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#### **DIMORPHISMS IN SHELL MORPHOLOGY OF A *CHRYSEMYS PICTA* METAPOPOPULATION**

As part of the ongoing census of the *Chrysemys picta* metapopulation in Black Rock Forest, New York, adult individuals were PIT tagged for permanent and individual identification. Sex was determined using tail length/cloacal extension and fore-claw length. Body mass, maximum carapace length, width, and height, and plastron length were measured. A direct comparison of absolute size (carapace-length and mass), and calculations of three ratios (carapace-width/carapace-length, carapace-height/carapace-length, and plastron-length/carapace-length) were made to determine whether or not these dimensions correlated to the sex of the turtle. The expectation that adult females would be larger than adult males in overall size and have a proportionally higher, or more domed, carapace is strongly supported ( $p = 0.05$ ) by the data. Females averaged 12% longer in carapace-length and 50% greater in mass. The hypothesis that females would have a wider carapace-width /carapace-length ratio was also supported ( $p = 0.05$ ). Females averaged 12% greater in carapace-height. The data also indicated that there was a dimorphic sorting ( $p = 0.05$ ) of relative plastron/carapace-lengths with females having the proportionally longer plastron. When examined by subpopulation, the data for each pond's population of males matched the distribution, range, and trendline of the male metapopulation in all respects. The female subpopulation for one pond also matched the female metapopulation, however in two of the ponds the female population was heavily skewed to the upper half of the range (133–160mm, whereas the female metapopulation range was 103–160mm), indicating an unexpected and disproportionate concentration of much older females.