

***Morella caroliniensis* (P. Mill.) Small**  
MYRICACEAE

bayberry

Synonyms: *Myrica caroliniensis* P. Mill.  
*Myrica curtissii* A. Chev.  
*Myrica heterophylla* Raf.  
*Myrica pensylvanica* Mirb.



Illustration credit: Britton and Brown 1913

**General Description.**—Bayberry is the name used most often to refer to this common eastern shrub. Other common names include candleberry, tallowshrub, and waxberry. Bayberry is a deciduous (northern part of range) to evergreen (southern portion of range) aromatic shrub or small tree to 4 m. The plant is single or multistemmed. The branchlets and twigs are terete and vary in color from brown-gray-blackish; they are dotted with yellow aromatic glands and vary from being glabrous to pubescent. The leaves are resinous, glandular, aromatic, with short pubescent petioles (to 7 mm) and elliptic to oblanceolate, membranaceous-leathery 3.0 to 7.0 cm by 1.5 to 2.5 cm blades with margins (sometimes slightly revolute) entire or more usually toothed from the middle to the apex. The flowers are in unisexual catkins (aments), with the staminate (male) and pistillate (female) catkins appearing on different plants. The staminate catkins range from 0.4 to 1.8 cm; the pistillate catkins range from 0.3 to 1.4 cm.

The fruit of the bayberry is technically not a berry but a globose 3.0- to 6.0-mm drupe (one-seeded stone fruit) that at maturity is covered by a thick coat of gray-white wax. The fruits persist throughout the winter. The globose seed in each fruit measures slightly less in diameter than the fruit (author, personal observation).

**Range.**—Bayberry occurs in eastern Canada (New Brunswick, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Quebec) and the United States, from Maine south to Florida and west to Texas and Arkansas. Inland populations are known from western New York, Ohio and southern Ontario (Gleason and Cronquist 1991).

**Systematic Botany.**—There are taxonomic and nomenclatural difficulties associated with the bayberry. Taxonomists disagree regarding bayberry's generic placement, with some (Bornstein 1997, Fernald 1950, Gleason and Cronquist 1991) placing the bayberry and sweet gale (*Myrica gale* L.) in the same genus, *Myrica*, and others choosing to place the bayberry in its own genus, *Morella* (Wilbur 1994, 2002). Some taxonomists also choose to recognize two species of bayberry, a northern bayberry *Morella pensylvanica* and a southern bayberry, *Morella caroliniensis* (synonym: *Myrica heterophylla* Raf.). The two supposedly can be distinguished based on whether the leaves are evergreen (southern) or deciduous (northern), the fruit wall is hairy (northern) or not (southern), and the twigs possess black hairs (southern) or not (northern). Further complicating matters, bayberry and the wax myrtle [*Morella cerifera* (L.) Small] can hybridize when growing together (Bornstein 1997). Some authors also treat the name *Morella caroliniensis* (Miller) Small as a synonym of the wax myrtle (*M. cerifera*). This is due to different interpretations as to which plant—bayberry or wax myrtle—Miller (1768) was actually referring to in his original description. The recent work of Wilbur (1994, 2002) is followed here; therefore only one

species is recognized under the name *M. carolinensis*.

**Ecology.**—Bayberry can tolerate full sun to dense shade and can grow in dry to wet conditions. Habitats where it can be found include bogs, swamps, dunes, fields, heathlands, oak forests, pine forests, and the margins of streams and lakes. The roots of bayberry contain nitrogen fixing nodules, and this allows it to be particularly tolerant of nitrogen-poor, acidic soils (Morris and others 1974). Results are mixed as to whether bayberry's nitrogen-fixing properties may assist the growth of other plant species growing nearby (Tiffney and Barrera 1979, Dudley and others 1996). Leachate from the leaf litter of bayberry may have alleopathic properties and affect some other plants (Collins and Quinn 1982).

**Reproduction.**—Bayberry is wind pollinated and blooms in the spring. The pollen is allergenic (Lewis 1977). The seeds of bayberry are dispersed by birds that eat the fruits (McClanahan and Wolfe 1993, Place and Stiles, 1992, Ridley 1930).

**Growth and Management.**—Bayberry is often cultivated on dry, sandy, sterile soils where few other species can grow (Bailey 1922, Rehder 1940). It thrives best in acid peaty soils; it can not tolerate liming. Propagation can be by seed or layering (Chittenden and Synge 1956). Propagation can also be done with cuttings taken in late summer or fall. The cuttings should be placed in a bed of peat moss and sand (Everett 1960).

**Benefits.**—Settlers used the bark of bayberry in dentifrice mixtures (Lewis 1977) and the fruits in candle making (Bornstein 1997). Bayberry candles remain popular today; it can take up to 8 kg of bayberry fruit to yield 1 kg of wax. The fruits are also often used in decorative arrangements. Native Americans used the plant for various medicinal purposes (Moerman 1986).

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