### **Social Contribution Activities**

# To Preserve Beautiful Coral Reefs Forever

#### Global Coral Reef Conservation Project

Coral reefs are in danger today due to climate change, seawater pollution, and other reasons.

In 2005, MC launched the Global Coral Reef Conservation Project with the aim to restore beautiful coral reefs. As described in this article, MC, which serves as an official supporter of the International Year of the Reef 2018, is engaged in various efforts toward coral reef conservation.

## Supporting field search activities at three research bases

In recent years, there are growing concerns about coral reefs such as "coral bleaching," which is thought to be due to rising ocean temperatures, and damage to coral caused by seawater pollution. In the Global Coral Reef Conservation Project, various survey and research activities are being conducted from different angles at three research bases: Okinawa, Seychelles and Australia. In addition to providing financial support to the field search, MC sends a group of volunteers internally recruited to those locations for assisting field activities.

The achievements of this Project are posted on MC's homepage and presented in academic conferences. Furthermore, a special summer school is held during the summer vacation for elementary and junior high school students in order to raise their awareness about coral reef conservation.

2018 is the International Year of the Reef, designated by the International Coral Reef Initiative. As an official supporter of the International Year of the Reef 2018, MC will continue to support field search activities and distribute the accomplishments of the Project to raise public awareness about coral reef conservation.

#### What is coral bleaching?

Coral bleaching is a phenomenon in which the color of coral fades to white due to the loss of zooxanthella that lives inside coral tissues and conducts photosynthesis. If the supply of organic substances from zooxanthella is interrupted, the coral becomes unable to receive nutrition. If this condition continues for a long time, the coral will eventually die.





for Marine Research and Technology –
Marine Parks Authority, and Earthwatch
Europe, and led by Dr. David Smith
of the University of Essex, MC is
conducting studies and survey activities
on Curieuse Island with the aim to
understand the various ecologies of
coral reefs and their response to

environmental stress.

#### Okinawa (since 2005)

The research on coral reefs in Okinawa is currently underway to find out the causes and mechanisms of coral bleaching, to maintain the health of coral reefs, and to establish technologies to restore bleached coral reefs, with Professor Yoshimi Suzuki of Shizuoka University as project leader, and in collaboration with Shizuoka University, University of the Ryukyus, and Earthwatch Japan. In recognition of its continued support to this research, MC was awarded an FY2008 Medal with Dark Blue Ribbon by the Japanese government. In 2012, a paper that summarized these research results received the Best Paper Award from the International Society for Reef Studies



In collaboration with James Cook University and Earthwatch Australia, MC is conducting field research on coral diseases in the Great Barrier Reef. The team is particularly studying the impact of seasonal change, light, temperature, and water quality on black band disease.