

CHAPTER 6

CONCLUSION

This study included three approaches to the ethnobotanical study of four ethnic groups in Nan province in northern Thailand: 1) qualitative ethnobotany, 2) quantitative ethnobotany, and 3) comparative ethnobotany.

The qualitative study documented and provided information related to plant use knowledge of the four groups, reflecting their rich intellectual heritage related to plant resources in their natural surroundings. Some plant use knowledge was common and shared among the ethnic group and many plant species were culturally important, reflecting the cultural unity of plant use of each ethnic group. Also, some plant use knowledge was common and shared among the four ethnic groups. Similarities in plant use knowledge, especially the medicinal plant use knowledge, among the four ethnic groups studied may probably be attributed to three factors: 1) the natural attribute of the plants (whether the plants are edible or good for specific purposes), 2) the organoleptic properties of the plants (Leonti *et al.* 2002), or the doctrine of signature (Bennett, 2007) and 3) the empirical observation of curative efficacy, based on the comparison with similar uses reported in previous studies.

In the quantitative study, the CI index was used to determine the importance of a plant based on the variety of its uses that in turn also helped determining the culturally important species used by a particular ethnic group. The FL was used to capture the degree of importance of a plant based on informant's preference toward such plant for a specific use. The incorporation of statistical analysis methods of quantitative ethnobotanical data gained from questionnaire interviews made it possible to investigate how prevalent the distribution of medicinal plant use knowledge are in each village and whether medicinal plant use knowledge in such villages is undergoing erosion. The statistical analysis indicated that older people have and use more medicinal plant knowledge than younger people, reflecting that medicinal plant knowledge is not evenly distributed among a population in each village. The discrepancies between medicinal plant knowledge and the actual use of

the plants demonstrated in each village suggest that the medicinal plant use knowledge in such villages is undergoing inter-generational erosion. That erosion may be attributable to disruption of learning processes and the interference of acculturation such as the expansion of modern education.

Despite the fact that four ethnic groups share common uses of some species inter-culturally, the comparative study of plant use patterns by cluster analysis demonstrated boundaries of plant use pattern among them. Such boundaries can be attributed to cultural and ecological constraints. The presence of cultural clusters indicated the different interest in plant utilization of each ethnic group and in turn reflects the cultural identity related to plant utilization of a group. The presence of ecological clusters in dendrogram topologies shows adaptability of a population to ecological constraints in their surroundings. It was, therefore, concluded that plant use patterns of the four ethnic groups in this study is related to the cultural boundaries such as food culture, cultural beliefs and healing practices for different disorders, but that ecological constraints (*e.g.*, elevation, vegetation type, gathering environment) impose additional influence on which plants they chose or adapt to use for specific purposes.