



Stem bark used to ethnomedicine by tribals of erstwhile Adilabad District, Telangana State, India

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Abstract

Ethnobotanical surveys were conducted during the period of July 2022 to November, 2023 in the Erstwhile Adilabad district of Telangana State, India. Detailed information on 62 angiosperms belonging to 36 families was recorded with regard to their ethnomedicinal use. This paper reports the uses of stem bark preparations of the tribal people used in the form of extracts, decoctions, pastes, infusion, poultice, powder etc for curing the various ailments. Various human diseases treated were verified from these preparations from local tribal men, elders, head of hamlets and other rural practitioners. However, further scientific research is needed to improve their authenticity which would lead to discovery of new molecules and potential sources of drugs. Some of the identified plants including *Ailanthus excels*, *Crataeva magna*, *Ficus religiosa*, *Ixora pavetta*, *Naringi crenulata*, *Pterocarpus marsupium*, *Semecarpus anacardium*, *Soymida febrifuga*, *Streblus asper*, *Strychnos potatorum*, *Thespesia populnea*, *Ziziphus mauritiana*. Were used to treat more than one disease. Our survey report the detailed information on specific stem bark preparations for treating the various ailments.

Keywords: Ethnomedicine, bark, erstwhile Adilabad District, Telangana State

Introduction

Evolution of human life and culture has directly or indirectly has been associated with and influenced by the surrounding environments. Primitive man closely associated in the nature and directly depended on it for his survival i.e., for food, fuel, medicine, and fodder. Hence his life and diet system is entirely depended on plants, made him to acquire the knowledge of economic and medicinal properties of many plants by gradual growth of thinking, later he became enriched knowledge has been transferred from one generation to another without any written documents. However, it is necessary that unwritten folk-lore uses of plants and plant product must be documented and preserved sequentially. Ethnomedicine is the study of the beliefs and practices concerning illness in different human populations. It observes and describes hygienic, temporal and spatial references. It is important to document and understand the medical heritage of a changing culture, before it's lost to future generations. (Brumot & Naidu, 2007) [2].

Among the scheduled tribes of Telangana State, Gonds, Lambada, Kolams, Pradhans, Manne, Naikpods, Thoties, Yerikalas, Koyas are the major communities of Erstwhile Adilabad district, Telangana State, India. Several natural forest ecosystems in the Erstwhile Adilabad district such as river areas of Swarna, Sadharmat and Kaddam are well known for their medicinal flora. Ravi Shanker and Henry, 1992 published a research note on the medicinal plant wealth of Adilabad district. Later Pullaiah, Prasanna, and Vand Obulesu (1998) reported, the scientific and vernacular names of Ethnomedicinal plants in the district. Mubeen, R. Sadia Fathima, Atiya Khanum, Irfan Ali Khan and SY Anwar (2004 - 2005) studied the medicinally important plants growing in the around Adilabad district, India used in the treatment of different ailments. Swamy, NSNS (2008) reported 366 Ethnomedicinal plants used by tribes in the Adilabad district, in UGC Minor research project under plan. In the present work, an attempt is made to present some interesting ethnomedicinal uses of stem barks in Erstwhile Adilabad district, Telangana State, India.

Study area

Erstwhile Adilabad district lies between 77° 47' and 80° 0' of the Eastern longitudes and 18° 40' and 19° 56' of Northern latitudes. The Adilabad district is bounded on North by Yeotmal, on the East by Chandrapur districts of Maharashtra and on the South by Jayashankar Bhupalapalli, Peddapalli, Jagithyala, and Nizamabad district and on the West by Nanded district of Maharashtra State. These harbours are mainly consisting of dry deciduous forest and aborigines. These forests occupy about 44.5% of the total geographical area of the district. The total forest area in the Erstwhile Adilabad district is 7218.86 sq.km. The agriculture is main occupation of the people of Adilabad district. The important rivers in the district are the Godavari, the Kadam, the Peddavagu the Penganga, the Wardha and the Pranahitha. The Godavari is the largest river in peninsular India. The most important crops in the Erstwhile Adilabad district are Cotton, Jowar, Maize, pulses, dry Paddy, soybean and sunflower.

Methodology

Field trips were conducted during the period of July 2022 through November 2023 in tribal parts of Erstwhile Adilabad district, Telangana State, India. The information including local name, plant part used and mode of administration was recorded. The information was provided by tribal medicine men and the local rural informants (*Vaidhya* or elderly village people) in this district, and who have ample knowledge on folk medicines. At the time of survey, actual applications of stem bark preparations were also observed. Herbarium voucher specimens are deposited at Department of Botany, GRP. Government Degree College, Bhainsa, District Nirmal, Telangana State, India. The plant species are enumerated alphabetically by family followed by their scientific names, tribal local names and uses.

Results and discussions

Information pertaining to stem barks of 62 Ethnomedicinal uses of plant species belonging to 36 families are reported and are arranged in alphabetical order according to scientific names for convenience followed by family, local name in Telugu. The detailed information of each plant species is provided (Table -1), with the scientific name, botanical family, local name and uses are provided along with the stem bark for treatment various diseases like Ulcers, Wounds, Foot mouth, Diuretic, Diarrhoea, Dandruff, Eye

infection, Jaundice, Bone fracture, Fever, Dysentery, Eczema etc. This is employed in the form of decoction, extract, pills, paste, poultice, sometimes used in the combination with other parts of different plants, viz. *Hemidesmus indicus*, *Holarrhenaanti dysenterica*, *Butea monosperma*, *Oroxylum inidcum*, *Piper nigrum*, *Syzygium cumini*, *Terminalia Arjuna*, *Madhuca indica*, *Strychnos potatorum*, *Mitragyna parvifolora*, and *Madhuca indica*. Other substances such as Jaggery, Milk and Buttermilk are additionally employed in various preparations of drug.

Table 1: Ethnomedicinal uses of stem bark of various plants in Erstwhile Adilabad district

| S.no. | Plant name/family/ collection No. | Local name | Preparation | Disease treated | Mode of administration |
|-------|---|-------------------|--------------|----------------------|--|
| 1 | <i>Abutilon indicum</i> (L) Sweet. F: MALVACEAE | Thuthurabenda | Decoction | Diuretic | Stem bark decoction given with honey in 2 spoonfuls twice a day for 20d. |
| 2 | <i>Acacia chundra</i> (Roxb.ex Root.) Willd. F: MIMOSACEAE | Sundra Chettu | Decoction | Common Skin diseases | Steam bark decoction taken orally in 2-3 spoonfuls thrice a day for now many days. |
| 3 | <i>Aegle marmelos</i> (L) Corr. F: RUTACEAE | Maredu | Bark extract | Diarrhoea | Stem bark extract and fruit pulp is administered in 3 spoonfuls twice a day for about 3 days. |
| 4 | <i>Annona squamosa</i> L. F: ANNONACEAE | Seetaphalam | Paste | Dandruff | Stem bark ground with Neem leaves and paste applied to head 1 hour before bath twice or thrice a week. |
| 5 | <i>Bauhinia racemosa</i> Lam. F:CAESALPINIACEAE | Pacchar | Decoction | Diarrhoea | Stem bark decoction administered with a glass of buttermilk thrice a day till cure. |
| 6 | <i>Careya arborea</i> Roxb. F: BARRINGTONIACEAE | Buda dhermi | Extract | Body Swellings | Stem bark extract administered in 30ml twice a day for about a week. |
| | | | Paste | Heart diseases | Stem bark paste administered in 2 spoonfuls twice a day for about 2 weeks. |
| 7 | <i>Casearia elliptica</i> Willd. F: FLACOURTIACEAE | Kanam Chettu | Pills | Chest pain | Stem bark ground with jaggery and made into pills, administered in 2 pills twice a day for about a week. |
| | | | Pills | Muscular pain | Stem bark paste with jaggery is made into small pills and administered in 2-pills twice a day for 10d. |
| 8 | <i>Catunaregam spinosa</i> (Thumb.) Tirveng F: RUBIACEAE | Manga Chettu | decoction | Dysentery | Bark decoction with buttermilk given thrice a day |
| 9 | <i>Chlorophytum tuberosum</i> (Roxb.) Baker F: LILIACEAE | Buradumpa | Paste | Centipede bite | Stem bark paste applied on bitten area Stem bark powder put in thin cloth and soaked in breast milk, then |
| | | | powder | Eye infection | Dropped into eyes 2-3 times a day for 4d. |
| 10 | <i>Cochlospermumu religiosum</i> (L) Alston F: COCHLOSPERMACEAE | Konda Gogu | Paste | Bone fracture | Stem bark mixed with egg albumin and paste plastered till cure |
| 11 | <i>Crataeva magna</i> (Lour.) DC. F : CAPPARIDACEAE | Vulumiri Chetty | Decoction | Dysuria | Stem bark decoction given in 2 spoonfuls twice a day for 10d. |
| | | | Decoction | Fever | Stem bark decoction given in 2 spoonfuls twice a day for 5d. |
| | | | Juice | Galactagogue | Stem bark juice with sugarcandy given to post-partum women in 2spoonfuls twice a day for 15-20d. |
| | | | Paste | Whitlow | Stem bark paste applied externally till cure. |
| 12 | <i>Croton bonplandianum</i> Bail. F: EUPHORBIACEAE | Galivana Mokka | Extract | Contraceptive | Stem bark ground with black pepper and the extract administered in 2 spoonfuls twice a day from the day of menses for 15d. |
| 13 | <i>Cypers pangorei</i> Rottb. F: CYPERACEAE | Mrusta | Extract | Filarial | Rhizomes ground with roots of <i>Hemidesmus indicus</i> and stem bark of <i>Holarrhena antidysenterica</i> and the extract given in 2 spoonfuls twice a day for 3 weeks. |
| 14 | <i>Dalbergia latifolia</i> Roxb. F:FABACEAE | Jittegi | Extract | Fever | Stem bark extract administered in 2 spoonfuls twice a day for 3d. |
| 15 | <i>Diospyros melanoxylon</i> Roxb. F: EBENACEAE | Tumki, Tuniki Aku | Extract | Anaemia | Stem bark extract given to pregnant women in 2 spoonfuls with a glass of rice cooked water once in morning for about 2months from 6 th or 7 th month of pregnancy. |
| 16 | <i>Ehretia laevis</i> Roxb. | Pitta pisiniki | Decoction | Gonorrhoea | Stem bark decoction taken in 2 spoonfuls twice |

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| | F: CORDIACEAE | | | | a day to relieve inflammation. |
| 17 | <i>Ficus benghalensis</i> L. F: MORACEAE | Marri Chettu | Decoction | Dysentery | Stem bark decoction given in 2 spoonfuls with a glass of buttermilk. |
| 18 | <i>Ficus microcarpa</i> L.f. F: MORACEAE | Pasupumedi | Poultice | Rheumatic pain | Leaf and stem bark poultice warmed and applied on painful parts. |
| 19 | <i>Ficus racemosa</i> L. F: MORACEAE | Medi | Decoction | Ulcers | Stem bark decoction used in washing. |
| | | | Decoction | Wounds | Stem bark decoction used in washing. |
| 20 | <i>Ficus religiosa</i> L. F: MORACEAE | Ragi, Ravi | Poultice | Common Skin diseases | Stem bark poultice applied externally till cure. |
| | | | Decoction | Paralysis | Root bark decoction with buttermilk administered in 2-3 spoonfuls twice a day for about 30d. |
| | | | Paste | Ulcers | Stem bark paste applied on affected areas. |
| 21 | <i>Flacourtia indica</i> (Burm.f.) Merr. F: FLACOURTIACEAE | Kan-regu. Muli-elka | Decoction | Leucorrhoea | Stem bark decoction taken in 2 spoonfuls with a glass of milk for about 20d. |
| 22 | <i>Garuga pinnata</i> Roxb. F: BURSERACEAE | Garuga Chettu | Extract | Stomach ache | Stem bark ground with the bark of <i>Butea monosperma</i> and the extract with salt and sugar candy given in one glassful. |
| 23 | <i>Holarrhena antidysenterica</i> (Roth.) Wall.ex. A.DC. F: APOCYNACEAE | Palankudu | Tablets | Cough | Stem bark ground with <i>Piper nigrum</i> and made into small tablets and given in 2 tablets twice a day for 3d. |
| 24 | <i>Holoptelea integrifolia</i> (Roxb.) Planch. F: ULMACEAE | ThamsiChettu | Paste | Body Swellings | Stem bark ground with turmeric and the paste applied externally on affected areas till cure. |
| | | | Decoction | Rheumatic pains | Stem bark decoction administered in 20 ml twice a day for about 7d. |
| 25 | <i>Ixora pavetta</i> Andr. F: RUBIACEAE | Korivi, Ponna | Decoction | Anaemia | Stem bark decoction given in 1 spoonful twice a day for about 2 months. |
| | | | Decoction | Debility | Stem bark decoction with honey given in 2 spoonfuls twice a day for 1 month. |
| | | | Decoction | Jaundice | Stem bark decoction given in 2 spoonfuls twice a day for 7d. |
| 26 | <i>Jatropha curcas</i> L. F: EUPHORBIACEAE | Adivi Amudamu | Poultice | Rheumatic pains | Stem bark poultice used in massage of painful parts. |
| | | | Paste | Sprains | Stem bark paste applied externally till cure. |
| 27 | <i>Lawsonia inermis</i> L. F: LYTHRACEAE | Maidaaku | Paste | Common Skin diseases | Stem bark paste applied externally till cure. |
| | | | Decoction | Jaundice | Stem bark decoction given with banana fruit in 2-3 spoonfuls once a Day for about 7d. |
| | | | Decoction | Psoriasis | Stem bark decoction administered orally in 2 spoonfuls twice a day for |
| 28 | <i>Litsea-glutinosa</i> (Lour.) C.Robinson F: LAURACEAE | Nara Mamidi | Paste | Boils | Stem bark paste applied on effected areas. |
| | | | Decoction | Dysentery | Stem bark decoction with sugarcandy given in about 30ml thrice a day for 1-2d. |
| 29 | <i>Madhuca indica</i> Gmel. F: SAPOTACEAE | Ippa | Extract | Galactagogue | Stem bark crushed with black pepper and the extract administered to post-partum women in 2-3 spoonfuls twice a day for 20d. |
| 30 | <i>Mangifera indica</i> L. F: ANACARDIACEAE | Mamidi | Extract | Expectant | Stem bark extract given orally with honey to pregnant women to get fair complexioned babies. |
| 31 | <i>Manilkara zapota</i> L. Royen F: SAPOTACEAE | Sapota | Powder | Piles | Stem bark ground with black pepper and made into powder, it is mixed with sugarcandy and cow milk and administered in 2 spoonfuls twice a day for about 3months |
| 32 | <i>Maytenus emarginata</i> (Willd. Ding Hou F: CEALASTRACEAE | Danti | Paste | Lice Killing | Stem bark ground into paste and mixed with <i>Brassica</i> oil and applied to head 1h before bath |
| 33 | <i>Melia azedarach</i> L. F: MELIACEAE | TurakaVepa | Decoction | Dysentery | Stem bark decoction with honey administered in 2 spoonfuls twice a day for 3d. |
| 34 | <i>Merremia turpethum</i> (L.) G.L. Shah et R.G. Bhat F: CONVULVULACEAE | Tegada mokka | Decoction | Jaundice | ½ glass of stem bark decoction given before going to bed for about a week. |
| 35 | <i>Mimusops elengi</i> L. F: SAPOTACEAE | Pogada Chettu | Decoction | Mouth ulcers | Stem bark decoction gargled with hot water thrice a day till cure. |
| 36 | <i>Morinda tomentosa</i> Heyne ex Roth F: RUBIACEAE | Mogilli Togaru- | Extract | Stomach ache | Stem bark ground with turmeric and the extract administered in 2 spoonfuls twice a day for 4d. |
| 37 | <i>Moringa olifera</i> Lam. F: MORINGACEAE | Munaga Chettu | Decoction | Body swelling | 1 glass of stem bark decoction given at bed time for about 5d. |
| 38 | <i>Murraya koenigii</i> (L.) Spreng F: RUTACEAE | Karemaku | Paste | Sores and ulcers | Stem bark paste applied externally till cure. |

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| 39 | <i>Naringi crenulata</i> (Roxb.) Nicolson F: RUTACEAE | Tora-elka | Extract | Dysentery | Stem bark ground with common salt and the extract administered in 2 spoonfuls twice a day for about 3d. |
| | | | Extract | Puerperal fever | Stem bark and bark of <i>Strychnos potatorum</i> ground with common salt and the extract administered in 2 spoonfuls twice a day for 5d. |
| 40 | <i>Pavetta indica</i> L. F: RUBIACEAE | Papatta | Extract | Epilepsy | Stem bark ground with roots of <i>Boerhavia diffusa</i> and the extract administered in 2 spoonfuls early in the morning for about 15d |
| 41 | <i>Polyalthia cerasoides</i> . (Roxb.) Bedd. F: ANNONACEAE | Chilakadudi, Tella chilaca dudi | Paste | Bone fracture | Stem bark ground with goat's milk and plaster on effected parts. |
| | | | Paste | Bruises | Stem bark paste applied on affected areas. |
| | | | Paste | Sprains | Stem bark paste applied externally |
| 42 | <i>Pongamia pinnata</i> (L.) Pierre. F: FABACEAE | Kanuga | Extract | Leucorrhoea | Stem bark ground with bark of <i>Syzygium cumini</i> and <i>Terminalia arjuna</i> and the extract with sugarcandy is taken in 2-3 spoonfuls twice a day for 10d. |
| | | | Extract | Piles | Stem bark ground with bark of <i>Syzygium cumini</i> and <i>Terminalia arjuna</i> and the extract with sugarcandy administered in 2 spoonfuls twice a day for 20-30d. |
| 43 | <i>Prosopis cineraria</i> (L.) Druce F: MIMOSACEAE | Jammi | Extract | Fever | Stem bark extract administered in 2 spoonfuls twice a day for about 5d. |
| 44 | <i>Psidium guajava</i> L. F: MYRTACEAE | Jama | Extract | Cholera | Stem bark and flower buds' ground with <i>Piper nigrum</i> and the extract given in ½ glass once in 2h till control. |
| | | | Decoction | Diarrhoea | 20ml of stem bark decoction given once in 2h till control. |
| 45 | <i>Pterocarpus marsupium</i> Roxb. F: FABACEAE | Pedda eggashi, Pedda eggi. | Extract | Diabetes | Stem bark dried and the extract administered in 2 spoonfuls twice a day for about one month. |
| | | | Paste | Fertility | Stem bark ground with bark of <i>Mitragyna parviflora</i> and the paste made into pills and administered to women in 4 pills twice a day for 5d after menses for 3 consecutive menstrual cycles. |
| | | | Paste | Piles | Stem bark ground with jaggery and turmeric and the paste administered in 25 spoonfuls twice a day for about 3 weeks. |
| 46 | <i>Schleichera oleosa</i> (Lour.) Oken. F: SAPINDACEAE | Pusku Chettu | Paste | Bone fracture | Stem bark paste mixed with egg albumen and plastered on effected parts till cure. |
| 47 | <i>Semecarpus anacardium</i> L.f. F: ANACARDIACEAE | Bhilawa, Jeedi | Gum formed | Common skin diseases | Gum formed from the stem bark applied externally. |
| | | | Paste | Sores and ulcers | Stem bark paste mixed with goat's milk and mildly heated then applied on affected areas till cure. |
| 48 | <i>Sesbania procumbens</i> (Roxb.) Wt. et Arn. F: FABACEAE | Avisse | Poultice | Chicken-pox | Stem bark poultice administered in 2 spoonfuls twice a day for 5-7d. |
| 49 | <i>Soymida febrifuga</i> (Roxb.) A.Juss. F: MELIACEAE | Somi Chettu | Decoction | Diarrhoea | The stem bark is bitter and the decoction with sugar candy used as febrifuse in 30 ml 2-3 times a day till cure. |
| | | | Decoction | Dysentery | Stem bark decoction used as febrifuse in 30 ml 2-3 times a day till cure. |
| | | | Extract | Fever | Stem bark extract given in 2 spoonfuls twice a day for 5d. |
| | | | Decoction | Stomach ache | Stem bark decoction given in 50 ml for 1 or 2 times for relief. |
| 50 | <i>Sterculia urens</i> Roxb. F: STERCULIACEAE | Tapsy Chettu | Extract | Labour pains | Stem bark ground with turmeric bark of <i>Madhuca indica</i> and 50ml of extract given for fast and easy delivery. |
| | | | Poultice | Rheumatic pains | Stem bark ground with turmeric powder and the warmed poultice administered in 2 spoonfuls twice a day for about 7d. |
| 51 | <i>Streblus asper</i> Lour. F: MORACEAE | Baranki | Pills | Chest pain | Stem bark ground with jaggery and made into small pills and administered in 2 pills twice a day for 5d. |
| | | | Pills | Epilepsy | Stem bark ground with equal proportion of stem bark of <i>Terminalia arjuna</i> and some bulbs of <i>Allium cepa</i> and the extract administered in 2-3 |

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| | | | | | spoonfuls twice a day for 10-15d. |
| | | | Pills | Rib-muscle pain | Stem bark ground with jaggery and made into small pills and administered in 2 pills twice a day for 7-10d. |
| 52 | <i>Strychnos potatorum</i> L.f. F: LOGANIACEAE | Chilla | Powder | Cholera | Stem bark powder mixed with lemon juice and 2-3 spoonfuls |
| | | | Extract | Puerperal fever | Given as febrifuge thrice a day till cure. Stem bark extract administered in 1 spoonful in the morning for 5d. |
| 53 | <i>Syzygium cumini</i> (L.) Skeels F: MYRTACEAE | Allaneredu | Extract | Common skin diseases | Stem bark extract applied on affected areas. |
| 54 | <i>Terminalia chebula</i> Retz. F: COMBRETACEAE | KarakkaiChettu | Decoction | Whooping cough | Stem bark decoction taken in 50ml at night for 3d. Fruits sold in market. |
| 55 | <i>Terminalia coriacea</i> (Roxb.) Wt. et Arn. F: COMBRETACEAE | Nalla maddi | Juice | Cuts and wounds | Stem bark juice applied on affected areas till cure. |
| 56 | <i>Thespesia populnea</i> (L.) Soland.ex Correa F: MALVACEAE | Ganga ravi. | Paste | Dandruff | Stem bark paste mixed with goat milk is applied to head, 1 h before bath twice week for about 3 weeks. |
| | | | Decoction | Eczema | Stem bark decoction given in a spoonful twice a day for 15d also the paste applied externally on affected areas. |
| 57 | <i>Triumfetta rotundifolia</i> Lam. F: TILIACEAE | Banki troika | Paste | Diarrhoea | Leaves and stem bark ground into paste and administered in 2 spoonfuls with a glass of buttermilk thrice a day till cure |
| 58 | <i>Wattakaka volubilis</i> (L.f) Stapf. F: ASCLEPIADACEAE | Doodipala | Paste | Bone fracture | Stem bark ground with bark of <i>Ficus benghalensis</i> and <i>Soymida febrifuga</i> and the paste plastered till cure. |
| 59 | <i>Woodfordia fruticose</i> (L.) Kurz F: LYTHRACEAE | Jeguru | Poultice | Jaundice | Stem bark ground with bark of <i>Bauhinia racemose</i> and <i>Oroxylum indicum</i> and the poultice administered in 2 spoonfuls with a banana fruit twice a day for 5-7 d. |
| 60 | <i>Wrightia tinctoria</i> R.Br. F: APOCYNACEAE | Palakodisha, Palvareni | Decoction | Stomach ache | 50 ml of stem bark decoction with sugarcandy is given for immediate relief. |
| 61 | <i>Ziziphus mauritiana</i> Lam. F: RHAMNACEAE | Regu, Nerachettu | Decoction | Blood pressure, | Stem bark decoction administered in 2 spoonfuls twice a day for 15d. |
| | | | Decoction | Blood purification | Stem bark decoction administered in 2 spoonfuls twice a day for about 20d. |
| | | | Decoction | Tooth decay | Stem bark decoction gargled 2-3 times a day for month or till cure. |
| 62 | <i>Ziziphus oenoplia</i> (L.) Mill. F: RHAMNACEAE | Pariki | Powder | Eczema | Stem bark powder mixed with ghee and applied externally till cure. |

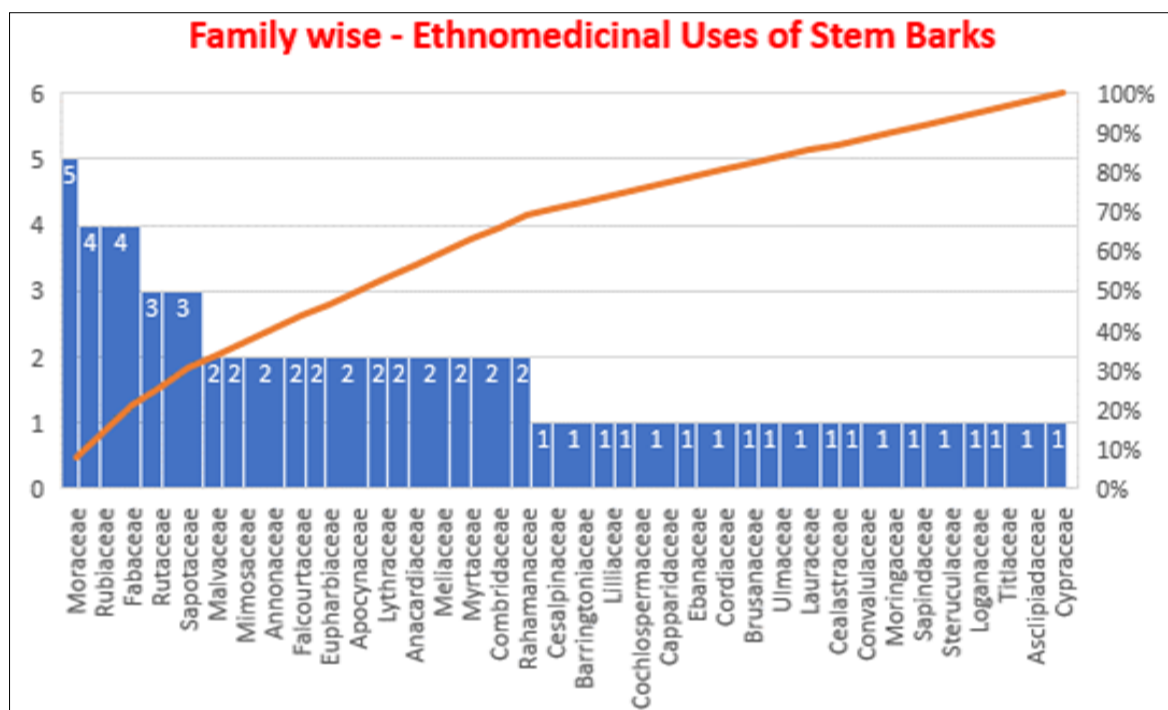


Fig 1

Conclusion

The present study provides an important information with regard to utilization of stem barks in ethnobotanical practices of 62 plant species from 36 Families (Table: 2) of Erstwhile Adilabad district, Telangana state to treat various ailments and diseases. Among the listed plant species, only a few species are specifically used to treat more than one disease. Medicinal pastes are prepared in various forms from stem barks of plants are effectively used by tribal people to treat diseases. This preliminary and important botanical information will provide a path to identify the various chemicals from these barks will be great assets for pharmaceutical industry in near future.

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References

1. Anis M, Sharma MP, Iqbal M. Herbal ethnomedicine of the Gwalior Forest division in Madhya Pradesh, India. *Pharm Biol*,2000;38:241-253.
2. Brumot KS, Naidu TS. National seminar on tribal medicinal system and its contemporary relevance. Alluri Seetharama Raju Center for Tribal Studies & Research, 2007.
3. Murthy EN. Ethnomedicinal plants used by Gonds of Adilabad district, Andhra Pradesh, India. *Int J Pharm Life Sci*,2012;3(10). ISSN: 0976-7126.
4. Hemadri K. Medicinal plants in Andhra Pradesh. Hyderabad: Telugu Akademi; 1984.
5. Islam M. Ethnobotany of bark of certain plants of North East India. *J Econ Taxon Bot*,2000;24:419-432.
6. Jain SK, Mudgal A. Handbook of ethnobotany. Jodhpur: Scientific Publishers; 1999.
7. Khan MA, Ahmad Z. Barks used as sources of medicine in Madhya Pradesh, India. *Fitoterapia*,1994;65:444-446.
8. Mubeen, Rizwana, Fatima S, Khanum A, Khan IA, Anwar SY. Medicinally important plants growing in and around Adilabad district of Andhra Pradesh used in the treatment of different ailments. In: [Editors], 3, 118-180.
9. Ramakrishna N, Saidulu C. Medicinal plants used by ethnic people of Adilabad district, Andhra Pradesh, India. *Int J Pharm Res Allied Sci*,2014;3(2):51-59. ISSN 2277-3657.
10. Rao VLN, Bharathi K, Appalanaidu P, Naidu JM, Venkaiah M. Common plants of medicinal values in Kolams of Adilabad district, Andhra Pradesh. *Int J Med Biomed Res*, 2012, 1(2): [no page numbers]. Available from: www.ijmbr.com.
11. Ravishankar T. Ethnobotanical studies in Adilabad and Karimnagar districts of Andhra Pradesh, India. PhD Thesis, Bharathiar University, Coimbatore, 1990.
12. Ravishankar T, Henry AN. Ethnobotany of Adilabad district, Andhra Pradesh, India. *Ethnobotany*,1992;4:45-52.
13. Pawar S, Patil DA. Ethnomedicinal uses of barks in Jalgaon district. *Nat Prod Radiance*,2007;6(4):341-346.
14. Pullaiah T, Prasanna PV, Obulesu G. Flora of Adilabad district (Andhra Pradesh, India). Details No. 6962; 1992. x, 284 p., map.
15. Madhu V, Suvartha C. Ethnobotanical and ethnomedicinal observations in Nirmal division of Adilabad district, Andhra Pradesh, India. *Ethnobot Leaflets*,2009;13:1003-1016. Issued August 01, 2009.