

BRANDON T. MAWHINNEY, Dept of Biological Sciences, West Liberty University, West Liberty, West Virginia 26074, ZACHARY J. LOUGHMAN, Dept of Biological Sciences, West Liberty University, West Liberty, West Virginia 26074, and JOSHUA G. OTTEN, Dept of Biochemistry & Molecular Biology, Cornell College, Mount Vernon, Iowa 52314. An eight-year evaluation of a *Terrapene ornata ornata* Iowa population.

Ornate box turtle (*Terrapene ornata ornata*) populations throughout their range have been documented as declining. The objectives of this study were to assess the population of a southeastern Iowa ornate box turtle population, collect standard descriptive statistics, and analyze measurements between different sex and age demographics. An ongoing Capture-Mark-Recapture study was conducted utilizing drift fences and visual surveys. Measurements of weight, carapace length, carapace width, plastron length, and shell height, along with sex and age, were documented. A total of 6,156 observations were made, with 1,970 unique individuals captured. A 1.56:1::Female:Male Ratio was documented. Spearman Rank Correlation Coefficient tests were conducted and resulted in statistically significant positive correlations observed between weight and carapace length for adult males ($\rho = 0.841$, $p < 0.01$), adult females ($\rho = 0.87$, $p < 0.01$), and through their age distribution as a whole ($\rho = 0.899$, $p < 0.01$). Juveniles grow at a rate of approximately 0.038 grams per day. Wilcoxon Rank-Sum Tests showed all adult morphometric measurements possessed a significant difference between sexes. Females expressed greater average weights, plastron length, and shell height. Males expressed a greater average carapace length and carapace width. In 2025, 948 individuals were captured, making this population the largest documented. This allows a basis for understanding healthy and typical body conditions for in-situ and ex-situ conservation work. Further studies conducted at this site can help determine future management and propagation protocols to aid other natural and captive populations.