

# Ethnobotanical study of Sacred groves of Poshina forest of Sabarkanth district, North Gujarat

P.K. MEHTA AND B.K. JAIN

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## SUMMARY

The concept of biodiversity has been known to man ever since he began to observe minutely the living being around him. As we are losing our biological diversity and the delicate balance of ecosystem, the need to initiate conservation of biodiversity is greater than ever before. Sacred groves are a group of trees or a patch of vegetation protected by the local people through cultural and religious practices evolved to minimize destruction. Their plant wealth and conservation potential were impressive enough to acknowledge them as "mini biosphere reserve". Poshina is an adivasi belt, popularly known as 'Poshina Patti'. Poshina is a village of Khedbrahma tehsil of Sabarkantha district, North Gujarat. In the present paper seven sacred groves namely Piplawali Mata sacred grove, Shankar Mahadev sacred grove, Kal Bhairav sacred grove, Shankar mahadev- Gormata sacred grove, Shitala mata sacred grove, Sundha Mata sacred grove and Ghatawala Mahadev sacred grove, located in the Poshina forest have been studied. Information about the groves were collected from villagers, local people and local caretakers of the groves. Plant species growing near the sacred groves are considered as sacred plants which have either religious value or therapeutic value or both.

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**B**iodiversity, an umbrella term for the degree of nature's variety, including both number and frequency of ecosystem, species or genus in a given assemblage, encompasses all species of plants, animals and microbes and the ecological complexes in which they occur (McNeely *et al.*, 1990). India is one of the biologically wealthiest nations of the world. Apart of being exceedingly rich in flora and fauna, India has also inherited a tradition of conserving nature by sacred groves. Sacred groves are groups of trees or patches of vegetation protected by the local people through religious and cultural practices. The people worship the sacred trees associated with sacred groves. These trees are protected by the indigenous people because of their cultural and religious importance (Israel *et al.*, 1997). Natural sacred groves are found on all continents of the world except Antarctica. Among all countries of the world, sacred groves are reported from 33 different countries (Bhagwat and Rutte, 2006). In India

sacred groves exist in 19 out of 28 states (Malhotra *et al.*, 2001). Out of 13,720 sacred groves, 29 have been reported from Banaskantha district of Gujarat state (Gupta *et al.*, 2000). Looking to the importance of sacred groves in the conservation of plant species, attempts were made for ethnobotanical study of the seven sacred groves of Poshina forest of Sabarkantha district of North Gujarat

## MATERIALS AND METHODS

Poshina is situated in Khedbrahma taluka (Tehsil) of Sabarkantha district of North Gujarat. It is located 12 kms away from Ambaji-Khedbrahma highway. It is divided in to two ranges *i.e.* 1) Poshina forest range 2).R.D.F. (Rehabilitation of Degraded Forests) Poshina range. The Poshina forest range measures an area of 12978 hectares. It's northern and eastern parts leads to Rajasthan state, western part joins with the border of Ambaji forest range of Banaskantha district and in southern part there is a R.D.F. Poshina range. The minimum and maximum temperatures recorded in the area are 10°C in winter and 42°C to 45°C in summer. 15<sup>th</sup> June to 15<sup>th</sup> August is a monsoon period. Biogeographically the area belongs to hilly tract of Aravalli mountain range. According to Gujarat State Forest Department (GSFD), it is an unclassified forest area (under section-4) and ecologically it comes

### Correspondence to:

P.K. MEHTA, P.S. Science and H.D. Patel Arts College,  
Kadi, MEHSANA (GUJARAT) INDIA  
Email : paurav\_mehta2000@yahoo.com

### Authors' affiliations:

B.K. JAIN, M.G. Science Institute, Navarangpura,  
AHMEDABAD (GUJARAT) INDIA

under semi arid zone, Tropical dry deciduous forest-5A type (Champion and Seth, 1968).

Regular field trips were undertaken in the various parts of the forest areas of Poshina forest range during the research period. In the course of investigation seven sacred groves were surveyed and information were gathered on sacred groves, sacred trees, taboos, deities, festivals and cultural aspects through personal contacts and questionnaires and by interviewing local caretaker of grove, villagers and local people.

## RESULTS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been presented under following heads :

### Piplawali mata sacred grove (Fig. 1):

The grove is situated in Mamapipala village of Poshina forest range. It is 400 years old grove and covers approximately 0.02 hectares of land area. The deity is worshipped for any type of human disease, especially for the barrenness. The grove is occupied by *Ficus religiosa* L., *Dendrocalamus strictus* Nees, *Clerodendrum multiflorum* (Burm. f.) O. Ktze., *Pongamia pinnata* (L.) Pierre., *Butea monosperma* (Lam.) Taub., *Delonix elata* (L.) Gamble, *Albizia lebbek* (L.) Bth., *Phoenix sylvestris* (L.) Roxb., *Zizyphus mauritiana* Lam. and *Holoptelea integrifolia* (Roxb.) Planch.



Fig. 1 : Piplawalimata sacred grove

### Kalbhairav sacred grove (Fig. 2):

The grove is present in Chhatrang village of Poshina forest range. The grove is many years old and covers 0.005 hectares of land area. The grove is covered by *Anogeissus latifolia* (Roxb) Wall., *Wrightia tinctoria* R. Br., *Diospyrus melanoxylon* Roxb., *Butea monosperma* (Lam.) Taub., *Acacia tortilis*, *Cassia auriculata* L. and *Acacia senegale* (L.) Willd.



Fig. 2 : Kalbhairav sacred grove

### Shankar mahadev- Gormata sacred grove (Fig. 4):

The grove is present in Chhatrang village of Poshina forest range. The grove covers about 0.005 hectares of land and represents approximately 400-500 years old relict forest patch consisting mainly of few old deciduous trees. The grove is occupied by *Wrightia tinctoria* R. Br., *Holoptelea integrifolia* (Roxb.) Planch., *Grewia tiliaefolia* Vahl., *Alangium salvifolium* (L.f.) Wang., *Terminalia bellerica* (Gaertn.) Roxb., *Ficus benghalensis* L., *Madhuca indica* J.F.Gmel., *Pongamia pinnata* (L.) Pierr., *Butea monosperma* (Lam.) Taub. and *Syzygium cumini* (L.) Skeels.

### Shankar mahadev sacred grove (Fig. 3):

The grove is present in Chhatrang village of Poshina forest range. The grove is many years old and covers 0.0035 hectares of land area. The deity is revered for well-being of cattle, mainly for buffalo. Local people take vow for the good health of their buffaloes. The grove possesses *Cassia fistula* L., *Pongamia pinnata* (L.)



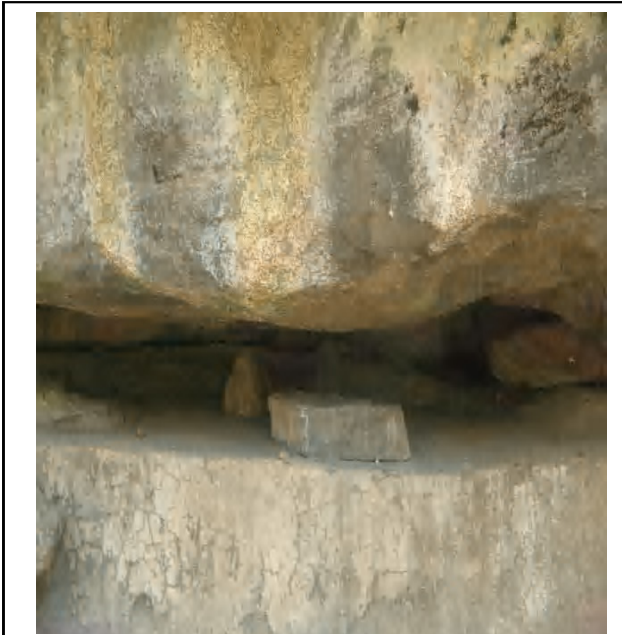


Fig. 3 : Shankarmahadev sacred grove



Fig. 5 : Shitalamata sacred grove



Fig. 4 : Shankar mahadev- Gormata sacred grove

Pierre., *Butea monosperma* (Lam.) Taub., *Phoenix sylvestris* (L.) Roxb., *Ficus benghalensis* L., *Holoptelea integrifolia* (Roxb.) Planch., *Terminalia bellerica* (Gaertn.) Roxb., *Sterculia urens* Roxb. and *Alangium salvifolium* (L.f.) Wang.

#### Shitalamata sacred grove (Fig. 5):

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The grove situated in Bedi village of Poshina forest range. It is spread over a small piece of 0.003 hectares of land area and represents 200-250 years old grove of goddess Shitala mata. The grove is occupied by *Ficus benghalensis* L., *Butea monosperma* (Lam.) Taub., *Ficus religiosa* L., *Mangifera indica* L., *Delonix elata*, *Zizyphus mauritiana* Lam. and *Phoenix sylvestris* (L.) Roxb.

#### Sundhamata sacred grove (Fig. 6):



Fig. 6 : Sundhamata sacred grove

The grove is situated in Anjani village of Poshina forest range. The grove is 300-400 years old and covers approximately 0.005 hectares of land area. The grove consists of *Terminalia bellerica* (Gaertn.) Roxb., *Ficus religiosa* L., *Alangium salvifolium* (L.f.) Wang., *Ficus rumphii* and *Phoenix sylvestris* (L.) Roxb.

#### Ghatawala mahadev sacred grove (Fig. 7):

The sacred grove is present in Dantia village of Poshina forest. The grove is 50-60 years old and covers approximately 0.01 hectare of the land area. The grove is occupied by *Acacia nilotica* (L.) Del., *Prosopis juliflora* (Sw.) DC., *Ailanthus excelsa* Roxb., *Bombax ceiba* L., *Embllica officinalis* Gaertn. Fruct., *Butea monosperma* (Lam.) Taub., *Ficus benghalensis* L.,



Fig. 7 : Ghatawala mahadev sacred grove

*Dendrocalamus strictus* Nees, *Alangium salvifolium* (L.f.) Wang. and *Ficus racemosa* L.

Total 7 sacred groves were recorded, which cover approximately 0.0515 hectares of land area. Total 32 species of 26 genera belonging to 21 families are recorded. Local people have great faith on locally residing deity. They held daily, monthly or yearly ceremonies or festival in respect of the deity. They held a fair in respect to the deity. On that day, local people gather inside grove and worship the deity. They take oath for their wish. On the completion of their wish, the deity is represented by coconut fruit, aggarbatti, milk and different types of sweet dishes. In some sacred grove, flag (made up of *Dendrocalamus strictus* Nees stick) and clay idols of horse is also represented to deity on the completion of their wish. Different deities worship for different wishes. They are worshipped for prosperity and well being of village, good health of cattle and human, birth of child, protection of their fields and crops. Local people believe that the plant grow near the sacred groves are considered as garden of deity, where cutting of tree, climbing on tree, even picking of fallen leaves, fruits and flowers is taboo. They can use them during religious ceremonies and festivals. Due to strong religious beliefs, tribals respect the nature well. Their religious myths and taboos, directly or indirectly protect the nature. Hence, it is said that sacred groves may play an important role in conservation of biodiversity. The state forest department as well as local forest department should maintain and encourage these types of activities, related to protection of biodiversity in

Table 1 Religious and therapeutic uses of sacred tree species

Sr. No.	Name of Plant species	Religious use	Therapeutic use
1.	<i>Butea monosperma</i> (Lam.) Taub.	The trifoliate formation of leaves represents lord Vishnu in the middle, lord Brahma on the left and lord Shiva on the right. The tree is considered sacred and adobe of the lord Shiva.	Flowers are used on skin disease.
2.	<i>Embllica officinalis</i> Gaertn. Fruct.	It is considered as a sacred tree and worshipped as Mother earth.	The fruit is rich in vitamin C. It is used in the making of popular ayurvedic medicine "Triphala churna"
3.	<i>Ficus benghalensis</i> L.	The Banyan tree is a symbol of trimurti- lord Brahma, lord Vishnu and lord Shiva, hence it is usually never cut and grows covering large area.	It is used on mouth-ulcer.
4.	<i>Wrightia tinctoria</i> R. Br.	It is a sacred tree and adobe of lord Krishna.	Root of the plant is used to improve fertility in women.
5.	<i>Holoptelea integrifolia</i> (Roxb.) Planch.	The tree is considered as adobe of Ghost.	It is used in diabetes, skin disease, intestinal disorders and piles.
6.	<i>Alangium salvifolium</i> (L.f.) Wang.	Flowers are used to make Mala for deity on ceremonies.	It is used on rheumatic fever and eye disease.
7.	<i>Wrightia tinctoria</i> R. Br.	It is a sacred tree and adobe of lord Krishna.	Roots of the plant are used to improve fertility in women.

particular forest patches. The religious and therapeutic uses of tree species reported from sacred groves are given in the Table 1.

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