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Home Range and Habitat Use of Eastern Box Turtle (*Terrapene carolina*) in the North Georgia Piedmont

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The Eastern Box Turtle (*Terrapene carolina*) is a long-lived terrestrial species found throughout the eastern United States. Despite classification as vulnerable by the IUCN, data regarding habitat use and home range is limited, especially in the Piedmont region of the southeastern U.S. Since spring 2013 we have conducted a radiotelemetry and capture-mark-recapture investigation of the species in the northeastern Piedmont region of Georgia. We captured turtles by hand in mixed hardwood-pine uplands and mesic areas dominated by an invasive shrub species, Chinese privet (*Lingustrum sinense*). Following capture, we weighed, measured, individually marked, and released turtles at their site of capture within 48 hours of initial capture. Of the turtles caught between May 2013 and August 2015, we fitted 15 (7 F; 8 M) with radiotransmitters (Holohil Inc., 16g). We tracked turtles by homing on foot 1-2 times per week and collected microhabitat and environmental variables at the individual radiolocations. As of August 2015, we have collected 5-134 radiolocations per individual. We used 100% minimum complex polygons to estimate the individual home range area. These varied from 0.16 to 6.10 ha. Turtles in our telemetry study primarily used habitats dominated by Chinese privet (51%), followed by use of hardwood-pine uplands dominated by native vegetation (36%), clear cut habitats (9%), and wetland habitats (4%). Assessment of home ranges and habitat use will continue throughout 2016 as we maintain our efforts aimed at aiding conservation through increased understanding of Box Turtle ecology and the effects of pervasive exotic vegetation on the species.

Keywords: *Terrapene carolina*, radiotelemetry, home range, habitat use, Chinese privet, *Lingustrum sinense*

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