

Medicinal Plants Used By Ethnic People of Adilabad District, Andhra Pradesh, India

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Subject: Biology

Abstract

Ethno botanical information of Tribal's has been collected from Adilabad district of Andhra Pradesh, India during 2008 - 2011. A total of 42 plant species belonging to 37 genera and 30 families were used in traditional medicine to heal different diseases. The present work is an attempt to identify and conserve the medicinal plants in Adilabad district. The study shows a high degree of Ethno botanical novelty and the use of plants among the Tribals of the revival of interest in traditional folk culture.

Key words: Ethno medicine, Tribals, Adilabad, Andhra Pradesh, India.

Introduction

Approximately two thirds of the biological diversity of the world is found in tropical zones. India has the second largest tribal population in the world after Africa (Jagtap *et al.*, 2006). With enormously diversified living ethnic groups and rich biological resources, India represents one of the great emporia of ethno botanical wealth. Indigenous medicine is now recognized world wide as a health care resource. The therapeutic properties of plants have created world-wide interest about medicinal plants which lead to new source of drug for wide modern usage. Due to constant association with forest environment, the tribals or other rural people of India accrued considerable knowledge of plants and their utility. While local people usually welcome the provision of hospitals and public health programs, the shift to using biomedicine often means that healing traditions are eroded and traditional knowledge lost in the process. This paves great flaw to their native medicine system. Before diminishing of ethno-medicinal culture from the tribal community, it is necessary to document their ethno botanical remedies (Brumot & Naidu, 2007). Among the scheduled

tribes of Andhra Pradesh, Kolams, Naikpods, Pardhans, Gonds, Thotis, Chenchus and Mathuras of Adilabad district. Of several natural forest ecosystems in the district Tiryani, Adilabad, Nirmal, Mancherial, Bellampalli, Kagaznagar and Jannaram are known for their medicinal flora. Kapoor & Kapoor (1980) were the first to pay attention to publish the medicinal plant wealth of adjacent district Karimnagar. Later, Ravishankar (1990) studied the ethno botany of Karimnagar district, along with the Adilabad district. The present work is carried out in two tribal villages since medicinal uses of many of the plants may, however not been known outside their community.

Study area

Adilabad district is one of the 23 districts of Andhra Pradesh and situated in the north western corner of the state. The district derives its name from Adilabad, its head quarters town which was named after Ali Adil Shah, the ruler of Bijapur. The district was for long not a homogenous unit and its component parts were ruled at different periods by different dynasties,

namely the Mauryas, Satavahanas, Vakatakas, Chalukyas of Badami, Rashtrakutas, Chalukyas of Kalyani, Yadavas of Davagiri, Kakatiyas, Bahmanis, Imam Shahis of Ahamadnager, Mughals, Bhosle Rajas of Sirpur and Chanda. Originally this was not a full fledged district but a sub district named Sirpur-Tandur which was created in A.D 1872 with Edulabad (Adilabad), Rajura and Sirpur as its constituent talukas. In 1905 the status of this sub-district was raised to that of an independent district with head quarters at Adilabad.

Adilabad is one of the most backward districts of A.P. It is known for its characteristic presence of Sahyadri hills (locally called as Satnala Range) in its northern boundary, richness of forests as well as rich hydrocarbon resources like coal mines. The district encompassed with most ancient and innocent Aadivasis. The rural folk are known for their famous carved wooden work, the most internationally known art of rural painting, small scale industry is well established in Nirmal town, popular as “Nirmal paintings”. The district is also having a ‘Tiger reserve’ second of its kind in A.P at Kawal known as “Kawal Tiger Reserve” and bestowed with number of scenic water falls at various places of the district like “Kuntala water falls” and “Pochara water falls”.

Methodology

Ethno botanical exploration trips were carried out in Tribal dominated villages during 2009-2013. The area understudy was thoroughly covered and the people were interrogated for information. The informants were chosen because they claimed to be professional practitioners of the traditional medicine of the region. Most of the healers refuse to join a local union or even to cooperate with local physicians because they are afraid that they will be forbidden to practice. Majority of herbal ingredients used by traditional healers are collected from the wild directly by these healers. Interviews were conducted in a place where the informants were most comfortable. At the end of each interview, specimens of plants mentioned for medicinal uses were collected and identified. Identification of species made with the help of Floras (Gamble & Fischer, 1915-1935; Subba rao & Kumari, 2003).

Enumeration

In the enumeration, the taxa arranged alphabetically. The name of species is followed by local name, disease and medicinal uses.

1. *Acacia pennata* (L.) Willd. (Mimosaceae) Telugu name: Korintha. .

Whooping cough: 5-6g of stem bark juice administered daily twice for five days.

2. *Acalypha indica* L. (Euphorbiaceae) Telugu name: Muripenda, Kuppinta

Skin diseases: Leaf paste is applied over the parts infected.

3. *Acanthospermum hispidum* DC (Asteraceae) Telugu name: Chinna palleru. .

Jaundice: 2-3 teaspoons of root decoction administered daily twice for three days.

4. *Achyranthes aspera* L. (Amaranthaceae) Telugu name: Uttareni,

Rotting of teeth: Root piece is used as a toothbrush and the paste (5-6g) is taken orally daily twice

Cough: Take 100 g leaves, squeeze out the juice and give twice a day for four days.

Cold: Take 100 g leaves, squeeze out the juice and give twice a day for four days.

Tooth problem: Roots are used as a brush for strong and healthy teeth.

5. *Aegle marmelos* (L.) Corr. (Rutaceae) Telugu name:: Maaredu.

Cold: Stem bark crushed with the leaves of *Ocimum tenuiflorum* (1:1 ratio), paste applied over the temples daily once for until cure.

6. *Aerva lanata* (L.) Juss.(Amaranthaceae) Telugu name: Pindi kura

Cough: 10 ml leaf juice is taken orally twice in a day for 3 days.

Cold: 10 ml leaf juice is taken orally twice in a day for 3 days.

7. *Ailanthus excelsa* Roxb. (Simaroubaceae) Telugu name: Peddamanu

Snake bite: 1-2 glasses of stem bark juice is given internally to the person on snake bite immediately after the snake bite, the leaf paste of same tree is also applied on the bite spot.

8. *Albizia lebeck* (L.) Willd. (Mimosaceae) Telugu name: Dirisena

Snake bite: The root juice is extended by adding 3 – 4 pepper seeds, half cup of juice is given to drink by the patient and a little paste is also to be smeared on the bite spot.

9. *Alstonia scholaris* (L.) R.Br. (Apocynaceae) Telugu name: Konda ganneru.

Red & white leucorrhoea: 20ml of stem bark juice administered daily once for a week.

10. *Andrographis paniculata* (Burm.f.) Nees (Acanthaceae) Telugu name: Nelavemu. .

Jaundice: 10-15g of leaves are crushed with 2-3 pepper, extract given daily once for three days.

Stomach ache: 5 g leaf extraction mixed with 5 ml zinger juice is given orally thrice in a day particularly on Tuesday, Friday and Sundays.

11. *Ardisia solanacea* Roxb. (Myrsinaceae) Telugu name: Kondamamidi.

Cough: Fresh tender tips (six pieces) are consumed thrice a day for two days.

12. *Argemone mexicana* (Papaveraceae) Telugu name: Swarnakshiri.

Skin diseases: The seed paste used as an ointment.

13. *Argyria nervosa* (Burm.f.) Boj. (Convolvulaceae) Telugu name: Kokkita tiga. .

Hydrocele: Leaf paste is applied over the affected area and bandaged with soft cotton cloth thrice in a week.

14. *Balanites Aegyptiaca* (L.) Del. (Balanitaceae) Telugu name: Garachettu.

Cold: Fruit powder is given with milk once in a day until cure.

Cough: Fruit powder is given with milk once in a day until cure.

15. *Bauhinia vahlii* Wt. & Arn. (Caesalpiniaceae) Telugu: Pedda are, Addaku

Jaundice: One tea spoonful dried stem bark powder mixed with 100 ml water is given orally twice in day until cure. (**Diet:** Only Jawal roti with mirch powder).

16. *Boerhavia diffusa* L. (Nyctaginaceae) Telugu name: Atika mamidi

Stomach ache: Two spoonfuls extract of whole plant along with one tea spoonful of honey is given twice a day to treat colitis.

17. *Bridelia montana* (Roxb.) Willd. (Euphorbiaceae) **Telugu name:** Balli chettu.

Cold in children's: Half teaspoonful of leaf paste administered daily twice for until cure.

18. *Caesalpinia bonduc* L (Caesalpiniaceae) Telugu name: Gachaaku.

Hydrocele: The boiled leaf paste is poultice daily once for fortnight

Hydrocele: Leaf paste along with those of bandaged over the hydrocele.

Fever: 25 g each of seeds of *Caesalpinia bonduc*, lavang, dalchinachekka and jamalgotta are ground together and made small globules. Daily one globule is given before breakfast for 3-4 days.

19. *Cassia fistula* L. (Caesalpiniaceae) Telugu name: Rella.

Stomach-ache: One teaspoon of stem bark juice administered thrice in a day.

20. *Cassia occidentalis* L. (Caesalpiniaceae) Telugu name: Kasinindu.

Acute stomach-ache: 15-20g of fresh roots crushed with 1-2 pepper, extract administered twice in a 1-2 hours.

21. *Cassia tora* L. (*Caesalpiniaceae*) Telugu name: Chinnatanthemu.

Loose motions: 2-3 teaspoons of root decoction given thrice a day for two days.

22. *Celastrus paniculatus* Willd. (Celastraceae) Telugu name: Maneru tiga.

Dysentery: 15g of fruits are consumed daily twice for until cure.

23. *Cocculus hirsutus* (L.) Diels. (Menispermaceae) Telugu name: Dussari thega

Leucorrhoea: Roots and leaves are ground adding water, extract is filtered through white cloth, 30 ml of freshly prepared juice is given orally twice in a day particularly on menses days.

24. *Curcuma longa* L. (Zingiberaceae) Telugu name: Pasupu

Cold : 10 g dried rhizome powder is boiled in milk and taken orally.

Cough: 10 g dried rhizome powder is boiled in milk and taken orally.

25. *Cyclea peltata* (Lam.) Hook.f. & Thoms. (Menispermaceae) Telugu name: Pullagontica.

Venereal diseases: The root is crushed with sufficient quantity of pepper, extract (20ml) administered daily once for 3-4 days.

26. *Dendrobium herbaceum* Lindl. (Orchidaceae) Telugu name: Radam.

Earache: The tender tips juice is used as an ear drops daily twice for until cure.

27. *Diospyros sylvatica* Roxb (Ebenaceae) Telugu name : Nalla gatha.

Stomach ache: 10-15ml of stem bark juice administered twice in a day.

28. *Euphorbia hirta* L (Euphorbiaceae) Telugu name: Macchaaku.

Jaundice: 5-10g of fresh leaf paste administered daily once at early morning for three days. *Diet:* Only cow milk with rice is taken.

29. *Euphorbia tirucalli* L. (Euphorbiaceae) Telugu name: Kada jamudu.

Skin diseases: Stems are pounded and applied on the infected areas.

30. *Ficus glomerata* Roxb. (Moraceae) Telugu name: Medi

Snake bite: The stem bark paste is applied over the injury of snake bite.

31. *Ficus tinctoria* Forst.f. (Moraceae) Telugu name: Tella barnika

Snake bite: Young leaves are inserted in the ears as an anti dotes for snake bite.

Leucorrhoea: 20 ml stem bark juice is given orally before breakfast for three days. (**Avoidences:** Jaggery, brinjal, potato, pompkin, bottlegourd for a week) Bark is extracted before sun rise.

32. *Glochidion zeylanicum* (Gaertn.) Juss. (Euphorbiaceae) Telugu name: Kokkera tiga.

Snake bite: 10-12 g of root bark extract administered twice in an hour.

33. *Gloriosa superba* L (Liliaceae) Telugu name : Nabhi.

Rheumatic pains: Leaf paste used as an ointment.

34. *Gmelina arborea* Roxb. (Verbenaceae) Telugu Name: Gumudu, Pedda-gumudu.

Cold: 20 ml leaf juice is taken orally to cure cold and cough.

Cough: 20 ml leaf juice is taken orally to cure cold and cough.

35. *Gymnosporia montana* (Roth) Benth. (Celastraceae) Telugu name: Danthi

Jaundice: 10 g of stem bark of *Gymnosporia montana* is ground with the same quantity of leaves of *Dolichos lablab* and make juice and it is given orally twice in a day until cured.

36. *Haldinia cordifolia* (Roxb.) Ridasd (Rubiaceae) Telugu name: Pasupu-kadamba

Stomach ache: 2 g of stem bark extract is given internally thrice in a day for two days.

37. *Ipomoea carnea* Jacq. : (Convolvulaceae) Telugu name: Besharam, Tutikada

Skin diseases: Leaf past is applied on parts infected.

38. *Leea indica* (Burm.f.) Merr. (Leeaceae) Telugu name : Neerub tiga.

Cold, cough: 1-2 teaspoons of fresh root extract administered daily once for three days.

39. *Leucas aspera* (Willd.) Link (Lamiaceae) Telugu name :Tummi.

Headache: Leaf paste used as an ointment on temples.

Aphrodisiac: Leaves used as a curry.

Evil spirits: 1-2 drops of leaf juice used as an eye drops.

40. *Litsea glutinosa* (Lour.) C.B. Robins (Lauraceae) Telugu name : Nara mamidi.

Body pains: 4-5 spoons of stem bark juice administered daily twice for 2-3 days.

41. *Mimosa pudica* L. (Mimosaceae) Telugu name: Attipatti.

Toothache: Root used as a toothbrush.

42. *Ocimum sanctum* L. (Lamiaceae) Telugu name: Thulas

Cold: Leaves are crushed with onion bulbs, the juice is extracted and given orally to treat cough and cold.

Cough: Leaves are crushed with onion bulbs, the juice is extracted and given orally to treat cough and c

Menstrual pains: 2 teaspoons of stem bark extract administered daily once for one week.

43. *Oroxylum indicum* (L.) Vent. (Bignoniaceae) Telugu name: Dundilum,

Cold, cough: 1-2 teaspoons of stem bark extract administered daily once for three days.

44. *Phyla nodiflora* (L.) E. Greene. (Verbenaceae) Telugu name: Bokkenagu

Stomach ache: 50 ml whole plant juice is administered orally.

45. *Phyllanthus amarus* Schum. & Thonn.(Euphorbiaceae) Telugu name: Nela usiri

Jaundice: 20 gm fresh leaves are ground to paste and mixed with a cup of cow or goat's milk and given internally to cure jaundice.

Cough: 10 ml root decoction is given orally.

46. *Phyllanthus reticulatus* Poir. (Euphorbiaceae) Telugu name: Pulichari

Cold: 10 ml root decoction is given orally.

47. *Plumeria rubra* L. (Apocynaceae) Telugu name: Nooruvaraala chettu.

Menstrual pains: 2 teaspoons of stem bark extract administered daily once for one week.

48. *Plumbago zeylanica* L (Plumbaginaceae) Telugu name : Chitramoolum.

Abortion: The root bark along with those of *Arygereia nervosa* (Kokkitha) and the leaves of

Leucas cephalotes (Tummi) [each 5-10g] are crushed, extract administered daily once for three days.

49. *Pouzolzia auriculata* Wt (Urticaceae) Telugu name : Endriga tuppa.

Leucoderma: Leaf paste used as an ointment.

50. *Prosopis Cineraria* (L.) Druce. : (Mimosaceae) Telugu name: Jammi Chettu

Leucorrhoea: 1 tea spoon root bark powder mixed with 100 ml of goat milk is given orally to cure White discharge.

51. *Schefflera stelleta* (Gaertn.) Harms (Araliaceae) Telugu name : Puligoru.

Evil spirits: Stem bark fiber is used as waist thread.

52. *Sida acuta* Burm.f. (Malvaceae) Telugu name: Ganne tuppa.

Skin diseases: Leaf paste of used as an external application.

To seal the holes of iron tins: Leaf paste mixed with coal ash, mixture applied on holes.

53. *Solanum anguivi* Lam. (Solanaceae) Telugu name : Mulaka.

Cough: Two spoons of boiled fruit decoction administered daily once for three days.

54. *Solanum nigrum* L (Solanaceae) Telugu name: Buddagasha

Epilepsy: Take half cup leaf juice, add sugar and jeera mixed with water and given orally

Cold: Whole plant parts are taken as food to treat cough.

Cough: Whole plant parts are taken as food to treat cough.

55. *Solanum torvum* Sw. (Solanaceae) Telugu name: Chitra.

Cough: Three teaspoons of boiled fruit decoction administered twice a day for three days.

56. *Solanum virginianum* L. (Solanaceae) Telugu name: Nelamulka

Tooth problems: The root stock is chewed and used as tooth brush for healthy teeth.

57. *Soyimida febrifuga* (Roxb.) Juss (Meliaceae) Telugu name: Somidi

Epilepsy: 1-2 drops of fresh stem bark juice used as a nasal drops.

Snake bite: 50 ml decoction of stem bark is given orally immediately after snake bite.

58. *Strebulus asper* Lour (Myrtaceae) Telugu name: Barrenka

Tooth problem: Twigs are used as tooth brush for healthy teeth.

59. *Syzygium cumini* (L.) Skeels (Myrtaceae) Telugu name: Neredu.

Dysentery: 20g of stem bark crushed with those of *Mangifera indica* (each 20 g), extract administered daily twice for until cure.

60. *Tephrosia purpuria* (L.) Peers (Papilionaceae) Telugu name :Vempili. .

Rotting of teeth: Root decoction is used as a gargle / Leaf decoction also used as a gargle daily twice or thrice for until cure.

Stomach ache: The roots are chewed to cure stomach pain.

61. *Terminalia chebula* Retz. (Combretaceae) Telugu name: Karaka.

Throat infections: Fruits pulp chewed and sap swallowed daily twice for until cure.

Cold: 5 g dry fruit powder mixed with water is given orally.

Cough: 5 g dry fruit powder mixed with water is given orally.

62. *Tiliacora acuminata* (Lamk) Miers (Menispermaceae) Telugu name: Kappa teega

Snake bite: Leaf paste is applied on the affected area.

63. *Tinospora cordifolia* (Willd.) Hook. f.& Thoms. Menispermaceae Telugu: Tippatega

Jaundice: 5 gm of dried fruit powder mixed with honey is given orally.

64. *Tinospora malabarica* (Lam.) Miers (Menispermaceae) Telugu name : Kodipurru tige. .

Rotting of teeth: Leaves chewed and paste kept on affected teeth to overnight in the mouth

65. *Tylophora indica* (Burm.f.)Merrill. (Asclepiadaceae) Telugu name: Mekameyanaku

Snake bite: Leaves are ground to paste and given to smell.

Cough: One leaf in piper beetle (pan) is eaten twice in a day for 3 days.

Rotting of teeth: Leaves chewed and paste kept on affected teeth to overnight in the mouth.

66. *Waltheria indica* L. (Sterculiaceae) Telugu name: Nalla Benda

Cold: Dry leaf powder is boiled in water and used against cough.

Cough: Dry leaf powder is boiled in water and used against cough.

67. *Woodfordia fruticosa* (L.) Kurz. (Lythraceae) Telugu name:: Gaddapotica.

Diarrhoea: 1-2 teaspoons of leaf decoction administered daily twice for until cure.

68. *Wrightia tinctoria* R.Br. (Apocynaceae) Telugu name: Kodisha paala.

Tooth ache: Stem bark decoction is used as a gargle daily twice for until cure.

Tooth problems: Young leaves are chewed and kept under the aching teeth, 1-2 drops of sweet oil is put into the opposite ear for tooth ache.

69. *Xanthium strumarium* L. (Asteraceae) Telugu name: Geeta kayalu.

Weeping of children's: 4-5g of root paste administered daily once for until cure.

70. *Ximenia americana* (Olacaceae) Telugu name: Nakkera..

Dog bite: Stem bark paste applied over the bitten area and tied with bandage.

71. *Zingiber officinalis* Rosc. (Zingiberaceae) Telugu name: Allamu

Cold: The rhizome paste, pepper powder, turmeric powder and sugar altogether boiled in milk and taken orally when it is warm.

Cough: The rhizome paste, pepper powder, turmeric powder and sugar altogether boiled in milk and

Results and Discussion

The present study focused mainly on the plant species used by the tribes in Adilabad district for various medicinal uses. The reported plants were arranged according to their scientific name and family, Telugu names are recorded during the field work and uses are presented, during the study period, 71 plant species belonging to 62 genera and 41 families were identified as medicinal plants. In addition, *Leucas cephalotes* (herb), *Ocimum tenuiflorum* (herb) and *Mangifera indica* (tree) were used as potential ingredients in three diseases. Medical administration includes oral administration of decoctions, poultice and plant parts as paste. The study shows a high degree of ethno botanical novelty and the use of plants among the Tribals reflects the revival of interest in traditional folk culture.

Conclusion

The rapid denudation of natural vegetation in general and medicinal plants in particular has caused much concern among vegetation managers, botanists, ethno botanists, ecologists and environmentalists. It is therefore necessary to document the first hand information of the region and stress on their conservation to the future generations before the species become extinct. There is a need to support indigenous practices about medicinal plants with a vision to conservation and community development.

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