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

Virtual meeting, 17–19 March 2021

**CALL FOR PROPOSALS SHORT-TERM SMALL GRANTS - YEAR 2020 -
INFORMATION NOTE FOR THE SPAW PROTOCOL SCIENTIFIC AND
TECHNICAL ADVISORY COMMITTEE**

For reasons of public health and safety associated with COVID-19, this meeting is being convened virtually. Delegates are kindly requested to access all meeting documents electronically for download as necessary.

**Call for proposals
Short-term Small Grants
- year 2020 -**

**Information note
for the SPAW Protocol
Scientific and Technical Advisory Committee**

**Name of the organization: ECOMAR
(Environmental Conservation Organization) &
Belize Fisheries Department**

**Name of the project:
Belize Turtle Nesting Beach Monitoring Program**



Photos courtesy TIDE

**Total budget of the project:
Estimated 69,000 €, revised 39,000 €**

SPAW-RAC grant: 6,500€

Timeframe for implementation: Aug 15 - Dec 31, 2020

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

Name of the organization	ECOMAR (Environmental Conservation Organization) & Belize Fisheries Department
Name of the project	Belize Turtle Nesting Beach Monitoring Program
Targeted specie(s)	Hawksbill, green and loggerhead sea turtles
Site(s) location	Turtle Nesting Sites in and near protected areas
Major threats	Predation, poaching, climate change/erosion, boat strikes
Methodology developed within the framework of this project	1. Turtle nesting beach monitoring plans developed for marine protected areas 2. Use SMART system for data collection
Update on the implementation, progress and possible issues	<p>Implementation - Project is being implemented and is realizing project goals. Protected area managers who are members of the Belize Sea Turtle Conservation Network (BSTCN) normally record nesting turtles reported within their parks, but may not necessarily conduct targeted monitoring of sea turtle activity. When we formed the grant committee in July 2020, and began to identify sources of funds to support monitoring, some members were able to implement a more comprehensive monitoring program in August and began walking the beaches to document tracks/nests observed. In August when we were notified that our application to SPAW-RAC was approved, additional members were able to increase their monitoring effort in advance of receiving funds. Members have not been able to enter data into a database because the database is not functional, but project partners have identified an alternative solution which is described below under progress. Sections of the Nesting Beach Handbook have been prepared and the Annual Report is on schedule to be prepared in December, after BSTCN members complete monitoring activities at the end of November.</p> <p>Progress - Despite the limited resources the project received, progress is being made towards achieving project goals. The project is establishing monitoring protocols which will be in place for next season. During this project we are able to identify strengths and weaknesses and identify ways to improve methods. Since the database we were relying on was not functional, project partners reviewed available options and decided to implement the SMART system of data collection when collecting turtle nesting beach data. The SMART system is a project launched by Wildlife Conservation Society and the Belize Fisheries Department for rangers in marine protected areas (MPA) to record patrols. Reports can be generated to summarize enforcement and surveillance, and other data collected during patrols. The SMART system is being tested this season so it can be implemented by all members monitoring beaches next season. This will be beneficial to turtle nesting beach monitoring since the data can be entered digitally on site, and then uploaded to the database when wifi signal is present. This will save time for rangers as they will not need to enter the data manually, and the data will be shared with project managers more quickly.</p>

Issues

1. **Funding** - Our other donor, PACT, discontinued support of secondary investment projects due to lack of funds from incoming visitors to Belize, since the borders had been closed since April 1, due to Covid 19 pandemic.
2. **Funding** - The lack of the additional project funds severely impacted the amount of resources available to support monitoring efforts and other activities outlined in the project proposals. Grant partners reviewed available funds and consulted with members to identify the most urgent needs to support monitoring of turtle nesting sites. Some members needed SMART devices that are used to collect data, and others needed the fuel to reach the monitoring sites. Given the limited amount of funds no funds were earmarked for the completion of the Turtle Nesting Site Monitoring Handbook, or the Annual Report, but these are moving forward. Finalization of the Turtle Nesting Site Monitoring Handbook may have to be completed with a future grant.
3. **Funding** - SPAW RAC funds received late Sep and funds disbursed in Oct, but arrived when the Fisheries Department had a severe budget cut in fuel. The funds are being used where they are most needed and since many monitoring budgets have been cut they are greatly appreciated as it has enabled our members to conduct monitoring of turtle nesting sites in MPAs.
4. **Turtle database** developed by Turtle Network member University of Belize Environmental Resource Institute is currently not functioning. Their IT department is trying to resolve the access issues, but in the meantime other solutions are being sought. One includes the implementation of SMART data collection in the field using a database system already deployed by protected area rangers on their patrols. Data collected is uploaded into a central database that generates reports. Turtle network members are also looking into other apps, like Kobo Toolbox and Sailforms that can be designed to collect data in place of paper datasheets using a SMART phone.
5. **Internet access/telephone signal** - One MPA does not have access to internet/phone signal, and one park has poor connection speed. These parks make supply runs every two weeks and this is when the data could be downloaded. Until the local telephone companies provide signal to reach even the most isolated parts of Belize, solutions to internet access should be identified and budgeted if the objective is to submit data in a timely manner. The Fisheries Department is currently looking at a funding opportunity to pilot satellite internet connectivity. It would cost BZ \$8,437.50 per reserve, or a total of BZ \$42,187.50 per year which includes equipment, installation, maintenance and yearly access. The fee is BZ \$4,700 service fee thereafter.
6. **Force de Majeure** - In early Sep 2020 Hurricane Nana destroyed the Belize Fisheries Department base in the South

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	<p>Water Caye Marine Reserve and the team was unable to monitor nesting sites while conducting repairs.</p> <ol style="list-style-type: none"> 7. Training Needs - Some members have been recording nest abundance but have not been excavating nests to determine success. This section of the Nesting Beach Handbook has been completed to share with the members to train their rangers. Arrangements have been made for someone with experience in excavating nests to show rangers how a nest is excavated so we can capture the information on nest success. 8. Training Needs - Nests in danger of being lost to erosion and members need training in nest relocation. A virtual discussion on methods was conducted, and this section of the Handbook was prepared and shared with members. 9. Training Needs - some nests were found to be poached and members requested information on methods to protect nests. The team managing the nesting site at Gales Point has been protecting nests for 30 years using cages so this method will be used at other sites where predation is an issue. Rangers are photographing tracks of predators and will be included in the Nesting Handbook. 10. Erosion of nesting sites and loss of nests to erosion has been documented at three nesting sites. Two of the sites were impacted by tropical storm and one site was impacted by seasonal erosion. Members are discussing ways to mitigate impacts. The first method identified is to relocate nests to higher ground. We are also looking at nature based solutions to mitigate shoreline retreat and hope to include this study in a future project. 11. Poaching - Illegal take of sea turtles and sale of eggs has been reported. Discussions and planning are underway to include regular patrols in areas where turtles are hunted in combination with an outreach component.. These activities will need to be budgeted and included in future project proposals.
Objectives sought and/or results obtained	<p>OBJECTIVES & RESULTS</p> <ol style="list-style-type: none"> 1. Conduct regular monitoring in MPAs - The grant arrived in a timely manner to support nesting beach monitoring when gov't managed MPA fuel budgets were cut. As a result of increased monitoring at nesting sites, BSTCN members are reporting an increased number of turtles at nesting sites throughout Belize. 2. Enter Data into Database - The turtle database developed by BSTCN Member UBERI is currently not functional. They are working with their IT department to repair but it has not been functional during the nesting season and other database options are being explored. BSTCN member WCS launched the SMART data collection system for park rangers to use to input data from their patrols, and the BFD has approved that BSTCN members utilize the SMART system of data collection. The benefits of this system is that the data can be uploaded daily or weekly and the results are available for data analysis more quickly. WCS has also developed the MERMAID

	<p>Program to receive coral reef survey data and are looking into adapting to receive the SMART data.</p> <ol style="list-style-type: none"> 3. Publish Annual Report - This is on schedule to be compiled in Dec 2020. Without a functional database members will need to submit data for manual analysis using Excel. 4. Produce Nesting Beach Handbook - Draft sections of the Handbook have been produced as needed including nest relocation and nest excavation. Another critical component that was identified is the development of Sea Turtle Monitoring Plans for each MPA. With a monitoring plan in place it is hoped that next season MPAs will be able to follow a scheduled monitoring of nesting sites. A draft plan has been developed for the Sapodilla Cayes Marine Reserve and ECOMAR is working with other members of the BSTCN to prepare sea turtle monitoring plans for all protected areas.
<p>How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocol ?</p>	<p><i>(eg: Have the results (or progress) been, are they or will they be shared with the governmental administration charged of implementing the SPAW protocol?)</i></p> <p>The project planning, progress, issues, results have been shared with the government administration charged with implementing SPAW protocol in Belize. This project is coordinated by ECOMAR and the Belize Fisheries Department to support nesting beach monitoring by members of the Belize Sea Turtle Conservation Network throughout Belize. The Belize Fisheries Department, is the governmental department responsible for implementing SPAW Protocol. The Fisheries Administrator is the SPAW Focal Point and the Ecosystem-based Management Unit (EMU) Coordinator is a member of the SPAW RAC Experts Group for MPAs. The EMU Coordinator is the Focal Point for the Interamerican Convention for the Protection and Conservation of Sea Turtles (IAC), and is also the Belize representative on the IAC Consultative Committee. Belize's IAC Scientific representative also coordinates the IAC SPAW Working Group. At the Oct 2020 meeting of the Scientific Committee, Belize IAC scientific representative presented on a "Proposal of activities to collaborate with SPAW Protocol". This project will reinforce the need for BSTCN members to include in their workplan plans to implement SPAW Protocol in their sea turtle conservation efforts.</p> <p><i>Have discussions with these services made it possible to work to the development or implementation of regulatory or conventional measures toward species or areas protected under SPAW?)</i></p> <p>Coordinated monitoring efforts of the BSCTN under this SPAW-RAC funded project have highlighted the SPAW Protocol and the agreements to which Belize is a member. In the project planning stage we outlined three objectives of the SPAW-RAC Small Grants Program and how the Belize Nesting Beach Monitoring Program would align with these objectives.</p>

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Objective 1. Effectively improving the status of conservation of endangered species in the Wider Caribbean Region, particularly those listed in the annexes of the SPAW protocol.

The support of this project has enabled members of the Belize Sea Turtle Conservation Network to coordinate monitoring efforts of turtle nesting sites throughout Belize. As a result of this project we will be able to compare data from 2020 to 1992, and have identified new nesting sites.

Objective 2. Implementing management measures for endangered species and for the listed protected areas, in particular if they involve civil society actors.

One of the project objectives was to develop the Belize Marine Turtle Conservation Handbook that would outline methodology and protocols that can be used as a training manual. In developing this manual we wanted to include a summary of the nesting sites and maps of nesting beaches for reference. The final product became a Sea Turtle Nesting Site Monitoring Plan for each marine protected areas. We completed the first draft for the Sapodilla Caye Marine Reserve and are working with BSTCN members to prepare manuals to guide future monitoring efforts.

BSTCN members have engaged civil society while conducting patrols and monitoring nesting sites. While Belize is a small country, the numerous nesting sites and limited resources are a challenge to conduct regular monitoring of all nesting sites. To support nesting site monitoring discussions are underway to establish community groups that can apply to the Fisheries Department to adopt and monitor a stretch of beach, thereby allowing BSTCN members to focus on other duties they are engaged in daily to manage the protected area. It is hoped that if civil society can support the monitoring of turtle nesting sites then BSTCN members can focus on isolated nesting beaches where there is no support.

Objective 3. Producing restoration actions as a priority within the protected areas listed in the protocol.

During patrols and nesting site monitoring, BSTCN members reported several sites where erosion has impacted turtle nests. Some nesting sites also erode seasonal. Natural solutions to mitigate erosion/shoreline retreat will be examined. Until solutions are found members will relocate nests to higher ground before they erode to the sea.

Additionally the Belize Sea Turtle Nesting Project has supported the SPAW agreement by contributing directly to the following Articles outlined in the Protocol.

Article 6: Planning and Management Regime for Protected Areas
c) the conduct of scientific research on, and monitoring of, user impacts, ecological processes, habitats, species and populations; and the undertaking of activities aimed at improved management.

	<p>Supported through the production of Sea Turtle Nesting Site Monitoring Manual for Sapodilla Cayes Marine Reserve.</p> <p>Article 17: Scientific, Technical and Management Research</p> <p>1. Each Party shall encourage and develop scientific, technical and management-oriented research on protected areas, including, in particular, their ecological processes and archaeological, historical and cultural heritage, as well as on threatened or endangered species of fauna and flora and their habitats.</p> <p>4. The Parties shall, pursuant to the provisions of paragraph 1 above, compile comprehensive inventories of: a) areas over which they exercise sovereignty, or sovereign rights or jurisdiction that contain rare or fragile ecosystems; that are reservoirs of biological or genetic diversity; that are of ecological value in maintaining economically important resources; that are important for threatened, endangered or migratory species; that are of value for aesthetic, recreational, tourist or archaeological reasons; and b) species of fauna or flora that may qualify for listing as threatened or endangered according to the criteria established under this Protocol.</p> <p>Supported through the regular monitoring and data collection that will be compiled into an annual report.</p>
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Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:

1. As a result of this project we would like to recommend to the members of the Belize Sea Turtle Conservation Network that an International Protocols Subcommittee be formed that can be responsible for assisting focal points in meeting agreement requirements. The duties of this committee can include providing assistance in preparing country reports and advising on impacts of coastal developments near sea turtle nesting and foraging areas.
2. BSTCN Members will begin to plan a training workshop for rangers early next season to review methodology and deploy the SMART data collection system.
3. Preliminary data received from BSTCN Members is revealing a valuable data set on which we can continue to build and help us state how many turtles are nesting in Belize, and which of the nesting sites are most important. Table below summarizes data collect in 2020 to the historical data available in published reports.

Comparison of available published data compared with data collected in 2020 at Sapodilla Cayes Marine Reserve (SCMR) by Belize Fisheries Department park management team. Data collected in 2020 is the last row highlighted in light blue row under each nesting site.

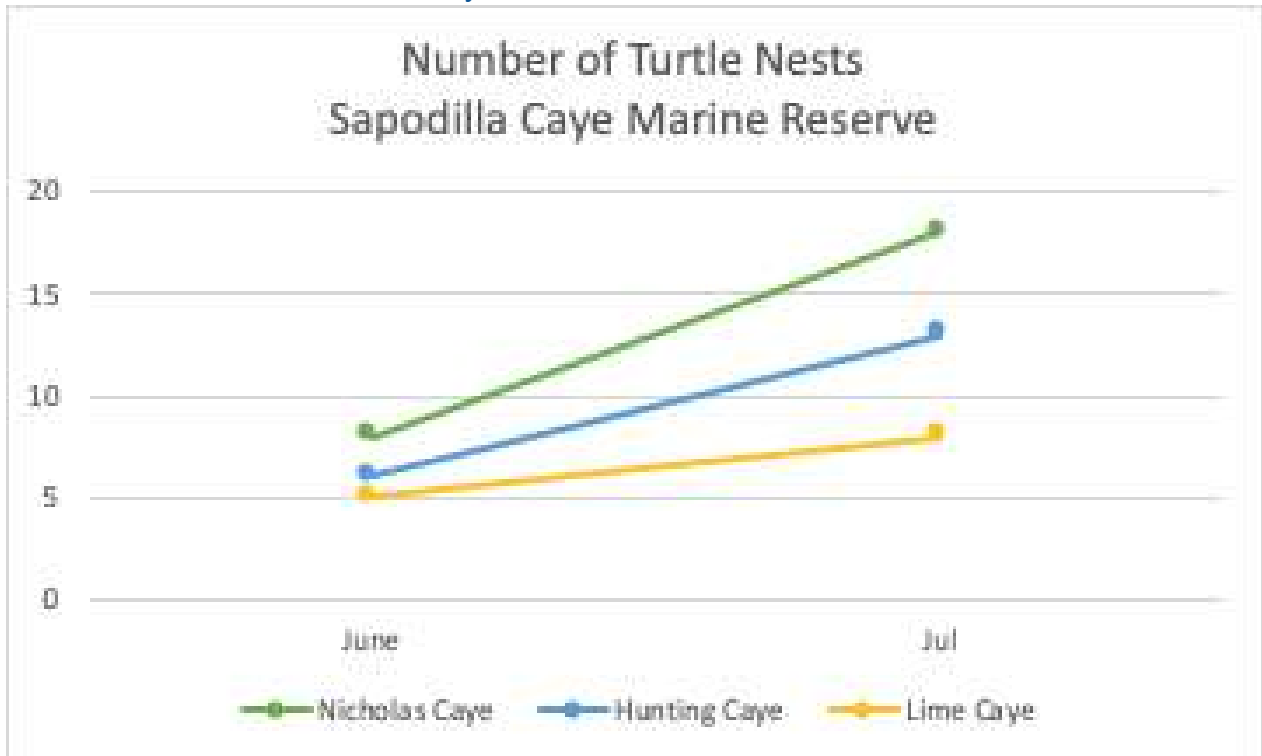
Nicholas Caye BZ40				
Species	Nests/Year	Activity	Source	Survey Dates
H,L	??	moderate numbers	Carr et al 1982	Jul-78
H,L	few	no details provided	Perkins 1983	

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H,L	??	June. July, August	Miller 1984	
H	2	/	Moll 1985	Jun-Jul 1983
H	2	/	Gillett 1987	
H	10	most nests disturbed	Smith 1989	3-24 Sep 1989
H	5?	1 nest confirmed late June, 1 nest poached mid-July, 3 crawls August	Smith 1990b	
L	4	/	Gillett 1987	
G	8	/	ibid	
/	/	nesting occurs each year, eggs and adults are taken	/	
H	26		BFD 2020	Jun-Jul 2020
Hunting Caye BZ41				
Species	Nests/Year	Activity	Source	Survey Dates
H,L	??	June, July, August	Miller 1984	
H,L	few	/	Perkins 1983	
H	2	/	Moll 1985	Jun-Jul 1983
H	14	nest reported by lighthouse keeper, all poached	Smith 1989	3-24 Sep 1989
H	7c	1 confirmed, 1 probable nest	Smith 1990b	
G	1	/	Gillett 1987	
H	19		BFD 2020	Jun-Jul 2020
Lime Caye BZ42				
Species	Nests/Year	Activity	Source	Survey Dates
L	3	/	Miller 1984	
H	4	/	ibid	
H	1	/	Moll 1985	Jun-Jul 1983
H	??	10 nests reported by lighthouse keeper in 1989	Smith 1989	
H,L	few	one to three turtles nest at a time; likely that turtles and eggs are taken	Perkins 1983	

H	4+	/	Smith 1990b	
H,L	9,4		BFD 2020	Jun-Jul 2020

Preliminary graph highlights nest abundance at three nesting sites in the Sapodilla Cayes Marine Reserve for June and July 2020.



Preliminary table highlights hawksbill nest success at Sapodilla Cayes Marine Reserve for June and July 2020.

	Number of Nests	Number of Eggs	Unhatched Eggs	Emergents	Success
Nicholas Caye	26	4013	276	3737	86
Hunting Caye	19	2902	232	2664	84
Lime Caye	9	1358	146	1212	78

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**Call for proposals
Short-term Small Grants
- year 2020 -**

**Information note
for the SPAW Protocole
Scientific and Technical Advisory Comittee**

Name of the organization: Ocean Spirits Inc.

Name of the project: Mobilizing citizen scientists for biodiversity monitoring and mitigation of threats at remote Grenadine Islands



Google Maps, 2020. *St Vincent and the Grenadines Map*, Google Maps [online] Available through : <https://www.google.com/maps> [Accessed 26 August 2020]

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Total budget of the project: 9,310 Euro
SPAW-RAC grant: 8,000 Euro
Timeframe for implementation: September 2020 – January 2021

Name of the organization	Ocean Spirits Inc				
Name of the project	Mobilizing citizen scientists for biodiversity monitoring and mitigation of threats at remote Grenadine Islands				
Targeted specie(s)	Species specifically benefitting from this project:				
	Species (common name)	Status in SVG and GRE	SPAW	USFWS	Bradley and Norton 2009 ¹
	Hawksbill Turtle	Nesting and foraging	Critically Endangered		
	Green Turtle	Nesting and foraging	Endangered		
	Leatherback Turtle	Nesting	Vulnerable		
	Loggerhead Turtle	Foraging	Vulnerable		
	Roseate Tern	Nesting	Not evaluated	Threatened	Caribbean At-Risk Species
	Audubon's Shearwater	Nesting	Least Concern	Endangered	Caribbean At-Risk Species
	White-tailed Tropicbird	Nesting			Caribbean At-Risk Species
	Masked Booby	Nesting			Caribbean At-Risk Species
	Brown Booby	Nesting			Caribbean At-Risk Species
	Magnificent Frigatebird	Nesting			Caribbean At-Risk Species
	Sooty Tern	Nesting			Caribbean At-Risk Species
	Least Tern	Non-breeding resident	Not evaluated	Endangered	Caribbean At-Risk Species
	Brown Pelican	Non-breeding resident		Threatened	Caribbean At-Risk Species
Common Tern	Non-breeding			Caribbean At-Risk	

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	<table border="1"> <tr> <td></td> <td>resident</td> <td></td> <td></td> <td>Species</td> </tr> <tr> <td>Sandwich Tern</td> <td>Non-breeding resident</td> <td></td> <td></td> <td>Caribbean At-Risk Species</td> </tr> <tr> <td>Royal Tern</td> <td>Non-breeding resident</td> <td></td> <td></td> <td>Caribbean At-Risk Species</td> </tr> </table> <p>¹ Bradley, P. and R. Norton. 2009. Status of Caribbean seabirds. Pp. 270–284 <i>in</i>: An inventory of breeding seabirds in the Caribbean (P. Bradley and R. Norton eds.). University Press of Florida, Gainesville.</p>		resident			Species	Sandwich Tern	Non-breeding resident			Caribbean At-Risk Species	Royal Tern	Non-breeding resident			Caribbean At-Risk Species
	resident			Species												
Sandwich Tern	Non-breeding resident			Caribbean At-Risk Species												
Royal Tern	Non-breeding resident			Caribbean At-Risk Species												
Site(s) location	The Grenadines archipelago ; A transboundary biodiversity hotspot located on the Grenada Bank, divided between the nations of Grenada and St. Vincent and the Grenadines (SVG), covering ten human-inhabited islands, and 89 remote islands and cays with no permanent habitation. Given the remote setting of the majority of these islands, fisherfolk are typically the only regular visitors year-round.															
Major threats	Despite the presence of endangered species and significant populations of breeding seabirds and wildlife at these islands, they are highly threatened, due primarily to illegal harvesting, introduced mammals, periodic vegetation control fires and development/disturbance. While harvesting of seabirds is prohibited year-round, Grenada allows a seasonal regulated harvest of sea turtles. Introduced mammal populations are present in many sensitive areas, including both predatory (e.g. rodents and cats) and herbivory species (e.g. goats and sheep). Marine debris is present on all remote islands, and in some cases a major concern. All the turtle species and many of the seabird species included in this proposal have been documented ingesting plastic. Seabird species additionally interact with marine debris at-sea, on land and use nearby available marine debris in construction of nests (recently documented in the Grenadines in 2019 and 2020).															
Methodology developed within the framework of this project	<p>The use of remote cameras, will provide the necessary data to access and monitor the biodiversity and threats at the remote islands of the Grenadines, which has previously been limited. Tools, such as tunnel traps will provide additional information on rodent presence. Furthermore, by mobilizing and training small teams of multidisciplinary backgrounds across the various islands, knowledge transfer between all participants is enhanced and will allow for long term research to be implemented.</p> <p>Specific activities for this project include:</p> <ol style="list-style-type: none"> 1. monthly boat-based surveying of remote islands for breeding and migratory seabird populations and sea turtles by Ocean Spirits and Grenadines Seabird Guardians 2. Monthly land-based biodiversity surveys for native fauna and seabird nesting activity outside of peak annual breeding season 3. Periodic deployment of remote cameras at select key islands to document native fauna and detect presence of invasive species. 															

	<p>Remote cameras may also be set up overnight at suspected active Audubon’s Shearwater nesting sites to document breeding activity given the nocturnal behaviour of this species at nesting sites</p> <ol style="list-style-type: none"> 4. Removal of marine debris at remote globally/regionally important seabird colonies and turtle nesting sites (outside of peak breeding season to minimize disturbance) which is documented and weighed.
<p>Update on the implementation, progress and possible issues</p>	<p>Progress</p> <ol style="list-style-type: none"> 1. Visual assessments of threats and disturbances are ongoing 2. Materials for the tunnel traps construction have been purchased and are ready for the construction stage followed by field deployment ; a training workshop to occur prior to deployment to teach all team members how to build the traps 3. Camera traps have been purchased and are in transit, training sessions and deployment to proceed when received <p>Possible Issues</p> <ol style="list-style-type: none"> 1. SPAW RAC funding transfer took seven weeks which limited the activities that could be carried out in September and early-mid October. The delayed transfer of funding prevented purchasing equipment at the start of the project. 2. COVID 19 cases have been recorded in Grenada and SVG, currently no lockdown regulations are in place however there is a risk of this occurring 3. Timing of events subject to delays due to ongoing weather events during hurricane season
<p>Objectives sought and/or results obtained</p>	<p>Objectives</p> <ol style="list-style-type: none"> 1. Biodiversity assessments and increased monitoring of biodiversity at remote, uninhabited Grenada Grenadine islands 2. Monitoring for Hawksbill and Green turtle nesting activities 3. Breeding seabird surveys at globally and regionally important colonies 4. Identify threats and disturbances to endangered wildlife in the Grenada Grenadines through visual surveys (boat and land-based) and trail camera deployment 5. Removal of marine debris at remote globally/regionally important seabird colonies and turtle nesting sites (outside of peak breeding season to minimize disturbance) <p>Results</p> <ol style="list-style-type: none"> 4. Removal of 469.2lb of marine debris and trash from three islands and a key turtle nesting beach on mainland Grenada has occurred so far. 5. Three visual surveys of bird species and turtle tracks have been carried out for September at three islands
<p>How did the results and outcomes of your project have in the past contributed, are</p>	<p>The overall goal of this project is to provide a baseline study on threats and predation throughout the islands which governmental departments and non-governmental agencies (NGOs) can utilise and use to guide best</p>

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contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?

practises. The final report will include recommendations on management strategies for the various threats and how they can be implemented. Through implementation the goal to ensure healthy populations of seabirds and sea turtles are protected and threats are managed appropriately is achieved.

Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:



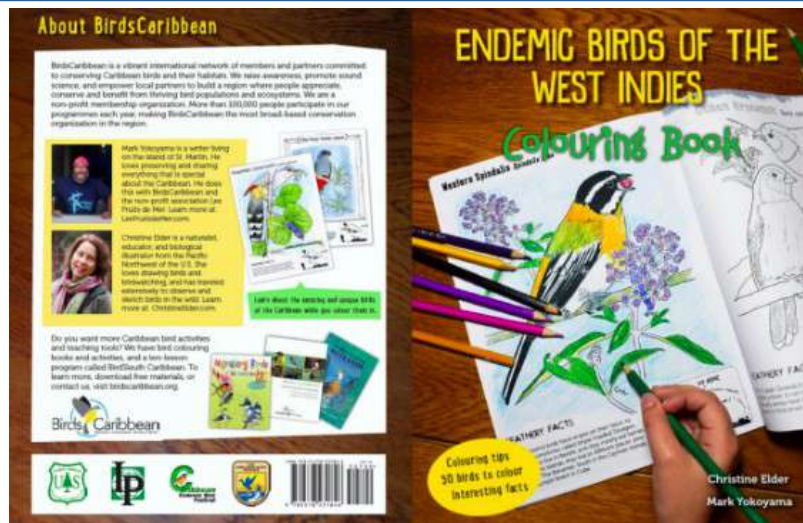
Call for proposals
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Information note
for the SPAW Protocole
Scientific and Technical Advisory Committee

Name of the organization: BirdsCaribbean

Name of the project:

Teaching Youth to Know and Appreciate Caribbean Birds—
 Production of *Endemic Birds of the West Indies Colouring Book* in Spanish and French



Total budget of the project: \$12,500 USD

SPAW-RAC grant: € 2,500

Timeframe for implementation:

Translation into French and Spanish is complete and the text is currently under review with partners. Text input and printing to take place in Dec 2020.

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

Name of the organization	BirdsCaribbean
Name of the project	Teaching Youth to Know and Appreciate Caribbean Birds— Production of <i>Endemic Birds of the West Indies Colouring Book</i> in Spanish and French
Targeted specie(s)	50 Caribbean endemic birds (e.g., Grenada Dove, White-crowned Pigeon, West Indian Whistling-Duck, White-breasted Thrasher, St. Vincent Parrot (St. Vincent Amazon), Cuban Parrot (Cuban Amazon), Puerto Rican Parrot (Puerto Rican Amazon)) listed in the SPAW Appendices and many other endemic/ threatened species not currently listed).
Site(s) location	We expect to reach thousands of children in the following Spanish and French-speaking countries: Cuba, Dominican Republic, Puerto Rico Guadeloupe, Haiti, Martinique, Saint Barthelemy, Saint Martin
Major threats	Habitat loss, illegal pet trade, hunting/poaching
Methodology developed within the framework of this project	
Update on the implementation, progress and possible issues	Translation of the colouring book into Spanish and French is complete, and is currently under review by different native speakers in our target countries.
Objectives sought and/or results obtained	Our goal is to teach children throughout the Caribbean region about the beautiful and fascinating endemic birds that live right in their“backyard”through a fun and engaging colouring book on endemic birds. Our ultimate goal is to instill awareness and appreciation for these special birds and inspire a willingness to care for them and all of nature. We believe that children are the future caretakers of planet earth and we need to do all we can to raise them with a strong conservation ethic. By sparking their interest in birds and nature at a young age, over time, we can change the culture of the islands to one that appreciates the beauty and value of birds and their habitats and will take actions to conserve them.
How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?	We have witnessed first-hand how a resource like this can spark an interest in birds in young children. With a little nurturing and support from parents and teachers (and even without!), young children eagerly soak up new knowledge and become interested in the birds around them. With heightened awareness, they will grow up to be better stewards of their local environment and support conservation efforts of their governments and communities. A few even pursue advanced degrees and jobs in ecology and wildlife conservation. Many Caribbean wildlife professionals attribute their interest in conservation to an early positive experience with birds or spending time outside with a mentor. We seek to encourage and provide as many opportunities as possible for these kinds of experiences through our many educational resources, materials, and training workshops for educators.
Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:	

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.



**Call for proposals
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**Information note
for the SPAW Protocole
Scientific and Technical Advisory Committee**

Name of the organization: BirdsCaribbean

Name of the project: Conservation of West Indian Whistling-Ducks (*Dendrocygna arborea*) in Cuba through a Status Assessment



Total budget of the project: \$11,940 USD

SPAW-RAC grant: € 7,500

Timeframe for implementation:

During the fall, we have been coordinating with our partners. Assuming that colleagues will be able to travel and it is safe to do so Covid-wise, we plan to conduct surveys during the winter months (Jan-Feb 2021)

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

Name of the organization	BirdsCaribbean
Name of the project	Conservation of West Indian Whistling-Ducks (<i>Dendrocygna arborea</i>) in Cuba through a Status Assessment
Targeted specie(s)	West Indian Whistling-Duck (<i>Dendrocygna arborea</i>)
Site(s) location	Cuba
Major threats	Habitat loss, hunting
Methodology developed within the framework of this project	
Update on the implementation, progress and possible issues	<p>-A resource library has been created and shared with Cuban partners</p> <p>-Partners were contacted to recruit them for conducting surveys</p> <p>-We have been consulting with experts in monitoring to decide on the sampling scheme</p> <p>-However, due to COVID - it will likely not be possible to carry out surveys in 2020, but we will aim for early 2021.</p>
Objectives sought and/or results obtained	<ol style="list-style-type: none"> 1. Promote the conservation of West Indian Whistling-Ducks (WIWDs) - a Caribbean endemic and one of the rarest ducks in the Americas and their habitats. 2. Carry out field work to assess the status of WIWDs and their habitats in Cuban wetlands. 3. Develop capacity of Cuban scientists to carry out surveys for WIWDs. 4. Test protocols for WIWD and habitat surveys that can be applied to other Caribbean countries.
How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?	No scientific assessment of the status of WIWDs in Cuba has ever been done. This study will fill the gap and help ensure the effective conservation of WIWDs and their habitats.
Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:	



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**Information note
for the SPAW Protocole
Scientific and Technical Advisory Committee**

**Name of the organization:
Sociedad Ornitológica de la Hispaniola (SOH Conservación)**

**Name of the project:
Conservation and habitat restoration for the Bicknell's Thrush in
Eastern Bahoruco, Barahona Province, Dominican Republic**



Total budget of the project: € 9,750.00

SPAW-RAC grant: € 9,750.00

Timeframe for implementation: 09/01 to 31/12/2020

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

Name of the organization	Sociedad Ornitología de la Hispaniola (SOH Conservación)
Name of the project	Conservation and habitat restoration for the Bicknell's Thrush in Eastern Bahoruco, Barahona Province, Dominican Republic
Targeted specie(s)	Bicknell's Thrush
Site(s) location	Miguel Domingo Fuerte Natural Monument (3300 Ha.) and Bosque de las Nubes Private Reserve (330 Ha.) In the Province of Barahona, Dominican Republic.
Major threats	This species, the protected areas and surrounding areas are under great pressure due to habitat destruction and degradation as a result of a) the advance of the agricultural frontier; b) free grazing of cattle and goats; c) Larimar mining expansion; d) cutting of wood for poles, firewood and charcoal; and e) Hunting and capture of fauna, which reduce the extension and fragment the humid forest, being accentuated due to logistical and personnel limitations. Added to the lack of equipment, it makes patrolling, identification and reporting of incidents difficult.
Methodology developed within the framework of this project	This proposal seeks to complement the efforts that SOH Conservation has been carrying out with the support of the American Bird Conservancy and the Rainforest Trust, to recover and improve the conservation status of broadleaf forest, a critical habitat for the Bicknell's Thrush and other threatened species. The focus is on the development of Birdscapes, which seek to include productive landscapes in biodiversity conservation and management activities. And in this case especially Bicknell's Thrush. The improvement of control and surveillance will allow a decrease in incidents that will be complemented with education efforts with the community. The main actions are: Awareness talks to community members and students. Acquisition of equipment for park rangers. Bicknell's Thrush Monitoring Restoration of broadleaf forest.
Update on the implementation, progress and possible issues	Due to the pandemic, outreach with the communities has been limited. We are in the process of coordinating a workshop with shade-grown coffee producers in the buffer zones on the application of birdfriendly practices. We have acquired the basic equipment so that the park rangers can better carry out their control and surveillance tasks as well as improve the quality of the reports. Since the beginning of the project, we have monitored the presence of the Bicknell's Thrush in both areas through the establishment of transects and points count, all data is georeferenced and compiled in maps. Regarding habitat restoration, we are coordinating a broadleaf forest afforestation schedule to be held during November, covering at least 2 Ha. All these actions are developed in coordination with the Ministry of the Environment of the Dominican Republic.
Objectives sought and/or	- Strengthen the management and protection of the habitat for the

results obtained	Bicknell Thrush in the Miguel Domingo Fuerte Natural Monument and the establishment of the Bosque de las Nubes Private Reserve - Restore broadleaf forest and promote agroforestry in productive community landscapes
How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?	<p>The purpose of this project is to support conservation efforts at the Miguel Domingo Fuerte Natural Monument of the Dominican Republic continuing the activities initiated by SOH Conservation, Ministry of Environment and Natural Resources, American Bird Conservancy and Rainforest Trust by improving the effectiveness of protected area management, habitat recovery, community empowerment and the promotion of ecotourism. In turn, the Bosque de las Nubes Private Reserve was conceived with the purpose of increasing the area under protection of these particular ecosystems as well as strengthening the management of the Monument by channeling resources for conservation and protection, as well as training the park rangers. The actions described in the project are coordinated with the Ministry of the Environment and all the information obtained, like species presence and better reports from the rangers, will help the park administrator and decision makers for the conservation and management of the species, habitat and the protected area. The inclusion of communities helps their empowerment and better knowledge of protected areas and biodiversity. And the Birdscapes strategy includes an economic activity with sustainable practices that is compatible with the needs of local people and conservation. This area is also a Key Area for Biodiversity (KBA), an Important Bird Area (IBA) and a site Alliance for Zero Extinction (AZE).</p>
<p>Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:</p> <p>The focus species is used as an umbrella to conserve 2 critically endangered species of amphibians <i>Eleutherodactylus rufifemoralis</i> and <i>Eleutherodactylus sp. nova</i>, as well as 5 Endangered (EP) and 1 Vulnerable (VU) species of flora, <i>Magnolia hamorii</i> (endemic tree restricted to this area); and 6 Endangered (EN) and 10 Vulnerable (VU) fauna; as well as the broadleaf cloud forest, key habitat of endemic and migratory flora and fauna, and the main source of water collection for the Province of Barahona.</p> <p>Also, our organization has been working for more than 14 years to support the management of protected areas in the country. To do so it is formally incorporated in the National Registry of Non-Profit Associations and also has the authorization of the Ministry of the Environment and Natural Resources to carry out related activities.</p>	

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

**Call for proposals
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**Information note
for the SPAW Protocol
Scientific and Technical Advisory Committee**

Name of the organization: Environmental Awareness Group (EAG)

Name of the project: Assessment of Newly Discovered *Leptocereus* Population on Antigua to Determine Taxonomic and Conservation Status



Total budget of the project: €13,515

SPAW-RAC grant: €7,000

Timeframe for implementation: September 2021

Name of the organization	Environmental Awareness Group (EAG)
Name of the project	Assessment of Newly Discovered <i>Leptocereus</i> Population on Antigua to Determine Taxonomic and Conservation Status
Targeted specie(s)	<i>Leptocereus</i> sp., possibly <i>L. grantianus</i> or <i>L. quadricostatus</i>
Site(s) location	The offshore islands of Antigua, including those of the northeastern coast, the eastern end of the island and possibly the western areas. Redonda, one of the offshore islands, is included given the number of newly discovered cacti populations there.
Major threats	Introduced, invasive plants, invasive rodents, human traffic and activities, storm surge, sea level rise and the effects of climate change, potential depredation from the <i>Opuntia</i> moth (<i>Cactoblastis cactorum</i>), coastal port and tourism development, and potential collecting of plant materials
Methodology developed within the framework of this project	<p>To ensure successful completion of the project and meet the objectives, the EAG has set out the following approach:</p> <ol style="list-style-type: none"> 1. Undertake field surveys on North Sound islands and nearby mainland areas, to locate populations and conservation status of recently discovered <i>Leptocereus</i> species on Antigua; 2. Document the collection of herbarium and genetic samples to determine the taxonomic relationship of this new <i>Leptocereus</i> species with <i>L. grantianus</i>, <i>L. quadricostatus</i> and other members of this genus 3. Document and determine the habitats and ecological conditions of this species assessed in order to understand the population and ecological characteristics and conservation needs of this species of <i>Leptocereus</i> 4. Undertake public awareness to promote the conservation of this species at the national level
Update on the implementation, progress, and possible issues	<p>The project team has to continue to work within the Antigua and international Covid-19 Pandemic restrictions and guidelines as it implements the project, including fieldwork. The fieldwork to assess the population of the <i>Leptocereus</i> on Antigua will begin in early 2021. The results of the field surveys will be shared with key government agencies and personnel, and will also involve them in the permitting process and as well as field activities. Results with surveys will also be shared with IUCN and other international agencies.</p> <p>While the overall budget for this project is limited, the team continues to explore and seek additional funding from other possible sources to expand and increase fieldwork activities and the long-term conservation and management of this rare cactus and its habitat.</p>
Objectives sought and/or results obtained	<ol style="list-style-type: none"> 1. To undertake field surveys on North Sound islands and nearby mainland areas, to locate populations and conservation status

	<p>of recently discovered <i>Leptocereus</i> species on Antigua;</p> <ol style="list-style-type: none"> 2. To collect herbarium and genetic samples to determine the taxonomic relationship of this new <i>Leptocereus</i> species with <i>L. grantianus</i>, <i>L. quadricostatus</i> and other members of this genus; 3. To assess the habitats and ecological conditions of this species, in order to understand the population and ecological characteristics and conservation needs of this species of <i>Leptocereus</i>; 4. To work with key experts and partners to develop a conservation action strategy for the <i>Leptocereus</i> and its habitats; and 5. To promote the conservation of this species at the national level.
<p>How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocol?</p>	<p>Due to the Covid-19 Pandemic restrictions and travel guidance, the fieldwork to assess the population of the <i>Leptocereus</i> on Antigua will begin in early 2021. The results of the field surveys will be shared with key government agencies and personnel, and will also involve them in the permitting process and as well as field activities. Results with surveys will also be shared with IUCN and other international agencies.</p>
<p>Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:</p> <p>An EAG team, led by Kevel Lindsay, undertook plant surveys of Antigua's offshore islands from March to May 2019, and of the island of Redonda in March 2019, undertaking field visits to 20 islands. It was on this 2019 survey that the <i>Leptocereus</i> cactus was discovered on Rabbit Island.</p>	

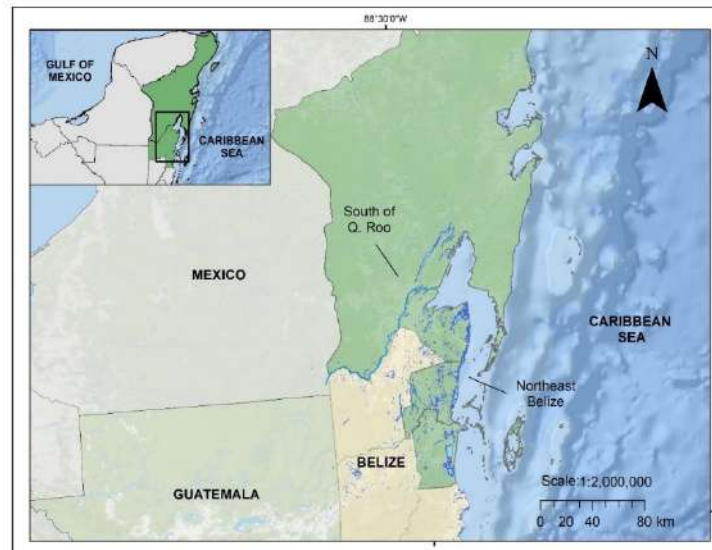


**Call for proposals
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**Information note
for the SPAW Protocole
Scientific and Technical Advisory Comittee**

Name of the organization: FINS (Fundación Internacional para la Naturaleza y la Sustentabilidad)

Name of the project: How the Neotropical otters are doing in the Mesoamerican Caribbean?



Total budget of the project: €35,254.55

SPAW-RAC grant: €8,500.00

Timeframe for implementation: October 1, 2020 to October 31, 2021

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

Name of the organization	Fundación Internacional para la Naturaleza y la Sustentabilidad (FINS)
Name of the project	How the Neotropical otters are doing in the Mesoamerican Caribbean?
Targeted specie(s)	Neotropical otter (<i>Lontra longicaudis</i>)
Site(s) location	Southern Quintana Roo (Mexico) and northeast Belize
Major threats	The Neotropical otter is a “Near Threatened” species according to the IUCN. The threats faced by this species are habitat degradation, hunting for its skin, capture as a pet, and overexploitation of the fishing resource.
Methodology developed within the framework of this project	<p>This project has two phases. First, a <u>desk phase</u>, which we will carry out in October-December this year (2020), which is related to the search for historical information on the Neotropical otter and approach with institutions to execute the next phase.</p> <p>The second phase of the study will be conducted during the first nine months of 2021. We will conduct the <u>field phase</u> of the study to search for otters using various methodologies, such as camera traps, direct and indirect searches (traces: feces, food remains, footprints, etc.), and will conduct interviews with local people in the study area.</p>
Update on the implementation, progress and possible issues	<p>We have started the desktop phase, which consists of consulting information on the historical distribution of the neotropical otter in the study area. We have started the search for requirements to apply for research permits in Mexico and Belize.</p> <p>So far, we have had no problems in the initial process of our project.</p>
Objectives sought and/or results obtained	<p>Our first objective is to determine the presence and the historical and current distribution of the Neotropical otter (<i>Lontra longicaudis</i>) in southern Quintana Roo (Mexico), and northeast Belize. So far, we have achieved 15% of this objective.</p> <p>We have carried out an exhaustive search in various sources of information, which include articles in peer-reviewed journals, online databases (GBIF, VertNet, BERDS), mammalogy collections of the study area (ECOSUR-CH), books, theses, technical reports, scientific meetings, local newspapers and social networks. Otter records were tabulated in a database. At the moment, we have compiled 151 records of Neotropical otters in the study area, from secondary sources, in the last 30 years (from 1990 to 2020).</p>
How did the results and outcomes of your project	The Neotropical otter is distributed in the Greater Caribbean and is enlisted in Annex III of the SPAW protocol species list

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

<p>have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?</p>	<p>and considered NT by the IUCN.</p> <p>Currently, information available about the Neotropical otter in the study area comes from opportunistic observations, isolated studies, or secondary information (e. g. interviews with local people or experts). So, there is information gap about its distributions and population status.</p> <p>This project will generate and update basic information on this species in the region, guiding conservation actions, as well as mitigation of threats to the species and its habitat.</p> <p>We expect that our study will provide information generated through local knowledge that is also essential for decision makers and key stakeholders to address aspects of habitat management and conservation through a focal species such as the Neotropical otter.</p>
<p>Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:</p> <p>We will present partial results corresponding to objective 1 of our projects at the 1st Virtual Congress of the Mesoamerican Society for Biology and Conservation, on October 29, 2020. Name of the presentation: ¿Qué nos cuenta la nutria neotropical? Trabajando entre cuatro paredes para entender a la especie en la Península de Yucatán (What does Neotropical otter tell us? Working between four walls to understand the species in the Yucatan Peninsula).</p>	

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

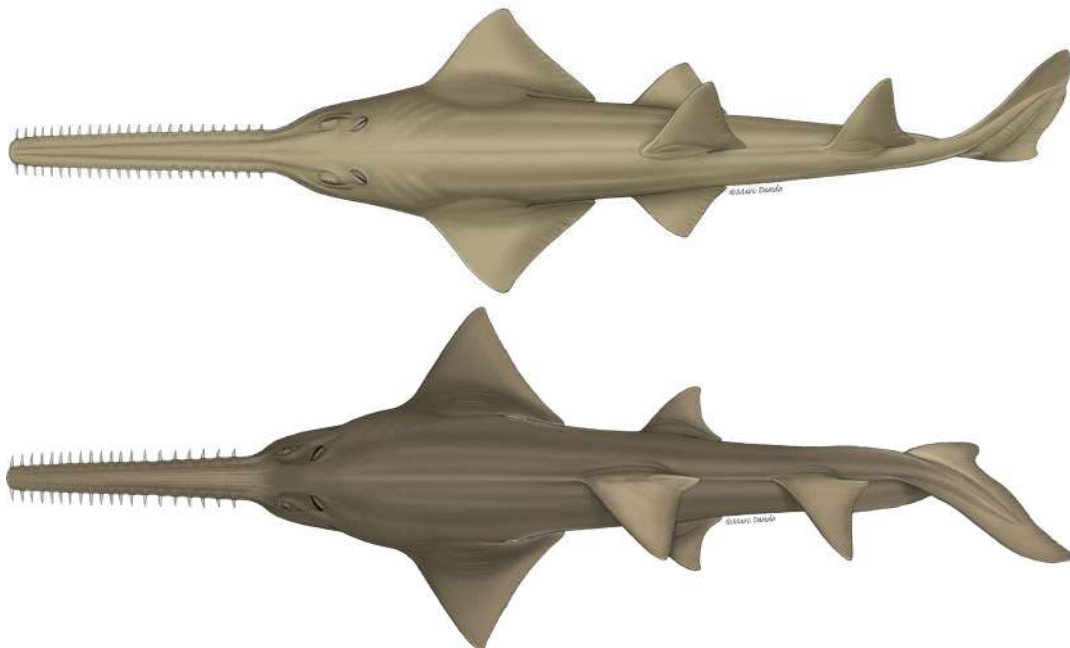


**Call for proposals
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***Information note
for the SPAW Protocole
Scientific and Technical Advisory Comittee***

Name of the organization: Des Requins et Des Hommes

Name of the project: TIDENT



Total budget of the project: 42 079 EUR

SPAW-RAC grant: 10 000 EUR

Timeframe for implementation: Sept. 2020- March 2021

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

Name of the organization	DES REQUINS ET DES HOMMES
Name of the project	TIDENT, First evaluation of sawfish status and management in French Guiana and French Antilles.
Targeted specie(s)	Sawfishes (<i>Pristis pectinata</i> , <i>Pristis pristis</i>)
Site(s) location	Martinique, Guadeloupe, French Guiana
Major threats	Accidental bycatch, Illegal trade, habitat degradation
Methodology developed within the framework of this project	<p>The project will follow 3 main axis:</p> <ul style="list-style-type: none"> - State of the art on the available knowledge on the species distribution and biology in the study area - Call for data (sightings, catches, rostrum) from scientific, marine stakeholders (fisherman, MPA, coastal communities, divers, anglers, etc...) through posters, online survey and social media and sensitization campaign about sawfish threats and status - Co-establish a roadmap to identify management proposal and conservation action (including research needs)
Update on the implementation, progress and possible issues	<ul style="list-style-type: none"> - The partners for data is already designed and posted, the sensitization documents are under progress, 5 tissues samples have been collected, a dedicated webpage is available and a calendar of online articles agreed. - The data call approach will be launch, however some results could be expected after the project time frame and complementary effort may be needful to build a comprehensive overview of sawfish context in a larger temporal and geographical scale - The Co-vid 19 context may the implementation of some of the actions (field inquiries and final consultation) so that alternative methods using parter contacts, social media and online communication in order to reduce this potential delicate issue.
Objectives sought and/or results obtained	<ul style="list-style-type: none"> - D.1.1 : A data base from sawfish catches recorded in the study area from existing and new inquiries, - D.1.2 : A synthetic report on sawfish knowledge and market is produced and published, - D.1.3 : A collection of sawfishes sample tissues sufficient for genetic analysis is secured (objective n=30), - D.2.1 : A sawfish awareness leaflet is agreed designed and spread, - D.2.2 : All partner websites and social media are covered by the awareness campaign and at least 2 main articles are produced in each territory (French Guiana, and French Antilles), - D.2.3 : A sawfish activity module is designed for Educative Marine Areas, - D.3.1 : A road map is co-built by partner and consulted stakeholders including fisheries organizations, - D.3.2 : The road map is presented to the 2021 SPAW contracting parties meeting.
How did the results and outcomes of your project	<i>By establishing first up to date status of sawfishes in French Caribbean, Tident project will enable to analysis the current spatio-</i>

<p>have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?</p>	<p><i>temporal distribution of the species in the area in order to look for management proposal. The awareness program will help to collect data but will also allow the local stakeholder to learn about these critically endangered species, feel concern about their preservation and offer a possibility to share their views or knowledge for the future of sawfish in Caribbean.</i></p>
<p>Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:</p>	

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.



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Scientific and Technical Advisory Comittee**

Name of the organization: Kap Natirel

Name of the project: “ Rékin-ADNe “ Towards a standardized monitoring of chondrichthyan populations in the Caribbean by the eDNA method



Total budget of the project: 13 100 euros

SPAW-RAC grant: 10 000 euros

Timeframe for implementation: September 15 2020 – June 30 2021

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

Name of the organization	Kap Natirel
Name of the project	"Rékin-ADNe " Towards a standardized monitoring of chondrichthyan populations in the Caribbean by the eDNA method
Targeted specie(s)	sharks and rays (including hammerhead sharks, manta rays and sawfish)
Site(s) location	Guadeloupean archipelago
Major threats	Bycatch, degradation of coastal habitat
Methodology developed within the framework of this project	<ul style="list-style-type: none"> i) identification of sampled sites (N = 8) with information from the literature, from specialists consultations specialists and from sighting census by participatory sciences. Sites was defined according to the type of habitat and the depth. (échantili); ii) sampling with a seawater filtration protocol in coastal environments (use of peristaltics pumps and 0.2 μ m sterile filter capsules (<i>VigiDNA® filter</i>); iii) analyzes of samples on the 12s rRNA using a primer targeting all chondrichthyans. iv) bioinformatic analyzes of sequences from DNA samples for specific identification
Update on the implementation, progress and possible issues	On October 19, identification of 8 sites, sampling carried out on 6 sites (the last 2 will be carried out at the end of October).
Objectives sought and/or results obtained	<ul style="list-style-type: none"> 1) Evaluate, test and improve the DNA metabarcoding method for identification specific and monitoring of chondrichthyan communities in the Caribbean; 2) Get new knowledge about chondrichthyan populations (and more particularly on "cryptic" species) in particular in terms of specific diversity, index of abundance and spatio-temporal distribution; 3) Get new knowledge for the conservation of chondrichthyans. Data could support proposals for adding species of chondrichthyans to conservation lists / appendices (i.e. IUCN Red List and Annexes II and III of the SPAW protocol)
How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?	<p>Results will be valorized in a study report which will be available for all the structures interested to reinforce the conservation of chondrichthyans including the Petite Terre Nature Reserve, the Guadeloupe National Park, as well as the DEAL (Ministry of Ecology) and the SPAW RAC.</p> <p>This project could provide information on species already listed in the annexes of the SPAW protocol. It could also provide information on species that could soon be proposed on the annexes of the SPAW protocol.</p>
<p>Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries: This preliminary study will make it possible to analyze the samples for "Chondrichthyans" taxon. However, each sample can be analyse for 3 taxons, so complementary analyzes could be made thereafter (according to funding), make it possible to study other taxa such as cetaceans and teleosteans. This study is carried out in collaboration with various structures including the Université des Antilles (UMR BOREA).</p>	



Preparation of pumps (sealing)



Sampling area near the mangrove swamp (potential site for sawfish)



Pump installation

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.



**Call for proposals
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**Information note
for the SPAW Protocole
Scientific and Technical Advisory Committee**

Name of the organization: **Department of Fisheries and Marine Resources**

Name of the project: **An investigation of the health of parrotfish nearshore coral reef habitats, parrotfish landings and population densities to inform management decisions.**



Total budget of the project: **€ 10,000.00**

SPAW-RAC grant: **€ 7,000.00**

Timeframe for implementation: **3 months**

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

Name of the organization	Department of Fisheries and Marine Resources
Name of the project	An investigation of the health of parrotfish nearshore coral reef habitats, parrotfish landings and population densities to inform management decisions.
Targeted specie(s)	Parrotfish (Scaridae)
Site(s) location	Anguilla, British Caribbean
Major threats	Parrotfish population and coral reef health decline
Methodology developed within the framework of this project	<p>1. Collection of baseline data from 10 coral reef sites. Data may already exist for some of these sites. Therefore health trends such as coral growth and recruitment, the presence of bacteria and diseases and healthy reef invertebrates can be compared to the current study</p> <p>2. Using transect line method the number of Parrotfish will be recorded at each site</p> <p>3. DFMR collects data on fish landings, but not on a species level. Data collected are usually divided up into reef fish or pelagic fish, conch and lobster. This project will focus efforts on collecting fish landings data such as catch and effort, fish size and species landed at 4 of the main landing sites from at least 40 fishers of parrotfish</p> <p>4. Using international and caribbean related scientific information from published journals, other documented sources, and best practice examples, DFMR will conduct the following educational sessions to illustrate to Anguillians how important Parrotfish are to the island : 6 public primary school outreach sessions ; 1 private primary school outreach session; 3 preschool outreach sessions ; 3 fishers outreach sessions, the last session will focus on the creation of an awareness video created by fishers ; 2 radio and 1 tv rap session for the educational awareness of the general public on Parrotfish</p> <p>5. Following the data analysis, brochures will be produced and shared to show public the findings in hand and via social media</p> <p>6. The Anguilla fisheries development plan (AFDP) addresses very broadly to the management of Parrotfish. A more detailed sub document is needed to supplement the AFDP. This document will be created based on the collected and analysed data and will serve as a reference tool for Government decision makers towards the management of Parrotfish</p>
Update on the implementation, progress and possible issues	To date, all in water data on parrotfish populations have been collected from 10 coral reef sites around the island. Outreach education sessions have been carried out at 3 public primary schools, 1 secondary school and to the staff of the Departments of Agriculture and Fisheries. Outreach efforts will continue with school children and fisherfolk. By the end of November, the media production created by fisherfolk should be completed. All project objectives, data analysis and reports are expected to be completed by the end of December.
Objectives sought and/or	Gather essential information for fisheries management authorities to

results obtained	be able to meaning fully protect parrotfish and their associated coral reefs.
How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?	The Department of Fisheries and Marine Resources is afraid that with no management plan and no restrictions on the catching and selling of parrotfish, and the abuse of the nearshore reefs that these important species of fish and their habitats can disappear soon. This project proposal therefore seeks to gather some baseline information on Parrotfish densities and the current health status of 10 of highly fished reefs around the island . A nd to collect fish landings data by species level for parrotfish. An essential aspect of this project will be education of fishers and school children. Feedback from t he outreach activities and collated data will be used to write a sub document management plan for parrotfish , and advise the Government of Anguilla on the best management approach for the conservation of Parrotfish and their associated habitats
Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:	N/A

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.



Call for proposals
Short-term Small Grants
- year 2020 -

Information note
for the SPAW Protocole
Scientific and Technical Advisory Comittee

Name of the organization: Mangrove Maniacs

Name of the project: Workshop Mangrove Restoration



Insert a picture or a map



Total budget of the project: \$ 25.195

SPAW-RAC grant: € 9.000

Timeframe for implementation: Year 2020, extension because of covid through May 31, 2021

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

Name of the organization	Foundation Internos/Mangrove Maniacs
Name of the project	Workshop Mangrove Restoration
Targeted specie(s)	mangroves and associated flora and fauna
Site(s) location	Lac Bay, Bonaire, Caribbean Netherlands
Major threats	Buildup of silt caused by erosion causes hypersaline conditions and degradation of forest; loss of hydrological connectivity aggravates the situation
Methodology developed within the framework of this project	Course material based on experiences gained, developing curriculum for course. Field excursions with practical course on nursery work, hydrological restoration and monitoring
Update on the implementation, progress and possible issues	Preparing course material. Issue: due to covid travel is restricted and no planning seems to be possible in near future
Objectives sought and/or results obtained	see above
How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?	Our previous work has helped Bonaire to protect and restore the mangrove area and its associated fauna (including some endangered and protected species). We work closely together with the local government. Past and future efforts support their obligations to international treaties (SPAW, CBD, Ramsar, IBA). Protection and restoration of the mangroves has been incorporated in the local (Bonaire) and national (the Caribbean Netherlands) policy plans where mangrove restoration is identified as one of the strategic goals.
<p>Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:</p> <p>The intended regional mangrove work will help us share our experiences and gained knowledge with colleagues in other signatory countries. Building a regional network of experts in this field will be beneficial to protection and conservation of mangroves.</p>	



**Call for proposals
Short-term Small Grants
- year 2020 -**

***Information note
for the SPAW Protocole
Scientific and Technical Advisory Comittee***

Name of the organization: Nature2 / Parks Work

Name of the project:

Using Management Effectiveness to strengthen species conservation in the Caribbean



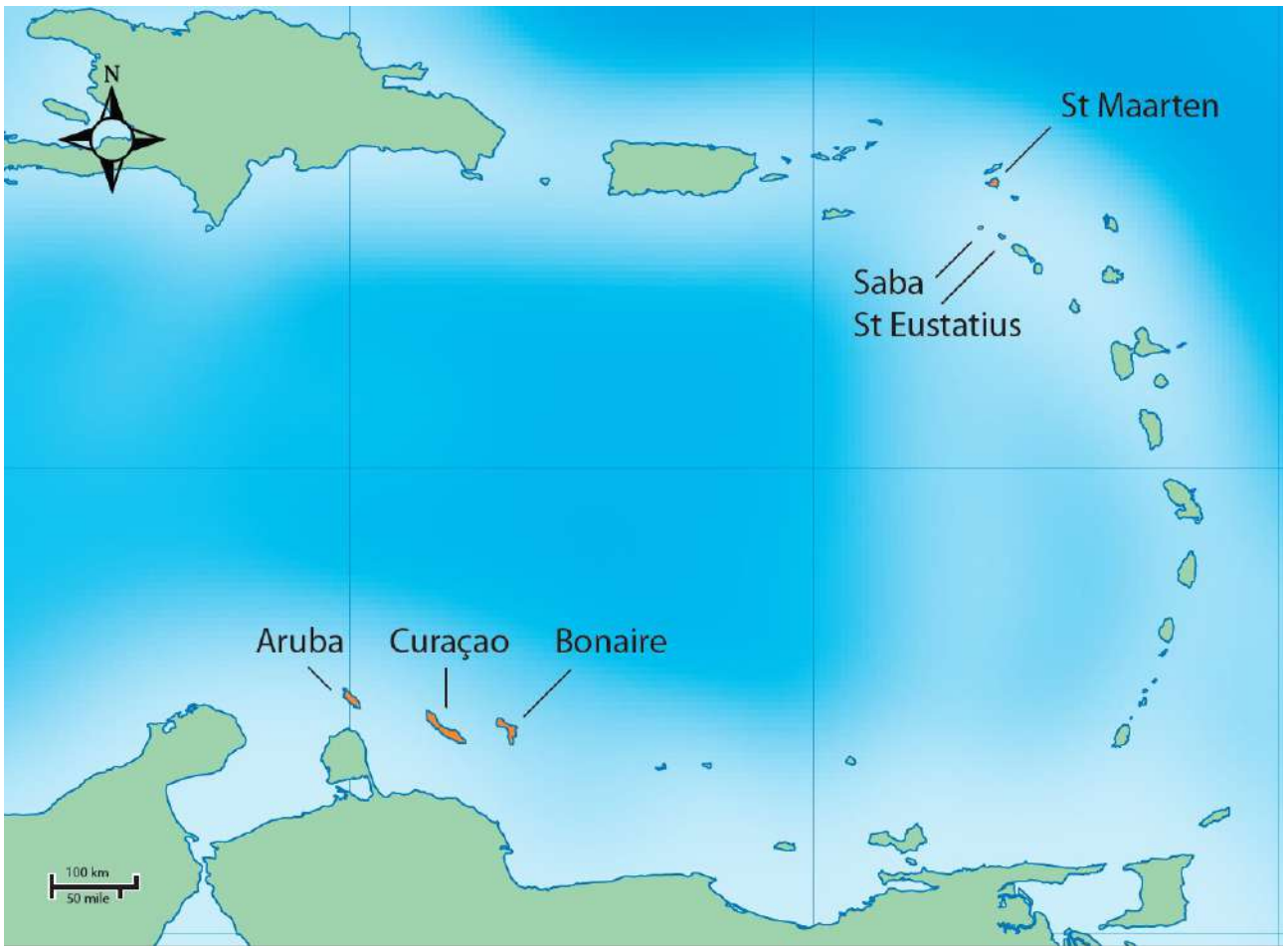
PARKS WORK
Empowering Park Management

Total budget of the project: Euro 10,000

SPAW-RAC grant: Euro 6,500

Timeframe for implementation: September-December 2020

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.



Name of the organization	Nature2 / Parks Work
Name of the project	Using Management Effectiveness to strengthen species conservation in the Caribbean
Targeted specie(s)	Species identified by Park Managers as being of high conservation based on locally valuable species, IUCN Red List species and bird species used to identify Important Bird Areas. These will likely to include : cetaceans, sea turtles, sharks, birds, iguana, orchids
Site(s) location	Arikok National Park , Aruba Washington Slagbaai Park , Bonaire Bonaire National Marine Park [SPAW site# 27] Christoffel-Shete Boca Park , Curaçao Mount Scenery National Park [SPAW site# 30] Saba National Marine Park , [SPAW site# 24] Saba Bank National Marine Park [SPAW site# 29] Quill-Boven National Park [SPAW site# 28] St. Eustatius National Marine Park [SPAW site# 25] Man of War Shoals Marine Park [SPAW site# 26]
Major threats	Habitat loss due to land conversion and development, competition with invasive species, hunting/gathering, pollution, climate change
Methodology developed within the framework of this project	<ol style="list-style-type: none"> 1. Conduct baseline effectiveness evaluations using METT4 for all protected areas in the Dutch Caribbean 2. Develop detailed threat analysis and combine with occurrence of IUCN/SPAW listed endangered species to highlight at risk species and populations 3. Provide management recommendations to park managers and stakeholders 4. With park staff and stakeholders develop action-oriented species action plans
Update on the implementation, progress and possible issues	<p>September: analysis of METT data, detailed threat analysis</p> <ul style="list-style-type: none"> - METT analyses completed for all 10 parks of the Dutch Caribbean. Questions on status of the biodiversity could not be answered due to lack of information. Scientific experts are being consulted to provide input on this topic. - Baseline threat analysis for the protected areas in the Dutch Caribbean was conducted as part of METT analyses. Direct threats to selected species will be analysed once key conservation species have been identified in consultation with park managers. <p>October: updating of species lists</p> <ul style="list-style-type: none"> - verification and updating of complete species lists of threatened, endangered, keystone and endemic species for Aruba, Bonaire, Curacao, Saba, St Eustatius and St Maarten based on SPAW lists. Cross verification with IUCN Red List species, local ordinance, Naturalis database as well as IBA listed bird species. - Initial spatial evaluation of threats and endangered species by occurrence

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

	<ul style="list-style-type: none"> - Presentation of species lists to park managers with request to select top 3 species of concern (key conservation species) <p>To be implemented: November: verification and spatial analysis of threat status for key conservation species; matrix of species treats; development of species-specific management recommendations December: development of species action plans for selected species and recommendations for management and monitoring</p>
<p>Objectives sought and/or results obtained</p>	<p>Results obtained:</p> <ul style="list-style-type: none"> - METT4 analysis 90% complete for 10 protected areas - Update of IUCN/SPAW endangered species lists 90% complete (all parks, including updates of endemic species for Saba, St Eustatius and St Maarten and inclusion of locally protected species on Bonaire). The database now includes 996 species classified by name, presence, recognition, legislation. Management responses for key species to be updated. <p>Current objectives are to have protected area managers identify key conservation species and then develop:</p> <ul style="list-style-type: none"> - Species specific management recommendations for key conservation species - Action plans and monitoring recommendations for key conservation species
<p>How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?</p>	<p>Project information and goals have been shared with all participating protected area managers, local nature conservation organisations, local government civil servants and key National government representatives and the local press.</p> <p>The project will present protected area managers and government civil servants with verified species lists for threatened, endangered, endemic and IBA species. This will serve to remind them of the SPAW listed species on their islands.</p> <p>Project results are now being used to support the development of an implementation plan for the Dutch Government Nature and Environmental Policy Plan, which includes a strategic goal addressing “Conservation and restoration of key habitats and species in the Caribbean Netherlands”.</p> <p>This will include requests for formal recognition and conservation of high biodiversity value areas and unprotected key habitats, identification of suitable management bodies, development of management plans and conservation action plans for vulnerable species, comprehensive mapping of key conservation areas and inventories for all listed species, local outreach and communication to sensitize the public to the high value of these areas and species, monitoring and, where appropriate, restoration and reforestation initiatives. The Nature and Environmental Policy Plan</p>

(NEPP) will guide Dutch Government conservation efforts in the Dutch Caribbean for the coming 5 years.

Project findings will be shared with park managers, staff and key stakeholders, local government civil servants and the general public along with recommendations on how to use the findings.

Social media posts and media releases will be used to promote the project findings

Project results will be shared both with local and with National Government representatives responsible for CBD and SPAW protocol together with management recommendations.

The identification of key conservation species will provide a route map for their conservation and identify gaps in protection where overlapping local, national and international policies may have missed protection for e.g. endemic species.

Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:

METT4 analysis : questionnaire

No.	Question
1	Does the PA have legal status (or in the case of private reserves is covered by a covenant or similar)?
2	Are appropriate regulations in place to control land use and activities (such as hunting)?
3	Can staff enforce protected area rules well enough? (Staff = those with responsibility for managing the site)
4	Is management undertaken according to agreed objectives?
5	Is the protected area the right size and shape to protect species, habitats, ecological processes and water catchments of key conservation concern?
6	Is the boundary known and demarcated?
7	Is there a management plan and is it being implemented?
7a-c	Additional points: Planning process
8	Is there a regular work plan and is it being implemented?
9	Do you have enough information to manage the area?
10	Is access / resource use sufficiently controlled in accordance with designated objectives?
11	Is there a programme of management-orientated survey and research work?
12	Is active resource management being undertaken?
13	Are there enough people employed to manage the protected area?
14	Are staff adequately trained to fulfil management objectives?
15	Is the current budget sufficient?
16	Is the budget secure?
17	Is the budget managed to meet critical management needs?
18	Is equipment sufficient for management needs?
19	Is equipment adequately maintained?
20	Is there a planned education programme linked to the objectives and needs?
21	Does land and water use planning (happening outside the protected area) recognise the protected area and aid the achievement of objectives?
21a-c	Additional points: Land and water planning
22	Is there co-operation with adjacent land and water users?
23	Do indigenous and traditional peoples resident or regularly using the protected area have input to management decisions?
24	Do local communities resident or near the protected area have input to management decisions?

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24a-c	Additional points: Local communities / indigenous people
25	Is the protected area providing economic benefits to local communities, e.g. income, employment, payment for environmental services?
26	Are management activities monitored against performance?
Add.	Is the protected area consciously managed to adapt to climate change?
27	Are visitor facilities adequate?
28	Do commercial tour operators contribute to protected area management?
29	If fees (such as entry fees or fines) are applied, do they help protected area management?
Add.	Are the threats to the main values of the protected area identified, classified and addressed?
30	What is the condition of the important values of the protected area as compared to when it was first designated?
30a-c	Additional points: Condition assessment
Add.	Has the status of key indicator species changed over the last 5 years?
Add.	Has the status of habitats changed over the last 5 years?

Species Database : framework

Field	Category	Descriptor
Name	Common group name	Name used as a general description of the species for the lay person
Name	Scientific name	Full latin name, sub species where relevant
Name	English	English language name
Name	Dutch	Dutch language name
Name	Papiamentu	Local / Papiamentu name
Presence	Island	Presence on island or in the island waters
IBA	IBA species	Species listed under the BirdLife International Important bird Areas initiative
IUCN	Red List CR	IUCN Red List Critically Endangered
IUCN	Red List EN	IUCN Red List Endangered
IUCN	Red List VU	IUCN Red List Vulnerable
IUCN	Red List NT	IUCN Red List Near Threatened
CITES	CITES I	Convention on International Trade in Endangered Species Appendix 1
CITES	CITES II	Appendix 2
CMS	CMS I	Convention on Migratory Species Appendix 1
CMS	CMS II	Appendix 2
ENDEMISM	Restricted range	Endemic to Northern Lesser Antilles, Lesser Antilles and Antilles
ENDEMISM	Island	Island endemic
SPAW	SPAW I	Specially Protected Areas and Wildlife Appendix 1
SPAW	SPAW II	Appendix 2
SPAW	SPAW III	Appendix 3
Local legislation	Island	Locally listed in legislation
FLAGSHIP	Island	Identified as a flagship species for the island
HABITAT	Marine	Dwells in marine habitats for most of its life
HABITAT	Terrestrial	Dwells in terrestrial habitats for most of its life (including fresh water)
Management response	Island	Conservation management responses in place for the species
	Notes 1	
	Sources	
	Date added	
	Notes 2	
	Notes 3	



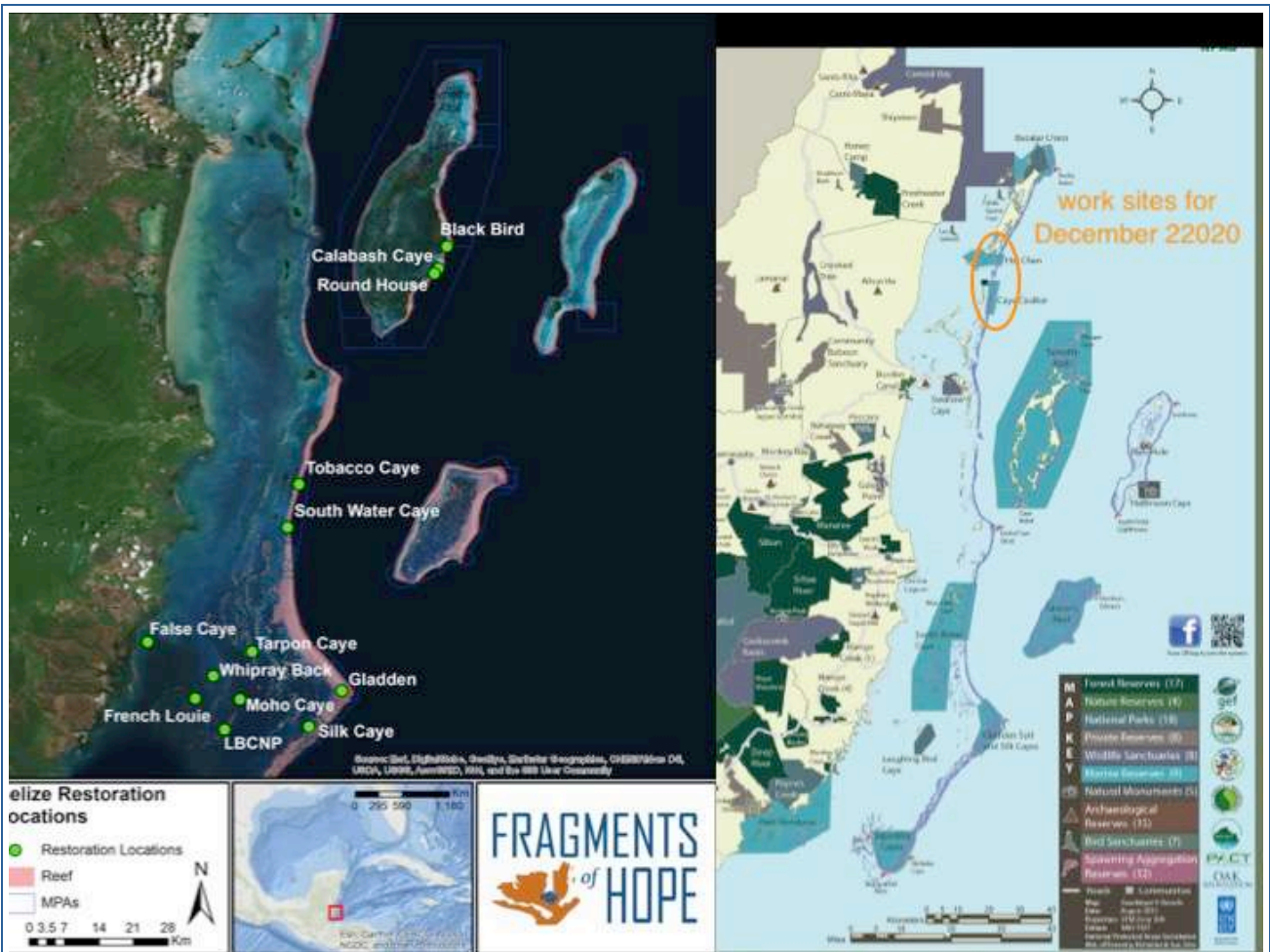
**Call for proposals
Short-term Small Grants
- year 2020 -**

***Information note
for the SPAW Protocole
Scientific and Technical Advisory Comittee***

Name of the organization: Fragments of Hope

Name of the project: “Expanding Reef Replenishment Efforts with the Critically Endangered Caribbean Acroporid Corals to northern Belize”

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.



Insert a picture or a map

Total budget of the project: \$10,000.00 Euros

SPAW-RAC grant: \$6,000.00 Euros

Timeframe for implementation: through December 31, 2020

Name of the organization	Fragments of Hope
Name of the project	“Expand Reef Replenishment Efforts with the Critically Endangered Caribbean acroporid corals to Northern Belize”
Targeted specie(s)	<i>Acropora palmata</i> , <i>A. cervicornis</i> , <i>A. prolifera</i> and <i>Dendrogyra cylindrus</i>
Site(s) location	Caye Caulker & Hol Chan Marines Reserves (CCMR & HCMR), Belize
Major threats	Climate change (storms, bleaching)
Methodology developed within the framework of this project	The methods for installing nurseries & conducting training have been established in the Fragments of Hope manual
Update on the implementation, progress and possible issues	The training sessions & nursery installation are scheduled for Dec 1-10, 2020, as we only commence coral work outside of hurricane season (Jun-Nov). Government limits group sizes to ten (10) due to COVID 19. Inclement weather could pose a risk to implementation.
Objectives sought and/or results obtained	We will install 2 coral nurseries in CCMR & conduct training for two MPA staff and one private sector stakeholder for each MPA (six persons in total).
How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocols ?	<i>(eg: Have the results (or progress) been, are they or will they be shared with the governmental administration charged of implementing the SPAW protocol? Have discussions with these services made it possible to work to the development or implementation of regulatory or conventional measures toward species or areas protected under SPAW?)</i> <i>Yes, the Belize Fisheries Department is involved/included ; four of their MPA staff will participate in the training.</i>
Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries: Submitting the draft agenda separately. The manual for the training can be downloaded from our website at http://fragmentsofhope.org/case-study-manuals/	

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**Call for proposals
Short-term Small Grants
- year 2020 -**

***Information note for the SPAW Protocole
Scientific and Technical Advisory Comittee***

Name of the organization: Parques Nacionales Naturales de Colombia

**Name of the project:
Restauracion de formaciones coralinas en el
Parque Nacional Natural Old Providence McBean
Lagoon-Caribe colombiano.**

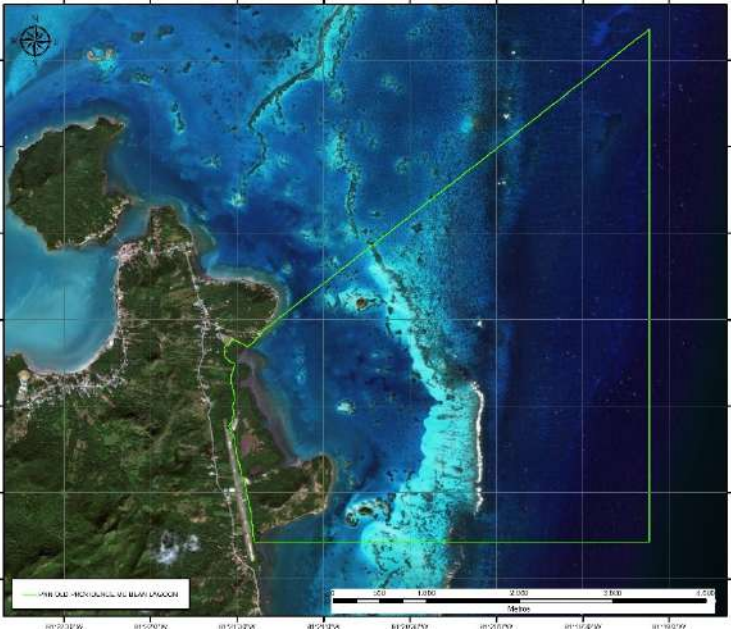


Total budget of the project: 24.100 Euros

SPAW-RAC grant: 8.500 Euros

Timeframe for implementation: 1 de noviembre 2021

This note is intended to provide information on the organization(s), the project, the concerned species and sites, the threats to their conservation, the methodology developed within the framework of the project, its implementation, and the objectives sought, in order to enlighten the Parties on the interest of this project for the achievement of the objectives of the SPAW Protocol.

Name of the organization	Parques Nacionales Naturales de Colombia – Fundación Providencia
Name of the project	Restauración de formaciones coralinas en el Parque Nacional Natural Old Providence McBean Lagoon-Caribe colombiano.
Targeted specie(s)	<i>Acropora cervicornis</i> , <i>Acropora palmata</i> , <i>Acropora prolifera</i> , <i>Orbicella spp.</i> , <i>Colpophilya natans</i> y <i>Dendrogyra cylindrus</i>
Site(s) location	<p>El Parque Nacional Natural Old Providence McBean Lagoon-PNNOPMBL, se encuentra ubicado hacia el extremo nororiental de la Isla de Providencia, en el Departamento Archipiélago de San Andrés, Providencia y Santa Catalina, Caribe Colombiano. Cuenta con una extensión aproximada de 1.614 ha, de las cuales 1.524 ha corresponden a su porción marina. En su interior se albergan importantes formaciones coralinas, distribuidas en parches coralinos, arrecifes de franja y barrera coralina continua y discontinua (Figura 1)</p>  <p>Figura 1 : Ubicación del Parque Nacional Natural Old Providence McBean Lagoon</p>
Major threats	<p>Los arrecifes coralinos son ecosistemas marino costeros que se encuentran distribuidos principalmente, en los trópicos, estos ecosistemas se reconocen por ser uno de los más diversos y productivos del mundo (Burke y Maidesns, 2005) y por los bienes y servicios ecosistémicos que ofrecen (Moberg y Folke, 1999).</p> <p>Estudios recientes sobre el estado de los arrecifes tropicales en el mundo, señalan que el 60% de estos están bajo algún grado de amenaza (Burke et al., 2011, Wilkinson, 2008); lo cual se ha venido intensificado por el estrés térmico y los consecuentes procesos de blanqueamiento y enfermedades (Merselis et al., 2018; Sokolow, 2009).</p> <p>La degradación se evidencia por pérdida de especies, lo cual implica que los arrecifes del Caribe pasaron de ser ecosistemas dominados</p>

por especies de coral formadores de arrecifes, como aquellos de los géneros *Acropora* y *Orbicella* (anteriormente *Montastrea*), a sistemas dominados por macroalgas y/o corales no formadores de arrecifes (Miller et al., 2002).

Específicamente para el Caribe, se ha registrado una reducción en la cobertura coralina de un 10% a un 50% en los últimos 30 años, con pocos signos de recuperación (Edmunds y Carpenter, 2001), y una rápida dispersión de las enfermedades (Goreau et al., 1998). En Colombia, la degradación de las áreas coralinas en el mar Caribe ha sido evidente y ha alcanzado niveles preocupantes (Díaz et al., 2000).




Las especies del género *Acropora*, han sufrido mortalidad masiva desde los años 50, lo cual parece tener relación con los posibles impulsores regionales y locales como el consumo de fertilizantes para la agricultura (Cramer et al., 2020). Posteriormente, la sobrepesca, los cambios en la calidad de agua y la sedimentación, así como el cambio climático (Hopley, 2011), limitaron la posibilidad de recuperación de estas especies. Por tanto, los esfuerzos continuos para repoblar los arrecifes con estos corales deben incluir la mitigación de los estresores antropogénicos locales, además de acciones globales de soporte, como las reducciones inmediatas en las emisiones de carbono (Cramer et al., 2020).

Aunque, las islas de Providencia y Santa Catalina, son Islas oceánicas, con baja población humana, caracterizada por hacer parte del grupo étnico raizal, dedicado a la pesca artesanal, agricultura de pancoger y el turismo basado en la naturaleza y cultura, la situación de deterioro de las formaciones coralinas es evidente.

Para el PNN Old Providence McBean Lagoon varias situaciones han venido cambiando las condiciones naturales en que se desarrollan las especies coralinas, presentándose altos porcentajes de áreas con bajas coberturas de coral vivo. Los aumentos de la temperatura promedio del agua, los cambios en la calidad físico-química de las aguas, la disminución de los peces herbívoros, entre otros, han venido causando una alta mortandad de las colonias coralinas, siendo unas de las especies más afectadas la *Acropora palmata* y la *Acropora cervicornis* y contrasta con la información que había sido presentada por varios autores, entre ellos Geister. J., 1986 y Prahel y Erhardt, 1985, sobre la existencia de extensas colonias de estas especies en lo que ahora es el área del Parque Nacional.

En el 2007, en un trabajo realizado conjuntamente con el INVEMAR (Instituto Colombiano de Investigaciones Marinas) sobre la “Linea Base de las formaciones coralinas del PNN Old Providence McBean Lagoon” (INVEMAR, 2007) se reportó promedios de cobertura de corales y algas de 9.3% y 78.7% respectivamente, reflejando el dominio generalizado de las algas, situación preocupante para el manejo del Parque Nacional y encontrando que entre estaciones, la cobertura de coral varía ampliamente de 0% a 40 % y además que la terraza prearrecifal presenta las áreas de mayor cobertura coralina

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	<p>viva.</p> <p>Aunque existen varias estrategias de manejo que se desarrollan en el área protegida, como son las acciones de control y vigilancia, el ordenamiento del ecoturismo, el control de especies invasoras (pez leon), la educación ambiental y la participación y concertación con la población raizal en el manejo del Parque Nacional, entre otras, que han permitido la disminución de las presiones, los temas relacionados a los efectos del cambio climático, han requerido el desarrollo de una estrategia de restauración de las formaciones coralinas, que buscan, además de aumentar la cobertura de coral vivo, hacer más resiliente este ecosistema.</p>
<p>Methodology developed within the framework of this project</p>	<p>El proyecto consiste en el desarrollo de lo que ha sido denominado “jardinería de coral” con dos fases:</p> <p>a) Una fase de guardería <i>“in situ”</i> donde se mantienen fragmentos de coral (semilla) para su crecimiento; en esta fase además se experimentará con la jardinería por microfragmentación para corales masivos, que consiste en obtener, a través de la micro-fragmentación, fragmentos de ~1 cm² o menos (Page et al., 2018).</p> <p>b) Una fase de trasplante, que incluye sembrar los fragmentos criados en las guarderías al sustrato marino (Edwards, 2010).</p> <p>Fase de guardería :</p> <p>Se trabajará en la construcción y mantenimiento de guarderías tipo colgantes (a), mesas (b) y domos (c), para el crecimiento de los fragmentos de coral de las especies mencionadas, que serán obtenidos de colonias donantes sanas, ubicadas en diferentes zonas de las islas de Providencia y Santa Catalina (Figura 2).</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>a)</p> </div> <div style="text-align: center;">  <p>b)</p> </div> </div> <div style="text-align: center; margin-top: 10px;">  </div>

	<p style="text-align: center;">c)</p> <p>Figura 2 : Tipos de guarderías : a- Colgantes, b- Mesa, c- Domo</p> <p>Para las especies ramificadas (<i>Acropora spp.</i>) los fragmentos de aproximadamente 2-3 cm de longitud serán colocados en los diferentes tipos de guarderías instaladas. Para las especies masivas (<i>Orbicella spp.</i>, <i>Colpophilya natans</i> y <i>Dendrogyra cylindrus</i>) se realizará la microfragmentación con la ayuda de una segueta fina para obtener fragmentos de menos de 1 cm², los cuales serán colocados en “galletas“ de cemento sobre las guarderías tipo mesa.</p> <p>Quincenalmente se realizará el mantenimiento y limpieza de las guarderías y de los fragmentos de los excesos de algas y se hará el seguimiento a la supervivencia de los fragmentos.</p> <p>Fase de trasplante:</p> <p>Después de seis (6) meses o antes, dependiendo del crecimiento de los fragmentos de coral en las guarderías, estos serán trasplantados a diferentes sitios de la laguna arrecifal (dentro del PNNOPMBL) donde se encuentren colonias vivas o muertas de cada una de las especies de coral, en lo que se denominarán parcelas en proceso de restauración y siguiendo la zonificación natural de dichas especies.</p> <p>En las parcelas se definirá e implementará un protocolo – diseño de monitoreo, basado en coberturas de coral vivo y densidad de especies claves que permitan evidenciar y hacer el seguimiento al éxito y avances en los procesos de restauración.</p> <p>El proyecto además propenderá por el desarrollo de actividades de educación ambiental alrededor de la importancia en la conservación y recuperación de lo ecosistemas coralinos, a través de diferentes herramientas pedagógicas y lúdicas dirigidas a los niños y jóvenes de las instituciones educativas de la isla de Providencia.</p> <p>Para los principales actores que hacen uso del área protegida (pescadores raizales y prestadores de servicios ecoturísticos), se harán salidas conjuntas para su involucramiento en el desarrollo del proyecto, y dentro del Comité de Manejo Conjunto con la población raizal, se desarrollarán, actividades de manejo conjunto dirigidas a la recuperación y conservación de las formaciones coralinas.</p>
<p>Update on the implementation, progress and possible issues</p>	<p>Se avanza en la firma del acuerdo de cooperación entre Parques Nacionales de Colombia y SPAW, y en la formalización de un Convenio entre Parques Nacionales y la Fundación Providencia, quien recibirá los recursos.</p> <p>Debido a las restricciones por el Covid 19, la directora del área protegida, quien será la coordinadora en el desarrollo del proyecto, había tenido algunas dificultades para el ingreso a la Isla de Providencia, ya que no se permitía el ingreso a personas, sin embargo, ya se solucionó dicho problema y podrá entonces darse</p>

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	<p>inicio a las actividades del proyecto.</p>
<p>Objectives sought and/or results obtained</p>	<p>Los objetivos planteados para el proyecto son:</p> <ol style="list-style-type: none"> 1. Avanzar en la estrategia de restauración de especies de coral en el área marina del Parque Nacional Natural Old Providence McBean Lagoon. 2. Elaborar e implementar un protocolo de monitoreo de la estrategia de restauración de corales en el area marina protegida. 3. Incrementar la participacioon de la comunidad local en el desarrollo de acciones de conservación de las formaciones coralinas del area protegida. <p>Hasta la fecha el proyecto no ha iniciado, por lo que no se cuenta con resultados.</p>
<p>How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?</p>	<p>El proyecto contribuye mayoritariamente al cumplimiento del articulo 6 del protocolo: "Régimen de planificación y manejo para áreas protegidas", en los siguientes numerales:</p> <p>Numeral 2.c. La realización de investigaciones científicas y la supervisión de los impactos de los usuarios, de los procesos ecológicos, hábitats, especies y poblaciones, así como la realización de actividades orientadas a mejorar el manejo de las áreas, ya que el proyecto permitirá atender la recuperación de uno de los valores objeto de conservación del área protegida (objetivo 1 y 2 del proyecto);</p> <p>Numeral 2.d. El desarrollo de programas de concientización y educación para los usuarios, los encargados de la toma de decisiones y el público en general, que fortalezcan su apreciación y conocimiento de las áreas protegidas y de los objetivos para los cuales fueron establecidas, mediante el cumplimiento del objetivo 3 del proyecto;</p> <p>Numeral 2.e. La participación activa de las comunidades locales, según sea apropiado, en la planificación y el manejo de las áreas protegidas, inclusive la asistencia y la capacitación de la población local que pudiera resultar afectada por el establecimiento de las áreas protegidas, mediante la implementación del objetivo 3 del proyecto,</p>
<p>Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:</p>	



**Call for proposals
Short-term Small Grants
- year 2020 -**

**Information note
for the SPAW Protocole
Scientific and Technical Advisory Comittee**

**Name of the organization: *Roatan Marine Park
(Asociación Amigos del Parque Marino de Roatán)***

**Name of the project: *Promoting Responsible Seafood Choices
by Enhancing Ecological and Social Responsibility
Management of Lobsters within Roatan Bay Islands***



Total budget of the project: €30,227.00

SPAW-RAC grant: €8,500.00

Timeframe for implementation: 1/09/2020 -15/12/2020

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Name of the organization	Roatan Marine Park (Asociación Amigos del Parque Marino de Roatán)
Name of the project	Promoting Responsible Seafood Choices by enhancing Ecological and Social Responsibility management of Lobsters within Roatan Bay Islands
Targeted specie(s)	Caribbean spiny lobster (<i>Panulirus argus</i>)
Site(s) location	Roatán, Islas de la Bahía, Honduras
Major threats	<ul style="list-style-type: none"> • Illegal and unreported lobster fishing • Legislative breach, lack of law enforcement and judicial prosecution • Reputational impacts, low interest from markets, retailers and restaurants on the best practices • Changes in demand, stakeholder attitude to commercialization of undersized lobsters or other products
Methodology developed within the framework of this project	<p>a. Development of a fisheries dependent protocol for monitoring lobsters entitled <i>Protocol for the Monitoring of Spiny Lobster (Panulirus argus)</i> to be implemented in conjunction with the RMP Park Rangers through the Patrol Program in Roatan. In the case of the RMP, this monitoring protocol will be use to assess the size, maturity and number of lobster confiscated by the park rangers. In the same way, it can be used by technicians, researchers, park rangers and others interested in monitoring spiny lobster.</p> <p>b. <i>Socioeconomic Monitoring (SocMon)</i>. The team will conduct a socioeconomic monitoring to understand perceptions from stakeholders associated with illegal lobster captures, trade and consumption. This includes surveys, focus group, interviews, and estimates on the level, structure, and characteristics of the illegal fishing.</p> <p>c. <i>Campaign</i>. Develop a time oriented ‘action plan’ to target restaurants, retailers, consumers, fishers, communities and visitors to promote the desired behavior change as a result of the campaign launch. Within the campaign we are contemplating the creation of Be a Responsible consumer Video in English/Spanish and the Responsible Seafood Guide Doodle video, both will be released by December 2020.</p>
Update on the implementation, progress and possible issues	<p>a. Collect fisheries dependent data on spiny lobster confiscated from illegal poaching activity in Roatan. Park rangers will be trained on research method, data collection and protocol after lobster confiscation.</p> <p>The initial step was to develop a manual for the monitoring protocol. The manual addresses topics of the biology, ecological and economic importance of lobsters. It demonstrates in detail how to take morphometric data (weight, size of cephalothorax and tail) and biological data (sexing and identifying reproductive activity of the female lobsters), record of data in logs or data sheets, and management of organisms during and after data collection. The manual was reviewed by different people trained in the subject, who provided valuable improvements for its validation.</p>

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Six rangers of the Roatan Marine Park Patrol Program and partners in BICA Utila and Guanaja, were trained with the fishery-dependent monitoring methodology of spiny lobster. Through which they were given a theoretical presentation to socialize the objectives and importance of monitoring and detailed methods, finalizing with hands-on activity where they became familiar with the equipment for taking morphometric and biological data.

b. Lobsters will be measured, weighed and sexed to determine different biological parameters to determine inshore stage caught.

The data collection is carried out with the participation of the RMP park rangers who cover the patrol of 90% of the Island of Roatan, during the day and at night. Once the lobsters are confiscated due to illegal fishing activity, and based on the elaborated protocol, all the RMP park rangers and the accompanying naval patrols ensure the data can be collected (identification of the reproductive activity of females, measurements of weight and height), the use of the logs, data sheets and handling of organisms during and after sampling.

Additionally, data is taken on the composition of fishing effort and accompanying fauna (e.g. grouper, snail, crab, etc.) that have been seized and are associated with the Caribbean lobster fishery in order to manage a database with the seizure records.

In the months of October and November, there have been 4 seizures of illegal fishing for spiny lobster, in addition to accompanying fauna such as snail, crab and reef fish. With the help of RMP park rangers, information has been collected on 28 organisms: 12 females and 16 males. The results show that the majority of lobsters seized are juveniles (average of 18 cm total length), long term data collection will provide information that will help the RMP understand the current fishing pressure in the area, characterize the illegal lobster fishery and the catch composition of confiscations.

c. Document the main and secondary stakeholders, their motivations, interests and aspirations in relation to the capture, trade and consumption of spiny lobster.

In order to conduct the surveys, the RMP team met with an expert in SocMon methodology, who trained and advised the team on how to approach the stakeholders when applying surveys, organizing focus groups, and how to choose the target group population for the surveys. Based on this training we identified our target population to be: restaurant owners, consumers, markets, seafood markets and fishers. The data collection process for the SocMon included a plan with the methodology (surveys, focus groups, interviews) and a schedule of intervention progress times in order to obtain the necessary information on the perception of trade and consumption of lobster and other marine species. In total the team conducted 20 surveys to restaurant owners from West Bay, West End, and Sandy Bay and 25 community surveys

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applied in West End, Sandy Bay, Crawfish Rock and French Harbor. Currently the data is being analyzed.

d. Surveillance and monitoring of the marine protected area to facilitate the enforcement of environmental law and regulations.

Surveillance of the MPA was conducted between September 1st and November 23rd, with four patrol boats (operating seven days a week, including three night patrols per week). A total of 31 incidents involving illegal fishing were reported by the RMP Park Rangers. Twenty of these incidents occurred on the western part of the island between West Bay and Big Bight, five on the east end between Camp Bay and the island of Barbaretta, and six on the south side between Coxen Hole and Media Luna. The Navy assisted by the park rangers seized a total 32 masks, 21 fins, four dive tanks with dive gear, 15 spears, four fish/lobster traps and one gill net.

From the 31 incidents, 10 were with lobster, with a total of 74 lobster confiscated from the western part (7), the south side (2) and the east end (1). Unfortunately, due to distance we have not been able to collect data on all the lobsters seized. Only 2 of these incidents occurred at night, both taking place in Sandy Bay. One incident involved a small boat which our Rangers had been trying to catch for several years which had dive tanks and 19 large lobster.

e. Plan, strategize and design a conservation outreach and communication campaign.

The campaign action plan will follow up on the initiatives implemented before, strengthening the patrol efforts, developing strategic alliances for the assistance of communities and related organizations committed to use sustainable seafood products. The videos produced will be used on social media to remind people of supporting environmentally responsible seafood products and the reward that brings small actions. Regular campaigns will provide information updates on our efforts to protect the spiny lobster in Roatan through our programs. While rangers are trained and involved in a scientific monitoring program, monitoring during patrols will focus more on target species and not detract from the primary responsibility of rangers, which is law enforcement.

POSSIBLE ISSUES

1. Environmental changes that can deter the process of data collection
2. Pandemic restrictions for business operations
3. Mobility in and around Roatan during rainy season
4. Supply chain and related issues with vendors, suppliers, or another outside party
5. Lack of involvement from stakeholders due to the illegal nature of lobster poaching

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Objectives sought and/or results obtained	<ol style="list-style-type: none"> 1. Establish a fisheries dependent baseline for spiny lobster in Roatan 2. Understand the social and economic context and stakeholders associated with behavior conducive to illegal lobster captures, trade and consumption. 3. Build capacities in enforcement personnel and park rangers to prevent illegal captures of spiny lobster. 4. Launch a communication campaign to raise awareness on the responsible seafood guides and sustainable fishing practices.
How did the results and outcomes of your project have in the past contributed, are contributing or will contribute in the future, to meet the needs of the agreements of your country to the SPAW Protocole ?	<p><i>(eg: Have the results (or progress) been, are they or will they be shared with the governmental administration charged of implementing the SPAW protocol? Have discussions with these services made it possible to work to the development or implementation of regulatory or conventional measures toward species or areas protected under SPAW?)</i></p> <p>The results from spiny lobster monitoring and perception/impacts on its population, will contribute directly to improve management for this species in Roatan. The development of public awareness and education programs for users, decision makers and the public will enhance their appreciation and understanding of protected areas and the objectives for which the Patrol Program was established.</p> <p>The reports of this project will contribute, to the extent possible, with information on lobster illegal poaching and the biological parameters, their geographic ranges in capture, estimated characteristics of illegal fishing around the Special Marine Zone, data analysis on threats which originate its trade and consumption. The baseline will provide scientific information relevant to the species and the management and recovery plans for this and other species, with reference to the Bay Islands National Marine Park Management Plan, relevant national legislation and other regulations.</p> <p>The Ministry of Natural Resources and Environment (MiAmbiente +), is the Government entity responsible for the protection, conservation, restoration and sustainable management of the environment and natural resources, formulating and ensuring compliance with environmental policies and legislation and in this particularly the Protocol Relating to Specially Protected Areas and Wildlife (SPAW). MiAmbiente+ as a co-manager of the Islas de la Bahía Marine National Park, is in charge, together with the members of the technical committee, of developing key actions at the national and regional level to transform the socioeconomic development of the region, through partnerships between governments civil society, indigenous communities, academia and the private sector to comply with the Roatan Agreements to protect, develop and manage the use of their common coastal and marine resources.</p>
Additional contextualizing elements you wish to notify to the SPAW protocol signatory countries:	

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