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## STRUCTURE & DYNAMICS OF A *Chrysemys picta* Metapopulation (Integrating Science & Education)

Black Rock Forest (BRF), Orange County, NY, a 3785-acre preserve dedicated to scientific research, education, and conservation, provides multiple opportunities to conduct fieldwork, and to involve students in original research. AMNH staff and interns are conducting a comprehensive census of a Chrysemys picta (Painted turtle) metapopulation in BRF. The metapopulation consists of a core of six discrete demes (separate ponds), with up to another 6 outlying subpopulations. Educationally, the project aims to teach basic field research skills and advanced biological concepts to individual students and classes, and to foster independent research and publication by student interns. To this end, several interns have addressed specific aspects of the population to conduct independent investigations, though each integrates neatly into the greater whole. The scientific goal is a thorough census; profiling the population (individually, by deme, and by metapopulation) morphologically, demographically, behaviorally, and genetically. Through both active (hand, dip-net, diving) and passive (hoop & basking traps) sampling, 189 individual adult (113 female, 75 male) Chrysemys have been identified by PIT (Passive Integrated Transponder) tagging. Morphological data for each is nearly complete. Digital images of carapaces and plastrons have been recorded for 93, and tissue samples for 98 are in frozen storage for genetic analysis. Environmental temperature is being correlated with seasonal feeding and basking behavior. Intergradation of subspecies and dispersal between demes is being examined. Sampling will continue until over 90% of the adult population is PIT tagged, and each individual has a complete morphological (measurements and images) and genetic profile.