

Hardwood Forestry at GWP

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Take a look at Camp Pirtle's forests and it's easy to think that the main types of trees that grow there are pine trees, but that's not the case. While softwood species of pines are important components of those forests, hardwood species are also a big part of the camp's plant population. That's the reason that Pirtle's forest is often referred to as a mixed pine-hardwood forest.

"Softwood" is the common term for tree species that have needles for leaves and cones for fruit, pine and cedar trees for instance. "Hardwood" is the term for species that have broad leaves and non cone-like fruit – acorns, nuts, etc, like the oaks, hickories, maples, and others. The terms are actually misnomers, though, because many "softwoods", like the pines at GWP, have wood that is harder than some of the so-called "hardwoods". Suffice it to say that they are commonly used to differentiate tree species.

Only two species of pine trees grow naturally at GWP but there are several species of hardwoods, including at least nine species of oak trees that grow there. Other hardwoods include sweet gum, black gum, and several species of elm, hickory, ash, and maple. Honey locust, black locust, American holly, flowering dogwood, sugar berry, and several others can also be located in the camp's forest. It's common to have 20-30 species of trees and shrubs growing on the same acre.

The Forest Stewardship Plan for Camp Pirtle calls for using a variety of forestry techniques to sustain the ecosystem, depending on the characteristics and planned uses of specific areas. Some areas will be maintained primarily as hardwood areas or stands, as foresters call them. Those stands have soil and water properties that are well-suited to growing hardwood species. Two of the sites best suited for growing hardwoods are along the camp's major creek, Colo Creek, and below the Lake Murvaul Dam.

The reasons that hardwood areas are found mainly in low-lying areas are interesting. Scientists theorize that, after the Gulf of Mexico receded to its current location thousands of years ago, the climate of what would become East Texas was warm and moist. The landscape was covered with hardwood trees and plant species that grew well under those conditions. As the climate gradually became drier, moisture-loving plants grew better in creek and river bottoms, not on the uplands. Flooding deposited silts and clays in those low-lying areas and the soils retained moisture longer during dry periods. Leaves falling from hardwood trees and shrubs ensured that the soil was less acidic than on the well-drained uplands, which would become home to stands of pine trees.

The area's Native-American people encouraged the situation by the frequent use of fire to improve their environment, sustain wildlife habitat, and hunt game. Thin-barked species like hardwoods did not survive repeated fires but died off of the upland sites and survived in the low, moist areas that were infrequent hosts to fires. Fire resistant species, pine in the area's case, occupied the drier, frequently burned sites, eventually becoming the

major species there. Mixed pine-upland hardwood forests became the norm after the virgin pine forests were logged and the use of frequent fire was curtailed.

The area of Camp Pirtle that lies below the Lake Murvaul Dam was naturally one of the moist sites. Repeated flooding by Murvaul and Colo Creeks deposited silts and maintained high soil moisture in the area, a perfect setup for bottomland hardwood trees. But ecosystems are dynamic and, once again, human-caused changes were coming.

In the 1950's construction began on the Lake Murvaul Dam and Murvaul Creek was blocked off. A spillway was built on the GWP end of the dam and a canal was cut to carry overflow water back to Murvaul Creek. A levee was built along the canal; most likely with the soil that was removed when the canal was dug. The dam and levee combined to limit the amount of flooding that occurred on what was to become Camp Pirtle's property and the soil began to dry out. Now, 47 years later, the soil and water characteristics of GWP's major hardwood site are different from what they once were. Flooding still occurs, though less frequently, and the site remains well-suited to the growth of quality hardwood trees.

In the future Camp Pirtle's hardwood stands will be harvested both to release young trees for improved growth of the remaining trees and for planting in areas that require more intensive forestry practices. The area below the dam falls into the latter category. Before the current Forest Stewardship Committee began their oversight of the camp's forests that stand was harvested in such a way that the number of tree species remaining was limited and the quality of the trees was poor. The stand received a final harvest in August of 2004; the site was prepared for planting in November of 2005; and the stand will be planted with 8,000 oak seedlings of 5 different native species in January of 2006. The species will include Nuttall oak, Shumard oak, swamp chestnut oak, chinquapin oak, and willow oak. Hardwoods with lighter seeds such as ash, elm, and sweetgum, will seed in naturally by being carried in on the wind, floods, and wild animals.

Taking advantage of the special nature of forest sites is one of the goals of the GWP Forest Stewardship Plan. In the language of forestry that's known as "site specific forestry." It takes more investigation, planning, and intense implementation and, in the long run, works with natural systems to maintain the diversity and sustainability of the camp's ecosystems. The result of those efforts will be a beautiful, healthy forest for Scouts, volunteers, and guests to enjoy for generations to come.