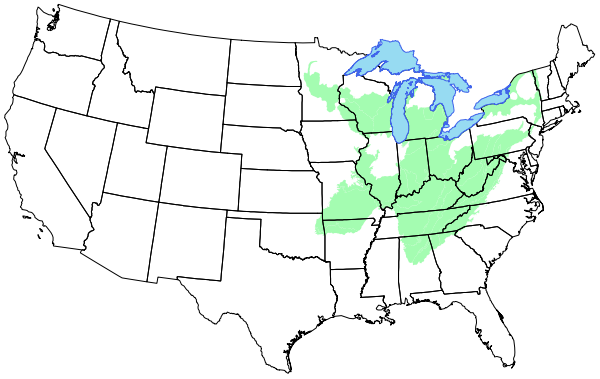
Eastern Deciduous Forest

Physical description

Most of the terrain is rolling except for the Appalachian Mountains and Ozark Mountains, which can be steep. The average annual precipitation ranges from approximately 35 inches to 90 inches and is usually well-distributed throughout the year. Summers are hot; winters are cold.



Dominant vegetation

Deciduous trees dominate the landscape across the Eastern Deciduous Forest ecoregion where there is a lack of disturbance. Depending on location, trees such as oaks, hickories, maples, American beech, basswood, buckeye, yellow-poplar, and black walnut are common in the overstory and can be indicators of a climax successional stage. Prevalent midstory trees include flowering dogwood, sassafras, sourwood, eastern redbud, hophornbeam, American hornbeam, and striped maple. Common shrubs include arrowwood, black huckleberry, blueberries, hawthorn, pawpaw, spicebush, viburnums, and witchhazel. A wide variety of forbs and ferns may be found in the understory. Common evergreen trees on many sites undergoing succession include eastern redcedar, Virginia pine, and shortleaf pine. In the Appalachians, eastern hemlock has been an important component in the Eastern Deciduous Forest. However, its decline following invasion of the Asian hemlock adelgid will surely lead to functional changes within this ecoregion.

Changes in the composition, structure, and function of the Eastern Deciduous Forest have already occurred during the past 100 years with the loss of American chestnut and the near total exclusion of fire. Prior to fire suppression, savannas and woodlands dominated by oak and shortleaf pine (depending on geographic location) were prevalent over much of this ecoregion.

Well-interspersed with forested areas in the Eastern Deciduous Forest ecoregion are agricultural fields, pastures and hayfields, and fields undergoing succession. "Old-fields" are those that were cropped in the past, and the vast majority of these has since been planted to nonnative grasses, especially tall fescue. Restoring old-fields and other open areas that contain nonnative sod grasses to native forbs and grasses is a major objective concerning wildlife conservation in this ecoregion. Common native grasses, forbs, brambles, and shrubs occurring naturally in openings and savannas include bluestems, panicgrasses, indiangrass, switchgrass, asters, lespedezas, tick-trefoils, partridge pea, pokeweed, blackberry, wild plum, and sumacs.

Commonly occurring nonnative invasive plants in the Eastern Deciduous Forest ecoregion include tall fescue, orchardgrass, bermudagrass, serecia lespedeza, royal paulownia, tree-of-heaven, callery pear, autumn and Russian olive, Japanese honeysuckle, bush honeysuckles, Chinese privet, and bicolor lespedeza.

Farming and ranching

Large areas of the Eastern Deciduous Forest ecoregion have been cleared for crop production and livestock forage. The major agriculture crops in the ecoregion are corn, soybeans, wheat, grain sorghum, and cotton. The dominant grasses grown for pasture and hayfields include tall fescue, orchardgrass, bermudagrass, dallisgrass, and bluegrass, all of which are nonnative. Depending on how croplands and pastures are managed, some wildlife species benefit. However, crop-fields are

Deciduous forest occurs over the Eastern Deciduous Forest ecoregion, except where areas have been cleared for agriculture and livestock.

summer or early fall (unless winter wheat is growing), pastures are most often overgrazed (leaving no cover for nesting or loafing), and hayfields consist of nonnative sod-grasses that provide poor structure for most wildlife species. The vast majority of fields that are not in crop production are hayed (or mowed for aesthetic purposes) at least twice per year, usually once during the height of the nesting season for grassland birds, and once in late summer/early fall, which destroys any value as winter cover for wildlife.

Plant succession

Annual forbs such as common ragweed (shown below) and grasses with a few perennial species represent the **initial successional stage**.

Perennial forbs and grasses (such as broomsedge, goldenrod, ironweed (purple flower), and thoroughwort (white flower) shown below) and brambles represent the **second successional stage**.

Pioneering tree and shrub species, such as wild plum and winged sumac (shown below), winged elm, eastern redcedar, Virginia pine, birches, and black cherry, represent the **third successional stage**.

8-year old mixed hardwood forest

80-year old mixed hardwood forest

Wildlife associated with Eastern Deciduous Forest

American woodcock
brown thrasher
eastern meadowlark
golden-winged warbler
great horned owl
mourning dove
northern bobwhite
ovenbird
wild turkey
wood duck
black bear
bobcat
eastern cottontail
eastern gray squirrel
gray fox
Indiana bat
white-tailed deer
eastern box turtle
timber rattlesnake
bluegill
American bumble bee
monarch butterfly

Eastern Deciduous Forest	American woodcock	brown thrasher	eastern meadowlark	golden-winged warbler	great horned owl	mourning dove	northern bobwhite	ovenbird	wild turkey	wood duck	black bear	bobcat	eastern cottontail	eastern gray squirrel	gray fox	Indiana bat	white-tailed deer	eastern box turtle	timber rattlesnake	bluegill	American bumble bee	monarch butterfly
Habitat Management Practices																						
Conservation Easement			X	X			X									X					X	X
Control Nonnative Invasive Vegetation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Create Snags				X	X					X					X	X						
Delay Crop Harvest																						X
Edge Feathering	X	X		X	X		X		X		X	X	X		X		X		X		X	X
Field Borders		X			X		X		X			X	X				X	X			X	X
Forest Management	X	X		X	X		X		X	X	X	X	X	X	X	X	X	X	X			
Leave Crop Unharvested						X	X		X	X	X		X	X			X					
Livestock Management	X	X	X	X	X	X	X	X	X	X		X	X	X	X		X	X	X	X	X	X
Nesting Structures										X						X						
Plant Food Plots						X	X		X	X	X		X	X			X					
Plant Native Grasses and Forbs			X			X	X		X				X				X	X			X	X
Plant Shrubs	X	X		X	X		X		X	X	X	X	X		X		X	X				
Plant Trees	X			X	X	X		X	X	X	X	X		X	X	X	X	X	X			
Repair Spillway/Levee						X				X										X		
Set-back Succession	X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X			X	X
Soil Conservation Agriculture					X	X	X		X	X	X		X				X					
Water Control Structures						X				X										X		
Water Developments for Wildlife						X			X	X		X				X	X	X				
Population Management Practices																						
Decrease Harvest							X		X		X	X	X	X	X		X			X		
Increase Harvest									X		X	X	X	X	X		X			X		
Wildlife Damage Management					X				X		X	X	X	X	X		X		X			
Wildlife or Fish Survey	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fish Pond/Stream Management Practices																						
Construct Fish Pond																				X		
Control Aquatic Vegetation																				X		
Fertilize/Lime Fish Pond																				X		
Reduce Turbidity in Fish Pond																				X		
Restock Fish Pond																				X		
Streams: Create Pools																						
Streams: Remove Fish Barriers																						