

# Useful Plants of Sandan

A brief guide for visitors to  
Sandan Community Ecotourism Site  
Cambodia



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# Useful Plants of Sandan

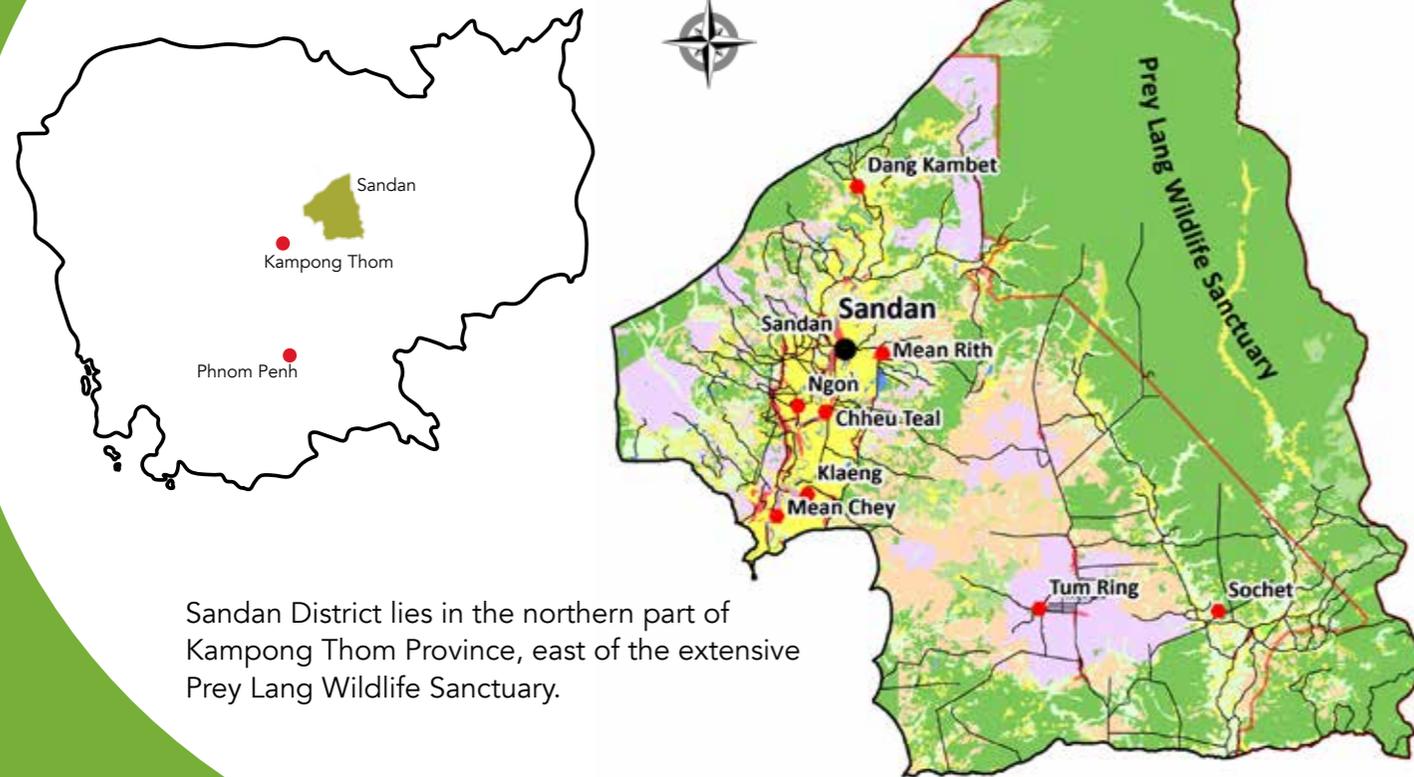
A brief guide for visitors to  
Sandan Community Ecotourism Site  
Cambodia

Winrock International's program for USAID Supporting Forests and Biodiversity (SFB) works with the local community in Sandan to conserve forests and biodiversity and to improve livelihoods of forest-dependent communities. This guide to plants in Sandan supports that program.

The Community-based Ecotourism Site, Reasmey Phum Pir Kiri Boeung Kranhak at Sandan, was established in 2014 and officially recognized by the Kampong Thom Provincial Government in October 2015. It covers an area of 193 hectares and lies within two officially designated community areas, consisting of a beautiful natural lake surrounded by forest on the eastern shore.



## Map of Sandan District



Sandan District lies in the northern part of Kampong Thom Province, east of the extensive Prey Lang Wildlife Sanctuary.

The Sandan Community Forest Area is composed of a mosaic of habitats, from dense evergreen forests, to open riparian habitat, cultivated land, and seasonally flooded farmland.

This landscape supports the local community, as well as many useful plant species and a wide range of biodiversity, including several species of primate. Central to the area is the Kranhak Lake and its adjacent spirit forest and protected Chheuteal Toek trees. The lake and its surrounding wetlands are an important site for migrating water birds, as well as some of the scarcer plant species such as the eponymous Sandan tree; while the nearby forest at Tatey has many of the species covered in this booklet, along with many bird species and a resident population of pileated gibbons.





Ethnobotany in action, clockwise from top left: a collection of herbs and bark to produce a cure for indigestion; a plow fashioned from rosewood; rattan berries, a villager burning a Cheuteal Toek tree to encourage the flow of resin.



This booklet has been produced as an ethnobotanical manual specifically for use by visitors to the Community Forest areas. Its aim is to give an idea of the traditional importance of Sandan's flora and the diverse ways in which it is used.

The 30 species profiles provided introduce the reader to a small sample of the most useful plants found within the Community Forests of Sandan. The profiles give the local Khmer name for each species, both in the Khmer script and its corresponding Romanized version. Scientific binomials and plant families are also given, along with a photograph and a brief botanical description of each species and how it is used.

Specific community members, who are expert in identifying local plants and their uses, helped chose and identify the featured species, and provided the vast majority of information appearing in this guide. However, where necessary, local information has been supplemented with information from botanical publications, and where it seemed interesting or important, an international use for some of the species has been given.

These plants remain an important local resource, and have a wide range of traditional applications, ranging from medicinal herbs to basic building materials. As Cambodia changes and urbanization increases, there is a danger that traditional knowledge will be lost. We hope that with this guide we can encourage an interest in this fascinating aspect of Khmer culture.



**Sandan**  
*Garcinia cochinchinensis*

**Sandan** *Garcinia cochinchinensis*  
Clusiaceae

**Description:**  
Sandán, or false mangosteen, is most commonly found in wetland habitats - in swampy areas during the dry season, and in fully flooded areas during the wet season. It is a bushy species that grows up to 10 meters in height. The bark is blackish, while the internal sapwood is yellow. Its stems are slightly squared when young, rounding out as they age. The thick leaves are robust, and oppositely arranged. The flowers are flushed pink and blossom in the early wet season - from March through to June; while the yellow fruits appear in the latter part of the wet season in September. The blooms and fruit are cauliflorous, meaning they originate directly from the stem or trunk.

**Ethnobotany:**  
The bark is used medicinally to treat allergies and epidemic diseases. This species is commonly cultivated in Cambodia for its sour leaves and fruits.

**Ecological Benefits:**  
The plant helps maintain cover in forested wetland habitats that are important for breeding fish and water birds.



**Bosneak**  
*Mesua ferrea*

## **Bosneak** *Mesua ferrea* Calophyllaceae

### Description:

Bosneak is a large, tropical evergreen tree locally known for its use as a construction material. It can grow 20-30 meters tall. The bark is dull-brown in color and has a smooth but flaky surface, and when cut it will slowly exude a sticky yellow sap. Its elliptical leaves and large canopy provide good shade throughout the year. The leaves are oppositely arranged. Bosneak has large white flowers with four petals surrounding prominent yellow stamens. The flowers are pleasantly fragrant and taste bitter.

### Ethnobotany:

The heavy, dark red timber is extremely hard, which makes it ideal for construction materials, such as planks and structural pillars. The strength of the timber gives this species its common English name Ironwood. The wood is also used in musical instruments. Dried Bosneak flowers are utilized medicinally for treating rectal problems such as hemorrhoids. The flowers are also mixed with beeswax to create a fragrant balm that Cambodian women put on their lips.

### Ecological Benefits:

Due to its commercial value, Bosneak has become scarce throughout its range, but it remains an integral part of primary forest composition and provides habitat for many species of birds and insects.



**Phdiek**  
*Anisoptera costata*

## Phdiek *Anisoptera costata*

### Dipterocarpaceae

#### Description:

Phdiek is another large evergreen rainforest tree growing up to 22 meters high. The bark is greyish and is smooth on young trees, becoming deeply cracked when old. The leaves are alternately arranged. They have a smooth upper surface, and are densely hairy on the lower surface. From the family Dipterocarpaceae (meaning two-winged seed), the seeds are the typical fruit type of this family; the wings help with seed dispersal, allowing the seeds to effectively 'fly' and land some distance from the parent tree.

#### Ethnobotany:

Phdiek timber is used extensively for local construction, especially building houses. The timber typically has a higher quality and price compared to similar species like Chheuteal Toek. Phdiek is also known to support the growth of valuable edible mushrooms, which grow at the base of the tree. The crushed leaves are mixed with water and used medicinally to treat fevers and dengue in young people. The nuts are edible after roasting. A strong-smelling, white resin can be extracted from the tree and used for caulking boats and making torches.

#### Ecological Benefits:

Birds like parrots and rodent species eat Phdiek fruits. The tree is a vital support structure in the rainforest for the growth of many different species of lianas, and rattans.



Chheuteal Toek  
*Dipterocarpus alatus*

## Chheuteal Toek *Dipterocarpus alatus*

### Dipterocarpaceae

ឈើទាលទឹក

#### Description:

Chheuteal Toek is an important resource for local communities throughout Cambodia for its resin related products. Chheuteal Toek is in the Dipterocarp family and has winged fruits, which aid seed dispersal. It is a large tree that can reach heights of up to 50 meters. The straight cylindrical trunk has a light grey bark and is branchless for up to 20 meters. The leaves are ovate to elliptical and are lightly hairy on the upper surface and densely hairy on the lower surface. It is a common species in Indochina and the Malay Peninsular, normally encountered in evergreen or mixed, semi-evergreen forests, and is one of many Chheuteal species such as Bangkuy and Preng.

#### Ethnobotany:

The resin produced by Chheuteal Toek is an important non-timber forest product in Cambodia. The resin has many different uses, including lighting, as a veneer, caulking for boats, and traditional medicine. The timber is used for house construction. People use this tree as a ritual prayer and offering site for forest spirits called *Prey Areak*.

#### Ecological Benefits:

Because resin is harvested from living trees this species often occurs in ecologically important stands in areas that otherwise might have been deforested. The tall trees create good habitat for nesting birds and wild bee species. Wild pigs will eat the fresh resin when it is dropped on the ground.



A stand of Chheuteal Toek trees beside Boeng Kranhak.



**Kra Nhoung**  
*Dalbergia cochinchinensis*

## Kra Nhoung *Dalbergia cochinchinensis*

### Fabaceae

#### Description:

Kra Nhoung, despite being a renowned hard wood tree, is a leguminous species in the pea family. It can grow up to 15 meters high with a thick and often twisted trunk. Its compound leaves are alternately arranged, and normally have 7 to 9 ovate leaflets. The flowers are white, fragrant and have an appearance similar to a pea flower. The fruits are narrow, flat, fragile pods containing 1-3 seeds. Kra Nhoung is known as rosewood, an extremely valuable category of timber species with famously beautiful red sapwood that darkens with age and produces a very durable timber.

#### Ethnobotany:

The characteristics of its wood has made it one of Cambodia's most valuable timber species used locally for agricultural tools such as ox carts, plowing equipment, axe handles, and furniture. It is also an export species - often illegally extracted. Subsequently it is over harvested and increasingly threatened throughout the Kingdom, causing it to have become the focus of conservation efforts. In Cambodia, the use of Kra Nhoung timber was once restricted to the needs of the royal family.

#### Ecological Benefits:

The flowers provide nectar for many different insect species. Like other leguminous species, Kra Nhoung forms a symbiotic relationship with soil bacteria which allows it to fix atmospheric nitrogen into a usable form for plants, thus improving soil fertility.



Vor Meun Thnam Chen  
*Smilax china*

## Vor Meun Thnam Chen *Smilax china*

### Smilacaceae

#### Description:

Vor Meun Thnam Chen, or China root, is a gracile liana that grows in clumps and has a spreading or climbing growth habit, often trailing along the forest floor, where it can easily trip careless walkers. It can climb up to 7 meters high and has relatively few long elliptical or globose leaves along its stem, which can be thorny. Plants are either male or female and produce a spray of pale green flowers which develop into red berries.

#### Ethnobotany:

The Khmer name translates as 'medicinal Chinese root', which refers to the plant's elongated rhizome. This is traditionally collected to create a lotion which can be applied to treat injuries, and is particularly used for skin diseases. The rhizome has a high demand in local markets and in the provincial capital of Kampong Thom. The macerated rhizomes of *Smilax* spp. are soaked in alcohol to produce fortifying, medicinal tonics and are reported to have a bitter-sweet taste. An excessive dose can lead to nausea and vomiting.

#### Ecological Benefits:

Many mammals like wild pigs enjoy eating the underground rhizomes.

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Paoy Ka Ngork  
*Ixora chinensis*

## Paoy Ka Ngork *Ixora chinensis*

### Rubiaceae

#### Description:

Paoy Ka Ngork is a bushy shrub that can grow up to 2 meters high. This striking plant is normally found as an understory species growing in dense forest. Its stem has alternate black and white rings and its leaves are large and leathery. The many flowers are typically orange, or occasionally white or yellow, and form a convex crown above the plant. This inflorescence can be found throughout the year and is locally likened to the tail of a peacock. For these reasons it is often cultivated as a garden plant, and is as commonly seen in villages and towns as it is in the forest.

#### Ethnobotany:

When dried the stems and flowers have a pleasant smell and are used to cure headaches. The root is used as a traditional medicine to increase the overall health and milk production of lactating women, and is utilized after childbirth. It is also made into a lotion to treat injuries.

#### Ecological Benefits:

The prominent flower clusters are a favourite of large swallowtail butterflies that visit them to feed on the nectar. Birds are reported to eat the fruits.



Vor Kampaong Va  
*Nepenthes mirabilis*

## Vor Kampaong Va *Nepenthes mirabilis* Nepenthaceae

វល្លិកំចោងវ៉ា

### Description:

Vor Kampaong Va, or Bampoung Sramaoch as it is also known, is a carnivorous pitcher plant that grows in damp areas such as grassy wetlands and riversides. The vines can grow up to 5 meters long and typically have a climbing habit, sometimes overhanging water. The pitcher is a modified leaf used to capture insects. Contrary to popular belief the pitchers do not open and close. Instead, small prey items fall into the continually open pitchers and are digested by the fluid within to provide nutrients for the plant. The flowers are borne on a long raceme and are either male or female.

### Ethnobotany:

The pitcher fluid is drinkable for humans during times of water scarcity, but only from pitchers that have not fully opened and remain uncontaminated with partially digested insect matter. The pitcher tube is reportedly used as a liner, or wrapper, for traditional rice cake making.

### Ecological Benefits:

Known as nepenthophiles, some species use the pitchers for shelter. Nepenthobionts, by contrast, are species that have developed a specific symbiotic relationship with the plants. Mosquito larvae develop in the digestive fluid, while some carnivorous moth caterpillars shelter inside the pitchers, diving into the fluid when disturbed. Certain spider species live within the pitchers and have adapted to negotiate the slippery pitcher walls without falling in.



**Antung Sar**  
*Eurycoma longifolia*

## Antung Sar *Eurycoma longifolia*

Simaroubaceae

ଶକ୍ତିବୀଜ

### Description:

Antung Sar is an understory tree that can grow up to 5 meters tall. It has a sparse appearance, with few branches, extensive roots, coarse bark, and a cluster of leaves at the top of the plant. It produces abundant flowers in loose, branching clusters, which develop into bright red fruits. The narrow leaves are oppositely arranged. The flowers blossom in February; the fruits develop in August. This species can normally be found in areas of higher elevation.

### Ethnobotany:

The roots and bark of this tree have a reputation for their use as a male aphrodisiac. Research suggests compounds in the plant might increase testosterone in the body, hence its uses to increase virility and for body building. It is also used to treat malaria, and to provide relief from the after-effects of drinking an excess of alcohol. A decoction of the crushed bark and fruit is used for treating dysentery and poisoning. Wood from the tree is used to make fence posts.

### Ecological Benefits:

The fruits are a good source of food for birds; many insects feed on the leaves.



Chak  
*Pandanus sp.*

## Chak *Pandanus sp.*

### Pandanaceae

#### Description:

Chak is a small species of pandanus palm, which can be found growing in Boeng Kranhak and Tatey areas of Sandan. The plant can grow up to 3 meters high and grows in thickets close to water. The pale yellowish stem has many short, sharp spines and the leaves are armed with rows of hooked thorns appearing along the entirety of leaf margins. The large yellowish fruits, which are produced all year round, are covered in soft spines.

#### Ethnobotany:

The young leaves and fruits are edible and prepared in different kinds of dishes, especially during village celebrations. The tough, mature leaves are used for weaving mats - these are said to be stronger and more comfortable than those made from other types of palm leaves.

#### Ecological Benefits:

Bees and many other types of insects feed on the flower's nectar. The dense habitat created by Chak palms provides good cover for reptiles and birds.



**Sdav**  
*Azadirachta indica*



## Sdav *Azadirachta indica*

### Meliaceae

#### Description:

Sdav is a medium-sized tree species which can grow to 20 meters high. The bark is rough and brown when young, turning grey with deep fissures and scaly plates when old. The leaves are compound and oppositely arranged; each leaf has 9-17 pairs of saw-toothed leaflets, typically without a terminal leaflet. Sdav is normally found in exposed areas or secondary forest. It is often and easily cultivated along the dykes of rice fields and in village gardens. The flowers blossom from February through March.; the fruits develop around April.

#### Ethnobotany:

Despite being in the Mahogany family, the timber of Sdav is less sought after than the bark and leaves. Known as Neem in English, they are used medicinally for the treatment of malaria and fever. The immature inflorescences and young, tender leaves are eaten as vegetables. The wood is, however, occasionally used for fencing poles and housing pillars. An insecticidal compound called azadirachtin can be extracted from the leaves and seed.

#### Ecological Benefits:

Birds eat the nectar produced by the flowers, while, as with most native trees, many species of insects either feed directly on the leaves or find shelter in the canopy.



**Kouk**  
*Myristica iners*

## Kouk *Myristica iners*

### Myristicaceae

#### Description:

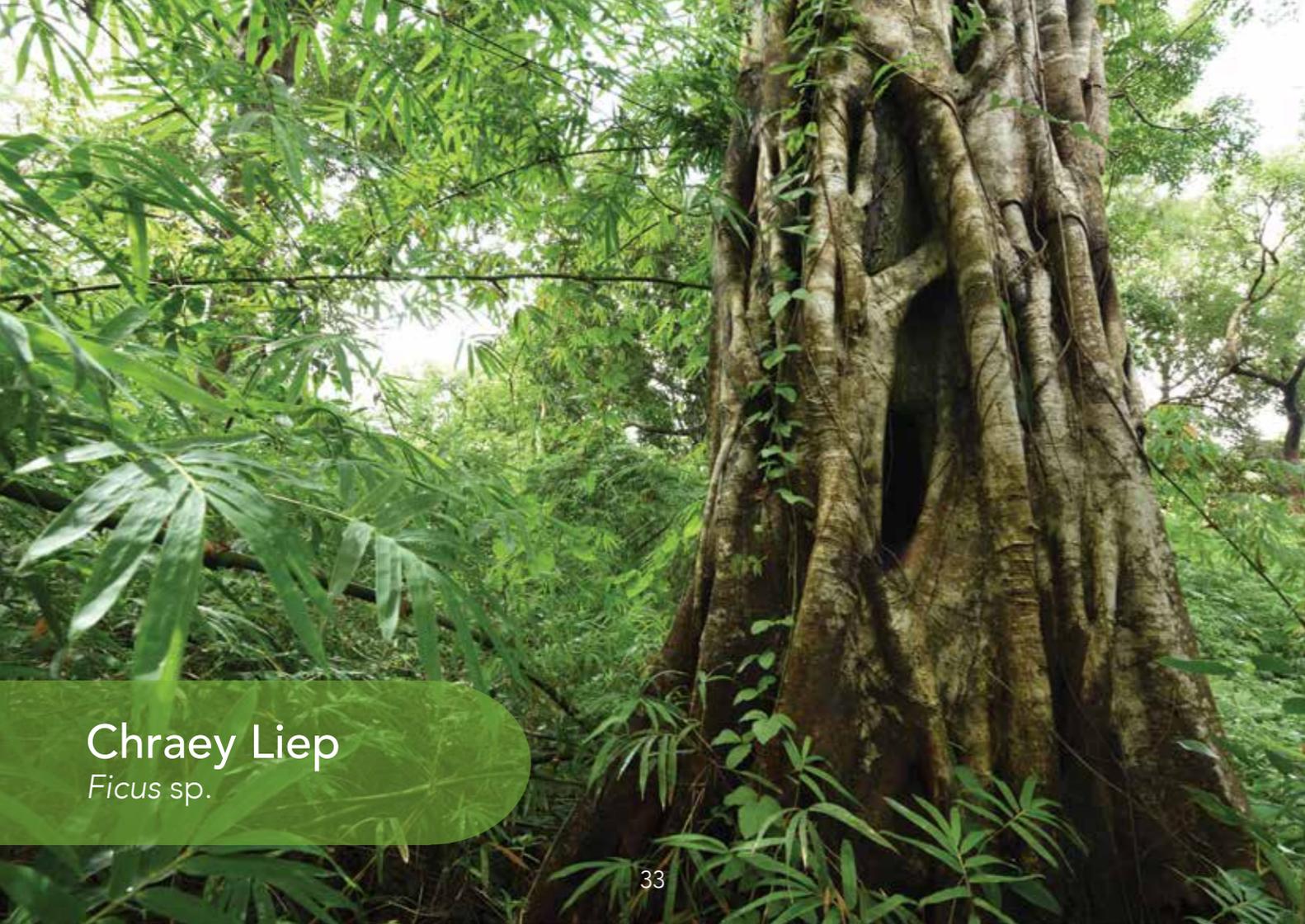
Kouk is a tree in the nutmeg family that can grow to over 30 meters in height. It usually occurs in primary gallery forests along rivers and remains as a remnant species in secondary forests. Occasionally the tree has stilt roots, like a mangrove. The smooth bark has a blackish color and the sap shows reddish if the trunk is cut. The narrow leaves are alternate and hairless. Flowers appear from May through June and are whitish, occurring in a loose branching cluster. The fruits are yellow-brown capsules that open in August and September to reveal an orange aril.

#### Ethnobotany:

The fruit is edible, and the timber is used for construction. In Malaysia the wood is burnt as incense, and in Indonesia the blood-red sap is drunk as a diuretic.

#### Ecological Benefits:

Kouk fruits are a preferred food of hornbills and green pigeons.



Chraey Liep  
*Ficus sp.*

## Chraey Liep *Ficus sp.*

### Moraceae

#### Description:

Chraey Liep is a hemi-epiphytic tree in the fig family. This species and others with a similar growth habit are commonly referred to as 'strangler figs'. Chraey Liep will start growing on a large tree for support. Its abundant foliage and branches tighten its grip and will eventually crowd out the support tree, causing it to die. Even after the support tree has died, the fig creates a columnar structure with a hollow center, sending down aerial roots that will continue to support its increasing size. At maturity, a single tree can occupy around 30 m<sup>2</sup> of ground area. Few trees grow around this species due to its ability to shade-out competitors. The flowers bloom in January with the small figs appearing soon after.

#### Ethnobotany:

In rural villages, the cut branches are employed as ceremonial decorations during weddings and other Buddhist observances. The ash of burnt logs is added to improve the taste of a traditional Khmer cake called *Num Korm*. A decoction of the leaves is used to treat fever in children. In the past, people would use the wood to make hunting bows; however, this is no longer practiced. Due to the abundance of fruits, and their popularity with forest creatures, hunters often visit these trees during fruiting events.

#### Ecological Benefits:

Many forest animals, including hornbills, green pigeons, squirrels, mongooses, civets, wild pigs eat the fruits.



**Mien Prey**  
*Dimocarpus longan*

## Mien Prey *Dimocarpus longan*

### Sapindaceae

មិនប្រើ

#### Description:

Mien Prey is an attractive tree in the soapberry family, along with rambutan and lychee. It grows to only about 15 meters in height and is normally found in dense evergreen forest. The leaves are compound and have 1-3 pairs of leaflets. Its abundant foliage and branches greatly contribute to the forest canopy. The sapwood is yellowish with a textile-like pattern. The pale buff-coloured fruits appear in clusters and look like domestic longan fruits, only smaller.

#### Ethnobotany:

The fruit's clear gelatinous interior is edible but inferior to domestically cultivated longan. The seed has a bitter taste. The wood is valued for making large chairs, locally known as *Kon Kralaeng*.

#### Ecological Benefits:

Lizards, civets and other forest animals eat the fruits. Mien Prey is a typical support tree of the liana Vor Doh Kun, *Tetracera scandens*.



**Traing**  
*Corypha lecomtei*

## Traing *Corypha lecomtei*

### Arecaceae

#### Description:

Traing is a fan palm species in the Arecaceae family known as the Thai talipot palm and found only in the forests of Cambodia, Thailand and Vietnam. It has a single stem and produces many huge leaves up to 3 meters across which create an umbrella-like form. The leaf stalks can grow up to 4 meters in length. A mature Traing palm can grow to 5 meters tall. This species is monocarpic, meaning it flowers and fruits only once after about 30 years before dying soon after.

#### Ethnobotany:

The leaves can be used for roofing, weaving mats, and wrapping rice cakes. Chopsticks can be made from the sturdy leaf stalks. There is a local belief that Traing leaves can be used to chase away ghosts and other bad spirits. In the past, the young leaves and petioles were used by monks to inscribe Khmer religious texts.

#### Ecological Benefits:

Traing provides a roosting habitat for many bat species.



Popul Thmar  
*Vitex pinnata*

## Popul Thmar *Vitex pinnata*

### Lamiaceae

#### Description:

Despite being a sizeable tree that can grow up to 20 meters high, Popul Thmar is part of the mint family. It grows well in secondary forests, on riverbanks and along roads. The leaves are distinctive, with the outer two leaflets typically much smaller than the central leaflet. The inflorescences occur in terminal clusters composed of whitish blue flowers. The small fruits ripen to shiny black.

#### Ethnobotany:

The bark and leaves of Popul Thmar are used medicinally for regulating women's menstrual periods and to treat abdominal pain, fever and malaria. A bark decoction is used as a general health tonic, and the seeds are chewed for their anti-parasitic effects. The leaves, which are scented, are used for hair regrowth. Although its wood is considered lesser quality than other timber species, it is still durable and used as a construction material for cabinetry, knife handles, and making the rims and wheels of ox carts.

#### Ecological Benefits:

The fruits and leaves are a source of food for many different kinds of wildlife.

Inset image opposite © Wikimedia Commons.



**Chheu Khmao**  
*Diospyros bejaudii*

## Chheu Khmao *Diospyros bejaudii*

### Annonaceae

#### Description:

Chheu khmao is a medium-sized, evergreen tree in the ebony family that can grow up to 20 meters high. This species is found in dense and semi-dense forests, and is regionally endemic, found only in Cambodia and bordering countries. The dark green leaves are alternately arranged and the bark is blackish. The heartwood is also dark-colored, hence the name, which means 'black wood' in Khmer. The white flowers blossom in May and the fruits mature in June. Due to its regionally endemic status, Chheu Khmao is a species of high conservation concern in Cambodia.

#### Ethnobotany:

The tree has no known medicinal uses, but the wood is in high demand for house building. The dark heartwood core is used for tool handles, furniture, and musical instruments like the traditional Khmer xylophone known as the *Roneat*.

#### Ecological Benefits:

The tree creates habitats for many different wildlife species.



Vor Chor Banh  
*Beaumontia murtonii*

## Vor Chor Banh *Beaumontia murtonii*

### Apocynaceae

#### Description:

Vor Chor Banh, known as the Easter lily vine, is a woody climbing liana with reddish-green bark at the base. This species can grow up to 30 meters and is typically found growing in secondary forests throughout Southeast Asia. The glossy, dark green leaves are oppositely arranged. The large showy flowers form frilly trumpets and blossom in December; the fruits mature from April through May of the following year.

#### Ethnobotany:

*Beaumontia* species are often cultivated as ornamental plants due to their extravagant blossoms. The white latex produced by this vine is very poisonous; in the past, it was used to poison the tips of hunting arrows.

#### Ecological Benefits:

The large fragrant flowers are attractive to butterflies and bees.



**Vor Achum**  
*Scindapsus officinalis*

## Vor Achum *Scindapsus officinalis*

### Araceae

#### Description:

Vor Achum is a climbing liana in the arum (Araceae) family. It climbs the trunks of surrounding trees by producing small roots that cling to cracks in the tree bark. The large heart-shaped leaves are distinctive, usually plain, but sometimes variegated as in the accompanying image. The adult plant produces two or three hanging compound fruits at the end of each branch.

#### Ethnobotany:

In Cambodia a decoction of the crushed leaves are used as a treatment for venomous snake bites, and a drink made from boiling the whole stems is used to treat edema, while the leaves are smoked to relieve dizziness. The fruits are recognised as the most valuable part of the vine, and they feature in Ayurvedic medicine for a wide variety of remedies. Medical trials have shown them to possess promising antitumor and antioxidant properties. Locally, an infusion of the fruits is fed to domestic cattle to improve their appetites.

#### Ecological Benefits:

Birds and insects feed on the nectar produced by the flowers.



**Vor Ampil**  
*Dalbergia hancei*

## Vor Ampil *Dalbergia hancei*

### Fabaceae

#### Description:

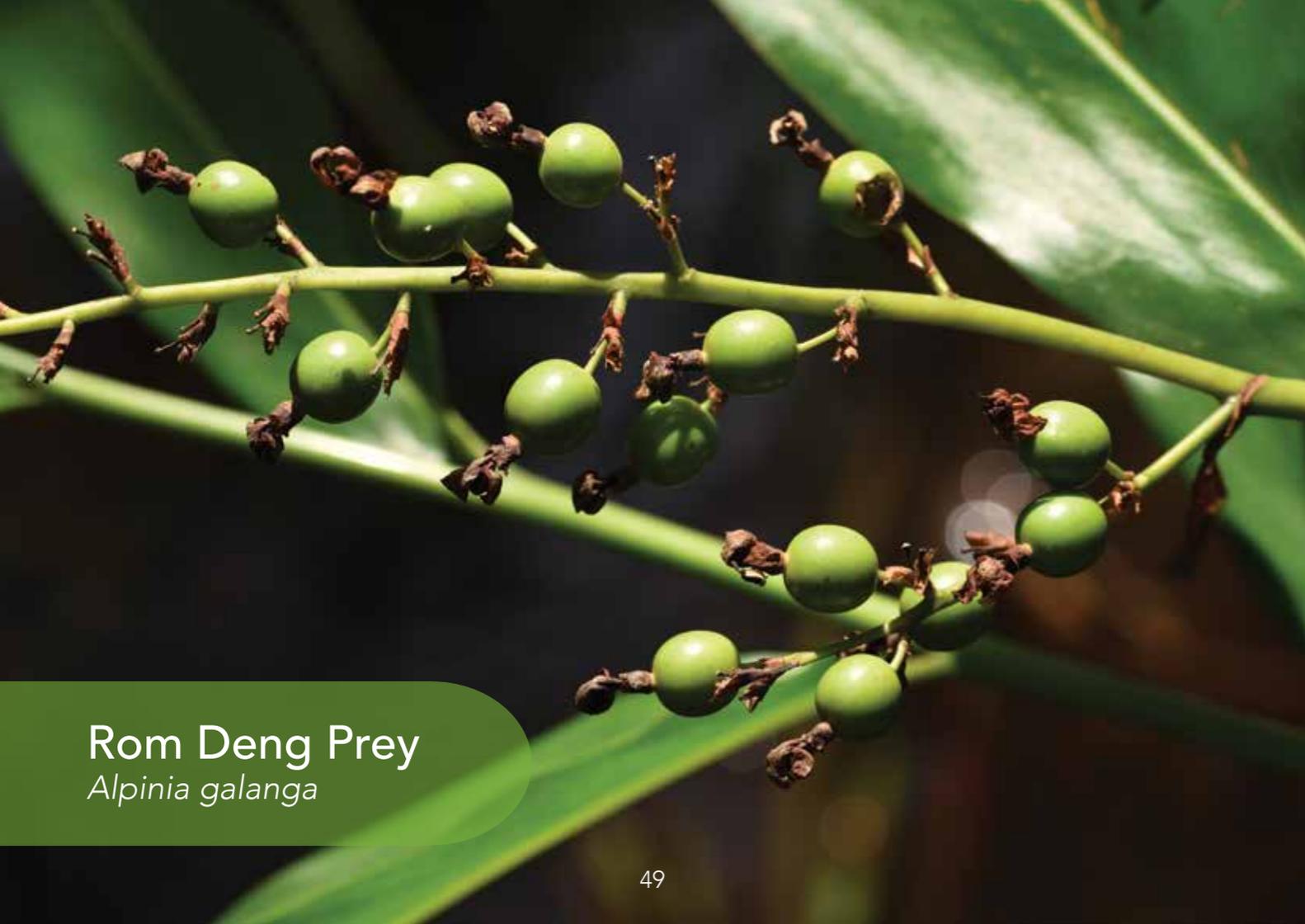
Vor Ampil is a large woody liana in the pea family that is found in evergreen and semi-evergreen forests. It can climb up to 30 meters, producing twisting, flexible vines that can be used as an improvised hammock. The attractive compound leaves have 7-11 pairs of pale green leaflets. The bark is thin and a light brown color. The white flowers are small and develop into typical green peapods.

#### Ethnobotany:

People working in the forest cut the vines to access the drinkable water they contain. A decoction made from the roots is used to relieve headaches and vomiting. Internationally, extracts from the plant are used in patented skin lotions.

#### Ecological Benefits:

The flowers of Vor Ampil are visited by bees and other insects.



Rom Deng Prey  
*Alpinia galanga*

## Rom Deng Prey *Alpinia galanga* Zingiberaceae

រំដេងព្រី

### Description:

Rom Deng Prey is a herbaceous plant in the ginger family. It is normally found growing in lowland areas, often close to water. The tough stems emerge in clumps from underground rhizomes in a similar fashion to domestic ginger, producing a spike of small white flowers in April that develop into shiny red berries within a few months. The rhizomes, stems and leaves have a characteristic smell, described as a blend of black pepper and pine needles.

### Ethnobotany:

It is one of four ginger species known as galangal. This particular species is often known as 'Thai galangal', and is used in cooking. The rhizomes are used as a spice in the same way as domestic ginger or turmeric. Medicinally it can be used as an insect repellent that is effective for about three hours and trials have shown it to have weak antimalarial activity in mice. The flowers are valued for their aesthetic quality.

### Ecological Benefits:

Bees and other insects feed on the flower nectar.



Vor Prouk  
*Pothos scandens*

## Vor Prouk *Pothos scandens*

### Araceae

#### Description:

Vor Prouk is a climbing aroid that produces a ladder-like structure which allows the plant to reach the forest canopy via a support tree. The leaves are alternately arranged and sometimes drop away soon after new leaves appear, making the lower sections of the stem conspicuously bare. Each clump of the Vor Prouk consists of five stems. The adult plant produces a small inflorescence in July that matures into bright red berries by September.

#### Ethnobotany:

In Cambodia, a traditional medicine is made from the leaves to relieve rheumatism in the elderly, while the stems are used to make ropes for fishing equipment known as *Trou*, *Laob* and *Proul*. On the Indian subcontinent the root is used for a wide range of cures.

#### Ecological Benefits:

Green pigeons eat the fruits of Vor Prouk.



Rum Dourl  
*Sphaerocoryne affinis*



## Rum Dourl *Sphaerocoryne affinis*

### Annonaceae

#### Description:

Rum Dourl is a mid-sized tree that can grow up to 12 meters high. It is normally encountered in semi-dense and secondary vegetation in the plains of Cambodia, Laos and southern Vietnam; it is also widely cultivated. Its silvery-green leaves have a prominent mid-vein and are alternately arranged. The strange looking flowers are waxy and pale, giving out a fragrant scent in the late afternoon and evening that can be smelt from a distance. The blackish fruits have a dusty grape-like pruinescence and occur in bunches. In a 2005 royal decree, King Sihamoni declared Rum Dourl as the national flower of Cambodia.

#### Ethnobotany:

The flowers are used in Buddhist blessings, are worn as necklaces by young girls, and used to make a scented lip wax called *Kramuon Rumduol*. The wood is used for house construction, and the fruits can be eaten. In the past, Rum Dourl timber was used for making bows and other hunting tools. Its bark is used to treat both animal and venomous snake bites.

#### Ecological Benefits:

The fruits are a good source of food for wildlife.

Inset image opposite © Wikimedia Commons.



**Phlou Thom**  
*Dillenia ovata*

## Phlou Thom *Dillenia ovata*

### Dilleniaceae

#### Description:

Phlou Thom is a large deciduous tree that can grow up to 30 meters high, but is generally half this size, often with a disproportionately thick trunk. Its rough bark has a reddish color and a bitter taste. Its leaves are alternatively arranged and densely hairy on the lower surface. It has large solitary yellow flowers with 5 petals and numerous long stamens. The yellowish fruit is elliptical. This species is usually found on drier, sandy soils.

#### Ethnobotany:

The fruit is edible, and the astringent bark is used medicinally to treat intestinal diseases and dysentery. The bark can also be made into a tea. It is often planted as an ornamental tree near homes and the wood is used for house building and furniture.

#### Ecological Benefits:

Parakeets and other birds will eat the fruits.



**Raing Toek**  
*Barringtonia acutangula*

## Raing Toek *Barringtonia acutangula*

### Lecythidaceae

#### Description:

Raing Toek is a tree that grows up to 5-10 meters high. It is typically found growing near water such as streams, natural lakes and swampy ground. It is able to survive partial submersion in water during the rainy season. Its ovate leaves are thick and smooth with reddish petioles. The red flowers appear in July on a drooping raceme up to 50 cm long. The oval-shaped fruits contain a single seed.

#### Ethnobotany:

The young leaves are edible but have a bitter and sour taste. The bark produces a chemical that is used to poison fishes. An infusion of the bark can be used medicinally to treat malaria, diarrhea, and gonorrhoea. Applied orally, the roasted and crushed seeds are said to fortify the gums. The wood of the tree is used to make poles, and wooden pestles used in manual rice mills.

#### Ecological Benefits:

The submerged roots of Raing Toek can create good habitat for fishes.



Smach Phnom  
*Syzygium zeylanicum*



## Smach Phnom *Syzygium zeylanicum*

### Myrtaceae

#### Description:

Smach Phnom is a small tree that can grow up to 10 meters tall. It is especially common in open areas near the coastline or woodland margins. Its downy white flowers grow in bunches, blossoming in February and producing spherical white fruits in April. It has a crooked, twisting growth habit. Trees 10 years and older display red bark.

#### Ethnobotany:

The fruits and young leaves are edible. The bark produces a dark red pigment used by farmers to dye clothing and fishing nets. The wood is used to make posts, fishing rods, and agricultural tools. A decoction of the bark is also used medicinally to treat syphilis and dysentery.

#### Ecological Benefits:

Insects, bees, and birds feed on the flower nectar and the fruits.



Phaao  
*Licuala spinosa*

## Phaao *Licuala spinosa*

### Areaceae

#### Description:

Phaao is an attractive palm species that grows in clumps, usually close to water. Each plant has five to eight stems in a cluster, which grow to a height of 3-4 meters. The radiate leaves are borne on stalks armed with short sharp spines along both edges. The tiny white flowers blossom in July with fruit developing into red berries in September. Phaao is said to make a sound similar to hand clapping when an upward wind blows under the foliage.

#### Ethnobotany:

The young leaves, shoots, and the inner core of the growing bud (palm heart) are eaten as a vegetable – both raw and cooked. The mature leaves are used for wrapping rice cakes, while the leaf stalks are used to make tool handles and brooms. Medicinally, the roots are the most valuable part of the plant, and are used for treating fever and fortifying pregnant women.

#### Ecological Benefits:

The large leaves create shade habitat along small streams, while the fruits are eaten by various forms of wildlife.



**Se Morn**  
*Nephelium hypoleucum*

## Se Morn *Nephelium hypoleucum*

### Sapindaceae

#### Description:

Se Morn, known as korlan in English, is a tree in the soapberry family that is closely related to rambutan, longan and lychee. The adult tree can grow up to 15 meters high and often displays a prominent flare at the base of the trunk as it ages. It is best known for its delicious bright red fruits that hang in loose clusters from June through July.

#### Ethnobotany:

The bark of the Se Morn tree is used locally to treat diarrhea, while the roots are used in traditional Korean medicine to reduce stress. The sweet and sour fruits are also believed to have stress-reducing and blood-sugar regulating properties. Although the trees are unlikely to be cut, the wood is also used in house construction.

#### Ecological Benefits:

As well as producing a thick canopy with its dense leaves, the fruits of Se Morn are an important food for hornbills, monkeys, and gibbons.



Phadao Som  
*Daemonorops jenkinsiana*

## Phadao Som *Daemonorops jenkinsiana*

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### Arecaceae

#### Description:

Phadao Som is a climbing palm and one of many species commonly called rattan. The adult plant can grow up to 50 meters, including the long pencil-thin runners. There is a thorny tendril, or cirrus, at the tip of the leaves that forms a hook. These tendrils are used to climb and anchor the plant to the support trees. Although often found growing on the ground, plants that have successfully reached the canopy can be seen as emergent, protruding above the highest leaf canopy of the forest. These aerial plants do not cause harm to the support trees.

#### Ethnobotany:

The leaves are used for roofing and thatch. The long stems are an important non-timber forest product, used to make many different items of furniture, and household items such as clotheslines. Young leaves and stems are eaten as a vegetable. Worms found living in Phadao Som are edible and popular among rural people. The attractively patterned fruits are edible, but are also collected for export, reportedly to China for use in making bead jewelry.

#### Ecological Benefits:

Birds, squirrels and primates all eat the fruits of Phadao Som.



The latticed-patterned fruits of Phadao Som.



Vor Doh Kun  
*Tetracera scandens*

## Vor Doh Kun *Tetracera scandens*

### Dilleniaceae

#### Description:

Vor Doh Kun is a liana that has a spreading or climbing growth habit, with stems reaching a maximum length of 30 meters or so. It is normally found in secondary vegetation and on the edges of forests. The tough leaves are distinctly serrated, the flowers downy and white, and the small fruits ripen into a bright red color.

#### Ethnobotany:

Locally, the latex of Vor Doh Kun is used to treat a condition locals call 'red eye disease' - with the help of a second person the latex is blown into the eyes for about five minutes, three times a day for several days. Across Southeast Asia this species is used to treat sore throats. Medical studies have shown this vine has potential as a strong inhibitor against HIV-1.

#### Ecological Benefits:

Bees and other insects feed on the nectar from Vor Doh Kun flowers.



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Finally, on behalf of Sandan Ecotourism Community

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