

The Race for Threatened Sharks

The tragedy of non-managed species





White tip reef sharks, Cocos island, Costa Rica 2005. © OCEANA/ Houssine Kaddachi

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- European Union vessels catch sharks and other fish in their home waters and in nearby international waters of the Northeast Atlantic and Mediterranean. However, since these waters are so greatly overfished, nearly half of the sharks and rays caught by EU vessels come from far away oceans and other countries' waters. Management of European shark fisheries must therefore cover all EU waters, international waters and waters of third countries. Most of the sharks caught by European Union fishing vessels in 2008 were caught without catch limits or other meaningful management measures.
- The European Commission released a Community Plan of Action for Sharks in 2009. The rather vague plan contains some positive aspects, including a requirement to land shark fins and bodies at the same time and in the same port, but lacks clear timelines and a commitment to the precautionary approach. The Plan of Action is a first step towards developing legislation to strengthen the EU shark finning regulation, minimize shark by-catch and eliminate discards.
- In contrast to the fisheries management that exists for species such as cod, hake and redfish in European Union waters, there is little management for shark fisheries. Most of the sharks and rays caught in the EU are neither subject to recovery plans, as required for depleted species, nor to fishery management plans. Management measures like catch limits must be introduced for all shark species and for all European Union fleets.

Shark discards from a fishing boat, Ibiza, Balearic islands, Spain 2009. OCEANA/ Paulo Peixoto



Pile of blue sharks in the fresh market, Vigo, Spain 2006. © OCEANA/ LX

- The stocks of deep-sea sharks are depleted and represent an example of improper fisheries management. Deep-sea fisheries were carried out completely unregulated for years in the Northeast Atlantic, until scientists recommended a zero quota for these sharks. A zero TAC is now in force, but there is still a quota that allows these sharks to be caught as by-catch. These destructive deep-sea fisheries have also diversified into new areas where catch limits are lacking. These practices must be controlled and all catches of vulnerable deep-sea sharks must be prohibited.
- In developing countries, EU vessels fish under bilateral agreements that allow access to their waters. The shark catches of these vessels are completely left out of most of the agreements. In most cases, sharks are reported as by-catch, even though they can represent up to 80% of a vessel's landed catch. Developing countries receive no financial compensation for these catches. Bilateral agreements must include provisions for scientific assessments of sharks, shark fishery management measures and financial compensation for shark catches.
- While all Regional Fisheries Management Organizations that manage highly migratory species like tuna have shark finning prohibitions, there are very few fishery management measures for sharks in international waters. As such, European vessels are free to take as many sharks as they want from international waters. RFMOs must manage shark fisheries with quotas and prohibit catches of threatened species.



Loading shark trunks from a drifting longliner into a truck, Las Palmas, Canary islands, Spain 2008. $\ensuremath{\textcircled{O}}$ OCEANA/ LX

Introduction

Sharks are extremely vulnerable species which have been fished by European Union vessels at home and around the world without any management for decades. Globally, 21% of shark, ray and chimaera populations are threatened with extinction according to the IUCN Red List.¹ In the Northeast Atlantic the figure is even higher with $26\%^2$ threatened and in the Mediterranean this figure goes up to 42%.³

Smaller and artisanal European Union vessels catch sharks and rays in home waters of the Northeast Atlantic and Mediterranean Sea. Species like small spotted cat sharks (*Scyliorhinus canicula*), spurdogs (*Squalus acanthias*) and rays (Rajidae) are caught close to shore in nearly every coastal EU country. However, more and more sharks are also being caught far away from home by large commercial fleets. For example, French industrial bottom trawlers and Spanish and English industrial deep-sea gillnetters catch deep-sea sharks in the Northeast Atlantic, and large Spanish and Portuguese longliners catch highly migratory sharks in international waters and waters of African and Pacific nations. Therefore, management of the EU's shark fisheries must not only encompass European Union waters, but also international waters, the Mediterranean and coastal zones of African, Asian and South American countries.

Sharks are often hunted in targeted commercial fisheries, particularly for their valuable fins. Some species, whether targeted or caught as by-catch, are categorized as Vulnerable, Endangered or Critically Endangered according to the IUCN Red List, like hammerhead sharks (*Spyhrna* spp.), thresher sharks (*Alopias* spp.) and porbeagles (*Lamna nasus*).⁴ To date, a few shark species, like deep-sea sharks, are managed in European waters but there is not are not any catch limits for highly migratory sharks like blue sharks (*Prionace glauca*) and mako sharks (*Isurus* spp.), neither in European nor third country nor international waters.

Management tools for shark conservation include traditional fisheries management, biodiversity convention protection, and trade measures. In March 2009, Oceana published the report "Keeping the Balance" to point out which environmental law instruments can be used to protect sharks.⁵ As a compliment to that report, this one provides an overview of existing shark management and conservation under European fisheries laws, and shows which additional fisheries measures must be taken, in Europe and internationally, to prevent further depletion of shark and ray populations.

The race for fish

The fish in our oceans are often said to be suffering from the "tragedy of the commons". Fish stocks in international waters are classified as a global common and owner rights are not defined. In principle, fish are a shared resource and each person is free to catch what he wishes. Logically, when each fisherman has the right to fish without restriction, stocks can become easily overexploited as each person tries to catch as much, and as fast, as he can.⁶

Fisheries management measures like fishing quotas or Total Allowable Catches (TACs) are established to prevent this "race to fish" and the overfishing of stocks. TACs limit the maximum amount of fish landed by species. After a TAC is defined, countries get a share of that TAC, called a fishing quota. However, many highly caught species are not covered by TACs, and free fishing continues.

Sharks, especially highly migratory species, are a typical example of this "race for fish". Many countries, including Taiwan, China, Japan, Spain and Portugal, employ industrial longliners that can be up to 100 metres long to catch sharks with lines up to 200 km long. These nations catch sharks without regulatory limits and often even without the requirement to report their catches to fisheries management organizations.

The "race for fish", generating millions of Euros from the profitable shark fin trade, has already lead to severe overfishing. Shortfin mako sharks (Isurus oxyrhinchus), hammerhead sharks (Sphyrnidae) and thresher sharks (Alopias spp.), mostly taken in these unmanaged fisheries, are all threatened with extinction according to the IUCN Red List. Even though regional fisheries management organizations are responsible for the highly migratory species living in our oceans,⁷ there is not a single international catch limit in place for sharks yet, and only one prohibition on one species in one ocean (bigeye threshers in the Atlantic).8

The EU Plan of Action for Sharks

Sharks are among the most biologically vulnerable fish in our seas and are facing increased fishing pressure worldwide. In 1999, the United Nations Food and Agriculture Organization (FAO) adopted an International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks) with the aim of ensuring the conservation, management, and long-term sustainable use of these species. The IPOA-Sharks calls for fishing nations to develop national plans of action (NPOAs). While the development of NPOAs for sharks is voluntary, the FAO urged states involved in shark fisheries to develop them by 2001.9 Even though the European Union is the second largest shark and ray catching state worldwide, accounting for 12 percent of world catches,¹⁰ development of the EU Plan of Action for Sharks did not begin until 2008. While the USA,¹¹ Japan,¹² Taiwan¹³ and Mexico¹⁴ developed their NPOAs by 2004, the European Union stood out as one of the last large shark fishing states to take action.





In February 2009, the European Commission finally released the long-awaited Community Plan of Action for the Conservation and Management of Sharks,¹⁵ a decade after the adoption of the FAO IPOA. During the development process, Oceana had asked for:

- The full implementation of scientific advice for the adoption of fishing limits;
- The adoption of precautionary TACs for threatened shark species when scientific advice is not available, based on fishery statistics and the recommendations of independent scientific bodies;
- The minimization of shark by-catch and discards;
- Strengthening of the European regulation prohibiting shark finning by requiring that sharks be landed with their fins naturally attached to the body;
- Full protection of shark species categorized as Endangered or Critically Endangered.

While the EU POA did include some positive aspects, including a shark discard ban and a requirement to land shark fins and bodies at the same time and in the same port, key omissions included a commitment to the precautionary approach and integration with existing EU and global environmental measures that protect threatened sharks and their habitats. In addition, the rather vague plan outlines an unclear and gradual implementation timeline and lacks a mechanism to review effectiveness. Some of these shortcoming were addressed by the European Fisheries Council (consiting of fisheries ministers from EU Member states) in their conclusions on the POA,¹⁶ in which ministers called on the Commission to rapidly present a detailed timeline and pay special attention to reducing by-catches and the shark discard ban, and encouraged a strengthening of the EU finning regulation, which currently allows shark fins to be removed on board and landed separately from the bodies.¹⁷

Oceana sees the EU Plan of Action as a first and necessary step for shark conservation in Europe, and now highlights the need for concrete actions and legislation to be institutionalized. Key items to be developed are legislation aimed at strengthening the EU finning ban and minimizing shark by-catch and discards, as well as establishing EU-level protection for threatened shark species and their habitats.



Blue sharks in a warehouse, Ondarroa, Basque country, Spain 2007. © OCEANA/ LX

Management of European Union shark fisheries in home waters

In 2007 and 2008, Oceana carried out an investigation into shark fisheries by visiting European harbours and found that shark fishing vessels have licenses to operate and their catches are well documented and reported. However, the problem with shark fisheries inside EU waters is that the shark stocks themselves are not managed and fishermen are free to catch as much as they want, as in shown in the section "The race for fish".

The European Commission is responsible for fisheries management in the area between 10 and 200 nautical miles from Member states' coasts, the area known as the Exclusive Economic Zone (EEA).¹⁸ These fisheries are regulated by the Common Fisheries Policy (CFP),¹⁹ the EU's instrument for the centralized management of fisheries and aquaculture. In these waters, fisheries are usually managed by three instruments:

- 1. TACs;
- 2. Technical measures, like minimum landing sizes or the restriction of certain fishing gears; and
- 3. Fishing effort or capacity limits, limiting the number of fishing days or motor power.

The current CFP outlines two types of multi-annual plans that shall be implemented for fisheries in the European Union, depending on the state of the stock in question. "Recovery plans" are used to help rebuild stocks that are outside safe biological limits. "Management plans", on the other hand, aim to maintain healthier stocks within safe biological levels. In cases where neither type of plan has been established, "sustainable exploitation of stocks should be ensured by setting catch and/or effort limits."²⁰

However, multi-annual plans have never been established for shark stocks in the EU, despite many species having been commercialized for decades. The sharks targeted by EU Atlantic longline fleets, blue sharks (*Prionace glauca*) and shortfin mako sharks (*Isurus oxyrinchus*), are completely unmanaged. According to the CFP, catch or effort limits must be established for these fisheries. In fact, nearly half of the 41,000 tons of sharks and rays that were caught in the Northeast Atlantic in 2007 were of species which lack management measures.

The few measures that do exist include a catch prohibition for great white sharks (*Carcharodon carcharias*) and basking sharks (*Cetorhinus maximus*), a retention prohibition for a few rays and anglesharks and TACs for porbeagle (*Lamna nasus*), spurdog (*Squalus acanthias*), deep-sea sharks and some rays.²¹ Table 1 below shows which sharks and rays caught in European Union waters have a quota in place to regulate their catches. Many shark species are not subject to catch controls and therefore, fishermen often do not report those catches or report them as by-catch and not divided by species. These catches consequently could not be included in the table below.

Longnose spurdog, nursehound and sharpnose sevengill shark in the fish market, La Valletta, Malta 2009. © OCEANA/ LX





Table 1. Catches and management measures for the most highly caught sharks in the Northeast Atlantic and Mediterranean.

	Species	2007 EU ves- sel catches (tonnes)	EU Countries involved in fisheries	IUCN Re- gional Red List category	EU Recovery or Management Plan or TACs		
Coastal sharks	Small-spotted catshark (Scyliorhinus canicula)	6,224	France, Spain, UK, Portugal,	LC Med.	No		
	Spurdog (<i>Squalus acanthias</i>)	1,848	Belgium, Ireland, Italy, Greece, Netherlands, Sweden, Den- mark, Lithuania, Germany, Malta, Bulgaria, Cyprus.	CR NE Atl./ EN Med.	Stock depleted, in danger of collapse. ICES advice of 0 TAC ignored. Misleading 10% by-catch TAC allowed for 2010.		
	Smooth-hounds (<i>Mustelus</i> spp.)	3,834		VU Med.	No		
	Tope shark (<i>Galeorhinus galeus</i>)	875		VU Med.	No, but targeted fisheries are forbidden in English and Welsh coastal waters.		
	Nursehound (Scyliorhinus stellaris)	628	-	NT Med.	No		
	Porbeagle (Lamna nasus)	622		CR NE Atl./ Med.	Yes, O TAC. No		
	Blackmouth catshark (<i>Galeus melastomus</i>)	241		LC Med.			
Pelagic sharks	Blue shark (<i>Prionace glauca</i>)	4,761	Spain, Portugal, France, UK,	VU Med.	No		
	Shortfin mako (<i>Isurus oxyrinchus</i>)	1,342	Malta.	CR Med.	No		
	Thresher (<i>Alopias vulpinus</i>)	179		VU Med.	No		
Deep-sea sharks	Portuguese dogfish (Centroscymnus coelolepis)	501	Portugal, UK, Spain, France,	LC Med.	Stock depleted and in danger of collapse.		
	Leafscale gulper shark (<i>Centrophorus squamosus</i>)	318	Ireland.	VU globally	ICES advice has been 0 TAC since 2006 but was ignored. Mislead- ing 10% by-catch TAC allowed for 2010.		
	Longnose velvet dogfish (Centroscymnus crepidater)	147		LC globally			
	Gulper shark (<i>Centrophorus granulosus</i>)	77		VU Med.			
	Lowfin gulper (<i>Centrophorus lusitanicus</i>)	218			No		
Skates and rays	Cuckoo ray (<i>Leucoraja naevus</i>)	2,470	France, Portugal.	NT Med.	TACs.		
	Thornback ray (<i>Raja clavata</i>)	1,499		NT Med.			
	Spotted ray (<i>Raja montagui</i>)	1,098]	LC Med.			
	Blonde ray (<i>Raja brachyura</i>)	425		DD Med.			
	Sandy ray (<i>Leucoraja circularis</i>)	298]	EN Med.			



The European Union shark finning regulation- and its loopholes

The first management tool established specifically for shark fisheries in the European Union was EU Council Regulation No 1185/2003 of 26 June 2003, concerning the removal of fins of sharks on board vessels. This regulation prohibits the practice of shark finning- the removal of a shark's fins and subsequent dumping of the carcass back to sea.

However, the removal of fins on board is allowed for processing and storage purposes if the body is retained on board. For this to occur, vessels must obtain a special fishing permit issued by the Member state. The weight of the fins landed cannot exceed five per cent of the weight of the bodies landed. In theory, these proportions are to ensure that no shark fins are landed without their corresponding bodies, as fishermen might be inclined to throw out the bodies and retain only the more valuable fins.

However, these rules present several loopholes. For example, as fins and bodies do not have to be landed in the same port, control of the fin and body weights is practically impossible. Also, many sharks have a lower fin to body weight ratio than 5%, meaning that some shark bodies can be discarded while still complying with the ratio. Yet another problem is highgrading, in which fishermen retain the most valuable shark fins or carcasses, mixing and matching the species but still complying with the 5% ratio.

The EU's 5% rule is one the world's highest and most complicated to control, and the loopholes in the finning regulation ultimately leave room for illegal practices to occur.

Oceana strongly advocates a "fins attached" policy in which all sharks must be landed with their fins wholly or partially attached to the body. This policy would leave no possible room for shark finning to occur, ensures efficient control, and improves species identification and data collection for catch and fishing effort. This ultimately would lead to better shark conservation.

One clear example of failed EU shark fisheries management via the TAC and quota system is the current depleted status of deepsea sharks like Portuguese dogfish (Centroscymnus coelolepis) and leafscale gulper shark (Centrophorus squamosus). This situation has resulted from deep-sea fisheries in the Northeast Atlantic which were carried out completely unregulated for years. In 2005, scientists from the International Council for the Exploration of the Sea (ICES) assessed deep-sea shark stocks and found most of them depleted as a result of unsustainable fisheries.²³ Even though scientists were recommending a zero fishing quota for these species for years,²⁴ the EU Fisheries Council agreed deep-sea shark TACs of 2,600 t in 2007, 1,766 t in 2008²⁵ and 824 tons in 2009.²⁶ Finally, a zero quota has been assigned to these species for 2010, although a by-catch TAC is still permitted. Oceana has repeatedly urged strict adherence to scientific advice in the annual agreement for TACs and guotas. However, politicians' repeated ignorance of scientific advice has contributed to the severely depleted status of these EU stocks today.

The application of technical measures can also be used to manage shark fisheries, and again we have an example where this was not properly applied. To regulate deep-sea gillnet fisheries, often implicated in the catches of vulnerable deep-sea sharks, technical measures were not consistently applied and resulted in a loophole in fisheries management. In 2006, the European Commission prohibited the use of gillnets deeper than 600 metres in certain areas of the Northeast Atlantic.²⁷ However, other areas were left open to gillnet use without restrictions. As a consequence, the gillnetters simply moved to these new areas and continued catching deep-sea



Next generation thresher sharks dead in a bucket after pregnant mother was caught by Spanish longliner. Las Palmas, Spain 2008. \odot OCEANA/ LX

sharks, prompting ICES to recommend in 2008 that these fisheries "not proceed, nor expand, unless they can be demonstrated to be sustainable for deep-water sharks."²⁸ Oceana highlights the need for the consistent and thorough application of technical measures in shark fisheries management, and in this specific case, recommends that all deep-sea gillnet fishing be limited to a depth of 200 meters for the entire Northeast Atlantic.

During two years of investigation, Oceana also documented the following shark fisheries management mishaps in European Union waters:

- The mislabeling of sharks: For example, fresh sharks at a fish market in the south of Spain were labeled as hake. This type of mislabeling leads to incorrect shark catch data and inhibits scientific assessments. To avoid this kind of situation, fisheries inspectors must carry out rigorous controls in port.
- Incidental catches and landing of protected sharks: A couple of shark species, like Endangered basking sharks (*Cetorhinus maximus*), are fully protected in Europe and their catch is prohibited. Nevertheless, during some seasons and in some areas, these protected sharks swim close to shore and entangle themselves in fishing nets. There are no plans or measures in place to prevent those by-catches and deal with them once they unavoidably occur. This has been the case with accidental by-catches of basking sharks in 2009 in Greece²⁹ and Spain.³⁰ Authorities should create protocols to deal with incidental catches of protected sharks to avoid inconsistencies with the law.
- Landings of mixed shark fins: vessels land processed shark meat and fins in bags of mixed products. This inhibits shark species identification and control and documentation of catches. The best way to ensure species identification and correct catch documentation is to land sharks with their fins attached to their bodies.
- Landings of shark liver oil for use in cosmetics: Shark liver oil is landed in huge containers, making it unclear how many sharks had been caught to produce those amounts, which species were targeted, and which other parts (if any) of the shark bodies were used. Catches of deep-sea sharks are often not recorded when only the livers are kept and the bodies are discarded. When catches are not recorded, scientists cannot have accurate data on which to base their assessments and advice, thereby producing wrong figures. Observers or cameras on board could prevent the discard of sharks, thus ensuring accurate catch data and better scientific assessments.



Shark meat labeled as hake. Cadiz, Spain 2006. © OCEANA/ LX

Frozen shark fins landed from a Spanish longliner. Vigo, Spain 2006. OCEANA/ LX



Management of European Union shark fisheries in developing countries

As shown in Table 2, nearly half of EU sharks catches are made in far away oceans. A large part of the entire EU fishing fleet relies on access to non-Community marine resources in third countries' or in international waters. In the case of third country waters, the European Community can enter into a fisheries agreement which they claim to be a "genuine partnerships for the development of sustainable and responsible fisheries".³¹ However, under nearly all of these fishery agreements, shark catches go totally unmanaged, in a very irresponsible way.

Firstly, sharks are often caught without even being mentioned in the agreements, which are instead usually negotiated for the catch of tuna and swordfish. Sharks are taken as "by-catch" in these fisheries, but can actually represent up to 80% of the catch³² and are often commercialized.

Despite claims by the European Commission that these fisheries agreements aim to "help the third countries put in place their own fisheries policies that can help them meet their aim of economic development while protecting fish resources",³³ EU fleets do not provide any financial compensation for the shark catches. Indeed, European vessel owners sometimes earn more money from these sharks (and their fins) which are taken for free from third country waters than from the tuna they are purportedly targeting.³⁴

Sharks are being caught in West African waters under agreements with Morocco, Mauritania, Cape Verde, the Ivory Coast, Gabon, Guinea, Guinea Bissau and Sao Tome and Principe. In the Indian Ocean, they are caught in the waters of Madagascar, the Comoros, Mozambique and the Seychelles, and in the Pacific, in Kiribati, the Federal States of Micronesia and the Solomon Islands.³⁵ These shark fisheries are occurring without assessment of the shark stocks in the developing countries' waters.



Loading shark trunks and fins from a drifting longliner onto a truck, Las Palmas, Canary islands, Spain 2008. © OCEANA/ LX



Table 2. Catches and management measures for the most highly caught sharks outside the Northeast Atlantic and Mediterranean.

	EU Countries involved in fisheries	2007 European Union vessel catches (tonnes)					TAC or	
Species		West Africa	South and West Atlantic	Indian Ocean	South Pacific	Global Red List category	other measures	
Blue shark (<i>Prionace glauca</i>)	Spain, Portugal, United Kingdom, France, Esto- nia, Lithuania, Greece.	8,495	13,357	3,722	2,405	NT	No	
Rays, stingrays, mantas nei (Rajiformes)		173	6,613	376	0		No	
Shortfin mako (Isurus oxyrinchus)		585	679	371	249	VU	No	
Leafscale gulper shark (<i>Centrophorus squamosus</i>)		246	0	0	0	VU	No	
Portuguese dogfish (Centroscymnus coelolepis)		221	0	0	0	NT	No	
Hammerhead sharks, etc. (Sphyrnidae)		184	9	19	0		No	
Smooth hammerhead (<i>Shyrna zygaena</i>)		91	78	0	0	VU	No	
Gulper shark (Centrophorus granulosus)		90	0	0	0	VU	No	
Porbeagle (Lamna nasus)		44	5	9	18	VU	No	
Smooth-hounds nei (<i>Mustelus</i> spp.)		65	0	0	0		No	
Silky shark (<i>Carcharhinus falciformis</i>)		44	2	3	0	NT	No	
Other Sharks, rays, skates, etc. nei (Elasmobranchii)		1,512	1,222	6,279	961		No	
IUCN Red List Categories: ³⁶ CR: Critically Endangered/ EN: Endangered/ VU: Vulnerable/ NT: Near Threatened/ LC: Least Concern								

Oceana recommends an immediate review of the "tuna fisheries" operating in third country waters to determine in which fisheries sharks are caught and commercialized as a target species. Oceana urges the European Union to either end these third country fisheries agreements or to specifically include sharks in the agreements, thereby imposing immediate regulations like catch limits. Oceana also urges the European Commission to provide economic compensation to the developing countries for the amount of sharks (including fins) removed from their waters, and highlights the sore need for assessments of shark stocks in those waters.



Two mako sharks, caught by Spanish longliner. Las Palmas harbour. Gran Canaria, Spain 2008. © OCEANA/ LX

Unloading blue sharks from a drifting longliner, Las Palmas, Canary islands, Spain 2008. © OCEANA/ LX



Management of European Union shark fisheries on the high seas

Outside of a country's 200-mile EEZ lays international waters, and here EU vessels catch highly migratory sharks like blue sharks (*Prionace glauca*) and shortfin mako sharks (*Isurus oxyrinchus*). These waters belong to no specific country, and the various Regional Fisheries Management Organizations³⁷ (RFMOs) are tasked with managing fisheries that are carried out in here.³⁸ RFMOs are intergovernmental organizations that carry out data collection, scientific monitoring and fisheries management. The biggest RFMOs deal with tuna, tuna-like species, and the species caught in their associated fisheries, including sharks.

In 2009, the major RFMOs dealing with tuna fisheries came together for a "joint tuna RFMO meeting" in San Sebastian, Spain. As recommended by Oceana, fishing nations committed to carrying out cooperative actions and concrete measures to regulate shark fisheries, including implementing measures to improve the enforcement of existing finning bans, prohibitions on retention of particularly vulnerable or depleted shark species, management measures in line with best available scientific advice, and measures to improve the provision of data on sharks in all fisheries and by all gears.³⁹

Oceana calls on the "tuna RFMOs" to immediately agree measures to manage shark catches according to the precautionary approach, including:

- Catch limits for targeted shark fisheries and fisheries that commercialize sharks and their fins or livers (especially for blue and shortfin mako sharks),
- measures to prevent shark by-catch,
- the prohibition of targeted catches and retention of endangered shark species (such as hammerhead, thresher and porbeagle sharks),
- the protection of shark feeding and breeding habitats,
- the establishment of data reporting requirements, and
- the prohibition on the removal of all shark fins at sea.

At the annual meeting of the International Commission for the Conservation of Atlantic Tunas (ICCAT) in November, 2008, the European Union made a groundbreaking move by proposing the first ever management measures for migratory sharks caught in international waters under the jurisdiction of ICCAT. The proposals included catch and effort limits for blue sharks and shortfin mako sharks, and prohibitions on threatened hammerhead and thresher sharks.⁴⁰ However, these proposals failed, with the opposition led by Asian countries. Then, in the 2009 ICCAT meeting, the European Union had the chance to consider and support proposals to regulate endangered porbeagle sharks, protect all thresher sharks, limit catches of shortfin makos, and put a concrete end to shark finning. However, despite these wide ranging and ambitious initiatives, the ICCAT meeting ended with only a prohibition on the re-



tention, landing, and sale of endangered bigeye threshers (*Alopias superciliosus*), as well as a meager encouragement for countries to not target other thresher shark species. Even this measure was weakened with an exception for Mexico who can catch 110 bigeye threshers, a species that ICCAT scientists identified as having high vulnerability and low biological productivity.

This prohibition on bigeye threshers and shark finning bans are the only instruments that exist for management of highly migratory sharks in international waters. To date, there is still not a single agreed catch limit for any of the targeted highly migratory sharks that come under the auspices of the tuna RFMOs, like blue sharks or shortfin makos.

The shark finning bans that are in place for the tuna RFMOs are confusing and hard to control. These bans prohibit the retention of shark fins without the corresponding carcasses. These bans rely on a 5% fin weight to body weight ratio, and vessels cannot have onboard fins that weigh more than 5% of the weight of sharks.⁴¹ However, the interpretation of this 5% ratio differs among countries, with some applying it to the weight of the dressed (gutted and beheaded) body and others to the total live weight of the shark. This ratio is confusing and hard to control, and the inconsistencies mean that in some cases more shark fins can be kept on board than what is intended in the regulation, allowing for shark finning.

Other RFMOs exist that deal with demersal fisheries. The North Atlantic Fisheries Organization (NAFO) and the Northeast Atlantic Fisheries Commission (NEAFC) manage fisheries in international waters of the north Atlantic, but exclude highly migratory fish species. NEAFC and NAFO are therefore responsible for the management of sharks that are not highly migratory, such as spurdog (Squalus acanthias), small spotted catsharks (Scyliorhinus canicula) and deep-sea sharks. These RFMOs are doing only slightly better than the tuna-RFMOs, as a few shark measures have indeed been agreed. NAFO has the only international ray quota in the world— that for the thorny skate (Amblyraja radiata). NEAFC, on the other hand, called on their Parties to limit fishing effort on deep-sea species, including 11 species of shark for the first time in 2003. In 2009, an effort limit for deep-sea fisheries of 65% of the previous years was set, but there are no specific catch limits in place.⁴² NEAFC also agreed a ban on directed fisheries for the Critically Endangered spurdog for 2009 and again for 2010.43



Bigeye threshers in the fresh market, Vigo, Spain 2006. $\ensuremath{\mathbb{C}}$ OCEANA/ LX

Spain takes action on highly migratory sharks

Oceana first reported on the targeted shark catches of the Spanish surface longline fleet in 2007, revealing that even though these sharks were called "by-catch", they in fact comprised up to 80% of the total catches of this fleet of 150 efficient industrial longline vessels operating around the world. In 2008, the Spanish government confirmed that sharks were indeed a targeted species of their longline fleet and has reiterated their goal of sustainable shark fisheries.

In October 2009, Spain published a total prohibition on catches and commercialization of hammerhead and thresher sharks. Effective 1 January 2010, this Ministerial decree prohibits the Spanish fleet from catching, retaining on board and landing all three species of thresher sharks (common threshers, Alopias vulpinus; bigeye threshers, Alopias superciliosus; pelagic threshers, Alopias pelagicus) and all eight species of hammerhead sharks (Genera Sphyrna and Eusphyra)⁴⁴ This prohibition applies to Spanish vessels fishing all around the world (in European, international and third country waters) and with all types of gears. Spain has also committed⁴⁵ to taking further legislative measures to regulate their surface longling fleet targeting blue sharks (Prionace glauca) and shortfin make sharks (Isurus oxyrhinchus) with the introduction of catch and effort limits. Oceana expects this decree to be published in 2010.

Once the fisheries for threshers, hammerheads, blue sharks and mako sharks are regulated, the majority of Spanish catches of highly migratory sharks (70%)⁴⁶ will be managed in accordance with the United Nations Convention on the Law of the Sea (UNCLOS). The most important treaty for international maritime law, UNCLOS is legally binding for the parties that have signed it and lists 72 species of highly migratory sharks for which nations must cooperate to ensure conservation.⁴⁷



Large mako shark caught by Spanish longliner. Sold at Horta auction, the Azores, Portugal 2006. © OCEANA/ LX

The capture of commercially exploited shark species by EU vessels must be regulated under the Common Fisheries Policy, with management plans that include fishing limits and quotas.

In Council Regulation (EC) No 2371/2002 of 20 December, 2002, the European Union agreed a revised "Common Fisheries Policy Framework Regulation" which states that catch and/or effort limits should be established for commercial fish stocks. Despite the fact that sharks have been commercialized for decades, this policy has not been applied to shark fisheries. Oceana recommends that all sharks targeted by European Union fisheries (for example, blue and mako sharks in the Atlantic longline fishery) be recognized as commercially exploited species. Pursuant to the Common Fisheries Policy, catches must thus be controlled and regulated with management or recovery plans that: establish targets and measures for the sustainable exploitation of stocks; set catch limits and quotas; fix the number and type of fishing vessels authorized to catch them; and, limit fishing effort. For stocks that are already overexploited, recovery plans must be established.

Migratory shark species exploited on the high seas must be regulated with catch limits and quotas by the relevant Regional Fisheries Management Organizations.

Oceana recommends that all commercially exploited sharks caught on the high seas, like blue sharks and mako sharks, among others, be added to the lists of highly migratory species that are controlled and managed by Regional Fishery Management Organisations, such as ICCAT, IAATC, IOTC and WCPFC. This means that these organisations must manage sharks using the same standard management schemes, catch limits and quotas used for other targeted highly migratory species such as swordfish.



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Plaza de España - Leganitos, 47 28013 Madrid (Spain) Tel.: + 34 911 440 880 Fax: + 34 911 440 890 europe@oceana.org www.oceana.org

> Rue Montoyer, 39 1000 Brussels (Belgium) Tel.: + 32 (0) 2 513 22 42 Fax: + 32 (0) 2 513 22 46 europe@oceana.org

1350 Connecticut Ave., NW, 5th Floor Washington D.C., 20036 USA Tel.: + 1 (202) 833 3900 Fax: + 1 (202) 833 2070 info@oceana.org

175 South Franklin Street - Suite 418 Juneau, Alaska 99801 (USA) Tel.: + 1 (907) 586 40 50 Fax: + 1(907) 586 49 44 northpacific@oceana.org

Avenida General Bustamante, 24, Departamento 2C 750-0776 Providencia, Santiago (Chile) Tel.: + 56 2 795 7140 Fax: + 56 2 795 7146 americadelsur@oceana.org

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Cover: Cut off shark's caudal fin. Vigo, Galicia, Spain. 2006 © OCEANA/ LX.
Design and layout: NEO Estudio Gráfico, S.L.
Printer: Imprenta Roal, S.L.
Photo montage: Pentados, S.A.

Oceana's Recommendations for Effective Shark Management in the European Union

- 1 · Sharks must be landed with their fins attached.
- 2 The capture of commercially exploited shark species by EU vessels must be regulated under the Common Fisheries Policy, with fishing limits and quotas.
- 3 · Shark fisheries must be controlled wherever the EU fleet operates in European waters and worldwide.
- 4 · Migratory shark species exploited on the high seas must be regulated with catch limits and quotas by the relevant Regional Fisheries Management Organisations.
- **5** Effective management measures for by-catch reduction must be introduced.
- 6 · Shark discards must be eliminated.
- 7 · Vessels taking sharks must have independent observer coverage on board.
- **8** Distinct trade statistics for shark species (meat, fins and shark liver oil), differentiated by species, should be developed.
- **9** Endangered shark species must be added to international conventions and national legislation that limit or prevent catches and trade.
- 10 · A European Plan of Action for Sharks must be implemented.

