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## Certain endangered and threatened ethnobotanically important plants of Ranchi District, Jharkhand

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**Abstract :** Jharkhand came into existence as a separate state of Indian Republic on 15<sup>th</sup> November 2000. It includes the geographical territory of Chotanagpur & Santhal Pargana division of the Old Bihar State. Jharkhand literally means “Land of Forest” and it has presently 29.61% forest area (the total area of Jharkhand is 79,712 Sq.Kilometer). Ranchi is the capital and the largest district of Jharkhand. It is situated in the centre of Chotanagpur plateau of Jharkhand at an elevation of 652 meters above the sea levels approximately between 20.0°-23.60° North Latitude and 84.90°-85.90° East Longitude. Chotanagpur plateau the new Jharkhand where Ranchi, situated in full of forest, rivers and plants. So the people of this remote area are very much attached with forest and mountains. They love to live within nature. They behave with nature as their mother because all the necessary sources of their food, shelter and home are found in forest. So they worship some plants as God. They totally depend in forest for food cloth shelter and medicines also. Tribals dominant forest areas are playing an important role in ethnobotanical aspect in their day-to-day life.

**Key words:** endangered, threatened, ethnobotany.

### INTRODUCTION

The plateau of Ranchi district is full of Mountains Rivers and Forest. The plants are finding place as pharmaceuticals cosmetics and food supplements. Even as traditional source of medicines and they continue to play pivotal rule. The World Health Organization (WHO) estimated the 80% of the population of developing countries still survive on traditional medicines, mostly plant drugs, for their primary health care needs. Also modern pharmacopocia contains at least 25% drugs derived from plants. Many other are synthetic analogues built on prototype compounds isolated from plants. Demand for

Medicinal plants is increasing in both developing and developed countries due to growing recognition of natural products, being non-toxic having no side-effects easily available at affordable prices. Medicinal plant sector has traditionally occupied an important position in the socio-culture, spiritual and medicinal arena of rural and tribal lives of Ranchi District.

Millions of rural households use medicinal plants in self help mode. Number of ethnic people viz.-Oraon, Munda, Kharia, Ho, Santhali, etc. Tribal people have used plant species in their day-to-day life, such as food fodder medicines, vegetables, fibers and domestic purposes.

Literature reveals that certain places of Central India have been explored for their ethnobotanical utility.<sup>1-4</sup> Due to anthropogenic activity numbers of certain species are

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also going to be disappear and included in the list of endangered. Present investigation have recorded certain ethnobotanically important plants and enumerated their uses in day-to-day life.

#### **MATERIALS AND METHODS**

Ethnobotanical explorations were undertaken during 2000-2008 in different tribal dominant forest areas of Jharkhand. The uses of plants in different aspects of life especially medicinal purpose and causes of endangered were gathered from knowledgeable and elderly persons, because they are the only source to collected of information about local plants name and their uses.

#### **RESULTS AND DISCUSSION**

Plant species were enumerated alphabetically with family followed by their local name, habit, uses and treats to biodiversity.

*Andrographis paniculata* (Burm.f) Wall ex. Nees. Kalmegh (Acanthaceae) Herbs, wild. The plant is used for controing sugar of diabetic patient, urinary trouble etc. Endangered.

*Achyranthes aspera* - Linn. Chirchira (Acanthaceae) Annual herbs.

Decoction of herb is useful in pneumonia, cough, kidney stone, leaf extract is used for Leprosy.

*Amorphophallus campanulatus*. Blume (Araceae) Herbs

It cures piles, abdominal tumours, intestinal worms and dysentery. Vegetable of tuber is useful during intestinal disorders.

*Asparagus racemosus* Linn. (Asparagaceae) Shatawaree Climber. Satavari is powerful drug capable of improving memory power intelligence, physical strength and youthfulness. It is sweet bitter in taste. Roots are used to cure diarrhoea as well as in case chronic colic and dysentery. Tubers are refrigerant demulcent aphorodisiae, antidysentery and are useful in fever.

*Ageratum conyzoides* Linn. (Asteraceae) Osaaddee. Aromatic, erect annual herb is used internally as a stimulant and tonic. Juice is a good remedy in prolapsusani. Oil applied in rheumatism, Leprosy, Skin diseases. Juice of leaves is antilithic.

*Abelmoschus moschatus* - Bhindi (Malvaceae) Annual herbs. Commonly known as Lady's finger. Although it's

different parts are used as traditional medicine and the traditional healers. It is heavy demand at national and international markets. The farmers are not growing it for the traditional healers. The healers are fulfilling their demand from wild population as well as from very small - scale cultivation.

*Barleria prionitis* Linn. (Acanthaceae) A much branched prickly shrub. Katsareya has antiseptic properties; its decoction is used in dropsy to wash the body. A decoction roots is used as mouth wash in toothache and paste is applied to disperse boils and glandular swelling leaves are chewed to relieve toothache.

*Cissus quadrangularis* Linn. (Vitaceae) Boneseter, Harkankani. It is useful in indigestion, piles, worms and asthma. It has ability to rejoin broken bones. Juice of plant is beneficial in scurvy; Fresh shoots are applied for bums and wounds.

*Centella asiatica* L. Urban. (Apiaceae) Beng Sag. *Centella* is used as leafy vegetables. It is most often prepared as vegetable and dal. *Centella* appears to act on the various phases of connective tissues development, which are part of the healing process and increases Keratinization which allows it to stimulate healing of ulcers, skin injuries, connective tissue and to decrease capillary fragility.

*Ficus benghalensis* Linn. Moraceae Banyan tree. An infusion of bark cures dysentery nervous disorders, diarrhoea and reduces blood sugar in diabetes, Milky juice is beneficial as local application in toothache, sores and ulcers. Infusion of young buds is used in diarrhoea and dysentery.

*Ficus religiosa* Linn. Moraceae Peepal tree. Leaves and young shoots are purative. Bark is astringent and found efficacious in gonorrhoea, Infusion of bark given internally in scabies, ulcers and skin diseases.

*Psidium guajava*, Linn. Myrataceae Amrud. Leaves are used as astringent for bowels and wounds and ulcers, Young leaves are used as a tonic in the diseases of digestive functions. Flowers are said to cool the body and are used in bronchitis. Perukam fruit is tonic, cooling and laxative. It is good in colic and for bloody gums. Fruits and its conserve are astringent and used in diarrhoea and dysentery.

*Phyllanthus niruri* Linn. Euphorbiaceae. *Bhoomi anwalla*. It is used as a diuretic in dropsical affection and

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other trouble of genito urinary tract. Herb is bitter, astringent, deobstruent, diuretic, febrifuge and antiseptic. Fresh root is a remedy for jaundice. Milky juice used as applications to sore. Leaves are a popular remedy against fever. Fusion of young shoots given in dysentery.

*Ziziphus mauritiana* Lamk. Rhamnaceae tree. Ber. Ber roots are bitter and cooling, biliousness and headache. Decoction of roots is used in fever. Fruits are mucilaginous, pectoral, styptic considered to purify blood and aid digestion.

Ethnic people of Jharkhand are well known for its heritage regarding medicinal plants growing near forest areas. The ethno medicinal values differ from species to species in composition and properties. Some plants have characteristic of quality timber, edible fruits and some are poisonous and also medicinal.

Many species are used in medicinal purposes by different tribal people and have other uses as food, fodder, fiber, timber and other purposes.

Due to different anthropogenic causes many of those specimens enumerated in the list becoming threatened as *Centella asiatica*, *Asparagus recemosus* Vitex, Lantana and very rare are clerodendren species.

Different measures have been adopted for conservation of these categories species. So that it may give maximum benefit to the present generation while maintaining its potential to meet the needs and appertains of the future generation.

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