

# Status Report of Fish Spawning Aggregations in the Mesoamerican Reef 2024

## WHAT ARE FISH SPAWNING AGGREGATIONS (FSA)?

- FSAs are massive, temporary gatherings of fish for reproduction.
- They occur at specific sites and times of the year.
- Key species: groupers and snappers, essential for ecosystems and local economies.

## CHALLENGES OF FSAs IN THE MESOAMERICAN REEF (MAR)

- Over 70 years of scientific reports have revealed the impacts of overfishing.
- Unsustainable fishing in FSAs threatens biodiversity and local economies.
- In FSAs, fishing may appear stable even as fish populations decline due to hyperstability—a phenomenon where large catches occur despite low overall populations.



Photo: COBI



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## RECOMMENDATIONS FOR COLLABORATIVE MANAGEMENT

- **Promote regional coordination** for effective transboundary management.
- **Implement digital repositories** and standardized databases for more efficient management.
- **Encourage participatory processes** that ensure long-term sustainability.

## THE MAR: A VITAL ECOSYSTEM



**Home to** 65 species of corals, 500 species of fish, whale sharks, turtles, and manatees.



**Economic Support:** Fishing and tourism sustain thousands of jobs.



**Threats:** Overfishing, habitat degradation, climate change.

The MAR ecoregion covers 457,536 km<sup>2</sup> and includes parts of Mexico, Belize, Guatemala, and Honduras.

## MAR Fish PROJECT: CONSERVATION IN ACTION

It is a conservation initiative aimed at protecting marine biodiversity and fishery resources in this region. Its primary goal is to support the rebuilding of the mesoamerican reef fish stock by strengthening the protection and monitoring of a network of fish spawning aggregation sites.

The project takes an integrated approach, combining scientific research, community participation, and strategic management.

### KEY ACTIVITIES INCLUDE:



**Visual surveys and the collection and analysis of acoustic data**, enabling autonomous and long-term information gathering at monitored sites.



**Community participation**, with a focus on training in sustainable fishing practices.



**Protected areas**, through spatial management targeting critical spawning periods.



**Analysis of results obtained** from MAR sentinel sites, facilitating a deeper evaluation of these strategic points.