



Plants Used for Ethno-Veterinary Practices by Tribes of Kambakkam of Easternghats

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ABSTRACT

The study reports the surveyed of medicinal plants used by of village Tribe people of Kambakkam Forest (Easternghats), Andhra Pradesh in ethno-veterinary practices. During this study information about the ethno-veterinary plants were collected and preserved as herbarium specimens by follows the standard procedure. The plants were identified with help of some standard Floras. The specimens were deposited in the herbarium of Department of Plant Biology and Plant Biotechnology, Loganatha Narayanasamy Government College, Ponneri, Thiruvallur District. During the survey it was noted 23 plants were traditionally used by various animal diseases such as Inflammation, wound healing, indigestion, dysentery, fever, swelling, bone fracture, diarrhea, cold, cough, pneumonia, constipation, antimicrobial and milk yielding properties. The information provided in this study would bring new medicine development of ecofriendly, effective medicines to control human diseases in the future perspective. This study may be useful to protect and conserve the medicinal plants of Kambakkam Forest.

Keywords: Medicinal Plants; Ethno veterinary; Kambakkam; Ethno-botanical field study; Plant documentation.

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INTRODUCTION

Kambakkam is situated north Sricity in the Chittoor District coming under Buchinaidu kandriga and Varadaiahpalem 80 km from Chennai and 35 km from Kalahasthi. It is a spa with waterfalls, thick Wood land and fauna. There are rich variety of flora and fauna in this region.

Ethno veterinary is the study of sole beliefs, knowledge, ideas and practices among the tribals for treating animal diseases¹. Since the immemorial plants have been used by man to cure cattle's from different diseases. It can be understood that use of plants in the healing of domestic animals started when the animal supremacy was being realizing in farming.

Forest has a great impact on tribal life, as they derived food, fodder and medicines from it. The tribals cure various disease of their domestic animals with the help of large number of medicinal plants.

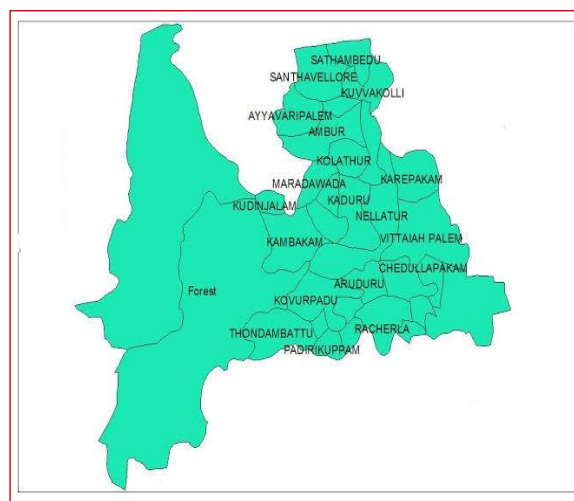


Figure 1: Map of the study area of Kambakkam

MATERIALS AND METHODS

During 2015-2018, many tribal groups of Kambakkam forest (Fig. 1) have been visited on regular field trips. The use of tribals with realistic and conventional expertise to observe plant species against different animal diseases. The samples have been stored at the Loganatha narayanasamy government College, Ponneri, Thiruvalluvar District, in the herbarium of Department of Plant Biology and Plant Biotechnology, A questionnaire containing information about the tribal animals, their diet, revenue source, ethno veterinary treatment methods was drawn



up. The Gamble² (1936), Mathew³ (1983), Mabberley⁴ (2014), Jain¹ (2003), Tiwari and Pande⁵ (2004), Pal⁶ (1990), Mokat and Deokule⁷ (2004) were used to classify species.

RESULTS AND DISCUSSION

A total number of 23 plant species (Fig. 2 & 3) having ethno-veterinary importance are listed below in Table 1. Information as parts used along with the mode of application of drug and concerned disease also mentioned.

Along with their own healthcare, tribals also take care of their domestic animals. Many of the plant species are used for curing various animal diseases. About 23 plant species are used for treatment of veterinary diseases in Varadaiahpalem talukas. Mokat and Deokule⁷ (2004) reported about 36 plant species from Ratanagiri district of Maharashtra used in ethno-veterinary medicine. Jain¹ (2003) has reported 836 plant species used in ethno-veterinary medicines.

Table 1: List of plants used for ethno-veterinary practices by tribes

S. No.	Botanical Name	Common Name	Family	Ethno-veterinary importance
1.	<i>Abrus precatorius</i> L.	Gundumani	Fabaceae	Crushed roots are used to cure cough, Cold and Pneumonia. Seeds are used against constipation.
2.	<i>Aristolochia bracteolata</i> Lam.	Nayuruvi	Aristolochiaceae	Leaf & root juice is applied on wounds of domestic animals to kill the germs.
3.	<i>Asparagus racemosus</i> Willd.	Thanneer vittan kizhangu	Asparagaceae	Root juice is applied to retain fertility and to increase the secretion of milk in cattle.
4.	<i>Bombax ceiba</i> L.	Ilavam	Malvaceae	Bark juice is orally in diarrhea.
5.	<i>Calotropis gigantea</i> (L.)R.Br.ex Schult.	Erukku	Asclepiadaceae	Warm leaves are tied on inflammation and also used to kill the pains. Latex is used to pull out thorns from the body and to remove worms from the wounds.
6.	<i>Cissus quadrangularis</i> L.	Pirandai	Vitaceae	Stem paste is applied on bone fracture in cattle.
7.	<i>Datura metel</i> L.	Oomathai	Solanaceae	Fruits are given to cattle for retaining the fertility. Two fruits, a day each are supplied to cattle or as per the weight of the animal.
8.	<i>Diplocyclos palmatus</i> (L.) C. Jeffrey.	Aivirali	Cucurbitaceae	Leaves and fruits crushed into buttermilk and given to ephemeral fever.
9.	<i>Dregea volubilis</i> (L.f.)Benth.ex Hook.f.	Kodipaalai	Asclepiadaceae	Leaf paste is applied with the common salt and applied on cattle to affected places to treat all types of swellings.
10.	<i>Eclipta prostrata</i> (L.) L.	Karisalankanni	Asteraceae	Leaf juice is given to animals to get relief from dysentery twice for about 3 days.
11.	<i>Grewia tillifolia</i> Vahl.	Unna	Tiliaceae	Bark juice is given in dysentery.
12.	<i>Jatropha curcas</i> L.	Kattamanukku	Euphorbiaceae	Leaf decoction is given to orally to promote milk secretion.
13.	<i>Madhuca longifolia</i> (J.Konig)J.F.Macbr.	Iluppai	Sapotaceae	Stem cuttings are tied around animal neck to pull out worm from wounds.
14.	<i>Ricinus communis</i> L.	Amanakku	Euphorbiaceae	Leaf paste is applied topically over fracture bone for early healing and relieve in pain.
15.	<i>Semicarpus anacardium</i> L.f.	Mundhiri	Anacardiaceae	The seed oil is applied on wounds between hooves of animals.
16.	<i>Senna tora</i> (L.)Roxb.	Aavarai	Caesalpiniaceae	Seed is mixed with water and ground into paste and applied topically to cure skin diseases.

17.	<i>Strychnos nux-vomica</i> L.	Etti	Loganiaceae	Tender leaves are boiled with water and mixed with butter and applied externally to cure bone fracture.
18.	<i>Terminalia arjuna</i> (Roxb.)Wight & Arn.	Marudham	Combretaceae	Leaf juice is given orally as vermifuge. Bark powder (or) paste is applied on wounds.
19.	<i>Terminalia chebula</i> Retz.	Kadukkai	Combretaceae	Stem bark is ground with pepper and garlic given to cattle cure fever.
20.	<i>Tinospora cordifolia</i> (Thunb.)Miers.	Seendhil kodi	Menispermaceae	Fresh leaves are fed to cattle as a galactagogue agent to increase flow of milk.
21.	<i>Vitex negundo</i> L.	Nochi	Lamiaceae	Leaves are given to cattle to get relief from dysentery.
22.	<i>Wrightia tinctoria</i> (Roxb.) R.Br.	Veppalai	Apocynaceae	Leaf juice is poured into nostrils to cure running nose.
23.	<i>Xanthium strumarium</i> L.	Maruloomathai	Asteraceae	The entire plant is given to domestic animals to promote milk yielding capacity.



Figure 2: Medicinal Plants Collected from Kambakkam forest (in order of left to right: 1. *Abrus precatorius*, 2. *Asparagus racemosus*, 3. *Bombax ceiba*, 4. *Calotropis gigantea*, 5. *Cissus quadrangularis*, 6. *Datura metel*, 7. *Diplocyclos palmatus*, 8. *Dregea volubilis*, 9. *Eclipta prostrata*).



Figure 3: Medicinal Plants Collected from Kambakkam forest (in order of left to right: 1. *Jatropa curcas*, 2. *Madhuca longifolia*, 3. *Terminalia arjuna*, 4. *Terminalia bellerica*, 5. *Strychnos nux-vomica*, 6. *Senna tora*, 7. *Ricinus communis*, 8. *Tinospora cordifolia*, 9. *Xanthium strumarium*)

CONCLUSION

As the medicinal plants are used to cure the human diseases, they are also effectively used against animal diseases. Traditional knowledge of plants is fast disappearing among the tribals due to modernization and gradual migration of tribals medicine in men. There is an urgent need to study and document the precious ethno-veterinary knowledge of tribals.

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