

Technical Report



Wetland Flora

No. 96-1 / January 1996

Gene Silberhorn

Eastern Cottonwood

Populus deltoides Marsh

Growth Habit and Diagnostic Characteristics

Eastern cottonwood is a tall tree with vertically fissured and ridged grayish bark. Leaves are coarse-toothed, alternate, simple and have petioles flattened at right angles to the blade. The specific epithet, *deltoides* refers to the characteristic deltoid or triangular shaped leaves. Also typical, are the prominent pinnately patterned veins, most obvious on the underneath side of the leaf. The leaves are not particularly colorful in the fall and exfoliate soon after frost. The large (1 in.) terminal buds are sharp-pointed and sticky or gummy to the touch. Lateral buds are smaller, sticky and are appressed to the twig. The wood is soft, light and decays rapidly. Older trees often have dead branches. Limb litter is common on the forest floor beneath cottonwood trees. Swamp cottonwood, *Populus heterophylla*, also occurs in the Atlantic coastal states and may be confused with *P. deltoides*. However, *P. heterophylla* has cylindrical rather than flattened petioles, is finer toothed and the underneath side of the leaf is usually whitish and softly pubescent. Swamp cottonwood leaves are also more rounded and lack the characteristic deltoid shape of *P. deltoides*.

Distribution

Eastern cottonwood is found throughout southern Canada and the eastern half of the United States to northern Florida.

Habitat

Eastern cottonwood is commonly found in both freshwater wetlands and in nonwetland areas. Red maple (*Acer rubrum*), sweet gum (*Liquidambar styraciflua*) and sycamore (*Platanus occidentalis*) are common companion canopy species in wooded wetlands. *Populus deltoides* grows rapidly, frequently expanding vertically between four to six feet annually, sometimes superseding associated canopy species. Eastern cottonwood is a minor community component of winter wet woods, otherwise known as PFO1A (Palustrine, Forested, Broad-leaved Deciduous, Temporarily Flooded) wetlands according to federal terminology/classification. Swamp cottonwood usually occurs in bottomland forests dominated by bald cypress and tupelo.

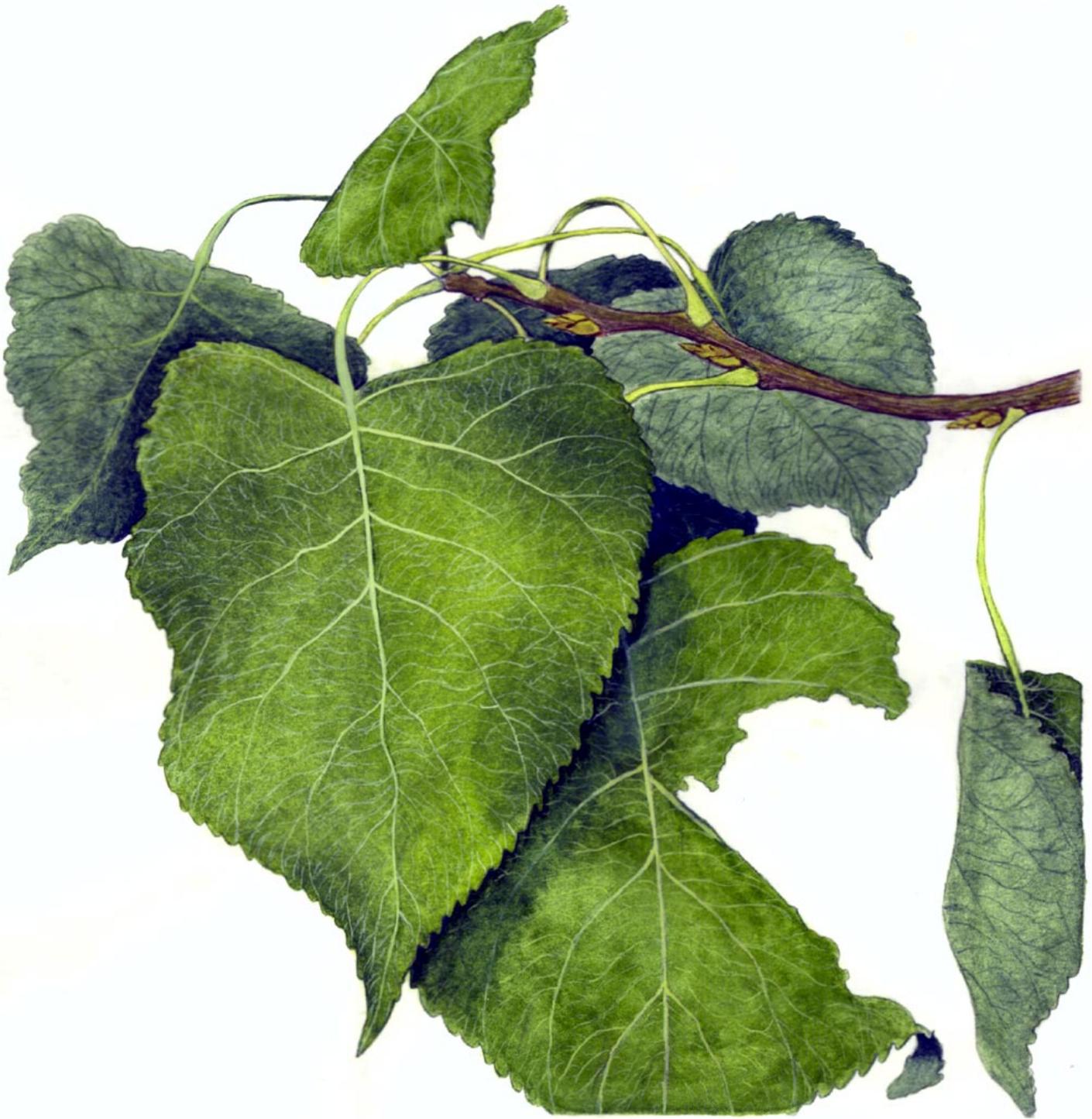
Ecological Values/Benefits

Specifically, the buds and fruits of *P. deltoides* are food sources for song birds and quail. Beaver, rabbits and deer feed upon the young bark, foliage and buds of this tree. Standing dead snags often provide nesting areas for birds and squirrels.

Hydrophytic Factor/Wetland Indicator Status

According to the *National List of Plant Species that Occur in Wetlands: Virginia (1988)*, *Populus deltoides* is classified as a **facultative plant (FAC)**. FACs are plants that are "equally likely to occur in wetlands or nonwetlands (estimated probability 34%-66%)."

Populus deltoides Marsh



*Wetlands Program
School of Marine Science
Virginia Institute of Marine Science
College of William and Mary
Gloucester Point, Virginia 23062
Dr. Carl Hershner, Program Director*

*This report was funded, in part, by the Department of
Environmental Quality's Coastal Resources Management
Program through Grant No. NA47OZ0287-01 of the
National Oceanic and Atmospheric Administration,
Office of Ocean and Coastal Resource Management,
under the Zone Management Act of 1972, as amended.*



*Illustration by
Kent Forrest*

*Printed on
recycled
paper.*

