

Mass coral bleaching impacts and recovery in the Anthropocene Epoch

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Catastrophic disturbances including thermal anomaly-induced “Coral bleaching”, the paling of corals through loss of symbiotic algae “Zooxanthellae” and/or loss of photosynthetic pigments from algae, has become the major concern in coral reef ecosystem during the last several decades. Ongoing monitoring revealed serious impacts of recent mass-bleaching event as well as the variations in recovery potentials from the mass bleaching event among Islands of Ryukyu Archipelago. Coral reefs in the Anthropocene must tackle the complex interactions involving ecosystem itself as well as the human activities in social and economic aspects to prevent the further decline in coral populations and associated degradation. The “Ridge to Reef” strategic conservation approaches supported by multidisciplinary research should be taken to solve such problem.

