

Summary Table: Characteristics of Ecoregions of Tennessee

65. SOUTHEASTERN PLAINS												
Level IV Ecoregion	Physiography	Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover		
Area (square miles)		Elevation / Local Relief (feet)	Soil and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation (inches)	Frost Free (days)	Mean Temperature (July min-max, °F)			
65a. Blackland Prairie	50	500-600	Quaternary dark gray clay or clay loam over Cretaceous-age chalk, marl, and calcareous silt.	Ultisols (Hapludalfs), Alfisols (Hapludalfs, Paludalfs), bottomland Entisols (Fluvaquents, Udifluvents)	Okibbeha, Silerton, Dolac, Sumner	Thermic / Udic	52	210	29/50	68/91	Oak-hickory forest. Blackbelt forest of sweetgum, oak, cedar; patches of bluestem prairie.	Cropland and pasture, with small patches of mixed hardwoods and pine.
65b. Flatwoods / Alluvial Prairie Margins	36	400-500	Quaternary massive clay decomposition residuum and alluvial silt, sand, and gravel; Tertiary massive, blocky clay and glauconitic sand.	Alfisols (Hapludalfs, Fragiudalfs), Ultisols (Hapludalfs, Paleudalfs), some bottomland Entisols (Fluvaquents)	Tippah, Lovernne, Smithdale, Wilcox, Falkner	Thermic / Udic, Aquic	52	210	29/50	68/91	Oak-hickory, oak-hickory-pine forest; bottomland hardwood.	Pasture, hay, and cropland, with areas of mixed hardwoods and pine.
65c. Southeastern Plains and Hills	4500	400-650	Dissected irregular plains, some low hills with broad tops; fairly wide stream bottoms with broad, level to undulating terraces; low to moderate gradient mostly sandy bottomed streams.	Alfisols (Paleudalfs, Fragiudalfs), Ultisols (Hapludalfs, Paleudalfs), some bottomland Entisols (Fluvaquents)	Lexington, Smithdale, Providence, Dula, Waverly, Bibb, Inka, Freedland	Thermic / Udic, some Aquic	48-52	200-210	26/47	67/90	Oak-hickory, oak-hickory-pine forest; some bottomland hardwood (sycamore, sweetgum, tupelo, oaks, cypress).	Mostly deciduous forest and mixed forest intermixed with areas of pasture and fields of hay, soybeans, corn, sorghum, wheat, and cotton.
65d. Fall Line Hills	9	450-685	Dissected open hills with rounded tops; low to moderate gradient streams with sandy substrates.	Ultisols (Paleudalfs, Hapludalfs)	Silerton, Smithdale, Waynesboro, Hickory	Thermic / Udic	53	207	29/50	67/90	Oak-hickory-pine forest.	Deciduous forest and mixed forest.
65j. Transition Hills	413	400-1000	Dissected open hills, broad to rounded tops and steep side slopes; low to moderate gradient streams with sand and some gravel.	Ultisols (Paleudalfs, Fragiudalfs)	Silerton, Savannah, Dickson, Lox, Saffell, Brandon	Thermic / Udic	53	205	28/48	66/90	Oak-hickory-pine forest.	Mixed forest, deciduous forest, pine plantations; some cropland and pasture in narrow valley bottoms and on gently sloping bluffs.

68. SOUTHWESTERN APPALACHIANS												
Level IV Ecoregion	Physiography	Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover		
Area (square miles)		Elevation / Local Relief (feet)	Soil and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation (inches)	Frost Free (days)	Mean Temperature (July min-max, °F)			
68a. Cumberland Plateau	3184	1200-2000	Undulating and rolling tabularland and some open low mountains; somewhat weakly dissected.	Ultisols (Hapludalfs), Inceptisols (Dystricceptes)	Lily, Ramsey, Loewwood, Gilpin	Mesic / Udic	48-60	180-200	24/44	63/85	Mixed oak forest on uplands; mixed mesophytic forest (maple, hickory, beech, tulip poplar, oak) in ravines and gorges.	Mostly forested; timber and coal mining activities; some cropland and pasture; tourism, public recreation and wildlife areas.
68b. Sequatchie Valley	250	600-1000	Undulating to hilly 4 mile wide linear valley, some level bottomland and low terraces; small alluvial fans; moderate to low gradient streams and several springs.	Ultisols (Paleudalfs, Hapludalfs)	Waynesboro, Etwah, Sequatchie, Patton, Felton	Thermic / Udic	52-60	190-210	25/45	65/88	Appalachian oak forest (mixed oaks, hickory, pine, poplar, birch, maple).	Cropland and pasture, with hay, soybeans, small grains, corn, and tobacco; mostly mixed forest on central ridge.
68c. Plateau Escarpment	1379	800-2400	Long, steep mountainsides, some nearly vertical cliffs near top of escarpment; ravines and gorges; high velocity, high gradient streams and many waterfalls.	Ultisols (Paleudalfs), Inceptisols (Dystricceptes)	Bouldin, Ramsey, Gilpin, Allen, Jefferson, Vanilla	Mesic / Udic	52-60	180-200	24/44	63/85	Mixed oak and chestnut oak on upper slopes; mixed mesophytic forest (beech, tulip poplar, maple, hawswood, hickory, ash, hemlock) on lower slopes.	Forested; steep slopes limit road building and forestry; mixed cropland and pasture in lower stream bottoms.

69. CENTRAL APPALACHIANS												
Level IV Ecoregion	Physiography	Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover		
Area (square miles)		Elevation / Local Relief (feet)	Soil and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation (inches)	Frost Free (days)	Mean Temperature (July min-max, °F)			
69d. Cumberland Mountains	896	1200-3500	Low mountains with long, steep slopes, narrow to rounded uneven crests, and narrow, winding valleys; highly dissected by moderate to high gradient, bedrock-dominated, clear-water streams.	Inceptisols (Dystricceptes), Ultisols (Hapludalfs)	Jefferson, Shelton, Gilpin, Petros, Ramsey, Lily, Altireast, Maskinger	Mesic / Udic	50-55	180	21/43	61/85	Mixed mesophytic forest (maple, hickory, beech, tulip poplar, oak).	Deciduous and mixed forest; extensive coal mining; forestry.

66. BLUE RIDGE MOUNTAINS												
Level IV Ecoregion	Physiography	Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover		
Area (square miles)		Elevation / Local Relief (feet)	Soil and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation (inches)	Frost Free (days)	Mean Temperature (July min-max, °F)			
66d. Southern Igneous Ridges and Mountains	235	2000-6200	Low to high mountains with rounded domes or long linear ridges and steep, long side slopes; high gradient, bedrock and boulder-bottomed cool, clear streams.	Ultisols (Hapludalfs)	Unaka, Ashe, Eadesville, Eyard	Mesic / Udic	48-60	150-170	20/45	57/82	Appalachian oak forest (mixed oaks, hickory, pine, poplar, birch, maple); mixed mesophytic forest (maple, hickory, beech, hemlock).	Mostly forested and public land (Cherokee National Forest); some private land, with small clearings for pasture or orchards on less steep slopes.
66e. Southern Sedimentary Ridges	799	1000-4500	Low rounded mountains, some with long linear ridges and steep slopes; high gradient, bedrock and boulder-bottomed cool, clear streams.	Inceptisols (Dystricceptes), Ultisols (Hapludalfs)	Wallen, Jefferson, Dimey, Unicoi, Canaan	Mesic / Udic	44-48 in north; 52-56 in south	150-200	22/47	59/84	Appalachian oak forest (mixed oaks, hickory, pine, poplar, birch, maple); mixed mesophytic forest (maple, hickory, beech, hemlock).	Forested; large areas of public land (Cherokee National Forest); recreation, hunting, and forestry.
66f. Limestone Valleys and Coves	139	1500-2500	Relatively flat to rolling valleys and coves with broad, long foot slopes, benches, and alluvial fans at base of surrounding high mountains; moderate gradient streams with cobble and boulders.	Ultisols (Paleudalfs, Hapludalfs), Alfisols (Hapludalfs)	Kenner, Lenoir, Northcote, Studler, Blodise	Thermic / Udic	45-55	160-190	23/46	60/85	Appalachian oak forest (mixed oaks, hickory, pine, poplar, birch, maple).	Small farms and rural residential; hay and pasture, with some tobacco patches; small wooded areas on fringes.
66g. Southern Metasedimentary Mountains	1338	1000-6600	Low to high mountains, gently rounded to steep slopes; high gradient, bedrock and boulder-bottomed cool, clear streams.	Inceptisols (Dystricceptes, Haplobracteops), Ultisols (Hapludalfs)	Sylco, Dimey, Jeffrey, Brookshire, Isomaska, Speyer, Canaan, Kenner, Lenoir, Unicoi	Mesic / Udic	55-75	170-200	24/47	61/86	Appalachian oak forest (mixed oaks, hickory, pine, poplar, birch, maple); northern hardwoods (maple, hickory, beech, hemlock); Southeastern spruce-fir forests (Fraser fir, red spruce, rhododendron).	Forested; large areas of public land (Cherokee National Forest, Great Smoky Mountains National Park); tourism, recreation, hunting, and some forestry.

71. INTERIOR PLATEAU												
Level IV Ecoregion	Physiography	Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover		
Area (square miles)		Elevation / Local Relief (feet)	Soil and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation (inches)	Frost Free (days)	Mean Temperature (July min-max, °F)			
71e. Western Pennyrail Karst	857	500-750	Irregular plains, mostly gently rolling and weakly dissected; karst sinkholes and depressions; few permanent streams, mostly small, intermittent streams.	Ultisols (Paleudalfs), Ultisols (Hapludalfs), Fragiudalfs	Pembroke, Cider, Baxter, Mountview, Dickson	Thermic / Udic	48-51	190-200	25/43	66/88	Oak-hickory forest and bluestem prairie.	Mostly cropland and pasture; tobacco, livestock, with some corn, soybeans, and small grains; small patches of mixed and deciduous forest; large military reservation.
71f. Western Highland Rim	5871	400-1000	Highly dissected open hills, rolling to steep; narrow winding to moderately broad ridges; some level bottomland along major streams and rivers; moderate gradient streams with gravel, sand, and bedrock substrates.	Ultisols (Paleudalfs, Fragiudalfs, Hapludalfs), Alfisols (Paleudalfs), Inceptisols (Dystricceptes, Enticceptes)	Mountview, Dickson, Baxter, Brandon, Hawthorne, Sulphura, Lox, Saffell	Thermic / Udic	50-56	185-205	24/46	65/89	Oak-hickory forest; somewhat transitional between the more xeric oak-hickory forest to the west and the more mesic mixed mesophytic forest to the east.	Mostly deciduous forest; some pasture and cropland on flatter stream and river valley terraces; primarily hay, cattle, and some corn and tobacco.
71g. Eastern Highland Rim	2923	300-1000	Weakly dissected plateau or tabularland; moderately dissected open hills and knobs to the north; some sinkholes and depressions; low to moderate gradient gravel- and bedrock-bottomed streams; springs.	Ultisols (Fragiudalfs, Hapludalfs), Alfisols (Paleudalfs)	Dickson, Mountview, Baxter, Waynesboro, Cumberland, Deatur	Thermic / Udic	52-56	190-210	25/46	65/88	Mostly oak-hickory, but transitional between the more xeric oak-hickory forest to the west and the more mesic mixed mesophytic forest to the east; several areas of bottomland hardwoods.	Cropland and pasture, with nurseries, hay, and small acreages of corn, cotton, soybeans, small grains, and tobacco; farm woodlots and deciduous forest; urban.
71h. Outer Nashville Basin	4414	500-1200	Oppis hills, gently rolling to steep; some plains with hills; highly dissected escarpments; moderate gradient bedrock- and gravel-bottomed streams.	Ultisols (Paleudalfs, Hapludalfs), Alfisols (Hapludalfs), Inceptisols (Dystricceptes, Enticceptes)	Deltree, Mirrosa, Stiversville, Hampshire, Armour, Maury, Barfield, Hawthorne, Sulphura	Thermic / Udic	48-54	190-210	25/47	66/89	Mostly oak-hickory, but transitional between the more xeric oak-hickory forest to the west and the more mesic mixed mesophytic forest to the east.	Mosaic of urban, pasture, mixed forest, and cropland; generally deciduous forest on ridge caps, pasture and red cedar stands on hillsides; small fields of corn, tobacco, hay, and garden crops on foot slopes and bottom land.
71i. Inner Nashville Basin	1670	500-900	Smooth to rolling plain, with some small knobs and hills; low gradient clear water streams on bedrock substrate.	Ultisols (Hapludalfs), Mollisols (Rendolls)	Talbott, Bradyville, Gladeville, Inman, Mirrosa	Thermic / Udic	48-53	190-210	25/46	66/90	Oak-hickory forest; cedar glades (poverty grass, red cedar, winged elm, hackberry, oaks).	Urban and residential; pasture and cropland of hay, with some corn and small grains; beef cattle and dairying; patches of mixed woodland and stands of red cedar.

73. MISSISSIPPI ALLUVIAL PLAIN												
Level IV Ecoregion	Physiography	Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover		
Area (square miles)		Elevation / Local Relief (feet)	Soil and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation (inches)	Frost Free (days)	Mean Temperature (July min-max, °F)			
73a. Northern Mississippi Alluvial Plain	854	200-300	Flat plains and levees of the Mississippi River floodplain; a few low gradient streams, mostly channelized; oxbow lakes, ponds, swamps, tectonic lakes (Reelfoot, Open).	Entisols (Fluvaquents, Udifluvents), Inceptisols (Haplaquents), Mollisols (Argudolls, Hapludolls), Alfisols (Endoaquents)	Commerce, Robinsonville, Sharkey, Tunica, Reelfoot, Bowdrie, Fossiladele	Thermic / Udic, Aquic	49-52	200-220	27/45	70/90	Southern floodplain/bottomland hardwood forests (oak, tupelo, bald cypress).	Extensive cropland of soybeans, cotton, corn, sorghum, vegetables, and hay; some deciduous forest and forested wetlands.

67. RIDGE AND VALLEY												
Level IV Ecoregion	Physiography	Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover		
Area (square miles)		Elevation / Local Relief (feet)	Soil and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation (inches)	Frost Free (days)	Mean Temperature (July min-max, °F)			
67d. Limestone / Dolomite Valleys and Low Rolling Hills	5324	700-2000	Undulating to rolling valleys with rounded hills, some steep ridges in the north; coves and springs; moderate to low gradient streams with bedrock, cobble, gravel, and sandy substrates.	Ultisols (Paleudalfs)	Fullerton, Dewey, Decatur, Bolivar, Wayne	Thermic / Udic	40-54	190-220	26/45	66/87	Appalachian oak forest (mixed oaks, hickory, pine, poplar, birch, maple); bottomland oak and mesophytic forests; cedar and cypress barrens.	Cropland and pasture, mixed forest, some pine plantations, rural residential, urban and industrial.
67e. Southern Shaly Valleys	1433	800-1500	Undulating to rolling valleys, some low rounded hills and knobs; moderate to low gradient streams with bedrock, cobble, gravel, and sandy substrates.	Inceptisols (Enticceptes, Dystricceptes), Ultisols (Hapludalfs), Alfisols (Hapludalfs)	Dandridge, Bays, Needmore, Montevallo, Towleay	Thermic, Mesic / Udic	40-54	190-220	26/46	66/88	Appalachian oak forest (mixed oaks, hickory, pine, poplar, birch, maple); some pine plantations.	Pasture with small fields of hay, corn, tobacco, small farms and rural residential; minor patches of mixed forest, some pine plantations.
67h. Southern Sandstone Ridges	326	900-3000	Tall, steep ridges, some narrow intervening valleys; high to moderate gradient streams with mostly rocky substrates.	Inceptisols (Dystricceptes), Ultisols (Hapludalfs)	Wallen, Jefferson, Gilpin	Mesic / Udic	44-54	180-200	24/43	64/85	Appalachian oak forest (mixed oaks, hickory, pine, poplar, birch, maple); some mixed mesophytic forest (beech, tulip poplar, oaks, hickories, basswood).	Deciduous and some mixed forest; minor pasture and cropland in narrow valley bottoms.
67i. Southern Dissected Ridges and Knobs	585	800-2000	Ridges, hills, and knobs, lower and more dissected than 67h; small, moderate to high gradient streams with rock, cobble, and gravel substrates.	Inceptisols (Dystricceptes, Enticceptes), Ultisols (Hapludalfs)	Leflow, Litz, Markingum, Montevallo, Wallen, Dandridge, Tellico, Steekee	Mesic / Udic	44-54	180-210	25/44	65/86	Mostly mixed forest, some pasture and cropland on less sloping land.	Mostly mixed forest, some pasture and cropland on less sloping land.

74. MISSISSIPPI VALLEY LOESS PLAINS												
Level IV Ecoregion	Physiography	Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover		
Area (square miles)		Elevation / Local Relief (feet)	Soil and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation (inches)	Frost Free (days)	Mean Temperature (July min-max, °F)			
74a. Bluff Hills	486	150-200	Irregular plains with dissected hills and ridges; steep to gently hillsides and narrow hollows to the west, smoother terrain to the east; moderate to low gradient silt and sand bottomed streams, some with occasional gravel.	Alfisols (Hapludalfs, Fragiudalfs), Entisols (Udifluvents, Fluvaquents), Inceptisols (Enticceptes)	Memphis, Loring, Adler, Natchez	Thermic / Udic	50-52	200-230	27/45	70/90	Oak-hickory forests, with some areas richer in mesophytes such as beech and sugar maple.	Deciduous forest; pasture and cropland (hay, soybeans, cotton, corn, wheat) on small farms on gentler slopes.
74b. Loess Plains	4023	250-400	Irregular plains, level to gently rolling, with wide, flat bottomlands and floodplains; low gradient silt and sand bottomed streams, most have been channelized.	Alfisols (Fragiudalfs, Hapludalfs, Epiaqualfs), Entisols (Fluvaquents, Udifluvents)	Granada, Loring, Memphis, Collins, Waverly, Falaya, Rounton	Thermic / Udic, Aquic	50-52	200-230	27/45	70/90	Oak-hickory forests; southern floodplain/bottomland hardwood forests (oak, tupelo, bald cypress).	Cropland of soybeans, cotton, corn, grain sorghum, and some pasture; deciduous forest and forested wetlands on larger bottomlands.

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