

Sugar Maple - Oak - Hickory Forest

State Rank: S3 - Vulnerable



Rock outcrops in the spring in Sugar Maple - Oak - Hickory Forest area. Photo: Patricia Swain, NHESP.

Description: Sugar Maple - Oak - Hickory Forests occur in or east of the Connecticut River Valley in Massachusetts. They are associated with outcrops of circumneutral rock and slopes below them that have more nutrients than are available in the surrounding forest. These are usually small patches within matrix forests with which many species are shared. Many occurrences are on slopes with southeast to southwest aspect.

Characteristic Species: Sugar Maple - Oak - Hickory Forests are dominated by sugar maple and red oak with white ash and bitternut hickory. Basswood occurs consistently as very scattered individuals. Black, white, and/or chestnut oaks and shagbark, pignut and/or mockernut hickories occur regularly in the canopy. Black birch is commonly present. The sparse subcanopy includes hop hornbeam, red maple, and canopy species. Pagoda dogwood contributes to a usually sparse tall shrub layer. The shorter shrubs are dominated by maple-leaf viburnum.

Sugar Maple - Oak - Hickory Forests are diverse forests in central and eastern Massachusetts where conditions, including nutrient richness, support Northern Hardwood species mixed with species of Oak - Hickory Forests.

The herbaceous layer varies from sparse to intermittent, with sparse spring ephemerals that may include bloodroot or trout-lily. Later occurring species may include wild geranium, herb Robert, wild licorice, maidenhair fern, bottlebrush grass, and white wood aster. Broad-leaved, semi-evergreen broad-leaved woodland-sedge is close to an indicator of the community. Witch hazel, hepaticas, and wild oats usually occur in transitions to surrounding forest types.



Maidenhair fern with bloodroot inset. Photo: Patricia Swain, NHESP.

Differentiating from Related Communities: Geography is basic to differentiating Sugar Maple - Oak - Hickory Forest (SMOH) from Rich,

Mesic Forest (RMF):

most occurrences of RMF in Massachusetts are west of the Connecticut River Valley. The presence of multiple species of hickories and oaks in SMOH is a main difference between these two types. Broad-leaved Woodland-sedge is close to being an indicator of SMOH. RMF is

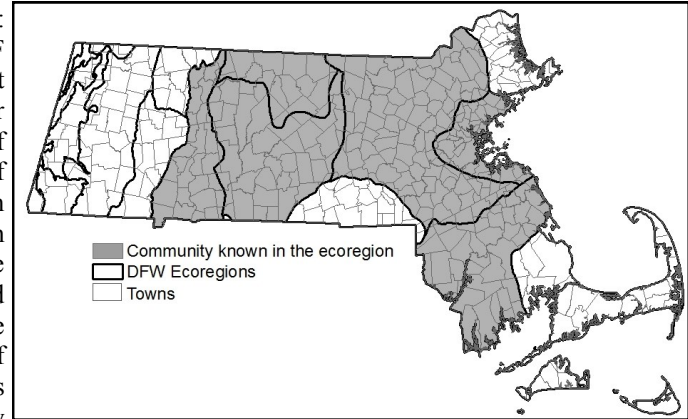
characterized by very dense herbaceous growth of spring ephemerals; SMOH shares some of the species but with fewer individuals of fewer species. SMOH has evergreen ferns, Christmas fern and wood ferns, that RMF lack. Oak - Hickory Forests and Dry, Rich Oak Forests/Woodlands lack abundant sugar maple, basswood, and white ash, and lack spring ephemerals and herbaceous species indicative of rich conditions, such as herb Robert and others listed in the SMOH characteristic species.

Habitat for Associated Fauna:

Species of forests would be expected, including forest nesting birds such as Wood Thrush. Many vertebrate species that include forests as part of their habitat are more dependent on size of undisturbed forest than on the precise type.

Examples with Public Access:

Middlesex Fells Reservation, Stoneham; Manchester Reservoir Conservation Land, Attleboro; Wachusett Mountain State Reservation, Princeton; Palmer WMA, Palmer; Wells SP, Sturbridge.



A baneberry with American Basswood. Photo: Patricia Swain, NHESP.

