



## A STUDY ON ETHNOMEDICINAL USES OF PLANTS IN DHEMAJI DISTRICT OF ASSAM WITH SPECIAL REFERENCE TO REPRODUCTIVE HEALTH

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### ABSTRACT

The present paper deals with the documentation of ethnomedicinal uses of plants and parts, particularly the fertility and anti-fertility plants used by the Misings, Kacharis & Chutias of Dhemaji district of Assam, India. Dhemaji is situated between the 94°12'18'' E & 95°41'32'' E longitudes & 27°05'27'' N & 27°57'16'' N latitudes, the district covers an area of 3237 sq.km & is a basically plain area lying at an altitude of 104 m above the mean sea level. It is inhabited by large number of indigenous tribes, namely, Mishings, Kacharis, Bodos, Deoris...etc. Survey was carried out during the period January 2011 to July 2012, in 12 villages to investigate about the above mentioned indigenous medicinal plants used for the management and cure of female reproductive health problems. Total 11 species of plants were reported. It is observed that in majority of cases, plants are mixed together and consumed.

**Keywords:** Ethnomedicinal, Fertility, Anti-fertility

### INTRODUCTION

The World Health Organization in 2001 estimated that eighty percent of the world population use medicinal plants in the treatment of diseases.<sup>7</sup>....It was also estimated that upto 90% of the population in developing countries rely on the use of medicinal plants to help meet their primary health care needs.<sup>2</sup>

Infertility is a worldwide medical and social problem. Infertility in itself may not threaten physical health but can have serious impact on the mental and social well being of infertile couple. It is estimated that there are 60-80 million infertile couples worldwide and above 10-15% of married couples are affected.<sup>1</sup> Similarly, rising human population throughout India more particularly in developing and underdeveloped parts has detrimental effect on the life supporting system. Fertility regulation, comprising contraception and management of infertility forms an important component of reproductive health. Though considerable progress has been made in the development of highly effective, acceptable and reversible methods of contraception among females, the development of new fertility drugs from medicinal plants is an attractive proposition. A wide variety of synthetic fertility enhancing and contraceptive treatments are available but most of them are associated with some health problems. In such circumstances ayurvedic or ethnological drugs can be found useful. The folklore information and the ancient literature about the plants and herbs can help.

Ethnobotany is a multidisciplinary study involving the relationship between plants and the aboriginal people & a fair familiarity with the flora and the vegetation of the region. North Eastern India offers an immense scope for such ethnobotanical studies since it is mostly inhabited by numerous aboriginal tribes having rich folklore. Assam, situated in the North Eastern region of India is inhabited by the largest number of tribes, namely, Mishings, Deoris, Rabhas, Boro, Kacharis,...etc.

This study was carried out to search for information from traditional medical practitioners on plant remedies used for

the management and cure of female fertility and contraceptive problem.

### Survey area

Dhemaji is situated in the remote corner of Assam. Geographically, it is situated between the 94°12'18'' E & 95°E Longitudes & 27°05'27'' N 27°57'16'' N Latitudes. The district covers an area of 3237 sq.km. & is a basically plain area lying at an altitude of 104m above the mean sea level. It is inhabited by large number of tribes, namely, Mishings, Deoris, Kacharis, Bodos...etc

### METHODOLOGY

A survey was carried out during the period 2011-12 to collect information on fertility and ant-fertility medicinal plants used by the local inhabitants of Dhemaji district of Assam. The study was done in 12 villages selected randomly. The methodology followed includes different parameters. The most important among them was the people participatory. The basic information for this investigation has been collected through the methods such as, direct personal investigation, indirect oral investigation and questionnaires & schedules. The formal discussion consisted of the headman, healers, both men & women and common cultivators. Information about the plants were recorded with regard to their vernacular names, plant part used, process of preparation of medicine...etc. Plants were collected & identified using relevant floras & standard literature

### RESULTS

The fertility enhancing & anti-fertility plants were recorded and the information is presented in tabular form (table1). The abbreviation "A" stands for Assamese and "M" for Mishing. The present study reported 11 species of plants belonging to different families. It is found that maximum of the plant species are given in conjunction with one another as compound drugs.

## Map of the survey area

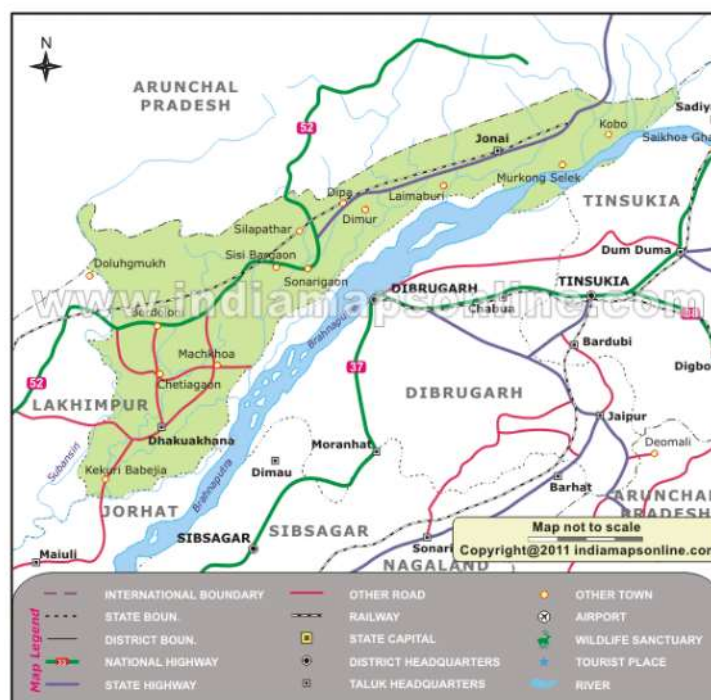


Table 1: List of fertility enhancing plants used by the local inhabitants of Dhemaji district

Sl.	Plant name (Family)	English name	Local names	Treatment	Parts used	Folk use
1.	<i>Paedaria scandens</i> (Rubiaceae)	Stink-vine, Chinese-fever vine	Bedailata (A), Bungkeripuk (M)	Fertility	Leaves	It is boiled with <i>Drymaria cordata</i> in ratio (1:1) and filtered. The filtrate is taken twice per day during Mensuration
2.	<i>Scoparia dulcis</i> Linn. (Scrophulariaceae)	Goatweed, Scoparia-weed	Mitha-paat (A)	-do-	Tender shoot	Paste is made along with <i>Paedaria scandens</i> in the ratio (2:1). Taken 3 times per day for 2 days during mens.
3.	<i>Hibiscus rosa sinensis</i> (Malvaceae)	China-rose	Jova-phul (A, M)	-do-	Flower	Paste is made along with <i>Cynodon dactylon</i> Linn. Taken for 3 days during mens.
4.	<i>Drymaria cordata</i> A. Gray. (Caryophyllaceae)	Tropical Chickweed	Laijabori (M)	-do-	Whole plant	Same as <i>Paedaria scandens</i>
5.	<i>Musa paradisiaca</i> (Musaceae)	Banana	Malbhug kol (A)	-do-	Fruit	Ripe banana part is mixed with "lightning bugs" and taken orally at 7 <sup>th</sup> day of mens.
6.	<i>Ferula asafetida</i> (Apiaceae)	Devil's dung	Hing (H, A)	-do-	Latex, Resin	Once per day before 2 days of mens.
7.	<i>Mimosa pudica</i> (Fabaceae)	Touch-me-not	Lajukia bon(A)	Anti-fertility	Tender shoot	Paste is made with roots of <i>Terminalia chebula</i> in ratio (1:1) and taken at the third day of mens., thrice/day
8.	<i>Terminalia chebula</i> (Combretaceae)	Chebulic myrobal-an	Hilika (A, M)	-do-	Root	Same as above
9.	<i>Plumbago rosea</i> L. (Plumbaginaceae)	Indian leadwort	Agechita(A)	Anti-implantation	Root	Root is worn as garland to expel embryo
10.	<i>Musa acuminata</i> (Musaceae)	Banana	Kol (A) Kopak (M)	-do-	Inflorescence	It is burnt and eaten for 3-4 days during mens.
11.	<i>Carrica papaya</i> (Caricaceae)	Papaya	Omita (A)	-do-	Fruit	Taken during gestation period

## DISCUSSION

The traditional plants used by the local people in their day-to-day life have got various ethnomedicinal properties. The indigenous medicinal plants prescribed by the local healers for treating various diseases are normally used as food by the tribes of this region. It is seen that the various plants used by the tribes are found nearby their settlement. Though the traditional plants used by them are wild, they domesticated and conserved them nearby their house. Thus, utilization & conservation practices of the native tribes are intertwined. Unfortunately, the availability of all types of modern facilities & degradation of resources have made its younger

generation to abandon their traditional practices & discard their rich indigenous knowledge. Hence, we suggest research work & phytochemical investigation of the indigenous plants of this region are to be given priority, as otherwise this indigenous knowledge would get extinct forever & would be a great threat to the welfare of human mankind

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