

Terrestrial & Palustrine Plant Communities Of Pennsylvania

By Jean Fike

Red oak - mixed hardwood forest

This broadly defined community type includes much of Pennsylvania's hardwood-dominated forests occurring on fairly mesic sites, and is therefore quite variable in composition. *Quercus rubra* (northern red oak) is usually present, often dominant/codominant, most often with *Acer rubrum* (red maple), *Quercus velutina* (black oak), *Q. alba* (white oak), *Carya tomentosa* (mockernut hickory), *C. ovata* (shagbark hickory), *Betula lenta* (sweet birch), *B. alleghaniensis* (yellow birch), *Fraxinus americana* (white ash), *Fagus grandifolia* (American beech), and/or *Liriodendron tulipifera* (tuliptree). Shrubs include *Viburnum recognitum* (northern arrowwood), *V. dentatum* (southern arrowwood), *V. acerifolium* (maple-leaved viburnum), *Amelanchier laevis* (smooth serviceberry), *A. arborea* (shadbush), *Kalmia latifolia* (mountain laurel), *Carpinus caroliniana* (hornbeam), *Ostrya virginiana* (hop-hornbeam), *Hamamelis virginiana* (witch-hazel), and *Lindera benzoin* (spicebush). The herbaceous layer is highly variable. Representative species include *Uvularia sessilifolia* (wild-oats), *Smilacina racemosa* (false Solomon's-seal), *Podophyllum peltatum* (may-apple), *Chimaphila maculata* (pippissewa), *Gaultheria procumbens* (teaberry), *Medeola virginiana* (Indian cucumber-root), *Caulophyllum thalictroides* (blue cohosh)—on richer sites, *Dryopteris* spp. (wood ferns), and *Dennstaedtia punctilobula* (hayscented fern).

Related types: The "Hemlock (white pine) - red oak -mixed hardwood forest" type is distinguished from this by the presence of at least 25% relative cover by hemlock and/or white pine. The "Northern hardwood forest" is distinguished by a greater percentage of birches, maples, and beech, and less oak.

Range: Entire state, although less common on the Unglaciaded Allegheny Plateau.

Selected references: Braun 1955, Gordon 1941, Harshberger 1904, Pearson 1974, 1979.

[Crosswalk: falls between Smith's "Dry - Mesic Acidic Central Forest" and "Mesic central forest," TNC's *Quercus rubra* - *Acer saccharum* Forest Alliance (mostly) and *Quercus (prinus, rubra)* - *Carya* Forest Alliance (to a lesser extent), SAF's Northern red oak (55).]