



## Science project:

### The influence of sounds on marine invertebrate communities

This summer, there will be an experiment on the influence of underwater sound on the settlement of marine invertebrate larvae. We will investigate how 1. boat noise and 2. natural underwater sounds influence the settlement of marine invertebrate larvae.



These experiments are part of the GAME program. GAME is an international research and training program for master students at the marine science institute GEOMAR in Kiel, Germany. The program aims to investigate marine ecological questions on a global scale. Therefore, teams of students conduct the same experiments simultaneously worldwide, as part of their master's theses. This allows the comparison of ecological patterns across different regions and environmental conditions, providing a broader understanding of marine ecosystems. This year one team will be conducting their experiments here in Finland at Korpoström Skärgårdscentrum together with the Åbo Akademi University in Turku.



#### Who are we?

Hei, we are Jonathan and Merle, biology students from Germany. We've been interested in marine ecosystem for many years and are especially interested in protecting and conserving the ocean. Thus, we want to generate new knowledge on how we can protect our marine ecosystem. With our Master's thesis we hope to help understanding the effect of noise on marine invertebrates.

#### We could use your help!

We are looking for a suitable site for our underwater sound experiments. Since sound travels far underwater, our two experiments need to be carried out 500-1000 m apart to avoid interference between both experiments. As the space at Skärgårdscentrum is limited, we are searching for possible additional locations. The site should have access to the water e.g. a small jetty, with as little boat traffic as possible, a 230 V power outlet for our speakers, and it must be accessible to us daily. Private as well as public properties could be suitable. If you know of a place or can help us find one, we would greatly appreciate your support.

Please contact us via email: [jonathan.dekoning@email.uni-freiburg.de](mailto:jonathan.dekoning@email.uni-freiburg.de) or [m.kleineberg@stud.uni-goettingen.de](mailto:m.kleineberg@stud.uni-goettingen.de)

#### Why is our research important?

It is important because the increase in global boat traffic is changing the underwater soundscape rapidly. Heavy and big motors boats overshadow the natural soundscapes and have a variety of negative effects on many different animals living in our oceans. However, scientists have also shown that playing back natural sound recordings can mitigate the negative effects and improve larval settlement. This is why we aim to investigate both underwater soundscapes here in Finland and directly compare their ecological effects under local conditions.

