

ETHNOBOTANICAL STUDIES ON THE WILD EDIBLE PLANTS USED BY THE TRIBALS OF ANAIMALAI HILLS, THE WESTERN GHATS

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ABSTRACT

The present paper deals with the results of a preliminary survey of the wild edible plants used by different ethnic groups in the Anaimalai hills of the Western Ghats in Coimbatore district. Tribals of various ethnic groups dominate the wooded habitat of this hilly region. About 53 plant species belonging to 32 families are used as edible by the tribes. Of these, the leaves of 25 plant species are consumed as green and about 20 wild fruits are consumed raw. The rest of the plant species are used for their tubers, seeds and roots. The plant species, their families, vernacular names, parts used and their mode of usage were also reported.

INTRODUCTION

Three decades from now we shall need to be feeding another 2.5 million people, two fifths more than today (Norman Meyers, 1999). The challenge is not only to increase the food supply, but also the quality of food. Ninety per cent of world's food supply is provided by about twenty species and only three grasses viz., wheat, rice and corn provide bulk of food supply. Furthermore, the dependence of agriculture upon the use of petrochemicals made a potential impact on the economy of the third world countries like India.

Diet surveys carried out in India have shown that the diets consumed by a large majority of vulnerable groups of the population are inadequate in quantity and quality. Under nutrition and malnutrition are widely prevalent in low-income groups (Swaminathan, 1989). Hence the dawn of the new millennium beckons us in the era of unprecedented challenges of malnutrition.

But, our country enjoys the benefits of rich and varied flora. Of the 15,000 species of

India, over 700 species are used by indigenous peoples for food and medicine (Madhav Gadgil, 1994). The early work on food plants were carried out by Vartak (1959), Darkar *et al.*, (1975) and Gadgil and Vartak (1976). The tribal peoples acquired knowledge of the plant species largely on the basis of trial and error. Their knowledge on wild plants can be used to solve the problem of malnutrition.

Study Area

The present study was undertaken in the tribal villages in Navamalai, Attakatti, Upper Aliyar, Kadamparai and Vaandal in Anaimalai hills of the Western Ghats. The Anaimalai hills is located in Coimbatore District of Tamilnadu State, and lies between 10°32'8" N and 77°4'23" E at an elevation of 1650 to 2100 metres above msl. The rainfall of the study area mainly occurs during south-west (June – August) and north-east (October – December) monsoon. The average annual rainfall for the past

twenty years is as much as 3000mm and the relative humidity ranges from 64 to 82%.

Materials and Methods

The ethnobotanical data presented here is the out come of series of field surveys from December 2002 to March 2003, in the tribal pockets. During this period, many interviews were undertaken in a way to explore the data regarding wild edible plants. Careful notes were taken about the part of the plant used as food and their mode of usage. The collected plants were identified based on the Flora of Madras Presidency (Gamble and Fischer, 1987)

Enumeration of Data

The wild plants used as food by the tribal peoples are given under the respective families, which are arranged alphabetically. Under each family, the genera are also arranged in alphabetical order. The data provided here in the following order: Family, Binomial name, Vernacular name, Parts used and the mode of usage (Table-1).

Results and Discussion

The diets consumed by a large majority of the population in India are unbalanced and are deficient in protein, vitamin and mineral. The pregnant women and preschool children are commonly affected by iron deficiency,

anemia and megaloblastic anemia. The infants and preschool children of low-income groups are generally prone to get kwashiorkor and nutritional marasmus (Swaminathan, 1989). The main reason for these syndromes is the indelicient nutrition of iron, folic acid, vitamins 'B12', vitamin 'A', proteins and indispensable aminoacids. The low cost conventional and unconventional foods can be used to solve the problem of malnutrition.

Generally, green vegetables are the fair sources of carotene, riboflavin, folic acid, ascorbic acid and calcium. Furthermore, studies revealed that some unconventional leafy vegetables such as *Amaranthus spinosus* and *Cassia tora* have fair amount of essential aminoacids such as methionine and cystidine (Shingade and Chavan, 1996). The green vegetables are proved to be protective and cheapest foods.

The data presented here consists of the list of the uses of fifty-three species belonging to thirty-two families, used by the tribal peoples. In this data, about twenty-five plants are used as greens, and about twenty wild fruits are rawly consumed. This data is very helpful for the further studies in dietary diversification for augmenting food and nutrition security. It would also be necessary to undertake comparative study of plants and plant parts eaten by various tribals to bring out more useful information on the use of same plant by different tribes.

Table-1. List of wild edible plants, families, its vernacular names and mode of usage

S. No	Binomial Name	Family	Vernacular Name	Parts used	Mode of Usage
1.	<i>Giesekia phranceonoides</i>	Aizoaceae	Manal keerai	Leaves	Greens
2.	<i>Achyranthus bidentata</i>	Amaranthaceae	Sennayuruvi	Leaves	Greens
3.	<i>Hydrocotyl javanica</i>	Apiaceae	Malai vallarai	Leaves	Greens
4.	<i>Centella asiatica</i>	"	Vallarai	Leaves	Eaten rawly

5.	<i>Carrisa carandus</i>	Apocynaceae	Ka;allao	Fruits	Green
6.	<i>Gymnema sylvestris</i>	Asclepiadaceae	Surukurinchan	Leaves	As carminative
7.	<i>Hemidesmus indicus</i>	“	Nannari	Roots	Greens
8.	<i>Wattakaka volubilis</i>	“	Perunkurinchan	Leaves	Greens
9.	<i>Eclipta prostrata</i>	Asteraceae	Karippan	Leaves	Greens
10.	<i>Spilanthes acmella</i>	“	Manjal Karisalai	Leaves	Greens
11.	<i>Phoenix farnifera</i>	Asteraceae	Eechai	Fruits	Eaten rawly
12.	<i>Phoenix farnifera</i>	Begoniaceae	Kalrani	Pith	Eaten rawly
13.	<i>Cordia monoica</i>	Boraginaceae	Pattainmaram	Bark	Substitute for betel nut
14.	<i>Capparis zeylanica</i>	Capparidaceae	Suduthurari	Leaves	Greens
15.	<i>Gynandropsis pentaphylla</i>	“	Velai	Leaves	Greens
16.	<i>Terminalia chebula</i>	Combretaceae	Kadukkai	Fruits	Pickled
17.	<i>Rivea arnensis</i>	Convolvulaceae	Musuttai	Fruits	Eaten rawly
18.	<i>Coccinia indica</i>	Cucurbitaceae	Kovai	Fruits	
19.	<i>Diplocyclos palmatus</i>	“	Iverali	Leaves	Greens
20.	<i>Solanea amplexicaulis</i>	“	Kolankovai	Leaves	Greens
21.	<i>Discorea sp.</i>	Dioscoriaceae	Vethalaivalli	Tubers	Cooked
22.	<i>Acalypha fruticosa</i>	Euphorbiaceae	Sinni	Leaves	Greens
23.	<i>Emblica officinalis</i>	“	Nelli	Fruits	Pickled
24.	<i>Euphorbia hirta</i>	“	Ammanpacharisi	Leaves	Greens
25.	<i>Phyllanthus reticulatus</i>	“	Poolan	Fruits	Eaten rawly
26.	<i>Bauhinia racemosa</i>	Fabaceae	Aathi	Tender leaves	Greens
27.	<i>Cassia auriculata</i>	Fabaceae	Aavarai	Flower buds	With other greens
28.	<i>Cassia occidentalis</i>	“	Ponnavarai	Leaves	Greens
29.	<i>Mucuna priuriens</i>	“	Poonailkali	Seeds	Roasted
30.	<i>Pithecellobium dulce</i>	“	Seenipuli	Aril	Eaten rawly
31.	<i>Pterolobium hexapentalum</i>	“	Seengai	Leaves	Greens
32.	<i>Curculigo orchioides</i>	Hypoxidaceae	Nilappanai	Tubers	Cooked
33.	<i>Leucas aspera</i>	Lamiaceae	Thumbai	Leaves	Greens
34.	<i>Tinospora cordifolia</i>	Menispermaceae	Seenthi	Leaves	Greens
35.	<i>Ficus racemosa</i>	Moraceae	Athi	Fruits	Pickled with
36.	<i>Opuntia dillini</i>	Opuntiaceae	Sappathikalli	Fruits	Eaten rawly
37.	<i>Bulbophyllum fuscopurpureum</i>	Orchidaceae	Seethaimanjil	Bulbils	Juice with jaggary
38.	<i>Biophytum sensitivum</i>	Oxalidaceae	Ninralvaadi	Leaves	Greens

39.	<i>Oxalis corniculata</i>	“	Puliyaarai	Leaves	Greens
40.	<i>Peperomia wightiana</i>	Piperaceae	Kalpirami	Leaves	Greens
41.	<i>Sutia mertina</i>	Rhamnaceae	Karunchoori	Fruits	Eaten rawly
42.	<i>Zizypus jujube</i>	“	Elanthai	Fruits	Eaten rawly
43.	<i>Zizypus xylopyra</i>	“	Kottaielanti	Fruits	Eaten rawly
44.	<i>Zizypus oenophida</i>	“	Soori	Fruits	Eaten rawly
45.	<i>Lesianthus jackianus</i>	Rubiaceae	Kattukarivepilai	Fruits	Eaten rawly
46.	<i>Citrus medica</i>	Rutaceae	Naarathai	Fruits	Pickled
47.	<i>Limmonia acidisima</i>	“	Vila	Fruits	Rawly with Jaggary
48.	<i>Toddalia asiatica</i>	“	Milagaranai	Leaves	Greens
49.	<i>Glyeosmis coejineinensis</i>	Sapindaceae	Parithangi	Fruits	Eaten rawly
50.	<i>Scoparia dulcis</i>	Scorpariaceae	Sakkarai Vembu	Leaves	Greens
51.	<i>Grewia dioiea</i>	Tiliaceae	Tathachampalam	Fruits	Eaten rawly
52.	<i>Grewia hirsute</i>	Tiliaceae	Sakkarai palam	Fruits	Eaten rawly
53.	<i>Pouzoulzia zeylanica</i>	Urticaceae	Ponnikeerai	Leaves	Greens

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