

# BHE Ethnobotany

Notes from data collection in September and October 2012



In September and October 2012 an investigation of the ethnobotany, spirituality and conservation practices was conducted with the Hmong people of Long Lan village in Luang Prabang Laos. The methods employed were uniquely participatory and utilized the knowledge and experience of indigenous networks (MECO-ECOTRA) and the elders and herbalists of the village. The research followed theory and practice from Bio-Human Ecology (BHE) and ethnobotany.

#### JANUARY, 2013

#### Methods and Practice:



Early results about the important species, mentioned in Long Lan. A brief description of both qualitative and quantitative data..



A sense of place. An introduction to the Long Lan community and some ideas about how this research fits into their aims and needs.

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#### Plants and People:



Discussions and Meetings: Collaborative and Participatory BHE Ethnobotany. The first attempt at working together.



Conclusion: Work Remains to be Done. A brief synopsis of what has been discussed and some hopeful ideas about future investigations.

Nojtsisnojkujtuavdiav Luagtsisluagkujntxihniav.

# Methods: Ways of Investigation

The research team included one Hmong lead interviewer, one SPERI senior staff, two Hmong youth scribes, one botanist from Pha Tad Ke and one Bio-Human Ecology Researcher from SPERI. All wereundertaking this kind of investigation for the first time to field-test working styles and practice.

BHE theory, the Hmong culture of customary practices

of conservation and the decisions of the community for framed the research. Also, the methods of data collection, with Hmong youth scribes and a team that was learning, shaped the kinds of data collected.

The Long Lan community of elders and herbalists decided how and what kind of research would be done during a meeting on the first days of the research.

## Early Results: Species, Uses and Conservation Practices

Preliminary results show that there are some positive trends between the spiritual practices and uses as well as the uses and conservation practices. This indicates that cultural uses for a species are a mechanism for the conservation of those species. Other data analysis is still pending a full description of all the species and a translation of the questions. There were 206 different instances of key informants mentioning important species to our team. These included 64 annuals, 47 climbers, 42 Shrubs, 32 Trees, 7 epiphytic plants, 6 rhizome herbs, 4 Terrestrial ferns, 2 perennials, and 2 creeping plants. These species had 191 different Hmong names. So far

103 genus and 66 families, 54 species have been fully identified with a scientific name (15 were mentioned by multiple informants and 39 mentioned by only one informant).

The preliminary data shows uses and practices for around 130 species (some species have several names) collected from both fields and forests.

The species mentioned by the most people was Javanese bishopwood a tree known by the Hmong name *Ntooqaubpluas*, of the Euphorbiaceae family (*Bischofiajavanica*).

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Elders, herbalists and healers went to the forest and described the kinds of uses, spiritual practices and conservation of the species found there.

### Long Lan: A Small Hmong Community



Walking in the field together is the best way to get to know the plants.

Luang Prabang province has a total population of just over 400,000 that includes 12 distinct ethnic groups . Lowland Lao, the ethnic majority of Laos, comprise most of the population and live mostly in lowland valleys and in Luang Prabang Town. The Khmu (Khamu, Kammu or Kemu) are the largest ethnic minority group in the province, they are a Mon-Khmer speaking people known for their knowledge of the forest (believed to be the original inhabitants of Laos). Hmong are the second most populous ethnic minority and are subdivided into four main groups, based on color of their traditional clothing (White Hmong, Striped Hmong, Red Hmong and Black Hmong). Yao (Iu Mien, Man or

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# **Discussions and Meetings:** Collaborative and Participatory BHE Ethnobotany

Meetings were first held in Luang Prabang with interested parties and stakeholders such as Elders from MECO-ECOTRA and the Hmong Association, Young Indigenous Leaders Development Strategy (YIELDS), SPERI and CHESH-Laos. They discussed the Nao Song ceremony (Tong Xenh and Thu Thi ceremony) and the establishment of a UN Scientific and Cultural Organization (UNESCO) biosphere in Long Lan and to include a SPERI Farmer Field School (FFS) as a central part of this.

MECO-ECOTRA was a central theme in these meetings. MECO-ECOTRA is dedicated to making the systems of governance economics and education based on traditional practices through 6 themes: 1) Customary Law in community governing and natural resources management; 2) Community ownership of spirit forest and bio-cultural diversity preservation; 3) Ecological farming for sustainable land use planning and livelihood security; 4) Herbal medicinal wisdom for community healthcare and biodiversity preservation; 5)women's wisdom in natural dying and embroidery of textile handicrafts; 6)Farmer Field School (FFS) for teaching by learning and learning by doing toward leadership in democratization and decentralization

Meetings also covered the perceived benefits of the local people to take part in the research. All decided that the research stands to benefit the plans of the Hmong Association and all others in the setting up of the FFS and the UNESCO biosphere. It was agreed that the research also stands to benefit three themes of the MECO-ECOTRA and the Long Lan FFS curriculum in that it will gather information about herbal medicine knowledge, handicraft knowledge and wild local species used in ecofarming.

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#### **Meetings (Continued)**

Upon arrival in the village of Long Lan two more large meetings took place, one with the village elders and another with the whole community. The last ended with a few critical decisions for the research: 1) The elders of the village decided that the research should be done to create a book of knowledge for transferring endangered herbal knowledge to the next generation. 2) The elders assigned 10 herbalists to meet with the research team, each for a day, and two youth scribes to follow the team and record all the information in the Hmong language.

Ntautxhaistesuahauj-lwm sib

Ntaulubtswv-yimua tau txojkevqhib.

Many hands make light work;

Many ideas open the way.

-Hmong Proverb

#### Early Results (Continued)

The species mentioned for the most uses was guava, known by the Hmong names *Txivcuabthoj* and *Khoomnyecj*, (*Psidiumguajava*).

Most interestingly, the people of Long Lan have a number of important ways to conserve and to use the species and these are largely expressed through actions taken in the field and customary laws. They also have a very close spiritual connection to the species they are using and tend to have practices related to the harvest and the use of the species.

Not all species have yet been identified botanically however, all but 18 are known to the family. The data collected thus far can be discussed with some hesitancy, as it is not a big data set. It should also be read with the knowledge that correlation does not mean causation. With that said the data is exciting and presents some promising ideas for further research.

#### LEARNING SPECIES



#### Learning:

Each day was spent with a single elder over the course of two weeks. Each elder went to the field to collect species then followed up by telling about the uses of those species and all the associated conservation and cultural practices.



#### Acknowledgements:

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#### A Small Hmong Community (Continued)

Mien) also live in Luang Prabang as well as Yi (Lolo), Ho and Kho (Akha). The Hmong and Yao people are recent migrants, mainly from southern China, who migrated to Laos in the nineteenth century. Most are animists and continue to practice Chinese ancestor worship, though some follow Taoism, Buddhism and Christianity.

Long Lan (Lóng Lǎn) village in Luang Prabang province, Laos is a small Hmong community. It is a collective village of 7 Hmong Clans (Zang: 47.6 %, Ly: 34.6%, Ho: 6.5%, Mua: 4.9%, Tho: 3.2%, Song: 1.6%, and Vang: 1.6%) (CHESH-Laos 2012). These clans moved down from the mountains in 1977 to live in Long Lan, which was formerly a Khmu village. The Khmu moved further down into the lowlands after the Pathet Lao war, near the start of the official rule of the Lao People's Revolutionary Party (LPRP). Long Lan has since been growing and now has around 65-67 households and just over 500 inhabitants.

Long Lan is a cluster of upland areas located in the northern mountains of Luang Prabang province and comprises an area of 8,439.75 hectares. There are 5,034.84 hectares of forested land in Long Lan, accounting for 59.7% of the natural area 47 hectares of forest have been designated as a protected 'herbal forest'. Long Lan forests are the headwaters of the watershed area, at elevations from 1,000 – 1,600 meters above sea level. These forests are full of rare flora and fauna and directly affect the livelihoods and survival of indigenous people in the watershed area (HCSTAI 2010). Local rules and laws strictly protect the forests and function to conserve biodiversity.

Long Lan is considered to be a potential ecotourism destination with caves, forests and attractive agricultural systems above 1,000m, in year-round mist-covered forests. Furthermore, various actors have been working to make an ecological sanctuary in the region with socio-economic development and biodiversity conservation through promotion and preservation of cultural values as well as traditional maintenance, use and sustainable development of natural resources. CHESH-Laos and SPERI have implemented two important projects in the region: 'Pilot study to develop community-based cultural identity ethnic Hmong in Long Lan' Phase I, from 2000 - 2002. This was followed by the project 'Strengthening capacity of CHESH in Laos to support the core network of farmers in sustainable community activities Long Lan, Luang Prabang District' carried out from 2003 to 2005. From 2006 to 2009, CHESH-Lao worked within the network of customary law and indigenous knowledge in natural resource management within the headwater forests Luang Prabang District, including Long Lan. In 2007 Lao-Vietnam Herbal Network was established to allow for cooperation and collaboration between the herbalist networks of Laos and Vietnam. Long Lan has a number of important actors within this network.

In 2009 the Hmong Association held the first sacred Nao Song ceremony (Tong Xenh and Thu Thi ceremony) in 23 years, a 3 day meeting of the Hmong people. The meeting was held in Long Lan and included the most important elders and members of the Laos Hmong community (from 25 villages) as well as people, organizations and agencies from all over the Mekong region. The meeting was designed to discuss the important aspects of the Hmong community and areas where adjustments to customary law were necessary (i.e. change in the 'bride price'). It was an opportunity to reinforce and discuss the animist values and to discuss and raise awareness among stakeholders. During the meeting the Laos Hmong Association and the Long Lan community agreed to cooperate with the MECO-ECOTRA network, Young Indigenous Leaders Development Strategy (YIELDS) and SPERI to work toward a UNESCO biosphere in Long Lan and to include a Farmer Field School as a central part of this.



## Conclusion: More Work and Opportunity Remain

A relationship between biological science and anthropology lies at the center of this investigation. The sciences of Human Ecology and Ethnobotany are being employed to find common ground between these two seemingly different perspectives. There is an emerging story and a unified communication that will show itself more easily in future writing and investigations.

The real success story is that the data collection has been able to show that the people of Long

Lan have a number of important ways to conserve and to use the species and these are largely expressed through actions taken in the field and customary laws. They also have a very close spiritual connection to the species they are using and tend to have practices related to the harvest and the use of the species.

Community service is the top priority therefore a herbal book in the Hmong language will be a major focus of future work.



So far so good but there is a lot more to do.

Data collection is continuing in January and February with SPERI staff as well as a Vietnamese botanist

## Important Species: A Few Important Details



NtooQaubPluas, Bischofiajavanica(Eupho rbiaceae)

Mentioned by four elders for medicinal and technical uses.



TxivCuabThoj, Psidiumguajava(Myrtac eae)

Mentioned by three elders for ecological, medicinal and cultural uses.



LovYasPajDuab Eupatoriumodoratum(A steraceae)

Mentioned by three elders for medicinal, symbolic, edible, spiritual and ecological uses.



# NtooQaubPluas:Bischofiajavanica(Euphorbiaceae)

The leaves and bark from this tree can be used to treat bleeding gums, diarrhea and to cure children's malaria. It can be used as building material (often used to build houses or coffins). It can be used to cure itchy and wounded feet and hands.

Vulnerabilities for the species include that perhaps it is used too much to build coffins and houses. The population decreased by 50% since the establishment of Long Lan and this is mostly due to trees being cut for building houses and coffins. Others reported that the population has increased by 10% and that the seeds grow well if planted. There are conservation practices underway for the species. After taking the bark or leaves for a treatment the tree can recover well. There are also customary laws to protect this included in regulations for other herbs.

Young leaves are harvested in summer

andfall either with a knife or picked by hand. Wood is cut in May. Bark can be cut with a knife in late fall and winter. Harvest time





# TxivCuabThoj:Psidiumguajava (Myrtaceae)

TxivCuabThojhas several uses. The primary uses are environmental, including the flower attracts bees and butterflies and birds eat the seeds. The fruit is also edible and the plant is often used by young couples, who use the leaf

to make a sound to attract eachother and flirt. TxivCuabThoj is also used medicinally. The bark is boiled and the buds are used to

#### treat diarrhea.

The population of TxivCuabThoj has increased by roughly 10% since the settlement of Long Lan. Seeds grow well and can be spread by

birds eating and excreting them.

Customary law protects TxivCuabThoj, according to regulations of the village. One of them says 'do not cut' but this may be outdated as the species is more abundant now than when the law was written.

Customary law also says that people may

not cut trees on other peoples land.

Pray at the tree to introduce the patient and the illness, then ask spirits for help. Plant is picked by hand, use stick to get high fruit, knife to take bark, pick 3 buds or some fruit. Fruit ripens in September more is harvested in winter there is more diarrhea



# LovYasPajDuab:Eupatorium odoratum(Asteraceae)

LovYasPajDuab has a lovely flower and is a symbol of new-year and for festival of autumn. It is useful for producing honey (i.e. bees visit the flower). It indicates good soil and grows where rice or corn will grow well. The root is also used to make a delicious tea. This plant can be used to treat urination problems, broken bones, wounds from rusty metal, food poisoning, stomach ache; it stops and/or prevents excessive bleeding, and it is generally good medicine for injured children. LovYasPajDuab drives away evil spirits (the smell prevents bad spirits entering the house) and is often attached to house to prevent people from entering when there is an illness in the home.

Presence of LovYasPajDuab has increasedby 20-40% since people settled here due to clearing of forest making room. Seedsgrow very well when transplanted and the tree regrows well from stumps and roots. More recently the population seems

to be decreasing due to increasing forest

cover and shadow. Conservation practices include limiting harvest by taking only a part of the roots. Customary

laws protect this species. Use 3-5 plants per teapot. Others uses amount to roughly 4-5kg

per year.

