

# Presenting the 2008 Tree of the Year: *Nyssa sylvatica*

by David Sivy, Forestry Services Manager, Milwaukee, Wisconsin

The conclusion of SMA's 2008 Tree of the Year competition was a real Kodak moment, with two of my top favorites, *Nyssa sylvatica* (black tupelo) and *Koelreuteria paniculata* (goldenraintree), racing bud to bud towards a photo finish. In the end it was *Nyssa sylvatica* by a node!

I suppose it was the beautiful fall colors of northern Michigan's beech-maple forests that first sparked my interest in forestry as a career. While the northwestern fringe of black tupelo's natural range extends to central Michigan, it wasn't until my junior year on the campus of Kent State University that Dr. Tom Cooperrider first introduced me to the 2008 Tree of the Year, fully clad in its fall splendor. And after viewing thousands, if not millions of trees since then, I can still recall that first encounter with what would become one of my most treasured deciduous trees. When presented with the opportunity to add just one shade tree in the back yard of my southeast Virginia home, the choice was simple, *Nyssa sylvatica*. It performed beautifully and became a frequent conversation piece for friends and neighbors who would invariably ask, "What tree is that?" And its deep taproot kept it firmly anchored against Hurricane Isabel's winds, which toppled many majestic associates in my neighborhood, including willow oak, red maple, and tulip poplar.

It's easy to understand the widespread popularity of black tupelo, given its many attractive morphological features. The tree is perhaps best known for its consistent fall color, offering a smorgasbord of yellow to orange to scarlet leaves, often on the same tree, that rivals the proudest sugar maple. Its dark green lustrous leaves, blocky alligator-like bark, and graceful winter silhouette of slender perpendicular and ascending

branches provide multi-season interest. The bluish-black drupes that develop profusely on female trees are devoured by many species of songbirds and small mammals in search of a delicious fall treat. In fact, the only morphological feature that's not showy on black tupelo is its flowers. So what's not to like about this species?

Given its many attractive features, one would expect that this bottomland species would be more widely used by municipal arborists throughout its native range, which covers most of the eastern United States. *Nyssa sylvatica's* intolerance to high pH soils and road salts, susceptibility to disfiguring cancer diseases in warm humid climates, and wide genetic variation in form limits its availability from commercial nurseries and subsequent use in municipal streetscapes. The species is also troubled with a cosmetic leaf spot disease that detracts from its ornamental value. Increasing availability of cultivars selected for uniform habit, improved disease resistance, and stunning fall color should result in greater use by municipal arborists.

In spite of *Nyssa sylvatica's* shortcomings, SMA's selection of it as the 2008 Tree of the Year indicates the confidence that leading municipal arborists, foresters, and horticulturists have in this species as a street and park tree.

Not convinced? Read what your peers have to say...



The three distinct bundle scars on *Nyssa sylvatica* easily distinguish it from *Diospyros virginiana*, which has only one bundle scar. Photo: Steve Baskauf



*Nyssa sylvatica* is polygamo-dioecious, meaning trees bear female or male flowers, but each tree may have some perfect flowers as well. Photo: Ohio Department of Natural Resources, Division of Forestry



*Nyssa sylvatica's* blue drupes are devoured by songbirds. Photo: Ohio Department of Natural Resources, Division of Forestry

## Nyssa Testimonials

For us, black gum fills a great niche for a medium- to large-growing street tree. With its strong central leader and good branching pattern and attachment, black gum is a great choice for folks trying to diversify their urban forest. It is also a useful substitution for residents who want their replacement tree to be maple (which we limit). I can give them the fall color they want and the structure I want. So far (knock on wood), we've not had any significant problems with them and find them readily available in both B&B and containers.

**Robert Gentry**  
*Superintendent of Parks & Forestry*  
*Adrian, Michigan*

*Nyssa sylvatica* is a tree I have a love/hate relationship with. At its best it is a magnificent tree with unparalleled red fall color and great form. Why is it so difficult to transplant and sometimes forms a "flat-top" instead of its normally strong central leader? I have a *Nyssa* at home that took ten years to really start growing, but the wait was worth it. Give it a moist to wet environment with somewhat acid soil and it will repay you. But it is not a tree for those who want an instant effect. It cultivates you instead of the other way around. Not for the faint of heart!

**Dr. Nina Bassuk**  
*Professor, Urban Horticulture Institute*  
*Cornell University*



*Nyssa* in summer Photo: Steve Cothrel



Leaf spot on *Nyssa* Photo: Ohio Department of Natural Resources, Division of Forestry



Mature bark of *Nyssa sylvatica* Photo: Ohio Department of Natural Resources, Division of Forestry



Glossy leaves of black tupelo Photo: Ohio Department of Natural Resources, Division of Forestry

*Nyssa* is a beautiful tree and one of the first to brighten the landscape with fall colors. It also seems to be remarkably tolerant of those unhappy urban soils that have the words “clay” and “compacted” in their descriptions. I have often thought that *Nyssa* is a tree in need of a cultivar. Some specimens are plagued with leaf spot that detracts from the fall show. Also, some individuals have a propensity to weep or lose their leaders (that would be individual black gums and their branches I’m talking about, although maybe it applies to some of us too!) In spite of that, they are all worth planting. I would like to extend congratulations to *Nyssa sylvatica*. It is very deserving of this honor.

**Dr. Susan D. Day**  
*Research Assistant Professor, Forestry*  
*Virginia Tech*

We are extremely dry down here and trees are dropping leaves pretty fast. Still, *Nyssa* is making a good show. One nice thing about this species is that it is very colorful and one of the first to announce fall.

**Dr. Roger Harris**  
*Associate Professor, Horticulture*  
*Virginia Tech*

Black gum is a good source of high-quality food for fall migrants. Its brilliant red leaves in the fall are spectacular. *Nyssa* tends to have a small upright stature and is slow growing, so it fits well in tight urban spaces.

**Ann Bonner**  
*Urban Forester, ODNR – Division of*  
*Forestry, Athens, Ohio*

One of the best early indicators that fall is on the way is the wonderful native *Nyssa sylvatica* with its red to purple fall color.

**Dr. Bonnie L. Appleton**  
*Professor of Horticulture*  
*Virginia Tech*

The new growth on *Nyssa sylvatica* ‘Wildfire’ holds up well in the heat of middle Georgia where, this summer, we had five consecutive days over 100 in the midst of two weeks around 98-99 degrees. It is so cool to see a field of *Nyssa* with this tinge of red. We’ve been selling them like, er, wildfire!

**Hillary Barber, Horticulturist**  
*Bold Spring Nursery, Inc. and Athena*  
*Trees, Inc., Monroe, Georgia*



*Nyssa sylvatica*'s spectacular fall color Photos by Paul Ries

I had only started planting *Nyssa* in Post Falls, Idaho the last few years and then, only scattered trees. I was trying it in hopes of adding the species to our swale-appropriate list. Swales are required as on-site retention/treatment of storm water, and there is a limited palette of trees that are adaptable to the cycle of flood/drought associated with swales in north Idaho. They performed well in the locations they were placed. I like the strongly excurrent-pyramidal shape of the tree and the dark glossy leaves in summer as well as the exceptional fall color. I like the species enough to have planted one in the swale in my front yard!

**Linden Mead**  
**City Forester**  
**Seattle, Washington**

Years ago I worked at the Norfolk Botanical Garden, and one of the most impressive trees in the fall was *Nyssa sylvatica*. It is planted on top of a hill so that it can be seen from many different parts of the Garden. I remember it being rather large, about thirty feet tall and wide, with a beautiful rounded canopy. It was always the first to show gorgeous scarlet red foliage in the fall. Since then, I have planted some as street trees for the City of Norfolk. They've done quite well but are a bit slow growing. The shiny, dark green leaves are attractive during the summer months, and I have not noticed any particular leaf diseases or insects pestering them. We haven't used too many of them on our streets, partly because of their slow growth habit, and perhaps because they are a bit tough to transplant because of the taproot. But it's always a thrill to drive along the highway and spot the intense red color along wooded areas and know right away that autumn has finally arrived.

**Jo Anne Gordon**  
**Horticulturist**  
**Norfolk, Virginia**

### **Black Tupelo for Trivia Lovers**

- Sources differ on the taxonomic classification of *Nyssa sylvatica*. Most newer references, including Durr's *Manual of Woody Landscape Plants* and the Integrated Taxonomic Information System (ITIS) on-line database, list the family as Nyssaceae. Other respected on-line resources, including the USDA Natural Resource and Conservation Service National Plants Database and the Royal Horticultural Society, include *Nyssa* in the closely related dogwood family, Cornaceae.
- Despite its wide distribution and unparalleled fall color, *Nyssa sylvatica* lacks a state tree designation.
- The national champion *Nyssa sylvatica* is located in Wood County, Texas. When last measured in 2001, this hoss stood at 110 feet tall with a crown spread of 81 feet and circumference of nearly 20 feet!
- In addition to black tupelo, common names for *Nyssa sylvatica* include black gum, sour gum, pepperidge, pioneer's toothbrush, and bee-gum.
- The genus name *Nyssa* means "water nymph," and *sylvatica* refers to the tree's native woodland habitat.
- Elvis Presley's birthplace of Tupelo, Mississippi was so named because of the presence of so many black gum trees.
- Pepperidge Farm bread is so named because the family farmhouse of the creators was shaded by two enormous *Nyssa* trees.
- The name pioneer's toothbrush refers to the use of small, brittle *Nyssa* twigs to brush one's teeth. Apparently, the fibrous woody tissue of twigs broken at right angles could serve in this way.



Black tupelo in fall in Chattanooga, Tennessee Photo by Gene Hyde

Some of the early uses for the various species of *Nyssa*

- The Cherokee used the infusion of *Nyssa* bark in a bath given to children with worms. They also used compounds from *Nyssa* as an antidiarrheal and the inner bark as a “drink to vomit bile.” They also reportedly used the ooze from the roots as an eye medicine.
- *Nyssa sylvatica* also appears in ethnobotanical citations as a Koasati drug used as a dermatological aid for gunshot wounds.
- The Chippewa used the wood to make awl handles, mauls, and war clubs because it would not split or check (ugh...if there is one thing I cannot stand, it's checks in my war club!)

These trees are great for us because they add beautiful fall color, shade, diversity, and are relatively pest-free. My experience with them is that they grow strangely in the nurseries and one MUST pick them out in person to make sure that you don't get one that resembles a weeping cherry.

**Gene Hyde**  
**City Forester**  
**Chattanooga, Tennessee**

What I like about *Nyssa sylvatica* is that it is a tree with CHARACTER. Its attractive branching habit and its fall color make it one of the perennial entries on my top ten list of recommended trees.

**Paul D. Ries**  
**Urban and Community Forestry**  
**Program Manager**  
**Oregon Department of Forestry**

I give this tree two thumbs up. We have several nice specimens here in Seattle—most of them are street trees and are on the small side, under 10" in diameter. One in the arboretum is over 50' tall. It's a bit hard to transplant, and occasionally the central leader disappears, but the incredible fall color and pest-free nature make it a keeper in my book. In my experience, availability in the commercial trade is not good.

**Nolan Rundquist**  
**City Arborist**  
**Seattle, Washington**

**Black Gum vs. Persimmon**

*Nyssa sylvatica* is easily confused with *Diospyros virginiana* (common persimmon); both species have alligator bark. If the leaves are glossy, turn red, or have a few remote teeth, the tree is black gum, not persimmon. The main difference lies in the fruit and the number of vascular bundle scars (three for black gum, one for persimmon). The branches of black gum and persimmon exhibit greater difference than the leaves. In black gum the main branches tend to be horizontal, and the leaves are clustered on short spurs of smooth branches. In persimmon the main branches are not horizontal and the leaves are more evenly spaced on longer branches. And if you ever puckered up to a persimmon fruit that is not quite ripe, you'll definitely remember the difference! 🍃



Emergent red foliage of *Nyssa sylvatica* 'Wildfire' Photo: Hillary Barber, Bold Spring Nursery, Monroe, Georgia