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# Temperature preference of cave and surface populations of *Astyanax mexicanus*

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## ABSTRACT

Little is known about the genetic basis of behavioral choice, such as temperature preference, especially in natural populations. Thermal preference can play a key role in habitat selection, for example in aquatic species. Examining this behavior on a genetic level requires access to individuals or populations of the same species that display distinct temperature preferences. Caves provide a uniquely advantageous setting to tackle this problem, as animals colonizing caves encounter an environment that generally has a different, and far more stable, annual temperature than what is encountered on the outside. Here, we focus on cave and surface populations of *Astyanax mexicanus*, the Mexican tetra, and examine temperature preference and strength of temperature preference (reflected in the percent of time spent at the optimal temperature). We used a tank with a stable temperature gradient and

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