

Ethnobotanical Studies for Skin Diseases by tribes of Papikondalu Forest, Andhra Pradesh, India.

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ABSTRACT

The present study represents the information about the treatment of various skin diseases by the tribals of Papikondalu forest, Andhra Pradesh, India. A total of 19 medicinal plant species belonging to 19 genera and 16 families were recorded. The documented medicinal plants were labeled alphabetically with their voucher specimen number, family name, vernacular names, parts used and mode of administration. Majority of the plant species described in the present paper was used in the treatment of abscess, septic ulcers, scabies, ring worms, allergy and pimples. The documentation of these medicinal plants against such diseases reveals that these ethnic people are still dependent on local vegetation for their life care.

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Introduction:

Papikondalu is a breathtakingly beautiful hill range bounded by River Godavari in the state of Andhra Pradesh, India. It is spread across East Godavari, West Godavari and Khammam districts. Entire area of Papikondalu is covered by tropical rain forests and it was recently declared as a protected National park. Papikondalu forest range comprises 12 mandals inhabited by the tribals. It lies between the 17° 28' 48.39" North latitude 81° 29' 16.34" Eastern longitude (Fig.1.0). The living tribals are Bagata, Bhil, Chenchu, Gond/Naikpod, Hill Reddi, Jatapu, Kammara, KattuNayakhan, Kolam, Konda Dora, Konda Kapu, Kondh, Kotia, Koya, Mukha Dora, Nayak, Pardhan, Porja, Reddi Dora, Savara, Lambada, Valmiki, Yenadi and Yerukula.

Folk medicine has been used for thousands of years with significant contributions made by its practitioners to human health, particularly as primary health care providers at the community level. It uses knowledge, skills and practices based on the theories, beliefs and experience indigenous to its cultures, for maintenance of health. It holds a heritage of community acceptance

and is solely based on the expertise gained by local herbalists over period of time.

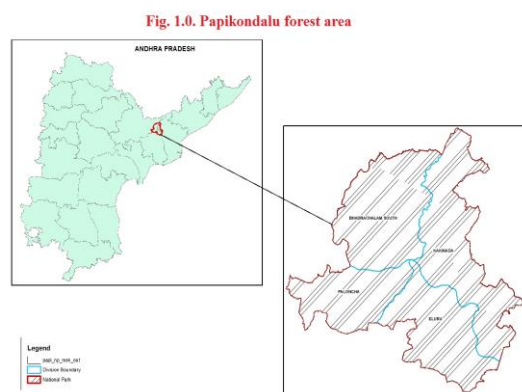


Fig.1.0: Study Area

Traditional herbal medicines used by different communities play an important role in alleviating in skin diseases. They are safe, effective and inexpensive. Traditional medicinal resources, especially plants have been found to play a major role in managing skin disorders [Abbasiet al., 2010]. They have been employed in the treatment of skin ailments in many countries around the world where they contribute

significantly in the primary health care of the population [Saikia *et al.*, 2006; Quave *et al.*, 2008; Agyare *et al.*, 2009; Adetutu *et al.*, 2011; Sharma *et al.*, 2012; Gul *et al.*, 2012]. The aim of the present study was to collect ethnomedicinal knowledge from tribal people in Papikondalu forest for the application of medicinal plants as a treatment for skin diseases. This is the first survey done in this region which specifically focuses on skin ailments.

Methodology:

The ethnomedicinal survey was conducted during 2011-2013. Among the tribal communities elder people, medicine men, tribal physicians and village old mothers were consulted to record firsthand information on ethnomedicinal uses, methods of preparation and administration of the crude drugs. The information from the tribal people was compared with literature.



Fig. 1. *Acalypha indica* L.



Fig. 2. *Achyranthes aspera* L.



Fig. 3. *Aegle marmelos* L.



Fig. 4. *Andrographis paniculata* Burm.f.



Fig. 5. *Azadirachta indica* Juss.

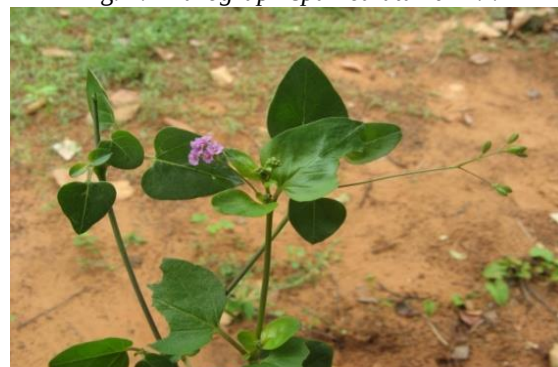


Fig. 6. *Boerhaavia diffusa* L.

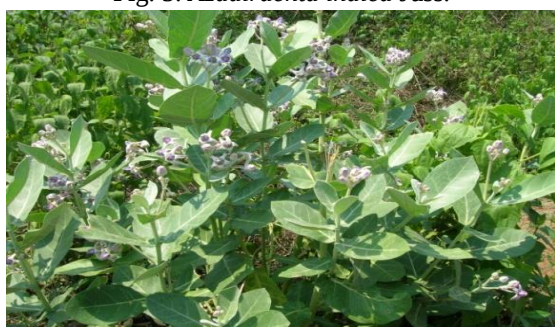


Fig. 7. *Calotropis gigantea* L.



Fig. 8. *Centella asiatica* L.



Fig. 8. *Cynodon dactylon* L.



Fig. 9. *Gymnema sylvestre* Retz.

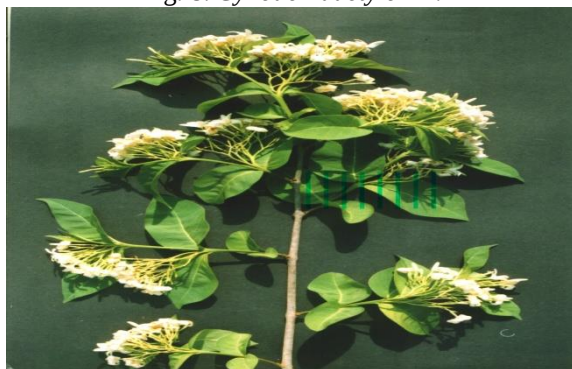


Fig. 10. *Holarrhena pubescens* Roxb.



Fig. 11. *Ocimum tenuiflorum* L.



Fig. 12. *Saraca asoca* Roxb.



Fig. 13. *Terminalia arjuna* Roxb.

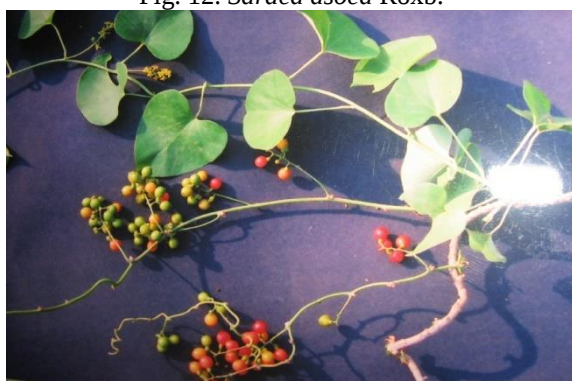


Fig. 14. *Tinospora cordifolia* Wild.

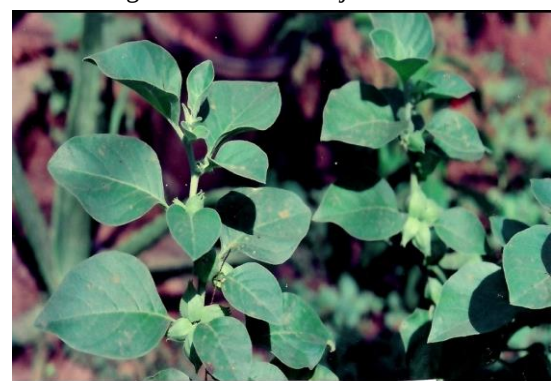


Fig. 15. *Withania somnifera* L.

The voucher specimens were deposited in the herbarium of Department of Botany, Andhra University, Visakhapatnam, Andhra Pradesh, India.

Results and Discussion:

The present study revealed that total 19 medicinal plants distributed in 19 genera belonging to 16 families

and different modes of treatment for skin diseases were followed by tribals of Papikondalu forest, Andhra Pradesh, India. In the following documentation, the plantspecies were arranged alphabetically and included information on scientific name, vernacular name, family names of the medicinal plants along with the plant part used and mode of administration (Table 1).

Table 1. Information on scientific name, vernacular name, family names of the medicinal plants along with the plant part used and mode of administration

Name	Common name	Family	Mode of administration
<i>Acalypha indica</i> (Fig.2)	Murupinda	Euphorbiaceae	Leaf paste mixed with turmeric powder and applied on the affected areas till cure.
<i>Achyranthes aspera</i> (Fig.3)	Uttareni	Amaranthaceae	Leaf paste is applied on the affected parts twice a day for 15 days
<i>Aegle marmelos</i> (Fig.4)	Maredu	Rutaceae	Stem bark powder is applied on the affected parts twice a day for 1 week.
<i>Andrographis paniculata</i> (Fig.5)	Nelavemu	Acanthaceae	Leaf extract is applied on the affected areas till cure.
<i>Azadirachta indica</i>	Vepa	Meliaceae	Leaf paste is applied on the affected parts twice a day until cure.
<i>Boerhaavia diffusa</i>	Atikamamidi	Nyctaginaceae	Whole plant roasted, powdered and mixed with coconut oil is applied on the affected areas until cure.
<i>Calotropis gigantea</i> (Fig.6)	Tellejilledu	Asclepiadaceae	Leaf paste mixed with a pinch of cheese applied on the affected areas daily twice till cure.
<i>Centella asiatica</i> (Fig.7)	Saraswathiaku	Apiaceae	Leaf decoction is administered externally on affected areas twice a day till cure.
<i>Cynodactylon</i> (Fig.8)	Garikagaddi	Poaceae	Tuber paste mixed with a pinch of turmeric and coconut oil is applied on the affected areas.
<i>Gymnema sylvestre</i> (Fig.9)	Podapatri	Asclepiadaceae	Two drops of leaf juice is instilled on the affected areas daily twice.
<i>Holarrhenapubescens</i> (Fig.10)	Pala	Apocynaceae	Stem bark is applied on the affected parts twice a day for till cure.
<i>Leucas aspera</i>	Thummi	Lamiaceae	Leaf juice mixed with a pinch of salt is applied on the affected areas.
<i>Ocimum tenuiflorum</i> (Fig.11)	Krishna tulasi	Lamiaceae	Leaf paste is applied on the affected areas until cure the disease.
<i>Rauvolfia tetraphylla</i>	Pathalagaridi	Apocynaceae	Root paste is applied on the affected areas till the disease is cured.
<i>Saraca asoca</i> (Fig.12)	Asokhachettu	Caesalpiniaceae	Stem bark paste is applied on the affected areas till the cure disease.
<i>Terminalia arjuna</i> (Fig.13)	Tellamaddi	Combretaceae	Leaf juice is applied on the affected areas until cure the disease.
<i>Tinospora cordifolia</i> (Fig.14)	Tippateega	Menispermaceae	Leaf paste is applied on the affected areas.
<i>Vitex negundo</i>	Vavilaku	Verbenaceae	Boiled leaf extract is applied on the affected areas.
<i>Withania somnifera</i> (Fig.15)	Aswagandha	Solanaceae	Leaf paste is applied on the affected areas twice a day till cure the disease.

Apocynaceae, Asclepiadaceae and Lamiaceae were three species for each family and one species for Euphorbiaceae, Amaranthaceae, Rutaceae, Acanthaceae, Nyctaginaceae, Apiaceae, Poaceae, Caesalpiniaceae, Combretaceae, Menispermaceae, Verbenaceae and Solanaceae. Among all species, herbs and trees were found to be more (6 species each), followed by shrubs (4 species) and climbers (3 species).

In the present investigation, 19 plants belonging to different families were found to be used by tribals in traditional medicine system for the treatment of skin diseases. To our knowledge, this is the first systematic survey on skin disease conducted in the Papikondalu forest, Andhra Pradesh, India.

From this account, it is clear that the tribals, as in the case of other ancient tribals (Raja Singh, 1971), possess the ability to discern the character of various plants and their beneficial properties. It is interesting to note that such a way of life, particularly with respect to health care practices, has hardly undergone any change even to the present day. Similar ethnomedicinal studies have been reported in some other parts of India (Jain, 2004; Singh, 2004; Muthukumarasamy *et al.*, 2003a, b; 2004a, b), as well as in other parts of the world (Grierson and Afolayan, 1999; Shinwari and Khan, 2000; Suresh *et al.*, 2012).

Evident from this study is the fact that medicinal plants still play a vital role in the primary healthcare of indigenous people. The information we gathered from the tribals may be useful to other researchers in the fields of pharmacology. Hopefully, this study offers a model for studying the relationship between plants and people within the contexts of a traditional medical system. The purpose of standardizing traditional remedies is obviously to ensure therapeutical efficacy; whereas the value of ethnomedicinal information in modern pharmacology lies in the development of new drugs. Lastly, it may be of some significance that this study generated a broad spectrum of information concerning the use of medicinal plants by indigenous tribal groups.

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