

Technical Report



Wetland Flora

No. 96-9 / September 1996

Gene Silberhorn

Tupelo

Water Tupelo

Nyssa aquatica L.

Growth Habit and Diagnostic Characteristics

Tupelo is a deciduous tree found in swamps and black water rivers. Tupelos often have buttressed trunks and may grow up to 30 meters (over 90 feet) tall. Leaves are simple, alternate and vary in length (6 to 30 cm) and shape (oval to oblong) on the same branch. Margins may be entire or smooth to randomly toothed as illustrated. The lowest branches of mature trees may be 30 to 40 feet above ground level. Bark is thin, grey when young, and rough brown with scaly ridges at maturity. Flowers are greenish and inconspicuous in spring, but purple, fleshy fruits (drupes) are obvious in late season. The pits of the miniature (2 to 4 cm) plum-like drupes have distinct longitudinal ridges. Two other species of this genus (*Nyssa*) may also occur in forested wetlands. Swamp gum (*Nyssa sylvatica* var. *biflora*), which may occur in inundated areas, has smaller, semi-glossy, untoothed leaves and smaller (1 to 1.5 cm) fruits, often occurring in pairs. Black gum (*Nyssa sylvatica* var. *sylvatica*) is similar to swamp gum, but occurs in both uplands or shallow organic soils of pocosins.

Distribution

N. aquatica is a southern species, with northern limits on the east coast of southeastern Virginia and ranging to northern Florida; westward to eastern Texas and northward in the Mississippi watershed to southern Illinois and southern Indiana.

Habitat

In Virginia, water tupelo is typically found in the Great Dismal Swamp/Currituck Basin, the Chowan River Watershed (Blackwater, Meherrin and Nottoway rivers), and the lower Chickahominy River watershed. *N. aquatica* usually co-dominates with bald cypress (*Taxodium distichum* Wetland Flora No. 93-7 / July 1993) in flooded swamps of southeastern United States. Swollen or buttressed trunks are typical hydrophytic adaptations of both tupelo and cypress. Both species also produce pneumatophores or "knees" in flooded conditions, but this adaptive feature is less common in tupelo than cypress, at least in this region. Pure tupelo stands usually are indicative of historical selective cypress timbering as evidenced by large cypress stumps.

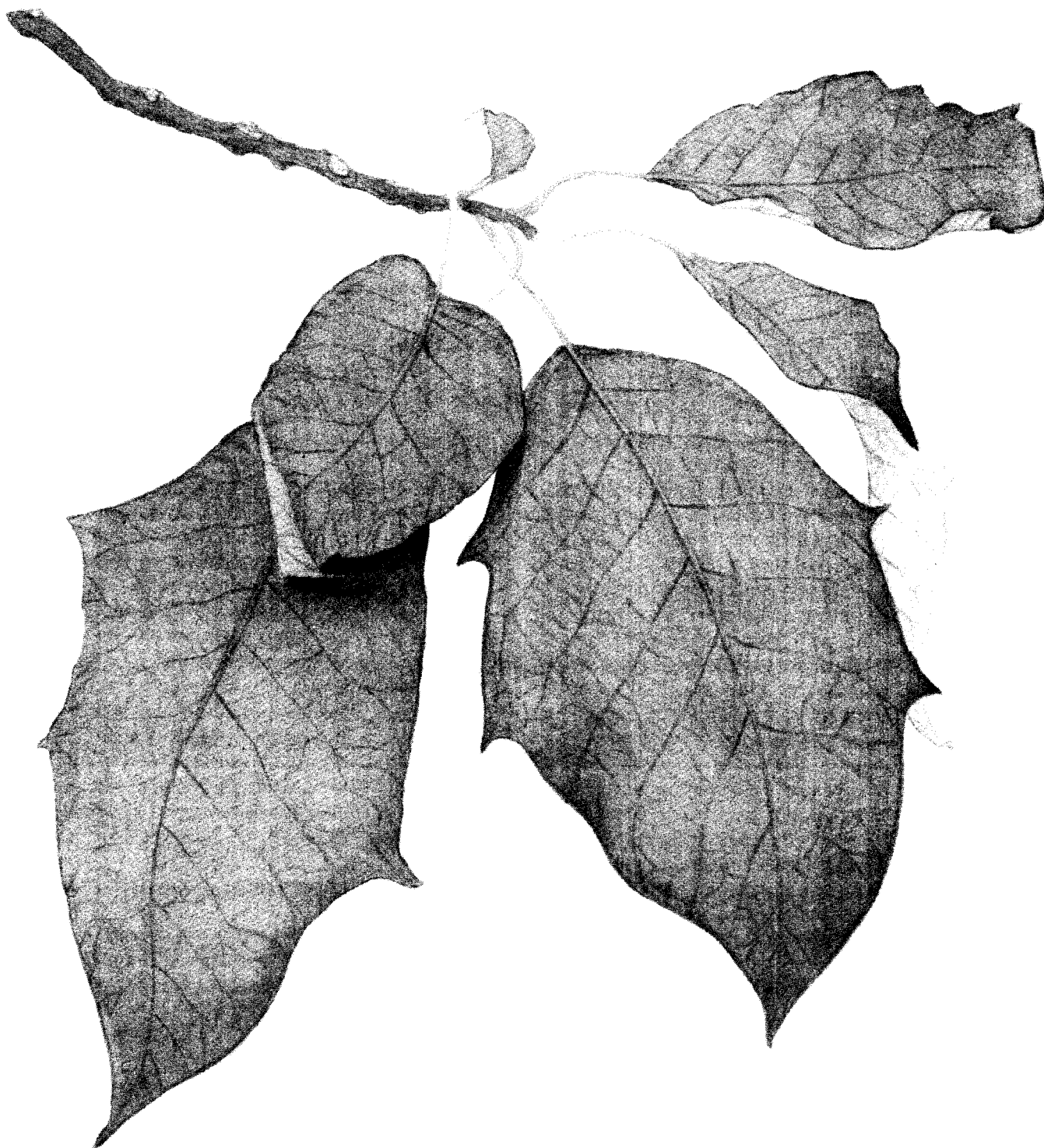
Ecological Value / Benefits

The fleshy drupes of tupelo are good wildlife food after they drop in the fall. Bear scat in the Great Dismal Swamp is often loaded with the undigestible tupelo fruit pits. Standing tupelo snags are frequently occupied by trunk dwelling mammals and birds.

Wetland Indicator Status

As listed in the *National List of Plant Species that Occur in Wetlands: Virginia 1988*, *Nyssa aquatica* is classified as an **obligate wetland plant (OBL)**. OBLs are plants that almost always occur in wetlands (99% probability).

Nyssa aquatica L.



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