BEST Initiative

Project funded by the European Commission, DG DEVCO through the BEST 2.0 Programme

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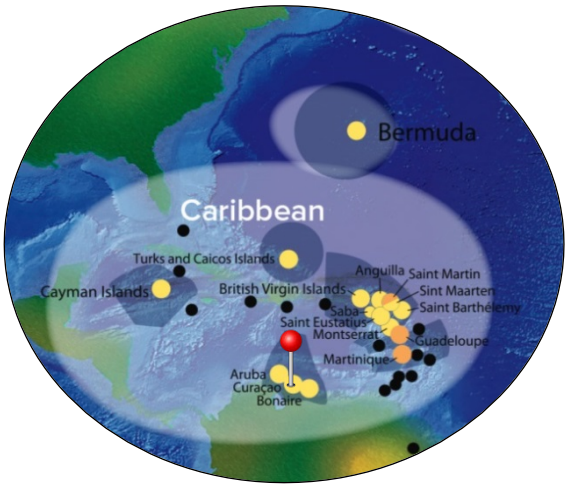
Scaling-up Efforts to Rehabilitate Threatened Coral Communities Using Recruits Reared from Wild-caught Gametes



Targeted territory: Curaçao

Total project budget: 91,657 Euros

BEST 2.0 grant awarded: 91,657 Euros

Duration: Month Year – January 2017 – June 2018 (18 months)

Lead organisation: Caribbean Research and Management of Biodiversity Foundation (CARMABI)

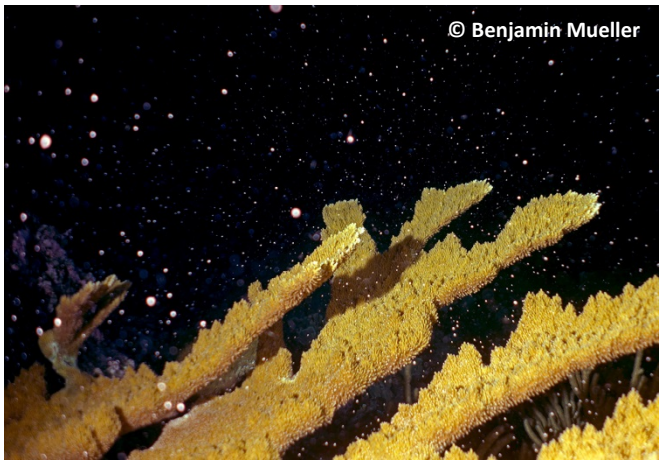
CARMABI

Background:

Coral reefs worldwide are declining at alarming rates over the last decades due to exposure to increasingly harsh conditions caused by global and local changes in their environment. The loss of priceless ecological functions and ecosystem services provided by these ecosystems has prompted conservation and management efforts throughout the Caribbean to promote their recovery. Actions can either be ‘passive’ whereby recovery is left to natural processes that are facilitated through indirect human intervention, or ‘active’ measures whereby man directly manipulates the dynamics of degraded reef ecosystems. It has become evident that many coral reefs

can no longer recover naturally from anthropogenic stressors, therefore ‘active’ restoration approaches are increasingly recognized as an important tool that, in conjunction with other management interventions, could aid in the rehabilitation of degraded reef ecosystems.

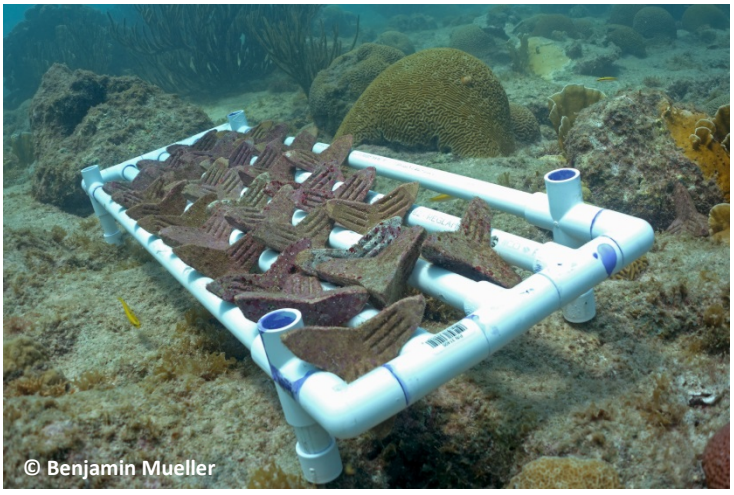
Description of the Project:



The project aims to contribute to the persistence and recovery of Caribbean coral reef ecosystems by refining a technique developed by CARMABI and partners for ‘reseeding’ degraded reefs across large spatial scales using sexually produced coral offspring ex situ that are settled on tiles. The tiles can be effectively transplanted onto a reef by “wedging” them in crevices or by simply spreading them from a boat, enabling application over a wide area and enabling long-term coral recovery on an ecologically meaningful scale. The project will improve and optimize the prototype tile developed by CARMABI by evaluating alternative materials and designs and testing them in the field using various coral species and under different environmental scenarios (on reef sites of different health status).

Intended results:

- The refined tile material reduces the growth of harmful algae and promotes the establishment of beneficial benthic communities.
- The refined tile shape reduces colonization of the tile surfaces by harmful benthic communities and minimises dispersal of the tiles by wave action even if they are not attached to the reef substrate using adhesive materials.
- The performance of refined tile design is successfully demonstrated in the field.



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