

# *Symphonia globulifera* L. f.

L. A. FOURNIER

Escuela de Biología, Universidad de Costa Rica

## CLUSIACEAE (MANGOSTEEN FAMILY)

*Maronobeia coccinea* Aubl., *Maronobeia esculenta* Arrudo

Barillo, bogum, botoncillo, cerillo, cero, leche amarillo, marillo, pimientillo, sambogum, varillo

*Symphonia globulifera* is widespread in tropical America, Africa, and Madagascar, showing little variation throughout its range. In tropical America, the tree is distributed from southern Mexico to northern South America. In Panama, *S. globulifera* more frequently grows along the Atlantic coast (D'Arcy 1980), but in Costa Rica it also grows in the wet Pacific lowlands (Hurtado 1996).

*Symphonia globulifera* is a slow-growing, medium-to-tall tree that can reach 20 to 30 m in height (average height is 15 m) and 0.30 to 1 d.b.h. In Finca La Selva, Costa Rica, the species is small at less than 10 in height, but in Tortuguero National Park and Braulio Carrillo National Park, it is a tall tree. The trunk is long, straight, and cylindrical; it often has short, stout, stilt-like roots at its lower part. The bark is furrowed and the crown is dense and narrow. An abundant yellow sap is present in all parts of the tree. Leaves are opposite, without stipules, lanceolate or oblong, acuminate, glabrous, and leathery, with very short petioles and cuneate bases. The blade is 5 to 11 cm long and 1.5 to 3 cm wide; the costa is impressed above and elevated beneath; and the numerous lateral nerves are straight and parallel. The larger trees grow in mixed evergreen, wet forests (3500 to 5000 mm annual rainfall, 23 to 26 °C average temperature) from sea level to 900 m (Allen 1956). Smaller specimens forming nearly pure, often very extensive, stands occur in areas of freshwater swamps.

The wood of *S. globulifera* is heavy (specific gravity is 0.56) and dries at a moderate rate without major defects. The dry sapwood is gray-yellow, and dry heartwood is brown-yellow (Carpio 1992). The grains are generally straight, although

some are intercrossed; the texture is medium-rough and the luster is regular. The figure has very conspicuous lines and arches in the radial surface and mottling in the tangential plane; the pores are usually solitary and not very conspicuous. The wood has good workability and possesses a high natural durability. However, treating with preservatives is difficult. It is used for furniture, bridges, fenceposts, turning, barrels for solids, railway ties, boats and ships, boxes, crates, veneer, and wood pulp (Carpio 1992). The latex is used for making candles and torches, caulking boats, and treating ulcers (Allen 1956). It also yields an ammonia-soluble khaki dye used in British Guyana to give leather a rich, brown color.

*Symphonia globulifera* flowers from early July to the end of February, and individual trees remain in bloom for almost 2 months (Allen 1956). The waxy, blood red, nearly globose flowers are borne in dense heads at the end of short lateral branches. The flowers are very showy from a distance, abundant, and secrete nectar only during the bisexual period (Hurtado 1996, Pascarella 1992). In Peninsular de Osa, Costa Rica, the most abundant crop of fruit appears during April and May (dry season) (Hurtado 1996). Fruits are subglobose, 2 to 4 cm long, surmounted by the persistent style and branches, leathery, and brown or yellow. Fruits contain one to three ellipsoid or subglobose seeds.

Seeds in natural conditions germinate in less than 30 days (Hurtado 1996). Seedlings are shade tolerant during early stages of growth, but require more light to grow and develop in later stages.

