

A Study in Scarlet: *Nyssa sinensis*

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My favorite “old reliables” for fall color at the Arboretum include the pure gold foliage of sweet birch (*Betula lenta*), the fiery red-orange-yellow display of Korean maple (*Acer pseudosieboldianum*), and the glossy burgundy leaves of *Euonymus carnosus*. That’s just a start, though, and one of the delights of wandering the Arboretum repeatedly in autumn is discovering new spots of color. A few years ago, on a gray mid-November day when many trees were already bare, I was drawn to a cluster of brilliant scarlet and orange leaves remaining on a tree branch. The tree, it turned out, was Chinese tupelo, *Nyssa sinensis*.

This was a new species to me, but I certainly knew another species in the genus, *Nyssa sylvatica*, known by the common names sour gum, black gum, tupelo, black tupelo, pepperidge, or, to residents of Martha’s Vineyard, beetlebung. Under any name, this eastern North American species is a handsome tree, noted for its lustrous green foliage that turns stunning shades of red in the fall. Though its native range is thousands of miles away, Chinese tupelo is strikingly similar to sour gum, providing yet another interesting example of the disjunct floras of eastern North America and eastern Asia.

Chinese tupelo is slightly smaller than sour gum, growing as tall as 60 feet (18 meters) in the wild but in cultivation typically reaching only 30 to 40 feet (9 to 12 meters). It has a pyramidal to upright-oval form and dark gray, irregularly fissured bark. Chinese tupelo is deciduous; when its leaves emerge in late spring they often have an attractive red or bronze tint. Mature leaves are about 4 to 6 inches (10 to 15 centimeters) long, dark green and slightly shiny above, lighter green below. Autumn foliage color may be variable depending on individual plant and local climate, but typically ranges from light yellow and apricot to bright, almost luminous reds and oranges.

As with other *Nyssa* species, Chinese tupelo is primarily dioecious (male and female flowers borne on separate plants) but some plants may also bear a few perfect (having both male and female parts) flowers. Female flowers are

borne in axillary clusters and male flowers are produced along older branches. The small greenish flowers are inconspicuous but they are extremely attractive to honeybees (*N. ogeche*, which has a limited native range primarily in southern Georgia and northern Florida, is the source for prized tupelo honey). The fruit of Chinese tupelo is a dark blue oblong drupe that is readily eaten by birds.

Taxonomy references place *Nyssa* either in Cornaceae (the dogwood family) or in its own family, Nyssaceae. The genus name *Nyssa* comes from Greek mythology and refers to a water (or rain) nymph named Nyssa (or Nysa), one of the nymphs who cared for Dionysus, god of wine, as a child (the location where the water nymphs sheltered Dionysus and where he invented wine is known as Mount Nyssa). The reference to water is the important bit, since this alludes to the preference of all *Nyssa* species for moist soils. The type species for the genus is in fact another North American species, *N. aquatica*, commonly called water tupelo or swamp tupelo because it grows in very wet sites. Like its American relative, *N. sylvatica*, Chinese tupelo prefers evenly moist, acidic soil but also tolerates somewhat drier conditions.

The Arboretum currently holds just one specimen of Chinese tupelo (*N. sinensis*, accession 374-81-B), which grows near several other *Nyssa* accessions near Rehder Pond. This accession was received as seeds from China’s Hangzhou Botanical Garden in 1981, but the exact provenance of their collection is unknown. Chinese tupelo has a fairly large range in central to southern China and an individual tree’s cold hardiness may vary with provenance, but a probable hardiness rating would be through USDA Zone 6b (average annual minimum temperature 0 to -5°F [-17.8 to -20.6°C]). Though unlikely to supersede our native sour gum as a landscape plant, Chinese tupelo does offer a wonderful burst of color as autumn moves toward winter.

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