

## Measuring the effectiveness of newly expanded legislation for MPAs in Belize through long-term, community-based monitoring of marine megafauna

Type of priority area	Marine Protected Area	Key Biodiversity Area	Marine Managed Areas
Primary objective	Management Effectiveness	Livelihoods	
Target groups	Local Communities	Youth	Farmers/Fishermen
Main activity focus	Threatened Species	Protected Area Management Effectiveness (PAME)	Capacity Building
			Awareness and Education

Duration  
01.14.2024 – 12.14.2024

Type of grant & budget  
Small Technical Grant | 19,992€

Location  
Belize, Caribbean

Protected & Conserved Areas  
Turneffe Atoll and Lighthouse Reef Atoll

WDPA ID  
555583004  
124383  
12243

BIOPAMA RRS Link  
<https://rris.biopama.org/node/20825?language=en>

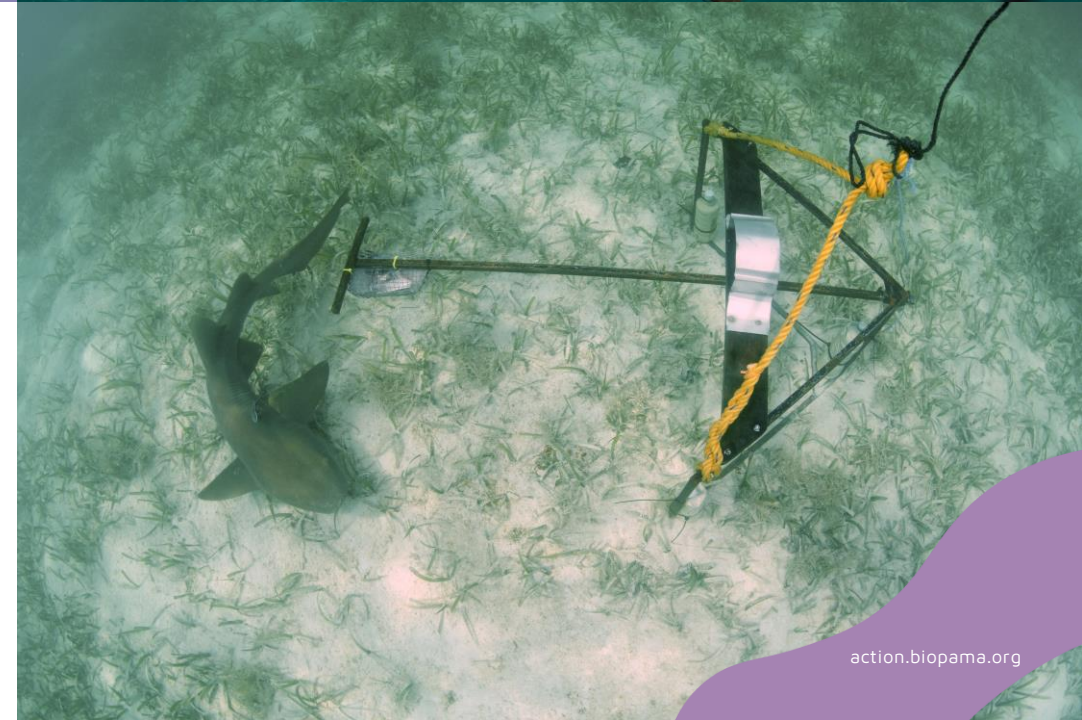
Project Lead  
MarAlliance

Project Partners  
N/A

### Description of the project :

Establishing a science-based roadmap to revive Caribbean marine megafauna in MPAs can be achieved through the following activities:

1. Assembling a field research team of scientists, fisher associates and late secondary/tertiary level students to execute intensive training and monitoring activities for three-week periods at both atolls.
2. Utilizing scientific long lines, underwater visual transects (UVCs), and baited remote underwater videos (BRUVs) to assess megafauna species presence, diversity, distribution and abundance at 80 established study sites across both atolls.
3. Assess the status of Fish Spawning Aggregations (FSAs) for commercially and ecologically important snapper species at two sites in both atolls.
4. Compile and analyse data from the monitoring effort and compare to previous years of standardized monitoring efforts to discern insights into the population trends of marine megafauna.
5. Share findings with TASA, BAS, Belize Fisheries Department, and other stakeholders and determine correlations between research findings and current management practices (e.g. enforcement, fisher access, fisheries extraction regulations, tourism activities) for the atolls.
6. Make strategic recommendations for future management practices and policies that promote sustained population recovery of marine megafauna in TA and LRA.
7. Seek long term funding mechanisms to ensure the continuation of the standardized monitoring and replication to other sites.





#### Diagnostic Tools Used

- N/A



#### The BIOPAMA Action Component Objectives Addressed

Support local communities' initiatives aiming to enhance the livelihoods of local people whilst effectively contributing to protected areas management.



#### Priority Need Addressed

Assessing biodiversity viability.



#### The change the project implementation will bring for the protected areas

Through long-term monitoring efforts, the project aims to determine whether the rewilding of marine megafauna is a sustained phenomenon at Turneffe and Lighthouse Reef Atolls. Results are expected to galvanize continued management efforts, inform management plans for the respective atolls, and demonstrate that, with strong stewardship practices, populations of long-lived and late maturing marine megafauna can rebound. The demonstrated success of the MPA model in place at Turneffe Reef Atoll and Lighthouse Reef Atoll will guide justification for replication at other sites.

Ultimately, the project will provide an empirical basis for measuring successful rewilding of ecologically and commercially important marine species throughout Belize and other parts of the region.

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The project, *Measuring the effectiveness of newly expanded legislation for MPAs in Belize through long-term, community-based monitoring of marine megafauna*, is financed by the European Union and the Organisation of African, Caribbean and Pacific States through the Biodiversity and Protected Areas Management (BIOPAMA) Programme.

BIOPAMA assists the African, Caribbean and Pacific countries to address their priorities for improved management and governance of biodiversity and natural resources. BIOPAMA provides a variety of tools, services and funding to conservation actors in the African, Caribbean and Pacific (ACP) countries. The BIOPAMA grant-making facility is managed by IUCN (International Union for Conservation of Nature) and supports projects on the ground to strengthen the management and governance of protected and conserved areas, with a total budget of 21 million Euros.