

Inland Atlantic White Cedar Swamp

State Rank: S2 - Imperiled



Inland Atlantic White Cedar Swamp with moss hummocks. Photo: Jennifer Garrett, NHESP.

Description: Inland Atlantic White Cedar Swamps (Inland AWCS) – as with all AWCS – usually have standing water for at least half of the growing season. Water and soil are acidic and nutrient-poor. Leaf litter decomposition is slow. Since conifers dominate the canopy, understories are dark and have limited understory growth. Fallen and tipped trees are common and the resultant openings become tangles with dense shrub and saplings around downed trunks. Inland AWCS generally occur in the central part of the state at a wide range of elevations in basins or seepage wetlands.

Characteristic Species: All AWCS are defined as having >25% cover of Atlantic white cedar (AWC) in the canopy. Plants that commonly co-occur with AWC include red maple, high-bush

Inland Atlantic White Cedar Swamps are forested wetlands dominated by Atlantic white cedar, with hemlock, spruce, red maple, and yellow birch. As in all Atlantic White Cedar swamps, water-saturated peat overlies the mineral sediments.

blueberry, swamp azalea, and sphagnum moss. Canopy associates in Inland AWCS differ depending on elevation. In sites lower than 700 ft. elevation, AWC is also mixed with hemlock and yellow birch. At elevations above 700 ft., AWC is mixed with hemlock and spruce. The shrub layer in high elevation sites includes abundant mountain holly; low elevation sites have a mixture of sweet pepperbush and winterberry. The herb layer of both low- and higher-elevation sites includes cinnamon fern, starflower and Canada mayflower. High-elevation sites also have northern species such as creeping snowberry and bunchberry.



Atlantic white cedar branch. Photo: Keith Love.

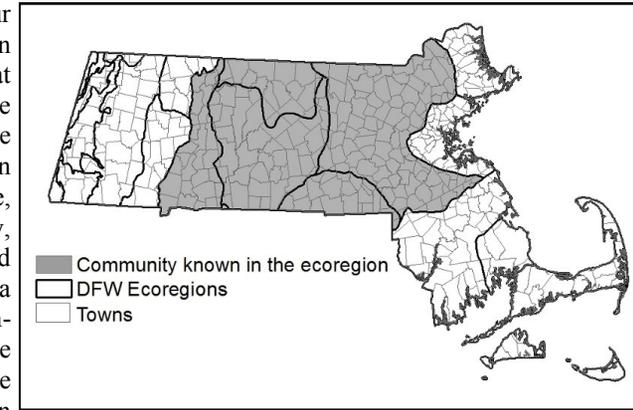
Differentiating from Related Communities: Although each of the AWC swamp community types has a characteristic vegetation structure and composition, as with all natural communities, transitions and mixes do occur. Inland AWCS typically occur at elevations between 60 ft. and 1000 ft., and not in southeast MA. Yellow birch is more common than in Coastal AWCS. Inland AWCS have lower abundance of coastal indicators than Coastal AWCS.

Coastal AWCS generally occur below 60 ft. elevation and in SE Massachusetts. Species that are found in greater abundance near the coast than elsewhere include pitch pine as an occasional canopy associate, greenbrier, the shrubs inkberry, dangleberry, sheep laurel, and swamp sweetbells, and Virginia chain-fern and netted chain-fern. Northern AWCS, above 1000 ft. elevation, are codominated by the northern conifers black and red spruce and balsam fir. Shrubs and herbs include Labrador tea and rhodora. AWC also occurs in AWC Bogs, relatively open peatland communities with canopy cover <25%. Alluvial AWCS are along streams. The vegetation is highly variable. AWC and red maple dominate the tree layer, and the shrub layer includes silky dogwood. The herb layer includes sensitive fern, royal fern, and bugleweed.

Habitat for Associated Fauna: AWCS contribute variation to the habitats of wide-ranging wildlife species. Young



Typically tangled, tipped and fallen AWC trees. Photo: Jennifer Garrett, NHESP.



AWC thickets provide excellent cover for deer, rabbits and birds. Swamps provide vernal pool habitat if water remains for 2-3 months and they lack fish.

Examples with Public Access: Boxford SF, Boxford; Westborough Cedar Swamp, Westborough; Douglas SF, Douglas; Hodges Village Dam, Oxford; Cedar Swamp, Monson.



Inland Atlantic White Cedar Swamp trees with shrubs. Photo: Patricia Swain, NHESP.

