MEMORANDUM OF UNDERSTANDING ON THE CONSERVATION OF MIGRATORY SHARKS

CMS/Sharks/MOS3/Inf.10
17 September 2018
Original: English

3rd Meeting of the Signatories to the Sharks MOU (MOS3)
Monaco, 10 - 14 December 2018
Information Document 10

CONCERTED ACTION FOR THE ANGELSHARK *(Squatina squatina)*

Adopted by the Conference of the Parties at its 12th Meeting (Manila, October 2017)

Proponent	*Principality of Monaco*
Target species, lower taxon or population, or group of taxa with needs in common	Class: Chondrichthyes, Subclass: Elasmobranchii Order: Squatiniformes Family: Squatinidae Genus, species: *Squatina squatina* Linnaeus, 1758  © Illustration by Marc Dando Proposed for inclusion in CMS App. I and II at COP12
Geographical range	The Angelshark1, *Squatina squatina*, was historically common and widespread in depths of <5–150m over large areas of the coastal, continental and insular shelf of the Western Baltic Sea, North Sea, Mediterranean Sea, Black Sea and the Eastern Atlantic, from Southern Norway, Sweden and the Shetland Islands to Morocco, Western Sahara and the Canary Islands (Figure 1, Ebert *et al*. 2013, Feretti *et al.* 2015). However, *Squatina squatina* has now been depleted from much of its former range (see Annex 1 for the list of Range States). Four geographic areas have been identified, and whilst there is some uncertainty as to species distribution there have been recent verified reports from each area. 1. Northeast Atlantic 2. Mediterranean 3. West Africa 4. Canary Islands

1 Angel shark (as two words) refers to multiple species in the family Squatinidae, while Angelshark (as one word) is used for species common names, e.g. Angelshark *Squatina squatina*

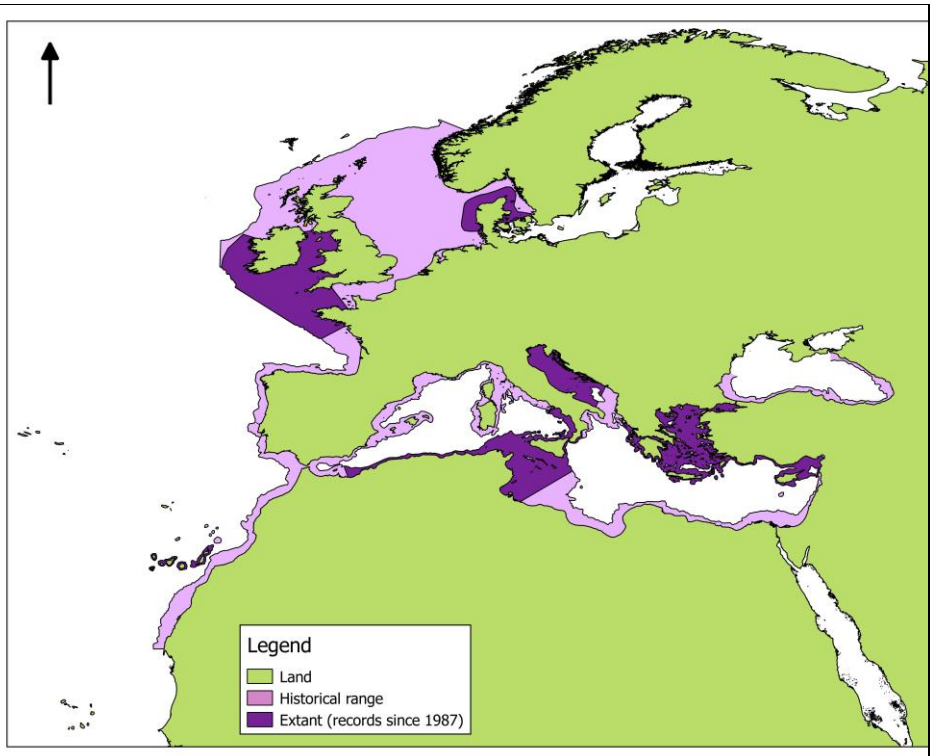

Figure 1. Angelshark (*Squatina squatina*) historical range and recent known distribution (based on at least one *Squatina squatina* individual positively identified since 1987). All distributions are shown to a 1,000m depth contour to show potential Angelshark habitat. Map created by J. Barker, Zoological Society of London on behalf of the Angel Shark Project using QGIS 2.6.1-Brighton in May 2016. Depth contour shapefiles were downloaded from Natural Earth naturalearthdata.com and presence data collected through the Angel Shark Conservation Workshop.

Activities and expected outcomes

International organizational and management structures for the mitigation of threats are vital to improve the conservation status of the Angelshark. The potential threats faced by Angelshark populations vary according to geographical area, highlighting the need for specific regional actions. To this end the following activities are proposed for consideration by the Parties, subject to the availability of funds:

1: Acknowledge and where appropriate implement aspects of The Eastern Atlantic and Mediterranean Angel Shark Conservation Strategy, (hereafter "The Strategy"). The Strategy provides a framework for improved protection of the three Critically Endangered angel shark species (*S. squatina, S. aculeata* & *S. oculata*) throughout their entire range (a copy of the Strategy can be found in UNEP/CMS/COP12/Inf.22).

The Strategy aims to:

a) improve the overall profile of angel sharks;
b) increase flow of sightings reports;
c) generate better understanding of the current distribution;
d) contribute to the IUCN Red List re-assessments; and
e) identify new collaborations opportunities to increase conservation action.

The vision of the Strategy is*: that angel sharks in the Eastern Atlantic and Mediterranean are restored to robust populations and safeguarded throughout their range.*

Delivered through objectives grouped under three key goals:

Goal 1: Fisheries based angel shark mortality is minimised.

	Goal 2: Critical angel shark areas are identified, investigated and protected where appropriate. Goal 3: Human interactions are identified and any negative impacts on angel sharks are minimised. 2: Implement Objectives of the Strategy through the following actions, as appropriate: 2.1 Convene a regional workshop in each of (1) Northeast Atlantic; (2) Mediterranean and (3) West Africa, with Range States, possible Range States that are not Parties to CMS, and regional/international experts. 2.2 Acknowledge and use the example of the Angelshark Action Plan for the Canary Islands (presented as UNEP/CMS/COP12/Inf.17) to develop the Regional Action Plans. 2.3 Compile data and information through the workshops on the other two sympatric threatened species, *S. aculeata* and *S. oculata* in areas (2) and (3). 3: Engage Parties to the General Fisheries Commission for the Mediterranean (GFCM) where *S. squatina (S. aculeata* and *S. oculata)* are listed on the GFCM recommendation (GFCM/36/2016/3) which prohibits the retention, landing, transhipment, storage, display, and sale of 24 species of exceptionally vulnerable elasmobranchs listed on the Barcelona Convention's Annex II of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean; advocate for effective implementation of this regulation in order to reduce the incidental catch of angel shark in the Mediterranean; and, as 21 of the 24 GFCM Contracting and Non-Contracting Parties are Party to CMS, listing would further cement the commitment of the majority of GFCM members to protecting angel sharks. 4. Global Strategy: Liaise with the IUCN Shark Specialist Group to ensure regional workshops contribute to the Global Red List reassessments for all angel shark species, and similarly that regional workshops and subsequent reports coordinate effectively with global activities. 5. Memorandum of Understanding on the Conservation of Migratory Sharks (Sharks MOU) 5.1 Support the inclusion of Angelsharks in Annex 1 of the Sharks MOU at the 3rd Meeting of the Signatories (Sharks MOS3) 5.2 Present the Strategy to the Sharks MOU Signatories at Sharks MOS3.
Associated benefits	**It is the intention of the activities proposed in this document to serve as a catalyst to deliver effective conservation for angel sharks, but also to serve as an opportunity for Parties to collaborate for the protection of other marine species.** Due to the overlapping distribution ranges of the three Critically Endangered angel shark species (*S. squatina, S. aculeata & S. oculata*), the Regional Action Plans would at the same time improve the knowledge and protection of all three species and implement the Strategy with its aims and goals. The regional workshops will invite all the Range States (also non-parties) to assist the workshops and will therefore promote Party accessions to CMS and to the Sharks MOU, and raise awareness of the obligations under the Convention and the MOU. In addition, in some regions, e.g. West Africa, the

	Action Plans will include capacity-building activities for the region as well as awareness raising initiatives. Furthermore, the workshops will also establish a network of various stakeholders in the different regions, which will be invaluable for any future activities concerning other migratory species within the same range, with a great potential for future synergies. Liaise with the IUCN Shark Specialist Group to ensure regional workshops contribute to the Global Red List reassessments for all angel shark species, and similarly that regional workshops and subsequent reports coordinate effectively with global activities.

Timeframe

Activities, expected Outputs and Outcomes, Timeframe for Implementation, Implementing Organizations and Funding Requirements:

Activity	Outputs / Outcomes	Timeframe	Responsibility	Funding
1. The Eastern Atlantic and Mediterranean Angel Shark Conservation Strategy				
Acknowledge the Strategy and implement its objectives where appropriate	Strategy provides guidance to Parties	2017	Range State Parties	No funding needed
2. Regional Action Plan Workshops				
2.1 Prepare and hold Northeast Atlantic workshop	Regional Action Plan published and delivery initiated	2018/2019	Range State Parties, CMS Secretariat, NGOs	Fundraising needed ~$30k for workshop and workshop report
2.2 Prepare and hold Mediterranean workshop	Regional Action Plan published and delivery initiated	2018/2019	Range States, CMS Secretariat, NGOs	Fundraising needed ~$30k for workshop and workshop report
2.3 Prepare and hold West Africa workshop	Regional Action Plan published and delivery initiated	2018/2019	Range States, CMS Secretariat, NGOs	Fundraising needed ~$30k for workshop and workshop report
3. General Fisheries Commission for the Mediterranean (GFCM)				
Encourage CMS Parties who are also Parties to GFCM to comply with their obligations GFCM/36/2012/3	Reduced incidental catch of angel sharks; markedly reduced landings; greater fisher awareness; increased knowledge of species distribution.	2018/2019	Range State Parties NGOs	No funding needed
4. Global Strategy				
Engage with IUCN SSG and contribute to Global Red List reassessments for all angel shark species	Engagement with IUCN Shark Specialist Group established, and scientific information provided to support the reassessment of the angel shark.	2018/2019	Range States Parties, CMS Secretariat	Fundraising needed to attend or support the process
5. Sharks MOU				
5.1 Support the inclusion of Angelsharks in Annex 1 of the MOU	Angelsharks proposed for inclusion in Annex 1 of the MOU at MOS3.	End 2018	Range State Parties who are also Signatories to the Sharks MOU Cooperating Partners to the Sharks MOU	No funding needed
5.1 Present the Strategy to the Sharks MOU Signatories at Sharks MOS3	Acknowledge and where appropriate implement aspects of the Strategy.	End 2018	Range State Parties who are also Signatories to the Sharks MOU Cooperating Partners to the Sharks MOU	No funding needed

Relationship to other CMS actions and mandates	The Memorandum of Understanding on the Conservation of Migratory Sharks (Sharks MOU) is the specialized agreement for chondrichthyan species in accordance with Article IV 1 of the Convention. It aims to guide international cooperation to maintain and achieve a sustainable conservation status for migratory sharks and rays included in its Annex 1. Although the MOU is independent from the Convention, Signatories nevertheless decided that chondrichthyan species listed on CMS would automatically be proposed for inclusion in Annex 1 of the MOU. In the event that the Angelshark were to be included on Annex 1 of the MOU, the species would benefit from the agreed measures and actions under the MOU and its Conservation Plan as well as from technical guidance for its conservation, provided by the MOU's Advisory Committee and Conservation Working Group. In return, these Concerted Actions would support the overall implementation of the Sharks MOU. In particular, to increase knowledge of Angelsharks and to improve management and international cooperation amongst Range States and with relevant organizations. The CMS Family Bycatch Working Group, which was set up in 2016, reviews existing measure to mitigate or reduce bycatch of CMS species and aims ensure that recommended measure benefit all taxa. The results of the proposed Concerted Actions would also contribute to this work. Finally, the actions would help to implement CMS resolutions and recommendations on Bycatch (Res 6.2, Rec 7.2, Res 8.14, Res 9.18, Res 10.14), which are proposed for consolidation to one Resolution by COP12 (see UNEP/CMS/COP12/Doc.21.2.4 and Doc.24.4.4).
Conservation priority	The Angelshark (*Squatina squatina*) has been depleted throughout much of its historical range over the past century and is listed as Critically Endangered on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species (Ferretti *et al.,* 2015). The angel shark family (Squatinidae) were identified as the second most threatened of all the world´s sharks and rays after a global review of extinction risk by the IUCN Shark Specialist Group (Dulvy *et al.,* 2014). In the 2015 European Red List of Marine Fishes report, the angel shark was amongst the 2.5% of species assessed as Critically Endangered (Nieto *et al.,* 2015). The European Red List assessment was based on estimated and suspected declines of at least 80% over three generations and the likelihood of continued future declines (Nieto *et al.,* 2015). Hence, Angelsharks have an unfavourable conservation status as defined under the Convention since they do not meet the conditions outlined in subparagraph 1 C of the Convention Text. Any conservation initiative intended to prevent this Critically Endangered shark from being driven further towards extinction is unlikely to be successful without international cooperation working at a regional level and a specific Action Plan for each region. The Strategy provides a framework and links to technical support for Parties to address the priority threats and improve the protection of angel sharks. Adopting the Strategy and further developing the Regional Action Plans will comply with Resolution 11.20 on the Conservation of Migratory Sharks and Rays, addressing paragraphs 6,7,8, and 10. Angelsharks are caught as bycatch in a variety of fisheries across their range leading to steep declines in their populations. Incidental catch still remains a priority threat for Angelsharks. As stated in Resolution 9.18 on Bycatch, engaging with regional fisheries bodies, improving incidental catch reporting, identifying fisheries with significant incidental catch and initiating incidental catch mitigation measures will be addressed within the Action Plans.

Relevance	The species is legally protected on domestic regulations in only a small part of its range under Monaco, UK, Gibraltar and Spanish legislation, and incidentally in some marine protected areas where trawl and net fisheries are prohibited (e.g. in Spain and Turkey). Regional EU and GFCM fisheries prohibitions and listings under regional agreements (OSPAR, Barcelona and Bern Conventions) should provide a degree of protection and a framework for further action however landings continue to be reported. Public and fisher awareness of the Angelshark's threatened status and the existence of these measures is generally poor, and Range State implementation activities and compliance monitoring is often lacking. Any national conservation initiatives intended to prevent this Critically Endangered species from being driven further towards extinction is unlikely to be successful if the animal is not protected during its seasonal migrations into, and through other Range States' and high seas waters. Moreover, there is still a significant uncertainty about the contemporary presence and distribution of Angelsharks, in particular in the Mediterranean and West Africa where multilateral action would be key to effective actions for the species. Hence, the Angelshark would significantly benefit from coordinated international management structures to obtain a better understanding of the remaining Angelshark populations and stimulate full protection from the CMS Parties whose waters cover a large part of its range. The Principality of Monaco has proposed to include the Angleshark in Appendix I and II of CMS at COP12.
Absence of better remedies	There is limited compliance monitoring for some of the management measures mandated through the species protection actions and recommendations mentioned in the above point, making it difficult to determine which are being implemented effectively. Fisheries landings data (FAO FishStat) also indicate that angel shark species are retained by commercial fisheries even in sea areas where protective measured are in place. Angelsharks are currently not listed under CITES. The Angel Shark Conservation Network (ASCN) was created following a successful workshop in 2016, to develop the Angelshark Action Plan for the Canary Islands. The lead partners of this process, The Shark Trust (Cooperating Partner Sharks MOU), IUCN Shark Specialist Group (member of the Sharks MOU Conservation Working Group), the Angel Shark Project and Submón have established an extremely functional partnership on the ground between research and conservation of Angelsharks. The Angelshark Action Plan has proved to be a very successful pilot process to engage multiple stakeholders and identify the main threats and conservation priorities for Angelsharks in the region (Canary Islands). Following the release, the first actions have already been implemented, in particular with regards advocating for legislative change. The collaborative efforts of the network that has already been established, in combination with a CMS Concerted Action, will enable effective work towards achieving the favourable conservation status of Angelsharks.
Readiness and feasibility	The Principality of Monaco (Party to CMS and Signatory to the CMS Memorandum of Understanding for the Conservation of Migratory Sharks) has already taken the lead on the listing proposal of Angelsharks on Appendix I and II and is committed to support the concerted actions with some funding and leadership. An Angel Shark Conservation Network (ASCN) is already established enabling effective sharing of data and information, taking the lead on identifying regional experts and capacity within the community. The IUCN Shark Specialist Group and the Shark Trust are both a founder members of the ASCN and the Shark Trust is also a Cooperating Partner to the CMS Sharks MOU. See next section for more on the ASCN.

Likelihood of success	The Angel Shark Conservation Network (ASCN) was created following a successful workshop in 2016, to develop the Angelshark Action Plan for the Canary Islands. The lead partners of this process, The Shark Trust (Cooperating Partner Sharks MOU), IUCN Shark Specialist Group (member of the Sharks MOU Conservation Working Group), the Angel Shark Project and Submón have established an extremely functional partnership on the ground between research and conservation of Angelsharks. The Angelshark Action Plan has proved to be a very successful pilot process to engage multiple stakeholders and identify the main threats and conservation priorities for Angelsharks in the region (Canary Islands). Following the release, the first actions have already been implemented, in particular with regards advocating for legislative change. Following this workshop, the same partners and a wider group of experts have convened at a second workshop to develop the Eastern Atlantic and Mediterranean Angel Shark Conservation Strategy, which serves as a coordinated international framework. With the support of the partners involved in the above mentioned processes there is a very strong foundation from which Range States can work on to deliver the regional workshops and implement the activities resulting from these workshops. Furthermore, support will be requested from the Sharks MOU and Cooperating Partners (especially the Shark Trust), to support the development and implementation of the action plans. There is a great deal of uncertainty regarding the distribution and presence of angel sharks, in particular in West Africa. West Africa is a priority region which poses some of the greatest challenges, with little published information currently available. However, these priority activities will be addressed by the regional action plans and benefit from the commitment of the ASCN.
Magnitude of likely impact	The family Squatinidae contains over 23 species, half of which are listed as threatened (Critically Endangered, Endangered or Vulnerable) on the IUCN Red List of Threatened Species. The majority of the remaining species are either Data Deficient or Not Evaluated. Many species in this family have suffered steep population declines and now face a significant risk of extinction. The range of S. squatina overlaps with the Critically Endangered S. aculeata and S. oculata, consequently actions associated with the primary species may act as a flagship not only for the two associated species but for all Squatinidae. Successful implementation could result in: – Improvements in: legal protection status; data quality and monitoring; local and regional capacity to address bycatch (gear adaptions/temporal or seasonal closures in critical areas); and general awareness; – Benefits to science through increased data and information; improved communication; expanded research network; increased sharing of knowledge and techniques. In addition to providing substantial opportunity for complementary action for the two additional Critically Endangered angel shark species which have a partial shared range. – An increase in political will and resourcing with greater profile and commitment from Range States, and facilitated access to funding as species is higher on government's agendas. – A more certain future, as a concerted effort across the species range could result in a halt in decline and in-time foster species recovery.
Cost-effectiveness	The expected costs are outlined under the timeframe table above. Estimated costs for holding the regional workshops have been added and are subject to successful fundraising. Holding regional workshops are a cost-effective approach to reach out to multiple stakeholders and accomplish species and region specific actions.

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Annex 1 – List of Range States and their status in CMS and the Sharks MOU

Due to current converted effort on securing information on the range of Angelsharks, this list is subject to change. Furthermore, Range States for the other two Angelshark species (*Squatina aculeata* and *Squatina oculata*) have also been included for reasons of overlapping range, lookalike species, misidentification and misreporting and associated benefits for the conservation of other Critically Endangered sharks.

The following definitions are used for this table:

Yes = This species is known or thought very likely to occur presently in the area. Current or recent records (past 30 years) or there is no record of the species in the area, but the species may occur based on distribution of suitable habitat.

Extinct?: Formerly known or thought likely to occur in the area, likely now extirpated due to habitat loss/other threats. No recent records despite searches, and intensity and timing of threats could plausibly have extirpated the taxon. Habitat loss/other threats are thought likely to have extirpated the species and/or owing to a lack of records in the last 30 years

Uncertain: A record exists of the species presence in an area, but this record requires verification or is rendered questionable owing to uncertainty over the identity or authenticity of the record, or accuracy of the location.

Country	**Range State**	**CMS Party**	**Sharks MOU Signatory**
Albania	yes	yes	no
Algeria	yes	yes	no
Belgium	extinct?	yes	yes
Bosnia & Herzegovina	yes	no	no
Bulgaria	uncertain	yes	no
Croatia	yes	yes	no
Cyprus	yes	yes	no
Denmark	uncertain	yes	yes
Egypt	yes	yes	yes
European Union	yes	yes	yes
France	yes	yes	no
Gambia	yes	yes	no
Georgia	uncertain	yes	no
Germany	extinct?	yes	yes
Greece	yes	yes	no
Guinea	extinct?	yes	yes
Guinea-Bissau	extinct?	yes	no
Ireland	yes	yes	no
Israel	yes	yes	no
Italy	yes	yes	no
Lebanon	yes	no	no

Country	Range State	CMS Party	Sharks MOU Signatory
Liberia	yes	yes	yes
Libya	yes	yes	yes
Malta	yes	yes	no
Mauritania	yes	yes	yes
Monaco	extinct?	yes	yes
Montenegro	extinct?	yes	no
Morocco	yes	yes	no
Netherlands	extinct?	yes	yes
Norway	extinct?	yes	no
Portugal	yes	yes	yes
Romania	uncertain	yes	yes
Russian Federation	uncertain	no	no
Senegal	yes	yes	yes
Slovenia	yes	yes	no
Spain	yes	yes	no
Sweden	extinct?	yes	yes
Syrian Arab Republic	yes	yes	yes
Tunisia	yes	yes	no
Turkey	yes	no	no
Ukraine	uncertain	yes	no
United Kingdom	yes	yes	yes