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Agenda Item 30.2

**PROPOSAL FOR THE INCLUSION OF  
THE GREAT HAMMERHEAD SHARK (*Sphyrna mokarran*)  
ON APPENDIX I OF THE CONVENTION\***

Summary:

The Government of Ecuador has submitted the attached proposal for the inclusion of the great hammerhead shark (*Sphyrna mokarran*) on Appendix I of CMS.

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## PROPOSAL FOR THE INCLUSION OF THE GREAT HAMMERHEAD SHARK (*Sphyrna mokarran*) ON APPENDIX I OF THE CONVENTION

### A. PROPOSAL

Inclusion of all populations of the great hammerhead shark, *Sphyrna mokarran*, in Appendix I of the Convention on the Conservation of Migratory Species of Wild Animals (CMS).

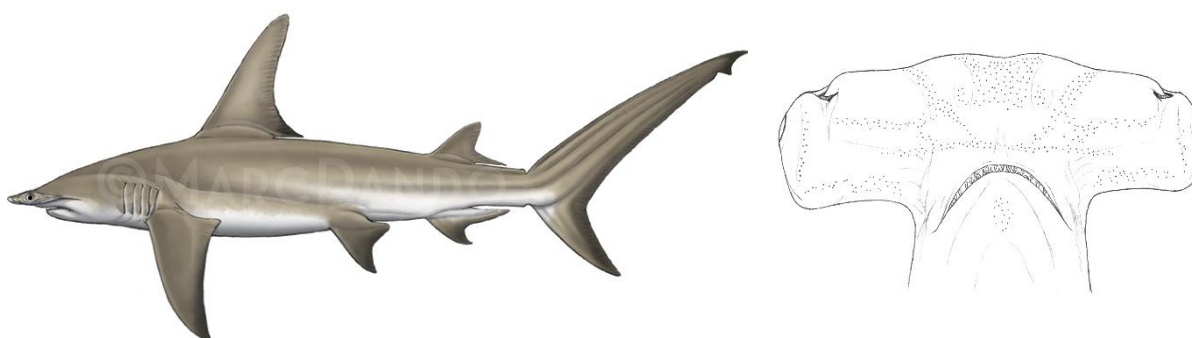
### B. PROPONENT

Ecuador

### C. SUPPORTING STATEMENT

#### 1. Taxonomy

- 1.1 Class: Chondrichthyes (Subclass: Elasmobranchii)
- 1.2 Order: Carcharhiniformes
- 1.3 Family: Sphyrnidae
- 1.4 Genus, species: *Sphyrna mokarran* (Rüppell, 1837)
- 1.5 Scientific synonyms: *Zygaena mokarran* (Rüppell, 1837), *Zygaena dissimilis* (Murray, 1887), *Sphyrna ligo* (Fraser-Brunner, 1950), *Sphyrna mokorran* (Rüppell, 1837), *Sphyrna mukaran* (Rüppell, 1837).
- 1.6 Common name(s), in all applicable languages used by the Convention
  - English: Great hammerhead shark
  - French: Grand requin-marteau
  - Spanish: Tiburón martillo gigante



**Figure 1.** Great hammerhead shark (*Sphyrna mokarran*), full body and cephalofoil. Illustrations: © Marc Dando (Wild Nature Press).

#### 2. Overview

The great hammerhead shark (*Sphyrna mokarran*) population is assessed globally as Critically Endangered by the IUCN Red List. The principal driver of these populations declines is over-exploitation by fisheries, both as a target and bycatch species. Fishing pressure is driven by increased demand for and incentivized by the high economic value of its fins and the consumption of its meat. Supplying this demand has led to *S. mokarran* being overfished during all stages of its lifecycle, in nearshore coastal and offshore environments. *Sphyrna mokarran* inhabits coastal-pelagic and semi-oceanic waters across a circumtropical range. Its

highly mobile nature, slow growth, and long gestation periods make the species highly vulnerable to fishing pressure, which it encounters across its entire range. Abundance trend analyses of catch-rate data for *S. mokarran* reflect large population declines, ranging from 60-99% over recent years, in all major ocean basins. *Sphyrna mokarran* was included on CMS Appendix II at CoP11 in Quito, Ecuador in 2014. The species was additionally listed on the Memorandum of Understanding on the Conservation of Migratory Sharks (Sharks MOU), in 2016. In 2014, in recognition that international trade in its products (particularly fins) was a major driver of population declines, *S. mokarran* was listed on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Since then, the species has been identified as being subject to both continued unsustainable trade and illegal trade in large volumes, via the CITES compliance processes. Given the species present situation, one that includes its overutilization, inadequacy of existing regulatory mechanisms, and other anthropogenic threats, an Appendix I listing on CMS for *S. mokarran* would offer an unequivocal acknowledgement of concern for the species and commitment towards population rebuilding strategies.

### 3. Migrations

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

The species is listed on Annex I, Highly Migratory Species, of the UN Convention on the Law of the Sea (UNCLOS). Unlike other members of the Sphyrnidae family, *S. mokarran* is not usually found in aggregations but is nomadic and migratory in its worldwide coastal-pelagic tropical range. One study in the Atlantic revealed that during a 62-day journey, an individual travelled 1,200 km from the coast of South Florida, USA, to the mid-Atlantic off the coast of New Jersey, USA (Hammerschlag et al., 2011). Evidence that *S. mokarran* are capable of traveling such large distances in a relatively short time also demonstrates its ability to migrate across national borders, including into and through international waters. In the Bahamas, this species has been observed using particular locations or 'stop-offs' along the migratory paths for these animals. Tracking data from individuals tagged in the Bahamas revealed large-scale return migrations (3,030km), seasonal residency in local areas (up to 5 months), site fidelity (annual returns to Bimini, Bahamas from Florida, USA for many individuals), and numerous international movements (Guttridge et al. 2017; Casselberry et al. 2025).

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

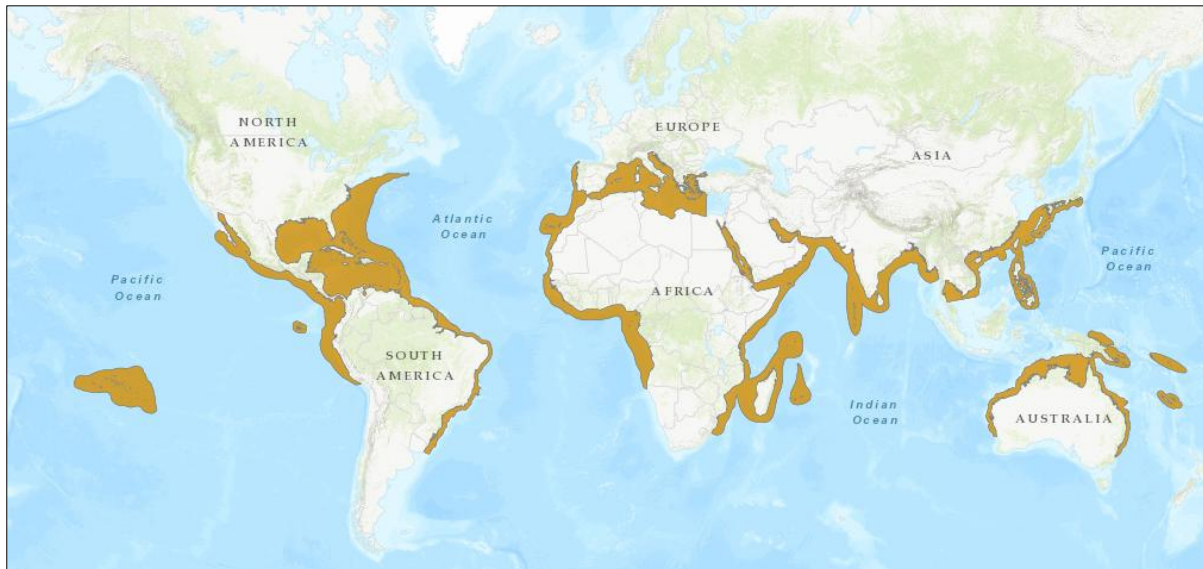
The proportion of the population that perform migrations is unknown.

### 4. Biological data (other than migration)

#### 4.1 Distribution (current and historical)

*S. mokarran* occupies a broad habitat range throughout the tropical waters of the world, from latitudes 40°N to 35°S (Last and Stevens 1994). It is nomadic and migratory in nature, with some populations moving towards the poles in the summer (Compagno 1984; Guttridge et al., 2017; Casselberry et al., 2025). This is a coastal-pelagic and semi-oceanic species that occurs close inshore and well offshore, over the continental shelves, island terraces, and in passes and lagoons of coral atolls, as well as over deep water near land (Compagno et al. 2005). It co-exists in coastal areas with the scalloped hammerhead (*S. lewini*) in the tropics, and the smooth hammerhead (*S. zygaena*) in cooler waters (Cliff 1995, Bass et al. 1975).

*Sphyrna mokarran* is reported from the following FAO Fishing Areas: 21, 26, 31, 34, 41, 47, 51, 57, 61, 71, 77, and 87. Its range States are listed in Section 8.



**Figure 2.** Great hammerhead shark (*Sphyrna mokarran*), global distribution map (<https://www.iucnredlist.org/species/39386/2920499#geographic-range>).

#### 4.2 Population (estimates and trends)

There is no global estimate of great hammerhead population size. Genetic analyses indicate two subpopulations, in the Atlantic and Indo-Pacific, with no further subpopulation structure detected within or across each ocean basin (Testerman 2014).

Detailed population trend information comes from three main sources: stock assessments and catch per unit effort (CPUE) data from USA waters in the Northwest Atlantic and Gulf of Mexico, and CPUE data from South Africa in the southwest Indian Ocean (Jiao et al. 2011; Dudley and Simpfendorfer 2006; J. Carlson unpubl. data). Other sources of data for the Northeast and South Atlantic, north and east Indian Ocean, and Pacific Ocean are described below.

The Northwest Atlantic assessment showed the stock was overfished from the mid-1980s, with periodic overfishing until 1997, but a reduced risk after 2001 (Jiao et al. 2011). A prior assessment also found overfishing after 2001 (Hayes 2008), though both were highly uncertain due to poor catch data (Miller et al. 2014). Modeled abundance for 1981–2005 indicated a mean 0.4% annual decline, equating to a 29.1% reduction over three generations (74.4 years).

More recent CPUE data (1994–2017) suggest an increase in the northwestern part of this species' Atlantic range following management measures introduced in waters of the USA after 2005 (NMFS 2006). Fisheries-independent bottom longline surveys in the USA Gulf of Mexico and Northwest Atlantic showed rising CPUE after 2005 (Grace and Henwood 1998; Ingram et al. 2005), and commercial bottom longline fishery data revealed similar though more variable trends (Morgan et al. 2009). Together, these datasets indicate a median increase over three generations, but only in this range State.

By contrast, CPUE data from the Indian Ocean (1978–2003) showed steep declines, with a 6.5% annual decrease translating to a 99.3% reduction over three generations (71.1 years) (Dudley and Simpfendorfer 2006). South Atlantic longline CPUE (1998–2008) also indicated declines in hammerheads (*Sphyrna* spp.), though the data were considered too weak for long-term analysis (Barreto et al. 2016; R. Barreto unpubl. data).

Additional studies show severe losses in the Mediterranean. Hammerheads largely disappeared from coastal waters after 1963, with further declines in pelagic waters by the early 1980s. Meta-analysis estimated declines of 99.99% in abundance and biomass since the early 19th century (Ferretti et al. 2008), while surveys report their near absence from central-southern waters since 1986 (Walker et al. 2005).

Trend data are scarce in the North and Western Central Pacific, where catches are reported only as species-complexes. CPUE (1995–2015) was highly variable and provided little insight into Great Hammerhead abundance (Rice et al. 2015). However, fishing pressure has increased substantially in the tropical Indian Ocean and West Africa, where populations are thought to be declining (Cooke 1997; Bruckner et al. 2011; Belhabib et al. 2012; ANSD 2016; Jabado et al. 2017).

Overall, the Indo-Pacific subpopulation is inferred to have declined by >80% over three generations (71.1 years), while the Atlantic shows >50% decline over 74.4 years despite some evidence of stabilization in the northwest. Weighted analyses of regional trends produced global estimates of 50.9–62.4% reduction, with >80% decline most probable. Given the limited coverage of some datasets, uncertainty in catch records, and ongoing heavy exploitation in data-poor regions, expert judgment concluded a global reduction of >80% over three generations. The Great Hammerhead is therefore assessed as Critically Endangered A2bd (Rigby et al., 2019).

#### 4.3 Habitat (short description and trends)

*S. mokarran* is a coastal-pelagic and semi-oceanic shark found throughout the world's oceans in depths ranging from 1-300 m. (Ebert et al., 2021). It is found over continental shelves, but more often in coastal zones near island terraces, in passes and lagoons of coral atolls and on coral reefs. Inshore areas are utilized by early life-stages of the species (Pikitch et al., 2005). The vertical space use and thermal range of *S. mokarran* in the western North Atlantic Ocean was examined using satellite telemetry (Guttridge et al., 2022). The results showed that *S. mokarran* predominantly used shallow depths (75% of records <30 m) and had a narrow temperature range (89% of records between 23 and 28°C). Individual differences in depth use were evident, and a strong diel cycle was observed, with sharks occupying significantly deeper depths during the daytime (Guttridge et al., 2022).

#### 4.4 Biological characteristics

Great hammerhead sharks are viviparous with a reported maximum total size of 550 to 610 cm (Compagno et al. 2005), though 450 cm is more common for a mature adult (Last and Stevens 2009). Litter size ranges from 6 to 33 (maximum 42) and pups are born after 11 months gestation. Females breed at two year intervals, thus increasing the species' susceptibility to population depletion (Stevens and Lyle 1989). Great hammerhead longevity is among the greatest reported for elasmobranchs (44 years), and they grow at relatively similar rates to other large hammerhead species (Piercy et al. 2010). In waters off Australia, males reach maturity at a length of 225 cm, corresponding to a weight of 51 kg (113 pounds), and females are mature at a total length of 210 cm corresponding to a weight of 41 kg (90 pounds) (Stevens and Lyle 1989). Great hammerhead sharks reach sexual maturity at different ages depending on the region and sex, with males maturing around 6–10 years old and females around 12–16 years old. For example, in the Northwest Atlantic, males mature around 8.6 years and females around 13.9 years, while in tropical waters, 50% of males may mature by 5.7 years (Moncrief-Cox et al., 2021).

*Sphyrna mokarran* is the largest hammerhead shark. The first dorsal fin is very tall with a pointed tip and strongly falcate in shape, while the second dorsal is also high with a strongly concave rear margin (Figure 1). The origin of the first dorsal fin is opposite or slightly behind

the pectoral fin axil with the free rear tip falling short to above the origin of the pelvic fins. The rear margins of the pelvic fins are concave and falcate in shape, unlike in scalloped hammerheads. The posterior edge of the anal fin is deeply notched. The front margin of the head/cephalofoil is nearly straight with a shallow notch in the center in adult great hammerheads, distinguishing it from *S. lewini* and *S. zygaena* (Figure 1). The teeth of this hammerhead are triangular and strongly serrated unlike *S. lewini*'s oblique cusps.

#### 4.5 Role of the taxon in its ecosystem

*Sphyrna mokarran* are the largest member of family Sphyrnidae, yet their role in the food webs of coastal ecosystems is still poorly understood. The trophic level for *S. mokarran* was calculated to be high, at 4.3 (maximum=5.0), based on diet information (Cortés, 1999).

Off Eastern Australia, stable-isotope analyses of muscle, liver and vertebrae from large *S. mokarran* was used to infer their resource use and associated ontogenetic patterns (Raoult et al., 2019). The results indicated large *S. mokarran* are apex predators, primarily feeding on other sharks and rays, with a preference for benthic species such as Australian cownose rays *Rhinoperon neglecta* during the austral summer. Teleosts, cephalopods and crustaceans were not significant components of *S. mokarran* diets (Raoult et al., 2019). Ontogenetic shifts in resource use were detected and suggest *S. mokarran* feed across coastal, pelagic and benthic food webs in eastern Australia (Raoult et al., 2019).

The loss of large sharks that act as apex predators within ecosystems can initiate trophic cascades, which can ultimately destabilize the marine food web and jeopardize the health of that ecosystem (Daskalov et al., 2007; Dedman et al. 2024; Klinard et al., 2025).

### 5. Conservation status and threats

#### 5.1 IUCN Red List Assessment (if available)

The great hammerhead shark (*Sphyrna mokarran*) has most recently been assessed for *The IUCN Red List of Threatened Species* in 2018 (Rigby et al. 2019). The species is listed as Critically Endangered under criteria A2bd.

#### 5.2 Equivalent information relevant to conservation status assessment

The Living Planet Index (LPI), a measure of changes in abundance aggregated from 57 abundance time-series datasets since 1970, found a global hammerhead shark abundance decline of 67% owing to an 18-fold increase in fishing pressure (Pacoureau, et al. 2021).

#### 5.3 Threats to the population (factors, intensity)

Intensive global fishing effort, wide-spread coastal development, and high product trade demand, all present severe threats to the survival of *S. mokarran*. Fisheries are the most significant threat to the species, which is caught as target and bycatch globally in commercial and small-scale pelagic longline, purse seine, and gillnet fisheries. It is also captured in coastal longlines, gillnets, trammel nets and sometimes trawls, particularly in areas with narrow continental shelves (White et al. 2006, Camhi et al. 2008, Lack and Meere 2009, Diop and Dossa 2011, Miller et al. 2014). The species is often retained for the high value fins (Clarke et al. 2006a, Clarke et al. 2006b, Dent and Clarke 2015, Fields et al. 2018), unless regulations prohibit retention. Under-reporting of catches in pelagic and domestic fisheries is likely (Dent and Clarke 2015). At-vessel mortality is estimated as 56% on U.S. shark bottom-longlines and 30.8% on Western Australia demersal longlines (Gulak et al. 2015, Braccini and Waltrick

2019). The post-release mortality is higher for injured sharks and has been reported as 100% for the closely-related scalloped hammerhead in purse seines (Eddy et al. 2016).

A directed shark fishery operated by Taiwan around the Northern coast of Australia regularly caught great hammerheads until 1986 (Stevens and Lyle 1989). Other possible threats include sport fishing (Pepperell 1992) and capture in anti-shark measures around the beaches of Australia and South Africa (Paterson 1990, Cliff 1995). The species is taken in beach protection programs that target large sharks (Dudley and Simpfendorfer 2006, Simpfendorfer et al. 2010, Reid et al. 2011).

Coastal ecosystems that serve as nurseries for multiple species of sharks including *S. mokarran* face both environmental and anthropogenic threats to their integrity (Knip et al. 2010). Environmental threats include fluctuations in temperature and salinity due to rising water temperatures and other climate change induced factors (Masselink et al. 2008). Anthropogenic threats to these systems include habitat degradation in the forms of pollution, and habitat loss from coastal development and destructive fishing practices such as bottom trawling. Coral reefs in particular face a myriad of threats, but most notably the global mass bleaching that is the result of extreme heat events, and is rapidly reducing functioning coral reef habitat (Reimer et al., 2024).

Overall, *S. mokarran* populations are threatened by the destruction and modification of their habitats and ranges, the overexploitation of the species for commercial purposes, a high propensity for bioaccumulation of contaminants (mercury and arsenic), and a lack of adequate regulatory mechanisms. Proactive, precautionary policy decisions are needed to mitigate the steep declines in this species' populations witnessed over the past few decades.

#### 5.4 Threats connected especially with migrations

*Sphyrna mokarran* regularly migrates very long distances between the EEZs of different range States and occasionally into the high seas, therefore no part of any stock can benefit fully from any management measures that are introduced within its waters by a single range State. The species' migratory patterns between shallow coastal areas and deep-water offshore habitats makes it susceptible to a variety of gear types used by different large scale commercial and small-scale fisheries (Sequeira et al., 2025). Similarly, the predictable migrations of a species that exhibits natal philopatry increases the risk of being targeted by fisheries during parturition.

#### 5.5 National and international utilization

Global demand for shark products, and trade associated with this demand, has expanded at an unprecedented rate over the past few decades. The majority of trade concerns two products, fins and meat, with fins considerably more valuable.

Hammerhead shark fins are highly desired in international trade because of their size and high fin-needle (ceratotrichia) count (Rose 1996). These qualities make them one of the most valuable fin types on the market, with an average, wholesale, unprocessed *S. mokarran* fin market value of \$135/kg (Clarke 2003; Abercrombie et al., 2005). Contemporary peer-reviewed analysis of international fin markets revealed alarming trends. Systematic fin market surveys conducted in Hong Kong SAR and Guangzhou, Mainland China between 2014-2021 found the market dominated by a small subset of large cosmopolitan species including *S. mokarran* which represents 1.06% of the retail market (Fields et al., 2018; Cardenosa et al., 2020, 2022). Analysis of the burgeoning small fin trade that is generally comprised of smaller bodied species (whose fins hold lower values due to less ceratotrichia), determined that *S. mokarran* represented 0.21% of all fins (Cardenosa et al., 2024). This suggests that fins from juvenile *S. mokarran* harvested in coastal nursery areas are entering international trade.

In the last decade, the global trade in shark meat has increased significantly (Shea and Slee, 2024), with more than 200 countries and territories importing and exporting shark meat between 2012 and 2019 for a global trade valued at nearly €2.2 billion (Niedermüller et al. 2021). In some countries, the meat of small *S. mokarran* (neonates and juveniles) is consumed domestically or exported to other countries (Miller et al., 2014). Although trade information was not documented to species, Vannuccini (1999) indicated hammerhead shark meat was a favored imported species in countries like Spain and Japan. Uruguay indicated exports of hammerhead meat to Brazil, Spain, Germany, Netherlands, and Israel (Vannuccini 1999). Uruguay indicated exports of hammerhead meat to Brazil, Spain, Germany, Netherlands and Israel. However, the current volume of traded meat and other products specific to *S. mokarran* is unknown.

*Sphyrna mokarran* was listed on Appendix II of CITES at CoP16 in March 2013. In the most recent CITES compliance cycle, *S. mokarran* was identified as being subject to large volumes of continued trade. This trade was questioned for its sustainability given the species global Critically Endangered status and was included in the Review of Significant Trade (RST) process. Additionally, based on large volumes of confiscated international trade (particularly by Hong Kong SAR enforcement officials), it became apparent that ongoing illegal trade exists and will be the subject of further investigation under the Article XIII compliance mechanism of CITES.

## 6. Protection status and species management

### 6.1 National protection status

Many international territories and jurisdictions have opted to implement ‘Shark Sanctuaries’, which prohibit commercial shark fishing and the export of shark products across their entire Exclusive Economic Zones, which should benefit *S. mokarran*. These territories include Palau (2003, 2009), Maldives (2010), Honduras (2011), The Bahamas (2011), Tokelau (2011), the Marshall Islands (2011), French Polynesia (2012), Cook Islands (2012), New Caledonia (2013), British Virgin Islands (2014), Federal States of Micronesia (2015), Caribbean Netherlands (2015), Cayman Islands (2015), and Dominican Republic (2015) (Ward-Paige 2017).

**United States:** NOAA Fisheries Service HMS Division has also identified Florida’s coastal waters as Essential Fish Habitat (EFH) for many species of sharks. This includes *S. mokarran*, which was recently added by the Florida Fish and Wildlife Conservation Commission (FWC) to the list of shark species prohibited from harvest in Florida state waters.

**Brazil:** All six species of Hammerheads that occur in Brazil are listed in Ordinance 445/2014 (altered by Ordinance 148/2022 and 354/2023), which provides protection from capture, transport, handling, and commercialization of products (Cruz et al., 2021).

**Colombia:** The Executive Fisheries Committee of Colombia removed all sharks and rays from their Fisheries Resources List (Resolution 0380, 5/3/2021) and now consider them hydrobiological resources that should not be subject to extraction for commercial or sporting interests. As a result, the Ministry of Environment and Sustainable Development of Colombia issued the “Environmental Plan for the Protection and Conservation of Sharks, Rays and Chimeras” (Decree 218, December of 2021, adopted through Resolution 0854 of August 5, 2022), banning the exportation, re exportation and importation of all sharks, ray and chimera products, as well as the transportation and possession of any shark product or subproducts, particularly shark fins. Domestic commercialization of meat is still allowed in certain coastal districts. On 23<sup>rd</sup> April 2024, the National Aquaculture and Fisheries Authority issued new measures to reduce incidental catches of sharks and rays (Resolution 0766, 23/4/2024), such as a national wide steel wire leader ban, and the prohibition of possessing shark fins, or

landing sharks without fins, and a mandate to deliver the fins of sharks that have been landed to satisfy domestic demand of meat, to the authorities.

**Costa Rica:** Decree 43900, bans the take and retention of hammerhead sharks (*Sphyrnidae*), as well as their domestic and international trade, although it allows bycatch and safe release of live specimens.

**Ecuador:** Agreement MPCEIP-SRP-2020-0084-A provides protection to all hammerhead species occurring in Ecuador since 2020. All catches of hammerheads must be returned to the sea, live or dead.

**Spain:** The Spanish Ministry of Environment and Rural and Marine Affairs prohibited the capture of hammerhead sharks by means of a Ministerial Order that entered into force on 1 January 2010. According to the order, Spanish fishing ships will not be able to catch, transfer, land or commercialize these sharks in any of the fishing-grounds they target.

**Australia:** State protections include: New South Wales (NSW), *S. mokarran* are protected as no-take species and must be returned to the water if caught, as the Great Hammerhead is listed as Vulnerable in NSW under the *NSW Fisheries Management Act 1994*. Queensland, Since January 1, 2024, all hammerhead sharks are no-take species, and caught individuals must be returned to the water.

**Dominican Republic:** adopted national measure Resolution No. 0023/2017 of the Ministry of Environment and Natural Resources, which indefinitely prohibits the capture, retention, marketing, export and import of all species of sharks and rays, as well as their products, parts and derivatives throughout the national territory.

## 6.2 International protection status

**UNCLOS:** *Sphyrna mokarran* is listed in Annex I of the United Nations Convention on the Law of the Sea (UNCLOS) and should thus be subject to its provisions concerning fisheries management in international waters. Annex I lists highly migratory marine species needing special conservation and management because they travel long distances across different maritime zones.

**ICCAT:** The International Commission for the Conservation of Atlantic Tunas (ICCAT) tuna RFMO has retention prohibitions for the large hammerhead species. ICCAT adopted Recommendation BYC 10-08 which states that Contracting Parties (CPs) shall prohibit retaining onboard, transshipping, landing, storing, selling, or offering for sale any part or whole carcass of hammerhead sharks of the family *Sphyrnidae* (except for *Sphyrna tiburo*), taken in the Convention Area in association with ICCAT fisheries, with an exemption for developing coastal countries for local consumption. However, developing coastal CPs should endeavour not to increase their catches of the family *Sphyrnidae* and take measures to ensure hammerhead species (except *S. tiburo*) will not enter international trade (Rec. 2010-08).

**GFCM:** In 2012, the General Fisheries Commission for the Mediterranean (GFCM) banned retention and mandated careful release for the Scalloped Hammerhead and 23 other elasmobranch species listed on the Barcelona Convention Annex II. Implementation by GFCM Parties, however, has been very slow.

**CMS:** *Sphyrna mokarran* was included on CMS Appendix II at CoP11 in Quito, Ecuador in 2014. The species was additionally listed on Annex 1 of the Memorandum of Understanding on the Conservation of Migratory Sharks (Sharks MOU), in 2016.

**CITES:** *Sphyrna mokarran* was listed on Appendix II of CITES at CoP16 in March 2013. Parties who wish to continue international trade must conduct a Non-Detriment Finding (NDFs) assessment which confirms that products destined for exportation were sourced from legal and sustainable fisheries. Furthermore, Parties are required to record the exportation of all products from species listed under CITES into the CITES Trade Database. This listing has been a significant driver of improved management for the species (Bond et al., 2025).

**SPAW:** The Protocol Concerning Specially Protected Areas and Wildlife (the SPAW Protocol), adopted in 2000, is the only binding tool for cross-border wildlife protection in the Wider Caribbean region. It is one of three Protocols to the Cartagena Convention. *Sphyrna mokarran* was listed on Annex III in 2019. Annex III of the SPAW Protocol lists marine and coastal species whose sustainable, rational use is permitted, requiring participating countries to implement protective measures such as fishing bans during breeding seasons, limiting fishing methods to prevent local disappearance, and regulating the sale and transport of these species.

### 6.3 Management measures

**Panama:** Announced on 25 June 2024 that it had established a zero quota for the exportation of all sharks and rays listed under the Appendixes of CITES (Elasmobranchii spp.), including *S. mokarran* (CITES Notification: No. 2024/073). Catch to meet domestic demand is allowed.

**United States of America:** *Sphyrna mokarran* are managed as part of the Atlantic Large Coastal Shark Complex with a separate stock assessment. It is overfished and undergoing overfishing (NMFS 4th Quarter 2011 stock status). A stock assessment for the northwestern Atlantic released April 2011 Under the Magnuson Stevens Act granted a two-year deadline to implement a rebuilding plan to end overfishing. Management approaches include quotas, limited entry, time-area closures, recreational bag limits, and the requirement that all sharks be offloaded from vessels with their fins naturally attached.

**European Union:** The European Union (EU) prohibits the catch of hammerhead sharks throughout the ICCAT convention area. EU countries are implementing the ICCAT management measures or, have stronger domestic measures prohibiting the catch and trade of all sharks in their waters.

### 6.4 Habitat conservation

Large-scale Marine Protected Areas (LMPAs) are one tool implemented by managers to conserve essential habitat for *S. mokarran*. LMPAs can provide refuge from extractive practices and fishing-induced mortality in such areas provide they are suitably enforced. Some examples of these LMPAs include: Malpelo Island (Colombia), Cocos Island (Costa Rica), the Galapagos Archipelago (Ecuador), Great Barrier Reef (Australia), Beata Ridge (Colombia/Dominican Republic), Revillagigedo (Mexico), and Cabo Pulmo (Mexico).

### 6.5 Population monitoring

Population monitoring requires collection of species level catch and trade data to be evaluated over time. Species' specific landings data have improved but are still broadly lacking; with hammerhead catches often amalgamated as *Sphyrna spp.* or Sphyrnidae. Species level international trade data are improving because of the CITES Appendix II listing. With time this

will provide a valuable resource coupled with fisheries dependent and independent data to monitor *S. mokarran* populations.

## 7. Effects of the proposed amendment

### 7.1 Anticipated benefits of the amendment

An uplisting on international multilateral environmental agreements, including CMS, could help to drive improvements in national and regional management and facilitate collaboration between states, for this species. An Appendix I listing is anticipated to lead to increased attention to legislative protection in range states and other great hammerhead shark conservation requirements.

### 7.2 Potential risks of the amendment

We determine there are no potential risks to great hammerhead shark *Sphyrna mokarran* conservation and management from an Appendix I listing.

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

This proposal seeks to enhance the protection of great hammerhead sharks through an Appendix I uplisting. The species is already covered by a CMS daughter agreement, through its inclusion in Annex I of the CMS sharks MOU, but efforts to strengthen its protection also need to be enhanced.

## 8. Range States

**Parties:** Algeria; Antigua and Barbuda; Australia (incl. dependent external offshore territories: Ashmore-Cartier Is., and Coral Sea Is.); Bangladesh; Brazil (Alagoas, Amapá, Bahia, Ceará, Espírito Santo, Fernando de Noronha, Maranhão, Pará, Paraíba, Paraná, Pernambuco, Piauí, Rio de Janeiro, Rio Grande do Norte, Rio Grande do Sul, Santa Catarina, São Paulo, Sergipe); Cabo Verde; Costa Rica (Cocos I.); Cuba; Djibouti; Dominican Republic; Ecuador; Egypt (Sinai); Eritrea; France (Clipperton I., New Caledonia; French Guiana; Saint Martin; Martinique; French Polynesia (Marquesas, Society Is., Tuamotu, Tubuai Is.), French Southern Territories (Mozambique Channel Is.), Guadeloupe; Saint Barthélemy); Honduras (Honduran Caribbean Is.); India (Andhra Pradesh, Goa, Gujarat, Karnataka, Kerala, Maharashtra, Orissa, Pondicherry, Tamil Nadu, West Bengal); Iran, Islamic Republic of; Iraq; Israel; Jordan; Kenya; Libya; Madagascar; Mauritius (Rodrigues); Morocco; Mozambique; Netherlands (Aruba; Curaçao; Netherlands Antilles: Bonaire, Netherlands Leeward Is.); Pakistan; Palau; Panama; Philippines; Saudi Arabia; Senegal; Seychelles (Aldabra); Somalia; South Africa (KwaZulu-Natal); Spain; Sri Lanka; Tanzania; Tunisia; United Arab Emirates; United Kingdom (Anguilla; British Indian Ocean Territory, Cayman Islands; British Virgin Islands, Montserrat; Pitcairn; Turks and Caicos Islands.); Yemen (North Yemen, Socotra, South Yemen).

**Non-Parties:** Bahamas; Belize; Cambodia; China (Hong Kong; Fujian, Guangdong, Guangxi, Hainan, Macao; Shanghai, Taiwan, Province of China (Kin-Men, Ma-tsu-Pai-chuan), Zhejiang); Colombia; Dominica; El Salvador; Grenada; Guatemala; Guyana; Haiti; Indonesia; Jamaica; Japan; Kuwait; Malaysia (Peninsular Malaysia, Sabah, Sarawak); Micronesia, Federated States of ; Myanmar; Nicaragua (Nicaraguan Caribbean Is.); Oman; Qatar; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Sudan; Suriname; Trinidad and Tobago; United States (Alabama, California, Florida, Georgia, Louisiana, Mississippi, North Carolina, Puerto Rico (Navassa I.); South Carolina, Texas); Venezuela, Bolivarian Republic of (Aves I., Venezuelan Antilles); Viet Nam.

## **9. Consultations**

The following CMS Parties to CMS responded to the consultation request: United Kingdom of Great Britain and Northern Ireland, Australia, Dominican Republic, and Switzerland.

## **10. Additional remarks**

## 11. References

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