpinia bonduc (L.) Roxb. 117,
 259, 261, 281, 288
bonducella (L.) Flem. 117
 CAESALPINIACEAE 117
Caesulia axillaris Roxb. 158
Cajanus cajan (L.) Millsp. 100, 281
indicus Spreng 100
Calotropis gigantea (L.) R. Br. 31, 171,
 250, 261, 270
Calycopteris floribunda (Roxb.)
 Poir. 20, 129, 268, 277
Canscora diffusa (Vahl) R. Br. 20,
 176, 272
Canthium angustifolium Roxb. 151
rheedii DC. 151, 281, 287
 CAPPARACEAE 61
Capparis sepiaria L. .. 61, 261, 281, 287
Capsicum annuum L. 182, 281
Careya arborea Roxb. 20, 134
 CARICACEAE 141
Carica papaya L. 141, 255, 281
Carissa carandas auct. non L. 169
congesta Wight 20, 89, 153, 169,
 189, 229, 262, 263, 270, 281
Carthamus tinctorius L. 158, 274
Carvia callosa (Nees) Bremek. .. 33, 195
Casuarina graveolens Dalz. 62, 279
Cassia fistula L. 20, 84, 118, 266, 268
tora L. 119, 259, 262, 281
Cassine glauca (Rottb.) O. Kutz. 20

- CASUARINACEAE 224
Casuarina equisetifolia Forst. &
 Forst. f. 224
litorea L. 224
Catunaregam spinosa (Thunb.)
 Trivengadam..... 138, 151, 279
Cayratia trifolia (L.) Domin 24, 89, 256
 CELASTRACEAE 86
Celastrus paniculatus Willd. 86
Celosia argentea L. 23, 209, 281
Centella asiatica (L.) Urb. 139, 147, 273
Centranthera hispida R. Br. 187
indica (L.) Gamble 187, 259
Centratherum phyllolaenum (DC.)
 Bth. ex C.B.Cl. 162
Ceratopteris thalictroides (L.)
 Brongn. 20
 CHENOPODIACEAE 210
Chloris barbata Swartz 23
montana Roxb. 24
Cicer arietinum L. 101, 282
Cissampelos pareira L. 57
 var. *hirsuta* (Buch.Ham.
 ex DC.) Forman 57, 261, 269
Cissus adnata Roxb. 89
quadrangularis L. 89, 269, 282
trilobata Lam. 90, 266, 287
Citrullus lanatus (Thunb.) Mats.
 & Nakai 141, 282
vulgaris Schrad. ex Ectl. 141
Citrus medica L. 78, 269, 271, 282
Chloria biflora Dalz. 101, 282
ternatea L. 24, 101, 259
Coccinia grandis (L.) Voigt 142,
 191, 282
indica Wight & Arn. 142
Cocculus hirsutus (L.) Theob. 24, 58,
 257, 261, 266, 269,
villosus (Lam.) DC. 58
Cocos nucifera L. 34, 232, 274, 282
Coix lachryma-jobi L. 191, 236, 282
Colocasia esculenta (L.) Schott 235, 282
intiquorum Schott 235
 COMBRETACEAE 128
Combretum ovalifolium Roxb. 126, 129,
 257, 261, 267, 274
 CONVOLVULACEAE 179
Corchorus capsularis L. 74
oitorius L. 75, 282
Cordia dichotoma Forst. f. 177, 222,
 258, 282
myxa auct. plur. non L. 177
Coriandrum sativum L. 148, 270, 282
Costus speciosus (Koenig)
 J.E. Sm. 225, 259, 279
Crotalaria filipes Bth. 24
fulva Roxb. 102
juncea L. 102, 264
Cryptolepis buchanaani R. & S. 174, 258
Cryptostegia grandiflora R. Br. 174,
 265, 267
Cucumis callosus (Rott.) Cogn. 142,
 282
trigonus Roxb. 142
 CUCURBITACEAE 141
Cucurbita maxima Duchesne
 ex Lam. 143, 282
moschata (Duchesne ex
 Lam.) Poir. 143, 282
pepo L. 143, 282
Curcuma decipiens Dalz. 24
longa L. 226, 258, 282
 CUSCUTACEAE 182
Cuscuta reflexa Roxb. 182, 278, 287
Cyamopsis psoralioides DC. 103
trigonoloba (L.) Taub. 103, 282
Cyathocline purpurea (D. Don)
 O. Ktze. 20, 159, 252, 279
Cylista scariosa Roxb. 112
Cymbopogon parkeri Stapf 24
 CYPERACEAE 236
Cyperus pangorei Rottb. . 236, 270, 287
tagetum Roxb. 236
Daedalacanthus roseus T. And. ... 196
Daemia extensa R. Br. 173
Dalbergia lanceolaria L.f. 103, 126,
 136, 154, 160, 254, 262, 264, 270
latifolia Roxb. 20, 104
oojeinensis Roxb. 107
sissoo Roxb. 42, 43, 49, 105, 258
Datura metel L. 183, 256, 257, 273
Daucus carota L. 148, 283
Dendrobium Sw. 20
ovatum (Willd.) Kranzl. 24
Dendrocalamus strictus (Roxb.)
 Nees 39, 42, 43, 49, 237

- Dendrophthoe falcata** (L.f.)
 Erting. 212, 283
- Desmodium cephalotes** Wall.
 ex Baker 107
 congestum Wall. ex Wt. & Arn. ... 107
 gangeticum (L.) DC. 105, 274
 laxiflorum DC. 106, 268, 288
 ojeinensis (Roxb.) Ohashi 42,
 49, 106, 154, 264
 triangulare (Retz.) Merr. 107, 267
 triquetrum (L.) DC. 107
- Digitaria** Haller 23
 ciliaris (Retz.) Koel. 23
- DILLENACEAE** 55
- Dillenia pentagyna** Roxb. .. 55, 264, 283
- Dimeria stapfiiana** Hubb. ex Pilg. 24
- DIOSCOREACEAE** 227
- Dioscorea** L. 20
 bulbifera L. 135, 137, 227, 283
 pentaphylla L. 228, 283
 wallichii Hook. f. 228, 283
- Diospyros melanoxylon** Roxb. 20,
 168, 283
- Diplocyclos palmatus** (L.)
 C. Jeffrey 144, 267
- Dolichos biflorus** L. 111
 lablab L. 110
- Dregea volubilis** (L.f.) Bth. ex
 Hook. f. 173
- EBENACEAE** 168
- Eclipta alba** Hassk. 159
 erecta L. 159
 prostrata (L.) L. .. 159, 260, 272, 283
- EHRETIACEAE** 178
- Eleocharis** R. Br. 20
- Elephantopus scaber** L. ... 160, 261, 264,
 270, 273
- Eleusine coracana** (L.) Gaertn. 237
- Emblica officinalis** Gaertn. 214, 256,
 257, 283
- Encostema axillare** (Lam.)
 Raynal 176, 255
hyssopifolium (Willd.)
 I. C. Verdoorn 176
littorale acut. non Bl. 176
- Eragrostis superbum** (Roxb.) Cheesm. ... 24
- Eragrostis ciliaris** (L.) R. Br. 23
 viscosa Trin. 23
- Eranthemum roseum** (Vahl)
 R. Br. 196, 266, 288
- Eriocaulon diana** var. *diana*
 Fyson 25
- Erythrina indica** Lam. 108
 stricta Roxb. 23
 variegata L. 32, 108, 263
 var. *orientalis* 25
- Eugenia jambolana** Lam. 133
- Eulalia fimbriata** (Hack.) O. Ktze. ... 20,
 35, 238, 241
- EUPHORBIACEAE** 212
- Euphorbia nerrifolia** L. 23
- Evolvulus alsinoides** (L.) L. 181, 273
- FABACEAE** 97
- Feronia elephantum** Corr. 79
- Ficus asperrima** Roxb. 221
 benghalensis L. ... 104, 177, 220, 222,
 224, 256, 259, 262, 263, 264, 278
 carica L. 220, 283
 exasperata Vahl 221, 260
 glomerata Roxb. 222
 hispida L.f. 221, 270, 272
 infectoria Roxb. 223
 racemosa L. 177, 221, 222, 259,
 260, 264, 283
 religiosa L. 223, 252, 264
 virens Ait. 223, 256, 264, 277, 283
- Fimbristylis** Vahl 20
 polytrichoides (Retz.) R. Br. ... 23, 24
- FLACOURTIACEAE** 62
- Flacourtia indica** (Burm.f.) Merr. 62,
 283
sepiaria Roxb. 62, 279
- Foeniculum vulgare** Mill. 149, 269
- Garuga pinnata** Roxb. 79, 140,
 166, 270, 283
- Geissaspis cristata** Wt. & Arn. 23
- GENTIANACEAE** 176
- Gloriosa superba** L. 138, 231, 275
- Grewia abutilifolia** Vent. ex
 A. Juss. 75, 270
laevigata auct. pl non Vahl 76
 serrulata DC. 76, 256, 277
 tillaeifolia Vahl 23, 76
 var. *leptopetala* (Brandis)
 T. Cooke 20, 76, 283

- Guizotia abyssinica* (L.f.) Cass. 161, 283
- Haldina cordifolia* (Roxb.)
Ridsdale 20, 152, 189, 270
- Helicteres isora* L. 20, 71, 136, 140,
160, 171, 267, 268, 270, 272
- HELIOTROPIACEAE 178
- Heliotropium ovalifolium* Forssk. ... 178,
267
- Hemidesmus indicus* (L.)
Schultes 175, 255
- Hemigraphis latebrosa*
var. *heyneana* Bremek. 25
- Heteropogon quadrilocularis* (Roxb.)
K. Schum. 20, 188, 267
roxburghii A. DC. 188
- Heteropogon contortus* (L.)
P. Beauv. ex R. & S. 23
- Hibiscus cannabinus* L. ... 32, 33, 41, 42,
44, 49, 66, 252, 283
esculentus L. 64
hirtus var. *talbotii* Rakshit 66
talbotii (Rakshit) Paul & Nayar ... 66,
264
tetraphyllus Roxb. ex Horn. 65
- Holarrhena antidysenterica* Wall.
ex A. DC. 170
pubescens (Buch.-Ham.)
Wall. ex G. Don 20, 170,
175, 191, 263, 266, 267, 268, 270
- Holoptelea integrifolia* (Roxb.)
Pianch 190, 218, 270, 278, 279
- Holostemma ada-kodien* Schultes 172,
284
annulare (Roxb.) K. Schum. 172
rheediaum Spreng 172
- Homonola riparia* Lour. 20
- Hydrocotyle asiatica* L. 147
- Hygrophila auriculata* (Schum.)
Heine 196, 271, 275
serpyllum Anders. 20
- Hymenodictyon excelsum* (Roxb.)
Wall. 152
orixense (Roxb.) Mabblerley 74,
152, 169, 263, 270
- Hyphaene dichotoma* (White)
Furtado 22, 24, 25, 233
indica Becc. 233
- Hyptis suaveolens* (L.) Poit. 202,
259, 264, 267, 271
- Indigofera glandulosa* Wendl. . 108, 272
tinctoria L. 109, 263
trita L.f. 110, 268, 273
- Ipomoea biloba* Forssk. 181
digitata auct. non L. 181
mauritiana Jacq. 181, 277
pes-caprae (L.) Sweet 23, 181,
192, 263, 269
septaria Koen. 24,
- Ischaemum* L. 20, 23
- Isellema laxum* Hack. 23
- Ixora arborea* Roxb. ex J.E.
Sm. in Rees 153, 287
brachiata Roxb. 25, 153, 284
parviflora Vahl 153
- Jasminum malabaricum* Wt. 25,
- Jatropha curcas* L. 215, 266
gossypifolia L. 20, 215, 287
- Justicia adhatoda* L. 194
- Kirganella reticulata* (Poir.)
Baill. 216, 259, 261
- Lablab niger* Medic. 110
purpureus (L.) Sw. 110, 284
- Lagenaria siceraria* (Molina)
Standl. 35, 38, 39, 40, 49, 144
vulgaris Seringe 144
- Lagerstroemia parviflora* Roxb. 20, 134,
259, 272
- LAMIACEAE 201
- Lannea coromandelica* (Houtt.)
Merr. 20, 93, 190, 256, 270,
275, 279, 284
- Lantana* L. 23
camara var. *aculeata* (L.)
Moldenke 199, 259, 261
- Launaea fallax* (Taub. &
Spech.) Ktz. 161
nudicaulis (L.) Hook. f. 161, 162
procumbens (Roxb.) Ramayya
& Rajagopal 161, 255, 273,
- Lavandula bipinnata* O. Ktze. 203
burmanni Bth. 203
- Lawsonia inermis* L. 135, 261

- LECYTHIDACEAE 134
 LEEACEAE 91
Leea indica (Burm.f.) Merr. 20, 91,
 229, 258, 275, 284
 macrophylla Roxb., ex Horn. 91, 284
 robusta L. 91
 sambucina Willd. 91
Lepidagathis cuspidata Nees .. 197, 273
 trinervis Nees 23
Lettsomia setosa Roxb. 180
Leucaena glauca Bth. 127, 287
 leucocephala (Lam.) de Wit. 127
Leucas indica (L.) R. Br. ex
 Vatke 203, 266
 lavandulifolia J. E. Sm. 203
 linifolia Spreng 203
 LILIACEAE 229
Limonia acidissima L. 79, 284
 LORANTHACEAE 212
Luffa aegyptiaca Mill. 146
 acutangula (L.) Roxb. 145, 284
 cylindrica (L.) M. J. Roem. . 146, 284
 LYGODIACEAE 240
Lygodium flexuosum (L.) Swartz ... 20,
 240, 260, 277, 278
 LYTHRACEAE 134

Macaranga peltata (Roxb.)
 Muell-Arg. 216, 258, 278, 287
 tomentosa Wight 216
Macrotyloma uniflorum (Lam.)
 Verdc. 111, 273, 284
Madhuca longifolia (Koen.) MacBride
 var. *latifolia* (Roxb.) Chevalier. 20,
 28, 37, 74, 137, 153, 167, 189,
 247, 260, 262, 263, 265, 284,
 MAGNOLIACEAE 55
Malachra capitata (L.) L. .. 67, 274, 275
Mallotus philippensis (Lam.)
 Muell-Arg. 20, 217, 254, 265,
 268, 270, 273
 MALVACEAE 64
Mangifera indica L. 20, 94, 136, 212, 284
Manilkara achras (Mill.) Fosberg ... 168
 zapota (L.) Van Royen 168, 284
Marsdenia volubilis (L.f.)
 T. Cooke 173
Martynia annua L. 193, 273
 dtandra Gloxin 193

 MARTYNIACEAE 193
 MELIACEAE 80
Mella composita Willd. 85
 dubia Cav. 85, 261, 270, 287
Melothria heterophylla (Lour.)
 Cogn. 146
 MENISPERMACEAE 57
Meyna laxiflora Robyns 154, 284
Michelia champaca L. 55, 260
Milium tomentosum (Roxb.)
 Sinclair 57, 284
 MIMOSACEAE 120
Mitragyna parvifolia (Roxb.)
 Korth. 20, 154, 264
Momordica charantia L. 56, 146,
 276, 284
 MORACEAE 219
Morinda pubescens J. E. Sm. 155,
 189, 262
 tinctoria Roxb. 20,
 tinctoria var. *tomentosa* Hook.f. 155
 tomentosa Heyne ex Roth. 155
 MORINGACEAE 96
Moringa concanensis Nimmo
 ex Dalz. & Gibs. 96, 190, 254,
 256, 265, 269, 270, 275, 284, 287
 oleifera Lam. 97, 284
 pterygosperma Gaertn. 97
Mucuna pruriens (L.) DC. 82, 111, 256
Mukta maderaspatana (L.) Roem. ... 24
 MYRTACEAE 132

Nauclea cordifolia Roxb. 152
Neanotis rheedii (Witt. ex Wight
 & Arn.) W. H. Lewis 25
Neuracanthus sphaerostachyus
 Dalz. 25
 NYCTAGINACEAE 206
 NYMPHAEACEAE 60
Nymphaea lotus L. 60
 pubescens Willd. 60, 285

Oberonia Lindl. 20
 brunoniana Wight 25
Ocimum americanum L. 192, 204,
 269, 285
 basilicum L. 204, 257, 261
 sanctum L. ... 205, 252, 257, 261, 266
 285

- Odina woodier* Roxb. 93
Oplismenus P. Beauv. 20
 ORCHIDACEAE 224
Oroxylum indicum (L.) Vent. .. 20, 104,
 126, 136, 155, 169, 188, 190,
 257, 262, 263, 265, 270, 274, 285
Oryza sativa L. 44, 49, 238, 245
Ougeinia dalbergioides Bth. 106

Panicum montanum Roxb. 239
notatum Retz. 239, 285
 PAPAVERACEAE 61
Paracalyx scarlosa (Roxb.) Ali 112, 270
 PEDALIACEAE 193
Pennisetum pedicellatum Trin. 239, 274
Pentanema indicum (L.) Ling 162
Pergularia daemia (Forssk.)
 Chiov. 173, 274, 276, 285
 PERIPLOCACEAE 174
Phaseolus radiatus L. 116
Phoenix sylvestris (L.) Roxb. 24, 34,
 234, 247, 285
Phyllanthus emblica L. 214
reticulatus Poir 216
Phyllocephalum phyllolaenum (DC.)
 Narayana 162, 272
Physalis minima L. 183, 285, 287
Ptilostigma foveolatum (Dalz.)
 Thothathi 119, 191, 270
Pimpinella heyneana (DC.) Kurz ... 149,
 270, 285
Piper betle L. 232
Pithecellobium dulce (Roxb.) Bth. ... 24,
 127, 266, 285
saman (Willd.) Bth. 114
Plectronia rheedii (DC.) Bedd. 151
 PLUMBAGINACEAE 166
Plumbago zeylanica L. 83, 166, 254,
 262, 263, 264, 270, 285
Plumeria acuminata Ait. 141, 255,
 POACEAE 236
Pogostemon bengalense (Burm.f.)
 O. Ktze. 206, 260
plectranthoides Desf. 206
Pollinia fimbriata Hack. 238
 POLYGONACEAE 210
Polygonum barbatum L.
 var. *gracile* Steward 210, 257
glabrum Willd. 20

serrulatum Hack.f. 210
Pongamia glabra Vent 112
pinnata (L.) Pierre 24, 112, 266
 PORTULACACEAE 63
Portulaca oleracea L. 63, 285
Pseudanthistiria (Hack.) Hook.f. 23
Psidium guajava L. 132, 269, 285
Pterocarpus marsupium Roxb.
 var. *acuminatus* Prain 41, 49, 104,
 113, 126, 154, 166, 258,
 262, 264, 271
 PUNICACEAE 136
Punica granatum L. 136, 285

Radermachera xylocarpa (Roxb.)
 K. Schum. 86, 94, 171, 189, 254,
 256, 262, 264, 267, 268, 271, 274
Randia dumetorum (Retz.) Pois. 151
Rauvolfia serpentina Bth. 3
Rhabdia lycioides. Mart. 178
 RHAMNACEAE 86
Rhampicarpa longiflora Bth. 25
Rhynchosia minima (L.) DC.
 var. *laxiflora* Baker 114, 285
Ricinus communis L. ... 38, 83, 141, 218,
 255, 261, 262
Rotala serpyllifolia (Roth) Bremek. ... 20
Rotula aquatica Lour. 20, 178, 274
 RUBIACEAE 151
Rungia elegans Dalz.
parviflora Nees var. *petinata* (L.)
 C. B. Cl. 20, 197
pectinata (L.) Nees 197, 262
 RUTACEAE 77

Saccopetalum tomentosum
 Hooker f. & T. 57
Salicornia 23

Samanea saman (Jacq.) Merr. 114, 247
 SAPINDACEAE 92
Sapindus laurifolius Vahl 92
 SAPOTACEAE 167
Schleichera oleosa (Lour.) Oken. 92, 285
trijuga Willd. 92
 SCROPHULARIACEAE 187
Semecarpus anacardium L.f. 95,
 268, 276, 285, 287
Sericostoma pauciflorum Stks. ... 23, 25

- Sesamum indicum* L. 193
orientale L. 193, 200, 265, 285
- Sida acuta* Burtt. f. 20, 67
cordata (Burm. f.) Borssum ... 68, 276
cordifolia L. 68, 276
veronicifolia Lam. 68
- Smithia conferta* J. E. Sm. 114, 265, 285
- SOLANACEAE 182
- Solanum anguivi* Lam. 184, 258,
259, 271, 286
indicum auct. non L. 184
melongena L. 185, 285
surattense Burm. f. 23, 185, 273
tuberosum L. 186, 286
xanthocarpum Schrad. & Wendl. 185
- Solena amplexicaulis* (Lam.)
Gandhi 146, 259, 272
heterophylla Lour. 146
- Sonneratia apetala* Buch.-Ham. 23
- Sopubia delphinifolia* Don. 23
- Soymida febrifuga* A. Juss. 85, 190,
256, 267, 268, 271
- Spermacoce hispida* L. 155, 271
- Sphaeranthus indicus* L. 163, 252,
256, 277, 279, 288
- Spilanthes acmella* (L.) Murr. 164
paniculata Wall. ex DC. 164,
271, 287
- Spinacia oleracea* L. 210, 257, 286
- Spodiopogon rhizophorus* (Steud.)
Pilger 20
- Spondias mangifera* Willd. 95
plinnata (L.f.) Kurz 95, 286
- Statice stocksii* Boiss. 23
- Stemodia viscosa* Roxb. ... 187, 260, 261
- Stephania hernandifolia* Hook. f.
& Thoms. 59
japonica (Thunb.) Miers 59, 269,
288
- STERCULIACEAE 71
- Sterculla foetida* L. 72, 139, 268, 273
urens Roxb. 20, 49, 73, 81, 153,
254, 257, 260, 263, 275, 286
- Sterospermum chelonoides* DC. 190
colais (Dillw.) Mabberley 190,
271, 287
personatum (Haussk.) Chatterjee ... 190
- Strobilanthes callosus* Nees 195
- Suaeda Forsk.* 24
- Syzygium cumini* (L.) Skeels 20, 133,
258, 268, 286
- TACCACEAE 227
- Tacca leontopetaloides* (L.)
O. Ktze. 227, 263, 277
pinnatifida Forst. 227
- Tagetes erecta* L. 164, 286
- TAMARICACEAE 64
- Tamarindus indica* L. 24, 120, 269, 286
- Tamarix ericoides* Rottl. 20, 64, 257
- Tanacetum purpureum* Buch.-Ham.
ex D. Don 159
- Tectona grandis* L.f. 19, 20, 31, 36, 40, 41,
42, 49, 55, 160, 199, 264, 271, 273
- Tephrosia purpurea* (L.) Pers. 115, 263
- Terminalia bellirica* (Gaertn.)
Roxb. 20, 130, 155, 189,
262, 266, 278, 286, 288
catappa L. 131, 266, 286
chebula Retz. 131, 257, 268, 287
crenulata Roth. 19, 20, 40, 44,
49, 55, 132, 288
tomentosa Wt. & Arn. 132
- Themeda* Forssk. 23
- Thespesia lampas* (Cav.) Dalz.
& Gibs. 20, 69, 260, 273
macrophylla auct. non Blume 69
populnea (L.) Soland. ex Corr. 24, 70
- Thunbergia fragrans* auct. pl. non
Roxb. 197, 198
laevis Nees 197, 275, 287
- TILIACEAE 74
- Tinospora cordifolia* (Willd.)
Miers & Thoms. 59, 81, 260, 287
- Torenia indica* Sald. 25
- Terwia polycarpa* Bth. 20, 25
- Trichodesma indicum* R. Br.
var. *amplexicaule* (DC.) Cooke 177
sedgwickianum S.P. Banerjee ... 177,
258, 271
- Tricholepis glaberrima* DC. ... 163, 165,
266, 272
- Trichopus zeylanicus* Gaertn.
ssp. *travancoricus* (Bedd.) Burkil. 3, 4
- Tridax procumbens* L. 165, 258,
270, 276
- Trilobachne cookii* (Stapf)
Schenck ex Henr. 25

- Triumfetta rotundifolia** Lam. ... 77, 269
- ULMACEAE 218
- Uraria picta** (Jacq.) Desv. 116, 263
- Urena lobata** L. 20, 70, 273
- Urochondra setulosa** 24
- Vanda tessellata** (Roxb.)
Hook. ex G. Don 224, 263, 270
roxburghii R. Br. 224
- Vangueria spinosa** Roxb. 154
- Ventilago calyculata** Tul. 86
denticulata Willd. 86, 256, 277
- VERBENACEAE 199
- Vetiveria zizanioides** (L.) Nash 239,
261, 274
- Vicoa auriculata** Cass. 162
indica (L.) DC. 162, 261
- Vigna radiata** (L.) R. Wilczek . 116, 286
- Viscum articulatum** Burm. 20
- VITACEAE 89
- Vitex negundo** L. 23, 200, 250,
260, 263, 265
- Vitla discolor** Dalz. 89
- quadrangula** Wall. ex
Wt. & Arn. 89
- rheedii* Wt. & Arn. 90
- trifolia* L. 89
- Wattakaka volubilis** (L.f.) Stapf 173,
256, 287
- Withania somnifera** (L.) Dunal 186,
267, 276
- Woodfordia floribunda** Salisb. 136
fruticosa (L.) Kurz 23, 72, 136,
262, 267
- Wrightia tinctoria** R. Br. 20, 84, 170,
263, 267, 268, 270
- Xeromphis spinosa** (Thunb.) Keay 151
- Zea mays** L. 240, 286
- ZINGIBERACEAE 225
- Zingiber officinale** Roscoe 226, 272,
286
- Ziziphus jujuba** Lam. 87
mauritiana Lam. 23, 87, 286
- oenoplia* Mill. 88, 257
- rugosa* Lam. 88, 94, 190, 256, 286

INDEX TO LOCAL NAMES

Abodipithuni	213	Bhui-mung	99
Adulsa	194	Bhui-umber	201
Agheda	207	Bhutedo	163
Akalkara	164	Bibba	95
Akhiryo	196	Biwala	113
Alai	155	Bokadvel	129
Ale	226	Bondar	134
Aliv	151	Bor	87
Alu	154, 235	Borasda	158, 163
Amba	94	Borupdi	108
Ambadi	66	Brahmandandi	165
Amboda	95	Bramhi	147
Amervel	182	Buradyo	157
Anjir	220	Chafa	55
Ankoli	150	Chameli	119
Apta	117	Chand-diva	216
Asan	213	ChandraJyoti	215
Askand	186	Chikana	67, 70
Asud	105, 107	Chiku	168
Atai	71	Chilar	125
Avla	214	Chilari	123, 124
Azola	204	Chinch	120
Babul	123	Chinibor	88
Badam	131	Chirmuth	183
Badiringanee	61	Chitrak	166
Badishep	149	Chobadvel	180
Bahawa	118	Chodara	202
Bambu	237	Chopada- bhendi	69
Bambuda	65	Chunch	74
Bandgul	212	Dalimb	136
Bangali bawar	120	Dandosoi	103
Barikalibhendi	66	Devanupatru	215
Barikaliburadi	203	Dhaktasheral	210
Batata	186	Dhakti-supli	101
Bawara	123	Dhaman	76
Behada	130	Dhamoda	128
Bel	77	Dhayati	136
Bendola	224	Dhordavana	156
Bhat	238	Dhotra	183
Bhendi	64	Dhurmado	202
Bhokara	62	Dini	91
Bhokri	177	Dodaka	145
Bhopla	143	Dongarjeera	149
Bhoybal	68	Dudhibhopla	145

Dudhvel	181	Kandvel	89
Ekota	173	Kanguni	86
Erand	218	Kanti	122
Gajar	148	Karale	146
Gal	151	Karanj	112
Gandaumber	221	Kardo	155
Gandhurtya	202	Karvela	55
Gawar	103	Karvi	195
Gela	62	Karwand	169
Ghas	238	Kashi-bhopla	143
Ghosale	146	Kasu	236
Gomet	146	Kavali	174
Gopali	201	Kavalu	114
Gorya	203	Kavath	79
Gulvel	59	Khaddhamni	76
Gundhan	236	Khad-samervo	99
Gunj	97	Khair	121
Hagara	212	Khaj-kuiri	111
Halad	226	Khajuri	234
Harbara	101	Khakri	221
Hatodi	206	Kharbat	75
Hed	152	Kharsing	189
Hirda	131	Khat	89
Humb	57	Khiranti	68
Jambul	133	Khurasani	161
Jangliwanga	184	Killar	156
Javaso	98	Kinhay	126
Jhipato	77	Kirsel	190
Jilya	109	Kolusta	196
Kachara	142	Kothmir	147
Kadukand	228	Kuda	170
Kadushegut	96	Kulith	111
Kadwai	152	Kumbia	134
Kahandol	73	Kurudu	209
Kajli	101	Kurhadu	165
Kaju	93	Kusumb	92
Kakad	79	Kusumba	158
Kalakuda	170	Lalkhair	122
Kalamb	154	Lasun	229
Kali	162	Limbu	78
Kali-jeeri	187	Lipatue	106
Kal-lawj	231	Lokhadi	217
Kamal	60	Lothi	234
Kambra	197	Lundha	228
Kanchora	239	Madhal	93
Kand	227	Maka	240
Kanda	229	Malliyabhaji	159

Maryadvel	181	Ran	208, 241
Mathbhaji	209	Ranbadam	72
Mehndi	135	Ranbhindo	65
Mendhval	175	Randho	160
Mirachi	182	Ranghevada	112
Mohwa	167	Ranshevaga	96
Mothapeva	225	Rawantad	233
Mothichunch	75	Ringnee	185
Mothidini	91	Ritha	92
Mothiluni	63	Rohan	85
Mudra	65	Rui	171
Muradseng	71	Sadad	132
Murus	188	Sagargota	117
Nagdhavan	211	Sagwan	199
Nagli	237	Samudrasoka	179
Nandanya	89	Sarma)	195
Nangance	178	Sawar	71
Nani-killar	157	Sethaltad	227
Nanobhindo	67	Shatavari	230
Narel	232	Shegut	97
Nay	176	Shernee	172
Nimb	81	Sherni	64, 178
Nimbara	85	Shevaga	97
Nirgudi	200	Shikakai	124
Nukachuni	187	Shisav	104
Padmurya	59	Shivling	144
Palak	210	Sirus	125
Palas	100	Sitaphal	56
Pangara	108	Sonakadi	162
Pangli	206	Sonchafa	55
Papada	218	Subja	204
Papai	141	Sulbabul	127
Paraspipla	70	Supalseng	114
Pathari	161	Supari	231
Pavan	216	Suru	224
Payar	223	Tad	232
Peru	132	Tag	102
Peva	235	Tambdabhopala	143
Phanas	219	Tanoli	58
Phangurta	201, 206	Tantani	199
Pipal	223	Tarbuj	141
Pival	86	Tayada	196
Pivaladhotra	61	Tembhrun	153
Povadya	119	Tendu	168
Raghali	153	Tetav	188
Raintree	114	Til	193
Rajgira	208	Tiwar	198
		Tiwas	106

Tondli	142	Varai	239
Toran	88	Vekhario	110
Tulash	205	Venivel	57
Tur	100	Vilayatibakundi	174
Udid	116	Vilayatichinch	127
Uksi	129	Vishnukranta	180
Umbar	222	Wad	220
Unhal	115	Wagnakhi	193
Utaran	173	Waghote	61
Valpapdi	110	Wange	185
Vamsa	90	Warva	197
Vanzi	240	Zendu	164

