

Noise distracts fish from their dinner

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Using underwater speakers to play noise at levels similar to those produced by recreational speedboats, the researchers found that three-spined sticklebacks exposed to even brief noise playback made more foraging mistakes and were less efficient at consuming the available food compared to those in quiet conditions.

Dr Julia Purser, the study's lead author, said: "The fish appeared to be distracted by the addition of noise to their environment. Much as you or I might struggle to concentrate on a difficult assignment when faced with loud construction noise, these stickleback seemed unable to keep their mind fully on the job at hand, attending to random items of tank debris and mishandling food items more frequently when noise was played."

While they did not abandon feeding behaviour entirely, as you might expect under [stressful conditions](#), the fish were certainly less accurate and efficient in their feeding efforts during noisy conditions, even when the [noise exposure](#) lasted as little as ten seconds.

The foraging mistakes are consistent with a shift in attention when exposed to noise, and in the natural environment these mistakes could be costly: increasing the chances of ingesting harmful items, and affecting the risk of [predation](#) if fish have to forage for longer to compensate for reduced efficiency.

In many aquatic environments, [noise pollution](#) will often continue for much longer periods than the exposures used in this study, or occur repeatedly, and so the research team, led by Dr Andy Radford, are now

examining how the fish may adjust with exposure to repeated or chronic noise.

Dr Purser continued: "In terms of recognising and managing the impact of noise pollution on the [aquatic environment](#), this study illustrates the importance of not only looking for the more obvious immediate effects of noise, such as hearing deficits and dramatic behavioural changes associated with stress, but also examining the more subtle but nonetheless important and potentially damaging impacts on the everyday behaviour of animals."

Co-author Dr Andy Radford, who leads a major project to investigate the impact of anthropogenic noise on marine animals, said: "Noise pollution is a rapidly increasing issue of global concern, especially underwater. Although lots of research has considered the potential impacts on marine mammals, we know relatively little about how [fish](#) are affected, despite their critical importance as a food source for the burgeoning human population. Our study suggests there could be a much wider range of detrimental effects than previously thought, and so there is a vital need for further research."

Provided by University of Bristol

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