# INTER-AMERICAN TROPICAL TUNA COMMISSION SCIENTIFIC ADVISORY COMMITTEE

### SIXTH MEETING

La Jolla, California (USA) 11-15 May 2015

### **DOCUMENT SAC-06-08c**

## SHARK RESEARCH UNDER THE FAO-GEF COMMON OCEANS PROJECT

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#### 1. BACKGROUND

The status of shark populations is cause for concern worldwide. Little is known about the biology of many shark species, but they are long-lived animals with low reproductive rates, and the effects of fishing on the populations are known to be severe and long-lasting. Sharks are targeted by many fisheries, but they are also caught incidentally in fisheries targeting other species, such as tunas.

In the eastern Pacific Ocean (EPO) sharks are the target of a number of fisheries, mostly artisanal, but several species of sharks are also caught incidentally in both the purse-seine and longline fisheries for tunas. The Antigua Convention requires that the IATTC "adopt, as necessary, conservation and management measures and recommendations for species berlonging to the same ecosystem and that are affected by fishing for, or dependent on or associated with the fish stocks covered by this Convention, with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened". It is therefore within the staff's remit to provide advice to the Commission on sharks, but in order to do so it must first assess the status of the species in question.

However, stock assessments of sharks are considerably more problematic than assessments of tunas. The principal problem is the lack of data. For example, fisheries statistics, such as catch, effort, and size-composition data, are either lacking or, if available, are often incomplete or grouped into categories such as 'miscellaneous' or 'other' species; as a result, long-term time series of catch and effort data are rarely available. Biological information, such as growth rates and reproductive parameters, is also quite limited for many species. Without reliable data, most importantly from the fisheries that target sharks in the EPO, it is difficult for the staff to provide reliable management advice for shark species.

In 2014, the United Nations Food and Agriculture Organisation (FAO) and the Global Environmental Fund (GEF), initiated the <u>Common Oceans</u> project, aimed at achieving efficient and sustainable management of fisheries resources and biodiversity conservation in marine areas that do not fall under the responsibility of any one country. These include the majority of the areas in the EPO where the tuna fisheries operate and, as part of the component of the project dedicated to the <u>sustainable management of tuna</u> fisheries and biodiversity, the IATTC has obtained funding to improve the collection of data on shark fisheries and shark bycatches.

A member of the IATTC staff, based in Panama, is responsible for collecting data on sharks and coordinating data-collection efforts. The main focus is on Central America, where much of the shark catch is landed and where the need for better data collection is greatest. The objectives include improving the current methods and systems for collecting data, and establishing mechanisms for obtaining data from fisheries that do not currently report catches. A technical meeting on collecting data will be held in conjunction with the 6<sup>th</sup> meeting of the Scientific Advisory Committee in May 2015.

### 2. OBJECTIVES

This project has four principal objectives:

- 1. To the extent possible, obtain all available biological and fisheries data on sharks, including interactions with the tuna fishery (purse seine and longline), and incorporate them into a database, using standardized forms, procedures, and formats (metadata);
- 2. Using these data, prepare analyses and recommendations for sampling methodologies for consideration by the relevant Member(s) and/or the Commission;
- 3. Assist Members with the implementation of these recommendations, including distributing material for identifying shark species;
- 4. Incorporate the new and existing information on sharks in a database, suitable for stock assessments, respecting the rules on data confidentiality.

### 5. ACTIVITIES TO DATE

To date, five IATTC Members (Panama, Belize, Guatemala, Nicaragua, and El Salvador) have been visited, and the following information has been collected:

- 1. Number of vessels dedicated to fishing for sharks;
- 2. Shark catches by vessel, by species (if available);
- 3. Information on exports and imports of products derived from sharks;
- 4. Biological data and data from scientific research (mortality, growth parameters, length frequencies, sex ratios, etc) carried out by universities, NGOs, or government entities;
- 5. Management plans for sharks, by species (if applicable);
- 6. General information on methods for recording field data, as well as access to electronic data bases (where they exist),

Also, needs have been identified, both financial and regarding capacity building, for improving the collection of information on unloadings and from scientific studies.

The fisheries authorities of every one of the countries visited have played an important role in obtaining the information described above, which has facilitated access to other governmental bodies and institutions, which have, directly or indirectly, made contributions to our knowledge of the biology of various species of sharks, recording information that is valuable for this project.