

Enumeration of medicinal plants along kanher and mahadare reservoir from Satara District, Maharashtra, India.

Authors:

Pawar SM and
*Sonawane SR.

Institution:

Department of Zoology,
Padmabhushan Dr.
Vasandraodada Patil
Mahavidyalaya,
Tasgaon. Dist.: Sangli.
416 312 (India).

*Department of Zoology,
Dr. Babasaheb Ambedkar
Marathwada University,
Aurangabad. - 431 004,
Maharashtra, India.

ABSTRACT:

The present study deals with traditional knowledge of medicinal plants recorded along the two reservoirs. Local people are using these plants for treatment of various diseases to cure it. The study records 56 different medicinal plants.

Corresponding author:
Sonawane

Article Citation:

Pawar SM and Sonawane SR.

Enumeration of medicinal plants along kanher and mahadare reservoir from Satara District, Maharashtra, India.

Journal of research in Biology (2011) 6: 461-466

Web Address:

[http://jresearchbiology.com/
Documents/RA0113.pdf](http://jresearchbiology.com/Documents/RA0113.pdf)

Dates:

Received: 21 Sep 2011 / **Accepted:** 28 Sep 2011 / **Published:** 24 Oct 2011

© Ficus Publishers.

This Open Access article is governed by the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which gives permission for unrestricted use, non-commercial, distribution, and reproduction in all medium, provided the original work is properly cited.

INTRODUCTION

India is one of the richest floristic regions of the world and has been a source of plants and their products. The forest provides major as well as minor products of commercial importance to the local inhabitants. Forest area is of natural type consisting trees, shrubs, herbs, aquatic plants. In India almost all parallel systems of medicine like ayurveda, unani, allopathy and homeopathy are used by large section of society mainly in rural and remote areas. The value of medicinal plants to human livelihood is essentially infinite. They obviously make fundamental contributions to human is based on knowledge of plants used by human is based on thousands of year's experience. Plant used in traditional medicine may constitute an important source of new biologically active compounds. Utilization of plants for medicinal purposes in India has been documented long back in ancient literature. Dradhbala et al (1996). Human beings use them in different ways according to their needs, particularly as food and medicines. Indigenous medicinal plants as only alternative to antibiotic are said to play a significant role here. Among the entire flora more than 43% of total flowering plants are used for medicinal purpose. Pushpangdanp (1995). The aim of present study is to know the knowledge & distribution of medicinal plants around these reservoirs.

Study area-

The study area is confined to Sahayadri ranges of Maharashtra includes Kanher dam and Mahadare reservoir of Satara district.

Kanher Dam

It is a medium irrigation project constructed by Irrigation Department, Government of Maharashtra on Venna river near Kanher. It is situated in Northwest of Medha Tahsil of Satara district. (M. S.). Location of sampling sites S_1 , S_2 , S_3 is on latitude $17^{\circ}44' 16''02''N$ and longitude $73^{\circ} 53' 43''10'' E.$ (Google Earth, 2009). It is about 15 km away from the Satara city. The construction of Kanher dam began in 1976 and completed in 1988. It is 1955 mts. in length and 50.30 mts. in height. The dam has a capacity to store 286 million cubic mt. of water. The main canal runs 1.68 kms on left, divided into right, and left the former runs for 58km. covers 10070 hectare land and the latter runs for 21 kms. covering 1605 hectares land.

The main purpose of reservoir is to supply water for drinking, domestic purpose and irrigation as well as fishing practices (culture and capture fishery) are carried out under fishery development

office Satara, (Kanher).

Mahadare reservoir

It is also a natural reservoir, situated in Mahadare village. It is about 8 km away from city. Late Honorable Chh. Pratapsingh Maharaj constructed this tank at the foot of Yawateshwar for supplying water to Satara city. Location of reservoir sampling sites S_1 , S_2 , S_3 is on latitude $17^{\circ}40' 58'' 43''N$ and longitude $73^{\circ}58' 22''92''E.$ (Google Earth, 2009). Length of this reservoir is 260 feet, width is 257 feet and depth is 30 feet. This reservoir is constructed by stones. To the south of this tank, there is a percolation tank called Hatti Talab. The water is accumulated from the Yawateshwar hills into the reservoir. Daily 5000 gallons of water from this reservoir is supplied to some part of the city. The main purpose of reservoir is to supply water for drinking, domestic purpose and irrigation. These reservoirs store rainwater received from adjoining catchments areas through small channels.

MATERIAL AND METHODS

The areas were visited regularly at an interval of one month from June 2008 to June 2010, for collection and field observation of plant which has medicinal importance. The survey consisting ten different sites of reservoir. Information was gathered with the help of some proper knowledge of informants, elderly people and local inhabitants. A questionnaire was prepared to generate data for this purpose. All efforts were made to determine the species properly with correct nomenclature by following standard flora & ethnobotanical method. The required material is collected; herbaria of these plants were maintained in the laboratory of department. They were identified with the help of renowned floras; Cooke (1901-1903), Jain (1973), Mnimh (1996), Singh et al., (2001) & Bhattacharjee (2002) and enumeration were compared with earlier published literature. Ambasta, (1986) and Jain (1991), Heinrich (2000) and Bhagat et al., (2008).

RESULT AND DISCUSSION

Similar type of work has been reported by no. of workers. Yoirentomba Meetei and Singh (2007) recorded 160 medicinal plants from Manipur district. Ranu Lahri (2007) studied 154 species of medicinal plant in Sanjay National park of Sidhi district (M.P.). Sharma et al (2007) listed 25 medicinal plants from Balaghat district (M.P.). Thakur and Patil (2010) found 35 medicinally important plants in Nashik district of Maharashtra. Sharma et al, (2010) recorded 24 medicinal plants



remote areas of Chhindwara district of (M.P.). Uikely *et al* (2010) listed 35 medicinal plants from Balaghat district (M.P.). The present investigation comprises 56 plant species of enthomedicinal importance distributed in 42 genera and 19 families. Some important medicinal plants of the district were enlisted alphabetically, with their botanical name followed by family, local name and plant part used with medicinal value, in Table .1. The study would be very much helpful to the future researchers to bridge up the gap between the traditional knowledge of the people and scientific research in the field. The tribal communities are Ketkadi, Bhoi, Mahadev Koli, Pradhan, Tambat and Bhavsar resides in the hilly region of this area and local people are highly depend on these plants for meeting their health care needs. Hence there is a need of conservation of biodiversity and sustainable use of plant resources. Several similar studies are carried out in various regions of the country. Sairam (1999), Yadav and Sardesai (2002), Warriar *et al* (2010).

REFERENCES

- Abasta SP. 1986.** *The useful plants of India*, Publication and Information Directorate, CSIR, New Delhi, India.
- Bhagat RB, Shimpale VB and Deshmukh RB. 2008.** *Flora of Baramati*. Pawar Public Charitable Trust, Mumbai.
- Bhattacharjee SK. 2002.** *Handbook of Medicinal Plants*.
- Cooke T. 1901-03.** *The flora of presidency of Bombay*, Vol. I-III, London (B.S.I.Repr.ed.) Calcutta.
- Dradhbala C, Sastri K, Chaturved GN, Sastri R, Upadhaya Y, Pandeya GS, Gupta B and Mishra B. 1996.** *The Charak Samitha 22nd Revised Edn*. Chaukhamba Bharti Academy Varanasi.
- Heinrich M. 2000.** *Ethno botany & its role in drug development*. Phototherapy. Res., 14:479-488.
- Jain SK. 1991.** *Dictionary of India Folk Medicine & Ethnobotany*. Deep Publication Paschim Vihar. New Delhi.
- Jain SK. 1973.** *Medicinal Plants* National Book Trust, India. New Delhi. 127-140.
- Mnimh AC. 1996.** *The encyclopedia of medicinal plants*. Dorling Kindersely Ltd., London.
- Pushpangdan P. 1995.** *Ethno biology of India*. A Status Report a Govt. of India. New Delhi. India.
- Ranu Lahiri. 2007.** *Entho medicinal Survey of Sanjay National Park of District Sidhi (M.P.)*. India Journal of Flora and Fauna 16(II):289-299.
- Yoirentomba Meetei S and Singh PK. 2007.** *Survey for medicinal plants of Thoubal District, Manipur* Journal of Flora and Fauna 13(II):355-358.
- Sairam TV. 1999.** *Home Remedies* Vol- II, Penguin Books, India 318-324.
- Sharma R, Kantishree DE and Upadhyay. 2007.** *Ethnobotanical knowledge of plants used by rural community of Waraseoni block of Balaghat district. (M.P.) India*. Journal of Flora and Fauna 13(II):285-288.
- Sharma V, Diwan RK, Saxena RC and Shrivastava PN. 2010.** *Ethno medicinal studies on edible plant species used by Gond and Bhariatribes of Chhindwara district of (M.P.) India*. Journal of Flora and Fauna 16(1):213-216.
- Singh NP, Lakshiminarasimhan P, Karthikeyan S and Prasanna PV. 2001.** *Flora of Maharashtra State. Dicotyledenes- Vol.II (Combretaceae-Ceratophyllaceae)* B.S.I., Calcutta.1-1080.
- Thakur HA and Patil DA. 2010.** *Wild edible plants of tribal of Nashik district, (M.S.)* Journal of Flora and Fauna 16(I):85-88.
- Uikely SK, Yadav AS, Sharma AK, Rai AK, Raghuvanshi DK and Badkhane Yogesh. 2010.** *Traditional treatment of various skin diseases in Balaghat district of (M.P.) India*. Journal of Flora and Fauna 16(II):217-224.
- Warriar PK, Nambiar VPK and Ramamabkutty C. 2010.** (Eds) *Indian Medicinal Plants*. Vol. I-V, Universities Press, Hyderabad.
- Yadav SR and Sardesai MM. 2002.** *Flora of Kolhapur District*. Shivaji University Publication, Kolhapur.

Table. 1. Medicinal Plants along Kanher and Mahadare reservoirs

Sr. No.	SCIENTIFIC NAME	FAMILY	LOCAL NAME	MEDICINAL VALUE
1.	<i>Acacia caesia</i> Linn. Wild.	Mimosaceae	Babhul	Bark – Cleansing property protects skin against micro-organisms. Flowers- in menstrual disorders.
2.	<i>Acacia catechu</i> (L.f.) Willd.	Mimosaceae	Khair	Bark - useful in conjunctivitis; Heart wood - high medicinal value.
3.	<i>Acacia indica</i> Benth.	Mimosaceae	-----	Bark -astringent, anthelmintic, diuretic, nutritive, used in Pitta, chronic dysentery & skin diseases. Gum- sweet, liver tonic, cough.
4.	<i>Acacia nilotica</i> (L.) Willd.ex.Del.	Mimosaceae	Babhul	Bark - astringent, anathematic, diuretic, and nutritive used in kapha and pitta, chronic dysentery, skin diseases. Gum – sweet, liver tonic, cough, asthma.
5.	<i>Aegle marmelos</i> Corr.	Rutaceae	Bel	Root, Bark, leaves & fruits - used in intestinal disorders, Leaves -used for treatment of diabetes.
6.	<i>Aeschynomene aspera</i> L.	Fabaceae	Khujumpere	Shoot- pneumonia, Menstrual disorder, Leaves- Pains, swellings.
7.	<i>Aloe vera</i> (L.) Burm.f.	Liliaceae	Korphad	Whole plant- Healing of skin wounds, sore, rashes, onjunctivitis's, wrinkles, from aging, prevent infection in HIV, AIDS.
8.	<i>Ageratum conyzoides</i> L.	Asteraceae	Sahadevi/ Osadi	Leaves- used as blood coagulant to heal the wound, leprosy & skin diseases.
9.	<i>Ammania baccifera</i> subsp. <i>baccifera</i> Cl.	Lythraceae	Kanjali/ Dadmari	Leaves are appetizer, laxative and aphrodisiac.
10.	<i>Argemone Mexicana</i> L.	Papaveraceae	Pivala Dhotra	Stem latex – used in dropsy, jaundice, healing of wounds.
11.	<i>Asparagus racemosus</i> Willd. Var. <i>javanica</i>	Liliaceae	Shatavari	Leaves and tubers- used against skin disease.
12.	<i>Azadirachta indica</i> Juss.	Meliaceae	Limb/ Kadulimb	Tender shoot -cures toothache, gum diseases, Leaves- are used as insect repellent.
13.	<i>Bacopa monnieri</i> (L.) Penn.	Scrophulariaceae	Nir Brahmi	Whole plant- astringent, bitter used in digestive, anti inflammatory, cardio tonic, epilepsy, leprosy, elephantiasis, fever and general debility condition.
14.	<i>Butea monosperma</i> (Lam.)Taub	Fabaceae	Palas	Root -decoction used to cure fever. Seed- in constipation & skin diseases. Gum- in diarrhea & dysentery.
15.	<i>Butea superba</i> Roxb.	Fabaceae	Palas vel	Whole plant – used against diarrhoea, dysentery, intestinal worm, diabetes, leucorrhoea, & retention of urine.
16.	<i>Cassia fistula</i> L.	Caesalpiniaceae	Amaltaas/ Bahava	Fruits-Pharmaceutical codex, Pulp- medicinal value.
17.	<i>Cassia occidentalis</i> L.	Caesalpiniaceae	Kaswinda	In Cough, asthmas, snake bite, scabies.
18.	<i>Cassia pumila</i> L.	Caesalpiniaceae	Rantakkala	Plant is sedative and used in removal of intestinal worms.



19.	<i>Cassia tora</i> L.	Caesalpiaceae	Takala	Decoctions of parts- used to improve vision, analgesic, antifungal and against skin diseases, obesity, ring worm, hypertension.
20.	<i>Coccinea grandis</i> (L.) Voight	Cucurbitaceae	Tondali	Fruit -used in Diabetes.
21.	<i>Dalbergia latifolia</i> Roxb.	Fabaceae	Shisav/ Shisam	Roots- astringent and constipating; useful in diarrhoea and dysentery, Leaves- gonorrhoea, menorrhagia, dyspepsia, colic, vomiting, haemorrhoids, burning sensation, diarrhoea and dysentery.
22.	<i>Dalbergia sisso</i> ex.DC.	Fabaceae	Sissu	Roots – astringent & constipating Leaves– digestive, stimulant and used in diarrhoea & burning Bark and heartwood – skin diseases, scabies, bronchitis
23.	<i>Datura metel</i> L.	Solanaceae	Kala Dhotra	Whole plant – useful in asthma, cough, fever, ulcer, skin diseases.
24.	<i>Datura stramonium</i> L.	Solanaceae	White Dhatura	Whole plant is used in hyascyamine, bronchitis, as antispasmodic & narcotic.
25.	<i>Dendrophthoe falcata</i> L.f.	Loranthaceae	Banda	Bark- astringent, in wounds and Menstrual cycle
26.	<i>Desmodium triflorum</i> (L.)DC	Fabaceae	Ran Methi	Whole plant - used in pitta, cough, bronchitis, wounds, sores & burning sensation.
27.	<i>Eclipta prostrata</i> (L.) L.	Asteraceae	Maka	Whole plant - used in intestinal worm, leprosy, fever, hypertension.
28.	<i>Emilia sonchifolia</i> (L.) DC.	Asteraceae	Sadmandi	Whole Plant- used in gastropathy, diarrhoea, ophthalmia, wounds & asthma.
29.	<i>Euphorbia ligularia</i> Roxb.	Euphorbiaceae	Shend	Whole plant- in gastropathy, bronchitis, asthma, inflammations, splenomegaly, cutaneous diseases, dropsy, dyspepsia, flatulence, intermitant fever, jaundice, leprosy rheumatism and ulcers. Milky juice- in otalgia and ophthalmia.
30.	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Dudhani	Entire plant- used in relaxation of bronchioles, asthma, cough, gonorrhoea and urinogenital complaints and on warts
31.	<i>Evolvulus alsinoides</i> (L.) L	Convolvulaceae	Shankhapushp i/ Vishnukrant	Whole plant used in bronchitis, asthma, internal hemorrhage, falling & graying of hair & general debility.
32.	<i>Hygrophila schulli</i> (Buch.-Ham.)	Acanthaceae	Kolshinda/ Talmikhana	Roots- in inflammation, ascites, vesicle calculi, Jaundice, flatulence, dysentery, and vitiated conditions of <i>vata</i> . Leaves – in jaundice, dropsy, rheumatism, urinogenital disorders, cough, arthritis. Seeds- in gonorrhoea, promoting sexual vigour and strength, arresting abortion, burning sensation anaemia, diarrhea, dysentery, gout rheumatism, and general debility.
33.	<i>Indigofera tinnaei</i> Ali.	Fabaceae	Shuiguli	Useful in cardiac diseases, coronary artery diseases, coma, dizziness & kidney inflammation.



34.	<i>Ipomoea pes-tigridis</i> L.	Convolvulaceae	Besharam	Root – Snake and dog bite, Leaves- pimples, sores
35.	<i>Ipomoea carnea</i> Jacq. Subsp. <i>fistulosa</i> (Mart. Ex Choisy.)Austin	Convolvulaceae	Besharam	Used as purgative, in wound and dog bite.
36.	<i>Ipomoea nil</i> (L.)Roth.	Convolvulaceae	Besharam	Dried seeds used as a purgative drug. Fresh fruit are eaten as vegetables.
37.	<i>Ipomoea aquatica</i> Forssk.	Convolvulaceae	Besharam	Forks as laxative or purgative.
38.	<i>Lannea cormandelica</i> (Houtt.) Merr.	Anacardiaceae	Moya,Moi, Shimati	Bark is used in body swelling, cuts, wounds, ulcers, & dysentery. Leaves useful in elephantiasis.
39.	<i>Lantata camara</i> L. var. <i>aculeata</i>	Verbenaceae	Ghaneri	Root powder used for stomachache, colic pain.
40.	<i>Lawsonia inermis</i> L.	Lythraceae	Mehandi	Leaf decoction is used in sore throat & seeds in urinary trouble.
41.	<i>Limnophila</i> <i>Aromatic</i> (Lam.) Merr.	Schrophulariaceae		Plant -used in galactic, ulcers, constipation & fever.
42.	<i>Mangifera indica</i> L.	Anacardiaceae	Aamba	Root and Barks-used in wounds, ulcers, vomiting, diarrhoea and rheumatism. Raw fruits- are boiled and used as cooling agent.
43.	<i>Mentha arvensis</i> Linn.	Lamiaceae	-----	Leaves -used in wound cuts, diarrhoea, asthma, dental caries, and general weakness.
44.	<i>Mucuna pruriens</i> (Linn) DC.	Fabaceae	Khaj kuhiri	Root- vata, pitta, constipation, ulcers and delirium. Leaves- tonic, anathematic. Seeds- sterility, gonorrhoea.
45.	<i>Oxalis corniculata</i> L. Var. <i>corniculata</i> Edg. &Hook.f.	Oxalidaceae	Ambushi	Leaf extract used in malaria, jaundice. Leaves & root are used in dysentery & diarrhoea.
46.	<i>Oxalis deilis</i> H.B. & K.Var. <i>corymbosa</i> (DC.)	Oxalidaceae	Ambushi	Cooling effect, Beneficial made in ointment for cuts, scrapes rashes & skin diseases.
47.	<i>Pongamia pinnata</i> (L.) Pierre	Fabaceae	Karanj	Plant - insecticidal & veterinary medicinal important. Leaves- used as antifungal & antibacterial. Seed oil kills insects.
48.	<i>Tectona grandis</i> L.f.	Verbenaceae	Saag/Sagwan	Plant oil- ring worm, eczema & itches
49.	<i>Tamarindus indica</i> L.	Caesalpiniaceae	Chinch	Fruits and leaves - used as carminative, digestive, laxative and astringent.
50.	<i>Sesbania seban</i> L. (Merr.)	Fabaceae	Shevari	Whole plant- antiseptic, anti-inflammatory and antimicrobial properties. Used in ointment to cure itching, and various skin eruptions.
51.	<i>Syzygium cumini</i> L. Skeels	Myrtaceae	Jambhul	The seeds are used in diabetes.
52.	<i>Vitex negundo</i> L.	Verbanaceae	Nirgudi	Leaves- Medicinal importance
53.	<i>Withania somnifera</i> (L.)Dunal	Solanaceae	Ashwagandha	Whole plant- rheumatism, weakness, antibacterial activity
54.	<i>Woodfordia fruticosa</i> (L.) Kurz.	Lythraceae	Dhaiti / Dhayati	Flowers- juice is used to control dysentery.
55.	<i>Zanthoxylum rhetsa</i> (Roxb.) DC.	Rutaceae	Chirphal/ Tirphal	Bark, leaves and seeds- used as astringent, digestive, antiseptic, and disinfective, in kapha, asthma, pyorrhea and traumatic eye injury.
56.	<i>Ziziphus mauritiana</i> Lam.	Rhamnaceae	Bor	Whole plant – used in fever, tonic, purgative, appetizer, astringent, dysentery & diarrhoea.