

Technical Report



Wetland Flora

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Gene Silberhorn

Atlantic White Cedar

Chamaecyparis thyoides (L.) BSP

Growth Habit and Diagnostic Characteristics

Atlantic white cedar is a medium-sized (40 to 70 feet), evergreen conifer restricted to Atlantic coastal wetlands. The trunk is distinguished by brown (immature tree) to grey (mature) bark with long, narrow furrows bearing few branches until 20 to 30 feet above the ground. Leaves are tiny (1-2mm long), scale-like, appressed and overlapping (imbricate) on narrow, flexible branchlets. Female cones are 5 to 10mm (.25 in.) in diameter, greenish when young and turning brown at maturity. Foliage and bark is aromatic when crushed. The leaves of *Chamaecyparis thyoides* are somewhat similar to red cedar (*Juniperus virginiana*), except the latter has more narrow, pointed scales and the foliage is rough to the touch. Red cedar cones are about the same size as *Chamaecyparis*, but are bluish-white and fleshy when mature. Red cedar, however, is usually multi-branched at lower trunk levels and seldom grows in boggy wetlands. Northern white cedar or arbor vitae (*Thuja occidentalis*) also has appressed scales that are larger and appear to be flattened. Arbor vitae grows naturally only in the northern states, Canada, and in the Appalachian Mountains. *Chamaecyparis* is not likely to be confused with the other two conifers because of the diagnostic features, and their ranges and/or habitats are totally different.

Distribution

Atlantic white cedar is found mainly in wetlands along the Atlantic Coast from southern Maine to Florida and sporadically along the Gulf Coast to Mississippi.

Habitat

Habitat for *Chamaecyparis thyoides* varies greatly throughout its distribution, but usually occurs in low, flat nontidal freshwater wetlands that are flooded or saturated near the surface of mucky organic or hydric soils. Acidic conditions are common with dense mats of *Sphagnum* prevailing in these conditions. In Virginia, the largest stands of Atlantic white cedar occur in the Great Dismal Swamp in dense, monotypic stands. There are very few other companion canopy species; however, it is not rare to find red maple (*Acer rubrum*), sweet bay (*Magnolia virginiana*) and water gum (*Nyssa sylvatica* var. *biflora*). Shrubs are usually more common with sweet pepperbush (*Clethra alnifolia*), ti ti (*Cyrilla racemosa*), wax myrtle (*Myrica cerifera*) and fetterbush (*Lyonia lucida*) dominating in the Dismal Swamp.

Ecological Values/Benefits

Despite dwindling natural populations, Atlantic white cedar is a highly desirable timber tree. The wood is lightweight, very durable, resistant to decay, aromatic, and attractive. It is used for paneling, fencing and boat construction. It is still the desirable wood for boat planking along the Chesapeake Bay, but the high cost of its lumber is usually prohibitive for most builders.

Stands in the Dismal Swamp are prime habitats for black bear, song birds and other wildlife creatures that are isolated from human encroachment.

Hydrophytic Factor/Wetland Indicator Status

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

Chamaecyparis thyoides (L.) BSP



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