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Coral bleaching resistance variation is linked to differential mortality and skeletal growth during recovery

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Abstract

The prevalence of global coral bleaching has focused much attention on the possibility of interventions to increase heat resistance. However, if high heat resistance is linked to fitness tradeoffs that may disadvantage corals in other areas, then a more holistic view of heat resilience may be beneficial. In particular, overall resilience of a species to heat stress is likely to be the product of both resistance to heat and recovery from heat stress. Here, we investigate heat resistance and recovery among individual *Acropora hyacinthus* colonies in Palau. We divided corals into low, moderate, and high heat resistance categories based on the number of days (4–9) needed to reach significant pigmentation loss due to experimental heat stress. Afterward, we deployed corals back onto a reef in a common garden 6-month recovery experiment