

PLASTICITY IN THE COURTSHIP BEHAVIOR OF GUPPIES, POECILIA RETICULATA, IN DIFFERENT SOCIAL ENVIRONMENTS

Melissa N. Schramm, Dr. Anne Houde*, Lake Forest College, Department of Biology, Lake Forest, IL, 60045, Houde@lakeforest.edu

Plasticity in social behaviors is a valuable adaptation and can significantly affect the fitness of an individual. I examined the effect of different social environments on Guppy, *Poecilia reticulata*, courtship behavior. Male display rate significantly increased in a social environment with more than two individuals. Males also attempted sneaky copulations more frequently in the male-biased and female-biased environment than when alone with a female. While non-virgin females were non-responsive in all social environments, virgin females were more responsive in a social environment with other individuals than when alone with a focal male. Interestingly, males attempted more sneaky copulations on virgin females when other individuals were present. These results suggest that Guppies may adjust their courtship tactics in different social environment so as to maximize their mating success.