

Effects of Familiarity on Mate Selection in *Poecilia reticulata*

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Poecilia reticulata (commonly known as guppies) are freshwater fish commonly used in behavioral research. Originating from South America, this species can be purchased locally in the United States. We investigated the effect of familiarity on female mate selection. Our research consisted of individual female guppies each paired with two male guppies, from separate schools of fish, which were bred at MSUB (Fig. 1). Preceding each experiment, one female was familiarized with one male in a divided fish tank. Uniform experiments were then conducted by placing a female guppy in a sectioned fish tank with the familiar male and a second unfamiliar male. Both males were placed on either side of the female. Following each trial, the individual female would be familiarized with the male that was not familiarized in the previous trial. Results were concluded by calculating time intervals that a female guppy spent near either male guppy or in the middle of the experimental fish tank. To record live behavior, with least amount of stress, a video recorder was used to record the guppies. To show effects of familiarization on female guppy choosiness, familiarizations were alternated monthly between a selected pair of males and one female. In these data there is a trial that suggests female mate preference may be influenced by familiarity.