

MAINLAND PLANT COMMUNITIES OF THE NC COASTAL PLAIN

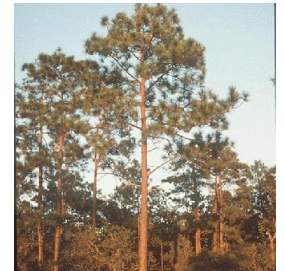
1. Xeric Sandhill Scrub/Coastal Fringe Sandhill: driest community in the Coastal Plain with excessively drained sandy soils populated by plants able to tolerate low moisture/nutrient conditions. Typically found on sand ridges deposited by either marine, wind (aeolian) or Carolina bay formation (meteorites, comet, schooling fish?) processes. Classic dominant vegetation consists of an open longleaf pine canopy with scattered turkey oak understory and sporadic clumps of wiregrass in the herb layer. However, variable plant densities and other understory species may be present depending upon location and past land use. Fires are either infrequent or do not spread because of low fuel levels.



community appearance



longleaf pine



turkey oak



wiregrass



dwarf huckleberry



stinging nettles

2. Pine Savanna: graminoid-dominated (including grasses, sedges and rushes) community with scattered pines (usually longleaf) and few to no shrubs. Relatively wetter soils compared to xeric sandhill scrub sites with subsoils containing either buried humus or clay layers that slow drainage. Periodic fire (2-5 years) is crucial to maintenance of the herbaceous understory and to prevention of shrub invasion, particularly where soils have considerable clay content. This community is one of the most diverse per unit area of any on earth – over 50 species per m² have been documented – and prime habitat for insectivorous plants that are adapted to low nitrogen and phosphorus soils. Numerous orchids, lilies and composites are also found here depending upon the season.



community appearance



toothache grass



bluestem grass



white-bracted sedge



Venus' flytrap



yellow pitcher plant



grass pink

3. Pine Flatwoods: pine-dominated (either longleaf, loblolly and/or pond pines) community with a fairly continuous understory of small trees and shrubs; herb layer largely absent or present only in patches. Soil moisture in this generic cover type ranges between excessively-drained sandhill scrub to poorly-drained pocosin soils. Fires are less frequent than in savannas but, in some instances, can result in savanna-like conditions following an intense burn.



community appearance



loblolly pine



pond pine



water oak



mockernut hickory



sweetgum



gallberry holly



sheep kill

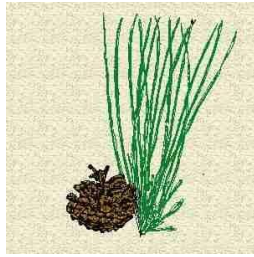


creeping blueberry

4. Pocosin: shrub bog with scattered to closed canopy of pond pine over evergreen shrubs growing in very wet muck to sandy soils. Fires are infrequent (10+ years), but intense and may ignite a ground fire in organic soils. Although this community often has saturated soils, it does not occur near rivers or streams but rather on poorly-drained uplands.



community appearance



pond pine



red bay



sweet bay



fetterbush



titi



inkberry holly

5. Swamp Forest: frequently to seasonally inundated woodlands generally found along rivers, streams or the edges of standing water bodies. Soils are typically fine-textured and flooded to saturated most of the year. Dominant trees – cypress, gums and various lowland hardwoods – are deciduous and often have swollen or buttressed bases to their trunks. Small trees and shrubs may be common to rare depending upon the level of flooding. Herbs are restricted (e.g., to openings or on the trees themselves) or may be absent because of shading and standing water. Tannin-stained blackwaters are created by slow aquatic decomposition of plant litter, while brownwater systems are associated with transport of upstream sediments. Fire is obviously rare in this community, but may occur during extended droughts.



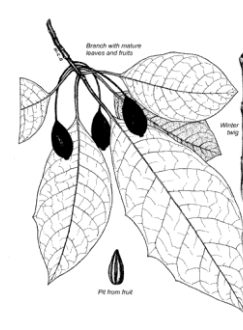
community appearance



bald cypress



swamp black gum



swamp tupelo



overcup oak



buttonbush



lizard's tail

6. Mixed Hardwood Forest: typically found on sites (e.g., north-facing river bluffs and ravine slopes; upland flats or “islands” surrounded by swamp communities) that are sheltered from fire by topography or by moisture regimes. Well-drained mesic soils with clayey subsoils are most common. Vegetation structure consists of large hardwood canopy dominants over shade-tolerant shrubs/herbs that are subject to periodic storm damage resulting in gaps that allow regeneration and/or introduction of new species.



community appearance



American beech



tulip poplar



white oak



Flowering dogwood



ironwood



witch hazel



Christmas fern



partridge berry

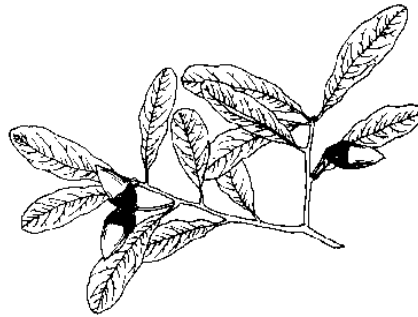
7. Coastal Fringe Evergreen Forest: found on flat and low hills along the mainland coast, this forest has many species in common with the evergreen maritime forest, but is not as exposed to salt spray (i.e., no salt shear) and the effects of storms. Also, wildfires from adjacent inland communities may spread into this habitat. Soils types vary and may consist of either Entisol, Spodosol or Ultisol series. Dense canopies of evergreen oaks and loblolly pine plus shrub understories of yaupon, wax myrtle, and red bay allow little light penetration to the sparse herb layer.



Community appearance



laurel oak



live oak



loblolly pine



yaupon



wax myrtle



red bay

8. freshwater depressions and water bodies: include lime sinks, Carolina bays, vernal ponds and local swales that range from perennial to temporary water bodies. Vegetation ranges from submerged aquatic to emergent species (i.e., mostly herbs with scattered woody vegetation), but may change dramatically from year to year depending upon moisture conditions. Soils types vary among Entisol, Spodosol, Histisol or Ultisol series. Fires may spread from adjacent uplands during drought periods.



community appearance



water lily



narrow-leaved cat-tail



wool grass



mermaid weed



bladderwort



bog buttons