

**UNITED
NATIONS**



Distr. LIMITED
UNEP(DEPI)/CAR WG.42/4

February 2021

Original: ENGLISH

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

REPORT OF THE STAC SPECIES WORKING GROUP



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INTRODUCTION

The First Meeting of the Contracting Parties (COP) of the SPAW Protocol, Havana (24-25 September 2001), in its Decision I.7, awarded “specific mandates to the STAC for the creation of *ad hoc* Working Groups to deal with those themes that, owing to their complexity or level of specialization, thereby require [special attention].”

Four (4) such *ad hoc* working groups exist dedicated respectively to Protected Areas, to Species, to Exemptions and the most recent one, to *Sargassum*. Working Groups were established by the STAC and recently reendorsed with terms of reference and specific tasks specially designed following the last STAC, in Panama, 2018. They are composed of experts designated for their acknowledged scientific and technical competence, their availability and readiness to be responsive in the group, and to cover as much as possible the geographical and thematic scope of the working group. Experts may be nominated by Contracting parties, observers (non-member States, civil society organizations, ...) or independent experts added for their specific field of expertise. Once designated, they participate *intuitu personae*. The working groups are currently all chaired by the SPAW-RAC. In case consensus cannot be reached on a specific task, the chair guarantees that the diversity of opinions are dutifully reflected in the feedback and reports to the contracting parties and observers and ultimately to the STAC.

MANDATE AND COMPOSITION

Formally established in January 2020, the SPAW STAC *ad hoc* Working group on Species has the following tasks assigned by the Terms of Reference of the SPAW STAC *Ad Hoc* Working Groups (UNEP(DEPI)/CAR WG.42/INF.12):

Mandatory tasks:

- Task 1: review, evaluate, and provide recommendations (including the basis for any recommendations) on proposals from contracting parties to add new species to the SPAW Protocol annexes or change the listing status of species.

Additional tasks from the priorities discussed during STAC 8 (not limited to):

- Task 2: Evaluate the status of parrotfish and other herbivores associated with coral reefs, seagrass beds and mangroves to determine whether any species or group of species may warrant listing in the SPAW Protocol Annexes with due consideration to socio-cultural- economic and ecological dimensions, and provide results of reviews to the STAC.
- Task 3: Address as priority the whale shark *Rhyncodon typus* and the giant manta ray *Manta birostris*, as well as other species deemed a priority by the STAC.
- Task 4: Develop priorities and strategies for regional collaboration on and implementation of management measures to improve protection of species listed under the Annexes of the Protocol; including review of the current listing.
- Task 5: Discuss options for a simplified procedure for the listing of (critically) endangered and endangered species
- Task 6: Marine mammals related questions and requests

The current species working group is composed of 28 experts, 13 nominated from 8 countries, 14 nominated from observers or independently and the Secretariat (SPAW-RAC) (see Annex Table 1).

GENERAL FUNCTIONING

Two introductory meetings with all the working groups were organized in March 2020 (18th and 24th of March). They were aimed at introducing the new nominated experts to SPAW Protocol's background,

working groups' rules and objectives, and to create momentum among the veteran experts to launch a good work dynamic. 21 participants attended the first session and 19 participants the second one.

The working group work was then divided into online meetings and online collaborative review and drafting of documents and recommendations. Meetings were dedicated to discuss the tasks to be performed, the method to address them, identify and discuss potential points of disagreements, and validate the working group outputs. They work first at the task and later at the sub-tasks level. Most of the working group works was performed online, on shared documents that experts collaboratively drafted with SPAW-RAC support and reviewed.

As planned by the working groups terms of reference, all working group emails were sent via the "teamwork" virtual platform and all final documents were downloaded on it. This allowed all members of the working group (experts and SPAW-RAC) to keep track of exchanges and productions, including newcomers.

The work performed by the working group and the major outputs are presented in the following paragraphs.

WORKS CONDUCTED DURING THE BIENNIUM 2019-2020

TASK 1 - Review, evaluate and provide recommendations on proposals from contracting parties to add new species to the SPAW Protocol annexes or change the listing status of species

No additional proposal came from a contracting party outside the ones that were pointed out for review during the last STAC (see tasks 2 and 3 below).

All 6 proposals resulting from the appointed tasks by the STAC were reviewed by the whole group once considered finished by their authors and contributors. Each expert was asked if according to them and given the proposal, they would recommend the listing of the proposed Species under the SPAW Annex II /III and to provide a brief statement supporting their position with respect to the listing or not of the proposed Species.

In particular, they were asked if they consider the proposals to follow the requirements of the guidelines and sufficient quality to take a decision, which were the relevant criteria depending on the species and if they considered that according to the proposal, the species meet them to be recommended for addition to the annex II/III of the SPAW protocol? In case they consider not sufficiently based on a lack of data, they were asked if they thought those could be realistically be obtained in the near future.

TASK 2 - Evaluate the status of parrotfish and other herbivores

Methodology

A first dedicated meeting was organized on the 16/04/2020. This meeting allowed experts and consultants from the project to organize the Working Group and plan for the evaluation and potential listing of parrotfishes. From this discussion, the first version of the proposal was drafted and shared on Teamwork by Paul Hoetjes on the 21/04/2020 for a series of reviews, carried out by the experts through collaborating online tools. They had several months to expand the document shared though google drive.

A second dedicated meeting was organized on the 15/12/2020 with 11 participating experts to identify and discuss remaining gaps, contributors, and listing in SPAW annexes. A meeting report was drafted and downloaded on google drive so that it could be completed by experts. While the original idea was to propose

them as a group in Annex III, most contributors became convinced at this stage that from the data gathered, some of the biggest parrot fish should be proposed in Annex II which led to two propositions (see below).

A third meeting was organized on the 25/01/2020 with 10 participating experts to reach a conclusion on potential listing in Annexes II and III.

Finally, during the first two weeks of February, the WG experts reviewed classically the proposal to make their last inputs and comments and to conclude on the listing in Annex II or III according to task 1.

Outcomes and highlights

Parrotfish are of great importance to the Maintenance of Fragile or Vulnerable Ecosystems and Habitats. They maintain resilience capacity of coral reefs, control the abundance of macroalgae, transfer energy to intermediate carnivorous fish, support coral recruitment and produce sediments as they are natural eroders. The functional role of each species is largely distinct, which is in line with preserving both a high diversity and abundance of parrotfish. Moreover, trends as regards medium sized parrotfish and large parrotfish are not similar and that there are no clear patterns in terms of abundance of the species. Therefore, the listing could be based on parrotfish ecological role (criteria 1 and 10).

Several conditions are increasing the vulnerability of parrotfish, such as habitat destruction and fragmentation, water pollution, climate change and a complex life history. However, the main threat currently is overfishing exacerbated by depletion of other target fish stocks.

The main outcome is the collaborative drafting of a proposal for inclusion of all parrotfishes (Perciformes: Scaridae) in the Annexes of the Protocol on Specially Protected Areas and Wildlife in the Wider Caribbean Region of the Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region (SPAW Protocol). From the information provided by the proposal, the conclusion drawn by the authors is to warrant an Annex III listing for the group and Annex II listing for *Scarus guacamaia*, *Scarus coeruleus* and *Scarus coelestinus*.

The full document can be read under UNEP(DEPI)/CAR WG.42/INF.15.

Global assessment of the proposal

Seventeen (17) experts answered the final consultation.

All consider that the proposal follows the requirements of the guidelines and commended its quality to take a decision. The more frequent criteria quoted are: the importance of parrotfish to the protection of vulnerable coral reef ecosystems (criterion #10), effectiveness of the partial or full measures or protection taken by several SPAW parties already (criterion #6), size and population decline (criterion #1).

All experts confirm that the information presented in the proposal supported the inclusion of all parrotfishes (Perciformes: Scaridae) in Annex III of the Protocol based on the importance of parrotfish to the protection of vulnerable coral reef ecosystems (criterion #10), effectiveness of the partial or full measures or protection taken by several SPAW parties already (criterion #6), size and population decline (criterion #1). **One** expert considers a narrower Annex III proposal (e.g., excluding small parrotfish spp.) would have been more appropriate but nevertheless joins the recommendation to add all parrotfish on Annex III based on the importance of the species to maintaining vulnerable coral reef ecosystems (criterion #1) and the need to better understand the specific role of various parrotfish species and size classes in the ecosystem (criterion #1).

Concerning the larger parrotfish species (*Scarus guacamaia*, *Scarus coeruleus* and *Scarus coelestinus*):

One expert (1) (the same) considers that the proposal lacks sufficient specific data and information biology, range and decline (criterion #1) to support an Annex II listing for these species but the **sixteen (16) others** consider that the size, range and population decline, linked to the threats in the region, are very well documented to support the Annex II listing (criterion #1). In particular, the fact that the populations of all 3 species are greatly reduced from historical levels based on best available evidence (criteria #1), the

importance of the species for maintaining vulnerable ecosystems as ecologically unique large bodied bioeroders and mediators for coral recruitment (criterion #10) and effectiveness of strict measures of protection taken by some SPAW parties (criterion #6) were the most frequent rationale quoted in favor of listing in Annex II. *Scarus viride* was debated but not considered as meeting the criteria for Annex II.

Group conclusion:

Consensus : the group at unanimity strongly support **the inclusion of all parrotfishes (Perciformes: Scaridae) in Annex III of the Protocol** notably based on the importance of parrotfish to the protection of vulnerable coral reef ecosystems, effectiveness of the partial or full measures or protection taken by several SPAW parties already and size and population decline.

Almost consensus : a very large majority additionally support **the listing of the three larger parrotfish species (*Scarus guacamaia*, *Scarus coeruleus* and *Scarus coelestinus*) in Annex II** based in increase decline, vulnerability and their major and unique ecosystemic roles.

Additionally experts made a large set of management recommendations to focus on complementary to listing in annex II or III, including :

- Develop a specific task/subgroup dedicated to Parrotfish in the Species Working Group and work towards developing a **Caribbean Parrotfish Management Plan**.
- Protect and enhance existing populations by reducing negative effects from overharvesting and unsustainable fishing methods (Improve implementation and enforcement of existing regulations, protect known spawning sites for parrotfishes, ban the export of parrotfishes, evaluate the effectiveness of actions implemented).
- Improve the condition of marine habitats that parrotfish depend upon and prevent further habitat degradation (development of strategic marine managed areas, protection of *Diadema antillarum*, regeneration of seagrass beds, mangroves and coral reef habitat).
- Improve the understanding of parrotfish status by supporting fisheries-independent research on the physiology, life history, and ecology of parrotfishes (coordinate with national and regional programs, work with a local or regional stakeholders)
- Establish 'fisheries-dependent' data collection program to better record fisheries and landing data to determine the effects of fishing on parrotfish populations
- Conduct socioeconomic evaluations to understand role of parrotfish (understanding of the ecological importance of parrotfish, human use patterns, economic contribution of marine-related activities, relevance of parrotfish in fisheries, impact of COVID-19)
- Increase outreach, communication and public awareness (work with a local or regional NGOs, develop a regional platform to share educational materials, incorporate scientific and citizen science data into outreach efforts)
- Support programs to assist the transition of fishers to alternative livelihoods & strengthen education (review alternative livelihoods in the Caribbean, collaboration with regional organizations)

Reference of the proposal : UNEP(DEPI)/CAR WG.42/INF.15

TASK 3 - Address as priority the whale shark (*Rhincodon typus*) and the giant manta ray (*Manta birostris*), as well as other species deemed a priority by the STAC.

Methodology

A first meeting was organized on the 07/05/2020. This meeting allowed to distribute work among the members of the group and to evaluate priorities. From this discussion, 5 species were considered as needing

uplisting from Annex III to annex II and the drafts were build during several months by and with several experts contributions and comments.

A second meeting was organized on the 16/12/2020 with 12 participating experts to assess the status of the species, discuss remaining gaps, and requests for some internal or external contributions

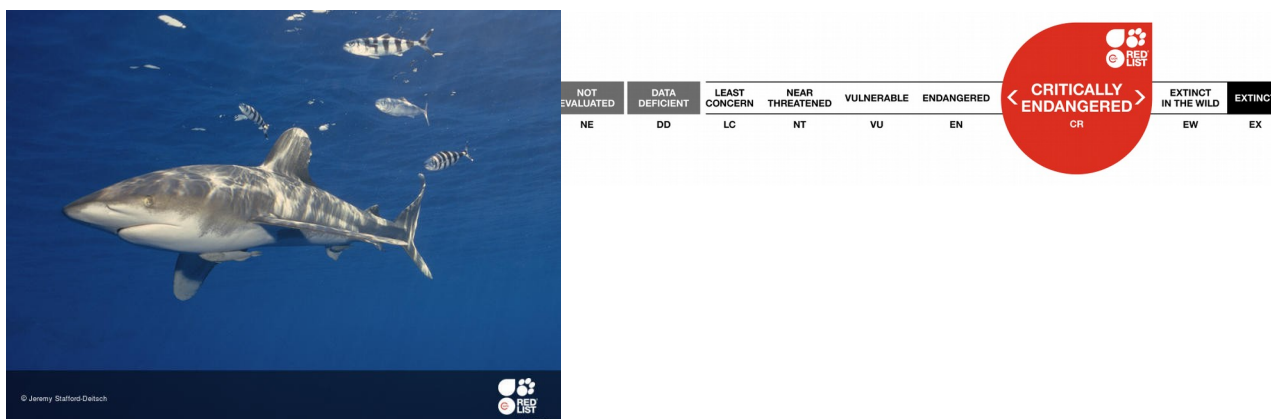
A third meeting was organized on the 27/01/2020 with 10 participating experts to reach a conclusion on potential listing in Annex II.

Finally, during the first two weeks of February, all the experts reviewed classically the proposals to make their last inputs and comments and to conclude on the uplisting in Annex II (see task 1 for the methodology).

Outcomes and highlights

The main outcome is the collaborative drafting of 5 proposals for the uplisting from Annex III to Annex II of the Oceanic whitetip shark *Carcharhinus longimanus*, the whale shark *Rhincodon typus*, Giant manta ray species *Manta birostris*, great hammerhead shark *Sphyrna mokarran*, smooth hammerhead shark *Sphyrna zygaena* in Annex II of the Protocol concerning Specially Protected Areas and Wildlife (SPAW Protocol). This comes in addition to a 6th document offering an important set of recommendations to better manage and protect sharks regionally (see task 4).

3.3.1. Oceanic whitetip shark (*Carcharhinus longimanus*)



From IUCN redlist website <https://www.iucnredlist.org/species/39374/2911619>

C. longimanus, once among the most abundant oceanic sharks, has experienced serious declines between 57% and 88% in the Atlantic and Gulf of Mexico. This species is assessed to be critically endangered in the Northwest and Western Central Atlantic. However, lack of specific data collection is hampering management for this species.

The full document can be read under UNEP(DEPI)/CAR WG.42/INF.24 addendum1.

Global assessment of the proposal

Fifteen (15) experts answered the final consultation.

All (15) consider that the proposal follows the requirements of the guidelines and some commend its quality to take a decision. The more frequent criteria quoted are: evidence of decline, conditions increasing the vulnerability of the species/ major threats, biology, size (criterion #1), IUCN assessments and trends (criterion #4), alignment with other regional or international efforts (criteria #5), effectiveness of regional and cooperative efforts on the protection and recovery for species (criteria #6).

Fourteen (14) experts conclude that the relevant criteria for inclusion in Annex II of SPAW are considered to be met and that uplisting to Annex II is warranted for oceanic whitetip shark, based on the criteria and information available in the proposal. They in particular emphasize the following grounds:

- *C. longimanus*, once among the most abundant oceanic sharks, has experienced **very serious declines between 57% and 88% in the Atlantic and Gulf of Mexico and a population decrease over 90% for the past 3 generations**. Even if there is some evidence of recovery for the Atlantic which remains to be confirmed this recovery is minimal compared to the overall collapse of the stock (criterion #1)

- they are clear evidence of **overfishing and by-catch and of vulnerability over those key threats** (criterion #1)

- The most recent IUCN assessment for the global population is that it is **critically endangered** with a population decline of 98% **Its trend is decreasing** (criterion #4).

- The species is prohibited under ICCAT, a SPAW annex 2 listing would therefore serve to align regulations + *C. longimanus* is listed in CMS Appendix I and Sharks MOU Annex 1. The species is strictly protected under CMS and shall not be taken in accordance with Article III (5) of the Convention. Appendix I of CMS lists species that are endangered. SPAW listing would align with those treaties (criterion #5)

- Importance and usefulness of regional and cooperative efforts on the protection and recovery for species: highly migratory species (criterion #6).

One expert considers that a shark species which was so common must have played a vital role in pelagic ecosystems, and that their decline has probably already had impacts (criterion #1). While precisising that if the fact to be a migratory species does not necessarily qualify it for uplisting beyond Annex III on its own (because of the global range), this combined with population decline throughout wide geographic range becomes compelling (criterion #1).

Several notice that the already existing listings seem practically ineffective, and that SPAW Annex II may lend weight to efforts to prevent extinction in the Region (criterion #5).

Moreover, the species has already been listed for regulation, its continued decline indicates more stringent measures necessary. Therefore, there is certainly enough information to justify regulation, and for uplisting for complete protection (criterion #6). Other efforts are underway to give the species necessary total protection - SPAW listing in Annex II should align with these efforts (criterion #5)

One expert joining the shared appreciation of well-documented global and regional declines, precisises that this includes the Gulf of Mexico (part of the WCR) (criterion #1), and reminds that the species is threatened listed under the US Endangered Species Act. She points potentially biologically-important breeding area in Haiti (see: work of Haiti Ocean Project/Dr. Mark Bond) and scientific acknowledgment of the vulnerability of this species (criterion #1).

Several experts invoke precautionary principle (criterion #2) but finally few of them as most of them considered they are definitively enough certainty, evidence and criteria met to fully support listing in Annex II.

One (1) expert considers Annex II listing is not justified. The proposal contains incomplete or outdated information in some areas. There is no information about population size, and no evidence of restrictions on its range of distribution or population fragmentation (criteria #1). She considers that there is evidence that the population has stabilized and possibly increased in recent years in the Northwest Atlantic, which includes the Wider Caribbean and Gulf of Mexico (Young *et al.*, 2017; Young and Carlson, 2020). This is clearly not supported by the other experts, considering that it concerns only a small range of the Caribbean (US range) and that the more larger trends including in the Caribbean take precedence. Also restrictions on range of distribution and population fragmentation are not criteria necessarily relevant to a highly migratory species.

Group conclusion:

Almost consensus: all experts but one consider the species meets **key criteria** and that it is of greatest importance to uplist the Oceanic whitetip shark (*Carcharhinus longimanus*) from Annex III to Annex II of the SPAW Protocol notably because of evidence of drastic decline, the most recent IUCN assessment for the global population that is Critically Endangered and the necessity to fully protect the species.

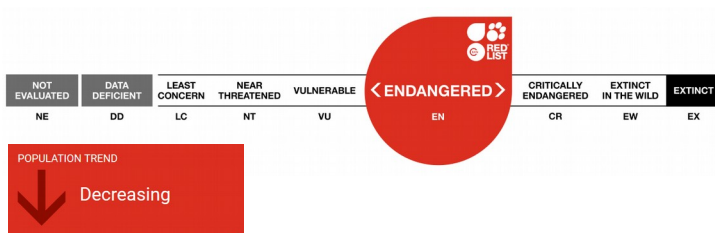
All emphasize that Parties must focus on improving national and regional management and facilitating collaboration between states.

Experts also recommended to:

- Gather basic data needed to understand the life history, habitat utilization and migration patterns of this species.
- Alignment of policy between areas to improve the effective management of this species.

Reference of the final document: Proposal for the uplisting of Oceanic whitetip shark *Carcharhinus longimanus* from Annex II to Annex III of the Protocol concerning Specially Protected Areas and Wildlife (SPAW Protocol)- UNEP(DEPI)/CAR WG.42/INF.24 addendum 1

3.3.2. Whale shark (*Rhincodon typus*)



From ICN redlist website <https://www.iucnredlist.org/species/19488/2365291>

Whale sharks are distributed circum-tropically. Important aggregation sites have been reported in the Atlantic indicating these may be critical sites for whale shark sub-populations. Overall, the global whale shark population was inferred to have declined by $\geq 50\%$ over the last three generations (75 years), resulting in an Endangered listing on the IUCN Red List. In addition to the decline in abundance, a decline in mean total length was also reported from a number of locations. The whale shark is hunted for its fins and meat. Moreover, tourism activities increase the risk of vessel strikes and local disturbance.

The full document can be read under UNEP(DEPI)/CAR WG.42/INF.24 addendum 2

Global assessment of the proposal

Sixteen (16) experts answered the final consultation.

All consider that the proposal follow the requirements of the guidelines and some commend its quality to take a decision. The more frequent criteria quoted are: evidence of decline, conditions increasing the vulnerability of the species/ major threats, biology, size (criterion #1), when indication that the species is

threatened or endangered, the lack of full scientific certainty can't be evoked to prevent listing (criterion #2), IUCN assessments and trends (criterion #4), alignment with other regional or international efforts (criteria #5), effectiveness of regional and cooperative efforts on the protection and recovery for species (criteria #6).

Fifteen (15) experts conclude that the relevant criteria for inclusion in Annex II of SPAW are considered to be met and that uplisting to Annex II is warranted for the whale shark, based on the criteria and information available in the proposal. They in particular emphasize the following grounds:

- **There is clear evidence of global decline with a population decline over 50% for the past 3 generations/ 75 years.** That species is extremely vulnerable to any threat and in particular anthropogenic sources of mortality because of their slow growth, longevity, and delayed maturation (K life history). They are also vulnerable to habitat damage because they exhibit site fidelity to feeding and possibly to pupping and mating grounds (criterion #1).

- The most recent IUCN assessment for the global population is that it is Endangered, the regional assessment from 2012 classifies it as Vulnerable though stipulates that this is not based on regional modelling but aligned to what was then the global assessment. As the global assessment has been updated to EN we should assume this would apply to the Caribbean region too (criterion #4).

- *R. typus* is listed in CMS Appendix I and II and Sharks MOU Annex 1. The species is strictly protected under CMS and shall not be taken in accordance with Article III (5) of the Convention. SPAW annex 2 listing should align both treaties (criterion #5)

- It is a highly migratory species which justifies the importance and **usefulness of regional and cooperative efforts on the protection and recovery of the whale shark** (criterion #6). Over their lifetimes, adult whale sharks migrate away from coastal areas and live, almost exclusively, in off-shelf oceanic habitats. They exhibit site fidelity to feeding and possibly to pupping and mating grounds. Annex II listing will prevent opportunistic catch and increase efforts by parties to protect habitats.

One expert precises that a recent global threat prioritization exercise for whale sharks (Rowat et al. 2021) identified shipping traffic to be the primary contemporary threat to their global population, with the Gulf of Mexico explicitly noted as a high-risk area. A provisional IUCN Green Status assessment for whale sharks estimated **the species' current Species Recovery Score to be only 29% of a possible 100% in a pre-impact population.**

Another expert points out the importance of **the western Caribbean as a potential breeding ground, the threat from the international commercial gill rake trade, increasing bycatch in gillnet fisheries (criteria #1 and #5) and vulnerable status in the Gulf of Mexico (part of the WCR) (criteria #1 and #4).**

Twice it is noticed that whale sharks have shown signs of decline in areas where they were formerly much more common e.g. Belize where for instance at Gladden Spit in Belize, whale shark sightings declined from a mean of 4- to 6 sharks per day between 1998 and 2001 to less than 2 per day in 2003 (Graham and Roberts 2007); Belize has now a full protection of whale sharks.

Many experts insist that while the data needed may not be there, it is normal considering the limited scientific research on local population levels especially for such a rare and difficult to study species like the whale shark. Thus **most** insist that the lack of data and lack full scientific certainty can't be evoked to prevent the listing of the species and can't be a barrier to implementing effective management and commitments (criterion #2).

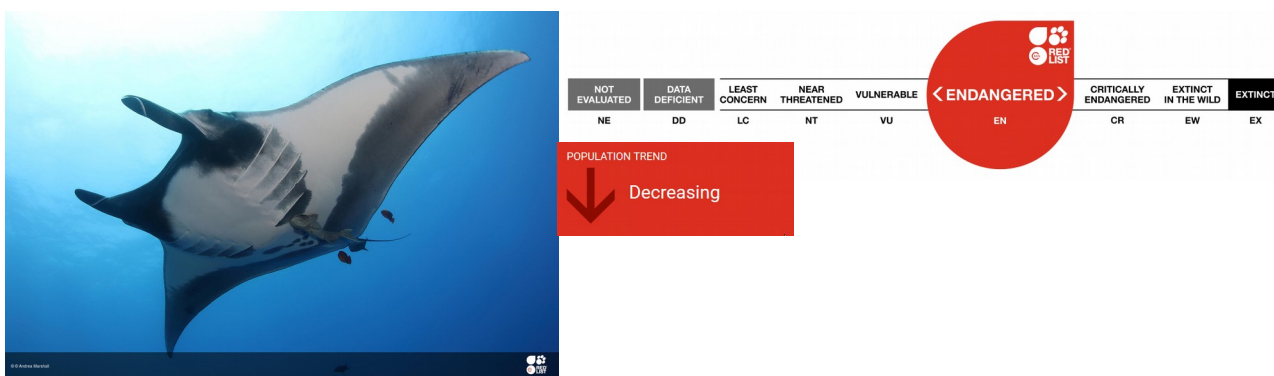
One (1) expert consider Annex II listing is not justified. She consider that there is lack of data/evidence supporting a conclusion that the species is in decline globally and within the Caribbean region (criteria #1). There is limited information about population size, and no evidence of restrictions on its range of distribution or population fragmentation (criteria #1).The amount of data/evidence available at this time is insufficient to warrant a precautionary approach (criteria #2).

Group conclusion:

Almost consensus : All experts but one consider the species meets **key criteria and** recommend to the STAC the full protection of Whale shark (*Rhincodon typus*) and thus its uplisting from Annex III to Annex II, considering it crucial according to the current trends, scientific acknowledgement of global decline, increased vulnerability to threats and the Endangered status (IUCN) of the species.

Reference of the final document: Proposal for the uplisting of the whale shark *Rhincodon typus* from Annex III to Annex II of the Protocol concerning Specially Protected Areas and Wildlife (SPAW Protocol) UNEP(DEPI)/CAR WG.42/INF.24 addendum 2

3.3.3. Giant manta ray (*Manta birostris*)



IUCN redlist website <https://www.iucnredlist.org/species/198921/68632946>

The Giant manta is a highly migratory species that lives mainly in pelagic ecosystems. *M. birostris* is considered highly susceptible to anthropogenic threats. Being a migratory pelagic species that is often observed feeding near the surface; mantas are highly susceptible to direct, by-catch fishing incidents or indirect fishing activities. To aggravate the threats related to fishing, this species has a very conservative life history with an extremely low reproductive output (one pup per litter) and suffers from their habitats destruction and pollution.

Many communities around the world depend on these animals in an economic and cultural way, and there are specific sites where locals depend on diving tourism (based mostly on manta rays).

The full document can be read under UNEP(DEPI)/CAR WG.42/INF.24 addendum 3

Global assessment of the proposal

Fifteen (15) experts answered the final consultation.

All consider that the proposal follows the requirements of the guidelines and some commend its quality to take a decision. The more frequent criteria quoted are: evidence of decline, conditions increasing the vulnerability of the species/ major threats, biology, size (criterion #1), when indication that the species is

threatened or endangered, the lack of full scientific certainty can't be evoked to prevent listing (criterion #2), IUCN assessments and trends (criterion #4), alignment with other regional or international efforts (criteria #5), effectiveness of regional and cooperative efforts on the protection and recovery for species (criteria #6)

Fourteen (14) experts conclude that the relevant criteria for inclusion in Annex II of SPAW are considered to be met and that uplisting to Annex II is warranted for the giant Manta Ray, based on the criteria and information available in the proposal. They in particular emphasize the following grounds:

- There is clear evidence of global decline with a population decrease over 70- 80 % for the past 3 generations/ Giant manta rays have suffered rapid local declines that range from 71 to 95% declines over 13- to 21-year periods (all less than one generation length of 29 years). Furthermore, as the whale shark, the species is characterized by a K life history, low reproductive output and thus low resilience to anthropogenic impact. They are long-lived with late maturation, low fecundity, and long periods of gestation increase the vulnerability of the species (criterion # 1).

- The most recent IUCN assessment for the global population is that it is Endangered, the regional assessment from 2012 classifies it as Vulnerable though stipulates that this is not based on regional modelling but aligned to what was then the global assessment. As the global assessment has been updated to EN this apply to the Caribbean region too (criterion #4).

- *M. birostris* is listed in CMS Appendix I and II and Sharks MOU Annex 1. The species is strictly protected under CMS and shall not be taken in accordance with Article III (5) of the Convention. The species is listed on CMS appendix I (full protection). SPAW annex 2 listing would align both treaties (criterion #5).

- It is a highly migratory species which justifies the importance **and usefulness of regional and cooperative efforts on the protection and recovery of the whale shark** (criterion #6), all the more there is a high market demand in Asian markets and that this demand has grown in recent years.

Some experts in particular insists on the incidence of illegal market all over the world mostly to export *Manta* and *Mobula* parts (criteria #1 and #5). They precise that Indo-Pacific demand gives enough reason to be proactive and precautionary in presuming that Caribbean specimens could be threatened now or in future (criterion #2).

One (1) expert points out that the relatively small size of subpopulations of giant manta rays and the global evidence of decline up to 80% (criterion #1), the intensification of fishing pressures, ongoing and significant international commercial trade in gill rakes, susceptibility as bycatch in fisheries (criteria #1 and #5), and 'threatened' listing under the US Endangered Species Act (criteria #5).

Many experts insist that while the data needed may not be there, it is normal considering the limited scientific research on local population levels especially for such a rare and difficult to study species like the whale shark. Thus **most** insist that the lack of data and lack full scientific certainty can't be evoked to prevent the listing of the species and can't be a barrier to implementing effective management and commitments (criterion #2). Rapid decline over past two decades merits highest form of protection, not just regulation.

One point out the interest for the protection of migratory corridors, critical habitat and areas of congregation (criterion #10)

One (1) expert consider Annex II listing is not justified. There is lack of information about population size, population dynamics, and species status and identified threats in the Caribbean (criteria #1). The amount of data/evidence available at this time is insufficient to warrant a precautionary approach (criteria #2).

Group conclusion:

Almost consensus : All experts but one consider the species meets **key criteria and** recommend to the STAC the full protection of Giant Manta Ray (*Manta birostris*) and thus its uplisting from Annex III to

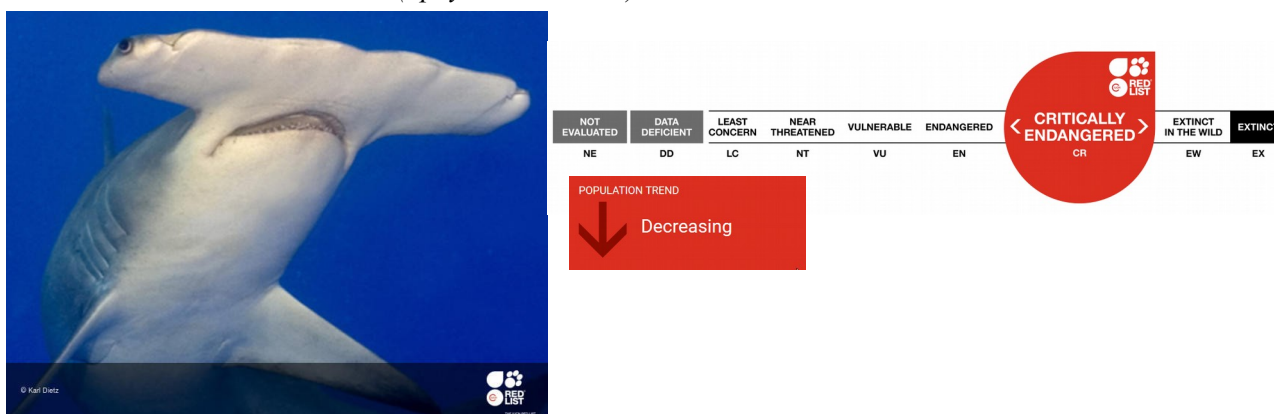
Annex II, considering it crucial according to scientific acknowledgement of global decline, very high vulnerability to threats and the Endangered most recent IUCN assessment.

Experts also recommended to:

- Better manage the tourism industry
- Regulate extractive activity (fisheries...)
- Conduct further research to quantify the level of directed and undirected fisheries on the species.

Reference of the final document: Proposal for the uplisting of the Giant manta ray *Manta birostris* from Annex III to Annex II of the Protocol concerning Specially Protected Areas and Wildlife (SPA Protocol) (UNEP(DEPI)/CAR WG.42/INF.24 addendum 3)

3.3.4. Great hammerhead shark (*Sphyrna mokarran*)



From IUCN redlist website <https://www.iucnredlist.org/species/39386/2920499>

Great hammerhead shark populations are threatened by the destruction and modification of their habitats and ranges, the over utilization of the species for commercial purposes, a high propensity for contaminate (mercury and arsenic) absorption, and the lack of adequate regulatory mechanisms. In particular, great hammerhead shark populations have suffered tremendous commercial fishing pressure from both target and bycatch fisheries. In addition to extremely high bycatch mortality in incidental fisheries (greater than 90%), great hammerheads are also targeted for their characteristic large fins, which are prized in Asian seafood markets.

The full document can be read under UNEP(DEPI)/CAR WG.42/INF.24 addendum 4

Global assessment of the proposal

Fourteen (14) experts answered the final consultation.

All consider that the proposal follows the requirements of the guidelines and some commend its quality to take a decision. The more frequent criteria quoted are: evidence of decline, conditions increasing the vulnerability of the species/ major threats, biology, size (criterion #1), when indication that the species is threatened or endangered, the lack of full scientific certainty can't be evoked to prevent listing (criterion #2), IUCN assessments and trends (criterion #4), alignment with other regional or international efforts (criteria #5), effectiveness of regional and cooperative efforts on the protection and recovery for species (criteria #6).

Ten (10) experts conclude that the relevant criteria for inclusion in Annex II of SPAW are considered to be met and that uplisting to Annex II is warranted for the Great hammerhead shark, based on the criteria and information available in the proposal. They in particular emphasize the following grounds:

- There is clear evidence of decline with a population decrease over 80% for the past 3 generations, even though there is some evidence of recovery for the Atlantic this recovery is minimal compared to the overall collapse of the stock and it does not apply necessarily to the Caribbean. The species has a K selection strategy, it has suffered an extreme decline and strong anthropogenic impacts. It is also an important top predator (criterion #1). It is very vulnerable to target of trade for fins and is regularly misidentified or identified only to genus in fisheries (criterion #1 and #5).

- The most recent IUCN assessment for the global population is that it is Critically Endangered, the regional assessment from 2012 classifies it as Endangered (criterion #4)

- **The species is prohibited under ICCAT, a SPAW annex 2 listing would therefore serve to align regulations (criteria #5 and #6).**

Several experts precise that even though there are some population increases in part of its range (e.g., north), population increases have not been documented throughout its range in the Caribbean and thus larger trends prevail (see above) (criterion #1).

Several experts invoke precautionary principle (criterion #2) and remind that, considering the status and type of highly migratory species, the lack of data and lack of full scientific certainty can't be evoked to prevent the listing of the species. One in particular strengthens that considering decline up to 80% for the Giant Hammerhead shark and significant decline for all hammerhead shark species (criterion #1 and #8), 'critically endangered' status under the IUCN, and intensified pressure on all shark populations due to the commercial trade in shark fins (criteria #1 and #5), the urgent need to protect the great hammerhead shark must be acknowledged by governments and listing align with other treaties (criteria #5 and #6). One strongly emphasizes that an unequivocal statement of concern for the species and commitment towards population rebuilding strategies, as well as provide support for the Caribbean nations already protecting their shark (criterion #6).

Three (3) experts consider that Annex II listing is not justified. For one, there is lack of data/evidence supporting a conclusion that the species is in decline globally and within the Caribbean region (criterion #1). There is no information about population size, restrictions on its range of distribution, or population fragmentation (criterion #1). The amount of data/evidence available at this time is insufficient to warrant a precautionary approach (criteria #2). For another, listing is not warranted considering that there is evidence of successful national-level management strategies (US range) and that data show that the great hammerhead has increased in the West Atlantic demonstrating that management measures could work (criteria #3). She precise it makes also sense to keep all hammerheads on the same Annex (this rationale is not shared as other consider that on the contrary misidentification caused by species of similar appearance would be a good reason to uplist all species of hammerhead in Annex II).

One (1) expert is undecided being sensitive to rationale in both directions

Group conclusion:

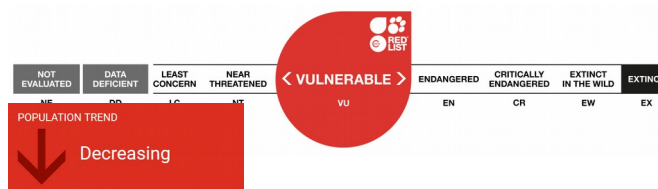
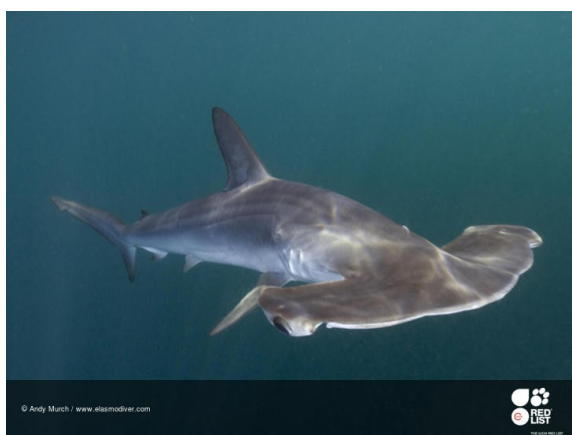
A clear majority (10 out of 13 expressed opinions) but no consensus : according to most experts, it is of great importance to list the species in the Annex II of the SPAW Protocol considering the species meets **key criteria** and also based on the fact they consider evidence of recovery for the Atlantic population are not significant compared to their global collapse and secondly considering the most recent IUCN assessment for the global population evaluated as Critically Endangered.

Experts also recommended to:

- Tailor spatial protection to the biology of large pelagic fishes, including improved protection for aggregation sites and migration corridors.
- Further implement measures that are associated with a substantially higher relative abundance of sharks such as shark sanctuaries, closed areas, catch limits and an absence of gillnets and longlines
- Forbid their catch in the US waters, which would protect over 90% of their core habitat.
- Implement proactive, precautionary policy decisions that engage key socio-economic aspects of tropical fisheries.

Reference of the final document: Proposal for the uplisting of the great hammerhead shark *Sphyrna mokarran* from Annex III to Annex II of the Protocol concerning Specially Protected Areas and Wildlife (SPAW Protocol) (UNEP(DEPI)/CAR WG.42/INF.24 addendum 4)

3.3.5. Smooth hammerhead shark (*Sphyrna zygaena*)



From IUCN redlist website <https://www.iucnredlist.org/species/39388/2921825>

Sphyrna zygaena is a large species of hammerhead shark. Species-specific data on hammerhead sharks are lacking, making trend analyses on a species-level inaccurate. However, based on the results of the cited studies above, it is likely that populations of hammerhead sharks, as a group, have declined.

The full document can be read under UNEP(DEPI)/CAR WG.42/INF.24 addendum 4

Global assessment of the proposal

Fourteen (14) experts answered the final consultation.

All consider that the proposal follows the requirements of the guidelines and some commend its quality to take a decision. The more frequent criteria quoted are: evidence of decline, conditions increasing the vulnerability of the species/ major threats, biology, size (criterion #1), when indication that the species is threatened or endangered, the lack of full scientific certainty can't be evoked to prevent listing (criterion #2), IUCN assessments and trends (criterion #4), alignment with other regional or international efforts (criteria #5), effectiveness of regional and cooperative efforts on the protection and recovery for species (criteria #6) and addressing problems of misidentification caused by species of similar appearance (criteria #8).

Eight (8) experts conclude that the relevant criteria for inclusion in Annex II of SPAW are considered to be met and that uplisting to Annex II is warranted for the giant Manta Ray, based on the criteria and information available in the proposal. Despite the lack of some information, they consider is enough information provided in this proposal and support the proposal based on the following ground :

- The species has suffered an extreme decline evaluated above 90% according to exploratory assessments. It is also a slow growing species, presumably vulnerable to anthropogenic impact (criterion #1). It is very vulnerable to target of trade for fins (criteria #1 and #5).
- Second, the IUCN status is vulnerable and the trend decreasing (criterion #4)
- It has been listed in CITES Appendix II (criterion #5).
- In addition, because it is misidentified with *S. mokarran* and it is very vulnerable to target of trade for fins, similar to *S. mokarran*, uplisting is coherent with the Great Hammerhead shark proposal and criterion #8.

Rationales are mostly the same as for the great hammerhead shark for most of the criteria. Some experts recommend to uplist hammerhead sharks as a taxonomic group (criterion #8). One strongly emphasizes that an unequivocal statement of concern for the species and commitment towards population rebuilding strategies, as well as provide support for the Caribbean nations already protecting their shark (criteria #5 and #6).

Six (6) experts consider that Annex II listing is not justified. One considers there is **lack of data/evidence** supporting a conclusion that the species is in decline globally and within the Caribbean region (criteria #1). There is no information about population size, restrictions on its range of distribution, or population fragmentation (criteria #1). The amount of data/evidence available at this time is insufficient to warrant a precautionary approach (criteria #1 versus criteria #2). Two others suggest that **Parties adhere to a stricter protocol to manage under Annex III**. Among the two, one precises it makes also sense to keep all hammerheads on the same Annex (see great hammerhead rationale) (criteria #8). Two experts finally evoke that **the Caribbean is at the edge of its range** so protection under SPAW doesn't have that much effect in helping the species (criterion #1). **They modulated by emphasizing that uplisting would be to 1) align with ICCAT retention van and 2) because it is a look-a-like for great hammerhead** (which bring back to criteria met by the species)

Group conclusion:

Almost half/half : according to some experts (8), uplisting is warranted considering significant decline for all hammerhead shark species, 'vulnerable' status under the IUCN, and intensified pressure due to the commercial trade in shark fins. The addition to SPAW Annex II would impose stronger conservation measures of various Caribbean nations and could also allow to cope with field misidentifications if the whole taxonomic unit is uplisted. However, according to other experts (6), smooth hammerhead sharks are rarely observed in the Greater Caribbean region. There is not enough information in the proposal about population size, restrictions on its range of distribution, or population fragmentation. In addition,

management strategies already implemented seem to show good results so far (US Range). Thus, there is not enough reason to propose this species to be uplisted from Annex III to Annex II.

Experts also recommended to:

- List the species on international resource management agreements to improve national and regional management and facilitate collaboration between states for this species
- Improve data collection in view of scientific monitoring of the species (better understand the life-history, habitat utilization and migration patterns of this species)
- Implement measures aimed at reducing unwanted mortality such as avoidance measures, gear adaptations that lead to reduced bycatches of this species etc...

Reference of the final document: Proposal for the uplisting of the smooth hammerhead shark *Sphyrna zygaena* from Annex III to Annex II of the Protocol concerning Specially Protected Areas and Wildlife (SPAW Protocol) (UNEP(DEPI)/CAR WG.42/INF.24 addendum 5).

TASK 4 -Develop priorities and strategies for regional collaboration on and implementation of management measures to improve protection of species listed under the Annexes of the Protocol ; including review of the current listing.

Methodology

A first meeting was organized on the 29/04/2020. This meeting allowed to identify active leaders for each sub-task. From this discussion, a first version of the Nassau Grouper proposal was uploaded on Teamwork by Angela Somma on the 10/07/2020 for a series of reviews, carried out by the experts through collaborating online tools. Furthermore, first versions of the sawfish and sea turtles proposals were uploaded on Teamwork by Olga Koubrak and Julia Horrocks on the 20/06/2020. The experts had several months to review the documents. They made comments and additions that were incorporated into the latest versions.

A second meeting was organized on the 15/12/2020 with 10 participating experts to discuss further steps and finalization of the proposals. A meeting report was drafted and downloaded on google drive so that it could be reviewed by experts.

The proposals were reviewed by all experts and their final version was redacted at the end of January to be submitted to focal points during the STAC.

Outcomes and highlights

The main outcome was the collaborative drafting of 4 online documents:

- Recommendations for the protection and recovery of the Caribbean sea turtles (UNEP(DEPI)CAR WG.42-INF.39).
- Recommendations for preventing sawfish extinction (UNEP(DEPI)CAR WG.42-INF.25)
- Recommendation for an effective management of sharks and rays listed in the SPAW annexes (UNEP(DEPI)CAR WG.42-INF.24)
- Recommendations for protection and conservation of Nassau Grouper (UNEP(DEPI)CAR WG.42-INF.38)

3.4.1. Protection and recovery of the Caribbean sea turtles

Six species of sea turtles, green (*Chelonia mydas*), hawksbill (*Eretmochelys imbricata*), loggerhead (*Caretta caretta*), leatherback (*Dermochelys coriacea*), olive ridley (*Lepidochelys olivacea*) and Kemp's ridley

(*Lepidochelys kempii*), have been listed on Annex II of the SPAW Protocol since the Protocol came into force in 2000. However, some SPAW Parties are still allowing sea turtle harvest despite their Annex II listing and/or are not managing their turtle fisheries using biologically meaningful criteria. Lack of enforcement has been noted as an issue in many SPAW Parties. Bycatch in nearshore fisheries also contributes to the lack of recovery of Caribbean sea turtles, and is thought to be a major factor in the decline in the North West Atlantic leatherback population.

Recommendations:

- Encourage compliance with the SPAW Protocol (information paper on the exploitation of sea turtle populations, dialogue with non-compliant Parties)
- Compile information on the type of nearshore fisheries and develop a strategy to address bycatch in these fisheries
- Coordinate with the Inter-American Sea Turtle Convention (IAC) to develop a cooperative mechanism to facilitate implementation of the recommendations
- Create a working group of country representatives and sea turtle experts to compile information on the type of nearshore fisheries for each country and any existing sea turtle protection measures for those fisheries
- Request that Parties with indigenous harvest under Article 14 of the SPAW Protocol, provide information on these activities
- Develop and administer a questionnaire to SPAW Parties and observers looking at issues around national level enforcement to help identify gaps and barriers to effective enforcement.
- Support Parties in developing, reviewing, and/or updating their Sea Turtle Recovery Action Plans
- Ensure that future SPAW Parties that harvest sea turtles indicate how they will comply with the Protocol, including legal protections that will be provided to sea turtles, under Article 10.

Reference of the final document: Recommendations for the protection and recovery of the Caribbean sea turtles (UNEP(DEPI)CAR WG.42-INF.39)

*3.4.2. Protection and recovery of smalltooth sawfish (*Pristis pectinata*) and largetooth sawfish (*Pristis pristis*) in the wider Caribbean region*

SPAW Annex II-listed smalltooth sawfish and largetooth sawfish are two of the Caribbean's most threatened animals. Once widespread throughout the region, both species are now classified by the International Union for the Conservation of Nature (IUCN) as Critically Endangered. Fishing is the main threat; degradation of key habitats also jeopardizes sawfish survival.

Five SPAW countries are considered priorities for sawfish research and/or improved policy: the Bahamas, Colombia, Cuba, Honduras, and Panama. However, the review shows that three of those priority countries do not have dedicated laws protecting sawfish. In the two countries that do have sawfish - related laws, there is ambiguity whether incidental or intentional killing of the animal is prohibited. None of the countries have laws supporting an obligation to release sawfish with minimal harm if incidentally caught.

Recommendations include:

- National regulations to explicitly and specifically prohibit sawfish fishing, killing, retention, sale, and trade, particularly in Panama, Honduras, and Colombia;
- Bahamas national regulations to explicitly and specifically prohibit sawfish fishing, killing, retention, and domestic sale;

- Education and enforcement programs
- Fishery management measures
- Research and protections for critical sawfish habitats, particularly mangroves, throughout the region;
- A Regional Plan of Action for sawfish Recovery to raise the species' profile and facilitate alignment, cooperation, information sharing, and capacity building among SPAW Parties.
- A specific task/subgroup dedicated to Sawfish in the Species Working Group

Reference of the final document: Recommendations for preventing sawfish extinction (UNEP(DEPI)CAR WG.42-INF.25)

3.4.3. Protection and conservation of Nassau Grouper (*Epinephelus striatus*) in the wider Caribbean region

Collaborative drafting of a online document: “Recommendations for protection and conservation of Nassau Grouper”

The Nassau Grouper (*Epinephelus striatus*) was once a species of considerable commercial significance to the Caribbean region, but over the last couple of decades, populations have declined by more than 60% due to overfishing. Species that aggregate to spawn such as the Nassau Grouper are particularly vulnerable to overexploitation due to their dispersal and migratory nature beyond national borders. As a higher level predator, the Nassau Grouper is ecologically important to reef ecosystems and also plays a crucial role in food security and sustaining the livelihoods for many countries of the Wider Caribbean Region.

Recommendations include:

- Coordination and Cooperation with Regional Fisheries Bodies (WECAFC, OSPESCA, CRFM, CFMC and CITES)
- Communication and Capacity Building (website platform through the CEP/SPAW Regional Activity Centre, communication campaign on the potential regionally agreed closed areas and season, report card to track and report Fish Spawning Aggregations)
- Linkages with the Caribbean Marine Protected Areas Managers Network and Forum (CaMPAM) under SPAW
- A specific task dedicated to Nassau Grouper in the SPAW Species WG could be established to facilitate implementation of these recommendations and to enhance coordination with regional fisheries bodies such as WECAFC.

Reference of the final document: Recommendations for conserving Nassau Grouper (UNEP(DEPI)CAR WG.42-INF.38)

3.4.4 Effective management of sharks and rays

Nine species of sharks and rays are currently listed on Annex III of the SPAW Protocol: oceanic whitetip shark (*Carcharhinus longimanus*), silky shark (*Carcharhinus falciformis*), whale shark (*Rhincodon typus*), scalloped hammerhead shark (*Sphyrna lewini*), great hammerhead shark (*Sphyrna mokarran*), smooth hammerhead shark (*Sphyrna zygaena*), reef manta ray (*Manta alfredi*), giant manta ray (*Manta birostris*), and “Atlantic manta ray” (*Manta sp. cf. birostris*). As a result, parties shall adopt appropriate measures to ensure the protection and recovery of these species and may regulate the use of such species in order to ensure and maintain their populations at the highest possible levels (Art. 11(1)(c) of the SPAW Protocol).

These species are also managed through regional fisheries management organizations: the International Convention for the Conservation of Atlantic Tuna (ICCAT), the Western Central Atlantic Fisheries Commission (WECAFC) dedicated solely to the Wider Caribbean region, the Convention In Trade of Endangered Species (CITES) and the CMS Sharks MOU, a specialized agreement under CMS for the

conservation of migratory sharks and rays. More than half of SPAW Parties are either members or cooperating non-members of ICCAT. All SPAW Parties are members of WECAFC and CITES Parties. All Annex III sharks and rays are listed on Appendix II of the Convention In Trade of Endangered Species (CITES). In addition, seven SPAW Parties are also Parties to CMS[A1] and four Parties have signed the CMS Sharks MOU.

Recommendations include:

- Implement national legislation for the sustainable management of each of the 9 species in their waters in line with article 11(1)c of the protocol and report back to the SPAW STAC on progress in implementation on an annual basis.
- Participate in the WECAFC/CITES/OSPESCA/CRFM/CFMC Working Group on Shark Conservation and Management.
- Adopt precautionary catch limits for all shark and ray species listed on Annex III of the SPAW Protocol
- Prohibit the removal of shark fins at sea and require that all sharks be landed with their fins naturally attached
- Comply with the CITES and CMS requirements (for SPAW Parties that are also Parties to CMS)
- Implement data collection on shark and ray (by)catches, to set up a fisheries independent monitoring system and to develop outreach and education materials in collaboration with shark and ray experts
- Eliminate harmful fisheries subsidies
- End illegal, unreported, and unregulated (IUU) fishing and destructive fishing practices
- Prevent accidental bycatch of sharks and rays in fisheries
- Improve data collection and identification (conduct research into nearshore critical habitats and bycatch, develop outreach and education materials, increase the capacity to monitor commercial fishing fleet, review available species identification tools)
- Review the management of the species listed on annex III on a biennial basis to assess the extent in which the recommendations for sustainable management were followed
- Cooperate with CMS and the CMS Sharks MOU on the conservation of sharks and rays in the region

Reference of the final document include: Effective management of sharks and rays (UNEP(DEPI)CAR WG.42-INF.24)

TASK 6 - Marine mammals related questions and requests

Methodology

Three meetings were organized in 2020 on April 21, Jun 29 and October 8. They resulted in the collaborative drafting of a document: “Toolkit for implementing marine mammal watching guidelines in the WCR” and on the review of 2 documents: the “Scientific and technical analysis of the marine mammal action plan” and the updated list of cetaceans found in the Annex II of SPAW protocol. In total, 12 experts attended the meetings: J. Horrocks (Barbados), P. Hoetjes & A.-M. Svoboda (Netherlands), M. Casilla (Dominican Republic), N. Young (USA), G. Mannaerts & J. Vermot (France), S. Millward, P. Kramer, T. Stoffers (Observers), C. Vails & M. Borobia (consultants for the SPAW-RAC).

Outcomes and highlights

Sub-task 6.1: “Toolkit for implementing marine mammal watching guidelines in the WCR”

This task was discussed during the 3 meetings dedicated to marine mammals so the 12 experts contributed to these discussions. A significant amount of work was also performed on online collaborative documents and most experts also contributed to this work.

Starting from requests from the last STAC and in particular the implementation of the CARI'MAM work package 4 dedicated to sustainable and wildlife-friendly commercial whale watching (including development of a label on the long-term), ways to support the development of a sustainable activity were discussed during the three meetings of the species working group dedicated to marine mammals.

During the meetings, two different options came out :

- Several experts expressed their interest for developing a certification that should encourage, through economic incentive, better adoption of the guidelines. This idea was also supported by most CARI'MAM members (whale-watching operators and marine protected areas managers). Some countries also expressed interest in the project during the last STAC when it was presented including Dominican Republic that became involved in the Cari'Mam project.
- Two experts expressed concerns about prioritization. They explained that several attempts to implement a binding set of rules have failed in the US, even in the places where implementation resources looked sufficient. On the contrary, they pointed out that lots of voluntary schemes function in the country. They were concerned that a certification project would be too premature in the region, potentially difficult to implement and resource-intensive to operate and monitor and that we first need a greater adoption and implementation of UNEP/SPAW guidelines by the countries. Three experts recommended prioritizing the implementation of awareness and capacity building tools (education, outreach, capacity building, networking..) to encourage and facilitate the use of the guidelines drafted by UNEP in 2011.

As a result, it was decided to draft two documents:

- a working group document, named "Toolkit for implementing marine mammal watching guidelines in the WCR", presenting the various non binding tools that could be developed to encourage the implementation of the guidelines;
- a document under the framework of CARI'MAM and SPAW-RAC sole responsibility, on the development of a regional certification, and incorporating suggestions from willing experts but also other feedback and demands from the regional networks/ countries/ fields practitioners about such a tool.

Regarding the certification, experts of the working group made the following recommendations:

- Compile what has been done elsewhere to regulate whale-watching activities. In particular, develop contacts with the IWC, cooperate with the IWC Scientific Committee whale watching working group for advice.
- Take example on the Mediteranean and the successful and on the long-term (14 years) development of a certification by ACCOBAMS.
- Add in the group Gianna Minton (author of IWC ww handbook and ACCOBAMS certification process).
- Focus first on the sanctuaries and MPAs to test the certification implementation.
- Create a certification with several levels / grades in requirements, depending on the impact/importance of the WW industry in the country and the resources of the territory.

References of the final documents:

- Toolkit for implementing marine mammal watching guidelines in the WCR (UNEP(DEPI)/CAR WG 42/INF.32);
- Recommendations to support sustainable marine mammals watching in the wider Caribbean region (UNEP(DEPI)/CAR WG 42/INF.31)
- Recommendations for a regional certification for a sustainable commercial marine mammal observation activity in the wider Caribbean Region (UNEP(DEPI)/CAR WG 42/INF.31-Addendum 1)

3.5.2. *Sub-task 6.2: contribute to the 2008 Marine Mammal Action Plan (MMAP) update to be drafted by SPAW-RAC.*

During the first marine mammal meeting (April 2020), the experts were informed that a scientific and technical analysis of the 2008 SPAW marine mammal action plan was being drafted in the frame of Cari'mam and that they will be asked to review the document as soon as it will be available. During the second meeting (Jun 2020), the consultants in charge of the work, presented the methodology used and the work in progress. The document was presented to the experts during meeting 3 (October 2020) by the consultants and the CAR-SPAW.

All experts agreed that it is a major piece of work with a good global structure and qualitative informations. Experts also asked for an extension to review the document. After consultation of the consultants' calendar, it was decided to extend the review deadline to the end of October.

The consultant reviewed the document according to experts suggestions and the final version of the document was made available in early January.

References of the final documents:

Implementation of the Action Plan for the Conservation of Marine Mammals (MMAP) in the Wider Caribbean: A Scientific and Technical Analysis (UNEP(DEPI)/CAR WG 42/INF.29-Addendum 1)

3.5.3. *Sub-task 6.3: explicit the list of cetaceans species listed as "All spp" to Annex II of SPAW protocol*

During the last STAC, contracting parties suggested that SPAW RAC identifies all species listed as entire groups under the Protocol and present comprehensive lists for the next STAC such as the species included under the group of corals and marine mammals. Indeed "all cetacea (spp)" species fall under the protection of the Annex II of the SPAW protocol but for the moment some cetacean species occurring in the region are missing on the existing indicative list of cetacea species, though still benefiting from the protocol protection.

Recommendations:

- Two cetacean species need to be added to the list of Cetaceans: *Sotalia guianensis* and *Inia geoffrensis*. Some experts also asked to add *Delphinus capensis*, but as it is now considered to be the same species as *Delphinus delphis*, it was not added to the list.
- *Trichechus inunguis* needs to be added to the list of Sirenians.
- The list should be kept as it is now: an indicative list of the current species observed in the Region.

The list was reviewed by the SPAW-RAC and presented to the experts during the last meeting (October 2020). It was uploaded on the teamwork platform and the experts had several weeks to review the document. No modification was asked by the experts. The final document is an indication of the current species observed in the Region and was posted on the platform at the end of October.

Link to the final document: indicative list of the current cetacean and sirenian species identified in the WCR.

VI. SPAW-RAC OVERALL CONCLUSION REGARDING SPECIES PROPOSALS TO BE LISTED UNDER THE SPAW ANNEXES II AND III.

Overall the above discussed elements, SPAW-RAC as chair of the species Working group would like to give heartfelt thanks to the experts for the incredible amount of contributions, support and work that were done over a relatively short period, less than one year as half of the biennium was used for writing the terms of reference and creating the groups.

Accordingly to the terms of reference, the experts worked though two main approaches, one not excluding the other :

- Strengthening the implementation of management measures of the species listed under the Annexes of the Protocol whether on annex II or annex III and in particular developing priorities and strategies for regional collaboration on and implementation of management measures to improve protection of migratory of largely ranged species. As such and focus in particular on Nassau grouper (annex III), sawfish (annex II), marine turtles (annex II), species of sharks and rays (annex III) not forgetting marine mammals (annex II) and in all case strongly advocate on the necessity of engaging in adapted management measures

- Address as priority species deemed a priority by the STAC and evaluate the status of those species to determine whether species or group of species may warrant listing in the SPAW Protocol Annexes and provide results of reviews to the STAC. They focus on fish : parrotfish and species of sharks and rays. Experts that contribute to the final assessments consider that the proposals built collectively follow the requirements of the guidelines and commend their quality to take a decision. Almost all consider that several species meet key criteria and that it is of greatest importance to list/ uplist them :

- all parrotfishes (*Perciformes: Scaridae*) species to be listed under Annex III.: fully supported by all experts having contributed to the final assessment notably based on the importance of parrotfish to the protection of vulnerable coral reef ecosystems (criterion#10), effectiveness of the partial or full measures or protection taken by several SPAW parties already (criterion #6) and size and population decline (criterion #1)

- the three larger parrotfish species (*Scarus guacamaia, Scarus coeruleus and Scarus coelestinus*) to be listed under Annex II : supported by all experts but one. The fact that the populations of all 3 species are greatly reduced from historical levels based on best available evidence (criteria #1), the importance of the species for maintaining vulnerable ecosystems as ecologically unique large bodied bioeroders and mediators for coral recruitment (criterion #10) and effectiveness of strict measures of protection taken by some SPAW parties (criterion #6) were the most frequent rationale quoted in favor of listing in Annex II. *Scarus viride* was debated but not considered as meeting the criteria for Annex II.

- the Oceanic white tip shark (*Carcharhinus longimanus*) to be uplisted from Annex III to Annex II of the SPAW Protocol : strongly supported by all experts but one, notably because of evidence of drastic decline (criterion #1), the necessity to fully protect the species to align with other international treaties (criterion #5) and effectiveness of cooperative efforts on the protection and recovery for species (criterion #6). Evidence of recovery for the Atlantic population is considered as not relevant compared to their global collapse and most recent IUCN assessment for the global population evaluated as Critically Endangered with decreasing trend (criterion #4) and because of it concerns only a partial range of the Caribbean population.

- the Whale shark (*Rhincodon typus*) and Giant Manta Ray (*Manta Birostris*), to be uplisted from Annex III to Annex II of the SPAW Protocol : supported by all experts but one. They strongly recommend the full protection of those two species, considering it crucial according to the current trends, scientific acknowledgment of global decline, very increased vulnerability to threats link to their low growth, longevity, and delayed maturation (criterion #1), the most recent recent IUCN assessment for the global population as Endangered with decreasing trend (criterion #4), the necessity to fully protect the species to align with other international treaties (criterion #5). They emphasize that the lack of full scientific certainty, normal for such rare and difficult to study species can't be evoked to prevent the listing of the species and can't be a barrier to implementing effective management and commitments (criterion #2).

- the Hammerhead sharks (*Sphyrna sp.*) to be uplisted from Annex III to Annex II of the SPAW Protocol : mixed opinion. A majority of experts consider of great importance to uplist them in the Annex II of the SPAW Protocol, especially the Great Hammerhead Shark (10 out of 13 experts) considering evidence of significant decline for all hammerhead shark species, status under the IUCN, and intensified pressure due to the commercial trade in shark fins (criterion #1), the necessity to increase the level of protection of this species to align with other international treaties (criterion #5) and effectiveness of cooperative efforts on the protection and recovery for species (criterion #6). Range of the species, successful national-level management strategies (in the US) showing that enforcement of management measures alone could work, potential success of those strategies in increasing the West Atlantic population *versus* their global collapse

and most recent IUCN assessment for the global population with decreasing trend (in particular for the Great Hammerhead Critically Endangered) are all criteria used “both side”. In particular, regular misidentification or identification only to genus in fisheries was an argument to either keep them all in Annex III or for most experts including some considering they did not meet all criteria to have the Smooth Hammerhead and the whole taxonomic unit of *Sphyrna sp.* uplisted according to criterion #8.

- in general, while being not fully consensual on what would be the most effective, all experts strongly advocate that **Parties adhere to stricter protocols to protect and manage species whether under Annex II or Annex III.** They emphasize that the urgent need to protect sharks and more globally endangered species must be acknowledged by governments.

- In particular the need for population rebuilding strategies, as well as for providing support for the Caribbean nations already protecting species are not specific to sharks and rays. Decline due to direct mortality (fishing) but also other threats such as entanglement, hooking or vessel strikes, are observed for many species including marine mammals, sharks and rays and turtles. Concerns have also been expressed on the effects of climate change, ocean acidification, oils spills, other pollution and contaminants, as well as tourism, habitat loss and degradation threatening them, which increases the vulnerability of the species, especially when those are slow-growth species. All of such threats are applicable and/or documented to the Wider Caribbean Region, with varying degrees of intensity and species involved and this despite data gaps/deficiency on population size and dynamics. Keeping in mind that the lack of data for such difficult species to study can't be a barrier to implementing effective management or to align with other commitments, **there is room to act, and experts pressed for the developing and implementing regional management plans as well as the highest level of protections when warranted, or agreed by Parties in the Region.**

Recommendations

Considering the representativity and large number of experts that contributed to the final assessments (between 14 and 17 depending of the species), the SPAW-RAC recommend to the STAC to follow their expertise when they reach a consensus or a very large majority and thus to recommend :

To the COP :

- to include **under Annex II of the three larger Parrotfishes (*Scarus guacamaia*, *Scarus coeruleus* and *Scarus coelestinus*)** and to list **all other parrotfishes (Perciformes: Scaridae) in Annex III of the Protocol**

- to uplist **the Oceanic whitetip shark *Carcharhinus longimanus*, the whale shark *Rhincodon typus*, the Giant manta ray species *Manta birostris*, from Annex III to Annex II**

- to further discuss the Hammerhead sharks species complex (including the **great hammerhead shark *Sphyrna mokarran* and the smooth hammerhead shark *Sphyrna zygaena***) to build a more unanimous conclusion toward the proposals to be submitted for approval at the COP10.

To the SPAW Parties (and other voluntary countries) :

- to **nominate experts** in order to diversify skills and expertise, and ensure the most exhaustive geographical and political representation but also as an efficient way to be involved in the SPAW implementation and better voice their needs and wishes in the SPAW protocol.

- to **engage in stricter management measures** to effectively reverse declining population trends for the species aforementioned or in general species listed in annex II and III. Such measures need to be developed, implemented/enforced and advanced on a realistic or desired time-scale and when appropriate developed in **regional action plans**

- to **review progress in the implementation** of sustainable management of species listed on Annex III on a biennial basis to avoid further decline and population risks.

- in particular to base **implementation and reporting on the recommendations** developed on Nassau grouper (annex III), sawfish (annex II), marine turtles (annex II), species of sharks and rays (annex III) not forgetting marine mammals (annex II)

To the Working Group /SPAW-RAC

- to **engage assessment and management recommendations** of other species or group of species and to pursue on-going tasks on aforementioned species (Nassau grouper, sawfish, sharks and rays, parotfish...)
- to **work closely with the exemption working group** as both are strongly linked
- to **continue efforts to engage fisheries bodies** to improve management but also to get regional fisheries data that could inform assessment of regional levels of bycatch or directed take of these species and link this with the WG

To the STAC

- to revise the **Terms of reference** If deemed necessary and it **in particular its Annex** (update the current tasks of the working group).

ANNEX: LIST OF THE SPECIES WORKING GROUP EXPERTS

| Expert name | Affiliation |
|----------------------|-----------------------------------|
| Julia Horrocks | Barbados |
| Vivian Ramnarace | Belize |
| Jamal Galves | Belize |
| Luis Chasqui Velasco | Colombia |
| Heins Bent-Hooker | Colombia |
| Marcos Casilla | Dominican Republic |
| Jean Vermot | France |
| Gérald Mannaerts | France |
| Anne-Marie Svoboda | Netherlands |
| † Paul Hoetjes | Netherlands |
| Eric F. Salamanca | Turks and Caicos |
| Kristen Koyama | USA |
| Nina Young | USA |
| Patricia Kramer | AGRRA |
| Camilo Thompson | AIDA |
| Susan Millward | AWI |
| Alejandro Acosta | GCFI |
| Courtney Vails | Ind/Lightkeepers |
| Monica Borobia-Hill | Ind/Previous SPAW program officer |
| Brice Semmens | Ind/parrotfish |
| Chelsea Harms-Tuohy | Ind/parrotfish |
| Twan Stoffers | Ind/sharks |
| Irene Kingma | Ind/sharks |
| Olga Koubrak | SeaLifeLaw |
| Andrea Pauly | UNEP/CMS Sharks Mou |
| Myles Philips | WCS /WECAFC |
| Karen Eckert | WIDECAST |
| Sandrine Pivard | SPAW-RAC/ chair |