

## Ethnomedicinal edible wild plants of Pendra road, forest region of Chhattisgarh

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### Abstract

Pendra Road forest region is lies between 22°44'55" North latitudes and 81°54'43" east longitudes. The main forest is SAL, Saza, Khamhar, Haldi, Sagoun, Shisham, Neelgiri, Harra, Bahera, Char, Tendu, Palash. Mostly people of this area is inhabited tribes and villages. Gond, Kanwar, Binjhwar, Bheel, Bhunjia, Bhaina, Korwa etc are inhabited tribe in this region. They are closely attached to plant for their food and medicinal requirement. Mostly tribe used many edible wild plants for ethnomedicinal purpose to cure different disease such as asthma, fever, bronchitis, skin disease etc. during extensive field survey indicate more than 49 edible wild plants are useful to cure different disease. The paper deal various wild edible plants used by local inhibitends for cure their disease. The knowledge are collected by local medicine men called vaidya are Baigas. This type of study is helpful to promote the ethnomedicinal knowledge of edible plants.

**Keywords:** ethnomedicine, trible people, edible wild plants, knowledge's, medicine men, vaidya, baigas

### Introduction

Ethnobotany is the systematic study of the relationship between plants and people. It is not simply the study of the human "we" of plants; rather, ethnobotany locates plants within their. Cultural context in particular societies, and situates peoples within their ecological contests ethnobotany examine. The culturally specific ways that humans perceive and classify different kind of plants the things human do to plant species such as destroying "weeds" or "domesticating" and planting specific kinds of food and medicinal plants the way in which various members of the plant world influence human cultures.

The term "ethnobotany" was coined in 1895 by J.M. Harshberger, an American botanist at the university of pennsylvania.

Ethnobotany is considered a branch of ethnobiology, the study of past and present interrelationship between human cultures and the plants, animals, and other organism in their environment Edible plant is something which is not harmful to the average healthy person when eaten in reasonable amounts and is fairly tasty to most people.

### Material and Methods

**Study Area:** Pendra Road "Gourella" is a town and a nagar panchayat in Bilaspur district in the state of chhattisgarh It lies 22°44'55" N and 81°54'43" E latitude. "Gaurella" is the location of the pendra road railway station on Bilaspur Katni rail route of South East. Central Railway and is the highest point on the s.e.c. railway Height from sea level is 618.4m

**Climatic Condition and Soil:** The climatic data of the study area for the study period was obtained from weather department of Pendra Road. The day wise data on temperature (maximum and minimum), Number of rainy

days, relative humidity and rainfall were computed and expressed as monthly average.

Maximum temperature of 39.04°C was record in the month of April 2016; whereas minimum was 9.7°C recorded in the month of December. August and September were recorded as the most moist month having maximum relative humidity of 91.9% and 87.9% relative humidity of 91.9% April was the most dry month, having 2.16 relative humidity. Maximum rainfall was received in the month of August 146.93 mm minimum rainfall was recorded in the month of November.

**Soil:** Dorsa (Aifisols) have clay enriched subsoil and relatively high native fertility "Alf" refers to aluminium (Al) and iron (Fe) Because of their productivity and abundance the Alfisols represents one of the more important soil orders for food and fiber production. They are widely used both in agriculture and forestry and are generally easier to keep fertile than other humid-climate soils.

**Tikra Soil (Inceptisols):** They found quickly through alteration of parent material they are more developed then Entisols. They have no accumulation of a clays, iron oxide, Alluminium oxide or organic matter. They have an ochric or umbric horizons and a cambic subsurface horizons. It suits all types of crop.

**Methodology:** The different survey was conducted during 2016. Medicinal uses of plants was collected from local people, Baigas, Traditional Doctors and tribes of nearby places and discussed about wild edible ethnomedicinal plants and their use. Some of the 49 ethnomedicinal plants were collected and the existence of these plants were cross checked and confirmed with the help officials of local veternity tribals people. The information gathered from one place was confirmed by other different trible people. The plant

specimen were collected and identified by referring slandered local flora (Central Flora).

Ethnomedicinal plants are important and used by local people for treatment of different disease.

### Enumeration of wild edible plants

#### B.N. - *Moringa oleifera*

Deciduous trees with fragile wood and gummy bark, alternate decomposed leaves with opposite pinnae, pentamerous, zygomorphic flowers with 5 stamen and 3-5.

It is used for diabetes, hear disease, anemia, arthritis, liver disease and respiratory.

#### B.N.-*Tamarindus indica*

Tamarind is an evergreen tree, slow growing, which can measure between 15 and 25 meter high. It has a rough bark, dark gray It has deep roots and strong branches,

It is used for abdominal pain, diarrhea and dysentery, peptic licer spasmolytic effect.

#### B.N.-*Carissa carandas*

Carissa is shrub, latex milky, at spines forked at apex, flower in terminal or auxiliary, fruit An ellipsoid berry Leaf opposite-decussate.

It is also used of Diarrhea, prevent of inflammation, inhibit the growth of cancer and tumor cell, cure Anxiety.

#### B.N. - *Aegle marmelos*

Aegle marlelos is tree, leaves are Simple. Its bark is thick, soft, Haking and spreading Flowers are fragrant having sweet aroma and blooms in clusters of 4 to 7 along the young branchlets.

The juice from crushed leaves has been used for the treatment of bronchitis, and the decoction of root bark has also been used as anti malarial drug.

#### B.N. - *Colocasia esculenta*

*Colocasia esculenta* is perennial, glabras, herb growing to a height of 1m or more with a massive fleshy corm at the base and lateral, thick edible runners Root system adventitious.

It is used for treatment of various ailments such as asthma, arthritis, diarrhea, internal hemorrhage, neurological disorder and skin disorder.

#### B.N. - *Amorphophallus sylvanticus*

Amorphophallus are shrub the plant blooms annually around the beginning of the raining season. leaves are compound root system adventitious, plant are monoecious.

It Reduce bad cholesterol level, also prevent unnecessary blood clot.

#### B.N. - *Syzygium cumini*

Bark is rough, cracked, Evergreen leaves have a turpentine smell, and are opposite flowers are fragrant and appear in clusters. fruit appear in cluster of just a few or 10-40.

The black plum is known to relieve stomach pain, vinegar is good tof reduce enlargement of spleen, diarrhea and who has urine retention problems it is also used for to cure diabetes asthma and arthritis.

#### B.N. - *Phyllanthus Emblica*

Aamla is deciduous tree, which is medium in size and it grows up to 8 to 18m. Its leaves are 8 to 10 millimeter long and 2 to 3mm wide.

Aamla prevents many eye related problems such as cataract, near- sightedness, intra-ocular etc. Prevent cough and cold, cure mouth ulcer, control diabetes it is also useful for healthy heart.

#### B.N. - *Ipomea batatas*

The plant is a herbaceous perennial vine, bearing alternate heart- shaped. The edible tuberous root is long and tapered, with a smooth skin, whose color ranges red.

sweet potato contains properties that help fight heart disease, improve glucose control, it reduce cholesterol.

#### B.N. - *Annona squamosa*

*Annona squamosa* is a small, well branched tree or shrub. Branched with light brown bark and visible leaf scars; the leaf edges are without teeth, inconspicuously hairy when young.

The leaves are shown to have antidiabetic properties it is also useful for malignant tumors They are also used as anti-depression, in epilepsy and in spinal cord disorder.

#### B.N. - *Dendrocalamus strictus*

*Dendrocalamus strictus* is a medium sized bamboo with clums of about 8-20 m tall and 2.5-8 cm in diameter. The internodes are 30-45cm long and thick walled clums are hollow many clustered branches with 1 larger dominant branch. The lower nodes after have branches.

Women suffering from menstrual irregularities can find benefit through the intake of bamboo shoots for the stomach and can cure mild symptoms like indigestion and diarrhea.

#### B.N. - *Chenopodium album*

*Chenopodium album* is a fast growing weedy annual plant It trends to grow upright at first, reaching heights of 10-150cm. The leaves are alternate and varied in appearance. The small flowers are radially symmetrical and grow in small cymes on a dense branched 10-40 cm long.

It helps kidney, heart and other organs work the right way it also protects against problems night blindness. Juice of its leaves can purify your blood.

#### B.N. - *Ludwigia hyssopifolia*

*Ludwigia hysspitolia* is an erect aquatic or semi aquatic annual herb, upto 2-3m high stem base spongy and swollen with aerenchyma, leaves alternate, lanceolate, up to locm long. Flower solitary in leaf axile, sessile or nearly.

Root, generally healing medicines, root used as sub cutaneous parasitic infection.

#### B.N. - *Artocarpus heterophyllus*

Evergreen tree related with bread fruit Jack frut free usually measures over 20m leaves are large 20 or more cm. long. These leaves are dark green, glabrous, glossy, oblong deeply lobed or leathery monoecious.

It help in the healing of stomach ulcers. Jackfruit pulp is used for the treatment of constipation jackfruit has protective properties against skin cancer.

#### B.N. - *Amaranthus polygamus*

*Amaranthus polygamus* an annual herbaceous plant stem erect or usually ascending 6-80 cm tall.

Seed is useful for vision problem it is also used to improve eyesight

**B.N. - *Dioscorea bulbifera***

*Dioscorea bulbifera* herbaceous, vigorous, twining, vine with non-spiny stems to 20 m or more in length, freely branching above; flowers are white or pinkish tinged fruits are capsule. If is used for ulcers, sores, wound, spasms, dysentery, diabetes and cancer.

**B.N. - *Canvalia gladiata***

*Canvalia gladiata* is a perennial legume. bean has a vigorous climbing or trailing habit and can be up to 10m long its stems are woody The leaves are alternate, large, trifoliate, leaflet are oval shaped.

*Canvalia gladiata* enhances the functioning of nervous system it is also useful for reducing parkinson effect.

**B.N. - *Polygonum plebeium***

*Polygonum plebeium* is a much branched prostrate annual plant with stems 4-45 cm long, leaves are alternate and varied in appearance.

The crushed seeds are cooked and eaten as a remedy for boil complaints.

**B.N. - *Fimbristylis dichotoma***

*Fimbristylis dichotoma* plant non-woody, clumpling short less than 1, plants have a 1 foot spread Leaves are 3-16 inches long. Flowers are brown.

*Fimbristylis* & *dichtoma*, eaten as vegetable seeds are useful for reduce vision problem also improve eye sight seeds also useful for cure constipation.

**B.N. - *cassia tora***

*Cassia tora* is a dicot legume known as many names in different part of the country. The plant is an herbaceous. The plant can grow 30-90 centimeters. fall and consists of alternative pinnable leaves with leaflet.

It has been used for treating skin diseases such as leprosy, ringworm, iching and psoriasis and also for snakebite.

**B.N. - *Paspalum scrobiculatum***

*Paspalum scrobiculatum* is a tufted annual or perennial grass upto 150cm tall culms stout, erect, glabrous, some what bulbous at base, blades flat 12-40cm long, 3-12mm wide.

*Paspalum scrobiculatum* is traditionally wed to treat diabetes mellitus.

**B.N. - *Bauhinia purpurea***

Erect shrub, 7-10 m tall Bark grayish to dark brownish, thick smooth, branched puberulent when young later glabrous petiole 3-4 cm, leaf blade suborbicular.

Its extract is a good cure for healing wounds and injuries. It is a good herb for curing Rheumatic pain and swellings.

**B.N. - *Costus speciosus***

*Costus speciosus* differs from the common ginger by having only one row of spirally arranged leaves. The species reproduces vegetatively by rhizeme, and birds disperse the seed when they feed on the fruits.

Roots and Rhizomes are used for improves digestion, juice of rhizome is applied to head for cooling and relief from headache. Its also important for rheumatism, dropsy urinary disease jaundice etc.

**B.N. - *Polygonum plebeium***

*Polygonum* mostly herb, climbing, leaves stipulate, annual plant root are tap or branched stems are generally herbaceous with swollen nodes surrounded by a stipular sheath leaves are simple alternate.

*Polygonum plebeium* have significant antioxidant activity, plants have significant antimicrobial as well as antioxidant potential.

**B.N. - *Hyptis suaveolens***

*Hyptis suaveolens* is an erect annual herb branched and measuring between 50cm and 2m high. It is a plant strongly aromatic, entirely pubescent, 4-angle stem marked with auxiliary inflorescence. Root are tap root. Stem is 4 angle and reaches 2.5 cm thick.

The plant extract were used to cure swellings, abscesses, and also as memory aid. It has been use as medicinal tea.

**B.N. - *Annona reticulata***

Plant is perennial tree up to 10m tall, with a spreading crown and 10 to 14 in (25-35cm) thick trunk. Leaves are deciduous.

Root Barked are packed around the gums to releive toothache. The bark is also a remeady of diarrhea and dysentry crushed leaves may be poulticed on boils, abscesses and ulcers.

**B.N. - *Ficus hispida***

*Ficus hispida* shrubs to medium sized trees, up to 10 m tall. Bark brownish, with hollow internodes, densely hispid with brown of gray hairs. Flowers unisexual. fruit and seed are syconium, labose up to 25 cm cross.

It has anti-cancer including breast cancer, lung cancer and oral cancer It is also used for the treatment of skin diseases wound and fever.

**B.N. - *Catunaregam uliginosa***

*Catunaregam uliginosa* is deciduous trees, to 7m high, bark raddish brown; branchlets 4 angled, terminating with one or two pair of sharp thorns leaves simple, opposite, decuss ate; stipule interpetiolar.

Bark extract use for skin diseases it is also helpful for digestive and immune system function.

**B.N. - *Leucas aspera***

*leucas aspera* is an annual branched herb erecting to a height of 15-60cm with stout and hispid acutely quadrangular stem and branches leaves are sub-sessile.

Leaves are useful in chronic rheumatism, psoriasis and other cronic skin diseases.

**B.N. - *Habenaria marginata***

Plants 10-25 cm tall with turnip shaped tuberooids. Stem with 3-5 closely crawled sub-basal leaves.

Plant used for 1 many diseases snake bite, eye problem, acidity, respiratory problems, toothache, gyne cological problem rheumatism etc.

**B.N. - *Buchanania lanzan***

*Buchanania lanzan* subdeciduous trees, to 18m high, bak 10-12 mm thick surface black or dark brown, leaves simple, alternate estipulate; petiole 12-22 mm.

Plant useful in allergic skin diseases Bark useful blood disorders such as skin disorders, bleeding disorder chironji helpful to improve strength and immunity.

**B.N. - *Corchorus oriflorus***

Shrub or small tree. Stem thickened and green in colour leaf 6-10 cm long, 3.5-5cm broad elliptic. Lanceolate, apically acute. Glabrous, leaves are tasty and tender.

Useful for internal bleeding, protects eye health, restless leg syndrome, support skin health and cell growth Fight off colds and flu, Reduces cholesterol. Fight for cancer.

**B.N. - *Pueraria tubrosa***

Large climbing shrubs with tuberous roots, brounchlets appressed velvety leaves 3 foliolate; leaflets 5-18x5-12.5cm ovate or the terminal rhomboid, base abuse or acute. Flowers 1.3 cm long bluish purple.

The root is used as a demulcent and refrigerant in the treatment of fevers. Also useful to reduce swellings. it is crushed and rubbed on the body in the treatment of fevers and rheumatism.

**B.N. - *Agaricus compestris***

*Agaricus compestris*, the cap is white, may have fine scales and is 5 to 10 cm in diameter.

Agaricus are health promoting mushrooms have been used in health care for treating simple and age old common diseases like skin disease. It is also useful to cure epilepsy, wounds, skin diseases, heart ailment etc.

**B.N. - *Terminalia bellirica***

*Terminalia bellirica* deciduous trees, to 35 m high Bole often Buttressed; bark 10-20 mm thick, Leaves simple. Opposite or alternate

*T. bellirica*, herbal treatment for asthma, Herbal treatment for migrane, also used for baldness constipation, weak eyesight. Headache for kidney disease.

**B.N. - *Shorea robusta***

Sal is moderate to slow growing and can attain heights of 30 to 35m and a trunk diameter of up to 2-2.5cm The leaves are 10-25 long and 5-15cm broad flower are regular, bisexual Sal tree used to treat piles, leucorrhoea, gonorrhoea, skin disorder, ulcers, wounds, diarrhoea, dysentery.

**B.N. - *Dioscorea hispida***

*Dioscorea hispida* is a climber it has ternate leaves that are alternate. The ovate leaflets are entire and petiolate. It produces racemes of cup shaped flowers.

Tubers used for to cure ulcer, and also useful for boils and bites of rabbit, jackel or dog.

**B.N. - *Ficus religiosa***

The big and old tree is of 30m long They shatter bark and are of white or brown in colour. The leaves are. Shiny, thin and bear 5-7 vein.

It is useful for treating skin disease and gonorrhoea.

**B.N. - *Asparagus racemosus***

Shatavari is a perennial climbing plant with straight and hooked spines extending to a height of 1-2 meters. Its leaves are thin and pine needles.

The roots are useful in nervous disorders, dyspepsia, tumors, scalding of urine, throat, infection, tuberculosis.

**B.N. - *Pongamia odoratissima***

It is a small branched palm like dioecious tree with a flexuous trunk supported by brace roots the tree can grow to a height of 4 meters leaves are glaucous 40-70 cm long.

It is used for the treatment for oxidative stress, inflammation, headache, Rheumatism, spasm. The roots are diuretic, depurative and tonic. They are taken internally.

**B.N. - *Momordica dioica***

*Momordica dioica* is a perennial plant which grows up to 3-5m Alternately arranged ovate leaves are 3-5 lobed.

The tuberous root is used in medicine. They are applied in bleeding piles and urinary complaints.

**B.N. - *Desmodium pulchellum***

Undershrubs or shrubs up to 2 metre tall. Leaves 3 foliolate leaflets 2.5-11x2-5cm, ovate, elliptic or ovate oblong Roots tubers, stems leaves Flowers fruits and seeds are used in raw or cooked forms.

**B.N. - *Semecarpus anacardium***

It is medium to large sided deciduous tree with gray bark exfoliating in small irregular makes 15-25mt. in height leaves are simply alternate.

Red orange part of fruit is collected sun dried. This herb is considered good for both male and female reproductive system. it is appetizer and used to stimulate digestive system

**B.N. - *Madhuca indica***

It is an Indian tropical tree found largely in the central and north Indian plains and forests. It is fast growing tree that grows approximately 20m in height,

It is used to arrest the excessive bleeding or secretion of tannin. The herb can relieve following problem- Headache, Haemorrhoids, Hair problems, Diabetes, burn.

**B.N. - *Curculigo orchioides***

This plant is small herb up to 30cm high. Root of plant are tuberous about 4 inches with bitter and mucilaginous taste. Rootstock is straight, cylindrical, tuberous, 5-22 cm long, 0.5-0.8 cm thick.

The plant is effective against fever, used to prevent cancer, reducing level of the sugar glucose in the blood.

**B.N. - *Chlorophytum tuberosum***

The plant is about 20 cm tall seen in gregarious clumps. Leaves are strap shaped, 6-12 cm all arising from the base Flowers are white, 2.5 cm across with 6 elliptic petals.

The root stock extract is effective mainly on urinary system and its considered to be diuretic in action.

**B.N. - *Hyptis suaveolens***

It is generally 1-1.5 m. tall occasionally up to 3m stems are hairy and square in goss. Section. Flowers are pink or purple arranged in clusters.

It is used as appetizer also used for infection of uterus. It is used as a skin disorder such as dermatitis.

**B.N. - *Ziziphus rotundifolia***

It is a shrub up to 3 m. or more high branching to form a thicket. The leaves are rounded.

It is used as antimicrobial agent there roots used for dysmenorrhoea, irritatory rashes, antibacterial rheumatism, malaria.

### **B.N. - *Diospyros melanoxylon***

*Diospyros melanoxylon* is a tree bark are black or dark brown deeply fissured vertically, flakes rectangular, leaves thick, pale green, with soft hair fruit.

The bark is burnt to cure small pox, it cures mental disorder, palpitation and heart & nervous breakdown.

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### **References**

1. Ahirwar Ramesh *et al.* An Ethnobotanical survey of some wild edible plants of Bijuri forest district Anuppur, Madhya Pradesh, central India, International journal of science and Research. 2013; (4):614.
2. B Swapna An ethnobotanical survey of plants used by yanadi tribe of Kavali, vellourd district, Andhra Pradesh Journal of Scientific and innovative Research. 2015; 4(1):22-26.
3. Bandyopadhyay S *et al.* wild edible plants of koch Bihar district, west Bengal. Natural product Radiance vol. 2009; 8(1): 64-72
4. Banik Ajay *et al.* wild edible tuber and root plants available in Bastar region of chhattisgarh International journal of forestry and cropimprovement. 2014; (5):85-89.
5. Bhagat B, Rani *et al.* prospectine wild edible fruit plants from part of northern western ghats, mulshi, India, Journal of medicinal plants studies. 2016; 4(1):15-19.
6. Bhattacharya kaustuv *et al.* characterisation of the dicotyledonous wild edible plants of the district of Bardhaman, west Bengal. Journal of innovations in pharmaceuticals and biological sciences. 2(3):337-345.
7. Chakraborty subrata some wild edible fruits, Genetic resources, sustainable development, 2014, 4.
8. Chandra kailash *et al.* Ethnobotanical resources as supplementary food and less known wild edible fruits in District Rudraprayag, Uttarakhand India, J hum ecol. 2013; 42(3):256-271.
9. Dangwal LR. *et al.* Edploration of wild edible plants used by Gujjar and Bakerwal district Rajouri (J & K), India journal of Applied and natural science. 2014; 6(1):164-169.
10. Deb dipankar *et al.* wild edible plants and their utilization in traditional receipes of Tripura, Northeast India. Advances in Biological research, 2013; 7(5):203-211.
11. dubey veenapani *et al.* Nutritional analysis of indigenous. Wild edible herbs used in eastern chhattisgarh, India, Emir. J food Agric. 2011; 23(6):554-560.
12. Dwivedi Sandhya *et al.* Biodiversity of mushrooms of Amarkantak Biosphere research forest of central flora. International journal pharonacy and lifescience. 2012; 3:1363-1367.