

**A Calendar for Conservation:
Coordinating MPA Biophysical Monitoring Across the Grenadines**

**Un Calendario para la Conservación:
Coordinando el Monitoreo Biofísico para AMPs en Islas Granadinas**

**Un Calendrier pour la Conservation :
Coordonner la Suivi Biophysique À Travers les Grenadines**

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ABSTRACT

The Grenadine islands are comprised of thirty-nine islands and cays between the mainlands of St. Vincent and the Grenadines and Grenada, covering a region rich in biodiversity that features the most extensive coral reef ecosystem in the southeastern Caribbean. In 2011, the Grenadines Network of Marine Protected Areas (GNMPA) was created with three founding marine protected areas (MPAs), and is currently comprised of six ecologically connected MPAs. It is one of only three transboundary MPA networks in the Caribbean region. From the outset, the member MPAs desired greater cooperation with each other on long term biophysical monitoring. However, actually coordinating and implementing joint monitoring activities across international borders, in an MPA management setting with limited financial, human, and technical resources, proved a challenge. Finally, at the sixth Annual GNMPA meeting in 2016, when network members and key stakeholders met to share challenges and best practices, they worked together with partner NGO Sustainable Grenadines Inc. to create an annual *Network Monitoring Calendar*, displaying planned biophysical monitoring activities across the network, identifying opportunities for collaboration and resource-pooling, and highlighting complimentary strengths and weaknesses to facilitate peer-based training and learning exchanges amongst the MPAs. We will explain the process of arriving at this calendar, progress on implementation, lessons learned to date, such as on supporting communications, and how a conservation calendar for MPA bio-physical monitoring can encourage the application of best management practices based on sound science.

KEYWORDS: Marine protected areas, marine protected area network, biophysical monitoring, transboundary, Grenada Bank

INTRODUCTION

The Grenada Bank is a submarine shelf extending some 120 km in the South Eastern Caribbean. An archipelago of 39 volcanic islands and cays, known as the Grenadine Island Chain, sits atop the Grenada Bank and is divided between the nations of St. Vincent and the Grenadines and Grenada. Like many Caribbean islands, tourism and fisheries are the primary industries in the Grenadines. There is a large amount of connectivity between habitats due to the proximity of the islands. The major threats to the islands ecosystems include unsustainable fishing, coastal development and waste management practices. Efforts to manage these threats from the public sector have typically taken the form of conventional top-down approaches guided by a limited pool of biophysical and socio-economic information (Baldwin 2012). However, there have been many efforts within the last ten years to enhance the pool of available information on status and usage patterns of coastal and marine resources and to empower stakeholders to participate in the management of these resources. Many of these efforts took place under the auspices of the Sustainable Grenadines Project. The Sustainable Grenadines, Inc. (SusGren) is a trans-boundary non-governmental organization (NGO) registered in Grenada and St. Vincent and the Grenadines. Administration includes a small nucleus of dedicated staff, and a rotation of hired consultants and volunteer-based interns. The primary focus of SusGren is on project development and implementation, and is based on the idea that, in the Grenadines, civil society partners are the least able to participate in bringing about change that is equitable and lasting, and are also least able to access the benefits of development.

One of the most significant collaborative activities occurred in 2011, when Sustainable Grenadines, Inc., the management authorities of three MPAs, as well as relevant government and civil society stakeholders from both SVG and Grenada came together to establish a Grenadines Network of Marine Protected Areas (GNMPA). This initiative was intended to promote best practices and collaborative capacity building for MPA management across national borders. With no formal cooperative management guidelines, nor institutional structure, GNMPA was established on the back of a strong willingness for collaboration that was expressed by the three founding MPAs and the related government agencies in both countries.

Each year, the networking meeting has included a facilitated process to assist the MPAs with defining their priority needs and identifying those of the GNMPA. SusGren champions the network and strives to match needs with opportunities for expertise and funding for a process of strategic planning and opportunistic implementation. In 2011, SusGren facilitated the signing of a formal agreement between the MPAs “to collaborate together, to ensure effective MPA management and to promote the conservation and sustainable use of marine resources”. The GNMPA recognizes the two other MPA networks in the Caribbean, and the organizations that support them, including the Mesoamerican Reef Fund (operating in Mexico, Honduras, Guatemala, and Belize) and the Dutch Caribbean Nature Alliance in the Dutch Caribbean Islands. These are two MPA networks that have been established longer than the GNMPA, and can provide guidance on how to monitor effectively across national borders.

One of the drivers for the formation of the GNMPA was that MPAs in the region desired more collaboration on monitoring. The challenge has been coordinating monitoring across borders, with limited resources – both financial and human. After the GNMPA was established in 2011, the network worked towards setting the groundwork of the network – focusing on MPA governance, enforcement, communications, management plans, and setting management objectives over the next three years. In 2014, the group of six member MPAs designed and agreed upon a draft framework for MPA monitoring embodying ecological, socioeconomic and administrative goals (Figure 1). This framework will act as an evolving standard against which the member MPAs can assess and improve their individual monitoring regimes, facilitate cooperation between Network resources, and allow the Network to progress towards a standardized trans-boundary monitoring archive. In 2015, the network organized its first coordinated effort as a network through a roving AGRRA team which gathered baseline information on the long-term monitoring sites at the six MPAs. Results from these surveys were used to develop infographic posters to effectively communicate the findings within the network and to policy-makers (Figure 2).

METHODS

In May 2016, a network monitoring calendar was created in attempt to harmonize monitoring and capacity-building schedules across the network MPAs (Figure 3). The calendar was developed at the 6th Annual GNMPA meeting in May, 2016, and involved each of the 6 MPAs using flipcharts and sticky-notes to identify which monitoring activities, based on those they identified as priorities in the monitoring framework to meet their MPA objectives, would be occurring over the next year, as well as activities that were desired but required training and/or learning exchanges. After the meeting, the flipcharts were converted into an electronic, visually attractive, and easy-to-read version of the calendar. In October 2016, at the GCFI MPA biophysical monitoring workshop in Carriacou, Grenada, the monitoring calendar was updated and validated by member MPAs present at the workshop.

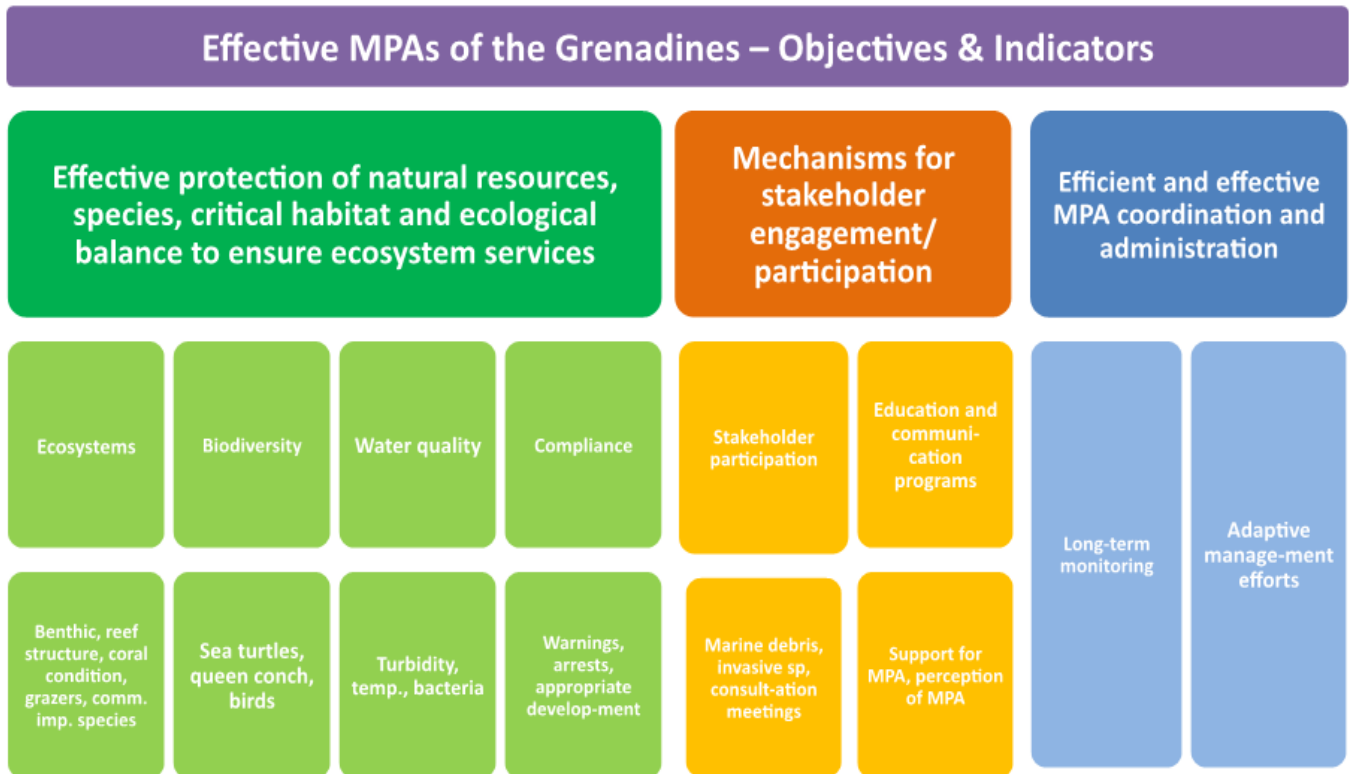


Figure 1. The Grenadines Network of Marine Protected Areas Monitoring Framework.

RESULTS

An electronic version of the monitoring calendar has been developed and is currently being used by Sustainable Grenadines to identify opportunities for collaboration and peer-to-peer training between network MPAs.

DISCUSSION

In addition to monitoring, and collecting data, SusGren has also focused on coordinating strategies to support adaptive management, such as reporting the monitoring results across the network. The MPA infographic posters are one example of how this has been successfully done in the past. SusGren is also looking towards data storage and management platforms such as CaribNode to act as a data hub for data sharing and communication between the GNMMPA members.

ACKNOWLEDGMENTS

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LITERATURE CITED

Baldwin, K. 2012. *A Participatory Marine Resource and Space-use Information System for the Grenadine Islands: An Ecosystem Approach to Collaborative Planning and Management of Transboundary Marine Resources*. (PhD Dissertation). University of the West Indies, Barbados.



Figure 2. Infographic posters displaying results of AGRRA surveys at long-term monitoring sites at six MPAs.

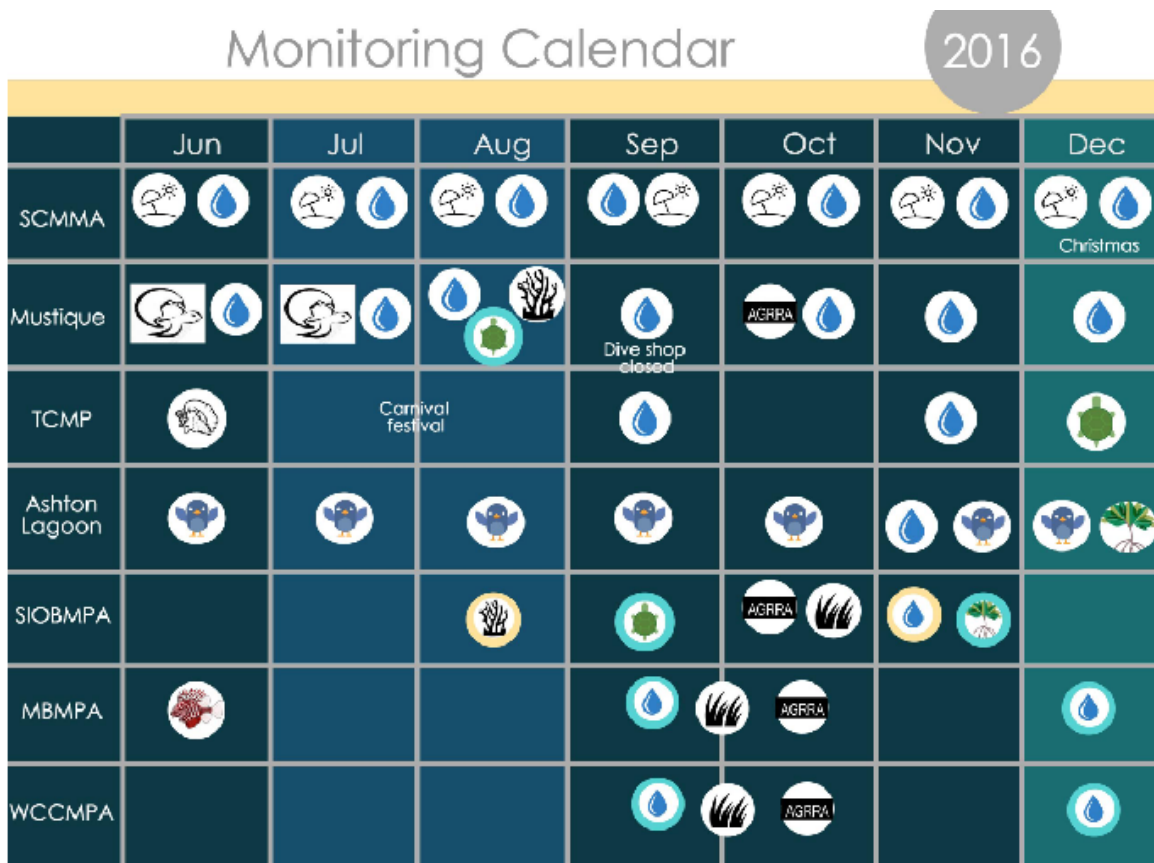


Figure 3. The Grenadines Network of Marine Protected Areas Monitoring Calendar (May, 2016).