Technical Report

Wetland Flora

No. 94-8 / September 1994

Gene Silberhorn

American Elm

***Ulmus americana* L.**

Growth Habit and Diagnostic Characteristics

American elm is a large tree (up to 100 feet tall), with furrowed, flaky, grayish brown bark when mature. Older trees are somewhat vase-like with the branches spreading outward and upward, a feature most obvious in the winter after leaf-fall. Leaves are simple, alternately arranged with serrated and occasionally doubly serrated margins (toothed, interspersed with smaller teeth). Even on the same branch, leaves are variable in size, ranging from 2 to 9cm in length. The base of the leaf blade is often asymmetric or oblique (as illustrated), a diagnostic characteristic of this tree. The upper part of the leaf is usually rough or sandpapery to the touch, while the bottom is relatively smooth. Minute brownish, hairlike tufts are often found at the axils of the veins on the bottom part of the leaf. In the spring, elms produce samaras, a dry single seeded, winged, wafer-like fruit (inset illustration).

It is often difficult to observe foliage characteristics of tall trees like the elm, because the first branch may be 40 feet or more above the ground. Binoculars greatly enhance observations in a densely canopied, shaded woodland.

Distribution

Ulmus americana is found throughout the Eastern Deciduous Forest Biome in North America, ranging from the eastern edge of the Prairie Province to southern Canada, down the Mississippi River drainage and Atlantic Coast to the Gulf of Mexico. American elm has become less abundant throughout its range, however, because of the Dutch elm disease.

Habitat

Once common and abundant in wooded wetlands along the Eastern Seaboard and the Midwest, American elm status as a important canopy component has been greatly diminished because of the Dutch elm disease, a fungus (*Ophiostoma ulmii*) that clogs the vascular system. *Ulmus americana*, currently is only an occasional component of palustrine forested wetlands in the Mid-Atlantic Region. American elm also grows well in upland areas and was a favored shade tree in cities and towns throughout the eastern two-thirds of the United States and southern Canada. *Ulmus americana*, is often found wooded wetlands associated with green ash, *Fraxinus pennsylvanica* (Wetland Flora, No. 94-4 / May 1994); red maple, *Acer rubrum* (Wetland Flora, No. 91-7 / July 1991); sycamore, *Platanus occidentalis* (Wetland Flora, No. 94-1 / January 1994); and sweet gum, *Liquidambar styraciflua* (Wetland Flora, No. 92-1 / January 1992).

Ecological Values / Benefits

The wafer-like fruit of elms are eaten by songbirds in the spring. Standing dead snags, usually the result of disease, are largely occupied by cavity dwellers such as woodpeckers, chickadees, squirrels, and raccoons.

Hydrophytic Factor / Wetland Indicator Status

As reported in the *National List of Plant Species that Occur in Woodlands: Virginia (1988), Ulmus americana* is classified as a **facultative wetland plant (FACW).** FACW plants "usually occur in wetdlands (estimated probability 67%-99%)."

Ulmus americana L.

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