

COMPARISON OF PREDATION RATES ON WILD TURKEY HENS BETWEEN TWO FOREST ECOSYSTEMS IN MISSISSIPPI

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ABSTRACT: Because of increases in predator populations, concern has arisen about effects on wild turkey (Meleagris gallopavo) populations. We examined differences in predation of adult hens between 2 forested areas in Mississippi. Twin Oaks Wildlife Management Area (OAKS), located in the Mississippi Alluvial Valley, is a 2,302 ha tract of mature bottomland hardwood forest surrounded on 3 sides by soybean fields. Tallahala Wildlife Management Area (TWMA) is a 14,410 ha mixed forest in central Mississippi and is part of a large, forested ecosystem. Hens were captured, fitted with transmitters, and monitored by telemetry, 1990-1994 on TWMA ($n = 86$) and on OAKS ($n=23$) during 1994. Mortality rate from canids (Canis spp.) and bobcats (Felis rufus) was higher (0.43) on OAKS than on TWMA (0.16). Higher predation rate on OAKS may have been caused by the fragmented nature of OAKS, a lack of a groundstory vegetation layer, and poor nest habitat conditions. A higher prey base (i.e., small mammals) on OAKS may have contributed to higher canid/felid populations. Managers may need to reconsider predator control measures on fragmented forests when attempting to manage for high wild turkey densities.

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