

International Journal of **Life Sciences**

(A peer reviewed International Journal)

Medicinal Plants used by the Tribals of Ratanpur Village of Bankura, West Bengal

International Journal of Life Sciences, Vol. 1 No. 3. pp. 82-86 2277-193x. 2012

ISSN 2277 – 193x

Article type *Full Length Research Article*

Submission date *28 June 2012*

Acceptance date *10 July 2012*

Publication date *15 July 2012*

Article URL <http://www.crdeep.com/category/ijls>

Authors *Shyamal Kanti Mallick¹, Poulami Banerjee¹, Anshuman Saha^{2*}*

This peer-reviewed article was published immediately upon acceptance. It can be downloaded, printed and distributed freely for any purposes from CRDEEP website.

Hard copy of Journal is also available on request.

For information about publishing your research in CRDEEP International Journals please visit our website www.crdeep.com

© 2012. All Rights Reserved by CRDEEP



CRDEEP Head Office: 315/10, Kaulagarh Road, Rajendranagar, Indervihar, Dehradun, 248001, Uttarakhand, India.

Full Length Research Paper**Medicinal Plants used by the Tribals of Ratanpur Village of Bankura, West Bengal****Shyamal Kanti Mallick¹, Poulami Banerjee¹, Anshuman Saha^{2*}**¹*Department of Botany, Ramananda College, Bishnupur, Bankura India;*²*Department of Botany, Charuchandra College, Kolkata India;*****Corresponding Author: Anshuman Saha*****Abstract**

A survey of medical plants was carried out in the Ratanpur village of Bankura district along with their uses by the residing tribal people for the treatment of various ailments in their daily life as well as for some serious diseases. These information collected, are also for the quick remedy of minor accidents like wounds, burns, stings of insects etc. The tribals of the village mostly dependent on the herbal treatments for their primary health care, which is attributed partly to their socio-economic and cultural status.

Key words: Tribals, Ratanpur village of Bankura, medicinal plants.**Introduction**

The Indian region is very rich in ethnobotanical heritage (Jain, 1991) due to its rich cultural diversity. The variety and sheer number of plants having therapeutic properties is quite astonishing. The use of various parts of certain widely grown plants to cure specific diseases has also been in vogue in our indigenous system of medicine from ancient time (Das, Dutta and Sharma, 2009). But during the past one century, there has been a rapid extension of allopathic medicinal treatment in India and presently, it has become one of the most prevalent systems of medicine in the modern society of this 21st century. Nevertheless, still now, the use of natural products as medicine, especially plant products are widely used in the societies of rural tribal people like Santal, Munda, Bhumij, Lodha etc particularly in the remote areas with few health facilities (Mallick and Behera, 2009, Mallick Harasourav and S.K. mallick 2012.). They acquired this knowledge by trial and error method, and became the store house of knowledge about the therapeutic properties of certain surrounding plants. This knowledge was accumulated and passed on one generation to the other by oral tradition without any written document. However, our knowledge of traditional health care system is not being inherited properly as a secret rite of the ancient societies (Bennet, 1983, Srivastava *et al.* 1987, Bharadwaj and Gakhar 2005, Khumbongmayum *et al.* 2005). But nowadays this knowledge is gradually disappearing in their younger generations due to various developmental and cultural activities by the state Govt. and NGOs, which are on way to change the private and cultural life of the tribals (Binu, 2009). Thus, the elders are more informative on this subject. There are many interesting and some times astonishing things to learn while asking them regarding the uses of medicinal plants in their daily life (Krishna, 1996). Although ethnomedicinal information with respect to some forest regions of India and also in West Bengal is available (Mohammad *et al.* 2010, Dutta Choudhury *et al.* 2010), no work has been reported so far on Ratanpur village of Bankura district of West Bengal. On this background, the objective of

this paper is to document their valuable information about the plant.

Study area

For the purpose of the present study, a remote village situated in the western part of Bankura district was selected. This is a small village under the Taldangra Gram Panchayet and the dwellers are mainly tribal. The tribesmen belong to different classes such as Santalis, Mundas, Kols etc. In shape, it is roughly rectangular and is about 3 sq. km. in area. It is about 23 km. away from Bankura town. The climate is tropical with distinct three seasons: Summer (Mar-Jan), Rainy (July-Oct) and Winter (Nov-Feb). Temperature varies from 20^oC - 38^oC. Relative humidity ranges from 26%-84% around the year. Average rainfall is 760 mm out of which 80% falls during rainy season. The soil is chiefly sandy and is sometimes reddish in colour due to high content of iron.

Materials and methods

Survey work was carried out in different areas of the village. The ethno botanical data presented here is the outcome of a series of intensive field studies conducted over a period of 3 months (March 2010 to May 2010) with duration of 10-12 days. Methodologies as suggested by Schultes (1960 and 1962), Jain (1989, 1995, 1997) and Ford (1978) have been followed using collection of information on ethnomedicobotanical aspects Information on ethno medicinal uses of different plants were collected through interviews with the local medicine men i.e. Ojha, Baidya, Kaviraj and several household for recording the data especially local name, parts used, preparation, dosage of medicine etc. The correct botanical name, with its family, local name, their medicinal properties, method of application, dosage are enlisted in the paper, and the plants specimen were collected at that time for the preparation of their herbarium, that will be deposited in the Herbarium of Botany Department, Burdwan University, Burdwan.

Enumeration

Acalypha indica L. (Euphorbiaceae)

Vernacular name: Muktajhuri

Parts used: Whole plant

Uses: A decoration of the herb is used as a cure for toothache and earache. Fresh leaf juice is useful in rheumatoid arthritis and skin infections. Juice with salt applied on eczema. Paste of leaves applied on burns; with juice of lime, useful in early cases of ringworm. Powder of leaves for bedsores and maggot infested wounds, flowers with leaves of *Piper betle* re taken in equal quantities and ground. A spoonful of paste is administered daily twice for 3 days to cure cough.

Achyranthes aspera L. (Amaranthaceae)

Vernacular name: Apang, Chirchiti

Parts used: The whole plant, especially the roots and seeds

Uses: Paste of leaves is used for relief in scorpion stings. A decoction of the whole plant has medicinal value in case of piles, boils and other eruption of skin diseases. A decoction of the roots is used for stomach troubles and an aqueous extract for stones in the bladder.

Adhatoda vasica Nees. (Acanthaceae)

Vernacular name: Basak

Parts used: Leaves, flowers and stem bark

Uses: The leaf extract with honey is used for the treatment of bronchitis and asthma. Large doses of fresh juice of leaves have been used in tuberculosis. 2 teaspoonful of leaf juice with that of 1 spoonful of *Adhatoda vasica* and 1 spoonful of *Ocimum sanctum* are mixed and the mixture is taken in high fever.

Alstonia scholaris R. Br. (Apocynaceae)

Vernacular name: Chhatim

Parts used: Mainly bark

Uses: About 10 gm. of bark is boiled with 3 cups of water and the decoction is used in the treatment of diarrhea, dysentery, abdominal disorder and in malarial fever. The bark with *Ocimum sanctum* is ground and the paste is applied to cure skin diseases.

Amaranthus spinosus L. (Amaranthaceae)

Vernacular name: Kanta notey

Parts used: Roots

Uses: Roots are eaten with molasses to control white discharge. Roots and 4/5 seeds of *Piper nigrum* are pasted and the extract is taken to cure blood dysentery

Andrographid paniculata Nees. (Acanthaceae)

Vernacular name: Kalmegh

Parts used: Leaves, stem

Uses: 2 spoonful of leaf extracts are taken in every morning in empty stomach for healthy liver, 1 teaspoonful of leaf extract with 1 spoonful of honey is taken in every morning to cure ascariasis and also to cure constipation of children. About 25 g leaves are boiled in 4 cups of water and make it about 1 cup. This decoction is taken in every morning and evening for 15 days to cure malaria. 5 gm. of leaves with 5 gm. of *Nyctanthes arbortristis* and 5 gm. of *Melia azadirachta* and a pinch of salt are crushed and extracted and 1 spoonful of this extract is taken in every morning and evening to cure typhoid.

Boerhaavia diffusa L. (Nyctaginaceae)

Vernacular name: Punarnava

Parts used: Whole plant

Uses: A cup of leaf extract is mixed with 2 spoonful of honey and is taken for 15 days to control menstrual problem and in jaundice.

Bryophyllum calycinum Salisb. (Crassulaceae)

Vernacular name: Patharkunchi

Parts used: Leaves

Uses: 4/5 leaves are chewed with salt to cure diarrhea. 4 spoonful of leaf extract is eaten for 1 month for melting of gall bladder stone. Leaf paste is applied to stop bleeding instantly and also in piles to relief from pain.

Colotropis procera R.Br. (Asclepiadaceae)

Vernacular name: Acanda

Parts used: Roots and leaves.

Uses: 2 spoonful of root extract is added to a cup of water and is taken to regulate gastric secretion and with leaves of *Ocimum sanctum* and honey is useful in asthma, bronchitis and dyspepsia. Pate of leaves is used in swelling and 3 spoonful of the extract of leaves are taken to cure intermittent fevers 3 days.

Catharanthus roseus (L.) Don. (Apocynaceae)

Vernacular name: Nayantara

Parts used: Roots and leaves

Uses: Roots and leaves in the form of a decoction or extract are active on hypertension. 2 spoonful of leaf extract with 2 spoonful of root extract of *Withania somnifera* are mixed and the mixture is taken for 15 days to control menstrual disorders.

Clerodendrum visosum Vent. (Verbenaceae)

Vernacular name: Ghentu

Parts used: Leaves

Uses: Leaf paste is applied directly on the scalp of head to remove louses. It is also used for relief in scorpion sting. 10 gm of leaves are mixed with about 10 gm. of *Adhatoda vasica* and *Oscimum sanctum* each and then the mixture is boiled, and the decoction is taken to cure malarial fever. A decoction of leaves is mixed with water during bath to cure skin diseases.

Clitoria ternatea L. (Fabaceae)

Vernacular name: Aparajita

Parts used: Roots

Uses: Decoration of roots is useful in ophthalmopathy. Root paste is to relief in burning sensation. Root extract with honey is used to cure bronchitis, asthma and pulmonary tuberculosis and fever.

Dalbergia sissoo Roxb. (Fabaceae)

Vernacular name: Sissoo

Parts used: Roots, leaves, bark, heartwood

Uses: 2 spoonful of root extract are taken with 1 spoonful of honey to cure diarrhea and dysentery. A decoction of bark is used in skin diseases and decoction of leaves is taken to cure dyspepsia and in intermittent fevers.

Desmodium gangeticum DC (Fabaceae)

Vernacular name: Shalpani

Parts used: Roots

Uses: 2 spoonful of root paste is mixed with a spoonful of honey and is administered daily twice to cure cough.

Euphorbia hirta L. (Euphorbiaceae)

Vernacular name: Gurri Mokka

Parts used: Aerial parts

Uses: The leaves along with stem and leaves of *Leucas aspera* and seeds of *Piper nigrum* are taken in equal quantity and ground. 2 spoonful of paste is administered daily twice for 3 days to cure cough.

Ficus benghalensis L. (Moraceae)

Vernacular name: Bott

Parts used: Aerial root, Leaves, buds, fruits, latex

Uses: The bark, bud and the aerial root each are taken approximately 3 gm. and are boiled with 2 cups of water. When it is concentrated to 1 cup, it is mixed with milk and is drunk to cure bleeding in nose. The latex is applied to cure cracked hill.

Ficus religiosa L. (Moraceae)

Vernacular name: Asvattah

Parts used: Bark, leaves, tender shoots, fruits, seeds, latex

Uses: The bark is burnt and its powdered form is a good absorbent for inflammatory swelling and good for burns. The latex is good for hemorrhages and inflammation. Dried fruits pulverized and are added to water to cure asthma.

Heliotropium indicum L. (Boraginaceae)

Vernacular name: Hanthi sund

Parts used: Leaf and root

Uses: Local application of leaf paste is very effective for ulcers, wounds, skin infections, stings of insects. root paste is used in ringworm. 1 drop of leaf extract is applied in eyes to cure eye infection. The decoction of leaf is used in fever and root in cough.

Hibiscus rosa sinensis L. (Malvaceae)

Vernacular name: Jaba

Parts used: Leaves and flowers.

Uses: 4/5 floral buds and leaves are crushed with water and mixed with molasses and are taken in every morning for seven days during menstruation to cure menstrual disorder. Flowers are heated with coconut oil and are applied in hair for blackening.

Jatropha gossypifolia L. (Euphorbiaceae)

Vernacular name: Lal varenda

Parts used: Leaves

Uses: Leaf extracts are used in the eczema and carbuncle. Leaves are taken in mouth and rubbed to make the gum healthy.

Lantana camara L. (Verbenaceae)

Vernacular name: Ankrha

Parts used: Leaves, root

Uses: A decoction of fresh root is a good gargle for odontalgia and dysentery. Powdered leaves are used for cuts, wounds and swelling. An infusion of the leaves is good for bilious fever and eczema.

Leucas cephalotes (Roth.) Spreng. (Lamaceae)

Vernacular name: Gouthi

Parts used: Leaves

Uses: Leaves are crushed on palm and the aroma is inhaled daily twice for 3 days to cure cold. Leaf extract is also used as inflammatory.

Mangifera indica L. (Anacardiaceae)

Vernacular name: Aam

Parts used: Leaves, Stem bark

Uses: The stem bark of *Mangifera indica* is washed in water and mixed with goat milk and ground to make a paste. Then it is filtrated and eaten to cure blood dysentery. 3-4 leaves are boiled and the decoction is taken to control vomiting.

Marsilea quadrifolia L. (Marsileaceae)

Vernacular name: Shusni

Parts used: Leaves

Uses: The leaf paste is applied directly on scorpion sting. 3 spoonful of leaf extract is taken every morning to relief in urinal problems Leaf juice is also useful to reduce high blood pressure. Leaf extract with honey is very effective in asthma and bronchial problems.

Melia azadirachta L. (Meliaceae)

Vernacular name: Neem

Parts used: Leaves, Roots.

Uses: 1 spoonful of powdered leaves is mixed with 1 spoonful of honey to cure dysentery and ascariasis. 1 spoonful of leaf extract is mixed with 1 spoonful of turmeric and is taken in empty stomach in the morning to purify blood and make skin fairer. Paste of leaves with that of turmeric are used as a remedy for skin diseases.

Moringa concanensis Nimmo Ex Dolz. and Gibson (Moringaceae)

Vernacular name: Sojne

Parts used: Leaves, fruits, seeds

Uses: 1/2 cup of leaf extract is taken daily to cure anemia. Fruit is used for curing liver and spleen disease. Seed oil is used for the treatment of rheumatism. Cooked leaves are eaten daily to reduce high blood pressure.

Nyctanthes arbor-tristis L. (Oleaceae)

Vernacular name: Shiuli

Parts used: Leaves

Uses: 25/30 leaves are boiled with 3 cups of water and the decoction is taken in every morning and night for relief in gout. 2 teaspoonful of leaf extract is taken in every morning to cure cough. 5/6 leaves are ground with a piece of ginger and the juice is taken to cure malarial fever.

Ocimum sanctum L. (Lamiaceae)

Vernacular name: Tulsi

Parts used: Whole plant

Uses: 2 spoonful of whole plant paste mixed with a spoonful of honey is administered twice daily for 3 days to cure cough. The inflorescence is dried and pulverized and taken 5 gms. and mixed with 1/2 spoonful honey. This mixture is taken to cure migraine.

Oxalis corniculata L. (Oxialidaceae)

Vernacular name: Amrul

Parts used: Mainly leaves.

Uses: Ground leaves are eaten to purify the blood and also for treating diarrhea and dysentery. The juice from the leaves is applied to open wounds. The crushed leaves are used to treat children with mouth infections as well as to treat infected navels of babies. An infusion of the leaves is used to treat induration of the breasts and watery vaginal discharges. Leaf extract with mustard oil are heated and massaged in the chest to cure cold and cough.

Paederia foetida L. (Rubiaceae)

Vernacular name: Gandal Pata

Parts used: Fresh leaves.

Uses: The paste of fresh leaves is cooked with vegetable to prepare a soup and it is taken to cure digestion disorders. A decoction of leaves is also used as in treating urinary lithiasis, dysuria, rheumatism, gastritis.

Pergularia daemia L. (Asclepiadaceae)

Vernacular name: Dishtiveru

Parts used: Leaves

Uses: Leaves with fruits of *Phyllanthus emblica*, *Solanum surattense* and seeds of *Piper nigrum* are taken in equal quantities and ground. A spoonful of paste is administered daily twice for 3 days to cure cold.

Piper betle L. (Piperaceae)

Vernacular name: Pan

Parts used: Leaves and roots

Uses: Leaves are anti bacterial and the extract is used in the treatment of purulent parodontosis. The extract of roots is applied in treating rheumatism. The leaf extract is applied on the scalp of head to remove louses.

Psidium guyava L. (Myrtaceae)

Vernacular name: Peyara

Parts used: Leaves, fruit, roots.

Uses: The leaves are pounded, squeezed in salt water and the solution is used to treat toothaches. The fruit is eaten to cure constipation. An infusion of the leaves and roots is used to treat indigestion. Juice from the leaves is used for treating in diarrhea and dysentery.

Tgetes patula L. (Asteraceae)

Vernacular name: Ganda

Parts used: Leaves, flowers.

Uses: The leaf paste is used as an antiseptic and with 4-5 grains of sugar is very effective to stop bleeding immediately. About 25g of flowers are crushed with 50g. of *Cyanodon dactylon* and the juice is taken 1 spoonful in every 3 hours for 4 days to cure blood dysentery.

Terminalia chebula Retz. (Combretaceae)

Vernacular name: Hartuki/Haritaki

Parts used: Mature and immature fruits.

Uses: About 25 gm of pulverized mature fruit is mixed with 1 cup of hot water and is taken to cure constipation. A small piece of fruit can be taken with honey to relief from vomiting. About 15/16 seeds are boiled with a glass of milk and it is taken for one month for melting stone in bladder. Fruits and roots of *Piper betle* are taken in equal quantity and ground. 2 spoonful of paste is administered twice daily for two days to cure cough.

Conclusion

The paper deals with 36 plant species belonging to 26 families used by the tribal peoples of Ratanpur village for their health care. It includes trees, shrubs, herbs, climbers etc. The knowledge about the uses of plants by the tribes appears to be unknown or little known outside their community. The traditional knowledge regarding these plants and their utilization has to be realized and put to use in modern medicine by further pharmacological studies. The ethno medicinal research has led to the development of many commercial plants drugs necessary for the welfare of mankind.

Acknowledgement

Authors thank to tribals in the Ratanpur village of Bankura for their valuable information and generous support during the survey period, special thanks to Mr. Janata Hembram, the local kabiraj and his wife Laxmi Hembram.

References

- Bharadwaj S. and Gakhar S.K. 2005. Ethnomedicinal plants used by the tribals of Mizoram to cure cut and wounds. *Indian journal of Tribal Knowledge* 4(1) : 75-80.
- Binu S. 2009. Medicinal plants used for treating diarrhea and dysentery by the tribals in Pathanamithilla disdriect, Kerala, India. *Non-Timber Forest Products*, 16(2) : 131-134.
- Das A.K., Dutta B.K. and Sharma G.D. 2009. Ethnomedicinal uses of *Drynaria quercifolia* (L.) J. Smith (Pankiraj) in South assam, Assam, India. *Non-Timber Forest Products*, 16(2) : 129-130.
- Dutta Choudhury M., Bawari M. and Singha S 2010. Some antipyretic ethno-medicinal plants of Manipuri community of Barak Valley, Assam, India. *Ethnobotanical Leaflets* 14: 21-28.
- Ford R.L. 1978. The nature and status of Ethnobotany. Anthropological paper No. -67. *Mus. Anthropol. Univ. Michigan Arnold. Arboretum.*
- Jain S.K. 1989. Methods and Approaches in Ethnobotany. Society of Ethnobotanists, CDRI, Lucknow:192pp.
- Jain S.K. 1991. Dictionary of Indian folk medicine and Ethnobotany. Deep Publications, New Delhi:311pp.
- Jain S.K. (2nd ed.) 1995. Ethnobotany – Its Scope and various subdisciplines *A Manual of Ethnobotany*, 2ed: 1-8 Scientific Publishers Jodhpur.
- Jain S.K. 1997. *Contributions to Indian Ethnobotany*. 3rd. ed. Scientific Publishers, Jodhpur.
- Khumbongmayum A.D., Khan M.L. and Tripathi R.S. 2005. Ethnomedicinal plants in the sacred groves of Manipur. *Indian journal of Traditional Knowledge* 4(1) : 21-32.
- Ksishna B. and Singha 1996. Ethno botanical observation in Sikkim. *Economic and Taxonomic Botany*, 19 : 19-25.
- Mallick S.K. and Behera N. 2009. Phytosociological analysis of ethnomedicinal tree species in Goaltore forest area of

Mallick Harasourav and S.K. mallick 2012. Medicinal Plants
Used By the tribals of Nutangram Village District- Bankura,
West Bengal. *International Journal of Basic and Applied
Sciences*, 1(2): 131-133.

Mohammad I., Malik V. and Pranita 2010. Ethnomedicinal
plants of Shakumbari Devi Region of district Saharanpur(Uttar
Pradesh). *Non-Timber Forest Products*, 17(2)
: 187-195.

Schultes, R.E. 1960. Tapping our heritage of ethnobotanical
lore. *Econ. Bot.* 14: 257-262.

Schultes, R.E. 1962. The lore of the Ethnobotanist in search
for new medicinal plants. *Lloydia* 25: 257-366.

Srivastava T.N., Kapahi B.K. and Atal C.K. 1987.
Ethnomedico botanical investigation in Sikkim. *Economic and
Taxonomic Botany*, 10 : 149-157.