CAYMAN ISLAND FISHERIES CATCHES: 1950-2007[1]

Sarah Harper[a], John Bothwell[b], Sarah Bale[a], Shawn Booth[a] and Dirk Zeller[a]
[a]*Sea Around Us Project, Fisheries Centre, University of British Columbia, 2202 Main Mall, Vancouver, B.C., V6T 1Z4, Canada*
[b]*Department of Environment, PO Box 486, KY1-1106, Grand Cayman, Cayman Islands*
s.harper@fisheries.ubc.ca; John.Bothwell@gov.ky; s.bale@fisheries.ubc.ca; s.booth@fisheries.ubc.ca; d.zeller@fisheries.ubc.ca

ABSTRACT

Total marine fisheries catches were estimated for the Cayman Islands from 1950-2007. Reports of fisheries catches by the Cayman Islands over this time period were very limited. Fisheries data obtained from the FAO were the only available data for most years and represent only catches taken by Cayman fishers in foreign waters. Supplemental information was obtained for fisheries both inside and outside of Cayman waters, including artisanal, subsistence, recreational and shark catches taken between 1950 and 2007. Our reconstruction of total marine fisheries catches by the Cayman Islands in the Western Central Atlantic (FAO Area 31), which included all fisheries sector estimates, was 3 times larger than that presented by the FAO on behalf of the Cayman Islands. Landings of tuna and decapod species reported to the FAO as being caught by Cayman vessels in the Eastern Central Atlantic (area 34) were also presented but were not included in our reconstruction. These catches are thought to have been taken by 'flag-of-convenience' vessels of non-Caymanian origin. Our investigation of Caymanian fisheries illustrated the need for better reporting of fisheries catches by all fisheries sub-sectors and better taxonomic accounting.

INTRODUCTION

The Cayman Islands, a British overseas territory in the Caribbean Sea, are comprised of three islands: Grand Cayman (19.20°N, 81.15°W), Cayman Brac (19.43°N, 79.49°W), and Little Cayman (19.49°N, 80.02°W). Grand Cayman is the largest and most populated of the three, where the capital city, George Town, is located (Figure 1). The Cayman Islands are located in FAO Statistical area 31, the Western Central Atlantic. The islands were officially settled in the early 1700s, but were first discovered by Columbus on his trip between Porto Bello and Hispaniola in 1503. The islands soon became known as frequent feeding and breeding grounds for green turtles *(Chelonia mydas)* and hawksbill turtles *(Eretmochelys imbricata)*. Shipwrecked sailors, military deserters, and iterant fishers whose occupations centred on selling captured turtles to passing ships comprised the majority of the early Cayman population (Smith, 1985).

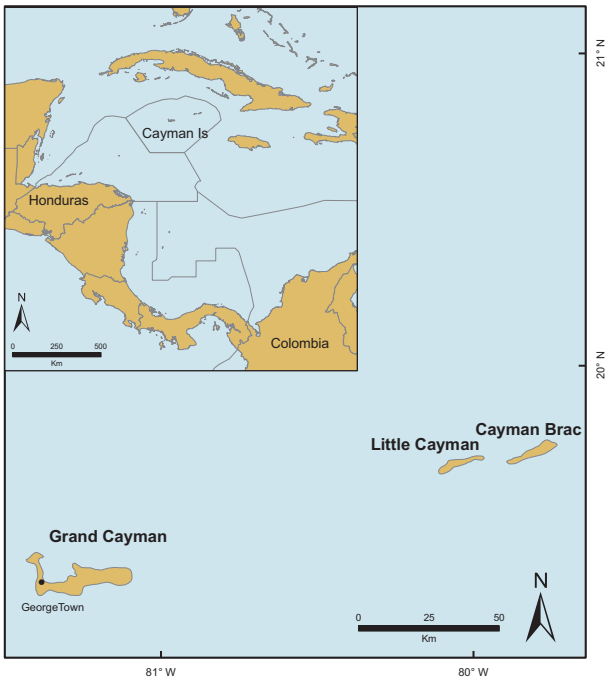

Figure 1. Map of the Cayman Islands showing Grand Cayman, Little Cayman and Cayman Brac. Inset map showing EEZ of Cayman Islands, Honduras and Colombia.

In the 1937 British Colonial Report for the Cayman Islands, fishing is reported to be the mainstay of the islanders (Anon., 1937). In a 1943 census, 63 fishers were reported to be employed in the fishing industry, which is the only year the number of

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fishers was officially surveyed or reported. The bulk of the catch consisted of turtles (~3,000 green turtles·year^{-1} and ~2,950 kg·year^{-1} of hawksbill turtle shells), sharks (> 6,000 hides·year^{-1}), and sponges (Anon., 1952). Initially, turtles were caught locally, but by the early 1800s, local catches were so low that fishers moved to waters off the shores of Costa Rica, and in the 1850s to those of Cuba, Nicaragua, and Honduras (Thompson, 1944).

It was in the shallow, sandy-bottomed waters of Cuba, Nicaragua, and Honduras that shark fishing developed as a side-line of turtle fishing. Fishers discovered nurse sharks (*Ginglymostoma cirratum*) and tiger sharks (*Galeocerdo cuvier*), which were harpooned after being baited with lines, and trapped in turtle nets. At this time, the leather industry was keen to use shark skins for their durable and scuff-resistant qualities, but the trade peaked as early as 1937 when more than 11,000 hides were exported (Anon., 2006b; Thompson, 1944). A general lack of knowledge prevented other marketable items such as fins, liver oil or flesh from becoming exportable commodities. Because leather was the only item of interest, the size of a shark was of the utmost importance, and as a result, fishers targeted sexually mature females, which caused shark populations to quickly decline. In addition, turtles were protected by conservation policies in the mid-1960s, and thus the Cayman Islands' primary resource could no longer be targeted (Troëng and Rankin, 2005).

In the early 1900s, fishers began targeting pelagic bony fish, which primarily included kingfish (*Scomberomorus* spp.), queenfish (*Acanthocybium solanderi*), dolphinfish (*Coryphaena hippurus*), and bonito (*Sarda sarda*; Thompson, 1944). Exploitation otherwise focused on bottom fish immediately surrounding the islands (Thompson, 1944); however, catches were generally inadequate to supply the demand for local fish. Some of this was due to poor infrastructure for storage and distribution, as eastern regions experienced surplus catches and small markets, whereas in George Town, demand always exceeded supply. However, overall, the opportunities for fishing in the Cayman Islands were not very plentiful (Thompson, 1944). There were thought to be many sites of unrealized fishing potential outside of local waters, such as Rosaline Bank, the Mosquito Cays, Seranna and Seranilla Banks, and the mass of small cays and islands elsewhere in the region (Thompson, 1944). Despite attempts in 1951 to develop fisheries targeting these areas, the necessary infrastructure, knowledge, and capital were missing, and no industrial fin-fish fishery developed (Anon., 1952; 1954; 1956; 1958; 1960). In the 1960s, however, Nassau grouper (*Epinephelus striatus)* spawning aggregations began to be locally exploited. They were quickly depleted and the species now receives some protection locally (Bush *et al.*, 2006). Of the six Nassau grouper aggregations, four were fished out (Semmens *et al.*, 2006)

Historically, finfish fisheries were always subsistence or small-scale artisanal. Due to a shortage of fish for local consumption, fresh seafood formed only a small part of the Cayman diet, and practically no fish were available for commercial export. According to Thompson (1944), a significant dependence on tinned fish such as salmon, sardines, tuna and herring from northern origins occurred at this time. He reports the sole commercial-scale attempt by Cayman fishers to market abroad to have been a seasonal surplus of saltfish exported to Jamaica. Some fish were exported to Central America, but faulty handling, a poor choice of markets, and political difficulties made the business unsustainable. Tinned fish were consistently easier and more economical to deal with than locally sourced catches (Thompson, 1944). In the 1980s, Cayman flagged purse seine operations fished for skipjack tuna (*Katsuwonus pelamis)* and yellowfin tuna *(Thunnus albacares)* in the Eastern Central Atlantic (FAO statistical area 34). Nantantian decapods were also targeted in this area and reported to FAO into the early 1990s. However, these vessels had flags of convenience, and were not of Cayman origin.

Today, the Cayman Islands are economically well-off, with an economy dominated by tourism and offshore banking (Shackley, 1998). With an average *per capita* income of U.S. $46,500 (2006 estimate), and the highest standard of living in the Caribbean, the average citizen is not dependent upon locally sourced fish. Over 90% of foods are imported (Anon., 2008), but some artisanal and subsistence fishing persists (J. Bothwell, pers. obs., DoECI). Population growth on the Cayman Islands largely mirrored its development as an offshore banking centre (Brittain-Catlin, 2005). The population rose from approximately 7,500 in 1970, to 25,000 in 1990. During the 1990s, the Cayman Islands experienced an annual growth rate of 4.3%, which was the highest in the Caribbean at that time, and in 2005, the Cayman Islands had a resident population of more than 45,000 (Ellison and Farnsworth, 1996; Anon., 2006a). The developments which went along with population growth threaten important mangrove areas and channels, integral to the health of marine fish populations. Between 1980 and 1990, mangrove area decreased from

114 km² to 72 km² in the Cayman Islands. A general trend was found at this time in the Caribbean between the disappearance of mangrove habitat and decreasing fisheries catches (Ellison and Farnsworth, 1996).

Several marine conservation laws were enacted in 1986 in response to coastal developments in the Cayman Islands and the anecdotal observations by fishermen of reduced catches. These were accompanied by the creation of Marine Protected Areas (MPAs) categorized as: 1) Marine Parks; 2) Environmental Areas; 3) Replenishment Zones; and later 4) Grouper Spawning Sites (www.mpaglobal.org). Fishing for Nassau groupers is closed between 1 November and 31 March each year at 6 known and 2 potential spawning aggregation sites (Bush *et al.*, 2006), which were severely depleted through recreational, artisanal and subsistence fishing. Of the historical spawning aggregations most are in either depleated or in decline and only one is considered comparatively healthy (Bush *et al.*, 2006). Amendments to the laws of 1986 were made in 2002 and 2003 to continue a complete ban on fishing in aggregation sites until 2011 (Bush *et al.*, 2006; C. Semmens, pers comm., Reef Environmental Education Foundation). Lobster (*Panulirus argus*), conch (*Strombus gigas*), whelk (*Cittarium pica*) and several other species are also protected (information available from Cayman Islands Department of Environment [DoECI], http://www.doe.ky). Approximately 34% of coastal waters are presently protected to some extent by MPAs and all local waters fall under these conservation laws (Spalding *et al.*, 2001).

Historically, little attention was paid to the monitoring of marine resources, but there is now a focus on marine conservation. While the FAO present fisheries catch data since the 1950s, these records appear to be the only readily available fisheries data over this past 50+ year period. After reviewing the history of the Cayman Islands, it appears that considerable under-reporting occurred in the early periods. Globally, catches of small-scale fisheries are often not recorded or are under-reported by local fisheries agencies (e.g., Zeller *et al.*, 2007), which appears also to be the case for the Cayman Islands. The purpose of the present study was to reconstruct fisheries catches by the Cayman Islands and present a review of Caymanian fishing operations between 1950 and 2007. These attempts aim to counter the phenomenon known as 'shifting baselines' in managing fish stocks (Pauly, 2000). The assumptions made throughout the methods are justified by the unsatisfactory alternative of accepting the current database, which is quite limited in scope, containing no meaningful data prior to the late 1980s and containing little taxonomic detail throughout.

MATERIALS AND METHODS

Cayman fishing vessels operate both in the waters of the Cayman Islands and in the waters of neighbouring countries. Fisheries catches as presented by the FAO on behalf of the Cayman Islands occur in FAO statistical area 31, which includes the Cayman Islands EEZ and the EEZ of many other Caribbean countries, and in area 34, which lies directly east of Area 31 (Figure 1). We describe the fisheries that take place in each of these areas.

Western Central Atlantic (FAO Area 31)

Fishing in Cayman waters

An inshore (artisanal) fishery takes place within the Cayman EEZ. Catches by this sector are small, estimated at 3-5 t·year^{-1} since the 1950s (Brunt and Davies, 1994; J. Bothwell, pers. obs., DoECI). This fishery includes catches for subsistence purposes (approximately 25%), for commercial purposes (approximately 25%) and for recreation (approximately 50%). The species targeted by this sector are mainly of the Lutjanidae and Serranidae families (Table 1). In the early period (1950s), the catch was dominated equally by lutjanids and serranids, whereas in the later period (1990s/2000s) the catch was mainly lutjanids (J. Bothwell, pers. obs., DoECI). Additional species may have also been caught by this sector.

Table 1. Estimated taxonomic breakdown of fish caught inside and outside Cayman waters between 1950 and 2007 (J. Bothwell, pers. obs., DoECI). This breakdown excludes sharks and turtles, which dominated the catch in the 1950s.

Taxon	Percentage of catch (%)	
	1950s	1990s
Lutjanidae	45	80
Serranidae	45	10
Dolphinfish	2.5	2.5
Small pelagics[a]	2.5	2.5
Misc. marine fishes	5	5

[a] mainly Rainbow runners and Ocean triggerfish.

An offshore recreational fishery for billfishes started in the Cayman Islands in the 1970s and continues today (J. Bothwell, pers. obs., DoECI). This fishery takes place inside the Cayman Islands EEZ. Annual fishing derbies target Blue Marlin (*Makaira nigricans*) and other pelagic sportfish (Brunt and Davies, 1994). Records of catches by this fishery are limited, but Brunt and Davies (1994) present the number of fish caught and retained over the 1983-1991 time period. Thus, fish that were caught and released were ignored here, i.e. assumed to have survived. The numbers of retained fish were converted to wet weight (in tonnes) using average weights for each species presented in FishBase (www.fishbase.org). Catches over 1970-1980 time period averaged half that of the 1983-1991 period, the 1990s were estimated to have the same average catch as reported for 1983-1991 (35.8 t·year^{-1}) and catches in the 2000s were assumed to have decreased by a third (J. Bothwell, pers. obs., DoECI).

Fishing in foreign waters

Reported annual landings for 1950 - 2007 in the Western Central Atlantic (FAO Statistical Area 31) for the Cayman Islands were obtained from the FAO FishStat database. Data supplied to the FAO by the Cayman Islands for FAO statistical area 31 are presented as 'miscellaneous marine fishes'. For the period 1950-1986, <0.5 t·year^{-1} are reported (Figure 2). Between 1987 and 1990, the annual landings increase from 76 t to 110 t, and are then consistently reported as 125 t·year^{-1} until 2007, with the exception of 1996 when 110 t were reported (Figure 2). Aside from the limited information presented by the data supplied to the FAO, very little quantitative information was found in the literature as a basis of comparison for our analysis.

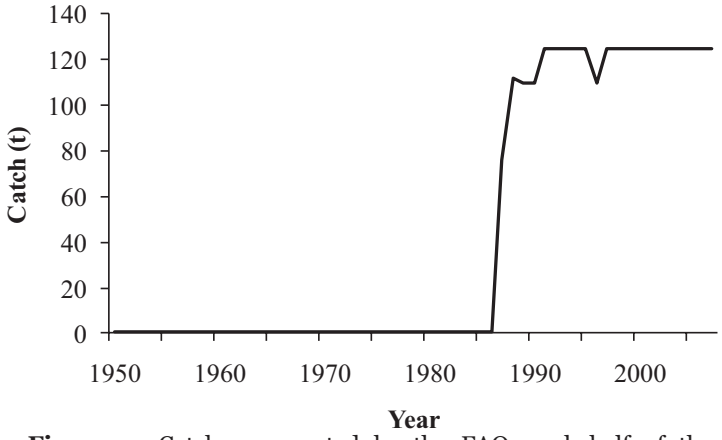

Figure 2. Catches presented by the FAO on behalf of the Cayman Islands, 1950-2007.

In personal correspondence with the Department of the Environment, Cayman Islands (DoECI), it was determined that the data presented by the FAO for statistical area 31 were catches taken in Honduran waters (Misteriosa and Rosario Banks) and Colombian waters (Baja Nuevo). In 2002, the government of the United Kingdom and Honduras entered into an access agreement which allowed a limited number of Cayman vessels to fish for snapper and grouper on select banks within Honduran waters. Prior to this formal agreement, fishing was allowed under historic (informal) access arrangement (J. Bothwell, pers. obs., DoECI). No such agreement exists for Cayman vessels in Colombian waters; however, the location of fishing in Colombian waters (Baja Nuevo) is a disputed zone within Colombia's EEZ which means that it may not be recognized by fishing vessels as being Columbian waters.

Table 2. Shark exports for the Cayman Islands as documented in the Colonial Reports (1937-1960). Also shown are conversions to kilograms and metric tonnes using FishBase life history tool.

Year	Hides	Catch (kg)	Catch (t)
1935	11,962	514,366	518
1936	6,487	278,941	281
1937	6,254	268,922	271
1953	934	40,162	40
1954	568	24,424	25
1955	675	29,025	29
1956	521	22,403	23
1957	1,700	73,100	74
1958	900	38,700	39
1959	485	20,855	21
1960	1,000	43,000	43

In the 1950s, catches by the Cayman Islands' in waters outside the Cayman Islands were thought to have been twice the amount of the current 125 t·year^{-1} estimate; however, catches in the 1950s were almost entirely of sea turtle and shark, the majority of which was exported (J. Bothwell, pers. obs., DoECI). To estimate catches by this fishery from the 1950s through to the 1980s—before data supplied to the FAO report any sizable catches—a linear interpolation was done from the 1950 estimate of 250 t to the 1988 estimate supplied to the FAO of 112 t, excluding the portion of the catch which would have been either turtle or shark catches. We assumed that, as shark and turtles populations declined and turtle protection legislation was introduced, these Cayman vessels would have continued fishing operations but would have begun targeting other species.

Turtle catches in 1950 were estimated to be approximately 200 t·year^{-1} (J. Bothwell, pers. obs., DoECI) and were assumed to be zero in 1965, when legislation was introduced banning turtle harvests (Troëng & Rankin, 2005). To derive a time series of turtle catches from 1950 to 1965, we interpolated linearly between the two anchor points (1950 and 1965). Although these catches were used in our calculations, we did not include turtle catches in our reconstruction of total marine fisheries catches.

Shark catches were estimated based on records kept by the Cayman National Trust (an ecological and historical preservation society, www.nationaltrust.org.ky) and data obtained from British Colonial Reports (Anon., 1937; 1954; 1956; 1958; 1960). Caymanians began shark fishing in the early 1930s off the coast of Costa Rica. Fishers then shifted their efforts to the shores of Nicaragua and Honduras, but by the late 1930s, sharks were already in serious decline (Anon., 2006b). The Colonial Reports present the number of hides exported, which were assumed to each represent one individual. We calculated the live weight equivalent in metric tonnes using the life-history tool from FishBase, which converts fish length to weight based on species specific, empirically derived ratios (Froese and Pauly, 2008; www.fishbase.org; Table 2). We assumed that nurse sharks were the predominant catch, so we used the statistics for this species in our calculations. The average length of a nurse shark at maturity is 194 cm, which converts to an average weight of 44 kg (Compagno, 1984). Because the largest individuals were targeted for hide quality, the average weight at maturity was used to derive relatively conservative annual catches (t). We estimated shark catches in 1950 to be approximately 50 t. This was based on our estimate of catches taken by Cayman vessels outside Cayman waters (250 t), excluding the sea turtle portion of the catch (200 t). An interpolation was then done between the 50 t estimate for 1950 and the 40 t for 1953.

Due to evidence of rapidly depleting shark stocks as early as 1940, a diminishing turtle fishery in the mid-1960s, and a lack of any shark catch or export data post-1960, we chose to linearly interpolate catch values from the last data point available (1960), to zero in 1965. More specifically, the introduction of laws protecting turtles from fishing in the mid-1960s throughout Caribbean waters, and a complete ban of Cayman vessels in Nicaraguan waters decreased the ease and feasibility of fishing where sharks had once been plentiful (Troëng and Rankin, 2005). It also eliminated opportunities for turtle fishing which had historically been the primary catch of fishers who caught sharks, and as a result, shark fishing eventually ceased as a commercial activity.

Catches taken outside the Cayman EEZ were mainly shark and sea turtle in the 1950s. As catches of these declined, fish from the Lutjanidae and Serranidae families were targeted. Catches also included Dolphinfish and small pelagics such as Rainbow runners (*Elagatis bipinnulata*) and Ocean triggerfish (*Canthidermis sufflamen*). The catch composition aside from shark and turtle was the same as what was estimated for the artisanal fishery in Cayman waters (see Table 1). Similar to what was described above for the artisanal sector, serranids were more heavily exploited in earlier time periods than they are today and catches in recent times are dominated by the lutjanids family (J. Bothwell, pers. obs., DoECI; Table 1).

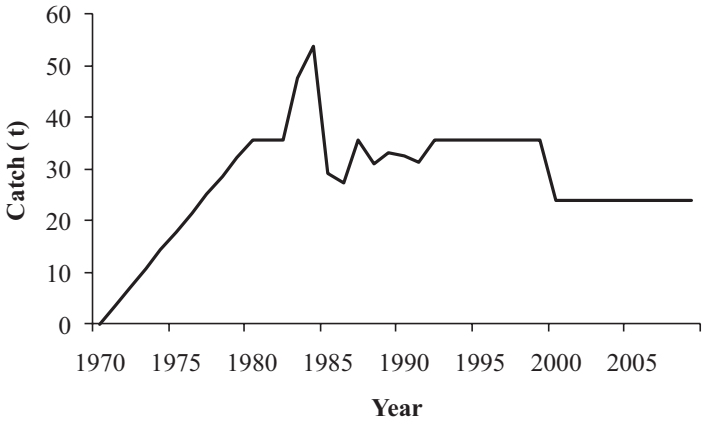

Figure 3. Estimated catches for the Cayman Islands offshore recreational fishery for billfishes, 1970-2007.

Eastern Central Atlantic (FAO Area 34)

FAO FishStat revealed Cayman flagged vessels fishing for both yellowfin and skipjack tuna in the Eastern Central Atlantic (FAO Statistical Area 34) during the years 1980-1982. Nantantian decapods were also reported by the Cayman Islands in this area for the period 1979-1993. The majority of tuna fishing in the

Eastern Atlantic is by purse seine (Joshi, 1993), and the vessels fishing in the Eastern Central Atlantic are likely to be flag of convenience operations, and not Cayman owned vessels (J. Bothwell, pers. obs., DoECI). Very few true distant water fleets are operated from Latin America in general, and the Cayman Islands are a popular choice for registration of foreign vessels. This is due to the presence of a stable government and dependable legal system (Beaudry and Folsom, 1993).

No reconstructive effort was applied to the data from FAO Area 34, as it is quite common for these types of vessels to obtain licenses for short periods of time. In addition, no further evidence of these fishing operations could be found in the literature.

RESULTS

Western Central Atlantic (FAO Area 31)

Fishing in Cayman waters

Catches by the inshore (artisanal) sector totalled 232 t between 1950 and 2007, based on 4 t·year^{-1} (the average of the source data of 3-5 t·year^{-1}). This total included approximately 58 t of subsistence catches, 58 t of commercial catches and 116 t from the inshore recreational fishery.

Catches by the offshore recreational billfish fishery were estimated to be approximately 1068 t over the 1970-2007 time period. Catches peaked during the 1980s and 1990s and then declined to present day catches of approximately 23 t·year^{-1} (Figure 3). The taxonomic breakdown applied throughout the time period was 96% Atlantic blue marlin, 3% Atlantic white marlin, 1% Sailfish and a small number of Longbill spearfish (<0.5%).

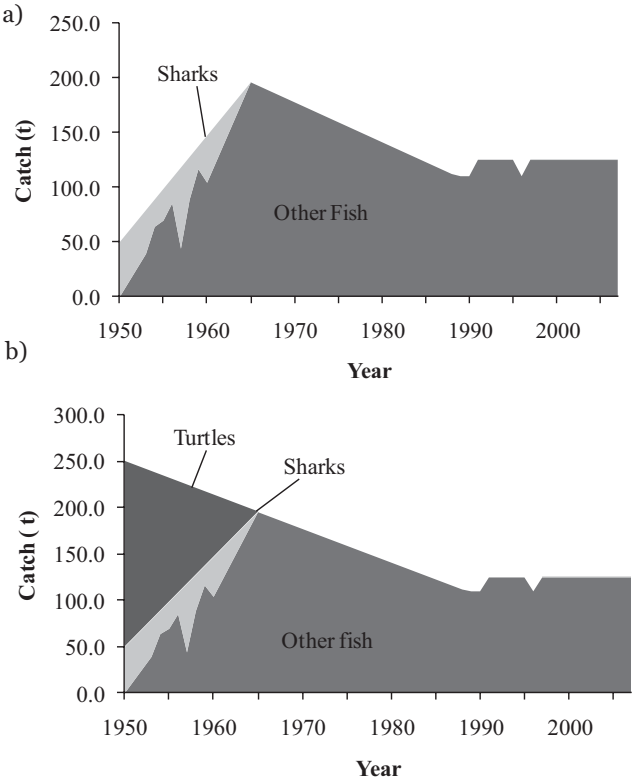

Figure 4. a) Catches included in our reconstruction of marine fisheries catches by the Cayman Islands, 1950-2007. b) Turtle, shark and other fish catches. Turtle catch used only in calculating catches of other fish (see Methods).

Fishing in Foreign waters

Total catches of approximately 7,789 t were estimated to have been taken by Cayman vessels outside of the Cayman EEZ. Included in this total were 520 t of shark caught between 1950 and 1965, and 7,269 t of other fish caught between 1950 and 2007 (Figure 4a). The sharks were mainly caught in the waters of Nicaragua, Costa Rica and Honduras, whereas the majority of other fish catches were from Honduran and Colombian waters.

The shark catch was thought to predominantly consist of nurse sharks with a minor component of tiger sharks. Shark fishing appears to have peaked in 1935, when almost 12,000 hides or 518 t of shark were caught and exported. A secondary peak in catches occurred in 1957 when 1,700 hides or 74 t of shark were exported. The trade collapsed to between 21 and 43 t in the last two years data were recorded (1959 and 1960). In

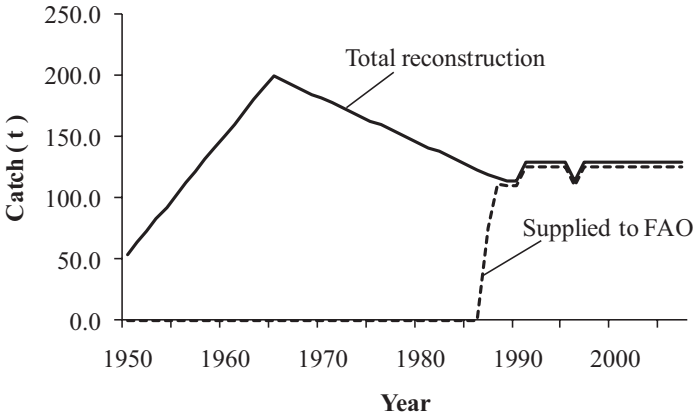

Figure 5. Estimated total marine fisheries catches by the Cayman Islands, inside and outside of the Cayman EEZ, within FAO statistical Area 31 for the 1950-2007 time period as compared to the catch total supplied to the FAO.

these final years of reporting catches were about 4% of the mid-1930s catch.

Catches of other fish were mainly serranids and lutjanids in the early time period, whereas the catch was dominated by lutjanids in later years. Fish catches peaked in the late 1960s, declining until the 1990s when catches levelled off, remaining relatively constant thereafter.

Total Reconstructed Catch

Our reconstruction of marine fisheries catches by the Cayman Islands for the period 1950-2007 was estimated to be approximately 8,200 t (Figure 5). This total is 3.2 times larger than the amount presented by the FAO on behalf of the Cayman Islands for catches taken in FAO Statistical Area 31. Catches supplied to the FAO and presented as Cayman Island catches are for fisheries in non-Cayman Island waters only and appear to under-report actual catches. We estimated that additional catches by Cayman vessels fishing outside of Cayman waters in the early period (1950-1980s) and catches by the inshore (artisanal) sector inside of Cayman waters over the entire time period, added 5,500 t to the total catches presented by the FAO on behalf of the Cayman Islands over the study period (1950-2007).

Eastern Central Atlantic (FAO Area 34)

According to FAO statistics, Cayman registered vessels fishing in Statistical Area 34 landed a total of 8,495 t of nantantian decapods during the period 1979-1993, with a peak catch of 1,021 t·year^{-1} in 1987 (Figure 6). A total of 2,162 t of yellowfin tuna were caught during the 1980-1982 period, with a peak catch of 1,460 t in 1981 and a minimum catch of 100 t in 1982. Between 1980 and 1982, 2,119 t of skipjack tuna were landed, peaking in 1981 at 1,800 t and decreasing to a minimum of 30 t by 1982.

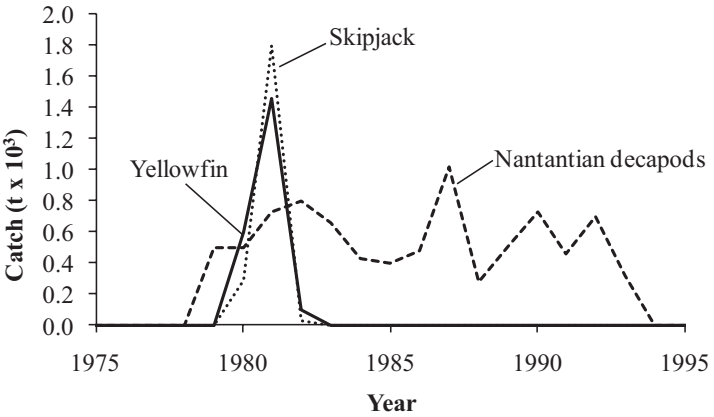

Figure 6. Catches of skipjack tuna, yellowfin tuna and nantantian decapods in the Eastern Central Atlantic (FAO statistical area 34) by Cayman Island registered vessels, 1950-2007.

DISCUSSION

Total marine fisheries catches by the Cayman Islands (excluding catches by Flag of Convenience vessels in Area 34) were over 3 times larger than those presented by the FAO on behalf of the Cayman government. While some Cayman Islands catches were presented in FAO fisheries statistics between 1950 and 2007, these data under-report actual catches. We know from Thompson (1944) that fisheries resources were not plentiful in local waters, even at the beginning of the 20th century, which is likely why the offshore sector developed so early (pre-1950). Despite having limited fishing opportunities in local waters, some catches were taken inside the Cayman Island's EEZ, which have not been represented in fisheries reports. Fisheries catches outside of the Cayman EEZ have, in part, been accounted for in the catch statistics supplied to the FAO; however we estimate that catches were under-reported in the early time period, and those that have been described lack taxonomic detail. Here, we reconstructed marine fisheries catches by identifying additional fisheries sectors, including the inshore (artisanal) fisheries, offshore recreational fishery and shark fishery, which have been neither represented in FAO data nor have they been documented in detail in the literature.

Although early fishing efforts targeting nurse sharks and tiger sharks in the Caribbean Sea were documented in the literature, they have not been included in the catch statistics supplied to the FAO. This industry was rather short-lived due to the exploitative rate at which sexually mature female sharks were targeted for the size and quality of their hides. Catches peaked very early on in the lifespan of this fishery (1930s), and had declined substantially by the 1960s. This fishery occurred-primarily as a by-product of

green turtle fishing (Thompson 1944); therefore, the introduction of conservation laws for marine turtles in the mid-1960s, likely also led to the observed decline in shark catches. As turtle and shark fisheries declined, fishers presumably started targeting snapper and grouper, which could be sold or exported, though this did not generate the revenue that was no longer provided by the previously lucrative shark and turtle trade. As the fisheries declined and vessel technology changed most of the fishers switched careers to the merchant marine, crewing mainly on vessels from other countries.

In this report, we included the tuna and decapod catches from the Eastern Central Atlantic, presented by the FAO as Cayman Island catches. These catches were likely to have been taken from vessels that were re-flagged from another country of origin. Historically, the Cayman Islands were a popular choice to register foreign vessels, but in 1989, the Cayman government rendered the registration of such vessels illegal, and the practice appears to have been discontinued. These catches were not included in our reconstruction of marine fisheries catches as these were not catches made by the Cayman Islands.

While Cayman fisheries seem very small and of little economic significance, getting a better understanding of catches, especially with respect to their taxonomic composition, should be considered a relevant and worthwhile pursuit, as the Cayman Islands struggle with growing ecosystem problems due to development and population pressure. Recreational fisheries have potentially greater economic significance as does the revenue from dive tourism. Both of these activities require that a healthy ecosystem be maintained.

In closing, though commercial fisheries are no longer the mainstay of Cayman residents, small-scale fisheries persist, and an increased effort in documenting catches to the level of species is integral to the health of fisheries resources. The current data submitted to FAO do not provide accurate or reliable information to manage Cayman Island fisheries, as these report only catches taken outside of their waters.

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