CONSERVATION GENETICS OF THE AMERICAN DIPPER (*CINCLUS MEXICANUS*) IN THE BLACK HILLS OF SOUTH DAKOTA

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ABSTRACT

The American dipper (*Cinclus mexicanus*) is a non-migratory bird dependant upon clear, fast-moving streams for survival. Because of its specific feeding and nesting habits, the American dipper is a biological indicator of stream health. There has recently been a dramatic decline in the Black Hills population of American dippers, which has been considered a threatened species of South Dakota since 1996. The decline was most likely caused by degradation of habitat and food resources in response to damming, sedimentation and pollution over the years. A genetic comparison of Black Hills dippers with other populations is being used to determine if Black Hills dippers are isolated from neighboring populations. If there is little exchange among populations, the Black Hills population of dippers should receive special consideration and protection. A genetic study of dipper populations has been initiated to address the status of the Black Hills population. Non-invasive methods were developed to obtain DNA samples from the Black Hills populations of the American dipper. DNA samples have been tested to identify several microsatellite markers (repeats of short sequences of DNA) in the genome. Here we present the microsatellite markers that we have developed for the American dipper.