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Botanical Focus: A series of articles on the flora of the Cooks Creek Watershed

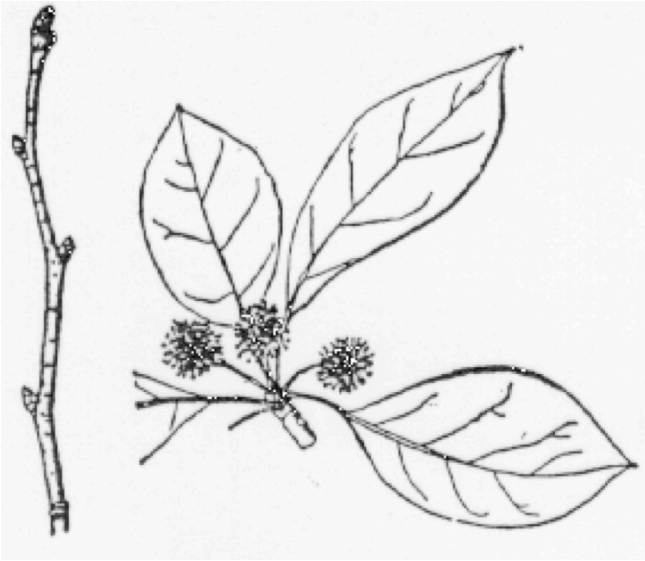
The Black Gum Tree (*Nyssa sylvatica*)

By Alan Miller

Black gum is a North American tree with spectacular fall color, tough lustrous green summer leaves, and an appealing pyramidal and irregular habit or shape. It is known by so many different common names—black gum, sour gum, tupelo, pepperridge, and occasionally, red gum—that it is difficult to reference except by its Latin name, *Nyssa sylvatica*. The gum part of the common names is puzzling as the tree does not produce any sappy gum. *Tupelo* is apparently an English corruption of the native Creek name, *eto opelwu*—tree of the swamp—according to Peattie's A Natural History of Trees. We know that name now more as the Mississippi hometown of Elvis Presley and *tupelo* may be a more appropriate name for another American tree of the same genus, *Nyssa aquatica*, the more southerly water tupelo.

Nyssa is the name of a water nymph in Greek mythology and *sylvatica* is the Latin Adjectival form for forest. There are five members of the *Nyssa* genus, all from North America and eastern Asia. The Chinese *Nyssa sinensis* is occasionally encountered in the trade although this author has not had success with it in our area after two attempts. *Nyssa* is a member of the *Cornaceae*, or dogwood family.

Black gum is native to our area and to most of the eastern United States from Maine west to southern Wisconsin and south to eastern Texas and Florida. It is a rugged tree capable of surviving in swampy woods, dry ridges, and burned out slopes. It reestablishes after fire or major storm or trauma by suckering from its roots and these shoots form pure clonal stands under such circumstances. Black gums can survive up to 700 years, according to Rhodes' and Block's, Trees of Pennsylvania. They list the official state champion in size as 81 feet high and 4 feet 8 inches in diameter. This author saw an ancient example on private land next to Sandy Hook Wildlife Preserve in Delaware that was well over 100 feet high and about 10 feet in diameter. Black gum does not grow quickly and has a reputation for being difficult to transplant because of its tendency to develop a taproot. When a relatively young balled and burlapped black gum is planted with its root crown above the soil line in early spring and supported with adequate water until established, success in our area is not difficult.



Black gum resembles the pin oak in form although with more twisting branches and secondary branches angling sharply at approximate right angles from the main branch. In youth, its stiff lower branches angle toward the ground. As the tree ages, the later branches become first horizontal and then angled upward. Old black gums have usually lost their lower branches and are upright oval or sometimes flat topped. The dark grey bark is furrowed and forms into blocky plates with age. The leaves are 2 to 5 inch pointed ovals (elliptic) and are alternate or whorled at branch ends; sucker and sapling leaves can be considerable larger. The inconspicuous flowers are produced about the same time the leaves appear. Individual black gum trees have predominantly flowers of one sex (dioecious) although there exists some confusion as some predominantly male trees occasionally produce limited fruit (polygamo dioecious) implying a few bisexual (perfect) flowers. The fruits are dark blue drupes less than a half-inch long, ripening in the fall and the seed is spread by birds and mammals attracted to the fruit as food. The wood of black gum was rarely used traditionally except for tools and war clubs as it is so interlocked it is almost impossible to split and it does not weather well. The wood in a sawn form is very infrequently encountered in American antique furniture and resembles very interlocked yellow poplar (tulip poplar, *Liriodendron*, a magnolia family tree) or red or sweet gum (*Liquidambar*, a witch-hazel family tree). Native Americans used black gum bark for various medicinal uses although no current pharmaceutical applications are popular.

In late August or early September black gum trees in our area begin to sparkle with scattered bright scarlet red and occasional orange or purple leaves. Here in upper Bucks County the dazzling peak fall color occurs in later September or early October. The black gum slope at the Morris Arboretum in Philadelphia is at its peak in late October. This scattered grove was hit by a tornado 15 years ago and has recovered remarkably with scattered sucker groves and the surviving trees assuming very irregular shapes. The leaves do not persist in fall.

