

Sanctified Trees (*Ficus religiosa* and *Ficus benghalensis*) in India - A Significance and Analogous Mythology

Abstract :

Sacred trees have their own religious importance and cultural significance. Two types of sanctified trees are discussed. *Ficus benghalensis* and *Ficus religiosa* are one of such species with exceptional therapeutic qualities. Because of their aesthetic and natural characteristics, these plants are revered. Thus, in order to preserve certain plants, our ancestors associated certain Gods and Goddesses with them and designated them as sacred plants. Many people still believe in myths and beliefs associated with sacred trees. These historical notions demonstrate the relationship between people and plants, which is also beneficial in the protection of plant species because of their special features. They possess remarkable medicinal qualities that have assisted in the treatment of numerous life-dangers illnesses. These trees were used in the traditional medical practices of Ayurveda, Siddha, Unani, and homeopathy and often used as a medication for several illnesses. Different plant parts were employed to treat numerous fatal illnesses, including diarrhoea, menorrhagia, leucorrhoea, dysentery, mental diseases, and tonic and astringent. Therefore, the current review is the initiative to do a thorough literature on its phytochemistry, pharamacognosy, conventional and medicinal purposes along with myths and beliefs attached to it.

Keywords: *F. religiosa*, *F. benghalensis*, Mythology, Phytochemicals, Ayurveda

1. INTRODUCTION

Sacred word comes from Latin word 'sacer' which means 'Holy tree'. A sacred tree is revered or respected as being sacred. Such trees have been depicted in mythologies from many civilizations throughout history including ancient Hindu. Sacred trees are known for their supernatural characteristics. As the faith that sacred trees have some miraculous power in it and it's defended by God. There are two main sacred trees which are set up worldwide viz.,Peepal tree (*Ficus*

religiosa) and Banyan tree (*Ficus benghalensis*). Peepal tree is a gift to human population from nature which is an oldest medicinal firm and utmost sacred tree in the Hindu tradition (Manasi *et al.*, 2011). Its actuality can be traced back to the Indus vale civilization where it was embarked on the currency of that time (Pandey and Pandey, 2016). References to *Ficus religiosa* are seen in multitudinous ancient holy textbooks like Arthasastra, Puranas, Upanishads, Ramayana, Mahabharata, Bhagavad-Gita and Buddhist literature etc. (Krishna, 2014). According to Vedic libraries cited in the Brahma Purana, Padma Purana and Skanda Purana, the peepal is a representative of Lord Vishnu. It also believed that all Trimurti's are born under this tree (Panchawat, 2012 and Rutuja *et al.*, 2015). As a mythological supposition, the root of peepal is devoted as a figure of Brahma, the box is Lord Vishnu and the leaves are regarded as Maha Shiva. It's occasionally also called kalpvriksha (Fig.1).

Ficus benghalensis a large evergreen tree which belongs to the family Moraceae. It's generally known as "Indian Banyan Tree". It's the public tree of India. It has a long-life span and has been attributed to attain large confines. It's one among the four sacred trees and is also known as "Nalpamara" (Ksirivarkas) meant to be planted around the home and tabernacles (Fig. 1). It's ever- extending branches symbolizes eternal life, which is why it's considered as sacred. The banyan tree also comprises of multitudinous spiritual and mythological surrounds (Table1). The English name Banyan was given by the Britishers to this tree because under the tree Banias that's the Hindu merchandisers used to assemble (Ahmad *et al.*, 2011). They both have different morphological characteristics.

2. DISTRIBUTION

2.1 DISTRIBUTION OF *FICUS RELIGIOSA*

It is cultivated in vast tropical areas and is indigenous to the Asia-Tropical region, which includes Bangladesh, India, Nepal, Pakistan, China, Myanmar, Thailand, Vietnam, and Iraq (Fig. 2).

2.1 DISTRIBUTION OF *FICUS BENGHALENSIS*

Native to tropical Asia, *Ficus benghalensis* can be found from India through Myanmar, Thailand, southern China, and Malaysia (Fig. 2).



a

b

Fig. 1. a. Picture showing banyan tree from Gharuan, Punjab, India
b. Picture showing peepal tree from Fatehabad, Haryana, India



Fig. 2. a. Distribution of *F. religiosa*
b. Distribution of *F. benghalensis*

Table 1. Morphological features of peepal tree and banyan tree

Leaf Parameters	<i>F. religiosa</i>	<i>F. benghalensis</i>
Height of peepal tree (m)	30	20-25
Leaf blade size (cm)	9-17*8-12	8-25*6-20
Leaf Apex (cm)	2-5	4-8
Basal lateral veins (in number)	2	2
Secondary veins (in number)	5-7	7-8
Diameter of leaf (cm)	1-1.5	1.5-2

3. MYTHS AND BELIEVES

3.1 As per a mythical tale

Ficus religiosa is considered as symbol of Vishnu. Some people believed Lord Vishnu was born under this tree (Table 2). According to Bhagavad Gita Krishna is believed to die under this tree.

Table 2. Myths and believes attached to peepal tree

Myths	Believes	References
This tree is connected to spiritual enlighten, because it is thought that the gods held their councils beneath it.	Some believe that brahma is located at the tree roots, Vishnu is at its trunk, and Shiva is located at the leaves, forming the Trimurti.	Behrendt (2019) Krishna (2014)
According to myth, some people will only touch the Peepal on Saturdays.	Due to this Hindu superstition, watering a tree root every Saturday is regarded a good luck.	Pandey and Pandey (2016) Verma and Singh (2017)

Peepal trees are unlucky, according to another urban legend. People avoid planting it near their home and refrain from purchasing a home next to one.	By wrapping red thread or red fabric around the tree's trunk or on its limbs, women implore the tree to bless them.	Haberman (2013) Bhalerao and Sharma (2014)
The peepal tree is referred to as the adobe of ghosts and spirits.	In order to get pleasure and good fortune, one must worship the peepal tree.	More and Valhe (2020) Sunitha (2017)

3.2 Myths and Believes

The banyan tree is well known for its numerous rituals, mythical meanings, and terminology. The banyan tree considered sacred by Hindu deities including Vishnu, Brahma, Kali, Lakshmi, and Kubera and represents Lord Shiva (Table 3). Additionally, it shows how many Indian civilizations view life and fertility.

Table 3. Myths and Believes attach to Banyan tree

Myths	Believes	References
An undying banyan, according to one myth, is the only thing to survive the flood.	The gods and ghosts of departed ancestors are reported to enjoy hanging out there. The banyan tree emits a lot of spiritual energy since Shiva and Durga hanging out nearby.	Shanahan (2016) Verma (2013)
After devouring the entire universe during the time of destruction, the god Krishna is said to have absorbed everything created and turn into a child so small that he could fit inside the tiny leaf of banyan tree and kept floating in the empty space.	During the Jyeshtha Poonima, the wedded woman fast and circles the banyan tree supplication for her husband long life.	Kumar and Praseetha (2015) Mohanpatra (2013)
It is considered unfortunate to sit beneath a banyan tree at night because, in Hindu mythology it is a heaven for ghosts and other paranomial creature.	Hindus thinks the tree produce a lot of spiritual energy because god and the ghosts of their ancestors who have passed away leaving them.	Dash (2023) Hallahmi and Argyle (2014)
Because they believed there would be an evil vibe surrounding the banyan tree, people typically never sit under it.	The cycle of samsara, as it is known in Hinduism, is the process by which life experiences birth, life, death and rebirth.	Lacy (2011) Harrison (2019)

4. Phytochemical Constituents and Uses

Ficus species were found to contain a variety of phytoconstituents, including phenols, flavonoids, alkaloids, tannins, saponins, terpenoids, glycosides, sugar, protein, essential and volatile oils, and steroids, according to the chemical analysis report. They observed *Ficus* species possess a wide range of biological properties, including antioxidants, anti-diabetic, anti-inflammatory, anticancer, antitumor and anti-proliferative, hepatoprotective, antimicrobial, anti-helminthic, wound healing, anticoagulant, immune modulatory activities, anti-stress, toxicity studies (Table 4), and mosquitocidal effects, according to existing studies on their pharmacological functions. (Ashraf *et al.*, 2021).

Table 4. Phytochemical constituents of *F. religiosa* and *F. benghalensis*

Activity	Part used	Isolated compounds in <i>F. benghalensis</i>	Isolated compounds in <i>F. religiosa</i>	References
Anti-diabetic action & insulin raising effect	Stem bark	3',5- dimethyl ether leucocidin -3-O-P-D ¹⁴	4-methoxy-7H-furo [3,2-g] chromen- 7-one (Bergapten)	Sharma <i>et al.</i> (2016)
Insulin sparing action	Stem bark and leaf	3',5- dimethyl ether leucocidin -3-O-P-D-galactosylcellobioside ²¹	3-acetoxy-3-hydroxypropanoic acid in fresh leaf extract	Kumari <i>et al.</i> (2019)
Hyperlipidemia effect	Stem bark	5,7-dimethyether of leucopelargonidin-3-O-a-L-rhamnoside ¹³	4-hydroxy-7H-furo [3,2-g] chromen-7-one (Bergapten)	Logesh <i>et al.</i> (2021)
Antioxidant effect	Stem bark	5,7-dimethyether of leucopelargonidin-3-O-a-L-rhamnoside ²⁶	2,2 Diphenyl - -1-picrylhydrazylradical	Gupta <i>et al.</i> (2012)

4.1 Medicinal uses of *Ficus* species

Ficus religiosa, holds a significant position among medicinal herbs. The leaves, bark, seeds, and fruits of this tree are almost all utilized to make herbal medicines. Peepal bark and leaves have been employed for their outstanding therapeutic properties in Ayurveda to cure scars, dermatitis, wounds, and even asthma (Singh, 2017). Additionally, it is thought to be a natural blood purifier, which makes the skin glow and appear radiant.

4.2 Economic use

Ficus religiosa

Peepal trees have significant levels of protein. Therefore, combining peepal trees with agricultural crops may be crucial in ensuring that animal needs for fodder are met. Peepal not only produces fodder but also maintains a stable climate, prevents soil erosion, and increases the fertility and structure of the soil. It also absorbs sound and dust. It may also flourish on extremely damaged and subpar soils while still producing important products like animal feed, fuel, wood, and timber its wood is utilized as fuel, and its bark is also used in the tanning of leather. They contain 10Q14% crude protein, their leaves are used as animal feed. (Kumar and Sharma, 2021).

Ficusbenghalensis

These species are economically important and extensively used by Ayurvedic physicians to treat dysentery, snake bites, skin diseases, etc. The aim of this study is to identify and verify the presence of chemical constituents present in *F. benghalensis* and *F. krishnae* using gas chromatography-mass spectrometry (GC-MS) to differentiate the closely related plant species by chemical profiling (Karthikeyan, 2019).

4.3 Landscape use

Ficus religiosa

The peepal tree is referred to as “living oxygen” for the same reason that it is known for its capacity to produce oxygen. In order to reduce air pollution and enhance air quality, it is frequently planted in cities and towns. (Shanker *et al.*, 2016). In the gardens and nearby areas, peepal trees are occasionally planted for aesthetic and amenity purposes. It frequently acts as a location for social gatherings and meetings. Because of the tranquility that its broad, thick green leaves bring to the area, it frequently serves as the focal point of large gardens and villages in southern Africa and other parts of the world, fig tree species *F. microcarpa* and *F. religiosa* are frequently naturally grown in gardens and on public streets. Due to the widespread introduction of its pollinators, the trees are now considered a weed. The peepal is a crucial part of urban landscapes for decreasing pollutants and promoting healthier ecosystems because it also produces a substantial amount of oxygen during the day (Kumar *et al.*, 2013).

Ficusbenghalensis

Banyan trees can withstand arid conditions and are drought-resilient. Additionally, they can tolerate salt, which makes them a suitable option for using as a avenue plant in the areas close to the seaside. In the summer, the shade that banyan trees produce can help keep a house or yard cooler. Additionally, their expansive canopies serve as a habitat for birds and other creatures (Nagendra and Mundoli, 2019).

4.4 Ayurvedic uses

Ficusbenghalensis

It is extensively utilized in South Asian nations, including India, Nepal, and Sri Lanka's traditional remedies to cure a variety of illnesses. Different components of the *F. benghalensis* tree have historically been used in medicine to treat a variety of illnesses (Table 5).

Table 5. Ayurvedic uses of *Ficus* species

Part used	<i>F. religiosa</i>	<i>F. benghalensis</i>	References
Ripen fruits	Treat impotence and help in conceiving in females	Soothing effect on skin and relieves swelling and pain.	Sathasivampillai <i>et al.</i> (2017) Suriyakalaa <i>et al.</i> (2021)
Bark and leaf buds	Strengthening the uterine muscles	Ethanol extraction from bark shows anti-inflammatory effects.	Paliwal (2011) Patil <i>et al.</i> (2020)
Bark and roots	Treat joint swelling and pain	Anti-diabetic preparation	Sathasivampillai <i>et al.</i> (2018) Kumar <i>et al.</i> (2012)
Leaves	Treats skin discoloration	Treat skin rashes, acne and pimples	Bhalerao and Sharma (2014)

Ficus religiosa

In the Ayurvedic medical system, *F. religiosa* is used as an herbal remedy to cure a variety of ailments. Oil painting, ointments, and other forms of consumption are all respectable forms of *F. religiosa* capsules, capsules, or raw. Every part of peepal has unique functions and is capable of curing a certain type of illness. *F. religiosa* is also consumed in greasepaint form by drying it and grinding it in traditional grinders (Table 5). Greasepaint is also veritably effective for some conditions like diabetes mellitus (DM), urinary diseases, etc. Greasepaint of stem and bark of *F. religiosa* is considered more effective if taken with honey before or after meals (Adhikari *et al.*, 2023).

5. Biodiversity conservation of *Ficus religiosa* and *Ficus benghalensis*

Due to the significance of *Ficus* in several religions, particularly Hinduism and Buddhism, the role of religion in the conservation of biodiversity is strongly tied. Society's practice of ritualistic and religious practices is a powerful instrument for addressing the issues of biodiversity loss and tree cover at different scales (Shanker and Shukla, 2012). It is a keystone species that is crucial to maintain the biodiversity of the ecosystem. The fact that the peepal tree serves as a heaven for a variety of birds, insects and tiny animals are one of its most significant advantages.

In many different ways, religion promotes the preservation of natural biodiversity. The first is by offering moral and societal examples of how to coexist peacefully with nature. Secondly by including these moral principles and religious ideals guide our interaction with others, including how we treat all living things including plants. (Kiernan, 2015). The majority of cultures use religion as their main source for moral judgments. All religions, despite any differences in their practices and methods, recognize the spiritual force of nature and treat it with respect. They also integrate it into their codes of morals and etiquette. The banyans and numerous other *Ficus* species have assimilated into various human cultures all around the world and have a relationship with their pollinating wasps that dates back 80 million years (Shanahan, 2016). These figs contributed to the evolution of our species and will benefit us in the future by aiding in the recovery of the degraded rainforest and the preservation of endangered species.

5. CONCLUSION

The large perennial Bodhi tree (*Ficus religiosa*) and *Ficus benghalensis* have long been revered in Indian culture for their mythological, spiritual, and medicinal properties. Due to strong myths and beliefs attached to the *Ficus* species, these are widely used in Ayurveda and have a major contribution in economical and landscape uses along with biodiversity conservation. The plants have been utilized for a variety of diseases in traditional Indian medicine. Due to its attractive shape and form, this tree is occasionally planted for amenity purposes, especially in landscaping. In the Indian medical system, *F. religiosa*, a branching tree with heart-shaped, long-tipped leaves, is frequently used to treat a variety of illnesses and diseases. The current analysis demonstrates that *F. religiosa* comprises a wide range of phytoconstituents and produces a range of pharmacological effects. *F. benghalensis* has been incorporated into many human societies and serves a variety of functions in landscaping and medicine. Its shade helps to keep homes cool, and it is also grown as a drought- or salt-tolerant grove. *F. benghalensis* was particularly significant in Ayurveda since it contained a variety of phytochemicals in its various sections.

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