A STUDY ON MEDICINAL VALUE OF KATPHALA (SOHPHIE - LOCAL KHASI NAME) COMMONLY PRACTICED BY KHASI TRADITIONAL HEALER FOR VARIOUS AILMENTS: A REVIEW WITH AYURVEDIC PERSPECTIVES

Verity Markhap¹, Khagen Basumatary², Amit Hassan Mazumder³, Spasterlin Nongrem⁴

¹P.G.T, P.G. Dept Samhita Siddhanta,
²Prof. & Head, P.G. Dept Samhita Siddhanta,
³P.G.T, P.G. Dept Samhita Siddhanta
Govt. Ayurvedic College and Hospital, Guwahati- 781014, Assam, India
⁴Traditional Health Practitioner, Advisor, Meba-ai Tribal Health & Wellness Centres, Shillong, Meghalaya, India

Corresponding Author: markhapverity@gmail.com

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ABSTRACT
Khansi tribe, largest tribes of Meghalaya, northeastern part of India possesses an immense knowledge and belief on their folklore medicinal practice. They inhibit their art of healing from their forefather, and it is being passed on since ages. Numerous herbs are utilized and practiced for their specific desired effect. One such medicinal plant is Myrica Nagi (Myricaceae) commonly known as Box Myrtle or Katphala as per Ayurveda. This plant is very well known among the community for its multiple medicinal remedies, locally known as Sohpie its fruit is being consumed as pickle and refreshing juice. The other part used are prepared into various formulations for the desired therapeutic effect. Irrespective of the traditional usage, it is widely mentioned in the classical texts of Ayurveda. A clear identification and detail analysis of this herb as per Traditional knowledge and Ayurveda texts would aid in better understand of its distinctive and multiple therapeutic effect.

Keywords: Myrica Nagi, Katphala, Sohpie, Khasi community, traditional medicine, Ayurveda
INTRODUCTION
India considered a goldmine for medicinal plants have always been known for its glorious tradition of the science of healing. Ayurveda, the organized system of medicine emerged around 6000(BCE)[1] from India is reported to have over 20,000 drug plant drug formulation listed in ayurvedic pharmacopeia. In addition, nearly 60,000 are believed to be existing in the folk practices and tribal knowledge[2]. There are over 53 million tribal people in India belonging to 550 communities of 227 ethnic group. They inhabit about 5000 forested villages or lead a nomadic life in the forest [3]. Each community having each own social and cultural identity. In Meghalaya, the tribal communities are around 12 in number, out of which Khasi tribe is the largest of Meghalaya[4]. This ethno-linguistic group highly intact to their rich culture and tradition from ages possess an immense knowledge and belief on their folklore practices. One such medicinal plant is Myrica nagi (Myricaceae) commonly known as Box Myrtle or Katphala as per Ayurveda. This plant is very well known among the community for its multiple medicinal remedies, its fruit is being consumed as pickle and refreshing juice in diet. The other part used are prepared into various formulations for the desired therapeutic effect. M. Nagi synonymous with M. esculenta found in India [5]. Irrespective of the traditional usage, it is widely mentioned in the classical texts of Ayurveda. The present article is an attempt to summarize the Ayurvedic and Khasi folklore practices approach in relation to the medicinal properties of the plant and its therapeutic utilization.

Material and Methods
Field survey in Ribhoo, East Khasi hills and West Khasi hills district of Meghalaya, India was conducted by consulting with the experienced elderly folklore practitioner of those district and information regarding the traditional use of the katphala (Myrica nagi) was retrieved. The information gathered is re-evaluated and compared with the established system of herbal medicine i.e. Ayurveda and data of recent updates published in various scientific articles.

Taxonomy:
Katphala
Botanical Name: Myrica nagi, M.esculenta Buch Ham
Family: Myricaceae
Classical Name: Katphala
Sanskrit name: Kataphala, Katphala, Mahavalkala
Regional names: Kayaphal (Hin.,Mar.,Guj.), Katphal (Beng), Marudam (Tam.), Kaidaryamu (Tel.), Kirishivani (Kann.), Marut(Mal.), Ajuri,Udulvark, Kandul (Arb.); Darsish an (Pers); Box myrtle (Eng.).

Geographical Distribution: Subtropical Himalaya from the Ravi Eastwards, Khasia hills, Sylhet and south to Singapore, Malay islands, China, Japan.[6]

Description
A small or moderate-sized evergreen tree up to 5 ft. girth and 40ft. high. Bark dark brown or blackish, rather rough and exfoliating in irregular small woody scales. Wood pale brown, heavy, compact and hard. Blaze 5.1 inches, soft not fibrous, deep reddish brown, often with paler streaks, juice turning dark purple on the blade of a knife.

Young shoots, petioles and inflorescence brown tomentose. Leaves 4-8 by 1.2-2 inches, oblongolate or oblastolate- oblong, acute, entire, undulate, based gradually narrowed coriaceous glabrous or nearly so when mature, dark green above, rather glossy on both sides(surfaces). Male spikes 3-5 inches long, arranged racemously on a common axillary stalk 1.5-4 inches long, bract orbicular, stamens 3-6. Female spikes axillary erect 5.1 inches long. Drupe 4 inches long sessile, ellipsoid, ovoid, stone red, wrinkled, scaly, succulent, flesh red when ripe and pitted stones.[7]
Flowering and fruiting time: Flowers usually in October – December and its fruits ripens during late summer season.

(a) Fruit  (b) Bark

(c) Whole Plant  (d) Leaf

Chemical composition: Bark contains tannin, saccharine matter and salts. The ground bark yields a colouring principle named myricetin.[8]

Pharmacodynamics:

Properties and Action:

Table 1: properties and action as per classical texts.

<table>
<thead>
<tr>
<th>Karma</th>
<th>Roga</th>
<th>Gana</th>
</tr>
</thead>
</table>
References in Ayurveda:
2. Bhavaprakasha Nighantu, Haritakyadi Varga 181
3. Raja nighantu
4. Cakradatta,41-9 ;11/23 – katphaladi kwatha; Katphaladi choorna
5. Charaka samhita, Chikitsa Sthana, 10, 4 – Rak-tapitta, Atisara
6. Vrindamadhava, 1-112 - shleshmika jwara
7. Sushruta Samhita, Uttar 10/12; 26/22 – Pit-tabhishyanda; Katphala Nasya
Various formulation:[11]
1. Pushayanga Choorna
2. Guggulwasava
3. Irimedadi taila
4. Khadiradi vati
5. Mahakukkuta mamsa taila
6. Devdaryadi kashaya
7. Katphaladi churna
8. Nograin capsule
9. Anjal tablet

Sohphie – Use As Per Cultural And Traditional Medicine:
Sohphie also known as Myrica nagi is one of the famous seasonal fruits found in the Khasi and Jaintia hills of Meghalaya. It is not just known for its cultural importance but as overall health treasure due to its medicinal property. Traditional healers of Meghalaya have been utilizing its different part for different healing purposes, and this has been followed since ages.

Medicinal Use: Used part: Bark, fruit, root and flower.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Formulation</th>
<th>Dosage</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fresh fruit with its juice – fruit pulp is cut</td>
<td>½ cup (30ml) twice</td>
<td>Clears the gastrointestinal tract, indigestion, intestinal worms, gastritis, diarrhea, hemorrhoid, constipation.</td>
</tr>
<tr>
<td></td>
<td>and macerated.</td>
<td>daily</td>
<td>Also, in dysmenorrhea and other menstrual complaints.</td>
</tr>
<tr>
<td></td>
<td>Can be stored for 4-6 hours</td>
<td></td>
<td>During hot summer as a refreshing drink.</td>
</tr>
<tr>
<td>2.</td>
<td>Fruit decoction: Unripe fruits 60% with 40% of</td>
<td>½ cup (30ml) twice</td>
<td>All above indications.</td>
</tr>
<tr>
<td></td>
<td>water boiled in a boiling pot until 10% of water</td>
<td>to thrice daily</td>
<td>Also, as a Wash in skin infections, dandruff.</td>
</tr>
<tr>
<td></td>
<td>will remain.</td>
<td></td>
<td>Respiratory tract infections, cough, fever, indigestion, abdominal colic, hemorrhoids.</td>
</tr>
<tr>
<td></td>
<td>Can be stored for 24 hours</td>
<td></td>
<td>Tooth ache, mouth ulcer- gargling of the powder.</td>
</tr>
<tr>
<td>3.</td>
<td>Bark powder: Bark is dried and pounded into</td>
<td>1tsf with hot water</td>
<td>Interacting with the local practitioners and other research studies following data was retrieved:</td>
</tr>
<tr>
<td></td>
<td>fine powder.</td>
<td>thrice daily</td>
<td>There are four types of Myrica nagi as per the locals (genus Myrica, Species – not known):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Phieynroh is the biggest in size with a small seed., when ripen it is brown in colour.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Phielythra is medium sized but has bigger seed compared to Phieynroh</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Phienam is smaller than Phielythra and Phielyia</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Phielythra is yellowish, Phienam is light maroon and Phielyia is deep maroon in colour.</td>
</tr>
</tbody>
</table>

Cultural Use
- Fishing: The powder of bark is tied in a cloth and put in flowing river for the purpose of killing the fish in ponds or rivers. (Especially Sohphie nam and Phielyia)
- Bark – extracted tannins used as a tanning and dyeing agent(yellow).[12]
- Fruits – stored as Pickle in every house of Meghalaya. Also stored as jam, syrups and refreshing drinks.[13]
- Tree is used for wood and timber.
- It changes the soil environment – other plants cannot grow within a certain distance around the tree. As per a study it is said to grow well in nitrogen depleted soils, mixed forests, agricultural lands.[14]
CONCLUSION
This wonder plant *Sohphie* popular among the Khasi tribe when studied as per the various classical text and research studies claims to possess the multipurpose pharmacological actions like anti-inflammatory, antioxidant, analgesic, anti-microbial, antiseptic, anti-spasmodic properties etc. making it an important treasured medicinal plant of the community. It is highly potent drug coming under *Ganas* like *Sukrashodhana*, *Sandhansiya*, *Vedanasthapana*, *Lodhradi* and *Surasadi* as per the *Acharyas*, it also acquires multiple karma and *rogaghnata* making it the most desirable in various disorders and formulations. Apart from its cultural importance like fishing, agricultural use for timber and wood it also forms an integral part of the traditional healing system for its medicinal importance. In its surge of reaching the verge of getting extinct due to habitat and climate change, there should be a conservative approach towards it in the agriculture and the community. Hence emphasizing that it can set a new platform for the researcher and pharmaceutical sciences. When Ayurvedic reference about *Katphala* (*Sohphie*) was initiated with the traditional healers, it resulted in acquiring a new comprehensive insight about the plant. Therefore, also promoting the idea of integrating both perspectives of Ayurveda and traditional knowledge together for a better cause.

REFERENCES
8. Dr. K. M Nadkarni’s, Indian Materia Medica with Ayurvedic, Unani & Home remedies Vol.1, page no.828