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DOCUMENTATION OF WILD EDIBLE PLANTS OF BULDHANA DISTRICT, MAHARASHTRA, INDIA

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ABSTRACT:

The purpose of the study was to document the wild edible plants used by tribals as well as rural people in Buldhana district of Maharashtra. In all 49 genera of 56 species, belonging to 30 families of which 27 are dicotyledons and 03 monocotyledons, were documented as edible. The study identifies tubers (3), bulbil (1), sprout (1), leaves (16), flowers (12), fruits (24), seeds (3) and whole plant (1) consumed by the rural population. Amongst these species, herbs (20) and trees (20) make up the higher proportion of edible species followed by shrubs (9) and climbers (7). Thirteen species of wild edibles are also sold in the local market of the district which provides the economy to the rural population.

KEY WORD: *Buldhana, Maharashtra, Wild Edible, Rural, Tribal*

INTRODUCTION:

Millions of the people in many developing countries do not have enough food to meet their daily requirements and a further more people are deficient in one or more micronutrients (FAO, 2004) and same is true about India. The consumption of wild plants is one of the strategies, adopted by the local people for sustenance, is intrinsically linked to their strong traditional and cultural system and is inseparable. The indigenous communities include wild edibles to their daily food intake and sales from the surplus add to their income. The diversity in wild plant species offers variety in family diet and contributes to house hold food security.

A scientific study of wild edible plant is important for pinpointing the potential sources which could be utilized at the time of scarcity or during normal days or cultivated as a source of food material for an ever increasing population. This is an attempt to bring these wild edible plants in focus.

MATERIALS AND METHODS:

The present work is the outcome of ethnobotanical field survey of three consecutive years (2007 - 2010) from different villages of five tehsils in Buldhana district. Fifty two informants of different age group were interviewed. Among the inhabitants, knowledgeable persons primarily the aged once including men and women were interviewed. The firsthand information on wild edible plant species, part (s) used, vernacular name and recipe of food preparation were noted. Photographs of the plant material were taken. Plants were identified by using standard floras (Cook, 1967; Hooker 1872 – 1987; Sharma et al, 1996; Singh and Karthikeyan, 2000; Singh et al, 2001) and specimens were deposited in the herbaria of Govt. Vidarbha Institute of science and Humanities, Amravati.

RESULTS AND DISCUSSION:

Wild food forms an ecologically, culturally and socially significant key stone resource that continues to play an important role in the food security and subsistence of poor communities everywhere. Wild vegetables are important to rural people for several reasons, one of the important being they cost nothing and secondly their availability in the vicinity.

In the present study 49 genera of 56 species, belonging to 30 families of which 27 are dicotyledons and 03 monocotyledons, were documented as edible; i.e. comparatively few species of Monocotyledons were exploited as edible. Amongst these species, herbs (20) and trees (20) make up the higher proportion of edible species followed by shrubs (9) and climbers (7) (Fig.1). Wild fruits (24) are among the most widely consumed wild food of the district followed by leaves (16), flowers (12), tubers (3), seeds (3) and bulbil, sprout and whole plant (1). 46 (82 %) species of wild edible were found to be utilized for both purposes as a food and medicinal also. Wild edible plant species play a major part in supplementing other foods, especially in rural communities. Some species are collected from the wild for consumption and for sale to supplement their income (Table 2). Consumption of wild edible is seem less but significant in the area.

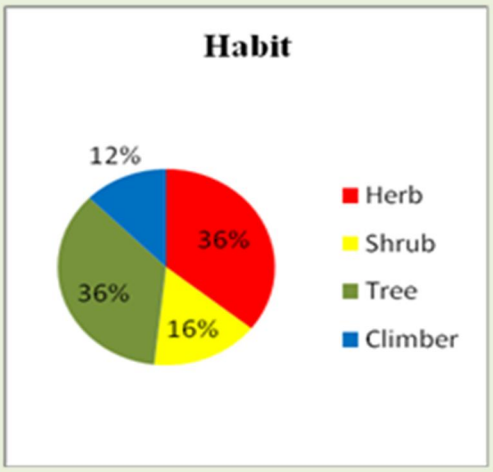

Fig1: Habit of plant

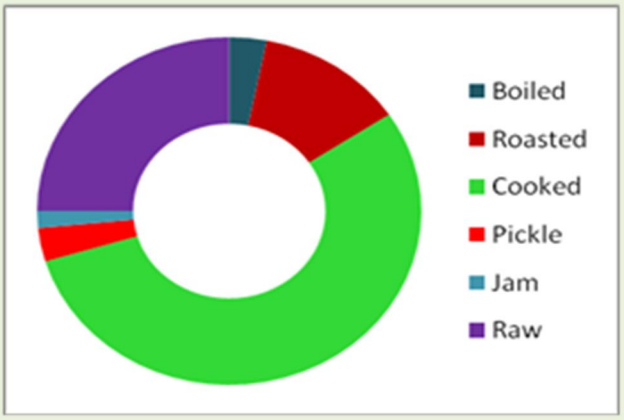

Fig. 3: Utilization Pattern of wild edible

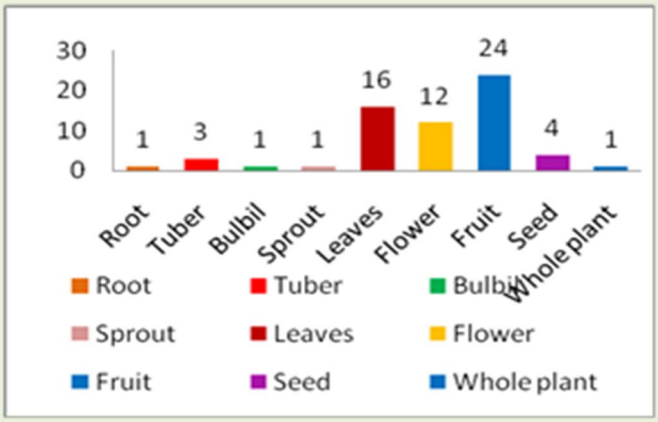

Fig 2: Plant part of wild edible use

CONCLUSION:

Investigations on edible wild plant species locally used for consumption reveals potential to become valuable staple foods and important alternatives to the usual cultivated agricultural crops.

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TABLE 1: ENUMERATION OF PLANTS

Sr. No.	Name of plant/ Family	Common Name	Habit	Mode of use	Medicinal Uses
1	*Abelmoscus ficulneus* (L) Wight and Arn/ . ex Wt./ Malvaceae	Ran Bhendi	Young leaves	Cooked	Nil
2	*Acacia eburnea* (L.f) willd./ Mimosae	Murmuthi	Pods	Roasted	Nil
3	*Acacia nilotica*(L.) Willd. ex Del./ Mimosae	Teli Babhul	young pods	Cooked	Urinogenital disorders, impotency
4	*Aegle marmelos* (L.) Corr./ Rutaceae	Bel	Ripe fruit	Jam	Cooling, laxative, astringent, digestive, stomachic, hypoglycaemic, spasmogenic,
5	*Amaranthus hybridus* L./ Amaranthaceae	Rajgira	Young leaves	Cooked	Diarrhoea, inflammation, leucorrhoea and pain
6	*Amaranthus tricolour* L./ Amaranthaceae	Tandulja	Young leaves	Cooked	Antidote
7	*Amarathus viridis* L./ Amaranthaceae	Popya	Young leaf	Cooked	Emollient, digestive, vermifuge,antidote, leucorrhoea
8	*Asparagus remosus* Willd./ Liliaceae	Diwasmuli	Young sprout	Cooked	Appetizer, anticancer, stomach disorder, boils
9	*Bauhinia racemosa* Lamk. Ecycl./ Caesalpiniaceae	Abhata	Flower	Cooked	Dysentery, haemorrhage, piles, cough, laxative
10	*Buchanania cochinchinesis* (Lour.) Almeida / Anacardiaceae	Char, Charoli	Seeds	Roasted	Skin diseases, rhumatism, mouth ulcer
11	*Caesalpinia coriaria* Willd./ Caesalpiniaceae	Vaywaran	Leaves	Cooked	Nil
12	*Capparis decidua* L. / Capparidaceae	Gandman lakadi	Young fruit	Pickled	Astringent, diabetes, arthritis, hypertension, vomitting
13	*Capparis zeylanica*	Waghutale	Young fruits	Cooked	Snake bite

Sr. No.	Name of plant/ Family	Common Name	Habit	Mode of use	Medicinal Uses
	(Forsk.) Edgew. / Capparidaceae				
14	*Cassi tora* L./ caesalpiniaceae	Tarota	Young leaves, Seeds	Cooked	Antiperiodic, anthelmentic, germicide, antiseptic and laxative
15	*Cassia fistula* L./ caesalpiniaceae	Bahawa	Flowers, Buds	Cooked	Constipation, diabetes, lenitive properties
16	*Celosia argentia* L./ Amaranthaceae	Kaddu, Karadu	Young leaves	Cooked	Diuretic, antidote, stomach disorder
17	*Ceropegia bulbosa var. bulbosa* Roxb./ Asclepiadaceae	Doodh kand; doodhmadhile	Tuber	Roasted/ Raw	Tonic, digestive, refrigerant
18	*Chlorophytum laxum* R. Br./ Liliaceae	Shevaya	Tuber	Raw	Insect & snake bite
19	*Corchorus olitorius* L./ Tiliaceae	Chikna	young leaves	Cooked	Demulcent, tonic, diuretic, laxative, stomachic, febrifuge
20	*Cordia dichotama* Forst./ Ehretiaceae	Gondan	Flower, Fruits (Young and ripe)	Cooked/ Raw	Astringent, anthelmintic, laxative, aphrodisiac, diuretic, sweet, cooling, emollient
21	*Crotolaria juncea* L./ Fabaceae	Boru	Flowers	Cooked	To expel intestinal worms
22	*Dendrocalamus strictus* (Roxb.)/ Poaceae	Bamboo	Young sprout	Cooked	Tonic and considered as delicacy
23	*Digera muricata* (L.) Mart./ Amaranthaceae	Kunjir, Tatha-Matha, Kundadu, Kunjar	Young leaves	Cooked	Boils
24	*Dioscorea bulibifera* L./ Dioscoreaceae	Matalu	Bulbils	Cooked/ Boiled/ Roasted	On abdominal pain, bleeding piles and on bee sting
25	*Diospyrus melanoxylon* Roxb./ Ebenaceae	Tembhurani	Ripe fruit	Raw	Germicidal, laxative, colic, intestinal pain, sore throat
26	*Ficus racemosa* L./ Moraceae	Umbar	Young Fruits	Cooked	Astringent, carminative, galactogogue, piles, sunstroke
27	*Glossocordia boswellia* (L. f.) DC./ Asteraceae	Jangali shepu	Young leaves	Cooked	Emmenogogue; used in gynaecological complaints
28	*Goniocaulon indicum* (Klein ex willd.) C. B. Cl./ Asteraceae	Karad kusumba, Ghetur	Young leaves	Cooked	Nil
29	*Grewia flavescens* Juss./ Tiliaceae	Rodage	Ripe fruit	Raw	Nil
30	*Grewia tilifolia* Vahl./ Tiliaceae	Kadadhaman	Fruits	Raw	Nil
31	*Hemidesmus indicus*	Doodhi	Roots	Boiled	Demulcent, diuretic,

Sr. No.	Name of plant/ Family	Common Name	Habit	Mode of use	Medicinal Uses
	(L.) R. Br./ Periplociaceae	wasan			diaphoretic, tonic, alterative
32	*Indigofera glandulosa* Wendl./ Fabaceae	Zongir	Seeds	Cooked	Nutritive, tonic
33	*Ipomoea alba* L./ Convolvulaceae	Sakankai	Flower	Cooked	Nil
34	*Launea procumbens* (Roxb.) Ramayya and Rajagopal/ Asteraceae	Pathari	Leaves	Cooked	In treatment of fever, headache, colic
35	*Limonia acidissima* L./ Rutaceae	Kawath	Ripe fruit	Pickle	Tonic, apetising, astringent, stimulant, stomachic and digestive
36	*Madhuca longifolia* (Koen.) Mac Brde var. latifolia (Roxb.) Chevalier/ Sapotaceae	Moh	Flowers and Fruits	Cooked/ Raw	Laxative, stimulant, anthelmintic, demulcent, nutritive, tonic, expectorant, cooling
37	*Mangifera indica* L./ Anacardiaceae	Aamba	Flower, Fruits (Young and ripe)	Raw	Diarrhoea, chronic dysentery, gleet and cancer
38	*Melilotus indica* (L.) All. / Fabaceae	Chili	Young leaves	Cooked	Nil
39	*Meremia gagantica* (L.) Cufod./ Convolvulaceae	Bafali	Leaves	Cooked	Purgative; used as snuff during epileptic seizures, headache, migraine, swelling
40	*Momordica dioica* Roxb. Ex. Willd./ Cucurbitaceae	Kartule	Fruits	Cooked	Stomachic, laxative
41	*Moringa oleifera* Lam. /Moringaceae	Shewga	Flowers and Pods	Cooked	Diuretic, cholagogue, stimulant, aphrodisiac, rheumatisam
42	*Mucuna utilis* Wall./ Fabaceae	Kurie	Pods	Raw/ Cooked	Nil
43	*Opuntia elatior* Mill/ Cactaceae	Fantya, Tat fantya	Ripe fruit	Raw	whooping cough, diabetes, high blood cholesterol, obesity, as blood purifier
44	*Prosopis cineraria* (L.) Druce/ Mimosae	Saundal	Pods	Roasted	Astringent, demulcent, pectoral, nutritive; useful on diarrhoea, dysentery, piles,
45	*Securinega virosa* (Roxb. Ex Willd.) Baill./ Euphorbiaceae	Pithoni	Fruits	Raw	Stomachache

Sr. No.	Name of plant/ Family	Common Name	Habit	Mode of use	Medicinal Uses
46	*Semecarpus anacardium* L. f./ Anacardiaceae	Biba	Thalamus of Flowers	Raw	Burns and scalds
47	*Sesbania grandiflora* (L.) Poir./ Fabaceae	Hadga	Flowers	Cooked	Nasal catarrh, headache
48	*Solanum nigrum* L./ Solanaceae	Katmanya	Ripe Fruits	Raw	Expectorant, diaphoretic diuretic, sedative, alterative, antipyretic, tonic
49	*Tamarindus indica* L./ Caesalpiniaceae	Chinch	Leaves, Flower, Fruits , Seed (Young and ripe)	Cooked/ Roasted/ Raw	Anthelmintic, emetic, anodyne, antifungal, astringent, aperient, gastropathy, impotency, ophthalmic
50	*Tellosma pallida* (Roxb.) Craib./ Asclepiadaceae	Zutel, Zatula, Dodi,	Flower	Cooked	Nil
51	*Tribulus terrestris* L./ Zygophyllaceae	Gokharu	Young leaves, Fruits	Cooked	Astringent, diuretic, aphrodisiac, depurative, anthelmentic, anti-inflammatory, tonic
52	*Viscum nepalense* Spreng./ Loranthaceae	Kawarka	Whole plant	Roasted	Febrifuge, aphrodisiac, on bone fracture
53	*Vitex negundo* L./ Verbenaceae	Nirgudi	Young leaves	Cooked	Tonic, alterative, discutient, antiparasitic, anti-inflammatory, aromatic, anodyne, vermifuge, appetizer
54	*Withania somanifera* (L.) Dunal/ Solanaceae	Askand	Tuber	Roasted	Tonic, aphrodisiac, deobstruent, diuretic, narcotic, abortificient, adoptogenic
55	*Zizypus oenoplia* (L.) Mill./ Rhamnaceae	Chan bor	Ripe fruit	Raw	Laxative, stomachache, indigestion, dysentery, urinary troubles
56	*Zizypus xylopyra* (Retz.) Willd./ Rhamnaceae	Ghat bor	Ripe fruit	Raw	For stomach ailments

Table 2. Wild Edible Plants Commonly sold in Local Market

Sr. No.	Name of plant	Family	Common Name	Prize (Rs./Kg)
1	*Amaranthus hybridus* L.	Amaranthaceae	Rajgira	20-30
2	*Amaranthus tricolour* L.	Amaranthaceae	Tandulja	20-30
3	*Amarathus viridis*L.	Amaranthaceae	Popya	20-30
4	*Buchanania cochinchinesis* (Lour.) Almeida	Anacardiaceae	Char	70
5	*Capparis zeylanica* (Forsk.) Edgew.	Capparidaceae	Waghutale	20-40
6	*Cordia dichotama* Forst.	Ehretiaceae	Gondan	50
7	*Diospyrus melanoxylon* Roxb.	Ebenaceae	Tembhurani	30 – 40
8	*Limonia acidissima* L.	Rutaceae	Kawath	40 -60
9	*Momordica dioica* Roxb. Ex. Willd.	Cucurbitaceae	Kartule	80
10	*Semecarpus anacardium* L. f.	Anacardiaceae	Biba	60
11	*Sesbania grandiflora* (L.) Poir.	Fabaceae	Hadga	50 – 60
12	*Tellosma pallida* (Roxb.) Craib.	Asclepiadaceae	Zutel, Dodi	40 -50