Florida's Flatwoods

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NATURAL COMMUNITIES of Florida’s Flatwoods

by Linda Conway Duever

Flatwoods are the most familiar Florida habitat. The flat expanses of grasses and shrubs scattered with pines seem to stretch forever along the highways. Unfortunately, very little of this is truly natural forest. All but a few remnant stands have been logged, so the trees we see are much smaller than those that grew there originally. And much of the present flatwoods is really pine plantation where the soil has been plowed up and carefully spaced seedlings of a commercial “improved” slash pine have been planted to produce pulpwood. Other sites are heavily grazed or protected from fire so that the understory vegetation composition is no longer natural. Herbaceous species. Others include the understory vegetation typically the most abundant grazed or protected from fire so that common woody species. Wiregrass is commercially “improved” slash pine Lyonia ferruginea; dangleberry, Vaccinium repens, is almost always the most abundant wiregrass and legumes less so. Most pine flatwoods are on acid sands with an organic hardpan or clay layer one-to-four feet below the surface. Cabbage palm is prominent on more alkaline sites underlain by marl or shell.

WET FLATWOODS

Sites where water stands for a month or two of the year are classified as Wet Flatwoods. These may be either open grassy savannas or shrubby pocosins. The canopy trees are usually slash pine, Pinus elliottii, or pond pine, Pinus serotina; but sometimes longleaf pine, Pinus palustris, pond cypress, Taxodium ascendens, or cabbage palm, Sabal palmetto, dominates.

Wiregrass, Aristida stricta and/or A. spiciformis, is usually the most abundant species on sites with an open understory, but some savannas are carpeted with toothache grass, Ctenium aromaticum. Other common herbaceous species include redroot, Lachnanthes caroliniana; candyweed, Polygala lutea; St. John’s Wort, Hypericum galiodes, H. tetrapetalum, and other spp.; Virginia chain fern, Woodwardia virginica; smooth seymiera, Seymeria cassiodes; buchnera, Buchnera americana; pink sabatia, Sabatia grandiflora; bigelowia, Bigelowia nudata; Florida tickseed, Coreopsis nudata; Florida tickseed, Coreopsis dentata; cabbage palm is prominent from their bases, and the community is soon more vigorous than it was before. If, however, the site has gone unburned for many years and a heavy fuel load of dry shrubs and waxyleaved palmettos has accumulated, a hot fire can throw flames up into the canopy and kill the trees.

Summer lightning fires were the burning mechanism the community evolved with, but now roads, canals, and developed areas interfere with spreading fires, and land managers must compensate with prescribed burns. These fires are usually set in the winter when the vegetation is drier and working around a hot fire is more comfortable. This means that the woods burn at a different point in their annual life cycle than the animals and plants have adapted to. Observers feel this is causing palmetto to become more abundant and wiregrass and legumes less so.

WET FLATWOODS

MESC FLATWOODS

Mesic Flatwoods are moist pine forests that rarely flood. They may be composed of slash and/or longleaf pines, but saw palmetto, Serenoa repens, is almost always the dominant understory plant. Gallberry, Ilex glabra; yaupon, I. vomitoria; tarflower, Befaria racemosa; shining sumac, Rhus copallina; wax myrtle, fetterbush, Lyonia ferruginea; dangleberry, Vaccinium frondosa; and pawpaw, Asimina reticulata, are other common woody species. Wiregrass is typically the most abundant herbaceous species. Others include broomsedge, Andropogon virginicus; bracken, Pteridium aquinimum; rayless sunflower, Helianthus radula; white sabatia, Sabatia brevifolia; blazing star, Liatris gracilis and other spp.; elephantopus, Elephantopus tomentosus; and many Dry Prairie plants.

Although Mesic Flatwoods are extremely abundant, there are a few rare variations of the community. Dade Sandy Pineland, with a mixture of flatwoods and Pine Rockland understory species, including several rare South Florida endemics, has been almost eliminated. Tamiami Pines is the only site which has survived the urbanization of south Florida. Coastal types, such as the Insular Slash Pine Flatwoods of the Panhandle, have been much reduced by resort development.

SCRUNNY FLATWOODS

Scrubby Flatwoods are the driest flatwoods. They typically have a scattered canopy of longleaf pine, though in south Florida it is sometimes slash pine. The sparse, shrubby understory is composed of a mixture of Mesic Flatwoods and Scrub species. Sand live oak, Quercus geminata; Chapman’s oak, Q. chapmani; myrtle oak, Q. myrtifolia; creeping live oak, Q. minima; runner oak, Q. pumila; saw palmetto, fetterbush, staggerbush, Lyonia fruticosa; garberia, Garberia fruticosa; scrub blueberry, Vaccinium myrsinites; wiregrass, Chapman’s goldenrod, Solidago chapmani; and grassleaf goldenaster, Heterotheca graminifolia, are among the common species.

This is the sixth in a series of articles describing the Natural Communities defined by the Florida Natural Areas Inventory (FNAI). This classification system must be viewed as a system of mental constructs imposed upon an infinite variety of growing, changing, intergrading, natural environments. Hence, more often than not, a given site will not precisely fit a classic description of the appropriate natural community. By practicing comparing these descriptions to vegetation observed in the field, an interested naturalist should be able to learn to identify plant communities accurately and contribute valuable site information to conservation efforts.