



## Naturally Fizzy Water

The water on the shores of the island of Panarea in Southern Italy may not boil, but it fizzes. Large volumes of carbon dioxide from the sea bed flow there right next to Europe's most active volcano, Stromboli. And this is precisely what makes the area very interesting for researchers from a wide range of disciplines. Carbon dioxide ( $\text{CO}_2$ ) is one of the most important greenhouse gases. Since the early days of industrialization, the level of  $\text{CO}_2$  in the atmosphere has increased continuously, particularly as a result of the intensive use of fossil fuels like coal, oil, and gas. Reducing the level of  $\text{CO}_2$  in the atmosphere thus plays an important role in all attempts to halt or decelerate climate warming. One of the solutions under discussion is a technical one: With carbon dioxide capture and storage (CCS), the aim is to capture the  $\text{CO}_2$  and store it away from the air in underground sites. Areas underneath the seabed would also be used to store carbon dioxide. This is already happening in some regions of Europe, for example on the Norwegian coast. But what happens if the  $\text{CO}_2$  escapes from such storage sites? How would the high concentrations of  $\text{CO}_2$  affect the surrounding marine ecosystems and organisms? These are precisely the questions that the scientists from the Max Planck Institute for Marine Microbiology are investigating in the sea off Panarea. Here, they can compare areas of the sea with strong carbon dioxide release and areas without degassing.

 [www.youtube.com/watch?v=d1L7ZO-NpHc](https://www.youtube.com/watch?v=d1L7ZO-NpHc)