



## Some Antipyretic Ethno-medicinal Plants used by Munda Tribe of Tamar Block of Ranchi District, Jharkhand

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### ABSTRACT

This ethno medicinal plant's survey was carried out to collect the information on the use of some antipyretic activity of plants used by Munda Tribe of Tamar Block of Ranchi District. A total no of 40(forty) antipyretic plants species belonging to twenty-three (23) families and thirty-eight (38) genera have been recorded through structured questionnaires in consultations with the knowledgeable person, Baidhyas and also some community members. For curing the different diseases the use of above ground plant parts was higher (65.47%) than the underground plant parts (14.53%). Of the above ground plant parts leaf was used in the majority of cases, followed by whole plant parts, fruit, bark, and flower. Of the underground plant parts, roots and rhizomes are main medicinally valuable. Many antipyretic ethno-medicinal plants are found in different revenue villages of Tamar block. The present paper implies the potential of the traditional knowledge for the main kind. Some of the interesting plants *Abutilon indicum*, *Hemidesmus indicus*, *Bacopa monieri*, *Citrus medica*, *Curcuma longa*, *Vitex negundo*, *Tinospora cordifolia*.

**Keywords :** Tamar Block, Antipyretic, Traditional knowledge.

### Introduction

Fever can be defined as a condition of the body in which temperature above the normal. The average temperature of the healthy body ranges between 98.4° F and up to 99.5°f or 36.9°C to 37.5°C. if the temperature of the body during an attack of fever reaches 106° F, it is an indication of danger and if it shoots above 107° F for any length of time, death is inevitable. The temperature may go up to 110° F even 112° F before the death occurs.

The term fever has a very wide applications, it is one of the most common features of many diseases. In many cases, it is secondary symptoms of the ordered state of the body with which it is associated. In many diseases the main symptoms which attacks attention to the malady is fever. Fever generally begins with a slight shivering pain in various parts of the body, particularly the head; thirst and great lassitude. The main symptom of typhoid fever is a slow pulse, but when fever affected

to the Urinary tract the pulse beat is very rapid. Fever can be categorised into 28 kinds: ---

- 1) Influenza
- 2) Pneumonia
- 3) Typhoid
- 4) Plague
- 5) Cerebrospinal Fever
- 6) Diphtheria
- 7) Dengue Fever
- 8) Sand fly Fever
- 9) Yellow Fever
- 10) Mumps
- 11) Rheumatic Fever
- 12) heat exhaustion and heat strokes
- 13) Small pox
- 14) Chicken pox
- 15) Measles
- 16) Erysipelas
- 17) Hepatic Fever
- 18) Fever of dysentery
- 19) Fever at various stages and of Tuberculosis
- 20) Gastro intestinal infection
- 21) Malaria
- 22) Cerebrospinal Malaria
- 23) Black water fever
- 24) Kalaazar
- 25) Relapsing fever
- 26) Malta fever
- 27) Rat bite fever and
- 28) Filarial fever.

Comparatively very less attention has been given by the ethno botanists for exploring the ethno-medicinal resources of the Tamar Block of Ranchi District. This survey was done to explore more about the diversity of valuable ethno medicinal plants of this Block.

Tamar Block of Ranchi District is located between 23°3' 21" N and 85°39'44" E covering an area of 513.91 Km<sup>2</sup>. Out of this area about 148.91 Km<sup>2</sup>( 29%)

covering forest region. Tamar Block has eighty one revenue villages, such as Achudih, Agra, Amlasha, Babaikundi, Barlanga, Baredih, Barukande, Baburamdih, Buradih, Barneya, Birdih, Birgaon, Burusigu, Darida, Daruhara, Dimbudih, Domra, Dubla, Geredih, Gumandih, Gutibaru, Haradih, Haramlohar, Haradih, Janumpiri, Jhargaoon, Jojodih, Karamdih, Lankeya, Lohri, Madhudih, Manjhidi, Murpa, Nawadih, Parasi, Poradih, Rangamati, Rargaon, Roladih, Rolabera, Rugri, Salgadih, Tamar, Timpur, Ulilohar etc. The Munda Tribe is very popular in about twenty five villages. Many of them still depend on medicinal plants for the treatment of different ailments .But with the modern civilization, their traditional knowledge on medicinal plants are going to be extinct. No more work has been done in this region. Now a day many villages have no connection with road. Hence many people of the different villages of Tamar Block have been totally depends upon medicinal plants for treatment of diseases. There are many Baidhyas and knowledgeable person who were very prominent and successful for treatment of different diseases. Comparatively very less attention has been given by the ethno botanists for exploring the ethno-medicinal resources of the Tamar Block of Ranchi District. This survey was done to explore more about the diversity of valuable ethno medicinal plants of this Block.

## Materials and Methods

The field survey was carried out during 2013 to 2014 covering all seasons to collect information on the plants having antipyretic activity used by the Munda Tribe inhabited villages of Achudih, Agra, Babaikundi, Baredih, Barlanga, Birdih, Chirudih, Dimbudih, Deori, Dulmi, Edeldih, Jaradih, Kasmburudih, Lohri, Murpa, Salgadih,

Poradih, Timpur, and Ulidih. All forest regions contain numerous ethno medicinal plants. In this block the Munda Tribe is about 43 percent, according to 2011 population census. Climate of this block is subtropical in nature. The annual rainfall is ranges between 230 to 1390 mm and temperature ranges between 6-43<sup>o</sup> c with the highest in the of May and June.Plants have been collected in their flowering and fruiting stages as far as possible from natural habitat. The observations have been made through different knowledgeable person regarding the location, natural habitat, distribution pattern, nature of root, bulbs, or rhizomes etc Methodologies as suggested by Schulte ( 1960 and 1962), Jain (1964, 1967, 1987, 1989 )and Ford (1978) have been followed using collection of information on ethno medicinal and ethno botanical aspects. The information about the antipyretic plants ,have been gathered from the village old men, medicine men, even local men ,women, Baidhyas, and cultivators using structured questionnaires .Data on each plant have recorded on their family, vernacular name, occurrence and process of utilization by the Munda Tribe of Tamar Block for antipyretic effect.

Specimens were sprayed 10% formaldehyde .Desert plants, bulbous plants and rhizomatous plants were kept in lukewarm water till the plants turned yellow and pressed properly. All medicinal plants which were collected from different villages had been making herbarium in herbarium sheet. The collected plants were identified consulting a no. of Floras especially Flora of British India (Hooker, 1872- 1897), Hans Flora (I—VI volumes), Kirtikar and Basu, and many other floras.

## Results

SL NO.	Botanical name of plant	Common name	Family	Uses
1	<i>Abutilon indicum</i> Linn.	Kanghi	Malvaceae	Decoction of leaves as an emollient fermentation, infusion of roots taken in fever.
2	<i>Aconitum heterophyllum</i> Wall.	Atis	Ranunculaceae	The powder of <i>Aconitum</i> leaves and the powder of Nagar motha leaves mixed with honey are recommended in fever.
3	<i>Adhatoda vasica</i> Nees.	Vasak	Acanthaceae	The decoction of leaves of vasak, leaves of <i>Tinospora</i> , leaves of Tulsi & Motha is prescribed in fever.

SL NO.	Botanical name of plant	Common name	Family	Uses
4	<i>Aegle marmelos</i> Corr.	Bael	Rutaceae	Decoction of barks of Bael (5gm) is recommended in fever. The leaves extract of Bael with honey is also used in the treatment of fever.
5	<i>Aloe vera</i> Mill.	Ghritkuwari	Liliaceae	The juice of Aloe vera with four pieces of Piper longum is crushed & prescribed in fever.
6	<i>Andrographis paniculata</i> L.	Kalmegh	Acanthaceae	The fresh juice of the leaves is useful household remedy in fever.
7	<i>Annona squamosa</i> Linn.	Sharifa	Annonaceae	The leaves bark & roots are used in the treatment of fever.
8	<i>Azadirachta indica</i> A.Juss.	Neem	Meliaceae	The fresh leaves are useful household remedy in fever.
9	<i>Bacopa monieri</i> Linn.	Jalneem	Scrophulariaceae	The leaf extract of Bacopa is mixed with honey (5gm) is used twice a day to cure fever.
10	<i>Brassica oleracea</i> Linn.	Patta gobhi	Brassicaceae	It is mixed with Piper longum & honey is prescribed in fever.
11	<i>Centella asiatica</i> Linn.	Brahmi	Umbelliferae	Extract of fresh leaves mix with honey (5 -8ml) is prescribed in fever twice a day
12	<i>Citrullus colocynthis</i> Schrader.	Indrajou	Cucurbitaceae	The powder of fruit of indrajau is mixed with piper longum & honey is prescribed in fever.
13	<i>Citrus medica</i> Linn.	Nimbu	Rutaceae	The juice is mixed with few amount of sugar is prescribed twice a day to prevent fever. The juice of lime is mixed with the powder of Piper longum to prevent fever.
14	<i>Clerodendron serratum</i> Spreng.	Bharangi	Verbenaceae	The decoction of root is used in fever. The fresh leaves are eaten in empty stomach to control malaria fever.

15	<i>Coccinia indica</i> W & A.	kundru	Cucurbitaceae	The juice of fruits is applied twice to thrice a day to prevent fever.
16	<i>Coriandrum sativum</i> Linn.	Dhania	Umbelliferae	The seeds of coriandrum are dipped in rice water. Next day this water is boiled and make thin layer and prescribed to fever patient to check the fever
17	<i>Cuminum cyminum</i> Linn.	Jerra	Umbelliferae	The powder of seeds of cumin (200 mg) is mixed with old jaggery is prescribed twice a day to control the fever.
18	<i>Curcuma amada</i> Roxb.	Amahaldi	Zingiberaceae	The powder of rhizome is mixed with cow milk (less hot) is recommended twice a day to prevent the fever
19	<i>Curcuma longa</i> Linn.	Haldi	Zingiberaceae	The juice of the rhizome is useful in fever.
20	<i>Cuscuta reflexa</i> Roxb.	Amarbael	Cuscutaceae	The boiled plant is considered in chronic fever.
21	<i>Cyperus rotundus</i> Linn.	mothgrass	Cyperaceae	The juice of fresh tuber and the fresh juice of zinger is mixed with honey (5 ml) is prescribed twice a day to prevent fever.
22	<i>Datura metel</i> Linn.(Syn.)	Dhatura	Solanaceae	The powder of seeds are mixed with honey and taken before coming fever in twice a day, it prevent fever completely.
23	<i>Eclipta prostrata</i> Hassk.	Bhangra	Asteraceae	The juice of the leaves along with the honey is recommended in fever.
24	<i>Erythrina indica</i> Lam.	Hadua, Pangara	Fabaceae	Leaves are useful in fever. The leaves extract is taken in twice a day.
25	<i>Foeniculum vulgare</i> Mill.	Saunf	Umbelliferae	The decoction of saunf is mixed with MISRI and taken in twice a day, it prevents fever.
26	<i>Gloriosa superba</i> Linn.	Kalihari	Liliaceae	The powder of root and honey is taken in twice a day, it controls fever.
27	<i>Gmelina arborea</i> Roxb.	Gamhar	Verbenaceae	The extracts of root are taken twice a day for pancreatic fever.
28	<i>Helianthus annuus</i> Linn	Sunflower	Asteraceae	The decoction of leaves and flower along with honey is prescribed in malaria fever

29	<i>Momordica charantia</i> Linn.	Kerela	Cucurbitaceae	The fresh juice of leaves is given in flower.
30	<i>Ocimum sanctum</i> Linn.	Tulsi	Lamiaceae	The juice of the leaves along with the honey is recommended in fever.
31	<i>Phyla nodiflora</i> Rich.	Jalpipar	Verbenaceae	Ordinary cold and given to women after delivery in fever.
32	<i>Psidium guajava</i> Linn.	Amrood	Myrtaceae	An extract of leaves with a little salt is given in relieve whooping cough and fever.
33	<i>Solanum melongena</i> Linn.	Baigan	Solanaceae	In fever, the leaves & fruits is recommended for seven days in twice a days.
34	<i>S. surratense</i> Brumt.	Kantakari	Solanaceae	In fever, the fresh root (10gm), Zinger (10gm), & Tinospora(10gm) are mixed & make paste. This paste is dissolved in 400 ml water whole night. At morning, this liquid is boiled when the liquid is half in quantity & make decoction. This decoction is kept in a bottle & mixed 20 ml of honey. This decoction (10ml) is
35	<i>Spanacia oleracea</i> Linn.	Spinach	Chenopodiaceae	The decoction of five parts of plant is recommended for fever.
36	<i>Syzygium cumini</i> Skeels .	Jamun	Myrtaceae	The decoction of cumin & few drops of honey are recommended for relief in fever.
37	<i>Thuja orientalis</i> Linn.	Vidya	Cupressaceae	The decoction of leaves & stems are useful in fever.
38	<i>Tinospora cordifolia</i> Willd.(Miers)	Giloy	Menispermaceae	The extract of the whole plant is antipyretic.
39	<i>Vitex negundo</i> Linn.	Nirgundi	Verbenaceae	The leaves extracts is mixed with <i>Piper longum</i> & this mixture is used twice a day for relief in fever.
40	<i>Withania somnifera</i> Dunal.	Asgandh	Solanaceae	The decoction of roots is recommended in fever.

## Discussion

The present study reveals the great diversity of antipyretic plants in many parts of Tamar Block and their uses for human beings. It has been found the use of aboveground plant parts was higher (65.47%) than the underground plant parts (15.43%). In present investigation, out of 40(forty) antipyretic plants that are collected from different areas of Tamar Block of Ranchi District, Jharkhand.

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