

Terrestrial & Palustrine Plant Communities Of Pennsylvania

By Jean Fike

Mixed mesophytic forest

This is specific to the southwestern part of the state and includes several species that find their northern and eastern limits in Pennsylvania. This is an extremely rich community type that typically occurs on deep soils at a lower slope position. Dominant trees include *Liriodendron tulipifera* (tuliptree), *Acer saccharum* (sugar maple), *Fagus grandifolia* (American beech), *Tilia americana* (basswood), *Quercus rubra* (northern red oak), *Magnolia acuminata* (cucumber-tree), *Prunus serotina* (wild black cherry), *Fraxinus americana* (white ash), *Juglans nigra* (black walnut), *Carya ovata* (shagbark hickory), *Aesculus glabra* (Ohio buckeye), and *A. flava* (yellow buckeye). *Tsuga canadensis* (eastern hemlock) may occur in these forests, but is not characteristically a dominant. Shrubs include *Asimina triloba* (pawpaw), *Staphylea trifolia* (bladdernut), *Rhododendron maximum* (rosebay), *Magnolia tripetala*^S (umbrella magnolia), *Cercis canadensis* (redbud), *Lindera benzoin* (spicebush), *Hydrangea arborescens* (wild hydrangea), and *Hamamelis virginiana* (witch-hazel). The herbaceous flora is extremely rich and includes such species as *Trillium grandiflorum* (white trillium), *T. erectum* (purple trillium), *T. sessile* (toadshade), *Erythronium americanum* (trout-lily), *Phlox divaricata* (wild blue phlox), *Anemone quinquefolia* (wood anemone), *Dicentra canadensis* (squirrelcorn), *D. cucullaria* (dutchman's-breeches), *Clintonia umbellulata* (speckled wood-lily), *Cimicifuga racemosa* (black snakeroot), *Geranium maculatum* (wood geranium), *Caulophyllum thalictroides* (blue cohosh), *Tiarella cordifolia* (foamflower), *Hepatica nobilis* (liverleaf), *Allium tricoccum* (wild leek), *Sanguinaria canadensis* (bloodroot), *Corydalis flavula* (yellow fumewort), *Botrychium virginianum* (rattlesnake fern), *Claytonia virginica* (spring-beauty), *Cardamine concatenata* (cut-leaved toothwort), *Mitella diphylla* (bishop's-cap), and *Asarum canadense* (wild ginger). Most of these systems have a complete, or nearly complete, annual litter turnover.

Related types: The "Hemlock - mesic hardwood forest" type usually has 25% or more relative cover by *Tsuga canadensis* (eastern hemlock), but is otherwise similar in ecology and species composition. The "Sugar maple -basswood forest" type is less species-rich than this type, often occurs on rocky slopes, and generally lacks the complete annual litter turnover that characterizes this type. The range of this community type is restricted to the Pittsburgh Plateau. Similar sites in other parts of the state most likely belong to either the "Sugar maple - basswood forest" type or the "Tuliptree - beech - maple forest" type.

Range: Pittsburgh Plateau.

Selected references: Braun 1950, Harker et al. 1993, PNDI field surveys

[**Crosswalk:** Smith's "Mesic Central Forest" (in part), TNC's *Liriodendron tulipifera* - *Tilia americana* var. *heterophylla* - *Aesculus flava* - *Acer saccharum* Forest Alliance, SAF's Yellow-poplar - white oak - northern red oak (59)—richer examples.]