



**NOAA
FISHERIES**

Atlantic HMS Caribbean Fisheries

Update

Highly Migratory Species Advisory Panel
Meeting
Spring 2018

Brief Outline

- Background
- AP Comments
- Research Updates
- Outreach
- Next steps
- Thoughts?



Requests for Management Changes

Atlantic Sharks:



- Increase shark retention limit under the Commercial Caribbean Small Boat (CCSB) permit (currently set at zero) and establish in-season shark retention limit adjustment criteria.
- Create a Caribbean-specific shark quota that is tied to the CCSB permit.
- Create a Caribbean-specific authorized shark species list that includes the most commonly caught shark species in the region (i.e., Caribbean reef and Caribbean sharpnose shark, which are currently in the prohibited species list), but does not include any species that are threatened or endangered.



Atlantic Swordfish:

- Increase the swordfish limit allowed under the CCSB permit.

Advisory Panel Meeting (2017)



AP Comment Summary (2017)

- Prioritize the U.S. Caribbean in HMS management.
- Provide limited shark fishing permits or exempted fishing permits to improve HMS data collection in the U.S. Caribbean.
- Revisit prohibited shark species list using sound science and determine whether Caribbean shark species can withstand fishing pressure (e.g. Caribbean reef and sevengill).
- Use a holistic and precautionary approach when considering any management changes in the U.S. Caribbean region.
- Consider impacts to scalloped hammerhead shark distinct population segment when considering authorizing shark species under the CCSB.
- Support establishment of Caribbean-specific shark quota; quota should not come from Gulf of Mexico.

AP Comment Summary (2017)

- Prioritize the U.S. Caribbean in HMS management.
- Provide limited shark fishing permits or exempted fishing permits to improve HMS data collection in the U.S. Caribbean.
- Provide information on the process for removing species like Caribbean reef, Caribbean sharpnose, and sevengill shark from the prohibited list.
- Research the genetics of sharks, such as Caribbean sharpnose, Caribbean reef and blacknose sharks, to see if they are the same stock as what is found in other parts of the U.S.
- Provide information on the SPAW protocol to see how this overlaps with NMFS and the species of sharks that we have in common.

Caribbean Research Updates

- NOAA Southeast Fisheries Science Center / Gulf States Marine Fisheries Commission
 - Improve scientific information for the management of fisheries in the U.S. Territories in the Caribbean (U.S. Virgin Islands and Puerto Rico) to ensure their cultural, economic, and ecological sustainability.
 - Estimate annual commercial fisheries landings in the U.S. Caribbean and investigate temporal and cross-site variability in those landings during one year of concurrent sampling.
 - Started August 2017.



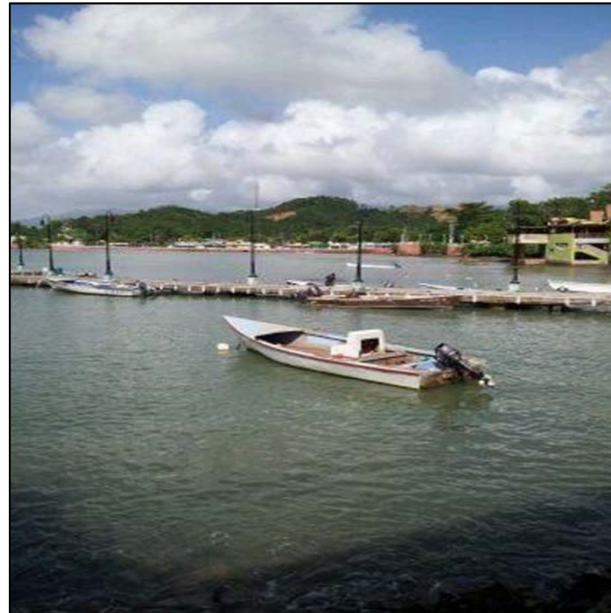
Caribbean Research Updates

- Raimundo Espinoza (Conservacion Conciencia) / MOTE Marine / Marcos Hanke (HMS commercial fishermen; CFMC rep)
 - The project aims to work with recreational charter captains, using the gear and methods local recreational fishermen use. Specific sites are chosen in consultation with recreational fishermen with the goal of targeting the areas where recreational fishermen fish. All catch is documented and sharks will be identified to species and sex, measured, tagged and released.



Caribbean Research Updates

- **Marcus Drymon** (Mississippi State University; State of Alabama rep) / **Marcos Hanke** (HMS commercial fisherman; CFMC rep)
 - Applying for an Exempted Fishing Permit to sample sharks in Puerto Rico state waters to help improve shark species identification.



Caribbean Research Updates

Improve and Expand the Puerto Rico Commercial Fishery Electronic Reporting System

Grantee: The Nature Conservancy, NFWF Award

The Nature Conservancy will develop, improve and expand the adaptive electronic reporting system for up to 100 vessels in Puerto Rico fisheries. The project will result in a fully functional electronic reporting system in Puerto Rico's commercial fisheries which will improve catch accountability, monitor annual catch limits, promote productive and sustainable fisheries, and improve Puerto Rico's fisheries statistics collection and management.

Caribbean Research Updates

Expanding the Electronic Fisheries Reporting Platform to U.S. Virgin Islands Commercial Fisheries Grantee: The Ocean Foundation, NFWF Award

The Ocean Foundation will expand the electronic fisheries reporting platform established in Puerto Rico to the U.S. Virgin Islands in order to improve fisheries data. The project will apply mobile technology to collect fisheries data and combine data capture and visualization capabilities which will support improved fisheries management.

Caribbean Research Updates

- Recent Scientific Research Papers

- Pickard A.E., et al. 2016. **Comparative Use of a Caribbean Mesophotic Coral Ecosystem and Association with Fish Spawning Aggregations by Three Species of Shark.**

- Investigated movements of tiger, lemon and Caribbean reef shark within a mesophotic coral ecosystem (~ 30 - 150 cm, MCE) and fishing spawning aggregations located on the shelf edge south of St. Thomas,
 - Findings indicate that although patterns of use varied, all three species of sharks repeatedly utilized the MCE.

- USVI Tagliafico A., et al. 2017. **Length-length relationships of 16 Caribbean elasmobranchs.**

- Provides equations to extrapolate partial carcasses lengths, to total length for 16 species of elasmobranchs, including blacknose, silky, blacktip, tiger, Caribbean sharpnose, and scalloped hammerhead.

Caribbean Research Updates

- America Elasmobranch Society (2017) – Shark-related research
 - Grace Casselberry, Andy Danylchuk, John Finn, Bryan DeAngelis, Gregory Skomal
Using Network Analysis to Examine the Spatial Ecology of the Shark Community in Buck Island Reef National Monument, St. Croix, USVI
 - Matthew Davis, Pablo Suárez-Moo, Toby Daly-Engel
Population Structure and Phylogenetics of Atlantic and Caribbean Sharpnose Sharks (Genus: Rhizoprionodon)
- America Elasmobranch Society presentations and abstracts can be found here: <http://elasmobranch.org/abstracts>

Outreach to PR and USVI State Agencies and Caribbean Fisheries Management Council

- Puerto Rico Department of Natural Resources
 - Modifying territorial regulations to make them compatible with existing fishery management plans as joint enforcement agreements have highlighted the importance of compatibility among fishery management plans.
 - Last summer, Puerto Rico stated strong concerns about promoting a commercial shark fishery due to lack of enforcement, species-identification problems, and vulnerability to overfishing for commonly-caught species.



Outreach to PR and USVI State Agencies and Caribbean Fisheries Management Council

- CFMC / U.S. Virgin Islands Department of Planning and Natural Resources.
- Both CFMC and USVI support an incidental federal shark fishery in the U.S. Caribbean region.



Department of Planning
& Natural Resources



Next Steps?

- Support for incidental federal shark fishery in the U.S. Caribbean region.
 - Commercial fishermen in Puerto Rico and USVI
 - CFMC
 - USVI
- Lack of support for incidental federal shark fishery in the U.S. Caribbean region.
 - Puerto Rico
- Recent events (Hurricane Irma, Hurricane Maria).

Where do we go from here?



For questions or more information, contact:

**NOAA
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- Delisse Ortiz (Delisse.Ortiz@noaa.gov) 240-681-9037
- Nicolas Alvarado (Nicolas.Alvarado@noaa.gov) 727-824-5399
- Karyl Brewster-Geisz (Karyl.Brewster-Geisz@noaa.gov) 301-427-8503
- Randy Blankinship (Randy.Blankinship@noaa.gov) 727-824-5399



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