



Animal Welfare Institute

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BY ELECTROIC AND REGULAR MAIL

Submitted via <http://www.regulations.gov>

Public Comments Processing
Attn: NOAA-NMFS-2011-0261
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Dear Sir or Madame:

In Re: Comments on Proposed Endangered, Threatened, and Not Warranted Listing Determinations for Six Distinct Population Segments of Scalloped Hammerhead Sharks under the Endangered Species Act (78 Fed Reg. 20717)

On behalf of the Animal Welfare Institute (hereafter “AWI”), please accept the following comments on the above-referenced National Marine Fisheries Service (hereafter “NMFS”) listing determinations for six scalloped hammerhead shark (*Sphyrna lewini*) distinct population segments (hereafter “DPSs”): Northwest Atlantic & Gulf of Mexico DPS (“NW Atlantic & GOM”); Central and Southwest Atlantic (“Central and SW Atlantic”); Eastern Atlantic DPS; Indo-West Pacific DPS; Central Pacific DPS; and Eastern Pacific DPS. The purpose of the finding is to determine whether there is sufficient scientific and legal evidence for NMFS to classify the six distinct DPSs under the ESA, as well as classify the Eastern Atlantic and Eastern Pacific DPSs as endangered, the Central & SW Atlantic and Indo-West Pacific DPSs as threatened, and the NW Atlantic & GOM DPSs and Central Pacific DPS as not warranted for a listing, under the ESA.

AWI supports the petition submitted by WildEarth Guardians and Friends of Animals on August 14, 2011, and asserts that the content of that petition clearly and indisputably demonstrates that the petitioned action is warranted. Ultimately, listing the *Sphyrna lewini* as threatened or endangered will better provide for their conservation under the ESA. Concurrently, this comment letter strongly supports NMFS’ recent publication of a proposed rule to list scalloped hammerhead sharks as threatened or endangered under the ESA, implementing regulations for US shark fisheries in the Atlantic Ocean, the Gulf of Mexico and the Caribbean, and designating critical habitat for the species in U.S. waters. In addition, AWI supports listing all six DPSs as threatened or endangered instead as opposed to listing only four DPSs.

Hammerhead shark populations are declining worldwide in every portion of the specie's range, due almost exclusively to overexploitation.¹ Because of this, listing the hammerhead throughout their range under the ESA would provide many benefits to this species, including ending directed harvest in all U.S. fisheries. In addition, an ESA listing would help provide tools to reduce the number of scalloped hammerhead sharks that are caught as bycatch in fisheries targeting other species. An ESA listing could also provide the additional protection of a critical habitat designation for scalloped hammerheads. And a designation would prohibit the sale and trade of scalloped hammerhead sharks, their parts and/or products, which would help to protect this species in other countries and provide the incentive to improve tools and techniques available to accurately identify shark products.

Background on Status & Threats/Overutilization for Commercial Purposes:

Because the scalloped hammerhead shark is subject to targeted fisheries, illegal fishing and fishery bycatch throughout the world, overutilization for commercial and/or recreational purposes is a moderate to major threat contributing to extinction risk for *all* six scalloped hammerhead shark DPSs.² Scalloped hammerhead sharks are targeted by semi-industrial, artisanal, and recreational fisheries and caught as bycatch in pelagic longline tuna and swordfish fisheries and purse seine fisheries.³ They are extremely vulnerable to being caught on pelagic longlines and bottom longlines, set nets and trawls. They also die soon after hooking or entanglement, thus the high at-vessel fishing mortality for bycaught hammerhead species is additive to the threat posed by fisheries. Many populations are therefore severely depleted as a result of over-exploitation, mostly in unregulated, unreported and/or illegal target and bycatch fisheries.

Scalloped hammerheads are targeted for their high-value fins; their meat is generally not consumed except perhaps locally in some regions. The scalloped hammerhead is a species of significant concern globally as a result of overexploitation, primarily for its fins. Traders have stated that hammerhead fins are some of the most valuable in the Asian fin market (the second most traded fin category),⁴ with the three hammerhead species (*Sphyrna lewini*, *S. mokarran*, and *S. zygaena*) combined comprising approximately 6% of the identified fins entering the Hong Kong market.⁵ *S. zygaena* and *S. lewini* fins make up some 4–5% of the total fin trade. It is estimated that between 1.3 and 2.7 million *S. zygaena* or *S. lewini* are represented in the shark fin trade each year or, in biomass, 49,000 to 90,000 mt.⁶ From this information, scientists have estimated that approximately 1.3 million to 2.7 million scalloped and smooth hammerheads are

¹ In fact, the IUCN classifies the scalloped hammerhead as “endangered” globally. Friends of Animals, WildEarth Guardians, Petition to List the Scalloped Hammerhead Shark (*Sphyrna Lewini*) Under the Endangered Species Act Either Worldwide or as one or more Distinct Population Segments (August 11, 2011) at 20.

² 78 Fed. Reg. 20731.

³ National Oceanic and Atmospheric Administration, Status Review Report: Scalloped Hammerhead Shark (*Sphyrna lewini*) (March 2013) at 11.

⁴ 78 Fed. Reg. 20731.

⁵ S. C. Clarke *et al.*, “Global Estimates of Shark Catches Using Trade Records from Commercial Markets,” *Ecology Letters*, 9:1115–26, available at www.interscience.wiley.com/journal/118634004/issue.

⁶ Clarke *et al.* 2006.

exploited for the fin trade worldwide every year.⁷ In sum, overutilization, especially for the international fin trade, is the most severe global threat to the scalloped hammerhead shark.⁸

In addition to this harvesting, the level of indirect take (bycatch) by trawlers and artisanal teleost and shrimp fishermen is unknown, potentially adding to substantial threats. While their distinct body shape makes hammerheads easy to identify as a genus, fishermen have trouble identifying individual hammerhead species. This lack of classification at the species level in catch data inhibits the ability to accurately assess the status of each hammerhead species. As a result, the status of the populations may be more diminished than currently documented. Live release of bycaught sharks is also rare because their large fins are very valuable.

According to the IUCN Red List of Threatened Species, scalloped hammerhead sharks are listed as Endangered because of the steep population declines that have been reported and which still continue, driven by intensive and unsustainable target and bycatch fisheries mortality.⁹ Some populations are considered to be Critically Endangered. Significant population declines have also been noted globally. Fisheries surveys in the Northwest Atlantic have documented declines of up to 98 percent for scalloped hammerheads.¹⁰ In the Mediterranean Sea, hammerhead sharks have declined up to 99 percent relative to their former abundance, suggesting they may be functionally extinct in the northwest Mediterranean.¹¹ Interviews with fishermen in the Caribbean Sea also indicate that the abundance and size of hammerheads declined dramatically in the past 10 years as a result of over exploitation, leading to a halt in the Belize-based shark fishery.¹²

Currently, the Eastern Atlantic DPS, Eastern Atlantic DPS, Central & SW Atlantic DPS and the Indo-West Pacific DPS have a high risk of extinction with the threat projected to increase in the foreseeable future. The Eastern Atlantic DPS is a large component of bycatch off Mauritania, and subject to weakly regulated and enforced fisheries of West Africa.¹³ Data suggests heavy exploitation of the Eastern Pacific DPS, with bycatch of hammerhead sharks used for the fin trade.¹⁴ In addition, high numbers of the Central & SW Atlantic DPS have been removed by

⁷ S. C. Clarke *et al.*, "Identification of Shark Species Composition and Proportion in the Hong Kong Shark Fin Market Based on Molecular Genetics and Trade Records," *Conservation Biology* 20(1):201-11 (2006), available at www.interscience.wiley.com/cgi-bin/fulltext/118564070/PDFSTART.

⁸ 78 Fed. Reg. 20731.

⁹ Baum *et al.* 2008; Casper *et al.* 2008.

¹⁰ R.A. Myers, et al., "Cascading effects of the loss of apex predatory sharks from a coastal ocean," *Science* 315:1846-1850, 2007, available at http://www.fmap.ca/ramweb/papers-total/Myers_etal_2007_Science.pdf.

¹¹ F. Ferretti, et al., "Loss of large predatory sharks from the Mediterranean Sea," *Conservation Biology* 22 (4): 952-964, 2008, available at

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&sqi=2&ved=0CCoQFjAB&url=http%3A%2F%2Fwww.sharkalliance.org%2Fdo_download.asp%3Fdid%3D30696&ei=EXoYT8mDO7C50AHz3e2_Cw&usg=AFQjCNGquTx76GEZ7i33orD7MKFq1Nji8A&sig2=Y0_pfDJG5ixPBpUU_WTWOW.

¹² However, the pressure is still sustained by fishers driving into Belizean waters from Guatemala (R.T. Graham pers. obs. 2006).

¹³ NOAA at 15.

¹⁴ NOAA at 18.

longliners off the coast of South America.¹⁵ The Indo-West Pacific DPS is also subjected to commercial fishing and bycatch, suffering notable declines in abundance.¹⁶

However, despite the NW Atlantic & GOM DPS' population having declined over 80% since 1981,¹⁷ the ERA team only ranked the threat of over overutilization of this DPS as "moderate"¹⁸ This conclusion was based on the latest stock assessment by Hayes *et al*, which predicted a population rebuild within 30 years of 2005 catch levels notwithstanding the increased risk of extinction, if combined with other factors such as low decreasing abundance or inadequate regulatory mechanisms.¹⁹ Citing increased management (FMPs) as its justification for a "not warranted" listing for the NW Atlantic & GOM DPS as well as the Central Pacific DPS, NMFS' use of this best available science is inadequate when the agency does not specifically explain how the threat of overutilization by commercial and recreational fisheries is going to decrease in the foreseeable future. Furthermore, the agency gives no indication when Amendment 5 and the rebuilding strategy for the NW Atlantic & GOM DPS will be completed.²⁰

Scalloped hammerhead sharks are also biologically vulnerable to overexploitation due to their life history characteristics,²¹ including migratory patterns, slow population growth rates, low reproductive rate, long gestation periods of eight to 12 months, and production of only 14 to 26 pups per litter. Unlike other species of sharks, hammerheads frequently aggregate in large numbers, making them more vulnerable to fishing efforts. Scalloped hammerheads have some of the lowest recovery potentials in comparison to other shark species, leaving the species even more susceptible to extinction.

Existing Regulatory Mechanisms are Inadequate:

Very few hammerhead stocks are presently managed consistent with sustainable fisheries management plans, and Fisheries Management Plans do not provide adequate protection for imperiled species in a majority of U.S. waters. Intense fishing pressure depletes regional stocks rapidly, and re-colonization of depleted areas from neighboring regions is expected to be a slow and complex process. In particular, *Sphyrna lewini* is probably the most common hammerhead in the tropics. It is therefore an important catch of inshore artisanal and small commercial fisheries, as well as large offshore operations, being utilized for its valuable fins, meat, and sometimes hides and oil. Inshore artisanal fisheries catch large numbers of pups and juveniles in some regions. The species' aggregating habit and patchy distribution makes adults particularly vulnerable to capture in large reproductive schools.

¹⁵ 78 Fed. Reg. 20733.

¹⁶ 78 Fed. Reg. 20734.

¹⁷ 78 Fed. Reg. 20727 (citing Hayes *et al.*, 2009).

¹⁸ 78 Fed. Reg. 20732.

¹⁹ *Id.*

²⁰ 78 Fed. Reg. 20745.

²¹ Maguire *et. al.* 2006.

While there have been some recent actions to protect scalloped hammerhead sharks, these measures fall short of what would be necessary to ensure their long-term survival and recovery.²² Some range states have adopted shark fisheries management plans but not nearly all of the range states whose waters hammerheads may inhabit year-round or seasonably. In the majority of cases, however, these management plans do not include specific precautionary management measures for hammerhead sharks.²³ In addition, enforcement issues, particularly on the international scale, should be taken into account because the inadequate management of foreign fisheries contributes directly to overfishing. For example, many foreign commercial and artisanal fisheries operate within the range of the Central & SW Atlantic DPS, but with little to no regulatory oversight. Thus, existing foreign regulations are unlikely to reduce the most significant threats to the scalloped hammerhead.²⁴

Recognizing that the current level of global trade of scalloped hammerheads is unsustainable, the U.S. and several other countries proposed this species for listing under Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES") at the 15th Conference of the Parties.²⁵ An advisory panel of independent experts determined that sufficient evidence existed to warrant placing the scalloped hammerhead on CITES Appendix II. The panel also found justification for the proposed listing of great and smooth hammerheads as "look-alike" species to help enforcement. The National Marine Fisheries Service then determined that scalloped hammerhead sharks in the Atlantic are currently overfished and that overfishing is occurring, thus providing even more impetus for taking urgent action to protect this species before it goes extinct.²⁶

Additional measures in the United States include the passage of the Shark Conservation Act in 2010 and the prohibition of hammerhead sharks in Florida waters. The Shark Conservation Act

²² A number of range States have adopted finning bans, which prohibit the removal of fins on board and the discard of carcasses at sea. These should have benefits for hammerhead sharks because of the economic incentive to fin sharks with high value fins and low value meat. However, enforcement of such bans may not always be effective and many fishing States are not bound by such measures. For example, although Australian shark fisheries are generally well-managed, the recent increase in illegal, unreported and unregulated (IUU) fishing vessels in the waters of northern Australia is causing concern for the hammerhead sharks. A few range States have implemented regulations that protect known adult hammerhead shark aggregation sites, such as the Revillagigedo island archipelago in Mexico, Malpelo Island, Columbia, and the Galapagos Marine National Park in Ecuador, or regulate damaging fishing methods in pupping and nursery grounds. These measures cover only a very small part of these species' ranges and poaching may be a significant problem. In addition, although the U.S. and Palau submitted a proposal to list three species of hammerhead shark, including the scalloped hammerhead, under CITES, the proposal was not ratified.

²³ Exceptions are in South Africa, where there are bycatch and recreational bag limits for hammerheads, and in the USA, where hammerheads are included in the USA's Highly Migratory Species Atlantic Fishery Management Plan.

²⁴ Fed. Reg. at 20738.

²⁵ CITES, "CoP15 Proposal 15," Doha, Qatar, 13-25 March 2010, available at <http://www.cites.org/eng/cop/15/prop/E-15-prop-15.pdf>.

²⁶ NOAA, "Stock status determination for Atlantic highly migratory scalloped hammerhead shark," Federal Register 76 (82): 23794-23795. April 28, 2011, available at www.nmfs.noaa.gov/sfa/hms/fishery_rules/2011/04-28-11_Scalloped_Hammerhead_Determination_76_FR_23794.pdf.

requires sharks to be landed whole with their fins naturally attached. While this measure prevents finning, it does nothing to regulate the mortality of sharks.

Florida Fish and Wildlife Conservation Commission also recently implemented a decision to prohibit the commercial fishing and possession of hammerhead sharks within Florida waters.²⁷ While this is a huge step towards conserving scalloped hammerhead sharks, they are migratory and thus broader action is necessary. Also, in recent years, measures have been taken to reduce the mortality of hammerhead sharks, but they are uncoordinated, pertain only to some fisheries and certain waters, difficult to enforce and fail to protect a migratory species. Scalloped hammerhead sharks need coordinated protection in all areas and all fisheries.

Although these recent measures all provide some benefit towards maintaining the continued existence of scalloped hammerhead sharks, they do little towards providing collaborative efforts to end the mortality of scalloped hammerhead sharks in all fisheries within the United States.

Additional Measures Needed:

Protection needs for the hammerhead sharks include:

- Listing the NW Atlantic & GOM DPSs and Central Pacific DPS as threatened under the ESA;
- Finalizing amendment 5 to the Consolidated HMS Fishery Management Plan, which establishes a rebuilding strategy for the NW Atlantic and GOM scalloped hammerhead shark stock;
- Improving monitoring of fisheries catches and landings (including reviews of historic data and the identification of improved species-specific information);
- Developing stock assessments to inform the sustainable management of fisheries;
- Designating critical habitat for the Distinct Population Segments (DPSs) that occur in US waters to the maximum extent the agency finds to be prudent and determinable.²⁸ “Prudent and determinable” means that the designation of critical habitat is necessary to decrease a threat to a species, or would be beneficial to the recovery of a species.²⁹ These factors militate in favor of designating habitat for the scalloped hammerhead because the species would greatly benefit from extra protective measures. In deciding whether to designate critical habitat, NMFS should not allow economic impacts [on fisheries] to be the sole decisive factor;³⁰ and
- The adoption of precautionary management measures or the closure of fisheries in order to allow depleted stocks to rebuild, or until science-based management can be adopted and enforced. Estimates of acceptable catch rates must be viewed with precaution for

²⁷ Florida Fish and Wildlife Conservation Commission, “Prohibited Species; Prohibition of Harvest, Landing, and Sale: Sharks and Rays,” Rule: 68B-44.008, Effective 1/1/12, available at <https://www.flrules.org/gateway/ruleno.asp?id=68B-44.008&Section=0>.

²⁸ 16 U.S.C.A § 1533(a)(3)(A)

²⁹ Nat. Resources Def. Council v. U.S. Dept. of the Int., 113 F.3d 1121, 1125 (9th Cir. 1997).

³⁰ *Douglas County v. Babbitt*, 48 F.3d 1495, 1497 (9th Cir. 1995)

these species until there is more certainty in the age and growth parameters on which they are based.

Management measures must recognize that hammerheads are often taken in multi-species fisheries, which are difficult to regulate for the benefit of the most vulnerable species taken. The establishment of protected areas where these species can be protected from mortality in fisheries is therefore necessary. These will likely require identification and protection of critical habitats, such as adult aggregation sites, pupping grounds and nursery grounds. Protection of these areas may be achieved in a number of ways, including restrictions on the use of particularly damaging fishing gear types and/or seasonal closures.

Conclusion:

Scalloped hammerhead sharks are in danger of extinction throughout a significant portion of their range, primarily from overutilization for commercial purposes. Listing the scalloped hammerhead under the ESA could provide significant benefits to the species and help compel shark conservation internationally.

The species meets at least three of the criteria for listing under Section 4 of the ESA: Overutilization, inadequacy of existing regulatory mechanisms, and other natural or manmade factors. Listing the species will provide the scalloped hammerhead with much needed regulatory protection, and will serve as an important measure to lessen the threat of extinction. The species also meets the two criteria for DPS designations: 1) discreteness in relation to the remainder of the species to which it belongs, 2) significance as to the remainder of the species to which it belongs.

Consequently, AWI respectfully requests that the Eastern Atlantic and Eastern Pacific DPSs be listed as endangered, the Central & SW Atlantic and Indo-West Pacific DPSs be listed as threatened under the ESA. In addition, AWI respectfully requests that the NW Atlantic & GOM DPS and the Central Pacific DPS also be listed as threatened under the ESA because listing all 6 DPSs would maximize the protections given to the scalloped hammerhead throughout their range.

Thank you in advance for providing this opportunity to comment. Please send any future information about this issue to: Tara Zuardo, Wildlife Program Associate, Animal Welfare Institute, 900 Pennsylvania Ave., SE, Washington, DC 20003.

Sincerely,



Tara Zuardo, Wildlife Legal Associate

Jamie Pang, Legal Intern