

A Profile of the Trinidad and Tobago Shark Fishery
Un Perfil de la Pesquería de Trinidad y Tobago Tiburón
Un Profil de la Pêche de Trinidad et Tobago Requin

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EXTENDED ABSTRACT

The shark fishery is an important resource to the southern Caribbean nation of Trinidad and Tobago. In Trinidad in particular, shark is a popular delicacy. This is mainly due to the ongoing and increasing popularity of Bake and Shark, a sandwich consisting of fried shark with a type of fried bread and variety of condiments. Despite this popularity, there is little targeted shark fishing. Although shark is frequently landed and was listed as the fourth most landed fish in the artisanal fishery (Chan A Shing 2006), it remains mainly a bycatch fishery with attendant difficulties in regulation and enforcement. There are no limits or quotas governing what species, size or quantity can be taken.

Trinidad and Tobago is home to thirty-four (34) recorded shark species (Chan A Shing 2005), four of which are listed as vulnerable by the IUCN, five of which are listed as threatened and one of which, *Sphyrna lewini* (Scalloped Hammerhead), is listed as endangered. Unfortunately, according to a fishery independent survey conducted from 1985-1989, *S. lewini* is also counted among the most frequently landed sharks in the artisanal fishery of Trinidad and Tobago, along with *Carcharhinus limbatus* (Common blacktip shark), *Sphyrna tudes* (Smalleye or Goldenhead hammerhead), *Rhizoprionodon lalandii* (Brazilian Sharpnose shark) and *Carcharhinus porosus* (Smalltail shark) (Chan A Shing 2006). International trade in the species was restricted by CITES as of 2013, however, the species enjoys no local protection. Additionally, it is not distinguished in the landings from other hammerhead species.

The Fisheries Division of the Ministry of Land, Agriculture and Fisheries has been gathering on-shore landing data for sharks since 1962 (Chan A Shing 2006), however, species distinction was minimal and the generic category 'Shark' was often used to cover all shark species. From 2008 onwards there has been differentiation between seven specific species of large shark and a few broader categories such as 'Hammerhead' and 'Thresher,' as well as continuing use of the 'Shark' category for the remainder. This data shows the top five most landed shark species to be *Prionace glauca* (Blue Shark), *Isurus paucus* (Longfin Mako), *Carcharhinus plumbeus* (Brown Shark), *Alopias spp.* (Thresher) and *Isurus oxyrinchus* (Shortfin Mako). These results differ from those of the fisheries independent survey which focused on the artisanal catch. It should be noted that former data set covers a broader scope (i.e. the industrial/semi-industrial and artisanal fisheries) but is less specific in species identification and *vice versa*.

Landings of shark fins are also recorded. Data collected by the Fisheries Division from 1998 to 2012 list low volumes of shark fin, however, the data does not include landings from foreign fleets operating in Trinidad and Tobago waters, the Trinidad longline fleet, recreational boats or semi-industrial multigear boats. Unlisted landings must be significant, because an infographic from the Census and Statistics Department of Hong Kong ranked Trinidad and Tobago number six in a list of major shark fin exporters to Hong Kong in 2012. This infographic, sourced through The PEW Charitable Trusts and widely distributed through local NGO Papa Bois Conservation, caused a public outcry which led to a ban on shark finning in 2014. It remains legal to sell shark fins once the whole shark has been landed.

Sharks are caught throughout the year, with the highest landings reported from January to March. However, it remains unknown whether this is due to a greater abundance of sharks during these months or a greater targeting effort by fishermen. Targeted shark fishing uses nets as well as palangue long lines. Other methods by which sharks are caught include beach seine fishing and hook and line fishing via both a *la vive* and banking methods.

The majority of fishing is artisanal and carried out in wooden, fiberglass pirogues with outboard engines and manual operations (Henry and Martin 1992). These catch small coastal shark species and juveniles of larger species. Larger sharks are caught by pelagic longliners and other industrial or semi-industrial vessels. As of 2015, the Trinidad and Tobago fleet consists of 1512 artisanal vessels and 100 industrial and semi-industrial vessels (Lara Ferreira, Fisheries Division of the Ministry of Land, Agriculture and Fisheries 2015, personal communication).

Small quantities of shark are landed in Tobago, but sharks are not a popular food source in Tobago. This is likely due to the high Seventh Day Adventist Population, whose religious beliefs prohibit the consumption of 'scaleless' fish (The Department of Marine Resources and Fisheries (DMRF), Tobago House of Assembly 2015, personal communication).

As a shark harvesting nation Trinidad and Tobago committed to participation in UN FAO International Plan of Action for Sharks (IPOA-Sharks) as detailed in the FAO Technical Guidelines for Responsible Fisheries (2000). In keeping with this, the initial step of assessing the fishery was undertaken and details were published by Chan A Shing (2006). However, further advancements have been slow. A draft of the Nation Plan of action has been produced, however, recent attempts to push the process forward by conducting a National Consultation to review the draft have been delayed.

In conclusion, although basic assessments of the shark fishery exist and there have been consistent efforts to monitor the shark catch over an extended time period, there remains much work to be done in order to instate an effective management regime for the shark fishery. Recommendations include stock assessments for the most prevalent species in the artisanal and industrial fisheries, increased species specificity in shark landing reports, local regulation of threatened, vulnerable and endangered species, and educational campaigns to inform the public about the different types of shark and their conservation statuses.

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