

Wild Tubers : Traditional Medicines of Kinwat Tribes

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ABSTRACT

An extensive survey of medicinal plants of kinwat forest has been done during 2020-21. Forest survey yields medicinal uses of variety of plants including wild tuberous plants. It is observed that, most of the wild tuberous plants used by local tribes for health care. The present paper focused on some important wild tuberous plants and their traditional medicinal uses.

Keywords: Wild tubers, Traditional medicines, Kinwat forest.

I. INTRODUCTION

Kinwat tahsil is a hilly, tribal remote area surrounded by dense forest in Nanded district. Kinwat forest is rich in variety of plants including wild tuberous plants. This station is located in Marathwada region of Maharashtra in India. Andh, Gond, Pardhan, Naikda and Kolam are the tribal communities, accommodate very close to the forest and have lot of knowledge about the medicinal plants and using wild tuberous plants for their health issues. This kind of use of wild tuberous plants as medicines comes from their ancestors. The studies related to such types of practices comes under a field i.e. Ethnobotany deals with the study of direct relationship of man and his surrounding plants. Many of the workers contributed a lot mainly wild ethnomedicines of different areas including kinwat forest by tribes. (Gogte, 1982; Jain, 1990; Upadhye *et.al.*1994; Gopan and Bhadane, 2005; Patil and Ramaiah, 2006)

The floristic survey of different ranges of kinwat forest has been done by Zate, 1983; Naik, 1998; Chavan, 2002 with short ethnomedicinal uses of some few plants of this forest. The wild tuberous plants remain unexplored as far as their medicinal values and uses by local tribes is concerned hence this topic has been undertaken.

II. OBJECTIVE

With the passage of time, the traditional knowledge of tribal medical science is on the decline. In the age of globalization, the tribal communities has been affected by urbanization due to which there is a set back to the tribal medical science and the production of herbal medicine. Even today, herbal medicines are considered to have no side effects on health, but due to availability of new medicines, peoples hardly prefer to use the ages

old herbal medicines. The tribal medical practitioners prepare herbal medicines with the available plant materials collected from forest such as roots, stem, leaves, flowers, fruits, barks including tubers. Objectives of the study includes to know the wild tuberous plants of kinwat forest to know their traditional medicinal value and uses by local tribes, provide the basic informations about such plant for further scientific studies including phytochemical studies, chemical analysis, drug extractions etc., and aware the peoples for their conservation, motivate the farmers / cultivators to take such valuable rare plants under cultivation.

III. METHODOLOGY

Forest exploration trips were arranged to different locations of kinwat forest with tribal medicinal practitioners for the study of wild medicinal plants of the area. The tribal practitioners were interviewed by visiting their houses also and know the preserved medicines inform of plant parts including undergrounds.

During exploration the tribal practitioners also taken to the forest to observe the habitats and collection of plants. Interviews, enquiries and cross questioning was also conducted. A special questionnaire was made in proforma and it has been adopted for interview. The questions were framed in such a way that, they may yield maximum informations of medicinal plants including the bio-data of practitioners. The mode of approach, communication skill, construction of simple questions and answer recorded yielded the valuable information about wild tuberous medicinal plants. The collected wild tuberous plants from different locations of kinwat forest were brought to the laboratory and identified with the help of Flora of Marathwada (Naik-1998), Flora of Kolphaur (Yadav and Sardesai, 2002), Flora of Sawantwadi (Almeida-1990), Flora of Maharashtra by BSI, Pune (2000) and preserved in form of herbarium in the department of botany, Baliram Patil ACS College, Kinwat.

IV. RESULT AND DISCUSSIONS

This study yields the traditional medicinal uses of wild tuberous plants, arranged alphabetically with their botanical name, family, local names, morphological description and medicinal uses as below.

1) *Amorphophallus sylvaticus Roxb.*- Araceae- Kolmaka / Jangli Suran :

Perennial, glabrous herb with underground tuber (corm) . Tubers depressed, globose with numerous fibrous roots. Leaf usually solitary. Spathe ovate dull greenish enclosing spadix. Female neutral & male flowers arranged in a specific manner. Fruits 4-5 angled.

Traditional medicinal use: Tuber (corm) and its prepared tablets used to relief the painful piles as well as stomach pain.

Exsiccata- Maregoan hill top.

2) *Ceropegia bulbosa* Roxb.- Asclepiadaceae – Hanuman Gadda :

Twining perennial herbs, tuber globose, leaves opposite, cymose, corolla inflated at base narrow in middle and funnel shaped below, grayish outside, purplish and hairy outside. Follicles linear and gradually tapering to a point.

Traditional medicinal use : Tubers are used as medicine. The sweet tubers are used as energetic tonic. The patients suffering from weakness due to long illness, they are supplemented with fresh pieces of tubers for a weak.

Exsiccata- Malkolhari.

3) *Chlorophytum tuberosum* Roxb.- Lilaceae- Pandhari Musali :

Errect, perennial herb, roots ending with ellipsoid tubers. Leaves linear lanceolate with undulate margins, racemose, capsule obovoid, 3-angled.

Traditional medicinal use: Tubers are used as medicine. The powder of tubers or raw tubers consumed as highly energetic tonic with milk.

Exsiccata- Ambadi ghat.

4) *Cissus reticulata*- Linn.-Vitaceae- Tinpani Gadda :

Climbers, tendrils simple, stems reticulate, leaves trifoliate, leaflets broadly elliptic ovate, flower in corymb, berries.

Traditional medicinal use: Root tuber is used as medicine for nails abscess. The tuber is made into paste. It is directly applied and tied with a cloth on infected nails for three days and found to recover the abscess.

Exsiccata- Bendi tanda.

5) *Corallocarpus epigaeus* Rottl. & Willd. – Cucurbitaceae- Mirchikand.

Monoecious climbing herb, root tuberous, tubers small ovate creamy, branches zig-zag leaves broadly ovate, 3-5 lobed, male and female flowers separate, fruits ellipsoid.

Traditional medicinal use: The tubers are used as medicine in snake bite. Raw or dried tubers in form of slices or powder directly given to the snake bitten person and feels sweet taste. He / she starts severe vomiting through which snake poison remove from the body.

Exsiccata- Maregaon (Upper)

6) *Curculigo orchoides* Gaerth. Fruct. Hypoxidaceae- Kalimusali.

Perennial herb with elongate cylindric root stock (tuber) and fleshy root fibres. Leaves basal, linear, lanceolate, flower arranged in raceme, lower bisexual and upper males, yellow, capsule, oblong, seeds black, ovoid.

Traditional medicinal use: The root stock is used as medicine in impotent man. A small pieces of root given to the patient with betel pan for three to seven days. It improves the sexual debility in man.

Exsiccata- Rajgad Ghat.

7) *Curcuma pseudomontana* Grah. Cat. – Zingiberaceae- Ranhalad.

Perennial herb with short root stocks bearing tubes. Tubers white inside. Leave elliptic lanceolate to along. Flowers in lateral / terminal spike. Calyx pale yellow hairy outside. Corolla oblong pink. Capsules ellipsoid avoid.

Traditional medicinal use: The tuber (Rhizome) is used as medicine. It is used in hepatitis. The paste of tuber given to the patient with cow milk three times in a day for three days and cures hepatitis.

Exsiccata- Dhanora range.

8) *Dioscorea penta phylla* L. Dioscoreaceae- Nuska.

Tuberous twiner, stem slender, prickly at base, bulbils in axils. Upper leaves ovate, lower leaves 3-5 lobed, male and female flower in spike, capsule oblong, seeds apically winged.

Traditional medicinal use: Tubers are used medicine in kidney stone. Fresh juice of tuber given to the patient early in the morning with water for three days to dissolve the kidney stone.

Exsiccata-Ambadi Forest.

9) *Gloriosa superba* L. Liliaceae- Kal Lavi / Khadya Nag.

Climbing herb with tuberous root stock, leaves alternate, opposite linear to ovate, tip modified into tendril. Flowers yellow, axillary solitary, capsule ellipsoid globose, seeds globose numerous.

Traditional medicinal use: Tuberous root stock is used as medicine in rheumatism and skin disease. The entire plant is extremally used for easy child birth.

Exsiccata- Near Ambadi dam.

10) *Habenaria grandifloriformis* Blatt.- Orchidaceae- Tinpani :

Errect perennial herbs with white root tubers. Leaves 1-3 one above the others, attached to the substratum. Broadly ovate cordate and acute at base. Flowers in racemose, capsule oblong, ribbed, seeds numerous.

Traditional medicinal use: Tubers are used as medicine as a tonic. Its consumption improves the body strength and useful for body build.

Exsiccata- Zendiguda forest.

11) *Tacca leontopetaloides* L. - Taccaceae- Penghagra :

Perennial herb with globose whitish brown tuber (corm). Leaf solitary with long petiole, leaf lamina slightly dissected. Flowers long pedicelled, Perianth globose, greenish yellow, fruits globose, six ribbed, seeds many.

Traditional medicinal use: Tuber are used to cure cellulitis and stomach pain. A small piece of tuber with betel pan given to the patient. Once in a day for seven days found to cure cellulitis.

Exsiccata- Malkolhari.

V. CONCLUSION

This kind of study indicates that, the kinwat forest consists of variety of tuberous plants and play a vital role to treat various diseases of the local communities. Such type of traditional medicinal uses proves that, these plants may have some important disease curing drugs. This study is helpful for further scientific and systematic work in the field of pharmacology, drug industries chemical extractions. This study may attract the young researchers to extend more form traditional to advance.

VI. REFERENCES

- [1]. Almeida, S.M. (1990). The flora of Savantwadi, Vol. I,II. Scientific publishes, Jodhpur.
- [2]. Chavan, V.B. (2002). Floristic and Ethno-Medico-Botanical studies in some forts of Marathwada. Ph.D. thesis submitted to Swami Ramanand Teerth Marathwada University, Nanded. (M.S.)
- [3]. Flora of Maharashtra State, Botanical survey of India (2000), Editors N.P. Singh and S.Karthikeyan.
- [4]. Gogte, V.M. (1962), Ayurvedic Materia Medica : publ Ratnakar Anant Kulkarni, Contiential prakashn Vijaynagar Colony, Poona, for the Maharashtra University Book publication Board Nagpur.
- [5]. Jain, S.K. (1990). Observations on Ethno botany of the Tribals of central India in Contributin to Ethnobotany of India. Scientific Publ. New Delhi,:65-73.
- [6]. Naik, V.N. (1998). Flora of Marathwada. Vol I, II, Amrut Prakashan, Aurangabad.
- [7]. Patil, M.B. and Ramaiah P.V. (2006). Ethnobotany in human health care of Nandurbar District in Maharashtra state, India. Bioinfolet 3(4) :246-250.
- [8]. Upadhye, A.S., Vartak, V.D. and Kumbojkar, M.S. (1994) Ethnobotany : 6:25.
- [9]. Yadav, S.R. and Sardesai, M.M. (2002). Flora of Kolhapur District. Shivaji University, Kolhapur.
- [10]. Zate, B.R.(1983). Flora of Kinwat and Mahur Range forests of Nanded district : Ph.D.thesis submitted to Marathwada University, Aurangabad.

Photographs of Tuberous plants



Amorphophallus sylvaticus



Ceropegia bulbosa



Chlorophytum tuberosum



Cissus reticulata



Corallorhizae pinnatifida



Curculigo orchioides



Curcuma pseudomontana



Dioscorea pentaphylla



Gloriosa superba



Habenaria grandifloriformis



Tacca leontopetaloides