



**CONVENTION SUR
LES ESPÈCES
MIGRATRICES**

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**COMMENTAIRES DES ORGANISATIONS INTERGOUVERNEMENTALES SUR LES
PROPOSITIONS D'AMENDEMENT DES ANNEXES I ET II DE LA CONVENTION**

(Préparé par le Secrétariat)

Résumé:

Ce document contient les commentaires présentés par les organisations intergouvernementales compétentes sur les propositions d'amendement des annexes de la CMS à être examinées par la 13^e session de la Conférence des Parties (COP13).

COMMENTAIRES DES ORGANISATIONS INTERGOUVERNEMENTALES SUR LES PROPOSITIONS D'AMENDEMENT DES ANNEXES I ET II DE LA CONVENTION

1. Conformément aux dispositions de l'Article XI de la Convention, les Parties suivantes ont présenté des propositions d'amendements aux Annexes I et II de la Convention pour examen par la 13^e session de la Conférence des Parties : Argentine, Australie, Bolivie (État plurinational de), Brésil, Chili, Costa Rica, Inde, Iran (République islamique d'), Nouvelle Zélande, Ouzbékistan, Paraguay, Pérou, Tadjikistan, Union européenne et ses États membres, Uruguay.
2. Conformément aux dispositions du paragraphe 7 de la Résolution 11.33 (Rev.COP12), le Secrétariat a consulté les organismes intergouvernementaux compétents, y compris les ORGP, ayant une fonction en relation avec toute espèce faisant l'objet d'une proposition d'amendement. Ces organisations sont :
 - Accord sur la conservation des albatros et des pétrels,
 - Convention sur la diversité biologique,
 - Convention pour la conservation des ressources vivantes marines de l'Antarctique,
 - Convention sur la conservation et la gestion des ressources de Pollock dans la mer centrale de Bering,
 - Commission pour la conservation du thon rouge du Sud,
 - Comité des pêches de l'Atlantique Centre-Est,
 - Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction,
 - Convention pour la protection du milieu marin de l'Atlantique du nord-est,
 - Convention relative à la conservation de la vie sauvage et du milieu naturel de l'Europe,
 - Organisation des Nations Unies pour l'alimentation et l'agriculture,
 - Commission générale des pêches pour la Méditerranée,
 - Commission interaméricaine du thon tropical,
 - Commission internationale pour la conservation des thonidés de l'Atlantique,
 - Commission du thon de l'océan Indien,
 - Union internationale pour la conservation de la nature,
 - Commission baleinière internationale,
 - Organisation des pêches de l'Atlantique Nord-Ouest,
 - Organisation de conservation du saumon de l'Atlantique Nord,
 - Commission des pêches de l'Atlantique du Nord-Est,
 - Commission des pêches du Pacifique Nord,
 - Mémoire d'Entente sur la conservation des requins migrateurs ;
 - La Convention de Ramsar sur les zones humides d'importance internationale,
 - Organisation des pêches de l'Atlantique Sud-Est,
 - Accord sur les pêches de l'océan Indien Sud,
 - Secrétariat du Programme régional de l'environnement du Pacifique,
 - Organisation régionale de gestion des pêches du Pacifique Sud,
 - Commission des pêches du Pacifique occidental et central,
 - Commission de la pêche de l'Atlantique Centre-Ouest, et
 - Convention du patrimoine mondial.
3. L'intégralité des textes des commentaires reçus des organisations intergouvernementales en réponse à la demande du Secrétariat, figurent dans la langue dans laquelle ils ont été soumis, dans les annexes suivantes du présent document, qui constitue un Addendum au document UNEP/CMS/COP13/Doc.27.1:

- Annexe 1 – Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction
- Annexe 2 – Commission des thons de l'océan Indien
- Annexe 3 - Union internationale pour la conservation de la nature
- Annexe 4 - Mémoire d'Entente sur la conservation des requins migrateurs
- Annexe 5 - Secrétariat du Programme régional de l'environnement du Pacifique



Our ref.: SST/TDM/2019/CMS/06
Your ref.:

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Geneva, 19 December 2019

Subject: CITES Secretariat comments on Proposals for amendments of CMS Appendices

Dear Ms. Fraenkel,

I write in response to your letter dated 18 October 2019, asking the CITES Secretariat to comment on scientific aspects of the proposals received to amend CMS Appendices I and II. In this regard, the CITES Secretariat shares herewith information relating to nine proposals for amending the CMS Appendices, to be discussed at the 13th meeting of the Conference of the Parties (COP13), concerning species that are included in the Appendices of CITES. The comments focus on the scientific aspects of the proposals, as well as their policy implications from the perspective of CITES if they were adopted.

The comments are provided in response to paragraph 5 of CMS Resolution 11.33 (Rev. COP12), requesting the CMS Secretariat *"to consult other relevant intergovernmental bodies, including RFMOs, having a function in relation to any species subject to a proposal for amendment of the Appendices and to report on the outcome of those consultations to the relevant meeting of the Conference of Parties"*.

CMS and CITES agreed on a Joint Work Programme 2015-2020, which comprises, *inter alia*, joint activities addressing shared species such as big cats, and sharks and rays (Elasmobranchii). Any listing of CITES-listed species on the CMS Appendices may therefore have a potential bearing on the implementation of the Joint Work Programme.

The CITES Secretariat appreciates that its comments will be communicated to CMS Parties for consideration at COP13.

Yours sincerely,

PP Ivonne Higuero
Secretary-General

Annex: CITES Secretariat comments on Proposals for amendments of CMS Appendices

27.1.1. Proposal for the inclusion of *Elephas maximus indicus* in Appendix I (India)

The Asian elephant, *Elephas maximus*, has been included in CITES Appendix I since the Convention's inception in 1975. International trade in specimens of wild origin of this species is therefore generally prohibited, except for non-commercial purposes. The CITES trade database shows records of international trade in pre-convention ivory specimens, as well as a small number of transactions of live animals bred in captivity (for zoos and circuses).

- The CITES Parties have paid particular attention to the conservation of and trade in Asian (and African) elephants, *inter alia* through [Resolution Conf. 10.10 \(Rev. CoP18\) on Trade in elephant specimens](#) and related decisions, of which the implementation is regularly (annually) reviewed by the CITES Standing Committee and the Conference of the Parties.¹
- Two long-term monitoring programmes provide CITES Parties with information on elephant conservation and ivory trade, in support of adopting and adjusting conservation and management measures: (i) The CITES MIKE Programme closely monitors trends in the illegal killing of both Asian and African elephants, builds management capacity and provides information to help Asian elephant range States making appropriate management and enforcement decisions²; (ii) the Elephant Trade Information System (ETIS) monitors illegal trade in elephants and elephant products by compiling and analyzing law enforcement data on seizures and confiscations of elephant specimens³.

CITES Parties recognizes that there are significant and diverse pressures on Asian elephants, with the major threats being habitat loss, degradation and fragmentation, and increasing human population pressures and human-elephant conflict.

- At its 17th meeting, the Conference of the Parties addressed the problem of illegal trade in live wild Asian elephants in Asia, and adopted several decisions in this regard (see document [CoP17 Doc. 57.1](#)). A report by the IUCN/SSC Asian Elephant Specialist Group, commissioned by the CITES Secretariat for consideration by the Standing Committee at its 70th meeting (SC70, Sochi 2018; see document [SC70 Doc. 49.1 Annex 1](#)), states that thirteen Asian elephant range States across South and Southeast Asia hold between 44,281 and 49,731 Asian elephants. It also indicates that cases of poaching Asian elephants have increased in Myanmar and Vietnam, and that illegal trade in live elephants of wild origin has been reported in Myanmar, Cambodia, India and Lao PDR. Concerns were also raised at SC70 by Parties and other observers regarding the emerging threat posed by illegal trade in Asian elephant skin.
- The CITES Conference of the Parties, at its 18th meeting (CoP18, Geneva, August 2019) therefore adopted two interrelated decisions ([Decisions 18.226 and 18.227](#)) on trade in Asian elephants, encouraging all Parties involved in the trade in Asian elephants and their parts and derivatives to, *inter alia*, enforce, and where necessary improve, national laws concerning international trade in specimens of Asian elephants with the explicit intention of preventing illegal trade. The decisions also encouraged Parties to develop strategies to manage captive Asian elephant populations; ensure that trade in, and cross-border movements of, live Asian elephants are conducted in compliance with CITES; and collaborate in the development and application of a regional system for registering, marking and tracing live Asian elephants, requesting as necessary assistance from experts, specialized agencies or the CITES Secretariat.

The proposal of India only concerns the subspecies *Elephas maximus indicus*, referred to as "mainland Asian elephant", whereas the listing in CITES Appendix I covers the entire species of *Elephas maximus*.

- In relation to *Elephas maximus*, the standard reference for terrestrial mammals adopted by the Conference of the Parties in UNEP/CMS/Resolution 12.27 [Wilson, D.E. and Reeder, D.M. (Eds.). 2005.] does not provide details on subspecies, but it is known that the subspecies taxonomy of *Elephas maximus* has varied among authors, and remains subject to ongoing research, as also recognized by the proponents.

¹ For example, see CoP18 documents under agenda item 69 on Elephants (*Elephantidae* spp.): <https://cites.org/eng/cop/18/doc/index.php>

² For example, see <https://cites.org/sites/default/files/eng/cop/18/doc/E-CoP18-069-02.pdf>

³ For example, see <https://cites.org/sites/default/files/eng/cop/18/doc/E-CoP18-069-03-R1.pdf>

The supporting statement states that "currently, three sub species are recognized taxonomically: *Elephas maximus indicus* on the Asian mainland, *Elephas maximus maximus* in Sri Lanka, and *Elephas maximus sumatranus* on the Indonesian island of Sumatra". However, the proponents lump *E. m. maximus* with *E. m. indicus*; exclude *E. m. sumatranus* from the proposal; and also exclude an unrecognized taxon that is referred to as "*E. m. borneensis*", of which the proponents indicate that "studies may necessitate the formation of a separate subspecies". In summary, the proposal aims to cover *Elephas maximus indicus*, occurring in 13 range States in Asia, and to exclude the Asian elephant populations from Sumatra (Indonesia) and Borneo (Malaysia).

- The proposal, if adopted, would result in the split-listing of *Elephas maximus*, with some populations included in CMS Appendix I, and others not covered by CMS. It may be worth noting that CITES [Resolution Conf. 9.24 \(Rev. CoP17\) on Criteria for amendment of Appendices I and II](#) states that "When split-listing does occur, this should generally be on the basis of national or regional populations, rather than subspecies. Split-listings that place some populations of a species in the Appendices, and the rest outside the Appendices, should normally not be permitted."
- The proposed 'split-listing' of *Elephas maximus* in the CMS Appendices may create implementation challenges, particularly in Indonesia and Malaysia where some Asian elephants would be in CMS Appendix I, and others not included in the CMS Appendices. The 'split-listing' would create discrepancies between the CITES and CMS Appendices concerning this species, which may give rise to challenges in the implementation of both Conventions in instances where they are cooperating in the conservation of Asian elephants, e.g. under the CMS CITES joint work programme.

27.1.2 Proposal for the inclusion of *Panthera onca* in Appendix I & II (Argentina, Bolivia - Plurinational State of, Costa Rica, Paraguay, Peru and Uruguay)

The jaguar (*Panthera onca*) has been included in CITES Appendix I since the Convention's inception in 1975. International trade in specimens of wild origin of this species is therefore prohibited, except for non-commercial purposes. The CITES trade database shows movements for non-commercial purposes of a number of captive-bred or confiscated or seized jaguar specimens.

- CITES Parties recognize the multiple threats affecting jaguar populations - above all habitat loss but also illegal trade, the scale and nature of the latter remain poorly documented. Two working documents in this respect were submitted to CITES CoP18 by Costa Rica and Mexico (document [CoP18 Doc. 77.1](#)) and Peru, noting that the latter (submitted as document CoP18 Doc. 77.2) was withdrawn. In the context of work on Asian big cats, Parties to CITES also raised concern that demand for big cat specimens in Asia might be contributing to an escalation of illegal trade in South American big cat species, such as the jaguar.
- At CoP18, the Parties therefore adopted three interrelated decisions on jaguars ([Decisions 18.251 to 18.253](#)). These decisions, *inter alia*, direct the CITES Secretariat to, subject to the availability of external funding, commission a study on illegal trade in jaguars, and encourage CITES Parties, especially those that are range States of the jaguar and relevant stakeholders, to support the preparation of this study and to urgently adopt comprehensive legislation and enforcement controls aimed at eliminating the poaching of jaguars and illegal trade in their parts and derivatives.
- The CITES Parties further adopted at CoP18 a number of decisions on a CITES Big Cats Task Force, which are pertinent to the jaguar ([Decisions 18.244 to 18.250](#)). Decision 18.245 directs the CITES Secretariat, *inter alia*, to subject to external resources, establish and convene, in consultation with the CITES Standing Committee, a CITES Big Cats Task Force, focusing on big cat species from Africa, Asia and Latin America, and consisting of representatives from Parties most affected by the illegal trade in big cats, the International Consortium on Combating Wildlife Crime partner organizations, other Parties and organizations, as appropriate, and experts who the Secretariat determines may contribute to the Task Force. The Secretariat is also directed in Decision 18.246, *inter alia*, to subject to external resources, conduct further research and analysis on the legal and illegal trade in lions and other big cats to better understand trends, linkages between trade in different species, and the commodities in trade which contain, or claim to contain, such specimens.

27.1.3 Proposal for the inclusion of *Ovis vignei* (all subspecies and the entire population, except hybrid populations) in Appendix II (Iran - Islamic Republic of, Tajikistan and Uzbekistan)

The Ladakh Urial, *Ovis vignei*, with India and Pakistan as range States, has been included in CITES Appendix I since the Convention's inception in 1975. At CoP9 in 1994, *Ovis vignei* was transferred from Appendix I to Appendix II, with the exception of *Ovis vignei vignei* which remained in Appendix I.

The nomenclature of wild sheep of the genus *Ovis*, including *Ovis vignei*, has been subject of considerable debate and decision-making by the Parties to CITES, most recently at CoP17 and CoP18.

- At CoP17 (Johannesburg, September 2016), the Parties to CITES adopted Wilson & Reeder (2005) as the standard reference for the genus *Ovis*, *inter alia* to align the taxonomy with the standard reference applied in CMS. This meant that *Ovis vignei* was lumped into *Ovis aries*. Consequently, in CITES Appendix I, "*Ovis vignei vignei*" was replaced by "*Ovis aries vignei*"; and in Appendix II, "*Ovis vignei* (Except the subspecies included in Appendix I)" was replaced by "*Ovis aries* (Except the subspecies included in Appendix I, the subspecies *O. a. isphahanica*, *O. a. laristanica*, *O. a. musimon* and *O. a. orientalis* which are not included in the Appendices, and the domesticated form *Ovis aries aries* which is not subject to the provisions of the Convention)".
- At CITES CoP18, following advice from the Animals Committee, the Parties adopted the revised taxonomy of the genus *Ovis* in the subchapter in the Handbook of Mammals (Valdez & Weinberg, 2011, in Wilson & Mittermeier, Eds., 2011; ISBN 978-84-96553-77-4) as the standard nomenclatural reference for the genus *Ovis*. The effect of the adoption of the new Standard Reference by CITES Parties was that the name "*Ovis aries vignei*" in Appendix I changed again to "*Ovis vignei*", and that the taxa in Appendix II belonging to the former *Ovis aries* complex were revised. Therefore, the following *Ovis* species are currently recognized by CITES Parties and included in the CITES Appendices:

CITES Appendix I

Ovis gmelini (Only the population of Cyprus; no other population is included in the Appendices)

Ovis hodgsoni

Ovis nigrimontana

Ovis vignei

CITES Appendix II

Ovis ammon

Ovis arabica

Ovis bochariensis

Ovis canadensis (Only the population of Mexico; no other population is included in the Appendices)

Ovis collium

Ovis cycloceros

Ovis darwini

Ovis jubata

Ovis karelini

Ovis polii

Ovis punjabiensis

Ovis severtzovi

The scope of the proposal from Iran, Tajikistan and Uzbekistan does not correspond to what CITES considers to be *Ovis vignei*. Regarding the taxonomic basis, the proponents state that they follow an "ongoing reassessment under The IUCN Red List", rather than referring to the *Ovis* taxonomy formally agreed by CMS [for terrestrial mammals: Wilson, D. E. & Reeder, D. M. (ed.) (2005)], or to the currently applicable CITES nomenclature. This makes it somewhat challenging from a CITES perspective to understand the exact scope of the proposal. The proposal applies the scientific name *Ovis vignei* for "urial", but the CITES Secretariat would disagree with the proponents' assertion that "This species name allows for a clear identification of the taxon proposed for inclusion in Appendix II of the CMS."

- The proponents state that "Urial is divided into several subspecies: *Ovis vignei arkal* - Transcaspiian urial; *Ovis vignei blanfordi* - Blandford's urial; *Ovis vignei boharensis* - Bukhara urial; *Ovis vignei*

cycloceros - Afghan urial; *Ovis vignei punjabensis* - Punjab urial; *Ovis vignei vignei*- Ladakh urial", and that "identified stable, naturally occurring hybrid populations of *Ovis vignei* and *O. gmelini* are not part of this proposal".

This suggests that according to the new CITES Standard Nomenclature Reference for *Ovis*, the proposal concerns the following CITES-listed taxa: *Ovis vignei* [Appendix I]; *Ovis bochariensis*; *Ovis cycloceros*; and *Ovis punjabiensis* [Appendix II]. The taxa that the proponents refer to as *Ovis vignei arkal* and *Ovis vignei blanfordi* correspond to *Ovis cycloceros* [Appendix II].

The CITES trade database shows a relatively large number of transactions of wild-sourced *Ovis* species, mainly *Ovis ammon*, *O. bochariensis*, *O. canadensis*, *O. darwini* and *O. polii*. The database only shows two transactions since the year 2000 involving *Ovis vignei*. The *Ovis* specimens in trade are almost exclusively hunting trophies.

It will be important to consider that the *Ovis* taxa and populations that Iran, Tajikistan and Uzbekistan propose to include in CMS Appendix II under the name "*Ovis vignei* – urial" do not correspond to what the CITES Appendices show as *Ovis vignei* (Urial). This would be particularly relevant in case the Parties to CMS would endeavour to conclude Agreements covering the conservation and management of urial included in CMS Appendix II, similar to the *International Single Species Action Plan for the Conservation of the Argali, Ovis ammon*, to which CITES contributed.

27.1.4 Proposal for the inclusion of *Ardeotis nigriceps* in Appendix I (India)

The great Indian bustard (*Ardeotis nigriceps*) has been included in Appendix I of CITES since 1979. International trade in specimens of wild origin of this species is therefore generally prohibited, except for non-commercial purposes. The CITES trade database shows that from 1979 to 2018, international transactions for non-commercial purposes remained limited to three transactions totalling 5 specimens.

27.1.5 Proposal for the inclusion of *Houbaropsis bengalensis bengalensis* in Appendix I (India)

The Bengal florican (*Houbaropsis bengalensis*) has been included in Appendix I of CITES since the Convention's inception in 1975. International trade in specimens of wild origin of this species is therefore generally prohibited, except for non-commercial purposes. The CITES trade database shows that from 1975 to 2018, international transactions remained limited to six transactions totalling 12 specimens, traded mostly in the form of entire bodies and mainly for scientific purposes.

It is noted that the proposal of India to include *Houbaropsis bengalensis bengalensis* in CMS Appendix I only refers to one of the two subspecies of the Bengal florican, while the listing in CITES Appendix I covers the full species of *Houbaropsis bengalensis* (i.e. also including the subspecies *Houbaropsis bengalensis blandini*).

The proposal, if adopted, would result in the split-listing of *Houbaropsis bengalensis*, with some populations included in CMS Appendix I, and others not covered by CMS. It may be worth noting that CITES [Resolution Conf. 9.24 \(Rev. CoP17\) on Criteria for amendment of Appendices I and II](#) states that "When split-listing does occur, this should generally be on the basis of national or regional populations, rather than subspecies. Split-listings that place some populations of a species in the Appendices, and the rest outside the Appendices, should normally not be permitted."

This discrepancy between the current CITES listing and the proposed CMS listing could give rise to challenges in the implementation of both Conventions, particularly in instances where the two Conventions are cooperating in the conservation of the species, e.g. under the CMS CITES joint work programme.

27.1.6 Proposal for the inclusion of *Tetrax tetrax* in Appendix I & II (European Union)

Tetrax tetrax has been included in Appendix II of CITES since 1987. The CITES trade database shows a very limited number of international transactions regarding this species, mainly in the form of bodies, eggs or live birds. No international transactions for commercial purposes were recorded since 2002, and no international transactions for non-commercial purposes were recorded since 2011.

The inclusion of this species in Appendix I would bring about a divergence between the approaches of CMS and CITES and, if adopted, conflicting obligations for States which are Party to both CMS and CITES as taking of would normally be prohibited under CMS, but international trade permitted under CITES.

27.1.8 Proposal for the inclusion of *Carcharhinus longimanus* in Appendix I (Brazil)

Carcharhinus longimanus was included on CITES Appendix II at the 16th meeting of the Conference of the Parties (CoP16, Bangkok, March 2013) with an entry into effect that was delayed until 14 September 2014, to give Parties 18 months to resolve technical and administrative issues related to the implementation.

Given that *Carcharhinus longimanus* is listed on CITES Appendix II, international trade, including for commercial purposes, is possible, as long as it is legal, sustainable and documented. According to the CITES trade database, the species has been traded internationally with low frequency (50 trade records from 2014 to 2017) and in relatively low volumes. The specimens traded were predominantly fins. No exports from Brazil are recorded. However, these trade data should be interpreted with caution as they may not fully reflect the volumes in international trade. CITES CoP18 recognized a potential mismatch between the data in listed shark products recorded in the CITES trade database, and what had been expected from available knowledge on catches of the species concerned, and tasked the CITES Secretariat to investigate this apparent mismatch.

In addition to the provisions of the Convention, in particular Article IV, the CITES Conference of the Parties has adopted further guidance on the implementation of the Convention for species of sharks and rays in the form of [Resolution Conf. 12.6 \(Rev. CoP18\) on Conservation and management of sharks](#). Noting that CITES provisions also apply to "introduction from the sea", defined as "transportation into a State of specimens of any species which were taken in the marine environment not under the jurisdiction of any State", and that the range of *Carcharhinus longimanus* extends to the marine environment not under the jurisdiction of any State, [Resolution Conf. 14.6 \(Rev. CoP16\) on Introduction from the Sea](#) is also relevant. CITES CoP18 furthermore adopted a set of short term instructions on sharks and rays in [Decisions 18.218 to 18.225](#), that amongst others request the CITES Secretariat to continue to provide capacity-building assistance for implementing Appendix-II shark and ray listings to Parties upon request.

The inclusion of *Carcharhinus longimanus* in CMS Appendix I would lead to conservation obligations that are stricter than those in place under CITES Appendix II, as is already the case for *Rhincodon typus* and *Manta* spp. There would be conflicting obligations for States which are Party to both CMS and CITES as taking of would normally be prohibited under CMS, but international trade permitted under CITES. The CITES Secretariat notes that questions related to the implementation of such discrepancies between CITES Appendices and CMS Appendices are discussed in document [UNEP/CMS/COP13/Doc. 21](#) at this current meeting of the CMS CoP, and have previously arisen at meetings of the CITES governing bodies (see paragraph 33 of [CITES document SC69 Doc. 50](#) for a summary).

27.1.9(a) Proposal for the inclusion of *Sphyrna zygaena* (Regional population occurring in the EEZ of Brazil, Uruguay, Argentina and adjacent international waters) in Appendix II (Brazil)

Sphyrna zygaena was included on CITES Appendix II at CoP16 with an entry into effect that was delayed until 14 September 2014, to give Parties 18 months to resolve technical and administrative issues related to the implementation.

Given that *Sphyrna zygaena* is listed on CITES Appendix II, international trade, including for commercial purposes, is possible, as long as it is legal, sustainable and documented. According to the CITES trade database, the species has been traded internationally with low frequency (32 trade records 2014- 2017) but relatively large volumes (10s-100s of tons). The specimens traded were predominantly fins. At CoP18, the Parties to CITES recognized a potential mismatch between the trade data in listed shark products recorded in the CITES trade database, and what had been expected from available knowledge on catches of the species. The CITES Secretariat was directed to investigate this apparent mismatch. The trade data available from the CITES trade database should therefore be interpreted with caution.

In addition to the provisions of the Convention, in particular Article IV, the CITES Conference of the Parties has adopted further guidance on the implementation of the Convention for species of sharks and rays in the form of [Resolution Conf. 12.6 \(Rev. CoP18\) on Conservation and management of sharks](#). CITES CoP18 also adopted a set of short term instructions on sharks and rays in [Decisions 18.218 to 18.225](#), that amongst others,

request the CITES Secretariat to continue to provide capacity-building assistance for implementing Appendix-II shark and ray listings to Parties.

The CITES Secretariat notes that this proposal would result in a situation where one population of *Sphyrna zygaena* is listed on CMS Appendix II, while the rest of the species is not. CITES Parties, in Annex 3 of [Resolution Conf. 9.24 \(Rev. CoP17\) on Criteria for amendment of Appendices I and II](#), decided that under CITES “split-listings that place some populations of a species in the Appendices, and the rest outside the Appendices, should normally not be permitted” in view of the enforcement problems it creates. While this consideration may not apply to CMS, the CITES Secretariat nevertheless notes that such a split-listing could create challenges in developing joint CMS-CITES activities concerning the conservation and management of *Sphyrna zygaena*.

27.1.9(b) Proposal for the inclusion of *Sphyrna zygaena* in Appendix II (European Union and its Member States)

Sphyrna zygaena was included on CITES Appendix II at CoP16 with an entry into effect that was delayed until 14 September 2014, to give Parties 18 months to resolve technical and administrative issues related to the implementation.

Given that *Sphyrna zygaena* is listed on CITES Appendix II, international trade, including for commercial purposes, is possible, as long as it is legal, sustainable and documented. According to the CITES trade database, the species has been traded internationally with low frequency (32 trade records 2014- 2017) but relatively large volumes (10s-100s of tons). The specimens traded were predominantly fins. At CoP18, the Parties to CITES recognized a potential mismatch between the trade data in listed shark products recorded in the CITES trade database, and what had been expected from available knowledge on catches of the species. The CITES Secretariat was directed to investigate this apparent mismatch. The trade data available from the CITES trade database should therefore be interpreted with caution.

In addition to the provisions of the Convention, in particular Article IV, the CITES Conference of the Parties has adopted further guidance on the implementation of the Convention for species of sharks and rays in the form of [Resolution Conf. 12.6 \(Rev. CoP18\) on Conservation and management of sharks](#). CITES CoP18 also adopted a set of short term instructions on sharks and rays in [Decisions 18.218 to 18.225](#), that amongst others, request the CITES Secretariat to continue to provide capacity-building assistance for implementing Appendix-II shark and ray listings to Parties.

APPENDIX 24

Annexe 2

EXECUTIVE SUMMARY: OCEANIC WHITETIP SHARK



Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien



Status of the Indian Ocean oceanic whitetip shark (OCS: *Carcharhinus longimanus*)

CITES APPENDIX II species

TABLE 1. Oceanic whitetip shark: Status of oceanic whitetip shark (*Carcharhinus longimanus*) in the Indian Ocean.

| Area ¹ | Indicators | 2018 stock status determination |
|-------------------|--|---------------------------------|
| Indian Ocean | Reported catch 2017: 48 t Not elsewhere included (nei) sharks ² 2017: 56,883 t Average reported catch 2013-17: 230 t Av. not elsewhere included 2013-2017 (nei) sharks ² : 51,712 t | |
| | MSY (1,000 t) (80% CI): F _{MSY} (80% CI): SB _{MSY} (1,000 t) (80% CI): F _{current} /F _{MSY} (80% CI): SB _{current} /SB _{MSY} (80% CI): SB _{current} /SB ₀ (80% CI): | |
| | unknown | |

¹Boundaries for the Indian Ocean = IOTC area of competence

²Includes all other shark catches reported to the IOTC Secretariat, which may contain this species (i.e., SHK: sharks various nei; RSK: requiem sharks nei)

| Colour key | Stock overfished (SB _{year} /SB _{MSY} < 1) | Stock not overfished (SB _{year} /SB _{MSY} ≥ 1) |
|--|--|--|
| Stock subject to overfishing (F _{year} /F _{MSY} > 1) | | |
| Stock not subject to overfishing (F _{year} /F _{MSY} ≤ 1) | | |
| Not assessed/Uncertain | | |

TABLE 2. Oceanic whitetip shark: IUCN threat status of oceanic whitetip shark (*Carcharhinus longimanus*) in the Indian Ocean.

| Common name | Scientific name | IUCN threat status ³ | | |
|------------------------|--------------------------------|---------------------------------|-----|-----|
| | | Global status | WIO | EIO |
| Oceanic whitetip shark | <i>Carcharhinus longimanus</i> | Vulnerable | – | – |

IUCN = International Union for Conservation of Nature; WIO = Western Indian Ocean; EIO = Eastern Indian Ocean

³The process of the threat assessment from IUCN is independent from the IOTC and is presented for information purpose only

Sources: IUCN 2007, Baum et al. 2006

CITES - In March 2013, CITES agreed to include oceanic whitetip shark to Appendix II to provide further protections prohibiting the international trade; which will become effective on September 14, 2014.

INDIAN OCEAN STOCK – MANAGEMENT ADVICE

Stock status. There remains considerable uncertainty about the relationship between abundance, standardised CPUE series and total catches over the past decade (Table 1). The ecological risk assessment (ERA) conducted for the Indian Ocean by the WPEB and SC in 2018³⁷ consisted of a semi-quantitative risk assessment analysis to evaluate the resilience of shark species to the impact of a given fishery, by combining the biological productivity of the species and its susceptibility to each fishing gear type. Oceanic whitetip shark received a medium vulnerability ranking (No.

9) in the ERA rank for longline gear because it was estimated as one of the least productive shark species, but was only characterised by a medium susceptibility to longline gear. Oceanic whitetip shark was estimated as being the 11th most vulnerable shark species to purse seine gear, as it was characterised as having a relatively low productive rate, and medium susceptibility to the gear. The current IUCN threat status of ‘Vulnerable’ applies to oceanic whitetip sharks globally (Table 2). There is a paucity of information available on this species in the Indian Ocean and this situation is not expected to improve in the short to medium term. Oceanic whitetip sharks are commonly taken by a range of fisheries in the Indian Ocean. Because of their life history characteristics – they are relatively long lived, mature at 4–5 years, and have relatively few offspring (<20 pups every two years), the oceanic whitetip shark is likely vulnerable to overfishing. Despite the limited amount of data, recent studies (Tolotti et al., 2016) suggest that oceanic whitetip shark abundance has declined in recent years (2000 - 2015) compared with historic years (1986 - 1999). Available pelagic longline standardised CPUE indices from Japan and EU, Spain indicate conflicting trends as discussed in the IOTC Supporting Information for oceanic whitetip sharks. There is no quantitative stock assessment and limited basic fishery indicators currently available for oceanic whitetip sharks in the Indian Ocean therefore the stock status is **unknown** (Table 1).

Outlook. Maintaining or increasing effort with associated fishing mortality can result in declines in biomass, productivity and CPUE. Piracy in the western Indian Ocean resulted in the displacement and subsequent concentration of a substantial portion of longline fishing effort into certain areas in the southern and eastern Indian Ocean. Some longline vessels have returned to their traditional fishing areas in the northwest Indian Ocean, due to the increased security onboard vessels, with the exception of the Japanese fleet which has still not returned to the levels seen before the start of the piracy threat. It is therefore unlikely that catch and effort on oceanic whitetip sharks declined in the southern and eastern areas, and may have resulted in localised depletion there.

Management advice. A cautious approach to the management of oceanic whitetip shark should be considered by the Commission, noting that recent studies suggest that longline mortality at haulback is high (50%) in the Indian Ocean (IOTC-2016-WPEB12-26), while mortality rates for interactions with other gear types such as purse seines and gillnets may be higher. While mechanisms exist for encouraging CPCs to comply with their recording and reporting requirements (Resolution 18/07), these need to be further implemented by the Commission, so as to better inform scientific advice. IOTC Resolution 13/06 *on a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries*, prohibits retention onboard, transshipping, landing or storing any part or whole carcass of oceanic whitetip sharks. Given that some CPCs are still reporting oceanic whitetip shark as landed catch, there is a need to strengthen mechanisms to ensure CPCs comply with Resolution 13/06.

The following key points should be also noted:

- **Maximum Sustainable Yield (MSY):** Not applicable. Retention prohibited.
- **Reference points:** Not applicable.
- **Main fishing gear** (2013-17): Gillnet; gillnet-longline.
- **Main fleets** (2013-2017): Comoros; I.R. Iran; Sri Lanka; India; and Maldives; (Reported as discarded/released alive by China, Maldives, Korea, France, Mauritius, Australia, South Africa, Sri Lanka, Japan).

LITERATURE CITED

Murua H, Santiago, J, Coelho, R, Zudaire I, Neves C, Rosa D, Semba Y, Geng Z, Bach P, Arrizabalaga, H., Baez JC, Ramos ML, Zhu JF and Ruiz J. (2018). Updated Ecological Risk Assessment (ERA) for shark species caught in fisheries managed by the Indian Ocean Tuna Commission (IOTC). IOTC–2018–SC21–14_Rev_1.

COMMENTS FROM IUCN SSC SPECIALIST GROUPS ON PROPOSALS FOR NEW LISTINGS AT CMS COP 13

1/ IUCN SSC Shark Specialist Group comments on proposals for new listings at CMS COP 13

Oceanic whitetip, *Carcharhinus longimanus* (inclusion in Appendix I)

Population status

The proposal (UNEP/CMS/COP13/Doc. 27.1.8) notes that the IUCN Red List status of this species is Vulnerable. On December 10, 2019 a new Red List assessment for this species that showed it meets the criteria for inclusion as Critically Endangered (A2bd). The new assessment can be found at: <https://www.iucnredlist.org/species/39374/2911619>. This assessment collated population trend data from all oceans for which it was available to provide an estimate of global status. More details of this data analysis can be found in the Supplementary Information associated with the new Red List assessment.

The new Red List status provides greater justification for its inclusion on Appendix I than the previous assessment. Given that this species is already been listed as a no retention species by all tuna regional fisheries management organizations (tRFMOs), an Appendix I listing would appear appropriate.

It should also be noted that subsequent to the analysis that underpins the new Red List assessment the Western and Central Pacific Fishery Commission (WCPFC) Scientific Committee released information showing that in the region that it is responsible for that the population is now likely to be <5% of original biomass (details can be found in the WCPFC Scientific Committee summary report at: <https://www.wcpfc.int/meetings/sc15>). This observation further supports the dire population status of this species.

Migratory nature

The proposal provides good support for the migratory nature of this species. In particular the satellite telemetry work carried out in the Bahamas and NW Atlantic (Howey-Jordan *et al.* 2013) provides clear evidence for cyclical migrations. This demonstrates a seasonal movement away from equatorial regions during the summer, and a return during the winter. While detailed tracking and tagging data are not available from other parts of its range, this pattern of migratory movement is consistent with the early observations about movements around the equator by Strasburg (1958) when this species was considered very common; it is also consistent with the observations of Musyl *et al.* (2011) based on a limited number of satellite tags deployed in the north Pacific.

Smooth hammerhead, *Sphyrna zygaena* (inclusion in Appendix II)

Population status

The proposals (UNEP/CMS/COP13/Doc. 27.1.9(a); UNEP/CMS/COP13/Doc. 27.1.9(b)) note that the IUCN Red List status of this species is Vulnerable. On December 10, 2019 a new Red List assessment for this species that showed that globally this species continues to meet the criteria for inclusion as Vulnerable (A2bd). The new assessment can be found at:

<https://www.iucnredlist.org/species/39388/2921825>. This assessment collated population trend data from all oceans for which it was available to provide an estimate of global status. More details of this data analysis can be found in the Supplementary Information associated with the new Red List assessment.

Migratory nature

The proposal from Brazil (UNEP/CMS/COP13/Doc. 27.1.9(a)) provides limited data on the migratory nature of this species. It provides some inference on migration in southern Africa, and focuses on information from Brazil. The proposal from the EU (UNEP/CMS/COP13/Doc. 27.1.9(b)) provides more data, identifying inshore-offshore ontogenetic migrations (juveniles inshore, adults offshore) as well as latitudinal migration.

Tope, *Galeorhinus galeus* (inclusions in Appendix II)

Population status

Document UNEP/CMS/COP13/Doc.27.1.10/Add.1 from the CMS Scientific Council notes that a new IUCN Red List Assessment is imminent (“due within weeks”). This information is incorrect. The reassessment of tope is currently underway, but it will not be completed until sometime in 2020. As such the current assessment of Vulnerable is still best available information. The assessment of the status of tope is complicated by the existence of at least 5 separate and non-mixing subpopulations of this species (Australia/NZ, southern Africa, Argentina/Uruguay/Brazil, SE Pacific, NE Atlantic/Mediterranean and NE Pacific [USA/Canada]). These subpopulations are in very different states (see Table 1, below), which makes conclusions about global status more complex.

Table 1. Status of the six subpopulations of tope

| Subpopulation | Location | Population information | Source |
|-----------------|---------------------------|---|---|
| Australia/NZ | Australia | <20% original biomass | https://www.fish.gov.au/report/182-School-Shark-2018 |
| | New Zealand | Not overfished, but concern over declining CPUE | https://fs.fish.govt.nz/Doc/21785/87_SCH_09.pdf.ashx |
| Southern Africa | South Africa | Vulnerable | Bester-van der Merwe <i>et al.</i> (2017) |
| SW Atlantic | Argentina/Uruguay /Brazil | Critically Endangered | Bester-van der Merwe <i>et al.</i> (2017) |
| NE Atlantic | Mediterranean | Vulnerable | https://www.iucnssg.org/uploads/5/4/1/2/54120303/iucn_med_red_list_sharks_2016_amended.pdf |
| NE Pacific | USA | Recovered following significant decline | Pondella and Allen (2008) |
| SE Pacific | Chile | Unknown | Bester-van der Merwe <i>et al.</i> (2017) |

Migratory nature

The proposal does a good job summarizing the known information on the migratory nature of this species, which has a well-defined migratory pattern. Tagging, tracking and other observations have documented migratory behavior in at least four of the subpopulations of this species; which is largely associated with the movement of adults to specific pupping grounds. Given this level of information, it can be concluded that this species is migratory throughout its range. In some instances, these migrations take place within the waters of a single nations, but in most cases a significant proportion of individuals cross between international jurisdictions.

Document UNEP/CMS/COP13/Doc.27.1.10/Add.1 from the CMS Scientific Council provides some comment on the migratory nature of school sharks, especially in relation to Australia and New Zealand, and indicates that it does not support inclusion of the species in the listing from these nations because there is no evidence of migration (as defined by CMS). In particular, it notes “the Australian-New Zealand population did not meet the definition of migratory as a significant proportion of the population did not undertake predictable and cyclical movements across national jurisdictional boundaries”. However, Hurst *et al.* (1999) estimated that 10% of tagged New Zealand tope were recaptured in Australian waters. While the frequency and periodicity of migratory movements between Australia and New Zealand are not fully understood, the frequency with which they occur suggests that it presents a significant proportion of the subpopulation. Given the status of the species in Australia, the listing of this species on Appendix II would provide significant conservation benefits.

References

Bester-van der Merwe, A. E., Bitalo, D., Cuevas, J. M., Ovenden, J., Hernández, S., da Silva, C., McCord, M., and Roodt-Wilding, R. (2017). Population genetics of Southern Hemisphere tope shark (*Galeorhinus galeus*): Intercontinental divergence and constrained gene flow at different geographical scales. *PLOS ONE* **12**(9), e0184481.

Howey-Jordan, L. A., Brooks, E. J., Abercrombie, D. L., Jordan, L. K. B., Brooks, A., Williams, S., Gospodarczyk, E., and Chapman, D. D. (2013). Complex movements, philopatry and expanded depth range of a severely threatened pelagic shark, the oceanic whitetip (*Carcharhinus longimanus*) in the western North Atlantic. *Plos One* **8**(2), e56588.

Hurst, R. J., Baglet, N. W., McGregor, G. A., and Francis, M. P. (1999). Movements of the New Zealand school shark, *Galeorhinus galeus*, from tag returns. *New Zealand Journal of Marine and Freshwater Research* **33**(1), 29-48.

Musyl, M. K., Brill, R. W., Curran, D. S., Fragoso, N. M., McNaughton, L. M., Nielsen, A., Kikkawa, B. S., and Moyes, C. D. (2011). Postrelease survival, vertical and horizontal movements, and thermal habitats of five species of pelagic sharks in the central Pacific Ocean. *Fishery Bulletin* **109**(4), 341-368. [In English].

Pondella, D. J., and Allen, L. G. (2008). The decline and recovery of four predatory fishes from the Southern California Bight. *Marine Biology* **154**(2), 307-313.

Strasburg, D. W. (1958). Distribution, abundance, and habits of pelagic sharks in the central Pacific Ocean. *Fishery Bulletin of the Fish and Wildlife Service* **58**, 335-361.

2/ IUCN SSC Asian Elephant Specialist Group's Comments on proposal for the inclusion of the Mainland Asian Elephant/Indian Elephant in Appendix I of the Convention on the Conservation of Migratory Species of Wild Animals (CMS)

IUCN SSC Asian Elephant Specialist Group has assisted Ministry of Environment, Forest and Climate Change, Government of India in preparation of the proposal and strongly advocates the inclusion of the species in Appendix I of CMS keeping into consideration the transboundary migration of the species among Range States and its protection and conservation.

However, there are few minor errors/amendments and are indicated below that needs to be corrected/incorporated in the document [CMS/COP13 27.1.1](#) Proposal for the Inclusion of the Mainland Asian Elephant/Indian Elephant in Appendix I of the Convention

Page 3: Sub heading 3.2 para 2, line 8: please include the reference “**Bangladesh National Action Plan, 2018**”

(Ministry of Environment and Forests. 2018. *Bangladesh Elephant Conservation Action Plan (2018-2027)*. Bangladesh Forest Department, Ministry of Environment and Forests, Government of the People's Republic of Bangladesh, Dhaka, Bangladesh, pp: xii+87).

1. Page 4: Sub heading 3.2 para 2: line 4. Reference Dublin et al 2006. The reference is not reflected in the list of literatures under Reference and has to be included.

Apart from Dublin *et al* 2006, the following two references also needs to be added- Fernando *et al*, 2011; Gubbi *et al*, 2014.

a. Fernando, P., Jayewardene, J., Prasad, T., Hendavitharana W. and Pastorini, J. 2011. Current Status of Asian Elephants in Sri Lanka *Gajah* 35 (2011) 93-103

b. Gubbi, S., Swaminath, M. H., Poornesha, H. C., Bhat, R., & Raghunath, R. 2014. An elephantine challenge: Human–elephant conflict distribution in the largest Asian elephant population, southern India. *Biodiversity and Conservation*, 23, 633–647.

2. Page 7, Sub heading 4.2 Population: source of table: Menon and Tiwari, 2019
3. Page 9, Sub heading 4.3, line 1, include Menon and Tiwari, 2019

Menon, V. and Tiwari, S.K. 2019. Population status of Asian elephants *Elephas maximus* and key threats. *Int. Zoo.Yb* (2019) 53, The Zoological Society of London

4. Page 12, Sub heading 5.5, para 1, line 11, include the reference “Elephant Family 2018 and 2019”

Elephant Family (2018): SKINNED- the growing appetites for Asian elephants.

Elephant Family (2019), Skin for Sale – The Continuing Appetite for Asian Elephants: Crime, Enforcement, Policy. London, U.K.



MEMORANDUM OF UNDERSTANDING ON THE CONSERVATION OF MIGRATORY SHARKS

25 October 2019

ANALYSIS OF PROPOSALS FOR INCLUSION OF SHARK SPECIES IN THE APPENDICES OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS (CMS) AT THE 13TH MEETING OF THE CONFERENCE OF THE PARTIES (CMS COP13)

(Prepared by the Advisory Committee of the Memorandum of Understanding on the Conservation of Migratory Sharks – Sharks MOU)

Introduction

1. The Sharks MOU Advisory Committee has reviewed proposals for the inclusion of three species of sharks in the Appendices of the Convention (Table 1), that were submitted by CMS Parties for consideration at the 13th Meeting of the Conference of the Parties (COP13) to CMS and provided its comments in this document.

Background

2. CMS Resolution 11.33 *Guidelines for Assessing Listing Proposals to Appendices I and II of the Convention*

*“Requests the Secretariat to consult other **relevant intergovernmental bodies**, including RFMOs, having a function in relation to any species subject to a proposal for amendment of the Appendices and to report on the outcome of those consultations to the relevant meeting of the Conference of Parties;”*

3. The Sharks MOU, which was concluded in accordance with Article IV(4) of CMS, represents such a relevant intergovernmental body in relation to the three species proposed. It aims to achieve and maintain a favourable conservation status for migratory sharks that are included in its Annex 1, most of which are also included in the Appendices of CMS.
4. In an exchange of letters between the Chairs of the AC and the CMS Scientific Council in July 2018, the Chair of the Scientific Council invited the Advisory Committee to review all listing proposals for sharks and rays that will be submitted to COP so that they may be made available to the CMS Scientific Council for its consideration at its last meetings preceding COP.
5. At the 3rd Meeting of the Signatories to the Sharks MOU (Sharks MOS3), Signatories agreed activity 11 of the **Programme of Work 2019–2021** which requests the AC to “provide comments on proposals for the inclusion of shark and ray species in the Appendices of CMS to the Scientific Council and the Conference of the Parties.”
6. The AC has reviewed the listing proposals with regard to the accuracy and completeness of the information and assessed the proposals against the agreed CMS criteria for listing.

Based on its findings, the AC has provided its independent expert opinion on whether the species meet the criteria for listing under CMS. Furthermore, the AC has commented on information in the proposals that were incomplete or incorrect and has provided additional scientific information relevant to the listing which may be taken into account.

Table 1: Proposals for the inclusion of shark species in the Appendices of CMS, which were submitted to CMS COP13, and which are subject to this review by the Sharks MOU AC.

| Species | CMS App. | Proponent | Relevant Documents |
|--|----------|-----------|---|
| Tope Shark <i>Galeorhinus galeus</i> | App. II | EU | https://www.cms.int/sites/default/files/document/cms_cop13_doc.27.1.10_proposal-inclusion-tope-shark_eu_e.pdf |
| Oceanic Whitetip Shark <i>Carcharhinus longimanus</i> | App. I | Brazil | https://www.cms.int/sites/default/files/document/cms_cop13_doc.27.1.8_proposal-inclusion-oceanic-whitetip-shark_br_e.pdf |
| Smooth Hammerhead Shark <i>Sphyrna zygaena</i> | App. II | EU | https://www.cms.int/sites/default/files/document/cms_cop13_doc.27.1.9b_proposal-inclusion-smooth-hammerhead-shark_eu_e_0.pdf |
| | App. II | Brazil | https://www.cms.int/sites/default/files/document/cms_cop13_doc.27.1.9a_proposal-inclusion-smooth-hammerhead-shark_br_e.pdf |

Listing criteria

7. The AC noted the following information relating to CMS listing criteria:

- A migratory species may be listed in Appendix I of the CMS “*provided that reliable evidence, including the best scientific evidence available, indicates that the species is endangered*”.
- According to the CMS, “*Appendix II shall list migratory species which have an unfavourable conservation status, and which require international agreements for their conservation and management, as well as those which have a conservation status which would significantly benefit from the international cooperation that could be achieved by an international agreement*”.
- Migratory means that “*the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries*”.
- A species is considered to have an “*Unfavourable conservation status*” if any of the following is not met:
 - (1) *population dynamics data indicate that the migratory species is maintaining itself on a long-term basis as a viable component of its ecosystems;*
 - (2) *the range of the migratory species is neither currently being reduced, nor is likely to be reduced, on a long-term basis;*

(3) *there is, and will be in the foreseeable future sufficient habitat to maintain the population of the migratory species on a long-term basis; and*
 (4) *the distribution and abundance of the migratory species approach historic coverage and levels to the extent that potentially suitable ecosystems exist and to the extent consistent with wise wildlife management;*

Review

a) Comments on the EU proposal to list Tope (or School) Shark (*Galeorhinus galeus*) on Appendix II of CMS

8. Given the reported distribution of Tope Shark, the AC considered the data available for the following five geographical areas (Chabot & Allen, 2009):
 - North-east Atlantic and Mediterranean Sea
 - Southern Africa (including the south-west Indian and south-east Atlantic Oceans)
 - Eastern North Pacific
 - South America (including the south-west Atlantic south-east Pacific Oceans)
 - Australasia (including Australia and New Zealand, noting that there have been some genetic differences observed between these areas)
9. Migratory nature: There is evidence of seasonal, latitudinal migrations that indicate Tope Shark move southwards from the British Isles to north-west Africa. The movements from EU waters to north-west Africa would cross jurisdictional boundaries. There is also evidence of Tope Shark moving between the national waters of Argentina, Uruguay and southern Brazil, thus crossing national jurisdictional boundaries. Evidence from the Southwest Atlantic Ocean indicates that Tope Shark seasonally migrates north in winter (to off Brazil) and south in spring and summer (to off Argentina) with preferred water conditions of salinity 33-34 ppt and temperatures of 12-17°C (Jaureguizar et al., 2018).
10. Recent genetic studies indicate that while Tope Shark are unlikely to migrate across ocean basins in the Southern Hemisphere, the species does move across national boundaries such as between Australian and New Zealand waters (Hernandez et al., 2015; Bester-van der Merwe et al., 2017). The high level of connectivity within both New Zealand and Australian waters is supported by intensive tagging efforts (Hernandez et al., 2015). These studies consider the Australian-New Zealand Tope Shark population a single clade (Hernandez et al., 2015; Bester-van der Merwe et al., 2017). These movements appear to be linked to reproduction events (Hernandez et al., 2015; Delvoo-Delva et al., 2019; McMillan et al., 2018). Suggestions are that Tope Shark in Australia demonstrate “partial migration” (some individuals are migrants, some are residents), some tagged pregnant females were found to swim large distances from the Great Australian Bight to find nursery grounds, one tagged female swimming as far as New Zealand (McMillan et al., 2019).
11. **The AC considered that available evidence indicates that Tope Shark is a regionally migratory species that will cross national jurisdictional boundaries within each of the various parts of their biogeographic range. However, it could**

not be determined if this was a significant portion of the population among all regional populations.

12. The AC also considered that Tope Shark should not be referred to as 'highly migratory' in the Overview section of the proposal, given that Tope Shark from the five areas have been reported to be genetically distinct. In addition, the latest indications from Australian/New Zealand waters is that this population is "partially migratory" (some individuals migrate, some remain residents). (see McMillan et al., 2018).
13. The AC also noted that when some of the longer distances are recorded from tagging studies (e.g. from the British Isles to the Mediterranean), it should be recognised that these may be based on limited observations (sometimes individual fish) and so would be better referred to as 'longer-distance movements'. There is no evidence that these longer-distance movements are 'migrations', given that there is no evidence that a significant proportion of the population display that behaviour, or that these are cyclical.
14. Conservation status: Tope Shark is listed as Vulnerable globally on the IUCN Red List (Walker et al. 2006). However, there are regional variations in the assessments, ranging from Least Concern (eastern North Pacific) to Critically Endangered (Southwest Atlantic). The scientific basis for the listings varies between regions.
15. There should be concern over the exact status of Tope Shark in the south-west Atlantic, given the (2006) Critically Endangered listing. However, whilst both the IUCN Red List and the proposal refer to "drastic declines" the underlying evidence to support this is unclear. For example, whilst Elias et al. (2005) reported a decline in Catch per Unit Effort (CPUE), this was between periods of different fishing practices ('experimental' and 'commercial' fishing). More recently, Bovcon et al. (2018) noted that "*These [Tope Shark] fisheries have been described as over-exploited, although their status has not been properly evaluated (Chiaramonte, 1998; Nion, 1999; J. A. Peres, unpublished data, 1998)*". The Red List assessment for Tope Shark (from 2006) is currently being updated and the regional listing for the south-west Atlantic could usefully be better substantiated in any future Red List assessment.
16. The status of Tope Shark elsewhere in their range is mostly uncertain, but the species is regarded as Vulnerable by the IUCN. In terms of whether "*population dynamics data indicate that the migratory species is maintaining itself on a long-term basis as a viable component of its ecosystems*", the only assessed stock is that occurring in Australian waters, where it is classed as 'overfished'. It may be noted, however, that there are conservative management measures in place and Patterson et al. (2018) reported some positive signs in stock recovery, though this should be treated with caution given the large uncertainty associated with the trend data. The Australian National Threatened Species Scientific Committee assessed this species for listing as a threatened species in 2009 (<https://www.environment.gov.au/biodiversity/threatened>). Their assessment recommended the species (in Australian waters) was eligible for listing as Endangered. This assessment remains current.
17. In terms of "*there is and will be in the foreseeable future sufficient habitat to maintain the population of the migratory species on a long-term basis*", the AC note that Tope Shark typically give birth to their pups in the outer reaches of large estuaries and bays.

Such habitats are often subject to a range of anthropogenic activities that may impact on both habitat and water quality.

18. Overall, the AC did consider that the available evidence would allow the conservation status of Tope Shark to be considered as ‘unfavourable’.

19. International cooperation: Although Tope Shark may move into oceanic environments, these do not appear to be regular migrations into the high seas (international waters), and Tope Shark is typically found in continental shelf seas (national waters). The stock units for Tope Shark are not fully defined. There are five distinct geographical regions where Tope Shark occurs, with published studies indicating these areas have genetically distinct populations (Chabot & Allen, 2009). However, there is evidence of mixing between adjacent range states and migrations between management jurisdictions within each of these five broad areas.

20. Consequently, the AC considered that the management and conservation status of Tope Shark would benefit from international cooperation.

21. Comments on the proposal: The AC considered that the proposal contained the majority of available scientific information, but would note the following:

- The taxonomy of species is not correct because the author and year must be put in parenthesis: (Linnaeus, 1758). Moreover, the species has numerous synonyms used in the past (e.g. *Galeus australis*, *Galeus chilensis*, *Galeorhinus vitaminicus*, etc.) see Eschmeyer's Catalog of Fishes¹.
- The second paragraph in the Overview should refer to “*Animals tagged around the British Isles...*”, as both the UK and Ireland have been involved in tagging studies.
- Section 4.2 (Population) stated that “*In the North Eastern Pacific (west coast of North America), CPUE data –albeit inconsistent- showed a strong decline/stock collapse after an industrialized fishery targeting tope for their liver oil in the first half of the 20th century, and there currently are no indications that the stock has returned to its original level (Holts, 1988), although Pondella & Allen (2008) noted an increasing trend in CPUE from a gill-net monitoring program between 1995 and 2004 and also first time observations of tope during scientific SCUBA monitoring programs*” could usefully be re-worded, as it seems strange to use information from 1988 as ‘currently’. This section would be better as “*In the North Eastern Pacific (west coast of North America), CPUE data - albeit inconsistent - showed a strong decline/stock collapse after an industrialized fishery targeted tope for their liver oil in the middle of the 20th century, with limited evidence of stock recovery in subsequent decades (Holts, 1988). More recently, Pondella & Allen (2008) noted an increasing trend in CPUE from a gill-net monitoring program between 1995 and 2004 and also first-time observations of tope during scientific SCUBA monitoring programs.*”
- Section 6.2 (International protection status) includes information on OSPAR, but Tope Shark is not included on the OSPAR List of Threatened and/or Declining Species. Hence such text is superfluous.
- Section 6.2 also includes HELCOM, although Tope Shark is a marine species that would not be expected to be anything but a vagrant to the Kattegat and Baltic. It may occur in those parts of the Skagerrak outside the HELCOM area. Hence, information on HELCOM is not relevant.

¹ <https://www.calacademy.org/scientists/projects/catalog-of-fishes>

- Section 6.3 (Management measures) contains some ambiguous statements. The text “EU vessels have not been allowed to land line-caught tope from EU and some international waters since 2010. The EU Council Regulation 2018/120 lists tope on the EU list of prohibited species, effectively prohibiting longline fisheries for this species in Union waters of ICES Division 2a, ICES Subarea 4 as well as in Union and international waters of ICES Subareas 1, 5, 6, 7, 8, 12 and 14 (EU, 2018)” should be re-written as “EU fishing regulations prohibit landing tope when it has been caught by longline in EU waters of ICES Division 2.a and Subarea 4 and from EU and international waters of ICES Subareas 1, 5–8, 12 and 14 (EU, 2018).”
- The proposal indicated some of the publications that had shown recent increases trends in Tope Shark (e.g. Pondella & Allen, 2008). Patterson et al. (2018) was used to correctly state that the Australian Tope Shark population was overfished, but that this report also stated, “*There are indicators that school shark biomass may be increasing*”, which was seemingly overlooked in the proposal. More recently, Emery et al. (2019) presented status information for School Shark, and noted “Although there were indications in the CKM (*close-kin monitoring*) that some stock recovery occurred during 2000–2017, there was large uncertainty associated with this trend”. Such information could usefully also be included.
- The proposal brought together much information from disparate sources, but a more consistent approach to presenting information by each of the five main geographical areas would have helped the reader.
- A reference in the bibliography was wrong (Vacchi et al., 2002) and should be: Duarte P. N., A. Silva, and G. M. Menezes. 2002. First results of a tagging program on tope shark, *Galeorhinus galeus*, and thornback ray, *Raja clavata*, in Azorean waters. 4th Meeting of the European Elasmobranch Association Proceedings. M. Vacchi, G. La-Mesa, F. Serena, and B. Séret (eds.) Paris France Societe francaise d'Ichtyologie, p. 197.

b) Comments on the EU and Brazilian proposals to list Smooth Hammerhead Shark (*Sphyrna zygaena*) on Appendix II of CMS

22. The AC provided comments on an earlier proposal to list Smooth Hammerhead Shark on the Sharks MoU². This document highlighted the following points:
- *The proposal highlights that, although robust species-specific population trends for S. zygaena are unavailable, populations of hammerhead sharks (at a generic level) have declined in various parts of their ranges.*
 - *The proposal provides evidence of both latitudinal migrations (which would mean they may move between the waters of different range states) and inshore-offshore migrations (which means they may move into international waters). The latter was supported by recent tagging data and the presence of oceanic cephalopods in their diet. Cyclical or predictable migratory patterns have not been shown in a significant proportion of the population, largely due to few studies. However, the AC assumed cyclical and predictable movement/migration (e.g., females to shallower pupping areas in summer (as proposed by Santos & Coelho, 2019 and Francis, 2016).*

² See Annex II of https://www.cms.int/sharks/sites/default/files/document/cms_sharks-mos3_doc.9.1_rev.1_listing-proposals_e.pdf

23. The proposal also notes that two other species of hammerheads are listed, and as such the issue of look-alike species is an additional factor to be considered. The AC notes that there is no look-alike provision in the Appendices of CMS. However, as was in the case of the listing of Mobulids, the difficulty in differentiating these species and the fact that the conservation status is poor for the great (*S. mokarran*) and scalloped hammerhead (*S. lewini*) shark should be considered.
- 24. The AC has previously acknowledged that Smooth Hammerhead Shark meets the criteria for “migratory” and meets the criteria for “unfavourable” status.**
25. Conservation Status: The stock units of Smooth Hammerhead Shark are undefined. While no stock assessments have been directed specifically at Smooth Hammerhead Shark, the 2005 IUCN Red List assessment for the species lists it as Vulnerable worldwide (Casper et al., 2009). The IUCN also lists the Mediterranean population as Critically Endangered (Ferretti et al., 2016) and the European population as Data Deficient (Ferretti et al., 2015). These listing are however heavily based on declines observed in data for hammerhead shark species grouped together. The species is afforded some refuge in southern Australia where fishing pressure is low. The 2014 Australia CITES Non-Detriment Finding (<http://www.environment.gov.au/biodiversity/wildlife-trade/publications/non-detriment-finding-five-shark-species>) states that: “There is currently no assessment of *S. zygaena* populations in Australian waters; however, an analysis of catch per unit of effort (CPUE) data from the Joint Authority Southern Demersal Gillnet and Demersal Longline Fishery (JASDGLF) and the West Coast Demersal Gillnet and Demersal Longline Fishery (WCDGLF) from 1989/90 showed that CPUE had increased steadily over time (Simpfendorfer, 2014; <http://www.environment.gov.au/system/files/resources/39c06695-8436-49c2-b24f-c647b4672ca2/files/cites-listed-sharks.pdf>). This rise in CPUE may be attributed to catch being identified to species level rather than an increase in species abundance. The data does suggest moreover, that the abundance of *S. zygaena* had not significantly declined over time (Simpfendorfer, 2014). A study using data from 1994 to 1999, suggests that fishing was not conducted at a level that would lead to a decline in populations due to those relatively low catch levels continuing over time. This supports the above analysis that a major decline in population had not occurred (McAuley and Simpfendorfer, 2003)”.
26. Overall, the observed and inferred declines in Smooth Hammerhead populations, which are still ongoing due to continued fishing pressure, have warranted it eligible for IUCN Vulnerable globally and Critically Endangered in the Mediterranean. Based on this information, and taking into consideration similar life history, range overlap and look-alike issues (particularly with Scalloped Hammerhead Shark), global indications are its overall conservation status is unfavourable as it does not meet “*population dynamics data indicate that the migratory species is maintaining itself on a long-term basis as a viable component of its ecosystems*”.
- 27. Overall, the AC therefore consider that the available evidence would allow the conservation status of Smooth Hammerhead Shark to be considered as ‘unfavourable’.**

28. Migratory Nature: The adults of this species move into oceanic environments, and there is evidence of latitudinal migrations in shelf seas. The migratory behaviour of Smooth Hammerhead Shark is largely assumed due to the species mobile behaviour, large body size and similar species movements (Great and Scalloped Hammerhead Sharks). Evidence of migratory behaviour presented in the proposal is from only a few individual animals. Evidence of latitudinal migration across jurisdictions is from one individual tracked return movement between California and Mexico. There is also indications in the literature of seasonal migrations toward cooler waters in summer and warmer waters in winter, but no specific data. In Australia, there is evidence that in New South Wales, smooth hammerheads are more common between December and May (Stevens, 1984), which may indicate seasonal migrations.
29. A recent study (Santos and Coelho, 2018) tagged seven individual Smooth Hammerhead Sharks and reported that this is a 'highly mobile species' and recorded movement of over 6600km. This paper also noted that tagged sharks roamed widely from shelf to oceanic waters, however that no clear, predictable movement patterns were identified. A study of movements of juvenile Smooth Hammerhead Sharks in New Zealand indicated local movements of up to 155 kilometres (Francis, 2016). This study noted significant population structuring of the species among ocean basins, and in some case within ocean basins (e.g. between the southwest and southeast Pacific Ocean) but that there is also no evidence of genetic structuring between New Zealand and Australia, suggesting the existence of gene flow across the Tasman Sea.
- 30. Overall, the AC therefore consider that the available evidence would allow Smooth Hammerhead Shark to be considered to meet the criteria for 'migratory'.**
31. International cooperation: Although species specific data is lacking for Smooth Hammerhead Shark, there is evidence that all hammerhead sharks have declined significantly and continue to be overfished (Ferretti et al., 2016). The AC supports the assertions made in the EU proposal, that international cooperation is required to fully address the data deficiencies for the species and that regional monitoring and management measures are required across the species range.
- 32. Consequently, the AC considered that the management and conservation status of Smooth Hammerhead Shark would benefit from international cooperation.**
33. The AC made the following further comments on the EU proposal to list Smooth Hammerhead Shark on CMS:
- The distribution map provided does not support the statement in the overview that Smooth Hammerhead Shark occurs from 59°N to 55°S (which is given by FishBase). A latitudinal range of ca. 50°N to 50°S would be more in keeping with the distributional information available. This should also be amended in Section 4.1. The range is also incorrect for the northwest Indian Ocean where it shows occurrence in the Arabian/Persian Gulf (where it does not occur) and does not show the known range in the Arabian Sea.
 - The overview should correct the sentence (new text underlined) "...and the presence of oceanic squid in the stomach contents of ~~on~~ larger individuals."
 - The overview should amend the sentence (new text underlined) "... significant increase in reported landings of ..."

34. The AC made the following comments on the Brazilian proposal to list Smooth Hammerhead Shark (in the waters of Brazil, Uruguay and Argentina):
- Figure 3 shows the reported kg/boat of *S. zygaena* (2000–2012), although much more detailed information of the underlying data (and further analyses) would be required to use such information to inform on population trends. For example, these data should explicitly state whether they refer to landings or catches. Have there been temporal changes in the reporting categories used for the various hammerhead species and generic categories? Have there been any temporal changes in management regulations applicable? Have there been any temporal changes in fleet dynamics?
 - Figure 4 shows reported landings of the hammerhead category *Sphyrna* spp. (2000–2010). Once again, the lack of all relevant information in the proposal means that the underlying trends cannot be used as reliable indicators of declines. That the nominal landings of hammerheads fluctuated from >60 t (2001) to just over 0 t (2002) and then to >100 t (2003) is suggestive of temporal differences in reporting.
 - Figure 5 shows the reported landings (2000–2012) for the same fishery shown in Figure 3. Whilst the overall trends are the same for the bottom gillnet fleet, the large decline in kg/boat for surface longliners between 2000–2001 is not especially pronounced in Figure 5, which is suggestive of potential issues in the quality of the underlying data.
 - The AC notes that commercial fisheries data (catches, landings, catch per unit effort, etc.) can be susceptible to temporal changes in reporting requirements, use of reporting codes, management applicable and fleet dynamics. Hence, such data need very careful appraisal, analysis and peer-review before they can be used as robust evidence on population status.

c) Comments on the Brazilian proposals to list Oceanic Whitetip Shark (*Carcharhinus longimanus*) on Appendix I of CMS

35. The AC provided comments on the earlier proposal to list Oceanic Whitetip Shark on the Sharks MoU³.
- 36. The AC has previously acknowledged that the Oceanic Whitetip Shark meets the criteria for “migratory” and meets the criteria for “unfavourable” status. This previous review, however, did not comment on whether or not the AC considered Oceanic Whitetip Shark meets the criteria for ‘Endangered’, as required for an Appendix I listing.**
37. The proposal provides evidence of migrations across national jurisdictional boundaries within each of the various parts of their biogeographic range and it is a logical assumption this is for a significant portion of the population. Cyclical or predictable migratory patterns were not documented in the proposal. However, there is evidence of cyclical and predictable movements of oceanic whitetip sharks from archival satellite tagging studies in the Bahamas (see Howey-Jordan et al. 2013). Oceanic whitetip sharks emigrate from the central Bahamas to southern Caribbean waters and the US

³ See Annex II of https://www.cms.int/sharks/sites/default/files/document/cms_sharks-mos3_doc.9.1_rev.1_listing-proposals_e.pdf

east coast beginning around May but return to the central Bahamas the following January.

38. The current IUCN Red List assessment still lists Oceanic Whitetip Shark as Vulnerable (Baum et al., 2015), although this is based on an earlier (2006) assessment. An updated assessment is expected to be published on 5 December 2019. The AC also considered a recent stock assessment for oceanic whitetip shark for the Indo-Pacific region (Tremblay-Boyer et al., 2019). The assessment determined the depletion of the spawning biomass has declined by more than 95% and the “population should go extinct on the long-term under current levels of fishing mortality”.
39. A recent US National Marine Fisheries Service (NMFS) review by Young et al. (2018) provides an up-to-date synthesis on the status of Oceanic Whitetip Shark, including an Extinction Risk Analysis. Whilst this review “*did not make recommendations as to whether the oceanic whitetip shark should be listed as threatened or endangered*”, the ERA team stated that “*the once abundant and ubiquitous oceanic whitetip shark has likely experienced significant historical population declines throughout its global range, with multiple data sources and analyses, including a stock assessment and trends in relative abundance, suggesting declines in excess of 80% in most areas*”.
- 40. The AC therefore considered the current status of Oceanic Whitetip Shark meets the criteria for being considered as ‘Endangered’ and therefore the criteria to be listing in CMS Appendix I.**
41. Some of the comments provided by the AC relating to the Brazilian proposal to include Oceanic Whitetip Shark on Annex I of the Sharks-MoU were not addressed in the subsequent proposal to list the species on the CMS, and are so reiterated below:
- Section 2 states that Oceanic Whitetip Shark is the “only true oceanic species within the Carcharhinus genus”, which is questionable, as Silky Shark is also an important oceanic carcharhinid.
 - Section 4.2 states “C. longimanus, once among the most abundant oceanic sharks, has experienced serious declines as high as 70% within the western North Atlantic between 1992 and 2000”, without citing scientific sources for the statement.
 - Section 4.2 refers to the study of Baum et al. (2003), and this study may not be the most appropriate source of information (Burgess et al., 2005), and so the more robust study of Cortés et al. (2007) should have been given more weight.
 - Section 2.2 could have better separated information on species composition from studies providing information on population estimates and trends.
 - There have been several studies conducted under the auspices of the WCPFC that could usefully have been incorporated for the Pacific Ocean (e.g. Rice, 2012; Rice & Harley, 2012; Rice et al., 2015; Tremblay-Boyer et al. 2019). Similarly, studies conducted under the auspices of the Indian Ocean Tuna Commission (IOTC) (e.g. Ramos-Cardelle et al., 2012; Yokawa & Semba, 2012) have provided relevant information for the Indian Ocean. These studies would have provided further support for the species meeting the criteria for “unfavourable”.
 - Section 3.1 states that Kohler et al. (1998) reported a maximum distance travelled of 1,226 km, when this study reported it to be 1,226 nm (=2,270 km).

42. The AC also made the following additional comments on the proposal to list Oceanic Whitetip Shark on Appendix I of CMS:

- Section 3.2 states that “*Unknown but probably 100%*”, unreferenced.
- Section 5.3 states that “*The Oceanic Whitetip Shark is caught globally as target and bycatch in pelagic commercial large-scale and small-scale longline fisheries*”, which is not correct, , given that relevant RFMOs have prohibited retention of Oceanic Whitetip. This would have been better written as “*Whilst the retention and landing of Oceanic Whitetip Shark is now prohibited in the main RFMO areas, this species is still caught as a bycatch in large-scale commercial and small-scale pelagic longline fisheries, and the current levels of mortality are uncertain*”.
- New genetic studies on Ocean Whitetip Shark by Camargo et al. (2016) in the Atlantic Ocean demonstrated that there are evidences of two distinct differences in genetic structure between populations from the east and west of the basin. Camargo et al. (2016) also demonstrated that there is low genetic diversity and strong linkages between animals caught in the eastern Atlantic Ocean and Indian Ocean

References:

- Baum, J. K., Myers, R. A., Kehler, D. G., Worm, B., Harley, S. J., & Doherty, P. A. (2003). Collapse and conservation of shark populations in the Northwest Atlantic. *Science* (New York, N.Y.), 299, 389–392. <http://doi.org/10.1126/science.1079777>
- Baum, J., Medina, E., Musick, J.A. & Smale, M. (2015). *Carcharhinus longimanus*. The IUCN Red List of Threatened Species 2015: e.T39374A85699641. <http://dx.doi.org/10.2305/IUCN.UK.2015.RLTS.T39374A85699641.en>. Downloaded on 02 October 2019.
- Bester-van der Merwe, A. E., Bitalo, D., Cuevas, J. M., Ovenden, J., Hernández, S., da Silva, C., McCord, M., et al. (2017). Population genetics of Southern Hemisphere tope shark (*Galeorhinus galeus*): Intercontinental divergence and constrained gene flow at different geographical scales. *Plos One*, 12: e0184481.
- Bovcon, N.D., Cochia, P.D., Navoa, X., Ledesma, P., Caille, G.M. and Baigun, C.R. (2018). First report on a pupping area of the tope shark *Galeorhinus galeus* (Carcharhiniformes, Triakidae) in the south-west Atlantic. *Journal of Fish Biology*, 93: 1229–1232.
- Burgess, G. H., Beerkircher, L. R., Cailliet, G. M., Carlson, J. K., Cortes, E., Goldman, K. J., Simpfendorfer, C. A. (2005). Is the collapse of shark populations in the Northwest Atlantic Ocean and Gulf of Mexico real? *Fisheries*, 30(1), 10–17. [http://doi.org/10.1577/1548-8446\(2005\)30](http://doi.org/10.1577/1548-8446(2005)30)
- Camargo, S.M., Coelho, R., Chapman, D., Howey-Jordan, L., Brooks, E.J., Fernando, D., Mendes, N.J., Hazin, F.H., Oliveira, C., Santos, M.N. and Foresti, F., (2016). Structure and genetic variability of the oceanic whitetip shark, *Carcharhinus longimanus*, determined using mitochondrial DNA. *PloS one*, 11(5), p.e0155623.
- Casper, B.M., Domingo, A., Gaibor, N., Heupel, M.R., Kotas, E., Lamónaca, A.F., Pérez-Jimenez, J.C., Simpfendorfer, C., Smith, W.D., Stevens, J.D., Soldo, A. & Vooren, C.M. (2009). *Sphyrna zygaena*. The IUCN Red List of Threatened Species 2009: e.T39388A10193797. <http://dx.doi.org/10.2305/IUCN.UK.2005.RLTS.T39388A10193797.en>. Downloaded on 21 October 2019.

- Chabot, C.L. and Allen, L.G. (2009). Global population structure of the tope (*Galeorhinus galeus*) inferred by mitochondrial control region sequence data. *Molecular Ecology*, 18: 545–552.
- Chiaramonte, G.E., (1998). Shark fisheries in Argentina. *Marine and Freshwater Research*, 49(7), pp.601-609.
- Cortés, E., Brown, C.A. and Beerhircner, L.R., (2007). Relative abundance of pelagic sharks in the western North Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea. *Gulf and Caribbean Research*, 19(2), pp.37-52.
- Devloo-Delva, F., Maes, G.E., Hernández, S.I., Mcallister, J.D., Gunasekera, R.M., Grewe, P.M., Thomson, R.B. and Feutry, P., (2019). Accounting for kin sampling reveals genetic connectivity in Tasmanian and New Zealand school sharks, *Galeorhinus galeus*. *Ecology and evolution*, 9(8), pp.4465-4472.
- Duarte P. N., A. Silva, and G. M. Menezes. (2002). First results of a tagging program on tope shark, *Galeorhinus galeus*, and thornback ray, *Raja clavata*, in Azorean waters. 4th Meeting of the European Elasmobranch Association Proceedings. M. Vacchi, G. La-Mesa, F. Serena, and B. Séret (eds.) Paris France Societe francaise d'Ichtyologie, p. 197
- Elías, I., Rodriguez, A., Hasan, E., Reyna, M.V. and Amoroso, R. (2005). Biological observations of the tope shark, *Galeorhinus galeus*, in the northern Patagonian gulfs of Argentina. *Journal of Northwest Atlantic Fishery Science*, 35: 261–265.
- Emery, T., Woodhams, J. and Curtotti, R. (2019). Shark gillnet and shark hook sectors. Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), Fishery Status Reports 2019, 243–269.
- Ferretti, F., Soldo, A., Casper, B., Domingo, A., Gaibor, N., Heupel, M.R., Kotas, J., Lamónaca, A., Smith, W.D., Stevens, J., Vooren, C.M. & Pérez-Jiménez, J. (2016). *Sphyrna zygaena*. The IUCN Red List of Threatened Species 2016: e.T39388A16527905. Downloaded on 21 October 2019.
- Francis, M.P., 2016. Distribution, habitat and movement of juvenile smooth hammerhead sharks (*Sphyrna zygaena*) in northern New Zealand. *New Zealand journal of marine and freshwater research*, 50(4), pp.506-525.
- Fricke, R., Eschmeyer, W. N. & R. van der Laan (eds) (2019). ESCHMEYER'S CATALOG OF FISHES: GENERA, SPECIES, REFERENCES. <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. Electronic version accessed 21 October 2019.
- Hernández, S., Daley, R., Walker, T., Braccini, M., Varela, A., Francis, M. P., and Ritchie, P. A. (2015). Demographic history and the South Pacific dispersal barrier for school shark (*Galeorhinus galeus*) inferred by mitochondrial DNA and microsatellite DNA mark. *Fisheries research*, 167: 132-142.
- Howey-Jordan, L. A., Brooks, E. J., Abercrombie, D. L., Jordan, L. K., Brooks, A., Williams, S., Gospodarczyk, E. and Chapman, D. D. (2013). Complex movements, philopatry and expanded depth range of a severely threatened pelagic shark, the oceanic whitetip (*Carcharhinus longimanus*) in the western North Atlantic. *PLoS one*, 8(2), p.e56588.

- Jaureguizar, A. J., Argemi, F., Trobbiani, G., Palma, E. D., and Irigoyen, A. J. (2018). Large-scale migration of a school shark, *Galeorhinus galeus*, in the Southwestern Atlantic. *Neotropical Ichthyology*, 16.
- Kohler, N. E., Casey, J. G., & Turner, P. A. (1998). NMFS cooperative shark tagging program, 1962-93: an atlas of shark tag and recapture data. *Marine Fisheries Review*, 60(2), 1–87.
- McAuley, R. and Simpfendorfer, C.A., (2003). Catch composition of the Western Australian temperate demersal gillnet and demersal longline fisheries, 1994 to 1999. Department of Fisheries, Government of Western Australia.
- McMillan, M.N., Huvaneers, C., Semmens, J.M. and Gillanders, B.M., (2018). Partial female migration and cool-water migration pathways in an overfished shark. *ICES Journal of Marine Science*.
- Nion, H. (1999). La pesquería de tiburones en Uruguay con especial referencia a1 cazon (*Galeorhinus galeus* Linnaeus 1758). Pp. 218—267. In: Shotton, R. (Ed.). Case studies of the management of elasmobranch fisheries. Rome, FAO. (FAO fisheries technical paper, no. 378/1).
- Patterson, H., Larcombe, J., Nicol, S., and Curtotti, R. (2018). Fishery status reports 2018. Australian Bureau of Agricultural and Resource Economics and Sciences. Canberra. 549 pp.
- Pondella, D.J., II, and Allen, L.G. (2008). The decline and recovery of four predatory fishes from the Southern California. *Bight. Mar. Biol.* 154(2): 307–313. doi:10. 1007/s00227-008-0924-0.
- Ramos-Cartelle, A., García-Cortés, B., Ortiz de Urbina, J., Fernández-Costa, J., González-González, I. and Mejuto, J. (2012). Standardized catch rates of the oceanic whitetip shark (*Carcharhinus longimanus*) from observations of the Spanish longline fishery targeting swordfish in the Indian Ocean during the 1998–2011 period. 8th Working Party on Ecosystems and Bycatch, 17–19 September 2012, Cape Town, South Africa. IOTC document IOTC–2012–WPEB08–27; 15 pp.
- Santos C.C., Coelho, R. (2018). Migrations and habitat use of the smooth hammerhead shark (*Sphyrna zygaena*) in the Atlantic Ocean. *PLoS ONE* 13(6): e0198664.
- Rice, J. (2012). Catch per unit effort of oceanic whitetip sharks in the Western and Central Pacific Ocean. 8th Regular Meeting of the Scientific Committee of the WCPFC, 7-15 August 2012, Busan, Republic of Korea. WCPFC document WCPFC-SC8-2012/SA-IP-10; 35 pp.
- Rice, J. and Harley, S. (2012). Stock assessment of oceanic whitetip sharks in the western and central Pacific Ocean. 8th Regular Meeting of the Scientific Committee of the WCPFC, 7-15 August 2012, Busan, Republic of Korea. WCPFC document WCPFC-SC8-2012/SA-WP-06; 53 pp.
- Rice, J., Tremblay-Boyer, L., Scott, R., Hare, S. and Tidd, A. (2015). Analysis of stock status and related indicators for key shark species of the Western Central Pacific Fisheries Commission. 10th Regular Meeting of the Scientific Committee of the WCPFC, 5-13 August 2015, Pohnpei, Federated States of Micronesia. WCPFC document WCPFC-SC11-2015/EB-WP-04-Rev 1; 146 pp.

- Santos, C.C. and Coelho, R., (2019). Distribution patterns and indicators of the smooth hammerhead shark (*Sphyrna zygaena*) in the Atlantic Ocean. *Fisheries Research*, 212, pp.107-113.
- Simpfendorfer, C.A. (2014). Information for the development of Non Detriment Findings for CITES listed sharks. A report to the Australian Department of the Environment. James Cook University
- Stevens J.D. (1984) Biological Observations on Sharks Caught by Sport Fishermen Off New-South-Wales. *Aust J Mar Fresh Res* 35: 573-590
- Tremblay-Boyer, L., Carvalho, F., Neubauer, P. and Pilling, G. (2019). Stock assessment for oceanic whitetip shark in the Western and Central Pacific Ocean. Report to the WCPFC Scientific Committee. Fifteenth Regular Session, 12–20 August 2018, Pohnpei, Federated States of Micronesia; WCPFC-SC15-2019/SA-WP-06; 98 pp.
- Vacchi, M., La Mesa, G., Serena, F., and Seret, B. (2002) First results of tagging program on tope shark, *Galeorhinus galeus*, and thornback ray, *Raja clavata*, in Azorean waters. 4th Meeting of the European Elasmobranch Association. *Proceedings*: 197 pp.
- Walker, T.I., Cavanagh, R.D., Stevens, J.D., Carlisle, A.B., Chiaramonte, G.E., Domingo, A., Ebert, D.A., Mancusi, C.M., Massa, A., McCord, M., Morey, G., Paul, L.J., Serena, F. & Vooren, C.M. (2006). *Galeorhinus galeus*. The IUCN Red List of Threatened Species 2006:e.T39352A10212764.
[Http://dx.doi.org/10.2305/IUCN.UK.2006.RLTS.T39352A10212764.en](http://dx.doi.org/10.2305/IUCN.UK.2006.RLTS.T39352A10212764.en).
 Downloaded on 21 October 2019.
- Yokawa, K. and Semba, Y. (2012). Update of the standardized CPUE of oceanic whitetip shark (*Carcharhinus longimanus*) caught by Japanese longline fishery in the Indian Ocean. 8th Working Party on Ecosystems and Bycatch, 17–19 September 2012, Cape Town, South Africa. IOTC Document IOTC–2012–WPEB08–26; 5 pp.
- Young, C.N., Carlson, J., Hutchinson, M., Hutt, C., Kobayashi, D., McCandless, C.T. and Wraith, J. (2018). Status review report: oceanic whitetip shark (*Carcharhinus longimanus*). Final Report to the National Marine Fisheries Service, Office of Protected Resources. December 2017. 170 pp.



Submission by the Secretariat of the Pacific Regional Environment Programme (SPREP) to the Convention on Migratory Species.

Subject: Proposed listing of the Antipodean albatross (*Diomedea antipodensis*) on Appendix 1.

Background: SPREP is the regional organization (IGO) established by the governments and administrations of the Pacific charged with supporting the work of Members to address the region's environmental challenges. SPREP also promotes sustainable development and cooperation in the region. SPREP has 21 Pacific island member countries and territories (American Samoa, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, Northern Marianas, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Wallis & Futuna) and 5 developed countries (Australia, France, New Zealand, United Kingdom and United States of America) with direct interests in the region.

SPREP members who are parties to the Convention on Migratory Species (CMS) are the Cook Islands, Republic of Fiji, Samoa, Palau, New Zealand, Australia (including Norfolk and Lord Howe Islands), France (with territories in the Pacific which are New Caledonia and Wallis and Futuna) and the United Kingdom (with Pitcairn Islands). Non-parties include USA, Tuvalu, Tonga, Solomon Islands, PNG, Niue, Marshall Islands. Some non-parties are signatories to CMS instruments such as MOUs under this convention such as the Pacific Islands Cetaceans MOU, the Dugong MOU or sharks MOU, or are range states for various species such as sharks, migratory shorebirds and turtles.

Content:

Seabirds, particularly albatrosses and petrels are recognised as some of the most threatened bird species globally (Croxall *et al* 2012). Seabirds including the Antipodean albatross are covered in a daughter agreement of the CMS, the Agreement on the Conservation of Albatrosses and Petrels. Only New Zealand, Australia, and Chile in the Pacific are Parties to this agreement. No Pacific Island Countries or Territories are members. In some ways this is not surprising as the focus on conservation has very much been on those countries which contain breeding populations of threatened seabirds listed in this agreement. It has, however, become increasingly clear that threatened species such as the Antipodean albatross are under threat across their range and that range states also have a responsibility to protect these migrating seabirds.

The proposal by New Zealand, Chile and Australia is to include both subspecies of the Antipodean albatross *Diomedea antipodensis antipodensis* (Antipodean wandering albatross) and *Diomedea antipodensis gibsoni* (Gibsons albatross). The rapid decline of the Antipodean wandering albatross which breeds only on Antipodes Island in the subantarctic of New Zealand, as outlined in the

proposal for listing on Appendix 1 to CMS, coincided with an expansion of their foraging range further north and east (Walker & Elliot 2017). While migrating across the Pacific, Antipodean wandering albatross can cross into the territories of a number of Pacific Islands Countries and Territories including the Republic of Fiji, Tonga, New Caledonia, French Polynesia and the Cook Islands as well as Australia and the high seas where fishing vessels from PICTs and Distant Water Nations such as China, Chinese Taipei and Japan operate. This overlap of tuna longline fishing vessels presents a risk to hungry albatrosses. [Bycatch Risk to Seabirds in the WCPFC](#)

Of particular concern is the more rapid decline of female birds, potentially linked to their migration further north into latitudes around 25-30°S and even further north. There are now more than two adult males for every adult female. Fisheries bycatch is considered the major threat to this species. Recent tracking work (Elliot and Walker, 2019) with deployment of 65 satellite tracking devices in January and February 2019 showed further evidence of overlap of birds in high seas longline fisheries and allowed the detection of at least two females bycaught on longline vessels, with one event confirmed by an observer. Many of the fleets operating in the high seas operate out of Pacific Island ports and some may be flagged to PICs or are flagged to distant water fishing nations who are non-party Range States such as China and Japan.

Listing on Appendix 1 will increase collective and collaborative responsibility and action by PICTs including those that support fleets that overlap with these vulnerable seabirds, CMS non-Party Range States such as China and Japan that have fleets overlapping with these birds and the New Zealand Party with the greatest concern for the protection of this breeding seabird. Evidence suggests without concerted effort to mitigate fisheries bycatch, the Antipodean wandering albatross could become functionally extinct within 20 years.

The Western and Central Pacific Fisheries Commission recently approved a new Conservation and Management Measure for seabirds which will require improved mitigation use by tuna fishers operating south of 25°S and not just south of 30°S. This requirement comes into force in January 2020. Appropriate rules are just the start of an approach that will require effective investment in training monitoring and compliance. SPREP this year has begun consulting PICS about a 5-year project funded through the Pacific European Union Marine Programme (PEUMP) (part of the European Development Fund, EDF 11) to identify activities that will support reduction of bycatch of Endangered Threatened and Protected species. Activities will include supporting countries to ensure that mitigation options are understood, available, effectively used and monitored.

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References:

Baird K, Small C, Bell E, Walker K, Elliott G, Nicholls D, Alderman R, Scofield P, Depp L, Thomas B, Dias MP. 2015. The overlap of threatened seabirds with reported bycatch areas between 25° and 30° South in the Western Central Pacific Fisheries Commission Area. Eleventh Regular Session of the WCPFC Scientific Committee, Pohnpei, Federated States of Micronesia 5-13 August 2015. WCPFC-SC11-2015/ EB-WP-09.

Croxall J.P., Butchart, S.H.M., Lascelles, B., Stattersfield A. J., Sullivan, B., Symes A. and Taylor, P. 2012. Bird Conservation International 22:1-34.

Walker K and Elliot G, 2017. ACAP priority population assessment: Antipodean albatross at Antipodes Island. Fourth Meeting of the Population and conservation Status Working Group PaCSWG4 Doc 03.

Elliott G and Walker K, 2019 Antipodean wandering albatross census and population study on Antipodes Island. Department of Conservation 10 October 2019.