The Cultured Rainforest Project

Fruit Trees in the Southern Kelabit Highlands

Planting Ties with People and Place

Fruit Trees and People in the Highlands

For many generations fruit trees have been planted around settlements and in dry shifting rice fields in the Kelabit Highlands. Descendants of those who plant trees have rights to both the fruit and to cultivate the land on which trees were planted. This means that fruit trees are a means of recording family and settlement histories.

Another way in which fruit trees are important to people is through attracting the most important source of wild meat - boar. Fallen fruits in the rainforest are much liked by wild boar, which means that hunting is good during the fruiting season, from December to March.

The Cultured Rainforest Project investigated long-term and present-day interactions between people and rainforest in the Kelabit Highlands of central Borneo (Malaysian Sarawak), so as to better understand past and present agricultural and hunter-gatherer lifestyles and landscapes.

The project had three main strands:

- Anthropology: Studied oral histories and collected information on present-day relationships between people, the landscape, and the past as people remember or imagine it.
- Archaeology: Surveyed and excavated selected monuments to reconstruct the lives of people living in the highlands in the past.
- Palaeoecology: Analysed fossil pollen in sediment cores and from archaeological sites to document the long-term history of the rainforest and human impacts upon it.

The core study area was the Upper Kalapang valley. The fieldwork took place between 2007 and 2011, and was based mainly in and around the village of Pa’ Dalih.

Acknowledgements and Further Information

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The Cultured Rainforest Project: long-term human ecological histories in the highlands of Borneo will be available from the Sarawak Museum and international bookstores.

www.culturedrainforest.com - Leaflets, articles, view archive photographs, illustrations and audio-video recordings.

Kinds of Fruit Trees in the Southern Kelabit Highlands

Thirty-six distinct kinds of fruit trees have been recorded in the Pa’ Dalih area. Other reports bring the total of locally-recognised fruit tree entities (species, subspecies, varieties, cultivars) to forty-three. The fruits included types of durian, breadfruit, jackfruit, mango, mangosteen, meta kuching, petal, orange, rambutan and tampol.

Eleven kinds of fruit trees recorded during the study are native to Borneo, either wild in the surrounding forest - although individuals may have been planted - or introduced from elsewhere.

Nine appear to have been introduced from within Borneo and eight introduced from outside of Borneo. The origin of some entities in not yet known.

Tadun Bala offering pomelos at Long Diit

Bus’ puak

Boru meiram sia - pulasan
The Cultured Rainforest Project’s Survey of Fruit Trees

Fruit trees around the current Pa’ Dalih settlement and those at 14 abandoned settlement sites in the vicinity of Pa’ Dalih were recorded as part of the project. Visits were made to fruit trees together with informants and discussions held about the significance of fruit trees.

Gathering Fruit

Many - perhaps even most - of the fruit trees occurring in the Highlands were planted by people. Where the person who planted a tree is remembered, his or her descendants have prior rights to the fruit. They may allow others to gather the fruit, and they often share gathered fruit widely with kin.

Where the person who planted the tree is no longer remembered - or if it is wild - fruit can be gathered by anyone, wherever it is growing.

One fruit tree species (Bua’ kiran - a relative of the breadfruit/palmafrut) was found in all but two of the settlement sites while a further six types of fruit tree (Bua’ laam, Bua’ lenggat, Bua’ puak, Bua’ meritam sia’, Bua’ datu to’oh and Bua’ bupuh) occurred in five to nine of the settlement sites, although the numbers of individual fruit trees per site varied greatly. Bua’ kiran, Bua’ bupuh, Bua’ laam, Bua’ meritam sia’, and Bua’ puak are each well-represented in at least one site.

<table>
<thead>
<tr>
<th>Kelabit</th>
<th>Malay</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bua’ kiran</td>
<td>Terap</td>
<td>Artocarpus odoratissimus</td>
</tr>
<tr>
<td>Bua’ laam</td>
<td>Baccang</td>
<td>Mangifera foetida</td>
</tr>
<tr>
<td>Bua’ lenggat</td>
<td>Langsat</td>
<td>Lansium domesticum</td>
</tr>
<tr>
<td>Bua’ puak</td>
<td>Tampoi</td>
<td>Bocconia macracarpa</td>
</tr>
<tr>
<td>Bua’ meritam sia’</td>
<td>Pulasan</td>
<td>Nephelium rampano-bale</td>
</tr>
<tr>
<td>Bua’ datu to’oh</td>
<td>Durian</td>
<td>Durio zibethinus</td>
</tr>
<tr>
<td>Bua’ bupuh</td>
<td>Mata kuring</td>
<td>Dimocarpus malaynus</td>
</tr>
</tbody>
</table>

Map showing cultural sites of the southern Kelabit Highlands where fruit trees have been identified.

- Help protect and preserve the biodiversity of the highlands.
- Do not cut, uproot or damage trees or other plants; if picking fruit, it is polite to get the owner’s permission first.
- Some Sarawak plants have Totally Protected or Protected status (Wild Life Protection Ordinance 1990).

Fruit Tree Histories

Fruit tree size, as measured by diameter at breast height (dbh), can be a rough indicator of tree age. Bua’ datu to’oh (dunten) trees with 140 cm and 100 cm dbh were largest recorded in the study area.

Larger trees are nearly always associated with the named individual who planted them. The Bua’ datu to’oh at 140 cm dbh was probably planted by Pun Sarawak’s father 100-150 years ago.

Two fruit tree types, Bua’ kiran and Bua’ bupuh appear especially useful in identifying possible former settlement sites. Both were introduced to the study area from elsewhere in Borneo and neither occurs wild in the highlands.

They are found in fairly large to large numbers and over a high proportion of former settlement and non-settlement sites and have a lifespan of at least 70 years.