

STUDIES ON SACRED GROVES OF NIMAR REGION, MADHYA PRADESH, INDIA

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ABSTRACT

The Nimar region is situated in the southern western part of Madhya Pradesh and covering four districts namely West Nimar (Khargone), Barwani, East Nimar (Khandwa) and Burhanpur. Northern part of Nimar region is covered with Vindhyan scabs and Southern part with Satpura hill ranges. A study was carried out in Nimar region of Madhya Pradesh, India to explore the sacred groves of Nimar region. Sacred groves of Nimar region were served during 2010-2013 and observed 12 sacred groves in Nimar region. These sacred groves are important role in conservation of some RET plants. Some threatened plants are reported which are well protected in the sacred groves of the study area. Mentioning few of them are *Didymopanax pgymae*, *Selaginella bryopteris*, *Ensete superbum* (Roxb.) Cheesm., *Centella asiatica* (L.) Urban, *Amorphophallus bulbifera* (Roxb.) Blumea, *Gloriosa superba* L., *Helicteres isora* L., *Ceropegia hirsuta* Wight & Arnott., *Costus speciosus* (J.koen.) J.E.Sm., *Amorphophallus paeoniifolius* (Den.) Nic, *Sarcostemma acidum* (L.) R.Br., *Grewia tenax* (Forsk.) Fiori, *Grewia damine* Gaertn., *Grewia sapida* Roxb. Ex. DC., *Tinospora cordifolia* (Wall.) Miers. Ex Hook.

Keyword: Nimar Region, RET Plants, Sacred Groves, Floristic Elements

INTRODUCTION

Sacred groves are tracts of virgin forest with rich diversity, which have been protected by the local people for centuries for their cultural and religious beliefs and taboos that the deities reside in them and protect the villages from different calamities (Khan *et al.*, 2008). Religion being a powerful instrument for convincing people has always been used for meeting the desired objectives of the society (Maru and Patel, 2013). Indian society comprises several cultures, each with its own set of traditional methods of conserving nature and its creatures. In India the earliest documented work on sacred groves is carried out by D. Brandis, inspector General of forests in 1897. Number of plants that once were abundant in the area now surprisingly endangered because of extensive human activities like urbanization, industrialization, deforestation, clearing of forest for agriculture and eruption of plants for firewood. The biodiversity found on earth today consists of many millions of distinct biological species, which is the product of nearly 3.5 billion years of evolution during this past 3.5 billion years. A wide variety of plants came into existence, flourished and then perished due to various reasons (Verma and Sharma, 2012). In India, Sacred groves are found mainly in tribal dominated areas and are known by different names in ethnic terms (Bhakat, 1990) such as saran or Dev or dev khera in Madhya Pradesh. Villagers protect on the religious ground. The sacred groves found in India can basically be classified under three categories based on analysis of studies on sacred groves, Traditional sacred groves, Temple groves and groves around the burial or cremation ground. About 4215 sacred groves covering an area of 39,063 hectares are estimated to be distributed in India (Malhotra, 1998). 275 sacred groves have been reported in Madhya Pradesh (Srivastava, 1994).

Study area

Nimar region is situated in the south western part of Madhya Pradesh and lie between 21° -05'N Latitude and 74°-25' to 76°-14'E Longitude. Nimar includes four districts of Madhya Pradesh namely Khargone, Khandwa, Burhanpur and Barwani. Topographically Nimar region is situated centrally in Northern part with covered with Vindhyan scabs and in Southern part with Satpura hill ranges (Sinha and Shukla, 2007). The Satpura in East Nimar bifurcates into two parallel ridges on either side of Tapti Valley. The Hill range of Asirgarh Hill extends up to Western Ghats in the west. Kalibith hill ranges cover extremely

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in eastern part of Nimar region. The regions Niwali, Khargone, Pipaljhopa, and Nagalwadi are a part of Satpura hill ranges. Satpura Plateau covers two third parts of South Western part of Nimar. Major part of Barwah, Khargone occurs in Narmada Valley. Narmada and Tapti are main rivers of Nimar region flowing between Satpura and Vindhyan. Main tributaries of Narmada and Tapti are Kunda, Chhota Taba, Machak, Abna, Chhoti Taba and Veda. Narmada provides a favorable ground for the varied ecological habitats with overlapping Vegetation pattern and different floral elements. The whole area occupied by black cotton soil. In general the area is arid and dry. In winter season temperature ranges from 9⁰-27⁰ C and in summer 35⁰-48⁰C. Nimar region falls under tropical dry deciduous forest (Champion and Seth, 1968).



Figure 1: Maps of Nimar region

MATERIALS AND METHODS

Sacred groves were frequently visited and plant explorations were carried out during 2010-2013. Plant specimens were identified with the help of flora of Madhya Pradesh (Verma *et al.*, 1994; Mudgal, 1997; Singh *et al.*, 2001), flora of Bihar and Orissa (Haines, 1921-1924), Flora of the presidency of Madras (Gamble, 1915) and available literature. Field observation and Field data were noted down in field diary. Some plant specimens have been identified from BSI, Central Circle Allahabad, herbarium of Shivaji University, Kolhapur, Maharashtra, and herbarium of H S Gour University, Sagar. Religious value of the plants of sacred groves was also gathered from informants. In each village we made a preliminary survey to locate people who are regarded as well immersed in local traditional and or in religious customs. Information about its importance, utility and purpose were collected.

RESULTS AND DISCUSSION

During the present study, a total 12 sacred groves are observed in study area. 15 endangered plants are conserved in these sacred groves due to the religious belief. These plants are *Didymopanax pgymae*, *Selaginella bryopteris*, *Ensete superbum* (Roxb.) Cheesm., *Centella asiatica* (L.) Urban, *Amorphophallus bulbifera* (Roxb.) Blumea, *Gloriosa superba* L., *Helicteres isora* L., *Ceropegia hirsuta* Wight & Arnott., *Costus speciosus* (J. Koenig.) J.E.Sm., *Amorphophallus paeoniifolius* (Den.) Nic., *Sarcostemma acidum* (L.) R.Br., *Grewia tenax* (Forsk.) Fiori., *Grewia damine* Gaertn., *Grewia sapida* Roxb. Ex. DC., *Tinospora*

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cordifolia(W)Miers. ex Hook. These species are ecologically important keystone species which by their key role in ecosystem functioning contribute to support much biodiversity associated with it. Some time whole forests are worshipped rather than individual plant. These sacred groves are locally called Khera dev or Dev khera. Sacred groves are religious refuge of endangered species and the site of insitu conservation. Sacred groves are believed to be abode of certain deities or spirit. Usually there are no temples for these deities. Rather a few vermilion smeared stones at the base of tree demarcate the spot as sacred and worshipped. Religious beliefs, sacred value, totem and taboos are contributing important role in conservation of plants and animal since ancient time. Some sacred groves have been observed in the Nimar region where people restrict the cutting, touching, collection of religious plants. There are 12 sacred groves traced out in Nimar region. These sacred groves occur in following place.

District	Name of the village
Khargone	1. Bijagarh
	2. Pawagiri, Oon
	3. Kamal talab
	4. Jayanti mata temple
	5. Sirvel Mahadev
	6. Maharudreshwar Mahadev temple, Raibidpura
	7. Naneshwar Mahadev temple
Barwani	8. Gou tekari
	9. Nagalwadi
	10. Bawangaja
	11. Nilyaar Hanuman temple
Khandwa	12. Baba Mahrung Temple

There is a famous pond known as ‘Tin Talab’ which is situated at **Bijagarh** of Khargone district. Every year a local large fair is organized and people pray offering flower of *Pergularia daemia* L. getting their wishes and lighting Jyoti (lamp). *Ficus religiosa* L, *Terminalia arjuna* (Gaertn.) Roxb. , *Aegle marmelos* (L.) Coreia, *Actinopteris radata*, *Didymocapus pgymae* and *Selaginella bryopteris*, *Plagiochasma appendicatus*, *Helicteres isora* L. is not allowed to touch and collect. *Selaginella bryopteris* and *Didymocapus pgymae* are considered as endangered enlisted in red data book of IUCN. **Nagalwadi** which is situated 15 Km distant away from Bijagarh. It is thought to be a birth place of Nagdev. There are two temples such as 1) Bhilat dev 2) Shikar wale Baba. During Nagpanchami Nag dev is worshiped. Here fair is also organized during Nagpanchami. *Butea monosperma* (Lamk.)Taub. *Azadirachita indica* A. Juss., *Mangifera indica* L., *Aegle marmelos* (L.) Coreia, *Ficus benghalensis* L., *Ocimum sanctum* L., *Tectona grandis* L.F. is not allowed to cut and these plants are worshiped. Temple Shikar wale Baba lies on Satpura ranges and 8-10 km distant away from Nagalwadi. *Datura* and *Calotropis* flower are offered to god (Baba). *Diospyros melanoxylon* Roxb. (Temru) and different wild varieties of *Mangifera indica* L. (Mangos) are protected naturally in surrounding area of temple due to their religious belief.

‘**Pawagiri**’ a famous temple of Jain at Oon located 30 km away from Khargone. It is believed that there are 99 ponds, 99 wells and 99 Babdi occurred in Oon hence the name ‘**Oon**’ derived. *Peltophorum pterocarpum* (DC) Bak. Ex. K. Hey., *Ficus religiosa* L., *Embllica oficinalis* L., and *Prosopsis juliflora* (Swartz.) DC is well protected and conserved.

There is a sacred pond ‘**kamal talab**’ which is located 2 km away from Oon .Local tribal and rural people believed that Brahma, Vishnu, Mahesh live in the flower and due to this sacred belief they do not collect *Nymphaea nouchali* Burm, *Hydrilla verticillata* (L.) Royle, *Marsilea minuta* and other aquatic plants hance traditionally conserved.



2) Pawagiri temple at Oon



3) Baba Mahrung temple at Kalibith



4) Maharudreshwar mahadev temple at Raibidpura



5) Bijagarh temple



6) Nilyaar Hanuman temple



7) Shikhar temple at Nagalwadi

Groves photographs (Figure-2-7)

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‘**Jayanti Mata temple**’ is located 5 km away from **Barwah**, where *Diospyros melanoxylon* Roxb. (Tendu), *Terminalia bellirica* (Gaertn.) Roxb. (Baheda) and *Dendrocalamus strictus* (Roxb.) Ness. (Bamboos) are not allowed to collect cut and burn. Tribal people worship these plants.

Sirvel Mahadev temple is situated at the boundary of Maharashtra from where Kunda River originated and nurtures rich plant diversity. *Sarcostemma acidum* (L.) R.Br. (Samarbel), *Thespesia lampas* (Cav.) Dalz. & Gibs. (Paras peepal), *Argyreia strigosa* (Roth.) Roberty (Tamaurvel), *Nerium indicum* Mill. (Kaner) and some ferns are not allowed to cut in the surrounding area of the temple which are protected due to their sacred value.

There is a famous pilgrimage of Jain at **Bawangaja** which is located 35 km distant away from Barwani. Cutting and collection of plants are strictly prohibited in the surrounding area of the temple. *Grewia tenax* (Forsk.) Fiori, *Grewia damine* Gaertn., *Grewia sapida* Roxb. Ex. DC. and some grasses like *Heteropogon contortus* (L.) P. Beav. *Dinebra retroflexa* (Vahl.) Pang., *Eragrostiella bifaria* (Vahl.) Bar. are not allowed to collect and disturb.

‘**Baba Mahrung temple**’ is situated at the tail of Satpura range at Kalibith. *Ceropegia hirsuta* Wight & Arnott. *Costus speciosus* (J. Koenig.) J.E.Sm., *Amorphophallus paeoniifolius* (Den.) Nic., are not allowed to touch and well protected.

‘**Gou tekari**’ is well known devsthan located 3 km away from **Thikari** where *Syzygium cumini* (L.) Skeels. (Jamun), *Azadirachta indica* A. Juss. (Neem) *Annona squamosa* L. (Sitaphal), *Tinospora cordifolia* (W.) Miers. ex Hook. (Gudbel), *Helicteres isora* L. (Marodfali), *Butea monosperma* (Lamk.) Taub. (Palash) are protected due to their sacred value.

There is an old ancient temple ‘**Maharudreshwar Mahadev temple**’ situated at ‘**Raibidpura**’. It is said that this temple was constructed during Pandav period. *Mangifera indica* L. (Mango), *Syzygium cumini* (L.) Skeels. (Jamun), *Ensete superbum* (Kela), *Aegle marmelos* (L.) Coreia (Bel), *Morus alba* L. (Shahtut), *Centella asiatica* (L.) Urban (Brahmi), *Amorphophallus bulbifera* (Roxb.) Blume (Surankand), *Gloriosa superba* L. (Kalahari), are not permitted to collect and traditionally conserved due to their sacred value.

‘**Nilyaar Hanuman temple**’ is situated near Khetia at Sendhwa highway. There are *Datura metal* L. (*Kala datura*), *Annona squamosa* L. (Sitaphal), *Jatropha curcas* L. (Ratanjot), *Ensete superbum* (Roxb.) Cheesm. (Jangli Kela), *Anogeissus latifolia* (Roxb. ex DC) Guil. & Per. (Dawada), *Girardinia diversifolia* (Link.) Friis, *Buchanania cochinchinensis* (Lour.) Alm., *Tectona grandis* L.F., is traditionally conserved in the surrounding area of temple due to their sacred value.

Naneshwar mahadev temple is situated in the bank of river Kunda which is 5 km away from Khargone. In these areas few plant like *Ficus hispida* L. *Dendrocalamus strictus* (Roxb.) Ness., *Cyperus rotundus* L. is naturally conserved due to their sacred value.

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