

**Response of nesting turtles to introduced shrubs and forest succession on the E. S. George Reserve over 32 years.** Justin D. Congdon, Savannah River Ecology Laboratory, Drawer E, Aiken, South Carolina, USA, and Institute of Ecology, University of Georgia, Athens, GA .

Over the past 32 years (1975 - 2007) of study, nesting areas on the University of Michigan's Edwin S. George Reserve (ESGR) have been reduced by introduced shrubs (primarily Autumn Olive) and forest succession. We examined the nesting activity of turtles that used nesting areas prior to and after nesting areas became unusable by females. Nests of females were located by frequent searches of all known nesting areas, fate of nests were determined, date of destruction by predators noted, and hatchlings were marked at emergence from successful nests. Two major nesting areas were impacted. The following are examples of response to forest succession by Blanding's turtles nesting in the Fox Den and Blow Out areas. Nest fell from 8 to 5 to 0 and in the Blowout from 17 to 13 to 3 over the three decades of study as more of the areas became increasingly shaded. Fox Den females placed 77.5 % of their subsequent nests within 500 m of Fox Den and 22.5 percent of their nests > 1 km away. Blowout females placed 73.3 % of their subsequent nests within 500 m of the Blowout and 26.7% > 1km away. Surface soil temperatures in both the Fox Den and Blowout nesting areas are less variable and lower than are those in open nesting areas. One absolute for all three species is that on the ESGR, nests constructed in areas without direct sunlight for at least 25% of the day do not produce viable hatchlings.