

## Sound investigation: effects of noise on marine animals across trophic levels

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## Stellingen behorende bij het proefschrift Sound Investigation Effects of noise on marine animals across trophic levels

- 1. Sound can change activity patterns of Atlantic cod, which may translate to changes in their energy budget and thereby lead to fitness consequences (this thesis, chapter 2 & 3).
- 2. European seabass increase swimming depth upon sound exposure, but it is not yet clear whether response strength is related to sound characteristics (this thesis, chapter 4).
- 3. Sound may negatively affect aggregation at a food item in shore crabs, which provides opportunity to common shrimps through competitive release (this thesis, chapter 5).
- 4. Olfactory-mediated food finding in shore crabs appears not to be affected by sound (this thesis, chapter 6).
- 5. Blue mussels can habituate to repeated sound exposures, and discriminate between auditory stimuli with distinct spectral patterns (this thesis, chapter 7).
- 6. Insight into population consequences of non-lethal effects of sound exposure requires long-term studies.
- 7. Lab and field studies provide different opportunities and limitations, and both require thoughtful interpretation accordingly.
- 8. Species interactions and community-level effects should be examined to fully understand the implications of noise pollution.
- 9. Studies on the effects of sound on marine animals may not only provide insight into its effects, but also about how to decrease and, if useful, increase these effects
- 10. Data based on imperfect design can still provide useful information when the results are interpreted appropriately.
- 11. One should challenge presumed good ideas as much as presumed bad ideas.

Jeroen Hubert Leiden, 9 September 2021