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CONSERVATION OF PLANT DIVERSITY THROUGH TRADITIONAL BELIEFS AND RELIGIOUS PRACTICES OF RURAL MISHING TRIBES IN MAJULI RIVER ISLAND, ASSAM, INDIA

NK Gam and PC Nath

Department of Botany, Sibsagar College, Joysagar, Sibsagar, Assam, India

**Author for Correspondence*

ABSTRACT

This paper presents the result of a study on the plant species used by the Mishing tribes in Majuli River Island of Assam province of India those help in the biodiversity conservation. The data were collected through direct interviews with Priest and principal of the household in between 2009–2010 and the popular traditional believed plants were investigated. The plantation of plant species those necessary in their customs and ritual practices lead the conservation strategy through religious belief under the study areas.

Key Words: *Mishing, Traditional belief, Ethnobotany, Island, Assam*

INTRODUCTION

All India Coordinated Research Project on Ethno-biology (AICRPE) carried out a survey to preserve the knowledge system of our tribal communities in 1982 which highlighted the benefit-sharing feature. Indigenous use of plants can provide an important clue in finding compounds with medicinal promises (Schultes *et al.*, 1990). Traditional ethno-botanical knowledge (TEK) is the main resource of the all ethnobotanical investigations. Documentation of TEK through ethnobotanical studies is important for the conservation and utilization of biological resources and should be carried out before such rich heritages are lost due to various anthropogenic and other natural causes (Ugulu, 2011). However it is believed that using one plant as a part of rituals or religious nature is not only good for an individual health but also helps in the conservation of biodiversity (Liu *et al.*, 2002).

The main objective of this paper is, to present information on traditional beliefs and uses of plants for traditional and religious customs and practices that enhance the conservation of plant diversity, identifying and managing plants in the rural Mishing tribes in Majuli river island of Assam, India; and to interpret these uses in the context of traditional and religious beliefs and practices.

The Mishing

An Indo-Mongoloid and East Asian group of people, live in the eastern region of the Brahmaputra valley in Assam, India, with habitations scattered now in eight districts of the state, viz. Tinsukia, Dibrugarh, Dhemaji, Lakhimpur, Sibsager, Jorhat, Golaghat and Sonitpur. Miri is an exonym (name used by non-Mishing to refer to them), while Mising is an autonym (name they use themselves). They migrated from the eastern Himalayan regions of Tibet in the hoary past and finally settled in the fertile Brahmaputra valley in Assam after having lived for long centuries in the Siang region of present-day Arunachal. While migrating to Assam, the Mishing followed mainly the course of the Brahmaputra, gradually spreading to other stretches of land lying on the banks of its tributaries like the Dihing, Disang, Dikhow, the Subansiri, the Ranganadi, the Dikrong, etc. They are, therefore, basically a riverine tribe, but erosions of the river Brahmaputra have forced a section of Mishing to move to other places away from rivers.

Religious Beliefs and Practices

The traditional religious beliefs and practices amongst the Mishing are animistic in nature. They believe in different supernatural beings haunting the earth, usually unseen. These supernatural beings fall into four categories, viz. *üyü* or *üi* (usually malevolent spirits inhabiting the waters, the woods, the skies, etc. capable of causing great harm including physical devastation), *ürom po-sum* (hovering spirits of the dead,

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who may cause illness or other adverse conditions), *gü-mín so:in* (benevolent ancestral spirits), and *épom-yepom* (spirits inhabiting tall, big trees, who are generally not very harmful, but who may abduct human beings occasionally, cause some physical or mental impairment and release them later). Barring the *épom-yepom*, all the supernatural beings need to be propitiated with sacrificial offerings (usually domestic fowl along with different plants species), and both periodically and on specific occasions of illness, disaster, etc.

The Sun (*Ané Do:nyi* 'Mother Sun') and the Moon (*Abu Po:lo* 'Father Moon') are invoked on all auspicious occasions. The leader of their animistic faith is called a *mibu* (also called *mirí* earlier), their priest, who is supposed to be born with special powers of communion with supernatural beings. In addition, they have followed in the valley some kind of a monotheistic Hinduism as passed on to them by one of the sects of the Vaishnavism established by Sankardeva (1449-1568 A.D.). The form of Vaishnavism, as they have been practicing it, has not interfered with their traditional customs (using specific plants species, drinking rice beer and eating pork, or using them on socio-religious occasions, for instance). Their religious life in the valley has thus assumed a fully syncretistic character, as it were, and it has given them a Hindu identity.

Study Area

The present study was carried out in Majuli subdivision of Jorhat district of Assam. It is the world's largest river island in the River Brahmaputra, of Assam. Majuli (26°25' and 27°12' N and 93°39' and 94°35' E; 85m asl) had a total area of 1,250 square kilometers, but having lost significantly to erosion it has an area of only 421.65 square kilometers in 2001. The total population of the island is 1, 53,337 (2001 census). The Majuli sub division has 45% ST (plains) population among which 35% is *Mishing* tribe (Nath, 2009).

MATERIALS AND METHODS

During our survey, elderly people and priests of *Mishing* community in the villages were interviewed. The plant samples were collected and herbarium were prepared and cross-examined with reference books available (Kanjilal *et al*, 1992; Hooker, 1872-1898). Besides photographs of the plant specimen were taken for identification.

RESULTS AND DISCUSSION

Mishing people have been using different parts of various plants in their traditional customs and festivals and to cure different ailments since time immemorial. It not only promotes good health but also help in maintaining a balanced ecological environment. The ancestors had left various religious beliefs for the tribe towards nature and it was a very constructive device for conservation of plant biodiversity from their time to present day. People have attached a religious belief or rites as part of ritual with most of the plants, which in fact proved more functional. Therefore, they associate plants with religious rites and beliefs for conservation or it may be called as hidden concept for the conservation of plant biodiversity. Some of the plants that are being conserved in this way are described in Table 1.

From the study it is observed that there is definite traditional customs and rituals which play a vital role in conservation of natural resources through stringent customary laws e.g. the wild leafy vegetables like, *Sarchoclamys pulcherrima* Goud., *Ficus glomeroota* L., *Ficus hispida* L., *Meliosma simplifolia* Roxb. etc. are necessary to cook with pork in their ritual activities. These species may be related to cut fats of pork. The species *Oscimum sanctum* and *Macrothelypteris ornate* may have anti microbial activities. *Bombax cieba* on the other hand is helpful in maintaining the ecological balance by providing nesting to many bird species like vulture, eagle, etc. It has been reported that the *Miri* (*Mishing*) tribe uses betel leaves and areca nut as vegetables (Hajra *et al.*, 1991). However, the present investigators found no sign of uses betel leaves and areca nut as vegetables. Consumption of betel leaves and areca nut found only as masticator. Some of the practices are deserved to be mention that the banana log boat (*Bhur*) made for

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Table 1: List of plant species and their use in rituals and practices as well as in medicine by mishing community of Assam

Sl no	Plant name	Family	Local name	Traditional use	Other use
1	<i>Ocimum sanctum</i> L.	Lamiaceae	Tulsi	The plant considered sacred by the Hindus and is commonly known as Tulsi. Tulsi is assigned more respect by each household and person of Mishing Hindu community. The Gods and Goddesses are worshiped and used to purify the person having sin activities by showering milk and water by tulsi leaves.	Medicinally the leaf is grinded with powder of dried spider and is applied over the wounds of ear for cure for around one week.
2	<i>Mangifera indica</i> L.	Anacardiaceae	Ke:di	The leaves are used during the marriage ceremony, Durga puja yudnam practice (for the decoration of banana log boat), Nam kirton (Vaishnavate practice) etc	The decoction made of bark is taken in empty stomach in the treatment of dysentery.
3	<i>Bambusa tulda</i> Roxb.	Poaceae	Jati Di:bang	The whole plant parts are used in all religious practices. Besides all the customary handicrafts were made of this plant. The delicious fermented bamboo shoot is also made.	The green stem scrap is applied over the fresh cut treatment.
4	<i>Bombax malbaricum</i> D.C.	Bombacaceae	Sínggung	The two chief traditional festivals of the Mishing are the Ali-a: yé Lígang and the Po:rag, both connected with their agricultural cycle. Having syncretistic character, Mishing tribe observed all mainstream festival of Assam also. The people's gives farewell to feast and joyous festivals Ali-a: yé Lígang and Bohag-Bihu (main festival of mainstream Assamese) under this tree and the tree trunk is worn by Ribi gaseng (a special towel of the tribe). The spine of the plant is also used as masticatory with <i>Piper sylvaticum</i> leaves.	The unripe fruit is chewed by the people suffering from dysentery.
5	<i>Macrothelypteris ornate</i> (Wall ex. Bedd.) Ching	Thelypteridaceae	Bihlongoni	This plant is being used in the religious practice that worship "Ané Do:nyi" the 'Mother Sun'. The plant was also used to close the mouth of the earthen pot used in the traditional rice beer fermentation	Tender leaf of this plant cooked with chicken to feed mother thought to be enhance the milk for new born baby.

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				process.	
6	<i>Areca catechu</i>	Palmaceae	Chaali	The Mishing tribe use in all traditional religious ceremonies like, worshiped to god, bridegroom arrangement, welcoming guests, exchange of gifts, and even as a signal for a visitor to depart.	The fruit of Arecanut catechu and leaf of Piper betle is used as masticatory. The petiole of <i>Piper betle</i> leaf is browsed around the anus during constipation. The fruit of the former and leaf of the later together with fermented tobacco and lime is grinded and applied into the wounds to kill the larva present in cattle.
7	<i>Piper betle</i>	Piperaceae	Paan		
8	<i>Alpinia galanga</i> (L)Willd	Zingiberaceae	Tora	The leaf of both the plant species are used extensively in all traditional festivals and religious ceremonies as wrapping material during food items preparation like <i>purang pitang</i> (rice flour wrapped in the leaves and cooked in hot steam), <i>po:ro-aponng</i> (black rice beer) etc. During this the sweet scent of the leaf is imparted into the food items. This supposed to increase appetite. The leaves of <i>Phrynium pubinerve</i> is wrapped all the agricultural implements at the first day of sowing for good harvest.	Edges of Mattress bind with thread made of <i>Alpinia galanga</i> .
9	<i>Phrynium pubinerve</i>	Zingiberaceae	Koupat		No medicinal uses were found.
10	<i>Saccharum arundinaceum</i> Retz	Poaceae	Megela	The whole plant above ground used in the religious ceremonies as marker for street and premises boundary in <i>Ali: aye Lógang</i> the oldest agricultural festival celebrated in the month of February every year, <i>Dobur puja</i> , <i>Dodgang Uyu</i> and in the <i>Donóng Uyu</i> , the ritual practices of the Mishing tribe.	The whole plant is used as thatching material as well as to make the barrier of houses raised on the poles.
11	<i>Musa paradisica</i> Var. septentun	Musaceae	Kopak	The young shoots banana are used as vegetable cooked with chicken only on the annual religious	Decoction of fruit and rhizome is given during piles

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12	<i>Acorus calamus</i> Lin.	Aracaceae	Bos	practice known as “ <i>Sewa Uyu</i> ” held in the social premises. The plant is also erected on both side of the main entry of any festival permies. The rhizome of the plant is made into pieces and stitch together and then put around the neck of new born to get rid of bad evils. The plants are always planted near their house premises.	The decoction of rhizome is given in abdominal pain during menstruation cycle of women.
13	<i>Allium sativa</i> Lin.	Liliaceae	Kampuné Talab	The bulb is worn with chilly to eliminate bad evil and used to remove sluggish feel of body. The paste is also applied on nostril and naval region to provide security from bad evils.	The bulb of the plant is grinded with mustard seeds, then mixed with warm mustard oil and massage whole body specially the palm and sole during high fever.
14	<i>Abroma augusta</i> Linn	Sterculiaceae	Ui-sipak	The cotton Yields from the fruit is used in all religious ritual practices as wick.	The bark of the twigs yield strong silky fibers used in tying fishing equipments.
15	<i>Sarcochlamys pulcherrima</i> Goud	Urticaceae	Ombe/Notke	Young shoot and fruits are cooked with pork only in their customs and rituals practices.	Consumption of young leaves of this plant believed to be protective measure from the tape worm and fat minimize agent when cooked with pork.
16	<i>Meliosma pinnata</i> Roxb	Sabiaceae	Dermi-asing	The plant has significant position in their folk song since time immemorial. It is also believe that when the leaves are fed the pig, it increases the fertility.	The young leaves are eaten by the Mishing cooked with fish.

religious practice known as “*Puja Yudnam*” (farewell to mother Durga, the Hindu deity). The boat is decorated by the flowers and mango leaf bind with white colour of thread floated in the river or pond sacrificed with white colour hen. Such practice held every year to eliminates the hazard environment of the villages and bring peace and prosperity.

Out of the sixteen species studied 11 are used as medicine to cure serious ailments. These plants can provide a scope for further research in the biochemical aspects which are still to get scientific attention. The influence of modernity on Mishing traditional activities were appeared less in the rural area but more in the urban areas under study.

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Figure 1: Mishing traditional house at the village



Figure 2: Mibu sacrifice white hen sprinkling the blood over banana log boat.



Figure 3: *Macrothelypteris Ornate*



Figure 4: *Sarcoclamys pulcherrima*



Figure 5: *Acorus calamus* Lin

Most of the plant species they use are from their kitchen garden rather collecting them from the wild. This practice of planting their useful plants is also prevailing among the urban inhabitants. Such practices are the result of rigorous indigenous customary law transmitted from generation to generation.

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