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WILD EDIBLE ARBOREAL SPECIES OF SEHORE DISTRICT OF MADHYA PRADESH, INDIA

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ABSTRACT

The present study was carried out in Sehore district to identify and document the wild edible arboreal species, available in that region. The inhabitants of this area are dependent upto a large extent on wild resources for their food and other daily needs. The region is rich in wild edible plant resources. Edible parts of wild plants like leaves, young shoots, flowers, fruits, seeds *etc.* are the nature's gift to mankind. These are not only delicious and refreshing, but also the chief sources of vitamins, minerals and proteins. They are the normal food of cattle grazers and rural people. During the survey work maximum numbers of species belonging to Leguminaceae family were observed. The study will be helpful in developing a comprehensive database on wild edible plant resources, in preservation of traditional knowledge for prosperity of that region and in conservation of biodiversity at large.

Figure : 00 References : 48 Table : 01
KEY WORDS : Arboreal, Biodiversity, Prosperity, Sehore, Traditional knowledge, Wild edible

Introduction

In India most of the rural inhabitants depend on the wild edible plants to meet their supplementary food requirements. The diversity in wild plant species offers variety in family diet and contributes to household food security. Sometimes the nutritional value of wild plant is higher than several known common vegetables and fruits. During scarcity or food crisis these wild edible plants play an important role as food supplements for local inhabitants. Besides their own consumption, selling of these wild edible plant parts in the local market is also a common practice among the local community. It also serves as an alternative source of income for them. Apart from their traditional use, they have many other advantages also. They are very nutritious, they are the rich source of minerals like sodium, potassium, magnesium, iron, calcium, phosphorus *etc.* They provide immunity to many diseases and are often used in different formulation of 'Ayurveda'. They provide fibres which prevents constipation[9]. Because of all these added advantages more attention should be paid to these wild edible plant parts.

Plant parts are used in variety of ways like vegetable, fruit, oilseeds, pickle, *chutney*, beverages *etc.* On the basis of usage the plants are classified into various categories[16]. Vegetable are prepared from various plant parts like leaves, flowers, fruits, young shoots and sometimes even whole plant. Most of the fruits are eaten raw when they are ripe. They are collected by men, women, boys and girls while working or wandering in the forest. Fruits of few species are brought or carried to weekly market. The liquor prepared from *Madhuca indica* is the commonest of the beverages used by local people. The seeds of *Madhuca indica* is the most important source of oil. It is largely collected by local people and sold in weekly market. Some plant parts are employed by the local people as souring agent or for making *chutney*. eg. Tamarind.

Perusal of available literature reveals[17,18] studied wild plants from Bastar (Madhya Pradesh) and Purulia (West Bengal) respectively. About 600 wild edible plants are from India[42]. Edible plants of Gangtok were studied[14]. A total of 190 wild plant species have been screened from Sikkim Himalaya, accounting for nearly 15% of total edible wild plant resources of India. Workers[38] studied 51 wild species from Karnataka. Total of 156 species as wild plants were used for food purposes from Andhra Pradesh[40]. Twenty three cultivated food crop species and 15 wild edible species were prioritized on the basis of the most preferred species by the local people in the Uttaranchal hills of Indian Himalayas[21]. Workers[39] studied 74 wild edible plants of Annamalis from Tamil Nadu[9]. One hundred and seventy one wild edible species of Tamil Nadu, of these 54 species are used as leafy vegetables, 19 species for underground bulbs, 45 species for seeds, 41 species for unripe fruits and pods[4]. 41 edible wild species from Kerela[7]. Studied about 210 fruit species

TABLE -1 : Wild edible arboreal species of Sehore district of Madhya Pradesh

S.No.	Botanical Name	Local Name	Family	Edible Plant Part
1	*Acacia catechu*	Khair	Leguminaceae	Bark (Katha)
2	*Acacia nilotica*	Babool	Leguminaceae	Gum
3	*Aegle marmelos*	Bel	Rutaceae	Fruits
4	*Anogeissus latifolia*	Dhaora	Combretaceae	Gum
5	*Anona squamosa*	Sitaphal	Annonaceae	Fruits
6	*Azadirachta indica*	Neem	Meliaceae	Fruits
7	*Bauhinia purpurea*	Keolar	Leguminaceae	Leaves
8	*Bauhinia variegate*	Kachnar	Leguminaceae	Floral bud, Flower, Young leaves
9	*Bombax ceiba*	Semal	Bombaceae	Young flowers
10	*Buchanania lanzan*	Achar	Anacardiaceae	Fruits and seeds
11	*Butea monosperma*	Palas	Leguminaceae	Floral buds , flowers
12	*Cassia fistula*	Amaltas	Leguminaceae	Leaves , young floral buds
13	*Cordia dichotoma*	Lasora	Boraginaceae	Fruit
14	*Diospyros melanoxylon*	Tendu	Ebenaceae	Fruit
15	*Emblica officinalis*	Aonla	Euphorbiaceae	Fruit
16	*Feronia elephantum*	Kaitha	Rutaceae	Fruit
17	*Ficus bengalensis*	Bar	Moraceae	Fruit
18	*Ficus racemosa*	Gular	Moraceae	Fruit
19	*Ficus religiosa*	Peepal	Moraceae	Fruit
20	*Madhuca latifolia*	Mahua	Sapotaceae	Flower, fruit
21	*Mangifera indica*	Aam	Anacardiaceae	Fruit
22	*Pithecellobium dulce*	Jungle Jalebi	Leguminaceae	Fruit

23	*Schleichera oleosa*	Kusum	Sapindaceae	Fruit
24	*Semecarpus anacardium*	Bhelma	Anacardiaceae	Fruit
25	*Syzygium cumini*	Jamun	Myrtaceae	Fruit
26	*Tamarindus indica*	Imli	Leguminaceae	Fruit, leaves
27	*Terminalia bellerica*	Bahera	Combretaceae	Kernel of fruit
28	*Terminalia chebula*	Harra	Combretaceae	Fruit
29	*Zizyphus mauritiana*	Ber	Rhamnaceae	Fruit

from Kerela[31]. Wild leafy vegetables of 21 species[29].

Scientist[26] conducted a taxonomic survey on wild edible plants of Midnapur district of West Bengal. Taxonomists[6] documented the edible plants of Darjeeling district. Wild leafy vegetables from the hilly regions of Pune and neighboring districts of Maharashtra[46]. The knowledge of wild edible plants of Uttar Pradesh hills was contributed[33]. Wild food plant of Midnapur of West Bengal, during drought and floodswas documented[8]. Workers[3] enlisted 118 wild edible plant species of Arunachal Pradesh. They reported 28% of wild vegetables needed as medicine by the local people. Scientist[22] enlisted 29 wild vegetables which are used by the Karbi tribe and are also sold in the market of Karbi Anglong, Assam. Described about the nutritional value of some traditional edible plants used by tribal communities during emergency with reference to central India[20]. They[2] documented the wild edible fruits used by Muthuvan tribes of Idukki, Kerela. Workers[5] have worked on food plants of tribe Pararias of Puruilia, West Bengal. Wild edible fruits were worked out[12] Garhwal hillsd. Documented the wild edible plants of Kolhapur district[15]. Worker[23] have studied the wild edible plants used by tribes of Akole tehsil of Ahmednagar district. Useful plants of Birbhum district, West Bengal were studied[30]. Some lesser known wild food plants of Attapadi hills, Western Ghats[32]. Documented some less known plant food among tribals of Andhra Pradesh and Orissa[35]. Ethnobotanical studies on wild edible plants of Gonds, Halba and Kawar tribe of Salekasa taluka Gondia were conducted. Some wild edible plants of Nashik district have been studied[37]. Wild edible plants used by Garo tribes of Nokrek Biosphere reserve in Meghalaya have been studied[43]. Some promising wild edible plants of Srinagar and its adjoining areas were studied[44]. Ethnobotanical survey of wild edible fruits in Kolhapur district was done[45].

Review of available literature reveals that a few regions of Central India have been explored to locate wild edible plants, and enumerate their other ethnobotanical utility[10,11,18,19,24,25,27,34,40,41]. Sehore is an unexplored region of Central India. Hence the present work has been undertaken to record the plants which are commonly used by the local inhabitants of this district. Today the knowledge of wild edible plants and their uses is limited to only older knowledgeable persons. Hence, it is highly required to document the traditional knowledge regarding wild edible plant wealth.

STUDY AREA

The present study was conducted in Sehore district from 2015 to 2016. It lies in the central part of Madhya Pradesh. The shape of the district is roughly triangular. It lies between 22°31' and 23°40' north latitude and 76° 22' and 78° 08' east longitude. Its height from sea level is 1500 feet to 2000 feets. It has an average elevation of 502 m (1646). Area of the district is about 6578 sq.km. and total forest area is about 1529.816 sq. km. The climate of Sehore is characterized by hot summers, pleasant winters and general dryness except during rainy season. The forest of Sehore district may be broadly classified as tropical dry deciduous forests. The most important species is teak *(Tectona grandis*)

Material and Methods

Ethnobotanical survey with respect to wild edible arboreal species were carried out during July 2015- July 2016. The study area was frequently visited and the local inhabitants were interviewed with the help of forest department staff. Edible plant species were located with the help of informants. The local names and plant parts used were properly recorded. Plant specimens identified during the field visit were cross checked to validate the information. The collected plants and data entries were noted by the respective collection number. Species identification was confirmed by Flora of Madhya

Pradesh[29,47]. All the specimens were preserved following the standard herbarium methods. Besides personal interviews, relevant literature have also been consulted. Photographs of plant specimens have also been taken.

Result and Discussion

The present survey work shows that there are around 29 wild edible arboreal species belonging to 15 families. The information collected has been tabulated (Table-1). The plants have been arranged alphabetically according to their botanical name. Their local name, family and edible plant part have also been recorded. Leguminoceae is found to be dominant family with around 8 species, followed by Anacardiaceae, Combretaceae and Moraceae having 3 each. Rutaceae having 2 and Meliaceae, Bombaceae, Boraginaceae, Ebenaceae, Euphorbiceae, Anonaceae, Sapotaceae, Sapindaceae, Myrtaceae and Rhamnaceae each having 1 species.

Conclusion

The preliminary study of the region reveals that Sehore district is a store-house of many economically important plants. However, a detailed comprehensive study is required to assess the current ethnobotanical status of these surveyed plants.

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