

Ethnobotanical Studies On Herbaceous Plant Community Of Sariska Region Of Rajasthan

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ABSTRACT: Sariska represents a tiger habitat spread over the world's oldest mountain ranges the Aravalli's. It had a vibrant tiger population and excellent forests. The forests of Sariska were managed as a hunting reserve during the reign of the Maharaja of Alwar. Shooting blocks were maintained for big game hunting. There was a separate 'Shikarkhana' and Shikar paltan to control and protect the area from poaching. Shooting was permitted till 1955. After independence, Sariska was declared a Reserved Area on 7th November 1955, under the Rajasthan Wild Animals and Birds Protection Act, 1951. Sariska was declared as the 11th tiger reserves by Government of India in 1978.

Sariska Tiger Reserve, situated between 27°42'33.31"N/76°28'35.92"E and 27°44'48.89"N/76°16'27.75"E in the Alwar district of Rajasthan. The reserve is spread over an area of 1213.34 sq. kms. (881.11 sq.km core/322.22 sq.kms. buffer) of Aravalli hills.

KEYWORDS: Sariska, ethnobotanical, herbaceous, plant community, Rajasthan, Aravalli, habitat

I. INTRODUCTION

The Reserve has a beautiful blending of tropical dry deciduous and tropical thorn forest and is dotted with numerous narrow valleys. Dhok (*Anogeissus pendula*) is the dominant tree species covering over 75% area of the forest. *Boswellia serreta* and *Lannea cormandela* grow in rocky patches. Kathaa (*Acacia catechu*) and Bamboo are common in the valleys. Some valleys support Palas (*Butea monosperma*), Ber (*Zizyphus* species), Kadaya (*Sterculia urens*), Amla (*Emblica officinalis*), Bahera (*Terminalia bellerica*). [1,2]

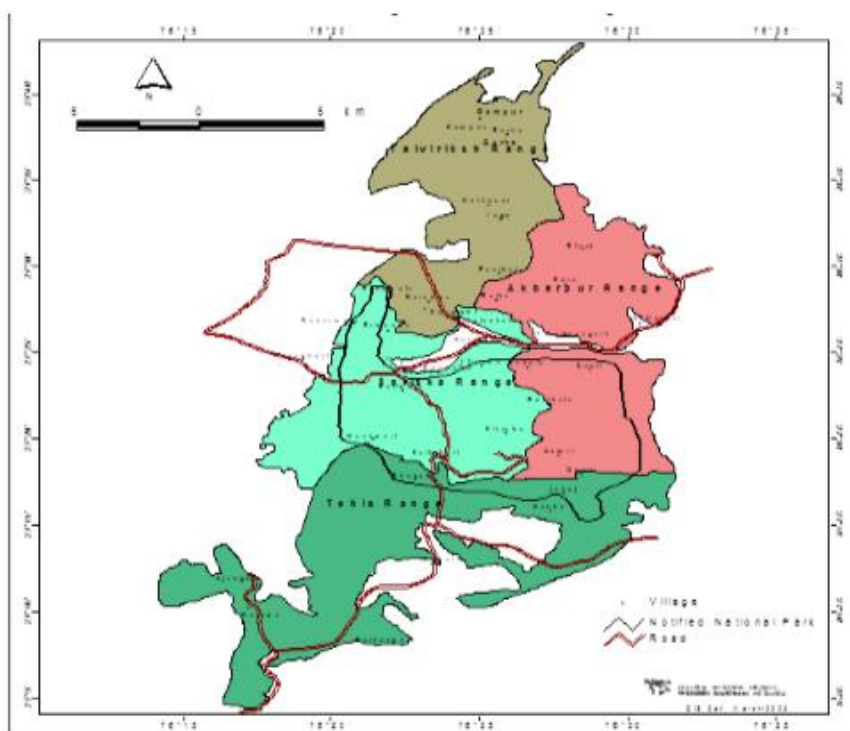


Fig 1: Map showing Sariska Tiger Reserve Rajasthan (Range, Village, Road).



Major carnivores species in Sariska

Apart from Tiger, Sariska has a large number of Leopards population. Sariska is home to numerous carnivores including Tiger, Leopards, Striped Hyena, Jackal, Jungle cat, Desert Cat, Rusty-spotted cat, Fox, Ratel, Palm Civet, Common Indian Civet, Ruddy tailed mongoose, Grey mongoose, Common mongoose.[3]

Herbivores

Sariska is home to numbers herbivores including large number Sambar, Chital, Nilgai, Wild boar, Porcupines and Langurs. Sariska is also well known for its large population of Rhesus Monkeys. In fact, during summer when most of the grasses are dry and are non-palatable, the highly nutritious dry Dhok Leaves fall on the forest provide fodder for Sambar, Chital and other herbivores.[4,5]

Birds

The avian world is also well represented with a rich and varied Birdlife. These include Peafowl (the largest population density in India), Grey partridge, Painted spurfowl, Bush Quail, Sand Grouse. Rufous Treepie, Golden – backed Woodpecker, Crested Serpent Eagle, White eyed buzzard, Oriental honey buzzard, Shikra, Short toed snake eagle, Indian eagle-owl, Dusky eagle owl, Brown fish owl and Paradise flycatcher, Golden oriole. Indian pitta migrates large numbers in summers. Sariska also hold a good number of Vulture populations like Indian Vulture(Gyps indicus), Egyptian vulture(Neophron percnopterus), Red-headed vulture (Sarcogyps calvus),Cinereous Vulture (Aegypius monachus).[6,7]

Sariska hosts more than 345 species of birds. For aquatic species, it is an ideal habitat as water is retained round the year. Resident species breed here while migratory ones stay during winter.

Reptiles

Sariska, a tiger reserve with extremely rich biodiversity is not only a home to many mammals and birds but birds but it also inhabits various reptile species as well. While Cobras and Kraits are the common venomous snake species that can be seen in the fields and grasslands, the rocky terrain provide an ideal habitat for Vipers like the Saw Scaled and Russel's. Other non-venomous species like the Trinket, Wolf snake, Royal snake, Common Kukri, Checkered Keelback etc can be easily seen including the Rock Python and Boa. The Bengal Monitor is fairly common around whole Sariska while Spiny Tailed Lizard is visible at the desert patches around it. The Mugger Crocodile can be seen seeking for its prey at Karna Ka Bas water body & Siliserh lake within STR accompanied by the Flapshell Turtles. The Indian Star Tortoise and Leopard Gecko can be spotted in the dry regions of Sariska.[8,9]

Table shows some important medicinal plants of Sariska:-

Medicinal plants of Sariska Tiger reserve

S. N	Species	Family	Local Name	Habit	Medicinal uses
1	<i>Abrus precatorius</i>	Fabaceae	Gunja	Twining shrub	Root is used in migraine head-ache & seed cures baldness. seed is used for sore throat inflammation of mucus membrane, stomatitis.
2	<i>Abutilon indicum</i>	Malvaceae		Herb	The plant use in cold & diarrhoea, earaches, treat diseases of the lungs.
3	<i>Acacia catechu</i>	Mimosaceae	Kala Khair	Small tree	Root in used in leprosy, skin diseases & bark in used in leucoderma
4	<i>Acacia leucophloea</i>	Mimosaceae	Rouch	Tree	Bark is given in malaria stomachache, toothache and hysteria
5	<i>Acacia nilotica</i>	Mimosaceae	Babul	Tree	Bark-astringent, spasmolytic, hypoglycemic. Gum- for inflammatory conditions of the respiratory, digestive & urinary. Pods-used in urogenitals disorders. Seeds-hypoglycemic
6	<i>Acacia senegal</i>	Mimosaceae	Safed Khair	Tree	Gum is Used for diarrhoea, catarrh.
7	<i>Achyranthes aspera</i>	Achyranthaceae	Unga, Chipchipi	Erect herb	The plant is used as diuretic in dropsy & also in skin eruption, piles, leprosy & in painful delivery.
8	<i>Aegle marmelos</i>	Rutaceae	Bel	Tree	Fruit is used dysentery, constipation, peptic ulcer & Internal hemorrhages. Root & bark is used in fever & leaves in diabetes.
9	<i>Albizia lebeck</i>	Mimosaceae	Siris	Large Tree	Oil from seeds used in leprosy & purities of skin.
10	<i>Anogeissus latifolia</i>	Crassulaceae	Dhok	Large tree	Arial part diuretic and cardiovascular stimulant.
11	<i>Anogeissus pendula</i>	Crassulaceae	Safed Dhok	Tree	Bark is used in anemia. Fruit is used in urticaria, hiccough, and constipation.
12	<i>Argemone mexicana</i>	Papaveraceae	Kateli	Erect herb	Seed-responsible for epidemic dropsy. Causes diarrhoea and induces toxicity. Oil, leaf juice and root-used externally for indolent ulcers and skin diseases.
13	<i>Azadirachta indica</i>	Meliaceae	Neem	Evergreen tree	Leaves are antiseptic used in wounds, skin disease, eczema, burn. Seed is used for hair care & dandruff. Twig is used as tooth brush and in measles.
14	<i>Balanites aegyptiaca</i>	Balanitaceae	Hingot	Tree	Seed is used in earache, pimples; bark is used in dog bite & piles.
15	<i>Barleria cristata</i>	Acanthaceae.	Vajradanti	Herb	Root extract-given in anemia. The leaves are chewed in toothache. Roots and leaves are applied to swellings. An infusion is given in cough.
16	<i>Barleria prionites</i>	Acanthaceae	Vajradanti	Herb	Leaf-juice given in stomach disorders, urinary affections; mixed with honey and given to children with fever & catarrh, mixed with coconut oil for pimples. Leaves & flowering

Sariska Tiger Reserve, one of the 42 Tiger Reserves of India, is located in the undulating plateau lands and wide valleys of the hill ranges of Aravalli system, near the civil district of Alwar in Rajasthan.[10,11] The forest of Sariska Tiger Reserve especially undulating plateaus, lands and wide valleys of the hill ranges of Aravalli hills. Rajasthan have great diversity of flora. This paper gives an account of 99 medicinal plants found in Sariska Tiger Reserve Rajasthan state, India along with their local name, family, habit and medicinal uses.[12,13]



II.DISCUSSION

In this study emphasis was laid on the floral diversity with their uses as economic value important products for the subsistence and livelihood of local dwellers inside and outside the Sariska Tiger Reserve. The study revealed that the loss biodiversity of the study area due to anthropogenic activities leads in scarcity of economic important species with medicinal values, which is basis of livelihood of local peoples. Due to the human interference in reserve will lead to deterioration of so many species which have great importance to generate economy for local peoples, and uses of such economic important plants species of the reserve so far.[14,15]

Sariska Tiger Reserve, one of the 42 Tiger Reserves of India, is located near the civil district of Alwar in Rajasthan. The Sariska Tiger Reserve in Aravallis has its own importance and specific characteristics with unique biodiversity. The forest of Sariska Tiger Reserve has great diversity of flora. This paper gives an account of anti diabetic medicinal plants found in Sariska Tiger Reserve, along with their local name, family, habit and medicinal uses. Due to lack of awareness, research unsustainable utilization and encroachments on these groups of plant in this area, people of this region are unaware of the wealth of this heritage and several persistent medicinal plant species are on the verge of extinction. The present paper highlights useful ethno botanical information about the uses of these plants by the tribal of Rajasthan as food, fodder, medicine (fever, diarrhoea, diuretic, skin-problems, diabetes, hypertension, jaundice etc.), timber, fire-wood, tannin, dye, oil, fibre, alcohol, gum, resin etc.[16,17]

III.RESULTS

Sariska National park is situated between the latitude (76°17'-76°34'N and 27°5'-27°33'E) and longitude in the Alwar district of Rajasthan. The forest of Sariska Tiger reserve especially undulating plateaus, lands and wide valleys of the hill ranges of Aravalli hills. Rajasthan have great diversity of flora, many authors like Bhandari (1990), Sharma (2002) [9], Sharma and Tiagi (1979) [10], Shetty and Pandey (1983) [11], Shetty and Singh (1987) [12], (1991), (1993), and Prasad et al. (1996) have contributed to our knowledge about flora. According to Champion and Seth (1968) [1], Sariska tiger reserve is falls under Northern tropical dry deciduas and northern dry deciduas thorn forest. Sariska is a natural grandeur housing over 404 plant species (Parmar PJ 1986) [6], 211 bird species & 23 mammalian species (Sankar et al. (1993). Sariska Tiger Reserve (STR) is a total area of 881 km², where 274 km² as a notified National Park. STR is characterized by rugged terrain, valleys and plateau with the altitudinal variation from 540 m to 777 m and divided by four Ranges Sariska, Talvriksh, Tahela and Akberpura. [15]

During Monitoring of tiger co-predator prey and their habitat through wildlife Institute of India. Survey was carried Out during study period. Plant species were identified and a list of plant belonging to various families found in Sariska Tiger Reserve (Raj.) was prepared in alphabetical order. Identification of plant species and information of local name were generated by botanist, local Gujjer and my assistant. The medicinal importance of plant species have been described as per our knowledge of Ayurveda and after gathering information by consulting ancient literature.[16]

IV.CONCLUSIONS

Sariska Tiger Reserve, one of the 42 Tiger Reserves of India, is located near the civil district of Alwar in Rajasthan. The Sariska Tiger Reserve in Aravallis has its own importance and specific characteristics with unique biodiversity. The forest of Sariska Tiger Reserve has great diversity of flora. This paper gives an account of anti diabetic medicinal plants found in Sariska Tiger Reserve, along with their local name, family, habit and medicinal uses. Due to lack of awareness, research unsustainable utilization and encroachments on these groups of plant in this area, people of this region are unaware of the wealth of this heritage and several persistent medicinal plant species are on the verge of extinction. The present paper highlights useful ethno botanical information about the uses of these plants by the tribal of Rajasthan as food, fodder, medicine (fever, diarrhoea, diuretic, skin-problems, diabetes, hypertension, jaundice etc.), timber, fire-wood, tannin, dye, oil, fibre, alcohol, gum, resin etc.

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