

## Guppy Boldness Studied

**A study of guppies tested if boldness comes from genes or the environment.**

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A study of guppies has helped scientists learn more about boldness in animals.

At the University of Leeds, scientists have made some conclusions about boldness in animals by studying guppies. Dr. Ben Chapman, the behavioral ecologist in charge of the study, states, "Even within one species, some individuals will be more inquisitive and adventurous than risk-conscious peers. It's a tough balancing act: boldness increases chances of finding food and mates, but it also exposes intrepid individuals to the risk of being caught by predators."

The study's aim was to find out whether bold behavior comes from genes or the environment.

The team raised two sets of guppies: one fed at 10:00 a.m. and the other fed at a random time. When the guppies were 56 days old, the team tested their behavior in new environments and their responses to a threat. Guppies raised with an unpredictable food supply were more likely to explore a new fish tank set up as a maze. These guppies may be bold, but they respond to a predatory threat like any other guppy. The scientists created a predator by sliding a bird-shaped model over the tank. Every guppy froze at the bottom of the tank, waiting for the danger to pass by. Chapman says, "A potential predator attack is a danger too intense to accept as a risk...boldness also depends on the context."

The team also found that guppies fed at random times spend less time with shoalmates. There is safety in numbers, and the time spent out of the group can be a measure of a guppy's tendency to take risks.