Ecological site PX133A00X008
White Cedar Swamp

Accessed: 05/04/2024

General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

MLRA notes

Major Land Resource Area (MLRA): 133A–Southern Coastal Plain

This MLRA (shown in orange in the figure above) is in Alabama (26 percent), Mississippi (24 percent), Georgia (21 percent), Florida (8 percent), North Carolina (7 percent), Virginia (5 percent), South Carolina (4 percent), Tennessee (4 percent), and Louisiana (1 percent). It makes up about 106,485 square miles (275,930 square kilometers). It is the largest MLRA in the U.S. The city of Alexandria, Virginia, is at the northernmost tip of the area. The MLRA also includes Fredericksburg, Richmond, and Petersburg, Virginia; Rocky Mount, Goldsboro, Fayetteville, and Lumberton, North Carolina; Florence, Sumter, and Orangeburg, South Carolina; Albany and Tifton, Georgia; Tallahassee, Florida; Tuskegee, Eufaula, Selma, and Tuscaloosa, Alabama; Savannah, Tennessee; Corinth, Starkville, Grenada, Meridian, Hattiesburg, and McComb, Mississippi; and Bogalusa, Louisiana. Interstates 95, 64, 85, 40, 20, 20/59, 26, 16, 75, 10, 65, 59, and 55 cross this area from north to south. This area extends from Virginia to Louisiana and Mississippi, but it is almost entirely within three sections of the Coastal Plain Province of the Atlantic Plain. The northern part is in the Embayed Section, the middle part is in the Sea Island Section, and the southern part is in the East Gulf Coastal Plain Section. This MLRA is strongly dissected into nearly level and gently undulating valleys and gently sloping to steep uplands. Stream valleys generally are narrow in their upper reaches but become broad and have widely meandering stream channels as they approach the coast. Elevation ranges from 80 to 655 feet (25 to 200 meters), increasing gradually from the lower Coastal Plain northward. Local relief is mainly 10 to 20 feet (3 to 6 meters), but it is 80 to 165 feet (25 to 50 meters) in some of the more deeply dissected areas.

Classification relationships

ATTENTION: This ecological site meets the requirements for PROVISIONAL. A provisional ecological site is established after ecological site concepts are developed and an initial state-and-transition model is drafted. A provisional ecological site typically will include literature reviews, land use history information, legacy data, and must include some soils data, ocular estimates for canopy and/or species composition by weight, and some line-point intercept information. A provisional ecological site provides the conceptual framework of soil-site correlation for the development of the ESD. For more information about this ecological site, please contact your local NRCS office.

Table 1. Dominant plant species

Tree	(1) *Chamaecyparis thyoides*
Shrub	Not specified
Herbaceous	Not specified

Legacy ID

F133AY008NC

Physiographic features

This area extends from Virginia to Louisiana and Mississippi, but it is almost entirely within three sections of the Coastal Plain Province of the Atlantic Plain. The northern part is in the Embayed Section, the middle part is in the Sea Island Section, and the southern part is in the East Gulf Coastal Plain Section. This MLRA is strongly dissected into nearly level and gently undulating valleys and gently sloping to steep uplands. Stream valleys generally are narrow in their upper reaches but become broad and have widely meandering stream channels as they approach the coast. Elevation ranges from 80 to 655 feet (25 to 200 meters), increasing gradually from the lower Coastal Plain northward. Local relief is mainly 10 to 20 feet (3 to 6 meters), but it is 80 to 165 feet (25 to 50 meters) in some of the more deeply dissected areas.

Table 2. Representative physiographic features

Landforms	(1) Alluvial flat

Climatic features

Influencing water features

Soil features

Landscape: Lower to upper coastal plain
Landform: Flats, Carolina bays, and depressions
Geomorphic Component: Talfs, dips
Parent Material: Marine deposits or fluviomarine sediments
Elevation: 25 to 450 feet
Mean Annual Air Temperature: 57 to 70 degrees
Mean Annual Precipitation: 38 to 52 inches
Frost Free Period: 190 to 245 days

GEOGRAPHICALLY ASSOCIATED SOILS:
Byars soils--have an umbric epipedon
Dunbar soils--are better drained
Duplin soils--are better drained
Grady soils--have more clay in the particle-size control section
Goldsboro soils--are better drained and fine-loamy
Lynchburg soils--are better drained and fine-loamy
Marlboro soils--are better drained
Norfolk soils--are better drained and fine-loamy
Pantego soils--have an umbric epipedon and are fine-loamy
Rains soils--are fine-loamy

DRAINAGE AND PERMEABILITY:
Drainage Class (Agricultural): Poorly drained
Internal Free Water Occurrence: Very shallow to shallow, common to persistent
Flooding Frequency and Duration: None
Ponding Frequency and Duration: None
Permeability: Moderately slow

USE AND VEGETATION:
Major Uses: Forest, some pasture and cropland
Dominant Vegetation: Where cultivated--corn, soybeans, and truck crops. Where wooded--loblolly and longleaf pine, sweetgum, blackgum, water oak, willow oak, water tupelo, elm, and hickory.

Coxville, McColl, Paxville, Rains, Rutlege, Toisnot, Torhunta

Ecological dynamics

The major influence on Atlantic white cedar is the depth and duration of flooding or drought, and fire. If water levels are low, and the intensity of fire is such that large amounts of peat burns, the likelihood that natural regeneration is low due to the loss of viable seed. However, light fire when water levels are normal clears the competition from woody species such as sweetgum and red maple.

State and transition model

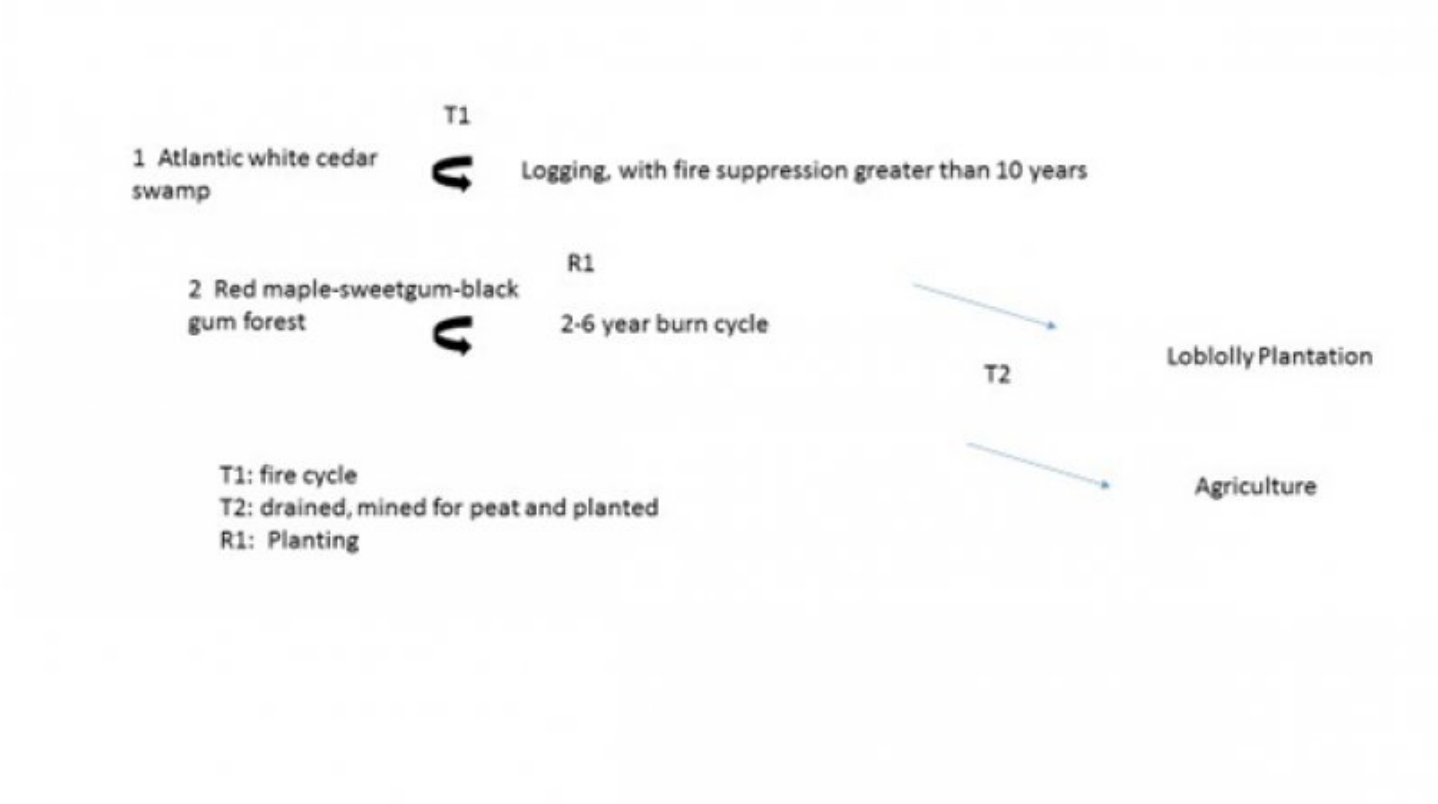

Figure 1. image

State 1
reference

Streamhead Pocosin includes forests and woodlands with an evergreen shrub stratum and canopy dominated by Pond Pine (*Pinus serotina*). Other similar forested wetlands may be dominated by Atlantic White Cedar (*Chamaecyparis thyoides*), and/or hardwoods such as Sweet Bay (*Magnolia virginiana*), Swamp Black Gum (*Nyssa biflora*), and Tuliptree (*Liriodendron tulipifera*). These are treated in the Sandhill Streamhead Pocosin and Swamp Environmental Site Description document. Sandhill Seep is usually just upslope from the Sandhill Streamhead Pocosin and Swamp, and the environmental site is only slightly different, The ecological dynamics of the Streamhead Pocosin is influenced by the amount and duration of saturation or flooding and the frequency and intensity of wildland fire. These areas are generally upstream from well developed floodplains, and are more influenced by seepage fed saturation, than by flooding for stream channel overflow. These seepage habitats support many evergreen shrubs which can burn in medium to high intensity wildland fires. The leaves of these shrubs contain volatile oils which provide substantial fuel to fires which may approach this riparian habiat from adjacent uplands at medium intensity. The varied frequency and intensity of wildland fire contributes to a mosaic of different vegetation with in this ecological site.

Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:**

2. **Presence of water flow patterns:**

3. **Number and height of erosional pedestals or terracettes:**

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):**

5. **Number of gullies and erosion associated with gullies:**

6. **Extent of wind scoured, blowouts and/or depositional areas:**

7. **Amount of litter movement (describe size and distance expected to travel):**

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):**

12. **Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):**

    Dominant:

    Sub-dominant:

    Other:

    Additional:

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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):**

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14. **Average percent litter cover (%) and depth (in):**

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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):**

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16. **Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:**

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17. **Perennial plant reproductive capability:**
