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Ethnoveterinary plants in Annamayya district, Andhra Pradesh, India

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Abstract

Present study deals with commonly observed ailments and diseases of live stock of Annamayya District. An extensive survey was conducted during 2019-2020, about the usage of various plants as medicine for the treatment of various common diseases and disorders by different tribal communities. During the survey a total 27 species of Ethno-veterinary plants belongs to 26 genera and 22 families have been documented. The plants are mostly used for treatment of cough, fever, skin diseases, wounds, intestinal worms, constipation etc.

Keywords: Ethno-veterinary plants, livestock, Annamayya district

Introduction

India is predominantly live stocked based economy. Maintenance of livestock health has been possible because of traditional proven veterinary health care practices. Some of the best breeds of cattle, goats, sheep, pig, wild ass and even wild ungulates are found here. Through there is no authentic evidence of when and how plants came into usage for curing the domestic animals (Pal 1980) [12], the farmers seem to be aware these practices through generations. Little information is documented on these aspects from Annamayya district. Notable studies of similar types have, however been carried out extensively in other parts of Andhra Pradesh. Reddy and sudarsanam (1987) [2]; G Sudarsanam *et al.* 1995 [9]; Narasimha rao *et al.* 2012 [7]; 2013 [10], 2015 [11]; Venkat Ramana *et al.* 2008 [8], Selvaraju *et al.* 2013 [13]; Swaminathan Usha *et al.* 2015 [14]; Ramachandra Naik M. *et al.* 2012) [15]. In the present study, the authors have documented a number of plants which were reported to be used by the tribal and non-tribal people for the treatment of their domestic animals and poultry from various places of Annamayya district.

Study area

Annamayya District is the extreme south eastern district of Andhra Pradesh situated within the geographical co-ordinate of 13° 43' and 15° 14' of northern latitude and 77° 55' and 79° 29' Eastern longitude. The latitude varies from 269 to 3787 meters above sea level. The District is bounded on North by YSR Kadapa District, South by Chittoor District West by Anantapur District and East by Nellore and Chittoor Districts. At the time of the 2011 census Annamayya district had a population of 16,97,308. And Scheduled Tribes make up 62,475 (3.68%) of the population respectively.

The climate is semi-arid with many sunny days during the year. The mean maximum and minimum temperature are 40.5°C and 16.3°C. The soil types is mostly black soil except in a few places where it is red loamy and red sandy. The average rain fall 72.8 cm. The forest are dry deciduous to thorny scrub forests with occasional patches of semi-evergreen taxa in the valleys. The forests of Annamayya district are in habituated by a large number of *Yanadis*, *Irula*, *Yerukalas*, *Sugalis*, *Koyas*, *Lambadis*, *Nakkalas*. And who practice popular tribal medicine and native remedies to cure diseases of domestic animals.

Material and Methods

A field survey was conducted during the (2019-2021) among the tribal and non-tribal peoples to gather information on herbal veterinary medicine traditionally used by them for treatment of various ailments.

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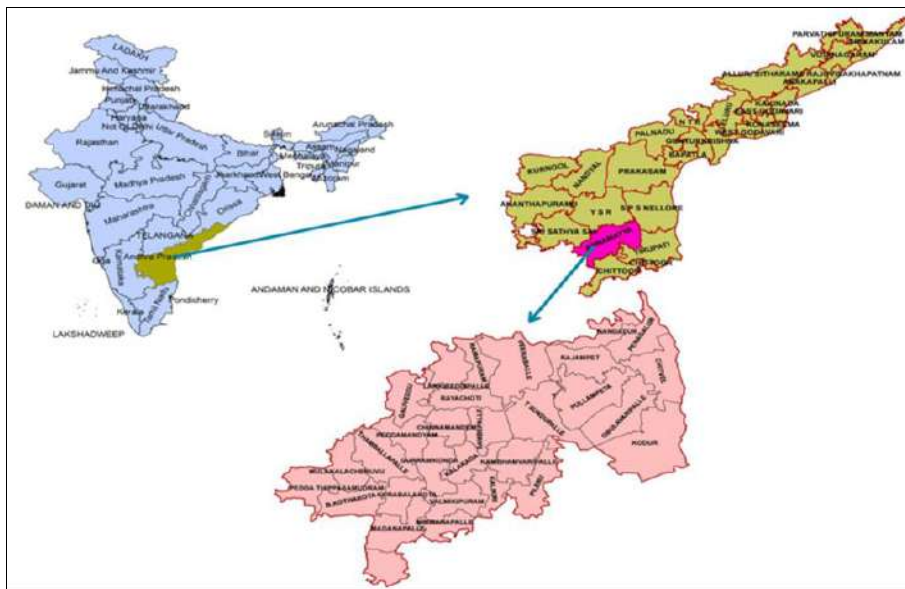
Information was obtained through oral interviews and discussions in a local dialect, and the questionnaire administered to local herbalist, older household heads and women. Regarding the voucher names, mode of use, parts used, amount and periodicity of dosage were also collected. Classification and Identification were done by referring flora books, Herbarium and literature the method of study

was generally the same as described by Jain (1965) [16]. Plant specimens were collected, identified, and preserved in the Ethno botany Herbarium (EBH), of Sri Venkateswara University. Nomenclature of the species is based on floras on South India (Matthew, 1983; Henry, *et al.* 1987; Rangacharyulu, 1991) [17-18, 1].

Table 1: Showing Ethno-veterinary plants

S. No	Botanical name	Vernacular name and voucher no	Family	Parts used	Ethno-veterinary importance
1	<i>Achyranthes aspera</i> L.	Uttareni, ethn 1023	Amaranthaceae	Leaves	50 gr of leaves paste mixed with ajwain water is administered orally for Gastritis
2	<i>Azadirachta indica</i> A. Juss.	Vepa, ethn1015	Meliaceae	Leaves	A glassful decoction of leaves is orally administered thrice daily for about 7 days to all animals to cure cough
3	<i>Calotropis procera</i> (Ait.)R.Br.	Jilledu, ethn1078	Asclepiadaceae	Latex	Latex is applied on cyst to suppruration on affected portion to cure cracking of teats
4	<i>Capparis brevispina</i> DC.	Adavi uppi, ethn1022	Capparaceae	Root	Acquacis extract root bark is used for stomachache
5	<i>Cassia angustifolia</i> Vahl	Senna, ethn 1034	Caesalpiniaceae	Pods and Leaves	Pods and leaves are fed to cattle to cure gastric problems
6	<i>Cassia fistula</i> L.	Rela, ethn 1043	Caesalpiniaceae	Leaves	Fresh leaves are boiled in 1 liter of water for 15 minutes and decoction 50 ml is drenched to cattle twice for day as cure dysentery
7	<i>Cucumis melo</i> L.	Budamatheega, ethn 1019	Cucurbitaceae	Fruit	Feeding powered fruit mixed in Tinospora leaf powder cures dysentery and gastric problems
8	<i>Pedaliium murex</i> L.	Yenugu palleru, ethn1056	Pedaliaceae	Whole plant	Whole plant is fed to animals to cure stomachache
9	<i>Prosopis cineraria</i> (L.) Druce.	Jammi, ethn1035	Mimosaceae	Leaves	Aqueous paste of leaves is applied on effected portion to cure affected portion of foot pad of animals
10	<i>Ricinus communis</i> L.	Amudamu, ethn1075	Euphorbiaceae	Leaves	Leaves are boiled and decoction (20 ml) is administered orally twice daily for 7 days in treating constipation in cattle
11	<i>Zingiber officinale</i> Roscoe	Allamu, ethn 1053	Zingiberaceae	Rhizome	Rhizome mixed with Cissus twigs is used to feed buffalo to enhance the appetite
12	<i>Ziziphus nummularia</i> (Burm.f.) Wight & Arn.	Nelaregu, ethn 1019	Rhamnaceae	Leaves	Aqueous paste of leaves is applied on wounds
13	<i>Curcuma longa</i> L.	Pasupu, ethn1020	Zingiberaceae	Rhizome	Rhizome is pounded into paste and applied for healing muscle fractures
14	<i>Aegle marmelos</i> (L.) Correa	Maredu, ethn 1037	Rutaceae	Leaves	Fresh leaf paste is admistered for in digestive problems
15	<i>Datura stramonium</i> L.	Nalla umetta, ethn 1031	Solanaceae	Leaves	Fresh leaves pounded and juice obtained mixed with Curcuma <i>longa</i> powder is applied externally for healing of wounds.
16	<i>Solanum surattense</i> Burm. f.	Nelamulaka, ethn 1058	Solanaceae	Whole plant	Boiled extract of whole plant is used for constipation
17	<i>Tamarindus indiaca</i> L.	Chintha, ethn1033	Leguminosae	Fruit	Fruit mixed with ajwain water used for indigestion problems
18	<i>Coccinia grandis</i> (L.) Voigt	Donda, ethn 1052	Cucurbitaceae	Leaves	Leaf paste mixed with human saliva (2 drops) used for eye cataract
19	<i>Bambusa bambos</i> (L.) Voss	Veduru, ethn 1066	Poaceae	Root	Decoction of root is given in dose of 50 ml to treat dog bite
20	<i>Dodonaea viscosa</i> (L.) Jacq.	Bandheru, ethn 1027	Sapindaceae	Stem	Stems pounded into powder mixed with jagerry and lime applied externally for bone fracture for domestic animals
21	<i>Asparagus officinalis</i> L.	Pillithegalu, ethn 1064	Asparagaceae	Rhizome	A glassful decoction of root rhizome is orally administered 3 times a day for about 15 days for milk secretion
22	<i>Euphorbia antiquorum</i> L.	Bontha jamudu, ethn 1029	Euphorbiaceae	Latex	Latex is used in killing maggots of wounds in cattle and buffalo
23	<i>Xanthium strumarium</i> L.	Marulamathangi, ethn1076	Compositae	Leaves	Fresh leaves are pounded and the juice obtained half liter teice daily for 7 days in diarrhoea in cattle
24	<i>Cassine glauca</i> (Rottb.) Kuntze	Neridi, ethn 1047	Celastraceae	Root	Root paste mixed with Curcuma <i>longa</i> powder is applied on externally swellings
25	<i>Typha angusteta</i> Bory & Chaub.	Jammu, ethn 1099	Typhaceae	Rhizome	Rhizome mixed with jagerry given thrice daily for 7 days to cure Hamatochezia

26	<i>Vitex negundo</i> L.	Nalla vavili, ethn 1076	Verbinaceae	Leaves	Boiled leaf extarct mixed Curcuma longa power is applied on eczema and other skin diseases
27	<i>Mentha arvensis</i> L.	Pudina, ethn 1064	Lamiaceae	Tender shoots	Tender shoots are crushed and the juice mixed with jagerry one glass juice is given daily twice for 7 days as tonic in general weakness



Location map

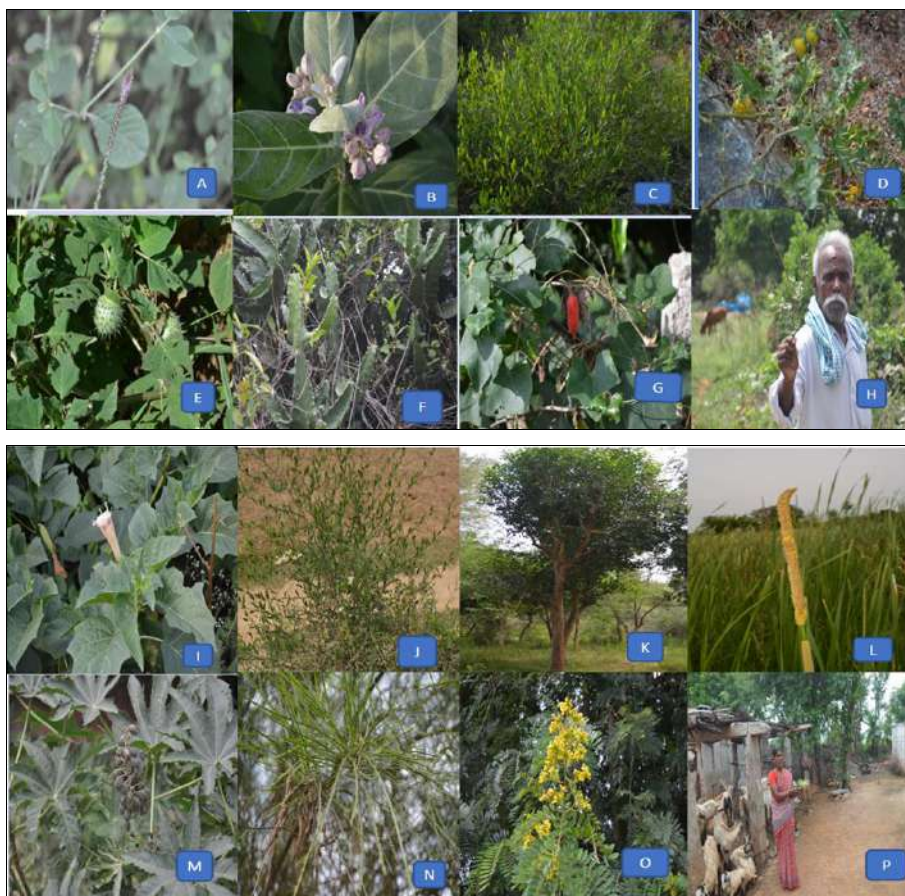


Fig 1: A *Achyranthes aspera* L., B. *Calotropis procera* (Ait.) R. Br., C. *Dodonaea viscosa* (L.) Jacq, D. *Solanum surattense* Burm. f., E. *Datura stramonium* L., F. *Euphorbia antiquorum* L., G *Cocainia grandis* (L.) Voigt., H. Tribal man Gopalu., I. *Datura metal* L., J. *Capparis brevispina* DC. K. *Cassine glauca* (Rottb.) Kuntze., L. *Typha angusteta* Bory & Chaub., M. *Ricinus communis* L., N. *Prosopis cineraria* (L.) Druce., O. *Cassia angustifolia* Vahl., P. Yerukala tribal women Ravanamma

Results and Discussion

In the present study, a total 27 species of ethno veterinary plants belongs to 26 genera and 22 families were collected and recorded for its medicinal values. The data collected shows that majority of remedies are taken orally, mode of preparation are drawn from a single plant, Mixture of other plants are rarely used by this area. *Capparis* and *Datura* represent the most widely used plant species in treating veterinary diseases like Diarrhoea, Dysentery.

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