



CENTRAL HARDWOOD NOTES

Central Hardwood Forest Types

Each of the four broad forest types, often called associations, that you will read about in these Notes is a complex, highly variable mixture of trees, shrubs, and herbs. This Note describes the species you will generally find in each type.

Oak-Hickory

This upland type is the most widespread and currently covers the greatest area. The great range of climate, soils, and topography over which it occurs results in a wide variety of species. Oaks dominate with white, black, scarlet, and northern red being most abundant throughout the central hardwood forest. Post oak and blackjack oak occur frequently in the western part of the area and chestnut oak may be important in the eastern part of the region. Other oaks that may also be present are southern red, chinkapin, bur, and northern pin. Everywhere hickories are a minor but consistent component. Other important overstory tree species that may be present include black gum, yellow-poplar, red and sugar maples, white ash, elms, American beech, black walnut, and occasionally black cherry.

Many small tree or understory species occur in oak-hickory stands. The most common ones are flowering dogwood, sassafras, redbud, serviceberries, eastern hophornbeam, and American hornbeam. Sourwood is common in the eastern part of the region. The most common woody shrubs associated with oak-hickory are witch-hazel, blueberries, mountain-laurel, and beaked hazel.

Oak-Pine

This upland type generally occurs on the drier sites in the southern part of the central hardwood forest. It is very similar to the oak-hickory type except that shortleaf, loblolly pitch, and Virginia pines, singly or in combination, make up 25 to 50 percent of the stand. The remainder is made up primarily of oaks but other hardwoods associated with oak-hickory may also be present.

Mixed Hardwoods

This type does not occur west of the Mississippi River except in one small area known as Crowley's Ridge in northwest Arkansas and southwest Missouri. East of the Mississippi River it is found primarily on the moister, more productive sites. It is composed of a greatly varying number of species none of which is generally predominant. The principal species are yellow-poplar, white oak, northern red oak, and sugar maple. White ash, black oak, chestnut oak, red maple, and blackgum occur frequently and hickory is usually present. Many other species may be found in the mixture including basswood, buckeyes, cucumbertree, and occasionally hemlock, black cherry, black walnut, and butternut.

Common understory species include flowering dogwood, eastern redbud, serviceberries, American hornbeam, sourwood, and sassafras.

Bottomland Hardwoods

This type occurs on the flood plains and terraces of the many rivers and small streams in the central hardwood forest. The lands it occupies may be subject to annual flooding but do not include areas where water remains permanently (the true swamps) during the growing season. A great number of species occur in highly variable mixtures. Important species that can be found in this association include cottonwood, elm, ashes, river birch, red and silver maples, sycamore, hackberry, sugarberry, pecan, and sweetgum. Nuttall, pin, willow, cherrybark, overcup, swamp chestnut, Shumard, and water oaks may also be present.

Within each of these associations, many individual forest cover types, as defined by the Society of American Foresters, are present.

References

- Braun, E.L. 1950. Deciduous forests of eastern North America. Philadelphia, PA: The Blakiston Co. 596 p.
- Eyre, F.H., ed. 1980. Forest cover types of the United States and Canada. Washington, DC: Society of American Foresters. 148 p.

Ivan L. Sander
North Central Forest Experiment Station
USDA Forest Service
Columbia, Missouri

Burnell C. Fischer
Department of Forestry and Natural Resources
Purdue University
West Lafayette, Indiana