Natural Communities of Louisiana

Hardwood Slope Forest

**Rarity Rank:** Hardwood Slope Forest - S3S4/G4  
**Synonyms:** Beech-Magnolia Forest, Mixed Hardwood Forest, Hammock, Mixed Mesic Hardwood Forest  
**Ecological Systems:**  
CES203.280 West Gulf Coastal Plain Mesic Hardwood Forest  
CES203.378 West Gulf Coastal Plain Pine-Hardwood Forest  

**General Description:**
- More or less evenly distributed in uplands statewide  
- Occur on slopes (often steep) rising out of small stream floodplains  
- Soils typically rich, mesic, silt loams, and silty clay loams with pH range from acidic to circumneutral  
- Dominated by hardwood tree species, with generally sparse herbaceous layer  
- *Pinus taeda* (loblolly pine) may be present but infrequent  
- Fire occurred very rarely in hardwood slope forests, and insect and pathogen outbreaks are likely more important disturbance vectors in this community

**Plant Community Associates**

**Common overstory tree species include:**
- *Fagus grandifolia* (beech),  
- *Quercus alba* (white oak),  
- *Q. michauxii* (swamp white oak),  
- *Q. laurifolia* (laurel oak),  
- *Magnolia acuminata* (cucumber tree),  
- *M. pyramidata* (pyramid magnolia, rarely),  
- *Liquidambar styraciflua* (sweetgum),  
- *C. cordiformis* (bitternut hickory),  
- *Pinus taeda* (loblolly pine – occassional),  
- *Magnolia grandiflora* (southern magnolia),  
- *Q. shumardii* (shumard oak),  
- *Q. nigra* (water oak),  
- *Q. velutina* (black oak),  
- *M. macrophylla* (big-leaf magnolia),  
- *Liriodendron tulipifera* (tulip tree),  
- *Carya tomentosa* (mockernut hickory),  
- *C. glabra* (pignut hickory),  
- *Pinus glabra* (spruce pine – FL Parishes)

**Common midstory & understory species include:**
- *Oxydendrum arboreum* (sourwood),  
- *Styrax grandifolia* (bigleaf snowbell),  
- *Symlocos tinctoria* (sweetleaf),  
- *Stewartia malacodendron* (silky camelia),  
- *Halesia diptera* (silverbell),  
- *Cornus florida* (flowering dogwood),  
- *Prunus caroliniana* (cherry-laurel),  
- *Ilex ambiguia* (holly),
Common midstory & understory species continued:
- *Amelanchier arborea* (downy service-berry)
- *Carpinus caroliniana* (ironwood)
- *Vaccinium arboreum* (winter huckleberry)
- *Erythrina herbacea* (red coral bean)
- *Illicium floridanum* (starbush-FL Parishes)
- *Ostrya virginiana* (eastern hophornbeam)
- *V. elliottii* (Elliott's blueberry)

Common herbaceous and fern species include:
- *Hexastylis arifolia* (wild ginger, FL Parishes)
- *Polygonatum biflorum* (smooth solomon’s seal)
- *Tipularia discolor* (crane-fly orchid)
- *Mitchella repens* (partridge-berry)
- *Podophyllum peltatum* (may-apple)
- *Polymnia uvedalia* (bear-paw)
- *Lilium michauxii* (Carolina lily)
- *Phegopteris hexagonoptera* (broad beech-fern)
- *Trillium* spp. (wake-robbins)
- *Uvularia perfoliata* (bellwort)
- *Viola* spp. (violets)
- *Spigelia marilandica* (Indian pink)
- *Sanicula* spp. (snakeroots)
- *Chamaelirium luteum* (devil's-bit)
- *Arisaema* spp. (jack-in-the-pulpits)
- *Polystichum acrostichoides* (Christmas fern)
- *Asplenium platyneuron* (ebony spleenwort)

Federally-listed plant & animal species:
None

Range:
Occurs in portions of the East Gulf Coastal Plain, Upper West Gulf Coastal Plain, and Lower West Gulf Coastal Plain

Threats & Management Considerations:
The hardwood slope forest community is estimated to have occupied 100,000 to 500,000 acres historically and of that an estimated 25 to 50% still remains. Habitat conversion to pine plantations or residential uses, invasive and exotic species, construction of roads, utilities and pipelines, and use of off-road vehicles all currently threaten long-term viability of these forests.

Use of appropriate management activities and developing a compatible management plan prevents destruction or degradation of this habitat type and promotes long-term maintenance of healthy hardwood slope forests. Such management strategies should include:
- Preventing conversion of existing natural forests to other land uses
- Maintain natural species composition by following appropriate hardwood management techniques
- No harvesting on steep slopes and during wet periods to prevent soil damage
- Surveying for and removal of any invasive plant species (exotics or woody) with use of spot herbicides or mechanical means
- Prohibiting off-road vehicle use or restricting use to existing trails

For more information, please visit our web pages at [www.wlf.la.gov/wildlife/louisiana-natural-heritage-program](http://www.wlf.la.gov/wildlife/louisiana-natural-heritage-program) or call 225-765-2821