

**SURVEY ON MEDICINAL PLANTS USED IN
KHOK PHAYUUNG VILLAGE,
KAAPCHOENG DISTRICT,
SURIN PROVINCE, THAILAND (2)**

การสำรวจสมุนไพรที่ใช้ในหมู่บ้านโคกพะยูง
อำเภอเกอการ์ชีง จังหวัดสุรินทร์ (2)

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ABSTRACT

A survey on the utilization of medicinal plants in Khok Phayuung Village, Kaapchoeng District, Surin Province, Thailand (2) was carried out by interviewing five herbalists, followed by collecting and identifying plant specimens. In addition, the plant specimens were compared with authentic specimens at two herbaria: the Bangkok Herbarium at the Botany Section, Botany and Weed Science Division, Department of Agriculture, and the Forest Herbarium, Royal Forest Department, Ministry of Agriculture and Cooperatives. One hundred and forty-seven species belonging to sixty-five families commonly used as medicinal plants were reported, thirteen species of which were

newly recorded as medicinal plants. Ninety-nine species were used in combinations with other medicinal plants in a total of forty different preparations.

บทคัดย่อ

จากการสำรวจการใช้สมุนไพรในหมู่บ้านโคกพะยุง อำเภอการเชิง จังหวัดสุรินทร์ (2) โดยการสัมภาษณ์หมู่บ้านจำนวน 5 ราย การเก็บตัวอย่างพืชและการตรวจเอกสารดักษณ์พรรณพืช พร้อมทั้งเปรียบเทียบตัวอย่างพืชที่พิพิธภัณฑ์พืชกรุงเทพ กรมวิชาการเกษตรและหอพรรณไม้ กรมป่าไม้ กระทรวงเกษตรและสหกรณ์ พบสมุนไพรเพิ่มเติมจากการสำรวจแรก จำนวน 147 ชนิด จากพืชทั้งหมด 65 วงศ์ จัดเป็นสมุนไพรชนิดใหม่ 13 ชนิด มีสมุนไพรที่ใช้ในรูปยาดำรับ 99 ชนิด ประกอบเป็น 40 ตำรับ

INTRODUCTION

The survey on medicinal plants in Kaapchoeng District, Surin Province, Thailand^{1,2} found that there were many other medicinal plants which had not yet been recorded. A survey was carried out to identify these plants and their medicinal use in order to conserve the native knowledge about folk medicine and to identify new potential candidates for modern drug investigation and development.

MATERIALS AND METHODS

This survey was performed by interviewing five different herbalists about medicinal plants commonly used and collection of plant specimens for taxonomical identification during October 1997 to September 1998. The collected specimens were compared with authentic specimens at two herbaria, i.e. the Bangkok Herbarium, Botany Section, Botany and Weed Science Division, Department of Agriculture (BK number) and

the Forest Herbarium, Royal Forest Department, Ministry of Agriculture and Cooperatives (BKF number), and deposited at Department of Pharmaceutical Botany, Faculty of Pharmacy, Mahidol University.

RESULTS AND DISCUSSION

One hundred and forty-seven species of medicinal plants which were commonly used by herbalists were reported. After proper taxonomical identification, these could be assigned to one hundred and twenty-four dicots, nineteen monocots, one gymnosperm and three fern allies which belong to sixty-five families. Botanical names, Thai names, parts used, ethnomedical uses, methods and preparation of the identified plants are shown in Table 1. The distribution of the medicinal plants over different families is listed in Table 2, with Fabaceae forming the largest group (thirteen different plants). Herbal remedies are generally used for the treatment of digestive, nervous, respiratory, renal and vascular problems. It was found that there were thirty-three for oedema, twenty-one for abscess, twelve for tonic and hematinic, seven for anticancer and appetizer in post-labour, six for bodily discomfort, leukorrhea and food poisoning, five for nasal polyposis, chronic ulcers, urinary stones, antipyretic and lactogogue, four for accelerating lochial discharge and chronic ulcers, three for anticough, antidiabetic, antipruritic, detoxicant, sprains, headache, laxative, oozing eczema due to lymphatic disorders, two for chest pain, enlarged abdomen, paresis and wounds, and one as antidiarrheal, antiemetic, emetic-detoxicant, for acne, for burn, for chickenpox, for chronic gastrointestinal ailment in children, for dog bite, for herpes zoster, for insect bite, for ringworm, hemostatic, scarlet fever and *Wata* causing epileptic convulsion as shown in Table 3. Forty-one species (Table 1^{*}) of medicinal plants are used as a single remedy whereas one hundred and one species (Table 1[#]) are used in combinations with other medicinal plants in a total of forty preparations as shown in Table 4 and four species are used both in preparation and as a single remedy (Table 1^{\$}).

Fourteen species of medicinal plants reported possess the same ethnomedical uses as mentioned in Thai literature, recommended by Ministry of Public Health's *Pramuan Sapphakhun Yaa Thai*: Medicinal Plants, Medicinal Minerals and Medicinal Animals, Part 1–3, i.e. *Alocasia indica* (petiole fiber: for abscess), *Anomianthus dulcis* (stem: lactogogue), *Azadirachta indica* (stem bark: antipyretic), *Chromolaena odorata* (leaf: hemostatic), *Clausena excavata* (root: for nasal polyposis and oozing eczema due to lymphatic disorders), *Crinum asiaticum* (leaf: for oedema), *Ficus religiosa* (stem: for abscesses), *Garcinia schomburgkiana* (stem: for accelerating lochial discharge), *Gluta usitata* (stem bark: for oozing eczema due to lymphatic disorders), *Mangifera indica* (stem bark: for abscesses), *Pachygone dasycarpa* (stem: for urinary stone, oedema), *Pandanus odoratissimus* (root: for oedema), *Senna alata* (leaf: antipruritic) and *Xanthophyllum lanceatum* (stem bark: for oozing eczema due to lymphatic disorders).

Thirteen species are newly identified as medicinal plants: i.e. *Aphyllodium biarticulatum*, *Buchanania latifolia*, *Dalbergia cochinchinensis*, *Derris trifolia*, *Diospyros curranii*, *Diospyros ferrea*, *Ehretia laevis*, *Elaeocarpus lancifolius*, *Hiptage triacantha*, *Homalium tomentosum*, *Pavetta indica*, *Pterolobium integrum* and *Sauvagesia hirsutus* (Table 1[®]).

The floristic list composed during the survey is dominated by higher plants, about one-third of which belonging to predominant families: Fabaceae, Rubiaceae, Annonaceae, Rutaceae and Vitaceae. Generally, the remedies of popular medicine are almost exclusively based on the utilization of a preparation (one hundred and two species). Further ethnobotanical research should be conducted in Khok Phayung Village, Kaapchoeng District, Surin Province, which might lead to the discovery of potentially valuable pharmaceuticals.

Table 1. Medicinal plants in Khok Phayuung Village, Kaapchoeng District, Surin Province, Thailand

Botanical name	Thai name	Part (s) used	Ethnomedical uses	Methods (Formulas)	Voucher/Authentic specimens (References)
ACANTHACEAE <i>Rhinacanthus nasutus</i> (L.) Kurz [#]	Thong phan chang	RT	for chronic ulcer	DC/IU ¹	Wong 1578/BK 48329 ³
AMARYLLIDACEAE <i>Crinum asiaticum</i> L. [#] <i>Hypoxis aurea</i> Lour. [*]	Phlapphlueng Taan dieo	LF RH	for oedema for acne	AL ² AL	Wong 1310/BK 48548 ^{4,5,6} Wong 2824/BK 41347 ⁷
ANACARDIACEAE <i>Buchanania lanzan</i> Spreng. <i>Gluta usitata</i> (Wall.) Ding Hou [#]	Mamuang hua maengwan Rak yai	SB LF, SB	detoxicant for oozing eczema due to lymphatic disorders	DC/IU DC/IU ³	Wong 786/BKF 95333 ^{8,9} Wong 1008/BKF 33116 ^{8,9}
<i>Mangifera indica</i> L. [#]	Ma muang	SB	for abscess, oedema	DC/IU ⁴	Wong 770/BKF 80545 ^{8,9}
ANNONACEAE <i>Annonanthus dulcis</i> (Dunal) J. Sinclair [#] (Elipeia dulcis (Dunal) C. Meade)	Nom wua	ST	lactogogue	DC/IU ⁵	Wong 459/BK 14296 ^{10,11}
<i>Cananga latifolia</i> Finet et Gagnep. [#] <i>Melodorum fruticosum</i> Lour. [#]	Sakae saeng Lamduan	SB RT	for abscess, oedema for nasal polyposis	DC/IU ⁴ DC/IU ⁶	Wong 762/BK 52352 ^{12,13} Wong 727/BK 60055 ¹³
<i>Melodorum siamense</i> (Scheff.) Tien Ban [#] <i>Mitrophora vandaeflora</i> Kurz [#] <i>Polyalthia cerasoides</i> (Roxb.) Bedd. ^{\$}	Nom maeo Ma puan Kachian	RT RT RT	for accelerating lochial discharge anticough hematinic	DC/IU ⁷ DC/IU ⁸ DC/IU ¹² /BK 00554 ¹²	Wong 448/BK 54771 ^{12,14} Wong 412/BK 00554 ¹² Wong 1161/BK 54568 ¹²
<i>Uvaria rufa</i> Blume [#] <i>Xylopia caudata</i> Hook. f. et Thomson [#] <i>Xylopia viellata</i> Pierre [#]	Nom khwai Kraai Krao	ST SB ST	lactogogue for nasal polyposis for bodily discomfort	DC/IU ⁵ DC/IU ¹⁰ DC/IU ¹¹	Wong 1027/BK 43013 ^{10,12} Wong 2818 /BK 54540 ^{12,14} Wong 2820 /BK 57005 ^{12,15}
APOCYNACEAE <i>Alyxia schlechteri</i> H. Lev. [#] <i>Carissa spinarum</i> L. [#] <i>Willughbeia edulis</i> Roxb.*	Tangtun Phrom Maak yang	ST RT ST	for leukorrhea for nasal polyposis tonic	DC/IU ¹² DC/IU ⁶ DC/IU	Wong 262/BK 45911 ¹⁶ Wong 725/BK 09118 ¹⁶ Wong 2825 /BKF 103723 ¹⁶
ARACEAE <i>Alocasia odora</i> (Lodd.) Spach [*] <i>Scindapsus officinalis</i> (Roxb.) Schott [#] <i>Typhonium flagelliforme</i> (Lodd.) Blume*	Kradaat Phliu chaang Sa oy	PF WP WP	for abscess for abscess, oedema for abscess	PT DC/IU ⁴ PT	Wong 715/BK 35435 ¹⁷ Wong 773/BKF 63096 ⁶ Wong 992/BKF 24352 ¹⁸

Table 1. (Continued)

Botanical name	Thai name	Part (s) used	Ethnomedical uses	Methods (Formulas)	Voucher/Authentic specimens (References)
ARECACEAE					
<i>Borassus flabellifer</i> L. #	Taan	MI	for abscess, oedema	DC/IU ⁴	Wong 763/BK 24619 ^{5,19}
<i>Calamus acanthophyllus</i> Becc. #	Waai nang	RT	appetizer in post-labour	DC/IU ¹³	Wong 743/BK 28848 ¹⁹
<i>Calamus</i> sp. #	Waai	ST	anticancer	DC/IU ¹⁴	Wong 1579
<i>Calamus</i> sp. #	Waai paai	RT	appetizer in post-labour	DC/IU ¹⁴	Wong 1580
<i>Cocos nucifera</i> L. #	Ma phraao	SH	for oedema	PD/AL ¹⁶	
		FR	for chronic ulcers	DC/IU ¹⁶	Wong 767/BK 14092 ^{5,19}
ASTERACEAE					
<i>Chromolaena odorata</i> (L.) King et Robins.*	Saap suea	LF	hemostatic	PT	Wong 454/BK 53255 ³
<i>Grangea maderaspatana</i> (L.) Poir.*	Phayaa mutti	WP	for oedema	PT	Wong 447/BKF 91297 ²⁰
BASELLACEAE					
<i>Basella alba</i> L. (red variety) #	Phak plang	WP	antiemetic, antidiarrhoeal	DC/IU ¹⁷	Wong 457/BK 54783 ^{4,10,21}
BORAGINACEAE					
<i>Heliotropium indicum</i> (L.) R. Br. #	Yaa nguang chaang	WP	for abscess, oedema	DC/IU ⁴	Wong 771/BK 54783 ^{4,10,21}
BROMELIACEAE					
<i>Ananas comosus</i> (L.) Merr. #	Sapparot	RH	for leukorrhea	DC/IU ¹²	Wong 761 ^{4,5}
		RH	for abscess, oedema	DC/IU ⁴	
CAPPARIDACEAE					
<i>Capparis zeylanica</i> L. #	Sa ae	WP	for oozind eczema due to lymphatic disorders	DC/IU ³	Wong 391/BK 37608 ²³
<i>Maerua siamensis</i> (Kurz) Pax #	Chaeng	SB, ST	for oozind eczema due to lymphatic disorders	DC/IU ³	Wong 394/BK 47737 ²³
CASSYTHACEAE					
<i>Cassytha filiformis</i> L. #	Sangwaan phra in	WP	for oozind eczema due to lymphatic disorders	DC/IU ³	Wong 1001/BK 53111 ²⁴

Table 1. (Continued)

Botanical name	Thai name	Part (s) used	Ethnomedical uses	Methods (Formulas)	Voucher/Authentic specimens (References)
CELASTRACEAE					
<i>Celastrus paniculatus</i> Willd. [#]	Krathong laai	ST	for wounds	DC/IU ¹⁸	Wong 434/BK 33708 11, 25
<i>Sarcococca chinensis</i> L. [#]	Kamphaeng chet chan	ST	for urinary stone	DC/IU ¹⁹	Wong 752/BK 44530 11, 25
		ST	for urinary stone, laxative	DC/IU ²⁰	
		ST	tonic	DC/IU ²¹	
<i>Siphonodon celastroides</i> Griff.*	Ma duuk	RT	emetic-detoxicant	DC/IU	Wong 455/BK 34526 25
CLusiaceae					
<i>Cratoxylum cochinchinense</i> (Lour.) Blume [#]	Tiu kiang	ST, RT	for urinary stone, laxative	DC/IU ²⁰	Wong 400/BKF 80971 26
<i>Cratoxylum formosum</i> (Jack) Dyer	Tiu khon	RT	for chest pain	DC/IU ²²	Wong 1264/BKF 106181 12
ssp. <i>pranithorum</i> Gopel.					
<i>Garcinia schomburgkiana</i> Pierre [#]	Ma dan	ST	for accelerating lochial discharge	DC/IU ⁷	Wong 450/BKF 69866 12
COMBRETACEAE					
<i>Calycophyllum floribunda</i> Lam. [#]	Ting tang	ST	appetizer in post-labour	DC/IU ¹³	Wong 741/BKF 72064 27
<i>Combretum quadrangulare</i> Kurz [#]	Sakae naa	LF, ST	for headache, antipyretic	DC/IH ²³	Wong 445/BKF 82128 4, 27
<i>Terminalia alata</i> Heyne ex Roth [*]	Rok faa	ST	for urinary stone	DC/IU	Wong 777/BKF 66492 27, 28
CONVOLVULACEAE					
<i>Argyreia mollis</i> Choisy*	Khrua phuu ngoen	RT	lactogogue	DC/IU	Wong 987/BK 48481 29, 30
<i>Argyreia syrensis</i> (Roth) Choisy*	Hun	RT	for abscess	PT	Wong 1072/BKF 87797 29, 30
<i>Merrillia hederaea</i> (Burn. f.) Hallier f.*	Thao sa ueg	WP	for herpes zoster	DC/BA/IU	Wong 783/BK 48637 31
CUCURBITACEAE					
<i>Solena heterophylla</i> Lour.*	Tamluang tua phuu	RT	tonic	PD/PI/IU	Wong 225/BKF 87993 12
DILLENIACEAE					
<i>Dillenia ovata</i> Wall. ex Hook. f. et Th. [#]	Saan bai lek	SB	for oedema	PD/AL ¹⁵	Wong 754/BK 50393 32
<i>Tetracera loureiri</i> (Finet et Gagnep.) Craib [#]	Rotsukhon	ST, RT	for abscess, oedema	DC/IU ⁴	Wong 774/BK 38259 32, 33
DIPTEROCARPACEAE					
<i>Dipterocarpus obtusifolius</i> Teijsm. ex Miq. [#]	Yaang hiang	ST, RT	for oedema	DC/IU ²⁴	Wong 1581/BK 37801 12, 34
<i>Shorea roxburghii</i> G. Don [#]	Phayom	RT	tonic	DC/IU ²⁵	Wong 730/BKF 73266 4, 34

Table 1. (Continued)

Botanical name	Thai name	Part (s) used	Ethnomedical uses	Methods (Formulas)	Voucher/Authentic specimens (References)
EBENACEAE <i>Diospyros curranii</i> Merr. @# <i>Diospyros ferrea</i> (Wild.) Bakh. @# <i>Diospyros variegata</i> Kurz *	Rak dam Lambit Phaya rak dam	ST ST, RT LF	for abscess, oedema hematonic in post-labour for chronic gastrointestinal ailment in children for burn	DC/IU ⁴ DC/IU ²⁶ DC/IU PD/PT	Wong 756/BK 14535 35,36 Wong 420/BK 14567 35,36 Wong 1582/BKF 77158 35,36
EHRETIAEAE <i>Ehretia laevis</i> Roxb. @#	Kom	RT	for chest pain	DC/IU ²²	Wong 765/BK 16586 37
ELAEOCARPACEAE <i>Elaeocarpus lancifolius</i> Roxb. *	Pheephai	ST	for food poisoning	DC/IU	Wong 765/BKF 78417 38
EUPHORBIACEAE <i>Antidesma acidum</i> Retz. * <i>Croton oblongifolius</i> Roxb. # <i>Phyllanthus colinsae</i> Craib * <i>Sauropus hirsutus</i> Beille @*	Mao soi Piao yai Khanaeng phroi Kongkoi lot khon	ST ST, RT WP	for oedema tonic for food poisoning antidiabetic	PD/AL DC/IU ²¹ DC/IU DC/IU	Wong 1012/BKF 87707 19 Wong 751/BK 49744 12,39 Wong 442/BKF 31244 39 Wong 405/BK 22938 39
FABACEAE <i>Aphyllodium bariicum</i> (L.) Gagnep. @* <i>Caesalpinia digyna</i> Rottler \$ <i>Cassia javanica</i> L. ssp. <i>javanica</i> # <i>Dalbergia cochinchinensis</i> Pierre @# <i>Derris trifolia</i> Loure. @* <i>Erythrina stricta</i> Roxb. var. <i>suberosa</i> (Roxb.) Niyomdham # <i>Phyllodium pulchellum</i> (Benth.) Desv. @# <i>Pterolobium integrum</i> Craib	Kraduuk ueng Kamchhai Chaiyaphneuk Phayuong Thopthaep nam Thonglaang bai mon	WP RT ST SB, WD ST SB	antidiarrhetic lactagogue for snake bite for oedema anticancer antidiabetic for headache, antipyretic for oedema	DC/IU DC/IU ⁵ DC/IU DC/IU ²⁷ DC/IU ¹⁴ DC/IU ²⁸ DC/SN AL ²	Wong 1583/BK 39058 40 Wong 456/BK 51697 41 Wong 977/BKF 71139 41 Wong 213/BKF 89951 42 Wong 444/BKF 81580 7 Wong 716/BKF 92445 43

Table 1. (Continued)

Botanical name	Thai name	Part (s) used	Ethnomedical uses	Methods (Fonidias)	Voucher/Authentic specimens (References)
FABACEAE (Contd.)					
<i>Senna alata</i> (L.) Irwin et Barneby #	Chumhet thet	LF	antipruritic	DC/BA 30	Wong 729/BKF 74843 ⁴
<i>Senna garrettiana</i> (Crabb) Irwin et Barneby #	Samee saan	WD	anticancer	DC/IU 14	Wong 224/BKF 16984 ⁴
<i>Senna hirsuta</i> (L.) Irwin et Barneby var. <i>hirsuta</i> *	Phongpheng	RT	for food poisoning, detoxicant	DC/IU	Wong 390/BK 33154 ¹²
<i>Senna siamea</i> (Lam.) Irwin et Barneby #	Kheelek	WD	anticancer	DC/IU 14	Wong 223/BK 07703 ⁴
<i>Tamarindus indica</i> L. #	Ma khaam	SB	for wound in post-labour	DC/WA 31	Wong 387/BKF 94394 ⁴
FLACOURTIACEAE					
<i>Casearia flexuosa</i> Craib *	Mataek ton	WP	hematinic for post-labour	DC/IU	Wong 2826 /BKF 64954 ⁴⁴
<i>Fiaucuria jangomas</i> (Lour.) Raesch. #	Takhop khwai	RT	tonic	DC/IU 25	Wong 1584/BKF 90667 ⁴⁴
<i>Homalium tomentosum</i> (Vent.) Benth. @*	khaa naang	ST	for paresis	DC/IU	Wong 226/BKF 115732 ⁴⁴
HYMENOCARDIACEAE					
<i>Hymenocardia punctata</i> Wall. ex Lindl #	Faeip nam	RT	for accelerating lochial discharge	DC/IU 7	Wong 1160/BK 38254 ³⁹
IRVINGIACEAE					
<i>Irvingia malayana</i> Oliv. ex A. Benn. #	Krabok	SB	for wound in post-labour	DC/WA 31	Wong 388/BKF 102286 ⁴⁵
		ST	for sprain	DC/IU 32	
LAMIACEAE					
<i>Gmelina elliptica</i> J.E. Smith #	Thong maeo	ST	for food poisoning	DC/IU 33	Wong 1290/BKF 08540 ³
		RT	for bodily discomfort, hematinic	DC/IU 9	
<i>Hypsis suaveolens</i> (L.) Poit. *	Maenglak khaa	RT	for oedema	DC/IU 24	
<i>Ocimum tenuiflorum</i> L. #	Kaphrao daeng	RT	antidiabetic	DC/IU	Wong 462/BK 75473 ^{12,46}
			anticough	DC/IU 8	Wong 1585/BKF 68038 ^{4,46}
LEEACEAE					
<i>Leca indica</i> (Burm. f.) Merr. #	Katang bai	RT	for abscess, oedema	DC/IU 4	Wong 1005/BK 30703 ¹²
LORANTHACEAE					
<i>Dendrophthoe pentandra</i> (L.) Miq. #	Kaataak ma muang	ST	for oedema	DC/IU 24	Wong 1291/BKF 1119046 ¹²
MALPIGHIACEAE					
<i>Hiptage triacantha</i> Pierre @*	Khruea kluai noi	ST	for chickenpox, scarlet fever	DC/BA/IU	Wong 451/BK 34785 ⁴⁷

Table 1. (Continued)

Botanical name	Thai name	Part (s) used	Ethnomedical uses	Methods (Formulas)	Youther/Authentic specimens (References)
MARANTACEAE					
<i>Schumannianthus dichotomus</i> Gagnep.*	Khlaa	RT	antipyretic	DC/IU	Wong 990/BKF 24254 ⁵
MELIASTOMACEAE					
<i>Menecylium edule</i> Roxb. var. <i>edule</i> #	Phlong mueat	LF	antipuntic	DC/BA ³⁰	Wong 728/BK 60932 ¹²
MELIACEAE					
<i>Aglaia elaeagnoides</i> (A. Juss.) Benth. #	Prayong paa	ST	for oedema	DC/IU ²⁷	Wong 738/BKF 72838 ⁴⁸
<i>Azadirachta indica</i> A. Juss. #	Sadao baan	SB	for headache, antipyretic	DC/IH ²³	Wong 446/BK 90020 ^{3,48}
<i>Waltheria trichosemon</i> Miq. #	Kat lin	SB	for abscess, oedema	DC/IU ⁴	Wong 775/BKF 18055 ⁴⁸
MENISPERMACAEAE					
<i>Arctangelsia flava</i> (L.) Merr. #	Khamin khreua	ST	appetizer in post-labour	DC/IU ¹³	Wong 746/BKF 100410 ^{3,49}
<i>Pachygone dasycarpa</i> Kurz #	Naam phrom	ST	for urinary stone	DC/IU ¹⁹	Wong 997/BK 36932 ⁴⁹
<i>Stephania pierrei</i> Diels *	Kling klaang dong	TB	for abscess, oedema	DC/IU ⁴	
MORACEAE					
<i>Artocarpus lakoocha</i> Roxb. #	Ma haat	RT	tonic	DC/IU ²⁵	Wong 398/BKF 46255 ⁴
<i>Ficus religiosa</i> L. #	Pho	ST	for abscess, oedema	DC/IU ⁴	Wong 766/BK 32820 ⁵⁰
MYRSINACEAE					
<i>Embelia ribes</i> Burm. f.*	Som kung	RT	anticancer	DC/IU	Wong 2954/BKF 76082 ⁵¹
MYRTACEAE					
<i>Psidium guajava</i> L. #	Pharang	LF	for wound in post-labour	DC/WA ³¹	Wong 388/BK 09070 ⁴
OCHNACEAE					
<i>Gomphilia serrata</i> (Giertn.) Kanis #	Chaang nao	RT	for food poisoning	DC/IU ³²	Wong 723/BK 33495 ⁵²
<i>Ochna integerrima</i> Merr. #	Krachae	ST	tonic	DC/IU ²¹	Wong 750/BKF 41656 ⁵²
OLEACEAE					
<i>Iasmium anodontum</i> Gagnep. #	Saihai	SB	for nasal polypsis	DC/IU ⁶	Wong 983/BKF 76054 ⁵³
PANDANACEAE					
<i>Pandanus odoratissimus</i> L. f. #	Lamchiak	RT	for leukorrhea	DC/IU ¹²	Wong 760/BKF 26256 ^{4,54}
		RT	for abscess, oedema	DC/IU ⁴	

Table 1. (Continued)

Botanical name	Thai name	Part (s) used	Ethnomedical uses	Methods (Formulas)	Voucher/Authentic specimens (References)
PASSIFLORACEAE <i>Passiflora foetida</i> L.*	Thao singto	LF	anticough	DC/IU	Wong 453/BKF 50080 ⁵⁵
PEDALIACEAE <i>Sesamum indicum</i> L. [#]	Ngaa	SD	for sprain	DC/IU ³³	Wong 734/BKF 83870 ⁴
PINACEAE <i>Pinus kesiya</i> Royle ex Gordon [#]	Son saam bai	WD	anticancer	DC/IU ¹⁴	Wong 222/BKF 38218 ⁵⁶
PIPERACEAE <i>Piper</i> sp. [#]	Sakhaan	WP	tonic	DC/IU ³⁴	Wong 1586
POLYPODIACEAE <i>Drynaria bonii</i> Christ. [#] <i>Drynaria quercifolia</i> L. [#] <i>Playcennium holtumii</i> Jonch. et Hennipm. [#]	Kratae tai hin Kratae tai mai Chaiphaa seedaa	RH WP WP	antasthmatic for enlarged abdomen for enlarged abdomen	DC/IU ³⁵ DC/IU ³⁶ DC/IU ³⁶	Wong 411/BKF 31388 ^{19,57} Wong 779/BKF 104849 ⁵⁷ Wong 778/BKF 97277 ^{19,57}
RHAMNACEAE <i>Ziziphus cambodiana</i> Pierre [#] <i>Ziziphus oenoplia</i> (L.) Mill. var. <i>oenoplia</i> [#]	Takhrong Lep yieo	ST RT	for oedema for chronic ulcers	PD/AL ¹⁵ DC/IU ¹	Wong 1014/BK 51066 ⁵⁸ Wong 1000/BK 60106 ¹⁹
RHZOPHORACEAE <i>Carallia brachiatia</i> (Lour.) Merr. [#]	Chiangphraa naang ae	ST	appetizer in post-labour	DC/IU ¹³	Wong 745/BK 87366 ⁵⁹
RUBIACEAE <i>Dioecocarpus erythrocyclada</i> (Kurz) Tirveng. [#] <i>Gardenia obtusifolia</i> Roxb.* <i>Kallstroemia godeffroyana</i> (O. Kze.) Tirveng.* <i>Mitragnya hirsuta</i> Cav. [#] <i>Morinda coreia</i> Ham. [#] <i>Morinda persicaefolia</i> Ham. var. <i>oblonga</i> Pitard [#] <i>Nauclea orientalis</i> L. [#]	Ma khang daeng Kramop Phut nong Krathum khok Yo paa Yo nam Kaan hueang	ST SB ST SB ST, RT RT RT	tonic appetizer in post-labour for wounds tonic for bodily discomfort, hematinic lactagogue hematinic hematinic	DC/IU ^{21,37} DC/IU ¹³ PD/AL DC/IU ⁹ DC/IU ⁵ DC/IU ³⁸	Wong 740/BK 48181 ⁶⁰ Wong 426/BK 32743 ²⁰ Wong 423/BKF 32187 ^{59,61} Wong 415/BK 38195 ⁶² Wong 460/BKF 97296 ¹² Wong 443/BK 12335 ⁶³ Wong 1293/BKF 111445 ⁶⁴

Table 1. (Continued)

Botanical name	Thai name	Part (s) used	Ethnomedical uses	Methods (Formulas)	Verifier/Authentic specimens (References)
RUBIACEAE (Contd.)					
<i>Neonauclea sessilifolia</i> Merr. @*	Kraduk nguu luem	ST, RT	hematinic	DC/IU ³⁸	Wong 1056/BK 10094 ⁶⁴
<i>Pavetta indica</i> L.	Khem khao	ST, RT	anticancer	DC/IU	Wong 409/BK 12973 ⁶⁵
<i>Prismatoceris tetrandra</i> (Roxb.) Schumman ssp. <i>malayana</i> (Ridl.) Johansson [#]	Son kra	RT	hematinic	DC/IU ^{26,38}	Wong 718/BK 41519 ⁶⁶
<i>Tamniadia uliginosa</i> (Retz.) Tirveng. et Sastre [#]	Talumphuk khao	WD	tonic	DC/IU ³⁷	Wong 739/BK 35704 ⁶⁷
RUTACEAE					
<i>Acronychia pedunculata</i> Miq.*	Ka uam	SB	for ringworm, antipruritic	PD/PT	Wong 1287/BKF 62962 ⁶⁸
<i>Atalanitia monophylla</i> A. DC.*	Ma naao phee	RT	for dog bite	PD/IU/AL	Wong 1130/BKF 63163 ⁶⁸
<i>Clausena excavata</i> Burm. f. [#]	Huat mon	LF, RT	for oozing eczema due to lymphatic disorders	DC/IU ³	Wong 392/BKF 65228 ^{19,88}
<i>Toddalia asiatica</i> (L.) Lam.*	Khrua nguu hao	WD	for nasal polyposis	PD/IH ³⁹	Wong 1587/BKF 96828 ^{12,68}
<i>Zanthoxylum rhoësa</i> (Roxb.) DC.*	Kamchat ton	ST	for oedema	DC/IU ²⁷	Wong 736/BKF 101573 ⁶⁸
SANITALACEAE					
<i>Scleropyrum wallichianum</i> Arn.*	Mueat khon	ST	for bodily discomfort, <i>Wat</i> causing epileptic convolution	DC/IU	Wong 722/BK 20930 ⁶⁹
SAPINDACEAE					
<i>Allophylus cobbe</i> (L.) Raeusch. ^{\$}	Tosai	ST, RT	for accelerating lochial discharge	DC/IU	Wong 418/BK 05476 ⁷⁰
<i>Scheleichera olivera</i> (Lour.) Oken.*	Takbro	RT	for bodily discomfort, hematinic	DC/IU ⁹	
<i>Lepisanthes rubiginosa</i> (Roxb.) Leenht.*	Ma huat	SB	for abscess	PD/AL	Wong 717/BKF 18157 ⁷⁰
LEPIDUMACEAE					
<i>Eurycoma longifolia</i> Jack [#]	Plaa lai phueak	RT	for oedema	DC/IU ²⁴	Wong 735/BKF 109893 ⁷¹
SMILACACEAE					
<i>Smilax glabra</i> Roxb. [#]	Yaa hua	RH	for abscess, oedema	DC/IU ⁴	Wong 165/BK 80343 ^{19,72}
<i>Smilax luzonensis</i> Presl [#]	Yaan thaat	RH	appetizer in post-labour	DC/IU ¹³	Wong 1020/BK 58818 ⁷²

Table 1. (Continued)

Botanical name	Thai name	Part (s) used	Ethnomedical uses	Methods (Formulas)	Voucher/Authentic specimens (References)
STEMONACEAE <i>Stemonia phyllantha</i> Gagnep.*	Saamsip keep	RT	for oedema, lice	PT	Wong 430/BKF 07664 ^{12,73}
STRYCHINACEAE <i>Strychnos nux-vomica</i> L. [#]	Salaeng chai	SB	for oedema	PD/AL ¹⁵	Wong 1588/BKF 48139 ⁷⁴
TACCACEAE <i>Tacca leontopetaloides</i> (L.) O. Ktze.*	Thao yaai mom	TB	antipyretic	MC/BA	Wong 1240/BKF 60726 ⁷⁵
THYMELAEACEAE <i>Enkleia stamensis</i> (Kurz) Neiving*	Po tao hai	RT	laxative	BD/IU	Wong 1266/BKF 58535 ⁷⁶
ULMACEAE <i>Trema orientalis</i> (L.) Blume*	Phangrae yai	ST	for abscess	PT	Wong 441/BKF 60735 ⁷⁷
VERBENACEAE <i>Pyramoeциримна нана</i> (Coll. et Hemsl.) Moldenke [#]	Lakhon khok	RT	for chronic ulcers	DC/IU ¹	Wong 429/BKF 18990 ⁷⁸
VITACEAE <i>Ampelocissus marinii</i> Planch. [#]	Som kung	RT	for abscess, oedema	DC/IU ⁴	Wong 1149/BKF 46894 ²⁴
<i>Cayratia pedata</i> (Lam.) Juss. ex Gagnep. [#]	Thaokhan daeng	ST	for leukorrhea	DC/IU ¹²	Wong 1590/BKF 76646 ⁷⁹
<i>Cayratia trifolia</i> (L.) Domin. [#]	Thao khan khao	ST	for leukorrhea	DC/IU ¹²	Wong 759/BKF 63108 ^{12,79}
<i>Cissus repanda</i> Vahl [#]	Thaowan puun	ST, RT	for abscess, oedema	DC/IU ⁴	Wong 1589/BKF 54073 ¹³
XANTHOPHYLLACEAE <i>Xanthophyllum lanceatum</i> (Miq.) J. J. Smith [#]	Chumsaeng	SB	for oozing eczema due to lymphatic disorders	DC/IU ³	Wong 782/BKF 47619 ⁸⁰
ZINGIBERACEAE <i>Curcuma zedoaria</i> (Berg.) Rosc. [#] <i>Kaempferia marginata</i> P. Siringsa ^{\$}	Khamin oi Proh paa	RH RH	for sprain for paresis for insect bites	DC/IU ³³ DC/IU ⁴⁰ DC/IU	Wong 732/BKF 92328 ⁴ Wong 424 ⁸¹

Abbreviations: AL = apply locally, BA = bath, BD = boiled, DC = decoction, FR = fruit, IH = inhale, IU = internaluse, LF = leaf, MC = maceration, MI = male inflorescence, PI = piliferous, PF = petiole fiber, PT = poultice, RF = rhizome, RH = rhizone, RT = root, SB = stem bark, SD = seed, SH = shoot, SN = sauna, ST = stem, TB = tuber, WA = wash, WD = wood, WP = whole plant

Symbols:* medicinal plants used as a single remedy, # medicinal plants used in preparation, \$ medicinal plants used as a single remedy or in preparation,
@ newly recorded medicinal plants

Table 2. Distribution of medicinal plants over different families

Families	Number of medicinal plants
Dicotyledons:	124
Fabaceae	13
Rubiaceae	11
Annonaceae	9
Rutaceae	5
Euphorbiaceae, Vitaceae	4
Anacardiaceae, Apocynaceae, Celastraceae, Clusiaceae, Combretaceae, Convolvulaceae, Ebenaceae, Flacourtiaceae, Lamiaceae, Meliaceae, Menispermaceae, Sapindaceae	3
Asteraceae, Capparidaceae, Dilleniaceae, Dipterocarpaceae, Moraceae, Ochnaceae, Rhamnaceae	2
Acanthaceae, Basellaceae, Boraginaceae, Cassythaceae, Cucurbitaceae, Ehretiaceae, Elaeocarpaceae, Hymenocardiaceae, Irvingiaceae, Leeaceae, Loranthaceae, Malpighiaceae, Melastomaceae, Myrsinaceae, Myrtaceae, Oleaceae, Passifloraceae, Pedaliaceae, Piperaceae, Rhizophoraceae, Santalaceae, Simaroubaceae, Strychnaceae, Thymelaeaceae, Ulmaceae, Verbenaceae, Ulmaceae, Xanthophyllaceae	1
Monocotyledons:	19
Arecaceae	5
Araceae	3
Amaryllidaceae, Smilacaceae, Zingiberaceae	2
Bromeliaceae, Marantaceae, Pandanaceae, Stemonaceae, Taccaceae	1
Gymnosperm:	1
Pinaceae	1
Ferns:	3
Polypodiaceae	3
Total	147

Table 3. Number of medicinal plants in each ethnomedical use

Ethnomedical uses	Number of medicinal plants
for oedema	33
for abscess	21
hematinic, tonic	12
anticancer, appetizer in post-labour	7
for bodily discomfort, for food poising, for leucorrhea	6
antipyretic, for chronic ulcer, for nasal polyposis, for urinary stone, lactogogue	5
for accelerating lochial discharge, for chronic ulcers	4
anticough, antidiabetic, antipruritic, detoxicant, for sprains, for headache, laxative, oozing eczema due to lymphatic disorders	3
for chest pain, for enlarged abdomen, for paresis, for wounds	2
anti diarrheal, antiemetic, emetic-detoxicant, for acne, for burn, for chickenpox, for chronic gastrointestinal ailment in children, for dog bite, for herpes zoster, for insect bite, for ringworm, hemostatic, scarlet fever, <i>Wata</i> causing epileptic convulsion	1

Table 4. Formula for uses of medicinal plants in Khok Phayung Village

Formula-ethnomedical use	Composition	Part(s) used
1 - for chronic ulcer	<i>Pygmaeopremna nana</i>	RH
	<i>Rhinacanthus nasustus</i>	RT
	<i>Ziziphus oenoplia</i> var. <i>oenoplia</i>	RT
2 - for oedema	<i>Crinum asiaticum</i>	LF
	<i>Erythrina stricta</i> ssp. <i>suberosa</i>	SB
3 - oozing eczema due to lymphatic disorders	<i>Caesalpinia sappan</i>	WD
	<i>Capparis zeylanica</i>	WP
	<i>Cassytha filiformis</i>	WP
	<i>Clausena excavata</i>	LF, RT
	<i>Gluta usitata</i>	LF, SB
	<i>Maerua siamensis</i>	SB, ST
	<i>Xanthophyllum lanceatum</i>	SB
4 - for abscess	<i>Ampelocissus martinii</i>	RT
	<i>Ananas comosus</i>	RH
	<i>Bambusa arundinacea</i>	ST
	<i>Borassus flabellifer</i>	MI
	<i>Cananga latifolia</i>	SB
	<i>Cayratia trifolia</i>	RT, ST
	<i>Cocos nucifera</i>	FR
	<i>Dendrocalamus asper</i>	ST
	<i>Diospyros curranii</i>	ST
	<i>Ehretia laevis</i>	ST
	<i>Ficus religiosa</i>	ST
	<i>Heliotropium indicum</i>	WP
	<i>Leea indica</i>	RT
	<i>Mangifera indica</i>	SB

Table 4. (Continued)

Formula-ethnomedical use	Composition	Part(s) used
4 – for abscess (Contd.)	<i>Pachygone dasycarpa</i> <i>Pandanus odoratissimus</i> <i>Saccharum officinarum</i> (red variety) <i>Scindapsus officinalis</i> <i>Smilax glabra</i> <i>Tetracera loureiri</i> <i>Walsura trichostemon</i>	ST RT ST ST RH RT, ST SB
5 – lactogogue	<i>Anomainthus dulcis</i> <i>Caesalpinia digyna</i> <i>Morinda elliptica</i> <i>Uvaria rufa</i>	ST RT RT, ST ST
6 – for nasal polyposis	<i>Carissa spinarum</i> <i>Jasminum anodontum</i> <i>Melodorum fruticosum</i>	RT RT RT
7 – for accelerating lochial discharge	<i>Garcinia schomburgkiana</i> <i>Hymenocardia punctata</i> <i>Melodorum siamense</i>	ST RT RT
8 – anticough	<i>Mitraphora vandiflora</i> <i>Ocimum tenuiflorum</i>	RT RT
9 – for bodily discomfort	<i>Allophylus cobbe</i> <i>Gmelina elliptica</i> <i>Mitragyna hirsuta</i> <i>Nauclea orientalis</i> <i>Polyalthia cerasoides</i>	RT RT SB RT RT
10 – for nasal polyposis	<i>Jasminum anodontum</i> <i>Xylopia caudata</i>	SB SB

Table 4. (Continued)

Formula-ethnomedical use	Composition	Part(s) used
11 - for bodily discomfort	<i>Carallia brachiata</i> <i>Dioecresis erythroclada</i> <i>Symplocos racemosa</i> <i>Xylopia violana</i>	ST ST ST ST
12 - for leukorrhea	<i>Alyxia schlechteri</i> <i>Ananas comosus</i> <i>Cissus repanda</i> <i>Cayratia pedata or Cayratia trifolia</i> <i>Pandanus odoratissimus</i>	ST RH ST ST RT
13 - appetizer in post-labour	<i>Allium sativum</i> <i>Arcangelisia flava</i> <i>Calamus acanthophyllus</i> <i>Calamus sp. (waai paa)</i> <i>Calycopteris floribunda</i> <i>Carallia brachiata</i> <i>Dioecercis erythroclada</i> <i>Piper nigrum</i> <i>Saccharum officinarum (red variety)</i> <i>Smilax luzonensis</i>	BU ST RT RT ST ST ST FR ST RH
14 - anticancer	<i>Dalbergia cochinchinensis</i> <i>Pinus kesiya</i> <i>Senna garrettiana</i> <i>Senna siamea</i>	SB, WD WD WD WD
15 - for oedema	<i>Antidesma acidum</i> <i>Calamus sp. (waai paa)</i> <i>Dillenia ovata</i>	ST SH SB

Table 4. (Continued)

Formula-ethnomedical use	Composition	Part(s) used
15 – for oedema (Contd.)	<i>Strychnos nux-vomica</i>	SB
	<i>Ziziphus cambodiana</i>	ST
16 – for chronic ulcer	<i>Borassus flabellifer</i> (male inflorescence)	SU
	<i>Cocos nucifera</i>	FR
	<i>Saccharum officinarum</i> (red variety)	ST
	<i>Senna occidentalis</i>	WP
	<i>Walsura trichostemon</i>	SB
17 – antiemetic	<i>Barringtonia acutangula</i>	SS
	<i>Basella alba</i>	WP
18 – for wounds	<i>Celastrus paniculatus</i>	ST
	<i>Ehretia laevis</i>	ST
	elephant bone	
19 – for urinary stone	<i>Pachygone dasycarpa</i>	ST
	<i>Salacia chinensis</i>	ST
20 – for urinary stone	<i>Cratoxylum cochinchinensis</i>	RT, ST
	<i>Salacia chinensis</i>	ST
21 – tonic	<i>Croton oblongifolius</i>	ST
	<i>Dioecercis erythroclada</i>	ST
	<i>Ochna integerrima</i>	ST
22 – for chest pain	<i>Cratoxylum formosum</i> ssp. <i>pruniflorum</i>	RT
	<i>Ehretia laevis</i>	RT
23 – for headache, antipyretic	<i>Azadirachta indica</i>	SB
	<i>Combretum quadrangulare</i>	LF, ST
	<i>Derris trifolia</i>	ST

Table 4. (Continued)

Formula-ethnomedical use	Composition	Part(s) used
24 - for oedema	<i>Dendrophthoe pentandra</i>	ST
	<i>Dipterocarpus obtusifolius</i>	ST
	<i>Eurycoma longifolia</i>	RT
	<i>Gmelina elliptica</i>	RT
25 - tonic	<i>Artocarpus lakoocha</i>	RT
	<i>Flacourtie jangomas</i>	RT
	<i>Shorea roxburghkii</i>	RT
26 - hematinic in post-labour	<i>Allium sativum</i>	BU
	<i>Diospyros ferrea</i>	ST
	<i>Piper nigrum</i>	FR
	<i>Piper sarmentosum</i>	FR
	<i>Primatomeris tetrandra</i> ssp. <i>malayana</i>	RT
27 - for oedema	<i>Aglaia odoratissima</i>	RT
	<i>Cassia javanica</i> ssp. <i>javanica</i>	ST
	<i>Toddalia asiatica</i>	LF, ST
28 - antidiabetic	<i>Zanthoxylum rhetsa</i>	LF, ST
	<i>Calamus</i> sp. (waai)	ST
	<i>Dalbergia cochinchinensis</i>	ST, WD
29 - antihemorhoid	<i>Phyllodium pulchellum</i>	RT
	<i>Pterolobium integrum</i>	ST
30 - antipruritic	<i>Memecylon edule</i>	LF
	<i>Senna alata</i>	LF
31 - for wounds in post-labour	<i>Irvingia malayana</i>	SB
	<i>Psidium guajava</i>	LF
	<i>Tamarindus indica</i>	SB
32 - for sprain	<i>Curcuma zedoaria</i>	RH
	<i>Gmelina elliptica</i>	RT

Table 4. (Continued)

Formula-ethnomedical use	Composition	Part(s) used
32-for sprain (Contd.)	<i>Irvingia malayana</i> <i>Sesamum indicum</i> lac, red ant, salt	ST SD
33-for food poisoning	<i>Gmelina elliptica</i> <i>Ochna integerrima</i>	ST RT
34-tonic	<i>Allium sativum</i> <i>Piper nigrum</i> <i>Piper sarmentosum</i> <i>Piper</i> sp. (sakhaan)	BU FR FR ST
35-antiasthmatic	<i>Areca catechu</i> <i>Cocos nucifera</i> <i>Dioscorea bulbifera</i> <i>Drynaria bonii</i>	RT RT TB RH
36-for enlarged abdomen	<i>Allium sativum</i> <i>Drynaria quercifolia</i> <i>Piper nigrum</i> <i>Platycerium holttumii</i>	BU WP FR WP
37-tonic	<i>Dioecercis erythroclada</i> <i>Tamilnadia uliginosa</i>	ST WD
38-hematinic	<i>Morinda pandurifolia</i> var. <i>oblonga</i> <i>Neonauclea sessilifolia</i> <i>Prismatomeris tetrandra</i> ssp. <i>malayana</i>	RT RT, ST RT
39-for nasal polyposis	<i>Millingtonia hortensis</i> <i>Toddalia asiatica</i>	FL WD
40-for paresis	<i>Blumea balsamifera</i> <i>Kaempferia marginata</i>	LF RH

Abbreviations: BU = bulb, FL = flower, FR = fruit, LF = leaf, MI = male inflorescence, RH = rhizome, RT = root, SB = stem bark, SD = seed, SH = shoot, SS = stem sap, ST = stem, SU = sugar, TB = tuber, WD = wood, WP = whole plant

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