

Maritime Forest/Woodland

State Rank: S2 – Imperiled



Dense Maritime Forest/Woodland in protected back dunes. Photo: Bruce A. Sorrie, NHESP.

Description: Maritime communities occur near the ocean on exposed bluffs, the back or inland side of dunes, interdunal areas, and salt marsh borders, in mosaics of vegetation structure and species mixes. Strong winds, shifting sands, and flooding with saltwater create a dynamic system that maintains a variety of stages of early successional vegetation. The Maritime Forest/Woodland has a mixture of deciduous and evergreen trees in the canopy that is lower than typical in more inland areas, ~30 feet (10m) tall. Many trees are multiple stemmed and contorted from pruning by winds carrying salt and sand. Soils are usually sands with a surface layer of organic material that can slow moisture infiltration and keep the areas moister than more exposed surroundings. In addition, groundwater may be close to the surface in some low interdunal areas. Such low interdunal areas may be quite mesic and support relatively high species diversity. Where groundwater is lower, plant species are

Maritime Forests/Woodlands are mixed deciduous/evergreen forests within the coastal salt spray zone. Vegetation growth is stunted by winds and salt spray, resulting in short trees (< 30 ft.).

limited to those with deep delving root systems. While sandy soils are generally low in nutrients, these soils may have higher nutrient levels than expected due to the accumulation of leaf litter, fragments of sea shells, and input from salt spray (which in the extreme, can produce conditions too salty for many plants).



Greenbrier on oaks inside a Maritime Forest/Woodland. Photo: Patricia Swain, NHESP.

Characteristic Species: Local conditions strongly influence the species assemblage in Maritime Forests/Woodlands. All the vegetation layers include species usually found in less acidic areas. The canopy commonly includes black, scarlet, white and other oaks, hickories, American holly, sassafras, black gum, black cherry, and red maple. American Beech is often present and may be dominant. Pitch pine and red cedar have patchy, low cover. Basswood and hackberry are occasionally present. Vines including greenbrier, poison ivy, Virginia creeper, grape, and non-native Oriental bittersweet may be dense. Shrubs include bayberry, inkberry, winged sumac, shadbush, and sweet pepper-bush. Dense thickets of non-native invasives include Japanese barberry, Japanese and Morrow honeysuckle, common buckthorn, and/or multiflora rose. The herbaceous layer is

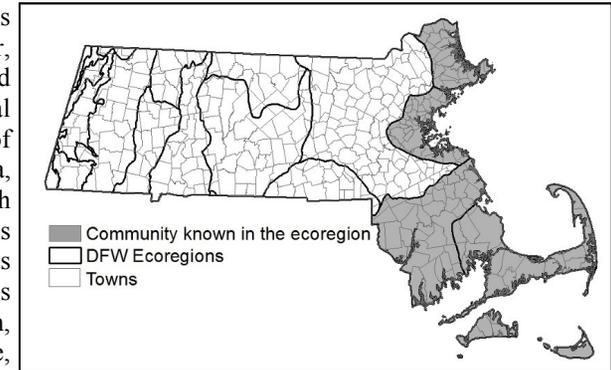
also highly variable and includes bracken fern, Canada mayflower, partridge-berry, starflower, and sedges and grasses. Interdunal forests often include species of wetlands such as swamp-azalea, viburnums, winterberry, and high bush blueberry. The herbaceous layer of these wetter areas sometimes includes species usually associated with rich, moist sites such as columbine, starry Solomon's seal, and skunk meadow-rue.

Differentiating from Related

Communities: Maritime Forests/Woodlands usually occur in a mosaic with other maritime and coastal communities. Communities grade into other types in the mosaic, maturing and being reset to earlier successional stages by disturbance from storms, movement of sand, flooding, and drought. Maritime Forests/Woodlands are very near the ocean, receive regular salt spray, and have stunted canopies of mixed tree species. Maritime Pitch Pine Woodlands on Dunes are dominated by pitch pine, and have sparser canopies. Maritime Juniper Woodland/Shrublands are dominated by Virginia juniper. Maritime Shrublands are dominated by shrubs and have <25% tree canopy. Coastal Forest/Woodlands are further from the coast and are not affected by salt spray on a daily basis. They have taller trees and a shrub layer consisting primarily of low bush blueberry and black huckleberry.

Habitat for Associated Fauna:

There are no animal species known to be restricted to Maritime Forests/Woodlands. Generally, in more salt influenced



environments, fewer animals are expected. Maritime Forest/Woodlands provide resting and foraging habitat for migrating songbirds. Vertebrates and invertebrates of oak and oak-pine forests occur in Maritime Forest/Woodlands. High white-tailed deer densities impact abundance of woody seedlings such as oaks, as well as herbaceous plants.

Examples with Public Access:

Cape Cod National Seashore, Wellfleet; Sandy Neck, Barnstable; Demarest Lloyd SP, Dartmouth; Salisbury Salt Marsh WMA and Carr Island WS, Salisbury; Parker River NWR, Newburyport.



Dense edge of an oak dominated Maritime Forest/Woodland in dunes. Photo: Patricia Swain, NHESP.

