Do Male Eastern Mosquitofish (*Gambusia holbrooki*) Color Morphs Differ In Feeding Behavior?

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Hormones that regulate color pattern also have an effect on hunger, this is known as hormonal pleiotropy. The objective of this study is to determine whether animals with different color patterns differ in hunger levels, data will be collected from Eastern Mosquitofish (Gambusia holbrooki). Eastern Mosquitofish display discrete color polymorphism, creating a narrow variation of either silver or melanistic, making them appropriate subjects to observe. If melanistic males are less hungry than silver males then there will be: a lower number of attempts to eat mosquito larvae, lower number of mosquito larvae eaten, higher latency period (time it takes the subjects to start consuming food source provided), and higher duration (time to finish food source provided). Both silver and melanistic male eastern mosquitofish will be obtained from wading pools or a local pond. There will be two glass tanks, each will have a plastic separation in the middle. On one side of the plastic separation will be the male mosquitofish being observed, meanwhile on the other side there will be a group of two females and one male silver to make up for this species' social behavior. Five trials will be carried out per tank. Mosquitofish are an important part of Florida's ecosystem due to the fact that one of their main sources of food are mosquito larvae. Mosquitofish are placed in decorative ponds and pools in order to prevent mosquito manifestation. This study would provide information on mosquitofish that has never been looked at before, while also developing a reasoning behind different eating patterns between animals with differing color morphs.