

Wild edible plants of Gadchiroli district of Maharashtra, India and their economic potential

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Abstract

The present study deals with the exploration, identification and future potentialities of the wild edible plant species of Gadchiroli district. The ethnobotanical survey of the region resulted in the documentation of 73 wild plant species that are consumed by the Gondi, Madia, Kawar, Pardhan. Out of these 56 species belonging to 52 genera 32 dicotyledonous families, while 17 species belonging to 15 genera are from 9 monocotyledonous families.

Keywords: Ethnobotany, Wild edible plants, Gadchiroli district, Tribal

Introduction

As compared to Ethnomedicobotany documentation of wild edible plants has been given less attention. However, in recent years researchers are concentrating on wild edible plants both from documentation point of view and also about the nutritional aspect.

Jain *et al.* (1991) reviewed the Indian ethnobotanical literature published till 1990's and listed species under 616 genera of which one or in which many of them species are edible. Another notable work A Status Report of All India Co-ordinated Research Project on Ethno-biology conducted by the Ministry of Environment and Forests, New Delhi, recorded about 3900 wild plant species used as edible (Anonymous, 1994). Since last two decades of 21st century many ethnobotanists of Maharashtra are working to document the wild edible plants of the state. Sharma and Mujumdar (2003) studied Toranmal area of north Maharashtra and reported 8 uncommon edible species used in the

region. Mahajan and Gunale (2004) enlisted 20 wild food plants belonging to 15 families from Southwestern Satpuda of Maharashtra. Chauhan (2004) reported 310 plant species utilized by *Katkari* tribals in Pune district, including wild edibles. Bhogaonkar and Rajgure-Gulhane (2015) reported 125 wild edible plants from 11 districts of Vidarbha region. Bhogaonkar *et al.* (2010) reported 42 wild edible plant species consumed by tribes and other locals of Melghat of district Amravati. Kshirsagar (2010) documented 149 wild edible plants from 4 districts of north Maharashtra. Jadhav *et al.* (2011) reported 50 wild edible species. Kshirsagar *et al.* (2012a) reported 56 wild edible species and 12 commonly sold plant species used in tribal and rural areas of Buldhana district. They have also noted the underutilized fruits sold in the markets of north Maharashtra region (Kshirsagar *et al.*, 2012b). Reddy (2012) reported 61 wild edibles from Chandrapur district. Setiya *et al.* (2016 a; 2016 b) has documented 33 wild edibles of Gadchiroli district.

2. Methodology

The documentation of wild edible plants is the result of ten years work with an NGO Amhi Amchya Arogyasathi, Kurkheda and is mainly observational. Field visits were made to collect the wild edible species from field. Plants were collected in flowering stage, brought to laboratory and identified with the help of standard floras (Sharma *et al.* 1996, Naik 1998, Singh *et al.* 2000, Singh *et al.* 2001, Yadav and Sardesai 2002). Botanical names of species and families are as per [www.the plant list.org](http://www.theplantlist.org). Local names as well as tribal names (G= Gondi, C= Chattisgarhi, M= Madia), season of collection and distribution were also noted. Recipes of cooking with wild edibles were collected from locals. Some wild edibles are consumed for their medicinal properties; these properties were also noted. For this 33 informants were contacted. Markets survey were conducted to know the economic potential of these edibles through interviews.

3. Results and Discussion

3.1 Recipes:

Though numbers of species are used by tribes and rural folk as wild edibles/vegetables, the modes of preparation are few and simple. Mostly only basic ingredients for imparting taste are used during cooking. However, wherever necessary the material is processed to remove unwanted components. Some special recipes used are given in enumeration part.

- I) Chopped onion is cooked in oil with chili and turmeric powder till it attain brown colour. Then cut leaves/any edible part and salt added; mixed properly and steam cooked.
- II) Edible part is cut into pieces and boiled for few minutes and water is removed and

boiled part is used to prepare vegetable. Then to hot oil mustard seeds and chopped onion are added; fried till it gain golden brown colour. The chilli powder, turmeric powder, boiled vegetable, salt are added and mixed. Steam cooked for few minutes.

- III) Cut vegetable (edible part mostly leaves) is mixed with cooked lakholi/tur dal. To hot oil add mustard seeds and chopped onion is fried till golden brown; chilli powder, turmeric powder, salt and above mixture are added and steam cooked for 10-15 minutes.
- IV) Chopped onion is fried in oil and made into paste. To this chilli powder and paste of garlic and ginger are added. The mixture is fried in small amount of oil for few minutes; now chopped vegetable, turmeric powder and salt are added and cooked for few minutes.
- V) Cut vegetable is mixed with rice flour and dough is prepared. Small boluses of dough are made and steam cooked for few minutes. Chopped onion is shallow fried; required amount of turmeric, salt, chilli powder or large pieces of chilli added. To this steam cooked boluses are added and cooked together for few minutes.
- VI) Pakoda with channa or rice flour-chilli powder, turmeric powder, salt and cut vegetable/edible parts are mixed with chana or rice flour; water added to make a thick paste. Pakoda mixture is prepared.
- VII) Chutney- Edible part is ground with chilli powder and salt. While eating some oil is added.
- VIII) Pickle – Edible part is cut into moderate sized pieces and mixed with chilli powder,

turmeric and sufficient amount of salt, so that fungus will not grow. Little amount of lime juice or raw mango pieces are added, if needed (i.e. if pickled, plant part is not sour), mixed well and stored in an air tight jar.

3.2 Enumeration

Annona squamosa L. (Annonaceae); *Sitaphal*.
Oct.- Nov. Common around the villages.

Ripe fruits are eaten. The fruits are commodity of commerce in several parts of the country.

Fleshy petals eaten raw by children; taste like cashew nut.

Fruits are sold at Rs. 40/Kg.

Nymphaea nouchali Burm. f. (Nymphaeaceae); *Kamal*; *Bhishi* (G,C). Sept.- March. Common in village lakes. Fresh rhizomes used as a vegetable (Recipe I). Rhizomes are cut into pieces, dried and stored. These are used when fresh rhizomes are not available.

Fresh rhizomes are sold Rs. 40 /Kg.

Nelumbo nucifera Gaertn., (Nelumbonaceae);
Powan. Nov.- Jan.Frequent in some lakes.

Spongy testa is eaten raw.

Portulaca quadrifida L. (Portulacaceae); *Chuvur bhaji*. March- May. In moist places.

Tender leaves cooked as vegetable (Recipe III).
Leaves sold for Rs. 80/Kg.

Bombax ceiba L. (Malvaceae); *Katsawar*; -
Sawali (G). Common in forests.

Root tuber of one to three year old. Plant is eaten as such after removing the outer skin. Tastes sweet with bit of sourness.

Grewia rothii DC. (Malvaceae); *Kolhyach aand*. Dec.-Jan.Occasional in hill forests.

Ripe fruits are eaten. Seed is comparatively large and edible part is thick skin; tasting sour-sweet. Mostly eaten by children.

Sterculia urens Roxb.(Sterculiaceae). *Karu*.
Nov.-March. Occasional in the forests.

Seeds are cooked as a vegetables.

Gum is sold at Rs. 100-120/Kg.

Oxalis corniculata L. (Oxalidaceae); *Amati*.
Grows throughout the year.Common in shady and moist places.

Young leaves are edible; children prefer to eat leaves raw as it tastes sour.

Aegle marmelos (L.) Correa.(Rutaceae);
Bel; *Mahaka*(G). May- June. Frequent in forests.

Ripe fruits are commonly eaten but in small quantity.

Fruit pulp is eaten for stomach pain; also made into murabba (jam like sweet), which is used medicinally in stomach complaints.

Dried fruit pulp is sold at Rs. 20-25/Kg.

Limonia acidissimaGroff, (Rutaceae); *Kawath*.Nov.-Dec.Occasionally found along road sides and in forests.

Ripe fruits are eaten as such; also chutney and murraba prepared.

Fruit sold at Rs. 5/fruit.

Olax psittacorum (Willd.) Vahl. (Olacaceae).
Aratphari.

Young shoots are cooked as vegetable (Recipe II.). Most in during constipation.

Celastrus paniculatus Willd. (Celastraceae).
Pimpharbar. Aug.-Sept. Frequent in forests.

Young fruits cooked as vegetable (Recipe I).

Young fruits eaten as vegetable to prevent paralysis.

Young fruits are sold at Rs. 500/Kg.especially in Wadasa market.

Ventilago denticulata Willd. (Rhamnaceae).
Papadi.Dec.-Feb. Occasionally seen in forests.

Oil extracted from dried mature fruits is edible. The oil is dark golden yellow. Nowadays use

of this oil has become negligible; firstly because of availability of other edible oils and secondly since the population of the species has considerably decreased. Oil is not marketed.

Ziziphus jujuba Mill. (Rhamnaceae). *Bor; Rengi* (G). Jan.- Feb. Common in forests and around villages.

Ripe berries are eaten.

Fresh berries are sold at Rs.50/Kg. Dried berries are also collected; sold at Rs. 20/Kg. Powder of berries is a commercial product sold in the market at Rs.10/20gm.

Ziziphus oenoplia (L.) Mill.(Rhamnaceae), *Yeronya*. Dec.-Jan. Common in forests and around villages.

Ripe berries eaten.

Ripe berries are sold Rs. 50/Kg. Mainly sold outside school premises.

Zizypus xylopyra(Retz.) Willd.(Rhamnaceae). *Ghat bor*.Dec.-Jan. Occasional in the forests.

Ripe fruits are eaten.

Schleichera oleosa(Lour.) Merr.,(Sapindaceae); *Kusum; Kojap* (G).April-May. Common in forests.Seed oil edible, once upon a time used in cooking; these days probably not used by anyone.

Seeds are sold Rs. 20/Kg. Oil used in cosmetics.

Mangifera indica L. (Anacardiaceae); *Am-ba; Marka* (G). April- May.Grows wild.

Young unripe fruits made into small pieces and dried; used to make curry known as *Aaran*. Ripe fruits are eaten. Seeds baked in fire, starchy cotyledons eaten.

Dried pieces/ \slices of unripe fruits(*khula*)sold Rs. 30-35/Kg.

Semecarpus anacardium L. (Anacardiaceae). *Bibba; Kohaka* (G); *Bhelwa* (C). Dec.- Jan. Occasional in forests and bunds of fields.

Dried nuts are baked and then seeds are eaten, also used in dry fruits.

Dried nuts are sold Rs. 15-20/Kg. and fleshy thalamus sold Rs. 30-40/Kg.

Abrus precatorius L. (Leguminosae); *Lal gun-ja*.Jan.- Feb. Common near lakes in the district and also planted by traditional healers.

Leaves are edible. Eaten as mouth freshener; also in sore throat.

Butea monosperma (Lam.) Taub. (Leguminosae); *Palas; Murad* (G).Very common on barren lands and forests.

Tuberous roots of 1-2 year old plants are eaten. Seeds are sold at Rs. 15-20.

Bauhinia variegata L. (Leguminosae); *Koy-lari; kodyal* (G).Aug.-Oct.Planted in kitchen garden and borders of fields.

Tender leaves cooked as vegetable (Recipe I).

Tender leaves are sold Rs. at 80-100/Kg.

Cassia fistula L. (Leguminosae). *Bahava; Rela* (G). March-April. Occasionally found in the forests.

Petals are cooked as vegetable (Recipe-I).

Petals are eaten as a vegetable to prevent tuberculosis, also to cure for tuberculosis.

Cassia tora L. (Leguminosae); *Tarota; Charota* (C).July-Aug. Very common along road sides and throughout the forests and fields.

Young leaves cooked as vegetable (RecipeI).

In the beginning of rainy season the tender leaves of this species are eaten as vegetable for joint pains and rheumatism.

Commercially seeds are sold; supposed to be mixed with coffee as substitute of chicory. Five years back seeds were sold for Rs. 10/Kg. presently i.e. in year 2016 they were sold for Rs. 50/Kg. It can be exploited commercially, by growing on barren lands.

Tamarindus indica L.(Leguminosae); *Imli; Hitta* (G).Apr.- May. Common in the forest and around villages.

Leaves, flowers and pods are eaten raw by children, while seeds are eaten roasted (Recipe-III,VII). Curry from pods is prepared as a special recipe. Pods are soaked in water after removing seeds and pulp is extracted. Sufficient water, small amount of rice flour, coarsely crushed green chilli, jeera powder and salt added. The mixture is then boiled, preferably in earthen pot. The curry thus made is taken with rice.

Seedless pods are sold for Rs. at 20-25/Kg.

Acacia nilotica subsp. **indica** (Benth.) Brenan, (Leguminosae); *Babhul*. Dec.-May. Frequently found in the forests.

Gum of the plant eaten raw and also fried. Supposed to be tonic.

Dried gum sold for Rs. at 100-110/Kg.

Pithecellobium dulce Roxb. Benth. (Leguminosae). *Vilayati chich*. Oct.-Dec. Along the roads.

Fleshy aril from ripe fruits eaten; tastes sweet.

Anogeissus latifolia (Roxb. ex DC.) Wall. ex Guillm & Perr., (Combretaceae); *Dhawada*. Dec-May. Common throughout the forests.

Gum is eaten raw by tribals. Gum is used in laddus of dry fruits; supposed to be highly nutritious.

Dried gum sold Rs. at 120-150/Kg.

Syzygium cumini (L.) Skeels, (Myrtaceae), *Jambrun*; *Lendi* (G). July- Aug. Common in forests and around villages.

Ripe fruits are eaten.

Fresh fruits are sold Rs. at 20/Kg. and dried seed sold Rs. at 20-25/Kg.

Lawsonia inermis L. (Lythraceae); *Mehandi*. Feb.-March. Planted as hedges.

Dried seeds are eaten as tasty food.

Woodfordia fruticosa (L.) Kurz., (Lythraceae); *Lal jilbuli*. Sept.-Nov. Common in hilly areas of forests and along the stream and lakes.

Flower buds are cooked as vegetable (Recipe I). Flowers contain abundant nectar; children suck the flowers for nectar.

Dried flowers are sold Rs. at 35-40 /Kg. Used in Ayurvedic preparations like Arishta and Aasava.

Trapa bispinosa Roxb. (Trapaceae), *Shingada*. Nov.- Feb. Abundant in lakes.

Fruits eaten raw or roasted.

Sold at the rate of Rs. 40/ 100 fruits. These days it is also cultivated in private lakes.

Momordica dioca Roxb. ex Willd. (Cucurbitaceae), *Katwal*. Aug.- Nov. Occasional in forests also cultivated in house yards.

Fruits cooked as a vegetable (Recipe I).

Fruits sold Rs. 60-80/Kg.

Mukia maderaspatana (L.) Roem. (Cucurbitaceae). *Lahan shivalingi*. Aug.- Sept. Wild and frequently found on agricultural hedges.

Unripe and ripe fruit seeds are eaten by children.

Diplocyclos palmatus (L.) C. Jeffrey, (Cucurbitaceae); *Shivlingi*. Aug.- Oct. Common on bushes.

Fresh young seeds are eaten by children.

Glinus oppositifolius (L.) Aug. DC. (Molluginaceae). *Kadu Bhaji*. Aug.-Oct. Common in shady and moist places of barren lands of around villages and along banks of rivers.

Young shoots cooked as vegetable (Recipe I).

Young shoots are sold Rs. at 40-50/Kg.

Madhuca longifolia var. *latifolia* (Roxb.) A.Chev. (Sapotaceae). *Moha*; *Irpi* (G). March-May.

Very common in forests, field bunds and around villages.

Flowers, fruits and seeds edible. The preparations are as follows.

a) Flowers: (1) Flowers are eaten raw also baked on fire.

2) Flowers are cooked with just required amount of water. Cooked flowers are thoroughly mixed with rice flour and tough dough is prepared. Small balls of this dough are made and pressed in fist. These are known as 'muthe' (fist = muthe in Marathi). Water is taken in utensil and its mouth tied with clean cloth. 'Muthe' are put on cloth, covered with lid and put on low fire to be steam cooked.

3) Lakholi (*Lythrus sativus*) dal is cooked with flowers and then grinded. This is used as stuffing to prepare rotti. Such stuffed rotti is called 'moha chi puran-poli' (Sweet roti). Usually prepared during festivals.

4) Flowers cooked and mixed with rice flour and roti is prepared.

5) Flowers are fermented to prepare liquor. It is said that the liquor prepared from moha flowers never damages liver. This is routine practice in tribal areas throughout the state.

Flowers are supposed to give strength. They are believed to prevent body pain. Earlier farmers used give the flowers to their bullocks also along with its food, especially in rainy season when they have to work hard in the fields.

b) Fruits: Ripe fruit rind is eaten. This is a common practice.

c) Seeds: Seeds are used for edible oil extraction.

Flowers are sold for Rs. 25-30/Kg. and seeds are sold for Rs. 12-15/Kg. During season flowers are collected and sun dried, they are stored for sell-

ing in rainy season; off season price being higher (Rs. 40-50/Kg.). Dried flowers are also used to make the liquor.

Manilkara hexandra (Roxb.) Dubard. (Sapotaceae). *Khirmi*; *Revarni* (M). April-May. Occasionally in the forests.

Ripe fruits are eaten.

Wattakaka volubilis (L.f) Stapf, (Asclepiadaceae); *Ghai dodi*. Dec.-Feb. Common on bushes.

Young fruits cooked as vegetable (Recipe I).

Holarrhena pubescens Wall. ex G. Don; (Apo-cynaceae); *Kuda*; *Palod* (G). Sept.-Oct. Common in forests and barren lands around villages.

Flowers are used as vegetables (Recipe II). Young pods cooked as vegetable. Pods cut into small pieces; pieces are thoroughly washed in water with vigorous shaking and water discarded. Now it is ready for cooking (Recipe I).

This vegetable is consumed before rainy season starts to prevent worm infestation. Also supposed to prevent several infections prevalent in rainy season.

Oroxylum indicum (L.) Kurz, (Bignoniaceae); *Tattu*, *Tetu*. Nov.-Dec. Rare in the forests and planted in the kitchen gardens.

Flowers cooked as vegetable (Recipe II). Young pods are made into pickle (Recipe VIII).

Fruits are sold for Rs. 25/fruit.

Gmelina arborea Roxb. (Verbenaceae), *Shivan*. Nov.-Dec. Planted along the borders of the field.

Fruit rind is edible.

Lantana camara L. (Verbenaceae), *Bhutganja*. Oct.-Dec. Common along the road and around villages.

Ripe fruits are eaten by children as tasty food. The fruits are not only sweet but also have good aroma.

Boerhavia repens L. (Nyctaginaceae), *Khap-*

arkhuti. Sept.-Dec. Common in the waste lands.

Tender leaves cooked as vegetable (Recipe I and III).

Leaves are eaten as a vegetable without turmeric as cure for jaundice.

Fresh shoot and leaves are sold at 100/Kg.; very much in demand.

Alternanthera sessilis (L.) R. Br. ex DC. (Amaranthaceae); *Patur*. July-Sept. Very common in marshes around ponds, along river banks.

Young leaves are cooked as vegetable (Recipe I)

Young shoot with leaves sold 40/Kg.

Amaranthus spinosus L.(Amaranthaceae); *Katemath*.Aug.- Oct. Common on waste lands.

Leaves are cooked as vegetable.

Celosia argentea L.(Amaranthaceae). *Shilari*. Aug.-Sept. Grows as weed in the agriculture fields and also common on waste lands.

Young leaves are cooked as vegetable (Recipe I).

It is believed to prevent kidney stone.

Antidesma acidus (Phyllanthaceae). *Jondhurl*. Sept.-Oct. Occasional in the forests.

Fruits are edible.

Phyllanthus emblica L., (Phyllanthaceae). *Awala,Nelli*.Nov.-Jan. Frequently found in the forests.

Fresh fruit eaten raw.

Dried fruit (after removing seeds) are sold at Rs. 50/Kg.

Ficus hispida L.f.(Moraceae). *Bhui-umbar*. Oct.-Feb. Occasionally around the villages and along banks of the rivers.

Young fruits are cooked as vegetable (Recipe I).

Unripe fruits made into vegetable; given to the

arthritis patient.

Ficus racemosa L. (Moraceae). *Umbar*. March-May. Occasionally around the villages and along banks of the rivers.

Ripe fruits are eaten.

Argyrea nervosa (Burm.f.) Boj. (Convolvulaceae). *Samudrashosh*. Occasionally around villages.

Leaves cooked as vegetable (Recipe VI).

The vegetable is eaten to prevent joint pain.

Ipomoea aquatica Forssk. (Convolvulaceae), *Karmota* (C).July-Oct. Occasional in wild, grown in ponds around fields and houses.

Leaves are cooked as vegetable (Recipe I). Used only by the Kawar community.

Merremia gangetica (L.) Cufod. *Undirkani*. (Convolvulaceae). Sept.-Dec. Common in fields.

Leaves are used as vegetable (Recipe V).

Solanum nigrum L. (Solanaceae). *Kamuni*. Sept.-Nov. Common on waste lands around villages.

Ripe fruits are eaten as such by children while in the fields.

Hygrophila schulli (Buch.-Ham.) M.R. Almeida and M.S. Almeida. (Acanthaceae) *Talimkhana*. Common in wet and marshy places.

Young leaves are cooked as vegetable (Recipe I).

Chlorophytum tuberosum (Roxb.) Baker, (Asparagaceae). *Lengda bhaji* (G). Aug.-Sept. Commonly found on hills.

Young leaves cooked as vegetable (Recipe I and V), supposed to be highly nutritious.

Vegetable or steamed boluses made of tender leaves consumed as tonic.

Smilax zeylanicum L. (Smilacaceae). *Sherdire*.

Aug.-Sept. Frequent in the hedges and bushes.

Young shoots cooked(Recipe II).

Fresh young shoots sold Rs. 80-100/Kg.

Amorphophallus commutatus (Schott) Engl. (Araceae). *Waralu*. Sept.-Oct. Along forests border.

Petioles used for vegetable preparation. Skin is removed and petiole is made into pieces. While cooking, tamarind paste is added (This helps to dissolve raphides present in petiole tissue) (Recipe I).

Amorphophallus paeoniifolius (Dennst.) Nicolson, (Araceae). *Suran*. Dec.-April. Common in borders of houses.

Tuber is boiled in mud pot with *Tamarindus indica* leaves or pulp or *Psidium guajava* leaves to minimize the itching during consumption (Recipe- II).

Corm is sold at Rs. 24-30/Kg.

Colocasia esculenta(L.) Schott., (Areceae), *Dhopa / Kochai*. Oct.-Dec. Found in ponds, especially formed by drainages, in wild found in moist places and grown in kitchen gardens.

Leaves cooked as vegetable (Recipe V) and is used especially during winter only.

Cryptocoryne retrospiralis Kunth. (Areceae). *Pakhanbhed*. Aug.-Oct. On the banks of the rivers in the forest.

Leaves cooked as vegetable (Recipe III and VI).

Curcuma angustifolia Roxb. (Zingiberaceae); *Tikur* (C). Feb.-April. Wild as well as cultivated by Kavar tribal communities in house backyards.

The tubers are pounded finely and kept in water overnight. The powder that settles down is used for edible purpose. Teaspoonful powder is mixed with glass of water and taken in the afternoon; combats body heat. The use is common even as welcome drink. Used in burning micturation in summer season.

Cheilocostus speciosus (J. Koenig.) C.D. Specht., (Costaceae); *Kevkanda*. Sept.-Dec. seen in moist places in the forests and planted in the kitchen gardens.

Rhizome crushed and boiled in water, this water is used as soup, whereas residue cooked as vegetable. (Recipe I). Young leaves made into 'muthe' (Recipe V).

Mature rhizome cut into very small pieces or grated and consumed as a vegetable to prevent or cure rheumatism.

Rhizomes sold at Rs. 20-24/Kg.

Tacca leontopetaloides (L.) Kuntze., (Dioscoreaceae). Oct.-Dec. Occasional in the jungles.

Tubers are cooked as vegetable (Recipe II).

Dioscorea alata L. (Dioscoreaceae). *Momnaru, Nangel Mati*(G). Oct.-Dec. Planted in the kitchen gardens in the villages.

Sometimes a long bole is fixed in the ground near the hut and 'Momnaru' (*Dioscorea alata*) is grown around this bole.

Bulbils roasted or boiled and eaten.

Dioscorea bulbifera L. (Dioscoreaceae). *Mataru*. Oct.-Dec. Wild as well as planted in the kitchen garden in the villages.

Bulbils and tubers are edible, tuber boiled and eaten.

Mature bulbils baked or boiled and consumed as tonic in weakness and to gain strength. This is especially given after delivery to women to overcome weakness and backache.

Bulbil are sold at Rs. 24-30/Kg.

Commelina benghalensis L., (Commelinaceae). *Kena*. Sept.- Oct. Common weed in fields.

Very commonly found on waste -I lands and

near cultivated land.

Young leaves are cooked as vegetable (Recipe I), Pakodas are made of leaves (Recipe VI).

Phoenix sylvestris (L.) Roxb.,(Arecaceae); *Sindi, Hindi* (G). Around villages and road sides of some villages; common along stream banks.

Pith of young stem cooked as vegetable (Recipe IV). Pith is also eaten raw and it tastes like coconut. Inflorescence stalk is cut and sap exuded is collected, boiled and made into jaggery. This is specially made by Bangali communities.

Borassus flabellifer L. (Arecaceae). *Tad.* March-May. Occasional around villages.

Fruits edible. Inflorescence stalk is cut and sap exuded is collected. This is allowed to ferment; used to make a drink called *tadi*. Fresh exudate is called *Neera*; tastes sweet and supposed to be healthy.

Fruit sold for Rs. 10/piece.

Caryota urens L. (Arecaceae); *Gorga.* Nov.-Dec. Occasional around the villages or planted in the yards.

Inflorescence stalk is cut and sap exuded is collected. This is allowed to ferment and used to make a drink called *Gorga*.

Dendrocalamus strictus (Roxb.) Nees. (Poaceae). *Yeru, Vasta.* Aug.-Nov. Common in the forests.

Very young shoots (sprouts) are collected. These are boiled in water without covering the pot/utensil. Water is thrown and vegetable is prepared (Recipe IV). Young sprouts are also pickled (Recipe VIII). Marketing of sprouts is strictly prohibited as a part of conservation and sustainable utilization.

Oryza rufipogon Griff.,(Poaceae), *Parsod.* Nov.-Jan. Common during rainy season near the lakes, wet areas and in ditches.

Cooked grains eaten. Grains were cooked like rice; in olden days, it was a popular food during farming. These days used only as food change. Also used to prepare dosa (*Ayata*) without fermentation.

4. Discussion

The present ethnobotanical survey was conducted in 12 blocks of Gadchiroli district of Maharashtra has resulted in documenting 73 wild plant species that are edible. Out of 73 species reported in present survey 56 species belonging to 52 genera are from 32 dicotyledonous families, while 17 species belonging to 15 genera are from 9 monocotyledonous families; i.e. comparatively few species of monocot are utilized by the locals. Fruits have always remained a favorite food of mankind. Nutrition wise as well as taste wise, fruits are a preferred commodity. Present survey revealed fruits of 29 species used by locals. Leafy vegetables are main ingredient of daily diet. Out of 73 species documented 20 are leafy vegetables. Other parts are used in much smaller proportion. 15 species however, are used only as tasty food. Some of the species are used not only as food, but as medicine also. 14 species were found to be used medicinally. Though most of the tribes collect these edible plants from wild, those living in towns purchase them from the market. 32 species were found to be sold in weekly as well as daily markets. Popularity of wild edibles is such that one of the species, i.e. *Celastrus paniculatus* is sold at the rate of Rs. 500/Kg. Keeping this in view, systematic efforts are needed regarding bioprospecting of wild edible plants to support the tribes. Earlier, Sethiya *et al.* (2016a & 2016b) have reported wild edible plants from the district. Here, only those species are repeated which are used differently as medicine and are marketed, since these details are not studied by them.

Considering both studies, 123 wild species of the region are found edible. Further intensive study may reveal more edible plants.

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