

# **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 the 14 folk healers in 3 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. The most generally used family was Myrtaceae, the second was Euphorbiaceae. All of these herbs have reported to cure 34 diseases.**

**Key words:** Folk medicine , folk healer .

## **INTRODUCTION**

Peat swamp forest is a special forest that has biodiversity of plants , animals and microorganisms. It was reported that peat swamp forest 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 extremely decreased due to human occupation. The complete peat swamp forests were located at amphur Su-Ngai-Ko-Lok, Su-Ngai-Pa-Dee and Tak-Bai in Narathivas province. Peat swamp forest deforestation occurred for construction, fuel, food, medical care etc.

In Narathivas province use of herbs for folk medicine in 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 old people in the districts and the younger generation does not pay attention to it.

The aims of this research was to study what kinds of plants and how they were used for medical care by in-depth interview from folk healers in amphur Su-Ngai-Ko-Lok, Su-Ngai-Pa-Dee and Tak-Bai in Narathivas province.

## **MATERIALS AND METHODS**

### **Methods**

1. Survey was conducted of the folk healers of 3 amphur in Narathivas province : Su-Ngai-Ko-Lok , Su-Ngai-Pa-Dee and Tak-Bai .
2. Information regarding the kind of plants or herbs they used, how to use and for what purpose was collectd from 14 folk healers.
3. Specimen were collected for identification and for herbarium collection.

## **RESULTS AND DISCUSSION**

From this study we found that people who stayed around peat swamp areas in Narathivas province still used plants from the forest for medical care. Mostly they were used as antipyretic , diarrhea , tonic , skin lesion , for long life and aphrodisiac 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 using medicinal plants , internal use and external use.

For internal use : The herbs were boiled with water , soaked in liquor, rubbed with the bottom of “Pazu” (“Pazu” was a kind of pottery) and add a little water , and soak in water.

For external use: The herbs were crushed and smeared on the infected area.  
Sometimes they were mixed with a little of liquor.

From in-depth interview 14 folk healers in Narathivas province about medicinal Plants, we can conclude that there were 46 species of plants from 34 families from peat swamp forest were used for medical care and cure all together 34 diseases. ( tables 1 and table 2)

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

No.	Genus Species	Family	Part use	Traditionally used in public	Dosage methods
1	<i>Alstonia spathulata</i> Bl. (T)	Apocynaceae	Young leaves Gum	Decrease lochia after giving birth, uterotonic Toothache	Crush with water, drink. Drop on tooth.
2	<i>Ilex cymosa</i> Bl. (ST)	Aquifoliaceae	Root	Antipyretic	Mix with other herbs, rub with benzoin and add a little water, then drink.
3	<i>Asplenium nidus</i> Linn. (EF)	Aspleniaceae	Leaves	Headache	Crush and apply on head.
4	<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.
5	<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.
6	<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.
7	<i>Glochidion perakense</i> Hook.f. (ST)		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

No.	Genus Species	Family	Part use	Traditionally used in public	Dosage methods
8	<i>Macaranga griffithiana</i> Muell. Arg. (ST)		Root	Antipyretic	in the mouth. Mix with other herbs, rub with benzoin and water, then drink
9	<i>Macaranga pruinosa</i> (Miq.) Muell. Arg. (T)		Root	Haematopoietic	Mix with other herbs, boil with water, drink the water.
10	<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 the infected skin
11	<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.
12	<i>Stemonurus secundiflorus</i> Bl. (T)	Icacinaceae	Leaves and flower	Itch , scabies	Crush and smear on infected area.
13	<i>Leucas zeylanica</i> (Linn.) R.Br. (H)	Labiatae	Leaves, root and flower	Wean	Crush and smear on the nipple.
14	<i>Cinnamomum 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.
15	<i>Litsea johorensis</i> Gamble. (T)		Root Root	Antipyretic Abscess ,boil	Mix with other herbs, rub with benzoin and water, then drink. Mix with other herbs, rub with benzoin and water, then drink.
16	<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.
17	<i>Leea indica</i> (Burm.f) Merr.(S)	Leeaceae	Fruit Shoot	Wart Wound from knife	Crush at wart. Crush with lime, smear on wound.

No.	Genus Species	Family	Part use	Traditionally used in public	Dosage methods
18	<i>Entada spiralis</i> Ridl. (C)	Leguminosae-Mimosoideae	Slender stem	Sinus infection	Mix with other herbs, grind and dry, smoke as cigarette.
19	<i>Melastoma candidum</i> D.Don. (S)	Melastomataceae	Fresh leaves	Decrease lochia after giving birth, uterotonic	Mix with other herbs, crush, make in to small ball and swallow.
			Young leaves	Wound from knife	Crush and smear on wound.
			Root	Diarrhea	Mix with other herbs, boil and drink the water.
20	<i>Myristica iners</i> Bl. (T)	Myristicaceae	Fresh leaves	Prescribed for uterine prolapse	Crush and mix with water, then drink.
			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.
			Root or slender stem	Sinus infection	Mix with other herbs, grind and dry, smoke as cigarette.
21	<i>Embelia ribes</i> Burm. (C)	Myrsinaceae	Root or slender stem	Sinus infection	Mix with other herbs, grind and dry, smoke as cigarette.
22	<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.
23	<i>Rhodomyrtus tomentosa</i> Wight. (S)		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.
24	<i>Syzygium muelleri</i> Miq. (T)		Shoot	Diarrhea	Mix with other herbs, crush, make in to small ball and swallow.
25	<i>Eugenia polyantha</i> Wight (T)		Leaves	After abortion	Mix with other herbs, crush with a

No.	Genus Species	Family	Part use	Traditionally used in public	Dosage methods
26	<i>Melaleuca cajuputi</i> Powell(S/ST)		Leaves	Antipyretic	little water and drink Crush with water and pour over hand, foot and body.
			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 the trunk and drink.
			Root	Maintain blood circulation system	Dry, boil with water and drink the water.
27	<i>Chionanthus callophyllus</i> Bl.(T)	Oleaceae	Root	Maintain blood circulation system	Mix with other herbs, boil with water and drink the water.
28	<i>Cymbidium atropurpureum</i> (Lindl.) Rolfe. (EO)	Orchidaceae	Leaves	Ear infection	Crush with water, drop the water in the ear.
29	<i>Bulbophyllum modestum</i> Hook.f. (EO)		Stem	Ear infection	Rub with benzoin, add a little water, drop in the ear.
30	<i>Caryota mitis</i> Lour (P)	Palmae	Fruit	Itch	Boil with water, use this water for a bath.
31	<i>Metroxylon sagus</i> Rottb. (P)	Palmae	Root	Antipyretic	Mix with other herbs, soak in water, pour over head.
32	<i>Podocarpus motleyi</i> (Parl.) Dumm. (T)	Podocarpaceae	Wood	Protect from devil	Make in spherical shape and hang on body.
33	<i>Platyserium coronarium</i> (Koen.) Desv. (EF)	Polypodiaceae	Sprout	Mouth infection	Rub with benzoin, add a little water, smear on infected area.

No.	Genus Species	Family	Part use	Traditionally used in public	Dosage methods
34	<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.
35	<i>Fagraea racemosa</i> Jack ex Wall. (S/ST)		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.
36	<i>Stenochlaena palustris</i> (Burm.f.) Bedd. (CF)	Pteridaceae	Leaves  Root and slender stem	Toothache  Malaria	Boil with salt and water, use the water for mouthwash. Mix with other herbs, boil and drink the water.
37	<i>Uncaria sclerophylla</i> Roxb.(C)	Rubiaceae	Root , stem , leaves	Decrease blood pressure	Dry, boil with water and drink the water.
38	<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.
39	<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.
40	<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.

No.	Genus Species	Family	Part use	Traditionally used in public	Dosage methods
41	<i>Lygodium salicifolium</i> Presl(CF)	Schizaeaceae	Stem , leaves , root and 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.
42	<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.
43	<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.
44	<i>Typha angustifolia</i> Linn. (H)	Typhaceae	Root	Diabetes	Boil with water and drink the water.
45	<i>Vitex pinnata</i> Linn. (T)	Verbenaceae	Root or stem	Chicken-pox	Boil with water and drink the water.
46	<i>Alpinia conchigera</i> Griff. (H)	Zingiberaceae	Rhizome	Ringworm	Smash and smear at the infection area.
		Total	46 species		

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** Show types of disease that can use medicinal herbs

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 perakensense</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.) R.Br.(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>Rhodomyrtus tomentosa</i> Wight (Myrtaceae) <i>Melaleuca cajuputi</i> Powell. (Myrtaceae)
3	Tonic	<i>Tetracera indica</i> (Chrism.& Panz.) Merr.(Dilleniaceae) <i>Rhodomyrtus 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 perakensense</i> Hook.f. (Euphorbiaceae) <i>Platyserium 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>Melalueca 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)

No.	Traditional use by Thai public	Botanical name of plants
9	Itch	<i>Calophyllum teysmannii</i> Miq. var. <i>inophylloide</i> (King) Stevens. (Guttiferae) <i>Stemonurus secundiflorus</i> Bl. (Icacinaceae) <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.(Icacinaceae)
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)
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 system	<i>Melaleuca cajuputi</i> Powell (Myrtaceae)
22	Abscess , boil	<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)

No.	Traditional use by Thai public	Botanical name of plants
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)

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