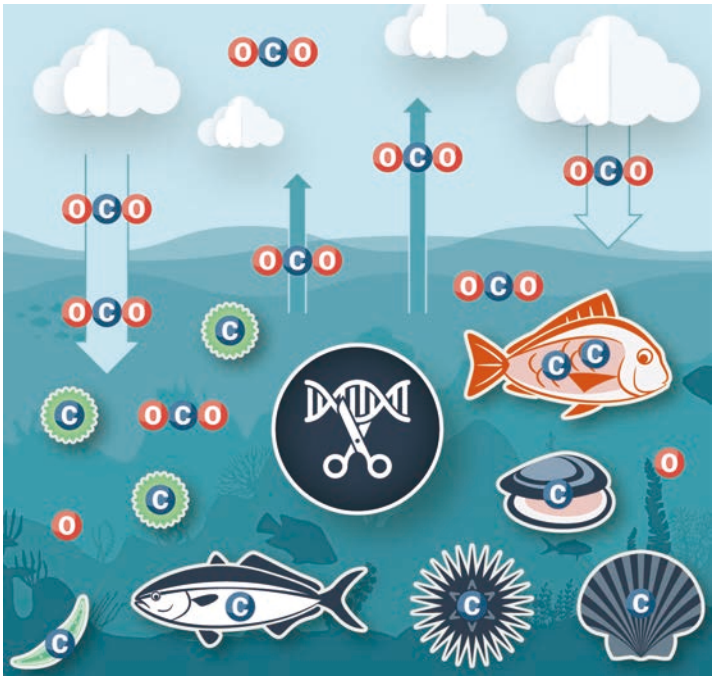
IOWN Future

Reduce the CO_2 amount in the ocean by enhancing the carbon cycle

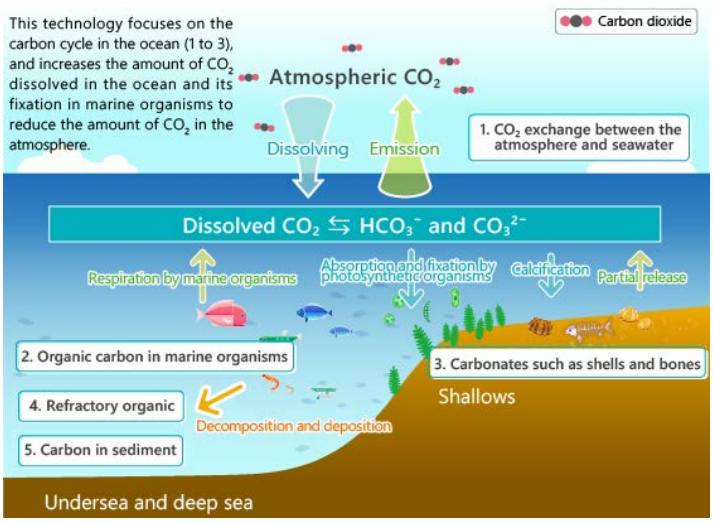


Background

The oceans absorb about 300 billion tons of atmospheric CO_2 annually, which is about seven times the amount of CO_2 emitted by human activities. Therefore, CO_2 absorbed by algae and carbon stored on the seafloor as blue carbon over the long term are attracting attention.

Summary

We are studying the improvement in carbon fixation by algae, fish, and shellfish with genome editing technology and technology for evaluating their carbon fixation. We are now conducting a demonstration test of carbon fixation by selected combinations of algae and shellfish.



Feature 1

Reducing the CO_2 amount in the ocean by enhancing the carbon cycle of the marine food chain

Feature 2

Application of genome-editing technology to algae, fish, and shellfish to increase their CO_2 fixation

Feature 3

Contribute to solving both environmental and food problems by building land-based aquaculture that quickly produces high-quality marine resources

Future benefits

This technology can increase the carbon content of marine organisms and their carbon storage periods to reduce the atmospheric CO_2 level to help achieve a carbon-neutral society.

Collaboration partners

Regional Fish Institute, Ltd.

Exhibiting Company

NIPPON TELEGRAPH AND TELEPHONE CORPORATION

Contact

rdforum-exhibition@ml.ntt.com