

Ethnomedicinal Survey Of Antipyretic Plants Used By The Bagata Tribe Of Andhra Pradesh

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Abstract—This paper deals with 61 species of plants covering 58 genera and 38 families used by the Bagata tribe of Andhra Pradesh for curing fevers. Lamiaceae is the dominant family with 8 species followed by Fabaceae and Asclepiadaceae (5 spp each) and others. Herbs are dominant with 25 species followed by shrubs and trees (16 spp each) and others. Leaf is used in a maximum of 25 practices followed by root (16), seed (11) and others. 32 practices were found to be new.

Keywords—Ethnomedicine, Fever, Malaria, Typhoid, Bagata tribe, Andhra Pradesh

INTRODUCTION

Of all forms of diseases, fever is the most significant one. It starts before birth and also occurs during death. Hence, treatment of fever must begin before attending to any other complaints of the disease. Body temperature rises due to derangement of heart regulating mechanism in the brain. The rise in body temperature above 37.22° C is called fever. It generally occurs due to infections by virus, bacteria, protozoa and other microorganisms that produce pyrotoxins. Most traditional medical systems believe that fever is not a disease by itself but symptoms of some other diseases. Herbal antipyretic agents are favored over the chemical ones for their compatibility to the human physiological system, easy availability and rich knowledge about the traditional healing systems.

Visakhapatnam district is situated in the north eastern part of Andhra Pradesh. It lies between 17° - 34' 11" and 18° - 32' 57" in northern latitude and 81°1 -51' 49" and 83° -16' 9" in eastern longitude covering 6, 298 sq km i.e., 56.4% of the total geographical area of the district. As per 2011 census, its population is 4,290,589 of which the tribes include 618,500 comprising 14.42 per cent of the total population. The total population of Bagata tribe in the state is 132,577 (5.04% to total tribal population) constituting the second largest community inhabiting mostly Visakhapatnam district. Though there are publications on fever by different tribes (Aminuddin et al., 1993; Singh and Kumar, 1999; Goud et al., 1999; Chhetri, 2004; Tomar, 2007; Mishra, 2009; Naidu et al., 2009; Sharma et al., 2010; Ringmichon et al., 2011; Rao et al., 2013; Manjula et al., 2014; Hari Babu and Reddi, 2016; Suneetha and Reddi, 2016; Mathew et al., 2016; Raju et al., 2017; Swamy and Reddi, 2017) exclusive studies on the Bagata tribe of Andhra

Pradesh were not available necessitating the present study.

MATERIAL AND METHODS

The ethnomedicinal data presented here are the outcome of a series of intensive field studies conducted during 2009-2011 in 44 interior tribal pockets with good forest cover and 60 *vaidyas* were consulted. Each field trip was of 5-8 days duration covering all seasons of an year. After establishing good rapport with the tribe, the utility of plants, detailed methods of uses were documented and cross-checked for authenticity. Voucher specimens were deposited in the Herbarium of the Department of Botany (BDH), Andhra University, Visakhapatnam.

ENUMERATION

The plants are enumerated and arranged in an alphabetical order with botanical name followed by family, vernacular name, English name, method, mode and duration of treatment. Plants and practices marked with an asterisk (*) are considered to be new or less known.

Abelmoschus moschatus Medik. F: Malvaceae
VN: Adavi kasturi benda E: Musk mallow

*Fever: Half cup of seed decoction is administered twice a day till cure.

Achyranthes aspera L. F: Amaranthaceae VN: Duchheru E: Prickly chaff flower

*Fever: The leaves and roots are ground and the filtrate is administered orally.

Acorus calamus L. F: Araceae VN: Vasa E: The sweet flag (Fig. 1)

Fever: Rhizome paste is applied all over the body and a pinch of rhizome or leaf paste is administered with a glass of water only once to keep away evil spirits causing fever.

Malaria: Fresh rhizome juice is administered daily.

Alangium salvifolium (L. f.) Wang. F: Alangiaceae VN: Uduga chettu E: Stone mango

Fever: One spoonful of stem bark decoction is administered twice a day.

Alstonia scholaris (L.) R. Br. F: Apocynaceae VN: Edakulapala E: Devil tree

Shivering fever: Half spoon of stem bark powder is administered orally with water daily once.

Alternanthera sessilis (L.) R.Br. ex DC. **F:** Amaranthaceae **VN:** Ponnaganti koorra **E:** Sessile joyweed

*Shivering fever: Three internodal stem parts at the ground level without branches are ground with equal quantities of roots and filtered. Half glass of it is administered till cure.

Andrographis paniculata (Burm. f.) Nees **F:** Acanthaceae **VN:** Nela vemu **E:** King of bitters

Malaria: Whole plant powder mixed with equal amounts of pepper powder and half spoon of it is administered twice a day on empty stomach.

*Shivering fever: Leaf paste is made into soapnut seed sized tablets and one tablet is administered with half glass of water twice a day till cure.

Shivering fever, Malaria: Whole plant is ground with the juice of raw fruit of *Momordica charantia* and made into soapnut seed sized tablets. One tablet is administered twice daily on empty stomach.

Anisomeles indica (L.) Kuntze **F:** Lamiaceae **VN:** Ada beera **E:** Cat mint

Fever: Two spoonful of steam boiled leaf juice is taken daily once till cure.

A. malabarica (L.) R. Br. ex Sims **F:** Lamiaceae **VN:** Maga beera **E:** Devil frightener (Fig. 2)

Fever: Steam boiled leaves are made into paste and two spoonful of it is administered once a day for 3 days.

Intermittent fever: Handful of leaves are boiled in half litre of water till it becomes half and the filtrate is administered twice a day.

Aristolochia indica L. **F:** Aristolochiaceae **VN:** Nalla eswari **E:** Indian birth wort (Fig. 3)

*Fever: Root paste is made into soapnut seed sized pills. One pill is taken daily twice till cure.

*Shivering fever: Root paste is made into pea seed sized pills. One pill each is administered with water in the morning and evening.

Artemisia absinthium L. **F:** Asteraceae **VN:** Davanamu **E:** Absinth

*Fever: Half cup of flower decoction is administered daily twice.

A. vulgaris L. **F:** Asteraceae **VN:** Machipatri **E:** Indian worm wood

*Fever: Half cup of flower decoction is administered daily twice.

Asparagus racemosus Willd. **F:** Liliaceae **VN:** Bheemudu chettu **E:** Climbing Asparagus

*Fever: One spoonful of tuber powder is administered along with water.

Azadirachta indica A. Juss. **F:** Meliaceae **VN:** Vepa **E:** Margosa tree

Malaria: The leaves are dried and powdered, 2 spoonful of powder is taken with one glass of stored water on empty stomach in the early morning.

Barringtonia acutangula (L.) Gaertn. **F:** Barringtoniaceae **VN:** Kumbi chettu **E:** Indian oak

*Intermittent Fever: Root is tied to the hand.

Bixa orellana L. **F:** Bixaceae **VN:** Jaffra **E:** Annatto plant

Fever: A spoonful of root extract is administered daily twice for 2 days.

Boswellia serrata Roxb. ex Colebr. **F:** Burseraceae **VN:** Anduga **E:** Indian olibanum

*Fever: A pinch of gum powder is heated in half glass of water. One spoonful of sugar is added to it and administered orally.

Carissa carandas L. **F:** Apocynaceae **VN:** Pedda vaka **E:** Karanda

Intermittent fever: One to two spoonful of root juice is administered daily till cure.

Centella asiatica (L.) Urb. **F:** Apiaceae **VN:** Saraswathi aaku **E:** Indian pennywort

*Malaria: Handful of leaves are ground with 10 pepper grains. Paste is taken with glassful of milk.

Cissampelos pareira L. **F:** Menispermaceae **VN:** Chiru boddhi **E:** Velvet-leaf

*Shivering fever: One spoonful of root powder mixed with milk is taken orally.

Cleome viscosa L. **F:** Cleomaceae **VN:** Kukka vaminta **E:** Wild mustard

Fever: A spoonful of leaf juice mixed in a glass of hot water is administered daily twice for 2 days.

Corallocarpus epigaeus (Rottler) Hook. f. **F:** Cucurbitaceae **VN:** Pulidumpa **E:** Bitter apple

*Typhoid: Quarter cup of tuber decoction is given for seven days.

Costus speciosus (Koen.) Sm. **F:** Zingiberaceae **VN:** Bokacchika **E:** Spiral ginger (Fig. 4)

Fever: Rhizome ground into paste is plastered on the scalp for three days. Root juice is applied on the forehead to reduce pain.

Cuminum cyminum L. **F:** Apiaceae **VN:** Jeelakarra **E:** Cumin

Fever: One spoonful of seeds is taken with jaggery thrice a day.

Curculigo orchoides Gaertn. **F:** Hypoxidaceae **VN:** Nela tadi **E:** Black muscale

Fever (Evil spirits): Tuberous root paste mixed with root powder of *Hemidesmus indicus* is applied over the body only once to ward off evil spirits.

Curcuma aromatica Salisb. F: Zingiberaceae VN: Kasthuri dumpa E: Wild turmeric

Fever (Evil spirits): A spoonful of rhizome juice is administered internally and a portion of it is also applied on the scalp only once to ward off evil spirits.

Fever (Evil spirits): Two spoonful of rhizome juice is administered with a glass of hot water twice a day.

Cyperus rotundus L. F: Cyperaceae VN: Tunga gaddi E: Nut grass

Fever: Half glass of tuber decoction mixed with one spoonful of ginger juice is taken orally.

Globba marantina L. F: Zingiberaceae VN: Konda pasupu E: Maranti's swan flower

*Fever: Tuber paste is applied on the scalp to reduce high temperatures.

Glycyrrhiza glabra L. F: Fabaceae VN: Athimadhuram E: Liquorice

*Viral fever: One spoonful of root powder is administered with one spoonful of honey or one glass of milk.

Gymnema sylvestre (Retz.) R. Br. ex Sm. F: Asclepiadaceae VN: Podapathri E: Periploca of the wood

*Fever: Leaf decoction is administered daily.

Haldina cordifolia (Roxb.) Ridsd. F: Rubiaceae VN: Bandari E: Haldu

Fever: Half cup of stem bark decoction is taken twice a day.

Hedychium coccineum Buch.-Ham.ex Sm. F: Zingiberaceae VN: Deva kasturi E: Orange ginger lily (Fig. 5)

*Fever: One spoonful of tuber paste mixed with half glass of water is taken orally daily once and a portion of it is applied on the scalp.

Helianthus annuus L. F: Asteraceae VN: Suryakanti E: Common sunflower

Fever: Quarter glass of root decoction is administered daily twice.

Hibiscus rosa-sinensis L. F: Malvaceae VN: Mandara E: Chinese rose

Fever: Flowers are made into pickle and eaten with rice.

Justicia adhatoda L. F: Acanthaceae VN: Addasaram E: Malabar nut tree

Malaria: One spoonful of dried leaf powder is taken with water daily.

Leonotis nepetifolia (L.) R. Br. F: Lamiaceae VN: Pedha ranaberi E: Lion's ear (Fig. 6)

Fever: 30 ml of leaf decoction is administered daily once.

Leucas aspera (Willd.) Link F: Lamiaceae VN: Tummi E: Thumbe (Fig. 7)

*Fever: Whole plant is boiled in water and the fumes are inhaled.

Limonia acidissima L. F: Rutaceae VN: Velaga E: Elephant apple

Fever: Bed is made with leaves and slept on it to reduce high temperatures.

Mimosa pudica L. F: Mimosaceae VN: Atti patthi E: Touch-me-not

*Shivering fever: One spoonful of root juice is administered daily twice till cure.

Momordica charantia L. F: Cucurbitaceae VN: Adavi Kakara E: Bitter gourd

*Malaria: Five spoonful of leaf juice or one spoonful of leaf powder is administered daily once till cure.

Murraya koenigii (L.) Spreng. F: Rutaceae VN: Karrivepaku E: Curry leaf tree

*Fever: The extract taken from roots grown on ant hill with those of *Solanum erianthum* are administered for fever.

Nyctanthes arbor-tristis L. F: Nyctaginaceae VN: Parijatam E: Night jasmine

Malaria: Quarter cup of leaf decoction or one spoonful of leaf juice is administered for 4 times a day.

Ocimum tenuiflorum L. F: Lamiaceae VN: Krishna tulasi E: Holy basil

Fever: Leaf juice, pepper powder and honey in equal amounts are mixed and paste is administered daily twice. Leaves are chewed daily.

Malaria: One spoonful of root decoction is administered daily twice.

Phyllanthus amarus Schum. & Thonn. F: Euphorbiaceae VN: Nelasirli E: Carry me seed

*Shivering fever, Intermittent fever: 10 g of root paste mixed with 1 g of pepper powder is taken daily once.

Piper longum L. F: Piperaceae VN: Pippallu E: Long pepper

*Shivering fever: One spoonful of root juice or fresh tuber paste is administered daily once for 3 days.

Rauvolfia serpentina (L.) Benth. ex Kurz F: Apocynaceae VN: Pathala garidi E: Sarpentina root

Malaria: Root tuber is ground into paste and made into soap nut sized pills. One pill a day is administered.

Rhinacanthus communis Nees F: Acanthaceae VN: Nagamalli E: Snake jasmine

*Fever: One spoonful of leaf juice mixed with cow milk is given daily.

Rubia cordifolia L. F: Rubiaceae VN: Mangala katthi E: Dyers madder

*Fever: Root tuber ground with that of *Asparagus racemosus* and rhizome of *Acorus calamus* and paste is made into pills. Two pills are administered daily twice.

*Malaria: Tuberous roots of *Rauvolfia serpentina*, *Rubia cordifolia* and stem bark of *Acacia sinuata* in equal quantities are ground into paste and made into pills. Two pills are administered thrice a day till cure.

Scoparia dulcis L. F: Scrophulariaceae VN: Goddu tulasi E: Sweet broom-weed

Fever: Half cup of leaf decoction is taken once a day.

Fever: Whole plant is shade dried and made into fine powder. One spoonful of it is administered with water thrice a day.

Sida rhombifolia L. F: Malvaceae VN: Ativala E: Broom jute sida

*Intermittent fever: Roots are pound with pepper grains and ginger in equal quantities and one spoonful of juice slightly heated is administered.

Solanum erianthum Don F: Solanaceae VN: Pittu chettu E: Indian current tomato

*Fever: Root is ground with that of *Murraya koenigii* and half glass of extract is administered daily once.

Soymida febrifuga (Roxb.) A. Juss. F: Meliaceae VN: Sami chettu E: Rohan tree

*Shivering fever: 30 ml of stem bark decoction is given orally.

Stachytarpheta jamaicensis (L.) Vahl F: Verbenaceae VN: Ratnama E: Aaron's rod (Fig. 8)

Fever: One spoonful of whole plant paste is administered daily twice till cure.

Tamarindus indica L. F: Caesalpiniaceae VN: Chintha chettu E: Tamarind

Fever: Quarter cup of tender leaf decoction is given twice a day.

Terminalia arjuna (Roxb. ex DC.) Wight & Arn. F: Combretaceae VN: Tellamaddi E: Arjun tree

*Viral fever: Stem bark is pound with old jaggery. One spoonful of paste is administered daily twice.

T. chebula Retz. F: Combretaceae VN: Karakkai E: Black myrobalan

*Fever: Half spoon of fruit paste is taken with honey daily once.

Tinospora cordifolia (Willd.) Miers F: Menispermaceae VN: Thippa theega E: Gulancha tinospora (Fig. 9)

Fever: Stem and leaves of *Solanum surattense* and *Justicia adhatoda* are taken in equal amounts and decoction is prepared and administered daily for all types of fevers.

Fever: Stem is made into pieces, dried and powdered. Half spoon of it is taken with half glass of water twice a day.

Malaria: Two spoonful of plant juice is taken twice a day.

Vernonia cinerea (L.) Less. F: Asteraceae VN: Sahadevi E: Iron weed

Fever: Whole plant paste is applied on the scalp to reduce high temperatures.

Vetiveria zizanioides (L.) Nash F: Poaceae VN: Vatti veru E: Vetiver (Fig. 10)

Fever: Half cup of root decoction is administered daily thrice with half cup of milk.

Withania somnifera (L.) Dunal F: Solanaceae VN: Pennerugadda E: Aswagandha (Fig. 11)

Fever: Quarter cup of light decoction of leaves is administered daily once.

Woodfordia fruticosa (L.) Kurz F: Lythraceae VN: Arepuvvu E: Fire flame brush (Fig. 12)

Fever: Leaf decoction mixed with ginger juice and sugar is administered daily once.

RESULTS AND DISCUSSION

The paper deals with 61 species of plants covering 58 genera and 38 families used by the *Bagata* tribe of Andhra Pradesh for curing various fevers viz., fever, fever due to evil spirits, intermittent fever, shivering fever, viral fever, malaria and typhoid. Lamiaceae is the dominant family with 5 species followed by Asteraceae, Zingiberaceae (4 spp each), Malvaceae, Apocynaceae, Acanthaceae (3 spp each), Meliaceae, Rutaceae, Combretaceae, Apiaceae, Rubiaceae, Solanaceae, Amaranthaceae (2 spp each) and others with one species each. Habit-wise analysis showed the dominance of herbs with 26 species followed by shrubs (16 spp), trees (15 spp) and climbers (4 spp). Morphological analysis showed the maximum utilization of leaf in 20 practices followed by rhizome (16), tuber (9), whole plant (7), rhizome and stem bark (5 each), stem and flower (3 each), seed (2), fruit and gum in one practice each. They are administered either in the form of powder, paste, juice, filtrate, decoction, pill, tablet, pickle or fumes along with either water, lukewarm water, milk, cow milk, ginger, sugar, honey, pepper, old jaggery or rice. 32 practices were found to be new or less known (Jain, 1991; Kirtikar and Basu, 2003). Some species with similar usage recorded in different parts of India, Bangladesh, Nepal and Nigeria are: *Achyranthes aspera*, *Scoparia dulcis* by the *Chepang*, *Magar*, *Tamang* and *Tharu* tribes of Chitwan district, Nepal (Manandhar, 1990); *Andrographis paniculata*, *Azadirachta indica*, *Nyctanthes arbor-tristis*, *Tinospora cordifolia* by the

tribes of 8 districts of Orissa (Aminuddin et al., 1993); *Andrographis paniculata*, *Nyctanthes arbor-tristis* by the *Sauria Paharia* tribe of Santhal Paragana, Bihar (Jha and Varma, 1996); *Alangium salvifolium*, *Alstonia scholaris*, *Andrographis paniculata*, *Anisomeles malabarica*, *Aristolochia indica*, *Carissa carandas*, *Cissampelos pareira*, *Cyperus rotundus*, *Tinospora cordifolia* by the *Yanadi*, *Nakkala*, *Irula*, *Yerukula*, *Sugali/Lambada* and *Chenchu* tribes of Chittoor district, Andhra Pradesh (Vedavathy et al., 1997); *Cissampelos pareira*, *Nyctanthes arbor-tristis*, *Vernonia cinerea* by the *Santhal*, *Paharia*, *Munda*, *Uraon*, *Ho*, *Birhor*, *Asur* and *Kharwar* tribes of Chotanagpur and South Pargana of Bihar (Varma, 1997); *Acorus calamus*, *Andrographis paniculata* by the *Oraon*, *Gond*, *Korwa*, *Kodaku*, *Majhwar*, *Panika*, *Pando* and *Cherwa* tribes of Surguja district, Madhya Pradesh (Kumar and Jain, 1998); *Andrographis paniculata*, *Aristolochia indica*, *Azadirachta indica*, *Cyperus rotundus*, *Mimosa pudica*, *Nyctanthes arbor-tristis*, *Tinospora cordifolia* by the *Chenchu*, *Sugali* and *Yerukula* tribes of Kurnool district, Andhra Pradesh (Goud et al., 1999); *Achyranthes aspera*, *Alstonia scholaris*, *Aristolochia indica*, *Cissampelos pareira*, *Nyctanthes arbor-tristis*, *Tinospora cordifolia* by the *Tharu*, *Kol*, *Gond*, *Kharwar*, *Korwa* and *Santhal*, *Paharia*, *Oraon*, *Munda* tribes of Uttar Pradesh and Bihar, respectively (Singh and Kumar, 1999); *Acorus calamus*, *Andrographis paniculata*, *Murraya koenigii*, *Piper longum*, *Tinospora cordifolia* by *Bodo* tribe of Kamrup district, Assam (Gogoi and Borthakur, 2001); *Andrographis paniculata*, *Asparagus racemosus*, *Cyperus rotundus*, *Tinospora cordifolia* by the *Yerukula*, *Yanadi*, *Nakkala* and *Irula* tribes of Chittoor district, Andhra Pradesh (Vedavathi, 2002); *Alstonia scholaris*, *Aristolochia indica*, *Cyperus rotundus*, *Ocimum tenuiflorum* by the *Siddi*, *Koraga*, *Malekudiya*, *Halakki vokkliga* and *Gowli* tribal communities of Coastal Karnataka (Bhandary and Chandrashekar, 2002); *Acorus calamus*, *Alternanthera sessilis*, *Piper longum*, *Tinospora cordifolia* by the traditional healers of Darjeeling Himalayas (Chhetri, 2004); *Achyranthes aspera*, *Andrographis paniculata*, *Curculigo orchoides*, *Leucas aspera* by the *Kandha* tribe of Kandhamal district, Orissa (Behera et al., 2006); *Andrographis paniculata*, *Terminalia chebula* by the *Nocte* and *Wancho* tribes of Dihing-Patkai Wildlife Sanctuary of Assam (Nath et al., 2006); *Acorus calamus*, *Andrographis paniculata*, *Asparagus racemosus*, *Cissampelos pareira*, *Nyctanthes arbor-tristis*, *Tinospora cordifolia* by the folklore in Meerut district of Eastern Uttar Pradesh (Tomar, 2007); *Azadirachta indica* by the *Esan* people of Edo state in Nigeria (Idu et al., 2008); *Achyranthes aspera*, *Acorus calamus*, *Andrographis paniculata*, *Cissampelos pareira*, *Cyperus rotundus*, *Glycyrrhiza glabra*, *Mimosa pudica*, *Phyllanthus amarus*, *Piper longum*, *Rubia cordifolia*, *Terminalia chebula*, *Tinospora cordifolia*, *Vernonia cinerea*, *Vetiveria zizanioides*, *Withania somnifera* were among the 105 plant species reported for curing fever in *Madhavacikitsa* tradition (Mishra, 2009);

Andrographis paniculata, *Anisomeles indica*, *Azadirachta indica*, *Bixa orellana*, *Cissampelos pareira*, *Cyperus rotundus*, *Mimosa pudica*, *Nyctanthes arbor-tristis*, *Ocimum tenuiflorum*, *Scoparia dulcis*, *Tinospora cordifolia*, *Vernonia cinerea* by the *Gadaba*, *Jatapu*, *Kondadora*, *Kuttiya*, *Savara*, *Yerukula* tribes of Srikakulam district, Andhra Pradesh (Naidu et al., 2009); *Andrographis paniculata*, *Leucas aspera*, *Tamarindus indica* by the *Chakma*, *Marma*, *Tripura* tribes of Chittagong Hill tracts of Bangladesh (Biswas et al., 2010); *Alternanthera sessilis*, *Asparagus racemosus*, *Leucas aspera*, *Ocimum tenuiflorum*, *Piper longum*, *Terminalia chebula*, *Tinospora cordifolia*, *Vernonia cinerea* in 10 southern and one northern districts of Karnataka (Shiddamallayya et al., 2010); *Achyranthes aspera*, *Andrographis paniculata*, *Aristolochia indica*, *Cissampelos pareira*, *Ocimum tenuiflorum*, *Vernonia cinerea* by the *Gond*, *Kol*, *Baiga*, *Panica*, *Khairwar*, *Manjhi*, *Mawasi* and *Agaria* tribes of Rewa district, Madhya Pradesh (Shukla et al., 2010); *Andrographis paniculata*, *Justicia adhatoda*, *Nyctanthes arbor-tristis*, *Tinospora cordifolia*, *Withania somnifera* by the *Santhal*, *Kolha*, *Bathudi*, *Kharias*, *Mankidias*, *Gond* and *Ho* tribes of Mayurbhanj district, Orissa (Rout and Panda, 2010); *Andrographis paniculata*, *Azadirachta indica*, *Nyctanthes arbor-tristis*, *Phyllanthus amarus*, *Tinospora cordifolia* by the *Gond* tribe of Chhindwara district, Madhya Pradesh (Sharma et al., 2010); *Acorus calamus*, *Justicia adhatoda* by the *Naga* tribes of Manipur (Ringmichon et al., 2011); *Asparagus racemosus*, *Nyctanthes arbor-tristis* by the *Gond*, *Bhunja*, *Binjhal* and *Sabar* tribes of Nuapada region of Odisha (Kandi et al., 2012); *Achyranthes aspera*, *Acorus calamus*, *Alstonia scholaris*, *Anisomeles indica*, *Aristolochia indica*, *Asparagus racemosus*, *Bixa orellana*, *Cleome viscosa*, *Cuminum cyminum*, *Curculigo orchoides*, *Curcuma aromatica*, *Ocimum tenuiflorum*, *Piper longum*, *Soymida febrifuga*, *Tinospora cordifolia* by the *Gadaba*, *Khond*, *Porja* and *Savara* primitive tribal groups of north coastal Andhra Pradesh (Rao et al., 2013); *Andrographis paniculata*, *Nyctanthes arbor-tristis* by the *Kondh*, *Gond*, *Saura*, *Mirdha*, *Khaira*, *Kora*, *Kolha* tribes of Boudh district, Odisha (Sahu et al. 2013); *Andrographis paniculata*, *Aristolochia indica*, *Carissa carandas*, *Cyperus rotundus*, *Haldina cordifolia*, *Mimosa pudica*, *Murraya koenigii*, *Ocimum tenuiflorum*, *Piper longum*, *Tinospora cordifolia*, *Vernonia cinerea*, *Vetiveria zizanioides*, *Withania somnifera* by the *Koya*, *Lambada*, *Gond/Naikpod*, *Nayak*, *Konda reddy*, *Yerukula* tribes of Khammam district, Andhra Pradesh (Manjula et al., 2014); *Andrographis paniculata*, *Costus speciosus*, *Vetiveria zizanioides* by the *Gond* tribe of Korba district, Chhattisgarh (Gond et al., 2014); *Andrographis paniculata*, *Rauvolfia serpentina* by the people of fringe villages of Manas National Park (Bhattacharjya et al., 2015); *Alternanthera sessilis*, *Andrographis paniculata*, *Anisomeles indica*, *Bixa orellana*, *Carissa carandas*, *Cissampelos pareira*, *Haldina cordifolia*, *Ocimum tenuiflorum*, *Tinospora cordifolia* by the *Konda reddy*, *Konda dora*, *Koya dora*,

Konda kammara, Konda kapu, Manne dora and *Valmiki* tribes of East Godavari District, Andhra Pradesh (Suneetha and Reddi, 2016); *Achyranthes aspera, Cyperus rotundus, Murraya koenigii, Ocimum tenuiflorum, Piper longum, Terminalia chebula, Tinospora cordifolia* by the *Paliya* tribes of Idukki district, Kerala (Mathew et al., 2016); *Andrographis paniculata, Bixa orellana, Carissa carandas, Cleome viscosa, Curculigo orchioides, Curcuma aromatic, Ocimum tenuiflorum* by the *Bagata, Gadaba, Goudu, Khond, Konda dora, Konda kammara, Kotia, Mali, Mukha dora, Porja* and *Valmiki* tribes of Visakhapatnam district, Andhra Pradesh (Hari Babu and Reddi, 2016); *Alternanthera sessilis, Andrographis paniculata, Bixa orellana, Haldina cordifolia, Phyllanthus amarus, Tinospora cordifolia* by the *Konda reddy* tribe of Andhra Pradesh (Raju et al., 2017); *Alangium salvifolium, Andrographis paniculata, Azadirachta indica, Cleome viscosa, Cyperus rotundus, Ocimum tenuiflorum, Soyimida febrifuga, Tamarindus indica, Tinospora cordifolia, Vetiveria zizanioides* by the *Gond, Kolam, Koya, Lambada, Manne, Naikpod, Pradhan, Thoti* and *Yerukula* tribes of Adilabad district, Andhra Pradesh (Swamy and Reddi, 2017); *Acorus calamus, Andrographis paniculata, Cissampelos pareira, Nyctanthes arbor-tristis, Rauvolfia serpentina, Sida rhombifolia, Tinospora cordifolia* by the people in Shivalik Range of Panchkula, Haryana (Balakrishna et al., 2018) and *Achyranthes aspera, Phyllanthus amarus* by the *Magar* tribe of Palpa district, Nepal (Singh et al., 2018). The information generated from the present study regarding the medicinal plants used for various types of fevers by the *Bagata* tribe need a thorough scientific screening including phytochemical investigation along with few clinical trials. This could help in creating awareness among the tribes regarding the need for conservation of such plants and also posing ethnic clues for the development of dispensable medicine.

ACKNOWLEDGEMENTS

The authors are grateful to the tribal informants and practitioners for their cooperation and help during field work by providing information on various fevers.

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