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RESEARCH ARTICLE

HODGSONIA HETEROCLITA(ROXB.) HOOK.f. AND THOMSON : STUDY OF A WILD PROMISING ETHNOMEDICINAL PLANT FROM KOKRAJHAR DISTRICT, ASSAM

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ABSTRACT

The present paper reports ethnobotanical uses of *Hodgsonia heteroclita* (Roxb.) Hook. f. and Thomson used by Bodo tribe in Kokrajhar District of Assam, India. The plant belongs to family Cucurbitaceae and is a liane fruit bearing. The survey reveals the use of this plant by patients suffering from diabetes and stomach ailments. In this paper, uses of plant parts have been documented.

INTRODUCTION

Plants are used as herbal medicine in treating different ailments worldwide. Therefore, use of traditional herbal medicine is considered to be an affordable and convenient for people residing in remote areas and cannot afford high cost of modern medicine. It is not only adapted by developing countries but many developed countries are following as it has less chances of side effects from synthetic drugs. World Health Organization (WHO) has shown great interest in documenting the use of medicinal plants from tribes in different parts of the world. In Northeast India major population comprises of tribal groups and they are the descendent of Mongoloid group. The culture and food habit of tribal groups are similar and their traditional use of medical plants too. Bodos, an aboriginal tribal community of Assam has distinct culture and heritage. The Bodos in the course of time have synthesized a vast knowledge in acquiring and gathering knowledges of herbal medicines out of wild plants for healing and curing of ailments and they are culturally and socially intertwind with forest around them. Bodo tribe when speak of diabetes are well aquainted of *Hodgsonia heteroclita* and locally it is named 'Hagrani jwgwnar'. The fruit of this plant possess a very unique property of neutralizing sugar.

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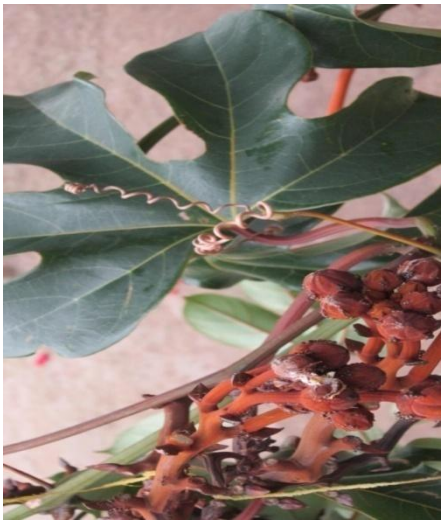
Hodgsonia heteroclita is a large climber used by local people as a medicinal plant against diabetes (Swargiary *et al*., 2013). The oil is also used as a base of medicines in Eastern India (Agarwal, 2003). In Nagaland, the fruit bulb is applied to bacterial infections in the feet (Changkija, 1999). In the 1960s it was identified by Chinese scientist as a promising commercial oil plant due to its exceptionally high oil content in its big seed (Hsu, 1963). In Malaya and Java, native physicians report several uses for the nose. The leaves may be dried and burnt, and the smoke inhaled or the juice of the young stems and leaves squeezed into the nostrils to allay irritation from small insects. The leaves are also boiled and the resulting liquid taken internally both for nose complaints and to reduce fever (Hu, 1964). The ashes from the burnt leaves of *Hodgsonia sp.* is used to heal wounds (de Wilde & Duyfjes, 2001). In Sarawak, *Hodgsonia* oil is used to anoint the bodies of mothers after childbirth (Hu, 1964). *Hodgsonia heteroclita* is a traditional oil plant used in earlier times as non-wood forest product by the local ethnic communities of South West China (Hu, 1964).

Study site

BTAD (Bodoland Territorial Areas Districts) popularly known as BTC (Bodoland Territorial Council) extends over 8,970.00 sq. kms. covering newly re-organised four districts namely Kokrajhar, Chirang, Baksa and Udalguri.

PLATE-I

A.Shoot and leaves of *H. heteroclita*



B. Infloresence of *H. heteroclita*

C. Fruits of *H.heteroclita*

It is situated on the north Bank of the river Brahmaputra in the state of Assam along the Southern Foothills of Bhutan and Arunachal Pradesh. Kokrajhar district lies roughly between 89˚46́ to 90˚38́ east longitudes and between 26˚19́ to 26˚54́ north latitudes. It is located on the north bank of river Brahmaputra shares the international boundary with Bhutan in the north and interstate boundary with West Bengal in the west. Its location is strategically important. The district is bounded by Himalayan kingdom of Bhutan on the north, Dhubri district on the south, Chirang and Bongaigaon district on the east and state of West Bengal on the west. The district is the gateway to Assam and other North Eastern states by road as well as railways. It covers an area of 3,169.22 sq. km with a population 8,86,999 (2011 census) that constitute about 30% of the total population of Bodoland Territorial Council.

MATERIALS AND METHODS

Ethnomedicinal data was documented by questionnaire in consultations with the tribal practitioners like ojha, forest dwellers, old men and women and the patients suffering from diabetes and gastric trouble. The specific diseases, plant part used and modes of preparation were also documented through repeated interviews. The fruit part of the plant was collected in their flowering and fruiting stages. The questionnaire was prepared by the method suggested by Parabia and Reddy (2002).

Ethnobotanical uses

Fruit: The fruit is peeled off and cut into small pieces then dried and taken either in pieces or powdered (1-2) teaspoon with water orally 2 times a day till cured for diabetic patients. Peel of the fruit are dried and soaked in water and taken in empty stomach for gastroenteritis.

Infloresence: The infloresence is used by chewing in empty stomach for gastric problem.

RESULTS AND DISCUSSION

The study documented uses of plant parts of *Hodgsonia heteroclita* for diabetes and stomach ailment. The fruit and inflorescence parts are used and the use of this plant have cured local people of that area and they prefer to use herbal medicine more than synthetic drug. The ethno medicinal data needs further study on chemical and pharmacological grounds and it will help to discover a new drug for the benefit of the society.

Acknowledgement

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