

Reports

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Smooth Alder *Alnus serrulata* (Ait.) Willd.

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Technical Report



Wetland Flora

No. 95-5 / July 1995

Gene Silberhorn

Smooth Alder

Alnus serrulata (Ait.) Willd.

Growth Habit and Diagnostic Characteristics

Alder is usually a shrub, but sometimes attains the form of a small tree with a single trunk. Leaves are simple, deciduous, alternate and vary generally from elliptic to oblong in shape and range from 5 to 10 cm in length. Even on the same branch, leaf size and shape are variable. Leaf margins are often slightly wavy and irregularly serrated or toothed, with prominent veins on the lower surface. Stipules are present in early spring, exfoliating soon after appearance. Male and female flower clusters (catkins) appear in late winter or early spring (February -March) before leaf emergence. Soon after releasing pollen, male catkins fall. Female catkins, resembling miniature pine cones, remain from season to season. Current "cones" are green, whereas, cones of the previous season are woody, dark brown and seedless. Another shrub, spice bush (*Lindera benzoin*) (Wetland Flora, No. 94-5 / July 1994) also has alternate, simple leaves that vary in size on the same branch. Spice bush, however, is spicy-aromatic, has leaves with smooth margins and bright red, fleshy fruits. The foliage of another shrub often found in wetlands, sweet pepperbush (*Clethra alnifolia*), somewhat resembles that of alder. Sweet pepper bush however, has spikes of white flowers and does not produce "cones."

Distribution

Smooth alder is found in fresh water wetlands from Maine to northern Florida to eastern Texas.

Habitat

Alnus serrulata is commonly found in wetland areas such as on the margins of flowing streams and rivers, pond or lake shorelines, and in swamps or marshes. It also grows in shallow water or saturated soil and may be associated with other shrubs such as swamp rose (*Rosa palustris*), button bush (*Cephalanthus occidentalis*) (Wetland Flora, No. 94-10 / November 1994), silky dogwood (*Cornus amomum*) and Virginia willow (*Itea virginica*). Alder is also a frequent component of scrub/shrub wetlands of the Mid-Atlantic coastal plain. Scrub/shrub wetlands are wetlands dominated by shrubs, small trees or saplings with herbaceous ground cover.

Ecological Value / Benefits

Alder does not provide wildlife food value such as the fleshy fruited spice bush, elder berry (Wetland Flora, No. 95-3 / March 1995), blueberries and others, but it does offer cover for song birds, and deer browse the foliage.

Hydrophytic Factor / Wetland Indicator Status

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

Alnus serrulata (Ait.) Willd.



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