Swamp fires—a look at fire management in the South

by Alicia Duzinski

Hundreds of gators were resting along the banks of the Suwannee Canal, one of the few remaining open water holes on the Okefenokee National Wildlife Refuge, located in southeast Georgia where I worked last summer. As I walked down to take water-level readings, the gators slid and splashed into the water in a domino effect. The heat index was 115°and lightning cracked as enormous bolts of energy struck the earth, causing the purple afternoon sky to glow a supernatural hue. At this point, the water levels in the swamp were so low and the vegetation so dry that any lightning strike could cause a potentially serious wildfire.

During the summer of 1999, southeast Georgia and Florida experienced extreme drought conditions and volatile fire behavior. Water-levels in the 396,000-acre watershed that is the Okefenokee National Wildlife Refuge dropped an inch per day. In the summer months, violent lightning storms rock the swamp with over 500 lightning strikes on any given day. The swamp is made up of diverse habitats: from the dark cypress lined waterways to floating islands covered with trees and shrubs, from open water prairies to mats of floating peat that give the Okefenokee its Seminole name "land of trembling earth."

Flying over the Okefenokee NWR, it is striking how it resembles parts the Kenai Peninsula, with its peat moss, waterlilies, lakes, islands, and pockets of upland timber. The Okefenokee swamp has a certain mystique with its islands of southern pine, cypress-lined waterways and plants with names that roll off the tongue, like ti-ti, fetterbrush, sweet bay, loblolly, and pepperbush. This lush green vegetation is deceiving because it can burn violently under conditions that we would consider unburnable in Alaska.

Okefenokee NWR has a cooperative agreement with the State of Georgia Forestry Commission for fire suppression duties, similar to the Kenai NWR's agreement with Alaska State Forestry. Fire is such a natural part of the culture in the South that people don't really get that worried when they see smoke. All year long, the refuge conducts prescribed burns to return the upland areas to the native longleaf pine-wiregrass habitat for the endangered Red Cockaded Woodpecker. The timber companies bordering the swamp burn slash piles after harvest, so it is not unusual to see smoke on any given day. However, large-scale fires that threaten life and property are given full attention, and national resources were called into fight the huge fires that occurred last summer.

Lightning strikes started last summer's two large fires on the Okefenokee. The 14,000-acre Hickory Island fire ignited in April and continued smoldering into June. We were on alert for any threats to surrounding homes and timber company lands. The Friendly Fire broke out on the Florida border in June and eventually crossed into Georgia and the swamp. Extreme fire behavior caused almost 30,000 acres to burn over during one afternoon, and the fire consumed 70,000 acres before it was contained. Thousands of acres of slash pine belonging to Rayonier Inc., Toledo Manufacturing, Superior Pine and International Paper companies were burned in the fire.

In 1994, the Greater Okefenokee Association of Landowners (GOAL) was formed due to concerns over the danger and expense of fighting wildland fires. The group consists of 80 local landowners who collectively represent over 2 million acres of land surrounding the Okefenokee. The refuge works closely with GOAL members to maintain the swamp's edge break, a 200-mile fuel break around the perimeter of the Okefenokee. This fuel break acts to prevent fire from entering or leaving the swamp and makes it safer and easier to fight fires in the remote areas around the swamp. The GOAL members built and paid for helicopter dip sites every three miles around the swamp, most of which are on private land.

Similarly on the Kenai Peninsula, neighborhood groups are working with the Kenai NWR and state and local fire protection officials through Project Impact to help prevent fire from threatening their homes and families.

Fire is critical to the Okefenokee swamp. Without fire, the natural process of forest succession would cause peat buildup, allowing shrubs to grow. Eventually a hardwood forest would take over, sucking up the precious water supply. Historically, lightning has kept this process in check by generating large-scale

fires that keep the waterways open and remove the shrub buildup from the forest floor.

Alicia Duzinski is the Fire Program Technician at the Kenai National Wildlife Refuge. She spent the summer working as a wildland firefighter on the Okefenokee National Wildlife Refuge in southeast Georgia. If you would like to learn more about fire management or other refuge programs, stop by the refuge headquarters on Ski Hill Road in Soldotna, call us at 262-7021, or check out our website at http://www.fws.gov/refuge/kenai/.