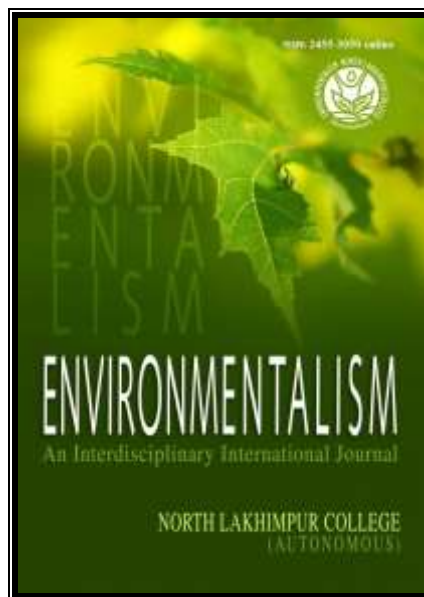


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Medicinal Plants in the Environment of Lakhimpur District, Assam, India, used by the Local People for the Treatment of Cough, Fever and Headache

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ETHNO-MEDICO-BOTANICAL APPROACH OF PREVENTING COUGH, FEVER AND HEADACHE BY THE LOCAL PEOPLE OF LAKHIMPUR DISTRICT, ASSAM, INDIA

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Abstract

The paper deals with certain traditional medicines applied for curing Cough, Fever and Headache by the local people of Lakhimpur district of Assam. The data have been gathered from the medicine men, old villagers and resourceful individuals of the tribes in different villages of the district, during this work 22 plant species belonging to 18 families are recorded. The species are arranged alphabetically along with their families, local name, short botanical description and mode of use.

Key words: Cough, Fever, Headache, Lakhimpur District

1 Introduction

Ethno-medico-botany acts as a bridge between botany and tribal knowledge regarding medicinal aspects of plants. India is very rich in floristic diversity as well as ancient folk literature which may be tapped for information since all system of medicines have their roots, in one way or other in folk medicine and household remedies (Singh and Pandey, 1996). All the seven North-Eastern states of India are predominantly inhabited by tribal peoples. Assam is not an exception in this regard. Different ethnic groups of Assam have a tremendous scope for ethno-botanic study as they differ widely in their life-style. The people of different ethnic groups of Assam have exploited a number of medicinal plants for effective curing of various ailments.

Present investigation was carried out in different villages of Lakhimpur District, Assam. Lakhimpur is situated at the foot-hills of Arunachal Pradesh, has a unique climatic pattern, uncomparable to any other part of Assam. A comparatively heavier rainfall 263.3 mm average annual with high humidity 68% annual average prevails almost throughout the year in the district (<http://lakhimpur.nic.in/html>). This typical climate results in a rich evergreen vegetation with dense forest areas suitable for growth of a number of rare plant species.

The exact location of the district is 26.48' and 27.53' northern latitude and 93.42' and 94.20' east longitude. Lakhimpur District occupies an area of 2,277 square kilometres (879 sq m), located in the north-east corner of the Indian (<http://lakhimpur.nic.in/html>). The district lies on north bank of the mighty river Brahmaputra. It is bounded

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on the north by Lower Subansiri and Papumpare Districts of the state of Arunachal Pradesh and on the east by Dhemaji District. Forests are mainly tropical rain forest.

2 Materials and method

Frequent field trips were made to the different villages situated in remote areas during the year 2014 – 2015. The folklore ethno-medico-botanical informations were collected as suggested by Schultes (1962) and Jain (1963) on the basis of interviews and cross examination of the inhabitants and village medicine men commonly known as “BEJ” during field trips.

Table 1: Some plant species used to cure Cough (“Ass” – Assamese, “Eng” – English)

Botanical Name	Local Name	Family	Habit	Uses
1 <i>Allium cepa</i> L.	Piaj- Ass, Onion - Eng	Liliaceae	Herb	Juice of bulb with small amount of common salt is used orally in cough. +_ 10 ml. thrice daily until cured.
2 <i>Ananas comosus</i> (L.) Merr.	Anaros- Ass, Pineapple- Eng.	Bromeliaceae	Herb	Ripe fruit with milk and sugar is used in cough
3 <i>Justicia adhatoda</i> Linn.	Bahak –Ass, Basaka- Eng.	Acanthaceae	Herb	Juice made from young leaves with common salt is used orally in cough. +_ 15 ml twice daily until cured.
4. <i>Kalanchoe pinnata</i> (Lamk.) Pers.	Doopor tenga- Ass Sprout leaf plant- Eng.	Crassulaceae	Herb	Juice made from young leaves with common salt is used orally in cough. +_ 10 – 20 ml. (according to age) twice daily until cured.
5. <i>Oxalis corniculata</i> Linn.	Soru tengeshi- Ass, Indian sorrel- Eng	Oxalidaceae	Herb	Vegetable made from young leaves is used in cough.
6. <i>Ocimum sanctum</i> Linn.	Tulosi- Ass, Holy Basil- Eng.	Lamiaceae	Herb	+_ 10 ml. Juice of young leaves mixed with +_ 10 ml. juice of rhizome of ginger and small amount of sugar is used orally in cough thrice daily until cured
7. <i>Phyllanthus emblica</i> Linn.	Amloki – Ass, Emblic Myrobalans - Eng	Euphorbiaceae	Tree	Ripe fruits are used in cough

Voucher specimens were collected, photographed and identified. Identification of plants were done by following the reference book of Dutta (1975), Hooker (1872-1897) and Kanjilal (1934-1940). The native names of the plants have been given at the beginning of each species and abbreviated as “Ass” – Assamese and “Eng” – English.

3 Enumeration



Medico-Ethnobotany acts as a bridge between botany and tribal knowledge regarding medicinal aspects of plants. India is very rich in floristic diversity as well as in ancient folk literature which may be tapped for information since all system of medicine have their roots, in one way or other in folk medicine and household remedies (Singh, V. and Pandey, R. P. 1996).

The list of some locally available plant species and parts used by the different tribes of Lakhimpur district, Assam for treatment of cough, fever and headache diseases are presented in the table 1, 2 and 3.

Table 2: Some plant species used to cure *Fever* (“Ass” – Assamese, “Eng” – English)

1. <i>Aegle marmelos</i> (L.) Correa	Bel-Ass The Beal tree- Eng	Rutaceae	Tree	Juice of young leaves is used orally in fever. +_ 15 ml. thrice daily for three days.
2. <i>Alstonia scholaris</i> (L.) R.Br.	Chatiana- Ass, Devil’ tree- Eng	Apocynaceae	Tree	Juice made from bark with small amount of common salt is used orally in fever. +_ 5 ml. twice daily until cured.
3. <i>Amaranthus spinosus</i> Linn.	Kata khutora – Ass, Spiny Amaranth- Eng	Amaranthaceae	Herb	Juice made from whole plant with common salt is used orally in asthma and fever. +_ 10-20 ml. (according to age) thrice daily until cured.
4. <i>Andrographis paniculata</i> Nees.	Mahatita – Ass, The Creat- Eng	Acanthaceae	Herb	Juice made from whole plant with common salt is used orally in fever. +_ 5 - 15 ml. (according to age) thrice daily until cured.
5. <i>Ananas comosus</i> (L.) Merr.	Anaros- Ass, Pineapple- Eng.	Bromeliaceae	Herb	Ripe fruit with sugar is used fever.
6. <i>Averrhoa carambola</i> Linn.	Kordoi – Ass, Carambola – Eng.	Averrhoaceae	Tree	Fruit with common salt is used in fever.
7. <i>Coccinia indica</i> Wight and Arn.	Kunduli – Ass, Kavai fruit –Eng.	Cucurbitaceae	Climber	Vegetable made from young leaves is used in fever.
8. <i>Dillenia indica</i> Linn.	Ou tenga- Ass, Elephant fruit – Eng	Dilleniaceae	Tree	Fruit juice mixed with sugar and water is used orally as cooling beverage in fever.
9. <i>Erythrina variegata</i> Linn.	Ronga Madar- Ass, Indian Coral tree- Eng	Fabaceae	Tree	Juice of bark is used in fever. +_ 10 – 15 ml. thrice daily for 7 days.

10. <i>Heliotropium indicum</i> Linn.	Hatisur- Ass, Indian Heliotrope – Eng	Boraginaceae	Herb	Decoction of leaves with small amount of common salt is used orally in fever. +_ 10ml twice daily for three days.
11. <i>Leucas linifolia</i> Spreng.	Boga doron- Ass, Sweet mother wort- Eng.	Lamiaceae	Herb	Juice made from young leaves is used orally in fever. +_ 5 – 10 ml. thrice daily for 3 days.
12. <i>Moringa oleifera</i> Lamk.	Sojina- Ass, Drum stick tree- Eng.	Moringaceae	Tree	Decoction of roots with small amount of common salt is used orally in fever. +_ 5ml. thrice daily for three days.
13. <i>Mimosa pudica</i> Linn.	Nelajebon -Ass, The Sensitive Plants-Eng	Fabaceae	Climber	Decoction of roots with small amount of common salt is used orally in fever. +_ 10 ml twice daily for three days.
14. <i>Ocimum sanctum</i> L..	Tulosi- Ass, Holy Basil- Eng.	Lamiaceae	Herb	+_ 10 ml. Juice of young leaves mixed with +_ 10 ml. juice rhizome of ginger and small amount of sugar is used orally in cough thrice daily until cured.
15. <i>Vitex negundo</i> Linn.	Posotia – Ass, Chaste tree- Eng	Verbenaceae	Shrub	Juice of roots with common salt is used in fever. +_ 15 ml. thrice daily until cured.

Table 3: Some plant species used to cure *Headache* (“Ass” – Assamese, “Eng” – English)

1. <i>Allium cepa</i> L.	Piaj- Ass, Onion - Eng	Liliaceae	Herb	Juice of bulb is applied locally on forehead in headache.
2. <i>Centella asiatica</i> (L.)Urban	Bormanimuni – Ass, Indian Pennywort- Eng.	Apiaceae	Herb	Paste made from young leaves is applied locally on forehead in headache.
3. <i>Ricinus communis</i> Linn.	Era – Ass, Castor oil plant- Eng.	Euphorbiaceae	Shrub	Paste made from leaves is applied locally on forehead in headache.

4 Discussion

The ethno-medico-botanical survey of the area revealed that the people of the area possessing good knowledge of herbal drugs but as the people of the societies are in progressive exposure to modernization, their knowledge of traditional uses of plants may be lost in due course. So, it is important to study and record the uses of plants by different tribes and sub-tribes for future study.

Such studies may provide some informations to phytochemists and pharmacologists in screening of individual species and in rapid assessing of skin diseases preventing phytoconstituents.



The present investigation reveals that all the 22 plant species belonging to 18 families, besides being used as medicine, have some other significant ethnic importance among the local tribes. There is need for further investigations on these ethnomedicinal plants for active principle and to test their safety and efficacy, so that it can be further utilized in health-care needs. These studies may also bring to light some new sources of herbal origin.

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