

Online Profile

Rubroshorea stenoptera

(Red Meranti)

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CONSERVATION STATUS

IUCN RedList

Near-Threatened (2019)

CITES

This species is not listed in the CITES Appendices

Government of Indonesia

Not Protected (Regulation of the Minister of Forestry Number 106 of 2018)



OVERALL DISTRIBUTION

Indonesia, Malaysia

OVERVIEW

Rubroshorea stenoptera, commonly known as tengkawang, is one of the large-fruited species of the Dipterocarpaceae family and is an endemic species found in Borneo, Sumatra, Thailand, and Malaysia. The existence of *Rubroshorea stenoptera* has declined due to uncontrolled logging activities, making the plant difficult to find. Moreover, the natural habitat of *Rubroshorea stenoptera* has decreased by 30-50% in Kalimantan.

Citation

Nisa NF, Nabilla YN, Septianingrum D, Ulfa A, Anggraeni N, Fadhil MH, Hendrawan W, Putri ADC. 2025. Indonesia Species Profile of *Rubroshorea stenoptera* (Malvales: Dipterocarpaceae). *SSRS INABIODIV Species Profile and Information*. Vol.1: No. 0004. <https://publishing.ssrs.or.id/ojs/index.php/ssrs-inabiodiv>

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IDENTITY

Scientific Name

Rubroshorea stenoptera

Synonym

Shorea stenoptera

Common Name (Indonesia)

Meranti Merah

Indonesia Local Name

Tengkawang Layar, Tengkawang Tungkul Merah, Tengkawang Rambai, Tengkawang Telur

CLASSIFICATION

Kingdom	:	Plantae
Division	:	Magnoliophyta
Class	:	Magnoliopsida
Order	:	Malvales
Family	:	Dipterocarpaceae
Genus	:	<i>Rubroshorea</i>
Species	:	<i>Rubroshorea stenoptera</i>

DESCRIPTION

Rubroshorea stenoptera mostly growth at sandy soil in alluvial areas and lowlands. Tree height up to 11.3 - 17.8 m, with clear bole height (CBH) 5.1 - 10.3 m. Stem is cylindrical, light brown, texture scaly but peels like paper, internode length 3 cm - 6 cm, diameter stem around 27.4 cm - 142.4 cm,. Leaves is oblong in shape, the base subcordate, the apex is acuminate, the margin entire, white spots on lamina, with length 25 cm – 44.5 cm and width 11.1 cm – 20.7 cm; The petiole is 2.5 cm – 4 cm long; the leaf attachment type is petiolate; the leaf arrangement is alternate; the venation is pinnately veined; the adaxial surface is smooth in texture and dark green in color, the abaxial surface is slightly rough in texture and light green in color, with 15 – 19 veins, greenish-brown branches, purple-red stipules. Inflorescence is a compound spike, the flowers are light green, the flower length is 0.5 cm – 0.9 cm and the width is 0.3 cm – 0.4 cm; the primary inflorescence stipules are 1.2 cm – 2 cm long and 1 cm – 1.5 cm wide; the peduncle is 3.9 cm - 4 cm; rachis of 13.9 cm - 16.2 cm. Fruit is ovoid in shape, with a samara type, and has 5 wings (3 large - 2 small).

ECOLOGY AND HABITAT

Rubroshorea stenoptera lives in the forests of West Kalimantan and Sumatra, in sandy soil in alluvial areas and lowlands. *Rubroshorea stenoptera* grows at an altitude of around 300-650 meters above sea level. The habitat conditions of *Rubroshorea stenoptera* vary, with some living in dry soil conditions and others living in lowland forests with wet sediment (Tampubolon *et al.* 2018).

DISTRIBUTION

Distribution Region

Regional Distribution in Indonesia
Kalimantan Island

Distribution Type

Global

Distribution Map

Rubroshorea stenoptera occurrence in Indonesia

Sumber data: GBIF

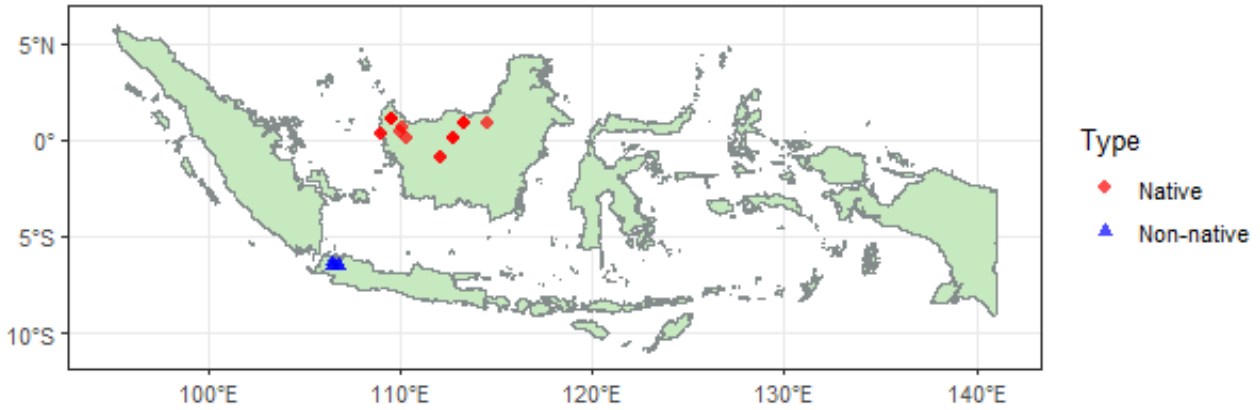


Figure 1. Distribution map *Rubroshorea stenoptera* in Indonesia by GBIF

Distribution Map Based on Indonesia Bioregion – Borneo

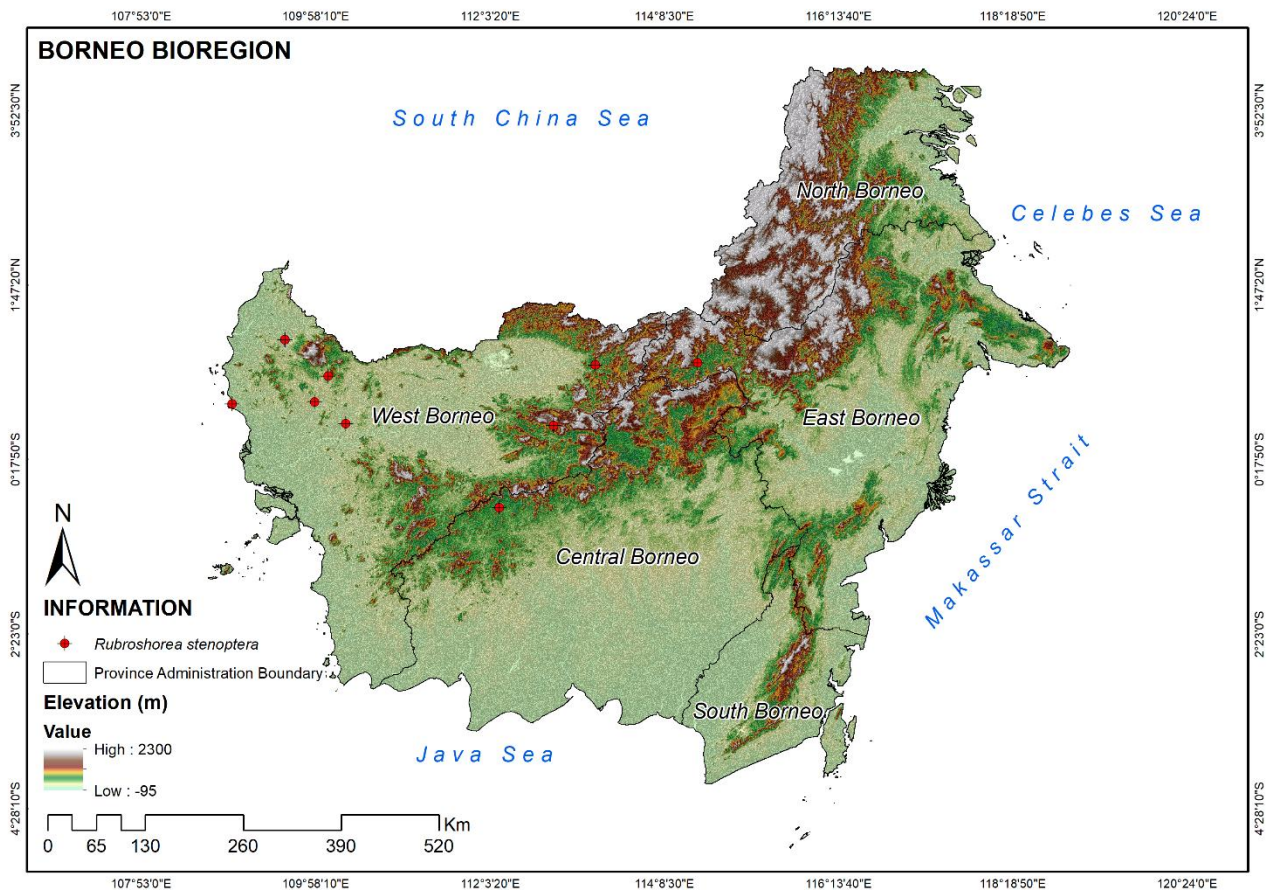


Figure 2. Distribution map *Rubroshorea stenoptera* in Borneo bioregion

SPECIES VALUE

Ecological Value

Rubroshorea stenoptera serves as an agent of forest management recovery for the sustainability of forests in the future.

Economic Value

This species can be used as raw material for making illipe butter, which was used in wet noodles, black butter rice, and lipstick. It is also used as a substitute in chocolate manufacturing formulas.



Socio-Cultural Value




Not identified yet.


THREATS

Agriculture, Forest Plantation, and Forest Logging

DOCUMENTATION

Picture	Title	Caption
	<p>Habitat</p>	<p><i>Rubroshorea stenoptera</i>, Meranti Research Forest, Mount Dahu, leuwiliang, Bogor Regency, West Java. 29th May, 2025.</p>
	<p>Stem with scaly texture</p>	<p><i>Rubroshorea stenoptera</i>, Meranti Research Forest, Mount Dahu, leuwiliang, Bogor Regency, West Java. 29th May, 2025.</p>

	<p>Inside of stem</p>	<p><i>Rubroshorea stenoptera</i>, Meranti Research Forest, Mount Dahu, leuwiliang, Bogor Regency, West Java. 29th May, 2025.</p>
	<p>Adaxial leaves</p>	<p><i>Rubroshorea stenoptera</i>, Meranti Research Forest, Mount Dahu, Leuwiliang District, Bogor Regency, West Java. 29th May, 2025.</p>
	<p>Abaxial leaves</p>	<p><i>Rubroshorea stenoptera</i>, Meranti Research Forest, Mount Dahu, Leuwiliang District, Bogor Regency, West Java. 29th May, 2025.</p>

	<p>The shape of lamina</p>	<p><i>Rubroshorea stenoptera</i>, Meranti Research Forest, Mount Dahu, Leuwiliang District, Bogor Regency, West Java. 29th May, 2025.</p>
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REFERENCES

- Maharani, Handayani P, Hardjana AK. *Panduan Identifikasi Jenis Pohon Tengkawang. Balai Besar Penelitian Dipterokarpa, Badan Penelitian dan Pengembangan Kehutanan, Departemen Kehutanan, Indonesia*. Kade Sidiyasa, editor. Samarinda
- Mudzaky H, Pamoengkas P, Hartoyo APP. 2023. Species composition and stand structure of *Shorea stenoptera* Burck in KHDTK Haurbentes, Bogor, West Java. 13 (4) : 644 - 655. *Jurnal Pengelolaan Sumber Daya dan Lingkungan*. doi:10.29244/jpsl.13.4.644-655.
- Norazlina MR, Jahurul MHA, Hasmadi M, Mansoor AH, Norliza J, Patricia, George MRR, Noorakmar AW, Lee JS, Fan HY. 2021. Trends in blending vegetable fats and oils for cocoa butter alternative application: A review. *Trends in Food Science & Technology*. 116(1):102-114. doi: 10.1016/j.tifs.2021.07.016.
- Randi A, Barstow M, Julia S, Kusumadewi Y. 2019. *Shorea stenoptera*. *The IUCN Red List of Threatened Species* 2019: e.T33623A125629727. [Diakses 26 Agu 2025]. doi:10.2305/IUCN.UK.2019-3.RLTS.T33623A125629727.

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