

RECONSTRUCTING FISHERIES CATCHES FOR CAMEROON BETWEEN 1950 AND 2010¹

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ABSTRACT

Total catches for Cameroon, West Africa, are reconstructed to include sectors that were unaccounted or not properly accounted for, i.e., parts of the artisanal sector, the subsistence sector, bycatch and discards of the industrial sector, as well as illegal foreign fisheries. Reconstructed catches were estimated at 15,000 t in 1950 (compared to 12,000 t reported by the FAO on behalf of Cameroon), increased to a first peak of 89,300 t in 1977, declined to 61,900 t in 1986, then increased again to reach a peak of 115,000 t in 2003 (FAO: 62,800 t), before declining to 80,100 t in 2010 (around 15,100 t higher than the data supplied to the FAO). Overall, there are two main discrepancies between reconstructed data and the data supplied to the FAO: the former are 40% higher than the latter and the trend of the former is consistent with an over-exploitation status of marine fisheries resources of Cameroon, while the FAO data, which shows a pattern of increasing catches, are not. Artisanal fisheries, and thus fish species that are consumed locally, such as sardinellas and bonga shad make up for most catches. This further denotes the relatively important role fisheries play for food security in Cameroon.

INTRODUCTION

Cameroon is located in central West Africa, bordered by Nigeria from the north, the Central African Republic and Chad from the east, Gabon from the south and the Atlantic Ocean from the west (Figure 1). The geographic location of Cameroon, facing Bioko Island (Equatorial Guinea) from the West, makes its EEZ relatively small (14,693 km²), smaller than even the tiny EEZs of Benin and Togo. This, despite a relatively large continental shelf, limits economic maritime activities in the country.

Cameroon was colonized by Germany, then, following WWI, by both the U.K. and France. In 1960, 'French' Cameroon obtained its independence, later joined by 'British' Cameroon. Thus, the Federal Republic of Cameroon was born, which, however, maintained strong political and economic ties with France. A civil war gave birth to a repressive dictatorship by the first president of Cameroon, which lasted 22 years, soon followed by a military coup in 1984. The first elections, marred by electoral fraud, were held in 1992 and 1997. Despite major apparent political improvements, there are disputes between the English-speaking southwest region of the country and the French speaking majority in the rest of Cameroon, a colonial legacy that continues to cause problems.

Cameroon economy relies heavily on extractive industries (oil) and agriculture (cocoa, coffee and cotton). Despite good agricultural conditions and abundant oil reserves, which make Cameroon one of the best primary-commodity economies of Sub-Saharan Africa, political conflicts have contributed to decreasing the GDP by 60% from the mid-1980s to the mid-1990s. Recent reforms, notably in the agriculture and some industrial sectors, have contributed to increasing the GDP. However, many issues still hobble the country, and affect both the general population and the economy, notably major electricity deficits and limited access to safe drinking water (OECD 2007). These issues are amplified by high corruption and rampant abuse of human rights (OECD 2007), which increase the food insecurity of Cameroon's population.

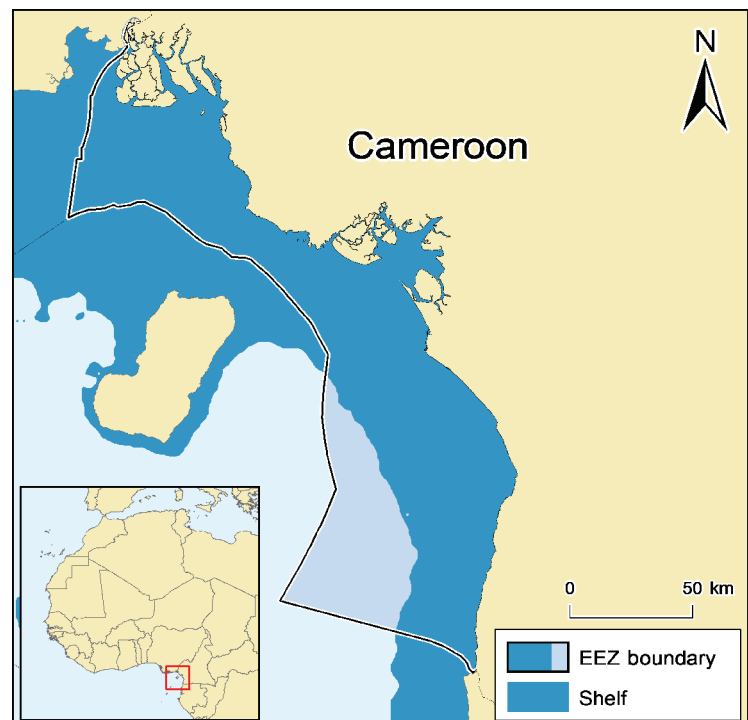


Figure 1. Map of Cameroon and its Exclusive Economic Zone (EEZ).

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Fisheries in Cameroon play an important role as fish represents 25.5% of animal protein consumption (Anon. 2009). Moreover, artisanal fisheries alone generate over 119 Billion CFA (240 million USD) per year (Ngok *et al.* 2005). Surprisingly, despite this important role, the fisheries sector is neglected. Indeed, currently in Cameroon there is no data collection system for fisheries. “Existing statistics in the artisanal sector are just vague estimations and extrapolations and the actual volume of fish production in this sector is unknown” and “bycatch [...] is not taken into account in the national statistics, due to lack of log books on vessels.” (ENVIREP-CAM 2011). This low monitoring performance is illustrated by the fact that artisanal catches (marine, continental and aquaculture) were reportedly unchanged from 1999 to 2010 (Nnana Noah 2010). The lack of knowledge of the fisheries sector performance and removals has resulted in a severe over-exploitation, documented since the mid-1980s, yet fishing effort has increased drastically since then (Djama and NNa Abo’o 1999). Here, we attempt to address this lack of knowledge by reconstructing catch data for Cameroon, based on a detailed analysis of the existing literature on Cameroon’s fisheries.

METHODS

Total and coastal population

Total population of Cameroon was extracted from the World Bank database (www.worldbank.org) between 1960 and 2010 and completed using data from www.populstat.info. Coastal population data, i.e. rural population living within 5 km from the coast, for 1990, 2000 and 2010 were obtained from CIESIN (2012), which allowed estimating a percentage of 1.13% of Cameroon’s population as coastal. We assumed this percentage for 1950 and obtained the coastal population for the same year. We interpolated to fill in the gaps (Figure 2).

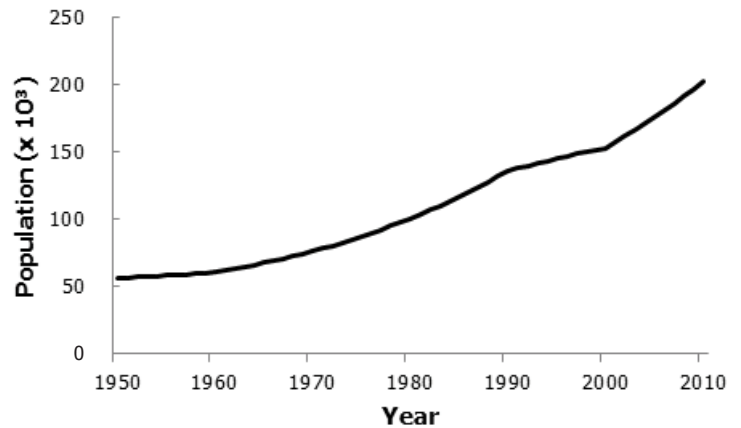


Figure 2. Cameroon’s rural population living within a range of 5 km from the coast, 1950-2010.

Subsistence catches

Lagoin and Salmon (1970) documented a survey-based estimate of fish consumption rate ranging between 30 and 48 kg·person⁻¹·year⁻¹, i.e. 39 kg·person⁻¹ for 1961. In 1967, 3,048 t were caught and consumed by subsistence fishers. We assumed the consumption rate was constant between 1950 and 1961. We multiplied the consumption rate for 1950 by the coastal population estimated for 1950 and obtained a subsistence catch of 2,178 t. Similarly, we assumed the previous consumption rate from subsistence fishing declined by 70% in 2010, i.e. 11.7 kg·person⁻¹ due to increasing fish availability from artisanal fisheries, and we multiplied this rate by the coastal population for 2010. We then interpolated between the previous estimates to complete the time series between 1950 and 2010.

The catch composition of subsistence catches is given as a list with no further indication of the percentage (ENVIREP-CAM 2011): marbled swim crab (*Callinectes marginatus*), African ghost crab (*Ocyropa ippeus*), common cuttlefish (*Sepia officinalis*), sea snail (*Mytilus tenuistriatus*), oysters (*Crassostrea gasar*, *Cypraecassis rufa*), mudskipper (*Periophthalmus hoelferi*), African sicklefish (*Drepana africana*), groupers (*Epinephelus* spp.), Alexandria pompano (*Alectis alexandrina*), Blue runner (*Caranx crysos*), Atlantic bumper (*Chloroscombrus chrysurus*), round scad (*Decapterus punctatus*), bigeye scad (*Selar crumenophthalmus*), greater amberjack (*Seriola dumerili*), African moonfish (*Selene dorsalis*), pompano (*Trachinotus ovatus*), barracudas (Sphyraenidae), bigeye tuna (*Thunnus obesus*), West African Spanish mackerel (*Scomberomorus tritor*), Dasyatidae, brown ray (*Raja miraletus*), and flathead grey mullet (*Mugil cephalus*). In the absence of detailed information, we allocated the same percentage to every taxon.

Artisanal catches

There is no licensing system for artisanal fisheries in Cameroon despite the high percentage (85%) of foreign artisanal fishers (ENVIREP-CAM 2011). This also applies to monitoring of artisanal catches, which is virtually absent (Kamgaing 2009). Estimates of artisanal catch were available through different literature sources for 1967 and 1970 (Laure 1972), 1980 (Ssentongo and Njock 1987), 1987 (Seck 1987), 1990 (Bamou 1997), 2003 (Nnana Noah 2010), 2009 (ENVIREP-CAM 2011) and 2012 (Anon. 2013). We assumed artisanal catches in 1950 were 20% lower than the catch in 1967, given the documented increasing pattern of catches (Lagoin and Salmon 1970). We then interpolated to fill in the gaps between 1950 and 2010. We summed artisanal and industrial landings (see below for industrial landings), and adjusted artisanal landings upwards whenever FAO data were higher than the sum, based on the assumption that the difference is due to under-reporting of artisanal catches.

To disaggregate catches taxonomically, we assumed the same species composition as in the landing statistics presented by FAO on behalf of Cameroon, and disaggregated the “marine fishes nei” group using the species list provided above (see subsistence catches section).

Industrial catches

While industrial fishing in Cameroon began with a failed attempt by a German company in Douala in 1912, it was only in 1951 that first successful industrial fishing operation was conducted (Laure 1972). Industrial fishing in Cameroon is carried out by nationally flagged vessels, mostly targeting demersal resources (Anon. 2010). The main highlights of the industrial fisheries of Cameroon are the shrinking of fishing area when Gabon declared national waters in 1970 (Laure 1972), along with a significant increase in vessel efficiency and size since the 1950s (ENVIREP-CAM 2011) to counter the effects of over-exploitation. We assumed the contribution of catches from Gabon increased linearly from 30% in 1960 to 80% in 1970 before collapsing to zero in 1973. Industrial catch data are collected from Douala port by the National Institute of Statistics (Institut national de la statistique du Cameroun). These data presented on the website of the organization are incomplete.² Furthermore, they do not include catches that are exported at sea, landed in Nigeria or those landed in Cameroon's military port of Tiko (ENVIREP-CAM 2011).

We interpolated landings data provided by different literature sources between 1950 and 2010 (Laure 1972; Ssentongo and Njock 1987; Bamou 1997; Djama and NNa Abo'o 1999; Nnana Noah 2010; ENVIREP-CAM 2011). These data serve as a baseline for estimating the under-reported component.

For every kg of shrimp caught by shrimp trawlers there is around 8 kg of bycatch (46% of fish for 6% of shrimp) (ENVIREP-CAM 2011). Although shrimp fishery bycatch are not reported, we herein conservatively assume that only half of the fish bycatch is not reported, i.e., 4 kg of fish for every 1 kg of shrimp. This approach is very conservative since it assumes all shrimp catch by shrimp trawler is reported and all fish catch by demersal trawlers is reported. Similarly, crab catches represent 1.33 times the shrimp catch. We applied this rate to shrimp catches and estimated unreported crab catches.

The demersal fleet of Cameroon comprises Chinese reflagged vessels since the early 2000s, 11 vessels were licenced in 2003 and 8 vessels between 2006 and 2007, which we conservatively assumed constant between then and 2010 (Pauly *et al.* 2013). We estimated the CPUE of demersal boats operating in Cameroon between 2000 and 2010 based on the estimated catch (all trawlers together) and the number of fishing boats provided by the literature (Nnana Noah 2010; ENVIREP-CAM 2011), then we multiplied these by the interpolated number of Chinese vessels to estimate that part of the demersal catch which ownership could be allocated to China. We used data in Lagoin and Salmon (1970) to taxonomically disaggregate the unreported component of industrial catches (Table 1).

Discards

Around 25% of shrimp trawl catches are discarded (ENVIREP-CAM 2011), i.e. 33% of landings. Herein, we multiplied the estimated industrial shrimp catches by 33% to estimate discards from 1950 to 2010. For demersal trawl, Kelleher (2005) estimated that 0.6% of demersal trawl catches were discarded. Thus demersal trawl discards range between 0.6% and 33%, i.e. 16.8%. We applied this rate to the estimated demersal trawl landings between 1950 and 2010. We assumed the same species disaggregation than for bycatch above.

Illegal catches

Although Cameroon declared an EEZ as late as 2000, there were already "illegal" fishing vessels in 1989, when Cameroon arrested 9 vessels fishing illegally within their waters (ENVIREP-CAM 2011). We assumed that this number corresponded to the number of vessels fishing illegally in Cameroon for that year and multiplied it by a CPUE of 258 t·boat⁻¹·year⁻¹ obtained by dividing the total legal industrial (demersal trawl) catch (9,020 t·year⁻¹) by the number of legal boats for the same year, i.e. 35 (Bamou 1997). Chinese illegal vessels caught an estimated 9,500 t in 2009 (Pauly *et al.* 2013). We interpolated to fill in the gaps.

As for the nationality of illegal fishing vessels, we relied upon the profile of illegal fleets from the country that is immediately adjacent to Cameroon, i.e., Equatorial Guinea's Bioko Island. In Equatorial Guinea, illegal catches were taken by Russian fleets between 1980 and 1989 and Chinese fleet between 1985 and 2010 (Belhabib *et al.* 2014). We assumed proportionality and applied the disaggregation to illegal catches from Cameroon waters. We assumed the same species disaggregation than for domestic industrial fisheries above.

² <http://www.statistics-cameroon.org/manager.php?id=9&id2=53&link=6>

Table 1. Composition of the catch of Cameroon's industrial fisheries (Lagoin and Salmon 1970).

Common name	Scientific name	%
Bigeye grunt	<i>Brachydeuterus auritus</i>	40.5
Croaker	<i>Pseudotolithus</i> spp.*	31.9
Claroteid catfishes	<i>Chrysichthys</i> spp.	6.0
Giant African threadfin	<i>Polydactylus quadrifilis</i>	5.1
Tongue soles	<i>Cynoglossus</i> spp.	4.6
Rays	<i>Raja</i> and other genera	2.7
African sicklefish	<i>Drepane africana</i>	2.3
Shrimps	Peneidae	1.8
Canary drum	<i>Umbrina canariensis</i>	1.1
Marine fishes nei	-	4.0

* including *P. senegalensis* and *P. typos* (see Djama 1988; Djama and Pitcher 1989)

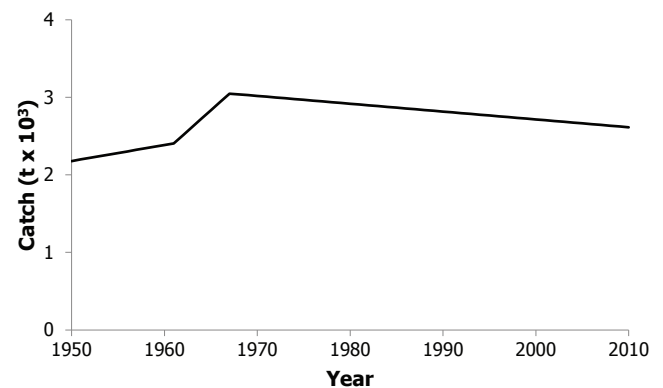


Figure 3. Reconstructed subsistence catches from Cameroon, 1950-2010.

et al. 2014). We assumed proportionality and applied the disaggregation to illegal catches from Cameroon waters. We assumed the same species disaggregation than for domestic industrial fisheries above.

RESULTS

Small scale catches

Subsistence catches increased from around 2,200 t in 1950 to 3,000 t in 1967 and then decreased to 2,600 t in 2010 (Figure 3).

Estimated artisanal catches varied between 1950 and 2010, however with a distinct increasing pattern until the mid-2000s. Artisanal catches increased from 12,300 t in 1950 to a peak of 93,200 t in 2003, passing by periods of decline notably between 1958 and 1966 and between 1980 and 1987 dominated by political instability within the country (Figure 4). Catches declined to less than 59,300 t in 2010 (Figure 4).

Industrial catches

Estimated industrial catches increased from 70 t in 1951 to a peak of around 39,000 t in 1971, declined rapidly between then and the early 1980s when the offshore fleet stopped operating in Gabon. Catches kept on declining, although less rapidly, to around 18,000 t in 2010. Chinese reflagged vessels caught less than 600 t in 2001, around 1,000 t in 2008 and less than 1,000 t in 2010 (Figure 5).

Discards

Estimated discards increased from around 10 t in 1951 to a peak of 7,900 t in 1977 following increasing industrial catches from Cameroon, then declined rapidly to 1,500 t in 2010 (Figure 6).

Illegal catches

Estimated illegal catches (considered unregulated until 2000) increased from low levels in the mid-1980s to 2,300 t in 1989 to 9,500 t·year⁻¹ in the late 2000s. Illegal catches, as reconstructed here, were overwhelmingly taken by Chinese vessels, with the remainder taken by Russian vessels.

Total catches

Total domestic (and reflagged) catches were estimated at 14,500 t in 1950 compared to 12,000 t reported to the FAO. Catches increased to a first peak of 89,300 t in 1977, following agriculture development policy in Cameroon, and then declined to 61,900 t in 1986 marking a period of political instability in the country. Catches increased later to reach a peak of 115,000 t in 2003 compared to 62,800 t reported to the FAO, before declining to 80,000 t in 2010, around 15,000 t higher than the data supplied to the FAO (Figure 8a). There is also a net discrepancy in trends between the reconstructed data and the data supplied to the FAO. The reconstructed catches shown a steady declining pattern compared to the FAO data, which were relatively constant since the mid-2000s (Figure 8a).

Overall, 68 taxa are caught within Cameroon waters (and caught in Gabon's EEZ, but landed in Cameroon). The artisanal sector dominates with over 71% of total catches and industrial contributing 21% (Figure 8a). Catches include mainly bonga shad (25%) and a declining catch of sardinella (19%), which were previously the prime focus of the little attention Cameroonian fisheries biologists could afford to give to their marine resources (Djama *et al.* 1989a; 1989b; 1990).

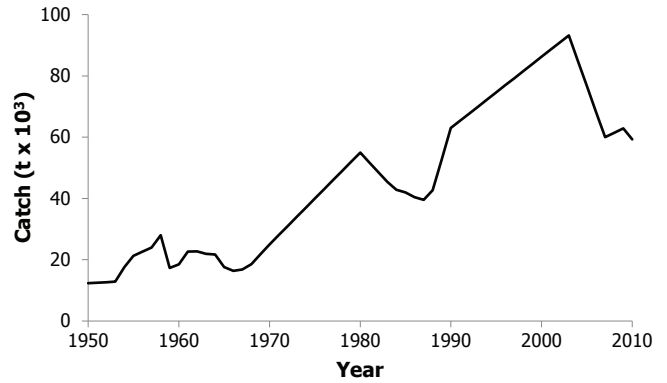


Figure 4. Reconstructed artisanal catches from Cameroon, 1950-2010.

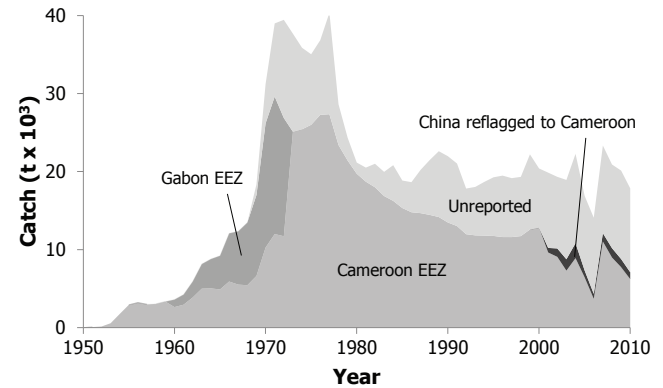


Figure 5. Cameroon reconstructed industrial landings from Cameroon and Gabon EEZs by the domestic and reflagged fleets, 1950-2010. Catches from the Gabonese EEZ were taken by the real domestic fleet of Cameroon and landed in Cameroon.

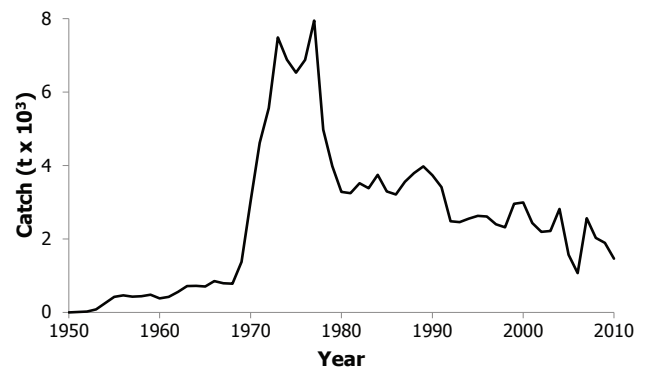


Figure 6. Reconstructed discards from Cameroon, 1950-2010.

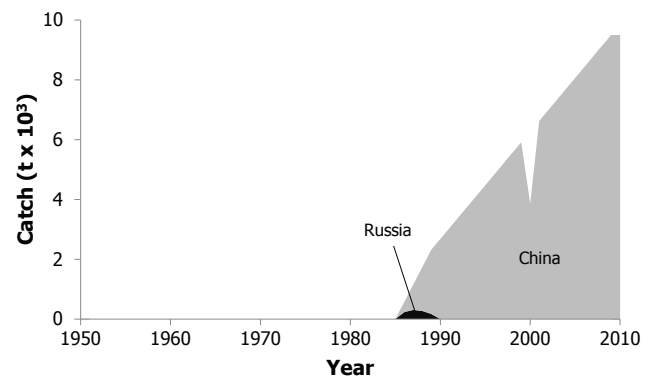


Figure 7. Reconstructed (unregulated and) illegal catches from the waters off Cameroon, 1950-2010.

DISCUSSION

Total catches from the EEZ of Cameroon were marked by two main cycles; catches increased to a first peak in the 1970s following main agricultural reforms and development projects focusing on the primary sector industry, before decreasing rapidly following a period of instability; the second cycle was marked by the highest peak of catches which reached over 109,000 t·year⁻¹ in the early 2000s, which were highly divergent with the data supplied to the FAO in amount and trend. Overall, reconstructed total catches were about 50% higher than the data supplied to the FAO. Although this discrepancy is not negligible, it is much smaller than the West African average.

The taxonomic separation between the industrial and small-scale fisheries suggested by the catch composition data presented above probably does not occur in reality, as the over-exploitation of the small EEZ of Cameroon forces small-scale fishers to shift to estuarine species (such as estuarine shrimps) to maintain their catches. Thus, the decline in under-reporting, rather than being a sign of improvement, probably reflects decreasing catches. This is masked by a false increasing trend in the official data, likely due to improved monitoring.

This study demonstrates that there is much room for improvement in Cameroon's statistical system. For example, the registration system for artisanal fisheries is virtually inexistent. Thus, accounting for catches is merely occasional, and occurs mainly when fisheries scientist require data for their research. Also, landing operations and reporting by industrial fleets are hardly controlled. Ironically, a part of the (unreported) industrial catches are landed in the only military port of the country. Moreover, management of Cameroon fisheries is a recent initiative, as the first fishery policy document for Cameroon was formulated in 2011 (ENVIREP-CAM 2011).

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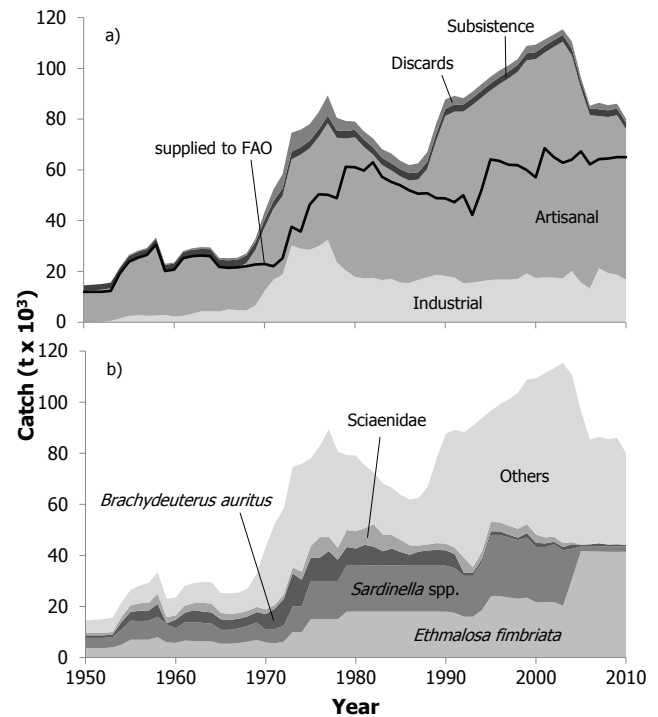


Figure 8. Reconstructed total catches by a) sector as compared to FAO with solid line indicating data supplied to FAO, and b) taxonomic group from Cameroon's EEZ, 1950-2010. 'Others' consist of 64 additional taxonomic categories.

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Appendix Table A1. FAO landings vs. reconstructed total catch (in tonnes), and catch by sector with discards shown separately, for Cameroon, 1950-2010.

Year	FAO landing	Reconstructed total catch	Industrial	Artisanal	Subsistence	Discards
1950	12,000	14,500	0	12,300	2,180	0
1951	12,000	14,800	60	12,500	2,200	10
1952	12,000	15,000	120	12,700	2,220	20
1953	12,300	15,700	480	12,900	2,240	81
1954	19,100	21,600	1,500	17,600	2,260	252
1955	23,800	26,500	2,500	21,300	2,280	420
1956	25,400	28,200	2,750	22,700	2,300	462
1957	26,500	29,300	2,553	23,900	2,320	429
1958	30,600	33,400	2,610	28,000	2,340	438
1959	20,200	23,000	2,860	17,300	2,360	480
1960	20,734	23,500	2,254	18,500	2,390	379
1961	25,195	28,000	2,514	22,700	2,410	422
1962	26,047	29,100	3,302	22,700	2,510	555
1963	26,240	29,600	4,276	22,000	2,620	718
1964	26,031	29,500	4,308	21,700	2,730	724
1965	21,772	25,300	4,187	17,600	2,830	703
1966	21,419	25,200	5,058	16,400	2,940	850
1967	21,562	25,400	4,720	16,800	3,050	793
1968	22,063	27,100	4,653	18,600	3,040	782
1969	22,728	32,800	6,621	21,800	3,030	1,376
1970	22,876	43,300	12,259	25,000	3,020	3,026
1971	22,076	52,400	16,751	28,000	3,010	4,618
1972	25,242	58,300	18,728	31,000	3,000	5,566
1973	37,600	74,700	30,184	34,000	2,990	7,489
1974	35,736	75,800	28,991	37,000	2,980	6,880
1975	46,280	78,000	28,512	40,000	2,970	6,529
1976	50,397	82,800	29,973	43,000	2,960	6,877
1977	50,167	89,300	32,407	46,000	2,950	7,944
1978	48,867	80,600	23,648	49,000	2,940	4,978
1979	61,214	79,300	20,358	52,000	2,930	3,982
1980	61,045	79,100	17,878	55,000	2,920	3,278
1981	59,761	75,200	17,264	51,800	2,910	3,247
1982	63,012	72,500	17,486	48,600	2,900	3,517
1983	57,277	68,200	16,584	45,400	2,890	3,382
1984	55,299	66,500	17,073	42,800	2,880	3,748
1985	53,969	63,700	15,563	41,900	2,870	3,292
1986	51,981	61,900	15,434	40,400	2,860	3,209
1987	50,637	62,600	16,659	39,500	2,850	3,557
1988	50,800	67,000	17,683	42,700	2,840	3,792
1989	48,830	78,300	18,633	52,800	2,830	3,978
1990	48,743	87,800	18,238	63,000	2,820	3,734
1991	47,319	89,200	17,626	65,300	2,810	3,408
1992	49,975	88,300	15,346	67,600	2,800	2,480
1993	42,258	90,800	15,577	70,000	2,790	2,458
1994	52,021	93,800	16,133	72,300	2,780	2,552
1995	64,132	96,700	16,640	74,600	2,770	2,630
1996	63,530	99,200	16,876	76,900	2,760	2,609
1997	62,001	101,200	16,760	79,300	2,750	2,398
1998	61,801	103,700	17,007	81,600	2,740	2,317
1999	60,001	108,900	19,252	83,900	2,730	2,957
2000	57,110	109,400	17,408	86,200	2,720	2,992
2001	68,531	111,400	17,649	88,600	2,710	2,433
2002	65,135	113,300	17,541	90,900	2,700	2,195
2003	62,802	115,400	17,288	93,200	2,690	2,214
2004	64,001	110,600	20,192	84,900	2,680	2,819
2005	67,346	96,500	15,681	76,600	2,660	1,568
2006	62,233	85,300	13,263	68,300	2,650	1,070
2007	64,233	86,400	21,234	60,000	2,640	2,564
2008	64,501	85,500	19,391	61,400	2,630	2,027
2009	65,001	86,100	18,672	62,900	2,620	1,895
2010	65,001	80,100	16,758	59,300	2,610	1,461

Appendix Table A2. Reconstructed total catch (in tonnes) by major taxonomic groups for Cameroon, 1950-2010. "Others" contain 64 additional taxonomic categories.

Year	<i>Ethmalosa fimbriata</i>	<i>Sardinella</i> spp.	<i>Brachydeuterus auritus</i>	Sciaenidae	Others
1950	3,700	4,000	1,000	1,000	4,800
1951	3,700	4,000	1,000	1,000	5,070
1952	3,700	4,000	1,000	1,000	5,340
1953	4,000	4,000	1,000	1,000	5,660
1954	5,000	6,000	3,000	2,000	5,610
1955	7,000	7,400	3,500	2,500	6,100
1956	7,000	7,300	4,000	3,000	6,860
1957	7,000	7,400	4,000	3,000	7,850
1958	8,000	8,000	5,000	4,000	8,380
1959	6,000	7,000	400	2,400	7,250
1960	5,730	5,730	3,340	1,720	6,970
1961	6,660	7,040	3,800	2,850	7,680
1962	6,490	7,420	4,630	2,780	7,800
1963	6,430	7,140	4,460	3,390	8,160
1964	6,290	6,990	4,370	3,490	8,340
1965	5,420	5,420	4,170	2,500	7,790
1966	5,430	5,430	3,880	2,330	8,140
1967	5,690	5,690	3,800	2,280	7,940
1968	6,230	6,230	3,660	2,200	8,750
1969	6,870	6,870	4,070	2,060	12,960
1970	5,900	4,960	6,210	1,770	24,460
1971	5,560	5,560	8,010	1,520	31,720
1972	6,250	6,250	10,490	1,730	33,580
1973	10,000	10,000	12,950	2,370	39,340
1974	10,000	10,000	10,440	3,220	42,190
1975	15,000	15,000	9,170	4,540	34,310
1976	15,000	15,000	9,120	8,000	35,690
1977	15,000	15,000	11,690	5,660	41,940
1978	15,000	15,000	8,310	4,650	37,600
1979	18,000	18,000	7,260	6,670	29,330
1980	18,000	18,000	6,700	6,770	29,600
1981	18,000	18,030	8,120	6,540	24,520
1982	18,000	18,060	7,340	8,800	20,270
1983	18,000	18,030	5,620	6,520	20,030
1984	18,000	18,070	6,610	5,330	18,490
1985	18,000	18,050	5,260	4,740	17,600
1986	18,000	18,000	4,280	3,670	17,950
1987	18,000	18,000	5,510	2,360	18,710
1988	18,000	18,000	5,910	2,360	22,700
1989	18,000	18,000	6,200	2,620	33,450
1990	18,000	18,000	5,980	2,620	43,180
1991	17,480	17,490	5,500	2,560	46,130
1992	16,000	16,010	1,140	6,050	49,080
1993	16,000	16,010	1,130	2,300	55,350
1994	18,600	18,600	1,280	3,000	52,280
1995	24,000	24,000	1,410	3,680	43,570
1996	24,000	24,000	1,410	3,540	46,240
1997	23,500	23,500	1,090	3,500	49,580
1998	23,000	23,000	940	3,500	53,210
1999	23,500	23,500	1,720	3,500	56,630
2000	21,610	21,610	1,720	3,260	61,160
2001	21,640	21,640	1,400	2,400	64,270
2002	21,780	22,540	1,010	1,950	66,040
2003	20,230	21,760	1,310	1,560	70,550
2004	30,800	11,800	1,730	800	65,460
2005	41,700	1,810	690	40	52,290
2006	41,590	2,100	620	20	40,950
2007	41,490	2,100	1,130	20	41,690
2008	41,400	2,100	730	20	41,230
2009	41,400	2,100	850	20	41,690
2010	41,400	2,100	580	20	35,980