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Some folk medicinal plants of Bhiravakona hills of Prakasam district, A. P., India

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Abstract

Mankind has blessed with variety of natural products which help us in day to day life. These extraordinary substances help us to treat different ailments of human beings and other pet animals. In the recent years ethnopharmaocology played a vital role in the undeveloped and developing countries of the Globe. The present communication deals with the plants used to treat different ailments of local people of Bhiravakona hills of Andhra Pradesh, India. 153 plant species have been identified for 19 different ailments. plants used for each ailment are Abortion (7), Acidity (9),Asthama (8), Cold (7), Cough (8), Diabetes (15), Diarrhoea (17), Dysentery (31), Fever(29),Fractures (9), Head ache (8), Jaundice (15), Kidney Stones (3), Malaria fever (3), Piles (11), Sexual disease (1), Skin disease (22), Stomachache (14) and Ulcers. Depending upon the plant part used, root constitutes the highest percentage (30.72%) of utilization and wood, latex; inflorescence and corm the lowest (0.65%).There is an urgent need for follow-up ethnopharmacological screening based on local people claims and beliefs and formulate and standardize some herbal medicines based on ethnotherapeutics either with single plant or in combination for their safe and sustained use for human welfare.

Keywords: Ethnomedicinal plants, uses, part used, Bhiravakona.

INTRODUCTION

The ability of humankind to exploit the natural resources around him to his advantage has indeed made humans the most successful/powerful organism on planet Earth. Ethnomedicine refers to the study of traditional medical practice which is concerned with the cultural interpretation of health, diseases and illness and also addresses the health care seeking process and healing practices, [1].The practice of ethnomedicine is a complex multi-disciplinary system constituting the use of plants, spirituality and the natural environment and has been the source of healing for people for millennia, [2].Research interest and activities in the area of ethnomedicine have increased tremendously in the last decade. Today about 80% of the world's population rely predominantly on plants and plant extracts for healthcare, [3].Today, ethnomedical practices and beliefs are part of a total belief system that transcends class, ethnicity and religious belief in such a manner that the terms "folk or traditional" can be used to describe practices that are truly universal [2].According to data released by the World Health Organization (WHO) [4]., ethnomedicine has maintained its popularity in all regions of the developing world and its use is rapidly expanding in the industrialized countries (World Health Organization).

Several workers have been worked on ethnomedicinal plants of Andhra Pradesh state except a few reports on ethnomedicinal plants were published in the district floras and no authentic or comprehensive study on ethnomedicinal plants of Bhirava Kona hills of Andhra Pradesh has been taken up so far. So the present investigation on ethnomedicinal plants of Bhirava Kona hills of Andhra Pradesh has been taken up.

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MATERIAL AND METHODS

Seven field trips to the study area were made to collect information on ethnomedicine practices by the local peoples and Swami's (Sages) through interviewing herbal practitioners, elderly people and educated youths. The methodology was adopted as described [5-10]. Each medicinal practice was cross checked with 3 or 4 informants. Ethnomedicine data and the vernacular names were collected for documentation. Plants specimens were collected and identified by referring to standard Flora, viz. [11-13].and few other local floras.

STUDY AREA

Bhiravakona is one of the holy place in the south India, which is in under the Beautiful village of Ambavaram Kothapalli (C.S.Puram (Mandal), Prakasam district, 120 km from Ongole and it borders Nellore and Kadapa districts of Andhra Pradesh. This temple is constructed in the 9th century in the period of Pallavas (Kings of Dravidas). It is a beautiful and peaceful place. Specialty of Kona is nine Sivalayas and Trimukha Durga are in one stone only. There is a legend about the origin of the name of 'Bhairava Kona'. It is said that a shepherd named Bhairava Kondiah sacrificed his head to god as his desire was not fulfilled... Thus the body of the Bhairava Kondiah and the Mondi sila (headless trunk) were buried here and hence it became the place of worship and the place from then was called as "Bhairava Kona". Bhairava - Name of the shepherd and Kona - Small pond. The water from the falls flows down from 200 mtrs above and flows about 3 ft. below through the Durga Devi temple. The moon light that falls on the water reflects on Durga Devi on Karthika Pournami day. Thousands of devotees flock to see this spectacle.

RESULTS AND DISCUSSION

Plant based drugs traditional knowledge has become a recognized tool in search for new source of drugs and neutraceuticals. Ethnomedicine is oral tradition which passes from generation to generation by words of mouth. It is therefore thought worthwhile to assess the medicinal plants used by local people in treating various ailments by undertaking surveys and documenting the data from local vaidhyas, herbal doctors and presenting the information obtained.

In the present work "Ethnomedicinal plants" about 153 plant species have been recorded which are potentially used by the local people of Bhiravakona. A total of 153 plants are used for local medicine to cure 19 ailments. In this the number of plants used for each ailment are given in the brackets i.e. Abortion (7), Acidity (9),Asthama (8), Cold (7), Cough (8), Diabetes (15), Diarrhoea (17), Dysentery (31), Fever(29),Fractures (9), Head ache (8), Jaundice (15), Kidney Stones (3), Malaria fever (3), Piles (11), Sexual disease (1), Skin disease (22), Stomachache (14) and Ulcers (11) (Table-1).

Based on the plant parts used for ethnomedicinal purpose are classified into root, root bark, tuber/rhizome, stem, stem bark, tender branch, leaf, latex/gum, flower, fruit, seed and whole plant. Depending upon the plant part used, root constitutes the highest percentage (30.72%) of utilization and wood, latex; inflorescence and corm the lowest (0.65%) while others falling in between these two. Root is used at a quantum of 30.72% in curing ailments followed by leaf (28.75%), whole plant (24.83%),stem bark (15%), bark (11.11%),rhizome (5.88%),tubers (5.22%) fruit (3.26%), flowers, seeds,stem and rootbark, (2.61%) finaly seed oil and tender leaves (1.30%) (Table 1).

Of the 153 plants the highest number of plants (31) are used for dysentery , followed by fever (29), skin diseases (23) diarrhoea (17), Jaundice & diabetes (15), stomach ache (14) each and least number of plants (1) used for sexual disease etc. (Table 1).

Table 1. Plants and plant parts used in different human diseases

S.No	Disease	Botanical Name	Useful Part (s)
1	Abortion	*Annona squamosa* L.	Root
		Cassia fistula L.	Rhizome
		Costus speciosus (Koeing exRetz.) J.E.Smit.	Tenderleaves Tuber
		*Dendrocalamus strictus (*Roxb.) Nees	Root
		Gloriosa superba L.	Root
		Phyllanthus amarus Schwm.&Thrn.	Rhizome
		Plumbago zeylanica L.	Root
2	Acidity	*Bauhinia racemosa* Lam.	Bark
		Cassia auriculata L.	Stem Bark
		Cissampelos pareira L.	Leaves
		Curcuma longa L.	Rhizome
		Emblica officinalis Gaertn.	Stem Bark
		Jatropa curcas L.	Stem Bark
		Terminalia bellirica (Gaertn.) Roxb.	Stem Bark
		Ziziphus oenoplia (L.) Mills.	Stem Bark
		*Ziziphus xylopyrus (*Retz.)Willd.	Stem Bark
3	Asthama	*Aristolochia indica* L.	Root
		Bacopa monnieri Wettst.	Plant
		Biophytum nervifolium Thw.	Leaves
		Cissus quadrangularis L.	Stem
		Dendrophthoe falcata (L. f.) Ettinagsh	Bark
		Rauvolfia serpentina (L.) Benth. ex Kurz	Root
		Terminalia bellirica (Gaertn.) Roxb.	Fruit

		Tylophora indica (Burm. t.) Merr.	Leaf
4	Cold	*Abrus precatorius* L.	Root
		Cassias sophera L.	Leaf
		Commelina longifolia Lam.	Wholeplant
		Diospyros melanoxylon	Leaves
		Naravelia zeylanica (L.). DC.	Leaf
		Wattakaka volubilis (L.f.) Stapf	Leaf
5	Cough	*Abelmoschus manihot* (L.) Medicus.	Root
		Abrus precatorius L.	Root
		Abutilon crispum (L.) Medicus	Root
		Acacia torta (Roxb.) Craib	Stem bark
		Anogeissus latifolia (Roxb. ex DC.) Wall.ex	Stem bark
		Barleria prionitis L.	Plant
		Embelia ribes Burm.	Root
		Pueraria tuberosa Roxb.	Root
6	Diabetes	*Abutilon crispum* (L.) Medicus	Leaves
		Adiantum lunulatum Burm.	Rhizome
		Albizia odoratissima (L.f.) Benth.	Bark
		Andrographis paniculata (Burm. f.) Wall. Ex	Leaves
		*Calotropis procera (*Ait.) R. Br.	Root
		Clitoria ternatea L.	Flower
		Ficus racemosa L.	Tuber
		*(*Gaerth) Juss.	Fruit
		Gymnema sylvestre (Retz.) R. Br.	Leaves
		Hibiscus lunariifolium Willd.	Leaf
		Hugonia mystax L.	Root
		Justicia glacua Rottl.	Plant
		Strychnos nux-vomica L.	Seed oil
		Zizyphus rugosa Lam.	Wood
7	Diarrhoea	*Aegle marmelos* (L.) Correa.	Fruit pulp
		Alternanthera sessilis L.	Plant
		Azadirachta indica A. Juss.	Bark
		Bauhinia racemosa Lam.	Root bark
		Canavalia gladiata (Jacq.) DC.	Root
		Cassia'occidentalis L.	Plant
		Catharanthus roseus L.	Plant
		Embelia ribes Burm.	Root
		Emilia sonchifolia DC.	Root
		*Gymnema sylvestre (*Retz.) R. Br.	Leaves

		Ocimum basilicum L.	Plant
		Oroxylum indicum (L.) Vent.	Seeds
		Rivea hypocrateriformis (Desr.) Choisy	Gum
		Sida cordata (Burm.f.) Borssum.	Inflorescence
		Tylophora indica (Burm. t.) Merr.	Flower
		Woodfordia fruticosa (L.) Kurz.	Root
8	Dysentery	*Abelmoschus crinitus* Wall.	Leaves
		Acacia chundra (Roxb.ex.Rottl.) Willd.	Stem bark
		Achyranthes aspera L.	Plant
		Ageratum conyzoides L.	Plant
		Anogeissus acuminata Wall. Ex Bedd.	Stem bark
		Arisaema tortuosum Wall.	Root
		Artocarpus heterophyllus Lam.	Bark
		Asparagus recemosus Willd.	Root
		Bauhinia purpurea L.	Bark
		Bauhinia vahlii Wt & Am.	Root
		Caesalpinia bonduc (L.) Roxb.	Root
		Calycopteris floribunda (Roxb.) Poir.	Leaves
		Cyperus rotandus L.	Tuber
		Elephantopus scaber L.	Flower
		Euphorbia hirta L.	Root
		Gymnema sylvestre (Retz.) R. Br.	Fruit
		Helicteres isora L.	Root
		Hemidesmus indicus (L.) R. Br.	Root
		Holarrhena pubescens (Buch-Ham.) Wall.	Seeds
		Murraya koenigii (L.) Spr.	Leaves Root
		Naringi crenulata (Roxb.) Nicolson.	Stem bark
		Oroxylum indicum (L.) Vent.	Bark
		Pithecolobium dulce (Roxb.) Benth.	Root bark
		Sida cordata (Burm.f.) Borssum.	Leaves
		Sida cordifolia L.	Plant
		Tephrosia villosa (L.) Pers.	Root
		Toddalia asiatica (L.) Lam.	Plant
		Tylophora indica (Burm. t.) Merr.	Root
9	Fever	*Acacia torta* (Roxb.) Craib	Root bark
		*Haldenia cordifolia (*Roxb.) Hook. f. ex	Stem bark
		Alternanthera sessilis L.	Plant
		Anacardium occidentale L.	Bark
		Artocarpus heterophyllus Lam.	Stembark
		Bridelia retusa (L.) Spr.	Stem bark

		*Calycopteris floribunda (*Roxb.) Poir.	Leaf
		*Canthium dicoccum (*Gaertn.) Taij. & Binn.	Bark
		Chloroxylon swietenia DC.	Stem bark
		Cissampelos pareira L.	Root
		Commelina longifolia Lam.	Plant
		Crotalaria verrucosa L.	Leaves
		Cyperus rotandus L.	Tuber
		Delonix elata L.	Bark
		Diplocyclos palmatus (L.) Jeffrey	Fruit
		*Evolvulus alsinoides (*L.) L.	Plant
		*Evolvulus nummularius. (*L.) L.	Plant
		*Hyptis suaveolens (*L.) Poir.	Plant
		Phyla nodiflora L.	Plant
		Pseudarthria viscida (L.) Wt. & Am.	Root
		Pueraria tuberosa Roxb.	Root
		Scoparia dulcis L.	Plant
		Selaginella rependa Spreng.	Root
		*Sida cordifoli*a L.	Leaves
		Tephrosia purpurea (L.) Pers.	Root
		Tragia involucrata L.	Plant
10	Fractures	*Canthium dicoccum (*Gaertn.) Taij. & Binn.	Bark
		Cissus quadrangularis L.	Stem
		Desmodium triflorum (L.) DC.	Plant
		Dichrostachys cinerea (L.) Wt. & Am.	Root bark
		Dioscorea oppositifolia L.	Tuber
		*Dioscorea pentaphyll*a L.	Tuber
		Garuga pinnata Roxb.	Stem bark
		Viscum articulatum Bunn. Fl.	Stem
11	Head ache	*Abelmoschus crinitus* Wall.	Root
		*Aerva lanata (*L.) Juss.	Root
		Cissus quadrangularis L.	Stem
		Cleome gynandra L.	Leaves
		Clerodendrum serratum L. Moon	Leaves
		Curcuma longa L.	Rhizome
		Passiflora foetida L.	Leaf
		Tephrosia purpurea (L.) Pers.	Leaf
12	Jaundice	*Abutilon crispum (*L.) Medicus	Leaves
		Acalypha indica L.	Leaves
		Acanthospermum hispidium DC	Leaves

		Achyranthes aspera L.	Tender leaves
		Azadirachta indica A. Juss.	Leaves
		Barleria prionitis L.	Leaves
		Bridelia retusa (L.) Spr.	Bark
		Centella asiatica (L.) Urban.	Plant
		Eclipta prostrata (L.) L.	Leaves
		Eupatorium odoratum L.	Plant
		Evolvulus alsinoides (L.) L.	Plant
		Flacourtia indica (Burm.f.) Merr.	Fruits
		Ixora pavetta Andrews	Stem bark
		Phyllanthus amarus Schwn.&Thrn.	Plant
		Zaleya decandra L.	Root
13	Kidney stones	*Aerva lanata* (L.) Juss.	Plant
		Euphorbia hirta L.	Plant
		Trianthema portulacastrum L.	Leaf
14	Malaria fever	*Cynodon dactylon* Pers.	Grass
		Desmodium triflorum (L.) DC.	Plant
		Vernonia cinerea (L.) Less.	Leaf
15	Piles	*Abutilon crispum* (L.) Medicus	Leaves
		Abutilon indicum (L.) Sweet.	Seeds
		Achyranthes aspera L.	Plant
		Amorphophallus paeoniifoliu (Dennst.)	Corm
		Arisaema tortuosum Wall.	Root
		Chloro phytum laxum R. Br.	Tuber
		Ficus racemosa L.	Latex
		Lannea coromandelica (Houtt.) Merr.	Plant
		Leucas aspera (Willd.) Link	Stem bark
		Orthosiphon rubicudus (Don.) Benth.	Grass
		Rivea hypocrateriforimis (Desr.) Choisy	Plant
16	Sexual disease	*Hybanthus enneaspermus (L.) Meull.*	Fruit
17	Skin disease	*Abelmoschus crinitus* Wall.	Root
		Achyranthes aspera L.	Plant
		Ageratum conyzoides L.	Root
		*Aristolochia bracteolata*Lamk.	Leaf
		Azadirachta indica A. Juss.	Seed oil
		Borassus flabellifer L.	Fruit
		Cipadessa baccifera (Roth.) Miq.	Leaves
		Costus speciosus (Koeing ex Retz.) J.E. Smith.	Rhizome
		Curcuma longa L.	Rhizome
		Desmodium gangeticum (L.) DC.	Leaves

		Eupatorium odoratum L.	Leaf
		Flacourtia indica Merr.	Root
		Jasminum grandiflorum L.	Plant
		Leptadenia reticulata (Retz.) Wt. & Arn.	Plant
		Oroxylum indicum (L.) Vent.	Stem bark
		Plumbago zeylanica L.	Root
		Pueraria tuberosa Roxb.	Tubers
		Sphaeranthus indicus L.	Plant
		Tabernaemontana divaricata L.	Flower
		Zingiber roseum Roxb.	Rhizome
		Calotropis gigantea (L.) R. Br.	Root
		Cedrella toona Roxb.	Bark
		Cymbopogon Citratas DC.	Leaves
		*Cyperus rotandu*s L.	Tuber
		Dillenia pentagyna Roxb.	Bark
		*Elephantopus scabe*r L.	Stern bark
		Garuga pinnata Roxb.	Root
		Holarrhena pubescens (Buch-Ham.) Wall.	Root
		Hugonia mystax L.	Root
		Rauvolfia serpentina (L.) Benth. ex Kurz	Root
		Triumfetta rhomboidea J acq.	Bark
		Zingiber roseum Roxb.	Rhizome
19	Ulcers	*Albizia odoratissima* (L.f.) Benth.	Stem bark
		Annona squamosa L.	Leaves
		Buchanania lanzan Spr.	Stem bark
		Calycopteris floribunda (Roxb.) Poir.	Leaves
		Cassia tora L.	Leaves
		Heliotropium indicum L.	Leaves
		Homonoia comberi Merr.	Root
		Hyptis suaveolens (L.) Poir.	Seeds
		Sida cordifolia L.	Leaves
		Xanthium indicum Koenig.	Root

CONCLUSION

The ethnobotanical study of this kind assumes greater significance because of the rapid depletion of the forest flora in recent times. There is an urgent need for follow-up ethnopharmacological screening based on local people claims and beliefs and formulate and standardize some herbal medicines based on ethnotherapeutics either with single plant or in combination for their safe and sustained use for human welfare. And also Phytochemical studies of above said plants need to be taken up to find out the exact ingredients that help in the disease.

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REFERENCES

[1] Krippner, S. 2003. Models of Ethnomedicinal Healing. Paper Presented at the Ethnomedicine Conferences, Munich, Germany. April 26–27 and October 11–12.

[2] Lowe, H., A. Payne-Jackson., SM. Beckstrom-Sternberg., and JA. Duke. 2000. Jamaica's Ethnomedicine:Its potential in the healthcare system. Canoe Press; University of the West Indies, Kingston, Jamaica. 170.

[3] Setzer , MC., JS. Werka., AK. Irvine., BR. Jackes., and WN. Setzer, 2006. Biological activity of rainforest plant extracts from far north Queensland, Australia. In: Williams LAD ed. Biologically Active Natural Products for the 21st Century. Research Signpost, Trivandrum-695 023, Kerala, India 21–46.

[4] World Health Organization. 2003. Traditional Medicine, Fact sheet No 134. *http:// www.who.int/mediacentre/factsheets/fs 134/en*

[5] Jain, S.K. (ed.) 1987. A Manual of Ethnobotany. Scientific Publishers, Jodhpur.

[6] Jain, S.K. 1964. The role of botanist in folklore research. Folklore 5(4):145-150.

[7] Jain, S.K. 1981. Observations on Ethnobotany of the tribal of Central India. *In*: Jain, S.K. (ed.), Glimpses of Indian Ethnobotany. Oxford & IBH, New Delhi, pp. 193-198.

[8] Chadwick, D.J., and J. Marsh, 1994. Ethnobotany and the search for new drugs. John Wiley & Sons, Chichester, U.K.

[9] Hemadri, K. 1994. Shastravettalanum Akashistunna Girijana Vaidyam (Tribal Pharmacopoeia). Tribal Cultural Research and Training Institute, Hyderabad.

[10] Martin, G. 1995. Ethnobotany - A method manual. Chapman and Hall, London.

[11] Hooker, J.D. 1872-1897. The Flora of British India. Vols. 1-7. L. Reeve & Co., Ashford, Kent.

[12] Gamble, J.S., and C.E.C. Fischer, 1915. Flora of the Presidency of Madras (reprinted edition 1930), Vols. 1-3. Adlard & Sons Ltd., London.

[13] Pullaiah, T., and E. Chennaiah, 1997. Flora of Andhra Pradesh, India. Scientific Publishers, Jodhpur.