

SOME ADDITIONAL INFORMATION ON THE ETHNOBOTANY OF RAJASTHAN

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ABSTRACT

This paper attempts to document the ethnobotanical information of some thirty unreported species of Sariska National Park located in the Aravalli hills of eastern Rajasthan. Out of 30 species, 22 are of medicinal and 8 species are of food value.

INTRODUCTION

Rajasthan is the second largest state of India. It covers an area of about 11 per cent of total geographical area of the country. Geographically, it is divided into eastern and western Rajasthan through Aravalli hills. The eastern Rajasthan occupied an area of about one third. It is relatively green and fertile. Majority of people of this region belong to rural and tribal communities. Rural people in Rajasthan still live in the primitive style upholding the ancient traditions of their ancestors. These marginal people are largely dependent on endowed natural resources since generations. They have been subsidizing their livelihood in terms of using forest based resources in the form of fodder, fuel wood, timber, tools, implements, resin, gum, dye products and medicine. Their ethnobotanical knowledge may be lost due to urbanization, acculturation, increasing market demand and deforestation. Usage of herbal plants of this region is not well known to outside world. Therefore, an attempt has been made to document the traditional folk

knowledge on ethnobotany practiced by the people residing in Sariska National Park of eastern Rajasthan.

Ethnobotanical information throughout the world is available in the literature (Abbas *et al.*, 1992; Alam, 1992; Manandhar 1995; Medley 1993). However, studies related to ethnobotany in India have got due attention only in the last 2-3 decades (Gangwar and Ramakrishnan 1990; Hegde *et al.*, 1996; Jain, 1995; Jain *et al.*, 1993; Rao, 1981; Singh, 1999). Sporadic information related to ethnobotanical users is available from Rajasthan (Chandra, 1978; Joshi, 1982; Nathawat and Deshpande, 1960; Shekhawat and Anand, 1984; Shrivastava, 1977; Singh, 1983; Singh and Pandey 1980). Recently, ethnobotanical information focussing on tribal communities of Rajasthan has been reviewed by Joshi (1995) and Singh and Pandey (1998). However, some of the plants being used by rural people of Sariska National Park have not been reported so far. Further, the studies related to ethnobotany of Sariska National Park is not available. Therefore, it would be essential to record these plants which have great importance in terms of resource conservation and related values.

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STUDY AREA

Sariska National Park is located in Alwar district (27° 35' N & 76° 39' E) in the State of Rajasthan in the western part of India. It covers an area of 800 km² including 480 km² is the core area and 320 km² is the buffer area. Three villages namely Haripura village falling in the core area, Kundalaka and Madhogarh villages located in the buffer area were selected for the detailed study. In the core area, all the forest operations including collection of minor forest produce, grazing the removal of other similar forest resources is prohibited. Whereas, in the buffer zone the forest operations which do not interfere with the wildlife are, however, permitted. The domestic cattle of local villagers are also allowed to graze under control.

The main occupation of the people is agriculture and animal husbandry (Singh, 1993). Settled agriculture is one of the primary economic activities of all communities except the village Haripura which is located inside the core area, where agricultural land is not available. The major crops raised in rainy season

are guar (*Cyamopsis tetragonaloba*), jowar (*Sorghum vulgare*), bajra (*Pennisetum typhoides*), til (*Sesamum indicum*), and maize (*Zea mays*). Similarly, the winter season crops are mustard (*Brassica campestris*), gram (*Cicer arietinum*), Barley (*Hordeum vulgare*) and wheat (*Triticum aestivum*).

To eliminate any chance of error in identification, the specimens were collected in flowering and fruiting condition. The plant samples were submitted in Department of Botany, Rajasthan University, Jaipur, and in School of Environmental Sciences, Jawaharlal Nehru University, New Delhi. Herbarium number given by the author has been mentioned in the parentheses just after the botanical name of the species. Life forms of the specimen have also been presented just after the herbarium number (T for tree species, S for Shrub, H for herbaceous flora and C for climber species). The plant specimens were arranged alphabetically and were categorized in two distinct Tables; Table 1 described ethnomedicinal information and Table 2 on wild edible plants.

Table - I : Some medicinal plants used by the people living in Sariska

Botanical name	Vernacular name	Family	Usage
1	2	3	4
<i>Acanthospermum hispidum</i> DC. (006) H	Dokata, kanti	Asteraceae	Powder of shoots used (1 tsp = tablespoon twice daily) to control fever; leaves are given to goats to remove weakness (consumed orally 3 times a day).
<i>Aegle marmelos</i> Correa. Correa. (008)T	Bel	Rutaceae	Powder of fruits and barks is used (1 tsp twice daily) to cure stomach ache and dysentery.

1	2	3	4
<i>Balanites roxburghii</i> Planch. (016)T	Hingot	Simaroubaceae	Powder of fruits is used (1 tsp thrice a day) as remedy for whooping cough and skin diseases.
<i>Blainvillea latifolia</i> (L. f.) DC. (021)H	Kalajari	Compositae	Paste of shoots is applied externally (thrice a day) at the place of wild animal bite.
<i>Cayratia carnosia</i> Gagnep. (033)S	Kalitripanni	Vitaceae	Tubers grind with cow's urine and pasted (3-times daily) externally on boils, cuts and wounds.
<i>Clerodendrum inerme</i> L. Gaertn. (037)S	Arni	Verbenaceae	Extract of leaves is taken (2 tsp after 6 hrs) for diarrhoea, gastric problems; root powder is used (1 tsp twice daily) to cure cough and swelling.
<i>Commelina kurzii</i> Cl. (039)H	Bokhna	Commelinaceae	Paste of leaf is prepared with curd and is consumed orally (2 tsp 3-times a day) to stop dysentery.
<i>Crinum defixum</i> Ker-Gawl. (042)H	Sukhdarshan	Amaryllidaceae	Juice of leaves warmed gently and is used (2 drops after 6 hrs) as eye drops and also stop ear infection.
<i>Dioscorea bulbifera</i> L. (045)C	Paharikand, suarkand	Dioscoreaceae	Powder of tuber mixed with butter and are eaten (1 tsp twice daily) as lactating agents and to cure urine disorder.
<i>Emblica officinalis</i> Gaertn. (049)T	Amla,	Euphorbiaceae	Decoction of leaves and fruits is used (2 tsp twice daily) for stomach disorder; fruit extract to prevent fall of hair.
<i>Euphorbia prostata</i> Ait. (051)H	Chauri dudhi	Euphorbiaceae	Extract of fresh leaf is consumed (1 tsp thrice daily) orally in gastric troubles.

1	2	3	4
<i>Gardenia florida</i> L. (054)S	Midola	Rutaceae	Fruits/pods are fed to cattle during weakness. and for fever control.
<i>Melhania futteyporensis</i> Munro ex Mast. (066)S	Bansi	Sterculiaceae	Paste of leaves is applied on boils.
<i>Ocimum americanum</i> L. (070)H	Bantulsi	Labiatae	Decoction of leaves is used as tea (3-4 times daily) to cure cough and cold.
<i>O. basilicum</i> L. (071)H	Dauna, mania	Labiatae	Juice of leaf is used (2 drops twice a day) in ear and eye problems.
<i>O. sanctum</i> L. (072)H	Tulsi	Labiatae	Leaves are boiled with tea and consumed orally (3-4 times daily) in cold and cough problems.
<i>Peristrophe bicalyculata</i> (Retz.) Nee. (073)H	Nil Jhohru, Kakar Bhawra	Acanthaceae	Leaf mixed with raw sugar and are eaten (twice daily) to remove intermittent fever.
<i>Sarcostemma acidum</i> (Roxb.) Voigt (077)S	Khair khimp	Asclepiadaceae	Juice of leaf is consumed orally (1 tsp twice a day) against snake and dog bite.
<i>Sida acuta</i> Burm. f. (078)H	Bal, kharsara	Malvaceae	Powder of seeds is used (1 tsp twice a day) in leucorrhoea, gonorrhoea and spermatorrhoea.
<i>Terminalia bellirica</i> (Gaertn.) Roxb. (083)T	Bahera, desibadam	Combretaceae	Powder of fruits is taken (1 tsp 2-times a day) for removal of weakness, intestinal worms and gastric diseases.
<i>Zornia diphylla</i> (L.) Pers. (091)H	Gewani	Papilionaceae	Leaf powder mixed with cow's milk and drink (1tsp in one glass of milk) twice daily as tonic.
<i>Z. gibbosa</i> Span. (092)H	Gewani	Papilionaceae	Leaf powder mixed (1 tsp in one glass of cow's milk) and is consumed twice daily as tonic.

Table - 2. Some edible plants used by the people of the Sariska National Park

Botanical name	Vernacular name	Family	Edible plants parts	Availability (month)
Edible fruits/seeds				
<i>Emblica officinalis</i> Gaertn. (049)T	Amla	Euphorbiaceae	Fruits	Mar.-Aug.
<i>Ficus carica</i> L. (052)T	Anji	Moraceae	Fruits	June-July
<i>F. glomerata</i> Roxb. (053)T	Gular	Moraceae	Fruits	July-Aug.
<i>Ipomoea pentaphylla</i> Jacq. (060)C	Ghiabel, belri	Convolvulaceae	Seeds	Aug.-Sept.
Vegetables				
<i>Boerhavia diffusa</i> L. (022)H	Sathi	Nyctaginaceae	Leaves	June-July
<i>Cardiospermum halicacabum</i> L. (030)C	Jangli Karela	Sapindaceae	Fruits	July-Sept.
<i>Ipomoea reptans</i> (L.) Poir. (061)C	Sarnalt	Convolvulaceae	Leaves	July-Aug.
<i>I. turbinata</i> Lag. (062)C	Balkauri	Convolvulaceae fruits	Leaves,	July-Aug.
<i>Salmaalina malabarica</i> (DC.) Schot & Endl. (076)T	Semal	Bombacaceae	Bud, flower calyx	July-Sept.
Pickles/sauces				
<i>Emblica officinalis</i> Gaertn. (049)T	Amla	Euphorbiaceae	Fruits	Mar.-Aug.

ETHNOBOTANICAL ENUMERATION

Table 1 and 2 enumerate ethnobotanical information of some of the plant species which have not yet been reported by Joshi (1995) and Singh and Pandey (1998).

The techniques of drug preparation are unique, simple and traditional. Collected medicinal plants are dried in the sun for a brief period and grounded with the help of flat stone and pestle. Fresh leaves/shoots are also grounded with the help of flat stone. The paste

is usually twisted in a piece of clean cloth to extract fresh juice. Decoction, powder, paste, juice, extract and infusion (mixed with milk, raw sugar, butter/ghee and cow's urine) are the forms in which the dosage is prepared and subsequently used for the treatment of different ailments.

According to the nature of ailments and type of plants 2-5 daily doses are recommended. Morning and evening usage is very common. The dose is variable with respect to plants and

ailments; approximately one spoon (tablespoonful - tsp) is common for an adult and half spoon for children. The important principle in local therapy is the avoidance of only and spicy food, pickles, rice, curd and also protection from both severe cold and warm.

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