

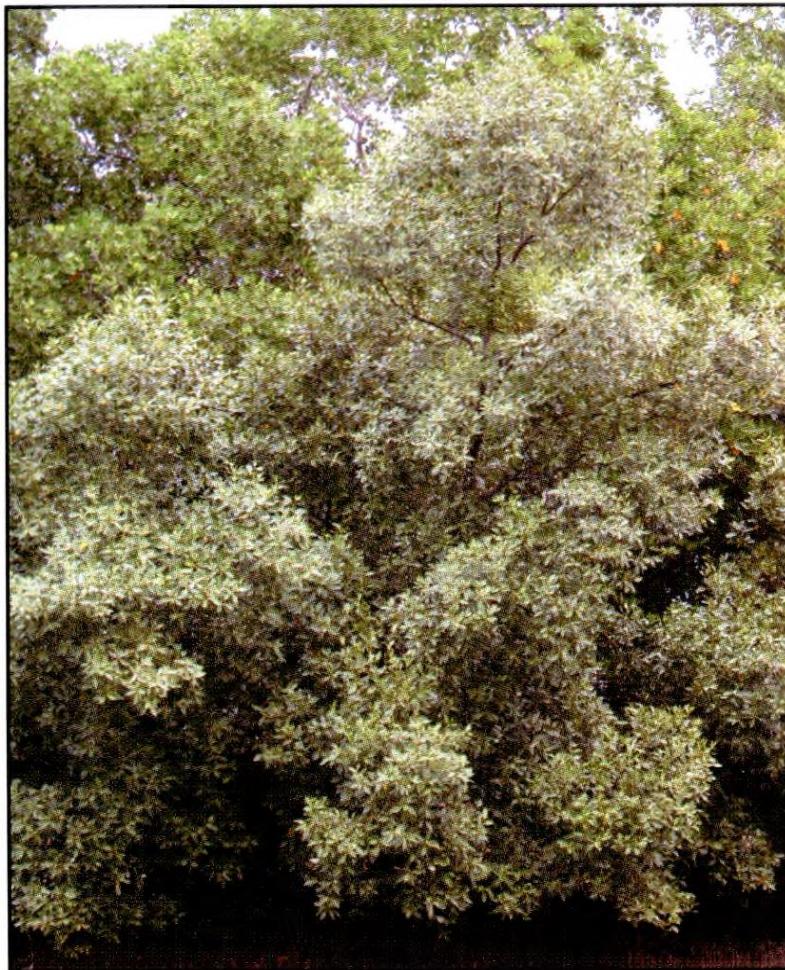
Family Avicenniaceae

Avicennia alba Blume

Local names: *bungalow, api-api, miapi*



Medium-sized trees reaching 12 m high, which tolerate high salinity and colonize the soft, muddy banks of rivers and tidal flats. This species can be found interspersed among the more widely distributed stands of *A. marina*. Small monospecific groves of *A. alba* are found in Pan-ay, Capiz; Batan, Aklan and Makato River, Aklan. The whitish undersides of leaves give the canopy a silvery-white appearance from a distance, differentiating it from the green to golden canopy of *A. marina*. *A. alba* differs from the latter by its elongated leaves, conical or chili-like fruits, and relatively dark, sooty trunk (see opposite page, bottom left photo). The wood is used for fuel and the leaves for forage. Past uses include a resinous secretion for birth control, bark as astringent, and an ointment from seeds to relieve smallpox ulceration. Table 4 summarizes the characters used to separate the four *Avicennia* species.



General

Substrate: soft mud
Tidal level: low, middle
Found with: *A. marina*

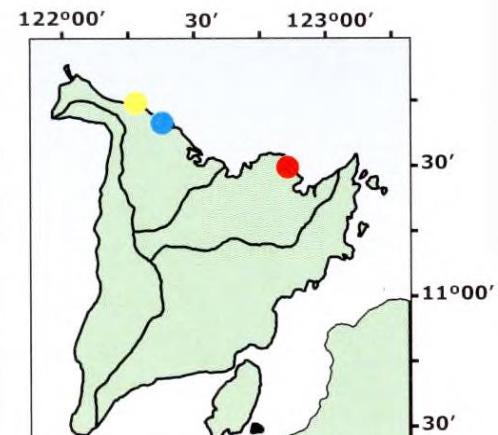
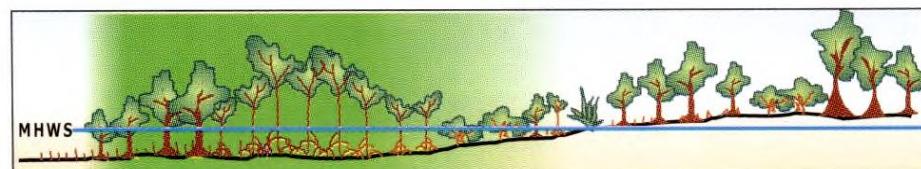
Form

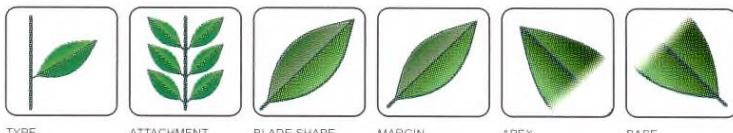
Shape: tree
Height: 5-12 m
DBH: 10-25 cm
Bark: finely rough, dark brown to black
Aerial roots: pencil-like pneumatophores

Sampling sites: ● Makato River, Aklan
● Pan-ay, Capiz
● Ibajay, Aklan

FLOWERING J F M A M J J A S O N D

FRUITING J F M A M J J A S O N D





Leaves

Arrangement:	simple, opposite, decussate
Blade shape:	elliptic
Margin:	entire - smooth
Apex:	acute
Base:	acute
Upper surface:	smooth, green
Undersurface:	smooth, silvery
Size:	10 (7-15) cm long, 4 (2-5) cm wide



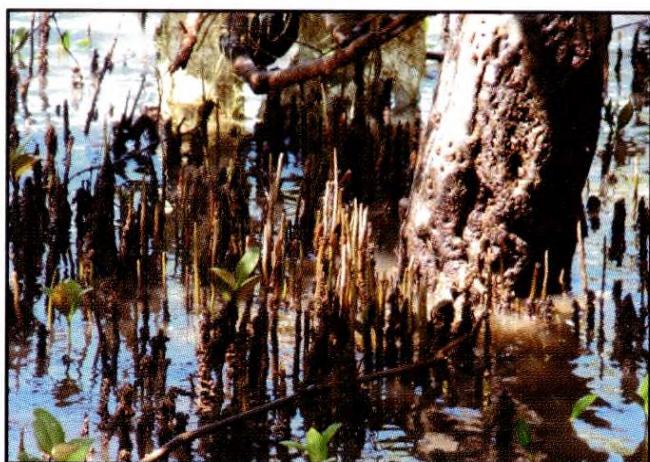
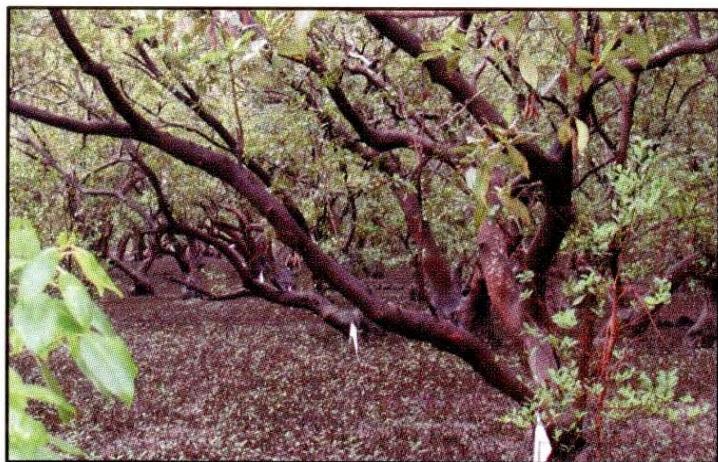
Flower

Inflorescence:	spike, terminal/axillary
Petals:	4, light yellow-orange
Sepals:	4, light green, fused
Stamens:	4, yellow
Size:	0.5-0.6 cm diameter
Others:	slightly scented



Fruits

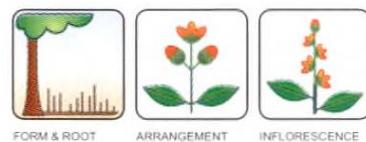
Shape:	conical, chili-like form
Color:	light green
Texture:	finely hairy
Size:	3-5 cm long, 1-2 cm wide



Family Avicenniaceae

Avicennia officinalis L.

Local names: *api-api, miapi, bungalow*



Medium to large trees up to 20 m on firm mud of the upper intertidal in estuarine areas. The species has a crooked trunk and shiny, dark green leaves with spreading crown. Among the four *Avicennia* species, *A. officinalis* has the biggest flowers (1.5 cm wide), fruits (4 cm long) and leaves (14 cm long x 7 cm wide) with conspicuous salt crystals (see opposite, bottom left photo), and rarely forms monospecific stands. In addition, the orange flowers have the darkest shade and strongest scent. Ashes of branches are placed in a funnel through which seawater is filtered. The filtrate is evaporated by boiling to obtain a solid lump of salt. In the past, the wood was used to smoke fish and build rice mortars and pestles. Fruits were used as astringent, bark and roots as aphrodisiac, and seeds and roots as poultice to treat ulcers, etc.



General

Substrate: firm mud
Tidal level: middle, high
Found with: *A. rumphiana*,
B. cylindrica

Form

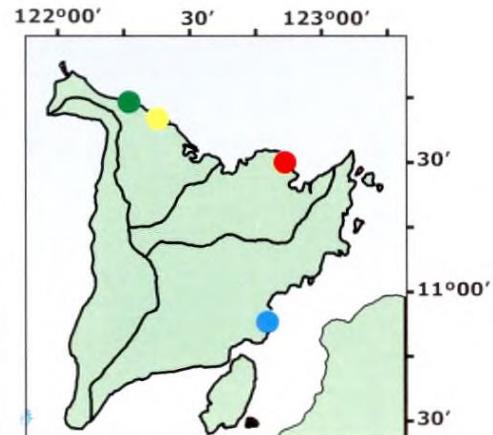
Shape: tree
Height: 5-20 m
DBH: 20-80 cm
Aerial roots: pneumatophores
pencil-like, often
stilt roots on trunk
Bark: rough, dark brown
Others: trunk not straight,
branches irregular

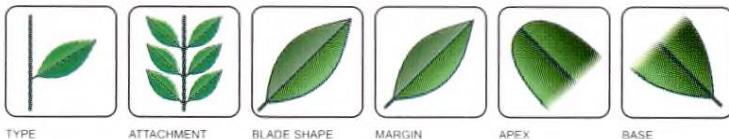
Sampling sites:

- Barotac Nuevo, Iloilo
- Pan-ay, Capiz
- Makato River, Aklan
- Ibajay, Aklan

FLOWERING J F M A M J J A S O N D

FRUITING J F M A M J J A S O N D





Leaves

Arrangement: simple, opposite, decussate
 Blade shape: elliptic to oblong
 Margin: entire - smooth
 Apex: round
 Base: acute
 Upper surface: shiny, dark green
 Undersurface: glabrous, yellow-green
 Size: 10 (6-14) cm long,
 5 (3-7) cm wide
 Others: with salt crystals; appear
 slightly convex as sides bent
 downwards



Flowers

Inflorescence: spike, terminal/axillary
 Petals: 4, dark yellow-orange
 Sepals: 4, light green, fused
 Stamens: 4, yellow
 Size: 0.9-1.5 cm diameter
 Others: most aromatic among
Avicennia spp.



Fruits

Shape: heart-shaped, elongated,
 pointed tip
 Color: yellowish green
 Texture: rugose, finely hairy
 Size: 3-4 cm long,
 2-3 cm wide



Family Avicenniaceae

Avicennia marina (Forsk.) Vierh.

Local names: *bungalow, api-api, miapi, bayabason* (Iloilo)



The most widely distributed mangrove species, it colonizes muddy, sandy and even coralline rock substrates in fringing mangroves – forming stands, often with *S. alba* – and along river banks and on higher ground. It is also found as shrubs in mudflats and abandoned fishponds. Leaves are highly variable, and often exhibit leaf curling. The yellow green leaves give the stand a golden appearance in sunlight. The bark is mottled, light green to brown and flaky. Pneumatophores are pencil-shaped. Coastal dwellers plant this species to protect their homes from typhoons (see opposite, bottom left photo). *A. marina* is preferred for firewood because it coppices, i.e., produces new branches after cutting. The smoke of dried branches acts as mosquito repellent. Leaves are fed to livestock. Newly-sprouted *Avicennia* seedlings are cooked as vegetables. Christmas trees built from branches are sold along Roxas Blvd. in Manila.



General

Substrate: sandy, muddy, coralline
Tidal level: low, middle
Found with: *A. alba, S. alba, Rhizophora* spp.

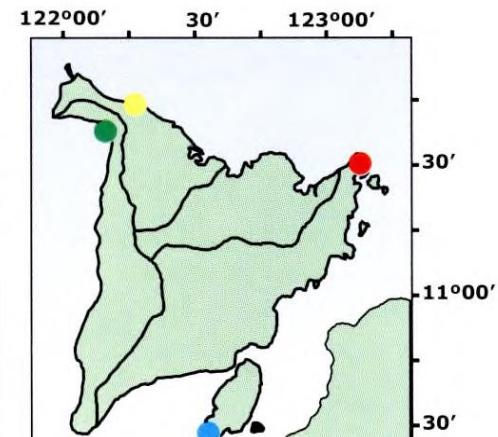
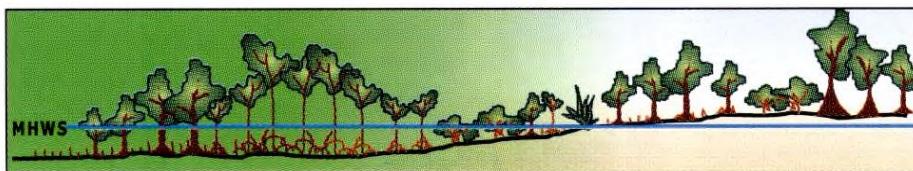
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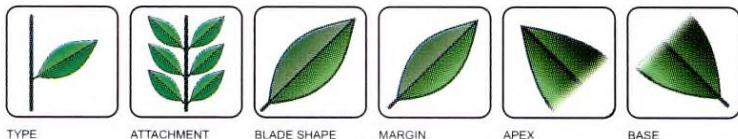
Shape: tree
Height: 2-10 m
DBH: 10-70 cm
Bark: smooth with thin flakes, greenish brown
Aerial roots: pencil-like pneumatophores

Sampling sites: ● Taklong Is., Guimaras
● Carles, Iloilo
● Ibajay, Aklan
● Pandan, Antique

FLOWERING J F M A M J J A S O N D

FRUITING J F M A M J J A S O N D





Leaves

Arrangement:	simple, opposite, decussate
Blade shape:	elliptic
Margin:	entire - smooth
Apex:	acute to round
Base:	acute
Upper surface:	smooth, green to yellow-green
Undersurface:	smooth, green to yellow green
Size:	7 (4-11) cm long, 3 (2-6) cm wide
Others:	numerous insect bites, curling and rolling, highly variable



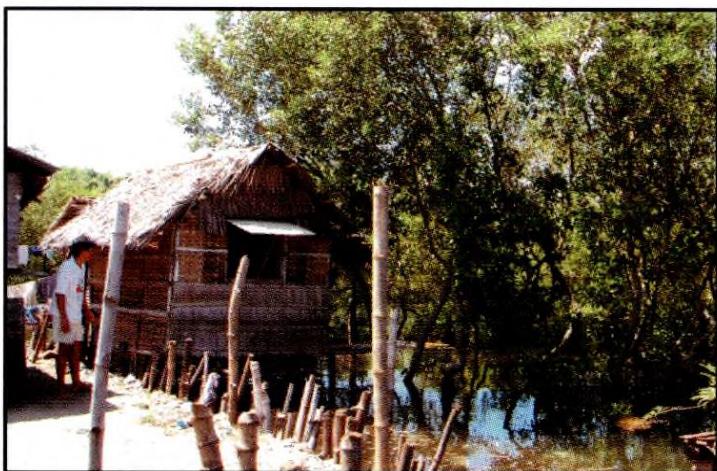
Flowers

Inflorescence:	spike, terminal/axillary
Petals:	4, yellow-orange, brown margin
Sepals:	4, light green, fused
Stamens:	4, yellow; very short
Size:	0.5-0.7 cm diameter
Others:	1 short pistil, yellow



Fruits

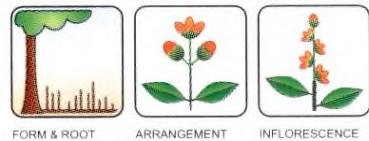
Shape:	heart-shaped, short beak
Color:	light green
Texture:	pubescent
Size:	2-3 cm long, 2-3 cm wide



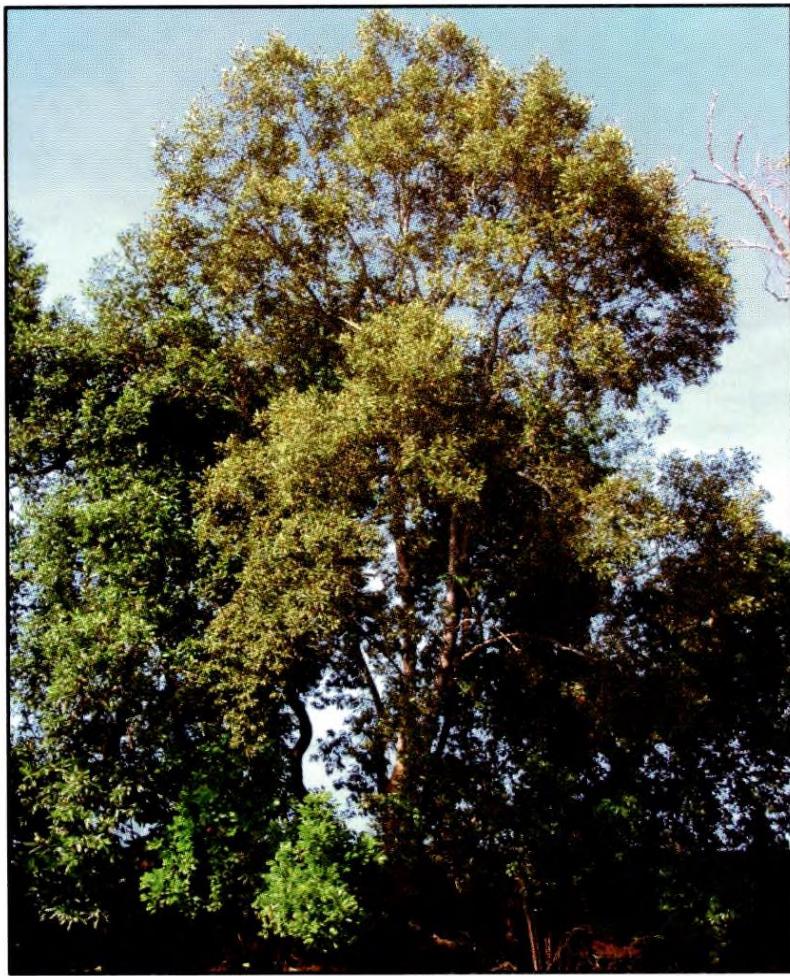
Family Avicenniaceae

Avicennia rumphiana Hall. f.

Local names: *api-api, miapi, bungalow*



Formerly referred to as *Avicennia lanata*, this species forms medium to large trees. They grow on firm mud of middle to high intertidal areas. *Avicennia rumphiana* forms an almost monospecific grove of dozens of old, big trees in Bugtong Bato, Ibajay, Aklan with maximum 20 m height, 2.5 m diameter and 8 m circumference (see opposite page, bottom left photo). It differs from other *Avicennia* species by the brownish color and woolly hairs of fruits and undersurface of leaves. The canopy of an *A. rumphiana* stand looks light brown from a distance, in contrast to the silvery white appearance of *A. alba*. Sometimes *A. rumphiana* occurs with *A. officinalis*, but its young leaves and branches are typically upright, whereas those of *A. officinalis* point in all directions. Also used as fuelwood and for furniture-making with its fine-grained wood.



General

Substrate: muddy
Tidal level: middle, high
Found with: *A. officinalis*,
B. cylindrica
Others: seedlings abundant but
saplings & smaller trees
rare

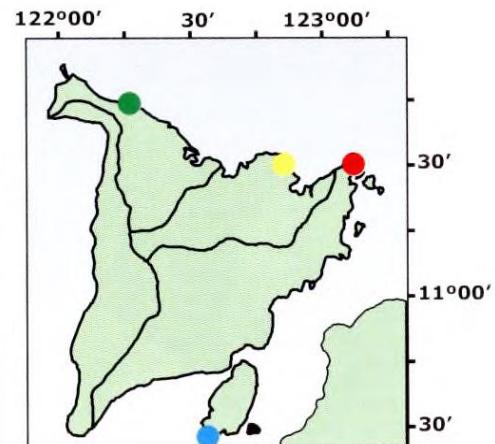
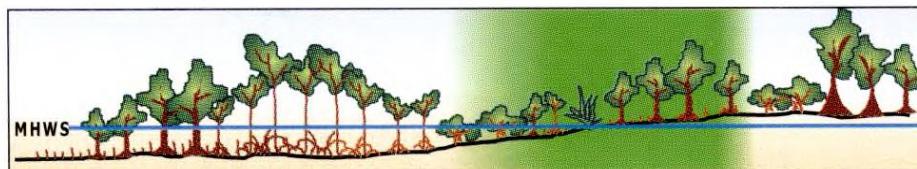
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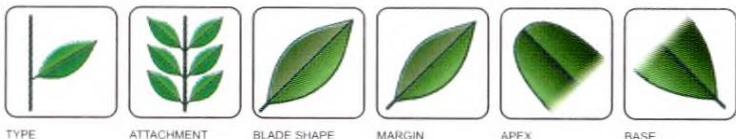
Shape: tree
Height: 5-20 m
DBH: 0.5-2.5 m
Bark: slightly rough, brown
Aerial roots: pencil-like
pneumatophores

Sampling sites: ● Taklong Is., Guimaras
● Carles, Iloilo
● Pan-ay, Capiz
● Ibajay, Aklan

FLOWERING J F M A M J J A S O N D

FRUITING J F M A M J J A S O N D





Leaves

Arrangement: simple, opposite, decussate
 Blade shape: elliptic
 Margin: entire - smooth
 Apex: round
 Base: acute
 Upper surface: smooth, dark green
 Undersurface: densely pubescent, yellow green
 Size: 8 (5-11) cm long, 4 (3-5) cm wide



Flowers

Inflorescence: spike, terminal/axillary
 Petals: 4, yellow-orange
 Sepals: 4, light green, fused
 Stamens: 4, yellow
 Size: 0.5-0.7 cm diameter



Fruits

Shape: heart-shaped, rounded, blunt tip
 Color: yellow-green
 Texture: woolly
 Size: 1-3 cm long, 1-2 cm wide

