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The noisy underwater world : the effect of sound on behaviour of captive zebrafish

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Propositions (Stellingen)

Behorende bij het proefschrift

“The noisy underwater world: the effect of sound on behaviour of captive zebrafish”

1. Human activities introduce sounds of a wide variety in temporal and spectral patterns in marine and freshwater habitats, which may affect aquatic life (Popper and Hawkins, 2011).
2. Experimental sound exposure can cause behavioural changes and food handling errors in zebrafish preying on waterfleas (this thesis, chapter 2).
3. Experimental sound exposure can induce species-specific behavioural responses in fish potentially unrelated to their hearing abilities (this thesis, chapter 3).
4. Light levels do not necessarily affect zebrafish behavioural responses to experimental sound exposure (this thesis, chapter 4).
5. Fish perceive their environment through multiple sensory systems. It can therefore be important to study their behaviour in conditions where various types of environmental factors are manipulated, or their interaction is examined (this thesis, chapter 4).
6. More studies are needed on the effects of the combination of sound pressure and particle motion measurements on the auditory responsiveness in fish (this thesis, chapter 5).
7. Many freshwater fish species are more sensitive to sound than marine species, but we need studies in their natural environment to confirm whether differences in hearing abilities also results in different responses to sounds.
8. Elevated ambient noise levels in aquatic habitats may have direct and indirect consequences on reproductive success and fitness, which, in turn can reverberate at the community levels.
9. Enthusiasm about experimental research on animal behaviour goes well together with being passionate about raising academic and public awareness for animal welfare and conservation.
10. Scientists are in charge of scientific progress but are also responsible for contributing to the moral refinement and human attitudes of our society.
11. The biggest and most valuable heritable treasure we could ever transfer to the next generation would be being an ambassador of kindness in every circumstance.