**Musa acuminata ssp. malaccensis** is a subspecies of *Musa acuminata*, the wild species involved in the domestication of the vast majority of cultivated bananas. It is one of the main subspecies of *Musa acuminata* to have contributed to the genetics of edible bananas\(^2\)[3]. Parthenocarpic wild forms have been documented.

The **DH Pahang** genebank accession (the first *Musa* genome to be fully sequenced) is an haploid form of *Musa acuminata* ssp. *malaccensis* whose genome was doubled to obtain an homozygous diplooid.

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**Taxonomy**

*Musa acuminata* ssp. *malaccensis* (Ridl.) Simmonds\(^1\) is an accepted name\(^4\). Rudy E. Nasution described this taxon at the variety rank\(^5\), but Markku Hakkinen and Henry Vare recommended to maintain it at the subspecies rank\(^6\).

**Distribution**

Peninsular Malaysia: jungles of Malacca, Selangor, Perak\(^7\). Norman Simmonds notes that on the Malay peninsula, it is typically found at lower elevations, whereas *Musa acuminata* subsp. *microcarpa* grows at higher elevations, and they readily hybridize where they meet\(^8\).

Thailand

Indonesia: Sumatera, Mentawai, Krakatau, West Java, on open places, along stream, or on slope of mountain, at 300-1750 m above sea level\(^5\).
Main morphological characteristics

The description is from Rudy E. Nasution's taxonomic study[5]. Big clump, up to 10 stems: pseudostems tall and big, 5-6m high, 17-18cm diameter, brown blotching without wax.

Leaf blades lanceolate, big, 2.5-3.25m long, 60-70cm wide, apex truncate, base cuneate with unequal lobes, green, thinly waxy. Petioles 45-55cm long, green or light pink with brown bars at base: their margins erect: mid-rib green. Leaves of young plants usually blotched with bars of purplish brown pigmentation around their mid-ribs.

Inflorescence horizontal then pendulous, up to 2.2m long, it’s peduncle thinly pubescent. First bract scar openly encircling. Fruits and flowers biseriate: 10-12 hands per bunch, 16-18 fruits per hand. Basal hands each bear 17-18 fruits, but on the apex 10-12 fruits.

Fruits medium, 8-9cm long, 1.5-1.8cm in diameter, pedicel 1.5-1.7 cm long, tip 0.9-1.2cm long. Pericarp thin, pulp yellow and slightly soft when ripe.

Seeds many, 60-70 per fruit, irregularly angular, depressed, smooth, 6-7mm in diameter, brown
when ripe.
Male bud ovoid, 9-16cm long, 5-8cm across, convolute, blunt tip, dark purple outside, purple inside, thinly waxy.

Basal flower female, 7.5-8.0cm long, 0.7-0.8cm across, yellowish green: style 3.0-3.1cm long, sub-terete: stigma capitate, slightly flat, 0.4-0.5cm in diameter, yellow. Staminode 0.9-1.0cm long, 1.4-1.5cm wide, white or sometimes pink as base but yellow at tip. Free tepal rounded 1.9-2.0cm long, 1.8-1.9cm wide, tip acuminate, translucent.

Male flowers small, 14-16 per hand: ovary 1.1-1.2cm long, 0.3-0.4cm wide, yellowish green: style 3.2-3.3cm long, yellowish: stigma capitate. Compound tepal 3.2-3.3cm long, 1.4-1.5cm wide, pink at base but bright yellow at tip. Free tepal obovate, 1.5-1.6 cm long, 0.9-1.0 cm wide, tip acuminate, translucent. Stamen 3.2-3.3cm long, 0.2 cm wide, white: anther 1.6-1.8cm long, 0.2 cm wide, pink: filament as long as anther. Pollen grains many and fertile.

Host reaction to pests and diseases

*Musa acuminata* ssp. *malaccensis* has been used as a source of resistance to black leaf streak.

Resistance to TR4 has been observed in segregated populations[8]. A gene isolated from a TR4-resistant *Musa acuminata* ssp. *malaccensis* was introduced to a Cavendish banana. One of the lines transformed with the RGA2 gene was disease-free after 3 year confined field trial.[9]

An accession from a collection in Hawaii showed promising resistance to bunchy top.

Vernacular names

'Pisang karok' (Transactions of the Linnean Society of London)

'Pisang Serun' (Rosales *et al.* 1999)

'Pisang Hutan', 'Cau kole', 'Cau kees', 'Pisang Surong' (Bahasa Indonesian)[5]. ‘Pisang hutan’ (forest banana) usually refers to any wild banana.

Synonyms

*Musa malaccensis* (Ridl.)[7]

*Musa acuminata* Colla, the Selangor form[10]

*Musa acuminata* Colla var. *malaccensis* (Ridl.) Nasution[5]

Variant

Simmonds speculated that *Musa acuminata* var. *flava* Nasution (previously *Musa flava* Ridl.) was simply a yellow bracted form of subsp. *malaccensis*[6].

References


Also on this website

Musapedia pages on subspecies of Musa acuminata
Musa acuminata ssp. banksii
Musa acuminata ssp. burmannica
Musa acuminata ssp. malaccensis
Musa acuminata ssp. zebrina

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