

Study of Medicinal Plants in Sariska Tiger Resrve of Alwar District, Rajasthan

Abstract

Traditional knowledge about the vegetation of particular area is very helpful to the people of that area to meet their daily life requirements. Medicinal plants are of great importance to the health of individuals and communities. Medicinal plants are commonly used in treating and preventing specific ailments and diseases and are considered to play a beneficial role in health care of human beings. This review is intended to describe the current status of local medicinal plants of Sariska Tiger Reserve of Alwar district, Rajasthan.

Keywords: Medicinal Plants, Traditional Knowledge Health Care, Alwar.

Introduction

Medicinal plants play a vital role in providing health care to human being. Medicinal plants played a significant role in various ancient traditional systems of medication such as Ayurvedic and Unanic India (Jain, 1968). The demand for medicinal plants is increasing in both developing and developed countries. Indigenous traditional medicines are of great importance in the discovery of newly products from plants. The Indian traditional medicines can be used to prevent, alleviate or cure several human diseases (Katewa and Arora, 1997).

Aim of the Study

The studies have pointed out that the Sariska region of Alwar district has very rich vegetation consisting of a large number of plants with their unique medicinal property.

Study Area

Rajasthan is the largest state of India. The state is situated in the north-western part of India. A striking geological feature of Rajasthan state is the Aravalli range. Alwar district is situated in the north-eastern part of Rajasthan at 27.57°N and 76.6° E. It has an average elevation of 271 meters. Sariska National park lies in the Aravalli hills of Alwar district of Rajasthan. In 1982 Sariska was declared as National Park under Wildlife Protection Act, 1972 (Yadav and Gupta 2005). According to forest department of Government of Rajasthan the total area of the Sariska sanctuary is 866 square km. The forest of Sariska Tiger reserve undulating plateaus, lands and wide valleys of the hill ranges of Aravalli hills (Jain *et al.*, 2009). Parmar (1985) classified vegetation of Sariska such as *Anogeissus pendula* dominated forest covers 35.4% of the overall vegetation types in SNP. *Anogeissus pendula* commonly found in association with *Accacia catechu*, *Adhatoda vasica*, *Capparis sepiaria*, *Nyctanthes sp.*, *Grewia flavescens* and *Lannea coromandelica*. Another is *Boswellia serrata* forest that covers 15.4% of the complete vegetation in association with *Doispyros melanoxylon*, *wrigh tiatinctoria*, *Bauhinia racemosa* and *Euphorbia nerifolia*, *Azadirachta indica*, *Aegle marmelos*, *Syzygium cumini*, *Sida cordifolia*, and *Tinospora cordifolia*.

Butea monosperma forest 7.9% of the overall vegetation types in association with *Zizyphus mauritiana*, *Cordia myxa*, *Phoenix sylvestris*, *Holoptelea integrifolia* *Cassia fistula* and *Rhus mysorenses*. Whereas Scrubland vegetation occurs in 19.1% of the forest cover in which *Acacia leucopholea*, *Acacia nilotica*, *Acacia senagal*, *Balanites aegyptica*, *Lantana camara*, *Achyranthes aspera* are very common. The sandy soil and bright sunlight are the two important natural factors which are responsible for the development of desert vegetation having variable medicinal value. The characteristic xerophytic vegetation comprising a number of flora with medicinal properties (Kidwai, 2003).



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Methodology

The rural people of this district mainly depend upon local medicinal plants in day to day life keeping this object in mind. The present study is based on intensive field excursions of Sariska Tiger Reserve 2017-18. During this study of STR detailed information regarding use of medicinal plant has been documented. The plants were identified by using flora

(Vyas, 1967; Sharma, 2002). Herbarium sheets, field notes, ancient literature resources can also be tapped information about medicinal values of local plants.

Enumeration

In the enumeration, data on medicinal uses are arranged alphabetically, each by its botanical names followed by name of family, local names and medicinal uses are enumerated in Table 1.

Table –List of Medicinal Plants of Sariska Tiger Reserve of Alwar District

Sr. No.	Species	Family	Local Name	Medicinal uses
1	<i>Abutilon indicum</i> L.	Malvaceae	Kanghi	The plant use in cold & diarrhoea, earaches, treat diseases of the lungs.
2	<i>Acacia catechu</i> Willd.	Mimosaceae	Kala Khair	Root in used in leprosy, skin diseases & bark in used in leucoderma.
3	<i>Acacia nilotica</i> Lam.	Mimosaceae	Babul	Bark-astringent, spasmolytic, hypoglycemic. Gum- for inflammatory conditions of the respiratory, digestive & urinary.
4	<i>Acacia senegal</i> L.	Mimosaceae	SafedKhair	Gum is Used for diarrhea
5	<i>Achyranthes spera</i> L.	Achyranthaceae	Apmarg	The plant is used as diuretic in dropsy & also in skin eruption, piles, leprosy & in painful delivery.
6	<i>Aegle marmelos</i> Correa. Bel	Rutaceae	Bel	Fruit is used dysentery, constipation, peptic ulcer & Internal hemorrhages. Root & bark is used in fever & leaves in diabetes.
7	<i>Anogeissus pendula</i> Edgew.	Crassulaceae	SafedDhok	Bark is used in anemia. Fruit is used in urticaria, hiccough, and constipation.
8	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Neem	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.
9	<i>Balanites aegyptiaca</i> Del.	Balanitaceae	Hingot	Seed is used in earache, pimples.
10	<i>Barleria prionites</i> L.	Acanthaceae	Vajradanti	Leaf-juice given in stomach disorders. Leaves & flowering tops-diuretic. Bark-diaphoretic & expectorant
11	<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Punernava	Leaves are used in reducing swelling, diuretic & urinary burning sensation.
12	<i>Butea monosperma</i> (Lamk.) Taub.	Fabaceae	Chhila	Seeds are used to cure leucoderma. Fruit is used in correcting menstruation. Root is used in snake poisoning.

13	<i>Calotropis gigantea</i> L.	Asclepiadaceae	SafedMadar	Flowers-stomachic antiasthmatic. Milky juice-Purgative, Roots-used in lupus, tuberculosis, leprosy, syphilitic ulceration. Leaves-juice poisonous. Used in external swellings. All parts-used against bronchitis and asthma.
14	<i>Calotropis procera</i> (Ait.) R.Br.	Asclepiadaceae	Aakda	Anti-inflammatory. Root- Hypocholesterolaemic. Poisonous to human beings in mature stages.
15	<i>Capparis decidua</i> L.	Cappariadace	Teti	Anti-inflammatory, deobstruent to liver and spleen, diuretic, Anthelmintic, vasoconstrictive. Juice of leaves & fruits- anticystic, bactericidal & fungicidal. Dried flower buds used in scurvy.
16	<i>Cassia fistula</i> L.	Caesalpiniaceae	Amaltas	Leaves used in skin diseases like psoriasis, scabies & Ringworm. Pod is purgative.
17	<i>Cassia sophera</i> L.	Caesalpiniaceae	Pawar	Leaves, seeds, bark- cathartic; considered specific for equal parts of leaves and seeds is given for jaundice. Pods are used in dysentery.
18	<i>Centella asiatica</i> L.	Apiaceae	Brahmi-buti	Blood purifier, tonic, diuret leprosy, syphilis, wounds, mental disorders, cooling, b nourisher, improves memor
19	<i>Cleome viscosa</i> L.	Cleomaceae	Jakhya, Hulhul	Rheumatic, arthritis, otorrho and wounds
20	<i>Diospyros melanoxylon</i>	Ebenaceae	Tendu	Dried flowers used in urinary, skin & blood diseases.
21	<i>Eclipta alba</i> (Linn.)	Asteraceae	Bringraj	Deobstruent, antihepatotoxic, anticatarrhal, febrifuge. Used in hepatitis, spleen enlargements, chronic skin diseases. Leaf-promotes hair growth. Its extract in oil is applied to scalp before bed time in insomnia.
22	<i>Emblica officinalis</i> Gaertn.	Euphorbiaceae	Amla	Fruit is blood purifier used in jaundice. It is one of the ingredients of triphala churn a. source of vita. C, given in diabetes it is good for hair.
23	<i>Ficus benghalensis</i> L.	Moraceae	Bargad	Leaves-a moderate sterilizer, given to women after menses. Leaves and bark-used in skin diseases.
24	<i>Ficus racemosa</i> L.	Moraceae	Gular	Astringent and antiseptic, used in abortions, menorrhagia, leucorrhoea, urinary disorders, skin diseases, swellings fruits digestive, used in diarrhea, dyspepsia, dysentery, and hemorrhages.
25	<i>Ficus religiosa</i> L.	Moraceae	Pipal	Bark-astringent, antiseptic, alterative, laxative, haemostatic, (used in diabetes, diarrhoea, leucorrhoea, menorrhagia, nervous disorders; also in skin diseases.)
26	<i>Holoptelea integrifolia</i> (Roxb.) Planch	Ulmaceae	Papdi	inflammation, worm infestations, vomiting, skin
27	<i>Lantana camara</i> L.	Verbenaceae	Lalten	Leaves are used in piles, sprain and respiratory diseases.
28	<i>Morus alba</i> Linn.	Moraceae	Sahtut	Fruit-used for sore throat, dyspepsia and melancholia. Leaves and root bark-expectorant, diuretic, hypotensive.
29	<i>Mucuna pruriens</i> Baker.	Fabaceae	Kouch	Seeds used as nervine tonic, Root are used in skin diseases and Parkinson syndrome.
30	<i>Nicotiana tabacum</i> L.	Solanaceae	Tambaku	Leaves- locally applied for muscle relaxation in dislocation and rheumatism.
31	<i>Nyctanthes arbor-tristis</i> L.	Nyctanthaceae	Harsingar	Leaves-bitter tonic and used for fevers, rheumatism, obstinate sciatica.
32	<i>Ocimum sanctum</i> L.	Lamiaceae	Tulsi	The leaves juice used in bronchitis, skin diseases, earache, colds, seeds are useful of urinary system, root is given in malarial fever.
33	<i>Phyllanthus niruri</i> Sensu Hook. F.	Euphorbiaceae	Hajardane	Infusion of young shoots given in dysentery. Milky juice used on offensive sores.
34	<i>Pongamia pinnata</i> L.	Fabaceae	Karanj	Seed powder is applied scalp for dandruff treatment. Leaf juice as a nasal drops for migraine.

35	<i>Prosopis juliflora</i> (Sw) dc	Mimosaceae	Vilayati Babul	The branches, stems and in bark can be used as purgatives. Treat fever. Bladder infection, measles or fever. The leaves can be used for are diarrhoea.
36	<i>Ricinus communis</i> L.	Euphorbiaceae	Arandi	The seeds are poisonous can be fatal, oil used as a purgative, castor- oil is used in making contraceptive jellies and creams.
37	<i>Sidacordifolia</i> L.	Malvaceae	Krasti	Root is used in facial paralysis and in healing wounds.
38	<i>Solanum xanthocarpum</i> Schard&Wendl.	Solanaceae	Kateri, Ring ni	The drug is used in cough, asthma, pain in chest, & certain kinds of fevers. It is diuretic and useful of stones in bladders.
39	<i>Syzygiumcumini</i> (L.) Skeels	Myrtaceae	Jamun	The bark is astringent & used in sore throats, bronchitis, asthma, ulcers.
40	<i>Tephrosiapumila</i> (Lam.) Pers.	Fabaceae	Chhota Pawar	A root useful for piles. Seed oil is used in ringworm & cough.
41	<i>Terminalia arjuna</i> (Roxb. Ex DC.)	Combretaceae	Tal	Bark is used as a heart tonic. Juice of fresh leaves is used for earache.
42	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Baheda	Fruit wall is used for cough, sore throat and headache. Fruit is used in the preparation of trifalachurna.
43	<i>Tribulus terrestris</i> L.	Zygophyllaceae	Gokhru	The fruits are used in urinary complaints & sexual weakness it is cooling.
44	<i>Withania somnifera</i> L.	Solanaceae	Asawagandha	The plant useful in sexual and general weakness and rheumatism, diuretic the root powder is applied locally on ulcers and inflammations the antibiotic and antibacterial activity of the root.
45	<i>Wrightiatinctoria</i> (Roxb.)	Apocynaceae	Dudhi, Khirmi	Seed is used in chronic fever. Root purifying blood. Seed and bark is used in kidney stone, diarrhoea and anemia.
46	<i>Ziziphus mauritiana</i> (Lam.)	Rhamnaceae	Beri	Fruits is used in mental retardation, cold, flu, stomachic, piles, mouth ulcer, conjunctivitis and for hair care.
47	<i>Ziziphus nummularia</i> (Burm.f.)	Rhamnaceae	Jhad	The fruits are good source of vitamin c. and this tree is called wildlife tree.

Discussion and Conclusion

Many plants that are used by the local people of the study area find mention in the ancient medicine literature and used by different systems (Gadgil, 1996 and Bhakat, 1990). This paper gives an account of 47 medicinal plants found in Sariska Tiger Reserve in Alwar, District. This study is based on the plant based medicines or the utilization of their plant for the various kinds of the purposes. These kinds of the studies are very useful for the conservation of the flora of any regions. From this study, the results showed that medicinal plants cure different health problems. The welfare for the future generations could be maintained by the help of outcomes of the present study.

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