# Kentucky Ecological Regions

## Appalachian Plateaus region

This region includes eastern Kentucky and the eastern coal fields. This is an interesting area because geologically, it was an ocean bottom millions of years ago. It is not uncommon to find sea fossils in this area. This area was subject to uplifting to form the mountains that contain the Red River Gorge in the Daniel Boone National Forest. It is a mixed forest with a great diversity of tree species. Much of this area was logged for its wealth of large and diverse timber. The Lilly Cornett Woods is an old growth area providing an idea of the original forest in this

#### Bluegrass Region

The Bluegrass Region is characterized by a limestone shale geologic base that tends to provide a basic soil pH. It also contains the Kentucky River palisades. The original bluegrass ecology was open woodland savanna characterized by a grassland understory and giant individual trees including Kentucky coffeetree, black walnut, bur oak, and blue ash. Although most of the wooded savanna is gone, numerous large trees still dominate old estates and pastures in the bluegrass.

#### Cumberland Mountain region

At one time, Kentucky was blessed with a mixed mesophytic forest that was as diverse as any forested area on the east coast. Unlike most climax forests that were dominated by two or three tree types, Kentucky forests in this area contained a rich diversity in mature trees, as many as twenty different species. Unfortunately, these forests have been logged extensively and no primeval forests areas remain today. Glimpses of these impressive forests can be seen at Pine Mountain State Park and Cumberland Mountain National park.

#### Knobs region

The Knobs region is the area surrounding the Bluegrass where the mountains begin to rise as small hills. It is considered part of the outer Bluegrass region. The vegetation in this area is very diverse containing many interesting forest communities including maple-oak and beech-tulip poplar forests.

### Mississippi Embayment region

This region is also known as the Jackson purchase because Andrew Jackson purchased it from the Chickasaw Indians in 1818. It is adjacent to the Mississippi River and characterized by river bottoms and swamps. This is a unique area for Kentucky containing many coastal plain tree species more common to southeastern states. These include bald cypress, willow oak, pecan and sweet gum. Today much of this unique region has been drained and cleared for agriculture and habitation. A remnant wetland is preserved at Murphy's Pond in Hickman County.

#### Mississippian Plateaus region

This region is also known as the Pennyroyal or Pennyrile after a small mint-like plant native to the region. This region originally contained large sections of tall prairie. The

deep soils in this area have led to most areas being used or agricultural farming. The pennyroyal area also contains many underground caves and sinkholes.

# Shawnee Hills region

This region is also known as the western coal fields. There are mixed forests, river valleys and swamps in this area. This region contains the Green River and Mammoth Cave National Park. Tree species in the Shawnee hills region are diverse because it contains both mixed and oak-hickory forests as well as swampy areas along the flood plains of the Green River. Interesting areas include the bird sanctuary at John James Audubon State Park in Henderson County, and an old upland forest called Big Woods at Mammoth Cave.

		Ecological regions of Kentucky					
Latin name	Common name	Mississippi Embayment	Shawnee Hills	Mississippian Plateaus	Bluegrass	Appalachian Plateaus	
Acer rubrum	Red maple	X	X	X	X	X	
Acer saccharum	Sugar maple	X	X	X	X	X	
Aesculus glabra	Ohio buckeye	X	X	X	X	X	
Aesculus flava	Yellow buckeye	X	X	X	X	X	
Aesculus pavia	Red buckeye	X	X	X			
Amelanchier arborea	Downy serviceberry	X	X	X		X	
Amelanchier canadensis	Shadblow serviceberry		X	X	X	X	
Amelanchier laevis	Allegheny serviceberry				X	X	
Asimina triloba	Pawpaw	X	X	X	X	X	
Betula lenta	Yellow birch			X		X	
Betula nigra	River birch	X	X	X	X	X	
Carpinus caroliniana	American hornbean	X	X	X	X	X	
Carya illinoinesis	Pecan	X	X	X			
Carya glabra	Pignut	X	X	X	X	X	
Carya laciniosa	Shellbark hickory	X	X	X	X	X	
Carya ovata	Shadbark hickory	X	X	X	X	X	
Catalpa speciosa	Northern catalpa	X	X	X	X	X	
Celtis laevigata	Sugar hackberry	X	X	X	X		
Cercis canadensis	Eastern redbud	X	X	X	X	X	
Chionanthus virginicus	Fringetree			X		X	
Cladrastis kentukea	Yellowwood	X		X	X	X	
Cornus alternifolia	Pagoda dogwood			X	X	X	
Cornus floridus	Flowering dogwood	X	X	X	X	X	
Crataegus crusgalli	Cockspur hawthorn			X	X	X	

Crataegus viridis	Green hawthorn	X				X
Diospyros virginiana	Persimmon	X	X	X	X	X
Fagus grandifolia	American beech	X	X	X	X	X
Fraxinus americana	White ash	X	X	X	X	X
Fraxinus pennsylvanica	Green ash	X	X	X	X	X
Fraxinus quadrangulata	Blue ash			X	X	X
Gleditsia triacanthos	Honeylocust	X	X	X	X	X
Gymnocladus dioicus	Kentucky coffeetree	X	X	X	X	X
Halesia tetraptera	Mountain silverbell	X		X		X
Hamamelis virginiana	Common witchhazel			X	X	X
Ilex opaca	American holly			X		X
Juglans nigra	Black walnut	X	X	X	X	X
Liriodendron tulipifera	Tulip poplar	X	X	X	X	X
Liquidambar styricaflua	Sweet gum	X	X	X	X	X
Magnolia acuminata	Cucumbertree magnolia	X		X	X	X
Magnolia macrophylla	Bigleaf magnolia			X		X
Magnolia tripetala	Umbrella magnolia			X		X
Nyssa sylvatica	Blackgum	X	X	X	X	X
Ostrya virginiana	American hophornbeam	X	X	X	X	X
Oxydendron arborea	Sourwood	X	X	X		X
Prunus serotina	Black cherry	X	X	X	X	X
Pinus strobus	Eastern white pine		X	X		X
Pinus virginiana	Virginia pine		X	X		X
Platanus occidentalis	Sycamore	X	X	X	X	X
Quercus alba	White oak	X	X	X	X	X
Quercus coccinea	Scarlet oak	X	X	X	X	X
Quercus imbricaria	Shingle oak	X	X	X	X	X
Quercus muehlenbergii	Chinkapin oak	X	X	X	X	X
Quercus macrocarpa	Bur oak	X		X	X	
Quercus palustris	Pin oak	X	X	X	X	X

Quercus phellos	Willow oak	X	X	X		X
Quercus prinus	Chestnut oak	X	X	X	X	X
Quercus rubra	Northern red oak	X	X	X	X	X
Quercus velutina	Black oak	X	X	X	X	X
Robinia pseudoacacia	Black locust	X	X	X	X	X
Sassafras albidum	Sassafras	X	X	X	X	X
Stewartia ovata	Mountain stewartia					X
Taxodium distichum	Bald cypress	X	X	X	X	
Tilia americana	American linden	X		X	X	X
Tsuga canadensis	Eastern hemlock		X	X		X