

2021 REPORT OF THE 2ND INTERSESSIONAL MEETING OF PANEL 4
(27 October 2021, Online)

1. Opening of the Meeting

The interim Chair of the Panel, Mr. Raul Delgado, opened the meeting.

2. Appointment of Rapporteur

The Panel appointed Ms. Katy Dalton (United States) as rapporteur.

3. Adoption of Agenda and meeting arrangements

Japan suggested that Agenda item 4 be condensed to a short review of the Chair's last draft proposal "*Draft Recommendation by ICCAT on the conservation of North Atlantic stock of shortfin mako caught in association with ICCAT fisheries*" in order to allow for a majority of the meeting's discussion to take place under agenda item 5 to discuss the proposal from the European Union (EU). The Chair clarified that while the discussion will focus on the EU proposal, any element from the Chair's last draft proposal (may be suggested for inclusion during the review. The Agenda was adopted (**Appendix 1**).

The Executive Secretary introduced the 18 Contracting Parties present at the meeting: Algeria, Brazil, Canada, China P.R., European Union, Gabon, Japan, Korea, Morocco, Mexico, Nigeria, Panama, Senegal, Tunisia, Turkey, United Kingdom, United States and Uruguay.

The Executive Secretary also introduced one of ICCAT's Cooperating Non-Contracting Parties, Entities or Fishing Entities present at the meeting, Chinese Taipei, and one Non-Contracting Party, Montenegro. Finally, the Executive Secretary introduced 11 Non-Governmental Organisations attending as observers: Defenders of Wildlife, EAC (Ecology Action Centre), GTA (Global Tuna Alliance), HIS (Humane Society International), PEW Charitable Trusts, Pro Wildlife, SCIAENA (Associação de Ciências Marinhas e Cooperação), Sharkproject International, The Ocean Foundation, The Shark Trust, and WWF (World Wide Fund for Nature).

The List of Participants is contained in **Appendix 2**.

Defenders of Wildlife and Humane Society International have presented a joint opening statement which is attached as **Appendix 3**.

4. Brief review of the Chairs last draft proposal and comments received from CPCs

The Secretariat briefly presented the Chair's last draft proposal noting that a few CPCs had made comments during the correspondence round. A table including all comments received was circulated before the meeting.

5. Consideration of new draft proposal(s) to achieve conservation of North Atlantic shortfin mako

The EU presented their proposal of the "*Draft Recommendation by ICCAT on the conservation of North Atlantic stock of shortfin mako caught in association with ICCAT fisheries*" (**Appendix 4**), which amended the Chair's proposal (as produced by the first intersessional meeting of Panel 4 in July 2021. It was noted that all participants will need to show flexibility to reach consensus, and that this proposal illustrates that first step.

The EU described that there is agreement on two pillars of a recovery plan for North Atlantic shortfin mako: the need to stop overfishing immediately and the timeline to rebuild the stock by 2070, but the probability of success associated with these pillars has not yet been agreed upon. The EU explained that their proposal aims to reduce mortality to a sustainable level by prohibiting all retention until a threshold level of mortality is reached, at which point there may be a possibility for retention, which will be reviewed annually. This possibility for retention is calculated based on a formula that uses average annual catches from 2013-2017 but is dependent on agreeing on the probability of rebuilding the stock by 2070 and data reporting by CPCs. Further, the proposal prohibits transshipment, and established provisions for retaining dead shortfin mako, including the need for an Electronic Monitoring System (EMS) or the presence of an observer, and a limit of two dead fish per trip.

The EU also noted that because there is still no agreement about the inclusion of terminal gear modifications, such as circle hooks, they removed this paragraph from their proposal. In addition, they also changed the scope of the paragraph regarding data loggers to be voluntarily deployed on longlines and reassigned these duties to the SCRS, as part of important research to help establish time-area closures, develop habitat use models and contribute to other scientific research on the species.

After the EU presented the updated proposal, several CPCs expressed their conviction that it is essential for the Panel to find ways to compromise in order to achieve consensus on a proposal for North Atlantic shortfin mako that will actually result in rebuilding of the stock. The specific provisions of the proposal were then discussed as follows:

Chapeau

Several CPCs suggested edits to the chapeau, including one to delete the paragraph beginning with "FURTHER NOTHING" in its entirety as some CPCs believed it called into question the integrity of the SCRS. Another CPC suggested that this language is simply meant to highlight that there are papers that have not yet been discussed by the SCRS and that have raised important questions, but noted they were flexible in modifying such language and the Panel agreed to remove this paragraph.

Paragraph 1

A CPC suggested language to clarify what is laid out in the Kobe matrix to be added to the end of the paragraph that would say, "corresponding to a total mortality limit of XX t. The rebuilding period and total mortality limit shall be reviewed and may be adjusted based on subsequent SCRS advice." Some CPCs expressed concern with the addition, and it remained in brackets. There was also a divergence of views about the term mortality "limit." Some felt it was unnecessary and the term "fishing mortality" could stand alone. Others considered the term "level" might be more appropriate. Ultimately, CPCs also agreed to bracket the insertion.

Multiple CPCs expressed views on what the probability of rebuilding should be, and no consensus was reached. Japan noted that they support 60% rather than 50% in reference to the probability of the stock rebuilding by 2070, while the UK voiced their support for 70%. The Panel agreed to include both 60 and 70% in brackets. A CPC also noted that the use of the phrase "at least" in front of the probability provides some possible leeway for the actual probability to be higher than the number included in the measure.

Paragraph 2bis

Several CPCs expressed significant concern related to Paragraph 2bis, which details the mechanics of calculating any allowable retention. Some CPCs noted that given the current state of data reporting for this stock, the absence of data and reliance on voluntary reporting to the SCRS would be problematic. One CPC clarified, however, that related paragraphs within the proposal prohibits retention for any CPC that has not submitted data, thus providing an incentive to improve upon current reporting.

The conversation regarding 2bis also led to a broader conceptual question about what this proposal is really meant to accomplish; namely, to end overfishing immediately and begin rebuilding the stock. Some CPCs believed that in order to do this, an incentive structure would be needed to provide avenues for retention in the future. It was emphasized that the problem facing North Atlantic shortfin mako will not be solved with a retention ban alone. The complexity of this measure continued to cause consternation for some CPCs, who remained concerned about the availability of data and the implications for the stock.

Morocco requested that the derogation paragraph from the Chair's draft proposal (paragraph 12bis) be included in the EU draft proposal.

The United States expressed a baseline concern that all CPCs should do their best to estimate total mortality of the shortfin mako, and that the United States is one of the few CPCs submitting dead discard and live release data. In addition, the United States expressed concern about asking the SCRS to try to estimate post-release mortality for each CPC, as there is likely to be considerable variation amongst CPCs based upon factors including fishing practices, gear, and environmental parameters. To solve this problem, the United States suggested that it would be simpler to add a buffer to the total fishing mortality level imposed by paragraph 1. The United States noted its general view that any measure for North Atlantic shortfin mako should ensure that there is individual accountability for achieving necessary mortality reductions and should incentivize reporting.

Paragraph 2ter

A CPC provided edits to amend Paragraph 2ter to specify that transshipment is prohibited for CPCs "whose vessels retain North Atlantic shortfin mako." There was some concern, however, that this change could inadvertently create a loophole and further consideration will be given to the phrasing of this paragraph.

Paragraph 2quater

There was considerable divergence in views about paragraph 2quater, and various exchanges occurred to help clarify the formula for calculating permissible retention. It was also suggested early on to split the two main sentences up into different paragraphs and Paragraph 2quinquies was formed.

Paragraph 2quinquies

One CPC suggested that the language "fishing mortality goal" is misleading, and that the word "limit" would clearly indicate the goal of this proposal was to reduce overall fishing mortality.

The EU further explained the drafting of this paragraph and described the goal to establish a mechanism to determine if any retention could occur and a process to allocate any available retention to CPCs.

Several CPCs voiced concern that Paragraph 2quinquies resembles a TAC and allocation scheme, but the proposal only applies to North Atlantic shortfin mako caught in association with ICCAT fisheries. A TAC/allocation approach is problematic for such bycatch species and could inappropriately result in shortfin mako becoming a choke species on other target species in the North Atlantic. Rather, one CPC stressed the need to focus on required mortality reductions that each individual CPC is responsible for in order to meet the overall reduction in mortality to halt overfishing and rebuild the stock. After explaining its idea, the CPC indicated that it would provide edits to the proposal after the meeting. The CPC further noted the importance of having very clear drafting to demonstrate that any ability to retain would in no way require CPCs to halt fishing operations for target species, such as swordfish, should allowable retention levels be surpassed.

The baseline time frame referenced in Paragraph 2quinquies was called into question by one CPC. Another CPC highlighted that regardless of what measures we implement now, there will not be any improvements to the stock until at least 2035. Additionally, given the biology of this species, it has a very long rebuilding timeline. Given that, annual review by SCRS would be unlikely to provide new or useful information and, therefore, would be an unnecessary burden on the SCRS.

Paragraph 3

One CPC questioned the specific provision in paragraph 3 about the ability to retain two dead specimens of shortfin mako per fishing trip, and asked for clarification, including how this number was derived. The EU responded that the number was derived using provisional 2021 data from Spain. It was also noted that, if such a measure were retained, it would be critical to carefully define “fishing trip” in order to keep from creating a loophole.

One CPC was also concerned about the inclusion of electronic monitoring system requirements. The EU noted that EMS is already found in existing Recommendation 19-06 and the only addition was the word “functioning”.

Paragraph 4

Regarding paragraph 4, at the July intersessional meeting, one CPC proposed that language about electronic monitoring be added to sub-paragraph (a), but after reconsidering the point, this CPC withdrew this suggestion as a provision of this paragraph ensures that fishers could not draw any commercial value from retaining such fish and thus removes the incentive to cheat. The inclusion of a requirement for EMS was deleted in this paragraph without objection.

Japan also stressed that, in general, they do not support requiring fins to be naturally attached but noted that they would not block consensus because they would not be subject to sub-paragraph (d). Japan also noted that this position does not prejudice their position on fins naturally attached in a broader context.

Paragraph 5

Several CPCs discussed when the minimum standards for safe handling and release for North Atlantic shortfin mako would become effective. One CPC was concerned that January 2022 would be too soon and would not allow enough time to convey the new conservation measures and safe handling guidelines to distant water longline vessels. It was recalled that the Convention specifies a 6-month entry into force date and that implementation before that time cannot be required but can be encouraged. It was then suggested to change the date to January 2023, which would provide an additional six months for the implementation of the requirement after the usual entry into force date specified under the Convention. Ultimately, the date was left bracketed for further discussion.

Paragraph 7

There was a discussion related to the frequency of data reporting among several CPCs, with one pointing out that two CPCs represent the super majority of total catch, making up more than 90% of total landings, so they should have a distinct reporting frequency relative to other CPCs. One CPC also noted that there should be different approaches for reporting catches and landings as opposed to discards and releases. One CPC acknowledged that this paragraph was drafted in the spirit of the previous approach and could be revisited.

Paragraphs 8 and 8bis

There was discussion regarding the timeline for increasing observer coverage and electronic monitoring (EM) specified in paragraph 8. One CPC suggested the increase up to 10% should occur by 2023. It was highlighted that COVID-19 interrupted trials of electronic monitoring and resulted in a lack of SCRS advice about EM standards. If this change were not to be accepted, then it was also suggested to remove brackets so that the paragraph would only apply to CPCs that retain North Atlantic shortfin mako. However, another CPC pointed out that this would narrow the scope of the requirement and limit its utility, as longline vessels interact with mako whether or not they are retained or landed. Therefore, collecting these data will assist in developing a more detailed understanding of mako habitat use and improve the basis for management aimed at reducing interactions with the species.

One CPC offered a technical edit to delete “spines” from paragraph 8bis, noting that shortfin mako do not have dorsal spines.

Paragraph 9

The United States asked that paragraph 9 from the Chair’s draft proposal on circle hooks be included in the EU draft proposal. Another CPC voiced concern about the inclusion of this paragraph so it remained in brackets.

Paragraph 10bis

One CPC sought clarification about the nature of the data logger pilot project for longline fishing vessels. The EU noted that there is no obligation to participate in the program as it would be an initiative led by the SCRS.

Paragraph 12

The Panel agreed that both a stock assessment for the North Atlantic shortfin mako and a review of the rebuilding program for the stock were necessary moving forward, but there was some divergence in views related to the proposed timeline. One CPC noted, and others agreed, that 2023 would be the first full year that this recommendation would be in force, so a stock assessment in 2025 would only have two years of available data reflecting management measures implemented by this measure. The SCRS Chair noted that if they do an evaluation of the effectiveness of a rebuilding program in 2027, several years after the stock assessment, the resolution of their analysis could be restricted. Some CPCs stated that they would provide written comments on this paragraph and also suggested that the proposal clarify the role of the SCRS in this process.

Paragraph 13

Some CPCs stated that the intersessional calendar for 2022 is already quite ambitious and the next intersessional meeting of Panel 4 may need to be delayed. As such the date of 2022 remained in brackets and will be further discussed during the annual meeting.

Annex 1 - Minimum Standards for Safe Handling and Live Release Procedures

Japan expressed concerns about the scope of the safe handling and release practices, and proposed changes to specify that these procedures are only applicable to North Atlantic shortfin mako and other species subject to prohibition of retention. The proposed changes were made to avoid confusion with other species, such as North Atlantic blue shark that CPCs can catch and retain within their respective catch limit. Japan also proposed modifications regarding the need to keep sharks in the water at all times during release, noting that there are situations when sharks may need to be lifted out of the water for species identification. Some CPCs raised concerns with these edits, including that the modifications would no longer apply to sharks that are voluntarily released. Further, many CPCs considered that the proposed modifications related to species identification was unnecessary as the current text of the paragraphs in question already included sufficient flexibility (i.e., the phrase “to the greatest extent practicable”) to address Japan’s concern. Canada agreed to work with other CPCs to refine this document and stated they would reach out to interested parties regarding this process.

6. Way forward for intersessional work before the 27th Regular meeting of the Commission

The Chair suggested considering the edits made to the EU’s “*Draft Recommendation by ICCAT on the conservation of North Atlantic stock of shortfin mako caught in association with ICCAT fisheries*” as a new version of the Chair’s proposal (**Appendix 4**) and the Panel agreed. He also emphasized that CPCs will need to hold bilateral and multilateral meetings between now and the annual meeting in order to make necessary progress on this proposal. CPCs were also urged to send written comments on the new version of the Chair’s proposal as soon as possible and the Chair noted he would soon follow up with the Panel via email. CPCs concurred that this was the best way forward and agreed to work with each other to achieve consensus. Despite challenges and continued differences of opinion, CPCs agreed that progress was made and that the contours of a possible agreement were beginning to take shape.

2021 COM
12/11/2021 9:48

Doc. No. PA4_810 / 2021

Finally, the Chair briefly gave the floor to NGO Observers, Ecology Action Center and Shark Project, who expressed their grave concern about the status of the stock, emphatically urging CPCs to reach consensus on a measure this year, and to adopt a retention ban without exceptions and increase the probability of recovery to 70%.

7. Adoption of report and adjournment

The Chair noted that the report of the meeting would be adopted by correspondence. He expressed sincere thanks to the Secretariat and interpreters, thanked the participants for the constructive discussions, and adjourned the meeting.

Agenda

1. Opening of the Meeting
2. Appointment of Rapporteur
3. Adoption of Agenda and meeting arrangements
4. Brief review of the Chairs last draft proposal and comments received from CPCs
5. Consideration of new draft proposal(s) to achieve conservation of North Atlantic shortfin mako
6. Way forward for intersessional work before the 27th Regular meeting of the Commission
7. Adoption of report and adjournment

List of Participants*

CONTRACTING PARTIES

ALGERIA

Kouadri-Krim, Assia

Sous-Directrice infrastructures, industries et services liés à la pêche, Ministère de la Pêche et des Productions Halieutiques, Direction du développement de la pêche, Route des Quatre Canons, 1600
Tel: +213 558 642 692, Fax: +213 214 33197, E-Mail: assia.kouadri@mpeche.gov.dz; assiakrim63@gmail.com

BRAZIL

Olynto de Arruda Villaça, Carlos Eduardo *

Director, Fisheries Planning and Development Department, Aquaculture and Fisheries Secretary, Ed. Siderbras, CEP: 71020184 Brasilia DF Asa Sul
Tel: +55 61 9910 20668, E-Mail: carlos.villaca@agricultura.gov.br; caduvillaca1964@gmail.com

Cardoso, Luis Gustavo

Federal University of Rio Grande - FURG, Neslon da Silva Fangueiro Street, number 266, 96217292 Rio Grande - RS
Tel: +55 53 999010168, E-Mail: cardosolg15@gmail.com

Leite Mourato, Bruno

Professor Adjunto, Laboratório de Ciências da Pesca - LabPesca Instituto do Mar - IMar, Universidade Federal de São Paulo - UNIFESP, Rua Carvalho de Mendonça, 144, Encruzilhada, 11070-100 Santos, SP
Tel: +55 1196 765 2711, Fax: +55 11 3714 6273, E-Mail: bruno.mourato@unifesp.br; bruno.pesca@gmail.com; mourato.br@gmail.com

Pierin Piccolo, Natali Isabela

Aquaculture and Fisheries Secretary - Department of Register and Monitoring Setor de Autarquias Sul Q. 2 1 andar - DRM/SAP, 70297-400 Brasilia, DF
Tel: +55 21 79484591; +55 61 3276 4419, E-Mail: natali.piccolo@agricultura.gov.br

Travassos, Paulo Eurico

Professor, Universidade Federal Rural de Pernambuco - UFRPE, Laboratorio de Ecologia Marinha - LEMAR, Departamento de Pesca e Aquicultura - DEPAq, Avenida Dom Manuel de Medeiros s/n - Dois Irmãos, CEP 52171-900 Recife Pernambuco
Tel: +55 81 998 344 271, E-Mail: paulo.travassos@ufrpe.br; pautrax@hotmail.com

CANADA

Waddell, Mark *

Director General, Fisheries Policy, Strategic Policy, Fisheries and Oceans Canada, 200 Kent Street, K1A0E6
Tel: +1 613 897 0162, E-Mail: mark.waddell@dfo-mpo.gc.ca

Drake, Kenneth

ICCAT Commissioner for Canada, Prince Edward Island Fishermen's Associations, 43 Coffin Road, Morell Prince Edward Island C0A1S0
Tel: +1 902 626 6776; +1 902 566 4050, Fax: +1 902 961 3341, E-Mail: kendrake@eastlink.ca

Dunne, Erin

Fisheries and Oceans Canada, Northwest Atlantic Fisheries Center, 200 Kent street, Ottawa, ON K1A0E6
Tel: +1 709 772 3600; +1 613 993 3117, Fax: +1 709 772 2659, E-Mail: erin.dunne@dfo-mpo.gc.ca

* Head Delegate.

2021 COM
12/11/2021 9:48

Doc. No. PA4_810 / 2021

Duprey, Nicholas

Senior Science Advisor, Fisheries and Oceans Canada - Fish Population Science, Government of Canada, 200-401 Burrard Street, Vancouver, BC V6C 3R2
Tel: +1 604 499 0469; +1 250 816 9709, E-Mail: nicholas.duprey@dfo-mpo.gc.ca

Fillion, Diana

200 Kent Street, Ottawa, ON K1A0E6
Tel: +1 506 395 7740, E-Mail: Diana.Fillion@dfo-mpo.gc.ca

Kay, Lise

Policy Advisor, International Fisheries Policy, Fisheries and Oceans Canada, 200 Kent Street, Ottawa Ontario K1A 0E6
Tel: +1 343 542 1301, E-Mail: Lise.Kay@dfo-mpo.gc.ca

Kerwin, Jessica

Fisheries & Aquaculture Management Officer, Fisheries Resource Management, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, Ontario B1A 0E6
Tel: +1 613 993 3117, E-Mail: jessica.kerwin@dfo-mpo.gc.ca

MacDonald, Carl

Senior Advisor, Resource and Aboriginal Fisheries Management, Fisheries and Oceans Canada, Acting Regional Manager - Resource Management, 1 Challenger Drive, PO Box 1006, Bedford Institute of Oceanography, Dartmouth, NS B2Y 4A2
Tel: +1 902 293 8257, Fax: +1 902 426 7967, E-Mail: carl.macdonald@dfo-mpo.gc.ca

Mahoney, Derek

Senior Advisor - International Fisheries Management and Bilateral Relations, Conseiller principal- Gestion internationale des pêches et relations bilatérales, Fisheries Resource Management/Gestion des ressources halieutiques, Fisheries and Oceans Canada, 200 Kent St. Station 13S022, Ottawa, Ontario K1A 0E6
Tel: +1 613 794 8007, E-Mail: derek.mahoney@dfo-mpo.gc.ca

Marsden, Dale

Deputy Director, International and Intergovernmental Affairs, Fisheries and Oceans Canada, 200 Kent Street, 14E212, Ottawa Ontario K1A 0E6
Tel: +1 613 791 9473, E-Mail: Dale.Marsden@dfo-mpo.gc.ca

Smith-Laplante, Robynn-Bella

Policy Analyst, International and Intergovernmental Affairs, Fisheries and Oceans Canada, 200 Rue Kent St., Ottawa, Ontario K1A0E6
Tel: +1 343 542 8414, E-Mail: Robynn-Bella.Smith-Laplante@dfo-mpo.gc.ca

CHINA, (P. R.)

Fang, Lianyong

Assistant Director, China Overseas Fisheries Association, Room 1216, Jingchao Massion, Nongzhanguannan Road, Cahoyang District, 100125 Beijing
Tel: +86 10 65853488, Fax: +86 10 65850551, E-Mail: fanglianyong@cofa.net.cn

EUROPEAN UNION

Jessen, Anders *

Deputy Director, Head of Unit - European Commission, DG Mare B 2, B-1049 Brussels, Belgium

Aláez Pons, Ester

International Relations Officer, European Commission - DG MARE - Unit B2 - RFMOs, Rue Joseph II - 99 03/057, 1049 Bruxelles, Belgium
Tel: +32 2 296 48 14; +32 470 633 657, E-Mail: ester.alaez-pons@ec.europa.eu

Biagi, Franco

Senior Expert Marine & Fishery Sciences, Directorate General for Maritime Affairs and Fisheries (DG-Mare) - European Commission, Unit C3: Scientific Advice and data collection, Rue Joseph II, 99, 1049 Brussels, Belgium
Tel: +322 299 4104, E-Mail: franco.biagi@ec.europa.eu

2021 COM
12/11/2021 9:48

Doc. No. PA4_810 / 2021

Howard, Séamus

European Commission, Rue Joseph II 99, 1000 Brussels, Belgium
Tel: +32 229 50083; +32 488 258 038, E-Mail: Seamus.HOWARD@ec.europa.eu

Loïs, Comte

Parlement Européen, Rue Wiertz n° 60, B-1047 Bruxelles, Belgium
Tel: +32 248 57786, E-Mail: lois.comte@europarl.europa.eu

Malczewska, Agata

European Commission DG MARE, J-99 4/073, 1000 Belgium, Belgium
Tel: +32 229 6761; +32 485 853 835, E-Mail: agata.malczewska@ec.europa.eu

Peyronnet, Arnaud

Directorate-General for Maritime Affairs and Fisheries Unit C3, European Commission, Scientific Advice and Data Collection,
Rue Joseph II - 99 03/61, B-1049 Brussels, Belgium
Tel: +32 2 2991 342; +32 498 28780, E-Mail: arnaud.peyronnet@ec.europa.eu; arnaud.peyronnet@gmail.com

Amoedo Lueiro, Xoan Inacio

Biólogo, Consultor Ambiental, Medio Mariño e Pesca, Pza. de Ponteareas, 11, 3ºD, 36800 Pontevedra, España
Tel: +34 678 235 736, E-Mail: tecnico@fipblues.com; lueiro72consultant@gmail.com

Andonegi Odrizola, Eider

AZTI, Txatxarramendi ugarte a z/g, 48395 Sukarrieta, Bizkaia, España
Tel: +34 661 630 221, E-Mail: eandonegi@azti.es

Chladek, Jerome

Federal Ministry for Food and Agriculture - Germany, Germany
E-Mail: Jerome.Chladek@bmel.bund.de

Eliassen, Peter Jørgen

Senior consultant, Ministry of Food, Agriculture and Fisheries, Sustainable Fisheries, Fisheries Policy, Slotholmsgade 12,
1216 Copenhagen, Denmark
Tel: +452 261 5937, E-Mail: pejoel@mfv.dk

Guerin, Benoît

1407 Chemin des Maures, 83400 St Raphaël, France
Tel: +33 632 02 68 15, E-Mail: bgseaconsulting@gmail.com

Kafouris, Savvas

Fisheries and Marine Research Officer, Department of Fisheries and Marine Research (DFMR); Ministry of Agriculture,
Natural Resources and Environment, 101, Vithleem Street, Strovolos, 1416 Nicosia, Cyprus
Tel: +357 228 07825, Fax: +357 2231 5709, E-Mail: skafouris@dfmr.moa.gov.cy; skafouris80@gmail.com

Lanza, Alfredo

Ministero delle Politiche Agricole Alimentari, Forestali e Del Turismo, Direzione Generali della Pesca Marittima e
dell'acquacoltura - PEMAC VI, Via XX Settembre, 20, 00187 Roma, Italy
Tel: +39 331 464 1576; +39 646 652 843, Fax: +39 646 652 899, E-Mail: a.lanza@politicheagricole.it

Lombardo, Francesco

Ministry for Agriculture, Fisheries and Animal Rights Fort San Lucjan, Triq il-Qajjenza, Marsaxlokk, Department of Fisheries
and Aquaculture, MRS3303 Marsa, Malta

Magnolo, Lorenzo Giovanni

Ministero delle Politiche Agricole Alimentari, Forestali e Del Turismo, Direzione Generale della pesca Marittima e
dell'Acquacoltura, Via XX Settembre, 20, 0187 Roma, Italy
Tel: +39 0 646 652 818, E-Mail: lorenzo.magnolo@politicheagricole.it

2021 COM
12/11/2021 9:48

Doc. No. PA4_810 / 2021

Ortega Martínez, María de la Concepción
Asociación Palangreros Guardeses, Plaza de San Benito 4, 1º B, 36780 A Guarda Pontevedra, España
Tel: +34 986 184 495; +34 670 918 241, E-Mail: palangrerosguardeses@gmail.com

Sarricolea Balufo, Lucía
Secretaría General de Pesca, Ministerio de Agricultura, Pesca y Alimentación, Calle Velázquez, número 144, 28006 Madrid, España
Tel: +34 913 476 170, E-Mail: lsarricolea@mapa.es

Ulloa Alonso, Edelmiro
ANAPA/ARPOAN Puerto Pesquero, Edificio Cooperativa de Armadores Ramiro Gordejuela S/N - Puerto Pesquero, 36202 Vigo Pontevedra, España
Tel: +34 986 43 38 44; 618175687, Fax: +34 986 43 92 18, E-Mail: edelmiro@arvi.org

GABON

Angueko, Davy
Chargé d'Etudes du Directeur Général des Pêches, Direction Générale des Pêche et de l'Aquaculture, BP 9498, Libreville Estuaire
Tel: +241 6653 4886, E-Mail: davyangueko83@gmail.com; davyangueko@yahoo.fr

JAPAN

Ota, Shingo *
Japan's Commissioner to ICCAT, Advisor to the Minister of Agriculture, Forestry and Fisheries, 1-2-1 Kasumigaseki, Chiyoda-Ku, Tokyo 100-8907
Tel: +81 3 3502 8460, Fax: +81 3 3504 2649, E-Mail: shingo_ota810@maff.go.jp

Daito, Jun

Manager, Japan Tuna Fisheries Co-operative Association, 31-1, Eitai 2-Chome, Koto-ku, Tokyo 135-0034
Tel: +81 356 462 382, Fax: +81 356 462 652, E-Mail: daito@japantuna.or.jp

Hosokawa, Natsuki

Technical Official, Ministry of Agriculture, Forestry and Fisheries, Fisheries Agency of Japan, Chiyoda-ku, Tokyo, 100-8907
Tel: +81 3 350 28460, Fax: +81 3 5646 2649, E-Mail: natsuki_hosokawa730@maff.go.jp

Miura, Nozomu

Assistant Director, International Division, Japan Tuna Fisheries Co-operative Association, 2-31-1 Eitai Koto-ku, Tokyo 135-0034
Tel: +81 3 5646 2382, Fax: +81 3 5646 2652, E-Mail: miura@japantuna.or.jp; gyojyo@japantuna.or.jp

Morita, Hiroyuki

Assistant Director, Responsible for the JCAP-2 Programme, International Affairs Division, Resources Management Department, Fisheries Agency of Japan, 1-2-1 Kasumigaseki, Chiyoda-Ku, Tokyo, 100-8907
Tel: +81 3 3502 8460, Fax: +81 3 3504 2649, E-Mail: hiroyuki_morita970@maff.go.jp

Narisawa, Yukito

Director, Tuna Fisheries Office, International Affairs Division, Fisheries Agency of Japan, 1-2-1 Kasumigaseki, Chiyoda-Ku, Tokyo, 100-8907
Tel: +81 3 3502 8460, Fax: +81 3 3504 2649, E-Mail: yukito_narisawa920@maff.go.jp

Takase, Miwako

Councilor, Resources Management Department Fisheries Agency of Japan, 1-2-1 Kasumigaseki, Chiyoda-Ku, Tokyo, 100-8907
Tel: +81 3 3502 8460, Fax: +81 3 3504 2649, E-Mail: miwako_takase170@maff.go.jp

Uozumi, Yuji

Adviser, Japan Tuna Fisheries Co-operation Association, Japan Fisheries Research and Education Agency, 31-1 Eitai Chiyodaku, Tokyo Koutou ku Eitai 135-0034
Tel: +81 3 5646 2380, Fax: +81 3 5646 2652, E-Mail: uozumi@japantuna.or.jp

2021 COM
12/11/2021 9:48

Doc. No. PA4_810 / 2021

KOREA REP.

Na, IlKang

International Cooperation Specialist, International Cooperation Division, Ministry of Oceans and Fisheries, Government Complex Sejong, 94 Dasom 2-ro, Sejong Special Self-governing City, 30110 Sejong city
Tel: +82 44 200 5377, Fax: +82 44 200 5349, E-Mail: ikna@korea.kr

Yang, Jae-geol

Policy Analyst, Korea Overseas Fisheries Cooperation Center, 6th FL, S Building, 253, Hannuri-daero, 30127 Sejong
Tel: +82 44 868 7364, Fax: +82 44 868 7840, E-Mail: jg718@kofci.org

MEXICO

Ramírez López, Karina

Instituto Nacional de Pesca y Acuicultura, Centro Regional de Investigación Acuícola y Pesquera - Veracruz, Av. Ejército Mexicano No.106 - Colonia Exhacienda, Ylang Ylang, C.P. 94298 Boca de Río, Veracruz
Tel: +52 5538719500, Ext. 55756, E-Mail: kramirez_inp@yahoo.com; karina.ramirez@inapesca.gob.mx

Reyes Robles, Isabel Cristina

Directora de Asuntos Internacionales, Dirección General de Planeación, Programación y Evaluación, Comisión Nacional de Acuicultura y Pesca (CONAPESCA), Av. Camarón Sábala s/n esq. Tiburón, Fracc. Sábalo Country Club, CP 82100 Mazatlán Sin.
Tel: +52 669 915 6900 Ext. 58408, E-Mail: isabel.reyes@conapesca.gob.mx

Soler Benitez, Bertha Alicia

Comisión Nacional de Acuicultura y pesca (CONAPESCA), Av. Camarón Sábalo 1210 Fracc. Sábalo Country Club., 82100 Mazatlán, Sinaloa
Tel: +52 669 915 6900 Ext. 58462, E-Mail: berthaa.soler@gmail.com

MOROCCO

Abid, Noureddine

Chercheur et ingénieur halieute au Centre Régional de recherche Halieutique de Tanger, Responsable du programme de suivi et d'étude des ressources des grands pélagiques, Centre régional de l'INRH à Tanger/M'dig, B.P. 5268, 90000 Drabed, Tanger
Tel: +212 53932 5134; +212 663 708 819, Fax: +212 53932 5139, E-Mail: noureddine.abid65@gmail.com

Ben Bari, Mohamed

Directeur du Contrôle des Activités de la Pêche Maritime (DCAPM), Ministère de l'agriculture, de la pêche maritime, du développement rural et des eaux et forêts, Département de la Pêche Maritime, Nouveau Quartier Administratif, BP 476, 10090 Haut Agdal Rabat
Tel: +212 537 688 196, Fax: +212 537 688 382, E-Mail: benbari@mpm.gov.ma

Bensbai, Jilali

Chercheur, Institut National de Recherche Halieutique à Casablanca - INRH/Laboratoires Centraux, Ain Diab près du Club équestre OULAD JMEL, Rue Sidi Abderrhman / Ain Diab, 20100 Casablanca
Tel: +212 661 59 8386, Fax: +212 522 397 388, E-Mail: bensbaijilali@gmail.com

Fakri, Mohamed

Cadre à la Direction du Contrôle des Activités de la Pêche Maritime (DCAPM), Ministère de l'Agriculture, de la Pêche Maritime, du développement rural et des eaux et Forêts, Département de la Pêche Maritime, Nouveau Quartier Administratif, BP 476 Agdal, Rabat
Tel: +212 537 688 518, Fax: +212 537 688 382, E-Mail: mohamed.fakri@mpm.gov.ma

Fatih, Rania

Direction des Pêches Maritimes au Département de la Pêche Maritime, 11000 Rabat
Tel: +212 659 366 729, E-Mail: r.fatih@mpm.gov.ma

Haoujar, Bouchra

Cadre à la Division de Durabilité et d'Aménagement des Ressources Halieutiques, Département de la Pêche Maritime, Administrative, Nouveau Quartier Administratif, BP 476, 10150 Haut Agdal, Rabat
Tel: +212 253 768 8121, Fax: +212 537 688 089, E-Mail: haoujar@mpm.gov.ma

2021 COM
12/11/2021 9:48

Doc. No. PA4_810 / 2021

Hassouni, Fatima Zohra

Chef de la Division de Durabilité et d'Aménagement des Ressources Halieutiques, Département de la Pêche maritime, Nouveau Quartier Administratif, Haut Agdal, B.P.: 476 Rabat
Tel: +212 537 688 122/21, Fax: +212 537 688 089, E-Mail: hassouni@mpm.gov.ma

Hmidane, Abdellatif

Chef de Service à la Direction de Contrôle des Activités de la Pêche Maritime, Ministère de l'Agriculture, de la pêche maritime, du développement rural et des eaux et forêts / Département de la Pêche Maritime, Nouveau Quartier Administratif, 10100 Haut Agdal Rabat
Tel: +212 537 688 195, Fax: +212 537 688 382, E-Mail: hmidane@mpm.gov.ma

Ouyahya, Hicham

Direction des Pêches Maritimes, Département de la Pêche Maritime
E-Mail: hicham.ouyahya@mpm.gov.ma

Sabbane, Kamal

Cadre à la Direction de Contrôle des Activités de la Pêche Maritime, Ministère de l'Agriculture de la Pêche Maritime, du Développement Rural et des Eaux et Forêts, Département de la Pêche Maritime, Quartier Administratif BP 476, 10090 Agdal, Rabat
Tel: +212 537 688 196, Fax: +212 537 688 382, E-Mail: sabbane@mpm.gov.ma

NIGERIA

Abubakar, Ibrahim *

Federal Ministry of Agriculture and Rural Development, Department of Fisheries & Aquaculture, FCDA Complex Area 11, Garki, 900247 Abuja
Tel: +234 803 617 9683, E-Mail: ibrahimgorafish@yahoo.com; ibrahimgorafish@gmail.com

NORWAY

Brix, Maja Kirkegaard Rodriguez

Directorate of Fisheries, Strandgaten 229, postboks 185 Sentrum, 5804 Bergen
Tel: +47 416 91 457, E-Mail: mabri@fiskeridir.no; Maja-Kirkegaard.Brix@fiskeridir.no

Junge, Claudia

Institute of Marine Research, Framsenderet, Department Tromsø, P.O. Box 6606, 9296 Tromsø Stakkevollan
Tel: + 47 418 60794, E-Mail: Claudia.junge@hi.no

Sørdahl, Elisabeth

Ministry of Trade, Industry and Fisheries, Department for Fisheries and Aquaculture, Kongensgate 8, Postboks 8090 Dep., 0032 Oslo
Tel: +47 22 44 65 45, E-Mail: elisabeth.sordahl@nfd.dep.no

PANAMA

Delgado Quezada, Raúl Alberto

Director General de Cooperación y Asuntos Pesqueros Internacionales de Alta Mar, Autoridad de los Recursos Acuáticos de Panamá, Edificio La Riviera - Avenida Justo Arosemena y Calle 45, Bella Vista (Antigua Estación El Arbol), 0819-05850 Panamá
Tel: +507 511 6000; + 507 667 95200, Fax: +507 511 6031, E-Mail: rdelgado@arap.gob.pa; hsf@arap.gob.pa; vms@arap.gob.pa

SENEGAL

Diallo, Mamadou

Sicap Baobabs, Villa 826 - Dakar, P.O. Box 5858, 10700 Dakar, Fann
Tel: +221 77 641 1384; +221 33 855 5213, E-Mail: mlsdiallo@gmail.com; mlsdiallo@hotmail.com

Faye, Adama

Directeur adjoint de la Direction de la Protection et de la Surveillance des pêches, Direction, Protection et Surveillance des Pêches, Cité Fenêtre Mermoz, BP 3656 Dakar
Tel: +221 775 656 958, Fax: +221 338 602 465, E-Mail: adafaye2000@yahoo.fr; adafaye@yahoo.fr

2021 COM
12/11/2021 9:48

Doc. No. PA4_810 / 2021

Kebe, Papa

Consultant, Villa numero 288 Sipres-II Dakar, B.P. 45.828, Dakar Fann
Tel: +221 33 867 92 82; Tel. Cellular : +221 77 565 02 87, E-Mail: papa.amary@gmail.com

Ndaw, Sidi

Conseiller, Ex Responsable des statistiques Direction des Pêches maritimes, Ministère de la Pêche et de l'Economie Maritime,
Direction des Pêches Maritimes, 1, rue Joris, Place du Tirailleur, B.P. 289, Dakar
Tel: +221 775 594 914, Fax: +221 33 821 4758, E-Mail: sidindaw@hotmail.com; dopm@orange.sn

Sèye, Mamadou

Ingénieur des Pêches, Chef de la Division Gestion et Aménagement des Pêcheries de la Direction des Pêches maritimes,
Sphère ministérielle de Diarniadio Bâtiment D., 1, Rue Joris, Place du Tirailleur, 289 Dakar
Tel: +221 77 841 83 94, Fax: +221 821 47 58, E-Mail: mdseye@gmail.com; mdseye1@gmail.com; mdouseye@yahoo.fr

TUNISIA

Hayouni ep Habbassi, Dhekra

Ingénieur principal, Direction préservation des ressources halieutiques, Direction Générale de la Pêche et de l'Aquaculture,
Ministère d'Agriculture, des Ressources hydrauliques et de la Pêche
Tel: +216 718 90784, Fax: +216 717 99401, E-Mail: hayouni.dhekra1@gmail.com; hayouni.dhekra@gmail.com

Sohlobji, Donia

Direction Générale de la Pêche et de l'Aquaculture, Ministère de l'Agriculture des Ressources Hydrauliques et de la Pêche,
32 Rue Alain Savary, 2036 Le Belvédère
Tel: +216 534 31307; +216 71 890 784, Fax: +216 71 799 401, E-Mail: doniasohlobji1@gmail.com; bft@iresa.agrinet.tn

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

Keedy, Jess *

Head of External Fisheries Negotiations (International Fisheries), Department for Environment, Food and Rural Affairs
(DEFRA), Marine & Fisheries Directorate, First Floor, Seacole Wing, 2 Marsham Street, London SW1P 3JR
Tel: +44 755 724 5171; +44 208 026 63350, E-Mail: jess.keedy@defra.gov.uk

Christopher, Abbi E

Asst Fisheries Officer, Department of Agriculture and Fisheries, Government of the Virgin Islands, Fisheries Management
Division, Paraquita Bay, Tortola, VG1120, Virgin Islands
Tel: +284 468 6146, E-Mail: AeChristopher@gov.vg

Ellis, Jim

Fisheries Scientist, Centre for Environment, Fisheries and Aquaculture Science (Cefas), Pakefield Road, Suffolk Lowestoft
NR33 0HT
Tel: +44 1502 524300; +44 1502 562244, Fax: +44 1502 513865, E-Mail: jim.ellis@cefas.co.uk

Owen, Marc

Department for Environment, Food and Rural Affairs, DEFRA, First Floor, Seacole Wing, 2 Marsham Street, London SW1P
4DF
Tel: +44 755 732 5524, E-Mail: marc.owen@defra.gov.uk

Phillips, Sophy

Fisheries Scientist, Centre for Environment, Fisheries and Aquaculture Science (Cefas), Pakefield Road, Lowestoft Suffolk
NR33 0HT
Tel: +44 1502 527754, E-Mail: sophy.phillips@cefas.co.uk

Stout-Igwe, Carolyn

Permanent Secretary, Ministry of Education, Culture, Youth Affairs, Fisheries and Agriculture, Paraquita Bay, Tortola, Virgin
Islands
Tel: +44 (284)468 3347, E-Mail: CStout-Igwe@gov.vg

2021 COM
12/11/2021 9:48

Doc. No. PA4_810 / 2021

Warren, Tammy M.

Senior Marine Resources Officer, Department of Environment and Natural Resources, Government of Bermuda, #3 Coney Island Road, St. George's, CR04, Bermuda
Tel: +1 441 705 2716, E-Mail: twarren@gov.bm

Wicker, Charlotte

Senior International Fisheries Policy Officer, Department for Environment, Food and Rural Affairs (Defra), Marine & Fisheries Directorate, 4th Floor, Area 4B Nobel House 17 Smith Square, London SW1P 3JR
Tel: +44 208 026 4346, E-Mail: Charlotte.wicker@defra.gov.uk

Wright, Serena

Fisheries Scientist, Centre for Environment, Fisheries and Aquaculture Science (Cefas), ICCAT Tagging programme St. Helena, Pakefield Road, Lowestoft NR33 0HT
Tel: +44 1502 52 1338; +44 797 593 0487, E-Mail: serena.wright@cefas.co.uk

UNITED STATES

Cole, Alexa *

Director, Office of International Affairs and Seafood Inspection, NOAA, National Marine Fisheries Service, 1315 East West Highway, Silver Spring, Maryland 20910
Tel: +1 301 427 3087, E-Mail: alexa.cole@noaa.gov

Banks, Kesley

Texas A&M University-Corpus Christi, 6300 Ocean Drive, Unit 5869, Texas 78412
Tel: +1 361 825 3071, Fax: +1 361 825 2004, E-Mail: kesley.banks@tamucc.edu

Blankenbeker, Kimberly

Foreign Affairs Specialist, Office of International Affairs and Seafood Inspection (F/IS), NOAA National Marine Fisheries Service, 1315 East West Highway, Silver Spring Maryland 20910
Tel: +1 301 427 8357, Fax: +1 301 713 1081, E-Mail: kimberly.blankenbeker@noaa.gov

Blankinship, David Randle

Chief, Atlantic Highly Migratory Species Management Division, NOAA - National Marine Fisheries Service, 263 13th Ave South, Saint Petersburg, Florida 33701
Tel: +1 727 824 5313, Fax: +1 727 824 5398, E-Mail: randy.blankinship@noaa.gov

Bogan, Raymond D.

Sinn, Fitzsimmons, Cantoli, Bogan & West, 501 Trenton Avenue, P.O. Box 1347, Point Pleasant Beach, Sea Girt New Jersey 08742
Tel: +1 732 892 1000; +1 732 233 6442, Fax: +1 732 892 1075, E-Mail: rbogan@lawyernjshore.com

Brewster-Geisz, Karyl

NOAA Fisheries, Highly Migratory Species Management Division, 1315 East-West Highway, Silver Spring, MD 20910
Tel: +1 301 427 8536, Fax: +1 301 713 1917, E-Mail: Karyl.Brewster-Geisz@noaa.gov

Brown, Craig A.

Chief, Highly Migratory Species Branch, Sustainable Fisheries Division, NOAA Fisheries Southeast Fisheries Science Center, 75 Virginia Beach Drive, Miami, Florida 33149
Tel: +1 305 586 6589, Fax: +1 305 361 4562, E-Mail: craig.brown@noaa.gov

Dalton, Katy

U.S. Department of State, 2201 C St NW, Washington, D.C. 20520
Tel: +1 907 947 6660, E-Mail: daltonkh@fan.gov; dalton.kathryn93@gmail.com

Delaney, Glenn Roger

Blue Water Fishermen's Association, 601 Pennsylvania Avenue NW Suite 900 South Building, Washington, D.C. 20004
Tel: +1 202 434 8220, Fax: +1 202 639 8817, E-Mail: grdelaney@aol.com

2021 COM
12/11/2021 9:48

Doc. No. PA4_810 / 2021

Hemilright, Francis Dewey
Pobox 667, North Carolina Wanchese 27981
Tel: +1 252 473 0135, E-Mail: fvtarbaby@embarqmail.com

Keller, Bryan
Foreign Affairs Specialist, Office of International Affairs and Seafood Inspection (F/IS), NOAA National Marine Fisheries Service, 1315 East-West Highway, Maryland Silver Spring 20910
Tel: +1 202 897 9208, E-Mail: bryan.keller@noaa.gov

Kryc, Kelly
NOAA, 1401 Constitution Ave, Washington, DC 20230
Tel: +1 202 961 8932, E-Mail: kelly.kryc@noaa.gov

Leape, Gerald
Principal Officer, Pew Charitable Trusts, 901 E Street NW, Washington DC District of Columbia 20004
Tel: +1 202 431 3938, Fax: +1 202 540 2000, E-Mail: gleape@pewtrusts.org

Walline, Megan J.
Attorney- Advisor, NOAA Office of General Counsel, Fisheries & Protected Resources Division, U.S. Department of Commerce, 1315 East-West Highway SSMC-III, Silver Spring Maryland 20910
Tel: +301 628 1619, Fax: +1 301 713 0658, E-Mail: megan.walline@noaa.gov

Warner-Kramer, Deirdre
Acting Deputy Director, Office of Marine Conservation (OES/OMC), U.S. Department of State, Rm 2758, 2201 C Street, NW, Washington, D.C. 20520-7878
Tel: +1 202 647 2883, Fax: +1 202 736 7350, E-Mail: warner-kramerdm@fan.gov

Weber, Richard
South Jersey Marina, 1231 New Jersey 109, New Jersey Cape May 08204
Tel: +1 609 884 2400; +1 609 780 7365, Fax: +1 609 884 0039, E-Mail: rweber@southjerseymarina.com

URUGUAY

Domingo, Andrés *
Dirección Nacional de Recursos Acuáticos - DINARA, Laboratorio de Recursos Pelágicos, Constituyente 1497, 11200 Montevideo
Tel: +5982 400 46 89, Fax: +5982 401 32 16, E-Mail: dimanchester@gmail.com

Forselledo, Rodrigo
Investigador, Dirección Nacional de Recursos Acuáticos - DINARA, Laboratorio de Recursos Pelágicos, Constituyente 1497, CP 11200 Montevideo
Tel: +598 2400 46 89, Fax: +598 2401 3216, E-Mail: rforselledo@gmail.com

OBSERVERS FROM COOPERATING NON-CONTRACTING PARTIES, ENTITIES, FISHING ENTITIES

CHINESE TAIPEI

Chou, Shih-Chin
Section Chief, Deep Sea Fisheries Division, Fisheries Agency, 8F, No. 100, Sec. 2, Heping W. Rd., Zhongzheng Dist., 10070 Taipei
Tel: +886 2 2383 5915, Fax: +886 2 2332 7395, E-Mail: chou1967sc@gmail.com; shihcin@ms1.fagov.tw

Kao, Shih-Ming
Associate Professor, Graduate Institute of Marine Affairs, National Sun Yat-sen University, 70 Lien-Hai Road, 80424 Kaohsiung City
Tel: +886 7 525 2000 Ext. 5305, Fax: +886 7 525 6205, E-Mail: kaosm@mail.nsysu.edu.tw

Lee, Ching-Chao
Technical Specialist, Deep Sea Fisheries Division, Fisheries Agency, 8F., No.100, Sec. 2, Heping W. Rd., Zhongzheng Dist., 10060
Tel: +886 223 835 911, Fax: +886 223 327 395, E-Mail: chaolee1218@gmail.com; chinchao@ms1.fagov.tw

2021 COM
12/11/2021 9:48

Doc. No. PA4_810 / 2021

Yang, Shan-Wen
Secretary, Overseas Fisheries Development Council, 3F., No. 14, Wenzhou Street, Da'an Dist., 10648
Tel: +886 2 2368 0889 #151, Fax: +886 2 2368 6418, E-Mail: shenwen@ofdc.org.tw

OBSERVERS FROM NON-GOVERNMENTAL ORGANIZATIONS

ASSOCIAÇÃO DE CIÊNCIAS MARINHAS E COOPERAÇÃO - SCIAENA

Blanc, Nicolas
Incubadora de Empresas da Universidade do Algarve, Campus de Gambelas, Pavilhão B1, 8005-226 Faro, Portugal
Tel: +351 917 018 720, E-Mail: nblanc@sciaena.org

Carvalho, Gonçalo
SCIAENA, Incubadora de Empresas da Universidade do Algarve, Campus de Gambelas, Pavilhão B1, 8005-226 Faro, Portugal
Tel: +351 936 257 281, E-Mail: gcarvalho@sciaena.org; sciaena@sciaena.org

Fresco Vanzini, Ignacio
Sciaena, Incubadora de Empresas da Universidade do Algarve, Campus de Gambelas, Pavilhão B1, 8005-226 Faro, Campus de Gambelas, Pavilhão B1, 8005-226 Faro, Portugal
Tel: +34 669 437 268, E-Mail: i.frescovanzini@gmail.com

DEFENDERS OF WILDLIFE

Cruz, Orion
Defenders of Wildlife, 1130 17th St NW, Washington DC 20036, United States
Tel: +1 202 682 9400, E-Mail: OCruz@defenders.org

Goyenechea, Alejandra
Defenders of Wildlife, 1130 17th Street, NW, Washington DC 20036-4604, United States
Tel: +1 202 772 3268, Fax: +1 202 682 1331, E-Mail: agoyenechea@defenders.org

ECOLOGY ACTION CENTRE - EAC

Arnold, Shannon
Marine Coordinator, Ecology Action Centre, 2705 Fern Lane, Halifax, Nova Scotia B3K 4L3, Canada
Tel: +1 902 329 4668, E-Mail: sharnold@ecologyaction.ca

Isnor, Holly
Ecology Action Centre, 2705 Fern Lane, Halifax Nova Scotia B3K 4L3, Canada
Tel: +1 902 580 0600, E-Mail: hollyisnor@ecologyaction.ca

Samba Diop, Mika
Biologiste des Pêches, Coordonateur du Projet "AGD-Pélagiques", Liberté IV 5218, BP 25485, Dakar, Senegal
Tel: +221 776 448 218, E-Mail: coordpsra@gmail.com

GLOBAL TUNA ALLIANCE - GTA

Pickerell, Tom
Global Tuna Alliance, 3 Allendale road, S75 1BL, United Kingdom
Tel: +44 773 943 0030, E-Mail: tom@globaltunaalliance.com

HUMANE SOCIETY INTERNATIONAL - HSI

Chergui, Brahim
HSI, 5 Underwood St, London N1 7LY, United Kingdom
Tel: +44 20 7490 5288, E-Mail: brahim_chergui@ymail.com

Samari, Mona
Pew Charitable Trusts, 248A Marylebone Rd, Marylebone, London NW1 6JZ, United Kingdom
Tel: +44 751 582 8939, E-Mail: monasamari@outlook.com

PEW CHARITABLE TRUSTS - PEW

Galland, Grantly

Officer, Pew Charitable Trusts, 901 E Street, NW, Washington, DC 20004, United States
Tel: +1 202 540 6953; +1 202 494 7741, Fax: +1 202 552 2299, E-Mail: ggalland@pewtrusts.org

Miller, KerriLynn

Pew Charitable Trusts, 901 E Street NW, Washington, D.C. 20004, United States
Tel: +202 540 6481, E-Mail: klmiller@pewtrusts.org

Tak, Paulus

Senior Officer, Government Relations, Pew Environment Group, Avenue des Arts 40, 1040 Brussels, Belgium
Tel: +32 478 24 13 32, E-Mail: ptak@pewtrusts.org

PRO WILDLIFE

Altherr, Sandra

PRO WILDLIFE, Engelhardstrasse 10, 81369 Munich, Germany
Tel: +49 89 9042 99010, Fax: +49 89 9042 99099, E-Mail: sandra.altherr@prowildlife.de

Sonntag, Ralf

PRO WILDLIFE, Engelhardstrasse 10, 81369 Munich, Germany
Tel: +49 89 8129 9509, Fax: +49 89 8129 9706, E-Mail: ralfsonntag@web.de

SHARKPROJECT INTERNATIONAL

Ziegler, Iris

SHARKPROJECT International, Rebhaldenstrasse 2, 8910 Affoltern am Albis, Switzerland
Tel: +49 174 3795 190, E-Mail: i.ziegler@sharkproject.org; int.cooperation@sharkproject.org; dririsziegler@web.de

THE OCEAN FOUNDATION

Fordham, Sonja V

Shark Advocates International, President, c/o The Ocean Foundation, suite 250, 1320 19th Street, NW Fifth Floor, Washington, DC 20036, United States
Tel: +1 202 436 1468, E-Mail: sonja@sharkadvocates.org

THE SHARK TRUST

Clark, Martin

Tha Shark Trust, 4 Creykes Court The Millfields, Plymouth PL1 3JB, United Kingdom
Tel: +44 788 056 5393, E-Mail: martinc@theadvocacyhub.org

Hood, Ali

The Shark Trust, 4 Creykes Court, The Millfields, Plymouth PL1 3JB, United Kingdom
Tel: +44 7855 386083, Fax: +44 1752 672008, E-Mail: ali@sharktrust.org

Polti, Sandrine

The Sahrk Trust, Rue Souevraine 12, 1050 Brussels, Belgium
Tel: +32 476 49 45 95, E-Mail: sandrine.polti@gmail.com

WORLD WIDE FUND FOR NATURE – WWF

Buzzi, Alessandro

WWF Mediterranean, Via Po, 25/c, 00198 Roma, Italy
Tel: +39 346 235 7481, Fax: +39 068 413 866, E-Mail: abuzzi@wwfmedpo.org

Niedermueller, Simone

WWF Mediterranean, Via Po, 25 C, 00198 Rome, Italy
Tel: +43 676 834 88259, E-Mail: simone.niedermueller@wwf.at

2021 COM
12/11/2021 9:48

Doc. No. PA4_810 / 2021

SCRS CHAIRMAN

Melvin, Gary

SCRS Chairman, St. Andrews Biological Station - Fisheries and Oceans Canada, Department of Fisheries and Oceans, 285 Water Street, St. Andrews, New Brunswick E5B 1B8, Canada
Tel: +1 506 652 95783, E-Mail: gary.d.melvin@gmail.com; gary.melvin@dfo-mpo.gc.ca

SCRS VICE-CHAIRMAN

Coelho, Rui

Researcher, SCRS Vice-Chairman, Portuguese Institute for the Ocean and Atmosphere, I.P. (IPMA), Avenida 5 de Outubro, s/n, 8700-305 Olhão, Portugal
Tel: +351 289 700 504, E-Mail: rpcoelho@ipma.pt

ICCAT Secretariat

C/ Corazón de María 8 – 6th floor, 28002 Madrid – Spain
Tel: +34 91 416 56 00; Fax: +34 91 415 26 12; E-mail: info@iccat.int

Manel, Camille Jean Pierre

Neves dos Santos, Miguel

Ortiz, Mauricio

Taylor, Nathan

Cheatle, Jenny

Parrilla Moruno, Alberto Thais

Campoy, Rebecca

De Andrés, Marisa

Donovan, Karen

García-Orad, María José

Peyre, Christine

Pinet, Dorothée

Peña, Esther

ICCAT INTERPRETERS

Bujan, Marta

Faillace, Linda

Herrero Grandgirard, Patricia

Liberas, Christine

Pinzon, Aurélie

Sánchez del Villar, Lucía

**Joint Opening Statement
(The Defenders of Wildlife & Humane Society International)**

Defenders of Wildlife - with the support from Humane Society International - is thankful for the opportunity to present this position statement.

ICCAT CPCs face two broad choices when it comes to the North Atlantic shortfin mako. They can support a proposal that aligns with the core recommendation of the SCRS, which is to adopt a complete ban on the retention of the species, or they can support an alternative approach that will fail to facilitate the recovery of the mako shark within an acceptable time frame and poses too much risk to the survival of the species.

While we acknowledge that any approach that would reduce mortality rates for shortfin makos would be a step in the right direction, we must keep in mind that just because a measure may reduce mortality does not make it adequate or mean that it aligns with the scientific recommendation that has been made to ICCAT for five straight years.

There are important reasons the SCRS is recommending prohibiting the retention of shortfin makos rather than saying it would be sufficient to reduce mako mortality. One of the reasons a total ban on retention is needed is because it's simple to understand and enforce and it completely eliminates the incentive to catch the species, which is essential to minimize mortality. To the contrary, the alternative approaches being discussed are complicated and difficult to enforce.

In addition to its simplicity, the adoption of a non-retention policy is the option that is most likely to lead to a favorable outcome for the stock within a reasonable amount of time. According to SCRS, a zero TAC, which includes dead discards and represents total removals, will allow the overfished stock to be rebuilt by 2045 with a 53% probability. It's true that this timeframe means no matter what is done the recovery period for the stock will be long. However, every year matters and that's decades earlier than the stock would be rebuilt with a 500-ton TAC.

We must also keep in mind that, as SCRS itself has noted, there are many uncertainties associated with the fishery and the biology of the species when projecting 50 years out. This means that the eventual outcomes for the species, particularly when considering measures that would aim to rebuild the stock by 2070, could be much worse than SCRS has projected.

Given the endangered status of the shortfin mako and the importance of adopting an approach that provides the greatest chance of successfully rebuilding the stock within an acceptable time frame, an immediate complete ban on retention is the only measure that is appropriate.

**Explanatory Note from the European Union on the
Draft Recommendation by ICCAT on the Conservation of North Atlantic stock
of shortfin mako caught in association with ICCAT fisheries**

The European Union (EU) thanks the Chair of Panel 4 and the Secretariat for their work in preparing for the Panel 4 intersessional meeting in October. The EU would like to take the opportunity to submit its ideas and comments on the Chair's proposal on the draft recommendation by ICCAT on the conservation of North Atlantic stock of shortfin mako (SMA) caught in association with ICCAT fisheries.

Building on the work of the July intersessional meeting of Panel 4, we have revised some elements of the Chair's proposal and the EU submits what it believes is an ambitious and workable way forward for the proposed recommendation on the conservation of North Atlantic stock of shortfin mako caught in association with ICCAT Fisheries.

It is paramount that an agreement on this important topic is reached at this year's ICCAT annual meeting. Failure to reach an agreement would be damaging for the reputation of ICCAT and for the conservation of SMA. Following the July intersessional meeting of Panel 4, the EU welcomes the fact that we are now working on the basis of one common text and that we have consensus on two out of the three key pillars of any recovery plan: i) the need to immediately stop overfishing and ii) a timeline for the recovery period, i.e., 2070. This leaves a decision on the third element, namely the probability for achieving the objectives of the recovery plan and here the Commission can draw on the practice of previous plans.

The key aim should be to put in place a plan to drive mortality levels down to levels consistent with the overall objectives of the plan while leaving in place the possibility for a limited degree of retention of dead fish once mortality levels have descended below an agreed level. Since the ultimate success of the rebuilding programme will to a large extent depend on the active cooperation of the fishers, it is in the EU's view crucial to leave in place an incentive that under certain strict conditions allows for a limited degree of retention if the fishers successfully help bring mortality levels down below an established threshold that is consistent with the objectives of the recovery plan. In other words, the mortality target agreed will determine whether there is any retention allowed or not, and the method for determining this is set out in paragraph 2bis. The draft also makes clear all sources of fishing mortality must be accounted for when determining whether any retention is permissible.

The EU hopes that the text below can act as the basis for productive discussions at the upcoming Panel 4 intersessional on 27 October 2021.

DRAFT RECOMMENDATION BY ICCAT ON THE CONSERVATION OF NORTH ATLANTIC STOCK OF SHORTFIN MAKO CAUGHT IN ASSOCIATION WITH ICCAT FISHERIES
(a proposal from the EU, on the basis of the Chair's proposal (PA4-20A))

RECOGNIZING that shortfin mako sharks are primarily caught in association with ICCAT fisheries and that the Commission has adopted management measures for shark species considered vulnerable to overfishing in ICCAT fisheries;

NOTING that shortfin mako is caught in association with ICCAT fisheries and that the 2017 and 2019 SCRS assessments concluded that there is a 90% probability of the North Atlantic shortfin mako stock being overfished and experiencing overfishing, meaning that it is overfished and that overfishing continues;

RECALLING that according to its Convention, the stated objective of ICCAT is to maintain the stocks at levels which will permit the maximum sustainable catch and which will ensure the effective exploitation of these fish in a manner consistent with this catch;

RECALLING measures adopted by the Commission to improve the status of shortfin mako sharks, including the *Recommendation by ICCAT on the Conservation of North Atlantic Stock of Shortfin Mako Caught in Association with ICCAT Fisheries* (Rec. 17-08 and 19-06), which implemented measures aimed at ending overfishing of the North Atlantic shortfin mako stock with a high probability, as the first step in the development of a rebuilding program;

CONSIDERING that the *Recommendation by ICCAT on the Principles of Decision Making for ICCAT Conservation and Management Measures* (Rec. 11-13) calls for the Commission to immediately adopt management measures designed to result in a high probability of ending overfishing in as short a period as possible and adopt a plan to rebuild the stock taking into account, *inter alia*, the biology of the stock and SCRS advice;

ACKNOWLEDGING the need to establish an effective rebuilding program for North Atlantic shortfin mako, including immediate action to reduce fishing mortality to end overfishing;

FURTHER NOTING that the updated projections conducted by the SCRS in 2019 outline several scenarios, including the scenario where a certain degree of retention would still allow the recovery of the stock by 2070 with a probability that is in the normal range of recovery plans;

FURTHER RECALLING that regardless of the TAC, the spawning stock biomass will continue to decline until 2035 before any increase can occur, owing to the time it takes juveniles to reach maturity and that even a zero TAC will only allow the stock to be rebuilt and without overfishing (in the green quadrant of the Kobe plot) by 2045 and that consequently due the biology of the stock the recovery period will in any event be long;

ALSO RECOGNIZING SCRS advice on the need for Contracting Parties and Cooperating non-Contracting Parties, Entities, or Fishing Entities (hereinafter referred to as CPCs) to strengthen their monitoring and data collection efforts in support of future stock assessments, including but not limited to total estimated dead discards and the estimation of CPUE using observer data;

[...]

FURTHER RESPONDING to the need for additional research on methods to reduce shortfin mako interactions in ICCAT fisheries, including identifying areas with high interactions;

THE INTERNATIONAL COMMISSION FOR THE CONSERVATION
OF ATLANTIC TUNA (ICCAT) RECOMMENDS THAT:

Rebuilding programme objectives

1. The Contracting Parties and Cooperating non-Contracting Parties, Entities or Fishing Entities (hereinafter referred to as "CPCs"), shall implement a rebuilding programme for North Atlantic shortfin mako shark starting in 2022 to end overfishing immediately and gradually achieve biomass levels sufficient to support maximum sustainable yield (MSY) by 2070 with a probability of at least [60/70%] [corresponding to a total fishing mortality [limit] of XX tonnes. The rebuilding period and total mortality limit may be reviewed based on subsequent SCRS advice.]
2. Toward that end, the rules set out in this recommendation shall be applied by CPCs with the aim to reduce and then maintain mortality at sustainable levels and to establish whether in any given year there is a possibility for retention.

2bis. In order to determine whether any retention of only dead fish at haulback is permissible, the following rules shall apply:

By derogation to paragraphs 8 and 9bis above, the measures relating to the observer coverage and EMS as well as the installation of mini data loggers shall not apply to longliners of 12 m or less.

- a) The fishing mortality goal consistent with this plan shall be based on para 1 and the most recent Kobe II risk matrix for North Atlantic shortfin mako projection results (the probability of both $F < F_{MSY}$ $SSF^{\dagger} > SSF_{MSY}$).
- b) Any allowable retention shall be calculated by subtracting the mortalities other than retention from the figure established by paragraph 2bis, sub paragraph (a) above. The mortalities other than retention shall be estimated by the SCRS based on the data submitted by CPCs as well as [updated] scientific evidence.
- c) If the threshold value established by paragraph 2bis, sub paragraph (b) above, is at or less than zero, CPCs shall prohibit retaining onboard, transshipping or landing, whole or in part, North Atlantic shortfin mako caught in association with ICCAT fisheries [].
- d) If the threshold value established by paragraph 2bis, sub paragraph (b) above is more than zero, CPCs may catch and retain the amount up to the threshold value.
- e) Following every stock assessment, the SCRS shall establish the level of possible retention

2ter CPCs whose fishing vessels retain North Atlantic shortfin mako shall prohibit transshipping, whole or in part, North Atlantic shortfin mako caught in association with ICCAT fisheries.

2quater [For 2022, the fishing mortality goal for North Atlantic shortfin mako shall, consistent with the objectives established under paragraph 1, be set at [XX t]. [Until such time a robust calculation on total mortality by the SCRS is possible, CPCs shall prohibit retaining onboard, transshipping or landing, whole or in part, North Atlantic shortfin mako caught in association with any of the fisheries managed by ICCAT. When data is more complete and the SCRS is able to produce/advise on such a calculation, the fishing mortality goal for North Atlantic shortfin mako shall, consistent with the objectives established under paragraph 1, be set at [XX t]. From that time, if pursuant to para 2bis retention is permissible].

Commented [A1]: Morocco requested this sentence corresponding to para 12bis on the Chair's proposal PA4-20A to be inserted, but did not specify where to insert it

Commented [A2]: move to 2bis?

[†] SSF is Spawning stock fecundity, which is used for Kobe II risk matrix for North Atlantic shortfin mako.

[2quinquies] If pursuant to paragraph 2bis retention is permissible, the allowed retention for the following CPC shall be established using the following formula:

CPC total permissible retention (t) =
(Average of annual CPC catches over the [period 2013-2017])*(amount established by paragraph 2bis, subparagraph d)
(Average total ICCAT catches [2013-2017])

The fishing mortality [limit] and its retention threshold shall be revised subject to a decision of the Commission based on the advice of the SCRS in 2027, or at an earlier stage if enough information is provided by the SCRS.

European Union: XXX t
Morocco: YYY t
United States: ZZZ t
???:]

3. The retention in accordance with para 2bis shall be allowed only when the fish is dead on haulback and the vessel has an observer or a functioning electronic monitoring system on board to verify the condition of the sharks and the release. No more than two specimens of North Atlantic shortfin mako shall be retained by a vessel for any fishing trip.
4. This shall not apply to [Norway/CPCs] whose domestic law requires that any dead fish be landed, provided that:
 - a) The fish is dead on haulback [...];
 - b) Directed fishing for shortfin mako sharks is prohibited;
 - c) The amount of landed North Atlantic shortfin mako is reported in the CPC's Shark Implementation Check Sheet, as required by Recommendation 18-06 and any future successor or revision thereto;
 - d) North Atlantic shortfin mako be landed with their fins naturally attached; and
 - e) [Fishermen are prohibited from drawing any commercial value from such fish.]

Safe handling and release

5. [Starting on 1 January/[June] [2022/2023]], CPCs shall require vessels flying their flag to promptly release unharmed, to the extent practicable, all live North Atlantic shortfin mako when brought alongside the vessel, while giving due consideration to the safety of the crew] The minimum standards for safe handling and release of North Atlantic shortfin mako sharks shall apply, as provided under **Annex 1** of this Recommendation. These minimum standards may be revised by the Commission whenever considered necessary and new information following SCRS scrutiny and advice becomes available, but no later than [202X].

Requirements for reporting on implementation

6. [CPCs shall submit a Shark Implementation Check Sheet to provide information on how this Recommendation is implemented in accordance with Rec. 18-06. If the Compliance Committee determines that any CPC fails to report as required by Rec. 18-06, that CPC shall immediately require its fishing vessels to refrain from [retaining] or landing North Atlantic shortfin mako sharks until the required reporting is made to ICCAT.]

7. [CPCs shall report at a minimum [monthly/quarterly/annually] to the ICCAT Secretariat, in accordance with ICCAT data reporting requirements, [total catches], including [landings,] dead discards and live releases, of North Atlantic shortfin mako. CPCs shall estimate dead discards and live releases based on the total fishing effort of their relevant fleets using data collected through observer programs or other relevant data collection programs. Failure by a CPC to report required dead discard and live release data, including failure to submit reports of zero discards and zero releases, is a serious violation, and the Compliance Committee shall consider appropriate actions. In addition, if the Compliance Committee determines that CPCs that authorize their vessels to retain on board and land North Atlantic shortfin mako pursuant to paragraph [X] fail to report their catch data, including dead discards and live releases, the CPCs concerned shall require their fishing vessels to refrain from retaining any quantity of North Atlantic shortfin mako until such data have been reported.]

Commented [A3]: [In those years where retention is possible there would be one time frame for CPCs with major catches (who report more frequently) and another for CPCs with minor catches (who report less frequently) distinguishing between catch/landing and discards/live and dead releases]

Biological sampling and observer coverage

8. [CPCs [that retain North Atlantic shortfin mako sharks] shall gradually increase the observer coverage, including EMS, of all longline fishing vessels [targeting ICCAT species that have potential interactions with North Atlantic shortfin mako sharks] to [10/20%] by [2023] at the latest. This increase in the coverage should be implemented in accordance with provisions of Recommendation 16-14 either by means of the deployment of human observers on board vessels or through the use of EMS, taking into account minimum standards to be agreed by ICCAT, based on advice from SCRS and PWG.]
- 8bis Collection of biological samples during commercial fishing operations shall comply with the Recommendation by ICCAT on biological sampling of prohibited shark species by scientific observers (Rec. 13-10). CPCs should encourage the collection of biological samples of North Atlantic shortfin mako that are dead at haulback, such as muscle, vertebrae [] and reproductive tissues, consistent with the terms of this recommendation and according to the recommendations of SCRS.

Gear modification

Scientific and research activities

10. The SCRS shall continue to prioritize research into: identifying mating, pupping and nursery grounds, and other high concentration areas of North Atlantic shortfin mako; options for spatial-temporal measures; gear mitigations measures (including gear configuration), together with the benefits and disadvantages for the objectives of the rebuilding programme, aimed at further improving stock status; and other areas the SCRS deems helpful both to improving stock assessments and reducing shortfin mako mortality. In addition, CPCs are encouraged to investigate at-vessel and post-release mortality of shortfin mako including, but not exclusively through, the incorporation of hook-timers and of satellite tagging programs.
- 10bis Taking to account that hotspots of incidental catches may occur in areas and periods with specific oceanographic conditions, the SCRS shall launch a pilot project to explore the benefits of installing mini data loggers on the mainline and on the branchlines of longline fishing vessels [targeting ICCAT species that have potential interactions with shortfin mako sharks]. The SCRS shall provide guidance on the basic characteristics, minimum number and positions to install the mini data loggers with a view to have a better understanding of the effects of the soaking time, fishing depths and environmental characteristics underpinning higher incidental catches of shortfin mako.
11. The SCRS shall provide to the Commission by 2024, and whenever new information becomes available, updated advice on mitigation measures aimed at further reducing shortfin mako mortality. For that purpose, CPCs shall provide any relevant data to support SCRS analysis of this matter.

Commented [A4]: Para 9 from doc PA4-20A on circle hooks to remain under discussion

Next stock assessment and review of measures effectiveness

12. The SCRS shall conduct a [full] stock assessment of North Atlantic shortfin mako by [2024]. In addition, the SCRS shall provide by [2027] at the latest, an evaluation of the effectiveness of actions taken pursuant to this recommendation to achieve the objectives of the rebuilding programme.

Implementation

13. Notwithstanding the provisions of Article VIII, paragraph 2 of the Convention, CPCs are strongly encouraged to implement, in accordance with their regulatory procedures, this Recommendation as soon as possible and before the date of its entry into force.
- 13bis [In [2022], an intersessional meeting of Panel 4 shall take place to promote the sharing between CPCs of best practices, to reduce encounters with, and catches and fishing mortality of shortfin mako sharks. Panel 4 shall seek input from fishing operators and scientists and shall encourage their participation in this meeting, and then provide any recommendations to the Commission on the most efficient technical measures likely to reduce fishing mortality for shortfin mako.]

Repeal

14. This Recommendation replaces and repeals the *Recommendation by ICCAT on the Conservation of North Atlantic Stock of Shortfin Mako Caught in Association with ICCAT Fisheries* (Rec. 19-06).

Annex 1

Minimum standards for safe handling and live release procedures

The following provides minimum standards for safe handling practices of sharks [either subject to a recovery plan] northern shortfin mako shark or subject to prohibition of retention. and specific recommendations for both longline and purse seine fisheries.

These minimum standards are appropriate for live shortfin mako sharks and other live shark species subject [either a recovery plan or] to [prohibition of retention] when released whether under no-retention policies, or when released voluntarily. These basic guidelines do not replace any stricter safety rules that may have been established by the National Authorities of individual CPCs.

Safety First: These minimum standards should be considered in light of safety and practicability for crew. Crew safety should always come first. At a minimum, crew should wear suitable gloves and avoid working around the mouths of sharks.

Training: The Secretariat and SCRS should develop materials to support the training of fishing operators to implement this safe handling protocol. These materials should be made available to CPCs in the three ICCAT official languages.

To the greatest extent practicable, all sharks being released should remain in the water at all times unless it is necessary to lift sharks for species identification. This includes cutting the line to free the shark while it is still in the water, using bolt cutters or dehooking devices to remove the hook if possible, or cutting the line as close to the hook as possible (and so leaving as little trailing line as possible).

Be prepared: Tools should be prepared in advance (e.g., canvas or net slings, stretchers for carrying or lifting, large mesh net or grid to cover hatches/hoppers in purse seine fisheries, long handled cutters and de-hookers in longline fisheries, etc., listed at the end of this document).

General recommendations for all fisheries:

- If operationally safe to do so, stop the vessel or substantially reduce its speed.
- When entangled (in netting, fishing line, etc.), if safe to do so, carefully cut the net/line free from the animal and release to the sea as quickly as possible with no entanglements attached.
- Where feasible, and while keeping the shark in the water, try to measure the length of the shark.
- To prevent bites, place an object, such as a fish or big stick/wooden pole, in the jaw.
- If, for whatever reason, a shark must be brought on the deck then minimise the time it takes to return it to the water to increase survival and reduce risks to the crew.

Longline fisheries specific safe-handling practices:

- Bring the shark as close to the vessel as possible without putting too much tension on the branchline to avoid that a released hook or branchline break could shoot hook, weights and other parts toward the vessels and crew at high speed.
- Secure the far side of the longline mainline to the boat to avoid that any remaining gear in the water pulls on the line and the animal.
- If hooked, and the hook is visible in the body or mouth, use a dehooking device or long-handled bolt cutter to remove the hook barb, and then remove the hook.
- If it is not possible to remove the hook or the hook cannot be seen, cut the line of the trace (or snood, leader) as close to the hook as possible (ideally leaving as little line and/or leader material as possible and no weights attached to the animal).

Purse seine fisheries specific safe-handling practices:

- *If in purse seine net:* Scan the net as far ahead as possible to spot the sharks early to react quickly. Avoid lifting them up in the net towards the power block. Reduce vessel speed to slacken the tension of the net and allow the entangled animal to be removed from the net. If necessary, use clippers to cut the net.
- *If in brail or on deck:* Use a purpose-built large-mesh cargo net or canvas sling or similar device. If the vessel layout allows, these sharks could also be released by emptying the brail directly on a hopper and release ramp held up at an angle that connects to an opening on the top deck railing, without need to be lifted or handled by the crew.

DO NOT (all fisheries):

- To the greatest extent practicable, do not lift sharks from the water using the branchline, especially if hooked unless it is necessary to lift sharks for species identification.
- Lift sharks using thin wires or cables, or by the tail alone.
- Strike a shark against any surface to remove the animal from the line.
- Attempt to dislodge a hook that is deeply ingested and not visible.
- Try to remove a hook by pulling sharply on the branchline.
- Cut the tail or any other body part.
- Cut or punch holes through the shark.
- Gaff or kick a shark, or insert hands into the gill slits.
- Expose the shark to the sun for extended periods.
- Wrap your fingers, hands or arms in the line when bringing a shark or ray to the boat (may result in serious injury).

Useful tools for safe handling and release:

- Gloves (shark skin is rough; ensures safe handling of shark and protects crew's hands from bites).
- Towel or cloth (a towel or cloth soaked in seawater can be placed on the eyes of the shark; used to calm sharks down)
- Dehooking devices (e.g., pig tail dehooker, bolt or plier cutters)
- Shark harness or stretcher (if needed)
- Tail rope (to secure a hooked shark if it needs to be removed from the water)
- Saltwater hose (If anticipated that it may require more than 5 minutes to release a shark, then place a hose into its mouth so seawater is moderately flowing into it. Make sure deck pump has been running several minutes before placing it in a shark's mouth)
- Measuring device (e.g., mark a pole, leader and float, or a measuring tape)
- Data sheet for recording all catch
- Tagging gear (if applicable)