

CONSERVATION OF HIGHLY EXPLOITED MEDICINAL PLANTS OF VINDHYAM RANGE (U.P.)

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ABSTRACT

Present paper deals with some important medicinal plants of the area which need urgent conservation. Due to increasing demand for the herbal drugs from wild sources and illegal and unscientific exploitation by tribals and traders and recently by pharmaceutical firms, without concern for their future, have posed a great threat to the experience of our valuable medicinal plants. Thus there is an urgent need for conservation of these medicinal plants, before they are extinct. Cultivation of such rare and endangered medicinal plants can considerably reduce the pressure on forest ecosystem. The correct botanical name, brief descriptions, parts used, medicinal uses, phenology along with flowering & fruiting time have been given.

KEYWORDS: Conservation, medicinal plants, uses

Vindhya range U.P. comprises part of Chandauli, Sonbhadra and Mirzapur districts. The study area is lie between 24° 50' and 25° 35' N latitude and 82° 50' and 83° 35' E longitude and 90-360 M above sea levels. The vegetation of the area is tropical deciduous scrub forest of Vindhya. The climate of study area is dry sub humid with three distinct seasons viz. winter, summer, rainy within a year. Average rainfall is about 1100 mm per annum.

The flora of the area is rich in medicinal plants. These medicinal plants are exploited chiefly by the local inhabitants and tribal peoples and to some extent by various pharmaceutical firms of adjoining district. Rapid industrialization and urbanization in this area have imposed a great to these medicinal plants e.g. *Rauvolfia serpentina* a reputed medicinal plant was frequently found in the study area only a few years back but the plant become rare and restricted to some localized areas due to over exploitation and urbanization. Similarly *Asparagus racemosus* is still found frequently in the study area but day by day it is becoming due to exploitation for medicinal uses.

Duthie (1929) and Hooker (1880) reported a number of highly exploited medicinal plants in the study area. Singh (1982); Singh and Singh (1985, 1987) reported important medicinal plants in the area.

MATERIALS AND METHODS

The present study is based on the seven years of intensive exploration of the area. The excursions were undertaken in different areas at regular intervals. During

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these excursions, local names, information regarding the medicinal and other uses was recorded. The information about medicinal uses of plant were obtained from the tribal people, local inhabitants, 'Hakims', 'Vaidyas' and field workers.

Enumeration of Plants

1. *Aristolochia indica* L. (Aristolochiaceae)

A perennial twinning shrub arising from a woody root stock. Leaves 5-10 cm long, linear oblong. Flower purplish. Capsules 4-5 cm long.

Part used Root, stem and leaves.

Medicinal uses The stem and root are alternating. Stimulant and tonic. The juice of the root and leaves along with black pepper is applied to bites and strings, of insect, Scorpion & Snakes.

Local name Arkmul.

Fls and Frs August -November.

2. *Asparagus racemosus* Willd (family- Liliaceae)

A tall much branched scandant spinous undershrub with tuberous roots. Stem woody. Cladodes 1-3 cm long, Flower purplish. Sweet scented. Abundant in forest.

Part used Root and leaves.

Medicinal uses Decoction of root along with milk is taken in piles. Poered root taken with cold water cures urine trobbles, Leaves taken after fried in ghee remove night blindness.

Local name Satawar.

Fls and Frs October-November.

3. *Curculigo Orchoides* Gaertn (family- Hypoxidaceae)

A small perennial herb with elongated black tuberous stock

having fibrous sheath at base of stem. Leaves linear or linear lanceolate, plicate. Flowers yellow. Fruit baccate Common in moist shady place in forest.

Part used Tuberous root stock.

Medicinal uses Generally given in Asthma, piles, jaundice and diarrhea. Mixed with root of satawar it is recommended to weakness due to old age.

Local name Kali musli.

Fls and Frs July-November.

4. *Dioscorea bulbifera* L. (family- Dioscoreaceae)

A climbing perennial, Bulb is large, globose, greenish-brown, flower green. Frequently found wild.

Part used Bulb.

Medicinal uses Juice of bulbs is taken internally in the case of diabetes by local inhabitants.

Local name Ratalu.

Fls August-October and **Frs** November- January.

5. *Gloriosa Superba* L. (family- Liliaceae)

A tall branching herbaceous climbing, with whitish tuberous roots. Leaves lanceolate liowers scarlet. Rare along nalas.

Part used Tubers.

Medicinal uses Poultice of tubers applied on snakebites. In the form of paste, it is applied to promote labour pains.

Local name Agnishikha.

Fls and Frs August-November.

6. *Psoralia corylifolia* (family- Papilionaceae)

An erect annual 30-60 cm high. Leaves simple 3-7 cm. Flowers white found abundantly within the area.

Part used Seeds.

Medicinal uses An ointment made up of powered seed along with seed of *cassia tora* L. is very effective in ringworm.

Local name Babchi.

Fls and Frs February-May.

7. *Rauvolfia serpentina* L. Benth (family- Apocyanaceae)

A small glabrous under shrub. Leaves 6-15 cm long, oblong lanceolate. Flower pink or white. Found in moist shady places.

Part used Root.

Medicinal uses Decoction is given in fever. The chief use of root is its sedative effect.

Local name Dhawarbarua.

Fls May-October and **Frs** November-January

8. *Rauvolfia tetraphylla* L. (family- Apocyanaceae)

Spreading branched shrubs, leaves in two unequal pairs in a

whorl. Flower minute, white. Found along river bank.

Part used Leaves and fruits.

Medicinal uses Juice of leaves and fruits is taken internally in nervous disorders.

Fls and Frs February-August.

RESULTS AND DISCUSSION

A survey has shown that India has more than 8000 species of medicinal plants, the main healthcare resource for the majority. But unlike China it just has not been able to seize the business opportunity. While doing all this, India will need to move fast to protect its traditional knowledge the priority has to be a digital database of such knowledge. According to one estimate about 90% of medicine plants are collected from the wild and it involves destructive harvesting and as a result plants are depleted and now a day they are kept in endangered category. They are collected without paying attention to their maturity.

Vindhya Range of U.P. comprises parts of districts Chandauli, Sonbhadra and Mirzapur. Study area is inhabited by a no. of tribes like Kol, Ojha, Baiga, Karel, Kharwar, Biyar Bind, Gode, Charo, Panika, baiswar, Bhuiya, Dhagaer, Murtia, Agaria, Pathari, Korna, Patharia, Dhasia, Parhia etc. the forest are mainly tropical dry deciduous type. The vegetation growing in this forest play a vital role in the economy of tribals. They collect and utilize many shrubs, herbs, tubers, leaves, flowers, fruits and seeds from the surrounding flora for their day to day needs especially for medicinal purposes.

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