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FEATURE ARTICLES

MICROSATELLITE POLYMORPHISM AND GENETIC STRUCTURE OF FLORIDA MOTTLED DUCK POPULATIONS

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Abstract. Little is understood concerning the effects regional isolation and habitat loss have had upon the genetic structure of Mottled Ducks (*Anas fulvigula*), a nonmigratory waterfowl species with a limited distribution. Our objective was to identify nuclear DNA-based markers for Mottled Ducks and determine levels of subdivision among populations in Florida. We screened 13 microsatellite primer pairs and identified six microsatellite loci that were variable in Mottled Ducks. These markers revealed a low level of genetic differentiation and a high level of genetic exchange among four Mottled Duck subpopulations within Florida. Over all populations, single-locus expected heterozygosities over the six loci surveyed ranged from 0.13–0.85. There were no significant differences in gene frequencies among the populations examined, and the F_{st} over 5 biparental loci was not different from zero. Our analysis of the Florida Mottled Duck population indicated high levels of heterozygosity and no evidence of genetic subdivision among breeding units.

Key words: *Anas fulvigula, genetic structure, Mottled Duck, population genetics, waterfowl.*