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Agenda Item 27.1

PROPOSAL FOR THE INCLUSION OF THE TOPE SHARK *(Galeorhinus galeus)* IN APPENDIX II OF THE CONVENTION

Summary:

The European Union and its Member States have submitted the attached proposal for the inclusion of the Tope Shark *(Galeorhinus galeus)* in Appendix II of CMS.

Proposal for Inclusion of Species on the Appendices of the Convention on the Conservation of Migratory Species of Wild Animals

A. PROPOSAL

Inclusion of the species *Galeorhinus galeus*, Tope, in Appendix II

B. PROPONENT:

European Union and its Member States

SUPPORTING STATEMENT:

1. Taxonomy

1.1 Class:	Chondrichthyes, Subclass Elasmobranchii
1.2 Order:	Carcharhiniformes
1.3 Family:	Triakidae
1.4 Genus/Species:	*Galeorhinus galeus* Linnaeus, 1758
1.5 Scientific synonyms:	
1.6 Common name:	
English:	Tope, Liver-oil Shark, Miller´s Dog, Oil Shark, Penny Dog, Rig, School Shark, Snapper Shark, Soupfin, Soupie, Southern Tope, Sweet William, Tiburon, Tope Shark, Toper, Vitamin Shark, Whithound
French:	Cagnot, Canicule, Chien De mer, Haut, Milandré, Palloun, Requin-hâ, Tchi, Touille
Spanish:	Bosti, Bstrich, Ca Marí, Caco, Cassó, Cazón, Gat, Musola, Musola Carallo, Pez Calzón, Pez Peine, Tiburón Trompa De Cristal, Tiburón Vitamínico
German:	Hundshai, Gemeine Meersau
Italian:	Cagnassa, Cagnesca O Canoso, Can, Can Da Denti, Can Negro, Caniscu, Galeo, Galeo Cane, Lamia, Lamiola, Moretta, Palombo Cagnesco, Pesce Cane, Pisci Muzzolu
Portuguese:	Cacao Tope, Cascarra, Cação-bico-doce, Chiâo, Chona, Chonâo, Dentudo, Perna De Moca
Arabic:	Kalb, Kelb il bahar

Figure 1: Tope (*Galeorhinus galeus*) illustration. © The Shark Trust/Marc Dando

2. Overview

Tope, *Galeorhinus galeus*, is a medium-sized shark with a widespread distribution mainly occurring demersal in cold to warm temperate coastal areas and on continental and insular shelves of all major oceans. However, the species has been recorded in depths beyond 500m on continental slopes, and offshore distribution more than 1500 km off the coast has been shown, as has pelagic distribution in open ocean areas.

Tope undertake extensive and wide-ranging seasonal latitudinal and inshore-offshore migrations. In the Southwestern Atlantic, seasonal latitudinal migrations of more than 1400 km have been reported between wintering grounds and summer/pupping/nursery grounds. Animals tagged in the United Kingdom showed mixing throughout their distribution range in the Northeast Atlantic and were recaptured as far away as Iceland, the Canary Islands, the Azores and in the Mediterranean more than 2000 km away from their release location. In Australia, mixing occurs along the southern part of the continent with migrations of more than 1000 km, and some individuals have been shown to cross the Tasman Sea to New Zealand. Although little is known about movements of tope in their South African distribution range, seasonal differences in catch composition and locations indicate migrations between possible nursery and feeding grounds. In the Eastern North Pacific, seasonal latitudinal but also offshore migrations have also been shown. Generally, tope are known to seasonally and locally segregate by sex and size.

In most parts of their distribution range, tope have been targeted in demand for liver-oil, meat and fins with gillnets and longlines and are also a common bycatch in trawl and other fisheries. Most of the stocks are shared between range states and are depleted to varying degrees, with serious levels of depletion in some areas. Globally, this species is assessed as Vulnerable in the IUCN Red List. Regionally tope are assessed as Critically Endangered (Southwest Atlantic), Vulnerable (Mediterranean, Europe, Australia and South Africa), Near Threatened (New Zealand) and Least Concern (Eastern North Pacific).

At present, only few conservation measurements are present for tope throughout its distribution range despite growing international awareness of common threats. Gear restrictions, mesh-size limits, length-based restrictions, seasonal closures are in place in Australia and New Zealand. In the Southwest Atlantic, seasonal restrictions in an area with increased occurrence of gravid females are the only conservation measure. In South Africa, no conservation measures are in place at present. In the Eastern North Pacific, no species-specific conservation measures are in place, but gear-restrictions also affecting tope. In the Northeast Atlantic, daily catch limits and gear restrictions are in place (UK), and EU regulations prohibit the taking of tope by longline over a large part of their northern European range.

Due to the pertaining global fishing pressure on tope and increased habitat degradation affecting e.g. potential nursery areas, and the highly migratory nature of this shark species, a listing in Appendix II of CMS would provide support for introducing both collaborative data collection, management and conservation measures for this species across its range states.

3. Migrations

3.1 Kinds of movement, distance, the cyclical and predictable nature of the migration

Tope are known for extensive seasonal migrations in most parts of their distribution range. These migrations are far ranging and cross multiple state jurisdictions.

In the Northeast Atlantic, tagging studies with conventional tags conducted around the British Isles showed both far-ranging migrations through recaptures from places as far away as Iceland, the Azores, the Canary Islands, Norway and even the Mediterranean, but also possible site or region fidelity from recaptures in the vicinity of the release location after up to more than ten years at liberty (Holden and Horrod, 1979; Stevens, 1990; Fitzmaurice et al., 2003; Burt et al., 2013; Inland Fisheries Ireland, 2014). However, no clear migration patterns regarding seasonality or direction have been identified in the NE Atlantic distribution range.

In the Southwest Atlantic, large-scale seasonal latitudinal migrations that exceed 1400 km and possibly are related to displacement of warm water masses (and accordingly favourable habitat conditions for tope) have been recorded that also cross transnational borders (Lucifora et al., 2004; Jaureguizar et al., 2018).

In Australasia, tope (there commonly referred to as school-shark) tagging studies have been conducted over the last decades. The sharks migrate along the southern Australian coast between known aggregation areas and nursery/pupping grounds. Apart from this seasonal migration, different migration patterns including partial migration of females and long-distance migrations across the Tasman Sea between Australia and New Zealand have been recorded (Hurst et al., 1999; Brown et al., 2000; West and Stevens, 2001; McMillan et al., 2018b). Additional, offshore movement of tracked tope across the shelf edge in South Australia is reported (Rogers et al., 2017).

Little is known about migrations of tope in South African waters. Recent studies on gene flow between different sampling sites in the Western Cape Region, situated both on the Atlantic and Indian Ocean side, indicated stronger connection and mixing of tope populations from both coasts (Bitalo et al., 2015). Dedicated tagging studies have not been conducted, and the migration patterns of the tope stock in South Africa have not been described yet. However, based on the migratory nature of the species it is assumed that transnational migrations e.g. into Namibian waters and outside the EEZ of South Africa occur (McCord, 2005).

In the Northeast Pacific, movement patterns of tope are poorly understood. There are no recent tagging studies, and observations from a limited number of tagging studies are scarce. Still, migrations along the US and Canadian Pacific coast have been shown that also cross transnational borders: Returns from tope tagged in California origin from as far away as more than 1600 km in British Columbia waters of Canada (Ripley, 1946; Herald and Ripley, 1951; COSEWIC, 2007). In general, it is unclear whether migrations of adult tope are driven by philopatry, genetic predisposition, or condition-dependent choice (McMillan et al., 2018b)

3.2 Proportion of the population migrating, and why that is a significant proportion

Sub-adult as well as adult tope all migrate, but show a strong segregation by sex and age. Spatial and temporal variations in size structure and sex ratio have been described for different populations of tope. In the Northeast Atlantic, it is assumed that tope form separate aggregations based on sex and size, which have different spatial and temporal migration patterns but show regular intermixing (Drake et al., 2002; Fitzmaurice et al., 2003).

Based on observations by Vacchi et al. (2002), juvenile tope do not seem to undertake the extensive migrations of adults. In the Southwest Atlantic, different temporal migration and distribution patterns for tope of different sex and age have also been identified. Only large juveniles and adults seem to undertake migrations to the overwintering grounds, where also copulation occurs in specific areas of the upper continental slope (Peres and Vooren, 1991; Lucifora et al., 2004). Segregation by sex and size as well as differing aggregation/abundance patterns for adult and juvenile tope have also been suggested for the South African tope population (McCord, 2005). In the Eastern North Pacific, seasonal and spatial differences in catches of both juvenile and adult tope also showed a strong segregation by sex and size, with both bathymetric and latitudinal separation of both sexes (Ripley, 1946; Walker et al., 2006). Altogether, sex and size segregated differences in distribution of tope across their range renders different proportions of the corresponding populations vulnerable to fishing pressure.

4. Biological data

4.1 Distribution

G. galeus have a widespread, cosmopolitan, benthopelagic coastal and offshore distribution in temperate waters (Compagno, 1984). The specific distribution of tope covers the following regions: Western Atlantic: southern Brazil to Argentina. Eastern Atlantic: Iceland, Norway, Faeroe Islands, British Isles to the Mediterranean and Senegal; Gabon to South Africa and Mozambique (Western Indian Ocean). Western Pacific: Australia and New Zealand. Eastern Pacific: British Columbia (Canada) to southern Baja California, Gulf of California; Peru and Chile (Compagno, 1984; Walker et al., 2006). Tope are absent from eastern North America and eastern Asia (Castro, 2011) (Figure 2).

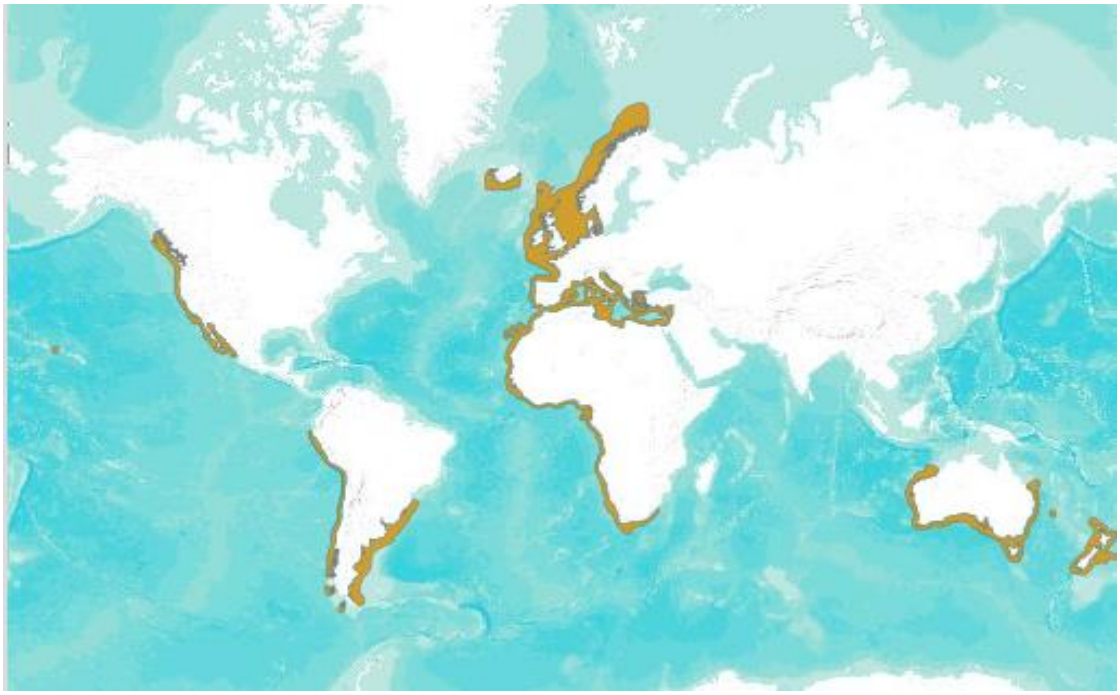

Figure 2: Tope (*Galeorhinus galeus*) distribution. International Union for Conservation of Nature (IUCN) 2012. The IUCN Red List of Threatened Species. Version 2018-2.

4.2 Population

Globally, tope populations are decreasing (Walker et al., 2006). The biomass of tope in South Australia was estimated at 9-14% of original pup production levels in 2007 (Huveneers et al.,

2013), and the stock has been overfished since approximately 1990 and has been classified a such since 1992 (Patterson et al., 2018). 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. The South African population biomass is considered to be at 43% of pre-exploitation level, and any increase in fishing pressure may result in a further decrease (McCord, 2005). In the South West Atlantic population, drastic declines in tope stock size have been suggested after intensive directed commercial fishing of that shark species (Chiaramonte, 1998; Elías et al., 2005). No analytical assessment for tope in the Northeast Atlantic is in place, but survey data trends from various parts of that area indicate declines of 38% over a three-generation period of 90 years, and similar declines are assumed for the Mediterranean subpopulation (McCully et al., 2015; ICES, 2018).

4.3 Habitat

G. galeus are widespread in temperate coastal and shelf-waters from very shallow depths down to ca. 800 m. Offshore distribution has also been shown. Although primarily found near the bottom, tope also range into the pelagic zone (Compagno, 1984; Walker et al., 2006; Ebert and Stehmann, 2013). Tope occur in temperatures from 11°C to ca. 21°C but seem to prefer temperatures from 13°C to 16°C (West and Stevens, 2001; Elías et al., 2005; Cuevas et al., 2014) or higher (15°C – 21°C, Rogers et al. (2017)).

4.4 Biological Characteristics

Life history parameters of tope vary between regions (Table 1). Reproduction is aplacental viviparity with average litter sizes of 20 to 35 pups that can range from 4 to 54 and increase with the size of the mother (Capapé et al., 2005; Walker et al., 2006; Ebert and Stehmann, 2013). The maximum size of tope varies with sex, but also with region: While reportedly tope from the southern Mediterranean/Maghreb shore reach maximum lengths (TL) of 158 cm (males) and 199 cm (females) respectively (Capapé et al., 2005), corresponding lengths of *G. galeus* in the Southeast Atlantic population are considerably smaller (148 cm and 155 cm TL) (Peres and Vooren, 1991; Lucifora et al., 2004). In the Pacific (California), reported maximum total lengths for males and females vary between 155 cm/195 cm (Ripley, 1946) and 182 cm/198 cm (Castro, 2011). In the Northeast Atlantic, maximum lengths (TL) of males and females are reported at 155-175 cm and 174-195 cm (Ebert and Stehmann, 2013), and growth parameters have been derived by Dureuil and Worm (2015). Reproductive characteristics also differ among populations (Table 1). Tope are considered long-lived and probably live for up to 60 years. Age obtained from vertebrae band readings can be misleading in some shark species due to irregular annual growth bands, and tope are considered to be one of these species (Dureuil and Worm, 2015 and references therein). Longevity estimates have been based on growth estimates derived from tag-/recapture data and include a range from 46 to 59 years in females and 43 to 55 years in males (Dureuil and Worm, 2015), a maximum estimate of 53 years for females (Olsen, 1984) and 45 years for males (Moulton et al., 1992).

Table 1: Life history characteristics of *Galeorhinus galeus* from different areas (after Capapé et al. (2005)).

Area	Size at	Size at maturity	Maximum size (TL,	Oocyte	Litter	Reference

	birth (TL, mm)	(TL, mm)		mm)		diameter (mm)	size	
		Males	Females	Males	Females			
Pacific (California)	350-370	1350-1400	1700	1550	1950	40-60	16-54	Ripley (1946)
Southern Australia	310	1200-1320	1350	1550	1740	40-50	17-41	Olsen (1984)
Southwest Atlantic (Southern Brazil)	303	1070-1170	1180-1280	1480	1545	46-55	4-41	Peres and Vooren (1991)
Southwest Atlantic (Argentina)	310	1080-1190	1250	1528	1532	42-57.5	25	Lucifora et al. (2004)
Mediterranean (Maghreb shore)	240-320	1225-1260	1400	1580	1990	42-48	8-41	Capapé et al. (2005)
South Africa	298(307)	1278	1371	1543*	-	-	8-20	(Freer, 1992; McCord, 2005)

*estimated von Bertalanffy L_{inf}

4.5 Role of the taxon in its ecosystem

Tope mainly feed on teleost fish -mostly bottom-associated species but also pelagic fish-, but cephalopods are also an important part of their diet. Other invertebrates (crustaceans, snails etc.) also play a role as prey item, especially in juveniles (Walker, 1999; Ebert and Stehmann, 2013). There is an ontogenetic shift in diet (Lucifora et al., 2006). *G. galeus* is a high trophic level predator with and estimated trophic level of 4.2, which is higher than average for shark species (Cortés, 1999). However, the overall trophic level of tope seems to vary among populations/ecosystems (Torres et al., 2014). Given the migration capacity and the trophic ecology of tope, this species is suggested to represent the potential to be used as bio-indicator of environmental quality (Torres et al., 2014).

Tope (especially juveniles) are preyed upon by the Great White Shark (*Carcharodon carcharias*), Sevengill Shark (*Notorynchus cepedianus*), and possibly marine mammals (Ripley, 1946; Ebert and Stehmann, 2013).

5. Conservation status and threats

5.1 IUCN Red List Assessment

Table 2: IUCN Red List Assessment for Galeorhinus galeus (reference Walker et al. (2006) if not otherwise stated).

Region	*G. galeus* IUCN (2006) Assessment status
Global	Vulnerable (VU)
Southwest Atlantic	Critically Endangered (CE)
Australia	Vulnerable (VU)
South Africa	Vulnerable (VU)
New Zealand	Near Threatened (NT)
Eastern North Pacific	Least Concern (LC)
Mediterranean	Vulnerable (VU) (McCully et al., 2016)
Europe	Vulnerable (VU) (McCully et al., 2015)

Regional assessments (if not otherwise referenced) are provided in Walker et al. (2006) and are based on different evidence. Australia and New Zealand: Estimates of current mature biomass from age-based model outputs as well as very low biological productivity; Southwest Atlantic: Drastic declines in CPUE, no fishery restriction, targeting of gravid females in fishery conducted in nursery and pupping grounds; South Africa: Biomass estimated from spawner biomass per recruit model (to be considered with caution), and Vulnerable (VU) assessment based on virtually unregulated shark fishery; Eastern North Pacific: No stock assessment has been undertaken for several decades, but fishing mortality is expected to be low with landings very stable.

5.2 Equivalent information relevant to conservation status assessment

Different assessment methods have been applied to the South Australian tope stock (Punt and Walker, 1998; Punt et al., 2000; Thomson and Punt, 2009; Thomson, 2012). Basic population dynamics models and analyses of catch and effort data have been applied by McCord (2005). A preliminary capture-recapture model for assessing the Northeast Atlantic tope stock was developed in 2015 using data from the Irish Marine Sportfish Tagging Programme. This approach was considered as an exploratory assessment by the ICES Working Group of Elasmobranch Fishes (WGEF) in 2016 including additional Irish tagging records from 2014 and 2015. The approach, results and a discussion of the current state of the model are summarized in ICES (2018).

Table 3: Summary of different assessment methods applied to different tope stocks incl. results.

Region	Method	Results	Reference
South Africa	Spawner biomass per recruit model	Biomass at 43% of pre-exploitation level	McCord (2005)
South Australia	Spatially aggregated age- and sex-structured population dynamics model	Mature biomass at 13-45% of pre-exploitation equilibrium size (1995)	Punt and Walker (1998)
		Pup-production 12-18% of pre-exploitation equilibrium size (1997)	Punt et al. (2009)
		Biomass at 12% of unfished level (2008)	Thomson and Punt (2009)
		Rebuilding is likely to be occurring (and catches below 250 t allow rebuilding)	Thomson (2012)
Northeast Atlantic	Capture-recapture Data (Cormack-Jolly-Seber model)	Annual survival probability <0.3, decreasing (2014)	ICES (2018)

5.3 Threats to the population

Tope has traditionally been one of the most extensively fished shark species in their areas of occurrence, with important directed fisheries across almost all their distribution range. Accordingly, fishing pressure is the largest threat facing *G. galeus* populations across their distribution range. The mainly coastal distribution of tope makes this shark particularly vulnerable to different kinds of common fishing gears. In some important parts of their distribution range (e.g. Southwest Atlantic), tope are fished mostly in unregulated and

unmanaged fisheries. Over the longer-term, there has been a documented case of a tope fishery collapsing (off California in the 1940s; Holts, 1988).

Genetic studies on tope revealed significant differences and no population connectivity among the five geographically isolated populations of tope (Chabot, 2015). Accordingly, it cannot be expected that vulnerable and depleted stocks recover due to immigration from adjacent populations (Bitalo et al., 2015; Chabot, 2015; Hernández et al., 2015; Bester-van der Merwe et al., 2017).

5.4 Threats connected especially with migrations

Moving between e.g. key reproductive habitats, nursery grounds, feeding grounds etc. renders this migratory, mainly coastal species especially susceptible to all different kinds of fishing gear, both as targeted species and as bycatch. This becomes especially apparent in the documented sex- and size segregated migration and aggregation patterns of tope (see above). Those characteristics together with documented partial migration of different life stages render effective management and protection of tope particularly difficult. While some known pupping areas are (temporally) protected e.g. in Argentina and Australia, the high plasticity in migration behaviour and possible pupping areas of tope often limits the efficiency of corresponding measures (McMillan et al., 2018a). Additionally, partial and varying offshore migration of adults to and from the pupping grounds leads to a greater risk since protection measures from inshore fishing closures do not apply (McMillan et al., 2018b).

5.5 National and international utilization

Tope have been subject to targeted fisheries in most parts of their distribution range for a long time. Main use has been for liver oil, meat and fins. In the Eastern North Pacific, tope ("soupfin shark" and "liver oil shark") used to be the economically most important shark, where it was targeted for its fins considered superior to those of all other California sharks, and later for its liver identified as richest source of high-potency Vitamin A (Castro, 2011). In South Africa, tope is either marketed frozen (fillets exported to e.g. Australia and Japan as well as different EU countries) or dried and consumed directly in South and West Africa. Fins are exported to Asia and Australia. In general, tope is considered one of the most commercially valuable sharks in South Africa (McCord, 2005; da Silva et al., 2015). In Australia, tope were utilized as fertilizers in orchards prior to the onset of an industrial fishery for their liver oil in the early 20th century that largely expanded with the onset of World War II. Since the early 1960s, demand for meat increased (Walker, 1999). In the Northeast Atlantic, tope is of limited commercial importance and mainly taken as bycatch in mixed demersal fisheries. In recreational fisheries however, tope play an important role, rendering the commercial value of this species for angling high (Walker et al., 2006).

6. Protection status and species management

6.1 National protection status

Tope are listed as "Conservation Dependent" in Australia, with no approved conservation advice for this species (Department of the Environment, 2019). In Australia as well as in New Zealand, management measurements have been implemented.

No wide ranging species specific conservation measures are in place in the South West Atlantic (despite apparent restrictions for fishing fleets in a known pupping ground in

Argentina during the time gravid females appear there) or in South Africa. However, shark fishing in South Africa is –compared with most developing countries- comparatively well managed.

6.2 . International protection status

Tope is listed in Appendix II of the Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD) Protocol of the Barcelona Convention, affording it protection from fishing activities in that region. Tope taken with bottom-set nets, longlines and tuna traps shall be released unharmed and alive to the extent possible. Retaining on board, transhipment, landing etc. is accordingly forbidden. The "Roadmap for the implementation of collective actions with the recommendations for the protection and conservation of OSPAR listed species and habitats" of the OSPAR Commission (2017) does list different shark species of the Northeast Atlantic region in their list of threatened and/or declining species and habitats and provides recommendations to strengthen the protection of both populations and habitats.Tope are not specified in the corresponding OSPAR Annex.

In the HELCOM area (Baltic Sea incl. Kattegat and parts of the Skagerrak), tope are listed as vulnerable and considered as rare visitor in their area of occurrence in the Baltic Sea region (i.e. Kattegat and Skagerrak). No specific measures to protect tope are in place, but a recommendation to reduce bycatch in mixed demersal and pelagic fisheries in the area and the requirement of a suitable TAC advised by ICES are stated (HELCOM, 2013).

The Pacific Islands Regional Plan of Action for Sharks Guidance for the Conservation and Management of sharks lists school shark amongst the high risk species taken in the Western Central Pacific Ocean (productivity-susceptibility analysis including fecundity and weighing according to litter size and reproductive frequency) and identifies insufficient observer data recording of *G. galeus* in longline fishing catches in the Pacific Island Countries and Territories. However, no species specific conservation measures are provided (Lack and Meere, 2009).

6.3 Management measures

In Australia, a School Shark Stock Rebuilding Strategy (AFMA, 2009; revised 2014) has been implemented that aims to recover the stock to a prescribed target biomass within a reasonable timeframe. Management measures include e.g. area closures, gear restrictions, and catch limits. In New Zealand, minimum mesh-sizes as well as more general gear restrictions apply, including a daily bag limit for recreational fishing (Walker et al., 2006). It is unclear whether the current fishing mortality rate, e.g. through gillnets and hooks, will allow recovery within the specified timeframe. Biomass of tope is likely to remain below 20% of unexploited levels (Patterson et al., 2018).

In the UK, tope are protected through different measures after the introduction of the Tope (Prohibition of Fishing) Order in 2008 (UK Government, 2008), which (1) prohibits fishing for tope other than by rod and line (and these may not be landed) and (2) limits retention of tope (taken as bycatch) to no more than 45 kg per day. This regulation effectively bans directed commercial fisheries being established, ensures anglers practice catch-and-release, whilst allowing some bycatch to be landed.

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). REGULATION (EU) No 605/2013 on the removal of fins of sharks on board vessels in the management measures section regulates the fishing of this species using other gears.

In South Africa, a National Plan of Action for the Conservation and Management of Sharks (NPOA-Sharks) is established, and directed shark fisheries are managed through e.g. effort and quota restrictions (da Silva et al., 2015).

In the Eastern North Pacific, no conservation or management measures specifically applying to tope are in place. In California, gillnets are prohibited in state waters. In Canada´s Pacific waters, no sharks other than spiny dogfish (*Squalus* spp.) can be retained, which removes incentives to catch any shark species including tope. However, tope caught by trawl can be landed (it is mentioned though that this type of gear yielded very few tope specimens in Canadian waters) (COSEWIC, 2007).

6.4 Habitat conservation

Area closures for different fishing gears may directly contribute to the protection of critical habitats (pupping and nursery grounds). Other coastal marine protected areas or seasonal fisheries closures can provide incidental protection for different life stages.

6.5 Population monitoring

Population monitoring of the species within its range is very limited. Incidental capture through regular monitoring programs of e.g. demersal fish resources is often insufficient to provide solid data on abundance and distribution. Limited monitoring also occurs through landings registrations.

7. Effects of the proposed amendment

7.1 Anticipated benefits of the amendment

In the "Review of Migratory Chondrichthyan Fishes" (IUCN Shark Specialist Group, 2007), it is stated that "*Australia is the only range State that is paying close attention to managing this species, as a result of former serious depletion of the stock in the target southern shark fishery. Requests from CITES in recent years for an improved focus on the assessment and management of Galeorhinus stocks, including through FAO, have so far been ignored by regional fisheries bodies and range States. This species certainly warrants a much higher priority for collaborative management by range States and through regional fisheries bodies than it is receiving. A CMS Appendix II listing could help to drive the improvements in national and regional management that are required if this species is to be managed sustainably."* One decade later, the situation remains mostly unchanged.

Considering the, often severe, declines *G. galeus* has suffered in all parts of its distribution range and considering the ongoing, often unregulated or unmanaged extraction of tope from directed fisheries or as bycatch across their distribution range, international conservation action is needed.

An Appendix II CMS listing would facilitate development and implementation of better, international conservation measures throughout the range states including establishment of monitoring programmes etc.

7.2 Potential risks of the amendment

No potential risks to Tope conservation are foreseen from a corresponding Appendix II listing.

7.3 Intention of the proponent concerning development of an Agreement or Concerted Action

Under CMS the "Sharks MoU" exists already as an appropriate Agreement for further implementation of the CMS Annex II listing. An inclusion in the "Sharks MoU" Annex I would promote an improved management and conservation by Signatories and will raise more awareness for this species.

8. Range States

G. galeus is extant in the following states: Albania; Algeria; Angola; Argentina; Australia; Belgium; Bosnia and Herzegovina; Brazil; Canada; Cape Verde; Chile; Congo; Congo, The Democratic Republic of the; Croatia; Cyprus; Côte d'Ivoire; Denmark; Ecuador; Faroe Islands; France; Gabon; Gambia; Germany; Greece; Guinea-Bissau; Iceland; Israel; Italy; Lebanon; Libya; Malta; Mauritania; Mexico; Monaco; Montenegro; Morocco; Mozambique; Namibia; Netherlands; New Zealand; Nigeria; Norway; Peru; Portugal; Senegal; Slovenia; South Africa; Spain; Sweden; Syrian Arab Republic; Tunisia; Turkey; United Kingdom; United States; Uruguay (Walker et al., 2006)

9. Consultations

EU consultations with the EU Member States took place in spring and summer 2019. For reasons of timing, no consultations were held with other CMS parties – the CMS consultations should take place in the framework of the Scientific Council meeting of CMS involving shark specialists from the Sharks MoU.

10. Additional remarks

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11. References

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