Summary Table: Characteristics of the Ecoregions of Mississippi

Level IV Ecoregions

Northern

Holocene

73b. Northern

73d. Northern

Pleistocene

Valley Trains

Backswamps

Southern

Holocene

73m. Southern

74.

Meander Belts

Backswamps

Level IV Ecoregions

74b. Loess Plains

74c. Southern

Rolling Plains

Level IV Ecoregions

75a. Gulf Coast

Flatwoods

75i. Floodplains and

75k. Gulf Barrier

Coastal

Marshes

Geographer, v. 6, p. 3-18.

Islands and

Low Terraces

Meander Belts

MISSISSIPPI ALLUVIAL PLAIN

Elevation/

5-40

Flat plains with depressions | 70-200 | Quaternary (Holocene)

5-25

5-40

| Flat plains with depressions | 35-100 | Quaternary (Holocene)

5-25

MISSISSIPPI VALLEY LOESS PLAINS

Elevation

1592 | Dissected hills and ridges | 60-360 | Quaternary loess often

some wide, flat floodplains; 50-200 in floodplains, some

3885 Dissected irregular plains, 60-510 Quaternary loess and

SOUTHERN COASTAL PLAIN

Elevation/ Local Relief

5-25

Physiography

Local Relief

Local Relie

Surficial and Bedrock

alluvial sand, silt, clay, and

Pleistocene) alluvial sand,

alluvial clay and silty clay

alluvial sand, silt, clay, and

alluvial clay and silty clay

Surficial and Bedrock

30-50 ft. or more thick:

Miocene) sand, silt, and

100-250 | Tertiary (Eocene to

70-630 Quaternary loess with

alluvial silt and sand

residuum; Tertiary (Eocene) sand and clay.

loessial colluvium

residuum; Tertiary

sand, and siltstone.

alluvial gravel and sand,

Quaternary and Tertiary

sandy clay decomposition

(Miocene) clay, sandy clay,

Surficial and Bedrock

| Quaternary quartz sand,

shell fragments, silt,

Pleistocene and Pliocene

silt, clay, muck, peat, some

Pleistocene and Pliocene

shell fragments, silt, clay,

5-30 | clay, muck, peat, some

1-50 | Quaternary quartz sand,

0-25 | Quaternary quartz sand,

5-15 muck, peat.

100-200 and alluvium, some

Quaternary and Tertiary

sandy clay decomposition

some layers of peat and

some layers of peat and

25-100 | Quaternary (Holocene)

100-190 | Quaternary (Holocene and | Alfisols (Endoaqualfs,

30-214 | Quaternary (Holocene)

5-25 silt, clay, and gravel.

Physiography

5428 | Flat plains and river

channelized.

1101 | Flat plains with relict

channelized.

patterns of branching

channels, irregular braid

bars and interfluve areas:

low gradient streams with

silty substrates, often

containing ponded

streams with silty

Flat plains and river

substrates.

wetlands, swamps and

lakes; some low-gradient

meander belt with levees.

abandoned channels. Large

point bars, oxbows, and

rivers and some smaller low-gradient streams, often

containing ponded

streams with silty

steeper hillsides and

narrow valleys to the west

smoother terrain to the east

Moderate to low gradient

Dissected irregular plains,

low gradient, silt and sand

mostly gently rolling; low

gradient, silt and sand

bottomed streams.

666 | Flat to gently undulating

with sandy and silty

substrates.

swamps.

plain; low gradient streams

175 | Major river floodplains and |

associated low terraces;

oxbow lakes, ponds,

low gradient streams with sandy and silty substrates,

Tidal marshes, bays, river

deltas, lagoons, barrier

islands, dunes, beaches.

level to gently rolling.

bottomed streams.

silt and sand bottomed streams, some with occasional gravel.

substrates.

wetlands, swamps and

lakes; some low-gradient

Physiography

meander belt with levees.

abandoned channels. Large

low-gradient streams, often

point bars, oxbows, and

rivers and some smaller

	Level IV Ecoregion	ıs	Physiography	Geology Soils Climate								Potential Natural Vegetation	Land Use and Land Cover
	_	Area (square		Elevation/ Local Relief	Surficial and Bedrock	Order (Great Group)	Common Soil Series	Temperature/ Moisture Regimes	Precipitation Mean annual	Frost Free Mean annual (days)	Mean Temperature January min/max; July min/max (°F)		
65a.	Blackland Prairie	miles) 2108	Undulating irregular plains, nearly level to strongly sloping; low gradient streams with chalk, clay, sand, and silt substrates.	(feet) 140-530 / 50-150	Quaternary to Tertiary dark gray to reddish clay solution residuum over Cretaceous-age chalk, marl, and calcareous clay.	Vertisols (Dystruderts, Hapluderts, Chromuderts), Inceptisols (Eutrudepts, Epiaquepts, Haplaquepts), Alfisols (Paleudalfs, Hapludalfs), Entisols (Udorthents, Fluvaquents), Mollisols (Hapludolls)	Vaiden, Okolona, Sumter, Oktibbeha, Kipling, Brooksville, Demopolis; on floodplains Griffith, Leeper, Catalpa, Marietta, Belden.	Thermic / Udic, some Aquic	(inches) 55-59	200-230	31/52 70/91	Blackbelt oak-cedar forest with chinkapin oak, blackjack oak, post oak, eastern redcedar, sweetgum, and hackberry; patches of bluestem prairie with big and little bluestem, yellow Indiangrass, prairie rosinweed, and prairie coneflower.	Pasture and cropland with hay, soybeans, corn, cotton, and pond-raised catfish production; small patches of mixed and deciduous forest.
65b.	Flatwoods / Blackland Prairie Margins	2641	Smooth lowland plains and undulating irregular plains, some low hills; sluggish, low gradient, clay and sand bottomed streams.	130-590 / 50-200	Quaternary to Tertiary massive clay decomposition residuum, medium to coarse sand decomposition residuum, some dark gray clay solution residuum; Tertiary (Paleocene) clay and sand, Cretaceous sand, clay, chalk, and marl.	Alfisols (Paleudalfs, Endoaqualfs, Hapludalfs), Vertisols (Dystruderts, Dystraquerts), Inceptisols (Epiaquepts), Ultisols (Fragiudults, Paleudults), Entisols (Fluvaquents)	Falkner, Adaton, Wilcox, Mayhew, Longview, Prentiss, Tippah, Quitman; on floodplains Mathiston, Leeper, Urbo, Una.	Thermic / Udic, some Aquic	55-59	200-230	31/51 69/91	Mixed oak forest, oak-hickory-pine forest. On more acidic Flatwoods, post oak, blackjack oak, southern red oak, and shortleaf pine. On Blackland Prairie Margins, white oak, black oak, pignut and mockernut hickory, tulip poplar, white ash, and southern sugar maple. Some cypress-gum swamp and bottomland hardwoods.	
65d.	Southern Hilly Gulf Coastal Plain		Dissected hills with rounded tops and gently sloping to strongly sloping side slopes; dissected irregular plains; some wide floodplains and broad, level to undulating terraces; low to moderate gradient mostly sandy bottomed streams.	/ 100-300	Quaternary fine to coarse sand, and sandy clay decomposition residuum; Tertiary (Miocene to Eocene) sand, clay, silt, limestone, and lignite, Cretaceous sand, clay, and lignite.	Ultisols (Hapludults, Paleudults, Fragiudults), Alfisols (Fragiudalfs), Entisols (Fluvaquents, Udifluvents), Inceptisols (Endoaquepts)	Smithdale, Sweatman, Providence, Ruston, Ora, Savannah, McLaurin, Heidel; on floodplains Iuka, Bibb, Kinston, Mantachie.	Thermic / Udic, some Aquic	56-60	210-240	33/56 70/91	Oak-hickory-pine forest with post oak, blackjack oak, southern red oak, shortleaf pine, pignut and mockernut hickory; in the south, pine and pine-oak forest with longleaf and some shortleaf pine, blackjack oak, sand post oak, bluejack oak; southern floodplain forest with cypress-gum swamp, bottomland hardwoods, and some loblolly pine.	Mixed forest, pine plantation intermixed areas of pasture, hayfields, and minor croplan cattle and poultry production bottomland forested wetlands, some public lands (Tombigbee, Bienville, and I Soto National Forests), oil are gas production in the south.
65e.	Northern Hilly Gulf Coastal Plain	3244	Dissected hills with rounded tops and gently sloping to strongly sloping side slopes; dissected irregular plains; low to moderate gradient streams with sandy substrates.	210-750 / 200-400	Quaternary clayey fine sand, medium sand, and ferruginous sand decomposition residuum; Tertiary (Eocene) sand, clay, and claystone; to the east, Cretaceous sand and sandy clay, glauconitic sand, clay and sandy limestone.	Ultisols (Hapludults, Paleudults, Fragiudults), Alfisols (Fragiudalfs, Hapludalfs), Entisols (Fluvaquents, Udifluvents), Inceptisols (Epiaquepts, Haplaquepts)	Smithdale, Luverne, Ora, Savannah, Ruston, Prentiss, Providence, Lexington; on floodplains Bibb, Iuka, Urbo.	Thermic / Udic, some Aquic	56-59	200-210	29/50 69/91	Mixed oak and oak-pine forest. Mostly black oak, post oak, blackjack oak, southern red oak, northern red oak, pignut and mockernut hickory, some shortleaf pine; in more mesic areas, white oak, sweetgum, American holly, beech, and tulip poplar.	Mixed forest, pine plantation deciduous forest, pasture, hayfields, minor cropland, some public land (Holly Springs National Forest).
65f.	Southern Pine Plains and Hills	6126	Southward-sloping, dissected irregular plains, some low rolling hills, mostly broad gently sloping ridgetops; low to moderate gradient sand and clay bottomed streams.	20-510 / 100-250	Quaternary sandy clay decomposition residuum, alluvial gravel and sand; Tertiary (Miocene) fine to coarse sand, gravelly sand, and clay.	Ultisols (Paleudults, Hapludults, Fragiudults, Paleaquults), Alfisols (Paleudalfs), Entisols (Fluvaquents)	McLaurin, Heidel, Benndale, Malbis, Ruston, Smithdale, Prentiss, Susquehanna, Freest; on floodplains Bibb, Smithton, Trebloc.	Thermic / Udic, some Aquic	60-68	230-250	37/60 70/92	Pine and pine-oak forest. Mostly longleaf pine, some slash pine to the south in wet areas, southern red oak, turkey oak, sand post oak, saw palmetto; some southern floodplain forest with cypress-gum swamp and bottomland hardwoods.	Pine plantations, pasture and some cropland of corn, soybeans, and cotton; poultr cattle, and dairy production, turfgrass and sod production some public land (De Soto National Forest).
65i.	Fall Line Hills	1069	Dissected hills with rounded tops; gently sloping to strongly sloping side slopes; low to moderate gradient streams with sandy and gravelly substrates.	/	Quaternary medium to coarse sand and gravel decomposition residuum; Cretaceous quartz sand, gravelly sand, micaceous clay.	Ultisols (Hapludults, Fragiudults), Alfisols (Hapludalfs), Entisols (Fluvaquents, Udifluvents), Inceptisols (Endoaquepts)	Smithdale, Okeelala, Brantley, Sweatman, Luverne, Savannah; on floodplains Mantachie, Iuka, Bibb.	Thermic / Udic, some Aquic	56-59	200-220	30/51 68/90	Mixed oak-pine forest, with white oak, southern red oak, black oak, post oak, sweetgum, hickories, and shortleaf pine.	Mixed forest, deciduous forest, and pine plantations, with areas of pasture, hay, as cropland.
65j.	Transition Hills		Dissected hills with broad to rounded tops and steep side slopes, some irregular plains; low to moderate gradient streams with sandy and gravelly substrates.	415-650 / 100-225	Quaternary gravel and sand decomposition residuum, some chert-fragment solution residuum; Cretaceous fine-grained sand, chert gravel in silt and sand, some Mississippian and Devonian shale, sandstone, and limestone.	Ultisols (Hapludults, Fragiudults, Paleudults), Entisols (Fluvaquents), Inceptisols (Endoaquepts, Dystrudepts)	Saffell, Smithdale, Luverne, Savannah, Ruston, Ora; on floodplains Mantachie, Kirkville, Jena, Bibb.	Thermic / Udic, some Aquic	56-59	200-210	28/47 67/89	Mixed oak-pine forest, with white oak, southern red oak, black oak, post oak, chestnut oak, sweetgum, hickories, shortleaf and some Virginia pine.	Mostly mixed and deciduous forest with some pine plantations, small areas of pasture and cropland in narrow valley bottoms and or gently sloping uplands.
65p.	Southeastern Floodplains and Low Terraces		Major river floodplains and associated low terraces; low gradient streams with sandy and silty substrates, oxbow lakes, ponds, and swamps.	10-250 / 5-35	Quaternary alluvial gravelly sand, quartz gravel and sand, silts, and clays.	Ultisols (Hapludults, Albaquults), Inceptisols (Dystrudepts, Endoaquepts), Entisols (Fluvaquents, Udifluvents, Quartzipsamments), Alfisols (Glossaqualfs)	On floodplains Bibb, Jena, Mantachie, Nugent, Kirkville, Rosebloom; on low terraces Cahaba, Latonia, Leaf, Guyton, Bigbee, Columbus.	Thermic / Aquic, some Udic	57 north; 60-64 south	220-230 north; 230-250 south	32-36/54-58 68/91	Southern floodplain forest. Includes cypress- gum swamp (bald cypress, pond cypress, water tupelo, swamp tupelo) and bottomland hardwood forest (bottomland oaks, sweetgum, American elm, red maple, green ash, water hickory).	Mostly forested wetlands and deciduous forest, some pine plantations and cropland on terraces.
65q.	Buhrstone/Lime Hills	334	Strongly dissected hills and rolling low hills, cuesta with northeast-facing steep slope; moderate or higher gradient streams with sand, gravel, cobble, and bedrock substrates.	/	Quaternary siliceous clay decomposition residuum, limonitic sandy decomposition residuum; Tertiary (Eocene) claystone, siltstone, clay, sandy clay, sandstone, limestone, and marl.	Ultisols (Hapludults), Entisols (Fluvaquents), Inceptisols (Dystrudepts, Endoaquepts)	Arundel, Lauderdale, Sweatman, Smithdale; on floodplains Bibb, Jena, Kirkville, Mantachie.	Thermic / Udic	57-62	220-230	34/57 70/92	Mixed oak-pine forest, with white oak, southern red oak, sweetgum, hickories, shortleaf and some longleaf pine.	Mixed and deciduous forest, pine plantations.
65r.	Jackson Prairie	955	Undulating irregular plains, nearly level to strongly sloping; low gradient streams with chalk, clay, sand, and silt substrates.	/	Quaternary and Tertiary smectitic clay decomposition residuum; Tertiary (Eocene) clay, calcareous clay, sand, marl, and shells.	Vertisols (Dystruderts, Hapluderts), Alfisols (Paleudalfs, Hapludalfs), Mollisols (Hapludolls), Inceptisols (Epiaquepts, Eutrudepts)	Vaiden, Okolona, Louin, Boswell, Kipling, Ichusa, Freest, Maytag, Okeelala, Brantley; on floodplains Catalpa, Griffith, Leeper, Urbo, Marietta.	Thermic / Udic	55-59	210-230	34/57 69/91	Oak-hickory-pine forest with post oak, water oak, white oak, southern red oak, mockernut hickory, sweetgum, some shortleaf, longleaf, or loblolly pine; scattered prairies of little bluestem, yellow Indiangrass, prairie clover, and prairie coneflower.	Pasture, pine plantations, mixed forest, cattle production, public land (Bienville National Forest).

74 65 71 65 CA
73 74b 73d 74b 75c 75c 75c 77d 77d 77d 77d 77d 77d 77d 77d 77d 77
73b 74a 65e
73a 73a 73d 73d 73d 73d 73d 73d
73d 73d 65d 65d
74b 74a 65r 65sq
74a 74c
73h 73h 74a 65f
74 65 75 75a
75a 75k 75k 73

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Soils

Common Soil Series

Commerce, Crevasse,

Dubbs, Beulah, Dundee.

Dundee, Askew,

Adler, Bruno.

Forestdale, Dubbs,

Sharkey, Tunica; on

Alligator, Dowling,

ommerce, Crevasse,

Dubbs, Beulah, Dundee

Sharkey, Newellton

Sharkey, Tunica,

Soils

Bowdre, Adler, Bruin,

Common Soil Series

Natchez: on floodplains

Memphis, Loring

Grenada, Loring,

Providence; on

Calloway, Memphis,

Ariel, Falaya, Collins,

Providence, Memphis,

Smithdale, Lexington,

floodplains Gillsburg,

Ariel, Oaklimeter, Falaya, Collins.

Soils

Atmore, Plummer,

Poarch, Hyde,

Daleville, Harleston,

Escambia, Smithton,

In Pascagoula River

Chastain, Arkabutla,

Arat, Maurepas; in

Pearl River system Rosebloom, Arkabutla,

Latonia, Ocilla, Leon,

Plummer, Handsboro,

oarrier islands Newhan,

Bohicket, Axis; on

Corolla, Duckston.

system Kinston,

oodplains Oaklimeter,

Adler, Collins.

Convent, Robinsonville,

Sharkey, Tunica,

doodplains Waverly,

Convent, Robinsonville,

Temperature/

Aoisture Regimes

Thermic /

Udic, Aquic

Thermic /

Udic, Aquic

Thermic /

Aquic, some

Thermic /

Thermic /

Aquic, some

Temperature/

Thermic /

Udic, some

Thermic /

Udic, some

Temperature/

Thermic /

Aquic, some

Thermic /

Hypethermic /

Aquic, some

Precipitation

Mean annual

(inches)

52-57

54-56

52-56

58-62

58-62

Precipitation

Mean annual

52-56

56-64

Precipitation

61-66

62-65

230-250

Climate

250-270

250-270

270-290

Frost Free Mean Temperature

Order (Great Group)

Udifluvents, Udipsamments)

Inceptisols (Endoaquepts

Dystrudepts), Entisols

Alfisols (Hapludalfs,

(Epiaquerts)

Endoaqualfs), Vertisols

Hapludalfs), Vertisols

Eutrudepts), Entisols

Vertisols (Dystraquerts,

piaquerts), Inceptisols

Inceptisols (Endoaquepts

Dystrudepts, Epiaquepts)

Jdipsamments), Alfisols

(Hapludalfs, Endoaqualfs)

Entisols (Udifluvents,

Vertisols (Epiaquerts)

/ertisols (Epiaquerts),

Mollisols (Hapludolls)

ceptisols (Endoaquepts

piaquepts, Eutrudepts),

Order (Great Group)

Alfisols (Fraglossudalfs,

ragiudalfs, Hapludalfs)

Fluvaquents), Inceptisols

(Endoaquepts, Dystrudepts)

Entisols (Udifluvents,

Alfisols (Fragiudalfs,

Fraglossudalfs, Hapludalfs),

(Udifluvents, Fluvaquents),

Order (Great Group)

Ultisols (Paleaquults,

Ultisols (Paleaquults),

Histosols (Haplosaprists),

Inceptisols (Endoaquepts

Dystrudepts), Entisols

(Hydraquents)

Ultisols (Hapludults.

Quartzipsamments,

Sulfaquents,

(Alaquods)

Paleaquults), Entisols

| Psammaquents), Histosols

(Sulfihemists), Spodosols

Information Center, Inc., p. 215-228.

Station, 27 p.

Paleudults, Umbraquults),

Alfisols (Glossaqualfs)

Inceptisols (Endoaguepts,

Ultisols (Hapludults), Entisols | Lorman, Loring; on

(Udifluvents)

Endoaquepts, Epiaquepts) Mollisols (Hapludolls)

(Udifluvents)

(Epiaquerts), Inceptisols

(Epiaquepts, Endoaquepts,

Climate

210-230

220-230

210-230

230-250

230-250

Frost Free Mean Temperature

Mean annual (days) | January min/max;

Frost Free Mean Temperature

Iean annual (days) | January min/max

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Land Use and Land Cover

Cropland with mostly cotton

and soybeans, also corn,

wheat, rice, and sorghum;

and sod production, some

also corn, wheat, rice, and

rice, and sorghum, catfish

(Delta National Forest).

production, some public land

Forested wetlands, deciduous

forest, cropland with cotton,

soybeans, corn, and wheat.

soybeans, corn, and wheat.

Land Use and Land Cover

cotton, corn, wheat) on small

farms on gentler slopes; oil

production, mixed forest,

deciduous forest, cropland

with soybeans, cotton, and

Land Use and Land Cover

forested wetland, some pasture

and cropland on better drained

Marsh, forested wetland,

urban, evergreen forest,

beaches, wildlife habitat,

recreation, fish and shellfish

areas, urban.

on larger floodplains.

and gas production.

deciduous forest and forested

catfish production, turfgrass

Potential Natural Vegetation

Bottomland hardwood forests. Mostly

overcup oak, water hickory, Nuttall oak,

and sweetgum. Riverfront forests include

black willow, cottonwood, river birch, and

sycamore. Bald cypress and water tupelo in

open, mixed deciduous trees and giant cane.

Bottomland hardwood forests with Nuttall

hickory, sweetgum, sugarberry, American

hickory, elm, green ash, and sweetgum.

deciduous trees and giant cane.

Bottomland hardwood forests. Mostly

overcup oak, water hickory, Nuttall oak,

and sweetgum. Riverfront forests include black willow, cottonwood, river birch, and

sycamore. Bald cypress and water tupelo in wettest areas. Some forested canebrakes with open, mixed deciduous trees and giant cane.

overcup oak, water hickory, willow oak,

deciduous trees and giant cane

52-56 north; 200-220 north; 31/50 north; Oak-hickory forests with some areas richer | Mostly deciduous forest and

poplar, beech, and white ash). South of

Vicksburg, some beech-magnolia-holly

Oak-hickory and oak-hickory-pine forests

oak, blackjack oak, mockernut and pignut

forests with cypress-gum swamp (bald

cypress, water tupelo) and bottomland hardwoods (overcup oak, swamp chestnut oak, water oak, water hickory, red maple, and

Oak-hickory-pine forest with white oak,

Potential Natural Vegetation

longleaf pine savanna, longleaf pine-saw

palmetto woodland, wet (slash) pine-pond

gum swamp (bald cypress, pond cypress,

water tupelo, swamp tupelo) and bottomland

sweetgum, American elm, red maple, green

saltgrass, rushes); tidal freshwater marsh

(arrowhead, spikerush, bullrush); maritime

baccharis); maritime slash pine savanna

(slash pine, saltmeadow cordgrass); maritime evergreen forest (live oak, upland laurel oak,

hardwood forest (bottomland oaks,

Salt and brackish marshes (cordgrass,

shrub (rosemary, scrub oaks, eastern

slash pine); dune grass (sea oats).

ash, and water hickory).

(mostly white oak, post oak, southern red

hickory, shortleaf and some loblolly pine,

56-62 south 220-250 south 35/57 south in mesophytes (mostly water oak, cherrybark mixed forest, some pasture

Nuttall oak, sweetgum, elm, and green ash. Some forested canebrakes with open, mixed

Potential Natural Vegetation

willow oak, red maple, green ash, elm,

Some forested canebrakes with open, mixed

and giant cane.

wettest areas. Some forested canebrakes with wetlands.

oak, willow oak, swamp chestnut oak, water | soybeans and some cotton,

elm, and green ash. Some bald cypress and sorghum; catfish production,

water tupelo in wettest areas. Some forested | some deciduous forest and

In wettest areas, cypress-gum swamps (bald | Deciduous forest, forested

cypress, water tupelo); on less flooded zones, wetlands, cropland with

overcup oak, Nuttall oak, willow oak, water cotton, soybeans, corn, wheat,

In wettest areas, cypress-gum swamps (bald | Forested wetlands, deciduous

oak, white oak, sweetgum, basswood, tulip and cropland (hay, soybeans,

beech, blackgum); some southern floodplain | corn; some forested wetlands

post oak, southern red oak, blackjack oak, some pasture and cropland,

mockernut and pignut hickory, shortleaf and oil and gas production, public

some loblolly pine; small areas of longleaf land (Homochitto National

| Slash pine flatwoods/savanna with wiregrass, | Pine plantations, mixed forest,

Southern floodplain forest. Includes cypress- | Forested wetland, deciduous

cypress, water tupelo); on less flooded zones, forest, cropland with

canebrakes with open, mixed deciduous trees | forested wetlands.

willow oak, red maple, green ash, elm,

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