# *Quercus oocarpa* Liebm.

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**FAGACEAE (BEECH FAMILY)**

*Quercus warscewiczii Liebm., Q. yunkeri Trel.*

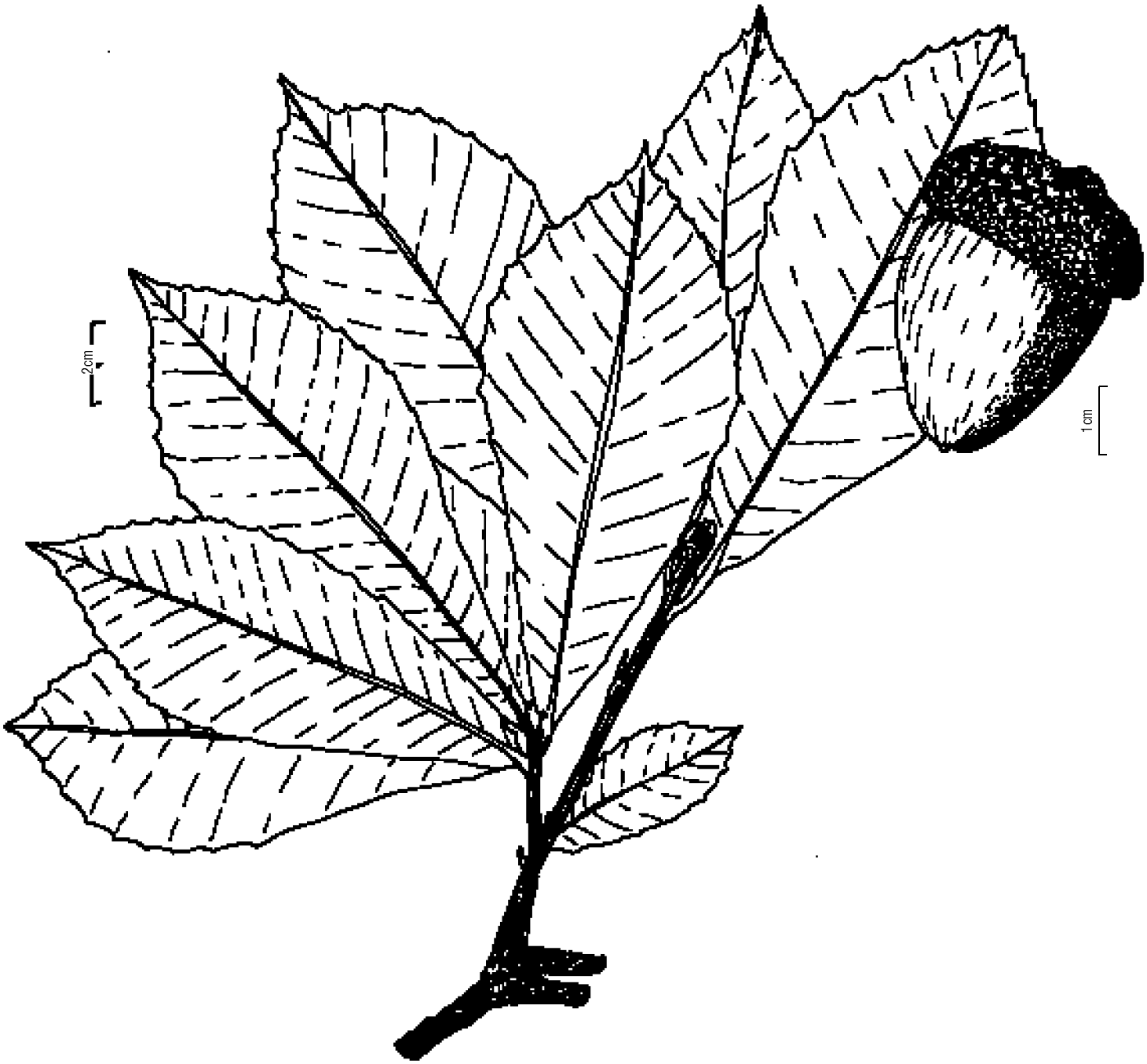
Encino, roble, roble blanco

*Quercus oocarpa* is easily differentiated from other oak species in the region by its very pale-colored lower leaf surface. Closely related, *Q. insignis* M. Martens & Galeotti and *Q. oocarpa* share much of the same habitat in Costa Rica and much of the same range, which may indicate the two are the same (Burger 1977). *Quercus tomentocaulis* Muller, from Honduras, and *Q. oocarpa* are probably the same species (Burger 1977).

*Quercus oocarpa* is a slow-growing tree that reaches 6 to 30 m in height and up to 60 cm d.b.h. The tree has a tall trunk, rounded crown, and brown bark that sheds in strips. The twigs are coarse, fluted, develop from densely fulvous-tomentose, and become glabrate and gray or light brown with a few scarcely evident lenticels. The buds are round and glabrate, stipules caducous. Leaves are alternative, apparently evergreen, thin and papery or rather firm, 10 to 30 cm long, 3 to 14 cm wide, oblanceolate to obovate or narrowly elliptic, attenuately acute at the apex, narrowly rounded or cunneate at the base, undulate or sharply low-dentate, except the entire base. The very pale-colored lower leaf surface is a characteristic that easily separates this oak species from others in the region. *Quercus oocarpa* grows in a wide range of soils, all of them rich in organic matter. It grows in moist and wet lower montane and montane forests from 700 to 2300 m but is more abundant from 1400 to 1900 m. The species occurs in climates with an annual rainfall from 2200 to 3000 mm and a temperature of 14 to 18 °C.

The wood of *Q. oocarpa* is heavy (specific gravity is 0.67). The dry sapwood is white and the heartwood is brown. The wood has a straight grain, rough texture, and poor luster. The figure shows very attractive mottling on the radial surface, and the pores are solitary or arranged in bands. The wood dries at a moderate rate, suffering some defects during the process. It is not easy to work or preserve but has good natural durability. The wood is used primarily for flooring, agricultural tools, charcoal, fenceposts, railway foundations, wine barrels, and mine posts.

The species flowers primarily in March (Jiménez and others 1996) and mature acorns have been observed in May, July, September, and November, suggesting blooming may occur in other months. In a recent study in the central mountains of Costa Rica (1700 m), *Q. oocarpa* bloomed from March throughout August with peak flowering in April and July (Madrigal 1997). Fruits observed from May through January were more abundant than those from August through November, peaking in September and October. Male catkins are 3 to 7 cm long and flowers remain crowded distally on the densely tomentose rachis. Female flowers are on short, 5 to 30 mm spikes about 5 mm long. Fruits are usually solitary; the cup is 2 to 3 cm long, 3 to 4 cm broad, but probably becoming larger, gradually tapering, and bowl-shaped; the acorn is 4 to 5 cm long and 2 to 5 cm thick at maturity (Burger 1977).


2cm
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