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Sacred grooves – The drug store of herbal medicine

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Abstract

India has a wide spectrum of biomes such as shola forests, tropical rain forests, temperate forests, coastal wetlands, alpine vegetation and mangrove forests. Indigenous communities gave importance in conservation of such ecosystems. Majority of the flora are endemic. Such species are protected by cultural values and high religious importance is given. Religiously they are sacred and periodic spiritual celebrations are conducted to the deities by the local indigenous people with great belief. These places are known as sacred grooves and most of the plant species here have medicinal value. In this article the importance of such sacred groves situated in the revered Holy Velliangiri Hills of Western Ghats a part of the Nilgiri Biosphere are discussed.

Keywords: Velliangiri Hills, sacred grooves, indigenous people

Introduction

India has a wide spectrum of biomes such as shola forests, tropical rain forests, temperate forests, coastal wetlands, alpine vegetation and mangrove forests. The Indigenous forest dwelling tribal communities live in harmony with nature and have a tradition of conservation of ecosystems where they inhabit. Such representations are the present day sacred forest areas what we call it as “sacred grooves”. They are situated in tribal dominated areas. These sacred grooves are remnants of virgin forests with rich biodiversity. These areas are protected by the local ethnic groups for many centuries which reflect their traditional, cultural and religious beliefs. Each and every groove has its own leading deity along with guardian deities. There are myths, legends, taboos and folklores which are integrated with the practices of that particular community. Contemporary India is an agglomeration of over 40,000 endogamous groups [1]. Many groups have their own unique practices in maintaining these sacred places. These sacred grooves are known by different names in ethnic terms such as Sarna or Dev in Madhya Pradesh, Devrai or Deovani in Maharashtra, Sarnas in Bihar, Orans in Rajasthan, Devaravana or Devarakadu in Karnataka, Dev van in Himachal Pradesh, Law Lyngdoh or Law Kyntang in Meghalaya, Sarpakavu or Kavu in Kerala and in Tamil Nadu it is known as Kovilkadu. In Jharkhand and Manipur they are known as Sarana and Lai umang respectively. They are protected and managed by local people on religious grounds and traditional beliefs [2] Specific deities are worshipped in the sacred grooves to protect the local people from different natural disasters and calamities. In India most of the sacred grooves are situated in the Western Ghats, North Eastern India and Central India. All together 448 groves have been reported from 28 districts of the State of Tamil Nadu [3]. In Coimbatore, the sacred grooves located in the Holy Velliangiri Hills are revered by the indigenous people Malasar. This work has been taken to understand their tradition and their contribution in conservation of sacred grooves in their ecosystem.

Materials and methods

Study area

The study area is the Holy Velliangiri hills which is situated in the Western Ghats, a part of “The Nilgiri Biosphere” which is a tribal dominated area. It is called the “Kailash of the South”. On the top of the Velliangiri Mountains, Lord Shiva is worshipped as Swayambhu and he is called Velliangiri Andavar and his consort is Manonmani Devi. It is believed that this temple is 2000-3000 old. Sacred grooves in the Western Ghats are believed to have existed for more than two millennia [4, 5]. Sacred groves of this area are rich in biodiversity, act as a nursery and storehouse of many of the ayurvedic, tribal and folk medicines and they also nurtures rich fauna. This makes this biosphere as one of the important international biodiversity hot spots and an important world heritage site.

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The forest dwelling tribe Malasars of this area have strong beliefs, taboos, rituals and folklore associated with their sacred grooves. They harbour deities in natural forms. Their important deity is "Mullung" which is represented by a stone. Most of their festivals are linked with these grooves and are influenced by strong spiritual faith. They manage their livelihood by obtaining a wide variety of non-timber forest products (NTFP) such as fire wood, fodder, food, medicinal plants, fibers, flosses, bamboos, canes, essential oils, edible nuts, fruits, honey, latex, dyes and resins. There is a mutual symbiotic relationship between the ethnic communities and these areas.

Methodology

Survey of the research area was carried out from February 2017 to June 2017. Different plant specimens were collected with the help of tribal people. They were identified with the help of Gamble volume books. The local names of the trees were gathered from the tribal community. Medicinal uses of the plants were collected from the tribal healers.

Characters of a sacred groove

1. Dense cover of trees with rich natural vegetation
2. Presence of a main preceding deity along with guardian deity (Picture 1)
3. Form of nature worship
4. Routine worship pattern with an annual festival
5. Perennial water source
6. Centres for Biodiversity Conservation
7. Mirror of socio-cultural Practices
8. Distinctive ecological characteristics
9. Good source of a variety of medicinal plants



Picture 1: Preceding deity with guardian deity

Importance of sacred grooves

Sacred grooves act as important refuges for medicinal plants within highly anthropogenic landscapes. Sacred groves play a crucial role in soil and water conservation. They are natural museums of giant trees, treasure houses of threatened species, dispensaries of medicinal plants, regulators of water sheds, recreation centres for urban life, veritable gardens for botanists, gene banks of economic species, paradise for nature-lovers and laboratory for environmentalists [6, 7]. The

ethnic communities have a strong faith and belief in traditional healthcare system in the form of herbal treatment by using various medicinal plants. The role of sacred grooves in the conservation of the regional medicinal plants has been emphasized in several studies from different parts of India. Presence of a large number of medicinal plants is reported in 'Kavus' of Kerala [8]. Trees such as *Ficus benghalensis*, *Ficus religiosa*, *Azadirachta indica* and *Tamarindus indica* are considered to be the abode of spirits. *Aegle marmelos*, *Naringi crenulata*, *Prosopis cineraria*, *Mimusops elengi*, *Pterocarpus marsupium* etc., are treated in high esteem by the indigenous communities. It is evident that one of the important ecological roles of these grooves is to provide a more dependable source of water for the organisms living in and around the sacred grooves [8]. Transpiration from the sacred grooves vegetation would increase atmospheric humidity and reduce temperature in the immediate vicinity and produce a more favourable microclimate for many organisms [9]. This environmental condition promotes different kinds of economically and medicinally important epiphytic plants and pteridophytes such as *Drynaria quercifolia*.

Conservation

The taboos, rituals and beliefs associated with the grooves, supported by mystic folklore are the important factors which motivate the indigenous people to conserve the sacred grooves in their flawless natural condition. The people believe that any damage to the sacred grove, harm to the fauna living in that particular area or destroying any flora will be an invitation to the anger and wrath of the preceding local deity, resulting diseases and poor production or loss of agricultural crops. It is forbidden to take even parts of a dead tree and any violation will result in wrath of the guardian deities including snake gods. Everything whether living or non-living of the grove is protected [10]. The ethnic community of the study area has a strong belief that if any one violates the rule either in the form of cutting and taking a tree or killing an animal in that sacred area or disrespecting the deity lead to terrible death such as killing by a tiger, attack from a bison or an elephant. Hence indigenous people dare to break the customary rules of the sacred grooves. Belief and taboos act as the powerful tools in conservation of the ecosystem. There is a general belief that biomass is not harvested from the sacred grooves. This is certainly true in many sacred grooves found across the country and there are many reports which indicate such groves in the Western Ghats of Maharashtra as well as in southwest Bengal and in Koraput district of Orissa [11-13]. There are many grooves in Kerala and Tamil Nadu from which plants and animals are not harvested [8, 14]. Trees having non-timber uses and macrofungi useful to the local people, as well as those with medicinal properties, were abundant in sacred grooves. Threatened trees were more abundant in sacred grooves than in the forest reserve [15]. It has been found that sacred grooves in Kodagu are important for protecting threatened trees, birds, and a distinctive macrofungal flora [16]. Among the trees of Western Ghats 63% species are reported to be endemic [17].

Important trees of sacred grooves of Velliangiri Hills are given in Table 1. These trees are highly revered by the tribal community.

Table 1: Trees of sacred grooves in Velliangiri Hills [18]

S. No	Name of the tree	Vernacular name	Medicinal use
1	<i>Artocarpus hirsutus</i> *	Ayinipala	Dried leaves to treat hydrocele
2	<i>Artocarpus heterophyllus</i>	Pala	To increase sperm count, improve the body strength
3	<i>Cycas circinalis</i> *	Kodicham	Flatulence and vomiting.
4	<i>Santalum album</i> *	Santhanam	Inflammation, itching, eczema.
5	<i>Rhododendron arboreum</i> *	Poomaram	Treatment of coughs, diarrhoea, dysentery.
6	<i>Pterocarpus marsupium</i> *	Vengai	To treat dental issue
7	<i>Boswellia serrata</i> *	Kungilliam	For chronic inflammatory illnesses
8	<i>Cinnamomum zeylanicum</i> *	Lavangam	Remedy for respiratory, digestive, gynaecological ailments.
9	<i>Cinnamomum sulphuratum</i>	Kattu karavu	To cure cough, headache, spider poison
10	<i>Cinnamomum macrocarpum</i>	Periyalavangapattai	For rheumatism
11	<i>Dalbergia latifolia</i> *	Eetti	To treat diarrhoea, indigestion, leprosy,
12	<i>Tectona grandis</i> *	Thekku	Anuria, Bronchitis, congestion of the liver.
13	<i>Garcinia cambogia</i> *	Kodampuli	Joint pain, bloody diarrhea, to increase bowel movements
14	<i>Schleichera oleosa</i> *	Poovathi	Rheumatoid arthritis, headache.
15	<i>Chloroxylon swietenia</i> *	Porasu	To increase wound healing process.
16	<i>Canarium strictum</i> *	Karukungilium	Anti-inflammatory
17	<i>Cullenia rosaya</i> *	Vedipila	Fever, jaundice
18	<i>Aegle marmelos</i>	Vilvam	Chronic diarrhea, dysentery, peptic ulcers
19	<i>Naringi crenulata</i>	Maha vilvam	Hypertension, cancer
20	<i>Limonia acidissima</i>	Vila	Sore throat, chronic cough, respiratory problems
21	<i>Mitragyna parvifolia</i>	Nir-kadambai	Blood related diseases.
22	<i>Dichrostachys cinerea</i>	Veduttalan	Toothache, dysentery, elephantiasis,
23	<i>Azadirachta indica</i>	Vembu	Skin diseases, detoxify the blood, dental treatments
24	<i>Acacia nilotica</i>	Karuvelam	Skin diseases, bleeding disorders
25	<i>Zizyphus mauritiana</i>	Elandhai	Eye drop for curing inflammation.
26	<i>Zizyphus oenoplia</i>	Chooraimullu	Inflammation of the uterus
27	<i>Butea monosperma</i>	Palasham	Ulcer, male dysfunction
28	<i>Alangium salvifolium</i>	Alanji	Rheumatism and haemorrhoid
29	<i>Givotia rottleriformis</i>	Boothalai	Bark juice to cure jaundice.
30	<i>Albizia amara</i>	Wunja maram	Skin infection
31	<i>Ficus tomentosa</i>	Athi	Liver disorders, inflammatory diseases, haemorrhoids, anaemia, respiratory diseases
32	<i>Wrightia tinctoria</i>	Veppalai	Psoriasis
33	<i>Bambusa arundinacea</i>	Mungil	Antilulcer
34	<i>Bridelia retusa</i>	Mullu-Vengai	Hypoglycaemic, hypotensive
35	<i>Bridelia crenulata</i>	Adamarudu	Birth control
36	<i>Callicarpa tomentosa</i>	Kattukkumil	Fevers, skin diseases
37	<i>Vitex altissima</i>	Maila	Ulcers, Allergies
38	<i>Terminalia bellerica</i>	Tanri	Laxative
39	<i>Terminalia arjuna</i>	Marudha maram	Cardiovascular disease
40	<i>Phyllanthus emblica</i>	Malai nelli.	Arthritis
41	<i>Gmelina arborea</i>	Kumil	Piles, abdominal pains
42	<i>Ficus benghalensis</i>	Ala maram	Gonorrhoea
43	<i>Ficus microcarpa</i>	Kallichchi	Haemorrhages, leprosy
44	<i>Dalbergia lanceolaria</i>	Kattuppachalai	Relieving pain and inflammation
45	<i>Cassia fistula</i>	Sarakkondrai	Common cold
46	<i>Elaeocarpus serratus</i>	Uttraccham	Treat diarrhoea
47	<i>Hydrocarpus alpine</i>	Koranguthalai	Leprosy
48	<i>Mesua ferrea</i>	Iril	For haemorrhoids, dysentery with mucus
49	<i>Syzygium densiflorum</i>	Nagamaram	Chronic diarrhoea, diabetes
50	<i>Persea macrantha</i>	Iruli, kolarmavu	Asthma, rheumatism.
51	<i>Cinnamomum wightii</i>	Kattu Lavangam	Treating wounds, fever, menstrual problems
52	<i>Eurya japonica</i>	Huluni, Kattu-theyila	Antidiabetic
53	<i>Helicteres isora L</i>	Valampuri Idampuri	Antioxidant, antidiabetic
54	<i>Photinia integrifolia</i>	Soluvan	For indigestion
55	<i>Symplocos racemosa</i>	Vellilathi	Bleeding disorders, diarrhoea, eye disorders.

Degradation of the Sacred Groves

The following are the main reasons for the depletion and degradation of sacred grooves.

1. Disappearance of species (Picture 2)
2. Habitat alteration
3. Overexploitation of resources (Picture 2)
4. Pollution and Global climate change
5. Invasion of exotic species

6. Erosion of religious beliefs and taboos
7. Anthropogenic pressures
8. Urbanization and Modernisation
9. Increase in human population
10. Developmental projects
11. Conversion to other religions
12. Replacement of deity with other gods and goddesses
13. Erection of a temple (Picture 3)

14. Pilgrimage and tourism
15. Encroachment and Commercial forestry
16. Roadways (Picture 2)
17. Extension of power lines (Picture 3)



Picture 2: Shrinking sacred grove



Picture 3: Development at the cost of sacred grove

Conclusion

Throughout the world the existence of sacred groves indicate that, this is an ancient form of habitat protection. Malasars have a long held tradition of conservation of their habitat and ecosystem that have cultural and religious significance. They consider the entire vegetation of the grooves as sacred. But nowadays since the youngsters have started to travel towards urbanisation, modernisation and westernisation the traditional customs are dying out. Their culture and tradition have started to erode. In some cases these sacred places have fallen into disuse. This has created a threat to these natural systems. In my own experience when I visited certain sacred grooves I felt their influential power. Official recognition of these traditional age old sacred grooves is needed to protect these sacred sites.

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