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Eleventh Meeting of the Scientific and Technical
Advisory Committee (STAC) of the Protocol
Concerning Specially Protected Areas and Wildlife
(SPA W) in the Wider Caribbean Region

Panama City, Panama
30 June – 3 July 2025

**Caribbean Node of the Global Coral Reef Monitoring Network (GCRMN-
Caribbean) activities 2023 – 2024**

This meeting is being convened virtually. Delegates are kindly requested to access all meeting documents electronically for download as necessary.

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1. ACCRONYMS

AGRRA	Atlantic and Gulf Rapid Reef Assessment
COP	Conference of Parties
EST	East Standard Time
GCFI	Gulf and Caribbean Fisheries Institute
GCRMN	Global Coral Reef Monitoring Network
GFCR	Global Fund for Coral Reefs
ICRI	International Coral Reef Initiative
JNCC	Joint Nature Conservation Committee
MPA	Marine Protected Area
MPA	Marine Protected Area
NOAA	National Oceanic and Atmospheric Administration
SC	Steering Committee
SCTLD	Stony Coral Tissue Loss Disease
SocMon	Global Socioeconomic Monitoring Initiative for Coastal Management
SPAW	Specially Protected Areas and Wildlife
SSFA	Small Scale Fund Agreement
STAC	Scientific and Technical Advisory Committee
TNC	The Nature Conservancy
UNEP-CEP	United Nations' Caribbean Environment Programme
UNOC	United Nations Ocean Conference
USA	United States of America
USVI	United States Virgin Islands

2. PROJECT SUMMARY - GCRMN Caribbean

Context

The Caribbean Region represents only 1% of Earth's marine environment, but hosts 10% of the world's coral reefs. The Global Coral Reef Monitoring Network (GCRMN) was established to support the International Coral Reef Initiative (ICRI) in 1994. The last COP workplan for the SPAW-RAC is supporting the role of co-chair GCRMN-Caribbean to develop and implement activities, as well as participate as member of the Global GCRM and ICRI. It implies the continued reactivation of the Caribbean coral reef monitoring network under GCRMN (GCRMN-Caribbean) (UNEP(DEPI)/CAR WG.36/INF.10 and UNEP(DEPI)/CAR WG 43 /INF.27). The GCRMN-Caribbean is an open network of coral reef scientists, managers and government expert representatives involved with coral reef monitoring in the region, led by a Steering Committee with the support of United Nations' Caribbean Environment Programme (UNEP-CEP) and the SPAW-RAC as regional co-coordinator with Healthy Reefs Initiatives.

Objectif

- Coral Reef Monitoring in the Wider Caribbean region – a regional and global report on the coral reef status.

Activity summary

1. Elaboration of the 2025 GCRMN-Caribbean Report Status of Coral reefs in the Wider Caribbean,
2. Coordination & Elaboration of the 2026 GCRMN Status of Global Coral reefs,
3. Global coordination of the GCRMN-Caribbean node,
4. Monitor and coordinate with organizations already involved in monitoring coral diseases (SCTLD), invasive species and bleaching,
5. Ensuring the visibility and communication of coral reef monitoring in the Caribbean region to political decision-makers and conservation managers.

SPAW-RAC role

Co-chair & coordinator of the GCRMN-Caribbean node.

Budget

2023-2024: 80 000\$ (SSFA UNEP Nairobi - GFCR)

2025: 40 000\$ (SSFA UNEP-CEP - Gulf of Mexico Project) – 40 000\$ (PCA UNEP CEP - MPAs)

3. FROM THE LAST WORKPLAN

COP recommendations: From the workplan (WG. 43/3/ rev 1)

The last COP workplan for the SPAW-RAC is supporting the role of co-chair GCRMN-Caribbean to develop and implement activities, as well as participate as member of the Global GCRM and ICRI. It implies the continued reactivation of the Caribbean coral reef monitoring network under GCRMN (GCMRN-Caribbean) (UNEP(DEPI)/CAR WG.36/INF.10 and UNEP(DEPI)/CAR WG 43/INF.27). The activities conducted by SPAW-RAC subject to funding will include the:

- Promotion and implementation of the Regional Guidelines for Coral Reef Biophysical Monitoring (UNEP(DEPI)/CAR WG.38/INF.17) as well as Guidelines for Integrated Coral Reef Monitoring (UNEP(DEPI)/CAR IG.37/INF.4) and representation and promotion of the guidelines and GCRMN- Caribbean at relevant fora;
- Continue supporting coral reef monitoring efforts to evaluate their ecological status at regional and global levels;
- Development of an action plan for the next biennium (2023-2024) and the implementation of capacity-building activities such as workshops and small grant funding for field work; and
- Participation at global coral reef initiatives, including ICRI, the Healthy Reefs Initiative, Reef Resilience Network, and the Coral Reef Consortium.

Subject to funding availability, continue work on Stony Coral Tissue Loss Disease, and other existing and new invasive species, particularly with respect to the release of ballast water in the WCR. The SPAW Sub-programme will also continue to share resources developed by other partners, including GCFI and the National Oceanic and Atmospheric Administration (NOAA).

2.5.3 Expected Outputs and Indicators

60. The major outputs, and indicators of achievement, under this sub-programme will be:

Outputs	Indicators of Achievement
GCRMN-Caribbean’s sustained reactivation, as well as guidance provided by the Steering Committee	Countries’ ability to monitor and protect coral reef ecosystems is enhanced and strengthened, through the use of standardised data collection and reporting methods
Harmonized data on biophysical and socio-economical coral reef monitoringbeing collected and better integrated	Increased number of experts and practitioners involved in the GCRMN-Caribbean work
Development of a regional database to store and analyse data collected by the GCRMN-Caribbean	SCTLD and <i>Diadema</i> die-off monitored and countries of the WCR actively engaged to address these issues
Contribution to the GCRMN’s Status of Coral Reefs of the World Report	Countries’ ability to monitor and protect mangrove and seagrass ecosystems is enhanced and strengthened, through the use of standardised data collection and reporting methods
Harmonized mangrove and seagrass monitoring protocols in the WCR	
EBM management approaches promoted throughout theWCR	Increased capacity within Member States to implement EBM approaches
Resilience of coastal ecosystems against climate change pressures improved	Enhanced capacity within Member States to effectively conserve and sustainably use resources found within coastal ecosystems.
	Increased number of projects and initiatives to restore coastal and marine ecosystems in the WCR and mitigate impacts of climate change

Summary of the Caribbean Node of the Global Coral Reef Monitoring Network (GCRMN-Caribbean) activities 2023 – 2024

4. INTRODUCTION

Importance of Coral Reefs in the Caribbean Sea

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.

Global GCRMN

1. The Global Coral Reef Monitoring Network (GCRMN) was established to support the International Coral Reef Initiative (ICRI)'s Call to Action and Framework for Action in 1994. It works through regional networks, comprising a variety of institutions, with the aim of strengthening the provision of the best available scientific information and communication on the status and trends of coral reef ecosystems, for their conservation and management.

GCRMN- Caribbean

2. The GCRMN-Caribbean is an open network of coral reef scientists, managers and government expert representatives involved with coral reef monitoring in the region, led by a Steering Committee with the support of United Nations' Caribbean Environment Programme (UNEP-CEP) and the SPAW-RAC as regional coordinator.
3. Since its revitalization and strengthening in 2014, the GCRMN-Caribbean has been making sustained efforts to ensure the collection of useful and accessible data that can effectively reveal the status and trends of the coral reefs in the Wider Caribbean Region. The GCRMN-Caribbean promotes an integrated approach with socioeconomic data, and create a regular, robust and strategic reporting to influence coastal management decision-making at the regional level, and guide management at the local level.

5 GENERAL INFORMATION

Node coordinator

Auriane Petit - Marine Ecosystems and Protected Areas Project Officer, SPAW RAC

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Melanie McField - Co-Chair, Caribbean Steering Committee, and Founder and Director of the Healthy Reefs for Healthy People Initiative (HRI) mcfield@healthyreefs.org

Susana Perera Valderrama - Programme Management Officer – UNEP-CEP

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Website (URL): <https://gcrmn.net/caribbean/>

Countries included

Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Colombia, Costa Rica, Cuba, Curaçao, Dominica, Dominican Republic, Grenada, Guadeloupe, Guatemala, Haiti, Honduras, Jamaica, Martinique, Mexico, Montserrat, Nicaragua, Panama, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, US Virgin Islands, Venezuela.

Governance

The GCRMN-Caribbean is led by a Steering Committee (SC) composed of fifteen regional experts, assisted by members-at-large. The members of the SC represent a variety of technical, scientific, and policy expertise. They include both institutional and individual representation.

The SC is co-chaired by Healthy Reefs Initiative and the [Regional Activity Center for the Specially Protected Areas and Wildlife Protocol](#) (SPAW-RAC) under the Cartagena Convention and the [UN Environment – Caribbean Environment Programme](#) (UN Environment – CEP).

The members-at-large are individuals to whom the SC can turn to for technical advice and support for the implementation of specific actions, and who are kept informed of the activities and deliberations of the network. The members-at-large are regionally and gender balanced and include members of key regional organizations.

6 MAIN ACTIVITY-A CARIBBEAN CORAL REEFS STATUS REPORT

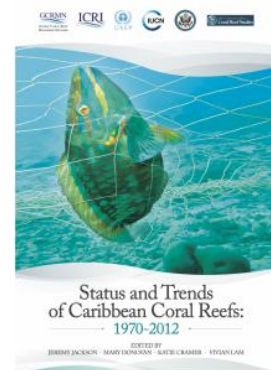
Introduction

4. Recognizing the urgent need to better understand and address the different sources of coral reef loss in the Caribbean (coral bleaching, disease outbreaks, invasions, etc.), the GCRMN-Caribbean is focusing its efforts on producing a detailed and comprehensive report on the status and trends of coral reef ecosystems in the Caribbean, ten years after Jackson et al. (2014). An updated Caribbean regional report is needed to describe coral reef trends (decline, stability, recovery), based on pre-identified indicators and stressors and to propose management measures and solutions (conservation, mitigation, MPA implementation, restoration, etc.).
5. Such a report is essential for informed decision-making, effective conservation planning and sustainable and adaptive management of coral reefs. It will serve as a basis for policy development, resource mobilization and the promotion of collaboration among the various stakeholders dedicated to the preservation of this invaluable marine ecosystem.
6. In November 2023, the GCRMN-Caribbean Steering Committee officially launched the work for the 2025 Regional GCRMN Status of Coral Reefs of the Wider Caribbean report describing the status and trends of coral reefs in the region. Following the [“Status and Trends of Caribbean Coral Reefs: 1970-2012” \(Jackson et al., 2014\)](#) report UNEP-CEP initiated efforts to revitalise and strengthen coral reef monitoring. In 2024, the GCRMN Caribbean Node is launching a call for coral reef monitoring data to support to production of the **“Status of Caribbean Coral Reefs: 1970-2024”**. These data are also intended to be used for the upcoming global report – “Status of Coral Reefs of the World: 2025” report.



7. 2024 was the year in which we defined the objectives and vision of this new regional report. Several meetings of the steering committee and the data task force defined the indicators

for the new report, as well as the structure and method of data collection. From July to the end of November, the call for data was widely circulated and the data collected with the signing of data-sharing agreements with all contributors. Webinars and presentation meetings were held to provide information on the new report process. The call for data was also widely disseminated at the political level during the COP16 CBD in Cali, Colombia.



8. The added value of the Caribbean report compares to the 2020 CRMN Global report is the country/territory level compare to the ecoregion level in the global report. Furthermore, the experts have highlighted the need for reef fish indicators in addition to benthic and algal coverage. Case studies will highlight issues specific to the greater Caribbean region, such as bleaching, several diseases such as Stony Coral Tissue Loss Disease, the Diadema Abundance, etc. In addition to biophysical indicators, it is crucial that the analysis includes SocMon socio-economic indicators highlighting interactions with populations living close to coral reefs.

Governance

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The SC is co-chaired by the [Regional Activity Center for the Specially Protected Areas and Wildlife Protocol](#) (SPAW-RAC) under the Cartagena Convention and the [UN Environment – Caribbean Environment Programme](#) (UN Environment – CEP) and Healthy Reefs Initiative.

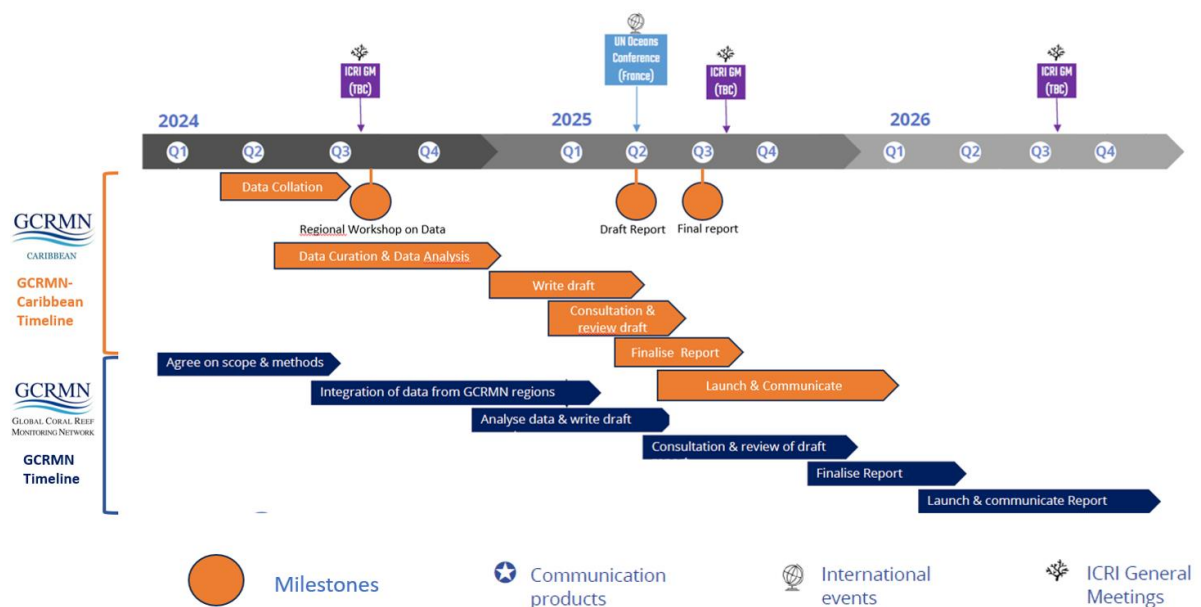
The members-at-large are individuals to whom the Steering Committee can turn to for technical advice and support for the implementation of specific actions, and who are kept informed of the activities and deliberations of the network. The members-at-large are regionally and gender balanced and include members of key regional organizations.

Coordination of the GCRMN-Caribbean node (2023-2024):

- GCRMN members online survey first on the Network (April 2023), the second on the Monitoring and capacity (September 2023), the third on bleaching (April 2024).
- Animation of Steering committees (in-person in Nov 2023, 2 virtual meetings in April and July 2024).
- Animation of Data Task Forces (2 meetings in June 2024).

- Online surveys conducted (network coordination, monitoring, and capacity-building)
- Survey on Coral bleaching with AGRRA and participation on a regional and global webinar (Judith Lang AGRRA)
- Fundraising for the GCRMN-Caribbean Report (SPAW-RAC).
- General Coordination of the GCRMN-Caribbean Report (SPAW-RAC).
- Recruitment of a consultant for the Data Collation & Analysis for the GCRMN-Caribbean report. (SPAW-RAC in June 2024).
- Launch of the Report Call for Data (July to November 2024)
- Organization of a Data Workshop in Puerto Morelos Mexico with 15 experts on data analysis in parallel with a GFCR workshop. (SPAW-RAC in October 2024).

Timeline and workplan



Creation of three task forces:

- Data Task Force
- Fundraising Task force
- Communication Task Force

Step 1 : the Call for Data

The GCRMN-Caribbean are looking for monitoring data on percentage cover of benthic organisms. These data can be from consistent, long-term temporal monitoring programs (i.e., repeated, multiple surveys over time) or from once-off spatial surveys (i.e., a single survey in time). Ideally, the GCRMN is looking for the finest spatial level (e.g. photo-quadrat level instead of site averaged level) and the finest taxonomic level (e.g. species level instead of broad category). The more data we receive at finer spatial and taxonomic levels, the more accurate the indicators will be.

The Node is also seeking metadata associated with these data. Metadata is additional information that is necessary to contextualize and interpret data. Two types of metadata are necessary: 1) latitude and longitude of monitoring sites, and 2) year of the monitoring event (or ideally the date). Additional metadata about the depth where the observation has been collected, the monitoring method used (e.g., line intercept transects, 50m long transect), the name of the person in charge of the observation, the equivalences of benthic organism's code used (if any), the level of protection of the site (e.g., within a Marine Protected Area or not) are also highly beneficial.

How to share data:

Contributors are able to share data with the GCRMN in multiple formats and the data do not need to be standardized as this process will be undertaken by the GCRMN. Upon sharing data, the GCRMN will enter into a Data Sharing Agreement with the contributor.

- “A Guide for Data Contributors” developed by the GCRMN the necessary information on how contributed data are used, the data that are of interest and how to share data most efficiently. Additional information on metadata, data storage and standardization and acknowledgement of contributions is provided.
- “Data Sharing Agreement” sets out the terms and conditions under which the GCRMN can use contributors' data and how contributors will be acknowledged for contributions. The Data Sharing Agreement is available in English, French and Spanish.



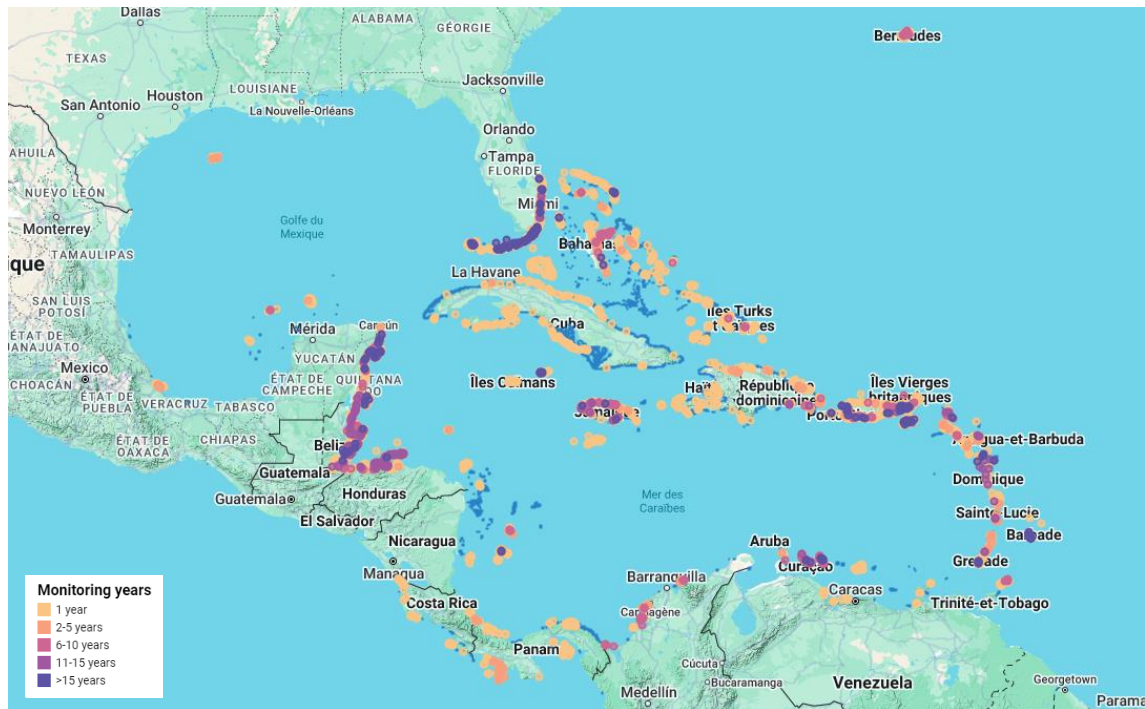
Key numbers:

- Number of sites: 15,012 Sites
- Number of observations: 23,803 Survey
- Datasets : 60
- Longest time series: between 1973 and 2024

This represents more than double the number of monitoring sites used to produce the "Status of Coral Reefs of the World: 2020" report.

You can visualize the distribution of the monitoring sites on our interactive map (see

<https://jeremywicquart.users.earthengine.app/view/gcrmdbbenthos>).



Step 2 : A GCRMN-Data workshop

Puerto Morelos - Mexico with 15 experts of data analysis on coral reefs.

- **Date:** October 1 - October 4, 2024
- **Location:** Puerto Morelos, Mexico
- **Host:** SPAW-RAC and Global Coral Reef Fund
- **Funding:** SPAW-RAC, through GFCR-UNEP funds, will be able to finance travel, accommodation and catering for 15 participants.
- **Participants:** Caribbean coral reef data experts



The **aim** of the workshop is **to identify dataset gaps, agree on the analysis methodology for the report, analyze preliminary results and identify case-studies specific to the region:**

- Ensure that data collected by GFCR partners are aligned with the GCRMN-Caribbean technical guidelines and can be integrated with those collected by the GCRMN-Caribbean network,
- Presentation and discussion of primary analysis and interpretation of datasets,
- Agree on common messages/ideas to share in the regional and global report,

- Propose and agree on a standardized methodology for data integration and analysis for the elaboration of the Caribbean GCRMN Report and the Caribbean Chapter of the 2025 Global GCRMN Report
- Propose a work plan for the writing, design and publication of the reports (regional & global ones).



7 BLEACHING MONITORING

Reference persons in the Region:

- Dereck Manzello – NOAA
- Patricia Kraemer – AGRRA
- Judith Lang - AGRRA

Monitoring in the region:

- Caribbean Coral Reef Watch – NOAA- August 2024:https://rcc.cimh.edu.bb/files/2024/08/Caribbean-CRW-Vol9_Issue_4_August2024.pdf
- AGRRA Coral Bleaching monitoring: <https://www.agrra.org/coral-bleaching/>
- NOAA Report Bleaching: https://coralreefwatch.noaa.gov/satellite/research/coral_bleaching_report.php

As NOAA announces the fourth global bleaching event, restoration practitioners, scientists and reef managers across the Caribbean and Florida are assessing the actions they took to respond to the 2023 thermal event and planning for the possibility of similar conditions in 2024.

Organization of webinars on Bleaching in the region (AGRRA):

On May 13th from Noon-1:30 pm EST, practitioners across the region discussed actions that were implemented, and the lessons learned that could help inform future responses. Heat Stress - What

happened last year, what to expect this year: Dr. Derek Manzello of NOAA's Coral Reef Watch characterized the 2023 global bleaching event and what to expect in 2024. Bleach Response Actions: Caitlin Lustic of The Nature Conservancy (TNC) shared lessons learned from Florida's intervention efforts. Practitioners from Puerto Rico (Dr. Claudia Ruiz), Dominica (Simon Walsh) and the USVI (Rachel Ionata, Matthew Davies, Logan Williams) described their actions during last year's bleaching. The topics included in-situ (shading, relocation, feeding) and ex-situ (nursery evacuation, genetic banking) responses. Resilient Reefs: Fragments of Hope in Belize shared information about some amazing Acropora colonies, most of which survived after having been severely bleached in 2023. The webinar was sponsored through the generous support of the Ocean Research and Education Foundation's AGRRA Program in collaboration with The Nature Conservancy, Reef Resilience Program, NOAA's Coral Reef Conservation Program, and MPACConnect.

Participation to the ICRI webinar on Global Coral Bleaching Event:

The ICRI webinar aims to provide an in-depth analysis of the current state of coral bleaching on local and global scales. This global event requires global action and ICRI and its members continue to advance coral interventions and restoration in the face of climate change. During this 2-hour webinar hear about the current status of coral bleaching from coral reef regions and countries (USA, Australia, the Red Sea, the Western Indian Ocean, the Caribbean, Brazil, and France) and the role of the global coral reef community to secure a future for coral reefs.

8 INTERNATIONAL CONFERENCES & MEETINGS

- **COP 16 – Side event “Coral Reef Monitoring and Evaluation: Gaining Insights to Achieve Conservation Impacts” – Cali – October 29th**

The Caribbean Chapter of the Global Coral Reef Monitoring Network convened this session to explore how collaborative reef monitoring and savvy reporting can help catalyse conservation actions to achieve greater impacts.

The Caribbean Region represents only 1% of Earth's marine environment, but hosts 10% of the world's coral reefs, including the Mesoamerican Reef, which includes the largest barrier reef in the Western Hemisphere. GCRMN Caribbean is convening the first Caribbean Report Card to be launched in June 2025 at Third United Nations Ocean Conference (UNOC 3) in Nice, France. The Report Card will be similar to those produced over the last two decades by Healthy Reefs Initiative in the Mesoamerican Reef. Their 2024 Report Card will be launched simultaneously in the four host countries (Mexico, Belize, Guatemala and Honduras) and Internationally at the COP-16.

Our Session begun with this exciting launch, followed by a Questions & Answers session with press and interested parties. The session resumed with the plans for the 2025 Caribbean Report Card and Outcomes of the October 2024 Data Analysis Workshop in in Puerto Morelos, Mexico,

in collaboration with the Global Fund for Coral Reefs (GFCR) and adjoining a REEF+ projects in the Caribbean. Lastly we heard from GCRMN and ICRI about the Global plans for accelerating reef monitoring reporting and conservation actions.



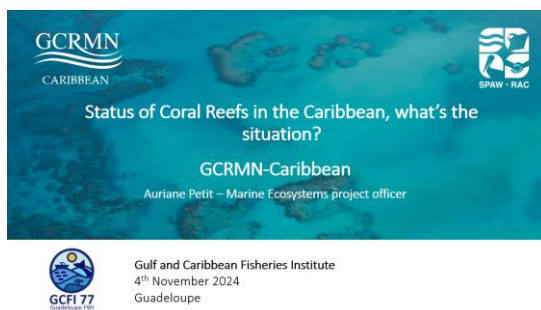
- **Gulf and Caribbean Fisheries Institute 77th Conference – Guadeloupe – November 2024**

The Gulf and Caribbean Fisheries Institute (GCFI) was founded in 1947 to promote the exchange of information on the use and management of marine resources in the Gulf and Caribbean Region. From its beginning, GCFI has endeavored to involve scientific, governmental, and resource- use sectors in providing a broad perspective on relevant fisheries issues. The GCFI membership comprises over 40 nations and territories representing university faculty and students, governmental agencies, policy-makers, private sector, fishers, non-governmental organizations, and other stakeholders.

During its 77th Conference (Pointe-à-Pitre, 4 to 8 of November), SPAW-RAC participated in the session “Reefs and associated ecosystems fisheries”.

SPAW RAC presented the work conducted in 2024 by the Global Coral Reef Monitoring Network to give an overview of the status of coral reefs in the Caribbean.

The aim of this presentation was to take stock of the data collected in the region, and to provide a preview of the initial avenues for analyzing data sets on the state of corals in the Caribbean. We presented: results and limitations of previous reports, mapping of contributors and countries participating in the current report, regional indicators, and the threat situation such as bleaching, Sea Surface Temperature, the STLD disease, invasive species, etc.



9 CONCLUSION

With regard to the recommendations of the last COP, SPAW-RAC has carried out all its missions as co-chair and the objective of revitalizing the GCRMN for coordinated monitoring at regional level has been achieved. The network is dynamic and experts spontaneously exchange information on threats to corals in their area. Work on the 2025 GCRMN-Caribbean Report Status of Coral Reefs in the Wider Caribbean was launched, with benthic data collection completed at the end of 2024, far exceeding expectations as we doubled the number of datasets compared with the last GCRMN report in 2020.

Following the workshop in Mexico in October 2024, the data task force is very active and the collaborative approach to writing the report has begun. Bleaching and diseases such as Stony Coral Loss Disease (SCTLD) are also being shared via SPAW-RAC webinars and regional partners. Finally, at the political level in the Caribbean and internationally, the GCRMN's work is widely shared in an inclusive effort for data holders and coral experts, with representation at 2 GCFIs in the Bahamas and Guadeloupe, at COP16 in Colombia and at ICRI conferences.

SPAW-RAC proposes the following activities as recommendations:

1. General coordination: to continue its mission as co-chair of GCRMN Caribbean, to finalize the drafting of the report.
2. Elaboration, finalization and promotion of the 2025 GCRMN-Caribbean Report Status of Coral reefs in the Wider Caribbean,
3. Coordination & Elaboration of the 2026 GCRMN Status of Global Coral reefs,
4. Monitor and coordinate with organizations already involved in monitoring coral diseases (SCTLD), invasive species and bleaching,
5. Ensuring the visibility and communication of coral reef monitoring in the Caribbean region to political decision-makers and conservation managers.