

Biodiversity Conservation through Sacred Groves

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1. Introduction

The sacred groves of Meghalaya are located in the public forests set aside for religious purpose under the traditional land use system. It is an unpardonable crime to cut down trees or even pick flowers and fruits from these sacred groves except for cremation and religious purposes, that too, with the permission of the *Lyngdoh* (priest). These sacred groves are divided into three categories, depending on the places where they are located. In places ruled by the *Lyngdoh* (*Priest*) the sacred groves were called *Law Lyngdoh*. In place where the traditional religion (*Niam Tynrai*) plays a major role, the sacred groves were called 'Law Niam'- and in places where the village is ruled by a village Headman, the sacred groves were called 'Law Kynrang'. All these sacred groves have the same status although their names may be different. These sacred groves are closely related to the social and cultural life of the people and a number of rites, rituals and religious ceremonies have been associated with them.

Since there is minimal exploitation of these groves, they are home to a number of flora and fauna, which are endangered and as such are rich in diversity. Therefore, they are the best habitats for the reproduction of species and serve as propagates required for colonization of wastelands and fallow land. They also serve as important control sites for any ecological study. Although sacred groves have played a vital role in environmental and biodiversity conservation, many research workers of the region have not acknowledged their importance. However, only the Mawphlang and Mawsmal sacred groves have attracted the attention of researchers and tourists alike.

2. Status of Sacred Groves in Meghalaya

There are about hundred sacred groves scattered all over the State, but are very common in the Khasi and Jaintia Hills and to a certain extent in the Garo Hills. Although there is a legal provision for registering all the sacred groves, private plantations, private forests etc. with the concerned authorities of the Autonomous District Councils, yet, there is no complete and comprehensive list of sacred groves available with the state government or the Autonomous District Councils. However, the Botany Department of the North Eastern Hill University has documented 79 sacred groves in the state of Meghalaya during the year 1998. The individual areas of the groves vary from approximately 1 to 550 hectares. Out of the 79 sacred groves, only 7 belong to the undisturbed category. The rest have been exploited by man for his need and greed. The sacred grove at Mawphlang in the vicinity of Shillong city is still free from human interference or any ecological disturbance.

The sacred groves in the state cover an estimated area of about 10,000 hectares. Most of the major sacred groves are located on the catchments of important rivers and streams of the state. About 60 of them, with an area of about 6,500 hectares are located at the source of perennial streams. For example, the Lum Shyllong Sacred Grove is the source of as many as 9 streams. Since the time Shillong city came into being, the water supply for human habitation solely depends upon the source from the Lum Shyllong Sacred Grove, or the Shillong Peak area, till man's need and greed disturbed the beautiful sub-temperate forest on the Shillong plateau (Tiwari, *et al.* 1999; Tripathi, 2001).

3. Legal Status of Sacred Groves in Meghalaya

Sacred groves enjoy adequate legal support as they are covered by the United Khasi and Jaintia Hills Autonomous District (Management and Control of Forests) Act, 1958. These acts were passed in pursuance of paragraph 11 of the Sixth Schedule of the Constitution of India and were extended to all the forest lands except for the areas which are under the direct control of the state Forest Department (Anon, 1995).

As per the above Act, sacred groves are to be managed and

controlled by the Lyngdoh (priest or religious head) or other person(s) to whom the religious ceremonies for the particular locality or village are entrusted and in accordance with the customary practices and rules framed by the Executive Committee of the concerned Autonomous District Council from time to time. As per section 7 of the above stated Act, no tree(s) shall be felled in these sacred groves without the sanction of the concerned Chief Forest Officer or any other officers duly ones by him in writing. Section 9 of the act states that "*no tree/trees shall be felled or removed from the Law Lyngdoh, Law niam and Law Kyntang (Sacred groves) except for purpose connected with the religious function or ceremonies recognized and sanctioned by the Lyngdoh (priest) or other persons in accordance with section 4 (b)*". Provision for registration of Law Lyngdoh, Law niam and Law Kyntang with the concerned Autonomous District Council has been provided in the United Khasi Jaintia Hills Autonomous District (Management and Control of forests) Rules, 1960.

4. Rationale of this study

Sacred groves represent a long tradition of environmental conservation based on ecological principles practiced by the indigenous people of Meghalaya since time immemorial. Since it was very difficult to make the common man understand the importance of the environment and ecology, our forefathers and the heads of these tribes probably devised a simple way for their conservation and perpetuation by attaching various religious beliefs and taboos with them. As time passed, sacred groves became part of the cultural life of the people in the entire Khasi and Jaintia Hills. In this context, sacred groves offer very important information on their genetic resources on site, within the natural or original ecosystems in which they occur, their ecological status and the level of interaction between life forms (Mc. Neely, 1988; Tiwari *et al.*, 1998 a, b.). Sacred groves are repositories of rich biodiversity and most often represent climax vegetation of the area (Rodgers, 1994; Ramakrishnan, 1998; Ramakrishnan, *et al.*, 1998). For the purpose of this study, it is conceived that sacred groves offer an ecological advantage as a control site while others are taken as experimental sites. In the hills of Meghalaya, sacred groves reflect and represent a tradition, lifestyle and belief which is

intrinsically linked to nature and its conservation (Khiewtam and Ramakrishnan, 1989; Malhotra *et al.* 2001). This indigenous practice is very old among the Khasis, as it is conceived, developed and perpetuated by them since time immemorial and is closely linked to their religious rituals, beliefs and socio-cultural activities.

The authors have listed some of the existing sacred groves in the state of Meghalaya. This information is obtained from traditional heads, village councils and elders who know the rituals and ceremonies closely related to these sacred groves. The list is compiled district wise as depicted in Tables- 1-6. As a case study the authors have also compiled the floral and faunal elements encountered in the Mawphlang sacred Grove or the *Law Lyngdoh* of Mawphlang in the East Khasi Hills and the richness is depicted in Table- 7 and 8.

Remarks

The state of Meghalaya is still rich in sacred groves as observed from the inventory. The number of such groves is highest in the East Khasi Hills with 41, followed by Jaintia Hills with 19, West Khasi Hills with 13 and Ri Bhoi district with 12. The other districts like East and West Garo Hills have 8 each. This is because of the fact that the Garo Hills are still covered with dense forests. Although the total number of existing groves is 101 and there is certain degree of difference between them as far as the canopy cover and the variety of species diversity they harbour. A detailed investigation in this aspect is still required.

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Table 1: Sacred Groves of Jaintia Hills District

Sl No	Location	Name of Sacred groves
1	Raliang	1. Blai Law 2. Poh Puja 3. Poh Moorang 4. Pun Lyngdoh 5. Byrsan
2	Shangpung	6. Poh Lyngdoh 7. Law Kyntang
3	Khliehriat	8. Khlaw Blai
4	Jowai	9. Khloo Paiu 10. Tpepale - - - - - 11. Khloo Lyngdoh 12. Mookhain
5.	Sutnga	13. Myndihati 14. Syndai - - - - - 15. Ialong.
6	Mynso	16. Law Kyntang
7	Nongtalang	17. Law Lyngdoh
8	Nartiang	18. Law Lyngdoh
9	Amtapoh	19. Law Lyngdoh

Table 2 : Sacred Groves of Ri-Bboi District

Sl No	Location	Name of Sacred groves
1	Khatar Nonglyngdoh	20. Pahampdem 21. Nonglyndoh, Nongkhrai 22. Sohpetbneng 23. Pahamshken
2	Mawrong	24. Nongbah Narlein

3	Raitong	25.	Raitong
4	Pamlatar	26.	Thaiang
5	Umsiang	27.	Umsiang
6	Bhoilymbong	28.	LawKyntang
7	Raid Iapngar	29.	Iapngar
8	Raid Namsha	30.	Lamalong
9	Umsaw Nongbri	31.	Umsaw

Table 3: Sacred Groves of East Khasi Hills District

Sl No	Location	Name of Sacred groves
1	Mawphlang	32. Law Lyngdoh
2	Nongkrem	33. Law Lyngdoh
3	Smit	34. Law Lyngdoh
4	Laitkor	35. Lum Shyllong
5	Sohra	36. Shyngiar bah
		37. Lawarliang
		38. Lawlumbordi
		39. Law U Bnai
		40. Umtynghiang
		41. Wah U Dkhar
		42. Sang Ka Tlot - - - - -
		43. Wah Dienglieng
6	Mawsmai	44. Ram Jadong
		45. Blei Bah
		46. Mawlong Syiem -
		47. Pan Shandi
		48. Lawsuidnia
		49. Law Adong
7	Laitryngew	50. Law Siudnoh
		51. Law-U-Niang
		52. Madan Jadu
		53. Law Arliang
8	Khadarshnong	54. Lum Diengjri
		55. Mawmang

9	Khadarblang	56.	Wahkhen
10	Sohrarim	57.	Lawlieng
		58.	Lawmawsaptur
		59.	Law Dymmiew
11	Mawmilthied	60.	Law Nongshim
12	Mawmluh	61.	Mawsawa
13	Wahlong	62.	Mawryot
		63.	Niangdoh
		64.	Rijaw
14	Umwai	65.	Umtong
		66.	Diengkain
		67.	Mawthoh
		68.	Mawkyrngah
15	Mawlong	69.	Kynsang
		70.	Umthri
		71.	Umkatait
16	Nongkseh	72.	Law Kyntang

Table 4: Sacred Groves of West Khasi Hills District

Sl No	Location	Name of Sacred Groves
1	Maharam Syiemship Nonglyngkien	73. Law Lyngdoh 74. Lum Sanglia 75. Lum Blei
2	Nongtalang	76. Law Lyngdoh
3	Mawlyngwir	77. Law Kyntang
4	Mawten	78. LawKyntang
5	Rangmaw	79. Law Kyntang
6	Mawthawiaw	80. Law Kyntang
7	Nongsynrih	81. Nongsynrih
8	Mawiang Syiemship	82. Law Lyngdoh Nonglait
9	Nongkhlaw	83. Law Adong Syiemship Mawlong

10	Nobosohphoh	84.	Kyllai Lyngsyum Syiemship Maram
11	Mawnai	85.	Law Lyngdoh

Table 5 : Sacred Groves of East Garo Hills District

Sl No	Location	Name of Sacred Groves
1	Risubakrapara	86. Kimpra Hills 87. Konkai Hills 88. Wachi Ruram Hills
2	Megagiri	89. Ganna Ram Ram Rock
3	Miapara	90. Miapara Rongadom
4	Boro Miapara	91. Boro Miapara
5	Jongola	92. Jongola
6	Rautagiri	93. Rautagiri

Table 6: Sacred Groves of West Garo Hills District

Sl No	Location	Name of Sacred Groves
1	Goragiri	94. Goragiri
2	Dawalgiri	95. Dawalgiri
3	Angalgiri	96. Angalgiri
4	Asigiri	97. Asigiri
5	Jelbongpara	98. Jelbongpara
6	Sadolpara	99. Sadolpara
7	Jhanjipara	100. Jhanjipara
8	Darongiri	101. Darongiri

Table 7: Floral Species found in Mawphlang Sacred Grove, East Khasi Hills

Sl No	Species
1.	Trees <i>Taxus baccata</i> , <i>Rhododendron arboreum</i> . <i>Myrica esculenta</i> . <i>M.nagi</i> , <i>Schima khasiana</i> , <i>Quercus griffidli</i> , <i>Q. dealbata</i> , <i>Q.</i>

glauca, *pyrus pashia*, *Castanopsis kurzii*, *Pronus undulata*, *Corylopsis himalayana*, *Engelhardtia spicata*, *Ficus nerifolia*, *Camellia caduca*, *ExbuckJandia populnea*, *Litsea spp.*

2. **Shrubs**

Berberis wallichiana, *Mohonia pycnophylla*, *Lyonia ovalifolia*, *Agapetes obovata*, *Sarcandra glabra*, *Daphne bholua*, *Sarcococca saligna*, *Elaegmus conferta*, *Osbeckia stellata*, *Eupatorium adenophorum*, *Lantana camara*, *Euryajaponica*.

3. **Herbs**

Corylopsis himalayana, *Manglietia insignia*, *Centella asiatica*, *Hypocharis spp.*, *Taraxacum*, *Pteris ovalifolia*, *Sonchus asper*; *Houtuynia cordata*, *Cyperos rotundus*.

4. **Epiphytic orchids**

Pleione praecox, *Cymbidium elegans*, *Ottochilusjilsca*.

Ground orchids: *Phaius tankervilliae*, *Spadloglottis pubescens*, *Paphiopedilum insigne*

5. **Parasitic plants:** *Balanophora dioica*, *Monotropa uniflora*, *Mitrastemon yamamotoi*.

6. **Rare plants:** *Taxus baccata*, *Botrychium lanuginosum*, *Gnetum scandens*, *Rauwolfia densiflora*, *Anoectochilus sikkimensis*, *Sarcandra glabra*.

Source: NEBRC, NEHU

Table 8: Faunal species found in Mawphlang Sacred Grove, East Khasi Hills

Sl No	Species
1.	Mammals
	Large Indian civet - <i>Viverra zibetha</i> (Linn), the Binturong or Bear cat - <i>Arctictis binturong</i> (Raffles), the Civet cat - <i>Viverra megaspila</i> , the Pangolin - <i>Manis pentadactyla</i> , Porcupines - <i>Hystrix spp.</i> , Flying foxes - <i>Pteropus giganteus</i> , Flying squirrels,

Microchiro tern, Foxes, etc.

2. **Birds**

Hoopoe -*Upupa epopa epopos longirostris*, Longtailed broad bill- *Psarisomus dalhousie dalhousie*, Scarlet minivet - *Pericrocotus flammicus speciosus*, Roller-*Coracias bengalensis affinis* Blue throated barbet- *Megalima asiatica*, Red vented bulbul- *Pycnonolus cafer bengalensis*, Himalaya black bul bul- *Hypsipetes madagasariensis pscoroides*, Whistling thrush- *Myiophonus cearuseus temminck*, Drongo- *Dicrurus hotentotus*, Spotted fork tail-*Enicurus ones*, Thick-billed green pigeon- *Treron corcirostr nepalensis*, Red fowl- *Gallus gallus*, Turtle dove. *Streptopelia orientalis*, Red- yellow legged falcon- *Falco vespertinus* and other smaller species.

3. **Reptiles**

Viper -*Trimerasurus manticola syn T.jerdoni*, Python- *python molurus*, Blind snake. *Typhlops spp.*, Copperheads- *Elaphe prasiana*, Red necked kulbak -*Rhadophis himalayana* and other species.

4. **Fishes**

Channa orientalis, *C. punctatus*, *C. channa*, *C. murulius*, *Danio dangila*, *Garra lissomynchus* and other species

5. **Amphibians**

Limnonectes cyanohlictis, *Limnonectes limnocharis*, *Rana mawphlangensis*, *Hyla spp*, *Bufo melanostictus*, Ceacilians or Blindworms and other species.

6. **Insects**

A large number of sub-terranean, aquatic and terrestrial insects representing Coleoptera, Lepidoptera, Diptera, Hemiptera, Homoptera, Ephemeroptera, Odonata, Plecoptera, Orthoptera, Isoptera and other orders are yet to be listed..

Source: NEBRC, NEHU