

**ADDENDUM 1****SCIENTIFIC COUNCIL COMMENTS**  
(arising from ScC-SC4)**PROPOSAL FOR THE INCLUSION OF  
THE SMOOTH HAMMERHEAD SHARK (*Sphyrna zygaena*)  
IN APPENDIX II OF THE CONVENTION****UNEP/CMS/COP13/Doc.27.1.9 (a and b)**

The Scientific Council has reviewed the two proposals from Brazil and the European Union in conjunction as both are proposing the same species, the Smooth Hammerhead Shark (*Sphyrna zygaena*) for inclusion in Appendix II of the Convention. The proposal from the EU refers to the global population while the proposal from Brazil concerns the regional population shared by Argentina, Brazil and Uruguay.

**RECOMMENDATIONS TO COP13**

- The Scientific Council generally supported the inclusion of the global population in CMS Appendix II. The Scientific Council agreed that the species met the criteria for inclusion in Appendix II regarding (a) “unfavorable conservation status” and (b) “migratory”, except the Australian population, which was not considered to meet the criteria for “migratory”.
- The Scientific Council therefore, recommended excluding the Australian population from the EU proposal.

**GENERAL COMMENTS ON THE DOCUMENT**

- The Scientific Council noted its disappointment about the lack of Range State consultation in advance of the submission of both proposals to COP13.
- The Scientific Council generally agreed that the species meets the criteria for inclusion in Appendix II of the Convention.

**a) Conservation status:**

- The Scientific Council agreed that the species met the criteria for “unfavorable conservation status”.
- It was noted that the Smooth Hammerhead was listed on Appendix II of CITES, with the Australian non-detriment finding allowing 70 tonnes take per year. It was further noted that the species was considered as ‘Vulnerable’ globally by the IUCN and that a 2016 IUCN assessment for the Mediterranean population of Smooth Hammerhead judged it to be ‘Critically Endangered’ with a >99% decline in abundance and biomass since the early 19th century, which raised the question whether a regional listing on either Appendix was more appropriate.

- Furthermore, the Scientific Council noted the extensive review of the two proposals which was prepared by the Advisory Committee of the CMS Sharks MOU ([available in UNEP/CMS/SCC-SC4/Inf.4](#)), and which concluded the following:

*“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). This listing was, however, heavily based on declines observed in data for hammerhead shark species grouped together. 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), although these listings were based largely on the reported findings from one published study. 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 (JASDGDLF) and the West Coast Demersal Gillnet and Demersal Longline Fishery (WCDGDLF) 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/citeslisted-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)”. 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). 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”.*

**b) Migratory status:**

- The Scientific Council agreed that the species met the criteria for “migratory”, except the Australian population.
- It was noted that there was evidence from genetic studies that the Australian population was isolated and that movements within the populations were restricted to the continental shelf area. It was therefore considered to be questionable whether the Australian population met the criteria for “migratory” and that this population should be excluded from listing.

- The Scientific Council noted the assessment of the Advisory Committee of the Sharks MOU ([available in UNEP/CMS/SCC-SC4/Inf.4](#)), which provides additional information on the migratory behaviour of the species and which came to the following conclusion:

*“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.*

*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 km (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.”*