A32 字幕原稿

	英語
1	In 2023, NTT succeeded in identifying genes that could dramatically increase the CO_2 absorption capacity of algae.
2	Based on this finding, there are high expectations that we can reduce CO_2 dissolved in the oceans by breeding algae with high CO_2 absorption capacity.
3	Algae are the primary agents for CO_2 absorption and fixation in the oceans, and they also serve as a feed for fish and shellfish in the food chain.
4	Therefore, CO_2–derived carbon fixed by algae is transferred to and fixed in fish and shellfish.
5	Our goal is to reduce CO_2 by focusing on the marine food chain.
6	Using land–based aquaculture, we are engaged in research to maximize carbon fixation in the entire food chain by improving both the CO_2 absorption capacity of algae and the growth of fish and shellfish through genome editing.
7	With the aim of establishing a new technology that provides optimal growth of algae in any environment, we began field tests in 2023.
8	Now we are studying the cultivation conditions required for maximizing carbon fixation in an outdoor environment where light intensity and temperature are difficult to control.
9	If our research succeeds in significantly increasing carbon fixation of algae, fish, and shellfish, we can reduce atmospheric CO_2 that is one of the main factors of global warming.
10	The problems that this technology can solve are not limited to environmental issues.
11	This technology can also contribute to solving food shortage problems through the production of fish and shellfish that feed on algae.