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TRADITIONAL ETHNO-VETERINARY PRACTICES IN KARANJI GHAT AREAS OF PATHARDI TAHASIL IN AHMEDNAGAR DISTRICT (M.S.) INDIA

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ABSTRACT: This region has been inhabited constantly by a group of nomadic tribals viz. Dhangar, Laman and Vanjaris for curing certain ethno-veterinary ailments since ancient times. The full results of this study are organized in tabulate form and include botanical name followed by vernacular name, family (in parenthesis) and ethno-veterinary importance.The present paper enumerates traditional ethno-veterinary uses of 21plant species belonging to 15 families by the native inhabitants of the study area i.e. Karanji Ghat of Pathardi tahasil in Ahmednagar district (M.S.) India.Out of these, root in three plants (14.29%),fruit in six plants (28.57%),seed and stem in two plants each leaf in four plants (19.05%) leaf and stem in three plants (14.29%) and flower in one plant (9.52%) found to have ethno-veterinary purposes.

Keywords: Nomadic tribals, Karanj Ghats, ethno-veterinary

Abbreviations used: tsp-tablesppon,1 masa-1 gm, tola-10 gm, aatpav-100 gm, pavsher-250gm, 1 cup-100 ml, half litre-500 ml, &-and.

INTRODUCTION

Since the beginning of civilization man remained constantly dependent on the native plants for certain primary needs and specific ailments cure and care. His interactions with the wild plants increased which has made him a superpower on the earth planet. Documentation of his relationship and interactions with the plants in a scientific way has become a prime need of time these days which is called as ethnobotany [1] .

In recent years, ethnobotanical studies are recognized as the most fruitful methods for identifying new sources of drugs. It is interesting to note that most of the recent popular drugs have been originally isolated from the plants of ethnobotanical interest.

Although much has been documented on the ethnobotanical and ethno-floristic aspects of plants in the district, there is not even a single concrete report about ethno-veterinary uses of endemic plants in Karanji Ghat areas of Pathardi tahasil. Keeping this in view, the present work was conducted as the first attempt to explore the plants of ethno-veterinary interests and to record the traditional ethno-veterinary knowledge hidden in this pocket.

Study area:

Being a part of Garbhagiri hills, the area under study is located in between 19°10’26”N -19° 31’29” N latitude and 74°71’52”E – 75° 10’54” E longitude, at an altitude of 700-750 mtrs. It is situated along South-Western side of Pathardi tahasil at a distance of 22 km. It is a beautiful hilly landscape famous for its diversified vegetation, comes under the jurisdiction the forest department of Ahmednagar district (M.S.) India. The forest is of mixed deciduous type including some evergreen patches. The area is occupied by 52-55 % of mixed type of forests having an average rainfall of 348 cm/year and temperature range of 20°C to 36°C [2].

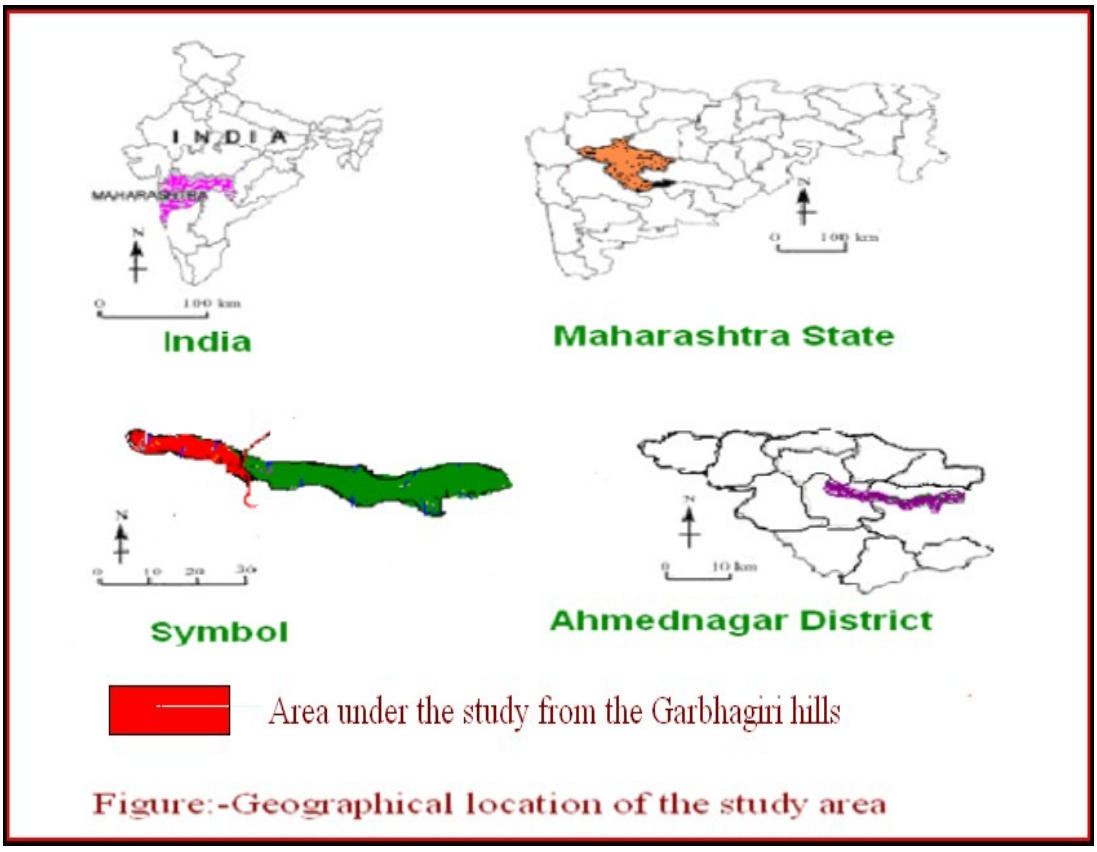

Figure:-Geographical location of the study area

INHABITANTS

The area under study is remained inhabited constantly by the native nomadic tribals viz. Dhangar, Laman and Vanjaris which have been carrying out traditional ethno-veterinary practices since the ancient times. Their main occupation is agriculture, animal husbandry and poultry.

The forest resources in their surrounding areas play a very significant role in their routine life as they are enriched with traditional ethno-veterinary knowledge which has been transmitted in them from their forefathers through the words of mouth in an informal way.

REVIEW OF LITERATURE

A recent interest in ethnobotanical explorations is increased on international and national level with the work of [3-12] contributed to the ethnobotany.

A perusal of the literature reveals that there are still gaps in ethno-veterinary knowledge in this area. The present paper therefore is an attempt to fill up the gap in order to know the plants of ethno-veterinary significance in the routine life of local populace.

Methodology:

The field surveys were arranged in the study areas during July-2006 to December-2007 to document the traditional ethno-veterinary information hidden among the local inhabitants. Through arrangement of group discussions, structured questionnaires and verbal interviews in informal ways the date has been collected [13-16].The information was confirmed by communicating the traditional herbal practitioners and other knowledgeable informants residing in nearby areas.

Simultaneously the taxa of ethno-veterinary interests were collected flowering or fruiting stage and identified with the help of standard floras [17-19].Such plants were preserved as voucher specimens in the Department of Botany of Padmashri Vikhe Patil College Pravaranagar (Loni) for future study.

RESULTS

The plants of ethno-veterinary significance are enumerated in alphabetical sequence(Table 1) of Botanical Name with family name (in parenthesis) followed by local name, plant part used and ethno-veterinary uses.

Table: 1-Details of plant species with their ethno-veterinary uses

Sr.No	Botanical Name	Local Name	Plant Part	Ethno-veterinary uses
1.	Abelmoschus manihot (L.) Medik,	Ran-Bhendi	Fruit	Powder from 2-3 dried fruits powder is mixed in a cupful of Nilgir (Eucalyptus globulus) oil and given orally twice a day for 3-4 days for curing blood dysentery.
2.	Acacia nelotica (L)Willd.ex.Delile. (Mimosaceae)	Babhul	Leaf	A handful of fresh and healthy leaves are crushed in a cupful of curd and given with one chicken egg white once a day for 5-6 days to cure mouth ulcer in oxen and baffaloes.
3.	Albizia lebbeck (L.) Benth. (Mimosaceae)	Shirish	Leaf and stem bark	A fine paste of 15-20 gm of fresh leaves and stem bark pieces, a small Kanda bulb (Allium cepa) with 10-15 gm of fresh leaves from Lajalu (Mimosa pudica) in a cup of luke warm water is applied topically on the body part of pet dogs and cats for one week to repel lice and wasp bite.
4.	*Allium cepa* L. (Liliaceae)	Kanda	Leaf	Pate obtained from 2-3 tola of (about 20-30 gm)of fresh leaves and same amount of fresh leaves from Lajalu (*Mimosa pudica*) in a cupful of water is applied externally on the bitten region of body to treat an unknown insect bite.
5.	*Anogeissus latifolia* (Roxb.*ex* DC.) Wall.*ex* Guill. & Perr. (Combretaceae)	Dhamoda	Stem bark	Chatak (about 50 gm)of fresh stem bark is boiled with 1-2 tsp of Nilgir (*Eucalyptus globulus*) oil in 2-3 glassful of water for 2-3 minutes and the decoction is given orally two times a day for a period of 3-4 days to arrest dysentery.
6.	*Bauhinia purpurea* L. (Caesalpinaceae)	Rakta Kanchan	Leaf and stem	Younger shoots and tender leaves as fed regularly to the cows and buffaloes as a better tonic for healthy growth
7.	*Catharanthus roseus* G. Don. (Apocynaceae)	Sadafuli	Leaf	Paste fron 1-2 tola (about 20-30 gm) of fresh leaves in a cupful of wateris mixed with a small amount of lemon fruit (*Citus sinensis*) juice and applied externally at the site of bitten region of the body once a day for 6-8 days for healing of wounds due to dog bite.
8.	*Asparagus adscedens* Roxb (Liliaceae)	Shatmuli	Root-tuber	Certain amount of tuber powder is mixed in fodder and fed regularly in the evening to lactating buffaloes and cows for increasing lactation period with superior quality.
9.	Chlorophytum borivilianum (Roxb.)Baker (Liliaceae)	Safed Musali	Root-tuber	One teaspoon of powder from dried tubers is mixed in aatpav (about 100ml) of coconut milk and given once a day for two to three months to increase healthy growth of horses.
10.	Corallocarpus epigaeus (Rottl.)C.B.Cl. (Cucurbitaceae)	Mungus Kand	Root-tuber	The juice extracted from chattak (about 50 gm) fresh tuber pieces in a cupful of water is given orally to goats and sheep twice a day for a period of 3-4 days to destroy and expel out tape worms.
11.	Jatropha podogrina L. (Euphorbiaceae)	Erand	Seed	Seed powder is kept soaked in luke warm water overnight and on next day morning mixed in wheat flour to during chapatti making. same chapatti is fed twice daily up to 5-6 days to the bullocks and buffaloes for curing loose motion
12.	Leonotis nepetaefolia (L.)R. Br. (Lamiaceae)	Dipmal	Fruit	Paste from certain amount of semi-ripen fruits is mixed with a pinch of common salt and fed to the age old female goats and sheep to achieve successful conception.

13.	*Pergularia daemia* (Forsk) Chiov (Asclepiadaceae)	Utarand	Leaf	Certain quantity of decoction from fresh and young leaves made in water is mixed in ground nut cake (fodder) and same preparation is fed to cows after calving to relieve post- natal pains.
14.	*Syzygium cumini* (L.) Skeels (Myrtaceae)	Jambhul	Fruit	An extract from semi-ripen fruits is mixed in certain proportion in suitable fodder and same preparation is fed to horses to attain maximum and healthy growth with higher vitality.
15.	*Sesbania grandiflora* (L.) Poiret (Fabaceae)	Hatga	Seed	Certain amount of seed powder is mixed with wheat flour during chapatti preparation and same chappati are fed regularly to male baffaloes and oxen once daily on regular basis early in the morning for 2-3 months to increase and maintain sexual vigour and strength.
16.	*Pongamia pinnata* (L) Pierre (Fabaceae)	Karanj	Fruit	Certain amount of young and healthy pods of the plant with onion (*Allium cepa*) are fed to the buffaloes and cows twice a day for 4-5 days times in a day prior to inter-course for successful conception.
17.	*Cissampelos pareira* L (Menispermaceae)	Pahadvel	Stem and leaf	An extract from young shoots and tender leaves in luke warm water is given internally with a pinch of rock salt and also applied topically on the bitten region of goats and sheep twice or thrice a day for relieving pains of scorpion bite.
18.	*Terminalia bellirica* (Gaertn.) Roxb. (Combretaceae)	Behada	Stem bark	2-3 tolas (aprox.20-30 gm) of dried stem bark powder is boiled in a glassful of water for 3-4 minutes and the decoction obtained is given orally with 1-2 tsp of Nilgir (*Eucalyptus globuulus*) oil to the goats given orally twice a day for 3-4 days for curing blood dysentery.
19.	*Salanum xanthocarpum* Schrad & Wend. (Solanaceae)	Bhui ringani	Fruit	5-6 fresh unripe fruits are boiled with a handful of Ghaneri (*Lantana camara*)in sufficient amount of water for 2-3 minutes and the decoction is given orally to the cows twice daily up to 4-5 days for relieving fever.
20.	*Momordica dioica* Roxb. ex Willd. (Cucurbitaceae)	Kartule	Fruit	Pavsher (about 250gm)young fruits are crushed with 2-3 tsp of black pepper (*Piper nigrum*) and a hen egg-white in a cupful of curd and the paste is fed to the cows and buffaloes twice a day for 5-6 days to cure mouth ulcer.
21.	*Woodfordia fruticosa* (L.) Kurz (Lythraceae)	Dhayati	Flower	Two to three tsp of fresh flower's extract with same amount of stem bark extract of 'neem' *(Azadirachta indica*.) is administered twice a day for 2-3 days in treatment of dysentery.

Table:2-Plant part used against name and number of plant species studied:

S.N	Part used	Name of plant species	No of plants
1	Root	Corallocarpus epigaeus, Chlorophytum tuberosum, Asparagus adscedens.	3
2	Fruit	Momordica dioica, Salanum xanthocarpum, Pongamia pinnata, Syzygium cumini, Leonotis nepetaefolia,, Abelmoschus manihot.	6
3	seed	Sesbania grandiflora, Jatropha podogrina.	2
4	Stem	Terminalia bellirica, Anogeissus latifolia.	2
5	Leaf	Pergularia daemia, Acacia nelotica Allium cepa, Catharanthus roseus.	4
6	Leaf & stem	Cissampelos pareira, Bauhinia purpurea, Albizia lebbeck.	3
7	flower	Woodfordia fruticosa.	1

DISCUSSION

In all total 21 plant species belongs to 21 genera and 15 families having ethno-veterinary significance have been reported. More surveys are needed in future to be carry out in order to know the plant resources which have an immense value in the routine life and welfare of the local tribal groups. Such studies prove helpful in preservation and passing of the traditional ethno-veterinary knowledge from the tribals to the next generations. Efforts should be taken in conservation and maintenance of the plants which are on the verge of extinction due to the deforestation, global warming, industrialization and urbanization.

Few plants of the locality possess potential of better economic exploitation. Some of them are *Pergularia daemia* (Forssk) Chiov., *Momordica dioica* Roxb.ex.Willd.,*Salanum xanthocarpum* Schrad & Wend., *Syzygium cumini* (L.) Skeels., *Abelmoschus manihot* (L.)Medik., *Cissampelos pareira* Linn., *Jatropha podogrina* Linn., *Terminalia bellirica* (Gaertn.) Roxb., *Anogeissus latifolia* (Roxb. *ex* DC.) Wall.*ex* Guill. & Perr., *Corallocarpus epigaeus* (Rottl.) C.B.Cl., *Chlorophytum borivilianum* (Roxb.)Baker,*Asparagus adscedens* Roxb. Since all these plant species were used in more or less proportion throughout the world,there is wide scope for their bio-prospecting.Thereafter our prime duty becomes to protect and conserve these plants via ex-situ or in-situ ways urgently in a proper way.

From above study (Table:2),it is found that root in three plants (14.29%),fruit in six plants (28.57%),seed and stem in two plants each leaf in four plants (19.05%) leaf and stem in three plants (14.29%) and flower in one plant (9.52%) found to have ethno-veterinary uses.

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