

Some rare plants of ethnomedicinal properties from Jalgaon district of Maharashtra

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An extensive ethnobotanical survey was conducted during 2000-2006 in Jalgaon district Maharashtra, India, based on information obtained from tribal and rural people. Two hundred and sixty-two species with medicinal properties were collected. Critical evaluation of abundance and frequency of distribution of collected and identified taxa yielded seven important medicinal plants, which are very rare, namely *Eulophia nuda* (Orchidaceae), *Remusatia vivipara* (Araceae), *Sterculia villosa* (Sterculiaceae), *Costus speciosus* (Zingiberaceae), *Ensete superba* (Musaceae), *Curcuma pseudomontana* (Zingiberaceae) and *Gloriosa superba* (Liliaceae). An urgent protection and conservation measures of habitat and diversity are suggested for posterity. Brief description, distribution along with ethnomedicinal information such as local name, part used, and modes of administration are given for each species.

Key words: Conservation, Jalgaon district and Maharashtra, medicinal plants, uses

INTRODUCTION

Jalgaon district, a part of Deccan plateau, is located on northern border of Maharashtra state. It lies between 20° and 21° north latitudes and 74°55' and 76°28' east longitudes. The major part of the district is predominately inhabited by rural population. However, in Raver and in Chopda tahsils, there are few scarred tribal pockets.

Except some sporadic reports on some edible and medicinal plants and their uses in floristic studies,^[1-3] the district is largely remained unexplored with regards to its studies on medicinal plants. Therefore, the project is undertaken to tap the potential of locally available medicinal plants resources. The present paper reveals the methods of preparation and mode of administration of locally available seven rare plant species as suggested by rural and tribal community such as Bhils, Pardhi, Pawara, Tadvi, Wanjari, etc.; some of which are less known elsewhere, but are very frequently used in this part of the country.

MATERIALS AND METHODS

For gathering information regarding plants/plant parts used medicinally by the tribals and local people, several field trips were undertaken in the tribal areas and villages of Jalgaon district of Maharashtra in different seasons since June 2000. Emphasis has been given to visit the area where

more and diverse tribal belt inhabiting different villages and tribal hamlets (padas) are situated. Information on medicinal uses of plants was collected through interviews with local medicine men and other knowledgeable elderly persons of either sex belonging to rural/tribal community and herbal practitioners. Repeated inquiries on medicinal applications of the same plants were also made to different persons of the same village and tribe to ascertain the correctness of information. Whenever possible, the voucher specimen were collected, processed as per routine herbarium methods; identification of collected plant material were made either in the field itself or in laboratory following the different floras,^[4-6] given accession numbers and deposited in the Department of Botany, Pratap College, Amalner, Maharashtra, India.

Under the results, the plant species are arranged in alphabetical order, which include family, local names, distribution, place of collection, voucher numbers, brief description and their ethnobotanical information.

RESULTS

1. *Costus speciosus* Smith. (Zingiberaceae, Peva), Rare, Palziri, VVB-303

It is a plant with a tuberous mucilaginous rhizome. It is 4-10-ft high with large lanceolate leaves about a foot long. Flowers - large white flowers in dense terminal ovoid or oblong spike, pink bracts and bright red capsules.

- Rhizome paste applied externally on routine tumors.
- Decoction of powdered rhizome is given internally in constipation and in stomachache.

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2. *Curcuma pseudomontana* Grah. (Zingiberaceae, VEDI halad, Sindarbar), Rare, Pal, VVB-309
They are rootstock small, bearing small almond-like or sub-globose tubers at the ends of the fibres, tubers white inside. Leaves - 2 ft long and 2-6 inch broad, lanceolate-oblong. Flowers - bright yellow.
 - Paste of tubers prepared in sulphur applied externally gives relief in muscles stress.
3. *Ensete superbum* Roxb. Ch. (Musaceae, Ran keli, Jangali kela), Uncommon, Manudevi forest, PYM-662
It is a stoloniferous stout herb of 3-6 m tall. Inflorescence pendulous, 60-100 cm long, perianth and bracts persistent. Fruit - oblong, trigonous, seeds brownish black in colour.
 - Ointment of leaf ash in butter as base is applied on leucoderma spots.
 - Seed and stem are given in mad dog bite
 - Root and stem decoction (about 20 ma) are taken in the morning for a month as tonic and venereal diseases.
4. *Eulophia nuda* Lindl. (Orchidaceae, Kukad kanda), Rare, Nagziri, PYM-566.
It is root tuberous like a small potato, spherical smooth, leaves from the sides of the tuber 10-15 inch long, elliptic lanceolate, acute, plicate, narrowed into the long tubular sheath. Flowers - 9-20 in lax racemes from the base of pseudostem. Flowers - Starts in June, Capsule 1-2 inch long, ribbed.
 - Raw tuber is eaten in rheumatoid arthritis.
5. *Gloriosa superba* Linn. (Liliaceae, Kal-lavi, Bachnag), Uncommon, Neri, VVB-444
It is an herbaceous scrambling plant occurs in hedges and in forest during monsoon. Rootstock V-shaped. Leaves - sessile, opposite or whorls of three each, ovate, long acuminate, tip ending in a tendril-like spiral. Flowers - yellow to orange or red, large showy.
 - Decoction of tuber is given internally in asthma.
 - Paste of tuber heated and applied on foreheads and nose to relieve from sinusitis.
 - Paste of root applied externally for rheumatism.
 - Stem is tied around the arm of women to clear up problems during delivery.
6. *Remusatia vivipara* Schrtt. (Araceae, Piper-kand, Lal-land), Rare, Langada amba, VVB-388
They are tubers 1-2 inch in diameter, clustered, depressed, rooting from the crown, shoot bulbiferous 6-12 inch long. Leaves - peltate, membranous orbicular-ovate, spathe 4-5 inch long, golden yellow.
 - Coconut oil-based ointment prepared from roasted tuber is applied externally in fungal alopecia.
 - Paste of tuber is applied locally to treat boils.
7. *Sterculia villosa* Roxb. (Sterculiaceae, Saedol, Kokada), Rare Yawal, PYM-521

It is a tree with light-coloured bark, branches few, spreading. Leaves - 10-18 inch in diameter, palmately 5-7 lobed, stellately hairy above and velvety and spreading hairs with the pubescence beneath. Flowers - pinkish and unisexual, male flowers are numerous as compared to females.

- Root powder with milk is given internally to facilitate delivery.
- Pulverized bark poultice applied externally over affected parts in arthritis.
- Small quantity of gum mixed with honey taken in the morning is reported to be good for throat problems.
- Seed powder and jaggery (1:2) by weight (approximately 50 g) used to prepare tablets, which are eaten in empty stomach for a week to treat heart diseases and asthma.

DISCUSSION

The detailed information regarding therapeutic application of different parts of seven plant species were obtained and their role in curing various diseases such as sinusitis, asthma, throat problems, fungal alopecia, rheumatoid arthritis, constipation, stomachache muscle stress, leucoderma spots, tumors, dog bite, etc. and mode of administration is given in the enumeration. Some are important.^[7-10] It was found that this information differed greatly from the references cited. It provides deeper insight into ingenious method of application and effectiveness of plant derivatives in treating different ailments.

Any such investigation has to be relevant, need based, demand and market-oriented, cost-effective, efficient, and viable. To achieve these objectives, it was proposed to concentrate on research of medicinal plants that may be given on the following aspects:

1. Launching of extensive floristic exploration in the area so as to identify native medicinal plants.
2. Making list of endangered plants needing protection and safe conservation.
3. Introduction of germplasm, which is already established or likely to be established in various countries.
4. Developing suitable agro-technology for sustainable productivity with efficient input, management with the view that medicinal plants become important component of cropping patterns in agriculture and forestry sectors.
5. Several plant derivatives with medicinal value have generated demand and triggered systematic study for raising their cultivation on commercial scale.
6. Finally, it needs to be emphasized that there should be effective linkages between people dealing with

medicinal plants and research institutions such as ICAR, SAV, CSIR, ISM Department as well as NGOs, private sector, and other agencies.

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