



CORAL REEF MANAGEMENT AND MONITORING IN THE WIDER CARIBBEAN REGION

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Coordinator

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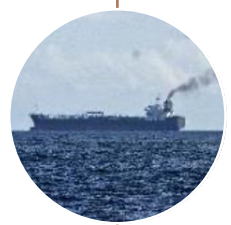
THE CARTAGENA CONVENTION



1983 – Entered into force 1986



Secretariat
Kingston, Jamaica



Protocol concerning Co-operation in Combating Oil Spills
(Oil Spills Protocol)
Entered into force 1986



Protocol concerning Pollution from Land-based Sources and Activities
(LBS Protocol).
1999 - Entered into force 2006



Protocol concerning Specially Protected Areas and Wildlife
(SPAW Protocol)
1990 – Entered into force 2000



REMPEITC-Caribe



CIMAB



IMA



SPAW-RAC

Only Legally Binding Regional Agreement for the protection and development of the Marine Environment of the Wider Caribbean Region

OBJECTIVES OF THE SPAW PROGRAMME



Increase and improve the management of protected areas and species;



Develop strong regional capability for coordination of information exchange, training and technical assistance;



Support the conservation of threatened and endangered species and the sustainable use of natural resources;



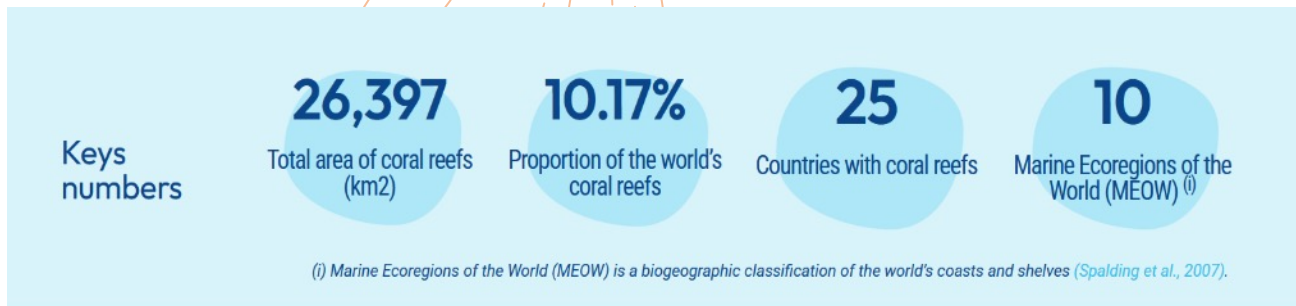
Coordinate activities with international biodiversity treaties and initiatives.

Coral Reefs in the Caribbean

Coral reefs in the Caribbean are in **decline** and are considered the **most degraded and threatened in the world**.

The isolation and low diversity of corals compared to other bio-regions makes them more **vulnerable**.

The Caribbean Region represents only **1% of Earth's marine environment, but hosts 10% of the world's coral reefs**, including fringing reefs, which are most common; barrier reefs such as the Mesoamerican Reef, which is the largest barrier reef in the Western Hemisphere; bank reefs; patch reefs; and a few atolls.



ENDANGERED AND THREATENED SPECIES

- **Several coral reef species in the SPAW Protocol annexes**
 - Annex II: *Acropora cervicornis*, *A. palmata*, *Orbicella annularis*, *O. faveolata*
 - Annex III: All spp of Milleporidae, Stylasteridae, Antipatharia Gorgonacea, Scleractinia,
- **Recent COP12 decisions to increase the protection of some coral reef species**
 - Uplist from Annex III to Annex II: the Oceanic Whitetip Shark, the Whale Shark and the Giant Manta Ray
 - List all Parrotfishes and the Caribbean reef shark in Annex III.

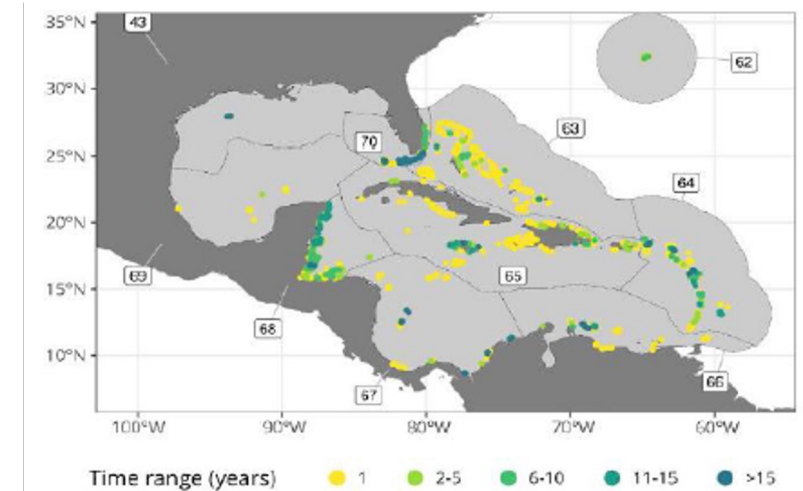


GCRMN-Caribbean Network



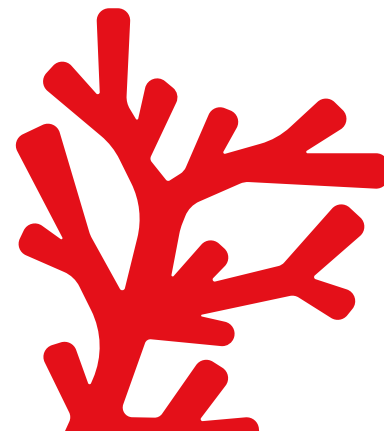
Objectives

- 1) Improve understanding of coral reef status and trends, globally (GCRMN Global) and regionally (GCRMN Caribbean);
- 2) Provide science-based recommendations in support of raising awareness, management and policy development;
- 3) Facilitate greater utilization of coral reef data
- 4) Build human and technical capacity to collect, analyse and report biophysical and socio-economic data on coral reefs



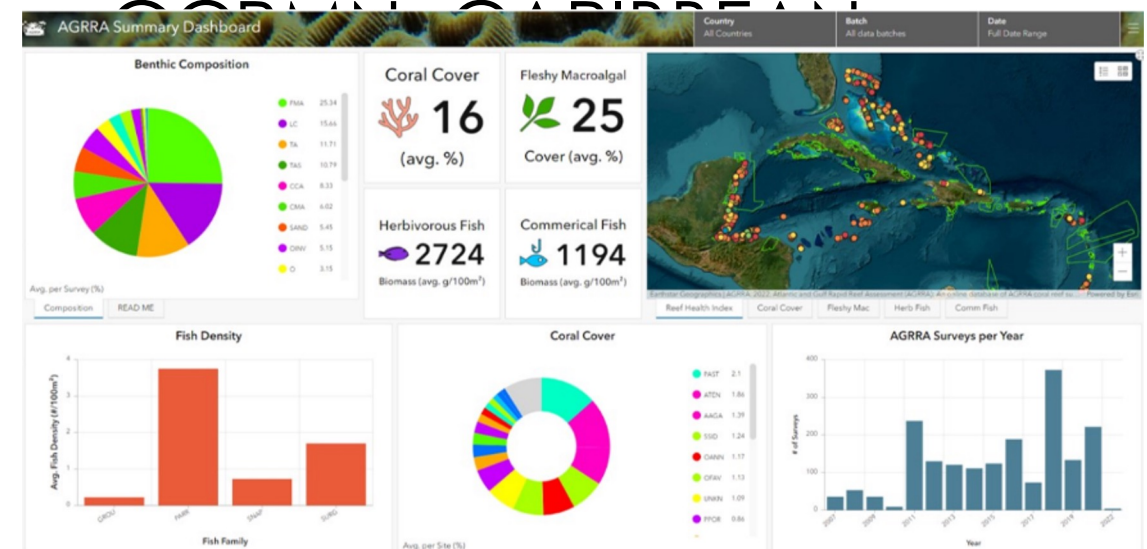
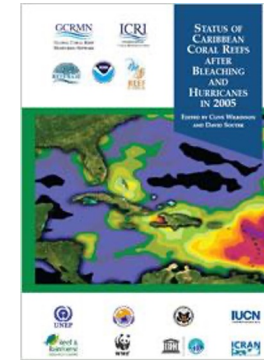
- Currently > 250 Members sharing experiences, information and knowledge
- 30 Caribbean Territories covered
- **Next big step => A regional report on the state of Caribbean coral reef in 2025 !**

Access to the **GCRMN-Caribbean Forum** by completing this [online Form](#)



GCRMN- CARIBBEAN NODE

- Regional report (Jackson et al., 2014) showing trends over 40 years
- Caribbean chapter in Global reports
- Regional Data Archiving and sharing (AGRRA's Data Explorer)





GLOBAL CORAL REEF MONITORING NETWORK - CARIBBEAN NODE

Biophysical monitoring

- Assess health condition
- Identify changes over time
- Predict future outcomes
- Inform management decisions

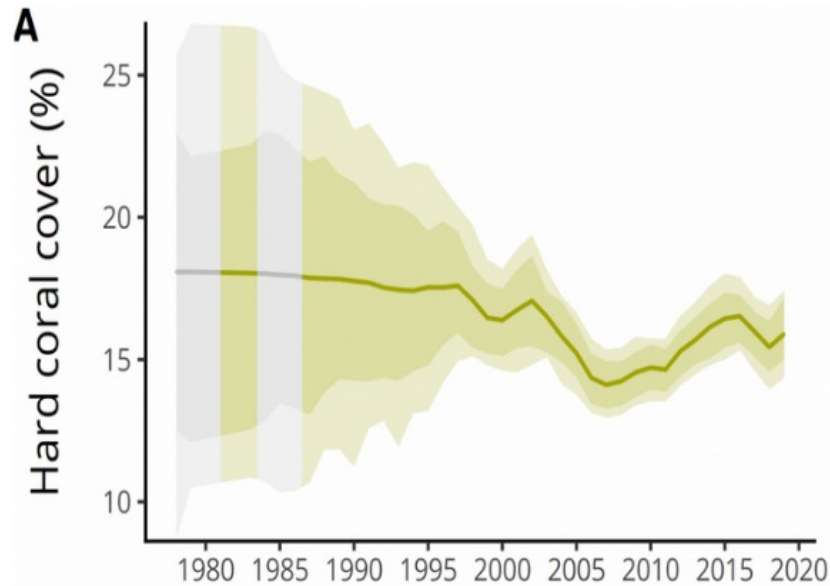
Socioeconomic monitoring (SocMon)

- Dependence on coral reef resources
- Threats to marine and coastal resources
- Climate adaptation and resilience
- Inform management decisions



Key figures from the 2020 report

Hard coral cover



Algae cover

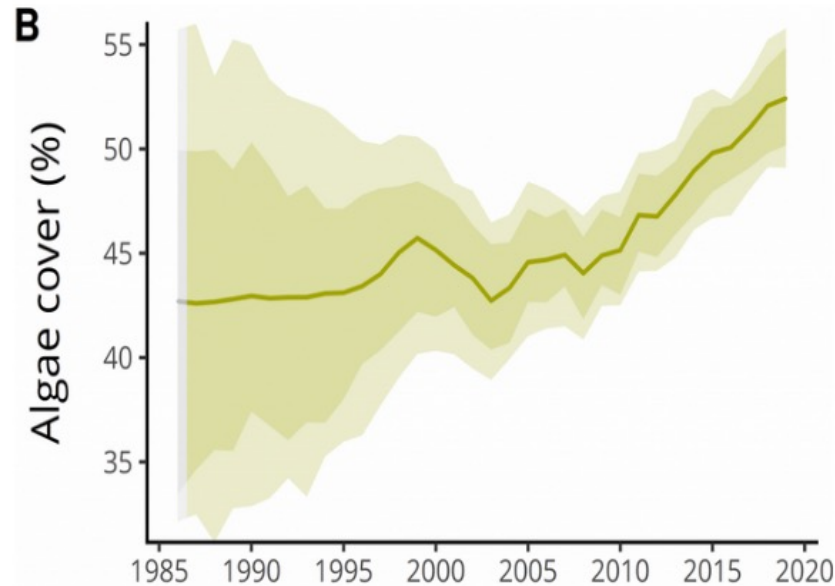
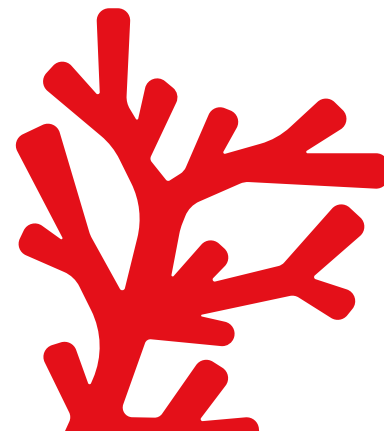


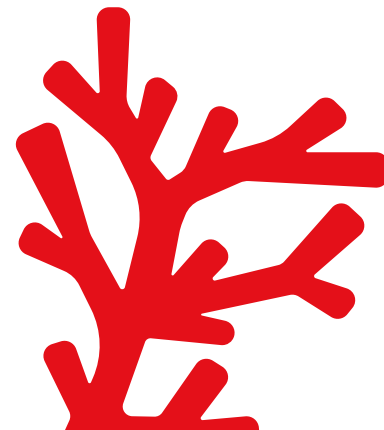
Figure for the Caribbean Region from the 2020 World Report : Estimated regional average cover of live hard coral (A) and algae (B) for the Caribbean region. The solid line represents the estimated mean and associated 80% (darker shade) and 95% (lighter shade) confidence intervals, which represent levels of uncertainty. Grey areas represent periods during which no field data were available in the Caribbean region.



Join the GCRMN-Caribbean Network

Benefits of being a member of the GCRMN-Caribbean Network

- **Open and growing network** of coral reef scientists and managers involved with coral reef monitoring
- Apply **recognized and standardized monitoring protocols** and collect **robust data**
- **Connect with other coral reef networks/programmes**
- Contribute to the development of **knowledge revealing the status and trends of the coral reefs** in the Caribbean region and in the world
- **Influence decision makers** to support conservation programs
- **Mutualization of effort and assets**
- **Raising awareness about coral reefs and the need for stronger protection**



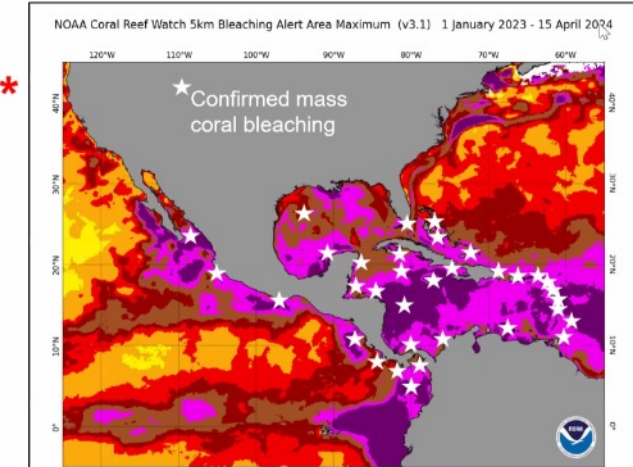
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Massive Bleaching

- Terrible in the Caribbean specifically
- Sea Surface Temperature (SST) incredibly high
- Survey to the GCRMN members
- Caribbean Webinar organized by AGRRA (13.05) on Bleaching
- Coordination with the ICRI & NOAA for Global watch & information (webinar)

■	Bleaching Alert Level 1 (4 < DHW < 8) <u>Reef-Wide Bleaching</u>
■	Bleaching Alert Level 2 (8 < DHW < 12) <u>Reef-Wide Bleaching with Mortality of Heat-Sensitive Corals</u> *
■	Bleaching Alert Level 3 (12 < DHW < 16) <u>Multi-Species Mortality</u>
■	Bleaching Alert Level 4 (16 < DHW < 20) <u>Severe, Multi-Species Mortality (> 50% of corals)</u>
■	Bleaching Alert Level 5 (DHW > 20) <u>Near Complete Mortality (> 80% of corals)</u>

* Severe coral mortality can occur at AL2:
-for heat sensitive species (*Acropora*)



Unomia stolonifera

- Origin aquaculture in Venezuela, first sighting in 2007, officialised in 2021
- Potential for invasion (unofficial sightings reports in the Caribbean)
- Impacts on local fisheries, biodiversity, ecosystems
- Experimental protocol to eradicate the species (Unomia Project) in progress
- Several GCRMN-Caribbean Partners on the Watch : Webinar organized in Feb 2024 with AGRRA with experts from Venezuela & Cuba.



SCTLD :

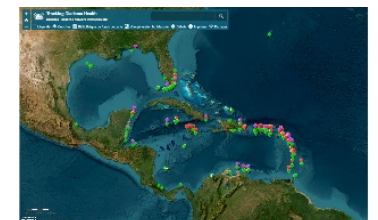
- Wide and quick spread from Florida since 2014 (28 territories in the Caribbean Region)
- Affecting > 34 species of corals (mainly brain, pillar, star and starlet corals)
- On-going research to understand cause of the disease
- Regional effort to track the disease and respond (AGRRA, CCT, NOAA, etc.)
- [AGRRA's Coral Disease Outbreak Tracking Map](#)
- Guidelines and protocols to rescue corals (AGRRA, CCT, NOAA, etc.)



Diadema sea urchin mass mortality :

- Wide and quick die-off since February 2022 (similar to 1980's die-off)
- At least 25 territories affected in the Caribbean
- Regional effort to track and try to understand the cause: **Diadema Response Network**, webinars, publications, etc.
- [AGRRA's Sea urchin die-off tracking map](#)

Diadema Response Network





CARIBBEAN

- Update of the regional Report on Status and Trends for Coral Reefs in the Caribbean
- To be published in June 2025 at the UN Ocean Conference
- Regional call for Data

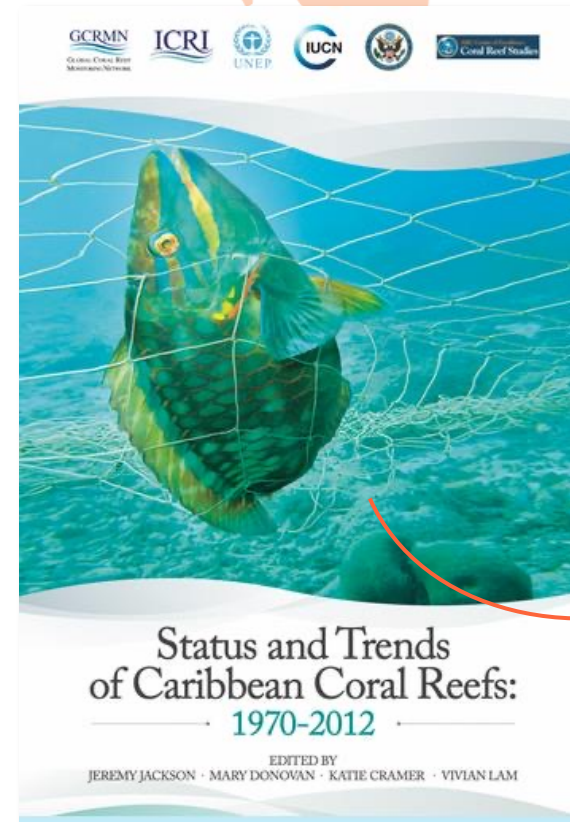
Website

<https://gcrmn.net/caribbean/>



REGION

Caribbean



2025

New regional report!

Call for data on the region's coral reefs

Implementation of the Strategic Action Plan for the Gulf of Mexico Large Marine Ecosystem (GoMLME).

Component 3: Preserve and restore the quality of coastal and marine ecosystems through community engagement and enhanced bilateral (trilateral) cooperation.

Activity 3.3.1: Establish indicators and standards for biological and oceanographic monitoring of coral reefs and their connectivity relevant for the three countries of the GoMLME.

Activity 3.3.2: Strengthen monitoring and promote the analysis of biological and oceanographic information derived from in-situ and remote measurement instruments, as well as the exchange of information in the GoMLME MPAs.

Activity 3.3.3: Evaluate vulnerability and resilience to coral bleaching in coral reef ecosystems within the GoMLME.

Activity 3.4.1: Exchange knowledge and experiences among MPAs of the GoMLME network regarding coral reef sustainable tourism.

Activity 3.4.2: Develop and strengthen the technical capacities of GoMLME MPAs to promote the ecological restoration of coral reefs.





THANK YOU

MERCI BEAUCOUP

MUCHAS GRACIAS

Contributions by Susana Perera Valderrama & Lucille Rossin

