Taxonomy and Ethnobotany of Sthalavrikshas (Temple Trees) in Palakkad, Kerala, India

Abstract: Veneration of solitary trees as Sthalavriksha is reported from Tamil Nadu and Karnataka. However, less is known about Sthalavrikshas of Kerala. The authors report taxonomy and ethnobotany of Sthalavrikshas in Palghat district, Kerala, India. Preponderance of Sthalavrikshas in two relatively drier Taluks of the study area leads the authors to observe that Sthalavrikshas are condensed form of sacred groves.

Keywords: Sthalavriksha, Conservation.

Mythological association between plants and animals, with man, exists from time immemorial. Reference to plant/animal worship is plentiful in both occidental and oriental literature. Divinity assigned to a place, name, natural element (stone, rock, mountain, river, etc.) or plant/animal depends on cultural and religious practices of the respective society. Plant worship is one of the early practices of nature worship. Tree worship, also known as dendrolatry refers to the tendency of human societies throughout history, to worship or otherwise mythologise trees. Indigenous people believe trees to be the abode of deities and spirits. For instance, sacred trees are conceived as a symbol of fertility for begetting children, ensuring good rain and achieving good harvest of crops. Sacred trees are either medicinal or edible plant species and are protected and venerated for their cultural and religious importance.

Certain solitary trees, venerated within or adjacent to a temple, are given special status of Sthalavriksha. A Sthalavriksha is a plant (mostly a solitary tree), which is venerated from time immemorial as a deity or the abode of the deity of a temple. Etymology of nomenclature can be traced to its Sanskrit roots sthala meaning place and vriksha meaning tree. The Sthalapurana (place history) of each temple has a myth, linking the Sthalavriksha to the presiding deity. A good majority of temple myths refer the presiding deity being first observed or experienced under a tree. After the construction of temple, these trees continue to be venerated Sthalavriksha.

In Kerala, the practice of venerating solitary trees is predominant in Palakkad district. However, there exists, few studies on Sthalavrikshas of Kerala. The authors describe the taxonomy and ethnobotany of Sthalavrikshas in Palakkad, the largest district of Kerala. The district is bound between latitude 10.7 and 10.9 degrees North and 76.46 and 76.69 degrees East of equator respectively and occupies slightly more than 10% the area of the state. The district shares its borders with Malappuram district in the north and northwest, Thrissur in the south and Coimbatore district of Tamil Nadu in the East. The natural gap in Western Ghats, in the Eastern border of the district lets hot dry winds from Tamil Nadu to blow into to render Palakkad and Chittur taluks of the district with a climate similar to that of Tamil Nadu. The flora of the district is characteristically tropical, owing to the seasonal rainfall and the mountainous eastern boarder. Whilst the district is endowed with the convergence of many cultures, agriculture is the basis of subsistence. Consequently the socio cultural background of the district was molded on agrarian characteristics and related activities.

Field work was carried out during summer of 2011 within the entire district. A pre-designed questionnaire was used to collect data on individual Sthalavrikshas. Taxonomic identification was cross verified using Flora of Presidency of Madras. Information pertaining to beliefs, rituals, and culture associated with sthalavriksha worship were prepared by interviewing temple priests, temple staff and local public. Historic details of respective temples were compiled from temple manuscripts. Ethnobotanical importance sthalavrikshas were captured by consulting local traditional healers and practicing doctors of Indian System of Medicine (Ayurveda) and available elders.

68 out of 120 temples surveyed within the study region reported presence of Sthalavrikshas. Aegle marmelos, Alstonia scholaris, Azadirachta indica, Couroupita guianensis, Ficus benghalensis, Ficus recemosa, Ficus religiosa, Holoptela integrifolia, Mimusops elengi, Plumeria alba, Plumeria rubra, Schleichera oleosa, Strychnos nux-vomica and Syzygium cumini were the tree species venerated as Sthalavrikshas, within the study area. Artemisia nilagirica and Ixora coccinea, although non-trees, are also found venerated as Sthalavriksha. 96% of the observed Sthalavrikshas constitute trees. Among the 16 species venerated as Sthalavrikshas, 15 have reported medicinal values. Table 1 summarizes the medicinal utility of the Sthalavrikshas of Palakkad, Kerala.
Although individual tree worship is reported in various cultures\textsuperscript{2,6,16,17}, scant literature is available on Sthalavriksha concept in India. Close association with presiding deity, object of worship, belief of origin form bodies of Gods, socio economic significance, etc. are the few factors, which make trees object of worship. Longevity of trees would perhaps be a factor that prompted man to worship it. Plants specific to respective regions are venerated in temples. This study showed that Ficus species is the most venerated Sthalavriksha in Palakkad, Kerala.

The present study captures the taxonomic characters of Sthalavrikshas in the study region. Sthalavrikshas are germplasm reserves and an indicator of socio-cultural conservation strategy. Preponderance of Sthalavrikshas in drier regions of the study area make the authors believe them to be condensed forms of sacred groves, suited to climate and biogeography.

**TABLE 1. Sthalavrikshas observed in Palakkad, Kerala and their ethno medicinal utility**

<table>
<thead>
<tr>
<th>SL. No.</th>
<th>Botanical Name</th>
<th>Local Name</th>
<th>Habit</th>
<th>Family</th>
<th>Medicinal Use/Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aegle marmelos</td>
<td>Koovalam</td>
<td>Tree</td>
<td>Rutaceae</td>
<td>Curing Abdominal Disorders, Dyspepsia, Diabetes\textsuperscript{13}</td>
</tr>
<tr>
<td>2</td>
<td>Alstonia scholaris</td>
<td>Pala</td>
<td>Tree</td>
<td>Apocynaceae</td>
<td>Antipyretic, Depurative, Stomachic, Cardio tonic\textsuperscript{13}</td>
</tr>
<tr>
<td>3</td>
<td>Artemisia nilagirica</td>
<td>Karpqora</td>
<td>Herb</td>
<td>Asteraceae</td>
<td>Anti-inflammatory, diuretic, aphrodisiac, digestive, deobstruent\textsuperscript{13}</td>
</tr>
<tr>
<td>4</td>
<td>Azadirachta indica</td>
<td>Veppu</td>
<td>Tree</td>
<td>Meliaceae</td>
<td>Antiulcer, Antidermatics, Anti helminthic\textsuperscript{13}</td>
</tr>
<tr>
<td>5</td>
<td>Couroupita guianensis</td>
<td>Shivalinga tree</td>
<td>Tree</td>
<td>Lecythidaceae</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Ficus benghalensis</td>
<td>Peral</td>
<td>Tree</td>
<td>Moraceae</td>
<td>Antidermamic, anti-inflammatory &amp;ophthalimic\textsuperscript{14}</td>
</tr>
<tr>
<td>7</td>
<td>Ficus recemosa</td>
<td>Athi</td>
<td>Tree</td>
<td>Moraceae</td>
<td>Dysentery, wound healing\textsuperscript{14}</td>
</tr>
<tr>
<td>8</td>
<td>Ficus religiosa</td>
<td>Arayal</td>
<td>Tree</td>
<td>Moraceae</td>
<td>Gonorrhoea, diarrhoeam dysentery, haemorrhoids\textsuperscript{14}</td>
</tr>
<tr>
<td>9</td>
<td>Holoptela integrifolia</td>
<td>Aval</td>
<td>Tree</td>
<td>Ulmaceae</td>
<td>Antiinflammatory, carminative, laxative, repulsive and urinary astringent, antidiabetic\textsuperscript{15}</td>
</tr>
<tr>
<td>10</td>
<td>Isora cocinea</td>
<td>Chethi</td>
<td>Shrub</td>
<td>Rubiaceae</td>
<td>Blood purifier, antileucorrhoeic, anti catarhal, anti septic, Used in bronchitis, haemoptysis\textsuperscript{16}</td>
</tr>
<tr>
<td>11</td>
<td>Mimusops elengi</td>
<td>Elenji</td>
<td>Tree</td>
<td>Sapotaceae</td>
<td>Astringent,anhtelmintic, useful in urethorrhoea, cystorrhoea, diarrheoa\textsuperscript{17}</td>
</tr>
<tr>
<td>12</td>
<td>Plumeria alba</td>
<td>Alari</td>
<td>Tree</td>
<td>Apocynaceae</td>
<td>Antiulcer, applied, for tumours. Antimicrobial\textsuperscript{18}</td>
</tr>
<tr>
<td>13</td>
<td>Plumeria rubra</td>
<td>Red Alari</td>
<td>Tree</td>
<td>Apocynaceae</td>
<td>Useful in ulcers, pruritus,leprosy, gastropathy,\textsuperscript{17} Rebefacient</td>
</tr>
<tr>
<td>14</td>
<td>Schleichera oleosa</td>
<td>Poovam</td>
<td>Tree</td>
<td>Sapindaceae</td>
<td>Antipyretic, anti inflammatory, antiulcer, trichogenus and tonic\textsuperscript{19}</td>
</tr>
<tr>
<td>15</td>
<td>Strychnos nux-vomica</td>
<td>Kanjiram</td>
<td>Tree</td>
<td>Loganieae</td>
<td>Useful in cholera, healing chronic wounds, Paralytic complaints, aphrodisiac, appetizer, stomachic\textsuperscript{13}, antiperiodic</td>
</tr>
<tr>
<td>16</td>
<td>Syzigium cumini</td>
<td>Njaval</td>
<td>Tree</td>
<td>Myrtaeae</td>
<td>Diuretic, digestive, antihelminthic, antibacterial, useful in diabetes, leucorrhoea, pharyngitis\textsuperscript{13}</td>
</tr>
</tbody>
</table>

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