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

Virtual, 30 January – 1 February 2023

SUMMARY OF THE CARIBBEAN NODE OF THE GLOBAL CORAL REEF MONITORING NETWORK (GCRMN-CARIBBEAN) ACTIVITIES 2021 - 2022

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

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ACRONYMS

AGRRA	Atlantic and Gulf Rapid Reef Assessment
CRIOBE	Centre de recherches insulaires et observatoire de l'environnement
GCRMN	Global Coral Reef Monitoring Network
GOA-ON	Global ocean acidification observing network
ICRI	International Coral Reef Initiative
JNCC	Joint Nature Conservation Committee
NOAA	National Oceanic and Atmospheric Administration
MPA	Marine Protected Area
SCTLD	Stony Coral Tissue Loss Disease
SocMon	Global Socioeconomic Monitoring Initiative for Coastal Management
SPAW	Specially Protected Areas and Wildlife
STAC	Scientifical and Technical Advisory Committee
UNEP-CEP	United Nations' Caribbean Environment Programme

Summary of the Caribbean Node of the Global Coral Reef Monitoring Network (GCRMN-Caribbean) activities 2021 – 2022

1. INTRODUCTION

1.1 Definition

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.

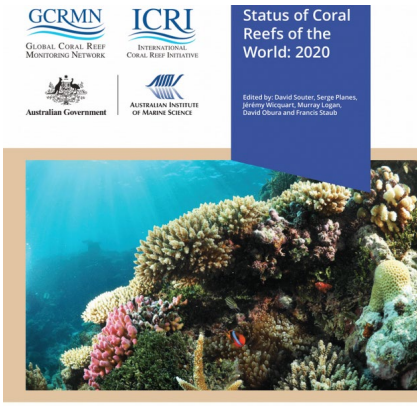
1.2 GCRMN- Caribbean

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.

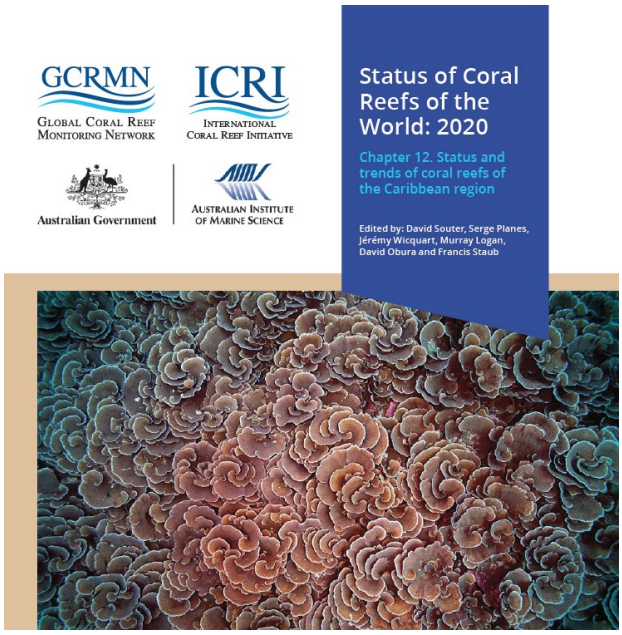
2. MAIN EVENTS

2.1 Publication of the 2020 GCRMN Status of Coral Reefs of the World report

3. In February 2022, ICRI and the GCRMN officially launched the 2020 GCRMN's Status of Coral Reefs of the World Report describing the status and trends of coral reefs worldwide.



4. SPAW-RAC took the lead for the Caribbean region in asking members of its network to share their data and insights regarding corals status and trends per bioregion. This collected data and analyses took the shape of a chapter dedicated to the Caribbean region, Chapter 12.

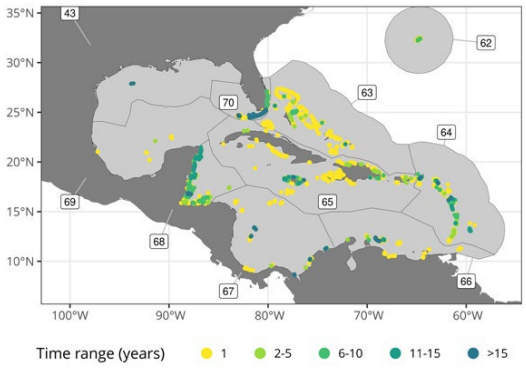


5. During the consultation process to write Chapter 12 of the World report, SPAW-RAC involved the members of the GCRMN-Caribbean Steering Committee and participated to two meetings of the Global-GCRMN (May 2019, February 2020) where the structure and preliminary results and analysis were discussed.

6. The main results of this exercise are of major interest to policy makers and conservation gestion plans for coral reefs.

7. Key numbers:

   - Number of countries from which monitoring data were used: 20 (of 25)
   - Number of sites: 3,166
   - Number of observations: 209,823
   - Longest time series: 29 years



8. This regional chapter confirms, as Jackson et al. 2014 (Status and Trends of Caribbean Coral Reefs: 1970-2012. GCRMN/ICRI/ UNEP/IUCN) stated that live hard coral and algal covers are experiencing reverse trajectories. Data from this meta-analysis show that region-wide (all five subregions pooled) mean hard coral cover in the Caribbean declined by 2.1% between 1983 (18%) and 2019 (15.9%). This decline would likely appear much steeper had it included the 1970-1983 (35%) baseline data from Jackson et al. (2014). All subregions other than subregion 3 experienced overall declines in hard coral cover between 1999-2019. As a consequence, average hard coral cover across the entire region was at a historical low level (14.1% in 2007).

9. Otherwise, since 2003, the average algal cover within the region has progressively increased, reaching 52.4% in 2019

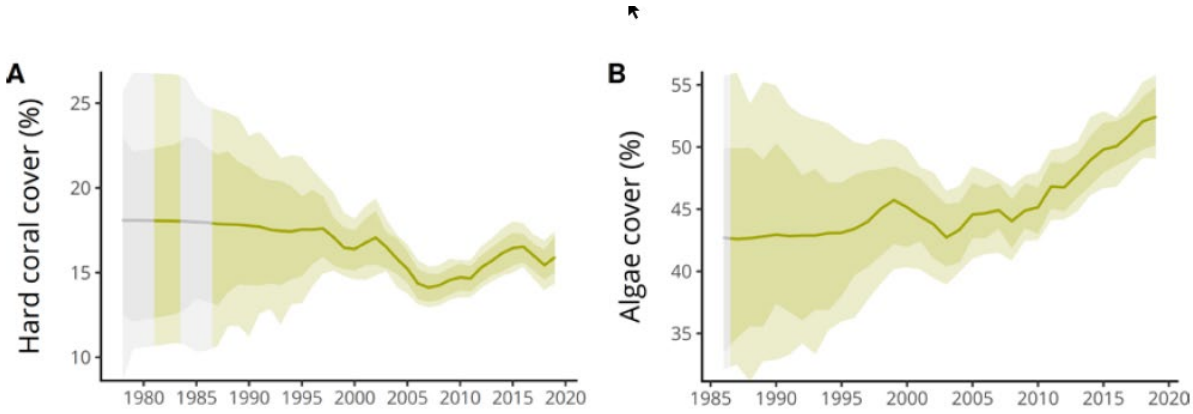


Figure 12.5. Estimated regional average cover of live hard coral (A) and algae (B) for the Caribbean region. The solid line represents the estimated mean and associated 80% (darker shade) and 95% (lighter shade) confidence intervals, which represent levels of uncertainty. Grey areas represent periods during which no field data were available in the Caribbean region.

10. Comparative trends over the period even indicate an acceleration of the trends in some of the sub-regions of the Caribbean.

11. Widespread overexploitation of herbivorous fish, heavy development in coastal areas, more frequent and intense coral bleaching events as well as stronger hurricanes are threatening Caribbean reefs that are also facing emerging issues such as lionfish, Sargassum influx, and SCTLD. Increases in the frequency and intensity of disturbances to coral reefs in the Caribbean compounded by chronic water pollution have disrupted long-term disturbance-recovery patterns, particularly since Caribbean reefs have begun to face back-to-back disturbances year-after-year.

12. The GCRMN-Caribbean Steering Committee suggests the following recommendations to stakeholders and decision makers:

- Reduce runoff in coastal areas, as well as ship discharges;
- Manage ballast water throughout the wider Caribbean region;
- Ban the use of destructive fishing gear (spearguns, gill nets, fish traps, trammel nets);
- Reduce parrotfish fishing, and consider fishery bans on large herbivorous species and large groupers;
- Implement restoration plans for other key herbivores such as *Diadema*; and
- Enhance overall biodiversity and resilience by implementing more fully protected replenishment zones within existing and/or new marine protected areas.

13. The GCRMN-Caribbean Steering Committee strongly calls for a more holistic approach for the next global status report and to start organising the data for such an approach. In particular; socio-economic monitoring thanks to the Global Socioeconomic Monitoring Initiative for Coastal Management (SocMon) that provides essential data on the human dimensions of coral reefs should

not stand alone, but should be considered integral to GCRMN data collection on biophysical conditions. It is not only critical to better understand the desired ecosystem services, drivers and pressures of change, state of the ecosystem, and appropriate responses, but also absolutely needed for successful coral reef conservation and effective management. In the same way, more biophysical data, including fish and other benthic fauna, should also be included in the next global report.

2.2 Participation to the meeting of the Global GCRMN's Steering Committee (Monaco, 2022)

14. The GCRMN organised three-day in-person meetings in Monaco, from 22nd – 24th March 2022 in Monaco. At the occasion of Monaco Ocean Week, these fruitful events included a Steering Committee meeting, a workshop focusing on Data Solutions, and a public presentation of the GCRMN flagship report, The Sixth Status of Corals of the World: 2020 Report (Figure 1).

15. The GCRMN-Caribbean hub was represented by the Sandrine Pivard (Director of SPAW-RAC) who participated in discussions regarding the recently published World report, stressing the importance of better integrating socio-economic data for coral reef monitoring as well as enhancing coordination in the reporting process. She also provided insights on possible options to develop a GCRMN database during the Data Solutions Workshop.

Figure 1: Global GCRMN Steering Committee during the Monaco Ocean Week (March 2022) (Credit: M. Dagnino)

2.3 Participation to GCRMN trainings in UKOTs (Virtual, 2022)

16. SPAW-RAC was invited by the Joint Nature Conservation Committee (JNCC) to contribute to in-person GCRMN trainings organised for the United Kingdom Overseas Territories (Anguilla, the British Virgin Islands, Montserrat, and the Turks and Caicos Islands). JNCC delivered four training events in March 2022 in Anguilla, the British Virgin Islands, the Turks and Caicos Islands and Montserrat on bio-physical GCRMN monitoring and one online introduction on SocMon monitoring.

17. The SPAW-RAC provided a video to present the SPAW protocol, give an introduction to the GCRMN Caribbean hub to help frame the importance of the GCRMN and GCRMN reporting to help kick off these workshops. The SPAW RAC presented also an overview on the role, objectives and achievements of the Caribbean network. This contribution supported the implementation of the UKOTs programme of work for coral reef conservation and restoration.

2.4 Organisation of the GCRMN-Caribbean Steering Committee (Online, August 2022)

18. A GCRMN–Caribbean Steering Committee Meeting was organised virtually by SPAW-RAC on 17th of August 2022. It gathered 18 attendees (13 members of the Steering committee, 2 members at large and 3 experts from other organisations). Sandrine Pivard appointed Géraldine Conruyt (Deputy Director of SPAW-RAC) as new Chair of the Steering Committee and Maria Pena left her position as co-Chair.

19. This meeting was the only official meeting of the GCRMN-Caribbean since the last in-person Steering Committee Meeting in Bonaire, 2020. Therefore, it was a good opportunity for the network to reconnect after the COVID 19 pandemic, reactivate the collaboration between its members and make an overview of the achievements of the network against the workplan (2019 – 2021). SPAW-RAC emphasised the important contribution of the GCRMN-Caribbean to develop the Chapter 12 of GCRMN Status of Coral Reefs of the World 2020 report which was published in 2021.

20. The participants could exchange on priority topics for the network such as the need for better integration of SocMon in the continuous coral monitoring efforts, an improved capacity-building of data providers for data storage and analysis to facilitate reporting to the Global GCRMN. They also emphasised the importance to improve connection and communication between the GCRMN-Caribbean and the Global GCRMN as well as data providers in the Caribbean region. Involvement in ocean acidification monitoring was mentioned as topic to explore in the future. These elements were addressed in the new workplan of the GCRMN-Caribbean (2023-2024).

21. The meeting was completed by three technical presentations from experts: SocMon monitoring programme, ongoing work done to develop solutions to set up a regional Database for the Caribbean region and current work done by the Global ocean acidification observing network (GOA-ON) to set up a Caribbean hub.

3. ONGOING ACTIONS

3.1 Daily animation of the forum

22. SPAW-RAC moderates the GCRMN-Caribbean forum that gathers more than 130 members and provides it, on a daily basis, with pieces of information regarding webinars, various documents, events, etc. that could be on any interest to them.

3.2 Helping merging a regional database on corals in the Caribbean

23. There is no dedicated platform where data regarding status and trends of the corals in the Caribbean region can be found. It has been considered that SPAW-RAC could help by gathering the GCRMN data and the Atlantic and Gulf Rapid Reef Assessment (AGRRA) ones into a unique database whichcould possibly be hosted by AGRRA. The issue was discussed with representatives of AGRRA and the Centre de recherches insulaires et observatoire de l'environnement (CRIOBE) in the framework of the EU-funded Carib-Coast Project (2019-2022) as well as during the last GCRMN-Caribbean Steering Committee in August 2022 (see above).

24. Discussions are still ongoing to find the most suitable option to host GCRMN-Caribbean data into a platform facilitating data storage, formatting, analysis and final usage for reporting purposes.

3.3 Response to the Stony Coral Tissue Loss Disease (SCTLD)

25. SPAW-RAC is also involved into the SCTLD Response Caribbean Cooperation Team coordinated by National Oceanic and Atmospheric Administration (NOAA), making linkages with French speaking countries. Any pieces of information regarding SCTLD is sent to the coordination of the SCTLD Regional Cooperation Team.

26. On the 11th of July 2022, SPAW-RAC facilitated the organisation of a specific session focused on the French Caribbean islands (Guadeloupe, Martinique, Saint Barthélémy and Saint Martin) regarding the status of SCTLD on their reefs as well as their efforts to respond to the outbreak. This presentation was delivered by Jean-Philippe Maréchal and gathered work done by different expert organisations such as CREOCEAN and Nova Blue Environnement.

ANNEX: GCRMN-CARIBBEAN UPCOMING ACTIONS

GCRMN – Global
- **Coordinate the data collection and analysis of the Caribbean content of the next Global report** => Help set up a regional database for the GCRMN-Caribbean to be more effective in the reporting process => share the unanimous observation: a diminution of corals and an increase of algae is observed. Exposed the following threats: Lionfish invasion, sargassum, propagation of SCTLD …
- **Highlighted** => the need to take into account socioeconomic features in the next Global Report
GCRMN – Caribbean
- **Validation and implementation of the Work Plan (2023-2024)**
- **Integrated monitoring** => guidelines to better understand biophysics aspects of coral reefs in the Caribbean and provided keys for an efficient monitoring that takes into account socioeconomic features.
- **Improved capacity in data collection**, **analysis and reporting** in the Caribbean / link with AGGRA => organisation of integrated monitoring training workshops addressing biophysical and socio-economical aspects
- **Daily management** (Terms of References, communication, …).
- **Develop advocacy/ Ensuring liaise** with ICRI, UNEP Coral Reef Unit, NOAA (PostHurricane effort, SCTLD, etc)
- Looking for **funding opportunities** to implement the work plan (2023-2024)