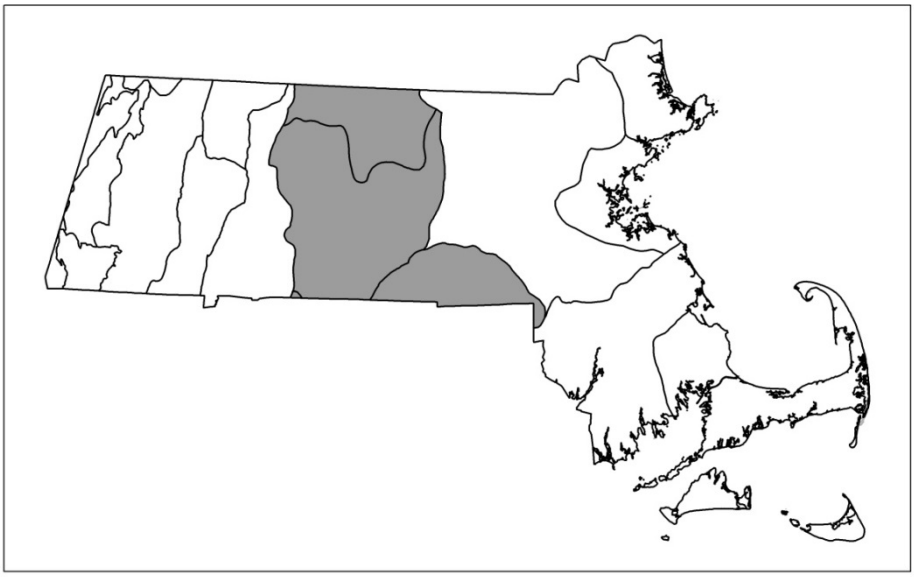
Dry, Rich Oak Forest/Woodland

Community Code: CT1B1B0000

State Rank: S4



Concept: Deciduous, predominantly oak, forest with a rich understory of herbaceous plants and graminoids. The shrub layer has fewer ericaceous plants than other oak forests.

Environmental Setting: The oak-dominated canopy of Dry, Rich Oak Forest is somewhat open (50 - 75% cover) to mostly closed. This forest occurs on southwest-facing mid-slopes and coves, with well-drained, slightly acidic, often rocky soils of intermediate fertility. The steep slopes may include open rocky glades or occur near rock outcrop communities. A rich understory often includes legumes and false foxgloves. Most occurrences show evidence of recurrent fires (i.e., charred bases of trees, dead blackened shrubs or sprouts, burned duff) that maintain the open conditions.

Vegetation Description: In Dry, Rich Oak Forests, the tree canopy is dominated by a mixture of oaks (including red (*Quercus rubra*), black (*Q. velutina*), and white (*Q. alba*)), with lower amounts of sugar and red maple (*Acer saccharum* and *A. rubrum*), American beech (*Fagus grandifolia*), white ash (*Fraxinus americana*), and shagbark and other hickories (*Carya ovata*, *C. glabra*, and *C. tomentosa*). Eastern hemlock (*Tsuga canadensis*) is an occasional part of the canopy. Scattered hop-hornbeam (*Ostrya virginiana*) and flowering dogwood (*Benthamidia florida*) form an open subcanopy. A fairly sparse shrub layer includes saplings of canopy tree species, witch hazel (*Hamamelis virginiana*), and maple-leaved viburnum (*Viburnum acerifolium*). A rich herbaceous flora includes blunt-lobed hepatica (*Anemone americana*), perfoliate bellwort (*Uvularia perfoliata*), four-leaved milkweed (*Asclepias quadrifolia*), early meadow-rue (*Thalictrum dioicum*), false foxgloves (*Aureolaria flava*, *A. pedicularia*, and *A. virginica*), wild coffee (*Triosteum aurantiacum*), bush clovers (including *Lespedeza procumbens*), tick-trefoils (*Desmodium rotundifolium* and others), and

sedges such as reflexed sedge (*Carex retroflexa*), ribbed sedge (*Carex virescens*), and big star-sedge (*Carex rosea*).

Differentiating Occurrences: Dry, Rich Oak Forests are on the richer, less acidic end of a continuum of oak-dominated forests. The addition of occasional maples in the canopy, flowering dogwoods and hop-hornbeams in the subcanopy, and a shrub layer lacking abundant heaths distinguishes this from more acidic oak forests and woodlands, such as Mixed Oak, Open Oak, and Black Oak - Scarlet Oak Forests/Woodlands. On the rich end of the continuum, Dry, Rich Oak Forests are related to Sugar Maple - Oak - Hickory Forests that are moister and have a greater abundance of northern hardwoods (primarily sugar maple, basswood, and white ash). The herbaceous layer of Sugar Maple - Oak - Hickory Forests has fewer legumes and more spring ephemerals than Dry, Rich Oak Forests, and herbaceous species indicative of rich conditions such as herb Robert, wild geranium, and baneberry . Red Oak – Sugar Maple Transition Forests have a greater dominance of red oak and sugar maple than Dry, Rich Oak Forests, and they have a less dense and rich herbaceous layer, particularly lacking the legumes and false foxgloves. Dry, Rich Oak Forests may be an open, early successional variant of Oak - Hickory Forests that is maintained by regular or severe disturbance, particularly fire. They both lack abundant sugar maple, basswood, and white ash, and lack spring ephemerals and herbaceous species indicative of rich conditions. Both include a mix of tree oak species and prominent but not dominant hickories. Oak - Hickory Forests tend to have more closed canopies and less of an herbaceous layer. Flowering dogwood is more common in the subcanopy of Oak - Hickory Forests than in Dry, Rich Oak Forests, where it also occurs.

Associated Fauna: Dry oak forests support a smaller mix of animal species than are found in moister communities. There are no species known to be restricted to the Dry, Rich Oak Forest community. Common species of dry sites include short-tailed shrew (*Blarina brevicauda*), white-footed mouse (*Peromyscus leucopus*), and chipmunks (*Tamias striatus*). Snakes of dry forest sites include garter snakes (*Thamnophis sirtalis*) and redbelly snakes (*Storeria occipitomaculata*). Birds that nest in dry oak forests include Eastern Wood-Pewee (*Contopus virens*), Red-eyed Vireo (*Vireo olivaceus*), Scarlet Tanager (*Piranga olivacea*), and Ovenbird (*Seiurus aurocapillus*).

Public Access: Northfield State Forest, Northfield.

Threats: Exotics; Japanese barberry (*Berberis thunbergii*) is reported from several sites.

Management Needs: Removal of exotics in exemplary cases.

USNVC/NatureServe: No direct equivalents: related to A3303 *Quercus rubra - Acer saccharum - Betula lenta* Forest Alliance -- *Acer saccharum - Quercus rubra/Hepatica nobilis* var. *obtusa* Forest [CEGL006046] which is better crosswalked to Sugar Maple - Oak - Hickory Forest. Other descriptions are close to various Oak - Hickory Forest associations, including *Quercus rubra - Carya* (*glabra*, *ovata*)/*Ostrya virginiana Carex lucorum*

Forest (Oak-Hickory/Hop hornbeam/Sedge Forest) [CEGL006301] in A2053 *Quercus alba* - *Carya* spp. - *Fraxinus americana* Forest Alliance.