

## FOOD AND MEDICINAL PLANTS USED FOR CHILDBIRTH AMONG YUNNANESE CHINESE IN NORTHERN THAILAND

WANG LIULAN,<sup>a</sup> WEERACHAI NANAKORN<sup>b</sup> and KATSUYOSHI FUKUI<sup>c</sup>

<sup>a</sup>Graduate School of Human and Environmental Studies,  
Kyoto University, Kyoto 606-8501, Japan

<sup>b</sup>Queen Sirikit Botanic Garden, Chiang Mai 50180, Thailand

<sup>c</sup>Graduate School of Human and Environmental Studies, Kyoto University,  
Kyoto 606-8501, Japan

**ABSTRACT.**—This paper describes the folk knowledge of medicinal foods and plants used for childbirth care by Yunnanese Chinese in northern Thailand. A characteristic of folk medicine for childbirth in the communities studied is the practice of taking an herbal steam bath. Little attention has been paid to this practice in the Chinese literature. More than 40 species of steam bath herbs, *xizao yao*, were collected and identified. This herbal therapy is practiced side by side with food therapy after birth in order to restore women's health and prevent future diseases. Yunnanese are especially concerned with 'wind' diseases after birth. Therefore, food and herbal therapy emphasizes prevention of 'wind' rather than balancing 'hot' and 'cold' as is commonly found in other Chinese communities. This paper also makes an initial ethnobotanical comparison with steam bath herbs among other ethnic groups in northern Thailand.

**Key words:** steam bath herbs, Chinese folk medicine, childbirth, comparative ethnobotany, Yunnanese Chinese.

**RESUMEN.**—Este artículo describe el conocimiento popular de los alimentos medicinales y las plantas utilizadas para el cuidado del parto por los chinos Yunnanese en el norte de Tailandia. Una característica de la medicina popular aplicada al parto en las comunidades estudiadas es la utilización de baños de vapor con hierbas. La literatura china ha prestado escasa atención a este tipo de prácticas. Se recogieron e identificaron más de 40 especies de hierbas para baños de vapor, *xizao yao*. Esta terapia a base de hierbas se practica paralelamente a otra de tipo alimentario tras el parto, para restaurar la salud de la mujer y prevenir enfermedades futuras. Los Yunnanese están especialmente preocupados de las enfermedades de 'viento' tras el nacimiento. Por ello, la alimentación y la terapia basada en hierbas enfatiza la prevención del 'viento', en vez de equilibrar el 'calor' y 'frío' como es común en otras comunidades chinas. Este artículo hace además una comparación etnobotánica inicial con las hierbas para baños de vapor utilizadas por otros grupos étnicos en el norte de Tailandia.

**RÉSUMÉ.**—Cet article décrit le savoir traditionnel des Chinois du Yunnan en Thaïlande du nord en matière d'aliments et de plantes médicinales pour les accouchements. La coutume des bains de vapeur aux plantes est caractéristique de la médecine traditionnelle pour les accouchements dans les communautés étudiées. Ce sujet a fait l'objet de peu de recherche dans la littérature chinoise. Plus de 40 espèces de plantes utilisées dans ces bains, *xizao yao*, ont été recueillies et identifiées. Cette phytothérapie est pratiquée de concert avec un régime alimen-

taire après l'accouchement pour rétablir la santé des femmes et éviter de futures maladies. Les populations originaires du Yunnan redoutent particulièrement les 'maladies du vent' après la naissance. En conséquence, les traitements à base d'aliments et de plantes privilégient la prophylaxie du 'vent' plutôt que l'équilibrage du 'chaud' et du 'froid' généralement pratiqué dans d'autres communautés chinoises. Cet article présente également une comparaison ethnobotanique initiale des bains de vapeur aux plantes dans d'autres ethnies de la Thaïlande du nord.

## INTRODUCTION

In Chinese culture, food and plants have long played an important role as medicine, and both are used in various kinds of health care activities. During the critical period of childbirth, Chinese women pay special attention to their health. Folk medicine involving food and plants for childbirth therefore plays an important role in maintaining women's health in Chinese communities.

This study is an initial report on the ethnobotanical knowledge of food and plants used for childbirth by Yunnanese Chinese in northern Thailand. Yunnanese Chinese are one of the subgroups of Chinese migrants in Thailand who came overland from Yunnan province in China and from Myanmar. They have lived with other hill people in mountainous areas of northern Thailand for about 40 to 50 years. Although Yunnanese have a rich knowledge of plant use and foods for childbirth, few studies have been reported in the ethnobotanical works of northern Thailand. Previous ethnobotanical studies in this area have been done on hill people such as the Akha, Hmong, Lahu, Karen, and Mien (E.F. Anderson 1986a, 1986b, 1993; Pake 1987). Brun and Schumacher (1994) have described traditional herbal practices among northern Thai peoples.

Previous research on Chinese folk medicinal practices relating to menstruation or childbirth has been done in Taiwan, Hong Kong, Malaysia, Singapore, and North America (Anderson and Anderson 1978; Dunn 1978; Fishman et al. 1988; Furth and Ch'en 1992; Kleinman 1980; Ngin 1985; Wu 1979). These studies have explained the logic of diagnosis and health care for women, including childbirth, by applying the widespread notion of humoral theory based on 'hot' and 'cold'. According to humoral theory, women are generally more prone to coldness because of their predominantly yin nature, and women after birth are prone to overcooling because of loss of blood and energy (E.N. Anderson 1980; Furth and Ch'en 1992). Therefore, women after childbirth are encouraged to take 'hot' foods and 'strengthening' or 'supplementing' (*bu*) foods to balance the insufficiency of yin and yang, vital energy, and blood. Based on field work in the Yunnanese communities, however, the Yunnanese way of treating the new mothers is different from those found in previous studies. Contrary to our initial assumption, for childbirth care the Yunnanese are much more concerned with preventing diseases caused by 'wind' (*feng*) than with balancing 'hot' and 'cold'.

In Chinese medicine, 'wind' is regarded as one of the six natural environmental energies, which also include cold, heat, dampness, dryness and fire; an excess of any of these "six evils" (Reid 1994:67-68) is regarded as a pathogenic factor in exogenous diseases. Symptoms such as chills, fever, hot spells, profuse

sweating, chronic cough, and stuffy nose can be caused by 'wind' or by the mixture of 'wind' and other evil natural elements (Ou 1988; Reid 1994). If one is in a healthy condition, vital energy stored in the body can function to combat evil 'wind'. If, however, a person is sick or in a weakened condition, he or she is easily invaded by 'wind' (Reid 1994). In this sense, the role of 'wind' in health and illness is very different from the western attitude about illness, which considers germs to be the cause of many diseases and treatment aims at combatting the specific germs which cause the various symptoms.

Previous literature on folk knowledge of childbirth in Chinese communities has not reported the relationship between childbirth care and the concept of wind. In this paper, we discuss food and herbal therapy for childbirth in relation to the concept of wind among the Yunnanese Chinese in northern Thailand. We focus on the use of herbal steam baths, which play an important role in fighting the wind-related diseases of postpartum women. We also compare the use of steam bath herbs among different ethnic groups in northern Thailand.

#### SETTING AND METHODS

Northern Thailand is composed of long north-south mountain ridges and narrow alluvial valleys. It covers an area of approximately 138,000 km<sup>2</sup>. The Ping, Wang, Yom, and Nan rivers are the main tributaries which flow southwards between parallel mountain ranges and join to form the Chao Phraya river. The monsoonal climate of the region is characterized by a distinct rainy season in July, August, and September, followed by a cool dry season and then a hot dry season, ending with the return of the southwesterly monsoon rains in May or June (Smitinand et al. 1978). The forests of northern Thailand are classified into two main categories: evergreen and deciduous (Smitinand et al. 1978). The research sites of the Yunnanese villages are located in deciduous forests, situated about 500 m to 1000 m above sea level.

The Yunnanese are one of several ethnic groups in northern Thailand that originally migrated from Yunnan province in southwestern China. They are referred to as Ho or Chin Ho by the Thai. Yunnanese in Thailand include both Muslims and Han Chinese, but this paper deals only with the latter. The Han Yunnanese population is composed of ex-soldiers of the Yunnan-based Nationalist Kuomintang Army (KMT) and civilian refugees from China and Myanmar. The KMT fled from Yunnan after defeat by the Communist Party in China in 1949 and the ex-soldiers settled in northern Thailand from the early 1950s to the 1960s. The migration of civilians both from Myanmar and China has not been thoroughly studied, but they started to live in Thailand from at least the beginning of the 1950s and their migration has continued up to recent years. This paper deals with the civilian Yunnanese who were born in Myanmar and escaped to Thailand because of political turmoil and economic instability in Myanmar since the 1970s.

A population census of the Yunnanese (including Muslims) is not available because of their status as illegal migrants and the reluctance of government authorities to release census information. An informant who is one of the leaders of the Yunnanese communities in Chiang Mai, however, estimates that about 70

Yunnanese villages exist and more than 80,000 Han Yunnanese people live in northern Thailand. Their villages are located along the national border, in areas such as Chiang Mai, Chiang Rai and Mae Hong Son Provinces.

The first generation of Yunnanese use the Yunnan Chinese dialects for daily conversation and most of the second generation can speak both Thai and standard Chinese. Yunnanese young people study Thai at Thai school, and take supplementary lessons in standard Chinese at Chinese school, before and after Thai school. At present, their subsistence economy in the villages is mainly based on cultivating cash crops. These crops include corn (*Zea mays* L.), common beans (*Phaseolus vulgaris* L.), cabbage (*Brassica oleracea* var. *capitata* L.), garlic (*Allium sativum* L.), and litchi (*Litchi chinensis* Sonnerat). Litchi is the most important for cash income and has the highest value of all cash crops. Its price per kilogram was 30 baht in 1995.

Medicinal plants in Yunnanese villages are collected from disturbed habitats such as paths, field margins, and the fields themselves. People say there are many more rare species of medicinal plants as one goes to higher places in the mountains or to the forest. Many medicinal plants are collected in the wild to be replanted in the home garden. In one of the Yunnanese villages, there are small shops which sell Chinese medicinal plants such as *fu zi* (*Aconitum* sp.) and *chuang xiong* (*Ligusticum chuanxiong* Hort.), and also spices used both for daily cooking and medicine, such as *cao guo* (*Amomum tsao-ko* Crevost et Lemaire), *sha ren* (*Amomum xanthioides* Wall.), *ba jiao* (*Illicium verum* Hook.f.), and *hua jiao* (*Zanthoxylum bungeanum* Maxim.).

The first stage of field research was conducted in two Yunnanese villages located in Pai District, Mae Hong Son Province, and Fang District, Chiang Mai Province. Research was carried out from June to October 1995, in March 1996, and in May 1998. The main informants for this paper were two Myanmar-born Yunnanese women who migrated to Thailand; one lived there for about ten years and the other about twenty-five years. For the field survey, Wang Liulan was the main field worker and Katsuyoshi Fukui participated as a research leader, giving field work assistance and advice; botanical identification was done by Weerachai Nanakorn and the staff of the Queen Sirikit Botanic Garden, Chiang Mai and Royal Forest Herbarium, Bangkok. Specimens of all plants discussed in this paper were collected in the field, and all were shown to informants during interviews. Yunnanese were interviewed in standard Chinese but informants referred to some plant names using their own dialect. Thus the vernaculars shown here principally followed their pronunciation. Interviews with the Lisu and Karen were conducted in standard Thai.

## RESULTS AND DISCUSSION

*Food and Plants Used in Pregnancy and Childbirth.*—Rules about food and plant use are not strict during pregnancy and childbirth. Among Yunnanese, pregnancy is not regarded as a disease, and maintaining health by following ordinary eating patterns is considered sufficient for a normal delivery. As Yunnanese are less concerned about health before childbirth, information on folk medicine used before and during childbirth is scarce. Some people do not believe in any kind of

restrictions on food and medicine. But some folk knowledge of food and plant use was collected from interviews and botanical investigation. The followings are some examples.

The leaf of *zhu ma* (*Laportea* sp.) is boiled and drunk to stimulate delivery when a woman has suffered long, serious labor pains. The root of *zhi jia hua* or *jing feng hua* (*Impatiens balsamina* L.) is boiled and drunk to prevent early delivery. *Ren shen* (ginseng, *Panax ginseng* C.A.Mey.) is useful to supplement energy and increase strength for delivery, so chewing it is encouraged during labor. A mixture of rice wine and pepper is also used to ease pains during delivery. Boiled eggs are believed to give a newborn baby handsome looks and coconut juice is drunk to make the baby's skin smooth and its hair shiny. From these observations it seems that knowledge of folk medicine concerning childbirth is not consistently shared by the Yunnanese. The knowledge they have is more or less applied to cure particular symptoms or diseases of the mother or to choose foods that may be good for the new baby.

*Folk Medicine after Birth.*—Compared to folk medicine practiced during pregnancy or delivery, health care after birth is more or less the same in the Yunnanese communities. After childbirth, Yunnanese are very cautious about diseases caused by wind (*feng*). They think a woman after giving birth lacks enough energy (*qi*) and blood (*xue*) to combat evil wind. Wind is considered to invade the human body not only through the skin, mouth, and nose, but also through food. Symptoms caused by having too much wind inside the body are expressed as 'heaviness caused by wind energy' (*fengqi zhong*) by the Yunnanese, and if too much wind accumulates in the body, it is believed to cause hemiplegia. Therefore, after delivery, Yunnanese mothers have one month's rest, called *zuo yuezi* 'doing the month', to prevent wind-related illness and restore their health. 'Doing the month' is a typical practice of women in Chinese communities who have just given birth; the women lie still without doing any labor or housework and eat 'supplementing' (*bu*) foods to regain their health and inner balance (E.N. Anderson 1996). In Yunnanese communities, women will stay home, taking care of the newborn baby, and will not engage in any kind of housework or labor in the field. The husbands or relatives will carry out the wives' usual work, such as cooking, washing clothes, and cleaning. At home, women will concentrate on healing their body by wearing long shirts, long pants, socks, and a hat, so as to prevent wind entering the body. In addition, women are encouraged to take some food and herbal therapies, as explained below, in order to regain their health and prevent wind-related illness.

*Food Therapy After Childbirth.*—Some foods are classified as having a wind attribute. They are regarded as poisonous (*du*) to postpartum women and are therefore avoided for a month after childbirth. They are called foods with 'big wind' (*feng da*) or 'heaviness caused by wind energy' (*fengqi zhong*). According to the Yunnanese, green leafy vegetables, eggplant, pumpkin, taro, and pork are classified as food with big wind, and regarded as especially poisonous after birth. Green leafy vegetables are believed to cause diarrhea in both the mother and baby. Eggplant, potato, and bamboo shoots will cause muscle cramps and pains in the joints; pumpkin and taro will cause itching of the skin. As for pork, some say it should not be eaten during the postpartum period because it has big wind, and

others say that certain kinds of pork are less harmful to a woman's body. For example, the meat of adult pigs is avoided because it may cause convulsive fits leading to death in a new mother. Young and castrated males or young and virgin females are acceptable, however, as it is believed that these are *feng xiao* 'food with small wind', which is less harmful to a woman's body.

After giving birth, women mainly eat chicken meat and hens' eggs. Chicken, one of the basic and popularly eaten 'supplementing' foods, is high in protein and rich in mineral nutrients (E.N. Anderson 1988), and is thus favored after birth among Chinese communities (E.N. Anderson 1980, 1996; Anderson and Anderson 1978; Fishman et al. 1988). Yunnanese also take it to supplement vital energy and blood, to activate blood circulation, and to strengthen resistance to evil wind entering the body. Chickens with black feathers and dark-colored meat (*hei ji*) are considered the best to supplement vital energy, and are made into chicken soup. As chicken is so important, some new mothers pay special attention when choosing chicken meat. Some believe that cocks are poisonous and will cause cramps. Other will not eat a chicken with yellow legs or a yellow beak because it may lead to jaundice in the baby.

Eggs are boiled with rice wine called *baijiu* in order to make a dish called *judan baijiu* 'rice wine with eggs'. Rice wine is also used as a 'supplementing' food in other Chinese communities, such as in Singapore (Wu 1979). This *judan baijiu* will warm the inside of the body and make blood circulation more active. One informant ate *judan baijiu* five times a day after childbirth. It seems that blood stasis and depletion are major concerns for women after birth. There are even some women who drink fresh urine of young boys aged about one to three years old, mixed with *san qi* (*Panax notoginseng* (Burk.) F.H.Chen) for its tonic effect, to tackle blood depletion and stasis (Geng et al. 1991).

Along with these 'supplementing' foods, they eat non-glutinous rice, rice noodles, and vegetables such as *wan dou* (pea, *Pisum sativum* L.). These foods are considered to be less harmful to the body and are categorized as 'food without wind'. *Pisum sativum* is mixed with pork bone broth and is also good for preventing constipation.

Besides wind related food therapy, some 'cooling' (*liang*) foods, which include the fruits mango and papaya, are also prohibited. Fresh water must be boiled once before drinking. Although this practice may be related to what is known as hot and cold theory, villagers do not emphasize this concept; they just know that eating 'cooling' foods will cause stomachache. Strong spices and sour foods are carefully avoided, too. Some people use *cao guo* (*Amomum tsao-ko*) and *sha ren* (*Amomum xanthioides*) or pepper instead of chillies (*Capsicum annuum* L.). Others avoid using *cao guo* for a month after delivery because they believe it can cause disease in the testicles of a new male baby. There are also some mothers who soak salt in hot water or boil it before using it. They believe that if they use salt that has not been heated, the salt will cause kidney trouble.

*Steam Bath Plants.*—While she was collecting medicinal plants in one of the Yunnanese villages, Wang came across a plant category with which she was unfamiliar, called *xizao yao* 'plants for bathing'. Through interviews, she learned that plants in this category are used for steam baths and are an important part of folk

medicinal therapy especially after childbirth. According to the Yunnanese, taking herbal steam baths after childbirth is indispensable and new mothers have been encouraged to follow this practice for generations. The steam bath itself is called *yao zao*. Women take herbal steam baths after delivery because they believe vapor from the herbs will activate blood circulation as well as dispersing (*san*) stagnant blood after delivery. They strongly believe that activating blood circulation increases a woman's resistance to evil wind, and therefore can prevent wind-related conditions caused by birth, such as pains in knee and elbow joints, muscle pains, and chronic backache. Steam bath herbs are also appropriate for washing newborn babies and for curing and preventing skin diseases in both sexes.

During fieldwork, various kinds of medicinal plants used for steam baths were collected (Table 1). These medicinal plants were located along the paths to the fields, field edges, in the fields, and along roadsides, both in and outside the villages (Figure 1). Some were also planted in the home gardens of the villagers. When the Yunnanese use steam bath herbs as medicine, they usually use whole plants, but the separated leaves and sometimes flowers are also used. Yunnanese believe that the more diversified species they use, the more effective it will be.

Although people differ somewhat in their choice of medicinal plants for steam baths, some steam bath herbs are commonly believed to be more efficacious than others. These plants are *bing ping ye* (*Blumea balsamifera* DC.), *da feng cao* (*Viburnum inopinatum* Craib), *lin zhi cao* (*Andrographis paniculata* Wall. ex Nees), *man jin zi* (*Vitex* sp.), *wu jia* (*Acanthopanax aculeatum* Seem.), and *xianig cai* (*Elsholtzia* sp.). In particular, *wu jia* and *xianig cai* are good for knee and elbow joint pain, so while new mothers are bathing, they are encouraged to rub them on the knees and elbows.

*Steam Bath Method.*—Herbal steam baths are usually taken two or three times during the month after delivery. One informant took herbal baths on the third, fifteenth, and thirtieth days after giving birth. Another informant took herbal baths on the seventh and last days of the postpartum period. Suitable times must be chosen for taking these baths. Morning is preferred to afternoon if the weather is too hot to take a steam bath. In this case, a woman may take a bath between nine and ten o'clock in the morning.

On May 17, 1998, an informant aged around forty who lived in Ban Yang village, Fang District, Chiang Mai Province, demonstrated how to take an herbal steam bath. Wang and her informant went into the field and collected steam bath herbs. The following brief explanation of how an herbal steam bath is prepared and taken by Yunnanese women is based on the information collected on that day.

- 1) First, a square or triangle-shaped tent is made using poles and pieces of cloth. The pieces of cloth should be thick enough to prevent wind entry. The pole frame is usually wrapped with cloth two or more times.
- 2) Selected plants were washed with water to remove insects and soil, and were then divided into two parts—leaves and others (Figure 2). This division was made because leaves are best used as fresh as possible, and are more easily boiled than other parts of the plants.
- 3) Leaves were boiled in a small pan and the other parts of plants in a big

TABLE 1.—Steam bath plants used by the Yunnanese.

Scientific name	Family	Local name	Thai name	Part(s) used	Other
<i>Acanthopanax aculeatum</i> Seem.	Araliaceae	wu jia	phak paem	plt, lvs, stm	edible
<i>Ageratum conyzoides</i> L.	Asteraceae	xiang yin cao, yun nan cao, chou cao	saapraeng saapkaa	plt	stops bleeding
<i>Andrographis paniculata</i> Wall. ex Nees	Acanthaceae	ling zhi cao	fa thalaai	lvs	toothache, "hotness in the stomach"
<i>Bidens pilosa</i> L.	Asteraceae	lao wa ca	puen noksai	plt	"hotness in the stomach"
<i>Bischofia javanica</i> Bl.	Bischofiaceae	yang gan mu guo	toem	lvs	edible
<i>Blumea balsamifera</i> DC.	Asteraceae	bing ping ye	naat yai	lvs, stm	sore throat, "hotness in the stomach"
<i>Clerodendrum fragrans</i> Willd.	Verbenaceae	chou mao dan	naang yaem	lvs	
<i>Clerodendrum paniculatum</i> L.	Verbenaceae	jin xin mao dan	nom sawan	lvs	heart beat irregularity
<i>Clerodendrum urticaefolium</i> Wall.	Verbenaceae	hong mao dan	phumphee daeng	plt	heart beat irregularity
<i>Commelina bengalensis</i> L.	Commelinaceae	zhu jie jie	phak plaap	lvs, stm	
<i>Crotalaria pallida</i> Ait.	Fabaceae	da xiang lin	hing men	lvs, stm	urinary trouble
<i>Cuscuta reflexa</i> Roxb.	Cuscutaceae	huang teng	khruca khao kham	plt	edible
<i>Cymbopogon nardus</i> Rendle	Poaceae	yin xiang cao	ta khrai hom	lvs	sore throat, edible (for making tea)
<i>Cyperus iria</i> L.	Cyperaceae	huang deng jia	yaa rangkaa khaao	plt	fever
<i>Elsholtzia</i> sp.	Lamiaceae	xiang cai		plt	
<i>Equisetum debile</i> Roxb.	Equisetaceae	bi guan cao	yaa thot bong	plt	
<i>Eupatorium odoratum</i> L.	Asteraceae	ri ben cao	saap suea	lvs	stops bleeding
<i>Euphorbia heterophylla</i> L.	Euphorbiaceae	qing du zi cao	yau yaang	lvs	constipation, "hotness in the stomach"
<i>Hedyotis</i> cf. <i>coronaria</i> Craib	Rubiaceae	pu pu cao	wang ot	plt	
<i>Impatiens balsamina</i> L.	Balsaminaceae	zhi jia hua, jing feng hua	thian dok	plt	promote delivery
<i>Iresine herbstii</i> Hook. f.	Amaranthaceae	ding ye, hong ding	phak phao dueng	lvs	excess of the heat in the body, blisters
<i>Kalanchoe pinnata</i> Pers.	Crassulaceae	da bu si	khwam taai ngaaai pen	lvs	bruises, body pains (leg, etc.)
<i>Lagenaria siceraria</i> Standl.	Cucurbitaceae	huo lo	naamtao	lvs	
<i>Lantana camara</i> L.	Verbenaceae	xi long gu	phakaa krong	plt	tonic for blood circulation, delay of menstruation



TABLE 1—(continued)

Scientific name	Family	Local name	Thai name	Part(s) used	Other
<i>Microstegium vagans</i> A. Camus	Poaceae	ma ku cao	yaa sooran	lvs	
<i>Mikania cordata</i> Rob.	Asteraceae	mon ton	khee kai yaan	lvs	
<i>Mimosa pudica</i> L.	Mimosaceae	hai xiu cao	yaa pan yot	plt	stomachache, uterine trouble
<i>Morus alba</i> L.	Moraceae	san shu	mon	lvs	liver trouble
<i>Oxalis corniculata</i> L.	Oxalidaceae	suan mu gua cao	phak waen	plt	bruises, bloody excrement
<i>Pedilanthus tithymalooides</i> Poit.	Euphorbiaceae	wu ming zho du	sayek	lvs	external injury, pains in the legs and arms
<i>Plantago major</i> L.	Plantaginaceae	lai he ma	mo noi	plt	sore throat
<i>Psidium guajava</i> L.	Myrtaceae	luo mian tao	fang	lvs	diarrhea
<i>Rhinacanthus nasutus</i> Kurz	Acanthaceae	feng guo hua	thong phan chang	lvs, stm	swelling of hands, face
<i>Ricinus communis</i> L.	Euphorbiaceae	tian ma zi ye	lahung	lvs	headache
<i>Siegesbeckia pubescens</i> Makino	Asteraceae	gai fang jun cao	sa phuan kon	lvs	
<i>Solanum nigrum</i> L.	Solanaceae	ku cai	ma waeng nok	plt	"hotness in the stomach"
<i>Solanum trilobatum</i> L.	Solanaceae	ku qian qian	ma waeng khrua	lvs	"hotness in the stomach"
<i>Tagetes patula</i> L.	Asteraceae	po long hua	daao rueng noi	plt	
<i>Talinum paniculatum</i> Gaertn.	Portulacaceae	ye yang sheng	som khon	lvs	
<i>Thunbergia laurifolia</i> L.	Thunbergiaceae	lao wa zul ba cao	raang chuet	lvs, stm	
<i>Torenia fournieri</i> Lind. ex Fourn.	Scrophulariaceae	a da wu cao, a me le cao	waen maayuraa	plt	
<i>Viburnum inopinatum</i> Craib	Caprifoliaceae	da feng cao	uun paa	lvs, stm, fls	
<i>Vitex</i> sp.	Verbenaceae	man jin zi		stm, lvs	

Note: plt = whole plant, lvs = leaves, stm = stem, fls = flowers.



FIGURE 1.—Woman collecting medicinal plants along the roadside in Chiang Mai, a Yunnanese village in Fang district. Photograph by Wang Liulan.



FIGURE 2.—Informants washing and selecting the parts of plants used for steam baths. Photograph by Wang Liulan.

pan, for about an hour, until the "essence" of the plants came out. Eggs were also placed in the boiling water (Figure 3). These eggs were to be eaten later by mothers while in the steam bath tent.

- 4) The hot water and medicinal plants were poured into a basin and taken into the tent. Two pieces of board were placed on the basin, so that the new mother could sit over it. Figures 4 and 5 show the appearance of the tent and a woman who is sitting inside the tent.
- 5) At first, the water was too hot to use for washing the body, but the vapor from the herbs was aromatic. When the water was cool enough to touch, fresh leaves were used to wash the body from the top downward, excluding the hair on the head. Small, young leaves were used for washing and rubbing the body. Leaves of *wu jia* (*Acanthopanax aculeatum*) and *xiang cai* (*Elsholtzia* sp.) were used to wash knee and elbow joints because they are considered especially effective in preventing pain in these parts.
- 6) While sitting inside the tent, the mother drank once-boiled water, as the heat inside the tent made them thirsty. They also ate the eggs that were earlier boiled with the herbs. They believe eggs boiled with medicinal plants can strengthen the body of the new mother. However, not all mothers eat eggs while in the steam bath tent.
- 7) The bath ended when the water was no longer hot. In general, the bath lasted about one to two hours, and not more than two hours.

*Comparison with Neighboring Ethnic Groups.*—From field surveys in northern Thailand, other ethnic groups such as the Lisu and Karen also take herbal steam baths

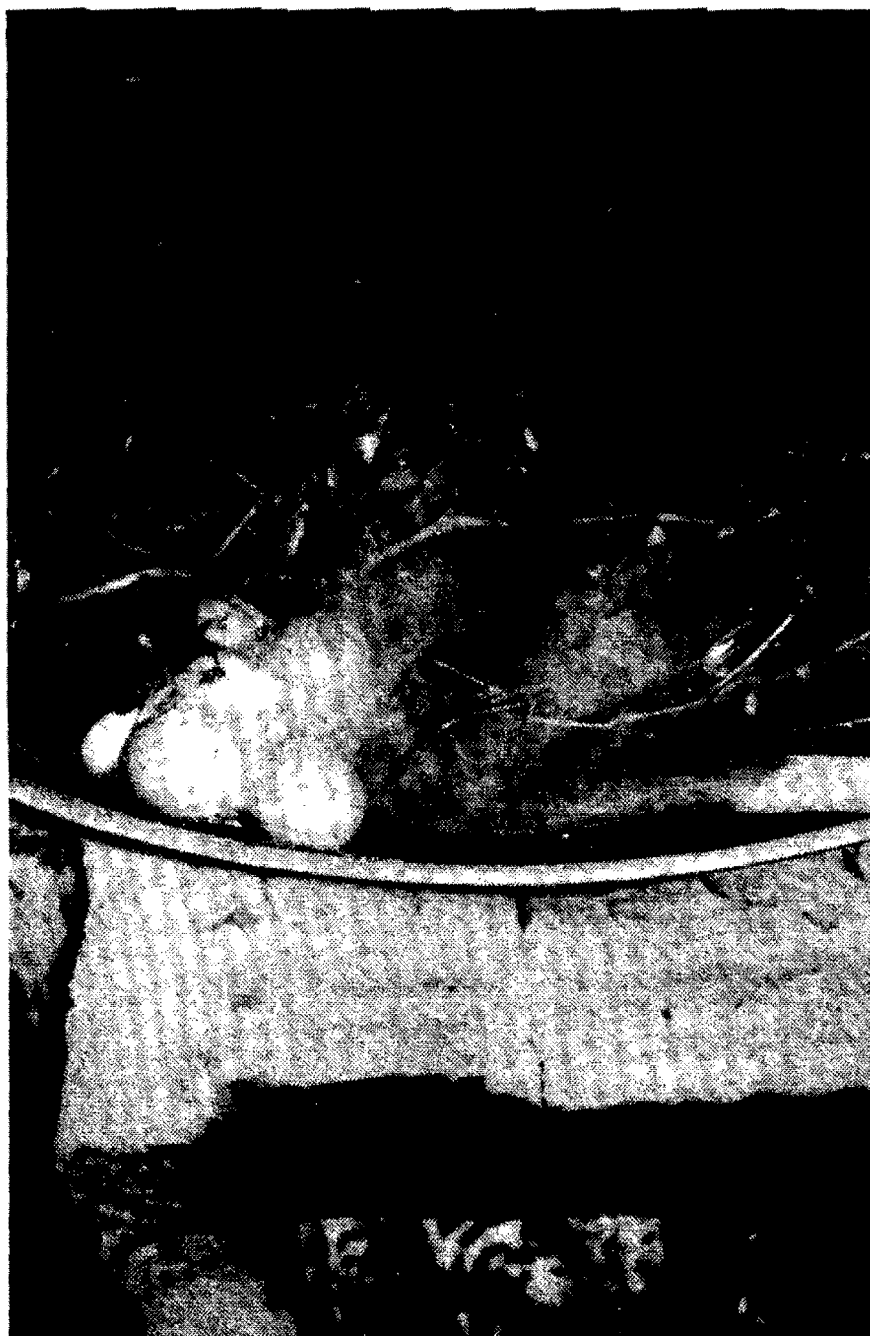


FIGURE 3.—Steam bath herbs being steamed with eggs in a pan. Photograph by Wang Liulan.



FIGURE 4.—Steam bath tent covered by pieces of cloth. Photograph by Wang Liulan.



FIGURE 5.—Informant preparing to take a steam bath inside the tent. Photograph by Wang Liulan.

TABLE 2.—Steam bath plants used by the Lisu.

Scientific name	Family	Local name	Part(s) used
<i>Ageratum conyzoides</i> L.	Asteraceae	<i>bao mu ceng</i>	r, lvs, fls
<i>Buddleja asiatica</i> Lour.	Buddlejaceae	<i>da li zi</i>	r, lvs, fls, stm
<i>Clerodendrum serratum</i> Moon	Verbenaceae	<i>amasaza</i>	r, lvs, fls
<i>Clerodendrum</i> cf. <i>villosum</i> BL	Verbenaceae	<i>phikola</i>	r, lvs, fls
<i>Costus speciosus</i> Smith	Costaceae	<i>hamamachi</i>	r, lvs, fls
<i>Elsholtzia kachinensis</i> Prain	Lamiaceae	<i>xiang cai</i>	plt
<i>Morus macrocarpa</i> Miq.	Moraceae	<i>aa su</i>	lvs
<i>Spilanthes acmella</i> Murr.	Asteraceae	<i>ti fu jiao</i>	r, lvs, fls
<i>Paederia</i> cf. <i>linearis</i> Hook. f.	Rubiaceae	<i>qi qun zi</i>	plt
<i>Phlogacanthus curviflorus</i> Nees	Acanthaceae	<i>izina</i>	r, lvs, fls
<i>Vitex</i> sp.	Verbenaceae	<i>a jia ho lo</i>	lvs, r

Note: plt = whole plant, lvs = leaves, stm = stem, fls = flowers, r = root.

after birth. Both of these groups speak languages of the Sino-Tibetan family. Lisu are migrants from Yunnan through Myanmar, and their entry into Thailand started at most 150 years ago, with the most recent migration taking place after World War II (Schliesinger 2000). Although the origin of the Karen is not clear, they came to Thailand from Myanmar in the eighteenth century (E.F. Anderson 1993). Research was conducted for about a week at the end of October/beginning of November, 1997, in two Lisu villages located in Pai district, Mae Hong Son Province, at elevations of 960 m and 1200 m above sea level, respectively, and in a Karen village, also in Pai district, at 960 m above sea level. Steam bath plants used by members of these two ethnic groups are listed in Tables 2 and 3.

Lisu who were interviewed said that after childbirth, they too consider evil wind of most concern during one-month postpartum period, and call it *mih*. They believe wind will come into the body through the nose, ear, or mouth after birth, and cause headaches, loss of energy, and dizziness. Therefore, they also use steam baths after birth. The Lisu take herbal steam baths on the seventh and thirtieth days after delivery. Each time, about 10 to 15 minutes is spent inside the tent (*fu ni*) until sweat comes out of body. Steam bath herbs are called *na ci si thi*, and taking a steam bath is good for clearing eyes, stimulating appetite, activating blood circulation, and expelling 'wind' inside the body. Eating 'food with wind' such as pork, water buffalo and beef is also forbidden. Instead, vegetables such as *hitwo* (*Solanum nigrum* L.), *a ho wan dou* (*Pisum sativum*), and *xiang cai* (*Elsholtzia kachinensis* Prain) are used to rid the new mother's body of wind.

Black chicken and eggs are considered the most important foods for strengthening the new mother and child. They are called *ce* foods by the Lisu. *Ce* foods are similar to Chinese 'supplementing' foods, and are used to strengthen mother

TABLE 3.—Steam bath plants used by the Karen.

Scientific name	Family	Local name	Part(s) used
<i>Elephantopus scaber</i> L.	Asteraceae	<i>te si phokte</i>	plt
<i>Eucodia triphylla</i> DC.	Rutaceae	<i>te si se so</i>	lvs, stm
<i>Micromelum</i> cf. <i>pubescens</i> Bl.	Rutaceae	<i>te si poklo</i>	plt
<i>Phyllodium longipes</i> Schindl.	Fabaceae	<i>te si zohome</i>	lvs, stm, fls

and child, activate blood circulation, and maintain a mother's milk supply. Usually Lisu women prefer to make a black chicken soup mixed with the leaves of *xiang cai* (*Elsholtzia kachinensis* Prain), the fruit of *cao guo* (*Amomum tsao-ko*), pepper, and salt.

It is worth noting that among both the Yunnanese and Lisu, *Elsholtzia* sp. is called *xiang cai* and is also used for combating 'wind' after birth. Yet Yunnanese use it for steam baths and Lisu eat it to expel 'wind' inside the body. Steam bath plants shared by the Yunnanese and Lisu include *Ageratum conyzoides* L., *Elsholtzia* sp., *Clerodendrum* sp., and *Morus* sp.

It appears from present fieldwork that the Karen and the Yunnanese share no medicinal plants. However, this may be due to the lack of botanical specimens collected in the Karen village. Further collection of Karen medicinal plants for steam baths is needed to improve this comparative study.

Based on previous ethnobotanical studies in Thailand, the hill people of Lahu and Akha and Thai lowlanders also use steam baths or a similar practice for women after birth. The Lahu boil the leaves and bark of *Cinnamomum tamala* Th. Fries in steam baths to give the new mother resistance and protection from wind and heat (E.F. Anderson 1993:142). The Akha mix together the leaves of *Blumea balsamifera*, *Careya arborea* Roxb., *Clerodendrum colebrookianum* Walp., and *Croton oblongifolius* Roxb. and heat them. A new mother sits over this bath to heal her body quickly after birth (E.F. Anderson 1993:142). The Akha also use steam baths for reducing swelling (E.F. Anderson 1986a:51). Thai lowlanders use herbal steam baths to alleviate respiratory complaints, skin diseases, muscle stress and strains, the common cold, and other ailments (Chuakul et al. 1997). In Thai folk medicine, steam baths are also used by women after childbirth. Women will take a medicinal herb steam bath after birth to improve the complexion, clear blemishes on the face, and prevent lymph-related diseases. These plants are *Acacia concinna* DC., *Acorus calamus* L., *Cymbopogon citratus* Stapf, *Citrus hystrix* DC., *Citrus maxima* Merr., and *Ipomoea aquatica* Forsk. (Rajadhon 1965). There are 23 species listed as steam bath herbs used by Thais in Chuakul et al. (1997).

Previous studies mention *Blumea balsamifera* and *Clerodendrum* sp. as commonly used by Akha, Thai, and Yunnanese (E.F. Anderson 1993; Chuakul et al. 1997) and *Cymbopogon* sp., *Rhinacanthus nasutus* Kurz, and *Ricinus communis* L. are shared by Thai and Yunnanese (Chuakul et al. 1997).

*Efficacy of Common Steam Bath Plants.*—As E.N. Anderson (1984:759) points out, any folk medicinal practice that is widespread across different cultures might have some biological effects; that is, it might actually work. Some steam bath plants that are shared by different ethnic groups (Table 4) have been proven to have bioactive ingredients. *Blumea balsamifera* is an aromatic herb; its leaf is recognized as containing cryptomerdiol (Ponglux et al. 1987:49), considered to be the active principle that is a smooth muscle relaxant and bronchospasm reliever (Chuakul et al. 1997:40). This plant is also said to have diuretic, tranquilizing, hypotensive, vasodilating, and sympatholytic properties (Ponglux et al. 1987:49). Yunnanese also consider *Blumea balsamifera* efficacious in curing 'hotness in the stomach' (*duzi re*) that derives from an excess of heat inside the body, with symptoms such as sore throat, headache, sore eyes, toothache, and urinary disorder. People experi-

TABLE 4.—Steam bath plants commonly used by three ethnic groups.

Scientific name	Yunnanese	Lisu	Thai*
<i>Ageratum conyzoides</i>	x	x	.
<i>Blumea balsamifera</i>	x	.	x
<i>Clerodendrum fragrans</i>	x	.	.
<i>Clerodendrum inerme</i>	.	.	x
<i>Clerodendrum paniculatum</i>	x	.	.
<i>Clerodendrum serratum</i>	.	x	.
<i>Clerodendrum urticaefolium</i>	x	.	.
<i>Clerodendrum cf. vellosum</i>	.	x	.
<i>Cymbopogon citratus</i>	.	.	x
<i>Cymbopogon nardus</i>	x	.	.
<i>Elsholtzia</i> sp.	x	.	.
<i>Elsholtzia kachinensis</i>	.	x	.
<i>Morus alba</i>	x	.	.
<i>Morus macroura</i>	.	x	.
<i>Rhinacanthus nasutus</i>	x	.	x
<i>Ricinus communis</i>	x	.	x
<i>Vitex</i> spp.	x	x	.

\* Chuakul et al. (1997).

ence these symptoms frequently, so it is planted around the house or kept dried at home. *Cymbopogon* sp., *Cymbopogon citratus*, used by the Thai, is also an aromatic herb with various constituents, particularly essential oils (Ponglux et al. 1987:107) that possess antifungal and antibacterial properties (Saralamp et al. 1996:79). *Rhinacanthus nasutus* is recognized as having rhinacanthin and oxymethyl lanthraquinone and other bioactive constituents with antifungal properties (Ponglux et al. 1987:227; see also Saralamp et al. 1996:162).

These results may indicate that plants used across ethnic groups are effective on biological systems. They are employed and accepted by cultures that have their own traditional knowledge of childbirth health.

## CONCLUSION

Childbirth is fundamental to human survival. This study has documented some of the previously unstudied folk knowledge of food and medicinal plant use among Yunnanese Chinese in northern Thailand. Earlier studies on Chinese folk medicine for childbirth tended to emphasize the folk system of diseases in relation to hot and cold theory; however, Yunnanese pay much more attention to evil 'wind', which may affect a new mother by causing diseases after birth. For the Yunnanese, the herbal steam bath plays an important role in strengthening resistance to wind-related ailments by activating blood flow and releasing blood stasis through sweating caused by the vapor. Along with this herbal therapy, eating 'supplementing' food and avoiding food with wind also contributes to strengthening resistance and to supplementing blood as well as vitality, all of which help the new mother regain a balance of health after birth.

Ethnobotanical data on folk medicine for childbirth in this region has not yet been gathered comprehensively. We know, however, that the practice of herbal



steam baths for postpartum care is not limited to the Yunnanese, but is also a popular folk therapy across different ethnic groups in northern Thailand. Further collection of basic data in this field is needed. What are the differences and similarities in the use of medicinal plants for childbirth care? Is there any common standard in selecting medicinal plants for the steam bath across various ethnic groups? Is there any interethnic relationship in the practice of folk medicine in this region? This study is still at a preliminary stage and there are still many questions to be considered, especially concerning the relationship between folk use of steam bath plants and the plants' biochemical constituents.

Finally, ethnobotanical collection and investigation of the pharmacological characteristics of steam bath plants would be a fundamental contribution to women's reproductive health.

#### ACKNOWLEDGMENTS

This work could not have been undertaken without the generous support of informants in the field. Many thanks to Prof. Sadao Sakamoto of Ryukoku University, Dr. Hatta Hiroaki of Tsukuba Botanical Garden, Japan, and Dr. Yukino Ochiai, who was at Kyoto University during Wang's field work, for their support and conscientious critique. We are also grateful to the many staff at Queen Sirikit Botanic Garden for their help before and after my fieldwork. Finally, we are thankful for joint sponsorship by the National Science and Technology Development Agency, Thailand (NSTDA), the New Energy and Technology Development Organization of Japan (NEDO), and the Japan Bioindustry Association (JBA), for cooperation in funding field research in Thailand.

#### REFERENCES CITED

- Anderson, Edward F. 1986a. Ethnobotany of hill tribes of northern Thailand. II. Lahu medicinal plants. *Economic Botany* 40:442-450.
- . 1986b. Ethnobotany of hill tribes of northern Thailand. I. Medicinal plants of Akha. *Economic Botany* 40:38-53.
- . 1993. *Plants and People of the Golden Triangle: Ethnobotany of the Hill Tribes of Northern Thailand*. Silkworm Books, Chiang Mai.
- Anderson, E. N. 1980. 'Heating' and 'cooling' foods in Hong Kong and Taiwan. *Social Science Information* 19:237-268.
- . 1984. "Heating and cooling" foods re-examined. *Social Science Information* 23:755-773.
- . 1988. *The Food of China*. Yale University Press, New Haven.
- . 1996. *Ecologies of the Heart: Emotion, Belief, and the Environment*. Oxford University Press, Oxford.
- Anderson, E. N. and Marya L. Anderson. 1978. Folk dietetics in two Chinese communities, and its implications for the study of Chinese medicine. In *Culture and Healing in Asian Societies: Anthropological, Psychiatric and Public Health Studies*, eds. A. Kleinman, P. Kunstadter, E. R. Alexander, and J. C. Gate, pp. 69-100. Schenkman Publishing Co., Cambridge, Massachusetts.
- Brun, Viggo and Trond Schumacher. 1994. *Traditional Herbal Medicine in Northern Thailand*. White Lotus, Bangkok.
- Chuakul, W., P. Saralamp, W. Paonil, R. Temsiririrkkul, and T. Clayton. 1997. *Medicinal Plants in Thailand*, vol. II. Department of Pharmaceutical Botany, Faculty of Pharmacy, Mahidol University, Bangkok.
- Dunn, Frederick L. 1978. Medical care in the Chinese communities of Peninsular Malaysia. In *Culture and Healing in Asian Societies: Anthropological, Psychiatric and Public Health Studies*, eds. A. Kleinman, P. Kunstadter, E. R. Alexander, and J. C. Gate, pp. 143-172. Schenkman Publishing Co., Cambridge, Massachusetts.

- Fishman, Claudia, R. Evans, and E. Jenks. 1988. Warm bodies, cool milk: conflicts in post partum food choice for Indo-chinese women in California. *Social Science and Medicine* 26:1125-1132.
- Furth, Charlotte and S. Ch'en. 1992. Chinese medicine and the anthropology of menstruation in contemporary Taiwan. *Medical Anthropology Quarterly* 6(1):27-48.
- Geng, J., W. Huang, T. Ren, and X. Ma. 1991. *Medicinal Herbs*. New World Press, Beijing.
- Kleinman, Arthur. 1980. *Patients and Healers in the Context of Culture: an Exploration of the Borderland between Anthropology, Medicine, and Psychiatry*. University of California Press, Berkeley.
- Ngin, Chor Swang. 1985. Indigenous fertility regulating methods among two Chinese communities in Malaysia. In *Women's Medicine, a Cross-cultural Study of Indigenous Fertility Regulation*, ed. L. F. Newman, pp. 25-41. Rutgers University Press, New Brunswick, New Jersey.
- Ou, Ming, ed. 1988. *Chinese-English Dictionary of Traditional Chinese Medicine*. Joint Publishing (H.K.) Co., Ltd., Hong Kong.
- Pake, Catherine V. 1987. Medicinal ethnobotany of Hmong refugees in Thailand. *Journal of Ethnobiology* 7:13-26.
- Ponglux, D., S. Wongseripipatana, T. Phadungcharoen, N. Ruangrungsri, and K. Likhitwitayawuid. 1987. *Medicinal Plants*. Medicinal Plants Exhibition Committee, The First Princess Chulabhorn Science Congress 1987, Bangkok.
- Rajadhon, Phya Anuman. 1965. Customs connected with birth and the rearing of children. In *Southeast Asian Birth Customs*, eds. D.V. Hart, P. A. Rajadhon, and R. J. Coughlin, pp. 121-204. Human Relations Area Files, Inc., New Haven, Connecticut.
- Reid, Daniel. 1994. *The Complete Book of Chinese Health and Healing*. Shambhala, Boston.
- Saralamp, P., W. Chuakul, R. Temsirirkul, and T. Clayton. 1996. *Medicinal Plants in Thailand*, vol. I. Department of Pharmaceutical Botany, Faculty of Pharmacy, Mahidol University, Bangkok.
- Schliesinger, Joachim. 2000. *Ethnic Groups of Thailand: Non-Tai-Speaking Peoples*. White Lotus, Bangkok.
- Smitinand, T., S. Sabhasri, and P. Kunstadter. 1978. The environment of northern Thailand. In *Farmers in the Forest: Economic Development and Marginal Agriculture in Northern Thailand*, eds. Peter Kunstadter, E.C. Chapman, and Sanga Sabhasri, pp. 24-40. University Press of Hawaii, Honolulu.
- Wu, David Y. H. 1979. *Traditional Chinese Concepts of Food and Medicine in Singapore*. Occasional Paper No. 55. Institute of Southeast Asian Studies, Singapore.