



Exploration of wild edible fruits for awareness in younger generation and conservation of biodiversity, Gadchiroli district (M.S.) India

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Abstract

Ethnobotanical study of wild edible fruits of Gadchiroli district done during 2018-19 to collect, identify and record this fruits eaten by tribal and rural people. A total 32 edible fruits are explore from 30 genera of 21 families. These Plant fruits not only full fil hunger of local people but also give income source to overcome economic condition of rural and tribal people. Most of the wild fruit plant habit are tree, two are shrub and four are herbs. Due to deforestation wild plant species decreasing in number, it is urget need to protect these plants for future generation. This study help to aware the younger generation about use and nutritive value of wild edible fruits. It also help to maintan biodiversity.

Keywords: ethnobotanical, tribal, deforestation, biodiversity, Gadchiroli district

Introduction

Nature bless human being with all basic Requirement, food, Shelter and clothing but due to human interference in nature we are facing so many problem even Scarsity of food. Food is the basic need of man. Even though in twenty first century rural and tribal people depend upon forest for their basic needs. The rural and tribal people of Gadchiroli district use wild fresh and dried fruits for fulfill their food requirement throughout the year. They have traditional knowledge of collection, use and preservation of these fruits for starvation period. Use of wild plants as a food source is an integral part of the culture of indigenous people that dwell in remote forest area [8]. Wild edible plants are very important for the well-being of rural populations in the region, not only as soueces of supplemental food, nutritionally balanced diets, medicines, fodder and fuel, but also for their income generation potential [3]. As compare to cultivated fruits, some wild fruits have been identified to have better nutritional value [2, 6]. Food plants are not only supplement to the food quantity, but also an important option during starvation for survival and thus makes significant contribution to the human nutrition throughout the year. However, the century old traditional knowledge system for utilization of wild plants is depleting very quickly. Modern scientific researchers are trying to value these traditional food items to fill the gaps between growing population and food production [1]. Wild fruits of Gadchiroli district are unexplored. Therefore, the present study undertaken to explore the wild edible fruit to conserve plants and to aware people.

Materials and methods

Study Area

Gadchiroli district is located on the North-Eastern side of Maharastra state and lies between 18⁰43' and 21⁰50' North Latitude and 79⁰45' and 80⁰53' East Longitude in Deccan plateau. District is economically backward. No large scale industries. 78% of area of district is covered by dry and moist deciduous forest. District share boundries with Telangana, Chattisgarh. Most of the rural and tribal people live in district and their main profetion is agriculture.

Collection

An extensive field visit in all seasons during 2018-19. Collection of fruits from different area of Gadchiroli district. Data was collected using standard procedures [5]. Identification done with Flora [9, 11, 12, 14] and by discussion with local people

Result

In the present study there are 32 species of wild edible fruits belonging to 30 genera and 21 families have been identified out of these two 30 fruit plants are dicotyledons and 2 are monocotyledons. 26 plant are trees, 4 are herbs and 2 are shrubs. Dominate families are Rutaceae and Anacardiaceae having three species of each respectively followed by Arecaceae, Euphorbiaceae, Sapindaceae, Eabenaceae, Tiliaceae, Ramnaceae and Sapotaceae having two species of each respectively and other 12 families having one species of each respectively (Table-1).

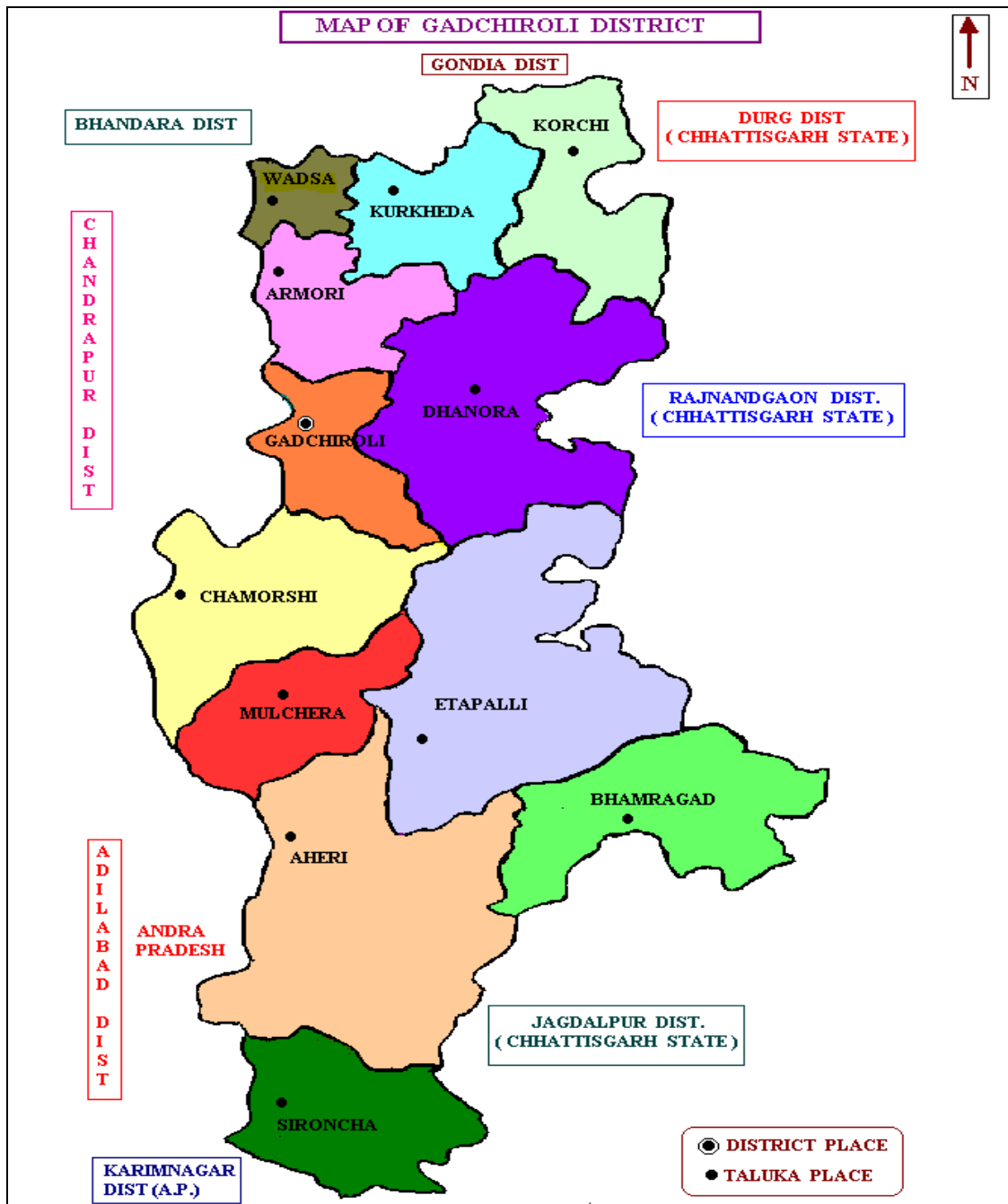


Fig 1: Map of Gadchiroli



Fig 2: Map of Maharashtra showing study area

Table 1: List of wild edible fruits of Gadchiroli District

Sr. No.	Botanical Name	Comman Name	Family	Parts Used	Habit
1	<i>Aegel marmelos</i> corr.	Bel	Rutaceae	Ripe fruits	Tree
2	<i>Alangium salvifolium</i> (L.f.)Wangerin	Ankol	Alangiaceae	Ripen fruits	Tree
3	<i>Azadirachta indica</i> A.Juss.	Kadu neem	Meliaceae	Ripe fruits	Tree
4	<i>Bridelia retusa</i> Spreng	Kasai	Euphorbiaceae	Ripe fruits	Tree
5	<i>Borassus flabellifer</i> L.	Tad	Arecaceae	Raw and Ripe fruits	Tree
6	<i>Buchanania lanzan</i> Spreng.	Char	Anacardiaceae	Ripe fruits and seed	Tree
7	<i>Cardiospermum helicacabum</i> L.	Kapalphuti	Sapindaceae	Ripe fruits	Herb
8	<i>Cordia dichotoma</i> Forst.	Shembadi	Boraginaceae	Ripe Fruits	Tree
9	<i>Dillenia pentagyna</i> Roxb.	Ran Keli	Dilleniaceae	Raw and Ripe fruits	Tree
10	<i>Diospyros melanoxylon</i> Roxb.	Tembru	Ebenaceae	Ripe fruits	Tree
11	<i>Diospyros peregrine</i> (Gaertn.)	Tirka	Ebenaceae	Ripe Fruits	Tree
12	<i>Flacourtia indica</i> (Burm.f)Merr.	Kakai	Flacourtiaceae	Ripe Fruits	Tree
13	<i>Ficus racemosa</i> L.	Umber	Moraceae	Ripe fruits	Tree
14	<i>Gardenia latifolia</i> Ait.	Ghogar	Rubiaceae	Ripe fruits	Tree
15	<i>Gmelia arborea</i> Roxb.	Siwan	Verbanaceae	Ripe fruits	Tree
16	<i>Grewia tiliifolia</i> Vahl.	Dhaman	Tiliaceae	Ripe fruits	Tree
17	<i>Grewia asiatica</i> L.	Darachi	Tiliaceae	Ripe Fruits	Shrub
18	<i>Limonia acidissima</i> L.	Kawat	Rutaceae	Raw and Ripe fruits	Tree
19	<i>Madhuca longifolia</i> (Koen)	Moha	Sapotaceae	Ripe fruits	Tree
20	<i>Mangifera indica</i> L.	Aamba	Anacardiaceae	Raw and Ripe fruits	Tree
21	<i>Manilkara hexandra</i> Roxb.	Kirni	Sapotaceae	Ripe fruits	Tree
22	<i>Nelumbo nucifera</i> Gaertn.	Kamal	Nelumbonaceae	Seed	Herb
23	<i>Nymphaea nouchali</i> Burm.f.	Kamal	Nymphaeaceae	Seed endosperm	Herb
24	<i>Phoenix sylvestris</i> (L.)Roxb	Sindhi	Arecaea	Ripe fruits	Tree
25	<i>Phyllanthus emblica</i> L.	Awala	Euphorbiaceae	Raw and Ripe fruits	Tree
26	<i>Physalis minima</i> L.	Chirpoti	Solanaceae	Ripe fruits	Herb
27	<i>Schleichera oleosa</i>	Kusum	Sapindaceae	Ripe fruit	Tree
28	<i>Semecarpus anacardium</i> L.f.	Biba	Anacardiaceae	Ripe peduncles	Tree
29	<i>Syzygium cumini</i> L.(Skeels)	Janbul	Myrtaceae	Ripe fruits	Tree
30	<i>Tamarindus indica</i> L.	Chinch	Casalpiniaceae	Raw and Ripe fruits	Tree
31	<i>Ziziphus mauritiana</i> Lam.	Bor	Rhamnaceae	Raw and Ripe fruits	Tree
32	<i>Ziziphus oenoplia</i> L.(Mill)	Yeroni	Rhamnaceae	Raw and Ripe fruits	Shrub

Discussion

Many rural parts of world depend on wild edible plants for their food ^[13]. Consumption of wild edible fruits meets the protein, carbohydrates, fats, vitamin and mineral requirement of poor rural populace in region ^[10]. Ethnobotanical survey of wild plants indicate the more than 7000 species have been used for human food at some stage in human history ^[4]. Documentation of wild edible plants from ethnobotanical approach is important for enhancing the understanding of indigenous knowledge system ^[7, 15]

Conclusion

Wild fruit are good in nutrition to make people healthier and Good income source in that session when fruits are in fullfledge in forest. Which help to overcome economic condition of tribal and rural people. Study of these fruits make awareness among people and by protecting these plants help to balancing biodiversity.

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