Plants

Plants

Plants of *Mizube no Sachi* are edible plants grown around villages. People pick them up on the way home from work at the end of the day, or elders and children who stay home would pick them up to make day's meal. Waterfront in Mekong river basin has plenty of sunshine and high temperature. It is an ideal habitat for Kaseth (*Neptunia oleracea*) or Phak Bong (*Ipomoea aquatica*) and other aquatic plants. Some terrestrial plants such as Yanang (*Tiliacora triandra*) and Samek (*Syzygium antisepticum*) are not picked up as weed, but let growing in open spaces and bushes of commons. Spices and herbs that are often incorporated in cooking are also left to grow in home gardens in homes. We conducted a questionnaire survey about uses of foodstuff at homes in Vientiane Province and Vientiane Capital in Laos in 2010. The result showed *Mizube no Sachi* accounted for about half of plant food source.

These plants are not only collected from natural distribution, but some of them are brought by people and grown in villages. Even though they are transplanted for harvesting, those kind of plants receive only a minimum care such as weeding, but even that is advantageous among competitive environment. Many of *Mizube no Sachi* plants are treated in such semi domestication. These plants may be indigenous to Mekong river basin or brought from ancient Africa, and more recently, introduced from new continent. Taro and Yam which played a vital role in the root cultivation which originated in ancient Southeast Asia are found as reminiscent of past as *Mizube no Sachi*. The origin of the plants of *Mizube no Sachi* range widely, but it is researcher's notion that they have a long history of being incorporated into human civilization.



Picture: Where *Mizube no Sachi* grow. Neither from mountain, nor from ocean.

Paddy field in Vientiane, Laos (Right before rain season)

Taste of *Mizube no Sachi* varies widely as well. Its unique taste cannot be compared to familiar taste of carrots or cabbage and other garden vegetables. Many of *Mizube no Sachi* plants have strong bitterness and acidity. Especially the bitterness of some was so strong that for Japanese

who are not used to tasting bitter food, we had some difficulty getting accustomed to it. (In the past, Japanese used to collect wild plants and many of them tasted bitter. But modern Japanese have lost this custom except for having them as occasional seasonal delicacy.) We thought bitterness was distinctive, but an elderly Lao woman said, "Today's young people do not eat bitter food as much. When I was young, we were always told to 'eat bitter for your health'." In local published literature, there are descriptions on uses of plant in traditional medicine as well as food. Some of them are hard to believe at first, but many of the plants' chemical components have been extracted and tested, and proven to be truly beneficial. In this report, those traditional healing methods are briefly introduced based on the original description. It is because this belief is possibly a reason that plant diet of people has been comprised of such variety in Mekong river basin. We do have to state a warning that it is not the intension of this report to prove the effect of medicinal power, so please do not try to medicinally use the plants according to this report.

We had generous cooperation from professionals around the world in order to record the plants in correct taxonomy. Lao names of plants referred "Mike Callaghan (2004), Lao Plants listed by botanical, common, & regional / Asean names with Lao names & Lao script" with cooperation of Lao University Department of Science. Cambodian names of plants are based on "Pauline Dy Phon (2000), Dictionary of Plants used in Cambodia" with direction of Royal University of Phnom Penh Department of Science. Thai names are quoted from Flora of Thailand based on direction of Dr. Thaya of Mahidol University. Japanese names are derived from Web version of BG Plants which Japanese plant scientists support. We also referred a book written by Mrs. Yoshiko Yoshida, a Southeast Asian food sources culture researcher, and some other reference books. As for scientific names, we chose The Plant List as the sole science name source to avoid confusion of synonyms being used for same plant species.

In this chapter, 142 species from three classes, 35 orders, 68 families of *Mizube no Sachi* plants are introduced. Those are popular plants and commonly sold in markets.



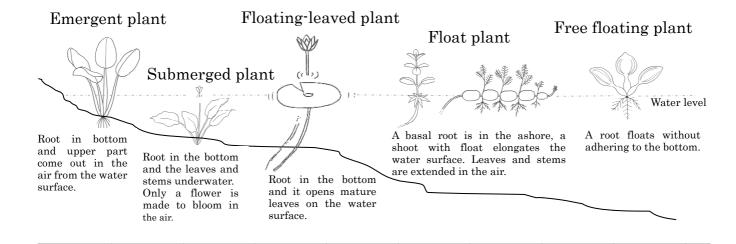
Ka don tree (*Careya arborea*) in paddy 17 Feb. 2010 Pakse, Laos



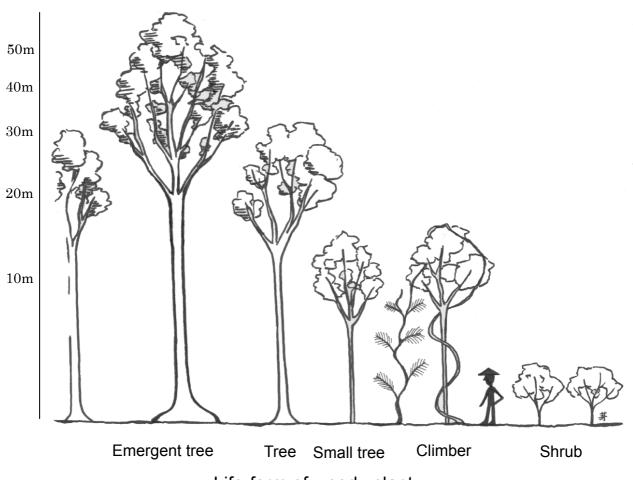
Glossary of plant in this chapter 26 Sep. 2009 Vientiane, Laos



Nymphaea rubra and Ipomoea aquatica 9 Oct. 2013 Chau doc, Vietnam



Life-form of aquatic plant



Life-form of woody plant

Mizube no Sachi plants used for Lao cooking



Chaom*(Acacia pennata* Subsp.), Bamboo, Yanan (*Tiliacora triandra*), Waen (*Marsilea crenata*) 2 Sep. 2012 Vientiane Laos



Pong(Sagittaria guayanensis), Khin (Zingiber officinale), Horm parn (Coriandrum sativum), Pumpkin flower and leaf (Cucurbita maxima) 20 Aug. 2010 Vientiane, Laos



Water hyacinth (*Eichhornia crassipes*) 30 Nov. 2010 Naxaitong, Vientiane, Laos



Kheelak (Senna siamea), Yanan, Khaa (Alpinia galanga), Kheua kheun (Solanum capsicoides)
3 Oct. 2010 Vientiane, Laos



Cassava leaf (*Manihot esculenta*) 1 Aug. 2010 Vientiane, Laos



Yanan, Kha yang (*Limnophila aromatica*), Kheua kheun, Hom pae (*Eryngium foetidum*) 3 Oct. 2010 Vientiane, Laos

Marsilea crenata

Order: Salviniales Family: Marsileaceae

LA	Waen	<u>ຜ</u> ັກແວນ
KH	Chantol pnom	ចន្ទល់ភ្នំ
TH	Waen, Limpi	ผักแว่น
VN	Rau bo, Rau deu rang	Rau bợ, Rau dệu răng
JP	Nangoku-denjisou	ナンゴクデンジソウ

Remarks

Distribution: Tropical and sub-tropical Asia.

<u>Life form</u>: Aquatic fern. Emergent. 5-50cm tall. Root stalks expand horizontally in the soil. Grown in paddy fields and shallow village marshes.



Jul. 2008 Vientiane province, Laos

<u>Use</u>: Shoots are eaten as salad with fermented fish or shrimp paste. Young leaves are cooked in a soup. It is used as medicine in Thailand for oral and throat ulcer, and fever.

Ref. No.: 5, 14, 20

Diplazium esculentum			Order: Polypodiales Family: Woodsiaceae
LA KH	Kouth, Koud nam	<u> ຜັກກູດ</u>	
TH VN	Kuut khaao Rang song quan rau, Rau don Kuwale-shida	Ráng song quần rau, Rau dớn クワレシダ	
Remarks <u>Distribution</u> : From the Himalayas to the Pacific Islands			

including south of Kyushu island of Japan.

<u>Life form</u>: Terrestrial fern. Grows alongside streams or canals along forest edges.

Sep. 2009 Chiang Rai, Thailand

<u>Use</u>: Commonly eaten in Indochinese countries. Raw or slightly boiled shoots are eaten as salad. Used as an ingredient of various dishes. In Thailand, leaves are used as medicine for fever, inflammation, failing eyesight, anemia, and gingival bleeding. It has a diuretic effect and contains flavonoid.

Ref. No.: 5, 18, 19, 26

Nymphaea lotus

LA	Bua khee bae, Bua ngern, Bua nov	
KH	Pralit, Prolet dong	- _ ព្រលិត
TH	Bua kin sai	_ บัวกินสาย
VN	Sung trang, Sung lam	Súng trắng, Súng lam
JP	Yozaki-suilen	ヨザキスイレン

Remarks

<u>Distribution</u>: Originated from India. Distributed from Africa to Southeast Asia.

<u>Life form</u>: Floating-leaved plant. Leaves are round, 30-50 cm in diameter, and spread across the water's surface.

<u>Use</u>: The peeled flower-stalk is eaten raw. It has no particular taste and an enjoyable crunchy texture. Used as an ingredient in various dishes and Cambodian traditional soup.

Traditionally in Cambodia, it is applied as a compress for fever. The plant contains an alkaloid (nupharidine) which has medical effects. Seeds and root-stalks are used as medicine as well.

Ref. No.: 18, 27, 38, 46, 48

Order: Nymphaeales Family: Nymphaeaceae



Jul. 2011 Kratie, Cambodia



Sep. Phnom Penh, Cambodia

Nymphaea rubra

LA	Saiboua	ສາຍບິວ
KH	Proret romchang	<u>ព្រលិត</u>
TH	<u>Parn dien, Saiboua, Boua</u> <u>kiepe</u>	บัวสายคอกชมพู
VN	Sung do	Súng đỏ
JP	Akabana-suilen	アカバナスイレン

Remarks

<u>Distribution</u>: Originated from India. Distributed from Africa to Southeast Asia.

<u>Life form</u>: Floating-leaved plant. Leaves are round with a 30-50 cm diameter which spread across the water surface.

<u>Use</u>: The peeled flower stalk is eaten raw. It has no particular taste and an enjoyable crunchy texture. It is used as an ingredient in various dishes.

<u>Ref. No.</u>: 18, 27, 38, 46, 48

Order: Nymphaeales Family: Nymphaeaceae



Sep. 2007 Siem Reap, Cambodia



Sep. 2012 Phnom Penh, Cambodia

Uvaria rufa

Order: Magnoliales Family: Annonaceae

LA	Mapipuan	_
KH	Phlae treal	ទ្រៅលដោះក្រប <u>ើ</u> .
ТН	Phi phuan noi	_ พีพวนน้อย
VN	Bo qua hoe, Day du de	Bồ quả hoe, dây dù dẻ
JP		

Remarks

<u>Distribution</u>: Indochina, The Philippines and Indonesia.

<u>Life form</u>: Large size climber. Up to 20m tall.

<u>Use</u>: Fruits are used for cooking. In Cambodia, it is used as postnatal medicine.

<u>Ref. No.</u>: 27



Jul. 2010 Pakse, Laos

Uvaria sp.

Hao ໝາກເຂົ້າ

TH Maeng krang, Mung lum yai, Mang kheng

VN Bo qua Bồ quả

Remarks

LA

<u>Use</u>: Fruits are eaten. It has a slightly sour citrus flavor and is sold at local markets when in season. Its juice is sold in Vietnam.

Order: Magnoliales Family: Annonaceae



Jul. 2008 Phonyang, Vientiane Province, Laos

Peperomia pellucid

Order:	Piperales
Family:	Piperaceae

LA		
KH	Krosangteap	ក្រសាំងទាប
TH	Kra sang	ผักกระสัง
VN	Rau cang cua	Rau càng cua
JP	<u>Ishigaki-koshou,</u> Usubana-sunakoshou	<u>イシガキコショウ、ウスバナ</u> スナコショウ

Remarks

<u>Distribution</u>: Originated from tropical America. Widely cultivated in tropical and subtropical countries of the world. <u>Life form</u>: Annual herb. 10-20 cm tall. The color of a stem is translucent white.



Jul. 2010 Kratie, Cambodia

<u>Use</u>: Stems and leaves are eaten raw or cooked. Cultivated in backyard gardens and homesteads. Sap from the leaves is used as oral medicine or liniment. It is known to have a sterilizing effect against *Staphylococcus aureus* and coliform bacteria.

Ref. No.: 5, 42, 45, 46, 47

Piper sarmentosum

.А	<u> Ii leuth, Eilert</u>	<u> </u>
H	Chaplu, Komplou	ចាព្ទ្
Н	Cha phlu, Eilert	ช้าพลู
N	Lot	Lốt
P	<u>Haigoshou</u>	ハイゴショウ

Remarks

<u>Distribution</u>: From Northeast India to South China, Southeast Asia, and the Andamang Islands.

<u>Life form</u>: Perennial herb. lower stems expand across the ground, upper stems assurgent up to 30cm.

Order: Piperales Family: Piperaceae



Oct. 2008 Hong Ha, Hué, Vietnam

It is planted in kitchen gardens or orchard water slots and it also grows wild.

<u>Use</u>: Young leaves are used to dress herbed ground meat, salad, and spicy Thai curry. Boiled leaves are eaten with fermented fish (shrimp) paste. Leaves are used to wrap fermented meat or fermented tea leaf (Mien). It is used as a traditional medicine. It has a degassing expectorant effect on the stomach. Roots are prepared as stomachic peptic. Since the leaf contains a high level of oxalic acid, eating it may cause calculus in the kidneys.

Ref. No.: 5, 10, 26, 47

Piper sp.			Order: Piperales Family: Piperaceae	
LA KH	Sa khan, Sakhaa, Sa kharn	<u> </u>		
ТН	Zakhan			
VN JP	<u>Tieu</u>	<u>Tiêu</u>		
Rema	arks		A STATE OF THE SECOND	

Distribution: Indochina to Malesia.

<u>Life form</u>: Deciduous tree climber.

Jul. 2008 Phonyang, Vientiane Province, Laos

<u>Use</u>: Commonly used in northern Laos. Small cut stems are cooked with other ingredients. It is used as a spice and not eaten directly. Used as medicine for gastric problems and as a compress for cough. It contains eupomatene, crotepoxide, and pipercallosine which are sterilizers.

<u>General info.</u>: There are opinions that this species is *P. interruptum* however, because that classification is still controversial this work will deal with it as *Piper* sp

Ref. No.: 23, 32, 51

Houttuynia cordata		Order: Piperales Family: Saururaceae	
LA KH	Khao thong Chi slak m'lu	ឌ័រាຄາວທອງ ជរថ្នាល់ត្រី, ជរយាបកា	
TH	Kra sang	ผักคาวทอง	
VN	Rau giap ca, Diep ca	Rau Giấp cá, Diếp cá	
JP	<u>Dokudami</u>	<u>ドクダミ</u>	
Remarks <u>Distribution</u> : Southeast Asia, China to Japan.			

Feb. 2010 Savannakhet, Laos

<u>Life form</u>: Perennial herb. Expand by underground stems and vertically elongate to 20-50cm.

<u>Use</u>: In Northern Thailand, Laos, and Vietnam, raw leaves are eaten for a salad. In Cambodia, leaves are used for aromatization of raw fish. In China, a leaf is not eaten but the underground stems are used to dress salad dishes. It contains lauryl aldehyde and quercitrin. In Japan, it is known also as a medicine called "Jyu-yaku". It is effective for swelling, bug bites, cuts, eye-washing, skin disease, gastroenteric disorders, and is also used as an anthelmintic.

Ref. No.: 14, 18, 23, 27, 29, 42

Limnocharis flava

Order: Alismatales Family: Alismataceae

LA	Kan chong	<u> </u>
KH	Trakiet paong	ត្រក្បេតប៉ោង
TH	<u>Talapat ruesi, Bua loi, Bua</u> <u>khuak</u>	ตาลปัตรฤาษี
VN	Keo neo, Cu neo	Kèo nèo, Cù nèo
JP	Kibana-omodaka	キバナオモダカ



Sep. 2009 Chiang Rai, Thailand

Remarks

<u>Distribution:</u> Originated from tropical America, introduced to South and Southeast Asia.

<u>Life form</u>: Aquatic plant. Emergent. Up to 1m tall. It grows in the shallow ends of a ponds.

<u>Use</u>: The raw or boiled young leaves, buds and inflorescences are used for a salad or a soup.

Ref. No.: 5, 14, 27, 46

Sagittaria guayanensis subsp. lappula

Order: Alismatales Family: Alismataceae

LA	Pong	<u>ຜ</u> ັກປ້ອງ
KH	Chrach	ច្រាច់
TH	Tao kiat , Phak khang kai	เต่าเกียด
VN	Tu co tron	Từ cô tròn
JP	Omodaka-modoki	オモダカモドキ

Remarks

<u>Distribution</u>: From the tropical Africa to East and Southeast Asia.

<u>Life form</u>: Floating-leaved plant in lakes, swamps, and nearly stagnant water of streams.

<u>Use</u>: Leaves are cooked. It is used as an ingredient in Laos.

Ref. No.: 14, 46, 47



Sep. 2007 Vientiane province, Laos

Amorphophallus paeoniifolius

Order: Alismatales Family: Araceae

LA	Ka book	
KH	Toal	ទាល់ធំ
TH	Lum e book	
VN	Nua chuong	Nua chuông
JP		



Jul. 2011 Ratanakiri, Cambodia

Remarks

Distribution: Thailand, Cambodia and Laos.

<u>Life form</u>: Perennial herb. 1~2m tall. In the ground a stalk grows a tuber fat. It grows in secondary vegetation, forest margins, and village groves.

<u>Use</u>: Edible after leaf stalk are well boiled, drained, and rinsed to rid oxalic acid. It is found at local markets in select areas of Cambodia, south Laos, and northeast Thailand.

In traditional Laos medicine, it is said that a tuber is effective against malaria.

<u>General info.</u>: It has acrid tubers and stems, due to the presence of calcium oxalate crystals and alkaloids.

Ref. No.: 7, 21, 27, 47

Colocasia esculenta

Order: Alismatales Family: Araceae

LA	Bon	ໃບບອນ, ຜັກບອນ
KH	Traw	ក្ដាតហោរា
TH		
VN	Mon nuoc	Môn nước
JP	Sato-imo	サトイモ
_		



Remarks

<u>Distribution</u>: Originated in Southeast or southern Central Asia.

<u>Life form</u>: Perennial herb. Up to 1-2m tall.

Jul. 2008 Vientiane province, Laos

<u>Use</u>: Corms, young leaf blades, and petioles can be eaten. The swollen stem base, known as corms, were the most important staple food in the ancient agricultural cultures all throughout southeast Asia. Oceania, and west Japan.

Ref. No.: 36,45, 47

Lasia spinosa

Order: Alismatales Family: Araceae

LA	Phak nam	<u>ตัทบ</u> ำ
KH		
TH	Phak nam	ผักหนาม
VN	Choc gai, Mop	Chóc gai, Móp
JP	Mizu-yatsude	ミズヤツデ



Remarks

Distribution: India, South China, Southeast Asia.

<u>Life form</u>: Perennial herb. It grows in shade near river banks or ponds.

Feb.2010 Pakse, Laos

<u>Use</u>: Well boiled or pickled, young leaves and flowers are eaten for garnish.

The stalk is used for cough medicine and decoction is used for the itchiness associated with skin disease. Raw leaves and leaf stalks contains hydrocyanic acid and calcium oxalate.

Ref. No.: 7, 23, 42, 49,

Wolffia globosa

Order: Alismatales
Family: Araceae

LA	<u>Pham</u>	<u> พ้า</u>
KH	Chor bai tea	លើបាយទា
TH	Pham, Khai nae, Khai nam	ผำ, ไข่น้ำ
VN	Beo phan	Bèo phấn
JP	Mijinko-ukikusa	ミジンコウキクサ
Rem	arks	



<u>Distribution</u>: Originated from warm temperate to tropical eastern Asia. It was introduced over Africa and America.

<u>Life form</u>: Floating plant. A single body is ellipsoid, $0.4 \sim$ 0.8 mm long. It is rootless. Grows in clumps on the water surface.

Nov. 2011 Vientiane province, Laos

Use: Eaten as an ingredient of fish or chicken soup.

Raw plants contain 100g, energy 8kcal, 59 mg of calcium, 25 mg of phosphorus, and 6.6 mg of iron.

General info.: This species is the smallest seed plant in the world.

Ref. No.: 7, 14, 20, 49

Ottelia alismoides

Order: Alismatales
Family: Hydrocharitaceae

LA	Houm hap	ฐมพอทแลก
KH	Slap changwa	ស្លាបច្រវា
TH	Santawa, Bai pai, Hoump hep	สันตะวา
VN	Ma de nuoc	Mã đề nước
JP	Mizu-Oobako	ミズオオバコ

Remarks

<u>Distribution</u>: From northeastern Africa to tropical Australia, through India, China, Japan and Southeast Asia.

 $\underline{\textbf{Life form}} \\ \vdots \\ \text{Submerged plant. Leaves broadly ovate.}$

Flower blooms above the water surface.

<u>Use</u>: Petioles and leaves are eaten as a vegetable with excellent flavor. The fruit is also edible. Even though it is seldom seen at the local market, it is used by villagers regularly.

Medicinally used for treatment of hemorrhoids and used as a poultice for fever.

<u>Ref. No.</u>: 7, 14, 18, 47



Nov. 2008 Phnom Penh, Cambodia



Nov. 2008 Phnom Penh, Cambodia

Dioscorea spp. (D. alata / D. bulbifera / D . esculenta)

Order: Dioscoreales Family: Dioscoreaceae

LA	Mam pao / Ee moo / Ka thart	មាព្
KH	<u>Damloong chhiem moen /</u> <u>Dehs prei / Damloo chhvie</u>	<u>ដំឡូងឈាមមាន់,ដំឡូងភ្នុក /</u> ល្បើប,ល្វាស្រុក,ល្វាធិ
TH	Man sao / Wan phra chim / Man mue suea	<u>มันเสา / มันมือเสือ</u>
VN	Khoai ngot	Khoa ngọt
JP	Ooyamaimo, Mukagoimo, Togeimo	オオヤマイモ / ムカゴイモ / トゲイモ
Rema	rks	

<u>Distribution</u>: Originated in the Far East.

Life form: Perennial climber.

Nov. 2011 Vang Vieng, Laos

<u>Use:</u> Tubers are used as a starch food. Broods formed on the side of leaf are also edible.

<u>General info.</u>: This group of plant is called Yam. Along with Taro, Yam was an important staple food of the ancient agricultural culture in the Far East. It is still found in local and city markets.

Occasionally in the countryside it meets with a semi-domestic Yam species.

Ref. No.: 4, 18, 36, 38, 42, 45, 47

Borassus flabellifer

Order: Arecales Family: Arecaceae

LA	Ton taan , Mak tao	ຕົ້ນຕານ (ໝາກຕ່າວ)
KH	<u>T'naot</u>	<u>ត្</u> បោត
TH	<u>Tan</u>	ตาล
VN	Thot not	Thốt nốt
JP	Ougi-yashi	オウギヤシ



Jul. 2011 Kampong Cham, Cambodia

Remarks

<u>Distribution</u>: Originated from Africa. It was introduced to Asia as useful plant in prehistoric age.

<u>Life form</u>: 25-40m tall palm.

<u>Use</u>: The edible fruits are much appreciated in cakes or jellies. Palm wine and palm sugar are made from the sap of inflorescence.

There are many known traditional medicinal uses for every part of the toddy palm. Leaves are used to make marketable products such as hats, mats, roof covers, and writing paper. Canoes may be made out of trunks. Bark is used to make strong rope.

Ref. No.: 10, 14, 27, 38, 42, 45, 46, 47



Endosperm Jul. 2011 Kampong Cham, Cambodia



Palm sugar Feb. 2010 Thakhek, Laos



Jul. 2011 Kampong Cham, Cambodia



Tapping Jan. 2013 Salavan, Laos

Calamus tenuis

Order: Arecales Family: Arecaceae

LA	Naw yae	ໜໍ່ແຍ
KH		
TH		
VN	May dan, May manh	Mây đan, Mây manh
JP		



Jul. 2008 Vientiane Capital, Laos

Remarks

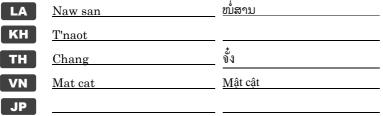
<u>Life form</u>: A rattan.

<u>Use</u>: A peeled stem is cooked.

Ref. No.: 12

Rhapis cochinchinensis

Order: Arecales Family: Arecaceae





Remarks

Life form: A rattan. Stems to 42 m tall, to 65 cm in diam.

Leaves palmate.

<u>Use</u>: The top of young shoot are edible.

Ref. No.: 12, 48

Feb. 2010 Thakhek, Laos

Bamboo shoot

Order: Poales Family: Poaceae

LA	Naw mai	ໜໍ່ໄມ້ໄລ່
KH	Russey	ឬស្សី
TH	Naw mai	
VN	Tre	Tre
JP	Takenoko	タケノコ



Jul. 2011 Pakse, Laos

Remarks

Distribution: From tropical to temperate Asia.

<u>Life form</u>: Bamboo plant. Stems are fascicled. 10-30m tall. Usually planted beside a village.

<u>Use</u>: Young shoot is commonly eaten in East and Southeast Asia. There are many bamboo ingredients in local markets. In Indochina genus *Indocalamus* and *Yushania* were seen but *Bambusa* predominates the region. Bamboo shoots are boiled and cooked. Yanan (*Tiliacora triandra*, Menispermaceae) is used for cooking in Laos and Thailand, Ngop (*Sauropus androgynus*, Phyllanthaceae) is used in Cambodia. In Japan there are many recipes for bamboo and the rice bran is used for boiling.

Ref. No.: 7, 12, 16, 27, 42



Bambusa sp. Jul. 2011 Ratanakiri, Cambodia



Knaing russey Feb. 2010 Kratie, Cambodia



Jul. 2011 Kratie, Cambodia



Naw Mai Soto Nov. 2011 Vang Vieng, Laos

Coix lacryma-jobi var. ma-yuen

Order: Poales Family: Poaceae

LA	Deuay	ໝາກເດືອຍ
KH	Skuey	
TH	Dueai	เคือย
VN	Bobo nep, Ydi nep	Bobo nếp, Ýdĩ nếp
JP	Hato-mugi	ハトムギ



Sep. 2009 Houayxay, Laos

Remarks

<u>Distribution</u>: The origin is unknown. Indigenous to southern and eastern Asia.

<u>Life form</u>: Perennial grass. Up to 3 m tall.

<u>General info.</u>: The form with soft-shelled false fruit has been cultivated since ancient times - 3000-4000 years ago in India and 2000 years ago in China. It was very important before maize and rice. Forms with hard-shelled false fruit are also occasionally cultivated. Plants escaped from cultivation occur as weeds. Boiled Jobi was sold in northern Laos.

Ref. No.: 25, 35, 46, 47

Oryza sativa		Order: Poales Family: Poaceae
KH Sraw ngai TH Khao VN Lua nuoc, Lua gao	เอ๊ากท่ำ	
JP <u>Ine</u> Remarks	イネ east foothills of the	

Sep. 2009 Houayxay, Laos

<u>Life form</u>: Annual and perennial herb. 50-130 cm tall.

<u>General info.</u>: First cultivated in the middle and lower Yantze River 9000 years ago. This plant is a staple in East and Southeast Asia diets. The photo above is an example of young upland rice sold in northern Laos. Precooked rice is made from young rice (grains still attached not dropped); this is a very old and time-honored way to prepare rice.

Ref. No.: 36, 40, 47

Eleocharis dulcis var. tuberose

Order: Poales Family: Cyperaceae

LA	Heo	
KH	Mem plong khtim	
TH	Haeo chin	แห้วจีน
VN	Nang ngot	Năng ngọt
JP	Shina-kuroguwai	シナクログワイ



Nov. 2011 Vientiane province, Laos

Remarks

<u>Distribution</u>: The actual distribution is uncertain. Cultivated in the Old tropics from Africa to Papua.

Life form: Perennial herb. Emergent plant. Grows on

marshy or flooded ground. 40-80cm tall.

<u>General info.</u>: The tuber, know as "water chestnut", is eaten. Commonly cultivated. Japanese may have mistaken similar tuber of *Sagittaria trifolia* 'Caerulea' of Alismataceae.

<u>Ref. No.</u>: 14, 15, 48

Eichhornia crassipes

LA	Tob sava, Tob porng	ດອກຜັກຕິບ
KH	Kom plau, Kon plaok	កំប្ផោក
TH	Tob chawa, Tob pong	_ ผักตบชวา
VN	Luc binh	<u>L</u> ục bình
JP	<u>Hotei-aoi</u>	ホテイアオイ

Remarks

<u>Distribution</u>: Native to Brazil, introduced and naturalized all over the tropics.

<u>Life form</u>: Perennial herb. Free floating plant or emergent plant rooted in mud. 30-60 cm tall.

Order: Commelinales Family: Pontederiaceae



Nov. 2011 Vientiane province, Laos

<u>Use</u>: Boiled young shoots and young flowers are eaten with fermented fish or shrimp paste. In the traditional medicine of Thailand, stems are used as an antidote for poison and to degas the belly.

Flower's primary use is ornamental. Stems of the emergent type are used to make baskets in a village beside Lake Tonle Sap in Cambodia. In Thailand, *E. hygrophilus* called "Makok nam" is more popular than this species.

General info.: One of the 100 of the world's worst invasive alien species of IUCN.

Ref. No.: 6, 14, 18, 27, 47

Monochoria hastate

Order: Commelinales Family: Pontederiaceae

LA	Tob	<u> </u>
KH	Dong veik	ត្រក្បេត
TH	Phak top thai	ผักตบไทย
VN	Rau mac thon	Rau mác thon
JP		



Jan. 2009 Kampong Cham, Cambodia

Remarks

<u>Distribution</u>: Native in tropical South and Southeast Asia extending to northern Australia.

Life form: Emergent plant. 50-200 cm tall.

Leaves triangular.

<u>Use</u>: Leaves and young flowers are eaten.

General info.: In the traditional medicine, the sap of leaves was used for suppressing a swelling of the gum.

Ref. No.: 5, 10, 14, 27, 47

Monochoria vaginalis

Order:	Commelinales
Family:	Pontederiaceae

LA	<u>Iehin</u>	<u>ැක්වේදී</u> න
KH	Chrach, Kom plau	ច្រាច់
TH	Phak khiat, Phak hin nam	ผักเขียด
VN	Rau mac bao, Co luoi vit	Rau mác bao, cỏ lưỡi vịt
JP	Ko-nagi	コナギ

Remarks

<u>Distribution</u>: Native in South Asia, throughout Southeast Asia, extending also to China, Japan, Fiji islands and northern Australia. America and Europe.

Jun. 2007 Prek Toal Area, Cambodia

Life form: Annual herb. Emergent plant. 5-50 cm tall.

<u>Use</u>: Young stems are eaten raw or boiled with fermented fish or shrimp paste. It is an ingredient of soup, Lap, and Salad.

General info.: In the traditional medicine of Thailand, the whole plant is used for high fever, asthma, bloody urine, conjunctivitis, etc. The dried leaf is used as powder and to cover swelling. **Ref. No.**: 5, 10, 14, 18, 20, 27, 29, 47

Alpinia galangal

LA	Khaa	ຫຼືວຂ່າ
KH	Rum deng	រំដេង
TH	Kha pa, Kha luang	ข่าป่า, ข่าหลวง
VN	Rieng nep	Riềng nếp
JP	Nankyou	ナンキョウ

Remarks

<u>Distribution</u>: The exact origin is unknown. It is cultivated from Southeast Asia to India.

<u>Life form</u>: Perennial herb. Up to 3.5 m tall.

<u>Use</u>: Rhizome is used for the spice as must-have in this region. A pungent condiment with a sweet flavor. Usually planted in home gardens.

General info.: As a medicine, rhizome is prescribed for diarrhea, nausea, abdominal fullness, parasitic extermination, etc.

There are many hybrids with *A. conchigera* in Thailand. The lower photo is an example of pure *A. galanga*.

Ref. No.: 21, 27, 42, 45, 47, 48, 51

Order: Zingiberales Family: Zingiberaceae



Jun. 2011 Pakse, Laos



Jun. 2011 Pakse, Laos

Amomum sp.

LA	Kouk	
KH		
TH		
VN		
JP	Myoga-modoki	ミョウガモドキ

Remarks

<u>Life form</u>: Perennial herb. Up to 3 m tall.

<u>General info.</u>: The fruits are eaten raw, cooked or candied. The fresh, sweet, juicy aril around ripe seeds is considered a delicacy. Young shoots, young inflorescences and young fruits are eaten as vegetables cooked with rice.

It is rarely found in local market.

Ref. No.: 40, 47, 48

Order: Zingiberales Family: Zingiberaceae



Sep. 2011, Phiang, Sainyabuli, Laos

Boesenbergia rotunda

Order: Zingiberales Family: Zingiberaceae

LA	Ka sai	
KH	Khchiey	
TH	Kra chai	_ กระชาย
VN	Cam dia ta	Cam địa ta
JP	Kurachai	<u>クラチャーイ</u>



Jul. 2011 Pakse, Laos

Remarks

<u>Distribution</u>: Native to Java and Sumatra. It is widely cultivated in Southeast Asia and Southern China.

Life form: Perennial herb. 30-80cm tall.

<u>Use</u>: *Boesenbergia rotunda* is principally used as a spice and a medicine. Enlarged roots that bud from rhizome are used. Usually it is used with fish. They are quite pungent and flavorful.

Ref. No.: 27, 42, 47

Curcuma longa

Order: Zingiberales Family: Zingiberaceae

LA	Kha min, Kha min kheun, Kha min xan	
KH	Romiet ou lmiet	- <u></u> -
TH	Khamin, Khamin chan	ขมิ้น, ขมิ้นชัน
VN	Nghe	Nghệ
JP	Ukon	ウコン



Jul. 2011 Kratie, Cambodia

Remarks

<u>Distribution:</u> Originated from probably India. Cultivated in the tropics.

Life form: Perennial. 1-1.5 m tall.

<u>Use:</u> Turmeric powder is made from rhizomes. Young shoots are eaten.

Rhizomes have a lot of medicinal usage. For example, stomachic, stimulant, carminative, diarrhoea, rheumatism, cough, and tuberculosis. Turmeric also has insecticidal, fungicidal and nematicidal properties which make it a potential biocide.

The yellow powder is used by Cambodian women, in the countryside especially, to coat their face and body and have beautiful skin. The paint is used to dye fabrics, in particular the clothes of monks.

<u>Ref. No.</u>: 27, 42, 45, 47

Curcuma sp.

LA	Kachieng dang, Kachieng khao	ດອກກະຈ່ງວແດງ
KH	Lum dein proi	រំដេងព្រៃ
TH VN	Kachieng dang	-
JP		

Remarks

<u>Distribution</u>: This genus distribute from China to Malesia region.

<u>Life form</u>: Perennial herb. Up to 0.5 ·1m tall. The white or red color parts are bracts. Pale yellow flower is inside of the green bract. See the lower photo.

<u>General info.</u>: Young inflorescences have good flavor that is a bit strong. Young shoots are eaten raw with papaya salad.

Tubers, young shoots, and flowers have medicinal effect for extracting the gas of the belly.

<u>Ref. No.</u>: 5, 18

Order: Zingiberales Family: Zingiberaceae



Jul. 2008 Vientiane province, Laos



Nov. 2008 Siem Reap, Cambodia

Order: Zingiberales

Family: Zingiberaceae

Etlingera elatior

LA	Ton kha	ຕົ້ນຂ່າ
KH		
TH	Dala, Carlar	ุ คาหลา
VN	Da loc, Sen thai	Đa lộc, Sen thái
JP	Torch-jinger	トーチジンジャー

Remarks

<u>Distribution</u>: Natural distribution in Malaysia, Java and Sumatra, but is also widely cultivated in tropical region.

<u>Life form</u>: Perennial, tillering herbs with a rhizome at or near the ground surface. Leafy stem up to 5 m tall. Flower is red, 0.5-2.5 m tall.



Jan. 2009 Kampong Cham, Cambodia

<u>Use</u>: Boiled young flowers and shoots are eaten with fermented fish paste, used for an ingredient of curries, and for Thai spicy salad. It is not so popular in Lao and Cambodian markets.

Ref. No.: 6, 18, 45

Kaempferia sp.

LA	Toupmoub	
KH	Swaa	ប្រោះស្វា
TH	Pro	
VN	Thieng lieng	Thiềng Liềng
	. .	8 L

Remarks

<u>Distribution</u>: Originated from India. It is widespread to tropical Asia and Malesia.

<u>Life form</u>: Perennial herb. Leaves usually 2-3 sheaths, blade often horizontal and appressed on the ground, broadly elliptical or suborbicular, 6-15 cm x 5-10 cm.

<u>Use</u>: Leaves are eaten in raw with "Cheo" in Attapu Laos. Fresh leaves are light texture and have a slight ginger flavor. It is cooked with bamboo shoot. Popular in the highland in southern Laos and northern Cambodia.

Ref. No.: 27, 42, 45, 46, 47, 48

Order: Zingiberales Family: Zingiberaceae



Jun. 2011 Meuang Mai, Laos



Cambodian Kaempferia, Photo H.Kashiwadani

Zingiber officinale

Order: Zingiberales Family: Zingiberaceae

LA	Khin	ດອກຂ່ຳບ້ານ
KH	Knyay	30
TH	Khing	ปิง
VN	Gung	Gừng
JP	Shouga	ショウガ



Jun. 2011 Pakse, Laos

Remarks

<u>Distribution</u>: Wild forms of ginger have not been found and its origin is uncertain. Ginger has been grown in tropical Asia since ancient times.

Life form: Perennial herb. 50-100cm tall.

<u>Use</u>: Rhizomes are used for a lot of dishes as a spice. Young flower buds are eaten raw. There are red flower buds and green buds of *Z. officinale* in local markets. Commonly, it is planted in the home garden of each house.

<u>General info.</u>: Rhizomes have been used as medicine since B.C.. Gingerol, which is an extract of a raw rhizomes, controls liver problems. Shogaol, which is an extract from dried rhizomes, has painkilling, antitussive, and alleviation-of-fever effect.

Ref. No.: 18, 27, 40,42, 48



Z. officinale Sep. 2009 Vientiane province, Laos



 $\begin{tabular}{ll} $Zingiber\,{\rm sp.}$\\ Sep. 2009 & Vientiane province, Laos \\ \end{tabular}$



Z. officinale Jul. 2011 Pakse, Laos



Z. montanum Ju

Jul.2011 Pakse, Laos

Musa sp.

Order: Zingiberales Family: Musaceae

LA Kuay	
KH Chyeak	ចេក
TH Kuay	
VN Chuoi	Chuối
JP Banana	バナナ



Remarks

Distribution: Tropical Asia and Malesia are considered the center for Banana.

<u>Life form</u>: Perennial herb. Up to 5m tall. A pseudo stem is formed by overlapped and rolled leaf sheath.

Jul. 2010 Phnom Penh , Cambodia

<u>Use</u>: Fruits are "Banana" as we all know. Sliced reddish flower bracts and inside pseudo stems are also used as a garnish.

Ref. No.: 18, 47



Jul. 2010 Kampong Chhnang, Cambodia



Aug. 2013 Ho Chi Minh, Vietnam



Jul. 2010 Phnom Penh, Cambodia



Aug. 2013 Ho Chi Minh, Vietnam

Cyclea barbata

Order: Ranunculales Family: Menispermaceae

LA	Ni ma noy	
KH		
TH	Ma noi, Khruea ma noi	
VN	Day sam, Sam long	Dây sâm, sâm lông
JP		



Jul. 2010 Pakse, Laos

Remarks

<u>Distribution</u>: From India to Indochina, Sunda and Java.

Life form: Woody climber. Up to 5 m.

<u>Use</u>: A leaf and a thin vine are used in order to make a grass jelly.

<u>General info.</u>: A decoction made of the roots is used in local medicine against fever, stomatitis and liver disease.

Ref. No.: 7, 14, 47

Tiliacora triandra

Order: Ranunculales Family: Menispermaceae

LA	Yanang	ໃບຢານາງ
КН	Theo yanang Choi nang	<u> </u>
TH	Thao yanang, Choi nang, Thao wan khieo	เถายานาง
VN	Day xanh	Dây xanh
JP		

Remarks

<u>Distribution</u>: Assam, South Burma, Cambodia, Laos, Vietnam and Malay peninsula.



Sep. 2009 Houayxay, Laos

<u>Life form</u>: Climber. Common in forest edges and open bush.

<u>Use</u>: Crushed leaves and thin vines are used to coax out flavor. It is an essential kitchen ingredient when cooking bamboo shoot in Laos and Thailand.

<u>General info.</u>: In the traditional medicine of Thailand, the shoot is used as an antifebrile and leaves are used as a medicine to discharge toxins. In Cambodia, a shoot is used for the preparation of a medicine for dysentery.

Ref. No.: 5, 14, 18, 40, 42

Nelumbo nucifera

Order: Proteales Family: Nelumbonaceae

LA	Boua, Boua louang	ໝາກບິວ
KH	Chouk, Chuok sow	ឈ្នុក
TH	Boua louang	บัวหลวง
VN	Sen	Sen
JP	<u>Hasu</u>	ハス

Remarks

Distribution: Asia, Europe, and Australia.

Life form: Perennial herb. Emergent plant. Leaf is 0.5-1m tall above the water face, circular, 25-90cm diameter, leaf stem attached on the center of leaf. Flower is taller than leaf,



Jul. 2010 Kampong Cham, Cambodia

10-23 cm in diameter, color white to pink.

<u>Use</u>: Thin young rhizomes are popular ingredients in Indochina. It is used as an ingredient in soup, boiled with coconuts milk, and fried with other vegetables. The texture of the young rhizome is light. Young seeds are eaten raw for a snack.

All parts of the *N. nucifera* are used for medicine. Alkaloid is included in the leaf, stamen, fruits, and seed. Rhizome and seed are effective against throat ulcers and skin disease.

Ref. No.: 5, 10, 18, 27, 29, 38, 48



Sep. 2009 Vientiane province, Laos

Jun. 2007 Chong Khnies, Cambodia



Feb. 2010 Thakhek, Laos



Jul. 2010 Kampong Cham, Cambodia

Cissus hastate

Order: Vitales Family: Vitaceae

LA	Som loum	ສິ້ມລິມ
KH	Sannda (as C. repens)	
TH	Som sandan, Som op ep,	ส้มสันดาน
VN	Ho dang mui giao	Hồ đằng mũi giáo
JP		



Jul. 2008 Vientiane province, Laos

Remarks

<u>Distribution</u>: From India to the east coast of Australia through Indochina, Thailand and Southeast Asia.

<u>Life form</u>: Evergreen climber. Family of grape.

<u>Use</u>: Leaves are used as a sour taste ingredient. It is used for mushroom soup. In Thailand, leaf, stem, and fruit are used for coughs, as an expectorant, and as an anti-emetic. The powder of a root is applied to swelling. In Cambodia, young leaves and fruits of *C. repens* are used for same purpose as *C. hastata*.

Ref. No.: 7, 27, 47

Salacia chinensis

Order: Celastrales Family: Celastraceae

i	ใบตาไท่
phaeng chet chan, Ta	กำแพงเจ็ดชั้น
mau Trung Quoc	Chóp mau Trung Quốc
	phaeng chet chan, Ta o mau Trung Quoc



Remarks

<u>Distribution</u>: Scattered from tropical Africa, India, Indochina, Malesia and Fiji.

Sep. 2009 Houayxay, Laos

Life form: Liana or shrub. 3-10 m long.

<u>General info.</u>: The photo is of leaves that were put in order with other vegetables at a morning market in northern Laos. According to PROSEA, fruits are eaten. The roots are astringent. In the Philippines a decoction from the roots is used against amenorrhoea and is supposed to cause abortion.

Ref. No.: 12, 15, 47, 48

Connarus cochinchinensis

Order: Oxalidales Family: Connaraceae

LA	Soapsap	ຜັກຊອບແຊບ
KH	Lumpuehs, Smach	<u>លំពស់</u>
TH	Thopthaep, Ma wo	ถอบแถบ
VN	Lop bop	<u>L</u> ốp bốp
JP		



Jul. 2008 Vientiane province, Laos

Remarks

<u>Distribution</u>: South Laos, Cambodia, South Vietnam to Northern Malay Peninsula.

Life form: Climber or small tree.

<u>Use</u>: Young leaves are used as vegetable. The bark can be chewed with the betel.

<u>General info.</u>: *C. bariensis* and *C. semidecandrrus* have the same local name in Laos. These are not seen in a market.

Ref. No.: 12, 14, 27

Irvingia malayana

Order: Malpighiales Family: Irvingiaceae

LA	Mak bok	ໝາກບົກ
KH	Cham bak	
TH	Krabok	กระบก
VN	Ko-nia	Kơ-nia
JP		
Remarks		



Sep. 2009 Vientiane province, Laos

<u>Distribution</u>: FromIndochina to Peninsula Malaysia,

Borneo, and Sumatra.

<u>Life form</u>: Evergreen tree. 10-30 m tall in Indochina.

<u>Use</u>: The seeds are roasted and their inner part served as a snack.

Seeds are used for the manufacturing of wax, cocoa and soap.

<u>Ref. No.</u>: 10, 14, 27, 45

Cratoxylum cochinchinense

Order: Malpighiales Family: Hypericaceae

LA	Phak tao	
KH	Lngieng tuk	
ТН	<u>Tio kliang</u>	_ ติ้วเกลี้ยง
VN	Thanh nganh nam	Thành ngạnh nam
JP	Ohaguro-no-ki	オハグロノキ



Jun. 2011 Parkse, Laos

Remarks

<u>Distribution</u>: From Indochina to Peninsular Malaysia,

Borneo, Sumatra, and Palawan.

Life form: Deciduous small tree.

<u>Use</u>: Acid young leaves are appreciated as vegetables, eaten raw with rap in Laos, and for "samla" in Cambodia. A tree that has grown on a common is used. It makes good firewood.

Ref. No.: 16, 27, 45, 46

Cratoxylum formosum

Order: Malpighiales Family: Hypericaceae

LA	Tiew	<u>ຜ</u> ັກກະຕິ່ວ, ໃບຕິ່ວ,ຜັກຕິ່ວ
KH	Lngieng	ល្បេង
TH	Tio khao	์ ติ้วขาว
VN	Thanh nganh dep, Do ngon	Thành ngạnh đẹp, Đỏ ngọn
JP		
Remarks		

Distribution: MyanmarIndochina, Thailand, Malaysia, Indonesia, Philippines, and southern China.

Life form: Deciduous small tree. Up to 3–6 m tall..



Feb. 2010 Savannakhet, Laos

<u>Use</u>: Young leaves and young flowers are eaten raw with Laap and used in fish curries, giving a fragrant and sour tannin-like taste.

Dried Leaves, bark and roots are consumed as a tea and have medicinal properties. In traditional medicine, resin from the bark is used to scrub the soles of feet with dry and broken skin. The wood is good for making charcoal.

General info.: This tree that has grown on a common of village is used. In Laos, C. f. subsp. prunifloorum called "Tiew daen" is similarly-used as this species.

Ref. No.: 7, 12, 21, 22, 23, 27, 45, 48, 49

Antidesma ghaesembilla

Order: Malpighiales Family: Phyllanthaceae

LA	Hmauz nooyz	
KH	Dangkiep k'dam	តង្គេប្រក្ខាម
ТН	Mao-khaipla, Mangmao, Maothung	
VN	Choi moi, Chua moi	Chòi mòi, Chua mòi
JP		



Jul. 2013 Kampong Chhunang, Cambodia

Remarks

<u>Distribution</u>: Tropical Africa, India, southern China,

Southeast Asia and Australia.

<u>Life form</u>: Deciduous small tree.

<u>Use</u>: Sour fruits are eaten raw and prepared into jams.

Stems are used as construction material.

Ref. No.: 27, 45

Phyllanthus acidus

thus acidus		Family: Phyllanthaceae	

LA	Yom	ໝາກຍິມ
KH	Kantot	កន្ទុត
TH	Mayom	_
VN	Chum ruot, Tam ruot	Chùm ruột, Tầm ruột
JP	Amedama-no-ki	アメダマノキ



Order: Malpighiales

Remarks

<u>Distribution</u>: Probably native to coastal Brazil. Cultivated in tropical Asia and Polynesia islands since immemorial times.

<u>Life form</u>: Small tree, up to 10 m. Fruits grow on a trunk.

Feb. 2010 Pakse, Laos

<u>Use</u>: Sour ripe fruit is edible. Leaves are eaten as a salad. Since ancient times, the latex, root, bark, leaf, and fruit of this plant are used to make various medicines.

Ref. No.: 14, 16, 27, 42, 47

Phyllanthus emblica

Order: Malpighiales Family: Phyllanthaceae

LA	Khampom	ໝານຮາກົດອກ
KH	Kantout pray	កន្ទួតព្រៃ
TH	Ma kham pom	_ มะขามป้อม
VN	Chum ruot nui, Me rung	Chùm ruột núi, Me rừng
JP	Malakkanoki, Anmala, Yukan	_ <u>マラッカノキ、アンマラ、ユ</u> <u>カン</u>



Sep. 2009 Vientiane province, Laos

Remarks

Distribution: India to Southeast Asia and Malesia.

<u>Life form</u>: Tree. Up to 20 m tall. Small linear-oblong single leaves are alternate and densely crowd along the branch.

A shoot looks like a compound leaf.

<u>Use</u>: Sour ripe fruit is edible. Used for the sour ingredient of dishes. It is rich in vitamin C and applied for expectorant. Roots, leaves, bark, and insect galls are used for the making of many medicines. The decoction of roots is used against fever. Tannin is extracted from the bark. Woods are used for furniture construction and as firewood.

Ref. No.: 14, 26, 27, 37, 42, 47

Sauropus androgynus

Order: Malpighiales Family: Phyllanthaceae

LA	Wan ban	
KH	Ngup	ងប់
TH	Wan ban, Kan tong	ผักหวานบ้าน
VN	Bo ngot, Bu ngot	Bồ ngót, Bù ngót
JP	Amameshiba	アマメシバ



Jul. 2010 Stung Treng, Cambodia

Remarks

Distribution: From India to Indochina and Malesia.

<u>Life form</u>: Shrub or small tree. Up to 4 m tall.

<u>Use</u>: Leaves are used for cooking as vegetable. It is a popular ingredient of fried vegetable, soup, and curry. In Cambodia, bamboo shoots are boiled and they are essential kitchen ingredient. Fruits are edible. Jam can also be made.

In traditional medicine, leaves are used as a medicine against coughs. It is used to soothe the lungs, as a tonic, and as a febrifugal to relieve internal fever.

General info.: It is planted in most home gardens.

Ref. No.: 14, 18, 27, 42

Codiaeum variegatum

Order: Malpighiales Family: Euphorbiaceae

LA	Ngeun, Kham	ໃບເງິນໃບຄຳ
KH		
TH	Koson, Ko ton, Kri krasom	_ โกสน
VN	Co tong	Cô tòng
JP	Henyouboku, Kuroton	ヘンヨウボク、クロトン



Sep. 2009 Chiang Rai Thailand

Remarks

<u>Distribution</u>: Malesia and the West Pacific Island arcs up to Fiji.

<u>Life form</u>: Shrub, up to 3 m high. Cultivated for the showy leaves, there is extreme variations among the various races.

<u>General info.</u>: Primarily an ornamental plant, for its variegated leaves, with a variety of races. Information as foods is not mentioned in the Flora of Thailand. Nevertheless, it was assured that this species had been sold as a vegetable at one market in north Thailand.

Ref. No.: 14, 46

Manihot esculenta

Order:	Malpighiales
Family:	Euphorbiaceae

LA	Manton	ມັນຕົ້ນ
TH TH	T`ngang Man sampalang	ฐา <u>่</u> ธั มันสำปะหลัง
VN JP	Khoai mi, San Kyassaba	Khoai mì, Sắn キャッサバ



Remarks

<u>Distribution</u>: Cultivation and found throughout SE Asia and Malesia.

Sep. 2007 Vientiane province, Laos

<u>Life form</u>: Shrub. Up to 7 m high. Leaf blade palmately 3-9-lobed, diameter 20cm wide.

<u>Use</u>: Tapioca is made from cassava. The roots are eaten cooked, steamed, fried or roasted when fresh or after drying or fermenting. The leaves and young flowers are also eaten, they contain reasonable amounts of carotene and vitamin C, though they too have to be cut in pieces and they have to be cooked to rid the HCN.

<u>General info.</u>: The roots constitute one of the world's most important stock crops for starch. It is also an important emergency crop. There are two types of Cassava; a sweet one and bitter one. Only sweet cassava can be eaten fresh in small quantities (the peel contains the most HCN). The bitter ones have to be treated due to a much higher HCN content.

Ref. No.: 14, 42, 48

Passiflora foetida

Order: Malpighiales Family: Passifloraceae

LA	Baung, Yoth mak noth	<u> </u>
KH	Sau mau pray	សាវម៉ាវ
TH	Ka thok rok, Rok	กะทกรก
VN	Nhan long, Lac tien	Nhãn lòng, Lạc tiên
JP	Kusa-tokeisou	<u>クサトケイソウ</u>



Jul. 2010 Stung Treng, Cambodia

Remarks

<u>Distribution</u>: Cultivated and often naturalized in most tropical countries.

<u>Life form</u>: Perennial climbing herb. Usually grows wild on a common and wayside of village.

<u>Use</u>: Young leaves are cooked. It is popular in local market inIndochina.

The ripe fruits are eaten raw. They are sweet and juicy.

Ref. No.: 42, 46, 47

Microdesmis caseariifolia

Order: Malpighiales Family: Pandaceae

LA	On taw	<u> </u>
KH		
TH	Salot pa, Tana tua mia	สลอคป่า
VN	Chanh oc, Chan	Chanh ốc, Chẩn
JP	Kurokiibo	クロキイボ



Jul. 2008 Vientiane province, Laos

Remarks

<u>Distribution</u>: From South China, Burma and Indochina to Malay Peninsula, Sumatra, Borneo and Philippines.

Life form: Small tree. Up to 10m tall.

General info.: A villager said that this is also eaten in Laos.

Ref. No.: 14, 46, 48

Garcinia cochinchinensis

Order: Malpighiales Family: Clusiaceae

LA		
KH	Sunndang	សណ្តាន់
TH		
VN	Bua nha, Tai chua	Bứa nhà, Tai chua
JP		

Remarks

Distribution: Indochina, often cultivated in Cambodia.

Life form: Small tree, 10-15 m tall.

<u>Use</u>: The acid fruits are used as culinary spices. When cut and dried in the sun they will keep for a long time. They are used in cooking as acid element, like a lemon. These fruits are more popular in Cambodia then they are in Laos or Thailand

Since this tree is the same genus as Mangosteen, a seedling is used as a rootstock of Mangosteen.

Ref. No.: 27, 47



Jul. 2010 Kampong Cham, Cambodia



Jul. 2011 Kampong Cham, Cambodia

Order: Malpighiales

Carcinia oliveri LA Mohng KH Tamoung TH Mohng VN Bua nui Bứa núi JP

Remarks

<u>Distribution</u>: Indochina, often cultivated in Cambodia.

Life form: Tree, 20-30 m tall.



Jul. 2010 Kampong Chhnang, Cambodia

<u>Use</u>: Leaves are used as sour condiments. The fruit cut in slices can be kept in salt.

Popular in Cambodia and less so in Laos, Thailand, and Vietnam.

In the traditional medicine of Cambodia, bark is a component of a remedy against bronchitis. In ground form, it can be used to treat a hematoma and to make an anti-inflammatory analgesic plaster for sprains.

According to recent studies, a substance with an antioxidant action is extracted from the bark.

Ref. No.: 12, 27

Flacourtia indica

Order: Malpighiales Family: Salicaceae

LA	Kane	ໝາກເກັນ
KH	Ka khop pray	ក្រខុបព្រៃ
TH	Ta khop pa	ตะขบป่า
VN	Hong quan an	Hồng quân Ấn
JP	Indo-lukamu	インドルカム



Sep. 2007 Vientiane province, Laos

Feb. 2010 Louang Phrabang, Laos

Remarks

<u>Distribution</u>: Cultivated in Africa and Asia.

<u>Life form</u>: Deciduous tree. Up to 15 m tall. It has long spines on the twig.

Use: The fruit is edible.

In the traditional medicine of Cambodia, the roasted leaves, bark, and fruit were used to make tonic drinks prescribed to young mothers.

The wood, not affected by termites, is used to make columns for houses, pestles for rice, and axe handles.

Ref. No.: 27, 46

Acacia concinna			Order: Fabales Family: Fabaceae
LA KH	Som poy Bay damnaeb, Banla saot	_ ສົ້ມປອຍ _ ក្រទុំថេត, ក្មុម្ពទេស _	
TH	Som poi Keo dep, Phi tao giap	_ ส้มป่อย <u>Keo đẹp, Phì tạo giáp</u>	
JP	Okinawa-nemu	オキナワネム	
Remarks Distribution: Tropical Asia			

Use: Young leaves are sour and eaten in salad.

In traditional medical treatment, the fruit is used; externally for eczema or leprosy and internally as a laxative. The seed has a medical reputation for providing a comfort effect during birth process. Fruit is used for washing hair.

Ref. No.: 27, 46

<u>Life form</u>: Woody climber.

Acacia pennata subsp. Insuavis

Order: Fabales Family: Fabaceae

LA	Kha	นักระ
KH	S'am, Thama toeb	<u>ស្នំ</u>
TH	Cha om	ชะอม
VN	Keo kerr	Keo Kerr
JP	Chaom	チャオーム



Remarks

Distribution: Introduced and cultivated to Southeast Asia.

Jul. 2010 Kampong Cham, Cambodia

<u>Life form</u>: Woody climber or shrub up to 5 m tall. Found in open, scrubby forest or swampy forest and along streams.

<u>Use</u>: Boiled or steamed young leaves are eaten with fermented fish paste, with Laap, and soup. The bark is used as a condiment.

Vitamin A, B1, B2, C, and Niacin are contained in new leaves. In the traditional medicine of Thailand, bark is used as a parasiticide. In Cambodia, seeds are used to treat diarrhea, dysentery, and hemorrhoids. It is long held belief that the oil yielded from seeds is a remedy for leprosy.

Ref. No.: 5, 23, 27, 51

Bauhinia variegate

Order: Fabales
Family: Fabaceae

LA	Ban	ດອກບ້ານ
KH	Cheng koo	
ТН	Siao dok khao	เสี้ยวดอกขาว
VN	Mong bo soc	Móng bò sọc
JP	Soshinka	ソシンカ



Remarks

Distribution: Southeast Asia.

<u>Life form</u>: Shrub or small tree. The leaf shape is like

Feb. 2010 Louang Phrabang, Laos

a butterfly with two lobes and veins radiating from the base of the leaf.

<u>Use</u>: The flowers are edible when fried. Young leaves, buds, and fruits are also edible.

In local medicine, the bark is used to cure wounds. A decoction of any part of the plants is taken against dysentery. It is planted on the roadside or in a garden as an ornamental plant.

Ref. No.: 27, 42, 45, 46

Caesalpinia mimosoides

Order: Fabales
Family: Fabaceae

LA	Nam panya	ຜັກນ້ຳ
KH		
TH	Puya, Nam puya	ผักปู่ย่า, หนามปู่ย่า
VN	Diep trinh nu, Moc meo	Điệp trinh nữ, Móc mèo
JP		



Remarks

<u>Distribution</u>: From India to China and Indochina.

<u>Life form</u>: Woody climber. Branchlets densely ferruginous glandular hairy, with curved prickles.

Jun. 2011 Pakse, Laos

<u>Use</u>: Young shoots are eaten with soup and bamboo dishes. This is popular in the local markets of Laos.

In traditional medicine this plant is used as a medicine for blood and dizziness.

<u>Ref. No.</u>: 7, 48

Delonix regia

Order:	Fabales
Family:	Fabaceae

LA	Hang nok yung, Pang	ໝາກຫາງນິກຍຸງ ຫຼື ໝາກແປງ
КН	Kroap chukrot, Kngaok barang	ឈ្វករត្ម
TH	Hang nok yung farang	หางนกขูงฝรั่ง
VN	Phuong vi, Diep tay	Phượng vĩ, Điệp tây
JP	Houou-boku	ホウオウボク



Remarks

<u>Distribution</u>: Originating from Madagascar. Planted as street or garden tree in the tropics.

Life form: Tree. 10-20m tall.

Feb. 2010 Louang Phrabang, Laos

<u>Use</u>: In Laos, seeds are eaten as a snack. In Cambodia, the young leaves are sometimes consumed as vegetables.

It is supposed that the young leaves are effective against rheumatism.

Ref. No.: 27

Leucaena leucocephala

Order: Fabales Family: Fabaceae

LA	Kathin	ໃບກະທີ່ນ
KH	Kanthom thead	ក្រធំថេត, ក្នុមទេស
TH	Kathin, Krathin	กระถิ่น
VN	Keo Binh linh, Keo giau, Bo	Keo Bình Linh, Keo giậu, Bọ
	chet	chét
JP	Gingoukan, Gin-nemu	ギンゴウカン、ギンネム

Remarks <u>Distribution</u>: Native to tropical Central America.

<u>Life form</u>: Small tree to 4-8m tall. Often occupying the common and roadside of a village.



Sep. 2009 Vientiane province, Laos

<u>Use</u>: The young leaves are eaten as salad with fermented fish paste or laap. Young fruits, green seeds are also eaten.

<u>General info.</u>: Poisonous amino acid called Mimosine is contained in this plant. There are reports of depilation and poisoning of people and livestock.

One of the 100 world's worst invasive Alien Species of IUCN.

Ref. No.: 6, 10, 16, 18, 27, 45, 46, 47

Neptunia oleracea

Order:	Fabales
Family:	Fabaceae

LA	Kaseth	ຜັກກະເສດ
КН	Kanh chaet	កញ្ឆែត
TH	<u>Kra chet, Kaseth nam,</u> Ruunong	ผักกระเฉด
VN	Rau nhuc, Rau rut	Rau nhúc, Rau rút
JP	Mizu-ojigisou	ミズオジギソウ

Remarks

<u>Distribution</u>: Widely distributed in the tropics.

<u>Life form</u>: Floating plant rooted on the ground of shore. It forms the white thick float on the stem. Shoots run on the surface of water.



Sep. 2007 Siem Reap, Cambodia

<u>Use</u>: Young shoots are removed and the float is eaten with fermented fish or shrimp paste. It is a popular ingredient in Indochina. It has rich nutrition containing protein, a mineral, and vitamin.

In the traditional medicine of Thailand, sap is used for a throat ulcer and hepatitis, and leaves are prescribed as an anodyne and for fever reduction.

General info.: Plants grown in the village reservoir and canals are self-consume or sold at market. Leaves are very sensitive to contact stimulation and will immediately close when touched. Ref. No.: 5, 18, 23, 40, 42, 46, 47

Senna siamea

LA	Kheelak	_ យ័កខ្ពុំញ៉ែក
KH	Angkanh	
TH	Khi lek	ขึ้เหล็ก
VN	Muong xiem, Muong den	Muồng Xiêm, Muồng đen
JP	Tagayasan	タガヤサン

Remarks

Distribution: From India to Indochina, Malesia.

<u>Life form</u>: Tree, Up to 30m tall. It is often planted in the garden or wayside.

<u>Use</u>: In Thailand and Indochina, young fruits and leaves are eaten as a vegetable. During preparation, the cooking liquid is replaced three times to remove toxins. Fresh leaves and boiled leaves are seen in the local market. In the traditional medicine of Thailand each part of the tree is used. Bark is used for hemorrhoids; leaves are used for calculus; flower buds and young leaves are used as a laxative; sapwood is used to treat a throat ulcer; and heartwood is used as a medicine for gonorrhea.

Ref. No.: 5, 17, 18, 37, 42, 47, 48

Order: Fabales Family: Fabaceae



Feb. 2010 Pakse, Laos



Jul. 2010 Ubon Ratchathani, Thailand

Sesbania grandiflora

LA	Khae	ດອກແຄ
KH	Ong kie dai	អង្គាសដី
TH	Khae ban	ู แคบ้าน
VN	So dua	So đũa
JP	Shiro-gochou	シロゴチョウ

Remarks

<u>Distribution</u>: It is considered native to Southeast Asia. It is widely distributed to the tropics.

<u>Life form</u>: Small tree, 4-10m tall.

Order: Fabales Family: Fabaceae



Sep. 2009 Lamphun, Thailand

<u>Use</u>: Young flowers are used as a vegetable for salads, curries and soups. It is planted in a home garden and it doubles as an ornament tree.

Leaves have a medicinal effect against a cold and fever and the bark is used for diarrhea in traditional medicine. Young leaves and tender pods are used as a fodder.

Ref. No.: 5, 18, 23, 27, 43, 46, 47, 49

Sesbania javanica

67			Fai

LA Khae	ດອກແຄ
KH Snau	<u>ស្នោ</u> .
TH Sano	_ โสน
VN <u>Dien dien</u>	Điện điển
JP	



Order: Fabales

mily: Fabaceae

Aug. 2013 Can Tho, Vietnam

Remarks

<u>Distribution</u>: From India to Australia through China and Southeast Asia.

Life form: Small tree. 1-5m tall.

<u>Use</u>: Young flowers are used as an ingredient in soup and omelets. It is popular in Cambodia and south Vietnam, and also seen in Laos. The yellow color of the flower is carotene. The flower is used as food color since carotene is stable with heat.

In traditional medicine, leaves are used for swelling, flowers as a medicine of intestine, and roots for throat ulcers.

Ref. No.: 5, 23, 27, 42, 46, 47, 48, 49

Tamarindus indica

us indica	Oraon: rabaioo
us illuica	Family: Fabaceae

LA	Kham	ຕົ້ນໝາກຂາມ
КН	Ampl	<u>អម្ពិល</u>
TH	Kham	ุมะงาม
VN	Me	Me
JP	Tamarindo	タマリンド



Order: Fabale

Remarks

<u>Distribution</u>: Indigenous in Africa. Widely cultivated all over the tropics.

Life form: Tree. Up to 20m tall.

Jul. 2010 Pakse Laos

<u>Use</u>: The green fruits and flowers may be used for souring soupy dishes of fish and meat. The ripe fruit of the sweet type is usually eaten fresh, whereas the fruits of sour types are made into juice, jam, syrup and candy.

Fruits are used as an antifebrile, a laxative, and an antiscorbutic agent. In traditional medicine mature leaves are used for dysentery, fruit pulp is used as a laxative, and old seeds are used as a parasiticide for children.

Wood is hard and heavy. It is used for productive materials like a cutting board.

Ref. No.: 5, 15, 18, 37, 45, 47, 49

Artocarpus integer

Order: Rosales Family: Moraceae

LA	<u>Mi</u>	·
KH	Chompa dok	ចំប៉ាដក់
TH	Champada, Champedak	_ จำปาคะ
VN	Mit to nu	Mít tố nữ
JP	<u>Koparamitsu</u>	コパラミツ



Remarks

<u>Distribution</u>: From Myanmar to Malesia through

Indochina.

Jul. 2010 Kampong Chhnang, Cambodia

 $\underline{\textbf{Life form}} \mbox{:}$ Tree. Up to 20m tall. It is same genus of Jack fruits.

<u>Use</u>: The fleshy perianths which surround the seeds are eaten fresh or cooked. It is sweet and juicy.

Ref. No.: 42, 46, 47

Ficus sp.		
LA	<u>Hai</u>	
KH	Leap	
TH		
VN		
JP		
D	-1	

Order: Rosales Family: Moraceae



Feb. 2010 Pakse, Laos

Remarks

<u>Life form</u>: Tree.

<u>Use</u>: Young leaves are eaten raw with meat.

Ref. No.: 12, 27

Ficus sp.

Order: Rosales Family: Moraceae

LA	Tour hair	
KH	L'vearom, Lvie dai	· -
TH		
VN	Va	Vå
JP		



Feb. 2010 Louang Phrabang, Laos

Remarks

Life form: Tree.

<u>Use</u>: Fruits are eaten. Some species of *Ficus* fruits are seen in local markets.

Ref. No.: 12, 27

Order: Rosales Morus alba Family: Moraceae LA Mom KH Mon touch, Mon pooh หม่อน TH Mon VN <u>Dâu tằm</u> Dau tam JP ヤマグワ Ymama-guwa Remarks

Jul. 2010 Ubon Rachatani Thailand

<u>Distribution</u>: From Afghanistan to China and Japan through

Himalaya region

Life form: Small tree. 3-10m tall.

<u>Use</u>: In the traditional medicine of Cambodia, the leaves are a component of a remedy against the conjunctivitis or wounds. The barks are used as an astringent.

It is an important sericulture food source.

Ref. No.: 14, 27, 48

Coccinia grandis

Order: Cucurbitales Family: Cucurbitaceae

LA		
KH	<u>Bah</u>	
TH	Tamlueng, Khaep	ต่ำถึง
VN	Day bat	Dây bát
JP	Yasai-kalasu-uri	ヤサイカラスウリ



Jul. 2011 Kratie, Cambodia

Remarks

<u>Distribution</u>: Widely distributed in the Old World. From northern tropical Africa to North Australia through India and Malesia.

Life form: Climber to 8m long. Fruit is green, grow in rows, and turn bright red when ripe.

 $\underline{\textbf{Use}} \hbox{: Young shoots are eaten as a vegetable. It is used for "samla", liquid dishes in Cambodia.}$

The plant is used in traditional medicine for scabies and diabetes.

General info.: Popular vegetable in local markets. Usually grown in home gardens and roadside.

Ref. No.: 14, 42

Cucurbita maxima LA Eu, Fak kham KH Lpeu TH Fak khiao, Fak thong VN Bi ro, Bi do JP Seiyou-kabocha セイヨウカボチャ Remarks Distribution: Originated from America. It was introduced all

Sep. 2012 Phnom Penh, Cambodia

over the world.

<u>Life form</u>: Annual herbaceous climber.

<u>Use</u>: All parts of this species are edible except thick stems and old leaves. In the Indochina region, flowers and young leaves are a popular ingredient of dishes. Flowers are eaten raw or with soup.

Ref. No.: 14, 27, 42, 46, 48

Luffa cylindrical

Order: Cucurbitales Family: Cucurbitaceae

LA	Buab	
KH	No noung moul	·
TH	Buap klom, Buap hom	
VN	Muop huong	Mướp hương
JP	Hechima	ヘチマ



Remarks

<u>Distribution</u>: Originally in south Asia. Widely cultivated.

<u>Life form</u>: Medium-sized climber to 5 m long.

Sep. 2009 Houayxay Laos

<u>Use</u>: Young fruits that appear powdery-white are ready to eat. The photo was taken in Laos, flowers, young leaves, and young fruit are sold at local market.

Ref. No.: 42

Momordica charantia f. abbreviate

Order: Cucurbitales Family: Cucurbitaceae

LA	Sai	<u>ຜ</u> ັກໃສ່
KH	Marea	<u>ត</u> ែះ
TH	Mara, Phakhoei, Phakhai, Mahoi	นะระ
VN	Muop dang, Kho qua	Mướp đắng, Khổ qua
JP	Nigauri	ニガウリ



Remarks

<u>Distribution</u>: The tropics.

<u>Life form</u>: Annual herb. Climber. Up to 5 m long.

Jul. 2008 Keun, Vientiane, Laos

<u>Use</u>: Young leaves and fruits are edible. Boiled young leaves are eaten with fermented fish paste or with soup for the bitter-tasting ingredient. Fruits are eaten raw, stir-fried, or as pickles.

It is a popular ingredient. They are often grown in village clearings, waysides, and home-gardens. It contains a chemical compound called Momordicin which cause bitter-taste. Fruits are prescribed for numerous medicinal uses. In traditional medicine, it is prescribed for diabetes, hepatitis, a knee pain, etc. A decoction of the root is used for allergy.

Ref. No.: 5, 14, 18, 26, 27, 42, 47, 49

Momordica cochinchinensis

Order: Cucurbitales Family: Cucurbitaceae

LA	Khao, Kheua, Khai	
KH		<u>.</u>
TH	Khao	
VN	Gac	<u>G</u> ấc
JP	Namban-karasu-uri	ナンバンカラスウリ



Remarks

Distribution: From India to Malesia through Indochina.

<u>Life form</u>: Deciduous woody climber. It climbs up tall

Sep. 2010 Vientiane province, Laos

trees and fruiting occurs on a high position. It has a tuber in the ground trees. Fruiting on a high position. It has a tuber in the ground.

<u>Use</u>: Young fruits, new shoots and flowers are used for an ingredient of curry. Young shoots are cooked with shrimp or meat with oyster sauce. This plant is called "Rice vine". It is used to make red rice for celebration. Red ripe pulp and seeds are steamed with sticky rice.

<u>General info.</u>: Since it is rich in lycopene it has antioxidant properties. It is also rich in vitamin A, C, and alpha-linoleic acid.

Ref. No.: 14, 42, 46, 47, 49

Castanopsis sp.

Order: Fagales Family: Fagaceae

LA	<u>Kaw</u>	ໝາກກໍ
KH	Khaohs	. <u> </u>
ТН	<u>Maikou</u>	
VN	De, Kha thu	Dē, Kha thụ
JP	Shii-no-mi	シイの実



Sep. 2009 Vientiane province, Laos

Remarks

Life form: Tree.

Use: Nuts are eaten raw, boiled or roasted.

General info.: Some big trees are left behind village.

Ref. No.: 14, 23, 45

Ludwigia adscendens

A	Pouy nam	_ <u> </u>
Н	Komping pouy	<u>កំពីងព្ទយស</u>
Н	Phaeng phuai nam	แพงพวยน้ำ
N	Rau dua nuoc	Rau dùa nước
P	Ke-mizu-kinbai	ケミズキンバイ

Order: Myrtales Family: Onagraceae



Sep. 2007 Vientiane province, Laos

Remarks

Distribution: Native of continental Asia. Introduced as a weed in tropical Africa.

<u>Life form</u>: Perennial herb. It roots on shallow bottom land and elongates stem to the water area.

A stem forms a white float. The stem elongates above the water about 20cm, it opens leaves and white flowers.

<u>Use</u>: Young shoots are eaten raw with fish sauce. Not found in markets.

In traditional medicine of Cambodia, Leaves are used as a remedy against the diseases of the scalp.

Ref. No.: 10, 27, 46, 47

Terminalia chebula

Som mor

KH Srama TH สมอไทย Samo thai Xang, Tieu (ca lich, chieu lieu Xàng, Tiếu, (cà lich, chiêu xanh) <u>liêu xanh)</u> JP

Mirobalan-no-ki

Order: Myrtales Family: Combretaceae



Remarks

LA

Distribution: From the sub-Himalayan region of Nepal and northern India to Indochina.

<u>Life form</u>: Deciduous tree. Up to 25 m.

Jul. 2011 Pakse, Laos

<u>Use</u>: The bitter green fruit is eaten raw with roasted fish in Cambodia and eaten raw with Laap in Laos.

The fruit is rich in tannin. Leather tanned with this fruit is soft. The bark produces a gum.

ミロバランノキ

Ref. No.: 18, 27, 46, 47

Syzygium antisepticum

Order: Myrtales Family: Myrtaceae

LA	Samek	ชัทสะเป <mark>ั</mark> ท
KH	Poun	
TH	Mek, Samet chun	เม็ก, เสม็ดชุน
VN	Tram	Trâm
JP		



Jul. 2010 Pakse, Laos

Remarks

<u>Distribution</u>: From India to Malesia through Indochina.

<u>Life form</u>: Tree. Up to 20m tall. This small tree that has grown on a common is used.

<u>Use</u>: Young leaves are eaten with Laap in Laos. After eating with oily meat, mouth feels fresh. The bark has been used as a black dye.

Ref. No.: 7, 14, 45, 52

Trapa natans		
LA	Chap	ໝາກຈັບ
KH	Krochap	ក្រចាប់
TH	Ma ngaeng	์ มะแ ว ่ง
VN	Au nuoc	<u>Áu nước</u>
JP	<u>Tou-bishi</u>	トウビシ

Order: Myrtales Family: Lythraceae



Sep. 2007 Vientiane province, Laos

<u>Distribution</u>: Widely cultivated in tropical and subtropical Asia.

<u>Life form</u>: Annual herb. Floating leaved plant. Two horn water chestnut. It grows in the slow-moving rivers, lakes, swamps, ponds.

Use: Fruits are eaten raw or cooked.

In Cambodia the hard pericarp, in infusion, is considered a tonic and febrifuge.

Ref. No.: 12, 27, 42, 46, 48, 52

Remarks

Bouea oppositifolia

Order:	Sapindales
Family:	Anacardiaceae

LA	Phang	ໝາກຜາງ
KH	Mak prang	ម៉ាក់ប្រាង
TH	Ma pring, Ma yong chit	ุ มะปริง
VN	Thanh tra, Xoai rung	Thanh trà, xoài rừng
JP	Pulam-mangoo	プラムマンゴー



Feb. 2010 Louang Phrabang, Laos

Remarks

<u>Distribution</u>: Widely cultivated in tropical and subtropical Asia.

Life form: Tree. 6-30 m tall.

<u>Use</u>: Fruits are sweet and eaten as desserts.

Trunk is used to make a valuable varnish and wood is used for supports or pillars.

Ref. No.: 14, 27, 42

Spondias dulcis

Order: Sapindales Family: Anacardiaceae

LA	Kork	
KH	Makak	ម្នាក់
TH	Makok farang, Makok waan	มะกอกฝรั่ง
VN	Coc	Cóc
JP	Ama-yani-lingo, Tahichi-monbing, Tamago-no-ki	アマヤニリンゴ、タヒチ モンビン、タマゴノキ



Remarks

<u>Distribution</u>: Native from Melanesia to Polynesia.

Introduced into all over the tropics.

Life form: Tree. 10 - 15m tall.

Jul. 2010 Kampong Chhnang, Cambodia

<u>Use</u>: Young leaves and fruits are edible. Fruits are eaten raw with salt and pepper. Ripe fruit is stewed and used for jams, jellies, and juice. The green fruit is used frequently in green salads, curries, and making pickles.

In the traditional medicine of Cambodia, the bark is used against diarrhea. There are diverse medicinal uses of fruit, leaves, and bark in different parts of the world. Its use for the treatment of wounds, sores, and burns has been reported in several countries.

Ref. No.: 5, 14, 27, 42, 45, 46, 47

Spondias pinnata

Order: Sapindales Family: Anacardiaceae

LA	Kok	ໝາກກອກ
КН	Mkak prei, Puen si phlae, Pounblay	ម្នាក់ .
TH	Ma kok, Kok-mon, Kok khao	มะกอก
VN	Coc rung	Cóc rừng
JP	Yani-lingo, Kohaku-monbing	ヤニリンゴ、コハクモンビン



Jan. 2009 Chiang Mai, Thailand

Remarks

Distribution: From India to Malesia through Indochina.

<u>Life form</u>: Deciduous tree. 5-25 m tall.

<u>Use</u>: Young leaves are eaten raw with fermented fish paste. It is used for Laap and Coi in Laos. Raw fruits are edible but not so popular because of their astringent, acid and turpentine flavor. It is used for a crystallized fruits, jam and ice cream.

The trunk is used against the malaria in Cambodia. Medicinally the fruit is used as an astringent, antiscorbutic and it is also used against bilious dyspepsia. The juice is applied against earache.

Ref. No.: 5, 14, 27, 42, 45, 46, 47

Azadirachta indica

Order: Sapindales Family: Meliaceae

LA	Ka dao, Khom	ກາເດົາ
KH	Sdau, Salien	ស្ពៅ
TH	Sadao, Saliam, Kadao	สะเคา
VN	Sau dau	Sầu đâu
JP	Indo-sendang	<u>インドセンダン、ニーム</u>



Feb. 2010 Louang Phrabang, Laos

Remarks

<u>Distribution</u>: Native to Indo-Pakistan to Myanmar. It is widely cultivated.

Life form: Tree. Up to 25m tall.

<u>Use</u>: Boiled young leaves and flowers are eaten as bitter-taste vegetable. Fruits are sweet and edible.

Mature leaves have anti-diabetic properties. Bark is used like quinine. India extracted a contraceptive ingredient from dried seed in 1994. In the traditional medicine of Thailand, tea made from dried flowers is used for stomach health and used as an antifebrile.

Ref. No.: 11, 21, 27, 41, 42, 45, 46, 47, 49

Aegle marmelos

Order:	Sapindales
Family:	Rutaceae

LA	Tum	ໝານຜຶກ
KH	Pnou	្សនៅ
TH	Matum	มะ ผูม
VN	Quanch, Bau nau	Quách, Bầu nâu
JP	Belu-no-ki	ベルノキ



Sep. 2009 Chiang Rai, Thailand

Remarks

<u>Distribution</u>: Originated in the India. Cultivated in Indochina and Malesia.

<u>Life form</u>: Tree. Up to 10-15m tall.

<u>Use</u>: Young shoots are eaten as a salad. Ripe fruit is eaten fresh and is also prepared as sherbet, syrup, and jam. The most popular usage is tea made with sliced and dried young fruits.

As a medicine, the tea has an effect on chronic dysentery, diarrhea and constipation.

<u>General info.</u>: It is an old cultivated tree in India, particularly found in temple gardens. In Indochina, trees are grown nearby villages.

Ref. No.: 17, 42, 45, 47

Citrus hystrix

LA	Khee hoot	ໝາກ, ໃບຂີ້ຫູດ
KH	Kro sauch	ក្រូចសើច
TH	Makrut	มะกรูค
VN	Truc, Chanh sac	Trúc, Chanh sác
JP	Kobu-mikan	<u>コブミカン</u>

Remarks

<u>Distribution</u>: Widely naturalized from Sri Lanka to Malesia through Indochina.

<u>Life form</u>: Tree. Up to 12 m tall.

<u>Use</u>: Leaves are the flavoring ingredient famously called "Bai Makrut" in Thailand. The juice of the fruit is used for seasoning and to prepare drinks.

Fruits are used as an insecticide in shampoo and it is also used for treating feet to ward off leech attack.

<u>General info.</u>: Usually it is planted in a home-garden. In Cambodia, the fruit is mixed with lustral water for use in religious ceremonies.

Ref. No.: 12, 27, 42, 45, 47

Order: Sapindales Family: Rutaceae



Jul. 2013 Battanbang, Cambodia



Sep. 2007 Vientiane Laos

Feroniella lucida

Order: Sapindales Family: Rutaceae

LA	Sang	
КН	Krasang	ក្រសាំងស៊ីផ្លែ, ក្រសាំងពុល
TH	Ma sang, Mak ka sang	มะสัง
VN	Can thang	Cần thăng
JP		



Jul. 2010 Kratie, Cambodia

Remarks

Distribution: Indochina and Java. **<u>Life form</u>**: Tree. Up to 25 m tall.

<u>Use</u>: The pulp which surround the seeds of young fruit is used as an acid element in Cambodian culinary called "samla mchu". The flowers are also used as vegetables or to prepare some dishes.

In traditional medicine, flowers and leaves are used as a medicine which helps digestion. In modern chemistry, some organic compounds are extracted from the root system. Control of cancer cells, anti-malarial activity, and an anti-tuberculosis activity has been reported. The bark is used to make incense sticks in Cambodia.

General info.: It is often seen at local markets in Cambodia and Vietnam.

Ref. No.: 10, 19, 27, 31, 45

Limonia acidissima

ウッドアップル Wood-Apple

Ka sang ខិត KH Khvat Ma khwit มะขวิด Quách, Cần thăng VN Quach, Can thang JP



Order: Sapindales

Jul. 2010 Kratie, Cambodia

Remarks

Distribution: Wilde in India, Sri Lanka, Myanmar and Indochina. Cultivated and naturalized in Malaysia and Indonesia.

<u>Life form</u>: Tree. Up to 12m tall.

<u>Use</u>: The fresh pulp of the ripe fruit is eaten with sugar. It contains rich vitamin and minerals. In traditional Khmer medicine, fruits are used for a heart tonic and pulp is used for gingivitis. Leaves are used for an anti-diarrheal. In the modern chemistry, various components such as alkaloid and a steroid are extracted. It has an anticarcinoma activity.

Ref. No.: 17, 27, 28, 45, 46, 47, 52

Murraya koenigii

Order: Sapindales Family: Rutaceae

LA		
КН	Kontorop, Kantrook, Kantroob samla	កន្ទ្រោក,កន្ត្រោកសម្
TH	Hom khaek, Bai kari	หอมแขก, ใบกะหรื่
VN	La cari	Lá cà-ri
JP	Ooba-gekkitsu, Kalee-no-ki, Nanyo-sansho	<u>オオバゲッキツ、カレーノ</u> キ、ナンヨウサンショウ



Jul. 2010 Kampong Chhnang, Cambodia

Remarks

<u>Distribution</u>: From India to Indochina. <u>Life form</u>: Small tree. Up to 4 m tall.

<u>Use</u>: Leaves are used as condiments. It is used for soup called "Som low" in Cambodia, and the curry of India and Sri Lanka. English name is "Curry leaf".

One Japanese women scientist who lived in Indochina over the long term said that "Even if the white flowers boiled in soy sauce, it did not lose a scent. It was good side dish."

In India, it is used as a medicine from B.C.. In the traditional medicine of Cambodia, the bark, root, and leaves are considered invigorating and tonic. The decoctions of leaves are used to bathe children with scabies. Recent scientist reports indicate a decoction of leaves has strong antimicrobial action.

Ref. No.: 18, 27, 40, 42, 46, 48

Zanthoxylum sp.

Order: Sapindales Family: Rutaceae

LA	Khane	
KH		
TH		
VN	Hoang moc	Hoàng mộc
JP	Unnan-sansho (cf. 40)	ウンナンサンショウ (cf. 40)



<u>Life form</u>: Genus *Zanthoxylum* is shrub or tree. The leaves and fruits of this species looks like *Zanthoxylum ailanthoides* that distribute in Japan. The fruit is about 4mm in diameter.

<u>Use</u>: Fruit walls are used as a strong condiment. When the author bit into this fruit, the tongue went numb about 10 minutes. Young leaves are also used as a vegetable with laap or Bamboo shoot.

General info.: Literatures shows *Z. rhetsa* and *Z. myriacanthum* and we think this species in the photos may be *Z. myriacanthum* because of the fruit size.

Ref. No.: 13, 14, 17, 40, 47, 48



Nov. 2011 Vang Vieng, Laos



Nov. 2011 Vang Vieng, Laos

Order: Sapindales

Family: Sapindaceae

Arytera litoralis

LA
Ka duk
遊nn

KH
Bei sanlek

TH
Si puk dong, Kho kam

VN
Truong duyen hai
Trường duyên hải

JP
Futago-no-ki
フタゴノキ

Remarks

<u>Distribution</u>: From India to Solomon through China, Indochina and Malesia.

Life form: Small tree. 3-10m tall.

Sep. 2009 Houayxay, Laos

<u>Use</u>: Young leaves are eaten as vegetable in Laos. The fruits are also edible.

Ref. No.: 10, 14, 15, 27, 45, 46

Nephelium hypoleucum

Order: Sapindales Family: Sapindaceae

LA	Ton mak ngay	ຕົ້ນໝາກແງ່ວ
KH	Ser moen	សិរមាន់
TH	Kho lean, Ma ngaeo	คอแลน
VN	Chom chom trang duoi	Chôm chôm trắng dưới
JP		

Remarks

Distribution: Indochina.

<u>Life form</u>: Tree. Up to 30m high. It grows in the forest nearby the village.

Use: The acidic fleshy seed coat is edible.

The wood is used to make tool handles.

Ref. No.: 14, 27



Jul. 2008 Vientiane, Laos

Schleichera oleosa

Order: Sapindales Family: Sapindaceae



Jun. 2011 Parkse, Laos

Remarks

<u>Distribution</u>: Introduced from Sri Lanka and India to east parts of Indonesia through Indochina.

<u>Life form</u>: Tree. Up to 40m tall. Typically growing near termite mounds. The fruit is reddish yellow, juicy and sour aril.

<u>Use</u>: Young leaves may be eaten as a vegetable in Thailand. The fruit is eaten raw or cooked, but eating too much of it causes stomach ache. Young fruits are sometimes used in spicy papaya salad in Lao. The golden yellow arillus is used to acidulate some liquid dishes, especially spawns "samla" in Cambodia.

The seed contain up to 70% oil, called "Macassar oil", which has the reputation of stimulating hair growth. Boiled seed is used to treat back pain and the peel of the fruit is applied to wounds. Bark and stem extracts are used for wounds and to slow down cancer cell growth. The bark is mixed with red ants to treat stomach aches. It has been believed that the bark is an effective remedy against malaria and various inflammations. It was discovered recently that sterol or steroid alcohols in the bark have anti-cancer properties.

Ref. No.: 14, 27, 51

Ceiba pentandra

Order: Malvales Family: Malvaceae

LA	Ngiu barn	
KH	Kou, Koor fii	ក្ស
TH	Nun	. ,
VN	Bong gon	Bông gòn
JP	Panya-no-ki	パンヤノキ



Jul. 2010 Stung Treng, Cambodia

Remarks

<u>Distribution</u>: Originated from India. Cultivated in tropical South America, Africa and Asia.

<u>Life form</u>: Deciduous tree up to 20m tall. Fruit capsule oblong, 12-15 by 3-5 cm, densely silky hairy inside. Seed shape is reniform and color is black.

<u>Use</u>: Young flowers and fruits are consumed as vegetables in Cambodia.

In the traditional medicine of Cambodia, resin from the trunk is dilated into water. It constitutes a delicious tonic dessert. Bark is used as a medicine for diarrhea.

Its cotton is used as contents for bedding or pillows.

Ref. No.: 14, 27, 46

Hib	iscus sabdariffa		Order: Malvales Family: Malvaceae
LA KH TH VN JP Remar	Sompordee Kro chap kdam Krachiap daeng Sompormo, Sompordee Bup giam, Day nhat Rozel-so ks tion: Originated from Af	ล้มพ์ดิ	

Sep. 2007 Vientiane, Laos

Life form: Annual herb. 0.5-3m tall.

<u>Use</u>: Young leaves are used as an acidic ingredient for cooked dishes like Tamarindo soup. Ripe fruits are sour. It is used for jelly, syrup, and juice.

In the traditional medicine of Thailand, buds and leaves are used as digestive medicine. A decoction is used to wash a wound. Flowers are effective against fever, cough, and to remove bile. It is supposed that the seed reduces fat in blood.

Ref. No.: 6, 18, 46, 47, 49

Pan-tropics.

Leptonychia heteroclite

WanผักขอาบWan dam, Wan parผักหวานคำ

Order: Malvales Family: Malvaceae



Feb. 2010 Thakhek, Laos

Remarks

TH VN JP

<u>Distribution</u>: From India to Indonesia through Indochina.

Life form: Shrub, 1-3m tall.

<u>Use</u>: Buds, young leaves, and young fruit are boiled or steamed. It is taken with a fermented fish paste or with Laap. It is also cooked with ant egg, fish, and coconut soups.

In the traditional medicine of Thailand, a root suppresses the work of poison. It is prescribed when one is in ill-condition.

Ref. No.: 5, 14

Scaphium macropodum

LA	Jon, Jon ban	
KH	Samrang	
TH	Samrong, Phung thalai	สำรอง, พุงทะลาย
VN	Luoi uoi	Lười ươi
JP	Funemi-no-ki	フネミノキ

Remarks

<u>Distribution</u>: From Indochina to Borneo and Sumatra through peninsula Malaysia.

<u>Life form</u>: Tree. Up to 45m tall.

<u>Use</u>: The Jelly made from water soaked seed is eaten. In Laos, the dish using this jelly called "Laap mak jon" is considered fine dining.

This jelly is also used as a medicine for the throat.

<u>General info.</u>: Seeds are collected from the forest. It is not in the village area.

Ref. No.: 12, 21, 27, 33, 34





Jul. 2011 Phnom Penh, Cambodia



1996 Pasoh FR, Malaysia

Muntingia calabura

Order: Malvales Family: Muntingiaceae

LA	Ta khop	
KH	Krakhob	្រីខ្មែប .
TH	Ta khop farang	ตะขบฝรั่ง
VN	Trung ca, Mat sam	Trứng cá, Mật sâm
JP	Nanyou-zakura	ナンヨウザクラ



Jul. 2011 Parske, Laos

Remarks

<u>Distribution</u>: Originated from West Indies and Mexico.

Cultivated in the tropics.

<u>Life form</u>: Small tree. Up to 10m tall.

<u>Use</u>: Ripe fruit is eaten raw. It is a snack for children. It is not seen in local markets.

In the traditional medicine of Cambodia, crushed fresh leaves are applied to bee and wasp stings.

Roots are a component of a medicine for some diseases of the liver.

General info.: Usually it is planted in front of a house and along the village wayside in the Indochina region.

Ref. No.: 14, 17, 18, 27, 46

Nasturtium officinale

Order: Brassicales Family: Brassicaceae

LA	Si sang	_ ຜັກນຳ້
KH	Kong kep	_ ភ្នៅកង្កែប
TH		
VN	Cai-soong	Cải soong, Xà lách xoong
JP	Oranda-galashi, Kuleson	オランダガラシ、クレソン



Jul. 2010 Kampong Chhnang, Cambodia

Remarks

Distribution: Originated from Europe. Introduced and cultivated in the world.

<u>Life form</u>: Aquatic perennial herb. Emergent plant. It grows in shallow water.

Use: Young shoots are eaten raw as a salad plant.

General info.: Cultivation canals are used for commercial production. Plants that have escaped cultivation canals can be found in the streams or drain canals of a village and are collected by the local people.

Ref. No.: 14, 18

Cleome gynandra

Order:	Brassicales
Family:	Cleomaceae

LA	Sien	
KH	Mamien	មមាញ
TH	Sian, Som siang	ผักเสี้ยน
VN	Mangmang trang	Màng màng trắng
JP	Fuchoso	<u>フウチョウソウ</u>



Aug. 2013 Battambang, Cambodia

Remarks

<u>Distribution</u>: Native to Asia. Widely introduced to the old world and new world tropics.

Life form: Annual herb. 15-80cm tall.

<u>Use</u>: Leaves are used for a vegetable. It is a bitter-taste ingredient. In traditional medicine, a decoction of the roots is taken as a febrifuge, and used against tuberculosis. The fermented plant is used to sober up, and placed on a tumor to sooth itchiness. Because it has a negative influence on the womb, it is supposed that a pregnant woman must not eat.

Ref. No.: 7, 27, 46, 47, 49

Moringa oleifera			Order: Brassicales Family: Moringaceae
LA	<u>Ii fim, Ihum</u>		
КН	M'rom, Mrum	ម្រីត	
TH	Marum, Phak e-heem, Phak e-hum, Ma khon kom	ัทะวัท	
VN	Chum ngay	Chùm ngây	
JP	Wasabi-no-ki	ワサビノキ	
Remarks <u>Distribution</u> : Originated from India. Cultivated and			

Sep. 2012 Phnom Penh, Cambodia

Life form: Small tree. Up to 10m tall. Leaves compound, tripinnate, 30-60cm long.

<u>Use</u>: Young leaves and fruits are edible. Small leaflets are cooked with soup. Deep fried leaflets are eaten with salt. Young fruits without green peel are boiled or fried. Leaves and fruits are scent? and not spicy. It is rich in vitamins, calcium, and iron.

In the traditional medicine of Cambodia, bark is given as tonic for women to drink after delivery. Ben oil is extracted from the seeds. This oil contains a powerful flocculant that is used to clarify turbid water.

<u>General info.</u>: The Ministry of HLW of Japan has called attention to the ingestion of this species; "http://www.mhlw.go.jp/topics/bukyoku/iyaku/syoku-anzen/hokenkinou/4e-3.html" (May 2004).

Ref. No.: 27, 40, 42, 45, 46, 48

naturalized in tropical Asia, Africa and America.

Melientha suavis

Order: Santalales Family: Opiliaceae

LA	Wan, Wan kok	<u> </u>
KH	Preich	្រ្រិច
TH	Phak wan	ผักหวาน
VN	Ran sang	Rau sắng
JP		



Feb. 2010 Savannakhet, Laos

Remarks

<u>Distribution</u>: Laos, Vietnam, Cambodia, Malay Peninsula, and Philippines.

<u>Life form</u>: Small tree. Up to 10m tall.

<u>Use</u>: Young shoots and flowers are eaten as vegetables. This plant is famous in Cambodia as a most delicious of all vegetables. They are eaten cooked in various culinary preparations. It contains rich vitamin C and the protein.

<u>General info.</u>: It is seen in the market uncommonly. The Flora of Thailand called attention to the difficulty in identifying *Melientha suavis* without flowers or fruits since similar leaves of other species are sometimes eaten. Thailand reports that poisoning and death may occur if leaves of the widespread *Urobotrya siamensis* are mistakenly eaten.

Ref. No.: 14, 27

Glinus oppositifolius

Order: Caryophyllales Family: Molluginaceae

LA	Dong kok	
KH	Dang'khem	
TH	Phak khuang	ผักขวง
VN	Rau dang dat	Rau đắng đất
JP		-

Remarks

Distribution: The tropics.

<u>Life form</u>: Annual herb. Stem erect spreading sometime creeping; branches 3-50 cm.

<u>Use</u>: As a vegetable substitute. The bitter leaves are eaten cooked with meat or fish and for soup.

In traditional medicine, the leaves are used to treat head aces and flu as well as digestive-system troubles in Cambodia.

General info.: Grows in open land places which periodically flood, sandy banks, and paddy fields durning the dry season. The acridity is quite similar to *Swertia japonica* (Japanese name is Senburi).

<u>Ref. No.</u>: 14, 27



Feb. 2010 Savannakhet, Laos



Feb. 2010 Thakhek, Laos

Portulaca oleracea

LA Tin khii khap ตักติบอั๊เลับ KH Kbet chun บูบย่าส่ฐ TH Bia yai ผักเบี๋ยใหญ่ VN Sam Sam JP Suberi-hiyu スベリヒコ

Remarks

<u>Distribution</u>: The tropics and the sub-tropics.

<u>Life form</u>: Annual herb, more or less creeping, branching out, 10-30cm. Grows in waysides and uncultivated places of a village.

Use: Eaten as a vegetable.

The decoction of leaves is absorbed to aid diarrhea.

Ref. No.: 14, 27, 46

Order: Caryophyllales Family: Portulacaceae



Feb. 2010 Pakse Laos

Polygonum odoratum

Order: Caryophyllales Family: Polygonaceae

LA	Peo, Phaew	<u>ຜ</u> ັກແພ່ວ
KH	Krasang tumhum	
TH	Phak phai	ผักใผ่
VN	Rau ram	Rau răm
JP		



Feb. 2010 Thakhek, Laos

Remarks

<u>Distribution</u>: Southeast Asia.

Life form: Annual herb. 50 -80cm tall.

 $\underline{\textbf{Use}}$: Leaves are used as a condiment. It is strong and pungent. It is eaten raw with meat.

It has anthelmintic action. **Ref. No.:** 12, 18, 22, 27, 42

Basel	la	al	ha
Dasti	ıa	aı	υa

Order: Caryophyllales Family: Basellaceae

LA	Pang	ຜັກປັງ
KH	Chunlueng, Chilong	ជន្លង់
TH	Plang	ผักปลัง
VN	Mong toi	Mồng tơi
JP	Tsulu-murasaki	ツルムラサキ



Remarks

<u>Distribution</u>: Introduced to the tropics. Probably from Africa.

Life form: Herbaceous climber.

Jul. 2010 Kratie, Cambodia

<u>Use</u>: Leaves and flowers are eaten raw or cooked. It is a daily vegetable with high nutritive value. The seeds yield many things from juice to eye-salve. A tea made from the whole plant is used as a laxative for children and for easing child delivery.

General info.: It is often seen in a home garden, near villages, and old clearings.

Ref. No.: 5, 14, 23, 27, 41, 46, 49

Amaranthus spinosus

Order: Caryophyllales Family: Amaranthaceae

LA	Houm	ໍສຸກ _ຶ ນກ
KH	Pti	ផ្ទីបន្ទា
ТН	Phak khom nam, Phak hom nam	ผักขมหนาม
VN	Den xanh, Den hoang, Den gai	Dền xanh, Dền hoang, Dền gai
JP	Hali-biyu	ハリビユ

Jul. 2008 Keun, Vientiane, Laos

Remarks <u>Distribution</u>: Originated from the new world tropics. Distributed to the tropics and warm temperate regions of the world.

Life form: Annual herb. 40~80cm tall.

<u>Use</u>: Young leaves are eaten as a vegetable or soup.

In the traditional medicine of Indochina, roots are used as a diuretic, for gonorrhea, an anti-febrile, and a plaster for wound. Leaves are also used as an anti-febrile, a remedy for poison, a skin emollient, and a galactagogue.

Ref. No.: 6, 14, 18, 25, 27, 46, 47

Amaranthus tricolor

Order: Caryophyllales Family: Amaranthaceae

LA	Hom den	<mark>ຜ</mark> ັກຫຼືມແດງ
KH	<u>Pti leak</u>	ផ្ទីក្រហម ផ្ទិដូង
TH	Khom si, Khom khao	
VN	Den canh, Den tia	Dền canh, Dền tía
JP	<u>Hiyu</u>	ヒ그



Feb. 2010 Savannakhet, Laos

Remarks

<u>Distribution</u>: Cultivated in pan-tropic. Native to India.

<u>Life form</u>: Annual herb. Often much branched, up to 2m tall.

<u>Use</u>: Popular vegetable in local markets. Often cultivated in the home garden as a daily vegetable. Eaten like spinach. Seed contains rich starch.

Ref. No.: 14, 27, 39, 46

Diospyros decandra

Order: Ericales
Family: Ebenaceae

LA	Chan	_
KH	Chan	ចាន់, ប៉ែន
ТН	Chan	ุ จัน
VN	Thi	Thị
JP		



Jul. 2010 Phnom Penh, Cambodia

Remarks

Distribution: India, South China, Indochina.

<u>Life form</u>: Evergreen tree. Up to 20m tall.

<u>Use</u>: Fruits are eaten raw. People of Indochina love the fragrance of this fruit.

Leaves, roots, and fruits are used in traditional medicine. Leaves are used as poultice applied on ulcers. Roots are a component of a remedy against the plague and venereal diseases. Fruits are used as vermifuge. Wood is very hard and used in cabinetwork.

Ref. No.: 14, 27, 47

Diospyros sp.		
LA	Γa kouang	ໝາກຕາກວາງ
KH		
TH		
VN		
JP		

Order: Ericales Family: Ebenaceae



2010 Feb. 19 Thakhek, Laos

Remarks

<u>Use</u>: Fruits are eaten raw. In February, the fruits were sold at a temporary market along a road in south Laos.

Barringtonia acutangula

Order: Ericales
Family: Lecythidaceae

LA	Ka don nam	<u>ຜັກກາ</u> ໂດນນຳ້
KH	Trouy reang	<u> វាំងទឹក, រាំងអន្លក់</u>
TH	Chik na, Kra don tun, Kra don nam	จิกนา
VN	Chiec, Loc vung	Chiếc, Lộc vừng
JP		



Feb. 2010 Pakse, Laos a

Remarks

<u>Distribution</u>: From Pakistern to Malesia and northern Australia through Indochina.

<u>Life form</u>: Tree. 10-25m tall. It grows in swamps, water-banks, and lowlands that get soaked in the rainy season.

<u>Use</u>: Young leaves are eaten as salads. It is rich and bitter tasting. It is popular in local markets of Indochina.

The edible part exhibits extremely high antioxidant activity. There are a lot of reports about its medicinal components i.e. an anticancer, antibacterial action, an opioid analgesia agent, and so on. In the local medicine of Cambodia, the bark is said to be efficient against fever, diarrhea, malaria, and gonorrhea. Root is usable in substitution for a cinchona. In Thailand, decoction of bark is used to wash wounds. Fruits are used as a cold medicine.

General info.: The dominant species of Lake Tonle Sap.

Ref. No.: 6, 7, 8, 9, 17, 27, 47, 49

Careya arborea

LA	77 1 77 1 1 1	ໍ _່ ຜັກກາໂດນ
LA	Ka don, Ka don hok	<u></u>
KH	Reang kouk	កណ្ដោល
TH	Kradon, Kradon kok	กระโดน
VN	Vung, Vung xoan	Vừng, Vừng xoan
JP		

Remarks

<u>Distribution</u>: From India to Indochina and Malay peninsula. <u>Life form</u>: Tree. Up to 20m tall.

<u>Use</u>: Young leaves are eaten as a salad with fermented fish paste or Cheo in Laos and Thailand.

In traditional medicine, fruits are used for digestion. Seeds are used as antidote for poison and bark is a medicine of diarrhea. Black dye from the bark is is used to wash and bandage ulcerated wounds.

The bark is used make saddlecloth for elephants.

Ref. No.: 7, 16, 17, 27, 44

Order: Ericales Family: Lecythidaceae



Jul. 2010 Stung Treng, Cambodia



Feb. 2010 Nam Song, Pakse, Laos

Camellia sinensis

LA	Xar	
КН	<u>Tae</u>	
TH	Miang	_ เมี่ยง
VN	Tra	<u>Trà</u>
JP	Cha-no-ki	チャノキ

Remarks

<u>Distribution</u>: From India to Indochina and south China.

Life form: Shrub. Up to 15m tall.

<u>Use</u>: Cultivated for conventional tea and fermented tea. Fermented tea leaves are eaten. Fresh leaves occasionally are seen in a local market.

Ref. No.: 14, 26, 27, 46

Order: Ericales Family: Theaceae



Nov. 2011 Vang Vieng, Laos

Gardenia obtusifolia

Order: Gentianales Family: Rubiaceae

LA	See dar par	ໝາກສິດາປ່າ
KH	Bai remeas , Plae oul	ប្រាយរមាស
TH	Kramop	กระมอบ
VN	Danh danh la ta	Dành dành lá tà
JP		



Jul. 2008 Dong Makkai, Vientiane, Laos

<u>Life form</u>: Shrub. Up to 4m tall.

<u>Use</u>: Fruits are eaten raw. It has not been seen in markets but found growing in an empty lot near by a village.

Ref. No.: 12

Morinda citrifolia

Order: Gentianales Family: Rubiaceae

LA	Nyor barn	
KH	Nho srok	
TH	Yo ban	
VN	Nhao, Nhau	Nhào, Nhàu
JP	Yaeyama-aoki	ヤエヤマアオキ



Remarks

<u>Distribution</u>: Native of Queensland. Widespread throughout Southeast Asia.

<u>Life form</u>: Shrub. 4-10m tall. Often cultivated near houses.

Aug. 2013 Battambang, Cambodia

<u>Use</u>: Leaves often eaten as vegetables in a special dish, "amok" in Cambodia. Ripe fruits eaten with some salt.

In traditional, the roots are used as a hypotensive medicine.

Know as "Noni" in Hawaii; the white ripe fruit is picked, washed, put in a container, and kept in a cool dark place to produce a clear liquid that is consume for medicinal purposes.

Ref. No.: 12, 27, 45, 46, 47

Aganonerion polymorphum

Order: Gentianales Family: Apocynaceae

LA KH	Khea som lom Thnong, Kaot prum	ពេំខន៌័ມລົມ កោតព្រំ, ថ្នង(វិល្លី)
TH	Som lom	ส้มถม
VN	Day dang, Day la giang	Dây dang, Dây lá Giang
JP		



Jul. 2010 Kratie, Cambodia

Remarks

Distribution: Vietnam, Cambodia, Laos.

<u>Life form</u>: Climber. It is grown at a common of village.

<u>Use</u>: The leaves and fruits are used fresh in cooking as a substitute for lemon. At the local market in Cambodia, this plant is often seen. Acid ingredient.

Elastic stem used as a string.

Ref. No.: 14, 27

Telosma cordata		Order: Gentianales Family: Apocynaceae
KH Sralot TH Salit VN Thien ly	 ស្រឡិត สลิด Thiên lý	
Yalaikou Remarks Distribution: Origin unknown. Co	ヤライコウ ultivated in India and	

Life form: Climber.

Southeast Asia.

Aug. 2013 Ho Chi minh, Vietnam

<u>Use</u>: Young leaves and flowers eaten as vegetables in the Cambodia dish "Samla".

The juice of leaves would have curative properties against uterine ptosis.

Ref. No.: 27, 42, 46

Limnophila aromatic

Order: Lamiales

Family: Plantaginaceae

LA	Kha yang	<u> ຕັກໜາມ (ຕັກຂະແຍງ)</u>
KH	M'orm	
TH	Ka phrao yai, Khayaeng	กะเพราใหญ่
VN	Rau om, Ngo om	Rau Om, Ngò om
JP	Shiso-kusa	シソクサ



Jul. 2008 Vientiane province, Laos

Remarks

<u>Distribution</u>: From India and Sri Lanka to Indochina, southern China, Japan, Taiwan, throughout Southeast Asia and northern Australia.

Life form: Annual herb, 30-100cm tall. Emergent plant.

<u>Use</u>: The young shoots are used to flavor some dishes, in particular "samla" in Cambodia and "Somtam" Papaya salad in Thailand and Laos.

In traditional medicine, stems and leaves are components of an antispasmodic remedy. The sap of leaves is used to clean wounds, and a decoction of the leaves is given for fever. It is used as a purgative. It is supposed that pregnant woman must not eat.

In external use, stalks and leaves mixed with wood ash and common salt make a cosmetic for face-care.

Ref. No.: 5, 14, 18, 27, 46, 47, 52

Ocimum tenuiflorum

Order: Lamiales Family: Lamiaceae

LA	Ee too	
KH	Mrua prau	
TH	Ka phrao	กะเพรา
VN	Huong nhu	Hương nhu
JP	Kami-mebouk	カミメボウキ



Remarks

<u>Distribution</u>: Native to tropical Asia. Introduced to the tropics.

Life form: Herbaceous plant. 30-60cm tall.

Jul. 2010 Phnom Penh, Cambodia

<u>Use</u>: The leaves are used for flavoring "Chan kdao" in Cambodia. It is cultivated especially for the mucilaginous seeds, which is soaked in water to make a soft drink.

In traditional medicine, the seeds would facilitate delivery.

Ref. No.: 12, 27, 46, 47

Markhamia stipulate

Order: Lamiales Family: Bignoniaceae

LA	Khae , Khae paa	ດອກແຄ່ປ່າ,ໝາກດອກແຄປ່າ
KH	Dak po, Chroluf	ដកព
TH	Khae, Khae pa, Khae hang khang	แค
VN	Thiet dinh, Dinh	Thiết đinh, Đinh
JP		

Remarks

<u>Distribution</u>: From south China to Indochina.

<u>Life form</u>: Small tree. Up to 15m tall.

<u>Use</u>: Flowers and young fruits are edible. Young fruits are boiled after burning the hair of the surface. It is eaten with Laap. This plant is a bitter ingredient. Since flesh corollas are collected in the early morning, the flowers are seen only in the morning market.

Bark is used as a medicine in Laos.

General info.: The meaning of "khae hang khang" in Thai is a tail of guenon.

Ref. No.: 14, 41, 51, 52



Feb. 2010 Thakhek, Laos



Feb. 2010 Savannakhet, Laos

Oroxylum indicum

LA	Linmai	ໝາກລີນໄມ້
KH	Pika, Sroum dau	ស្រោមដាវិ
TH	Pheka, Linmai, Ma linmai	_ เพกา
VN	Nuc nac	Núc nác
JP	Sorizaya-no-ki	ソリザヤノキ

Remarks

<u>Distribution</u>: From Nepal and Bhutan to Java, Sumatra and Pilippines through Indochina.

<u>Life form</u>: Small tree. Up to 12m. Length of fruit is 60-100cm. When fruit is ripe, a sheath rolls back open. Seeds with a thin wing are launched gliding.?

<u>Use</u>: After roasting young sheath, the burnt skin is stripped, it is then washed with warm water and sliced thinly. It is eaten with fermented shrimp paste, Laap, or soup. Young leaves and flowers are boiled and eaten with chili paste in oil.

Flavonoid is contained in a leaf and a seed. It has inflammation, allergy, a free radical, and oncostasis effect. A seed is the material of a Chinese medicine which serves to cure an ulcer.

In traditional medicine of Cambodia, they are used to treat diarrhoea and dysentery. In Thailand, decoction of seeds are used as a cough medicine.

<u>General info.</u>: Locally cultivated near human settlements or home gerdens.

Ref. No.: 5, 14, 15, 18, 21, 23, 26, 27, 47, 48, 49

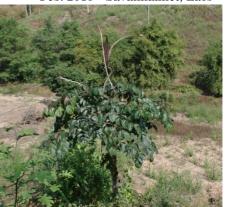
Order: Lamiales Family: Bignoniaceae



Feb. 2010 Thakhek, Laos



Feb. 2010 Savannakhet, Laos



Jan. 2009 Mae Hong Son, Thailand

Radermachera ignea

Order: Lamiales Family: Bignoniaceae

LA	Peeb	ດອກປີບ
KH	Jeik krium	
TH	Ang kial bo, Kaki, Kasalong kham	
VN	Ra det lua	Rà đẹt lửa
JP		



Feb. 2010 Thakhek, Laos

Remarks

Distribution: South China, Burma, Laos, and Vietnam.

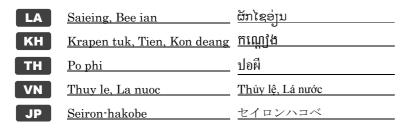
<u>Life form</u>: Evergreen tree, 6-15 m high. Corolla orange, tubular-funnel-shape.

Use: Flowers are used as an ingredient in soup.

<u>Ref. No.</u>: 14, 17

Hydrolea zeylanica

Order: Solanales Family: Hydroleaceae





Remarks

Distribution: S. China, Burma, Laos, and Vietnam.

<u>Life form</u>: Annual herb. Emergent plant. 10-60cm tall.

Jul. 2008 Vientiane province Laos

<u>Use</u>: The young shoots are consumed as vegetables and sometimes sold at markets.

In the traditional medicine of Cambodia, leaves are prescribed for intestinal tumors.

Ref. No.: 14, 27, 46

Solanum capsicoides

Order:	Solanales
Family:	Solanaceae

LA	Kheua kheun	ໝາກເຂື່ອຂື້ນ
KH	Trap lung, Trap khaa	ត្រប់លុ, ត្រប់
TH	Kheua kheun	
VN	Ca trai vang	Cà trái vàng
JP	Kingin-nasubi	キンギンナスビ

Remarks

<u>Distribution</u>: Originally from coastal Brazil. Now commonly naturalized in the tropics and the subtropics.

Life form: Perennial herb. 1.2m tall.



Jul. 2008 Vientiane province Laos

<u>Use</u>: Fruits are eaten with papaya salad. It is used to make pickles in Thailand.

This fruit softens an astringent taste.

Root is used as an antitussive and is effective in controlling blood fat.

<u>General info.</u>: The meaning of "Kheun" in Lao is a strong smell. It is planted in the home garden or the circumference of a settlement.

Ref. No.: 7, 12, 46, 47, 52

Solanum torvum

VI	ໜາຄອນແລຄ
Kheng	<u>พาทแลง</u>
Trap put raw nyong	ត្រប់ពត់លំញង
Ma khuea phuang, Kheng	มะเ ญื่อพวง
Ca nut ao, Ca dai hoa trang	Cà nút áo, Cà dại hoa trắng
Suzume-nasubi	スズメナスビ

Remarks

diameter. Flower is white.

LA KH

VN

<u>Distribution</u>: Originally from South America. Now commonly naturalized in the tropics.

<u>Life form</u>: Perennial herb. 2-3m tall. A fruit is 8-10mm in

Order: Solanales Family: Solanaceae



Feb. 2010, Savannakhet, Laos

<u>Use</u>: It is an essential ingredient in Thai curry and many dishes in Indochina. It also eaten raw with paste. It has a subtle bitter taste.

In the traditional medicine of Thailand, the fruit is used as an emulgent, antitussive, and digestant. Squeezed leaves are used to stop bleeding.

<u>General info.</u>: It is planted in home gardens. Plants that grow on the wayside or a common are used. <u>Ref. No.</u>: 18, 26, 27, 46, 49, 52

Solanum stramoniifolium

Order: Solanales Family: Solanaceae

LA	Eak	ໝາກເອິກ
KH		
TH	Ma uek	_ มะอึ๊ก
VN	Ca phao	Cà pháo
JP	Coconijya, Ke-nasu	ココニージャ、ケナス



Jun. 2007 Vientiane province, Laos

Remarks

<u>Distribution</u>: Originally from Amazon. Commonly in Indochina.

<u>Life form</u>: Perennial herb. Up to 2m tall. Fruit 2-3cm in diameter, covered by densely hairs. Flower is white or purple.

<u>Use</u>: The ripe fruits are used for papaya salad. The fruits are used as juice that has a flavor similar to peach and tomato. It is also eaten raw. In Laos, it is a ingredient in Cheo dip sauce.

It contains vitamin C.

General info.: Sometmes, the hair removed fruits are sold in the market.

Ref. No.: 7, 49

Solanum violaceum

Order: Solanales Family: Solanaceae

LA	Kheng khom	ໝາກແຄງຂົນ
KH	Traup put raw nyong pray. Trab put lumnhong	ត្រប់ពត់លំញង
TH	Ma kae khom, Ma waeng, Ma khwaeng dam	
VN	Ca An	<u>Cà</u> Ấn
JP	Tenjiku-nasubi	テンジクナスビ



Jul. 2010 Pakse, Laos

Remarks

<u>Distribution</u>: Widely cultivated in tropical Asia.

<u>Life form</u>: Perennial herb. 1.5m tall. The Color of flower is purple. The fruit is 6mm in diameter.

<u>Use</u>: Young fruit is eaten with fermented fish paste, Laap, and Coi.

It contains vitamin B.

In the traditional medicine of Thailand, it has effect against diabetes, food poisoning, and fever.

<u>General info.</u>: This fruit looks like *S.torvum*. An identifying point in a market is the purple color of flower, the small size of fruit and arrangement of fruits. The fruits are attached equals right and left of the scape lengthwise. The meaning of "khom" in Lao and Thai is bitter.

Ref. No.: 7, 46, 48, 49

Ipomoea aquatic

Order: Solanales Family: Convolvulaceae

LA	Bong	ຜັກບົ້ງ
KH	Trow kun sor	ត្រកូន
TH	Phak bung	ผักบุ้ง
VN	Rau muong	Rau muống
JP	You-sai, Kuu-shin-sai	ョウサイ、空心菜



Remarks

<u>Distribution</u>: Native of tropical Asia. Cultivated in the tropical and sub-tropical region.

Life form: A perennial or sometimes annual. It roots

Jul. 2010 Kampong Cham, Cambodia

in the ground at the shallow end or banks of a pond or canal. Hollow stems become elongated on the water surface or ground.

<u>Use</u>: Young shoots are eaten raw or cooked. It is a very popular daily vegetable in Asia. There are various recipes. There is commercial cultivation for urban communities. In the local area, plants growing in village canals or ponds are used.

In the traditional medicine of Cambodia, shoots are the component of a remedy against Delirium and its associated high fever . The buds are used to make a paste for herpes.

General info.: There is a legend that forgetfulness will occur if taken too much.

Ref. No.: 5, 10, 18, 46, 49

Ipomoea batatas

Order: Solanales
Family: Convolvulaceae

LA KH	Man darng, Man thet Domlong, Damloong chhie Man thet, Mak oi	
VN JP	Rau lang, Khoai lang Satsuma-imo	Rau lang, Khoai lang サツマイモ



Remarks

<u>Distribution</u>: Originated from South America.

Life form: Annual herb.

Jul. 2011 Ratanakiri, Cambodia

<u>Use</u>: A root tuber known as Sweet potato. Not only the root tuber but also young shoot is eaten in Indochina.

<u>General info.</u>: It was the vegetable of which it replaced Yam and Taro in Indochina in the 16th century.

Ref. No.: 14, 27, 42, 46

Acmella paniculata

Order: Asterales Family: Asteraceae

LA	Khaat	ຕັກຄາດ
KH		
TH	Khrat, Khrat phawen	_ ผักคราด
VN	Cuc ao	Cúc áo
JP	Sennichi-modoki	センニチモドキ



Sep 2009 Chiang Rai, Thailand

Remarks

<u>Distribution</u>: Originated from America. Naturalized to the Asia tropics.

<u>Life form</u>: Annual plant. 50-100cm tall. It grows in the wayside, fields, and village commons.

<u>Use</u>: Young leaves and flowers are eaten raw with paste as a salad. It is used for curry or Laap. It contains rich minerals, calcium, iron, and vitamins A, B, and C.

Medicinal component are also rich in the flower, leaf, and root. Since spilanthol is contained in a flower, it has a paralysis action. In the traditional medicine of Thailand, the root is used as a purgative and flesh leaves have an anti-inflammatory effect.

Ref. No.: 5, 12, 22, 26, 40, 46, 48, 49

Gnaphalium sp.		Order: Asterales Family: Asteraceae	
LA KH	Kath khao, Kev	ດອກຜັກກາດຂາວ	
TH VN JP	Khuc vang, Khuc te Hahako-gusa	Khúc vàng, Khúc tẻ ハハコグサの仲間	
Remai	rks		

<u>Life form</u>: Annual plant. 10-20cm tall.

General info.: It is seen rarely at a local market in Laos.

Feb. 2010 Vientiane province, Laos

There is a new year custom of using this plant in Japan. "Nanakusa-Gayu" is the porridge which uses seven ingredients of wild herbs and is eaten by the Japanese on the 7th of January. The seven bitter plants used are; *Oenanthe javanica, Capsella bursa-pastoris, Stellaria media, Lapsanastrum apogonoides, Brassica rapa, Raphanus sativus, and Gnaphalium affine.*

Ref. No.: 12, 18

Hydrocotyle verticillata

Order: Apiales Family: Araliaceae

LA	Boua bok, Nok	-
KH		
TH	Waen kaeo	
VN	Rau ma la sen, Rau ma nhat	Rau má lá sen, Rau má Nhậ
JP	Uchiwa-zenikusa	ウチワゼニクサ



Feb. 2010 Savanaket, Laos

Remarks

<u>Distribution</u>: Originated from north America.

<u>Life form</u>: Perennial. Emergent plant. Leaf stem attached center of leaf.

<u>Use</u>: Leaves are eaten as a vegetable. Since Lao name of this plant is same as *Centella asiatica*, this plant is probably used similarly.

Ref. No.: 12, 46

Trevesia palmate

Order: Apiales Family: Araliaceae

LA	Deua	ໝາກເດືອ
KH		
TH	Tang luang	
VN	Nhat phien, Thoi hoang, Du du rung	Nhật phiến, Thôi hoàng, đu đủ rừng
JP	Ally of Nanyou-yatsude	Ally of ナンヨウヤツデ



Remarks

<u>Distribution</u>: From India and South China, Myanmar to Indochina.

<u>Life form</u>: Small tree. Up to 5m.

Feb. 2010 Louang Phrabang, Laos

<u>Use</u>: Young flowers are eaten at the end of the rainy season. It is used as bitter ingredient for spicy curry.

It is known as the popular ornamental plant named "snow flake"

General info.: There is no record of cultivation of this plant.

Ref. No.: 15, 17, 48, 49

Anethum graveoler	าร	Order: Apiales Family: Apiaceae	
LA Sii	ຜັກຊີ		
TH Thian khao plueak, Thian ta takkataen			
VN Rau thi la, Thia la Inondo, Dyl	Rau Thì là, Thìa là イノンド、ディル		
Remarks Distribution: Furance Meditorrencen area SW Asia			
<u>Distribution</u> : Europe, Mediterranean area, SW. Asia. <u>Life form</u> : Annual herb. 50-100cm tall.			

Aug 2013 Ho Chi Minh City, Vietnam

<u>Use</u>: Leaves are used as a vegetable. It is an ingredient in the hot and strong flavored curry named "Kaeng Lao". It is popular in the local market.

Ref. No.: 14, 42, 46, 47

Centella asiatica		Order: Apiales Family: Apiaceae	
LA KH TH	Nok Trachiek, Tranh, Chi, Mlu Boua bok, Nok, Wengkork Rau ma	_ ຜັກໜອກ _ ເກເເງີກເກົາເຫຼົ່ _ ບັວນຄ Rau Má	
JP Tsubokusa ツボクサ Remarks Distribution: Tropical and subtropical regions of the world.			

<u>Life form</u>: Perennial creeping herb.

Sep. 2009 Chiang Rai, Thailand

<u>Use</u>: Leaves are consumed as vegetables. Raw leaves are used as salad with fermented shrimp paste. It is eaten with noodles, curry, Laap, and Coi. Extracted leaves are used to make a fresh juice. It has the invigorating scent peculiar to Apiaceae.

It has been known as a medicinal plant since early times. Sap of leaves has a antimicrobial property. It clarifies the blood and is well known also for treating cough and tuberculosis. It is known to have both sedative and moral stable actions.

Ref. No.: 5, 14, 18, 27, 40, 45, 46, 47

Coriandrum sativum

Order: Apiales Family: Apiaceae

LA	Horm parn, Horm porm	<u>ตั</u> ทละแยะ
KH	Chi van soy	វ៉ាន់ស៊ុយ (ជី)
TH	Chi, Hom pom, Hom noi	ผักชี
VN	Ngo ri, Rau mui, Ngo ta	Ngò rí, Rau Mùi, Ngò ta
JP	Koendoro, Kousau, Koliandaa, Phak-chi	<u>コエンドロ、香菜、コリア</u> ンダー、パクチー



Nov. 2008 Louang Phrabang Laos

Remarks

<u>Distribution</u>: Europe, Mediterranean, Asia. Cultivated in the tropics and sub-tropics.

Life form: Annual herb. 50-100cm tall.

<u>Use</u>: The fruit is commonly used as a condiment and the leaves as a garnish or salad. The leaves or the entire young plants are popular as a culinary herb and vegetable in Southeast Asia.

The oil extracted from the seeds can be efficient against cough and invigorating.

Ref. No.: 7, 14, 27, 45, 46, 47

Eryngium foetidum

Order: Apiales Family: Apiaceae

LA	Hom pae	<u>ພອກເຖ</u>
KH	Chi rona	ជរបារាំង, ជរបន្ទា
ТН	<u>Chi farang, Hom pom kula,</u> <u>Chi doi</u>	ผักชีฝรั่ง
VN	Ngo tay, Ngo gai	Ngò tây, Ngò gai
JP	Ooba-Koendoro, Togeba-koliandaa	オオバコエンドロ、 トゲバコリアンダー



Remarks

<u>Distribution</u>: Tropical America, introduced to East and Southeast Asia.

Life form: Perennial herb. 6-35cm tall.

Sep. 2007 Vientiane province, Laos

<u>Use</u>: Leaves and flower buds are aromatic and smell like coriander. It is used as a condiment in soups, noodle, and fish dishes.

<u>General info.</u>: It is popular in the local market. It is grown in a home-garden and a village common. <u>Ref. No.</u>: 7, 14, 27, 45, 46, 47

Spirogyra spp.

Order: Zygnematales Family: Zygnemataceae

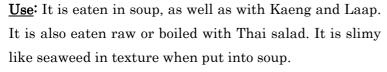
LA	Thao	ເຖົ່າ
KH		
TH	Thao, Phak kai	
VN	Tao xoan, Rong nhot	Tảo xoắn, Rong nhớt
JP	Aomidoro	アオミドロ



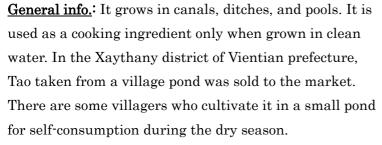
Jul. 2008 Vientiane pref., Laos

Remarks

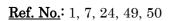
<u>Life form</u>: Algae in the fresh water. Fine green line has no branch and it feels slimy, the possibility of spirogyra is high.



It contains vitamin A and calcium. It is used as a medicine to reduce cholesterol, as an iodine supplement, and as a laxative. In traditional medicine, it is supposed that it should not be eaten since it is thought to cause internal bleeding in elderly people.



Tao is a plant which photosynthesizes although there are no leaves, stems and roots.





Jun. 2010 Vientiane pref., Laos



Nov. 2008 Louang Phrabang, Laos

Cladophora spp.

Order: Cladophorales Family: Cladophoraceae

LA	Khai phane	នៃពេធុរា
KH		<u> </u>
TH		
VN	Rong mem	Rong mềm
JP	Kamoji-shiogusa	カモジシオグサ



Feb. 2010 Louang Phrabang, Laos

Remarks

<u>Distribution</u>: All over the world.

<u>Life form</u>: Algae. 0.1mm in diameter and 1m in length.

<u>Use</u>: Mixed Khai phene and seasonings are extended like a sheet and dried. The dried Khai phane sheets are fried quickly in oil. It has a crispy texture and flavor and is well matched with boiled rice. <u>General info.</u>: It starts to elongate in the dry season when the river water level is down and water becomes clear. Khai phane is a main food source for the Mekong giant catfish (*Pangasianodon gigas*) which is an indigenous and endangered species of Mekong river. Khai phane belongs to the plant group which photosynthesizes.

<u>Ref. No.</u>: 1, 2, 3, 24, 50



Feb.2010 Louang Phrabang, Laos



Feb.2010 Thin Hong, Louang Phrabang, Laos



Feb.2010 Louang Phrabang, Laos



Feb.2010 Louang Phrabang, Laos

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