

Terrestrial & Palustrine Plant Communities Of Pennsylvania

By Jean Fike

Dry oak-mixed hardwood forest

This type occurs on less acidic to somewhat calcareous, moderately dry soils. It is most often found on south and southwest-facing slopes. Common trees include *Quercus alba* (white oak), *Betula lenta* (sweet birch), *Carya cordiformis* (shellbark hickory), *Celtis occidentalis* (hackberry), *Acer rubrum* (red maple), *A. saccharum* (sugar maple), *Q. montana* (chestnut oak), *Q. velutina* (black oak), *Q. rubra* (northern red oak), *Carya glabra* (pignut hickory), *Fraxinus americana* (white ash), and *Tilia americana* (basswood). The shrub layer is perhaps more diagnostic. Characteristic shrubs include *Cornus florida* (flowering dogwood), *Carpinus caroliniana* (hornbeam), *Corylus cornuta* (beaked hazelnut), *Amelanchier arborea* (shadbush), *Cercis canadensis* (redbud), and *Ostrya virginiana* (hop-hornbeam). Ericaceous shrubs are uncommon, although *Kalmia latifolia* (mountain laurel) does occur on some sites. This type usually contains a somewhat richer herbaceous flora than the "Dry oak-heath" forest type (although restricted by moisture availability). Herbaceous species include *Smilacina racemosa* (false Solomon's-seal), *Uvularia sessilifolia* (wild-oats), *Polygonatum biflorum* (Solomon's-seal), *Asplenium platyneuron* (ebony spleenwort), *Desmodium spp.* (tick-trefoil), *Hieracium venosum* (rattlesnake weed), *Aralia nudicaulis* (wild sarsaparilla), *Carex pensylvanica* (a sedge), *Carex communis* (a sedge), and *Lysimachia quadrifolia* (whorled loosestrife).

Related types: The "Virginia pine - mixed hardwood forest" type sometimes occurs in association with this type (especially on calcareous shales) and is distinguished by the presence of a substantial conifer component (at least 25% relative cover). The "Dry oak - heath forest" occurs on more acidic sites and is distinguished from this by a clear dominance of ericaceous shrubs in the understory. The "Yellow oak - redbud woodland" type is more strongly calciphilic, with a clear dominance of calciphiles, is much more restricted in distribution, and generally has an open canopy.

Selected references: Braun 1955, Monk, 1mm, and Potter 1990, Pearson 1974, 1979.

Range: Entire state except Coastal Plain.

[Crosswalk: Smith's "Dry-Mesic Calcareous Central Forest," "Xeric Central Hardwood Forest," TNC's *Quercus (prinus, rubra) - Carya* Forest Alliance and parts of *Carya -Fraxinus - Quercus* Forest Alliance, although the latter is generally richer and more mesic, SAF's White oak - black oak - northern red oak (52).]