

Sharks conservation in the seven Countries of Sub-Regional Fisheries Commission, West Africa: Do we have any evidence of overexploitation?

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Background

In West Africa, the intensive exploitation of shark populations since the 1990s has resulted in the collapse of the fisheries, the loss of biodiversity and dwindling of shark resources. Hence the Sub-Regional Action Plan for conservation and sustainable management of shark populations (PSRA-Requins) project was launched in 2004 to promote a sustainable shark resource management strategy within the Sub-Regional Fisheries Commission (SRFC) region-Cape Verde, Gambia, Guinea, Guinea Bissau, Mauritania, Senegal, Sierra Leone. The project contributes towards the establishment of the status of shark conservation, and show increase in landings in all countries across the region. This poster presents some preliminary signs that could arise from serious threat of sharks and rays in the region.



Threatened and local extinction of species

- ❑ Of the hundreds of species of rays and sharks identified in the landings of the seven countries of the Sub-Regional Fisheries Commission, 35% of species are threatened (5% Critically Endangered, 7% Endangered and 23% at risk/vulnerable) and thus classified on the Red List of IUCN. Also 18% of species are Near Threatened, while the largest proportion (29%) are classified as Data Deficient meaning that there is still work to do to know their status.
- ❑ Researchers and fishermen agree that shark populations in west Africa have been declining since 2000. Time series data on Shark harvests in the region prior to 2005 was poor. Those data were gathered through fishermen interviews without rigorous scientific validation. Consequently no objective comparison could be made on the evolution of catch per unit of fishing effort.
- ❑ Since 2005, frame surveys were made at landing sites using the PSRA-Requins Project approach. These surveys show that several species have largely disappeared from the region with exception of few places: such as the sawfish *Pristis* spp (Guinea-Bissau) and the African wedgefish (*Rhynchobatus luebberti*) (the National Park of Banc d'Arguin). Great hammerhead sharks (*Sphyrna mokarran*), tiger sharks (*Galeocerdo cuvier*), and lemon sharks (*Negaprion brevirostris*), the flagship species of the group, are only caught occasionally.

Other observations

- ❑ Along the West African coast, communities complain that the no-fishing zones are not being respected by trawlers. They tell of the scandalous nightly show that has been going on for decades with rows and rows of lights from the boats trawling in the coastal area. The best proof of local stocks being dwindling is that the specialized fleets make major fishing expeditions towards the south and for long periods.
- ❑ Monitoring the changes in the average size of the principal species landed has shown that Shark catches comprised of more juveniles, even for the species that are still relatively abundant. For example, in the National Park of Banc d'Arguin in Mauritania, majority of the guitarfish (*Rhinobatos cemiculus*) caught are smaller than their size-at-maturity (Lt50, size at which 50% of the individuals are mature). The analysis of the changes in the average size of this species from 1998 to 2007 highlights a significant change in size being landed. These changes could affect the species' reproductive capacity.



Conclusion

Finally, it should be pointed out that Sharks share ecological niches with some valued species targeted by fisheries, and this makes them more likely to be caught incidentally. The increasing scarcity of these competing resources and the relative abundance of sharks, until recently, have forced fishermen to target Sharks. This practice has developed in response to the progressively higher commercial value of Shark products. The impacts of this strategy on the marine ecosystem and food chains, which have not been sufficiently analyzed, are probably considerable.

