

Untangling the Net of 'Bycatch' in Commercial Shark Fisheries:

The Interplay between International Fisheries Law and CITES



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Executive Summary

Globally, oceanic shark populations are in rapid decline, with the fishing sector constituting the main contributor to this ecological crisis, as a result of an “18-fold increase in relative fishing pressure” since the 1970s.[1]

This legal opinion examines the obligations of States under international fisheries law and CITES concerning oceanic sharks caught in tuna RFMOs, specifically IATTC (Inter American Tropical Tuna Commission), ICCAT (International Commission for the Conservation of Atlantic Tuna), IOTC (Indian Ocean Tuna Commission), and WCPFC (Western and Central Pacific Fisheries Commission).

The focus of the opinion is on sharks whose retention and landing are of significant commercial value to the fisheries = commercially exploited sharks (including blue shark and shortfin mako).



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Regulation of Commercially Exploited Sharks under International Fisheries Law

- While sharks are often considered unwanted bycatch, targeted and incidental catches of several species of sharks are retained in fisheries for epipelagic fish such as tuna due to their considerable commercial value (commercially exploited sharks).
- Recent stock assessments for shortfin mako (2019) and blue sharks (2023) at ICCAT demonstrate the dire state of these commercially exploited sharks in the Atlantic, where shortfin mako stocks in the North Atlantic and South Atlantic are with a probability of 90% overfished in the North and most probably also in the South, while overfishing continues in both parts. Spawning biomass of blue sharks, although known to be less susceptible to overfishing than other oceanic sharks, is assumed having halved over the last 50 years due to fishing pressure and the absence of effective management measures.
- While comprehensive harvest strategies are widely acknowledged as being essential for the sustainable management of tuna and other target species, no harvest strategies or even harvest control rules have so far been developed for sharks in any of the four big tuna RFMOs.
- UNCLOS (United Nations Convention on the Law of the Sea) and the UNFSA (UN Fish Stocks Agreement) contain different sets of obligations with respect to “target stocks” (or “harvested species”) on the one hand, and “non-target species” on the other. While target stocks require CMMs (Conservation and Management Measures) “to ensure long-term sustainability [...] and promote the objective of their optimum utilization”, non-target species only require CMMs “with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened” (see Article 5 UNFSA).
- However, commercially exploited sharks such as the blue shark and shortfin mako are in an unusual position as they are not *unwanted* catch (“should not have been caught”) in multispecies tuna fisheries but a highly valued component of the catch of long-line vessels.^[2]
- Overall, the opinion postulates that commercially exploited sharks such as blue sharks are not bycatch from the perspective of the FAO Bycatch Guidelines, UNCLOS or the UNFSA. Rather, they must be classified as (secondary) target stocks under UNCLOS and the UNFSA. It follows that these species must in principle be managed in accordance with the obligations laid down in the UNFSA for *target stocks*.

[2] F. Dent and S. Clarke, 'State of the Global Market for Shark Products' (FAO Fisheries and Aquaculture Technical Paper vol 196, FAO 2015)

Regulation of Commercially Exploited Sharks at t-RFMOs

The ability of RFMOs to regulate incidental or directed shark fisheries depends on whether sharks fall within their competence. In this respect, although differences exist between WCPFC, IATTC, ICCAT, and IOTC, all these RFMOs have the competence to regulate sharks that are caught in mixed fisheries targeting tuna or tuna-like species within their mandate. In the case of IOTC and ICCAT, this is implicitly recognized in their practice (CMMs related to commercially caught sharks).

States, through t-RFMOs, have not yet completely fulfilled their responsibility to regulate commercially exploited sharks that are targeted in fisheries for tuna and tuna-like species, via the adoption of adequate management measures:

- IATTC and WCPFC have not adopted any TACs or retention limits for sharks so far, while IATTC has introduced catch limits for silky sharks applicable to longline vessels of "a maximum of 20% of the total catch by fishing trip in weight".
- In 2018, IOTC adopted a CMM pursuant to which IOTC is tasked to consider CMMs for blue sharks, which could include a "catch limit for each CPC". A proposal submitted by Maldives and co-sponsored by six other IOTC members in 2023 contained provisions explicitly mentioning the possibility of catch limits for "sharks caught for commercial purposes", including blue sharks, which only narrowly failed to reach consensus.
- ICCAT has allocated quota for shortfin mako in the North Atlantic, if total fishing mortality remains below the agreed level that projects stock rebuilding within a defined time frame and with an agreed probability. For South Atlantic shortfin mako, ICCAT has introduced "maximum retention allowances" for each CPC, which amount to a total retention allowance. Moreover, ICCAT has established a global TAC (Total Allowable Catch) for South Atlantic blue shark and a TAC combined with an allocation of quotas to individual CPCs for North Atlantic blue shark.
- However, such measures limit retention – but not necessarily mortality – of the relevant shark species because the mixed fishery is not closed when the catch limit is reached. In other words, such measures do not transform commercially exploited sharks into "choke species".
- Therefore, to date none of the t-RFMOs have developed and adopted comprehensive harvest strategies for commercially targeted sharks that include harvest control rules (HCRs); allocated total mortality limits; rebuilding plans and management strategy evaluations (MSEs) as commonly adopted by t-RFMOs for other commercially exploited species.

The opinion concludes that States, through tuna RFMOs,

have not yet completely fulfilled their obligations under the UNFSA to regulate commercially exploited sharks that are targeted in fisheries for tuna and tuna-like species, via the adoption of adequate management measures.

- IATTC, IOTC and WCPFC have so far have only adopted measures concerning issues specifically relevant for non-target shark species.
- ICCAT has at least started adopting catch limits, quota allocations, and rebuilding plans for some but not all commercially exploited shark species.
- all RFMOs lack comprehensive harvest strategies and robust harvest control rules for commercially exploited sharks.

Regulation of Commercially Exploited Sharks under CITES

The objective and purpose of CITES is the “protection of certain species of wild fauna and flora against over-exploitation through international trade”. Appendix II contains species that are not necessarily currently threatened with extinction but that may become threatened unless their international trade is subject to strict regulation.

- CITES has specific listing criteria for “commercially exploited aquatic species” against which proposals to list sharks have been assessed.
- Parties have displayed steadily growing trust in the role of CITES for the conservation and management of sharks. CITES CoP19 (November 2022) added 104 new species of elasmobranchs to Appendix II, including the most heavily fished shark species, blue shark.

CITES

- requires its Parties to implement key obligations of the treaty through national legislation. This includes an obligation to designate at least one national Management Authority and Scientific Authority, respectively. These authorities are responsible for the implementation of CITES at the national level.
- requires regulation of international trade in CITES-listed species on the basis of prior, science-based Non Detriment Findings (NDFs) to ensure population throughout its range is maintained at a level consistent with its role in the ecosystems.
- CITES’ definition of “international trade” includes import, export and re-export, but also “introduction from the Sea” (IFS). IFS expands CITES’ scope to fisheries’ activities in areas beyond national jurisdiction (ABNJ), even if only one Party is involved. Through IFS CITES applies to all catches in the High Sea subsequently transported into the territory of a Party whether catches are introduced to the territory of the flag State, or the territory of another State, or transshipped at sea.
- In all cases, CITES transactions require a prior NDF by the Scientific Authority for export permits and IFS certificates. Export permits additionally require an LAF (Legal Acquisition Finding) to confirm that the specimen was not obtained in contravention of the laws and regulations of that State for the protection of fauna and flora”. CITES does not differentiate between target and non-target species.

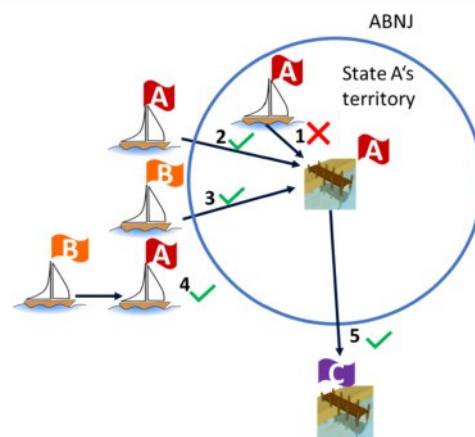


Figure 1: Overview of when CITES provisions apply under different fisheries scenarios

- There is no specific format or process for how to issue an NDF and no requirement to make NDFs public.
- The CITES Animals Committee has also repeatedly encouraged Parties to share their national experiences in making NDFs for CITES-listed elasmobranchs.
- Guidance adopted by the CoP recommends that NDFs be the result of a science-based assessment and, among other things, should consider whether the species would be maintained throughout its range at a level consistent with its role in the ecosystems in which it occurs and takes into account all sources of mortality.

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NDF Guidance

- Guidance adopted by the CoP recommends that NDFs be the result of a science-based assessment and, among other things, should consider whether the species would be maintained throughout its range at a level consistent with its role in the ecosystems in which it occurs and takes into account all sources of mortality.
- The “German NDF guidance” developed in 2014 on behalf of the German Scientific Authority and many publicly available NDFs based on it:
 - suggests cooperation with RFBs (including tuna RFMOs) throughout the NDF process.
 - recommends the conduct of joint stock assessments for shared stocks through RFBs as good compilations of relevant information.
 - reiterates that NDFs are supposed to take into account all sources of mortality and that therefore “all high seas catches of all States are considered when developing NDFs for IFS.”
 - recommends Scientific Authorities consider if “existing management measures [are] effective (or likely to be effective) in mitigating the pressures affecting the stock/population of the species concerned”, including if they are species-specific, appropriately designed and/or if Monitoring, Control and Surveillance measures are in place to monitor their implementation.
 - advises applying a precautionary approach, including when determining export volumes in a positive NDF when information is unavailable or lacking.
 - explicitly considers NDFs that are in place for an extended time, such as on the basis of a TAC (rather than made on a per-transaction basis).
- Recent, publicly available NDFs for commercially exploited sharks that are caught in tuna RFMOs, namely shortfin mako elucidate how States have implemented CITES NDF provisions in practice:
 - The EU Scientific Review Groups (SRG) has published negative opinions for shortfin mako both, from the North Atlantic and from the South Atlantic. Both NDFs rely heavily on data and analyses by ICCAT, refer to the uncertainties associated with these data and discuss ICCAT’s CMMs.
 - Brazil published a negative NDF for shortfin mako in the South Atlantic emphasizing the importance of coordination via RFMOs as “a negative [Brazilian] NDF may not be effective if other countries that fish the [same] stock [...] issue a positive NDF”.
 - The UK published a negative opinion in 2022 for the species in the North Atlantic, the South Atlantic, and the Indian Ocean.

Review of Significant Trade (RST)

- While it is the responsibility of the national Scientific Authority to make NDFs, CITES Parties established the RST, an expert and peer-review process of countries’ NDFs to assess whether Parties effectively implement CITES obligations regarding Appendix II listed species.
- In an RST, species/country-combinations of concern are pre-identified based on CITES trade data according to a range of criteria.
- Parties can also propose species/country combinations to be considered that were not pre-identified on the basis of CITES trade data.
- Parties selected by the Animals Committee are requested to provide the scientific basis for their levels of exports, i.e. their NDFs.
- In case the respective CITES technical committee considers that “action is needed” recommendations are issued, which the respective State has to implement within the foreseen timeframe or else risk facing a trade suspension for that species.

- In the most recent selection of the RST in June 2023 oceanic whitetip shark, *Mobula spp.*, scalloped hammerhead shark, and great hammerhead shark were included in the review, marking the first time some CITES-listed Elasmobranchii will undergo an RST.
- Looking at the experience from implementing CITES for seahorses one of the key learnings presented was that few Parties were able to make NDFs and that after the RST, most Parties had either banned exports of wild specimens from their countries by their own decision or been placed under a trade suspension in the course of the RST.

The Opinion highlights that

- CITES' provisions apply in many fishing activities of listed oceanic species and apply regardless, whether a species is a target, a secondary target or a bycatch species.
- For stocks that can still support NDFs, CMMs should be drawing from the toolbox for target species (i.e., catch limits and harvest strategies, including HCRs) as there are clear links between NDFs and HCRs, with the latter corresponding most closely to revealed State practice and guidance on NDFs. They also support the operationalization of the obligation of Scientific Authorities to monitor exports with the objective to maintain that species throughout its range at a level consistent with its role in the ecosystems in which it occurs and well above the level at which that species might become eligible for inclusion in Appendix I.
- Particularly the CITES' peer-review process of NDFs in the form of the RST presents an incentive for RFMOs to pro-actively manage commercially exploited sharks through measures suitable for target species, which in turn will support their members in the long-term sustainable management of sharks in line with CITES.

OVERALL CONCLUSION

- Commercially exploited shark species, especially when listed under CITES Appendix II, should not be considered as a bycatch species, but should be legally classified as (secondary) target species under UNCLOS and UNFSA and tuna RFMOs have a responsibility to manage these populations within their regulatory competence through precautionary, science-based, and effective conservation and management measures. Such CMMs should include catch limits and effective harvest strategies.
- States should closer align their obligations under the UNFSA with those under CITES and vice versa.
- Tuna RFMOs could best support their Parties in fulfilling their CITES obligations for commercially exploited sharks, such as the blue shark, by adopting comprehensive harvest strategies, including robust harvest control rules for these species.
- For blue shark, ICCAT still has the chance to get ahead of the curve and swiftly adopt effective, species-specific CMMs consistent with its status as a secondary target species and in line with the obligations of ICCAT members under international fisheries law and CITES.



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