

Herbs from Peat Swamp Forests in Narathivas, Thailand

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Abstract

A study of herbs from peat swamp forests was done by in-depth interview with 14 folk healers in three amphurs, Su-Ngai-Ko-Lok, Su-Ngai-Pa-Dee and Tak-Bai in Narathivas province, that still have perfect peat swamp forests. The study revealed that, 46 species of 34 plant families were used to cure 34 diseases. The most generally used family was Myrtaceae, and the second was Euphorbiaceae.

Keywords: folk healer, folk medicine, ethnobotany, ethnobotanical survey

INTRODUCTION

Peat swamp forest is a special forest with biodiversity of plants, animals and microorganisms. Reportedly, peat swamp forests in Narathivas province consisted of 109 families of 437 species of plants and 15 families of 33 species of fern (Phikul Thong Study Center, 1991), and 325 species of animals (Phikul Thong Study Center, 1996). Recently, peat swamp areas have decreased largely due to human occupation. Peat swamp forest deforestation occurred for construction, fuel, food, medical care etc. The complete peat swamp forests were located at amphur Su-Ngai-Ko-Lok, Su-Ngai-Pa-Dee and Tak-Bai in Narathivas province. In Narathivas province use of herbs for folk medicine is common. There were many folk healers in amphur Su-Ngai-Ko-Lok, Su-Ngai-Pa-Dee and Tak-Bai. Most of the folk healers are aging and the younger generations do not pay attention to folk healing. The aims of this research were to identify the plant species and their use in medical care by in-depth interview of folk healers in Su-Ngai-Ko-Lok, Su-Ngai-Pa-Dee and Tak-Bai in Narathivas province.

MATERIALS AND METHODS

Survey was conducted of the folk healers of three amphurs in Narathivas province: Su-Ngai-Ko-Lok, Su-Ngai-Pa-Dee and Tak-Bai. Information regarding the kind of plants or herbs they used, how to use and for what purpose, was collected from 14 folk healers. Specimens were collected for identification and for herbarium preservation.

RESULTS AND DISCUSSION

We found that people who stayed around peat swamp areas in Narathivas province still used plants from the forest for medical care, as antipyretic, tonic, aphrodisiac, for diarrhea, skin lesions, for long life etc. They were also used for symptoms that may be mild cancer, diabetes and high blood pressure. The herbs were used alone or with other herbs. There were 2 ways of using medicinal plants: internal use (herbs were boiled with water, soaked in liquor, rubbed with the bottom of "Pazu" a kind of pottery and adding a little water, and soaked in water); and external use (herbs were crushed and smeared on the infected area, sometimes mixed with liquor). From in-depth interview of 14 folk healers in Narathivas province we list 46 species of plants from 34 families from peat swamp forest used for medical care to treat 34 diseases (Tables 1 and 2).

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Tables

Table 1. Medicinal herbs used around peat swamp areas in Narathivas province.

Botanical name and habit	Family	Part used	Traditional use	Dosage methods
<i>Alstonia spathulata</i> Bl. (T)	Apocynaceae	Young leaves Gum	Decrease lochia after giving birth, uterotonic Toothache	Crush with water, drink Drop on tooth
<i>Ilex cymosa</i> Bl. (ST)	Aquifoliaceae	Root	Antipyretic	Mix with other herbs, rub with benzoin and drink with little water
<i>Asplenium nidus</i> Linn. (EF)	Aspleniaceae	Leaves	Headache	Crush and apply on head
<i>Gymnopetalum integrifolium</i> Kurz (HC)	Cucurbitaceae	Root Leaves	Antipyretic Antipyretic	Rub with benzoin and add a little water, then drink Mix with other herbs, soak in water, pour over head
<i>Tetracera indica</i> (Chrism. & Panz.) Merr. (C)	Dilleniaceae	Whole plant Root	Tonic Mouth infection	Mix with other herbs, squeeze then drink or soak in liquor and drink Mix with other herbs, rub with benzoin and smear on infected area in the mouth
<i>Croton caudatus</i> Geisel (C)	Euphorbiaceae	Root	Long life and aphrodisiac	Mix with other herbs, boil with water and drink or soak in liquor and drink
<i>Glochidion perakense</i> Hook.f. (ST)	Euphorbiaceae	Root Root	Antipyretic Mouth infection	Mix with other herbs, rub with benzoin and water, then drink Mix with other herbs, rub with benzoin and smear on infected area in the mouth
<i>Macaranga griffithiana</i> Muell. Arg. (ST)		Root	Antipyretic	Mix with other herbs, rub with benzoin and water, then drink
<i>Macaranga pruinosa</i> (Miq.) Muell. Arg. (T)		Root	Haematopoietic	Mix with other herbs, boil with water and drink
<i>Gnetum latifolium</i> Bl. var. <i>funiculare</i> (Bl.) Markgr. (C)	Gnetaceae	Leaves or root	Scabies	Mix with other herbs, rub with benzoin and water, smear on infected skin

Table 1. (Continued) Medicinal herbs used around peat swamp areas in Narathivas province.

Botanical name and habit	Family	Part used	Traditional use	Dosage methods
<i>Calophyllum teysmannii</i> Miq. var. <i>inophylloide</i> (King) Stevens. (T)	Guttiferae	Peel of fruit Bark	Body pain Itch	Mix with gum of other herb and massage Crush with coconut oil, smear on infected area
<i>Stemonurus secundiflorus</i> Bl. (T)	Icacinaceae	Leaves & Flower	Itch, scabies	Crush and smear on infected area
<i>Leucas zeylanica</i> (Linn.) R.Br. (H)	Labiatae	Leaves, root, flower	Weaning	Crush and smear on the nipple
<i>Cinnamomum</i> <i>rhynchophyllum</i> Miq. (T)	Lauraceae	Root	Long life and aphrodisiac	Mix with other herbs, boil with water and drink or soak in liquor and drink
<i>Litsea johorensis</i> Gamble. (T)	Lauraceae	Root	Antipyretic, abscess, boil	Mix with other herbs, rub with benzoin and water, then drink
<i>Barringtonia acutangula</i> (L.) Gaertn. subsp. <i>spicata</i> (Bl.) Payens. (ST/T)	Lecythidaceae	Shoot	Diarrhea	Crush with other herbs, make in to a small ball and swallow
<i>Leea indica</i> (Burm.f) Merr.(S)	Leeaceae	Fruit Shoot	Wart Wound from knife	Crush on wart Crush with lime, smear on wound
<i>Entada spiralis</i> Ridl. (C)	Leguminosae- Mimosoideae	Slender stem	Sinus infection	Mix with other herbs, grind and dry, smoke as cigarette
<i>Melastoma candidum</i> D.Don. (S)	Melastomataceae	Fresh leaves Young leaves Root, Fresh leaves	Decrease lochia after birth, uterotonic Wound from knife Diarrhea Prolapsed uterine	Mix with other herbs, crush, make in to small ball and swallow Crush and smear on wound Mix with other herbs, boil and drink the water Crush, mix with water, then drink
<i>Myristica iners</i> Bl. (T)	Myristicaceae	Gum, flower fruit and leaves	To promote bone reformation	Crush and mix with coconut oil, cover the effected area and bound with gauze or cloth
<i>Embelia ribes</i> Burm. (C)	Myrsinaceae	Root or slender stem	Sinus infection	Mix with other herbs, grind and dry, smoke as cigarette

Table 1. (Continued) Medicinal herbs used around peat swamp areas in Narathivas province.

Botanical name and habit	Family	Part used	Traditional use	Dosage methods
<i>Decaspermum fruticosum</i> Forst. (S)	Myrtaceae	Fresh leaves	Decrease lochia after giving birth, uterotonic	Mix with other herbs, crush, make in to small ball and swallow
<i>Rhodomyrtus tomemtosia</i> Wight. (S)	Myrtaceae	Leaves	Decrease lochia after giving birth, uterotonic	Mix with other herbs, crush, make in to small ball and swallow
		Root	Tonic	Mix with other herbs, soak in liquor and drink little by little
		Root	Calculus	Mix with other herbs, boil with water, drink the water
<i>Syzygium muelleri</i> Miq. (T)	Myrtaceae	Shoot	Diarrhea	Mix with other herbs, crush, make in to small ball and swallow
<i>Eugenia polyantha</i> Wight (T)	Myrtaceae	Leaves	After abortion	Mix with other herbs, crush with a little water and drink
		Leaves	Antipyretic	Crush with water and pour over hand, foot and body
<i>Melaleuca cajuputi</i> Powell (S/ST)	Myrtaceae	Young stem and root	Decrease lochia after giving birth, uterotonic	Boil with water and drink the water
		Root, leaves and flower	Body pain	Dry and boil with water and drink the water
		Trunk	Asthma	Hang the trunk in horizontal, receive exudate from trunk and drink
		Root	Maintain blood circulation system	Dry, boil with water and drink
<i>Chionanthus callophyllus</i> Bl. (T)	Oleaceae	Root	Maintain blood circulation system	Mix with other herbs, boil with water and drink the water
<i>Cymbidium atropurpureum</i> (Lindl.) Rolfe. (EO)	Orchidaceae	Leaves	Ear infection	Crush with water, drop the water in the ear
<i>Bulbophyllum modestum</i> Hook.f. (EO)	Orchidaceae	Stem	Ear infection	Rub with benzoin, add a little water, drop in the ear
<i>Caryota mitis</i> Lour (P)	Palmae	Fruit	Itch	Boil with water, use this water for a bath
<i>Metroxylon sagus</i> Rottb. (P)	Palmae	Root	Antipyretic	Mix with other herbs, soak in water, pour over head
<i>Podocarpus motleyi</i> (Parl.) Dumm. (T)	Podocarpaceae	Wood	Protect from devil	Make in spherical shape and hang on body

Table 1. (Continued) Medicinal herbs used around peat swamp areas in Narathivas province.

Botanical name and habit	Family	Part used	Traditional use	Dosage methods
<i>Platynerium coronarium</i> (Koen.) Desv. (EF)	Polypodiaceae	Sprout	Mouth infection	Rub with benzoin, add a little water, smear on infected area
<i>Fagraea fragrans</i> Roxb. (T)	Potaliaceae	Root, leaves, flower, fruit and bark Heartwood	Lymphatic filariasis Diabetes	Mix with other herbs, boil and drink the water Mix with other herbs, dry and boil with water, drink the water
<i>Fagraea racemosa</i> Jack ex Wall. (S/ST)	Potaliaceae	Leaves Root	Antipyretic Tonic	Mix with other herbs, soak in water, pour over head Mix with other herbs, soak in liquor and drink little by little
<i>Stenochlaena palustris</i> (Burm.f.) Bedd. (CF)	Pteridaceae	Leaves Root and young stem	Toothache Malaria	Boil with salt and water, use the water for mouth wash Mix with other herbs, boil and drink the water
<i>Uncaria sclerophylla</i> Roxb. (C)	Rubiaceae	Root, stem, leaves	Decrease blood pressure	Dry, boil with water and drink the water
<i>Micromelum falcatum</i> (Lour.) Tanaka (S/ST)	Rutaceae	Leaves Root, leaves and flower	Wound from knife Wound	Crush with lime, smear on the wound Crush and cover on the wound
<i>Ganua motleyana</i> Pierre ex Dubard (T)	Sapotaceae	Flower, fruit, gum and leaves Gum	To promote bone reformation Body pain	Crush and mix with coconut oil, smear on the effected area Mix with coconut oil and massage the affected area
<i>Lygodium microphyllum</i> (Cav.) R.Br. (CF)	Schizaeaceae	Fresh stem and fresh root	Mild cancer	Mix with other fresh herbs, boil with water and drink the water
<i>Lygodium salicifolium</i> Presl (CF)	Schizaeaceae	Stem, leaves, root, bulb Fresh stem and fresh root	Antipyretic Mild cancer	Mix with other herbs, soak in water, pour over head Mix with other fresh herbs, boil with water and drink the water

Table 1. (Continued) Medicinal herbs used around peat swamp areas in Narathivas province.

Botanical name and habit	Family	Part used	Traditional use	Dosage methods
<i>Melochia corchorifolia</i> L. (US)	Sterculiaceae	Root	Help to giving birth easily	Cut and boil with water, drink the water before has a born
<i>Tacca integrifolia</i> Ker-Gawl. (H)	Taccaceae	Rhizome	Long life and aphrodisiac	Mix with other herbs, boil with water and drink or soak in liquor and drink
<i>Typha angustifolia</i> Linn. (H)	Typhaceae	Root	Diabetes	Boil with water and drink the water
<i>Vitex pinnata</i> Linn. (T)	Verbenaceae	Root or stem	Chicken-pox	Boil with water and drink the water
<i>Alpinia conchigera</i> Griff. (H)	Zingiberaceae	Rhizome	Ringworm	Smash and smear at infected area

C = Climber

EO = Epiphytic Orchid

P = Palm

S/ST = Shrub/Shrubby Tree

CF = Climbing Fern

H = Herb

S = Shrub

T = Tree

EF = Epiphytic Fern

HC = Herbaceous Climber

ST = Shrubby Tree

US = Under shrub

Table 2. Types of diseases for which the medicinal herbs were used by the folk healers in Narathivas, Thailand.

No.	Traditional use by Thai public	Botanical name of plants
1	Antipyretic	<i>Ilex cymosa</i> Bl. (Aquifoliaceae) <i>Gymnopetalum integrifolium</i> Kurz (Cucurbitaceae) <i>Macaranga griffithiana</i> Muell. Arg. (Euphorbiaceae) <i>Glochidion perakense</i> Hook.f. (Euphorbiaceae) <i>Litsea johorensis</i> Gamble (Lauraceae) <i>Eugenia polyantha</i> Wight (Myrtaceae) <i>Metroxylon sagus</i> Rottb. (Palmae) <i>Fagraea racemosa</i> Jack ex Wall. (Potaliaceae) <i>Lygodium microphyllum</i> (Cav.) (Schizaeaceae)
2	Decrease lochia after giving birth	<i>Alstonia spathulata</i> Bl. (Apocynaceae) <i>Melastoma candidum</i> D.Don (Melastomataceae) <i>Decaspermum fruticosum</i> Forst. (Myrtaceae) <i>Rhodomirtus tomentosa</i> Wight (Myrtaceae) <i>Melaleuca cajuputi</i> Powell. (Myrtaceae)
3	Tonic	<i>Tetracera indica</i> (Chrism.& Panz.) Merr. (Dilleniaceae) <i>Rhodomirtus tomentosa</i> Wight (Myrtaceae) <i>Fagraea racemosa</i> Jack ex Wall. (Potaliaceae)
4	Mouth infection	<i>Tetracera indica</i> (Chrism.& Panz.) Merr. (Dilleniaceae) <i>Glochidion perakense</i> Hook.f. (Euphorbiaceae) <i>Platyterium coronarium</i> (Koen.) Desv. (Polypodiaceae)
5	Long life and aphrodisiac	<i>Croton caudatus</i> Giesl (Euphorbiaceae) <i>Cinnamomum rhynchophyllum</i> Miq. (Lauraceae) <i>Tacca integrifolia</i> Ker-Gawl. (Taccaceae)
6	Body pain	<i>Calophyllum teysmannii</i> Miq. var. <i>inophylloide</i> (King) Stevens. (Guttiferae) <i>Melaleuca cajuputi</i> Powell (Myrtaceae) <i>Ganua motleyana</i> Pierre ex Dubard (Sapotaceae)
7	Wound from knife	<i>Leea indica</i> (Burm.f) Merr. (Leeaceae) <i>Melastoma candidum</i> D.Don. (Melastomataceae) <i>Micromelum falcatum</i> (Lour.) Tanaka (Rutaceae)
8	Haematopoietic	<i>Chionanthus callophyllus</i> Bl. (Oleaceae) <i>Macaranga pruinosa</i> (Miq.) Muell. Arg. (Euphorbiaceae)
9	Itch	<i>Calophyllum teysmannii</i> Miq. var. <i>inophylloide</i> (King) Stevens. (Guttiferae) <i>Stemonurus secundiflorus</i> Bl. (Icacinaeae) <i>Caryota mitis</i> Lour. (Palmae)
10	Scabies	<i>Gnetum latifolium</i> Bl. var. <i>funiculare</i> (Bl.)Markgr. (Gnetaceae) <i>Stemonurus secundiflorus</i> Bl.(Icacinaeae)
11	Sinus infection	<i>Entada spiralis</i> Ridl. (Leguminosae-Mimosoideae) <i>Embilia ribes</i> Burm. (Myrsinaceae)
12	Diarrhea	<i>Barringtonia acutangula</i> (L.) Gaertn. subsp. <i>spicata</i> (Bl.) Payens. (Lecythidaceae) <i>Melastoma candidum</i> D.Don. (Melastomataceae) <i>Syzygium muelleri</i> Miq. (Mrytaceae)
13	Promote bone reformation	<i>Myristica iners</i> Bl. (Myristicaceae) <i>Ganua motleyana</i> Pierre ex Dubard (Sapotaceae)

Table 2. (Continued) Types of diseases for which the medicinal herbs were used by the folk healers in Narathivas, Thailand.

No.	Traditional use by Thai public	Botanical name of plants
14	Ear infection	<i>Cymbidium atropurpureum</i> (Lindl.) Rolfe. (Orchidaceae) <i>Bulbophyllummodestum</i> Hook.f. (Orchidaceae)
15	Diabetes	<i>Fagraea fragrans</i> Roxb. (Potaliaceae) <i>Typha angustifolia</i> Linn. (Typhaceae)
16	Mild cancer	<i>Lygodium microphyllum</i> (Cav.) R.Br. (Schizaeaceae) <i>Lygodium salicifolium</i> Presl (Schizaeaceae)
17	Toothache	<i>Alstonia spathulata</i> Bl. (Apocynaceae) <i>Stenochlaena palustris</i> (Burm.f.) Bedd. (Pteridaceae)
18	Decrease blood pressure	<i>Uncaria sclerophylla</i> Roxb. (Rubiaceae)
19	Wean	<i>Leucas zeylanica</i> (Linn.) R.Br. (Labiatae)
20	Wart	<i>Leea indica</i> (Burn.f.) Merr. (Leeaceae)
21	Maintain blood circulation	<i>Melaleuca cajuputi</i> Powell (Myrtaceae)
22	Abscess, boils	<i>Litsea johorensis</i> Gamble (Lauraceae)
23	Calculus	<i>Rhodomyrtus tomentosa</i> Wight (Myrtaceae)
24	After abortion	<i>Eugenia polyantha</i> Wight (Myrtaceae)
25	Asthma	<i>Melaleuca cajuputi</i> Powell (Myrtaceae)
26	Protect from devil	<i>Podocarpus motleyi</i> (Parl.) Dumm. (Podocarpaceae)
27	Lymphotic filariasis	<i>Fagraea fragrans</i> Roxb. (Potaliaceae)
28	Malaria	<i>Stenochlaena palustris</i> (Burn.f.) Bedd. (Pteridaceae)
29	Chicken-pox	<i>Vitex pinnata</i> Linn. (Verbenaceae)
30	Ringworm	<i>Alpinia conchigera</i> Griff. (Zingiberaceae)
31	Prescribed for uterine prolapse	<i>Melastoma candidum</i> D.Don. (Melastomataceae)
32	Help to giving birth easily	<i>Melochia corchorifolia</i> L. (Sterculiaceae)
33	Headache	<i>Asplenium nidus</i> Linn. (Aspleniaceae)
34	Wound	<i>Micromelum falcatum</i> (Lour.), Tanaka (Rutaceae)