

Analyzing the Genetic Diversity of Sunfish and Looking for Signs of Sunfish Interbreeding

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Fish in a confined space can only breed with themselves. Does this make it more likely for them to interbreed? The purpose of this experiment was to find the genetic diversity of Sunfish in a small farm pond and also to see if any of the fish have interbred. Ten fish samples were collected from fisherman at a local pond. I isolated the COI gene and then sent it off to a lab to be genetically sequenced. After analyzation, fish of the same species had identical DNA. There was a 12.57% difference in the nucleotides of the *Lepomis microlophus* compared to *Lepomis macrochirus*. There was no indication from the COI gene of interbreeding.