

Pohon di Jalur Patroli

Trees Along the Patrol Routes

PT. Royal Lestari Utama

Jambi



Tugio

Pohon di Sepanjang Jalan Tapak: PT . Royal Lestari Utama, Jambi
Trees Along the Patrol Routes: PT. Royal Lestari Utama, Jambi

Penulis

Tugio

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Pohon di Jalur Patroli

Trees Along the Patrol Routes

PT . Royal Lestari Utama, Jambi

Penulis
Tugio



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Hopea sangal

How to read this book

Page number

Local name

Scientific name

Author

IUCN Status

CR : Critically Endangered

EN : Endangered

VU : Vulnerable

NT : Near Threatened

Species description in Indonesia

8

Payena dasyphylla Miq. EN

Ind. Nyatoh ekor

Pohon sedang, tinggi dapat mencapai 30 m. Diameter mencapai 40 cm, batang berkolom yang curam. Kulit kayu halus hingga retak tidak teratur, sisik yang melekat jauh mengelupas. Kulit kayu bagian dalam berwarna merah tua hingga merah keunguan. Sebagian dengan rabut berkarat yang lebat. Daun 0,05 – 0,25 inci, gugur lebih awal. Tulang sekunder 10 – 18 pasang. Bunga sampai 7 pada ketiak daun. Buah berbentuk bulat telur; hingga 1,9 x 0,9 inci. Sepal membesar hingga 0,3 x 0,5 inci. Tangkai memanjang hingga 1,6 inci. Biji sampai 1,3 x 0,4 x 0,3 inci. Daun Tunggal. Getah putih. Habitat: hutan dataran rendah, perbukitan hingga ketinggian 4000 kaki. Kisaran sebaran; Kelantan, Pahang, Perak, Negeri Sembilan, Sumatra

A medium tree, with a height of up to 30 m and a diameter of up to 40 cm. The trunk is steeply columnar. The bark is smooth to irregularly cracked, with scales that peel off in patches. The inner bark is dark red to purplish red, and some parts have dense rusty hairs. The leaves are 0.05 to 0.25 inches, shedding early. The secondary veins are 10 to 18 pairs. Flowers appear in clusters of up to 7 at the leaf axils. The fruit is ovate-shaped, up to 1.9 x 0.9 inches. The sepals enlarge to 0.3 x 0.5 inches. The petiole can grow up to 1.6 inches long. The seeds are up to 1.3 x 0.4 x 0.3 inches. The leaves are simple. The sap is white. Habitat: Lowland rainforests and hill forests, up to an elevation of 4000 feet. Distribution Range: Kelantan, Pahang, Perak, Negeri Sembilan, Sumatra



Daun bag. atas/
Upperside leaf

Daun bag. bawah/
Underside leaf

Tree anatomy

Image description

Species description in English

Tree trunk photo

Tree classification

Genus
Payena

Family
Sapotaceae

Ordo
Ebenales

Kelas
Angiosperma

Panduan membaca buku

Nomor halaman

Nama lokal

Nama latin

Author

Status IUCN

CR : Criticallu Endangered

EN : Endangered

VU : Vurnerable

NT : Near Threatened

Deskripsi spesies dalam bahasa Indonesia

9

Payena dasyphylla Miq 

Ind. Nyatoh ekor

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Genus
Payena

Family
Sapotaceae

Ordo
Ebenales

Kelas
Angiosperma

A medium tree, with a height of up to 30 m and a diameter of up to 40 cm. The trunk is steeply columnar. The bark is smooth to irregularly cracked, with scales that peel off in patches. The inner bark is dark red to purplish red, and some parts have dense rusty hairs. The leaves are 0.05 to 0.25 inches, shedding early. The secondary veins are 10 to 18 pairs. Flowers appear in clusters of up to 7 at the leaf axils. The fruit is ovate-shaped, up to 1.9 x 0.9 inches. The sepals enlarge to 0.3 x 0.5 inches. The petiole can grow up to 1.6 inches long. The seeds are up to 1.3 x 0.4 x 0.3 inches. The leaves are simple. The sap is white. Habitat: Lowland rainforests and hill forests, up to an elevation of 4000 feet. Distribution Range: Kelantan, Pahang, Perak, Negeri Sembilan, Sumatra



Daun bag. atas/
Upperside leaf

Daun bag. bawah/
Underside leaf

Bagian-bagian pohon

Deskripsi spesies dalam bahasa Inggris

Keterangan gambar

Foto batang pohon

Klasifikasi tanaman

Pohon – Pohon di Cagar Hutan Mandelang

Dalam dunia tumbuhan, flora Indonesia diketahui adalah bagian dari flora Malesiana. Persebaran flora berdasarkan hasil penelitian Wallace dan Weber dibagi ke dalam 3 wilayah; Dataran Sunda meliputi Sumatra, Kalimantan, dan Bali. Dataran Sahul meliputi Papua dan pulau-pulau kecil sekitarnya. Daerah Wallace (daerah peralihan) meliputi Sulawesi, Maluku, dan Nusa Tenggara. Dua lokasi konsesi Perizinan Berusaha Pengusahaan Hutan (PBPH) yang dikelola oleh PT Royal Lestari Utama (RLU), di Provinsi Jambi dan Provinsi Kalimantan Timur termasuk ke dalam Dataran Sunda dengan jenis flora didominasi oleh suku Dipterocarpaceae. Hasil dokumentasi oleh Dr. MacKinnon yang diterbitkan FAO di tahun 1981 menyebutkan ada sekitar 20,000 jenis flora di Indonesia, di Sumatra dan Kalimantan masing-masing diidentifikasi ada 820 jenis dan 900 jenis.

Terletak di selatan bentang lahan Bukit Tigapuluh, area hutan konservasi yang dikelola RLU melalui anak usahanya PT Lestari Asri Jaya (LAJ), berbatasan langsung dengan Taman Nasional Bukit Tigapuluh bagian Seksi Pengelolaan Provinsi Jambi. Seorang ahli botani berkebangsaan Perancis di tahun 1997 dalam bukunya, *Vegetasi dan Physiografi Sumatra* menggaris bawahi bahwa Pulau Sumatra memiliki tipe vegetasi yang luar biasa beragam, namun sangat minim diteliti, utamanya di bagian tengah pulau Sumatra termasuk bentang alam bukit tigapuluh.

Di awal RLU mulai beroperasi di tahun 2015, penilaian area konservasi tinggi (High Conservation Value – HCV) dan area stok karbon tinggi (High Carbon Stock – HCS) melalui Lembaga ahli dilakukan di tahun yang sama. Penilaian ini dilakukan sebagai bagian dari upaya untuk memastikan bahwa perkebunan karet yang dikelola oleh RLU dikelola dengan memperhatikan kepentingan lingkungan, sosial, dan produksi. Dalam prosesnya, kegiatan penilaian HCV ini mengidentifikasi sebanyak 156 jenis flora, 50 jenis diantaranya adalah berhabitus pohon. RLU Kembali melakukan penilaian HCV-HCS untuk kedua kalinya di tahun 2019 – 2021 dengan tujuan pemutakhiran data. Dari penilaian kedua ini berhasil diidentifikasi sebanyak 199 jenis flora dengan 98 jenis diantaranya berhabitus pohon. Baik penilaian HCV pertama maupun kedua, lokasi identifikasi jenis flora dilakukan di Cagar Hutan Mandelang (Mandelang Forest Reserve). Cagar hutan mandelang adalah hutan seluas ±2800 hektar; termasuk di dalamnya hutan dataran rendah yang terhubung langsung dengan hutan Taman Nasional Bukit Tigapuluh dan hutan riparian.

Kebutuhan untuk mengetahui jenis flora utamanya habitus pohon di Cagar Hutan Mandelang dirasa semakin penting seiring dengan program restorasi hutan yang diinisiasi sejak tahun akhir 2017. Setelah 5 (lima) tahun, kami telah mengumpulkan lebih dari 80 jenis vegetasi di persemaian hutan, sebagian besar bibit kami ambil dari hutan Mandelang dan sebagian lagi dari kawasan taman nasional. Hanya sekitar separuh dari total jenis yang kami kumpulkan dapat kami identifikasi jenisnya. Untuk itu di tahun 2023 ini kami meminta dukungan seorang botanis muda untuk mengidentifikasi flora habitus pohon yang dominan di sepanjang 7 (tujuh) jalur patroli hutan yang kami bangun di Cagar Hutan Mandelang. Buku Panduan Lapangan ini berisi 85 jenis flora habitus pohon yang disajikan lengkap dengan deskripsi fisik serta sebaran, disertai gambar dengan kualitas baik untuk visual kulit batang, daun, dan buah-biji. Keberadaan Panduan Lapangan ini bertujuan memperkuat program restorasi hutan yang kami lakukan, namun juga kami harapkan menjadi salah satu rujukan untuk mengenal keragaman jenis flora yang ada di hutan kami di Mandelang. Semoga setelah ini akan terus lahir versi – versi pembaharuan yang memuat lebih banyak lagi jenis – jenis lain yang berhasil diidentifikasi.

Trees in Mandelang Forest Reserve

In the plant world, Indonesian flora is known as a part of Malesiana flora. Distribution of flora based on Wallace and Weber's research are divided into 3; The Sunda Plain (includes Sumatra, Kalimantan, and Bali), The Sahul Plain (includes Papua and small islands around), The Wallace area or transational area (includes Sulawesi, Maluku, and Nusa Tenggara). Two Forest Business License (PBPH) concession locations managed by PT Royal Lestari Utama (RLU) in Jambi province and East Kalimantan province are part of The Sunda plain with flora dominated by Dipterocarpaceae. Documentation results by Dr. MacKinnon that published by FAO in 1981 stated that there are around 20,000 species of flora in Indonesia, with 820 species and 900 species identified in Sumatra and Kalimantan respectively.

Located in Southern Bukit Tigapuluh landscape, conservation forest area managed by RLU through its subsidiary PT Lestari Asri Jaya (LAJ), directly adjacent to Bukit Tigapuluh National Park, part of the Jambi Province Management Section. A botanist from France in 1997 on his book "Vegetation and Physiography of Sumatera" underlined that Sumatera island has extraordinary vegetation types, but still rarely studied, especially in the central of Sumatera including Bukit Tigapuluh landscape.

When RLU started to operate in 2015, High Conservation Value (HCV) and High Carbon Stock (HCS) assessment through expert institution were conducted at the same year. This assessment is part of effort to ensure that rubber plantation managed by RLU are managed by giving attention to environmental, social, and production interests. In the process, HCV assessment identified 156 species of flora, 50 of them were tree species. RLU conducted the second HCV-HCS assessment in 2019-2021 to updating the data. This assessment successfully identified 199 species of flora, 98 of them were tree species. Flora species identification for both first and second assessment were located in Mandelang Forest Reserve. Mandelang Forest Reserve is a ± 2800 ha forest; including lowland forest directly connected to Bukit Tigapuluh National Park forest and riparian forest.

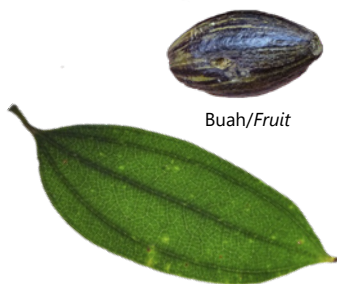
The need to know the main flora species in Mandelang Forest Reserve is increasingly important along with the restoration forest program that initiated since the end of 2017. After 5 years, we have collected more than 80 species of vegetation in forest nursery. Most of the seedlings we took are from Mandelang Forest Reserve and the others are from National Park area. Only half of total species that we collected could be identified. Therefore, in 2023, we requested support from a young botanist to identified tree habitus flora along the seven forest patrol trails that we built in Mandelang Forest Reserve. This field guidance contains 85 species of tree habitus flora presented with full description and distribution, supported by good quality image for bark, leaves, and fruit seeds visuals. The purpose of this field guidance is to strengthen our forest restoration program, but we also hope it will become one of the reference to know the diversity of flora species in our forest in Mandelang. Hopefully, after this, there will be updated versions containing more species that have been identified.

Anisophyllea apetala King VU

Ind. Delek

Pohon; kecil hingga sedang, tinggi dapat mencapai 14 meter dan diameter dapat mencapai 30 cm. **Daun**; Tangkai daun pendek hingga panjang 6 mm. Helai daun seperti kertas hingga kasar tipis, bundar telur, jorong atau lonjong, 10–21 x 4–9 cm; biasanya dengan ujung panjang, jarang lancip; tulang sekunder 2 pasang, melengkung dan memanjang. Pasangan pertama sangat redup dan sangat dekat dengan tepi helai; tulang tersier terlihat jelas pada kedua permukaan. **Buah**; jorong atau berbentuk bundar telur sungsang, 5–7,5 x 2,5 cm, dengan garis merah ketika masih segar dan berubah menjadi keunguan saat kering. **Habitat**: Hutan hujan bawah hingga 600 m dpl. **Kisaran Sebaran**; Perak, Trengganu, Selangor, Johor.

A small to medium Tree, reaching up to 14 m in height and a diameter of up to 30 cm. Leaves: The petioles are short, up to 6 mm in length. The leaf blade is paper-like to rough, thin, ovate, elliptical or oval, measuring 10–21 x 4–9 cm; typically with a long tip, rarely pointed. There are two pairs of secondary veins, curved and elongated. The first pair is faint and very close to the leaf edge; tertiary veins are clearly visible on both sides. Fruit: elliptical or obovate, 5–7.5 x 2.5 cm, with red streaks when fresh, turning purplish when dried. Habitat: Lowland rainforests up to 600 m above sea level. Distribution Range: Perak, Trengganu, Selangor, Johor.



Buah/Fruit

Daun bag. atas/Upperside leaf

V Korth

Ind. Mersawa kesat

EN

Pohon sangat besar, tinggi dapat mencapai 65 meter dan diameter dapat mencapai 250 cm. Memiliki **getah** bening, kulit mati kuning, belakang helai daun kering berwarna coklat kuning dengan buluh-buluh kasar, coklat kelabu pada tangkai dan pertulangan bawah. **Bunga** daun mahkota awalnya merah muda, berubah kuning pada waktu mekar. **Buah** matang bersayap; sayap panjang 9–12 x 1,4–1,8 cm; sayap pendek 1,2–1,5 – 0,2–0,35 cm; pangkal tabung kelopak berbulu, 1–1,2 x 0,8–1,1 cm. **Habitat**: Hutan hujan bawah hingga 700m dpl. **Kisaran Sebaran**: Myanmar, Thailand, Vietnam, Semenanjung Malaysia, Singapura, Sumatra, Jawa, Kalimantan dan Phillippina.

A very large tree, reaching up to 65 m in height and a diameter of up to 250 cm. The tree produces clear sap, with yellow dead bark, and the underside of the leaf blade turns brownish-yellow and is covered with coarse hairs. The petioles and the underside of the veins are gray-brown. Flowers: The petals of the flower are initially pink, turning to yellow when in full bloom. The mature fruit has wings; the long wing measures 9–12 x 1.4–1.8 cm, and the short wing measures 1.2–1.5 x 0.2–0.35 cm. The base of the calyx tube is hairy, measuring 1–1.2 x 0.8–1.1 cm. Distribution Range: Myanmar, Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, and the Philippines. Habitat: Lowland rainforests up to 700 m above sea level.



Buah masak/Ripe fruit



Daun bag. atas/
Upperside leaf



Daun bag. bawah/
Underside leaf



Daun kering/Dried leaf



Anisoptera laevis Ridl

Ind. Mersawa Durian

Pohon sangat besar, tinggi mencapai 65 meter dan diameter dapat mencapai 200 cm. Batang lurus berbentuk silinder; banir dapat mencapai tinggi 15 meter dengan bentangnya mencapai 4 meter. Tajuk agak kecil, berbentuk setengah bulat dengan beberapa cabang yang sangat menanjak, dari bawah tampak coklat keemasan. Ranting mati bundar. Penumpuh lekas gugur. Tangkai daun 1.4–2.1 cm. Daun lonjong, jorong atau bundar telur sungsang, 7–11 x 3–4 cm, menjangat; ujung lancip pendek atau lancip panjang; pangkal berbentuk pasak atau membundar. Bunga kecil; daun mahkota kuning; benang sari 15. Kelopak buah berkatup, bersatu membentuk tabung, 0.9–1.5 cm. dengan 2 sayap panjang dan 3 sayap pendek, sayap panjang 9–15 x 0.9–1.5 cm, sayap pendek 0.6–1.5 x 0.1–0.3 cm. **Habitat** Hutan lahan pamah dan perbukitan di pedalaman hingga ketinggian 900m dpl. **Kisaran Sebaran:** Semenanjung Malaysia, Singapura, Sumatra, Kalimantan.



Cupul buah/Fruit bud



Daun bag. atas/Upperside leaf



Daun bag. bawah/Underside leaf



Buah masak/Ripe fruit

A very large tree, with a height of up to 65 m and a diameter of up to 200 cm. The trunk is straight and cylindrical in shape; the buttresses can reach a height of 15 m with an extension of up to 4 m. The canopy is relatively small, semi-circular in shape with several steeply ascending branches, appearing golden-brown from below. The dead twigs are round. The stipules fall quickly. The petioles measure 1.4–2.1 cm. The leaves are oval, elliptical, or obovate, measuring 7–11 x 3–4 cm, leathery, with a pointed tip that is either short or long; the base is peg-shaped or rounded. The flowers are small; the petals are yellow, and there are 15 stamens. The calyx of the fruit is folded, united to form a tube, measuring 0.9–1.5 cm, with 2 long wings and 3 short wings. The long wings measure 9–15 x 0.9–1.5 cm, and the short wings measure 0.6–1.5 x 0.1–0.3 cm. Habitat: Lowland forests and interior hilly regions up to an elevation of 900 m above sea level. Distribution Range: Peninsular Malaysia, Singapore, Sumatra, Borneo

Anisoptera megistocarpa slooten

Ind. Mersawa tembaga

Pohon besar, diameter dapat mencapai 130 cm. Batang lurus berbentuk silinder; banir tebal. Tajuk coklat ke merah merahan dan mudah untuk dilihat dari kejauhan. Ranting mati memipih. Penumpuh lekas gugur. Tangkai daun berlutut, 1,9–3 cm dengan indumentum berupa buluh pendek dan sisik Bersama sama yang rapat, coklat kuning atau coklat merah. **Daun** lonjong, jorong, 5.5–20 x 2.5–8 cm, menjangat; ujung lancip pendek atau lancip panjang; pangkal membundar. **Bunga** kecil; daun mahkota putih; benang sari 60. Kelopak buah berkatup, bersatu membentuk tabung, 1.8–2.2 x 1.8–2.2 cm dengan 2 sayap panjang dan 3 sayap pendek, sayap panjang 16–22 x 3.2–3.8 cm, sayap pendek 2–3 x 0.3–0.5 cm. **Habitat**: Hutan lahan bergelombang dan perbukitan rendah. **Kisaran Sebaran**: Thailand (semenanjung), Semenanjung Malaysia, Singapura, Sumatra.

A large tree with a diameter of up to 130 cm. The trunk is straight and cylindrical in shape, with thick buttresses. The canopy is reddish-brown and easy to see from a distance. The dead twigs are flattened. The stipules fall quickly. The petioles are bent, measuring 1.9–3 cm, with indumentum consisting of short hairs and scales. The scales are tightly arranged, brownish-yellow or reddish-brown. The leaves are oval, elliptical measuring 5.5–20 x 2.5–8 cm, leathery, with a tapered tip that is either short or long; the base is rounded. The flowers are small; the petals are white, with 60 stamens. The calyx of the fruit is folded, united to form a tube, measuring 1.8–2.2 x 1.8–2.2 cm, with 2 long wings and 3 short wings. The long wings measure 16–22 x 3.2–3.8 cm, and the short wings measure 2–3 x 0.3–0.5 cm. Habitat: Undulating land forests and low hills. Distribution Range: Thailand (Peninsular), Peninsular Malaysia, Singapore, Sumatra



Daun bag. bawah/
Underside leaf



Daun bag. atas/
Upperside leaf

Genus
Anisoptera

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma



Aquilaria malaccensis Lamk

Ind. Gaharu

Pohon sedang hingga besar, tinggi dapat mencapai 36 meter dan diameter dapat mencapai 80 cm. Berbanir sedang dengan ketebalan 10 cm tinggi hingga 2 m, batang biasanya lurus berbentuk silindris terkadang beralur. Memiliki **getah** bening. **Daun** tunggal, berbentuk elips-lonjong, jarang menjari, x3-8x3.5 cm; tiba-tiba menyempit ke ujung yang Panjang dan menonjol; pangkal berbentuk baji lebar; helai daun mati berwarna abu-abu kehijauan, tepi agak bergelombang, tulang daun sekunder 8 – 16 pasang. Helai daun tidak mudah sobek, jika di sobek mengandung benang benang halus. Buah berbentuk menjantung (Subcordate) dengan ukuran 8-12 mm sampai 10 – 12 mm dan terdiri dari 1 – 2 biji disetiap buah. Biji bulat telur dengan ukuran 6 – 4 mm, berbulu tebal warna kecoklatan. **Habitat** Hutan hujan bawah hingga 750m dpl. **Kisaran Sebaran:** Myanmar, Thailand, Vietnam, Semenanjung Malaysia, Singapura, Sumatra, Jawa, Kalimantan dan Phillipina.

A medium to large tree, reaching a height of up to 36 m and a diameter of up to 80 cm. It has moderate buttresses with 10 cm thickness and height up to 2 m, the trunk is typically straight and cylindrical sometimes furrowed. The tree produces a clear sap. The leaves are simple, elliptical to oval, rarely palmate. suddenly narrows to a long and prominent tip; wide wedge-shaped base; dead leaf blades are greenish gray, slightly wavy edges. Secondary leaf veins 8-16 pairs. Leaf blades are not easily torn, if torn contain fine threads. Heart-shaped fruit (Subcordate) with a size of 8-12 mm to 10-12 mm and consists of 1-2 seeds in each fruit. Oval seeds with a size of 6-4 mm, thick brownish hairs.. Habitat: Lowland rainforests up to 750 m above sea level Distribution Range: Myanmar, Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, and the Philippines.

Genus
Aquilaria

Family
Thymelaeaceae

Ordo
Malvales

Kelas
Angiosperma



Buah pada batang/
Fruit on branch



Struktur daun/
Leafs sturcture



Buah dan biji/
Fruit and seeds

Artocarpus elasticus Reinw

Ind. Benda, Terap, Tekalong.

Pohon besar mencapai tinggi 45 m, batang bebas cabang bisa mencapai 40 m dan diameter batang 70 cm. Banir mencapai tinggi 3 m. Pepagan kelabu kecokelatan, bagian dalamnya kekuningan hingga coklat pucat. **Getah** berwarna putih kekuningan. Daun penumpu lanset meruncing, membungkus kuncup daun, berbulu merah coklat kekuningan. **Daun** tunggal, tulang daun sekunder 12–14 pasang. tersebar spiral, kasar, menjangat, bundar telur jorong, 12,5–60 × 10–35 cm. **Perbungaan** dalam bongkol di ketiak, pada ranting yang berdaun, berwarna kuning, kemudian coklat. Buah sinkap kuning coklat, kemudian coklat; silindris, 11,5 × 5,5 cm, tertutup rapat oleh berukuran tonjolan-tonjolan serupa duri pendek, berbau kurang enak jika masak. **Biji** elipsoid berwarna putih. **Habitat**: Tumbuh liar di hutan-hutan dataran rendah hingga ketinggian 1500m dpl. **Kisaran Sebaran**: Myanmar, Thailand, Vietnam, Semenanjung Malaysia, Singapura, Sumatra, Jawa, Kalimantan dan Phillipina.

*A large tree that can reach up to 45 m in height. The trunk can extend up to 40 m and a diameter of 70 cm. The buttresses can reach a height of 3 m. The bark is brownish-gray, with the inner part ranging from yellowish to pale brown; the sap is yellowish-white. The stipule leaves are lance-shaped and tapering, wrapping around the leaf buds, with reddish-brown to yellowish hairs. The tree has simple leaves, with 12–14 pairs of secondary veins. The leaves are spiral, coarse, rough, leathery, ovate to elliptical, measuring 12.5–60 × 10–35 cm. The inflorescence is in a cluster in the axil, on leafy branches, and turns yellow before becoming brown. The opened fruit is yellow-brown, then turns brown; cylindrical, 11.5 × 5.5 cm, tightly covered by short spiny protrusions, with an unpleasant odor when ripe. The seeds are ellipsoid and white. **Habitat**: Grows wild in lowland forests up to an elevation of 1500 m above sea level. **Distribution Range**: Burma, Siam, Malaya, to Palawan. In Indonesia, it naturally grows across the entire county, except for Papua.*



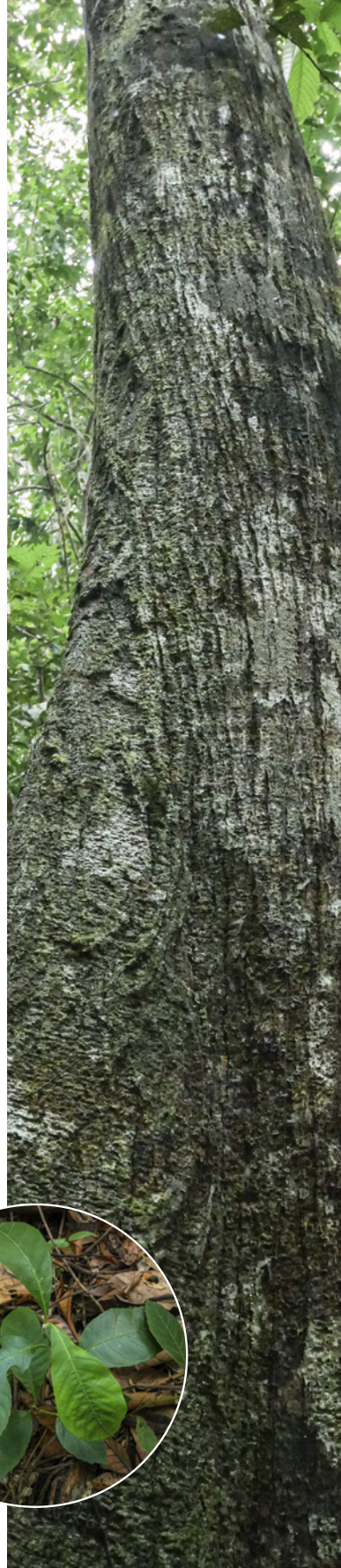
Daun kering/Dried leaf



Pangkal daun/Leaf base



Semai/
Seedling





Artocarpus integer Merr

Ind. Cempedak

Pohon sedang mencapai tinggi 24 m, diameter batang 50 cm. **Getah** berwarna putih. **Daun** tunggal, helai daun bagian belakang berbulu, tulang daun sekunder 6 – 10 pasang. **Buah** dapat dimakan dan memiliki aroma yg sangat kuat. **Habitat**: Hutan hujan dataran rendah, lahan kering. **Kisaran Penyebaran**: Burma, Malaysia, Thailand dan Indonesia.

A medium tree, reaching up to 24 m in height, with a trunk diameter of 50 cm; the sap is white. The tree has simple leaves, with the underside of the leaf covered in hairs. There are 6–10 pairs of secondary veins. The fruit is edible and has a very strong aroma. Habitat: Lowland rainforests, dry lands. Distribution Range: Burma, Malaysia, Thailand and Indonesia.



Daun bag. bawah/
Underside leaf



Daun bag. atas/
Upperside leaf

Genus
Artocarpus

Family
Moraceae

Ordo
Urticales

Kelas
Magnoliopsida



Artocarpus rigidus Bl

Ind. Tempunik

Pohon sedang hingga besar, tinggi dapat mencapai 45 meter dan diameter dapat mencapai 120 cm. Berbanir pendek. **Getah** putih. Kulit batang berwarna abu-abu kehijauan tua. Halus hingga retak pecah pecah bersisik, berselaput. Kulit dalam berwarna kuning kusam, dengan getah berwarna krem. **Daun** tunggal, tulang daun sekunder 10 – 18 pasang menonjol di bawah. **Buah** matang berwarna kuning dan memiliki duri kaku. **Habitat**: Hutan hujan bawah dan perbukitan. **Kisaran Sebaran**: Burma, Siam, Indo-china, Sumatra, Riau, Lingga, Kalimantan dan Jawa.

A medium to large tree, reaching up to 45 m in height with a diameter of up to 120 cm. The buttresses are short. The sap is white. The bark is dark greenish-gray; smooth to cracked, fissured, scaly, and membranous. The inner bark is dull yellow, with cream-colored sap. The leaves are simple, with 10 – 18 pairs of secondary veins that are prominent underneath. The mature fruit is yellow and has stiff spines. Habitat: Lowland rainforests and hilly areas. Distribution Range: Burma, Siam, Indo-china, Sumatra, Riau, Lingga, Borneo, and Java.



Duduk daun serta bakal buah/
Leaf structure and fruit bud

Genus
Artocarpus

Family
Moraceae

Ordo
Urticales

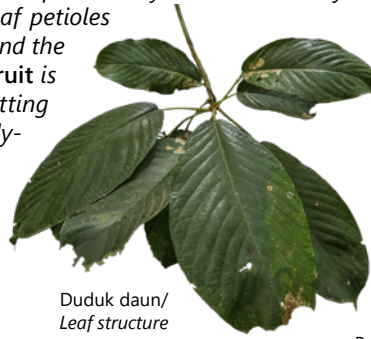
Kelas
Magnoliopsida

Baccaurea motleyana Hook

Ind. Rambai

Pohon kecil hingga sedang, kadang mencapai tinggi 24 m, lingkaran batang mencapai 150 cm. Batang beralur; tajuk besar dan lebat. **Getah** bening. **Daun** tunggal, biasanya tipis seperti beludru di bagian bawah, ujung ranting dan tangkai daun seperti beludru. Tangkai daun panjang, tulang daun sekunder 6 – 11 pasang. **Buah** bulat, dengan lebar hingga 25 mm, membelah dan memperlihatkan biji terbungkus selubung berwarna keruh. Buah dapat dimakan. **Habitat:** Hutan-hujan dataran rendah sampai perbukitan 900 m dpl. **Kisaran Sebaran:** Malaya, Siam, Sumatra dan Kalimantan.

A small to medium tree, sometimes reaching a height of 24 m, with a trunk circumference of up to 150 cm. The trunk is furrowed. The canopy is large and dense. The sap is clear. The leaves are simple, usually thin and velvety on the underside. The tips of the twigs and leaf petioles are also velvety. The petioles are long, and the secondary veins are 6 to 11 pairs. The fruit is round, with a width of up to 25 mm, splitting open to reveal seeds enclosed in a cloudy-colored coating. The fruit is edible. Habitat: Lowland rainforests to hilly areas up to 900 m above sea level. Distribution range: Malaya, Siam, Sumatra and Borneo.



Duduk daun/
Leaf structure



Buah/fruit



Baccaurea reticulata Hook

Ind. Tampul

Pohon sedang, kadang mencapai tinggi 30 m, diameter batang 60 cm; getah bening. **Daun** Tunggal, tangkai daun panjang, tulang daun sekunder 6 – 11 pasang. **Buah** dapat dimakan. **Habitat:** hutan-hujan dataran rendah sampai dengan 300 m dpl. **Kisaran Penyebaran:** Trengganu, Perak, Sumatra.

A medium tree, sometimes reach up to 30 m in height, with a trunk diameter of 60 cm; the sap is clear. The tree has simple leaves, with long petioles, and 6-11 pairs of secondary veins. The fruit is edible. Habitat: Lowland rainforests up to 300 m above sea level. Distribution Range: Trengganu, Perak, Sumatra.



Duduk daun/Leaf structure



Buah pada batang/
Fruit on trunk



Buah masak/Ripe fruit



Barringtonia pendula Kurz

Ind. Putat

Pohon sedang, tinggi mencapai 30 meter dan diameter dapat mencapai 60 cm. Batang sedikit terpilin dan berbanir, kulit batangnya berwarna coklat kemerahan. **Getah bening.** Daun tunggal, tepi helai daun rata atau bergerigi halus, tulang sekunder sampai 15 pasang. Kulit mati berwarna coklat kehitaman, mengelupas tipis, sampai bercak-bercak. **Bunga** menggantung pada cabang di belakang daun 30 – 40 cm. **Buah** berbentuk bulat telur menyerupai pisang, panjang hingga 8–13 x 2-4 cm. **Habitat:** Hutan hujan bawah, lereng bukit hingga 500 m dpl. **Kisaran Sebaran:** China, Siam, Burma, Semenanjung Malaysia, Sumatra dan Kalimantan.

A medium tree, reaching up to 30 meter in height with a diameter of up to 60 cm. The trunk is slightly twisted and has buttresses, with reddish-brown bark. The sap is clear. The leaves are simple, with leaf margins flat or finely serrated, and up to 15 pairs of secondary veins. The dead bark is dark brown to black, peeling thinly, leaving spots. The flowers hang from branches behind the leaves, measuring 30 – 40 cm. The fruit is ovate-shaped, resembling a banana, with a length of 8 – 13 cm and a width of 2 – 4 cm. Habitat: Lowland rainforests, hill slopes up to 500 m above sea level. Distribution Range: China, Siam, Burma, Peninsular Malaysia, Sumatra, and Borneo.

Genus
Barringtonia

Family
Lecythidaceae

Ordo
Ericales

Kelas
Angiosperma



Bakal bunga/Flower bud



Buah pada batang/
Fruit on branch



Buah masak/Ripe fruit



Daun mati/Dead leaf



Daun hidup/Fresh leaf



Kelopak dan benang sari pada bunga/
Petals and stamens in flowers

***Bouea macrophylla* Griff**

Ind. Raman daun besar, Kundang

Pohon sedang, tinggi mencapai 36 meter dan diameter dapat mencapai 60 cm. Batang lurus berbentuk silindris dan tidak berbanir, kulit batang berwarna abu-abu gelap coklat kemerahan. **Getah** hitam. **Daun** Tunggal, duduk daun berpasangan, tulang sekunder sampai 15 – 25 pasang. **Bunga** putih hingga kuning. **Buah** dapat dikonsumsi, berbentuk ellipsoid 2.5 x 1.5 cm. Buah matang berwarna kuning orange sampai merah. **Habitat:** Hutan hujan bawah hingga 700 m dpl. **Kisaran Sebaran:** Semenanjung Malaya, Burma, Thailand, Indo-China, Sumatra dan Kalimantan.

A medium tree, reaching up to 36 m in height with a diameter of up to 60 cm. The trunk is straight, cylindrical and has no buttress, the bark is dark gray-brownish-red. The sap is black. The leaves are simple, with opposite phyllotaxy, and up to 15 – 25 pairs of secondary veins. The flowers are white to yellow. The fruit is edible, ellipsoid-shaped, measuring 2.5 x 1.5 cm. The mature fruit turns yellow, orange, or red. Habitat: Lowland rainforests up to 700 m above sea level. Distribution Range: Peninsular Malaya, Burma, Thailand, Indo-China, Sumatra and Borneo.



Struktur daun/Leaf structure

***Buchanania sessilifolia* Blume**

Ind. Otak udang

Pohon kecil sampai sedang, tinggi mencapai 10 – 20 meter. Kulit batang abu-abu coklat atau coklat kemerahan, halus atau berbintil. Kulit dalam coklat kemerahan atau pink. Ranting putih pucat kecoklatan berbulu halus. **Daun** tunggal, tulang sekunder 12 – 25 pasang, tangkai daun 0,25 – 3 cm, berbulu atau lokos; bundar telur sungsang atau lonjong 8 – 30 cm. **Getah** berwarna hitam. **Habitat:** Hutan hujan bawah, perbukitan hingga 700 m dpl. **Kisaran Sebaran:** Semenanjung Malaya, Burma, Thailand, Laos dan Malesia.

Struktur daun pada semai/
Leaf's structure at seedling

A small to medium tree, reaching up to 10-20 m in height. The bark is brownish-gray or reddish-brown, smooth or bumpy. The inner bark is reddish-brown or pink. The twigs are pale white to brown with fine hairs. The leaves are simple, with 12 to 25 pairs of secondary veins. The petioles measure 0.25 to 3 cm, with fine hairs or glabrous. The leaves are ovate or oval, measuring 8 to 30 cm. The sap is black. Habitat: Lowland rainforests, in hilly areas up to 700 m above sea level. Distribution Range: Peninsular Malaya, Burma, Thailand, Laos and Malesia

Struktur daun pada pancang/
Leaf's structure at stake

Calophyllum incrassatum M.R.Hend. & Wyatt-Smith.

Ind. Bintangur daun panjang

Pohon sedang sampai besar, tinggi dapat mencapai 36 m. Diameter dapat mencapai 200 cm, tanpa penopang. Batangnya sering kali berlekuk-lekuk dari pangkal cabang yang tumbang. Kulit kayu berwarna kuning kecoklatan, kadang abu-abu; halus. Menjadi retak atau hingga retak kecil, jauh (3 – 5 cm) sering kali dengan lentisel kecil yang melimpah dalam garis-garis vertikal. Kulit kayu bagian luar sangat tipis dan rapuh. Kulit kayu bagian dalam lengket, putih keruh berubah menjadi agak kekuningan pada saat di sinari atau pada awalnya berwarna kuning. **Daun** tunggal, tulang daun sekunder rapat dan banyak. Pada ujung daun tua selalu rusak. **Getah** kuning. Tangkai daun panjang 2–3 cm, melipat atau lurus ke atas; berbentuk bundar telur melonjong panjang (12x5-)16x5(-27x7) cm, kadang-kadang terlihat lebih luas. **Habitat**: Hutan hujan bawah, landai sampai bergelombang hingga 600 m dpl. **Kisaran Sebaran**: Kelantan, Malacca, Johor, Sumatra dan Kalimantan.

A medium to large tree, reaching up to 36 m in height with a diameter of up to 200 cm, without buttresses. The trunk is often contorted from the base of fallen branches. The bark is yellowish-brown, sometimes gray, and smooth. It can become cracked or develop small fissures (3–5 cm), often with abundant small lenticels arranged in vertical lines. The outer bark is very thin and fragile. The inner bark is sticky, initially cloudy white, turning slightly yellow when exposed to sunlight. The leaves are simple, with closely spaced and numerous secondary veins. The tips of the older leaves are always damaged. The sap is yellow. The petiole is 2 – 3 cm long, folding or straight upwards; the leaves are ovate-shaped, elongated, with dimensions ranging from 12x5 cm to 16x5(-27x7) cm. Sometimes they appear wider. Habitat: Lowland rainforests, flat to undulating land up to 600 m above sea level. Distribution Range: Kelantan, Malacca, Johor, Sumatra and Borneo.

Genus
Calophyllum

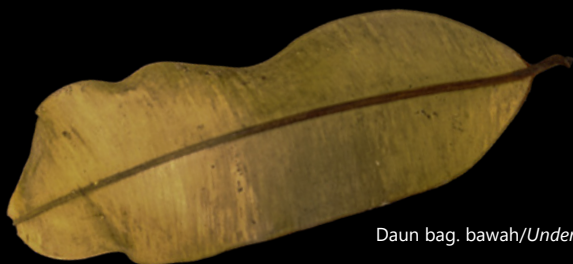
Family
Calophyllaceae

Ordo
Malvales

Kelas
Angiosperma



Cupul buah/Fruit bud



Daun bag. bawah/Underside leaf



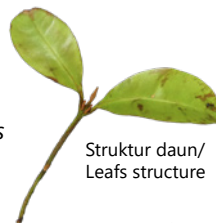
Daun bag. bawah/Upperside leaf

Calophyllum pulcherrimum Wall

Ind. Bintangur gasing

Pohon sedang hingga besar, tinggi dapat mencapai 30 m. Diameter dapat mencapai 50 cm. **Daun** Tunggal, Tulang daun sekunder sejajar rapat. Tagkai daun ramping, 7 – 10 mm, tersalur kuat. Helai daun kecil, jorong, lonjong atau melanset, 3,5 x 1,5) – 5 x 2,5 – (9 x 3,7) cm; tumpul atau lancip, kadang – kadang pendek dan meruncing. **Getah** putih/ kuning, lengket. Kulit mati berbentuk perahu. Kulit kayu ke abu abuan atau kuning kecoklatan; halus, dengan lentisel coklat yang memanjang. Kulit kayu bagian dalam mengandung getah yang jernih berwarna seperti madu dan lengket. **Habitat** Hutan hujan bawah, landau hingga bergelombang sampai ketinggian 450m dpl. **Kisaran sebaran**; Central Pahang dan negeri Sembilan, Sumatra, kalimantan

A medium to large tree, reaching up to 30 m in height with a diameter of up to 50 cm. The leaves are simple, the secondary veins are closely parallel. The petioles are slender, 7 – 10 mm, with strong grooves. The leaf blades are small, elliptical, oval or lanceolate, measuring 3.5 x 1.5 cm to 5 x 2.5 – 9 x 3.7 cm, blunt or pointed, occasionally short and tapering. The sap is white/yellow and sticky. The dead bark has a boat-like shape. The bark is grayish or brownish-yellow, smooth, with elongated brown lentiscels. The inner bark contains clear, honey-colored, sticky sap. Habitat: Lowland rainforests, wavy to undulating land up to 450 m above sea level. Distribution Range: Central Pahang dan Negeri Sembilan, Sumatra, Borneo



Struktur daun/
Leaves structure



Daun bag. bawah/Under leaf



Calophyllum rubiginosum Hend

Ind. Bintangur daun karat

Pohon sedang, kadang kadang besar dan dapat mencapai 39 m. Diameter dapat mencapai 80 cm. Kulit kayu haus hingga sangat halus; terkadang dengan bercak bercak besar. Sisik longgar; abu abu dan hijau kekuningan. **Daun** Tunggal, Tulang daun sekunder sejajar rapat. **Getah** putih, lengket. Belakang helai daun berbulu dan berwarna karat. Ranting halus, pucat kekuningan sampai hampir putih, pada awalnya dengan bulu-buluh berkarat dan halus. Tangkai daun bervariasi hingga 3 cm, agak ramping; kurang lebih berbentuk jorong-lonjong 8x3 – 18x5 cm membulat, pangkal menjari hingga menjorong, sedikit kasar. **Habitat** Hutan hujan bawah, pada lahan kering. **Kisaran sebaran**; Johore, Negeri Sembilan, sumatra dan Kalimantan.

A medium tree, sometimes large, reaching up to 39 m in height with a diameter of up to 80 cm. The bark is smooth to very smooth, and occasionally marked with large spots. The scales are sparse; the color is gray and yellow-green. The leaves are simple, with secondary veins closely parallel. The sap is white and sticky. The undersides of the leaves are covered with fine, rusty-colored hairs. The twigs are fine, pale yellowish to nearly white, initially covered with fine rusty-colored hairs. The petioles vary, up to 3 cm, somewhat slender; the leaf shape is elliptical-oval, ranging from 8x3 cm to 18x5 cm, rounded, with a base that is palmate or tapering. The texture is slightly rough. Habitat: Lowland rainforests, in dry land areas. Distribution Range: Johore, Negeri Sembilan, Sumatra dan Borneo.



Daun/Leaves



Getah putih/
white sap



Calophyllum sclerophyllum Vesque

Ind. Bintangur jangkang

Pohon sangat besar, tinggi dapat mencapai 45 m. Diameter dapat mencapai 120 cm. lurus berbentuk silinder, sering kali dengan akar jangkang. **Daun** Tunggal, Tulang daun sekunder sejajar rapat, banyak. Kulit kayu pucat hingga hijau kekuningan atau coklat muda; bersisik, beralur hingga bercelah dangkal, berwarna merah kecoklatan, seperti kertas lentisel memanjang secara vertical. Kulit kayu bagian dalam dengan eksudat berwarna seperti madu jernih, dengan semburat kehijauan yang berbeda. **Getah** kuning (seperti madu) lengket. Buah bulat telur lonjong sampai bulat, lebar 3cm; dinding sangat tebal, mongering coklat kemerahan kusam sampai kehitaman, berkerut sangat halus dan rapat; tangkai 2-3 cm. **Habitat** Hutan hujan bawah, landai, hutan merawa dan pada hutan rawa gambut.



Getah kuning/
Yellow sap



Daun bag. bawah/Underside leaf

A very large tree, reaching up to 45 m in height with a diameter of up to 120 cm. The trunk is straight and cylindrical, often with stilt roots. The leaves are simple, with closely parallel secondary veins, plenty. The bark is pale to yellowish-green or light brown; scaly, furrowed, with shallow fissures, reddish-brown, resembling paper, and with lenticels are elongated vertically. The inner bark has a honey-like exudate, clear with a hint of greenish tinge. The sap is yellow (like honey) and sticky. The fruit is egg-shaped to round, about 3 cm wide; the walls are very thick, drying to a dull reddish-brown to black, with very fine and tight wrinkles; the petiole is 2-3 cm. Habitat: Lowland rainforests, gently sloping areas, swamp forests, and peat swamp forests.

Genus
Calophyllum

Family
Calophyllaceae

Ordo
Malvales

Kelas
Angiosperma

Castanopsis schefferiana Hance NT

Ind. Berangan

Pohon sedang tinggi dapat mencapai 100 kaki. Kulit kayu bagian dalam lunak dan berbutir butir; merah muda sampai kuning kecoklatan. **Getah** bening; **Daun** Tunggal, Tangkai daun 0,3 – 1,3 inci. Ranting ramping. **Buah** 3 di setiap cupul. Biasanya satu atau dua tidak berkembang; **Habitat**: Hutan hujan bawah hingga ketinggian 300m dpl. **Kisaran sebaran**: Kedah, Pahang, Trengganu, Negeri Sembilan, Johor, Singapura, Sumatra dan pulau lingga

A medium tree, reaching a height of up to 100 feet. The inner bark is soft and granular; ranging from pink to brownish-yellow. The sap is clear. The leaves are simple, with petioles ranging from 0.3 to 1.3 inches. The twigs are slender. The fruit is grouped in threes within each cupule, though usually one or two do not develop. Habitat: Lowland rainforests up to 300 m above sea level. Distribution Range: Kedah, Pahang, Trengganu, Negeri Sembilan, Johor, Singapura, Sumatra and Lingga Island



Buah/Fruit



Biji didalam buah/
Seed inside fruit



Duduk daun semai/
Seedling leaf structure

Genus
Castanopsis

Family
Fagaceae

Ordo
Fagales

Kelas
Angiosperma

Camnosperma auriculatum Bl

Ind. Terentang

Pohon besar, tinggi dapat mencapai 33 m. Diameter dapat mencapai 80 cm dan memiliki banir. Kulit batang berwarna kuning dan mulus. **Daun** tunggal, tulang daun sekunder 12 – 23 pasang. Tangkai daun berkuping. **Getah** bening/ keruh menjadi hitam . Pohon memiliki akar jangkang. Ranting bundar, penumpu Panjang 2 – 3 mm, berbentuk lurus mudah gugur. Tangkai daun 0,4-1 cm dengan indumentum berupa bulu bulu pendek yang renggang atau rapat. Daun bundar telur, menjangat 4.5 – 10 x 2.5 – 5 cm. Pertulangan sekunder menyirip 8 – 12 pasang melengkung di seluruh panjangnya. Kadang memiliki domatia di ketiak. Buah dengan 2 sayap panjang dan 3 sayap pendek, sayap panjang 5 – 7 x 1 – 1,5 cm, sayap pendek 0,5 – 0,7 x 0,2 – 0,4 cm; **Buah** geluk 5-7 x 2 – 4 mm. **Habitat:** Hutan hujan bawah, hutan rawa sampai 1600 m dpl. **Kisaran sebaran:** Thailand, Malesia, Sumatra dan Kalimantan.

A large tree, reaching up to 33 m in height with a diameter of up to 80 cm and featuring buttresses. The bark is yellow and smooth. The leaves are simple, with 12–23 pairs of secondary veins. The petiole has auricles. The sap is clear/cloudy and turns black. The tree also has stilt roots. The twigs are round with stipules 2–3 mm long, straight, and easily deciduous. The petioles are 0.4–1 cm long, covered with short hairs, either sparse or dense. The leaves are ovate-shaped, leathery, measuring 4.5–10 x 2.5–5 cm. The secondary veins are pinnate, with 8–12 pairs, curving along the entire length of the leaf. Occasionally, domatia are present in the axils. The fruit has 2 long wings and 3 short wings; the long wings measure 5–7 x 1–1.5 cm, and the short wings measure 0.5–0.7 x 0.2–0.4 cm. The fruit is an achene, measuring 5–7 x 2–4 mm. Habitat: Lowland rainforests, swamp forests up to 1600 above sea level. Distribution Range: Thailand, Malesia, Sumatra and Borneo.

Genus
Camnosperma

Family
Anacardiaceae

Ordo
Malvales

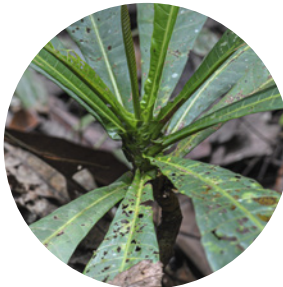
Kelas
Angiosperma



Daun tunggal/Single leaf



Pangkal daun/Leaf base



Duduk daun semai/
Leaf structure in seedling



Cinnamomum subcuneatum miq

Ind. Medang manis

Pohon kecil hingga sedang, tinggi dapat mencapai 20 m. **Daun** tunggal, berhadapan atau berseberangan, bertulang tiga; tangkai panjang 1 cm. Berbulu halus; bilah kasa, agak mengkilap di bawah. Elips, bulat telur atau oblong, 7,5–17 x 3–7 cm. Tulang daun sekunder terangkat ke atas, tulang daun sekunder seringkali dengan beberapa urat pendek yang menyebar ke tepi dan membentuk urat tepi yang melingkar; tulang tersier skalaris. Sangat lemah. **Perbungaan** di ketiak, panjang 10 – 20 cm. **Buah** lonjong, 1 x 0,5 cm, duduk di atas parian berlobus berbentuk cangkir. **Getah** bening/kuning. Ranting muda berwarna coklat tua. **Habitat:** Hutan hujan dataran rendah, landai bergelombang. **Kisaran Sebaran:** Penang, Perak, Malaka, Johor, Sumatra dan Kalimantan.



Getah bening/
Clear sap

Daun tua/Old leaf



Duduk helai daun/
Leaf structure

A small to medium tree, reaching a height of up to 20 m. The leaves are simple, opposite phyllotaxy, with three veins. The petioles are 1 cm long and finely hairy. The leaf blades are net-like, somewhat shiny on the underside. The leaves are elliptical, ovate, or oblong, measuring 7.5–17 x 3–7 cm. The secondary veins are raised, often with several short veins spreading toward the edge, forming a circular margin vein. The tertiary veins are scalariform. Very weak. The inflorescences are axillary, 10–20 cm long. The fruit is oval, 1 x 0.5 cm, sitting on a lobed cup-shaped receptacle. The sap is clear or yellow. The young twigs are dark brown. **Habitat:** Lowland rainforests, wavy to undulating land. **Distribution Range:** Penang, Perak, Malaka, Johor, Sumatra and Borneo.

Genus
Cinnamomum

Family
Lauraceae

Ordo
Ranales

Kelas
Angiosperma

Dacryodes rostrata (Bl) Lam

Ind. Kedondong kerut

Pohon sedang terkadang besar, tinggi dapat mencapai 36 meter dan diameter dapat mencapai lebih 2 m. Berbanir rendah, namun kadang kadang mencapai 3.5 m, curam. Batang lurus berbentuk silinder. Kulit kayu berwarna abu-abu kecoklatan atau abu-abu; kadang-kadang dengan noda **getah** hitam; retak dan bersisik, berselaput. Kulit kayu tipis, kulit kayu bagian luar abu-abu, keras. Kulit kayu bagian dalam biasanya merah mudah hingga merah, jarang putih kekuningan, berbintik-bintik; dengan cairan bening hingga putih. **Gubal** berwarna putih. **Daun** majemuk, anak daun 7–13 helai, tulang sekunder 7–10 pasang. **Buah** bulat telur hingga lonjong, 0,5x0,3 – 1x0,4 inci. Sedikit mengerut di bagian puncak; matang melalui warna kuning hingga ungu kehitaman tua. **Habitat:** Hutan hujan bawah, biasanya disisi atau di tepi-tepi bukit hingga ketinggian sampai 450 m dpl. Kadang-kadang di rawa-rawa. **Kisaran Sebaran:** Malaya, Indo-china, Sumatra, Bangka, Belitung, Phillipina dan Sulawesi utara.

A medium to sometimes large tree, reaching heights of up to 36 m and diam over 2 m. The buttresses are low but can sometimes extend to 3.5 m, steep. The trunk is straight and cylindrical. The bark is grayish-brown or gray, occasionally with black sap stains; it is cracked, scaly, and membranous. The outer bark is gray and hard, while the inner bark is usually pale red to red. Sometimes, it is pale yellowish-white, spotted, and with a white exudate. The sapwood is white. The leaves are compound, with 7 to 13 leaflets and 7 to 10 pairs of secondary veins. The fruit is ovate to oval, 1.3-2.5 cm in size, slightly wrinkled at the tip, and ripens from yellow to dark purple. **Habitat:** Lower rainforests, usually on slopes or hilltops, up to an elevation of 450 m above sea level. Sometimes found in swamps. **Distribution Range:** Malaya, Indo-china, Sumatra, Bangka, Belitung, The Philippines and North Sulawesi.



Buah masak/Ripe fruit

Genus
Dacryodes

Family
Burseraceae

Ordo
Sapindales

Kelas
Angiosperma

Cotylelobium melanoxylo (Hook.f.) Pierre

Ind. Giam, Rasak, Raru

Pohon sedang hingga besar, batang berbentuk silinder. Kulit batangnya berwarna putih kehijauan dengan tebal kulit sekitar 0,6-1 cm, kayu berwarna kuning kecokelatan. **Daun** berbentuk oval, pangkal daun membaji, ujung melancip, tulang daun sekunder terdiri dari 5-7 pasang, melengkung hingga dekat tepi, panjang hingga 9 cm. Tangkai daun panjang 10-18 mm. **Getah** mengeluarkan bau yang sangat kuat, karakteristik getahnya ada yang berwarna putih dan lembut, ada juga yang berwarna kuning dan oranye terang. Kayu raru termasuk dalam daftar tanaman yang hampir punah dan merupakan tumbuhan yang diambil atau dipanen dari hutan. Kulit batang kayu raru juga telah lama digunakan dalam pengobatan tradisional masyarakat lokal. **Habitat:** Tumbuhan tropis dataran rendah ini dapat ditemukan sampai dengan ketinggian 300 m dpl dan tumbuh di daerah lembap hingga basah. **Kisaran Sebaran:** Thailand, Indonesia, Malaysia, dan Brunei Darussalam.

Cotylelobium melanoxylo is a medium to large tree, with a cylindrical trunk. The bark is greenish-white, with a thickness of about 0.6–1 cm, and the wood is yellowish-brown. The leaves are oval-shaped, with a cuneate base and a pointed tip. The secondary veins consist of 5–7 pairs, curving towards the edge, with a length of up to 9 cm. The petiole is 10–18 mm long. The sap has a very strong smell, with some being white and soft, while others are yellow or bright orange. This plant is native to Thailand, Indonesia, Malaysia, and Brunei Darussalam. It is widespread throughout Southeast Asia, including Thailand, Malaysia, and Indonesia (Sumatra and Borneo). The raru wood is listed among the plants that are nearly extinct and is harvested from the forest. The bark of raru wood has long been used in traditional medicine by local communities. **Habitat:** This tropical lowland plant can be found up to 300 m above sea level and thrives in moist to wet areas. **Distribution Range:** Widely distributed in Southeast Asia, including Thailand, Malaysia, Brunei, Singapore, and Indonesia (Sumatra and Borneo).



Daun bag. atas/Upperside leaf



Daun bag. bawah/Underside leaf



Duduk helai daun/Leaves structure



Cratoxylum pormosum Jack

Ind. Mampat, Derum

Pohon sedang hingga besar, tinggi dapat mencapai 45 m. Diameter dapat mencapai 60 cm. Pada tingkat semai dan pancang, batang memiliki duri. **Daun** tunggal, tulang daun sekunder 7–12 pasang. Tulang daun sekunder saling berhubungan. **Getah** yodium. Tajuk kecil, setengah bulat; percabangan menanjak. Pepagan bersisik, coklat tua hingga kehitam–hitaman; berbulu kusut, punggung – punggung 5 cm lebarnya dengan sisik-sisik kecil, lonjong, agak menetap; sering tertutup oleh lentisel-lentisel kecil pada banir. Ranting bundar, penumpu panjang 2–3 mm, berbentuk lurus mudah gugur. Tangkai daun 0,4–1 cm dengan indumentum berupa bulu-bulu pendek yang renggang atau rapat. Daun bundar telur, menjangat 4,5–10 x 2,5–5 cm. Pertulangan sekunder menyirip 8–12 pasang melengkung di seluruh panjangnya. Kadang memiliki domatia di ketiak. **Buah** dengan 2 sayap panjang dan 3 sayap pendek, sayap panjang 5–7 x 1–1,5 cm, sayap pendek 0,5–0,7 x 0,2–0,4 cm. **Buah** geluk 5–7 x 2–4 mm. **Habitat**: Hutan hujan bawah, primer maupun sekunder sampai dengan 600m dpl. **Kisaran Sebaran**: Semenanjung Indo-china, Semenanjung Malaysia, Siam, Sumatra, Jawa, Kalimantan, Phillippina dan Sulawesi.

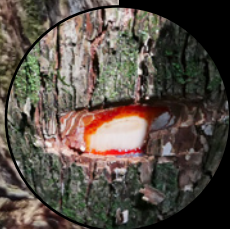
A medium to large tree, reaching up to 45 m in height with a diameter of up to 60 cm. At the seedling and sapling stage, the trunk has thorns. The leaves are simple, with 7–12 pairs of secondary veins. The secondary veins are interconnected. Iodine sap. The canopy is small, semi-circular; the branching is upward. The bark is scaly, dark brown to blackish, with tangled hairs, and the back is 5 cm wide. It has small, oval scales, slightly persistent, often covered by small lenticels on the buttress. The resin is milky in color. The twigs are round, with stipules 2–3 mm long, straight and deciduous. The petiole is 0.4–1 cm long, with an indumentum of short, sparse to dense hairs. The leaves are ovate, leathery, measuring 4.5–10 x 2.5–5 cm. The secondary venation is pinnate, with 8–12 pairs of veins, curving along the full length. Sometimes domatia are present in the axils. The fruit has 2 long wings and 3 short wings, with the long wings measuring 5–7 x 1–1.5 cm and the short wings 0.5–0.7 x 0.2–0.4 cm. The fruit is an achene, measuring 5–7 x 2–4 mm. Habitat: Lowland rainforests, both primary and secondary, up to 600 m above sea level. Distribution Range: Indo-china Peninsula, Peninsular Malaysia, Siam, Sumatra, Java, Borneo, Philippines, and Sulawesi.

Genus
Cratoxylum

Family
Hypericaceae

Ordo
Malvales

Kelas
Angiosperma



Getah/Sap



Daun bag. bawah/Underside leaf



Daun bag. atas/Upperside leaf



Duduk helai daun/
Leafs structure

Dialium platysephalum Baker

Ind. Asam keranji

Pohon sedang sampai besar, tinggi dapat mencapai 40 m. Berbanir tipis dan tinggi, diameter dapat mencapai 80 cm. **Daun** majemuk, panjang daun 4–9 cm, anak daun antara 5–7 helai. Tangkai anak daun 0,1–0,3 cm, Helai daun lonjong sebagian besar 3–4 x 1,5 cm, kadang dengan helaian yang lebih kecil. Ujung agak lancip, pangkal membulat; kasar tipis, bagian bawah seperti beludruh, coklat keemasan kusam. **Getah** merah. **Buah** dapat dimakan. Ranting bundar, penumpu panjang 2–3 mm, berbentuk lurus mudah gugur. Tangkai daun 0,4–1 cm dengan indumentum berupa bulu-bulu pendek yang renggang atau rapat. Daun bundar telur, menjangat 4.5–10 x 2.5–5 cm. Pertulangan sekunder menyirip 8–12 pasang melengkung di seluruh panjangnya. **Habitat**: Hutan hujan bawah, landai, sampai dengan perbukitan. **Kisaran sebaran**: Malaya, Sumatra, Kalimantan.

A medium to large tree, reaching up to 40 m in height with a diameter of up to 80 cm. It has a thin and tall buttress. The leaves are compound, with 4–9 cm in length, and 5–7 leaflets. The petiole of the leaflets is 0.1–0.3 cm long. The leaflets are oval, mostly measuring 3–4 x 1.5 cm, with occasional smaller leaflets. The apex is slightly pointed, and the base is rounded. The leaves are rough, thin, with a velvety, brownish-golden, dull underside. The sap is red. The fruit is edible. The twigs are round, with a stipule length of 2–3 mm, straight and deciduous. The petiole is 0.4–1 cm long, with an indumentum of short, sparse to dense hairs. The leaves are ovate, leathery, measuring 4.5–10 x 2.5–5 cm. The secondary venation is pinnate, with 8–12 pairs of veins, curving along the full length. Sometimes, domatia are present in the axils. The fruit has 2 long wings and 3 short wings, with the long wings measuring 5–7 x 1–1.5 cm and the short wings 0.5–0.7 x 0.2–0.4 cm. The fruit is an achene, measuring 5–7 x 2–4 mm. Habitat: Lowland rainforests, gently sloping up to hilly areas. Distribution Range: Malaya, Sumatra, Borneo.



Buah dan biji/Fruit and seed Duduk daun/Leafs structure



Dillenia albifros Ridley

Ind. Simpur putih

Pohon kecil, tinggi dapat mencapai 20 meter dan diameter dapat mencapai 15 cm. **Daun** tunggal, tulang daun sekunder 20 – 30 pasang. Tangkai daun berkuping/bersayap. **Habitat**: Hutan hujan bawah pada hutan primer atau sekunder. **Kisaran Sebaran**: Malaya, Sumatra, dan Kalimantan.

A small tree, reaching a height of up to 20 m and a diameter of up to 15 cm. The leaves are simple, with 20 to 30 pairs of secondary veins. The petioles are winged or eared. Habitat: Lower rainforests in primary or secondary forests. Distribution Range: Malaya, Sumatra and Borneo.



Daun muda/New leaf



Akar jangkang/ Anchor root



Genus
Dialium

Family
Leguminosae

Ordo
Malvales

Kelas
Angiosperma

Genus
Dillenia

Family
Dilleniaceae

Ordo
Guttiferales

Kelas
Angiosperma

Dyera costulata (Miq) Hook.f.

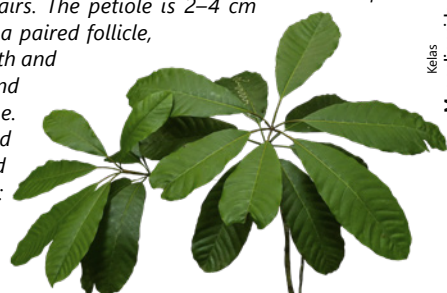
Ind. Jelutung

Pohon besar, tinggi hingga 80 m, diameter batang hingga 300 cm, batang bulung lurus. Banir tidak ada, pepagan kelabu tua atau hitam, halus, mempunyai beberapa sisik persegi empat; pepagan dalam bergetah putih melimpah; ranting berusuk kuat. **Daun** tunggal, dalam pusaran 6–8 helai, tepi mengutuh, membundar telur sunsang hingga menjorong, panjang 12–25 cm, lebar 6–11 cm. Pertulangan sekunder 12–20 pasang. Tangkai daun panjang 2–4 cm, berkelenjar besar mendelta di ketiak. **Buah** berupa folikel berpasangan, berkayu, divergen, panjang hingga 40 cm, lebar 3 cm. **Biji** panjang hingga 6 cm, lebar 2 cm, dikelilingi sehelai sayap menyelaput. **Habitat**: Tumbuhan tropis dataran rendah ini dapat ditemukan sampai dengan ketinggian 300 m dpl dan tumbuh di daerah lembap hingga basah. **Kisaran sebaran**: Tersebar luas di Asia Tenggara, Malaysia, Thailand, Singapura, dan Indonesia (Sumatra, Bangka Belitung, Riau, Kalimantan dan Sulawesi)

A large tree, reaching up to 80 m in height with a trunk diameter of up to 300 cm. The trunk is straight, with no buttresses. The bark is dark gray to black, smooth, and has several square scales. The inner bark has abundant white sap. The twigs are strongly ridged. The leaves are simple, in whorls of 6–8, with entire edges, obovate to elliptical, measuring 12–25 cm in length and 6–11 cm in width. The secondary venation has 12–20 pairs. The petiole is 2–4 cm long, with large glands in the axils. The fruit is a paired follicle, woody, divergent, measuring up to 40 cm in length and 3 cm in width. The seeds are up to 6 cm long and 2 cm wide, surrounded by a wing-like membrane. Habitat: This tropical lowland species can be found up to an elevation of 300 m above sea level and grows in moist to wet areas. Distribution Range: Widely distributed in Southeast Asia, including Malaysia, Thailand, Singapore, and Indonesia (Sumatra, Bangka Belitung, Riau, Borneo, and Sulawesi).



Buah tua/
Old ripe



Duduk helai daun/Leaves structure

Genus
Dyera

Family
Apocynaceae

Ordo
Gentianales

Kelas
Magnoliopsida

Dillenia grandifolia Wall

Ind. Simpur gajah

Pohon besar, tinggi dapat mencapai 40 meter dan diameter dapat mencapai 130 cm. Batang berbanir tinggi dan berakar jangkang. **Getah** bening. **Daun** tunggal, tulang daun sekunder 18 – 28 pasang. Tangkai daun berparit. **Habitat**: Hutan hujan bawah pada hutan primer atau sekunder. **Kisaran Sebaran**: Perlis, Sumatra, dan Kalimantan.

A large tree, reaching a height of up to 40 m and a diameter of up to 130 cm. The trunk has high buttresses and stilt roots. The sap is clear. The leaves are simple, with 18 to 28 pairs of secondary veins. The petioles are grooved. Habitat: Lowland rainforests either in primary or secondary forests. Distribution Range: Perlis, Sumatra, Borneo



Daun bag. bawah/
Underside leaf



Daun bag. atas/
Upside leaf



Buah/Fruit

Genus
Dillenia

Family
Dilleniaceae

Ordo
Guttiferales

Kelas
Angiosperma

Dipterocarpus crinitus Dyer VU

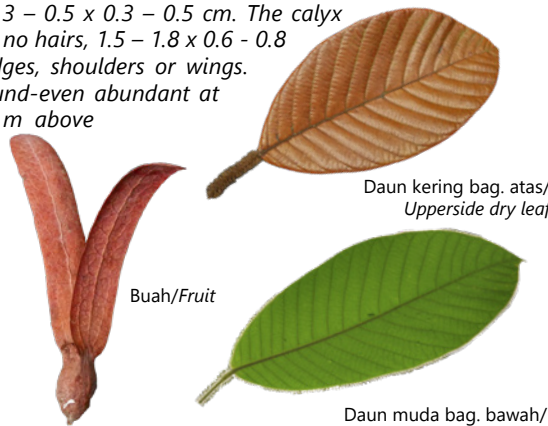
Ind. Keruing bulu, Keruing mempelas, Simarhalung

Pohon besar, tinggi lebih dari 60 m, diameter 2 m. Batang berbentuk silinder atau berpilin; banir jika ada, curam, cekung, tebal atau tipis, kadang menerus sebagai rusuk hingga 3 m ke arah tinggi batang. Tajuk renggang, setengah bulat, hijau kekuning-kuningan. Permukaan pepagan merah jambu agak kelabu pucat dengan permukaan segar coklat jingga. Lentisel kecil, berdekatan, krem. Damar hampir tidak berwarna atau seperti susu. Ranting dan kuncup dengan bulu-bulu coklat keemasan, seperti jambul, menetap, hingga 3 mm. Ranting bundar. Kuncup daun 4 – 6 x 1,5 – 3 mm, lebar, lonjong, tumpul. penumpu 25 – 50 x 5 – 9 mm. Tangkai daun 1,5 – 3,5 cm. **Daun** jorong, 6 – 12 x 3 – 6,3 cm. Daun tunggal, pertulangan sekunder 12 – 15 pasang, lurus hingga ke tepi helai daun, mula-mula lurus, melengkung hanya di dekat tepi daun, sangat menonjol, bila mengering warnanya coklat kemerah-merahan, kesan raba kasap, dengan indumentum panjang, renggang atau rapat, coklat keemasan, lebih pendek dan lebih renggang pada permukaan; pertulangan tersier kelihatan jelas. **Bunga** besar; benang sari 15. Kelopak buah dengan 2 sayap panjang dan tiga sayap pendek. Sayap panjang 6 – 8 x 1, 1 – 1,8 cm, sayap pendek 0,3 – 0,5 x 0,3 – 0,5 cm. Tabung kelopak licin dan lokos, 1,5 – 1,8 x 0,6 – 0,8 cm, tanpa sudut, rusuk, bahu atau sayap. **Habitat:** Umum dijumpai bahkan berlimpah pada ketinggian dibawah 700 m dpl, lahan pamah, dan lereng-lereng bukit serta lembah hutan. **Kisaran Sebaran:** Semenanjung Malaysia, Thailand (semenanjung), Sumatra (Sumut, Riau, Sumbar) dan Kalimantan.

A large tree, reaching up to 60 m in height, with a trunk diameter of 2 m. The trunk is cylindrical or twisted. If present, the buttresses are steep, concave, thick or thin, sometimes extending as a ridge up to 3 m along the height of the trunk. The canopy is sparse, semi-circular, and yellowish-green. The bark surface is pinkish with a pale grayish tone, and the fresh surface is orange-brown; lenticels are small, close together, and cream-colored. The resin is almost colorless or milky-like. The twigs and buds are covered with golden-brown hairs, resembling a crest, and are persistent, up to 3 mm long. The twigs are round. The leaf buds measure 4–6 x 1.5–3 mm, broad, oval, and blunt. The stipules are 25–50 x 5–9 mm. The petioles are 1.5–3.5 cm long. The leaves are elliptical, measuring 6–12 x 3–6.3 cm. They are simple leaves with 12–15 pairs of secondary veins, straight to the edges of the leaf blade, initially straight but curved near the edges. The veins are very prominent and when dried, the leaves turn reddish-brown. The texture is rough to the touch, with long, sparse, or dense golden-brown indumentum, which is shorter and sparser on the surface. The tertiary veins are clearly visible. The flowers are large, with 15 stamens. The fruit calyx has 2 long wings and 3 short wings. The long wings measure 6 – 8 x 1, 1 – 1.8 cm, and the short wings measure 0.3 – 0.5 x 0.3 – 0.5 cm. The calyx tube is smooth and has no hairs, 1.5 – 1.8 x 0.6 – 0.8 cm, without angles, ridges, shoulders or wings.

Habitat: Commonly found-even abundant at elevations below 700 m above

sea level, in Lowlands, hill slopes, and forest valleys. Distribution Range; Peninsular Malaysia, Thailand (peninsular), Sumatra (North Sumatra, Riau, West Sumatra) and Borneo.



Daun kering bag. atas/
Upperside dry leaf

Buah/Fruit

Daun muda bag. bawah/
Underside young leaf

Dipterocarpus euryncus Miq NT

Ind. Keruing semanto minyak

Pohon besar, tinggi lebih dari 60 m, diameter 110 cm. Batang berbentuk silinder atau berpilin; banir jika ada, kecil, rendah, cekung, tebal. Tajuk renggang, setengah bulat, hijau kekuning-kuningan. Permukaan pepagan coklat agak kelabu pucat dengan lentisel seperti kutil yg lebih pucat. Takikan batang kayu keras, coklat merah muda atau coklat merah tua; Damar hamper tidak berwarna. **Daun** tunggal, Jorong, bundar telur atau bundar telur sungsang, 4 – 10,5 x 2,5 – 3 cm, sangat berlipatan; Ujung lancip, luncip pendek atau luncip panjang; pangkal berbentuk pasak; permukaan atas bila mengering coklat kemerah merahan atau coklat agak lembayung, lokos; pertulangan sekunder 8 – 11 pasang, lurus hingga ke tepi helai daun, menonjol tetapi lampai, pertulangan tersier hampir tidak kelihatan. **Bunga** tidak diketahui. Kelopak buah dengan 2 sayap panjang dan tiga sayap pendek. Sayap panjang 7 – 8,5 x 1, 5 – 2,2 cm, sayap pendek 0,2 – 0,7 x 0,2 – 0,5 cm; tabung kelopak licin dan lokos, 1,2 – 2 x 0,9 – 1,7 cm, panjangnya kurang dari 1,5 kali lebar, dengan 5 sayap lurus dari pangkal ke ujung, lebarnya hingga 2,5 m, sama lebar. **Habitat**: Terdapat lokal pada lahan bergelombang, dan di puncak punggung bukit hingga ketinggian 700m dpl. **Kisaran Sebaran**: Semenanjung Malaysia, Sumatra, (Aceh, Riau, Pulau Singkep, Bangka) Kalimantan dan Philippina.

A large tree, reaching more than 60 m in height with a diameter of 110 cm. The trunk is cylindrical or twisted, and the buttress, when present, is small, short, concave, and thick. The canopy is sparse, semi-circular, and yellowish-green. The bark surface is pale grayish-brown, with lenticels resembling paler warts. The notches on the wood are hard, pinkish-brown or dark reddish-brown, while the resin is almost colorless. The leaves are simple, elliptical, ovate, or obovate, measuring 4 – 10.5 x 2.5 – 3 cm, with highly folded leaves; the tip is pointed, either short or long; the base is cuneate. The upper surface, when dried, is reddish-brown or slightly purple-brown and smooth. The secondary veins have 8 – 11 pairs, running straight to the edges of the leaf, prominent but slanting, and the tertiary veins are almost invisible. **Flower**: Unknown. The fruit calyx has 2 long wings and three short wings. The long wings measure 7 – 8.5 x 1.5 – 2.2 cm, while the short wings measure 0.2 – 0.7 x 0.2 – 0.5 cm. The calyx tube is smooth and glossy, measuring 1.2 – 2 x 0.9 – 1.7 cm. Its length is less than 1.5 times its width, with 5 straight wings extending from base to tip, each up to 2.5 cm wide and of equal width. **Habitat**: Found locally on undulating land and at the top of hill ridges up to an elevation of 700m above sea level. **Distribution range**: Peninsular Malaysia, Sumatra (Aceh, Riau, Singkep Island, Bangka), Borneo, and the Philippines.



Daun kering/Dry leaf



Daun muda/Young leaf



Helai daun/
Leaf structure

Genus
Dipterocarpus

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma

Dipterocarpus haseltii Blume

Ind. Keruing bunga atau Palahlar

Pohon besar, tinggi lebih dari 60 m, diameter 1,5 m. Batang berbentuk silinder atau meruncing, kadang dengan banir-banir tebal; permukaan pepagan kelabu kehijau-hijauan dengan lentisel-lentisel berpenjar. Takikan batang pepagan dalam coklat kemerah merahan; Kayu lunak atau keras, coklat merah muda hingga coklat merah tua; Damar hamper tidak berwarna atau seperti susu. **Daun** jorong, 7 – 20 x 5 – 12 cm, sangat berlipatan; ujung lancip pendek; pangkal berbentuk pasak atau membundar. Permukaan atas bila mengering berwarna coklat kemerah-merahan atau coklat, lokos dengan indumentum pendek yang renggang. Tulang daun sekunder 11 – 14 pasang, lurus hingga ke tepi daun. **Buah** dengan dua sayap panjang 15 – 22 x 2,5 – 3 cm dan tiga sayap pendek 1 – 1,5 x 1 – 1,3 cm. Tabung kelopak licin dan lokos, 2,5 – 3 cm, bulat tanpa sudut, rusuk, bahu atau sayap. **Habitat**: Hutan hujan bawah, landai, kadang-kadang lereng punggung bukit, lahan bergelombang hingga ketinggian 600 m dpl. **Kisaran Sebaran**: Semenanjung Malaysia, Thailand, Sumatra, Jawa Barat, Bali, Kalimantan dan Filipina.

A large *tree*, reaching more than 60 m in height and a diameter of 1.5 m. The trunk is cylindrical or tapering, sometimes with thick buttresses. The bark surface is grayish-green with scattered lentiscels. The trunk's bark notch is reddish-brown. The wood is soft or hard, ranging from light pinkish-brown to dark reddish-brown. The resin is almost colorless or milky. *The leaves* are elliptical, measuring 7–20 x 5–12 cm, and are highly folded. The leaf tip is short and pointed, while the base is wedge-shaped or rounded. The upper surface, when dried, is reddish-brown or brown, glabrous. The underside, when dried, is brown with a glossy finish and has short, sparse indumentum (hair-like structures). The secondary veins number 11–14 pairs and are straight to the edge of the leaf. *The fruit* has two wings measuring 15–22 x 2.5–3 cm and three shorter wings measuring 1–1.5 x 1–1.3 cm. The calyx tube is smooth and glossy, 2.5–3 cm long, rounded without edges, ribs, shoulders, or wings. **Habitat**: Lowland rainforests, wavy land, sometimes on hill slopes, undulating land, up to 600 m above sea level. **Distribution Range**: Peninsular Malaysia, Thailand, Sumatra, West Java, Bali, Borneo, and the Philippines.



Daun bag. bawah/Underside leaf



Semai/Seedling



Genus
Dipterocarpus

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma

Dyospiros toposia Buch.-Ham

Ind. Arang arang

Pohon kecil tinggi hingga 13 m, lingkaran batang hingga 60 cm. **Daun** lonjong atau lonjong bulat telur; 16 – 33 x 4 – 14 cm; ujung daunnya membulat sampai runcing; pelepah cekung di bagian atas; pertulangan sekunder sering menyatu di bagian tepi membentuk lengkungan yang menonjol. Pertulangan tersier membentuk prominen pada kedua sisi bilah. Bilah berkerut kuat diantara pertulangan. Panjang tangkai 1 – 2 cm. **Buah** bulat, diameter hingga 5 cm, gundul kecuali di puncak dan pangkal, dengan kelopak 3 cm, lobus menyebar hingga refleksi, berkaru. **Biji** 6 – 8 masing-masing diselubungi oleh endosperma berdaging tembus pandang, endosperma halus, dengan urat keliling yang tidak bercabang. **Habitat**: Hutan hujan dan perbukitan hingga ketinggian 700 m dpl. **Kisaran sebaran**: Kedah, Kelantan, Pahang, Selangor dan Kalimantan.

A small tree, reaching up to 13 m in height with a trunk circumference of up to 60 cm. The leaves are oval or oval-ovate, measuring 16–33 cm in length and 4–14 cm in width. The leaf tip is rounded to pointed, with the petiole concave at the top. The secondary venation often joins at the edges, forming prominent curves. The tertiary venation is prominent on both sides of the blade, and the leaf blade is strongly wrinkled between the veins. The petiole is 1–2 cm long. The fruit is spherical, up to 5 cm in diameter, smooth except at the apex and base, with a 3 cm calyx. The lobes are spreading to reflexed and woody. The seeds are 6–8, each enveloped in translucent, fleshy endocarp, with smooth endosperm and non-branched circular veins. Habitat: Found in rainforests and hills up to 700 m above sea level. Distribution Range: Kedah, Kelantan, Pahang, Selangor, Borneo.



Buah/Fruit

Genus
Dyospiros

Family
Ebenaceae

Ordo
Ebenales

Kelas
Magnoliopsida

Elasteriospermum tapos Blume

Ind. Perah

Pohon sedang, dengan tinggi 27 m dan lingkaran batang mencapai 180 cm. seringkali batang berbentuk buruk, dengan seruling pendek, terkadang berliku liku; pangkal batang beralur. Tajuk sangat mengerucut dan sedikit meranggas. Kulit batangnya berwarna coklat pucat sampai abu-abu; bersisik halus dengan sisik-sisik kecil menggantung longgar dan agak jauh mengelupas meninggalkan serabut. **Getah** putih melimpah. **Daun** terkulai; Tangkai 5 cm, bilah lonjong ukuran rata-rata 15 x 5 cm; pangkal dan ujung membulat, dengan ujung 5 mm, ujung sempit; daun muda berwarna merah cerah sampai merah jambu. **Buah** lonjong, panjang 5 – 6,3 cm, coklat kusam kemerahan hingga kekuningan, **Biji** lonjong, panjang 4 cm. **Habitat**: Hutan hujan dataran rendah sampai dengan ketinggian 600 m dpl dan tumbuh di daerah lembap hingga basah. **Kisaran Sebaran**: tersebar luas di Malaysia, Thailand, Jawa, Sumatra dan Kalimantan.

A medium tree, reaching 27 m in height with a trunk circumference of up to 180 cm. The trunk is often unattractive-shaped, with short swellings and sometimes twisted; the base is ribbed. The canopy is very tapered and slightly perforated. The bark is pale brown to gray, with fine scales that hang loosely and peel off, leaving fibers. The sap is white and abundant. The leaves are drooping, with a petiole length of 5 cm. The blade is oval, measuring an average blade size of 15 x 5 cm. The base and tip are rounded, with the tip being 5 mm narrow. The young leaves are bright red to pink. The fruit is oval, measuring 5–6.3 cm in length, with a dull reddish-brown to yellowish color. The seed is oval, measuring 4 cm in length. Habitat: Found in lowland rainforests up to 600 m above sea level, thriving in moist to wet areas. Distribution Range: Widely distributed across Malaya, Johor, Sumatra.

Getah/Sap

Daun muda/Young leaf

Genus
Elasteriospermum

Family
Euphorbiaceae

Ordo
Malpighiales

Kelas
Angiospermae

Endospermum diadenum (Miq) Airy Shaw

Ind. Sendok sendok

Pohon sedang dengan mencapai tinggi 40 m dan lingkaran batang mencapai 300 cm. Batang kokoh berbentuk kolom. Penopang tebal. Sama dengan curam menyatu menjadi ranting ranting ke atas. Tajuk menyebar, berkubah, menyebar. Kulit batangnya berwarna abu-abu kekuningan; halus, melingkar. Menjadi kasar hingga bersisik di beberapa bagian. Kulit kayu bagian dalam kasar dan berbutir, krem dengan bintik-bintik orange, tebal. Kayu coklat kekuningan. Ranting, tangkai daun dan daun di bawahnya kurang lebih seperti beludruh halus. Ranting yang dipotong dengan getah berwarna coklat jernih. **Daun** bergerombol di ujung ranting; Tangkai Daun sampai 13 cm, often dengan dua kelenjar yang menonjol dan terangkat ke atas; helaian bulat telur, 13 x 7,5 – 17 x 17 cm; berujung pendek; pangkal membulat sampai kuat berbentuk hati; dengan pertulangan sekunder basal palmate. **Habitat:** Hutan hujan dataran rendah dan pegunungan sampai dengan ketinggian 1000 m dpl. **Kisaran Sebaran:** Tersebar di seluruh Malaya, Siam, Sumatra dan Kalimantan.

*A medium tree, reaching up to 40 m in height and with a trunk circumference of up to 300 cm. The trunk is sturdy, columnar in shape with thick buttresses, which taper into upward-growing twigs. The canopy is spreading, dome-shaped, and wide. The bark is grayish-yellow, smooth, and circular, becoming rough and scaly in some areas. The inner bark is coarse and grainy, cream-colored with orange speckles, thick. The wood is brownish-yellow. The twigs, petioles, and undersides of the leaves have a fine velvet-like texture. The twigs, when cut, exude clear brown latex. The leaves are clustered at the tips of the branches; the petiole is up to 13 cm long, with two prominent glands raised on top. The leaf blades are elliptical, measuring 13 x 7.5 to 17 x 17 cm, with a short tip and a rounded to heart-shaped base. The secondary veins form a palmate pattern at the base. **Habitat:** Lowland and montane rainforests up to 1000 m above sea level. **Distribution Range:** Widespread throughout Malaya, Siam, Sumatra, and Borneo.*



Daun bag atas dan bawah/
Underside and upperside leaf



Eurycoma longifolia Jack

Ind. Pasak bumi, Tongkat ali

Pohon kecil tinggi mencapai tinggi 10 m. Batang dan ranting gemuk dengan bekas daun yang membesar. **Daun** majemuk, dengan anak daun terminal, berdesakan di ujung ranting; anak daun banyak saling berseberangan. Agak miring, hampir sama. Melekat pada rachis yang menonjol. Anak daun tidak mudah sobek, jika di sobek memiliki jaringan seperti benang. Perbungaan di malai ketiak berumah satu atau berumah dua. Bunga betina berkelamin tunggal selalu dengan benang sari yang besar dan steril, jantan selalu dengan putik. Kelopak kecil 5–6. **Habitat:** Hutan hujan dataran rendah sampai dengan ketinggian 350 m dpl. **Kisaran sebaran:** Tersebar pada hutan hujan bawah South East Asia, Sumatra dan Kalimantan.

*A small tree, reaching up to 10 m in height. The trunk and branches are thick, with visible leaf scars that are enlarged. The leaves are compound, with terminal leaflets densely clustered at the tips of the branches. The leaflets are numerous, arranged oppositely, and slightly inclined, exhibiting a uniform size. They are attached to a prominent rachis. The leaflets are resilient and not easily torn, and if torn, the inner tissue resembles thread-like fibers. The inflorescence is a panicle, located in the axils, and can be either unisexual or bisexual. Female flowers are unisexual and always accompanied by large, sterile stamens, while male flowers consistently possess a pistil. The sepals are small, numbering 5 to 6. **Habitat:** Lowland tropical rainforests up to an elevation of 350 m above sea level. **Distribution Range:** Distributed across the lowland rainforests of Southeast Asia, including Sumatra and Borneo.*



Duduk daun/
Leaf structure



Buah/Fruit





Eusideroxylon zwageri Teijsm. & Binn.

Ind. Bulian, Ulin, Kayu besi borneo

Pohon besar, tinggi hingga 50 m, diameter batang hingga 200 cm, batang bulung lurus menyilinder, kadang-kadang bergalar di pangkal, banir kecil; pepagan merah, coklat-kelabu atau coklat, halus atau agak mengeripih. Ranting bundar, membandul. Penumpuh tidak ada. **Daun** spiral, tepi mengutuh, lonjong-bundar telur atau menjorong, panjang 20-30 cm, lebar 6 – 9 cm, pertulangan sekunder 8 – 12. Tangkai daun panjang 6 – 12 mm. **Bunga** dalam malai ketiak, biseksual, panjang hingga 4 mm. **Buah** lonjong, menyelinder, panjang hingga 15 cm, diameter hingga 8 cm, seluruhnya terbungkus dalam tabung tajuk. **Habitat**: Hutan hujan dataran rendah, hingga bergelombang. **Kisaran sebaran**: Sumatra, dan Kalimantan.

A large tree, reaching up to 50 m in height, with a trunk diameter of up to 200 cm. The trunk is straight and cylindrical, sometimes slightly flared at the base, with small buttresses. The bark is red, brown-gray, or brown, smooth or slightly flaky. The twigs are round and pendulous. There are no stipules. The leaves are spiraled-shaped with serrated edges, oval to ovate or elliptical. The leaves measure 20–30 cm in length and 6–9 cm in width, with 8–12 secondary veins. The petiole is 6–12 mm long. The flowers are bisexual, arranged in axillary panicles, with a length of up to 4 mm. The fruit is oval and cylindrical, measuring up to 15 cm in length and 8 cm in diameter, entirely enclosed in a tubular calyx. Habitat: Found in lowland tropical rainforests, to undulating land. Distribution Range: Sumatra, and Borneo.



Helai daun/Leaf structure



Buah dan biji/
Fruit and seed

Genus
Eusideroxylon

Family
Apocynaceae

Ordo
Gentianales

Kelas
Magnoliopsida



Fagraea fragrans Roxb

Ind. Tembesu hutan

Pohon sedang

hingga besar, mencapai tinggi 55 m dan lingkaran batang mencapai 225 cm. Batang kadang-kadang agak beralur; dengan penopang yang pendek. Kulit batangnya berwarna kemerahan atau abu-abu kecoklatan; celah-celah rapat; kulit kayu bagian dalam berwarna kuning pucat. Gubal warna coklat kemerahan.

Daun tunggal, jorong sampai lonjong sempit, 5 x 2,3 – 11 x 5 cm; ujung runcing; pangkal menyempit, tepi bergelombang; kasar tipis. Tangkai daun 1 – 2,5 cm. Pertulangan sekunder 5 – 7 pasang, melingkar agak jauh dari tepi. **Habitat**: Hutan hujan dataran rendah hingga ketinggian 600 m dpl. **Kisaran Sebaran**: Pahang, Perak, Negeri Sembilan, Selangor, Sumatra dan Kalimantan.

A medium to large tree, reaching a height of up to 55 m, with a trunk circumference of up to 225 cm. The trunk is occasionally slightly furrowed, with short buttresses. The bark is reddish or grayish-brown in color, with tight fissures; the inner bark is pale yellow. The sapwood is reddish-brown. The leaves are simple, elliptical-shaped to narrow-oval, measuring 5 x 2.3 – 11 x 5 cm, with a pointed tip. The base is tapered, and the edges are wavy. The texture is coarse and thin. The petiole is 1 – 2.5 cm long. The secondary veins are 5 – 7 pairs, arranged in a circular pattern, slightly distant from the edge. Habitat: Lowland tropical rainforests up to an elevation of 600 m above sea level. Distribution Range: Pahang, Perak, Negeri Sembilan, Selangor, Sumatra and Borneo.



Helai daun/Leaf structure

Genus
Fagraea

Family
Loganiaceae

Ordo
Rosales

Kelas
Angiospermae

Ficus variegata Bl

Ind. Ara

Genus
Ficus

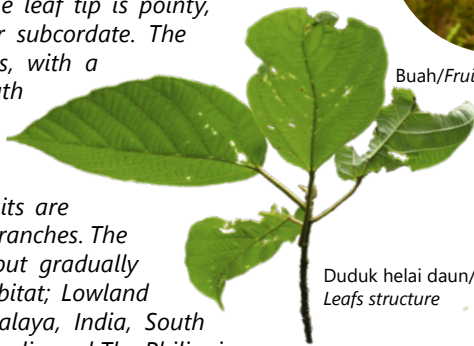
Family
Moraceae

Ordo
Urticales

Kelas
Angiosperma

Pohon sedang hingga besar, tinggi dapat mencapai 33 meter dan Diameter dapat mencapai 250 cm. Berbanir menyebar tinggi hingga 2 m. Kulit kayu berwarna coklat abu-abu. **Daun** Tunggal, tangkai daun 2.5 – 18 cm. Helai daun bulat telur hingga lanset bulat telur, 9-25 x 4,5-12,5 cm. Ujung runcing, pangkal membulat atau subkorda; tulang daun sekunder 4 – 8 pasang, bertulang rawan pada pangkal; tulang daun menonjol di bawah. **Buah** bertangkai panjang, berbentuk buah pir, hijau berubah jadi merah. Sering bergaris garis, berkelompok rapat pada batang dan ranting. Pohon ini terlihat hijau Ketika muda tetapi menjadi gugur seiring bertambahnya usia. **Habitat:** Hutan hujan bawah. **Kisaran sebaran:** Malaya, India, South China, Sumatra, West Malesia, Australia dan Philipina.

A medium to large tree, reaching up to 33 m in height with a diameter of up to 250 cm. The buttresses spread high, reaching up to 2 m. The bark is grayish-brown. The leaves are simple, with petioles ranging from 2.5 to 18 cm long. The leaf blades are ovate to lanceolate-ovate, measuring 9-25 x 4.5-12.5 cm. The leaf tip is pointy, and the base is either rounded or subcordate. The secondary veins number 4-8 pairs, with a prominent venation pattern beneath the leaf. The fruit is borne on long stems and is pear-shaped. It starts off green and turns red as it ripens, often marked with stripes. The fruits are densely clustered on the trunk and branches. The tree appears green when young but gradually sheds its leaves as it matures. Habitat; Lowland rainforests. Distribution Range: Malaya, India, South China, Sumatra, West Malesia, Australia and The Philippines.



Buah/Fruit

Duduk helai daun/
Leaf structure



Garcinia parvifolia Miq

Ind. Asam kandis

Genus
Garcinia

Family
Guttiferae

Ordo
Malvales

Kelas
Angiosperma

Pohon kecil sampai sedang, tinggi dapat mencapai 30 m. Diameter 80 cm. **Daun** Tunggal, tulang daun sekunder banyak, sejajar rapat dan halus. **Getah** berwarna kuning. Kulit mati bersisik berwarna hitam. **Buah** dapat di makan; buah dapat di dimanfaatkan sebagai tambahan bumbu masakan. **Habitat:** Hutan hujan bawah, Hutan primer maupun sekunder, lahan bergelombang sampai ketinggian 600m dpl.

A small to medium tree, reaching up to 30 m in height with a diameter of up to 80 cm. The leaves are simple, with numerous closely parallel and smooth secondary veins. The sap is yellow, and the dead bark is scaly and black. The fruit is edible and can be used as an additional seasoning in cooking. Habitat: Lowland rainforests, both primary and secondary forests, undulating land up to an elevation of 600 m above sea level.



Buah/Fruit



Duduk helai daun/
Leaf structure



Getah/Sap



Girroniera nervosa Plunch

Ind. Siluk

Pohon kecil hingga sedang, tinggi dapat mencapai 30 m. Diameter dapat mencapai 40 cm. **Daun** Tunggal, tulang daun sekunder 10 – 15 pasang. Tulang daun sekunder selang seling. Pangkal helai daun asimetris. Helai daun berbulu. **Getah** bening. **Habitat:** Hutan hujan bawah, primer maupun sekunder sampai dengan 500 m dpl.

A small to medium tree, reaching up to 30 m in height with a diameter of up to 40 cm. The leaves are simple, with 10 – 15 pairs of secondary veins. The secondary veins are pinnate. The leaf base is asymmetric, and the leaf blade is hairy. The sap is clear. Habitat: Lowland rainforests, both primary and secondary forests up to 500 m above sea level.



Buah/Fruit



Daun kering bag. atas/
Upperside dry leaf



DAun kering bag. bawah/
Underside dry leaf

Duduk daun/Leafs structure

Genus
Girroniera

Family
Ulmaceae

Ordo
Malvales

Kelas
Angiosperma

Gymnacranthera bancana Miq

Ind. Darah

Pohon besar, tinggi dapat mencapai 35 meter dan diameter dapat mencapai 120 cm. Batang tidak Berbanir. **Getah** merah kental. **Daun** tunggal, tulang daun sekunder 15 – 23 pasang, helai daun bagian bawah berbulu halus berwarna coklat. Tajuk bagian bawah berwarna merah coklat seperti karat. **Habitat:** Hutan hujan bawah. **Kisaran sebaran:** Pahang, Johore, Singapura, Serawak, Bangka dan Sumatra.

A large tree, reaching up to 35 m in height with a diameter of up to 120 cm. It has no buttresses. The sap is red and thick. The leaves are simple, with 15 to 23 pairs of secondary veins. The underside of the leaf blade has fine brown hairs. The canopy is a rust-like, brownish-red color. Habitat: Lowland rainforests. Distribution Range: Pahang, Johore, Singapura, Serawak, Bangka and Sumatra



Buah dan biji/Fruit and seeds



Daun bag. atas/
Upperside leaf



Daun bag. bawah/
Underside leaf

Genus
Gymnacranthera

Family
Myristicaceae

Ordo
Ranales

Kelas
Angiosperma

Hopea sangal Korth

Ind. Merawan batu, Cengal

Pohon sedang hingga besar, batang berbentuk silinder. Diameter dapat mencapai 130 cm dan banir hingga 130 cm dengan bentangan 2 meter dengan ketebalan 10 cm. Tajuk kecil, setengah bulat; percabangan menanjak. Pepagan bersisik, coklat tua hingga kehitam-hitaman, berbulu kusut, punggung–punggung 5 cm lebarnya. Dengan sisik sisik kecil, lonjong, agak menetap; sering tertutup oleh lentisel-lentisel kecil pada banir. Damar berwarna seperti susu. Ranting bundar, penumpu Panjang 2–3 mm, berbentuk lurus mudah gugur. Tangkai daun 0,4–1 cm dengan indumentum berupa bulu-bulu pendek yang renggang atau rapat. **Daun** bundar telur, menjangat 4.5–10 x 2.5–5 cm. Pertulangan sekunder menyirip 8–12 pasang melengkung di seluruh panjangnya. Kadang memiliki domatia di ketiak. **Buah** dengan 2 sayap panjang dan 3 sayap pendek, sayap panjang 5–7 x 1–1,5 cm, sayap pendek 0,5–0,7 x 0,2–0,4 cm. **Buah** geluk 5–7 x 2–4 mm. **Habitat**: Sering di tepi sungai atau di dekatnya, di dataran rendah hingga 500m dpl. **Kisaran Sebaran**: Thailand semenanjung, Semenanjung Malaysia, Singapura, Sumatra, Jawa, Bali dan Kalimantan.

A medium to large tree, with a cylindrical trunk. The diameter can reach up to 130 cm and the buttress roots can extend up to 130 cm with an extension of 2 m and a thickness of 10 cm. The canopy is small, semi-circular; branches grow upward. The bark is scaly, dark brown to blackish, and tangled, with ridges about 5 cm wide. It has small, oval, somewhat persistent scales; often covered by small lenticels on the buttress. The resin is milky-colored. The twigs are round, with stipules 2–3 mm long, straight, and deciduous. The petioles are 0.4–1 cm long with a short, dense or sparse indumentum. The leaves are ovate, leathery, measuring 4.5–10 x 2.5–5 cm. The secondary venation is pinnate with 8–12 pairs, curving along the entire length of the leaf. Sometimes domatia are present in the axils. The fruit has 2 long wings and 3 short wings; the long wings are 5–7 x 1–1.5 cm, and the short wings are 0.5–0.7 x 0.2–0.4 cm; the fruit is an achene, measuring 5–7 x 2–4 mm. Habitat: Often along riverbanks or nearby, in lowland areas up to 500 m above sea level. Distribution range: Peninsular Thailand, Peninsular Malaysia, Singapore, Sumatra, Java, Bali, and Borneo.



Daun bag. atas/Upperside leaf



Daun bag. bawah/Underside leaf



Buah masak/Ripe fruit

Genus
Hopea

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma



Hydnocarpus kunstleri King

Ind. Setumpul

Pohon sedang, biasanya hanya mencapai 21 m, sangat jarang mencapai tinggi 30 m. Lingkar batang mencapai 180 cm, batang sering bergalur di bagian pangkal. Kulit batang berwarna merah kecoklatan; halus menjadi bercelah. **Daun** berbentuk bulat telur lonjong, biasanya 10x4-17x6cm, dengan ujung yang memanjang; biasanya berwarna kuning kecoklatan; kasar tebal; biasanya seperti beludru saat disentuh di bagian bawah, dengan rambut yang rapat dan pendek. Rambut lurus atau jarang gundul permukaan rata atau cekung, sangat jarang terangkat lemah; tulang daun tersier tebal dan menonjol di permukaan bawah, seperti tangga. Tingkat yang lebih tinggi dari tulang sekunder sama menonjolnya. Tangkai daun 8-18 mm, licin sampai beruban, gundul sampai bersisik. **Buah** bulat, lebar hingga 7 cm, halus, gundul, dinding dengan garis radial yang rapat. **Habitat:** Hutan hujan dataran rendah, lereng bukit hingga ketinggian 1000 mdpl. **Kisaran sebaran;** Trengganu, Kelantan, Kedah, Perak, Pahang, Selangor, Sumatra, Riau dan Kalimantan.

Medium tree, usually only reaching 21 m, very rarely reaching 30 m. Trunk circumference reaches 180 cm, trunk often grooved at the base. Bark reddish brown; smooth to fissured. Leaves are ovate-oblong, usually 10x4-17x6 cm, with an elongated tip; usually yellow-brown; thick rough; usually velvety to the touch below, with dense, short hairs. Hairs straight or rarely glabrous, surface flat or concave, very rarely weakly raised; tertiary veins thick and prominent on the lower surface, like a ladder. Higher levels of secondary veins equally prominent; petiole 8-18 mm, smooth to gray, glabrous to scaly. Fruit round, up to 7 cm wide, smooth, glabrous, walls with dense radial lines. Habitat: Lowland rainforest, hillsides up to a height of 1000 meters above sea level. Distribution range: Trengganu, Kelantan, Kedah, Perak, Pahang, Selangor, Sumatra, Riau and Kalimantan.

Genus
Hydnocarpus

Family
Achariaceae

Ordo
Malpighiales

Kelas
Angiosperma



Daun bag. atas/Upperside leaf



Daun bag. bawah/Underside leaf

Irvingia malayana Oliv. ex A.W.Benn.

Ind. Kayu batu

Pohon sedang hingga besar, tinggi dapat mencapai 40 m. Berbanir tinggi dan tipis hingga 6 meter. Diameter dapat mencapai 100 cm. Daun tunggal, tulang daun sekunder 10 – 16 pasang. Tulang daun sekunder selang seling. Pangkal helai daun asimetris. Helai daun berbulu. **Getah** bening. Tajuk berkubah dangkal dengan dahan besar; curam. Kulit batang berwarna coklat kekuningan; halus dengan sisik-sisik longgar yang jauh, bersilia halus, kulit kayu bagian dalam berwarna kuning krem. Gubal berwarna jingga kecoklatan. Ranting ramping, tangkai daun 1 – 2 cm, tulang daun Panjang 3 – 4 cm. Bilah memanjang lonjong hingga lanset, 8 x 2,5 – 20 x 9 cm; ujung helai biasanya runcing, pangkal berbentuk baji lebar hingga membulat atau bahkan agak berbentuk hati, sering kali tidak sama; permukaan atas mengkilap. **Habitat:** Hutan hujan bawah, sampai dengan 300 m dpl. **Kisaran sebaran:** Selangor, Malaka, Semenanjung Malaya, Perlis, Penang, Siam, Indo china Sumatra, Kalimantan, dan Bawean.

Genus
Irvingia

Family
Simaroubaceae

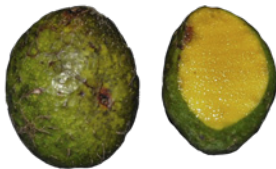
Ordo
Malvales

Kelas
Angiosperma

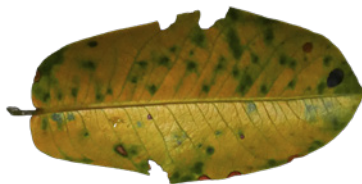
*A medium to large tree, reaching up to 40 m in height with a diameter of up to 100 cm. The buttresses are tall and thin, reaching a height up to 6 m. The leaves are simple, with 10 – 16 pairs of secondary veins. The secondary veins are pinnate. The leaf base is asymmetric, and the leaf blade is hairy. The sap is clear. The canopy is shallowly domed with large branches, steep. The bark is yellowish-brown; smooth with loosely spaced, distant scales, and fine cilia. The inner bark is pale yellow. The sapwood is orange-brown. The twigs are slender. The petiole is 1 – 2 cm long, and the midrib is 3 – 4 cm long. The blade is elongated oval to lanceolate, measuring 8 x 2.5 – 20 x 9 cm. The tip of the leaf is usually pointed, and the base is broadly wedge-shaped to rounded, or sometimes slightly heart-shaped. The leaf shape is often asymmetrical. The upper surface is glossy. **Habitat:** Lowland rainforests up to 300 m above sea level. **Distribution Range:** Selangor, Malaka, Peninsular Malaya, Perlis, Penang, Siam, Indo-china, Sumatra, Borneo and Bawean.*



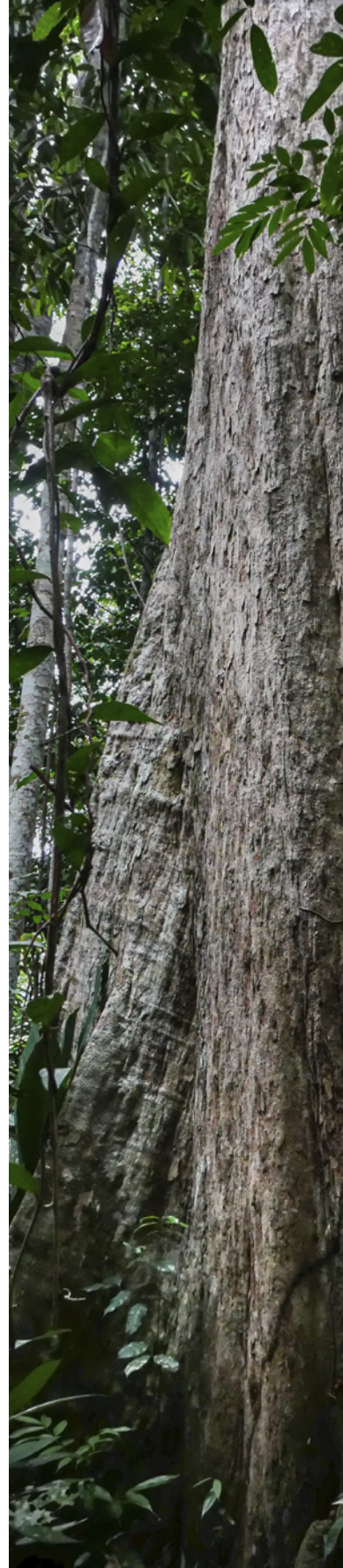
Daun bag. atas/Upperside leaf



Buah/Fruit



Daun bag. bawah/Underside leaf



Ixonanthes icosandra Jack

Ind. Pagar - pagar

Pohon kecil hingga sedang, tinggi dapat mencapai 40 m. Diameter dapat mencapai 50 cm. Batang bersudut seperti buah belimbing. **Daun** tunggal, tulang daun sekunder sampai 20 pasang dan bersih di kedua sisi. Daun dengan tepi bergelombang dan bergigi, elips hingga lanset lebar; puncak biasanya lancip. **Getah** bening. **Habitat**: Hutan hujan bawah primer maupun sekunder. **Kisaran Sebaran**: Seluruh Malaya dan sumatra.



Daun mati/Dried leaf



Daun muda/Young leaf



Semai/Seedling

A small to medium tree, reaching up to 40 m in height with a diameter of up to 50 cm. The trunk is angular, resembling the shape of a starfruit. The leaves are simple, with up to 20 pairs of secondary veins, and clean on both sides. The leaves have wavy, serrated edges, and are elliptical to broadly lance-shaped, with the apex usually pointed.

The sap is clear. **Habitat**: Primary and secondary lowland rainforests. **Distribution Range**: Throughout Malaya and Sumatra

Genus
Ixonanthes

Family
Linaceae

Ordo
Geraniales

Kelas
Angiosperma

Knema hookeriana Warb.

Ind. Mendarahan

Pohon besar, tinggi dapat mencapai 30 meter dan D=diameter dapat mencapai 70 cm. **Getah** merah. **Daun** tunggal, besar. Tulang daun sekunder 20 – 30 pasang. Tangkai daun, tulang daun primer dan sekunder serta helai9helai daun dewasa, bagian belakang berbuluh halus berwarna pirang. **Habitat**: Hutan hujan bawah dan perbukitan sampai ketinggian 700 m dpl. **Kisaran sebaran**: Pahang, Johore, Singapura, Serawak, Bangka dan Sumatra.



Daun kering/Dried leaf



Getah/Sap



Duduk daun/Leaf structure

A large tree, with a height of up to 30 m and a diameter of up to 70 cm. The sap is red. The leaves are simple and large, with 20 – 30 pairs of secondary veins. The petiole, primary and secondary veins, as well as the mature leaf blades, have fine, pale-colored hairs on the underside. **Habitat**: Lowland rainforests and hilly areas up to 700 m above sea level. **Distribution Range**: Pahang, Johore, Singapore, Serawak, Bangka and Sumatra

Genus
Knema

Family
Myristicaceae

Ordo
Ranales

Kelas
Angiospermae

Knema laurina Bl

Ind. Mendarahan

Genus
Knema

Family
Myristicaceae

Ordo
Ranales

Kelas
Angiospermae

Pohon kecil, tinggi dapat mencapai 15 meter dan diameter dapat mencapai 30 cm. **Getah Merah.** **Daun** tunggal. Tulang daun sekunder 12 – 24 pasang, bagian bawah daun berwarna perak. **Habitat:** Hutan hujan bawah pada tepi dan punggung bukit sampai ketinggian 800 m dpl. **Kisaran Sebaran:** Pahang, Johore, Singapura, Serawak, Bangka dan Sumatra.

A small tree, with height of up to 15 meter and a diameter of up to 30 cm. The sap is red. The leaves are simple, with 12 – 24 pairs of secondary veins. The underside of the leaves has a silver color. Habitat: Lowland rainforests on the edges and ridges of hills up to an elevation of 800 m above sea level. Distribution Range: Pahang, Johore, Singapore, Serawak, Bangka and Sumatra.



Duduk daun/Leaf structure



Getah/Sap

Kokoona reflexa Hou

Ind. Perupuk bukit

Genus
Kokoona

Family
Celastraceae

Ordo
Malvales

Kelas
Angiosperma

Pohon sedang hingga besar, tinggi dapat mencapai 25 m. Diameter dapat mencapai 40 cm. Batang tinggi berbentuk kolom, dengan penopang yang curam, tebal, dan tinggi. Tajuk berbulu, padat, berbentuk setengah bola. Kulit batang berwarna abu-abu kusam coklat. **Daun** tunggal, tulang daun sekunder 5 pasang. Jumlah tulang daun sekunder sedikit. **Getah** Bening. **Habitat:** Hutan hujan bawah, sampai dengan 800 m dpl. **Kisaran sebaran:** Malaya dan Kalimantan.

A medium to large tree, reaching up to 25 m in height with diameter of up to 40 cm. The trunk is tall and columnar, with steep, thick, and tall buttresses. The canopy is hairy, dense, and semi-circular shaped. The bark is dull grayish-brown. The leaves are simple, with 5 pairs of secondary veins. The number of secondary veins is few. The sap is clear. Habitat: Lowland forests, up to 800 m above sea level. Distribution Range: Malayaya and Borneo.



Bauh tua/Old fruit



Buah/Fruit



Koompasia malaccensis Maingay

Ind. Kempas

Pohon besar, tinggi mencapai 60 m. Diameter dapat mencapai 180 cm. Batang lurus berbentuk silinder. Berbanir tinggi dan tipis. Kulit mati beralur kecil dan keras. **Daun** majemuk, menyirip; anak daun 5 – 9 helai berbentuk bundar telur. **Buah** berbentuk polong, tidak pecah meskipun telah masak. **Habitat**: Hutan hujan bawah, perbukitan dengan topografi landai. **Kisaran Sebaran**: Malaysia, Bangka, Belitung, Sumatra dan Kalimantan.

A large tree, reaching a height of up to 60 m, with a diameter of up to 180 cm. The trunk is straight and cylindrical; the buttresses is tall and thin. The dead bark is furrowed and hard. The leaves are compound and pinnate, with 5–9 ovate leaflets. The fruit is pod-shaped and does not split even when ripe. Habitat: Lowland rainforests, hill slopes with gentle topography. Distribution Range: Malaysia, Bangka, Belitung, Sumatra and Borneo.

Buah muda/
Young fruit



Cupul buah/Fruit bud

Genus
Koompasia

Family
Leguminosae

Ordo
Fabales

Kelas
Angiospermae



Lithocarpus urceolaris Merr

Ind. Mempening daun besar

Pohon besar tinggi dapat mencapai 40 m. Diameter mencapai 100 cm. Banir dapat mencapai 2,5 m. Kulit batang beralur berwarna abu-abu tua, kulit hidup beralur dibagian dalam. Kulit kayu bagian dalam berserat; merah kecoklatan, kusam. Gubal berwarna krem. dan berbutir butir; merah muda sampai kuning kecoklatan. **Getah** bening; **Daun** Tunggal, Tulang daun sekunder 10 – 12 pasang. Tangkai daun 0,5 – 1 inci. **Habitat**: Hutan hujan bawah, pegunungan juga pada hutan rawa. **Kisaran Sebaran**: Pahang, Trengganu, E. Johor, Sumatra dan Kalimantan.

A large tree, reaching up to 40 m in height with a diameter of up to 100 cm. The buttresses can reach up to 2.5 m. The bark is deeply furrowed and dark gray in color, with the inner bark being furrowed as well. The inner bark is fibrous, with a reddish-brown and dull appearance. The sapwood is cream-colored and granular, with a pinkish to yellowish-brown hue. The sap is clear. The leaves are simple, with 10 – 12 pairs of secondary veins. The petiole measures 0.5 – 1 inch in length. Habitat: Lowland rainforests, mountain areas, and occasionally in swamp forests. Distribution Range: Pahang, Trengganu, E. Johor, Sumatra and Borneo.



Buah/Fruit



Daun/Leaf

Genus
Lithocarpus

Family
Fagaceae

Ordo
Fagales

Kelas
Angiosperma

Lithocarpus encleisacarpus Korth

Ind. Mempening

Pohon sedang hingga besar, tinggi dapat mencapai 35 m. Diameter mencapai 80 cm. Berbanir. Kulit kayu bagian dalam berserat berwarna merah sampai kecoklatan. Kulit mati dan kulit hidup beralur dalam. **Daun** Tunggal, tulang daun sekunder 6 – 10 pasang. Tulang tersier samar-samar seperti tangga. Daun bintik-bintik kasar berbentuk segi tiga panjang 0,15 inci. Tangkai 0,3 – 0,5 inci. Coklat tua sampai hitam. Dedaunan di tepi tajuk. Kulit kayu bagian dalam beralur; merah muda, kusam. Gubal berwarna putih. **Getah** bening. Buah berbentuk bulat telur; buah berbentuk setengah bola hingga bulat di tutupi rambut rambut padat warna keemasan. **Habitat:** Hutan hujan bawah sampai 1200 m dpl. **Kisaran Sebaran:** Semenanjung Siam, Sumatra dan Kalimantan.

Genus
Lithocarpus

Family
Fagaceae

Ordo
Fagales

Kelas
Angiosperma

A medium to large tree, reaching up to 35 m in height with a diameter of up to 80 cm. The tree has buttresses. The inner bark is fibrous, colored reddish to brown. Both the dead and living bark are deeply furrowed. The leaves are simple, with 6-10 pairs of secondary veins. The tertiary veins are faint, appearing ladder-like. The leaves have rough triangular-shaped spots measuring about 0.15 inches. The petiole measures 0.3 – 0.5 inches. The leaf is dark brown to black. The foliage is concentrated at the canopy edges. The inner bark is deeply grooved, pinkish and dull, while the sapwood is white. The sap is clear. The fruit is egg-shaped and semi-spherical, covered in dense golden hairs. Habitat: Lowland rainforests up to 1200 m above sea level. Distribution Range: Peninsular Siam, Sumatra and Borneo.



Tajuk pohon/Tree crown



Buah/Fruit



Lithocarpus lucidus Roxb

Ind. Mempening

Pohon besar, tinggi dapat mencapai 50 m. Diameter mencapai 100 cm. terkadang berbanir. Kulit kayu bagian dalam berserat tebal, berwarna merah sampai kecoklatan. Ranting lurik, dan bersudut; berwarna hitam kecoklatan. **Daun** berbentuk linier, 0,2 x 0,05 inci, rontok lebih awal. Tangkai 0,1 – 0,3 inci agak hitam. Daun tunggal, tulang daun sekunder 12 – 14 pasang. Samar-samar pada kedua sisi. Melingkar samar-samar dan menyatu di dekat tepi. Tulang tersier seperti jaring. Gubal putih. **Getah** bening. **Buah** mengkilap dan berbentuk kastanye, kadang kadang berkilau, setengah lingkaran hingga 1,3 inci. Diameter setengah lingkaran, cekung-cekung lebar, hanya bagian pangkal yang tertutup. **Habitat**: Hutan hujan bawah, hutan primer dan kadang pada hutan terganggu sampai 1300 m dpl. **Kisaran Sebaran**: Malaysia, Sumatra dan Kalimantan.

A large tree, reaching up to 50 m in height with a diameter of up to 100 cm. Occasionally with buttresses. The inner bark is fibrous and thick, colored from red to brownish. The twigs are striped and angular, with a brownish-black color. The leaves are linear, measuring 0.2 x 0.05 inches, and fall off early. The petiole is 0.1 – 0.3 inches long, somewhat blackish. The leaves are simple, with 12 – 14 pairs of secondary veins. These veins are faint on both sides, looping faintly and merging near the edges. The tertiary veins form a network-like pattern. The sapwood is white. The sap is clear. The fruit is glossy and chestnut-shaped, sometimes shining, with a semi-circular shape, measuring up to 1.3 inches in diameter. The half-circle is concave with a broad width, with only the base being covered. Habitat: Lowland forests, primary forests, and sometimes found in disturbed forest up to 1300 m above sea level. Distribution Range: Malaysia, Sumatra and Borneo



Getah/Sap



Duduk daun/Leafs structure

Genus
Lithocarpus

Family
Fagales

Ordo
Fagales

Kelas
Angiosperma

Litsea firma Bl

Ind. Medang

Pohon sedang hingga besar, tinggi dapat mencapai 42 m. Diameter mencapai 60 cm. Batang lurus berbentuk silindris, kulit batang berwarna abu-abu kekuningan, licin hingga bersisik atau berlekuk-lekuk, berselaput. Kulit bagian dalam berwarna kuning, gubal berwarna kuning, pembuluh terlihat; memiliki banir pendek. **Daun** tunggal, tulang daun sekunder 7 – 11 pasang. Tangkai daun 1 – 2 cm. Permukaan bawah daun berbuluh kasar berwarna karat. **Habitat:** Hutan hujan dataran rendah, landai bergelombang. **Kisaran sebaran;** Trengganu, Perak, Pahang, Selangor, Malaka, Negeri Sembilan, Johor, Singapura, Sumatra, Kalimantan dan Sulawesi.

A medium to large tree, with a height of up to 42 m and a diameter of up to 60 cm. The trunk is straight and cylindrical, with bark that is grayish-yellow, smooth to scaly or ridged, and membranous. The inner bark is yellow, the sapwood is yellow, with visible vessels, and it has short buttresses. The leaves are simple, with 7 to 11 pairs of secondary veins. The petiole is 1 to 2 cm long. The underside of the leaves has coarse, rust-colored hairs. Habitat: Lowland rainforests, wavy to undulating land. Distribution Range: Trengganu, Perak, Pahang, Selangor, Malacca, Negeri Sembilan, Johor, Singapore, Sumatra, Borneo and Sulawesi.



Daun muda/Young leaves



Duduk daun/Leaves structure



Macaranga pruinosa (Miq) M.A

Ind. Mahang putih

Pohon kecil hingga sedang, tinggi dapat mencapai 15 m. Dengan tajuk menyebar dan berkubah. Diameter dapat mencapai 24 cm. **Daun** tunggal, tanpa kelenjar kuning dan berbutir butir. Ranting berlubang, dengan semut. Daun berbuluh kasar. Permukaan daun atas berwarna hijau pekat dan helai bawah berwarna perak. **Getah** merah, kulit Batang mulus berbentuk silinder dengan ring riap pohon. Kulit batang berwarna hijau keputih-putihan. **Habitat:** Hutan hujan bawah, hutan rawa air tawar, hutan rawa gambut, rawa musiman juga di tanah kering (Kalimantan). **Kisaran sebaran:** Malesia, Sumatra, Kalimantan.



Daun bag atas dan bawah/
Upper and underside leaf

A small to medium tree, reaching heights of up to 15 m. It has a spreading canopy with a domed shape. The diameter can reach up to 24 cm. The leaves are simple, without yellow glands and are grainy. The twigs are hollow and inhabited by ants. The leaves are rough. The upper surface of the leaves is dark green, and the underside is silver. The sap is red. The trunk is smooth and cylindrical with ring-like markings on the tree. The bark is pale greenish-white. Habitat: Lower rainforests, freshwater swamp forests, peat swamp forests, seasonal swamps, and also dry land (Borneo). Distribution Range: Malesia, Sumatra, Borneo



Mangifera foetida Lour

Ind. Ambacang hutan

Pohon berukuran sedang hingga besar, tinggi dapat mencapai 36 m. Diameter batang mencapai 120 cm. Kulit kayu halus hingga retak hingga celah–celah dangkal bersisik. Kulit kayu berwarna abu abu kecoklatan, kulit kayu bagian dalam berwarna merah muda dengan latek berwarna krem atau coklat kemerahan dalam bentuk tetesan. Gubal berwarna putih. **Getah** merah kental/hitam. **Daun** tunggal, tulang daun sekunder 11 – 30 pasang; melengkung keatas dekat tepi. Terangkat pada kedua permukaan dengan urat intermedia pendek. Tangkai daun panjang 1,5 – 10 cm, sedikit hingga membengkak di pangkal. Sering mengering hitam di bagian bawah. **Buah** berbiji lonjong, Panjang 7,5 – 10 cm, licin, warna buah matang kuning kehijauan. Dengan bau terpentin yang sangat menyengat. Daging buah berwarna kuning berserat dan bisa di makan. **Habitat:** Hutan dataran rendah, perbukitan hingga ketinggian 600 m dpl. **Kisaran sebaran:** Umum di temuan di seluruh Malaya, Thailand, Indo-china, Sumatra, Jawa, Kalimantan.

A medium to large tree, with a height of up to 36 m and a diameter of up to 120 cm. The bark is smooth to cracked with shallow fissures and scaly. The bark is grayish-brown, while the inner bark is pinkish with creamy or reddish-brown latex in droplets. The sapwood is white. The sap is thick, red to black. The leaves are simple, with 11 to 30 pairs of secondary veins, curved upward near the edges. Both leaf surfaces are raised with short intermediate veins. The petiole is 1.5 to 10 cm long, slightly swollen at the base, and often turns black on the underside. The fruit seed is oval-shaped, 7.5 to 10 cm long, smooth, and turns yellow-green when ripe. It has a very strong turpentine-like smell. The flesh is yellow, fibrous, and edible. Habitat: Lowland forests and hills up to an elevation of 600 m above sea level. Distribution Range: Commonly found throughout Malaya, Thailand, Indo-china, Sumatra, Java, Borneo.



Cupul buah/Fruit bud



Semai/Sedding



Daun bag. bawah/
Underside leaf



Duduk daun/Leafs structure

Genus
Mangifera

Family
Anacardiaceae

Ordo
Sapindales

Kelas
Angiosperma

Mesua nuda Kosterm

Ind. Penaga lilin

Pohon sedang, tinggi dapat mencapai 25 m. Diameter dapat mencapai 30 cm. Batang kadang-kadang curam. Penopang tebal atau beralur di bagian pangkal. Kulit batang halus. Kemudian mengembangkan sisik memanjang yang melekat atau menggantung longgar; coklat. Kulit kayu bagian dalam dengan sedikit cairan bening. Kayu berwarna kuning. **Daun** tunggal, tulang daun sekunder halus, sangat samar di kedua permukaan. Rapat; banyak. Tangkai daun pendek. Helai daun kecil, ujung berekor. **Getah** kuning muda, lengket. **Habitat:** Hutan hujan bawah, hutan merawa hingga ketinggian 500 m dpl. **Kisaran sebaran:** Trengganu, Kedah, Penang, Selangor, negeri Sembilan Dan Johor.

A medium tree, reaching up to 25 m in height with a diameter of up to 30 cm. The trunk is occasionally steep, with a thick or furrowed buttress at the base. The bark is smooth, developing elongated scales that are either attached or loosely hanging. The bark is brown, and the inner bark contains some clear sap. The wood is yellow. The leaves are simple, with fine secondary veins that are very faint on both surfaces. The veins are densely packed. The petiole is short. The leaf blade is small, with a pointed tip. The sap is pale yellow and sticky. Habitat: Lowland rainforests, swamp forests, up to an elevation of 500 m above sea level. Distribution Range: Trengganu, Kedah, Penang, Selangor, Negeri Sembilan and Johor



Duduk daun/Leafs structure



Getah/Sap



Monocarpia marginalis Scheff

Ind. Antui

Pohon sedang, tinggi dapat mencapai 30 m. Diameter dapat mencapai 60 cm. **Daun** Tunggal, tulang daun sekunder 13 – 15 pasang. **Getah** bening. Kulit mati berwarna hitam, kulit hidup lunak dan berbau harum. **Habitat:** Hutan hujan bawah, perbukitan dan lahan bergelombang. **Kisaran sebaran:** Siam, Malaya, Sumatra, Kalimantan

A medium tree, with a height of up to 30 m and a diameter of up to 60 cm. The leaves are simple, with 13 to 15 pairs of secondary veins. The sap is clear. The dead bark is black, while the living bark is soft and has a fragrant smell. Habitat: Lowland rainforests, hill forests, and undulating land. Distribution Range: Siam, Malaya, Sumatra, Borneo



Buah/Fruit



Duduk daun/Leafs structure



Genus
Mesua

Family
Guttiferae

Ordo
Guttiferales

Kelas
Angiosperma

Genus
Monocarpia

Family
Annonaceae

Ordo
Malvales

Kelas
Angiosperma

Myristica lowiana King NT

Ind. Mendarahan

Pohon sedang, tinggi dapat mencapai 25 m. Diameter mencapai 40 cm. **Daun** tunggal, tulang daun sekunder 17 – 20 pasang. Tinggi biasanya dengan akar jangkang dan penopang terbang kecuali di tempat yang kering. Kulit kayu hitam bercelah. Celah-celahnya rapat, keras, punggungannya kokoh. Kulit luar hitam dan rapuh seperti arang. **Getah** merah. Tangkai daun panjang 1,4 inci, gemuk, tomentose menjadi gundul. Bilah biasanya besar, lonjong – lanset hingga lanset, (5 x 2) – 7,6 x 2 – 12 x 3,6 inci. Secara bertahap meruncing ke puncak; Pangkal meruncing atau agak membulat; mengering coklat kehitaman tua dan bagian atas sangat mengkilap. Bagian bawah berwarna coklat tua. Tepi agak melengkung kasar. **Buah** bulat telur, menyempit pada kedua ujungnya. Berkarat lebat, berbuluh halus; dinding tebal. **Habitat**: Hutan hujan bawah, rawa gambut dan lahan kering. **Kisaran sebaran**: Malaysia, Bangka, Sumatra dan Kalimantan.

A medium tree, with a height of up to 25 m and a diameter of up to 40 cm. The leaves are simple, with 17 to 20 pairs of secondary veins. It usually has stilt roots and aerial prop roots, except in dry areas. The bark is black and cracked, with tight, hard fissures and a solid surface. The outer bark is black and brittle, resembling charcoal. The sap is red. The petiole is 1.4 inches long, fat, tomentose, and becomes glabrous. The leaf blades are usually large, oval-lance-shaped to lanceolate, ranging from (5 x 2) inches to 7.6 x 2 - 12 x 3.6 inches. The leaf gradually tapers to a pointed apex; the base is tapered or slightly rounded; the leaf turns dark brownish-black as it dries, and the upper surface is very glossy. The underside is dark brown. The edges are slightly rough. The fruit is oval, tapering at both ends, densely rusty with fine hairs; the walls are thick. Habitat: Lowland rainforests, peat swamps, and dry land. Distribution Range: Malaysia, Bangka, Sumatra and Borneo.



Buah dan biji/Fruit and seed



Daun tua/Old leaf

Genus
Myristica

Family
Myristaceae

Ordo
Ranales

Kelas
Angiosperma

Ochanostacys amentacea Mast

Ind. Petaling

Pohon kecil hingga sedang, tinggi dapat mencapai 3 m. Lingkaran batang mencapai 180 cm, Batang sering kali berbentuk agak buruk, beralur atau beralur pendek. Sering kali tidak bertulang. Kulit kayu berwarna coklat pucat dengan semburat keunguan; dengan sisik sisik yang jauh. bulat hingga lonjong, tipis dan melekat. Kulit kayu bagian dalam keras, berserat halus; berbintik bintik kekuningan hingga oranye-coklat-kecoklatan dengan tetesan getah putih yang tidak merata. kayu keras, kuning kecoklatan. Hampir semua batang pada pohon jenis ini memiliki bekas jejak mamalia (beruang). **Daun** Tunggal, Tulang daun sekunder sampai 5 pasang. **Bunga** kecil, hijau, dalam tandan yang bersebrangan dengan jarak yang baik. Buah lonjong, hijau, lebar hingga 2 cm. **Getah** bening. **Habitat:** Hutan hujan bawah, pada areal bergelombang dan perbukitan sampai dengan 900 m dpl. **Kisaran sebaran:** Umum ditemukan di sebagian besar wilayah Malaya, Sumatra.

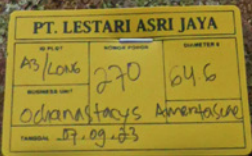
A small to medium tree, reaching up to 3 m in height. The trunk circumference reaches up to 180 cm. The trunk is often slightly malformed, furrowed, or has short grooves. It is often without buttresses. The bark is pale brown with a purplish hue, with widely spaced scales. The scales are round to oval, thin, and adhere tightly. The inner bark is hard, finely fibrous, with yellowish to orange-brown spots, and uneven white sap droplets. The wood is hard, yellow-brown. Almost all trunks of this tree species have traces of mammal (bear) markings. The leaves are simple, with up to 5 pairs of secondary veins. The flowers are small, green, arranged in clusters that are opposite with a good spacing. The fruit is oval, green, and up to 2 cm wide. The sap is clear. Habitat: Lowland rainforests, in undulating and hilly areas up to 900 m above sea level. Distribution Range: Commonly found in most of Malaya, Sumatra.



Buah/Fruit



Duduk daun/Leafs structure



Genus
Ochanostacys

Family
Olacaceae

Ordo
Malvales

Kelas
Angiosperma

Ormosia bancana (Miq) Merr

Ind. Saga hutan

Pohon sedang hingga tinggi dapat mencapai 24 m. Lingkar batang mencapai 4,5 kaki. **Daun** majemuk, anak daun 8 – 13 helai. Bilah lonjong-lonjong, 1,5 x 0,5 inci; pangkal sering membulat; tepi sering melengkung; kasar kadang kadang tebal; beludru keemasan tipis hingga hamper gundul dibawah. Pelepah di bawah selalu seperti beludru keemasan. Tulang sekunder samar dibawah. **Bunga** 0,4 inci berwarna putih. Polong lonjong 1 -1,5 x 0,7 inci; menggembung di bagian biji; Berkayu tipis; hitam ke abu-abuan; berbulu halus. **Biji** 1 – 3 di setiap polong, berwarna merah. **Getah** Bening. **Habitat**: Hutan dataran rendah dan hutan pesisir. **Kisaran sebaran**: Langkawi, Pangkor, Pahang, Malaka, Singapura, dan umum ditemukan pada daerah tangkapan air waduk di Sumatra, Bangka, Anambas, Natuna dan Kalimantan.

A medium to large tree, reaching up to 24 m in height. The trunk circumference can reach 4.5 feet. The leaves are compound, with 8 to 13 leaflets. The leaflets are oval, measuring 1.5 x 0.5 inches, with the base often rounded and edges frequently curved. The surface is rough and sometimes thick, with a thin golden velvety underside that may become almost glabrous. The petiole is velvety underneath, and the secondary veins are faint below. The flowers are small, white, about 0.4 inches. The pod is oval, measuring 1–1.5 x 0.7 inches, swelling at the seed area. It has a thin, woody, black to grayish, fine-hairy texture. The seeds, typically 1 to 3 in each pod, are red. The sap is clear. Habitat: Lowland rainforests and coastal forests. Distribution Range: Langkawi, Pangkor, Pahang, Malaka, Singapore, and commonly found in water catchment areas in Sumatra, Bangka, Anambas, Natuna, and Borneo.



Kulit kayu/Bark



Buah masak dan biji/ Ripe fruit and seeds

Genus
Ormosia

Family
Leguminosae

Ordo
Rosales

Kelas
Angiosperma

Palaquium hexandrum Engl NT

Ind. Balam

Genus
Palaquium

Family
Sapotaceae

Ordo
Ebenales

Kelas
Angiosperma

Pohon besar, tinggi dapat mencapai 50 meter dan diameter dapat mencapai 100 cm. Batang lurus berbentuk silindris dengan banir hingga 10 kaki. Kulit batang merah bersisik kecil. **Daun** tunggal, tulang daun sekunder 6 – 11 pasang. Ujung daun tumpul. **Getah** putih. **Habitat**: Hutan hujan bawah, dan hutan rawa berkala, sampai dengan ketinggian 1200 m dpl. **Kisaran sebaran**: Semua negara bagian kecuali Perlis, Trengganu, Sumatra dan Kalimantan.

A large tree, with a height of up to 50 m and a diameter of up to 100 cm. The trunk is straight and cylindrical, with buttresses up to 10 feet. The bark is red and has small scales. The leaves are simple, with 6 to 11 pairs of secondary veins. The leaf tip is blunt. The sap is white. Habitat: Lowland rainforests and periodic swamp forests, up to an elevation of 1200 m above sea level. Distribution Range: All states except Perlis and Terengganu, Sumatra, and Borneo.



Dahan dengan daun/Branch with leaves



Getah/Sap



Palaquium stellatum (Griff.) Baill. NT

Ind. Bintang

Genus
Palaquium

Family
Sapotaceae

Ordo
Ebenales

Kelas
Angiosperma

Pohon besar atau sangat besar, tinggi dapat mencapai 60 meter dan diameter dapat mencapai 80 cm. Batang lurus berbentuk silindris dengan banir hingga 10 kaki. Kulit batang bersisik – serpihan. Ranting tebal, berbulu halus berkarat di ujungnya. **Daun** bergerombol rapat, panjangnya 0,1 inci. Tangkai 0,6 – 1,2 inci. Berbulu halus, bagian atas agak rata. Bilah lonjong atau elips; 3,1 x 1,4 – 6,5 x 2,8 inci. Puncak tumpul sampai menonjol. Tulang daun sekunder 8 – 12 pasang. **Getah** putih.

Habitat: Hutan hujan bawah, perbukitan sampai ketinggian 350 m dpl. **Kisaran sebaran**: Semua negara bagian kecuali Perlis, Penang, Trengganu, Singapura, Sumatra, Riau dan Kalimantan.

A large or very large tree, with a height of up to 60 m and a diameter of up to 80 cm. The trunk is straight and cylindrical, with buttresses up to 10 feet. The bark is scaly and flaked. The twigs are thick, with fine, rusty hairs at the tips. The leaves grow in dense clusters, with a length of 0.1 inch. The petiole is 0.6 to 1.2 inches long, covered with fine hairs, and the upper surface is somewhat flat. The leaf blade is oval or elliptical, ranging from 3.1 x 1.4 inches to 6.5 x 2.8 inches. The tip is blunt to slightly protruding. The secondary veins are 8 to 12 pairs. The sap is white. Habitat: Lowland rainforests and hill forests, up to an elevation of 350 m above sea level. Distribution Range: All states except Perlis, Penang, Terengganu, Singapore, Sumatra, Riau, and Borneo.



Duduk daun/Leaf's structure



Daun bag. bawah/
Underside leaf



Parashorea aptera Slooten

Ind. Tembalun

Pohon sedang, tinggi 32 m. Batang lurus, berbentuk silinder, tinggi banir hingga 1,5 m, tipis, membentang jauh dari pangkal batang. Tajuk hijau. Permukaan pepagan coklat agak kelabu tua, berlekeh dangkal. Ranting mati bundar. Penumpu lekas gugur. Tangkai daun 0,8–1,8 cm dengan indumentum rapat, coklat kelabu atau coklat kuning, bulu-bulu pendek. **Daun** jorong, 5,5–17 x 2,4–6 cm, berlipatan; ujung lancip pendek; pangkal berbentuk pasak atau membulat; permukaan atas bila mengering putih perak atau tengguli atau coklat, lokos; permukaan bawah bila mengering putih perak atau tengguli; kadang dengan indumentum bulu-bulu pendek yang renggang, coklat kelabu atau coklat kuning pada pertulangan daun. Tepi daun tidak tergulung; **Daun** tunggal, pertulangan sekunder 6–10 pasang, mula-mula lurus, melengkung hanya pada tepi daun. Menonjol tapi lampai, bila mengering jelas lebih tua dari pada helai daun; pertulangan tersier hampir tidak kelihatan. **Bunga** kecil; **Buah** tanpa sayap; buah geluk 20–25 x 20–25 mm. **Habitat**: Hutan hujan bawah, melimpah secara lokal, hingga ketinggian dibawah 70 m dpl. **Kisaran sebaran**: Sumatra.

A medium tree, with a height of 32 m. The trunk is straight, cylindrical in shape, with buttresses reaching up to 1.5 m, thin, extend far from the base of the trunk. The canopy is green. The bark surface is dark brown with a slightly grayish tone, featuring shallow grooves. The dead twigs are round. The stipules are deciduous. The leaf petioles are 0.8–1.8 cm long, with dense indumentum, grayish-brown or yellowish-brown, and short hairs. The leaves are elliptical, measuring 5.5–17 x 2.4–6 cm, folded; the tip is short-pointed; the base is cuneate or rounded; the upper surface, when dried, is silvery white, tawny, or brown, smooth; the lower surface, when dried, is silvery white or tawny; sometimes with sparse short hairs in the leaf veins, brown-gray or brown-yellow. The leaf edges are not curled; they are simple leaves with 6–10 pairs of secondary veins, initially straight, curving only at the edges. The veins are prominent but relaxed, and when dried, they appear more pronounced than the leaf blade. Tertiary venation is almost invisible. The flowers are small. The fruit is wingless; the fruit is an achene, measuring 20–25 x 20–25 mm. Habitat: Lowland rainforests, locally abundant, up to an elevation of 70 m above sea level. Distribution Range: Sumatra.

The species is endemic to Sumatra (Indonesia). Using GeoCat reduction analysis it is calculated that the area of occupancy and extent of occurrence for the species has declined by at least 50%. Upper elevation limit: 350m

Genus
Parashorea

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma



Cupul buah/Fruit bud



Daun bag. atas/Upperside leaf



Daun bag. bawah/Underside leaf



Parashorea lucida (Miq.) Kurz CR

Ind. Tembalun atau Meranti putih

Pohon besar, pohon tinggi tetapi agak terpinil; Banir kokoh, sama besar, tinggi hingga 2 m atau lebih. Permukaan pepagan kelabu tua dengan bidang-bidang kecil yang lebih muda, berlekah dangkal yang tidak teratur, punggung-punggung licin, cekung, jika jatuh berupa sisik-sisik empat persegi panjang yang tipis dan rapuh; Pohon yang sangat besar jadi bersisik; lentisel besar berbentuk bintang kelihatan jelas pada pangkal batang dan pada banir. Tetesan damar kekuning-kuningan kadang ada dari luka-luka.

Ranting mati bundar. Penumpu 5 – 13 x 2 – 4 mm, lekas gugur, berbentuk garis atau jorong, lancip. Tangkai daun tidak berlutut 0,8 – 2 cm, lokos atau dengan indumentum berupa bulu-bulu pendek yang renggang atau rapat, coklat kuning. Daun jorong atau bundar telur, 6 – 14 x 2,5– 6,5 cm, tidak atau tidak jelas berlipatan; ujung lancip pendek atau panjang; pangkal berbentuk pasak atau membundar atau ramping; permukaan atas bila mengering putih perak atau coklat kekuning-kuningan, lokos. **Daun** tunggal, pertulangan sekunder 9 – 15 pasang, mula-mula lurus, melengkung hanya pada tepi daun; menonjol tapi lampai, bila mengering jelas lebih tua dari pada helai daun; pertulangan tersier hampir tidak kelihatan atau jelas kelihatan.

Bunga kecil; kelopak buah dengan tiga sayap panjang dan dua sayap pendek. Sayap panjang 6,5 – 9 x 0,9 – 1,7 cm, sayap pendek 5 – 7,5 x 0,8 – 1 cm; **Buah** geluk 11 – 25 x 10 – 23 mm.

Habitat: Perbukitan hingga ketinggian 700 m dpl.
Kisaran sebaran: Sumatra, Serawak dan Kalimantan.



Cupul buah/Fruit bud



Cupul buah/Fruit bud

A large tree, tall but somewhat twisted; the buttresses are sturdy and uniform sized, reaching up to 2 m or more in height. The bark surface is dark gray with small, lighter patches, featuring shallow and irregular grooves, with smooth, concave ridges. When the bark falls, it forms thin, fragile square-shaped scales. Very large trees have scaly bark. Large lenticels, star-shaped, are clearly visible at the base of the trunk and on the buttresses. Drops of yellowish resin may sometimes be found on wounds.

The dead twigs are round. The stipules measure 5 – 13 x 2 – 4 mm, falling off quickly, and are linear or elliptical in shape with a pointed tip. The leaf petioles are not swollen, ranging from 0.8 – 2 cm long, either smooth or with indumentum of short, sparse or dense brownish-yellow hairs. The leaves are elliptical or ovate, measuring 6 – 14 x 2.5 – 6.5 cm, either not folded or only slightly folded. The tips are short or long-pointed, while the base is cuneate, rounded, or slender. The upper surface, when dried, is silvery-white or yellowish-brown, smooth; the lower surface, when dried, is either silvery-white or yellowish-brown, either smooth or with sparse short hairs along the midrib, brownish-yellow. The leaf edges are not curled. The leaves are simple, with 9 – 15 pairs of secondary veins, initially straight, curving only at the leaf edges. These veins are prominent but relaxed, appearing more distinct when dried compared to the leaf blade. Tertiary venation is barely visible or, in some cases, clearly visible.

The flowers are small. The fruit calyx has three long wings and two short wings. The long wings measure 6.5 – 9 x 0.9 – 1.7 cm, and the short wings measure 5 – 7.5 x 0.8 – 1 cm. The fruit is an achene, measuring 11 – 25 x 10 – 23 mm.

Habitat: Found in hilly areas up to an elevation of 700 m above sea level.

Distribution Range: Sumatra, Sarawak and Borneo

Genus
Parashorea

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma



Daun bag. atas/Upperside leaf



Daun bag. atas/Underside leaf



Duduk daun/Leaf structure



Buah jatuh di tanah/Fruit falls into ground

Parkia speciosa Hassk

Ind. Petai

Pohon besar dengan tinggi lebih dari 100 kaki dan lingkar batang mencapai 8 kaki. Kulit batang halus atau bersisik - celah-celah, kulit kayu bagian dalam keras-keras, bersekat, bagian luar berbutir-butir merah kecoklatan kearah dalam; kadang bergaris garis atau berbintik; berbau kacang-kacangan. **Daun** majemuk, daun degan tangkai sepanjang 6 – 12 inci, tangkai samping 10 – 18 pasang, bengkak di pangkal, berbuluh halus. Anak daun kecil, 20 – 35 pasang, sesil, lanset linier, 0,2 x 0,05 – 0,3 x 0,1 inci. Meranggas tidak berdaun selama satu atau 2 minggu di bulan peralihan dari musim hujan ke musim kering (Februari - Maret). **Habitat:** Hutan hujan dataran rendah sampai 2000 kaki. **Kisaran sebaran:** Seluruh Malaya dan Malesia barat.

A large tree, reaching over 100 feet in height and with a trunk circumference of up to 8 feet. The bark is smooth or scaly with fissures. The inner bark is hard, tough, and fibrous, while the outer bark is reddish-brown with a grainy texture, sometimes streaked or spotted, and has a nutty scent. The leaves are compound, with petioles 6 to 12 inches long, and 10 to 18 pairs of lateral leaflets, swollen at the base, covered in fine hairs. The leaflets are small, ranging from 20 to 35 pairs, sessile, linear-lanceolate, and 0.2 x 0.05 to 0.3 x 0.1 inches in size. The tree sheds leaves for one or two weeks during the transition from the rainy season to the dry season (February - March). Habitat: Lowland rainforests up to 2000 feet. Distribution Range: Throughout Malaya dan West Malesia.



Buah/Fruit



Daun majemuk/
Compound leaf



Pimeleodendron griffitianum Benth

Ind. Mendarahan

Pohon sedang tinggi hingga 25 m. Diameter batang hingga 50 cm. **Daun** tunggal, tulang daun sekunder 8 – 30 pasang; tangkai daun panjang, memiliki lutut pada pangkal dan ujung tangkai daun. **Getah** putih melimpah. **Habitat:** Hutan hujan dataran rendah sampai dengan 300 m dpl, biasanya pada lereng bukit dan sering di temukan pada areal hutan terganggu. **Kisaran sebaran:** Malesia, Malaya dan Solomon.

A medium tree, reaching up to 25 m in height, with a diameter of up to 50 cm. The leaves are simple, with 8 – 30 pairs of secondary veins. The petiole is long, with a knee-like stucture at the base and tip. The sap is white and abundant. Habitat: Lowland rainforests up to 300 m above sea level, typically found on hill slopes and often in disturbed forest areas. Distribution Range: Malesia, Malaya and Solomon.



Daun bag. bawah/
Underside leaf



Daun bag. atas/Upperside leaf



Genus
Parkia

Family
Leguminosaceae

Ordo
Rosales

Kelas
Magnoliopsida

Genus
Pimeleodendron

Family
Euphorbiaceae

Ordo
Malvales

Kelas
Magnoliopsida

Pithecelobium bubalinum (Jack) I.C.Nielsen

Ind. Kabau

Pohon kecil, tangkai daun 2 – 10 inci, 2 pasang tangkai samping, pasangan yg lebih rendah kecil. Kadang-kadang tidak ada; gundul, anak daun 2 – 4 pasang pada tangkai daun bagian atas, 1 – 2 pasang pada tangkai bagian bawah; besar, lonjong-elips, 5 x 2 – 13 x 5,5 inci; Pangkal hampir selalu membulat; mengering coklat kehijauan, pertulangan berwarna sama; kelenjar yang lebih besar tepat di atas pangkal tangkai daun dan di antara sepasang tangkai daun bagian ujung; kelenjar kecil di antara 2 pasang anak daun terakhir pada tangkai daun bagian atas dan pasangan terakhir pada tangkai daun bagian bawah. **Bunga** kecil, mahkota bunga 0,15 inci; dalam tandan yang sangat kecil 2 – 5, memanjang 12 – 20 inci atau lebih. Malai terminal dan ketiak rata, lebar 1 inci atau lebih, menjadi bengkok menjadi cincin pipih besar selebar 3 inci, merah kusam. **Biji** hitam dengan mekar, berdaging tipis, menggantung di tali. **Buah** dapat di makan. **Habitat:** Hutan hujan dataran rendah, hutan sekunder tepi sungai. **Kisaran sebaran:** Sumatra, Jawa, Kalimantan dan Phillipina.

A small tree, with a petiole 2 – 10 inches long, and 2 pairs of lateral petioles, with the lower pair being smaller. Occasionally absent; glabrous, with 2 – 4 pairs of leaflets on the upper petiole, and 1 – 2 pairs on the lower petiole. The leaflets are large, oval-elliptical, measuring 5 x 2 – 13 x 5.5 inches. The base is almost always rounded. The leaves dry brownish-green, with the venation being of the same color. Larger glands are located just above the base of the petiole and between the two upper lateral petioles. Smaller glands are found between the last 2 pairs of leaflets on the upper petiole and the last pair on the lower petiole. The flowers are small, with a corolla of 0.15 inches; arranged in very small clusters of 2 – 5, extending 12 – 20 inches or more. The inflorescence is terminal and axillary, straight, and 1 inch or more in width, curving into a large flat ring about 3 inches wide, dull red in color. The fruit is black with a fleshy, thin covering, hanging on a string. The fruit is edible. Habitat: Lowerland rainforests, secondary forests along riverbanks. Distribution Range: Sumatra, Java, Borneo dan the Phillipines.



Daun, buah dan biji/Leafs, fruits and seeds

Genus
Pithecelobium

Family
Leguminosae

Ordo
Malvales

Kelas
Magnoliopsida

Payena dasyphylla Miq EN

Ind. Nyatoh ekor

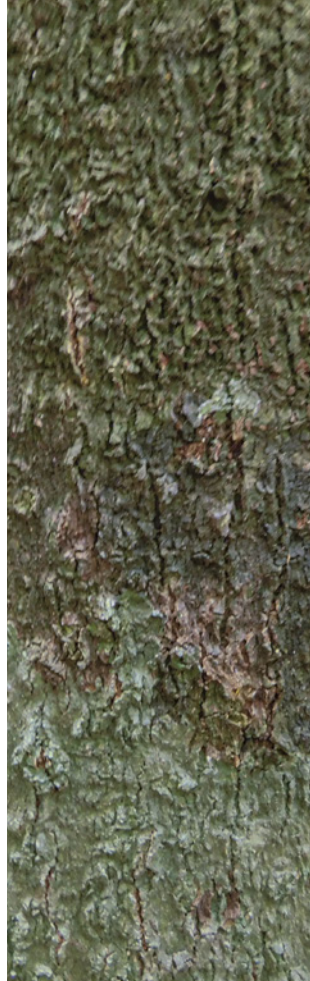
Pohon sedang, tinggi dapat mencapai 30 m. Diameter mencapai 40 cm, batang berkelom yang curam. Kulit kayu halus hingga retak tidak teratur, sisik yang melekat jauh mengelupas. Kulit kayu bagian dalam berwarna merah tua hingga merah keunguan; sebagian dengan rambut berkarat yang lebat. **Daun** 0,05 – 0,25 inci, gugur lebih awal. Tulang sekunder 10 – 18 pasang. **Bunga** sampai 7 pada ketiak daun. **Buah** berbentuk bulat telur; hingga 1,9 x 0,9 inci. Sepal membesar hingga 0,3 x 0,5 inci. Tangkai memanjang hingga 1,6 inci. **Biji** sampai 1,3 x 0,4 x 0,3 inci. Daun tunggal. **Getah** putih. **Habitat**: Hutan dataran rendah, perbukitan hingga ketinggian 4000 kaki. **Kisaran sebaran**: Kelantan, Pahang, Perak, Negeri Sembilan, Sumatra.

A medium tree, with a height of up to 30 m and a diameter of up to 40 cm. The trunk is steeply columnar. The bark is smooth to irregularly cracked, with scales that peel off in patches. The inner bark is dark red to purplish red, and some parts have dense rusty hairs. The leaves are 0.05 to 0.25 inches, shedding early. The secondary veins are 10 to 18 pairs. Flowers appear in clusters of up to 7 at the leaf axils. The fruit is ovate-shaped, up to 1.9 x 0.9 inches. The sepals enlarge to 0.3 x 0.5 inches. The petiole can grow up to 1.6 inches long. The seeds are up to 1.3 x 0.4 x 0.3 inches. The leaves are simple. The sap is white. Habitat: Lowland rainforests and hill forests, up to an elevation of 4000 feet. Distribution Range: Kelantan, Pahang, Perak, Negeri Sembilan, Sumatra.



Daun bag. atas/
Upside leaf

Daun bag. bawah/
Underside leaf



Pyrenaria acuminata Planch

Ind. Sebalik sumpah

Pohon kecil, tinggi dapat mencapai 10 meter. Kulit batang berwarna abu-abu hingga coklat kehitaman. Kulit dalam berwarna merah dengan bulu-bulu halus.

Daun tunggal; bentuk daun lanset, lonjong atau jorong, 14 x 5 – 26 x 8 cm; tulang sekunder 10 – 12 pasang; tangkai daun 0,5 – 1 cm. **Buah** hijau kemudian menguning. **Kisaran sebaran**: Perlis dan Kedah.

A small tree, reaching up to 10 m in height. The bark is gray to blackish brown. The inner bark is red, and covered in fine hairs. The leaves are simple, lance-shaped, oval, or elliptical, measuring 14 x 5 – 26 x 8 cm long, with 10 – 12 pairs of secondary veins. The petiole is 0.5 – 1 cm long. The fruit is green, turning yellow as it ripens. Distribution Range: Perlis and Kedah.



Buah dan biji/Fruit and seeds



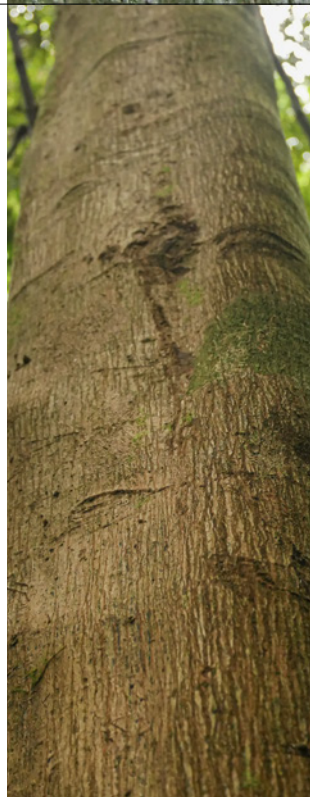
Semai/Seedling



Daun bag. atas/Upside leaf



Daun bag. bawah/Underside leaf



Porterandia anisophylla (Jack ex Roxb) Ridl

Ind. Tunjuk belukar

Pohon kecil dengan tinggi hingga 12 m. Batang lurus berbentuk silinder, diameter batang hingga 20 cm. Kulit kayu abu-abu hingga coklat tua. Halus dan lentisel hingga retak. Kulit kayu bagian dalam berwarna coklat pucat, **gubal** pucat berwarna coklat kekuningan. **Daun** berbentuk bulat telur; 12 – 35 x 5 – 20 cm. Gundul atau berbulu pada pertulangan diatas, berbulu pada pertulangan di bawah; Duduk daun berpasangan. Puncak runcing; pertulangan sekunder 11 – 22 pasang; pertulangan tersier seperti tangga; tangkai berbentuk segitiga lebar, panjang hingga 2,5 cm, sedikit menyatu pada bagian tepi. **Buah** bulat, lebar 2,5 – 3,5 cm licin atau kadang bergerigi, berbulu pendek, bersel 2; tangkai 3 – 10mm **Habitat**: Hutan hujan dataran rendah hingga hutan pegunungan, sering di temukan pada hutan vegetasi sekunder. **Kisaran sebaran**: tersebar luas di Malaya, Sumatra.

A small tree, reaching up to 12 m in height. The trunk is straight and cylindrical, with a diameter of up to 20 cm. The bark is gray to dark brown, smooth with lenticels, and may cracks. The inner bark is pale brown, the sapwood is yellowish-brown. The leaves are ovate; 12 – 35 x 5 – 20 cm. The inner bark is pale brown, with the sapwood being pale yellow-brown. The leaves are oval-shaped, measuring 12 – 35 x 5 – 20 cm. They are glabrous or hairy on the upper venation, and hairy on the lower venation. The leaves are arranged oppositely. The apex is pointed. The secondary veins have 11 – 22 pairs, with the tertiary venation resembling a ladder. The petiole is broad-triangular, up to 2.5 cm long, slightly fused at the edges. The fruit is round, 2.5 – 3.5 cm wide, smooth or occasionally serrated, with short hairs, and 2-celled. The petiole is 3 – 10 mm long. Habitat: Lowland rainforests to montane forests, often found in secondary vegetation forest. Distribution Range: Widely distributed in Malaya, Sumatra

Genus
Porterandia

Family
Rubiaceae

Ordo
Malvales

Kelas
Magnoliopsida



Daun bag. atas/Upperside leaf



Daun bag. bawah/Underside leaf



Duduk daun/Leaf structure



Cupul buah/Fruit bud

Rhodamnia cinerea Jack

Ind. Mempuyan

Pohon kecil, tinggi dapat mencapai 15 m. Tajuk lebat, bulat dan sangat rimbun. Kulit batang coklat keabu-abuan, bercrelah sempit dan licin atau bersisik. **Daun** berhadapan; tangkai panjang 0,5 – 0,75 cm; Bilah lonjong, 5 – 15 x 18 – 6,5 cm meruncing ke puncak, terkadang dengan ujung panjang, pangkal menyempit, umumnya kurang lebih keperakan atau putih pucat di bagian bawah dari bulu-bulu halus kecil, dalam beberapa kasus berwarna hijau di bagian bawah; bertangkai. **Bunga** berkelompok 3 – 6 di ketiak daun, bertangkai pendek, putih, kemerahan di tengah, sangat harum, sepal 4; **Buah** berry, lebar 0,75 cm, bulat, halus; hijau berubah menjadi merah, ungu dan akhirnya menjadi hitam; seperti bubur. **Daun** tunggal. **Getah** bening. **Habitat:** Hutan hujan bawah hingga pegunungan. **Kisaran sebaran:** Umum ditemukan di seluruh Malaya, Indo - Australia kecuali Phillipina.



Duduk daun/Leaf structure

A small tree, with a height of up to 15 m. The canopy is dense, round, and very lush. The bark is brownish-gray, with narrow fissures and smooth or scaly. The leaves are opposite; the petiole is 0.5 to 0.75 cm long. The leaf blade is oval, ranging from 5 to 15 cm by 18 to 6.5 cm, tapering to the tip, sometimes with a long apex, and the base is narrowed. The underside is generally silvery or pale white with fine soft hairs, and in some cases, greenish. Has petioles. The flowers are grouped in clusters of 3 to 6 in the leaf axils, with short stems, white with a reddish centre, very fragrant, and with 4 sepals. The fruit is a berry, about 0.75 cm wide, round and smooth. It changes from green to red, then purple, and finally becomes black, resembling a pulp. The tree has simple leaves, and the sap is clear. Habitat: Lowland rainforests to mountainous areas. Distribution Range: Commonly found throughout Malaya, Indo-Australia, except for the Philippines.

Sarcotheca griffithii Hk.f

Ind. Belimbing hutan

Pohon sedang sampai besar, tinggi dapat mencapai 40 m. Batang pohon terpilin tidak silindris. Diameter dapat mencapai 160 cm. Tajuk kecil, padat. Kulit batang kemerahan; berbintik-bintik tidak beraturan, sering bersisik. Kulit kayu bagian dalam berwarna merah muda, gubal putih kekuningan. **Daun** majemuk, biasanya dengan tiga anak daun, halus. Tulang daun sekunder 1 – 6 pasang. **Getah** bening, lengket. Pohon memiliki akar jangkang. **Buah** dapat di makan, berbentuk bulat telur, kuning kehijauan, merah mengering, 0,3 x 0,4 – 0,8 x 1,2 inci. **Habitat:** Hutan hujan bawah, berdrainase baik, perbukitan sampai 900 m dpl. **Kisaran sebaran:** seluruh Malaysia kecuali Kelantan, Sumatra.

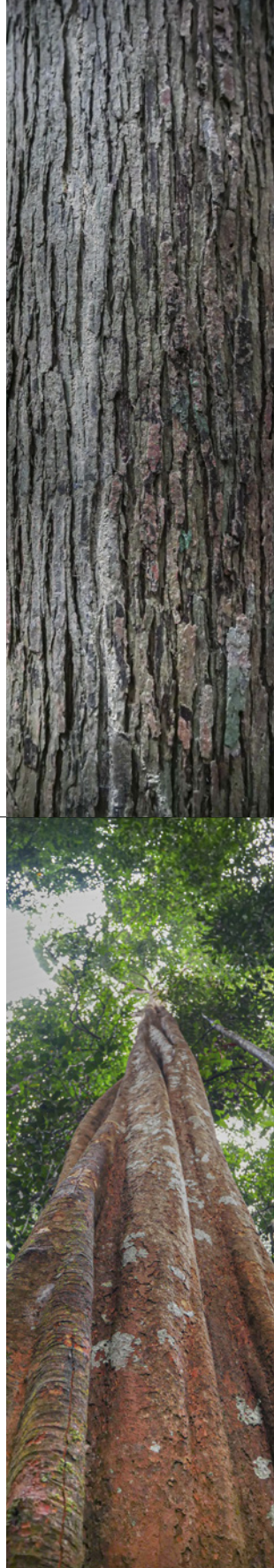


Daun bag. atas/Upperside leaf



Buah dan biji/Fruit and seed

A medium to large tree, with a height of up to 40 m. The tree trunk is twisted, not cylindrical. The diameter can reach up to 160 cm. The canopy is small and dense. The bark is reddish, with irregular spots, often scaly. The inner bark is pinkish, and the wood is yellowish-white. The leaves are compound, usually with three leaflets, smooth in texture. The secondary leaf veins range from 1 to 6 pairs. The sap is clear and sticky. The tree has stilt roots. The fruit is edible, ovate-shaped, yellowish-green, turning red as it dries, measuring 0.3 x 0.4 – 0.8 x 1.2 inches. Habitat: Lowland rainforests with good drainage, hilly areas up to 900 m above sea level. Distribution Range: Found throughout Malaysia, except for Kelantan, and in Sumatra.



Santiria rubiginosa Blume

Ind. Kedondong kerantai

Pohon sedang, tinggi dapat mencapai 25 meter dan diameter dapat mencapai lebih 30 cm. Berbanir rendah, namun kadang tinggi dan menyebar. Batang lurus kadang bergelombang. Kulit kayu berwarna abu-abu kekuningan dan coklat kekuningan; halus atau kasar sedikit bersisik atau berlekuk lekuk; berselaput halus. Kulit kayu bagian dalam oranye-putih, berbintik-bintik. Cairan resin keputihan jernih; Bau aromatik seperti mangga. Kulit kayu bagian tengah berwarna hijau. Gubal berwarna kuning muda sampai krem. **Daun** majemuk, anak daun 5 – 11 helai, tangkai anak daun agak berbulu sedikit. Tulang sekunder 10 – 14 pasang. **Buah** miring bulat tidak beraturan atau bulat telur, kepala putik menyamping kurang dari 90 derajat dari tengah, matang kuning sampai merah kebiru-biruan sampai hitam. **Habitat:** Hutan hujan bawah sampai pegunungan. **Kisaran sebaran:** Kedah, Perak, Pahang, Trengganu, Selangor, Negeri Sembilan dan Johor; Sumatra, Bangka, Belitung, Kalimantan Dan Papua Nugini.

*A medium tree, reaching up to 25 m in height with a diameter can reach more than 30 cm. The buttresses are low but can sometimes grow high and spread out. The trunk is straight, sometimes wavy. The bark is light grayish-yellow and brownish-yellow; it is smooth or rough, slightly scaly or with ridges; it has a thin membrane-like covering. The inner bark is orange-white, spotted; it has a clear, whitish resin; it has an aromatic smell similar to mango. The middle bark is green. The sapwood is light yellow to cream. The leaves are compound, with 5 to 11 leaflets, and the leaflets have slightly hairy petioles. The secondary veins are 10 to 14 pairs. The fruit is irregularly spherical or ovate, with the pistil head turned less than 90 degrees from the centre. It ripens from yellow to bluish-red to black. **Habitat:** Lowland rainforests to mountainous areas. **Distribution Range:** Kedah, Perak, Pahang, Trengganu, Selangor, Negeri Sembilan, and Johor. Sumatra, Bangka, Belitung, Borneo, and Papua New Guinea.*



Dahan dengan daun dan buah/
Branch with leaves and fruits

Genus
Santiria

Family
Burseraceae

Ordo
Sapindales

Kelas
Angiosperma

Scaphium macropodum Miq

Ind. Merpayang, Kembang semangkuk

Pohon besar, tinggi dapat mencapai 45 meter dan diameter dapat mencapai 80 cm. Memiliki **getah** bening, batang berwarna kecoklatan sampai kelabu. **Daun** tunggal, tulang daun sekunder 6 – 11 pasang. Tangkai daun panjang 3.7 – 15 cm, membengkok diujung dan di pangkal. **Buah** dapat dikonsumsi dan dijadikan obat tradisional. **Bunga** daun mahkota awalnya merah muda, berubah kuning pada waktu mekar. Buah matang bersayap; sayap panjang 9 – 12 x 1,4 – 1,8 cm; sayap pendek 1,2 -1,5 – 0,2-0,35 cm; pangkal tabung kelopak berbulu, 1-1,2 x 0,8-1,1 cm. **Habitat:** Hutan hujan bawah, lahan bergelombang dengan drainase baik hingga 1200m dpl. **Kisaran sebaran:** Semenanjung Malaysia, Perak, Kamboja Siam, Sumatra, Jawa dan Kalimantan

A large tree, reaching up to 45 m in height and with a diameter of up to 80 cm. The sap is clear, and the trunk is brown to gray. The leaves are simple, with 6 to 11 pairs of secondary veins. The petioles measure 3.7 to 15 cm, swollen at both the tip and base. The fruit is edible and used in traditional medicine. The flowers initially have a pink corolla, turning yellow as they bloom. The mature fruit is winged; the long wings measure 9–12 x 1.4–1.8 cm, and the short wings are 1.2–1.5 x 0.2–0.35 cm. The base of the calyx tube is hairy, measuring 1–1.2 x 0.8–1.1 cm. Habitat: Lowland rainforests, undulating land with good drainage up to 1200 m above sea level. Distribution range; Peninsular Malaysia, Perak, Cambodia, Paninsular, Siam, Sumatra, Java and Borneo.



Buah bersayap/Fruit's wing



Buah masak/Ripe fruit



Scorodocarpus borneensis Becc

Ind. Kulim

Pohon sedang hingga besar, tinggi dapat mencapai 36 m. Lingkar batang mencapai 210 cm. Hampir semua bagian pada pohon ini memiliki aroma bawang putih. Tajuk runcing dan lebat. Kulit batang bercelah, punggung batang kecil kecil, sisik terlihat jelas, melekat. Kulit batang berwarna merah muda ke arah luar berwarna merah tua, dengan bintik-bintik oranye kasar. **Daun** tunggal, tangkai daun 15 mm, ujungnya berlekuk lemah. Bilah lonjong-elips 10 x 4 – 22 x 9 cm, ujungnya berbentuk baji. Tulang sekunder 5 – 6 pasang. **Buah** matang bulat telur, panjang 4 cm dan dapat di makan. **Getah** Bening. **Habitat:** Hutan hujan dataran rendah, sampai dengan 150 m dpl . Kadang kadang sampai dengan ketinggian 600 m dpl. Lereng bukit dan punggung bukit. **Kisaran sebaran:** Thailand, malaya serta hutan primer dan hutan terganggu Sumatra dan Kalimatan.

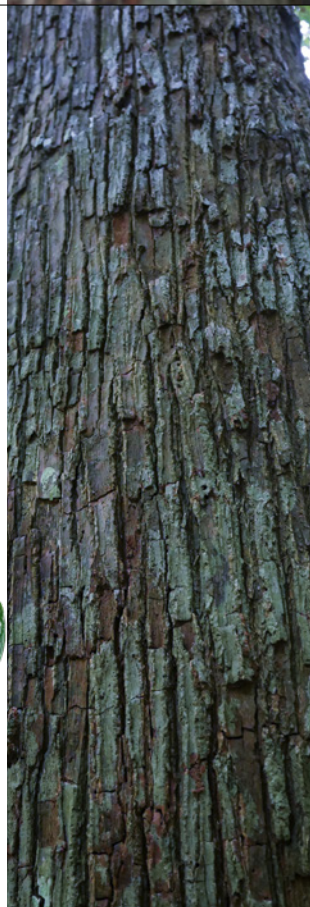
A medium to large tree, reaching up to 36 m in height. The trunk circumference can reach up to 210 cm. Almost all parts of this tree have a garlic-like aroma. The canopy is pointy and dense. The bark is fissured, with small bumps along the trunk. The scales are clearly visible and adhere tightly. The bark is reddish on the outside, turning dark red, with coarse orange spots. The leaves are simple, with a petiole of 15 mm and the tip is weakly notched. The leaf blade is oval-elliptical, measuring 10 x 4 – 22 x 9 cm, with a cuneate apex. The secondary veins are 5 – 6 pairs. The mature fruit is egg-shaped, 4 cm long, and edible. The sap is clear. Habitat: Lowland rainforests up to 150 m above sea level. Sometimes found up to 600 m above sea level; hill slopes and ridges. Distribution Range: Thailand, Malaya also in primary forests and disturbed forests of Sumatra and Borneo.



Buah/Fruit



Duduk daun/Leaf structure



Shorea acuminata Dyer

Ind. Meranti Rambai

Pohon besar, tinggi lebih dari 40 m. Diameter dapat mencapai 180 cm, tetapi sering lebih kecil, batang biasanya berbentuk baik dan memiliki bebas cabang yang baik. Banir rendah atau tinggi tetapi tidak membentang lebar. Tajuk membentang lebar dengan cabang-cabang kecil menjuntai. **Daun** tunggal, tulang daun sekunder 6 – 11 pasang. Daun berbentuk jorong atau bundar telur, 8 – 16 x 3.6 – 7.5 cm pangkal helai daun asimetris dan memiliki domatia. **Bunga** daun mahkota merah anggur tua ; benang sari 15. **Buah** dengan tiga sayap panjang dan dua sayap pendek. Sayap Panjang 3,9 – 4,7 x 0,7 – 0,9 cm, sayap pendek 1,5 – 2,3 x 0,2 – 0,3 cm. Buah sangat banyak di mangsa oleh kumbang penggerek, sehingga permudaan jarang terjadi. **Habitat:** Umum pada lahan bergelombang dan perbukitan hingga ketinggian 400 m dpl. **Kisaran sebaran:** Semenanjung Malaysia bagian Selatan, Sumatera, Lingga.



Duduk daun/Leaf structure

Genus
Shorea

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma

A large tree, reaching more than 40 m in height. The tree has a diameter that can reach up to 180 cm, although it is often smaller. The trunk is typically well-formed, with good branching structure. The buttress is low or high but does not extend widely. The canopy is wide, with small drooping branches. The leaves are simple, with 6–11 pairs of secondary veins. The leaves are elliptical or ovate, measuring 8–16 x 3.6–7.5 cm. The base of the leaf is asymmetrical and has domatia. The flowers have deep burgundy petals, with 15 stamens. The fruit is winged, with three long wings and two short wings. The long wings measure 3.9–4.7 x 0.7–0.9 cm, and the short wings measure 1.5–2.3 x 0.2–0.3 cm. The fruit is often consumed by snout beetles, so regeneration is rare. Habitat: Common in undulating land and hills up to an elevation of 400 m above sea level. Distribution Range: Southern Peninsular Malaysia, Sumatra, Lingga.

Sindora walichii Benth

Ind. Sindur, Sepetir, Tapak hantu

Pohon besar, tinggi dapat mencapai 50 meter dan diameter dapat mencapai lebih 100 cm. Berbanir rendah. Batang lurus berbentuk silinder. Kulit batang mulus dan memiliki tanda seperti lingkaran. Batang memiliki **getah** bening, batang berwarna abu-abu kecoklatan sampai coklat tua. **Daun;** majemuk, anak daun 3 – 4 helai. Berbentuk elips, bulat telur 2,5 x 1,3 inci. Tangkai daun dengan buluh-buluh halus berwarna karat. Kadang hingga tepi helai daun. **Buah** dengan kelopak berduri ramping yang banyak; panjang kearah ujung. **Biji** 1 – 3. **Habitat:** Hutan hujan bawah, lahan bergelombang ringan hingga ketinggian sampai 350 m dpl. **Kisaran sebaran:** Malaya, Sumatra dan Kalimantan.



Buah/Fruit

Getah/Sap



Duduk daun/Leaf structure

A large tree, reaching up to 50 m in height and with a diameter of more than 100 cm. It has a low buttress. The trunk is straight and cylindrical. The bark is smooth, with circular markings. The trunk contains clear sap and is colored from grayish-brown to dark brown. The leaves are compound, with 3 to 4 leaflets. The leaflets are elliptical to elliptic to ovate-shaped measuring 2.5 x 1.3 inches. The petiole has fine hairs that are rust-colored, sometimes extending to the edges of the leaflets. The fruit has a spiny calyx, with numerous slender spikes pointing towards the tip. There are 1 to 3 seeds in each fruit. Habitat: Lowland rainforests, gently undulating land up to an elevation of 350 m above sea level. Distribution Range: Malaya, Sumatra and Borneo.

Genus
Sindora

Family
Leguminosae

Ordo
Rosales

Kelas
Angiosperma

Shorea leprosula Miq NT

Ind. Meranti merah

Pohon besar, tinggi lebih dari 60 m. Tinggi banir mencapai 1,5 m dan membentang, cekung, tipis. Ranting mati bundar. Penumpu lekas gugur. Tangkai daun 0,9 – 2.3 cm, dengan indumentum berupa bulu bulu pendek yang rapat, coklat kuning atau berupa bulu bulu dan sisik-sisik bersama-sama. Daun lonjong, jorong atau bundar telur sungsang, 5,9 – 14,5 x 3,5 – 7,3 cm, menjangat; ujung lancip, luncip pendek atau tumpul; pangkal berbentuk pasak atau membundar. **Daun** tunggal, pertulangan sekunder 10 – 16 pasang, mula-mula lurus, melengkung hanya di dekat tepi daun, bila mengering warnanya sama seperti permukaan daun; pertulangan tersier hampir tidak kelihatan jelas, tegak lurus atau diagonal; domatia kalau ada seperti sisik, datar, berada di ketiak atau meluas di sepanjang pertulangan sekunder. **Bunga** kecil; daun mahkota kuning; benang sari 15. Kelopak Buah dengan tiga sayap panjang dan dua sayap pendek. Sayap panjang 5 – 6,7 x 1 – 1,4 cm, sayap pendek 1,9 – 2,5 x 0,15 – 0,25 cm; Buah geluk 12 – 14 x 7 – 9 mm. **Habitat:** Umum dijumpai bahkan melimpah pada ketinggian dibawah 700 m dpl, lahan pamah, dan lereng lereng bukit serta lembah hutan. **Kisaran sebaran:** Semenanjung Malaysia, Thailand (Changwat, Pattani), Sumatra, Bangka, Belitung dan seluruh Kalimantan.

Genus
Shorea

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma

A large tree, with a height of more than 60 m. The buttress height reaches up to 1.5 m, extending, concave, and thin. The dead twigs are round. The stipules fall off quickly. The petioles are 0.9 – 2.3 cm long, covered with short, dense hairs, yellow-brown, or a combination of hairs and scales. The leaves are oval, elliptical, or obovate, measuring 5.9 – 14.5 x 3.5 – 7.3 cm, leathery; the tip is pointed, either short-pointed or blunt; the base is cuneate or rounded. The leaves are simple, with 10 – 16 pairs of secondary veins, initially straight, curving only near the leaf edges. When dried, the color is similar to the leaf surface. The tertiary venation is almost invisible, either perpendicular or diagonal. If domatia are present, they are scale-like, flat, located in the axils or extending along the secondary veins. The flowers are small; the petal is yellow; there are 15 stamens. The fruit calyx has three long wings and two short wings. The long wings measure 5 – 6.7 x 1 – 1.4 cm, and the short wings measure 1.9 – 2.5 x 0.15 – 0.25 cm. The fruit is an achene, measuring 12 – 14 x 7 – 9 mm. Habitat: Commonly found, even abundant, at elevations below 700 m above sea level, in flat land, hill slopes, and forest valleys.

Distribution Range: Peninsular Malaysia, Thailand (Changwat Pattani), Sumatra, Bangka, Belitung, and throughout Borneo.



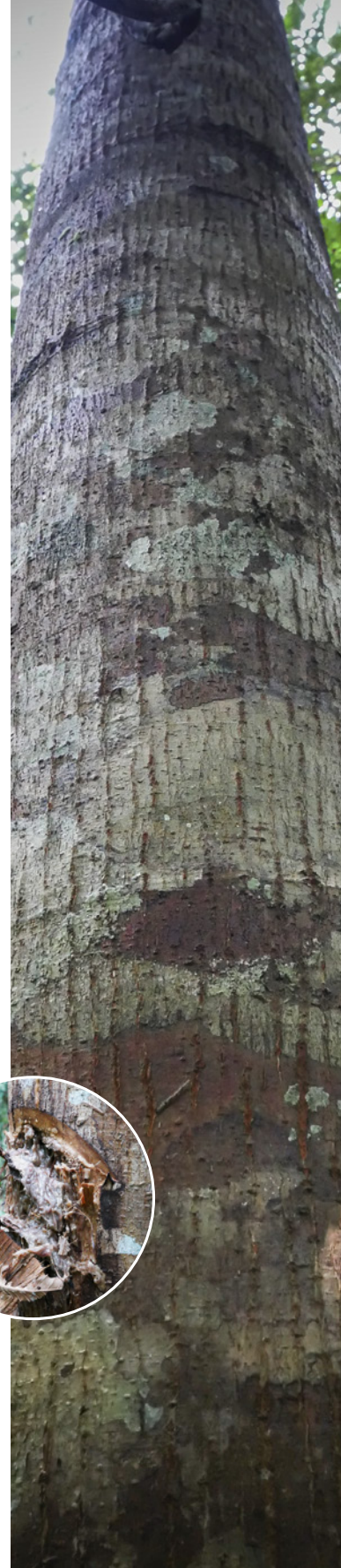
Daun muda bag. baw/Upperside
young leaf



Duduk daun/Leaf structure



Getah/Sap



Shorea macroptera Dyer

Ind. Meranti sarang punai

Pohon sedang hingga besar, Ttnggi 40 m. Diameter dapat mencapai 135 cm tetapi sering lebih kecil. Batang tinggi biasanya bentuknya baik. Tinggi banir mencapai 2,5 m (tetapi sering kurang) bentangan 1,5 m dan tebal 15 cm, membulat, cekung. Ranting mati bundar atau memipih. Penumpu lekas gugur. Tangkai daun 0,9 – 1,6 cm, dengan indumentum berupa bulu bulu pendek yang rapat, coklat kelabu atau coklat. **Daun** lonjong, jorong, 7,7 – 18 x 2,6 – 6 cm, menjangat; sering terlipat ke atas di sepanjang tulang tengah; ujung lancip pendek atau lancip panjang; pangkal berbentuk pasak atau membundar; daun tunggal, pertulangan sekunder 10 – 18 pasang, melengkung di seluruh panjangnya, menonjol tapi lampai, bila mengering warnanya sama dengan helai daun; pertulangan tersier hampir tidak kelihatan jelas atau kelihatan jelas, tegak lurus atau diagonal; kadang dengan domatia yang lokos, datar di ketiak. **Bunga** kecil; daun mahkota putih; benang sari 15. Kelopak buah dengan tiga sayap panjang dan dua sayap pendek. Sayap panjang 7,5 – 13,5 x 1,1 – 3 cm, sayap pendek 1,9 – 9,5 x 0,3 – 1,6 cm; Pangkal kelopak pada buah matang memiliki cuping-cuping kecil; **Buah** geluk 13 – 21 x 8 – 12 mm. **Habitat**: Hutan hujan bawah, berdrainase baik, perbukitan sampai 900 m dpl. **Kisaran sebaran**: Semenanjung Malaysia (tetapi tidak terdapat di Kelantan), Semenanjung Thailand, Sumatra, Singapura, pulau Singkep dan pulau Lingga.

A medium to large tree, reaching 40 m in height. The diameter can reach 135 cm but is often smaller. The trunk is usually well-formed. The buttress height can reach 2.5 m (though often less), with an extension of 1.5 m and a thickness of 15 cm, rounded and concave. The dead branches are round or flattened. The stipules are deciduous. The petioles measure 0.9 – 1.6 cm, with dense short hairs, brownish-gray or brown. The leaves are oval, elliptical, measuring 7.7 – 18 x 2.6 – 6 cm, leathery; often curled upwards along the midrib; the tip is short-pointed or long-pointed; the base is cuneate or rounded. The leaves are simple, with 10 – 18 pairs of secondary veins, curving along their entire length, prominent but relaxed, and when dried, the color is similar to the leaf blade. Tertiary veins are almost invisible or clearly visible, either vertical or diagonal. Occasionally, the leaves have flat, smooth domatia in the axils. The flowers are small; the petals are white; with 15 stamens. The fruit calyx has three long wings and two short wings. The long wings measure 7.5 – 13.5 x 1.1 – 3 cm, and the short wings measure 1.9 – 9.5 x 0.3 – 1.6 cm. The base of the calyx in mature fruit has small lobes. The fruit is an achene, measuring 13 – 21 x 8 – 12 mm. Habitat: Lowland rainforests, with good drainage, in hilly areas up to 900 m above sea level. Distribution Range: Peninsular Malaysia (excluding Kelantan), Peninsular Thailand, Sumatra, Singapore, Singkep Island, and Lingga Island.

Genus
Shorea

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma



Buah/Fruit



Daun bag. atas/Upperside leaf



Daun bag. atas/Upperside leaf



Duduk daun/Leaf structure



Shorea parvifolia Dyer

Ind. Meranti sabut

Pohon besar, Tinggi mencapai 65 m. Diameter dapat mencapai 2 m. Batang lurus berbentuk silinder; banir besar, curam hingga sederhana, tinggi hingga 4 m dan membentang, tebal 20 cm, agak cekuk tidak bercabang, membulat dan berwarna jingga khas pada puncaknya. Tajuk besar, terbuka, setengah bulat, simetris, berbentuk blumkol dengan cabang cabang besar dan banyak menyebar dari ujung batang.

Ranting mati bundar. Penumpu lekas gugur 8 – 12 x 3 – 6 mm, jorong atau bundar telur, lancip atau tumpul. Tangkai daun 0,6 – 1.65 cm, dengan indumentum berupa bulu bulu pendek yang renggang atau rapat, coklat kelabu atau kuning.

Daun lonjong, jorong atau bundar telur, 5 - 9 x 2,5 – 5 cm, menjangat; ujung lancip pendek atau lancip panjang; pangkal membulat, rompong atau setengah bentuk jantung; permukaan atas bila mengering coklat dengan kesan raba licin. **Daun** tunggal, pertulangan sekunder 9 – 13 pasang, mula-mula lurus, melengkung hanya di dekat tepi daun atau melengkung di seluruh panjangnya, hampir tidak terangkat, bila mengering warnanya sama dengan permukaan daun; pertulangan tersier hampir tidak kelihatan jelas atau kelihatan jelas, tegak lurus atau diagonal; domatia, bila ada, terangkat, di ketiak.

Bunga kecil; daun mahkota putih dengan sedikit warna merah jambu di bagian pangkal; benang sari 15. Kelopak buah dengan tiga sayap panjang dan dua sayap pendek. Sayap panjang 6 – 9 x 1 – 1,5 cm, sayap pendek 1,4 – 1,8 x 0,15 – 0,2 cm; pangkal kelopak pada buah matang memiliki cuping-cuping kecil; **Buah** geluk 9 – 16 x 7 – 9 mm.

Habitat: Hutan hujan bawah, berdrainase baik, perbukitan sampai 900 m dpl. **Kisaran sebaran:** Semenanjung Malaysia, Thailand semenanjung, Sumatra, Pulau musala dan kalimantan

A large tree, reaching up to 65 m in height with a diameter of up to 2 m. The trunk is straight and cylindrical. The buttress is large, steep to level, reaching up to 4 m in height and extending 20 cm thick, somewhat concave, unbranched, rounded, and with a characteristic orange color at the top. The canopy is large, open, semi-circular, and symmetrical, shaped like a cauliflower, with large, numerous branches spreading from the tip of the trunk. The dead twigs are round. The stipules are deciduous, measuring $8 - 12 \times 3 - 6$ mm, with an elliptical or ovate shape, either pointed or blunt. The petioles are $0.6 - 1.65$ cm long, with indumentum consisting of short, sparse or dense hairs, brown-gray or yellow. The leaves are oval, elliptical, or ovate-shaped, measuring $5 - 9 \times 2.5 - 5$ cm, with a pointed tip; the base is rounded, hollow, or heart-shaped. The upper surface, when dried, is brown with a smooth texture to the touch. The leaves are simple, with 9 – 13 pairs of secondary veins. Initially straight, they curve only near the leaf edges or curve along the entire length. The veins are almost flat, and when dried, their color is the same as the leaf surface. The tertiary veins are almost invisible or clearly visible, running perpendicular or diagonally. Domatia, if present, are raised and located in the axils. The flowers are small; the petals are white with a hint of pink near the base; there are 15 stamens. The fruit calyx has three long wings and two short wings. The long wings measure $6 - 9 \times 1 - 1.5$ cm, and the short wings measure $1.4 - 1.8 \times 0.15 - 0.2$ cm. The base of the calyx on the mature fruit has small lobes. The fruit is an achene, measuring $9 - 16 \times 7 - 9$ mm. Habitat: Lowland rainforests with good drainage, hills up to 900 m above sea level. Distribution Range: Peninsular Malaysia, Peninsular Thailand, Sumatra, Musala Island dan Borneo

Genus
Shorea

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma



Daun bag. bawah/Underside leaf



Daun bag. atas/Upperside leaf



Duduk daun/Leaf structure

Shorea peltata Symington VU

Ind. Meranti kuning

Pohon kecil hingga sedang, diameter dapat mencapai 50 cm. Batang sering tidak teratur; tidak berbanir. Permukaan pepagan coklat dengan bidang-bidang kecil berwarna muda, licin tetapi dengan bagian berbintil yang meneteskan damar yang agak kekuning-kuningan. Penumpu lekas gugur. Tangkai daun 1.8 – 3.6 cm, lokos. Daun bundar telur, 8 - 16 x 3.6 – 7.5 cm, mengertass; kesan raba licin dari kedua permukaannya, berbentuk perisai; ujung lancip panjang; permukaan atas bila mengering coklat kekuning-kuningan, pudar, lokos; pertulangan sekunder 8 – 11, melengkung di seluruh panjangnya. Jika mengering warnanya sama dengan permukaan daun; pertulangan tersier terlihat jelas. **Bunga** kecil; Daun mahkota kuning; benang sari 15. Kelopak buah tidak bersayap, daun kelopak 0,5 -0,8 x 0,4 – 0,5 cm; buah geluk 24 – 30 x 6 – 9 mm. **Habitat:** Umum secara local, bahkan mengelompok di lahan datar yang berdrainase baik, diperbukitan atau datar; hanya berupa pohon kecil di Johor dan Kalimantan tetapi berukuran sedang dipegunungan Tigapuluh di Sumatra. **Kisaran sebaran:** Semenanjung Malaysia (Johor), Sumatra dan kalimantan

A small to medium tree, with a diameter of up to 50 cm. The trunk is often irregular and lacks buttresses. The surface of the bark is brown with small light-colored patches, smooth but with knobby sections that exude resin that is slightly yellowish. The stipules are deciduous. The petioles are 1.8–3.6 cm long, smooth. The leaves are ovate, measuring 8 - 16 x 3.6 – 7.5 cm, papyraceous; both surfaces feel smooth to the touch, shield-shaped with a long-pointed tip. The upper surface turns brownish-yellow and pale when dry, with a smooth texture; the secondary veins are 8 – 11, curving along their entire length. When dry, the color matches the surface of the leaf, and the tertiary veins are clearly visible. The flowers are small; yellow petals; 15 stamens. The fruit calyx is wingless, with sepals measuring 0.5–0.8 x 0.4–0.5 cm. The fruit is an achene, measuring 24–30 x 6–9 mm. Habitat: Common locally, often clustering in flat areas with good drainage, in hills or flatlands. It is only a small tree in Johor and Borneo, but grows to a medium size in the Tigapuluh Mountains in Sumatra. Distribution Range: Peninsular Malaysia (Johor), Sumatra and Borneo.

Genus
Shorea

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma



Duduk daun/Leaf structure



Biji/Seeds



Bakal buah/Fruit bud



Shorea singkawang Miq

Ind. Meranti sabut

Pohon sedang hingga besar, tinggi mencapai 40 m. Diameter dapat mencapai 130 cm. Batang kerap ditemukan berbentuk agak jelek; Banir tidak teratur, kadang tinggi mencapai tinggi 3.6 m, tetapi biasanya lebih rendah. Tajuk berdaun agak besar dan rapat. Ranting mati bundar. Penumpu lekas gugur 8 – 13 x 2,5 – 4 mm, segi tiga, lancip. Tangkai daun 1,2 – 2.6 cm, dengan indumentum yang renggang atau rapat, coklat atau coklat kuning. **Daun** berbentuk lanset atau jorong, 9,5 – 22,5 x 4 – 9,3 cm, menjangat; ujung lancip Panjang; Pangkal berbentuk pasak atau membundar, tidak simetris; permukaan atas bila mengering coklat agak lembayung pudar, dengan kesan raba licin; Daun Tunggal, Pertulangan sekunder 8 – 13 pasang, mula mula lurus, melengkung hanya di dekat tepi daun atau melengkung di seluruh panjangnya, bila mengering warnanya sama dengan permukaan daun; pertulangan tersier hampir tidak kelihatan jelas atau kelihatan jelas, tegak lurus; Domatia tidak ada. **Bunga** kecil; Daun mahkota merah; benang sari 15. Kelopak Buah dengan tiga sayap Panjang dan dua sayap pendek. Sayap Panjang 3,5 – 4 x 0,6 – 0,9 cm, sayap pendek 0,5 – 1,2 x 0,2 – 0,4 cm; Buah geluk 23 – 40 x 15 – 20 mm. **Habitat**; Hutan hujan bawah, berdrainase baik, perbukitan sampai 900 m dpl. **Kisaran sebaran**; Semenanjung Malaysia, Thailand semenanjung, Sumatra, Lingga

A medium to large tree, reaching a height of up to 40 m. The diameter can reach 130 cm. The trunk is often found to be somewhat unattractive in shape; the buttress is irregular, sometimes reaching up to 3.6 m in height, but usually shorter. The canopy is moderately large and dense. The dead twigs are round. The stipules are deciduous, measuring 8 – 13 x 2.5 – 4 mm, triangular and pointed. The petioles are 1.2 – 2.6 cm long, with indumentum that is either sparse or dense, brown or yellowish-brown. The leaves are lanceolate or elliptical, measuring 9.5 – 22.5 x 4 – 9.3 cm, leathery; the tip is long pointed; the base is cuneate or rounded, asymmetric. The upper surface, when dried, is a dull brownish-purple, smooth to touch. The leaves are simple, with 8 – 13 pairs of secondary veins, initially straight, curving only near the edges of the leaf or curving along its entire length. When dried, the color is the same as the leaf surface. The tertiary venation is almost invisible or clearly visible, vertical. Domatia are absent. The flowers are small, the petals are red, with 15 stamens. The fruit calyx has 3 long wings and 2 short wings. The long wings measure 3.5 – 4 x 0.6 – 0.9 cm, and the short wings measure 0.5 – 1.2 x 0.2 – 0.4 cm.

The fruit is an achene, measuring 23 – 40 x 15 – 20 mm. Habitat: Lowland rainforests, with good drainage, in hilly areas up to 900 m above sea level. (upper elevation limit: 600m, lower limit 200m) Distribution Range: Peninsular Malaysia, Peninsular Thailand, Sumatra, Lingga



Helai daun mati/Dead leaf



Buah/Fruit

Genus
Shorea

Family
Dipterocarpaceae

Ordo
Malvales

Kelas
Angiosperma

Sloetia elongate (Miq) Corner

Ind. Tempinis

Genus
Sloetia

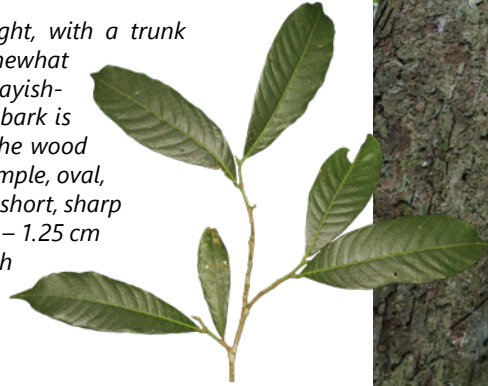
Family
Moraceae

Ordo
Rosales

Kelas
Angiospermae

Pohon sedang dengan mencapai tinggi 33 m dan Diameter batang mencapai 80 cm. Batang agak terpilin. Tanpa penopang yang besar. Kulit batangnya berwarna coklat abu abu; Halus hingga bercelah dangkal; Kulit kayu bagian dalam berwarna kuning mudah atau keputihan dengan sedikit getah putih,. **Getah** kayu berwarna putih keruh dan encer. **Daun** tunggal, lonjong 10 – 37,5 x 2,5 – 7,5 cm, ujung runcing pendek, Pangkal tidak rata, tangkai 0-25-1-25. Pertulangan sekunder 10 – 20 pasang, tulang tersier terlihat di kedua sisinya. **Habitat**; Hutan hujan dataran rendah, biasanya dekat dengan daerah aliran Sungai atau anak Sungai. **Kisaran sebaran**; Penang, trengganu, Pahang, perak, negeri Sembilan, Selangor dan johor, Riau.

A medium tree, reaching up to 33 m in height, with a trunk diameter of up to 80 cm. The trunk is somewhat twisted, without large buttresses. The bark is grayish-brown; smooth to shallowly fissured. The inner bark is pale yellow or whitish with a little white sap. The wood sap is cloudy white and watery. The leaves are simple, oval, measuring 10 – 37.5 x 2.5 – 7.5 cm. The apex is a short, sharp point, and the base is uneven. The petiole is 0.25 – 1.25 cm long. The secondary veins are 10 – 20 pairs, with tertiary veins visible on both sides. Habitat; Lowland rainforests, usually near riverbanks or tributaries. Distribution Range: Penang, Terengganu, Pahang, Perak, Negeri Sembilan, Selangor, Johor, Riau, Sumatra.



Duduk daun/Leaves structure



Styrax benzoin Dryand

Ind. Kemenyan

Genus
Styrax

Family
Styracaceae

Ordo
Ebenales

Kelas
Angiospermae

Pohon Sedang hingga besar, tinggi dapat mencapai 30 m. Lingkar batang mencapai 180 cm, Berbanir. Kulit kayu halus hingga retak vertical atau fisur halus. Kulit bagian lembut, coklat hingga merah tua, merah muda atau merah keunguan. Gubal berwarna putih. **Daun** Tunggal, Tulang daun sekunder 5 – 9 pasang; Bagian bawah tampak berkilau karena buluh buluh Bintang mikroskopis, yang lengannya memancar ke banyak bidang. **Buah** matang Bulat. **Getah** Bening. **Habitat**: Hutan dataran rendah hingga ketinggian 800 m dpl. **Kisaran sebaran**; Semua daerah bagian kecuali perlis, dan kedah, Malaya, pada hutan primer dan hutan terganggu Sumatra dan Jawa.



Buah matang/
Ripe fruit



Duduk daun/Leaf structure

A medium to large tree, reaching up to 30 m. The trunk circumference can reach 180 cm, and has buttresses. The bark is smooth to slightly fissured with vertical cracks or fine fissures. The inner bark is soft, brown to dark red, pinkish or purplish-red. The sapwood is white. The leaves are simple, with 5 to 9 pairs of secondary veins. The underside of the leaves is glossy due to microscopic star-shaped hairs, which radiate in multiple directions. The mature fruit is spherical. The sap is clear. Habitat: Lowland forests up to an elevation of 800 m above sea level. Distribution Range: Most regions of Malaya, except for Perlis and Kedah, in primary and disturbed forests in Sumatra and Java.



Swintonia schwenkii (T. & B.)Heinrick, Schwenk

Ind. Merpauh periang

Pohon sedang hingga besar, tinggi dapat mencapai 50 m. Lingkar batang mencapai 210 cm. Berbanir tinggi hingga 3 m. Kulit kayu berwarna abu abu kecoklatan atau coklat kemeraan , berbintik – bitnik dangkal. Getah hitam.



Percabangan daun/Leaf branching

Daun Tunggal, Tulang daun sekunder 14 – 20 pasang; tulang daun tersier dan retikula terlihat di kedua permukaan. Bunga berwarna putih. Berbiji bulat telur, lonjong atau ellipsoid, 1,75 – 2 x 0,75 – 1 cm, dengan kelopak besar berukuran 5,5 – 7 x 0,75 – 1 cm. Habitat Hutan dataran rendah, bergelombang hingga ketinggian 300 m dpl. Kisaran sebaran; Kedah, Penang, Trengganu, Pahang, Selangor, Negeri Sembilan, Malaka, Johore, Singapura, Burma,Thailand, Cambodia Sumatra.

A medium to large tree, reaching up to 50 m in height, with a trunk circumference of up to 210 cm. The tree has a high buttress reaching up to 3 m. The bark is greyish-brown to reddish-brown, with shallow spots. The sap is black. The leaves are simple, with 14 – 20 pairs of secondary veins. Tertiary veins and the reticulate network are visible on both leaf surfaces. The flowers are white. The seed is ovate, oval, or ellipsoid in shape, measuring 1.75 – 2 x 0.75 – 1 cm, with large sepals measuring 5.5 – 7 x 0.75 – 1 cm. Habitat: Lowland forests, undulating land, up to 300 m above sea level. Distribution Range: Kedah, Penang, Trengganu, Pahang, Selangor, Negeri Sembilan, Malaka, Johore, Singapore, Burma, Thailand, Cambodia, Sumatra.

Genus
Swintonia

Family
Anacardiaceae

Ordo
Sapindales

Kelas
Angiosperma

Xanthophyllum sp.C

Ind. Minyak berok, menjalin, kayu lilin

Pohon besar, tinggi dapat mencapai 120 ft dan Lingkar batang 6 ft. Batang berkolom, dengan Penopang hingga 20 ft. Kulit batang berwarna abu-abu; Sangat kasar, sisik besar yang mengelupas tidak beraturan. **Daun**;Tunggal, tankai 0,3 – 0,4 in. Bilah 3,8 x 1,2 – 6,7 x 2,7 in; ujung runcing; Pangkal runcing; mongering abu-abu kehijauan sampai kuning; Pelepah agak menonjol di atas. Tulang daun sekunder 6 – 7 pasang, tulang daun tersier reticulate sampai samar-samar seperti tangga. **Buah** bulat, dengan diameter hingga 3 inci.**Biji** 1.Memiliki dinding yang sangat tebal, keras dan berpasir. Beraroma harum citrus. **Habitat** Hutan hujan bawah, lahan bergelombang dengan drainase baik hingga 1200m dpl. **Kisaran sebaran**; Pahang, Trengganu, Negeri Sembilan,Malaka, Sumatra.



Getah/Sap



Buah/Fruit



Duduk daun/Leaf structure

A large tree, reaching up to 120 feet in height, with a trunk circumference of 6 feet. The trunk is columnar, with buttresses up to 20 feet. The bark is gray, very rough, with large, irregularly peeling scales. The leaves are simple, with a petiole of 0.3 – 0.4 inches. The blade measures 3.8 x 1.2 – 6.7 x 2.7 inches; the tip is pointed, and the base is tapered. The leaf turns grayish-green to yellow when dry. The petiole is slightly prominent above. Secondary veins are 6 – 7 pairs, and the tertiary veins are reticulate or faintly ladder-like. The fruit is spherical, with a diameter of up to 3 inches. The seed has very thick, hard, and sandy walls, and the fruit emits a citrusy fragrance. Habitat: Lowland rainforests, in undulating areas with good drainage up to 1200 m above sea level. Distribution Range: Pahang, Trengganu, Negeri Sembilan, Malaka, Sumatra.

Genus
Xanthophyllum

Family
Polygalaceae

Ordo
Polygalales

Kelas
Angiosperma

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DAFTAR JENIS POHON DI PT ROYAL LESTARI UTAMA

No	Spesies	Nama lokal	Family	Status IUCN
1	<i>Anisophyllea apetala</i>	Delek	Anisophylleaceae	VU
2	<i>Anisoptera costata</i>	Mersawa kesat	Dipterocarpaceae	EN
3	<i>Anisoptera laevis</i>	Mersawa Durian	Dipterocarpaceae	VU
4	<i>Anisoptera megistocarpa</i>	Mersawa tembaga	Dipterocarpaceae	CR
5	<i>Aquilaria malaccensis</i>	Gaharu	Thymelaeaceae	CR
6	<i>Artocarpus elasticus</i>	Benda, Terap, Tekalong	Moraceae	LC
7	<i>Artocarpus integer</i>	Cempedak	Moraceae	LC
8	<i>Artocarpus rigidus</i>	Tempunik	Moraceae	LC
9	<i>Baccaurea motleyana</i>	Rambai	Euphorbiaceae	LC
10	<i>Baccaurea reticulata</i>	Tampui	Euphorbiaceae	LC
11	<i>Barringtonia pendula</i>	Putat	Lecythidaceae	NE
12	<i>Bouea macrophylla</i>	Raman daun besar, Kundang	Anacardiaceae	LC
13	<i>Buchanania sessilifolia</i>	Otak udang	Anacardiaceae	NE
14	<i>Calophyllum incrassatum</i>	Bintangur daun panjang	Calophyllaceae	NE
15	<i>Calophyllum pulcherrimum</i>	Bintangur gasing	Calophyllaceae	LC
16	<i>Calophyllum rubiginosum</i>	Bintangur daun karat	Calophyllaceae	LC
17	<i>Calophyllum sclerophyllum</i>	Bintangur jangkang	Calophyllaceae	LC
18	<i>Camnosperma auriculatum</i>	Terentang	Anacardiaceae	LC
19	<i>Castanopsis schefferiana</i>	Berangan	Fagaceae	NT
20	<i>Cinnamomum subcuneatum</i>	Medang manis	Lauraceae	LC
21	<i>Cotylelobium melanoxydon</i>	Giam, Rasak, Raru	Dipterocarpaceae	LC
22	<i>Cratoxylum formosum</i>	Mampat, Derum	Hypericaceae	LC
23	<i>Dacryodes rostrata</i>	Kedondong kerut	Burseraceae	LC
24	<i>Dialium platysepalum</i>	Asam keranji	Leguminosae	NE
25	<i>Dillenia albiflos</i>	Simpur putih	Dilleniaceae	LC
26	<i>Dillenia grandifolia</i>	Simpur gajah	Dilleniaceae	VU
27	<i>Dipterocarpus crinitus</i>	Keruing bulu, Keruing mempelas, Simarhalung	Dipterocarpaceae	NT
28	<i>Dipterocarpus eurhynchus</i>	Keruing semanto minyak	Dipterocarpaceae	LC
29	<i>Dipterocarpus hasseltii</i>	Keruing Ropol	Dipterocarpaceae	EN
30	<i>Dyera costulata</i>	Jelutung	Apocynaceae	LC
31	<i>Diospyros toposioides</i>	Arang arang	Ebenaceae	NE
32	<i>Elatiospermum tapos</i>	Perah	Euphorbiaceae	LC
33	<i>Endospermum diadenum</i>	Sendok sendok	Euphorbiaceae	LC
34	<i>Eurycoma longifolia</i>	Pasak bumi, Tongkat ali	Simaroubaceae	LC
35	<i>Eusideroxylon zwageri</i>	Bulian, Ulinw, kayu besi borneo	Apocynaceae	VU
36	<i>Fagraea fragrans</i>	Tembesu hutan	Loganiaceae	LC
37	<i>Ficus variegata</i>	Ara	Moraceae	LC
38	<i>Garcinia parvifolia</i>	Meranti sabut	Guttiferae	LC
39	<i>Gironniera nervosa</i>	Siluk	Ulmaceae	LC
40	<i>Gymnacranthera bancana</i>	Saga hutan	Myristicaceae	NE
41	<i>Hopea sangal</i>	Merawan batu, cengal	Dipterocarpaceae	VU

No	Spesies	Nama lokal	Family	Status IUCN
42	<i>Hydnocarpus kunstleri</i>	Setumpul	Achariaceae	LC
43	<i>Irvingia malayana</i>	Kayu batu	Simaroubaceae	LC
44	<i>Ixonanthes icosandra</i>	Pagar - pagar	Linaceae	LC
45	<i>Knema hookeriana</i>	Mendarahan	Myristicaceae	NE
46	<i>Knema laurina</i>	Mendarahan	Myristicaceae	LC
47	<i>Kokoona reflexa</i>	Perupuk bukit	Celastraceae	LC
48	<i>Koompassia malaccensis</i>	Kempas	Leguminosae	LC
49	<i>Lithocarpus encleisacarpus</i>	Mempening	Fagaceae	LC
50	<i>Lithocarpus lucidus</i>	Mempening	Fagaceae	NE
51	<i>Lithocarpus urceolaris</i>	Mempening daun besar	Fagaceae	LC
52	<i>Litsea firma</i>	Medang	Lauraceaceae	LC
53	<i>Macaranga pruinosa</i>	Mahang putih	Euphorbiaceae	LC
54	<i>Mangifera foetida</i>	Ambacang hutan	Anacardiaceae	LC
55	<i>Mesua nuda</i>	Penaga lilin	Guttiferae	DD
56	<i>Monocarpia marginalis</i>	Antui	Annonaceae	LC
57	<i>Myristica lowiana</i>	Mendarahan	Myristicaceae	NT
58	<i>Ochanostachys amentacea</i>	Petaling	Olaceae	LC
59	<i>Ormosia bancana</i>	Saga hutan	Leguminosae	LC
60	<i>Palaquium hexandrum</i>	Balam	Sapotaceae	NT
61	<i>Palaquium stellatum</i>	Balam	Sapotaceae	NT
62	<i>Parashorea aptera</i>	Tembalun	Dipterocarpaceae	EN
63	<i>Parashorea lucida</i>	Damar laut, meranti hitam	Dipterocarpaceae	NT
64	<i>Parkia speciosa</i>	Petai	Leguminoceae	LC
65	<i>Payena dasyphylla</i>	Nyato ekor	Sapotaceae	EN
66	<i>Pimelodendron griffithianum</i>	Panai - panai	Euphorbiaceae	LC
67	<i>Pithecelobium bubalinum</i>	Kabau	Leguminoceae	LC
68	<i>Porterandia anisophylla</i>	Tunjuk belukar	Rubiaceae	LC
69	<i>Pyrenaria acuminata</i>	Sebalik sumpah	Anisophylleaceae	LC
70	<i>Rhodamnia cinerea</i>	Mempuyan	Myrtaceae	LC
71	<i>Santiria rubiginosa</i>	Kedondong	Burseraceae	LC
72	<i>Sarcotheca griffithii</i>	Belimbing hutan	Oxalidaceae	LC
73	<i>Scaphium macropodium</i>	Merpayang, Kembang semangkok	Sterculiaceae	LC
74	<i>Scorodocarpus borneensis</i>	Kulim	Olaceae	LC
75	<i>Shorea acuminata</i>	Meranti Rambai	Dipterocarpaceae	LC
76	<i>Shorea leprosula</i>	Meranti merah	Dipterocarpaceae	NT
77	<i>Shorea macroptera</i>	Meranti sarang punai	Dipterocarpaceae	LC
78	<i>Shorea parvifolia</i>	Meranti sabut	Dipterocarpaceae	LC
79	<i>Shorea peltata</i>	Meranti kuning	Dipterocarpaceae	VU
80	<i>Shorea singkawang</i>	Meranti sabut	Dipterocarpaceae	VU
81	<i>Sindora wallichii</i>	Sindur, sepetir, tapak hantu	Leguminosae	LC
82	<i>Sloetia elongata</i>	Tempinis	Moraceae	LC

No	Spesies	Nama lokal	Family	Status IUCN
83	<i>Styrax benzoin</i>	Kemenyan	Styracaceae	LC
84	<i>Swintonia schwenkii</i>	Merpauh periang	Anacardiaceae	NE
85	<i>Xanthophyllum sp.C</i>	Minyak berok, menjalin, kayu lilin	Polygalaceae	NE

Informasi detail :

Status IUCN merupakan kategori keterancaman suatu spesies berdasarkan IUCN-Redlist Databook: NE: Not Evaluated; DD: Data deficient; LC: Least Concern; NT: Near Threatened; VU: Vulnerable; EN: Endangered dan CR: Critically Endangered

Penjelasan:

Not Evaluated (NE): kategori untuk taksa yang masih belum pernah di nilai status kepunuhannya.

Data Deficeint (DD): kategori untuk taksa yang datanya masih belum mencukupi untuk dinilai status kepunuhannya.

Least Concern (LC): kategori untuk taksa yang telah dinilai dan tidak masuk dalam status keterancaman.

Near Threatened (NT): kategori untuk taksa yang mendekati status terancam untuk saat ini, namun statusnya dapat naik menjadi terancam di kemudian hari

Vulnerable (VU): kategori untuk taksa yang memiliki resiko keterancaman yang tinggi yang populasinya telah menurun sebesar 50% - 70% dalam 10 tahun, dengan populasi kurang dari 1000 dan faktor lainnya.

Endangered (EN): kategori untuk taksa yang memiliki resiko kepunahan yang sangat tinggi dengan jumlah populasi di alam yang kurang dari 250 individu dan faktor lainnya.

Critically Endangered (CR): kategori untuk taksa yang memiliki resiko kepunahan yang sangat tinggi dengan jumlah populasi di alam yang kurang dari 50 individu dan faktor lainnya.

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Tentang Penulis/*About the Author*

Tugio



Tugio atau yang lebih dikenal oleh rekan-rekannya dengan nama Eggy, adalah anak bungsu dari 6 bersaudara. Lahir pada tahun 1981 di Kabupaten Tapanuli Utara, Sumatra Utara. Masa kecil hingga remajanya ia habiskan di kawasan transmigrasi di Kabupaten Kampar, Riau, sebelum melanjutkan pendidikan menengah kejuruan di Kota Pekanbaru pada tahun 1998 dengan mengambil jurusan Elektronika Komunikasi.

Namun, seiring berjalannya waktu, Tugio menyadari bahwa bidang tersebut bukanlah passion-nya, sehingga pada tahun 2004, ia memutuskan untuk berhenti bekerja dan melanjutkan pendidikan tinggi di Universitas Lancang Kuning, dengan mengambil jurusan Teknologi Hasil Hutan dan menyelesaikan studinya pada tahun 2012.

Selama masa kuliah, Tugio aktif dalam berbagai kegiatan lapangan. Pengalamannya tersebut membawanya bergabung selama lebih dari 15 tahun dalam kegiatan survey dan monitoring Harimau Sumatra bersama WWF Indonesia. Dalam perannya, Tugio terlibat secara aktif dalam kegiatan survei dan pemantauan satwa liar di berbagai wilayah di Sumatra. Kegiatan lapangan yang dijalani telah memberikan banyak kesempatan belajar, membuka wawasan baru, serta memunculkan berbagai ide dan inovasi.

Selain survei dan monitoring satwa liar, Tugio juga terlibat dalam kegiatan survei dan eksplorasi lainnya, termasuk Analisis Vegetasi di sejumlah lokasi di Riau, seperti TN Tesso Nilo, SMB Bukit Rimbang Bukit Baling, TN Bukit Tigapuluh, dan beberapa kawasan lainnya. Sejumlah laporan hasil survei lapangan dan penilaian telah disusun berdasarkan aktivitas-aktivitas tersebut.

Buku ini merupakan karya tulis pertama Tugio dalam bentuk buku. Ia masih menyimpan harapan untuk dapat terus menulis dan mendokumentasikan pengalaman serupa dari berbagai daerah lainnya di Indonesia.

Tugio, more commonly known by his friends as Eggy, is the youngest of six siblings. He was born in 1981 in North Tapanuli Regency, North Sumatra. His childhood and teenage years were spent in a transmigration area in Kampar Regency, Riau, before continuing his vocational education in Pekanbaru in 1998, majoring in Communication Electronics.

However, Tugio eventually realized that it was not his true passion. In 2004, he made the decision to quit his job and pursue higher education at Universitas Lancang Kuning, majoring Forest Product Technology. He completed his studies and graduated in 2012.

During his university years, Tugio was actively involved in field activities. His experiences led him to work for over 15 years in Sumatran tiger survey and monitoring programs with WWF Indonesia. In this role, Tugio was deeply engaged in various wildlife survey and monitoring efforts across Sumatra. These field activities provided him with valuable learning opportunities, new insights, ideas, and innovations.

In addition to wildlife surveys and monitoring, Tugio was also consistently involved in exploration and ecological survey efforts, including vegetation analysis in several areas in Riau, such as Tesso Nilo National Park, Bukit Rimbang Bukit Baling Wildlife Reserve, Bukit Tigapuluh National Park, and others. A number of field survey reports and assessments have been produced based on these activities.

This book is Tugio's first authored publication. He hopes to continue writing similar works that document biodiversity and conservation efforts in other regions across Indonesia.



PT. RLU sebagai produsen karet alam, memiliki komitmen yang kuat untuk menjaga kelestarian ekosistem hutan serta meningkatkan kesejahteraan masyarakat yang tinggal di sekitar wilayah konsesi. Buku ini merupakan bukti nyata atas upaya berkelanjutan yang dilakukan dalam melestarikan kawasan hutan High Conservation Value (HCV). Buku panduan lapangan ini menyajikan informasi yang komprehensif mengenai jenis-jenis pohon yang umum dijumpai di sepanjang jalur patroli dalam kawasan konsesi di Jambi. Deskripsi terperinci yang dilengkapi dengan foto bagian-bagian tumbuhan disusun untuk mempermudah proses identifikasi terhadap spesies pohon yang ditemui selama kegiatan patroli.

PT. RLU, as a producer of natural rubber, is committed to the preservation of forest ecosystems and improving the quality of life of communities around its concession area. This book serves as tangible evidence of PT. RLU's efforts in forest conservation within the High Conservation Value (HCV) area. This field guide contains information about tree species that can be found along the patrol routes within PT. RLU's concession area in Jambi. Detailed plant descriptions along with photographs of different plant parts will help you identify the trees you encounter during your patrol.



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Natural Rubber Indonesia