



The team tested corals found in the wild to identify types with higher heat stress tolerance | Photo source [A. Roik](#)

[Innovation](#) > [Sustainability](#) > [Healthy bacteria helps coral resist heat stress](#)

HEALTHY BACTERIA HELPS CORAL RESIST HEAT STRESS

 SUSTAINABILITY

Taking inspiration from microbiome approaches used in healthcare, the intervention could help re-establish reef regrowth and biodiversity

Spotted: Some of the most important reef-building species of corals are under extreme duress as temperatures climb higher and higher, leaving many biodiverse marine environments in grave danger. Taking inspiration from microbiome approaches used in healthcare, scientists from Germany's GEOMAR Helmholtz Centre for Ocean Research Kiel have created a heat-resistant coral.

The team tested corals found in the wild to identify types with higher heat stress tolerance. More vulnerable species were then inoculated with tissue from the donor corals. The researchers tested the approach on two different types of corals in Thailand's Andaman Sea.

During a short-term heat stress test, the richness and diversity of some of the microbiomes increased, although the scientists noted that due to the small size of the experiment, the results could not be considered significant. The corals also bleached more mildly and thus resisted the effects of the temporary rise in water temperature for longer.

Additional work must test the results on a larger and longer-term scale, as well as explore other ways in which microbiome transplants could further increase plant and animal resistance to environmental stressors.

Soil health is another environmental application of microbiome science that Springwise has spotted, along with a number of human health applications, such as this [ingestible sensor](#).

Written By: Keely Khoury

19th May 2021

Email: presse@geomar.de

Website: geomar.de/en

Takeaway:

Combining some of the recent reef-centred innovations could help address the devastation at a number of different stages, thus providing a stronger overall response and a better chance of regeneration success. From finding safer ways to grow and transport young coral to providing a more protective growing environment, marine biodiversity and the rest of the Earth's environments depend on the urgent work of scientists and innovators already well-aware of the precariousness of the current situation.