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Research Article

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Ethnobotanical appraisal of Rajbanshi Community of Jalpaiguri and Coochbehar districts of West Bengal, India

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ABSTRACT

Rajbanshis, as they are known in North Bengal and lower Assam, are one of the oldest ethnic groups of North-Bengal. They are the descendants of Koches with Mongoloid physiognomy. Ethnobotanical knowledge of Rajbanshis is very rich. The study designs interview with Adhikari, Mahan, culinary sharing in their own kitchen and also participation in their various social rituals and festivals. Present survey shows their all round dependency on plants for the purposes of therapy, food and material life. Ethnobotanical knowledge of wild plants is restricted to the village doctors and elderly persons. It is very essential to document their ethnic knowledge which may play a vital role in homeopathy, Ayurveda, and as an indicator of past environment and conservation of nature and natural resources.

Key words: Rajbanshi, Ethnobotany, North Bengal, Traditional knowledge, edible plants

INTRODUCTION

Ethnobotany is the scientific study of the relationship prevailing between plants and the peoples. Human being is using plants as their sources of food and medicine from the time immemorial. The history of ethnobotanical pharmacology is as old as the human civilization. Socio-cultural studies of primitive societies and their uses of plants for food, fodder, medicine, shelter, clothing, fuel and other domestic purposes are the principal attributes of ethnobotany (1). However, utility of plants in the present day society is no less important. Even today over all 70% of the world population are dependent on plants for their primary health care needs (2). Preservation of ethnobotanical knowledge is more important in the light of modern developmental work causing fast depletion of plant resources. Thus exploration and preservation of ethnobotanical resources is a global requirement.

India has a rich treasure of ethnobotanical knowledge. Records of plants used in medicinal purposes in Indian subcontinent is found in Rig Veda during 4500-1600BC and Ayurveda between 2500-6000BC (3). Among various ethnic groups of India, Koches are one of the oldest. The origin of Koches has lost in antiquity but historical records suggest that they are the forerunners of present day Rajbanshis. Koches ruled continuously or discontinuously as organized ruler or in small principalities over a large area called kamtapur or Kamta. The term Mlechchas or Asuras or Danavas are various names given by peoples of other communities to indicate that koches are lower in the social hierarchy. Koches migrated from Tibetan region to the Brahmaputra valley in the remote past. Thus they are originally Mongoloid in origin but later admixture with Dravidian has resulted in interbreed with predominant Mongoloid physiognomy. Present day Rajbanshi is a heterogeneous society, following pre-Vedic version of Hinduism, animism, Vedic traditions, magico-religious practices, Buddhism, a Kashyap-Bratya-Kshattriya combination, Sufism and Vaishnavism (4). They worshipped nature as almighty and followed shamanistic belief. The origin of the term Rajbanshis is a social proselyte of tribal Koches to Hinduism for the material gain of priests. In the lower Assam and North Bengal the term Koch is not in use but descendants of Koches are popularly called Rajbanshis. The term Rajbanshis or Koch-Rajbanshis is accepted in National Census Report. Rajbanshis are the "Bhumiputra" (Son of Land) of North-Bengal. Northern part of West Bengal, popularly known as North Bengal

consists of Coochbehar, Jalpaiguri, Darjeeling, North Dinajpur, South Dinajpur, Maldah and newly formed Alipurduar, and Kalimpong districts. From the time immemorial North-Bengal had a dense forest cover along with various wild animals. Darjeeling, Kalimpong and part of Jalpaiguri districts of North Bengal is a part of Eastern Himalaya. This region is ecologically rich in natural and crop-related biodiversity. Located in the foot hills of Eastern Himalaya having biodiversity hotspot, this region is under the threat of recent climatic change and global warming. Urbanization of rural areas, developmental work for the convenience of city life, population pressure and paying no heed to ecological issues are adding fuel to this burning issue.

However, in order to follow globalization blindly, new generation Rajbanshis are losing their traditional uses of plants in various rituals, religious celebrations and social customs. Cultural homogenization, modernization, increasing reliance to biomedical health care and least interest in the profession of herbal practice are the contributing factors behind the loss of ethnobotanical knowledge. This paper is a little endeavour to address this issue and preserve ethnobotanical knowledge of this ethnic community.

EXPERIMENTAL SECTION

Ethnobotanical survey was undertaken during 2013-2015 in ten villages of Jalpaiguri and Coochbehar districts such as Kasiabari, Khayerbari, Goalibari, Bholarhat, Ghugudanga, Satkura, Sakati, Deoanganj, Hemkumari and Manikganj. These villages were selected because these are densely populated by peoples of Rajbanshi community. Elderly persons, Mahan (Village doctor), Adhikari (priest) and housewives were interviewed. Cooking practices in their kitchen were observed to get the authentic information regarding their food habit and the edible plants used in that purpose. Culinary preparations in their own kitchen were tasted. Participation in various rituals and gossiping with adult females helped to get the nitty-gritty of different customs and the plants used therein. Information about their animal husbandry, livestock and pisciculture was gathered to explore their cultural practices. The information collected from them was recorded and cross checked by other persons. Plants in their wild condition were collected with the help of local people and later identified using Bengal-plants (5).

RESULTS AND DISCUSSION

Present ethnobotanical survey recorded 20 wild edible plants belonging to 17 families 5 plant specimens used for the treatment of domestic animals, 6 plant specimen used in religious practices and 10 plant specimen used in their material life.



Figure 1. Number of plants recorded for different purposes by Rajbanshis

Edible Plants

Rajbanshis are settled farmers who cultivate a variety of grains and vegetables for their sustenance. They worshipped land and knew the art of organic farming using cowdung, urine and compost. They grow millets like marua and kaon along with rice, maize, wheat, barley; vegetables like potato, arum, cabbage, cauliflower, radish, ladies finger, brinjal, chilly, ridged gourd, patwal; spices like turmeric, ginger, onion, cardamom, cloves; oil yielding mustard, til, tisi and legumes like mung, lentil, arahar etc., to mention a few. They practised jhum cultivation to increase soil fertility (6). However, due to massive population influx caused by migration of peoples from Bangladesh (Erstwhile East Bengal or East Pakistan) during 1950s and later caused by political, communal and economic reasons changed the demographic pattern of this region. Subsequent governmental and non-governmental approaches to develop townships and other establishments required for modern city life caused rapid depletion of

cultivable lands in this area. Recent trend of converting agricultural lands into tea garden also caused massive loss to agriculture, biodiversity and ecology of that area. Survey on edible plants of this community revealed that apart from edible cultivated vegetables, their daily food-basket remains dominated by reluctantly grown wild plants. Firure 2. shows a Rajbanshi women collecting wild edible herb grown reluctantly in a small patch of land. Few of these plants are used in the preparation of some unique Rajbanshi cuisines viz. *Pyalka, Pata-Khaoa, Fok-doi* etc., (7). A list of 20 wild edible plants arranged alphabetically, along with their local names and families is presented in the Table 1.

Table 1. List of Recorded wild edible plants

Sl. No.	Scientific name	Local Name	Family
1	Amaranthus spinosus L.	Khuria kata	Amaranthaceae
2	Amaranthus viridis L.	Khuria	Amaranthaceae
3	Centella asiatica (L.) Urban	Choto mani-muni	Apiaceae
4	Chenopodium album L.	Bathua	Chenopodiaceae
5	Clerodendrum viscosum Vent.	Bhauti	Verbenaceae
6	Colocasia esculenta (L.) Schott	Kala-kachu	Araceae
7	Corchorus capsularis L.	Pata-shak	Teliaceae
8	Dioscorea alata L.	Mazalo	Dioscoriaceae
9	Diplazium esculentum (Retz.) Swartz.	Dhekia-Shak	Athyraceae
10	Drymeria diandra Blume	Hargila	Caryophyllaceae
11	Enhydra fluctuans Lour.	Haleincha	Asteraceae
12	Glinus oppositifolius (L.) A. Dc.	Gima	Aizoaceae
13	Hydrocotyle sibthorpioides Lam.	Bara mani-muni	Apiaceae
14	Ipomoea aquatica Forssk.	Kalmishak	Convolvulaceae
15	Leucas aspera (Willd.) Link	Dhulpi	Lamiaceae
16	Marsilea minuta	Amrul	Marsiliaceae
17	Moringa oleifera Lam.	Sajina	Moringaceae
18	Phyla nodiflora (L.) Green	Ban-okhra	Verbenaceae
19	Solanum nigrum L.	Ad-bathua	Solanaceae
20	Spilanthes acmella var. oleracea (L.) C.B.Clarke ex Hook.f.	Usni	Asteraceae

Social practices

Archaeological and paleobotanical evidences indicate that chewing betel nut is a practice of prehistoric time thought to be originated in South-east Asia (8). Cultivating betel nut (*Areca catechu*, Family-Arecaceae) and betel leaves is very common to each Rajbanshi family. Chewing *guwa* or *guwai*, local name for freshly opened betel nut seeds from the outer covering of fruit, alone or in combination with betel leaves, is an age-old cultural practice of Rajbanshis. Welcoming guest with *guwa* and betel leaves is a traditional social custom among Rajbanshis. Betel nut is sometimes fermented, to increase its hallucinogenic effect by putting the fully ripened betel nut fruit smeared with turmeric powder in an earthen pitcher or jute rag and closing the mouth of the pitcher tightly. After 2-3 months of incubation by putting the pitcher inside a dig under earth, the fermented nuts, locally called *maja or pacha guwa*, release strong, pungent smell increasing its psychoactive properties. This is also chewed with or without betel leaves to increase stimulatory effect.

Medicinal plants in animal husbandry

Animal husbandry has been found an income generating occupation of this community. They rear cattle including cows, bulls and goats. While goats are sources of milk and meat, cows and bulls are used in agriculture for ploughing and cow dung used as fertilizer. They generally do not prefer cow milk as a drink but milk is used to prepare curd locally called doi. Uncooked raw milk is fermented in an earthen vessel to prepare a unique type of curd with slimy consistency called goleya doi. Doi is considered auspicious for ceremonial occasions. Rearing hen, cock, duck and pigeon is also popular among Rajbanshis for egg and meat. Offering goat and pigeon to their goddess is also a social custom. They have been found to use a few plants including *Cannabis sativa* (Cannabinaceae), *Glycosmis arborea* (Rutaceae), *Cuscuta reflexa* (Convolvulaceae), *Leucas aspera* (Lamiaceae) and *Clerodendrum viscosum* (Verbenaceae) etc., for the treatment of domestic animals including poultry.

Plants used in religious practices

Bhandani, Amati, Mecheni, Bishua, Buraburi, Jigathakur, Salsiri, Daklakshmi are the most popular religious festival of Rajbanshis. In Amati puja they used to hang a neem dal (Twig of *Azadirachta indica*, Family-Meliaceae) in front of entry of hut. It is a festival of Rainy season. They believe that it will protect them from snake attack. Jigapuja is a festival of marriage between a women suffering from repeated miscarriage and a jiga plant [*Lannea coromandelica*, (Houtt.) Merr, Family Anacardiaceae]. Jiga is an evergreen tree and famous for its perennial habit. Salsiri festival is the worship of sal plant (*Shorea robusta*, Family-Dipterocarpaceae). Darjeeling, Jalpaiguri and Coochbehar districts are famous for its Sal forest. Planting and worshipping this tree may be because of their desire of economic prosperity that in the broader sense found to be a successful conservation strategy. Bat-Pakharir biao is a festival of marriage ceremony between two plants (*Ficus benghalensis* and *F. religiosa*, Family-Moraceae). They believe that by doing this sonless mothers can get son. Every house of Rajbanshis should have a Tulsimancha (*Ocimum sanctum*,

Family-Lamiaceae). Bishua, Buraburi, Bhandani, Mecheni all are agriculture related celebrations. Adhikari performing mecheni puja has been represented in Figure 3. So, all these festivals show their dependence on nature and natural resources.



Figure 2. Rajbanshi women collecting wild edible herb



Figure 4. Manasa tree in their courtyard



Figure 3. Adhikari performing Mecheni puja collecting wild edible herb



Figure 5. Musical instrument



Figure 6. Poultry house of Rajbanshi family



Figure 7. Fishing instrument

Plants used in material life

Rajbanshis are very much fond of music. Different musical instruments are made using plant materials. Some of the examples include flute (Bansi) made from bamboo, dugdugi made from gourd (*Lagenaria siceraria*, Family-Cucurbitaceae), dhak made from sal (Figure 5), dotora made from bamboo. Poultry houses are made up of bamboo (Figure 6) and Shinja or patkathi (hollow stem of jute after retting). Fishing instruments are made up of bamboo (Figure 7). Their houses are made using bamboo, patkathi (Stem of *C. capsularis* and *C. olitorius*, Family-Teliaceae), and khor (paddy straw, *Oryza sativa*, Family-Poaceae) or chan (*Saccharum spontaneum*, Family-Poaceae). They knew the process of extracting biodiesel from Jatropha used to burn earthen lamp. Ritha (*Sapindus saponaria*, Family-Sapindaceae) is used as shampoo. They prepare beautiful broom from *Croton bonplandianum*, Family-Euphorbiaceae and Niluji or Okhra (*Chrysopogon aciculatus*, Family-Poaceae). Leaf of *Vitex negundo*,

Family-Verbenaceae, is used as natural insecticides. Dried fruit of *Luffa cylindrica*, Family-Cucurbitaceae, is used as bath sponge.

CONCLUSION

Being ethnic community Rajbanshis of North Bengal possess a rich ethnobotanical knowledge that is reflected in their food habit, social customs, animal husbandry, religious practices and material life. Various wild and cultivable plants are integral part in all these parts of life. Some of these plants being used as food and medicine should be studied for their therapeutic and other health-promoting effects. However, global warming and climate change, changes in demographic pattern and urbanization are the major threat to the biodiversity loss of this region affecting inheritance of traditional knowledge. Moreover, new generation Rajbanshis have been found to be indifferent to practice and preserve their traditional knowledge.

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