



Animal Welfare Institute

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BY ELECTRONIC 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:

Re: Comments on 90-Day Finding on a Petition to List the Scalloped Hammerhead Shark as Threatened or Endangered under the Endangered Species Act (76 Fed Reg. 72891)

On behalf of the Animal Welfare Institute (AWI), please accept the following comments on the above-referenced National Marine Fisheries Service (hereafter NMFS) 90-day finding on a petition to list the scalloped hammerhead shark (*Sphyrna lewini*), or, in the alternative, multiple distinct population segments (DPSs) of the scalloped hammerhead shark as threatened or endangered under the Endangered Species Act (ESA), and to designate critical habitat concurrently with the listing. The purpose the finding is to determine if there is sufficient scientific and legal evidence to classify the scalloped hammerhead shark (*Sphyrna lewini*) as threatened or endangered under the ESA.

AWI supports the petition submitted by animal protection and wildlife conservation organizations and asserts that the content of that petition clearly and indisputably demonstrates that the petitioned action is warranted. Ultimately, listing *Sphyrna lewini* as threatened or endangered will better provide for their conservation under the ESA. Concurrently, this comment letter strongly supports, pending completion of this status review, NMFS' publication of a proposed rule to list scalloped hammerhead sharks as threatened or endangered under the ESA (1) throughout its entire range or, alternatively (2) as five distinct population segments (DPSs) under the ESA representing each subpopulation of the species, and to designate critical habitat for the species in U.S. waters.

Listing the scalloped hammerhead 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:

The scalloped hammerhead shark is subject to targeted fisheries, illegal fishing and fishery bycatch throughout the world. 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. The large fins are very valuable and frequently retained; as a result, live release of bycaught sharks is unusual. In addition, aggregations are particularly vulnerable to targeting 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.

In addition, very few hammerhead stocks are presently managed consistent with sustainable fisheries management plans. 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. The use of historic nurseries, where neonates shoal with spatially confined movements, make this age class particularly easy to target.

Fishing pressure directed at juveniles also appears to have increased in parts of the Gulf of California and in Costa Rica, and is likely to be increasing elsewhere as other, more valuable fishery stocks are depleted. In the Gulf of California *Sphyrna lewini* are a common catch in the directed artisanal elasmobranch fisheries of Sonora, Sinaloa, Baja California, and Baja California Sur, Mexico.

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.¹ 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.² In the Mediterranean Sea, hammerhead sharks have declined up to 99 percent relative to their former abundance, suggesting they may be functionally

¹ Baum *et al.* 2008; Casper *et al.* 2008.

² 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.fmam.ca/ramweb/papers-total/Myers_etal_2007_Science.pdf.

extinct in the northwest Mediterranean.³ 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.⁴

Scalloped hammerhead sharks are also biologically vulnerable to overexploitation due to their life history characteristics,⁵ 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.

In addition to this harvesting, the level of indirect take 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.

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 market, with the three hammerhead species (*Sphyrna lewini*, *S. mokarran*, and *S. zygaena*) combined comprising approximately six percent of the identified fins entering the Hong Kong market.⁶ *S. zygaena* and *S. lewini* fins are classified in this market as ‘Chun chi’ and 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.⁷ From this information, scientists have estimated that approximately 1.3 million to 2.7 million scalloped and smooth hammerheads are exploited for the fin trade worldwide every year.⁸

³ 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.

⁴ However, the pressure is still sustained by fishers driving into Belizean waters from Guatemala (R.T. Graham pers. obs. 2006).

⁵ Maguire *et al.* 2006.

⁶ S. C. Clarke *et al.*, “Global Estimates of Shark Catches Using Trade Records from Commercial Markets,” *Ecology Letters*, 9:1115–26, available at www3.interscience.wiley.com/journal/118634004/issue.

⁷ Clarke *et al.* 2006b.

⁸ 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 www3.interscience.wiley.com/cgi-bin/fulltext/118564070/PDFSTART.

Existing Regulatory Mechanisms are Inadequate:

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.⁹ 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.¹⁰

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.¹¹ 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.¹²

As indicated in the comments submitted by the Pew Charitable Trusts on this subject:

In November 2010, the International Commission for the Conservation of Atlantic Tunas (ICCAT) prohibited retaining onboard, transshipping, landing, storing, selling, or offering for sale any part or whole carcass of hammerhead sharks (except bonnetheads).¹³ While the ICCAT decision was a strong step forward, there is an exception for developing coastal

⁹ 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.

¹⁰ 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.

¹¹ 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>.

¹² NOAA, "Stock status determination for Atlantic highly migratory scalloped hammerhead shark," Federal Register 76 (82): 23794-23795. April 28, 2011, available at http://www.nmfs.noaa.gov/sfa/hms/fishery_rules/2011/04-28-11_Scalloped_Hammerhead_Determination_76_FR_23794.pdf.

¹³ ICCAT, "Recommendation by ICCAT on hammerhead sharks (Family Sphyrnidae) caught in association with fisheries managed by ICCAT," 10-08, 2010, available at <http://www.iccat.es/Documents%5CRecs%5Ccompendiopdf-e%5C2010-08-e.pdf>.

nations for local consumption as long as hammerheads do not enter into international trade. In addition, the measure only applies to ICCAT Parties and to fisheries of the parties that are under ICCAT jurisdiction, excluding the vast majority of fishing in the Atlantic. Depending on how a Party implemented the ICCAT recommendation, it is more or less protective for hammerheads. For example, the European Union prohibited retention of all hammerhead sharks in all fisheries while the U.S.'s implementation of the measure allows directed hammerhead fisheries, where the majority of catch occurs, to continue. Furthermore, with the other Regional Fisheries Management Organizations (RFMOs) failing to follow ICCAT's lead, scalloped hammerheads remain without international management measures in the rest of the world, including in the Pacific.¹⁴

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 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.¹⁵ While this is a huge step towards conserving scalloped hammerhead sharks, they are migratory and thus broader action is necessary. In addition, 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:

- Improved monitoring of fisheries catches and landings (including reviews of historic data and the identification of improved species-specific information);
- The development of stock assessments to inform the sustainable management of fisheries; 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

¹⁴ The PEW Environment Group comments in response to the 90-day finding on the petition to list the scalloped hammerhead as threatened or endangered under the Endangered Species Act (ESA), dated January 24, 2012.

¹⁵ 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>.

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 their range, primarily from overutilization for commercial purposes. Listing of the scalloped hammerhead under the ESA could provide significant benefits to the species and help to compel shark conservation internationally.

Consequently, AWI respectfully requests that the scalloped hammerhead be listed as threatened or endangered under the ESA or, in the alternative, that the Secretary to list the species' five subpopulations as threatened or endangered in the Eastern Central and Southeast Pacific, Eastern Central Atlantic, Northwest and Western Central Atlantic, Southwest Atlantic, and the Western Indian Ocean as distinct population segments.

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

Thank you in advance for providing this opportunity to comment on this status review and for considering these comments. Please send any future correspondence or information about this proposed status upgrade to: Tara Zuardo, Wildlife Program Associate, Animal Welfare Institute, 900 Pennsylvania Ave., SE, Washington, DC 20003.

Sincerely,



Tara Zuardo
Wildlife Program Associate