So what?

Northern Thailand

Mae Chaem
Chiang Mai

Mean Annual
Rainfall : 1,300 mm

Karen and Lawa medicinal plant use

: Uniformity or ethnic divergence?

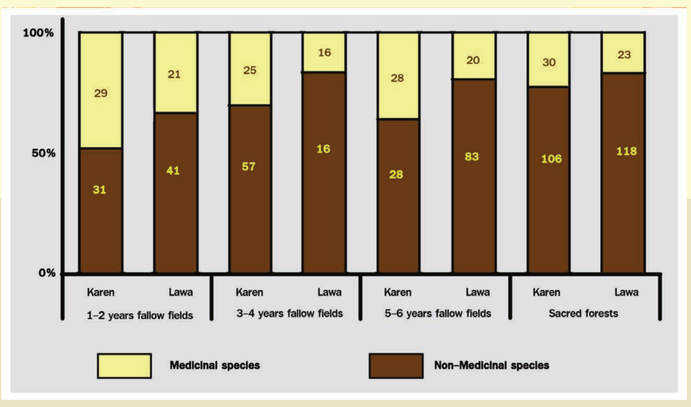
Sacred forest at Ban Mae Hae Tai Karen village, Chiang Mai, Thailand

Aim of the study:

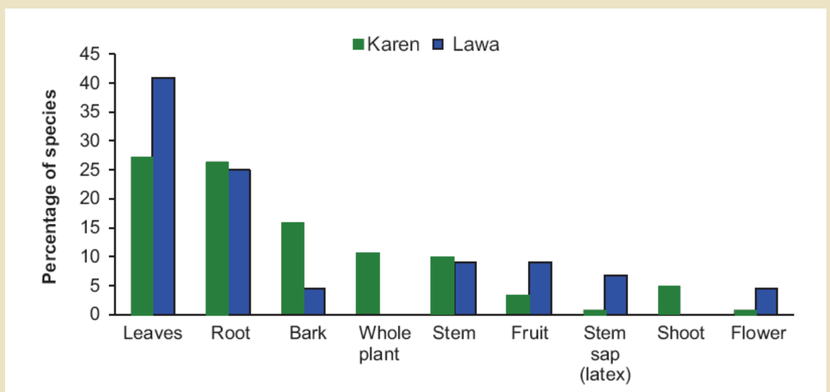
We compared Karen and Lawa knowledge of medicinal plants in northern Thailand in the Mae Cheam watershed where both ethnic groups have settled and where they share identical ecological conditions for resource extraction. We were interested in documenting to what degree the two ethnic groups use the same or different medicinal plant species and in what way their use systems differ. We took the use of the same plant species as a sign of a uniform and cross cultural local knowledge. In contrast we take the use of different medicinal plants as a sign of culturally specific local knowledge that has developed within each ethnic group.

Material and methods:

We inventoried the plant species in different habitats around two villages, one of the Karen and one of the Lawa, using stratified vegetation plots and we interviewed 67 key informants with semi-structure questionnaires concerning their use of plants for medicine between August 2011 and February 2012. We then calculated the Fidelity Index (FI) and the, Cultural importance index (CI) to estimate the variation in use value of medicinal plants. We used Jaccard's index(JI) to analyze the similarity of medicinal plant uses among the two ethnicities.



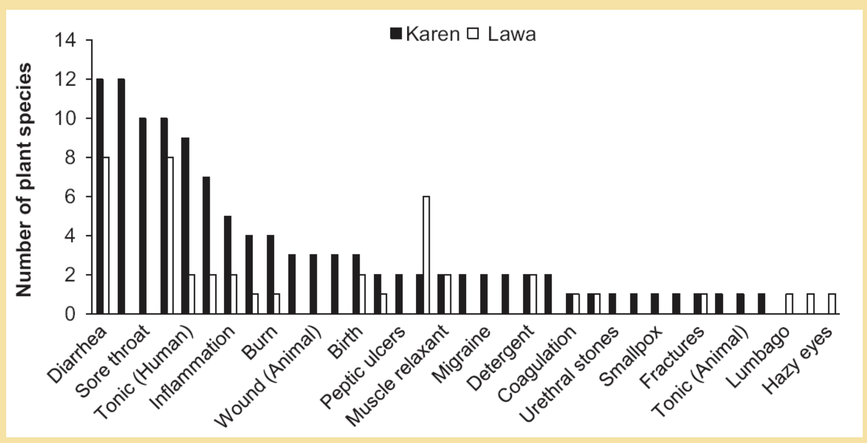
Total number and proportions of medicinal plants and non-medicinal plants in four different habitats surrounding a Karen and a Lawa village in the Mae Chaem Watershed in Northern Thailand



The frequency of use of different plant parts for medicinal purposes in the two villages examined.

Results:

A total of 103 species of medicinal plant species, in 87 genera and 41 families, were identified and they were used to cure 36 ailments. The FI of each medicinal plant species was different for each ailment and different in each ethnic group. The most important medicinal plant species, those withwith highest CI value,werenot the same in the two villages.
Costus speciosus (used to treat urinary infection and wounds in animals) had the highest CI value in the Karen village, while *Sambucus javanica* (used to treat wounds, fractures, bloat and edema in humans) had the highest CI value in the Lawa village. The similarity of medicinal plant between the two villages was 32%. Only 17 species were shared between two villages. Method of preparations and medicinal applications show designificant differences between the two villages, whereas plant part used, habit and route of administrations were similar.



Number of medicinal plant species used to treat 35 different health conditions in the two villages examined.

Results of independent sample t-tests comparing the average total number ofmedicinal plants known by the two villages examined.

Number of medicinal plants known	Karen	Lawa
Mean	5.77	2.08
Variance	10.56	3.12
Hypothesized mean difference	0	
Degree of freedom	41	
T Stat	5.116	
P-value (Sig. 2-tailed)	0.000*	
t Critical	2.019	
Males only		
Mean	2.95	1.72
Variance	16.79	12.58
Hypothesized mean difference	0	
Degree of freedom	43	
T Stat	1.077	
P-value (Sig. 2-tailed)	0.280	
t Critical	2.016	
Females only		
Mean	4.37	1.90
Variance	21.63	10.94
Hypothesized mean difference	0	
Degree of freedom	42	
T Stat	2.084	
P-value (Sig. 2-tailed)	0.043*	
t Critical	2.018	

Conclusion:

These finding shave important implication for the understanding of ethnobotanical knowledge as they demonstrate how geographicallyclosely situated cultural groups can have significantly different traditional knowledge systems, at least when it comes to species used and their preparation and medicinal application. We assume that differences of cultural history and background in the two villagesled to differences in the medicinal plant they use.

Reference : Junsongduang, A., Balslev, H., Inta, A., Jampeetong, A. and Wangpakapattanawong, P. 2014. Karen and Lawa medicinal plant use : Uniformity or ethnic divergence?. Journal of Ethnopharmacology. 151. 517-527.

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