CRFM STATISTICS AND INFORMATION REPORT FOR 2020

CRFM Secretariat
Belize

CRFM Statistics and Information Report 2020

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CRFM Secretariat
Belize and St. Vincent and the Grenadines

CRFM STATISTICS AND INFORMATION REPORT – 2020

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CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

AC	Aquaculture
ACP	African, Caribbean and Pacific states
BHSFU	Belize High Seas Fisheries Unit
BOT	British Overseas Territories
CARICOM	Caribbean Community
CIA	Central Intelligence Agency
COVID-19	Coronavirus Disease
CRFM	Caribbean Regional Fisheries Mechanism
CWP	Coordinating Working Party on Atlantic Fishery Statistics
DECR	Department of Environment and Coastal Resources
ECCB	East Caribbean Central Bank
EEZ	Exclusive Economic Zone
EMS	Early Mortality Syndrome
FAD	Fish Aggregating Device
FAO	Food and Agriculture Organization of the United Nations
FRP	Fibreglass Reinforced Plastic
GDP	Gross Domestic Product
GRFP	Glass-fibre Reinforced Plastic
GRP	Glass Reinforced Plastic
JICA	Japan International Cooperation Agency
LOA	Length Overall
MCF	Marine Capture Fisheries
NFA	National Fisheries Authority
OECS	Organisation of Eastern Caribbean States
SIDS	Small Islands Development States
TCI	Turks and Caicos Islands
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	United States
WECAFC	Western Central Atlantic Fishery Commission
WWAP	World Water Assessment Programme

INTRODUCTION

The mission of the Caribbean Regional Fisheries Mechanism (CRFM) is "to promote and facilitate the responsible utilization of the region's fisheries and other aquatic resources for the economic and social benefits of the current and future population of the region" (CARICOM Fisheries Unit, 2002). The members of the CRFM are: Anguilla, Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago and the Turks and Caicos Islands.

The fisheries of Member States are an important foreign exchange earner and a primary contributor to income, employment, food security and social and economic stability, especially in coastal communities.

CRFM Member States are required to collect, manage and appropriately use scientific data and information to inform the fisheries management planning and decision making process, and fulfil international reporting requirements. Thus, one of the main activities of the CRFM focuses on the enhancement of fisheries data collection systems in the participating Member States. Activities that have been undertaken to improve data collection systems and capabilities of Member States include: training, provision of computers, development of a fisheries database and technical support.

Although data collection systems have improved over the years, Member States still struggle with data collection issues mainly due to the challenge of limited human and financial resources available for data collection and management activities at the national levels. Notwithstanding the above-mentioned constraints, Member States continue to collect and compile the best available data and information for planning and decision-making. It is in this context that the CRFM Statistics and Information Report has been compiled with the aim of providing, at the regional level, an information source for its Member States and other stakeholders to access the most up to date fisheries statistical information that are available from the CRFM Member States. It is hoped that the publication will provide Member States and stakeholders with a regional picture of the fishing fleet, fish production, number of fishers and employment in the sector and the economic importance of the fishery sector of the CRFM region.

This publication is primarily an update of the *CRFM Statistics and Information Report –2018* (CRFM, 2020) with data for 2019 and 2020. In cases where data for 2019 and 2020 were not available at the time of publication, these data will be updated in subsequent publications.

METHODOLOGY

Data were collected from the Fisheries Divisions / Departments, the Statistical Departments and other relevant authorities in the CRFM Member States. These sources are considered the primary sources. The national reports of the Member States submitted to the CRFM are also regarded as primary sources of data. Where it was not possible to collect data from the primary sources, or where data gaps existed, literature searches were conducted and data and information obtained from sources, such as publications by the FAO, project documents, industry magazines, or statistical publications.

CHAPTER 1: THE FISHERIES RESOURCES OF THE CRFM REGION

1.1 Land area, coast line, continental shelf area and EEZ of CRFM Member States

The Member States of the CRFM are 14 sovereign Small Island Developing States (SIDS) and three British Overseas Territories (BOT) (Table 1). Most Member States have exclusive economic zones (EEZs) many times the land area (Table 2). The combined land area of CRFM Member States is 433,549 km^2 whereas the area of the combined EEZ[1] is on the order of 2,060,721 km^2 as some Member States are still negotiating delimitation issues with neighbouring States. The shelf areas; defined as continental shelf areas from shore to a depth of 200 metres (Zeller and Pauly, 2015) and the inshore fishing areas; defined as the area that extends from shore to either 50 km offshore or to the 200 metres depth contour, whichever comes first (Chuenpagdee *et al.* 2006) only for territories that are inhabited and have local fisheries (Zeller and Pauly, 2015), were also sourced from the Sea Around Us (2016) and are provided as indicative to what the exact figures might be[2].

Table 1: CRFM Member States and their affiliations to CARICOM, OECS and as SIDS

INDEPENDENT COUNTRIES	OVERSEAS TERITORIES
1. Antigua and Barbuda (SIDS, CARICOM, OECS)	Anguilla (OECS Associate Member, CARICOM Associate Member)
2. Bahamas (The) (SIDS, CARICOM)	Montserrat (CARICOM, OECS)
3. Barbados (SIDS, CARICOM)	Turks and Caicos Islands (CARICOM Associate Member)
4. Belize (SIDS, CARICOM)	
5. Dominica (SIDS, CARICOM, OECS)	
6. Grenada (SIDS, CARICOM, OECS)	
7. Guyana (SIDS, CARICOM)	
8. Haiti (SIDS, CARICOM)	
9. Jamaica (SIDS, CARICOM)	
10. St. Kitts and Nevis (SIDS, CARICOM, OECS)	
11. St. Lucia (SIDS, CARICOM, OECS)	
12. St. Vincent and the Grenadines (SIDS, CARICOM, OECS)	
13. Suriname (SIDS, CARICOM)	
14. Trinidad and Tobago (SIDS, CARICOM)	

[1] *Source of data - Sea Around Us (2016) and was determined as follows: Surface areas are expressed in km^2 and were obtained by overlaying a global 2-minute cell ESRI GRID of surface area values with a matching ESRI GRID of EEZs. For each EEZ the intersecting surface area based on the 2-minute raster was extracted and summed (Zeller and Pauly, 2015). The figure includes: the 12 nm territorial areas, as they were generally too small to differentiate at the scale of our global ½ degree cell grid system used to determine the EEZs (Zeller and Pauly, 2015).*

[2] *Disclaimer from Sea Around Us (2016); Maritime limits and boundaries depicted on "*Sea Around Us" *maps are not to be considered as an authority on the delimitation of international maritime boundaries.*

Table 2: Land area, coast line, exclusive economic zone (declaration year), shelf area, and inshore fishing areas of CRFM Member States

Member States	Land area (km^2)*	Coast line (km)*	EEZ (km^2)** (EEZ declaration year[3])	Shelf area (km^2)**	Inshore fishing areas (km^2)**
Anguilla	91	61	92 178 (1981)	2 120	2 031
Antigua and Barbuda	443	153	107 939 (1982)	3 886	3 764
Bahamas	10 010	3 542	628 026 (1977)	117 344	93 763
Barbados	430	97	183 773 (1979)	342	342
Belize	22 806	386	36 182 (1992)	10 491	10 491
Dominica	751	148	28 593 (1981)	356	356
Grenada	344	121	26 133 (1978)	2 709	1 902
Guyana	196 849	459	140 369 (1977)	50 506	22 690
Haiti	27 560	1 771	123 525 (1977)	5 672	5 672
Jamaica	10 831	1 022	263 284 (1991)	13 874	13 422
Montserrat	102	40	7 586 (1983)	168	168
St. Kitts and Nevis	261	135	10 209 (1984)	855	634
St. Lucia	606	158	15 472 (1984)	593	593
St. Vincent and the Grenadines	389	84	36 304 (1983)	2 340	2 223
Suriname	156 000	386	127 817 (1978)	53 738	18 422
Trinidad and Tobago	5 128	362	79 798 (1983)	23 236	18 717
Turks and Caicos Island	948	389	153 533 (1978)	5 560	5 560
Totals	**433 549**	**9 314**	**2 060 721**	**293 790**	**200 750**

Source: (*) Central Intelligence Agency; accessed 20 May 2020.
(**)Sea Around Us (2016).

1.2 Categories of fishery resources of the CRFM Member States

The fisheries resources of the CRFM Member States can be found in:

a) Inland waters[4] and or freshwater systems[5] (rivers, ponds, lakes, etc.)
b) Aquaculture[6] systems (systems used for farming aquatic animals)

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[3] This reflects the year in which this EEZ was officially declared by a country, or in cases where no EEZ was declared (or the exact date could not be ascertained), the year 1982 (conclusion of the UNCLOS convention) is the assumed declaration year (Sea Around Us, 2016).

[4] Inland waters; may be used to refer to lakes, rivers, brooks, streams, ponds, inland canals, dams, and other land-locked (usually freshwater) waters (FAO, 2002-2013).

[5] Freshwater ecosystems include lakes, rivers, ponds, streams, groundwater, springs, cave waters, floodplains, as well as bogs, marshes and swamps, which are traditionally grouped as inland wetlands (UNESCO, 1995 – 2012).

[6] The definition used for aquaculture in this paper is after FAO (2012b) and is understood to mean the farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants. Farming implies some form of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated. For statistical purposes, aquatic organisms which are harvested by an individual of corporate body which has owned them

c) Marine waters[7] (including the territorial sea, archipelagic waters, EEZ and high seas)

All the independent CRFM Member States are SIDS and are characterised by highly integrated ecosystems and sub-ecosystems linked to the marine environment. So too are the overseas territories which are not officially recognized SIDS, but share many common features of SIDS. The aquaculture systems depend on the inland and freshwater systems and the marine environment for water supply, and in turn the coastal marine environment is susceptible to changes and activities in the inland and freshwater systems and from aquaculture. Figure 1 provides a schematic representation of the linkages and sub-sectors of the fisheries sector of the CRFM Member States.

1.2.1 Fisheries of the inland waters and or fresh water systems of CRFM Member States

Information and data on the fisheries resources of the inland and fresh water systems of the region were limited, as most Member States do not collect data from this sub-sector. There is a great need for improved data collection and research to better understand the scope and importance of the fisheries in the inland and fresh water systems of CRFM Member States. However, the information that was available indicated that the exploitation of the fisheries resources of inland waters or fresh water systems of most of the CRFM Member States was important at the subsistence and/or cultural level. Eleven Member States indicated that the fisheries of the inland waters and fresh water systems (even in cases where the fishery did not produce large economic gains) were of importance to the cultural life of the country and / or played an important role at the subsistence level by providing protein to the local population (Table 3). With regards to economic gain from the fishery, eight Member States: Belize, Dominica, Guyana, Haiti, Jamaica, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago, had important economic activities and earnings from this sub-sector. Haiti, Suriname and St. Vincent and the Grenadines had estimates of the amount of fish produced from inland waters and fresh water systems, which stood at approximately 600 tonnes for Haiti (2009 estimate); 650 tonnes for Suriname (2014 estimate); and 3.9 tonnes (2017 estimate) and 1.52 tonnes (2018 estimate) for St. Vincent and the Grenadines.

throughout their rearing period contribute to aquaculture while aquatic organisms which are exploitable by the public as a common property resource, with or without appropriate licences, are the harvest of fisheries.

[7] *Marine waters; refers to oceans and seas including adjacent saltwater areas (FAO, 2002-2013).*

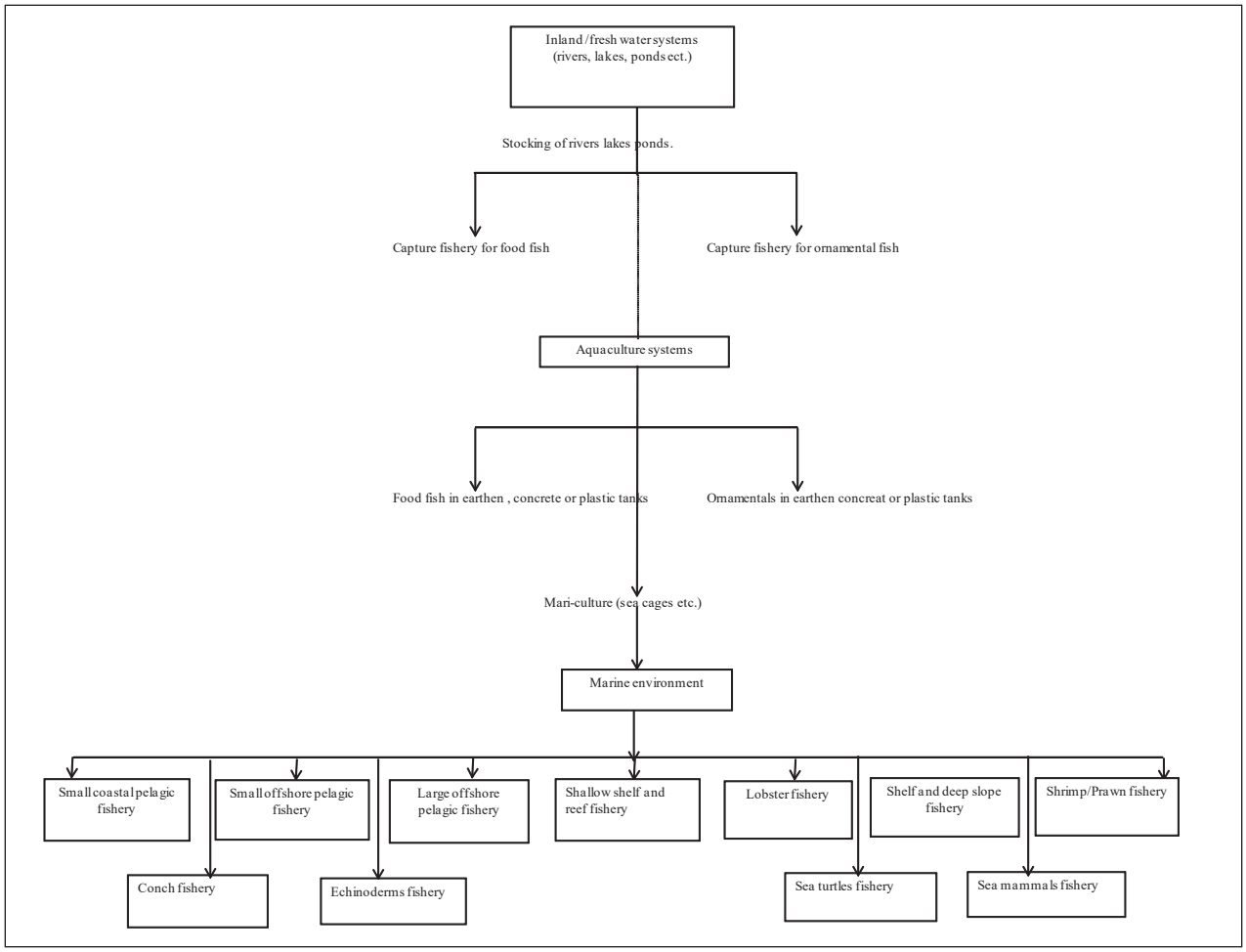

Figure 1: Linkages between and sub-sectors of the inland/fresh water systems, aquaculture systems and marine waters of CRFM Member States

Table 3: Status, cultural and or subsistence importance, economic importance and latest estimate of catch of the fisheries of inland waters /fresh water systems of CRFM Member States

Member States	Status of the fisheries of inland waters / fresh water systems	Fisheries of inland waters / fresh water systems are of cultural and / or subsistence importance	Fisheries of inland waters / fresh water systems are of economic importance	Latest estimate of catch from fisheries of inland waters / fresh water systems
Anguilla	Anguilla does not have rivers and its supply of drinking water is obtained from rain, wells, and desalination (PAHO, 2012). There are no fresh water systems in Anguilla. The inland water bodies are salt water ponds. There is a very small amount of recreational fishing occurring in the ponds for crabs, mullets and barracudas (K. Gumbs, personal communication, July 5, 2021).	No	No	0
Antigua and Barbuda	Traditional harvest of some freshwater and estuarine species at the subsistence level or for recreational purposes occurs in Antigua and Barbuda. The resources include mullet, tarpon, snook, tilapia, channel catfish (*Ictalurus punctatus*) and freshwater prawn (*Macrobrachium* spp.). (FAO, 2007b; I. Horsford, personal communication, May 26, 2021).	Yes	No	NA
Bahamas	There are no true rivers or streams on the Islands of The Bahamas. Inland water bodies are, in most instances, places where the water table is at or near the same level as the land surface (US Army Corps of Engineers, 2004). Fishing is not occurring in the inland waters / fresh water systems of The Bahamas (verified by G. Bethel, personal communication, May 30, 2021).	No	No	0
Barbados	The permanent and temporary freshwater catchments of Barbados serve as habitats for species of freshwater shrimps (Simmons & Associates, Inc. 2000), however no known commercial fishing activities occur in these fresh water catchment areas (verified by J. Leslie, personal communication, June 16, 2021).	No	No	0

Member States	Status of the fisheries of inland waters / fresh water systems	Fisheries of inland waters / fresh water systems are of cultural and / or subsistence importance	Fisheries of inland waters / fresh water systems are of economic importance	Latest estimate of catch from fisheries of inland waters / fresh water systems
Belize	The inland freshwater fisheries activities are primarily subsistence in nature. The species targeted include: the Baysnook (*Petenia splendida*), the Mayan cichlid locally called crana (*Cichlosomas urophthalmus*), redhead cichlid locally called tuba (*Cichlasoma synspilum*), the blue-eye catfish (*Ictalurus furcatus*) and the tilapia (*Oreochromis niloticus*). (Gillett and Myvette, 2008; R. Quintana, personal communications, 25 May 2021).	Yes	Yes	NA
Dominica	The traditional catching of goby fry (locally called *tetiri*) caught at river estuaries, is of some economic importance to some villages in Dominica, particularly the community of Layou situated on the west coast next to the Layou River (FAO, 2004 - 2013a; J. Defoe, personal communication, July 5, 2021).	Yes	Yes	NA
Grenada	FAO (2007a) noted that Inland fishery is restricted to harvesting of fresh water crawfish and a half dozen species of finfish within small streams, carried out solely on a subsistence basis. Personal communication Mitchell/Masters (May 2021) revealed that the crawfish population in Grenada has been depleted to such an extent that Grenada has imposed a "close fishery" for this species. As a result there is no visible or direct harvesting of this fresh water shell fish. As it relates to other fresh water fish in the river (wild), over 90% of these species are no longer seen and currently there is no fishing for these species because they are no longer targeted for food/consumption (M. Mitchell, personal communication, May 28, 2021).	Yes	No	0

Member States	Status of the fisheries of inland waters / fresh water systems	Fisheries of inland waters / fresh water systems are of cultural and / or subsistence importance	Fisheries of inland waters / fresh water systems are of economic importance	Latest estimate of catch from fisheries of inland waters / fresh water systems
Guyana	Freshwater fishing is conducted in rivers, creeks, lakes, reservoirs, canals, and in savannah areas. The data available indicate that most inland fishing is carried out by Amerindians. At present, the effort is largely directed at subsistence fishing, although a few fishermen participate in small-scale commercial fisheries (FAO, 2005b & D. Roberts, personal communication, July 12, 2021).	Yes	Yes	NA
Haiti	Lakes in Haiti are fished extensively. For example, the Lake Azuei, also known as Etang Saumatre, (which is the largest lake in Haiti; 22,000 acres), has ~ 3000 people living around the lake. For about 60% of this population, the sole source of income is fishing (Hargreaves, 2011).	Yes	Yes	600 tonnes (2009 est. CRFM, 2011a).
Jamaica	Most of the main rivers of Jamaica (there are about 22 main rivers) are fished by the local population. Community watershed ponds and rivers were stocked with *Tilapia mossambica* (FAO, 2005 - 2020) and a riverine fishery for the species now exists in Jamaica. Fresh water crayfish and shrimp and mullets are also harvested.	Yes	Yes	NA
Montserrat	There is a traditional fishery in the rivers for crayfish and small lobsters. Tilapias are also fished from fresh water ponds (A. Ponteen, personal communication, July 12, 2021).	Yes	No	NA
St. Kitts and Nevis	Recently in Nevis the ponds and lagoons have become a source for fishing, targeting tilapia and mullets. (Department of Marine Resources, St. Kitts and Nevis, 2012*).	No	No	NA
St. Lucia	There is little information about the freshwater fish species of St. Lucia and therefore research in this regard is needed. Thirteen species of freshwater shrimp have been recorded for St. Lucia	No	No	0

Member States	Status of the fisheries of inland waters / fresh water systems	Fisheries of inland waters / fresh water systems are of cultural and / or subsistence importance	Fisheries of inland waters / fresh water systems are of economic importance	Latest estimate of catch from fisheries of inland waters / fresh water systems
	and before 1994 the harvesting of *Macrobrachium carcinus* from rivers was permitted but in 1994 a moratorium was placed on this activity. At present it is still illegal to remove *M. carcinus* from the rivers of St. Lucia (V. Serieux, personal communications, June 19, 2021).			
St. Vincent and the Grenadines	The traditional catching of Goby fry (locally called Tri-tri) caught at river mouths and estuaries, is of economic importance to St. Vincent and the Grenadines (verified by K. Isaacs, personal communication June 16, 2021).	Yes	Yes	3.9 tonnes were caught in 2017 and 1.52 tonnes in 2018 (Fisheries Division St. Vincent and the Grenadines, 2020*).
Suriname	The inland waters of rivers, estuaries and swamps support a substantial inland waters fishery. The main gears used are gillnets, Chinese seines (i.e., traps), and river seines (JICA & IC Net, 2012). In 2014, 650 tonnes of fish and shrimp were captured from the fresh water systems of Suriname (Department of Fisheries Suriname, 2016*; T. Willems, personal communication, June 1, 2021.)	Yes	Yes	650 tonnes (2014 est. Department of Fisheries Suriname, 2016*).
Trinidad and Tobago	Exploitation of fish and decapods occurs in the rivers and streams of Trinidad and Tobago but largely on a subsistence level, except for the teta fish (*Hypostomus robinii)*. The amount taken is not quantified by regulatory agencies. Teta fishing is for the aquarium trade (Alkins-Koo *et al*. 2003). Of the existing fresh water species, some are used locally for food primarily cascadura (*Hoplosternum littorale*) and the black river conch (*Pomacea urceus*). However other species are utilised occasionally for	Yes	Yes	NA

Member States	Status of the fisheries of inland waters / fresh water systems	Fisheries of inland waters / fresh water systems are of cultural and / or subsistence importance	Fisheries of inland waters / fresh water systems are of economic importance	Latest estimate of catch from fisheries of inland waters / fresh water systems
	food: guabine (*Hoplias malabaricus*); coscorob (*Aquidens pulcher, Chiclasoma taenia*); catfish (*Rhamdia quelen*): teta (*Hypostomus robini*). These species (except for the black river conch) are also utilized in aquariums. The aquarium sector also includes the following species: sardines (*Hemigrammus unilineatus, Astyanax bimaculatus, Corynopoma riisei*); bronze catfish (*Corydoras aenus*); banded knifefish (*Gymnotus carapo*); guppies (*Poecilia picta, P. reticulata*); jumbie teta (*Ancistrus maracasae*); leaf fish (*Polycentrus schomburgkii*); red tailed pike (*Crenicichla frenata*); jumping guabine (*Anablepsoides hartii*); yarrow (*Erythrinus erythrinus*, *Hoplerythrinus unitaeniatus*). (H. Lalla, personal communication, June 9, 2021).			
Turks and Caicos Islands	The Turks and Caicos Island does not have inland/freshwater systems, and freshwater is in limited supply. Therefore, there are neither known freshwater fish species nor an inland fishery (K. Lockhart, personal communication May 26, 2021)	No	No	0

NA = Not Available

** Source - Information obtained directly from the Fisheries Authority of the Member State.*

1.2.2 The aquaculture systems of CRFM Member States

During 2019 and 2020 most of the CRFM Member States did not produce fish via aquaculture activities. Belize and Jamaica had been the top CRFM producers for a number of years, producing an average 6,662 tonnes and 767 tonnes respectively for the period 2013 to 2014. However, Haiti produced 2,600 tonnes of fish from aquaculture in 2015, and 6,400 tonnes in 2016. Updated figures for Haiti for 2017 to 2020 were not available at the time of preparing this report. Therefore, the estimate used for Haiti for 2017 to 2020 was the reported production for 2016, which puts Haiti in the top producing position. Belize produced approximately 4,753 tonnes in 2015 but production fell to 1,109 tonnes in 2016. Aquaculture production in Belize decreased due to the occurrence of Early Mortality Syndrome (EMS) - which is caused by a strain of bacteria called *Vibrio parahaemolyticus* that caused substantial losses in cultured shrimps the previous year (Gov. of Belize, 2017). Belize shrimp production was down to an average of 611 tonnes for the 2017 to 2018 period and 373.4 tonnes annually for the 2019 to 2020 period. Jamaica registered

improvements in aquaculture production with an average production of 1,426 tonnes over the period 2017 to 2018, but production fell in the 2019 to 2020 period to approximately 1,014.6 tonnes annually.

Some Member States (such as Antigua and Barbuda, Dominica, Grenada, St Lucia and St. Vincent and the Grenadines) also produce Sea-moss (primarily *Eucheuma* spp. and *Gracilaria* spp. but also *Kappaphycus alvarezii* in St. Vincent and the Grenadines). Production and value data were available for St. Lucia and St. Vincent and the Grenadines and these two Member States produced 95.6 t valued at US$2.22 million in 2020. Table 4 and Table 5 provide overviews of the status of aquaculture in CRFM Member States as at 2019/2020.

Table 4: Status of aquaculture in CRFM Member States 2019/2020

Member States	Status of aquaculture 2019 to 2020	References / Sources
Anguilla	One small aquaponics farm was established during the period 2014/2015 (a small fresh water tilapia pool, with 250 fish). The farm was still active in 2020.	K. Gumbs, personal communication, May 27, 2021.
Antigua and Barbuda	In 2019, aquaculture production mainly from aquaponics was 24.8 tonnes valued at US$0.22 million (EC$601,000.00). The main species cultivated were the Nile tilapia (*Oreochromis niloticus*) and the Red tilapia (*Oreochromis* spp.). Based on the trend, tilapia production was expected to reach 34.6 metric tons valued at US$0.31 million (EC$838,000.00) in 2020.	I. Horsford, personal communication, January 15, 2020.
The Bahamas	Aquaculture fish production was negligible as most of the facilities were still in the start-up phase. As of 2015, there were seven permitted aquaculture establishments and 22 species permitted for aquaculture in The Bahamas. However, production is insignificant with most of the limited aquaculture production at present coming from aquaponics farms, which generate more income from the vegetable production activities than from fish culture.	FAO, 2016.
Barbados	Barbados is exploring the possibility and potential of aquaponics. During the period an aquaponics demonstration farm was being set up in Barbados.	United Nations in Barbados and the Eastern Caribbean, 2021.
Belize	Shrimp production figures indicate a substantial drop in white shrimp production in the year 2015 and 2016 This was as a result of the occurrence of a shrimp disease (Early Mortality Syndrome - EMS) which caused production losses (Sosa, 2017). Production was still reduced in the 2017 to 2018 period, as well as the 2019 to 2020 period.	Sosa, 2017.
Dominica	The aquaculture sector in Dominica, though still in its redevelopment phase, has seen the restoration of a vital structure - the national hatchery which was damaged during Tropical Storm Erica (2015) and subsequently Hurricane Maria (2017) is now capable of supplying farmers with high-quality post-larvae of giant freshwater prawn, (*Macrobrachium rosenbergii*). Additionally, efforts are on-going into the development of an aquaponics pilot farm to inform future development. The sector shows promise with growing interest in the country.	K. Hilton and J. Defoe, personal communication, Jan 16, 2020.

Member States	Status of aquaculture 2019 to 2020	References / Sources
Grenada	During the period 2015 to 2016 Grenada focused on increasing the number of seamoss (*Eucheama isiforme* and *E. cottonii*) aquaculturalists. The seed stock of *Eucheama isiforme* and *E. cottonii* were sourced in Venezuela and St. Lucia. The backyard ornamental / tilapia facilities have folded. Experiments with aquaponics were also initiated but to date have not been successful.	M. Mitchell, personal communication, October 11, 2021
Guyana	Species produced during the 2019 to 2020 period included Tambaqui (*Colossoma macropomun*), tilapia, black water shrimp and hassar (*Hoplosternum littorale*). Production over the period 2019 to 2020 decreased by approximately 44.3%.	I. Peters, personal communication, April 7, 2021.
Haiti	Aquaculture production increased from 560 tonnes in 2013/2014 to 6,400 tonnes in 2016.	Fisheries Department Haiti, 2017.
Jamaica	Aquaculture production in Jamaica decreased slightly over the period 2019 to 2020. In 2019 approximately 1,118 tonnes were produced and in 2020 approximately 912 tonnes were produced. Prior to 2019 production had increased to over 1000 tonnes in both 2018 and 2017. This resulted from the entrance of a large producer which has been responsible for approximately 50 % of the total aquaculture production over these years. Some veteran fish farmers have re-entered into the production of tilapia in order to take advantage of an increasing demand for fresh fish and some existing farmers have increased their production acreage. The consistent supply of seed stock is a major weakness for the sub-sector. Another weakness is inconsistency in the supply of feed and the almost monthly increase in the price of the feed.	A. Smikle, personal communication, February 14, 2020.
Montserrat	During the period 2019 to 2020 the Ministry of Agriculture started experimenting with aquaponics.	A. Ponteen personal communication, April 6, 2021.
St. Kitts and Nevis	Aquaculture in St. Kitts and Nevis is still in its developmental stages. Prior to the start of the COVID-19 pandemic in St. Kitts and Nevis there were three (3) facilities producing Tilapia and one (1) facility producing Florida pompano. Currently there are two facilities producing Tilapia and none producing the Florida Pompano. Prior to and after the COVID-19 pandemic aquaculture production was on a subsistence level and it has not changed.	M. Williams, and N. Browne, personal communication, August 12, 2021.
St. Lucia	In 2019 there were under production throughout the island, 37 fish ponds, decreased from 79 in 2018 and 46 shrimp ponds increased from 43 in 2018. The ponds covered a total of 18.6 hectares of land. In 2019, 38,000 fish fingerling and 180,000 post larval shrimps were produced in the country. Sea moss (*Gracilaria* spp.) production also occurs in the country. In 2019, 213 persons were involved in sea-moss production.	Fisheries Department, St. Lucia, 2019 and 2021.
St. Vincent and the Grenadines	Exports of mariculture, specifically the production of sea moss (*Kappaphycus alvarezii*; *Euchema isiforme*; *Gracilaria domingensis*) began in 2019 and increased in amount in 2020.	K. Isaacs, personal communication, August 18, 2021.

Member States	Status of aquaculture 2019 to 2020	References / Sources
	Due to the COVID-19 pandemic and closure of borders in Jamaica and St. Lucia (traditional exporters of seamoss) St. Vincent and the Grenadines was identified as a replacement source and was able to fill the gap on the market.	
Suriname	In 2019/2020 there were 41.3 hectares of active fish ponds in Suriname. Production decreased from approximately 80 tonnes in 2013/2014 to 54.5 tonnes in 2019 and 22 tonnes in 2020. In 2019 and 2020 commercial aquaculture facilities in Suriname only produced tambaqui (*Colossoma macropomum*).	T. Willems personal communications, July 13, 2021.
Trinidad and Tobago	As at 2020 heading into 2021, 12 registered aquaculture farmers were producing Tilapia at a small scale level. The increase over the previous year was as a result of new marketing opportunities that caused defunct operators to resume production. Two (2) hatcheries remain operational and approximately 80 persons function at the subsistence level of production, including some who have now incorporated aquaponics into their operations. Approximately 120 persons were directly employed in the sector during the period.	H. Lalla, personal communication, July 13, 2020.
Turks and Caicos Islands	There was no aquaculture activity in 2019 to 2020.	K. Lockhart, personal communication, July 12, 2021.

Table 5: Overview of species produced, total annual aquaculture production (meat weight in tonnes) and value (US$) of aquaculture in CRFM Member States for the period 2019 to 2020

MEMBER STATES	Species cultivated	2019		2020		Reference /Source
		Production (t)	Value of aquaculture product (million US$)	Production (t)	Value of aquaculture product (million US$)	
Anguilla	None	0	0	0	0	
Antigua and Barbuda	Nile tilapia (*Oreochromis niloticus*) and the Red tilapia (*Oreochromis* spp.).	24.8[8]	0.22	24.8[9]	0.22[10]	Fisheries Division Antigua and Barbuda, 2021*.
	Sea-moss (*Eucheuma* spp. and *Gracilaria* spp.)	NA	NA	NA	NA	
Bahamas	None	0	0	0	0	
Barbados	None	0	0	0	0	
Belize[11]	Pacific white shrimp (*Litopenaeus vannamei*)	437.0	2.92	290.0	1.77	Statistics Department Belize, 2021*.
	Tilapia hybrids	20.4	0.02	0	0	
	(*Oreochromis niloticus*)					
	Cobia (*Rachycentron canadum*)	0	0	0	0	
	Tilapia (small-scale aquaculture /backyard farms)					
BELIZE; TOTAL		**457.4**	**2.92**	**290.0**	**1.77**	
Dominica	Asian freshwater prawn (*Macrobrachium rosenbergii*)	NA	NA	NA	NA	Fisheries Division Dominica, 2021*.
	Nile tilapia (*Oreochromis niloticus*)	NA	NA	NA	NA	

[8] *Live weight taken as being equal to the meat weight.*
[9] *2019 estimate*
[10] *2019 estimate*
[11] *Figures are the export quantities and values; taken to be equivalent to production.*

MEMBER STATES	Species cultivated	2019		2020		Reference /Source
		Production (t)	Value of aquaculture product (million US$)	Production (t)	Value of aquaculture product (million US$)	
	Sea-moss known as GT (*Gracilaria* spp.)	NA	NA	NA	NA	
DOMINICA; TOTAL		**0**	**0**	**0**	**0**	
Grenada	Sea-moss (*Eucheama isiforme*) and *E. cottonii* and tilapia (in very small quantities)	0	0	0	0	
Guyana[12]	Red tilapia (*Oreochromis* spp.),	NA	NA	NA	NA	Fisheries Department Guyana, 2021*.
	Black shrimp (*Penaeus* spp.),	NA	NA	NA	NA	
-	Tambaqui (*Colossoma macropomun*),	NA	NA	NA	NA	
-	Brown hoplo locally called hassar (*Hoplosternum littorale*),	NA	NA	NA	NA	
-	Mullet (*Mugil cephalus*),	NA	NA	NA	NA	
-	Queriman (*Mugil liza*),	NA	NA	NA	NA	
-	Whitemouth croaker (*Micropogonias furnieri*)	NA	NA	NA	NA	
GUYANA; TOTAL		**247.0**	**1.78**	**137.6**	**0.99**	
Haiti[13]	Tilapia and common carp (very small amounts of common carp)	6 400.0	33.86	6 400	33.86	Fisheries Department Haiti, 2016*.
HAITI;TOTAL		**6 400.0**	**33.86**	**6 400.0**	**33.86**	

[12] *Disaggregated data were not available.*
[13] *2016 estimate*

MEMBER STATES	Species cultivated	2019		2020		Reference /Source
		Production (t)	Value of aquaculture product (million US$)	Production (t)	Value of aquaculture product (million US$)	
Jamaica	Tilapia hybrids (*O. niloticus*)	1 117.5	4.93	911.8	4.20	National Fisheries Authority of Jamaica, 2021*.
	Marine shrimp (*Penaeus vannamei*)	0	0	0	0	
	Freshwater crayfish (*Macrobrachium rosenbergii*)	0	0	0	0	
	Mangrove oyster (*Crassostrea rhizophorae*)	NA	NA	NA	NA	
JAMAICA; TOTAL		**1 117.5**	**4.93**	**911.8**	**4.20**	
Montserrat	None	0	0	0	0	
St. Kitts and Nevis	None	0	0	0	0	
St. Lucia	Tilapia, (*Tilapia mossambica*)	13.8	0.09	8.4	0.05	Data unit of the Department of Fisheries St. Lucia, 2021*.
	Shrimp (*Macrobrachium rosenbergii*)	3.4	0.07	1.0	0.02	
	Seamoss[14] (*Gracilaria* spp.)	103.0	0.95	82.5	1.81	
ST. LUCIA; TOTAL		**17.2**	**0.16**	**9.4**	**0.07**	
St. Vincent and the Grenadines	Seamoss[15] (*Kappaphycus alvarezii; Euchema isiforme; Gracilaria domingensis*)	0.2	0.0014	13.1	0.41	

[14] *Not included in total*
[15] *Not included in total*

MEMBER STATES	Species cultivated	2019		2020		Reference /Source
		Production (t)	Value of aquaculture product (million US$)	Production (t)	Value of aquaculture product (million US$)	
Suriname [16]	Tilapia (red hybrid tilapia)	NA	NA	NA	NA	Department of Fisheries Suriname, 2021*.
	Brown hoplo locally called atipa (*Hoplosternum littorale*)	NA	NA	NA	NA	
	Giant river prawn (*Macrobrachium rosenbergii*)	NA	NA	NA	NA	
	Whiteleg shrimp (*Litopenaeus vannamei*)	NA	NA	NA	NA	
SURINAME; TOTAL		**54.5**	**NA**	**22.0**	**NA**	
Trinidad and Tobago	Tilapia (*Oreochromis* spp)	**3.2**	**0.014**	**3.2**	**0.01**	Fisheries Division Trinidad and Tobago, 2021*.
	Brown hoplo locally called cascadu(ra) (*Hoplosternum littorale*) (very small quantities produced)	NA	NA	NA	NA	
TRINIDAD AND TOBAGO ; TOTAL		**3.2**	**0.014**	**3.2**	**0.01**	
Turks and Caicos Islands	Queen conch (*Strombus gigas*)	0	0	0	0	
TOTALS all Member States		**8 321.6**	**43.88**	**7 798.8**	**41.12**	

P = Provisional
**Data received directly from Fisheries Departments, Statistics Department, etc.*
NA=Not Available
1kg= 2.20462 lbs

[16] *Disaggregated data were not available.*

1.2.3 Fisheries of the marine waters of CRFM Member States

All CRFM Member States exploit the fisheries resources found in the territorial sea and in the archipelagic waters (of an archipelagic State), as well as parts of the sea that are included in the exclusive economic zone of that State. Belize and St. Vincent and the Grenadines also exploit the high seas via the operation of open registries.

The fishing fleets and fishing gears used to exploit the marine fisheries are mostly artisanal in nature.

The fleet consists of:

1. Traditional fishing vessels: such as canoes - made using the traditional method of *digging out* the trunk of a tree, or planked canoes - which are usually small un-decked boats less than 6 metres in length, usually powered by oars and/or sails, however small outboard engines could be used as well.
2. Larger canoes or pirogue type vessels: usually made with glass reinforced plastic (GRP - fibreglass). These could be decked or un-decked and are usually between 6 metres to12 metres in length. These vessels are usually powered by outboard engines. However oars and sails are used as well.
3. Longliners or trawlers; usually greater than 12 metres in length, some with steel hulls. Generally, they are large covered vessels.

The gears utilized include the Antillean "Z" or "S" traps (commonly called fish pots or fish traps), hand and trolling lines, cast nets, gill nets, hoop nets, spears, spear guns, lobster hook, lobster traps, pelagic longline gear, Chinese seines, and beach seines. Casitas and fish aggregating devices (FADs) are also used in the region. Diving gears (including compressors and SCUBA tanks) are also used in the capture of fish.

The region's marine fisheries have been grouped according to habitat and the following categories of fisheries have traditionally been acknowledged by the CRFM region: small coastal pelagic fishery, small offshore pelagic fishery, large offshore pelagic fishery, shallow shelf and reef finfish fishery, shallow shelf and reef lobster fishery, shelf and deep slope fishery, shrimp fishery, conch fishery, echinoderms fishery (locally called the sea urchin or sea cucumber fishery), sea turtle fishery and fishery for sea mammals. A brief description of the fisheries categories and the main families or species of interest in the region can be found in Table 6. The number of Member States exploiting each fishery can be seen in Table 7.

The fisheries are exploited by various sectors of the society, and these include the following:

1. Citizens or authorized persons who exploit the fisheries as their primary source of income - commercial exploitation or commercial capture fisheries.
2. Citizens or authorized persons who exploit the fisheries as a recreational activity - recreational exploitation or recreational fisheries.
3. Citizens or authorized persons who exploit the fisheries under sporting activities - sports fisheries.
4. Citizens or authorized persons who exploit the fisheries as a primary source of protein for dependents - subsistence fisheries.

Table 6: Fishery category and the habitat to which the category is linked, description of the category and some of the main families or species of interest in the CRFM region

Habitat	Fishery category	Description	Some of the main families or species of interest in the CRFM region
Pelagic waters	Small coastal pelagic fishery	Small fish (generally silvery in appearance) living in the water column directly above continental shelves near the shoreline (coastal waters)	Jacks (Carangidae) Herring (Clupeidae) Silverside (Atherinidae) Anchovy (Engraulidae) Ballyhoo (*Hemiramphus* spp.) Scads (*Decapterus* spp.) Four winged flyingfish (*Hirundichthys affinis*)
	Small offshore pelagic	Medium sized fish (generally tuna and tuna like species) living in the open waters of the oceans (moving between coastal and oceanic waters)	Blackfin tuna (*Thunnus altlanticus*) Cero mackerel (*Scomberomorus regalis*) Dolphinfish (*Coryphaena hippurus*) Wahoo (*Acanthocybium solandri*) Frigate tuna (*Auxis thazard thazard*) Bullet tunas (*Auxis rochei*) King mackerel (*Scomberomorus cavalla*) Little tunny (*Euthynnus alletteratus*) Serra Spanish mackerel (*Scomberomorus brasiliensis*)
	Large offshore pelagic	Large, fast-swimming, highly migratory fish species living in the deep open waters of the oceans (oceanic waters)	Albacore (*Thunnus alalunga*) Blue marlin (*Makaira nigricans*) Atlantic bonito (*Sarda sarda*) Atlantic sailfish (*Istiophorus albicans*) White marlin (*Tetrapturus albidus*) Bigeye tuna (*Thunnus obesus*) Black marlin (*Makaira indica*) Longbill spearfish (*Tetrapturus pfluegeri*) Northern bluefin tuna (*Thunnus thynnus thynnus*) Skipjack tuna (*Katsuwonus pelamis*) Swordfish (*Xiphias gladius*) Yellowfin tuna (*Thunnus albacares*)
Coral reefs	Shallow shelf and reef finfish fishery	Species living on or over coral reefs or associated with coral reefs	Parrotfishes (Scaridae) Squirrelfishes (Holocentridae) Grunts (Pamadosydae), Surgeonfishes (Acanthuridae), Triggerfish (Balistidae) The Serranidae family (particularly hinds, sea-basses, and small groupers), Snappers (Lutjanidae)
	Shallow shelf and reef lobster fishery	Lobsters are large marine crustaceans with hard exoskeletons. The species targeted in the region generally live in crevices on coral reefs and are specifically targeted or captured as a part of the reef fisheries	Caribbean spiny lobster (*Panulirus argus*) Spotted spiny lobster (*Panulirus guttatus*) Sculptured slipper lobster (*Parribacus antarcticus*) Spanish slipper lobster (*Scyllarides aequinoctialis*)
The continental slope;	Shelf and	The main targets of this	Silk snapper (*Lutjanus vivanus*)

Habitat	Fishery category	Description	Some of the main families or species of interest in the CRFM region
In the outer reaches of the continental shelf to the continental drop-off point (where the shelf descends toward the deep ocean floor)	deep slope fishery	fishery are deep water snappers and groupers	Queen snapper (*Etelis oculatus*) Jewfish (*Epinephelus itajara*) Red hinds (*Epinephelus guttatus*) Nassau grouper (*Epinephelus striatus*)
Seafloor habitat – soft substrate demersal	Shrimp fishery	Shrimp are stalk-eyed swimming crustaceans with long narrow muscular abdomens (called tails). Most of the commercially valuable shrimps in the region are from the family Penaeidae.	Atlantic seabob (*Xiphopenaeus kroyeri*) Southern white shrimp (*Litopenaeus schmitti*) Southern brown shrimp (*Farfantepenaeus subtilis*) Southern pink shrimp (*Farfantepenaeus notialis*) Redspotted shrimp (*Farfantepenaeus brasiliensis*)
Seafloor habitat – soft substrate demersal (sand or mud near seagrass beds)	Conch fishery	Fishery specifically for the gastropods from the family Strombidae.	Queen conch (*Strombus gigas*)
Seafloor habitat – soft substrate demersal. Beds of seagrass (*Thalassia* spp.), sand or mangroves, but could also be in the cervices of reefs.	Echinoderms fishery (locally called sea urchin or sea cucumber fishery)	The white sea urchin and the sea cucumber are harvested in some countries for the export market, but in St. Lucia and Barbados, when harvested, are mainly used locally.	White sea urchin (*Tripneustes ventricosus*) Donkey dung sea cucumber (*Holothuria mexicana*)
Shallow waters along coast and around islands	Sea turtles	Sea turtles are marine reptiles targeted by net or harpoon.	The green turtle (*Chelonia mydas*) The hawksbill turtle (*Eretmochelys imbricata*) The leatherback (*Dennochelys coriacea*) The loggerhead turtle (*Caretta caretta*)
Deep oceanic waters	Mammals	Mainly small cetaceans (porpoises, dolphins and pilot whales) There is also aboriginal/ traditional capture of humpback whales	Short-finned Pilot Whale (*Globicephala macrorhynchus*) Humpback whale (*Megaptera novaeangliae*)

Table 7: Number of fishery categories exploited by each Member State of the CRFM

Member States	Small coastal pelagic fishery - jacks, scads, herrings, balao, flying fish etc.	Small offshore pelagic fishery - black-fin tuna dolphin-fish, wahoo, etc.	Large offshore pelagic fishery – yellow-fin tunas, billfishes swordfish etc.	Shallow shelf and reef finfish fishery - grunts, snappers, doctorfish etc.	Shallow shelf and reef lobster fishery	Shelf and deep slope fishery- deep water snappers, groupers, etc.	Shrimp/ prawn fishery	Conch fishery - queen conch	Echinoderms fishery – white sea urchin, sea cucumber	Sea turtles fishery	Mammals - pilot whales, dolphins, porpoises
Anguilla	1	1		1	1	1		1		Moratorium	
Antigua and Barbuda	1	1	1	1[17]	1[18]	1[19]		1[20]	1[21]	1[22]	
Bahamas	1	1	1[23]	1[24]	1[25]	1[26]		1		Fishery closed[27]	Fishery banned[28]
Barbados	1	1	1	1	1	1		1[29]	1[30]	Capture prohibited [31]	
Belize	1	1	1	1[32]	1[33]	1[34]	1[35]	1[36]	1	All protected	Protection for

[17] *Closed season for parrotfish (Scaridae), all species; May 1st - July 31st annually (Government of Antigua and Barbuda, 2013).*
[18] *Closed season for spiny lobster (Panulirus argus); May 1st - June 30th annually (Government of Antigua and Barbuda, 2013).*
[19] *Closed season for Nassau grouper (Epinephelus striatus), red hind (Epinephelus guttatus) and coney (Cephalopholis fulvus) January; 1st - March 31st annually (Government of Antigua and Barbuda, 2013).*
[20] *Closed season for queen conch (Strombus gigas); July 1st - August 31st annually (Government of Antigua and Barbuda, 2013).*
[21] *Sea urchin and sea cucumber fisheries are currently subsistent fisheries (Horsford, 2014; I. Horsford, personal communication, 11 August 2017).*
[22] *The Minister may by notice in the Gazette declare an open season for turtle. However no open season was declared 2017 - 2018 (Government of Antigua and Barbuda, 2013; Fisheries Division Antigua and Barbuda, 2020).*
[23] *Prohibition on possessing, fishing for or landing shark or shark parts; on the sale of shark, shark parts or shark products. (Government of The Bahamas, 2011).*
[24] *Closed season for stone crab; 1st June - 15th October (inclusive) annually. Minimum harvestable claw is 4". Harvesting of females is prohibited (Government of The Bahamas, 2009).*
[25] *Closed season for crawfish; annual closed season for crawfish extending from 1st April - 31st July (inclusive). (Government of The Bahamas, 2009).*
[26] *Closed season for the Nassau grouper; December 1st - February 28th of the following year (Government of The Bahamas, 2015).*
[27] *Prohibition on taking, possessing, buying or selling of marine turtles, marine turtle parts or marine turtle eggs. (Government of The Bahamas, 2009).*
[28] *No person shall, within the exclusive fishery zone, fish for, molest or otherwise interfere with any marine mammal (does not apply to a person who has the prior written permission of the Minister to capture marine mammals for scientific, educational or exhibition purposes (Government of The Bahamas, 2009).*
[29] *Conchs are now mainly harvested for their shells which are polished and sold as souvenirs to tourists (FAO, 2016-2020).*
[30] *Fishery closed in year 2017. The annual sea egg survey for 2017 indicated that the sea egg stock around the island was very low. The government could not support the opening of a fishing season of any reasonable duration in 2017. (Caribbean National Weekly.com, 2017).*
[31] *Regulation prohibits the capture, possession or sale of marine turtles, turtle eggs and turtle parts (Government of Barbados, 1998).*
[32] *Complete ban on all parrotfish, blue tang, surgeon fish; No person shall take in the waters of Belize, or buy, sell or have in possession any grazers, 'grazers' means any fish of the Scaridae family, including the genus Scarus and Spariisoma, any fish of the Acanthuridae family (Government of Belize. 2009a).*

Member States	Small coastal pelagic fishery - jacks, scads, herrings, balao, flying fish etc.	Small offshore pelagic fishery - black-fin tuna dolphin-fish, wahoo, etc.	Large offshore pelagic fishery – yellow-fin tunas, billfishes swordfish etc.	Shallow shelf and reef finfish fishery - grunts, snappers, doctorfish etc.	Shallow shelf and reef lobster fishery	Shelf and deep slope fishery- deep water snappers, groupers, etc.	Shrimp/ prawn fishery	Conch fishery - queen conch	Echinoderms fishery – white sea urchin, sea cucumber	Sea turtles fishery	Mammals - pilot whales, dolphins, porpoises
										since 2002[37]	marine mammals[38]
Dominica	1	1	1	1	1	1				1[39]	
Grenada	1	1	1	1	1[40]	1		1	1[41]	1[42]	
Guyana			1			1	1[43]				
Haiti	1	1	1	1	1	1	1	1	1	NA	NA
Jamaica	1	1	1	1	1[44]	1	1	1[45]	1[46]	Fishery closed since 1982[47]	Protection for some marine

Tarpon (Megalops atlanticus), permit (Trachinotus falcatus) and bonefish (Albula vulpes) are intended for 'catch and release' fishing only (Government of Belize, 2009b).

[33] No person shall take in the waters of Belize or buy, sell or have in his possession crawfish (genus Panulirus) - between the 15th February and the 14th June, inclusive, in any year; (Government of Belize, 2003).

[34] Closed season for Nassau grouper (Epinephelus striatus); 1st December - 31st March inclusive in any year (Government of Belize, 2009a). No whale shark, shall be caught or killed in the waters of Belize (Government of Belize, 2003).

[35] Regulations of 2011 ended the shrimp trawl fishery in Belize; No person shall engage in any form of trawling in the internal waters, territorial sea, exclusive economic zone (Government of Belize, 2011). The shrimp capture fishery is now small scale artisanal. Shrimp season (for wild shrimp) will officially open on July 15th of any year inclusive, for a period not exceeding eight months in any one year, but which period may be less than eight months provided that one month's notice is given in advance (Government of Belize, 2003).

[36] Closed season for conch; 1st July - 30th September, inclusive, in any year (Government of Belize, 2003).

[37] No person shall fish for in the waters of Belize or buy, sell or have in his possession any hawksbill, loggerhead, leatherback, Kemp's ridley, olive ridley or green turtle (Government of Belize, 2003).

[38] Hunting of whales (all species), dolphins (all species) and manatee prohibited (Government of Belize, 2000).

[39] Sea turtle closed season; 1st June - 30th September both dates inclusive (Government of Dominica, 1976).

[40] Lobster closed season; 1st May - 31st August (ACP Fish II, 2012).

[41] Grenada sea urchins (sea eggs) fishery is closed - total ban (ACP Fish II, 2012).

[42] Closed season for turtles;1st May - 31st August (ACP Fish II, 2012).

[43] A closed season was implemented in 2014 for the seabob (shrimp) fishery and the prawn fishery. Closure was 8th September - 26th October 2014 (6 weeks), both dates inclusive (CRFM website, 2014).

[44] Lobster closed season; 1st April - 30th June each year (Government of Jamaica, 1987).

[45] The Ministry of Industry, Commerce, Agriculture and Fisheries, Jamaica, has declared a closed season for queen conch for the period March 1, 2019 to January 31, 2020 (Jamaica Observer, 2019).

[46] In 2013 there was a closed season for sea cucumbers; 18th July - 30th September 2013, as a precautionary measure until a structured management regime could be developed (Kong, 2015; Government of Jamaica, 2015).

Member States	Small coastal pelagic fishery - jacks, scads, herrings, balao, flying fish etc.	Small offshore pelagic fishery - black-fin tuna dolphin-fish, wahoo, etc.	Large offshore pelagic fishery – yellow-fin tunas, billfishes swordfish etc.	Shallow shelf and reef finfish fishery - grunts, snappers, doctorfish etc.	Shallow shelf and reef lobster fishery	Shelf and deep slope fishery- deep water snappers, groupers, etc.	Shrimp/ prawn fishery	Conch fishery - queen conch	Echinoderms fishery – white sea urchin, sea cucumber	Sea turtles fishery	Mammals - pilot whales, dolphins, porpoises
											mammals[48]
Montserrat	1	1	1	1		1					
St. Kitts and Nevis	1	1	1	1	1[49]	1		1		1[50]	
St. Lucia	1	1	1	1	1[51]	1		1	1	1[52]	
St. Vincent and the Grenadines	1	1	1	1[53]	1[54]	1		1		Prohibition on selling, purchasing, or possession of any turtle [55]	1[56]
Suriname		1	1	1		1	1				
Trinidad and Tobago	1	1	1	1	1	1	1	1		Prohibition on killing of any turtle[57]	
Turks and Caicos	1	1	1	1[58]	1[59]	1		1[60]		1[61]	Restrictions

[47] Green turtle, hawksbill turtle, loggerhead turtle, Atlantic ridley, Atlantic leatherback all protected (Government of Jamaica, 1945).
[48] Manatee, Pedro seal, bottlenose dolphin, sperm whale, spotted dolphin, Baird's beaked whale, short-finned pilot whale, humpback whale protected (Government of Jamaica, 1945).
[49] The Minister may by notice published in the Gazette declare the period 1st May to 31st August in any year as a closed season (Government of St. Kitts and Nevis, 1995).
[50] Closed season for sea turtles; 28th February - 1st October annually (Government of St. Kitts and Nevis, 1995).
[51] Lobster closed season 30th April - 1st September in each year (Government of St. Lucia, 1985).
[52] Marine turtles closed season; 28th February - 1st October in each year. Only hawksbill turtles weighing 60 lbs or more; green or loggerhead turtle weighing 75 lbs or more are permitted to be fished during the open season (Government of St. Lucia, 1985).
[53] Restriction relating to parrot fish; No person shall take, have in his possession buy or sell any parrot fish (Government of Turks and Caicos, 2014a)
[54] Close season for lobster; 1st May - 31st August annually (Government of St. Vincent and the Grenadines, 1987).
[55] No person shall take, sell, purchase or have in his possession any turtle or part thereof (Government of St. Vincent and the Grenadines, 2016).
[56] The fishery captures pilot whales and humpback whales. For the seasons 2013 - 2018 the number of humpback whales to be taken shall not exceed 24 (International Whaling Commission, 2016).
[57] Prohibition on killing, harpooning or selling of any turtle (Government of the Republic of Trinidad and Tobago, 2011).
[58] Restriction relating to parrot fish; No person shall harm, take, have in his possession, sell or purchase a parrot fish, its fry or eggs (Government of St. Vincent and the Grenadine, 2019)
[59] Closed season in relation to crawfish shall be the period from the first day of April to the thirty-first day of July (inclusive) in each year or such other dates as may, from time to time, be appointed by the Governor in the Gazette (Government of Turks and Caicos Islands, 2014a).

Member States	Small coastal pelagic fishery - jacks, scads, herrings, balao, flying fish etc.	Small offshore pelagic fishery - black-fin tuna dolphin-fish, wahoo, etc.	Large offshore pelagic fishery – yellow-fin tunas, billfishes swordfish etc.	Shallow shelf and reef finfish fishery - grunts, snappers, doctorfish etc.	Shallow shelf and reef lobster fishery	Shelf and deep slope fishery- deep water snappers, groupers, etc.	Shrimp/ prawn fishery	Conch fishery - queen conch	Echinoderms fishery – white sea urchin, sea cucumber	Sea turtles fishery	Mammals - pilot whales, dolphins, porpoises
Islands											relating to marine mammals [62]
Totals	**15**	**16**	**16**	**16**	**14**	**17**	**6**	**13**	**7**	**6**	**1**

NA = Not Available

[60] *Closed season (on exports) for queen conch; No person shall export queen conch during the period 15th July - 15th October each year (Government of the Turks and Caicos Islands, 2014a).*

[61] *Closed season for hawksbill turtles 1st August - 31st March inclusive each year (Government of the Turks and Caicos Islands, 2014b). No person shall take any turtle on any beach or at any place above low water mark; take any turtle of the species Kemp's ridley turtle or leatherback turtle or olive ridley turtle (Government of the Turks and Caicos Islands, 2014a).*

[62] *No person shall engage in fishing for, molest or otherwise interfere with any marine mammal (Government of the Turks and Caicos Island, 2014a).*

CHAPTER 2: THE FISHING FLEET OF THE CRFM REGION

2.1 Fishing vessels operating in CRFM Member States

Most fishery exploitation activities in the region employ the use of vessels (vessels used in aquaculture facilities were not included as a part of the fishing fleet of the region).

Vessels are used in almost all categories of fish exploitation, including:
(i) Recreational exploitation - recreational fisheries
(ii) Sporting exploitation - sports fisheries
(iii) Subsistence exploitation - subsistence fisheries
(iv) Commercial exploitation - commercial capture fisheries

Data and information on vessels used exclusively for recreational fishing, sports fishing and subsistence fishing (where these vessels were not registered by the fisheries authority of Member States) were not included in this report at this time[63]. In some cases, vessels are used interchangeable between fishery types and categories. The fisheries authorities of Member States had available, records of the vessels used in commercial capture fisheries.

2.2 Quantity of vessels operating in the commercial capture fisheries of the CRFM region

Very few Member States conduct annual fishing vessel censuses. Where timely vessel censuses are not carried out, information on destroyed or inactive vessels are usually not available and thus vessels that no longer exist or are no longer operating are often not removed from the vessel registries of the Fisheries Divisions / Departments. The number of registered vessels therefore may not in all cases reflect the exact number of vessels operating in the fishing industry of the Member States. It does serve however as an indicator of the possible number of vessels in operation.

The total number of fishing vessels operating in the commercial capture fisheries of CRFM Member States was estimated at 33,201 in 2019 and 32,128 in 2020 (average 32,665 per year 2019/2020). The estimates for the previous years were 31,901 in 2017 and 32,821 in 2018 (average 32,361 per year 2017/2018). Of note is that the Bahamas revised the number of fishing vessels down from an estimate of 4,000 in 2016 to 975 in 2017, 1,100 in 2019 and 892 in 2020. The Bahamas noted that the revised 2016 figure of 975 are those vessels 20 feet and over, which have been licensed for commercial fishing purposes by the Department of Marine Resources and the Port Department (dinghies) (L. Ferguson, personal communication, May 6, 2020). The figures reported from Haiti of an increase of 5,565 vessels between 2014 and 2016 were not updated for 2017 to 2020 as new figures were not available (Table 8).

The number of vessels fishing on open registry in CRFM Member States during 2019 and 2020 was estimated at 51 and 41 respectively (Table 9). There were only two Member States with fishing vessels registered on open registries in 2019/2020 these were: Belize and St. Vincent and the Grenadines. St. Kitts and Nevis which had fishing vessels registered on open registry in the 2017/2018 period have disbanded their fleet. St. Kitts and Nevis reported that as of 11 December 2018, they had no fishing vessels on open registry (L. Ryan, personal communication, April 27, 2020). There has also been a major reduction in the St. Vincent and the Grenadines open registry vessels, down to 4 vessels in 2020 from 33 in 2017.

[63] *Subsequent volumes of this publication will seek to provide this data*

Table 8: Number of fishing vessels operating in the commercial capture fishery of CRFM Member States for period 2013 – 2020

Member States	2013	2014	2015	2016	2017	2018P	2019P	2020P	Sources 2019 and 2020 data
Anguilla	105	136	65	122	153	153	139	108	Department of Fisheries and Marine Resources Anguilla, 2021*.
Antigua and Barbuda	337	338	332	358	361	334	354	371	Fisheries Division Antigua and Barbuda, 2021*.
Bahamas[64]	4 000	4 000	4 000	4 000	975[65]	975[66]	1 100	892	Department of Marine Resources Bahamas, 2021*.
Barbados[67]	1 090	1 034	1 059	1 146	1 146	1 146	1 146	1 146	Research & Planning Unit Ministry of Finance and Economic Affairs, 2017.
Belize	560	560	510	510	760	623	607	872	CRFM, 2015; Belize Fisheries Department Statistical Report 2021(Unpublished).
Dominica[68]	434	434	434	434	457	339	339[69]	339[70]	Fisheries Division Dominica, 2020*.
Grenada	1 812	1 812	1 933	2 028	2 028[71]	2 028[72]	2 207	2 310	Fisheries Division Grenada, 2021*.
Guyana	1 450	1 450	827	778	1 473	1 492	1 505	1 288	Fisheries Department Guyana, 2021*.
Haiti[73]	5 630	5 630	11 600	11 600	11 600	11 600	11 600	11 600	Fisheries Department Haiti, 2017*.
Jamaica	6 481	6 955	7 353	7 143	7 102	8 032	8 173	7 663	National Fisheries Authority Jamaica, 2021*.
Montserrat	32	37	31	21	18	18	31	33	Fisheries and Ocean Governance Unit Montserrat, 2021.
St. Kitts and Nevis	375	375	385	408	239	221	206	206[74]	Department of Marine Resources St. Kits and Nevis, 2021.
St. Lucia	719	760	796	822	873	891	927	482[75]	Department of Fisheries St. Lucia, 2021*.
St. Vincent and the Grenadines	790	790	882	882	900	900	933	994	Fisheries Division St. Vincent and the Grenadines, 2021*.
Suriname	1 146	1 273	936	936	936	1 369	1 176	1 056	Department of Fisheries Suriname, 2021*.
Trinidad and Tobago[76]	1 609	2 159	2 159	2 440	2 708	2 539	2 615	2 615[77]	Fisheries Division Trinidad and Tobago, 2020*.
Turks and Caicos Islands[78]	148	123	156	179	172	161	143	153	Department of Environment and Coastal Resources Turks and Caicos Island, 2021*.
Totals	**26 718**	**27 866**	**33 458**	**33 807**	**31 901**	**32 821**	**33 201**	**32 128**	**Average for period 2019 to 2020 32,665**

*Source; *Data received directly from Fisheries Departments, Statistics Department, etc.*
P =Provisional; subject to change.

[64] *Data for 2013 to 2016; from the last Bahamas fisheries census conducted in 1995 (Deleveaux and Higgs, 1995). Preliminary results of the 1995 Fisheries Census showed that there were 4,050 Bahamian vessels active in the commercial fishery - figure was rounder off to 4000 by the Department of Marine Resources Bahamas.*

[65] *New revised figures provided by the Department of Marine Resources Bahamas. The 975 vessels reflect those which have been licensed for commercial fishing purposes (vessels 20 feet and over) by Department of Marine Resources and those licensed by the Port Department (dinghies) (L. Ferguson, personal communication, May 6, 2020).*

[66] *New revised figures provided by the Department of Marine Resources Bahamas, 2017 estimate.*

[67] *Barbados' vessel registry is currently under review and until that process is completed revised statistics on the numbers of vessels in the fleet are unavailable (C. Parker, personal communication, May 13, 2020). 2016 estimates substituted for 2017 to 2020.*

[68] *Data available for 2013 to 2016 were reported during the 2011 Dominica Fisheries Industry Census (CRFM, 2012a)*

[69] *2018 estimate*

[70] *2018 estimate*

[71] *2016 estimate*

[72] *2016 estimate*

[73] *2008 estimate used for 2013 to 2014. All other estimates are 2015/2016 estimates*

[74] *2019 estimate*

[75] *A decision was taken to remove from the list all vessels that had not paid license up to the last three years (2018, 2019 and 2020)(P. Medar, personal communication, May 10, 2021)*

[76] *Estimates for all years were revised*

[77] *2019 estimate*

[78] *All estimates for all years were revised*

Table 9: Number of fishing vessels operating under open registries of CRFM Member States 2015 to 2020

Member States	Number of fishing vessels operating under open registries (2015)	Number of fishing vessels operating under open registries (2016)	Number of fishing vessels operating under open registries (2017)	Number of fishing vessels operating under open registries (2018)	Number of fishing vessels operating under open registries (2019)	Number of fishing vessels operating under open registries (2020)	Source of data
Belize	31	39	45	41	47	37	Belize High Seas Fisheries Unit, 2021*.
St. Kitts and Nevis	40	35	17[79]	17[80]	0	0	Department of Maritime Affairs St. Kitts and Nevis, 2018 and 2021*.
St. Vincent and the Grenadines	34	32	33	5	4	4	Fisheries Division St. Vincent and the Grenadines, 2017 to 2019*.
Total	**105**	**98**	**95**	**63**	**51**	**41**	

*Source; *Data received directly from Fisheries Departments, Statistics Department, etc.*

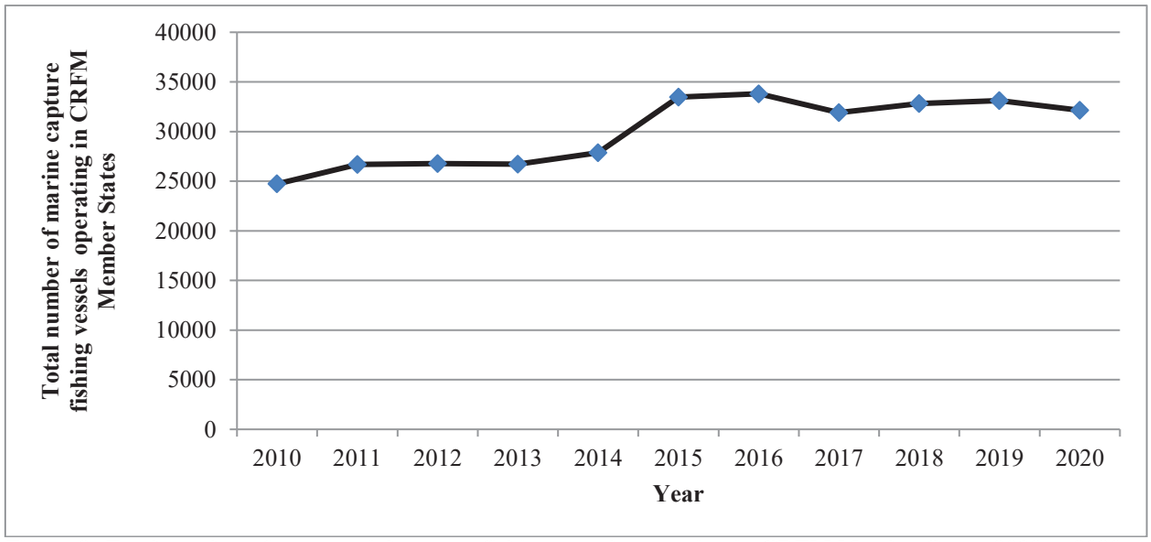

Figure 2: Total number of commercial capture fishing vessels operating in CRFM Member States 2010 to 2020.

[79] *Vessels on the register as of January 2, 2018.*
[80] *Vessels only operated for a portion of 2018. As of 11 December 2018, St. Kitts and Nevis had seven reefers and no fishing vessels registered.*

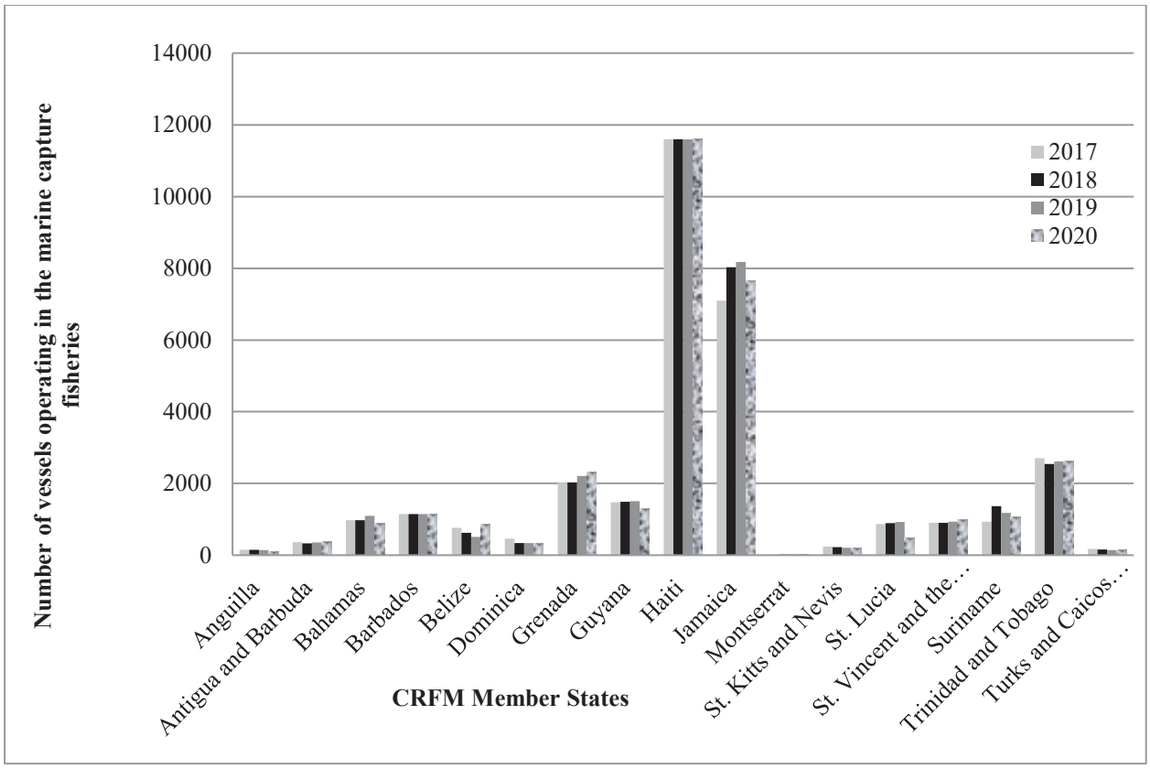

Figure 3: Number of vessels operating in the commercial capture fisheries of CRFM Member States for period 2017 to 2020.

2.3 Types and categories of fishing vessels operating in the commercial capture fisheries of CRFM Member States

Most of the CRFM Member States described their commercial capture fishery fishing fleets as artisanal fleets. Table 10 provides a summary of the types and categories of fishing vessels used in the commercial capture fishery of CRFM Member States, and it indicates that many traditional fishing vessels such as canoes (small dugout and planked canoes) dories and pirogues are still in use in the CRFM region. Table 11 shows that in 2019/2020 of 17,197 vessels from the commercial capture fishery fishing fleet examined, approximately 25.6% attained a length of up to 5.9 metres length overall and approximately 62.6% were between 6 to 11.9 metres length overall. Approximately 10.9% of the fleet were above 12 metres length overall, with 8.3% between 12 to 17.9 metres; 2.3% between 18 to 23.9 metres; 0.2% between 24 to 29.9 metres and 0.1% between 30 to 35.9 metres. For approximately 1% of the vessels the overall lengths were unknown.

Table 10: Summary description of the commercial capture fishery fishing fleets of CRFM Member States

CRFM Member States	Summary description of the fishing fleet (length of vessels is length overall - LOA)	Source / Reference
Anguilla	On the island, there are four trawlers that are over 9 metres (30ft), and powered by inboard engines. Besides those, the majority of the boats are primarily wood and fiberglass, open hull vessels, powered by outboard engines. The sizes of those vessels range from 4.9 metres to 14.9 metres (16 ft to 49 ft), most of which are locally built.	Gumbs and Johnson, 2018; C. Edwards, personal communication, June 2, 2021.
Antigua and Barbuda	Most of the wooden sloops and dories that dominated the sector in the 1970s have been replaced by modern fiberglass launches (up to 16.0 metres) and pirogues (typically 7.6 metres) with the latest fishing equipment (global positioning system, depth sounder, etc.). This has been coupled with a rapid shift to more environmentally friendly and energy efficient, 4-stroke and direct fuel injection 2-stroke outboard engines.	I. Horsford, personal communication, June 17, 2021.
Bahamas	Commercial fishing vessels range in size from 3.35 metres to 30.5 metres. In many instances *dinghy* (small vessels < 6 metres long) work in conjunction with a larger motorized *mothership* that acts as a base for operations (primarily in the lobster and conch fishery). Categories of vessels include: 1. The *dinghy* (small vessels < 6 metres in length) which forms the majority of the fleet. 2. Small scale fishing vessels 6 – 16 metres in length	CRFM, 2006. CRFM, 2008.

CRFM Member States	Summary description of the fishing fleet (length of vessels is length overall - LOA)	Source / Reference
	3. Large motorized vessels "mothership" (up to 30.5 metres in length) that acts as a base for operations	
Barbados	The vessels comprising the Barbados commercial fishing fleet[81] are typically divided into the following four main categories. 1. "Moses" are undecked vessels. In 2016, the Barbados registered fishing fleet included 672 Moses of an average length of 5.5 metres. Oars are used as the method of propulsion in some rare cases but outboard motors (average of 42 hp) are more commonly used. 2. "Dayboats" or launches do not carry iceholds. In 2016, the Barbados registered fishing fleet included 234 dayboats with a mean overall length of 7.7 metres (average of 77 hp inboard engines). 3. Iceboats are decked vessels. In 2016, the Barbados registered fishing fleet included 193 iceboats of a mean overall length of 11.2 metres. Inboard engines of an average of 203 hp are used. 4. Longliners carry iceholds. In 2016, the Barbados registered fishing fleet included 47 longliners ranging of a mean overall length of 14.1 metres with inboard engines with an average of 319 hp.	Barbados Fisheries Division, 2017 (Unpublished manuscript).
Belize	Most fishing vessels range between 4.6 metres to 12.8 metres in length and are wooden or fibreglass fishing vessels fitted with outboard engines (15 to 75 hp) or sail. Categories include 1. Skiff - range from 3 metres to 12.8 metres in length with outboard engines (15 to 75 hp) 2. Sailboats - 5.8 metres to 12.5 metres in length usually fitted with sail and an auxiliary outboard engine ranging from (15 to 25 hp). Vessels are used to exploit both freshwater systems and the marine environment. However, only vessels operating in the marine environment are currently being registered and licensed by the Fisheries Department.	K. Esquivel, personal communication, June 18, 2021.
Dominica	The construction type of Dominica's fishing fleet has shifted significantly. The use of outboard engines, with outputs ranging from 80 to 150 horsepower has increased and "fibreglass reinforced plastic" (FRP) vessels are now preferred over keel-type vessels due to their durability. The sector is artisanal and vessels range from 4.6 metres to 7.6 metres (15 to 25 ft) undecked. Categories of vessels include: 1. Fibreglass reinforced plastic vessels 2. Keel-type vessels and pirogues 3. Canoes.	K. Hilton, personal communication, October 15, 2021.
Grenada	In 2007 (FAO) and 2011 (CRFM) reported that pirogues and small open vessels were the main types of vessels used in Grenada. Also that the range in boat sizes had increased from 4.9 to 9.1 metres to 4.9 to 16.8 metres in recent years. Categories of vessels included: 1. Small open boats; canoes and small pirogues 2. Open and decked pirogues 3. Longliners. In 2019, The categories of vessels remain the same as above and one 30 metres (88.58 ft) vessel was registered (Bowen, 2021).	FAO, 2007a; CRFM, 2011b; C. Bowen, personal communication, June 17, 2021.
Guyana	The marine capture fisheries are exploited by: 1. Trawler (Shrimp) - Have an average length of 22 metres and a maximum engine power of 500 hp. All vessels have a forward superstructure and aft working deck. The towing winch is located just aft of the	D. Roberts, personal communication, June 15, 2021.

[81] *Barbados' vessel registry is currently under review. Last information available was for 2016.*

CRFM Member States	Summary description of the fishing fleet (length of vessels is length overall - LOA)	Source / Reference
	superstructure, with its axis along the centreline, four trawls (two of each side) are towed at the same time, from the ends of two outriggers, on port and on starboard side of the vessel, they are essentially the Gulf of Mexico standard steel-hulled vessels with twin otter trawl nets. 2. Trawler (Finfish); Are like the design of regular shrimp trawlers, with modifications only being made to the gear type. 3. Inboards (Semi-industrial) - Are wooden crafts designed for long trips (fifteen day +). They are powered by multiple inboard engines of varying power ratios. The average semi-industrial fishing vessel can accommodate eight to ten persons. 4. Artisanal fishing vessels (Marine) - Are typically wooden flat-bottomed dory type vessels ranging in size from 6 to 18 metres. Artisanal vessels are powered primarily by outboard engines (15 to 45 hp) and inboard engines (200 + hp), with a capacity to accommodate two to six fishermen. 5. Artisanal fishing vessels (Inland and or nearshore)- Are of varying wooden designs, created from log dugouts or crafted as flat-bottomed dory type vessels, they range in size from 2 to 10 metres. Artisanal fishing vessels (inland) are powered primarily by outboard engines (10 to 40 hp) and or through manual propulsion with the use of wooden paddles. The typical capacity of these vessels ranges from one to four persons.	
Haiti	Vessels are artisanal vessels ranging from 3 to 6 metres Categories of vessels include: 1. Rowboats (*canots à quille*); length 3.3 to 6 metres 2. Flat-bottomed boats (*corallins*); length 3.3 to 5 metres 3. Dugout wooden boats (*pirogues monoxyles*); length 3.3 to 4 metres.	JICA and IC Net Limited, 2012.
Jamaica	The fishing fleet consist principally of open glass-fibre reinforced plastic, (GFRP) canoes. Categories of vessels include: 1. Dugout wood canoes and other small open canoes 2. Open reinforced fibreglass plastic (FRP) canoes most of which are 8.5 metres, large size wooden boats locally called *big head* 3. Fish trading vessels locally called *packer boats* 4. Steel or aluminium hull vessels operating as "mothership" on offshore banks.	FAO, 2004-2013b; Kong, 2003.
Montserrat	The length of vessels in the fleet ranges from 3.7 to 9.1 metres. The fleet consist of: 1. Traditional wooden boats 2. Open fibreglass reinforced pirogues (largest category).	CRFM, 2011b.
St. Kitts and Nevis	Approximately 80% of the fleet are open pirogues between 5 to 12 metres in length.	CRFM, 2006.
St. Lucia	Fishing vessels engaged in the fishery in St. Lucia range between 5 to 9 meters and are propelled mainly by outboard engines. Categories of vessels include: 1. Dugout wooden canoes 2. Fiberglass Reinforced Pirogues (FRP) 3. Open Yaule 4. Decked shaloop 5. Longliners 6. Whalers.	P. Medar, personal communication, June 17, 2021.
St. Vincent and the Grenadines	The majority of fishing vessels are open and powered by outboard engines. Types of vessels operating in St. Vincent and the Grenadines include: 1. The Flat Transoms- commonly called bow and Stern, dories or cigarette boat are open boats of 3 to 6 metres	Jackson, 2021 (Unpublished manuscript).

CRFM Member States	Summary description of the fishing fleet (length of vessels is length overall - LOA)	Source / Reference
	(11 to 27 ft) in length, powered by one or two outboard engines ranging from 14 to 115 hp. These boats constructed from wood or marine plywood are in many cases covered by epoxy or fiberglass, which provides a waterproof covering. Flat transoms have a pointed bow and a flat stern or transom and are used mostly in the lobster and conch fishery in the Grenadines but are sometimes uses in the demersals and seine fisheries. 2. Pirogues- also open boats with a pointed bow and flat transom. However, the bow is much higher than that of the flat transom boats and they are slightly larger. They range in length from 7 to 10 metres (19 to 30 ft) and have a beam of 1 to 2.8 metres (4 to 10 ft). Pirogues are powered by one or two outboard gasoline engines, with horsepower ranging from 40 to 85 hp. They are constructed using fiberglass. These vessels are used predominantly in the trolling and demersal fisheries. 3. Double enders - these are open boats with both ends of the boat shaped like the bow of a boat, hence the name "two bow". They range in length from 3 to 9 metres (10 to 29 ft) and have a beam of 1.2 to 2.4 metres (4 to 8 ft). In most cases, the only means of propulsion are oars, but occasionally, they may be powered by a 6 to 48 hp small outboard gas engine. They are predominantly used in the beach seine fishery. 4. Longliners - These are multipurpose vessels designed to operate up to 150 nautical miles from the islands with a 3 to 5 days stay at sea. They range in length from 10.6 to 14.8 metres (34.7 to 48.5 ft) with beams ranging from 3 to 4.8 metres (9.7 to 15.9 ft). They are constructed from Glass Reinforced Plastic (GRP) powered by inboard diesel engines ranging from 90 to 190 hp.	
Suriname	The marine offshore and coastal resources in Suriname are exploited by: 1. Shrimp bottom trawl vessels (max. length 28 metres; max. engine capacity 500 hp) 2. Finfish bottom trawl vessels (max. length 32 metres; max. engine capacity 500 hp) 3. Demersal longline vessels (max. length 30 metres; max. engine capacity 400 hp) 4. Pelagic longline vessels (max. length 32 metres; max. engine capacity 1000 hp) 5. Open coastal driftnet vessels (max. volume 65 m^3; max. engine capacity 75 hp) 6. Decked coastal driftnet vessels (max. volume 85 m^3; max. engine capacity 155 hp) The inland water resources in Suriname are exploited by: 7. Canoe type vessels (multi-gear) (max. length 10 metres)	T. Willems, personal communication, June 2, 2010.
Trinidad and Tobago	In 2020, there were an estimated 2,800 vessels in the marine capture fisheries of Trinidad and Tobago. Of these the vast majority (over 96%) were artisanal (2,701 pirogues usually 7 to 12 metres in length) and the remainder (99 vessels) non-artisanal ranging from less than 12 metres to more than 24 metres in length, and including single and double-rigged trawlers, longliners and fishpot/line vessels. Of the 2,800 fishing vessels, over 76% (2,143 vessels) were based in Trinidad and the remainder (657 vessels) based in Tobago.	L. Ferreira, personal communication, June 30, 2011.
Turks and Caicos Islands	The majority of the commercial vessels in the Turks and Caicos Islands are fiberglass "V" shaped hull vessels that range in size from 5 to 9 metres in length with outboard engines ranging from 60 to 200 hp. The recreational/sport fishing vessels are also fiberglass "V" shaped hulls ranging	K. Lockhart, personal communication, June 17, 2021.

CRFM Member States	Summary description of the fishing fleet (length of vessels is length overall - LOA)	Source / Reference
	from 5 to 12 metres in length with either in or outboard engines.	

Table 11: Categorization of vessel operating in the commercial capture fisheries by vessel length overall (LOA) classes (metres) as at 2019/2020 or the latest estimates available for CRFM Member States

CRFM Member States	Vessel size by length overall (LOA) classes[82] (metres)							Totals 2019 except otherwise stated	Totals for 2019
	Up to 5.9	6 - 11.9	12 - 17.9	18 - 23.9	24-29.9	30 - 35.9	Unknown		
Anguilla	NA	NA	NA	NA	NA	NA	NA	**NA**	**139**
Antigua and Barbuda	NA	NA	NA	NA	NA	NA	NA	**NA**	**354**
Bahamas	631	391	40	32	5	1	0	**1 100**	**1 100**
Barbados	NA	NA	NA	NA	NA	NA	NA	**NA**	**1 146**
Belize	8	599	0	0	0	0	0	**607**	**607**
Dominica	NA	NA	NA	NA	NA	NA	NA	**NA**	**339**
Grenada	978	740	300	8	2	0	179	**2 207**	**2 207**
Guyana	NA	NA	NA	NA	NA	NA	NA		**1 505**
Haiti	NA	NA	NA	NA	NA	NA	NA		**11 600**
Jamaica	2 341	5 085	605	142	0	0	0	**8 173**	**8 173**
Montserrat	11	22	0	0	0	0	0	**33** *(2020 est.)*	**31**
St. Kitts and Nevis	74	129	3	0	0	0	0	**206**	**206**
St. Lucia	163	757	6	1	0	0	0	**927**	**927**
St. Vincent and the Grenadines	NA	NA	NA	NA	NA	NA	NA		**933**
Suriname	1	543	451	164	9	8	0	**1 176**	**1 176**
Trinidad and Tobago	61	2 483	15	41	13	2	0	**2 615**	**2 615**
Turks and Caicos Islands	130	19	4	0	0	0	0	**153** *(2020 est.)*	**143**
Totals	**4 398**	**10 768**	**1 424**	**388**	**29**	**11**	**179**	**17 197**	**33 201**
Percentage (%)	**25.6**	**62.6**	**8.3**	**2.3**	**0.2**	**0.1**	**1.0**	**100.00**	

NA=*Not available.*

CHAPTER 3: FISH PRODUCTION OF THE CRFM MEMBER STATES

Fish harvesting activities occur in the recreational fisheries, sports fisheries, subsistence fisheries, commercial capture fisheries (including the bait fishery) and aquaculture.

Data and information on fish production exclusively from recreational fishing, sports fishing and subsistence fishing in the region were limited, as in most cases data were not collected from these sub-sectors. Fish production statistics from these sub-sectors were not included in this report at this time. During the period, the fisheries authorities of the CRFM Member States consistently collected data from the commercial capture fisheries and aquaculture facilities. However, the region's data collection systems tended to be more geared towards the collection of data from marine commercial capture fisheries, and in most cases data and statistics on commercial capture of fish from inland fresh water systems were also limited (see section 1.2.1).

[82] *International Standard Statistical Classification of Vessels by Length Classes, approved at the eleventh session of the CWP (Coordinating Working Party on Atlantic Fishery Statistics, 1982).*

3.1 Production of the marine capture fisheries of CRFM Member States

The annual average production for the period 2019 to 2020 was estimated at approximately 132,877 tonnes (landings/meat weight), 147,870 tonnes (live weight). The 2020 production of 145,883 tonnes (live weight)/132,267 tonnes (landed weight/meat weight) is the lowest production since 2011 (the last 10 year period). Annual average production for the period 2011 to 2020 (the last 10 year period) was 161,417 tonnes (live weight)/144,880 tonnes (landings/meat weight). Production was fairly stable at an average of 152,361 tonnes (landings/meat weight) between the years 2011 to 2013. In 2014 production fell to 137,157 tonnes (landings/meat weight) recovered to an average of 149,616 tonnes during 2015 to 2017 but decreased again in 2018. The downward trend continued in 2019 and 2020 with most Member States attributing decrease in production to the impacts and restrictions imposed by the COVID-19 pandemic.

The fall in production in 2018 was mainly due to fall in production of Guyana (1,447 tonnes decrease), Jamaica (4,048 tonnes decrease), and Suriname (11,022 tonnes decrease). Guyana's production further decreased by 2,861 tonnes and Suriname by 7,021 tonnes in 2019. While Suriname regained 6,803 tonnes in 2020 Guyana again recorded a loss of 4,850 tonnes which was attributed to COVID-19 pandemic impacts (Figure 4, Table 12, Table 13).

During the period 2014 to 2017 Suriname had been the top producer of marine capture fisheries of the region. However, in 2018 and 2019 Guyana was the top producer for the region. The top producer position was regained by Suriname in 2020. However, over the period 2011 to 2020 Guyana produced an average of 41,749 tonnes of fish annually while Suriname produced 38,943 tonnes annually (Table 15 and Figure 5).

The production of the high seas fleets of Belize and St. Vincent and the Grenadines produced 216,608 tonnes of fish in 2019 (Table 14).

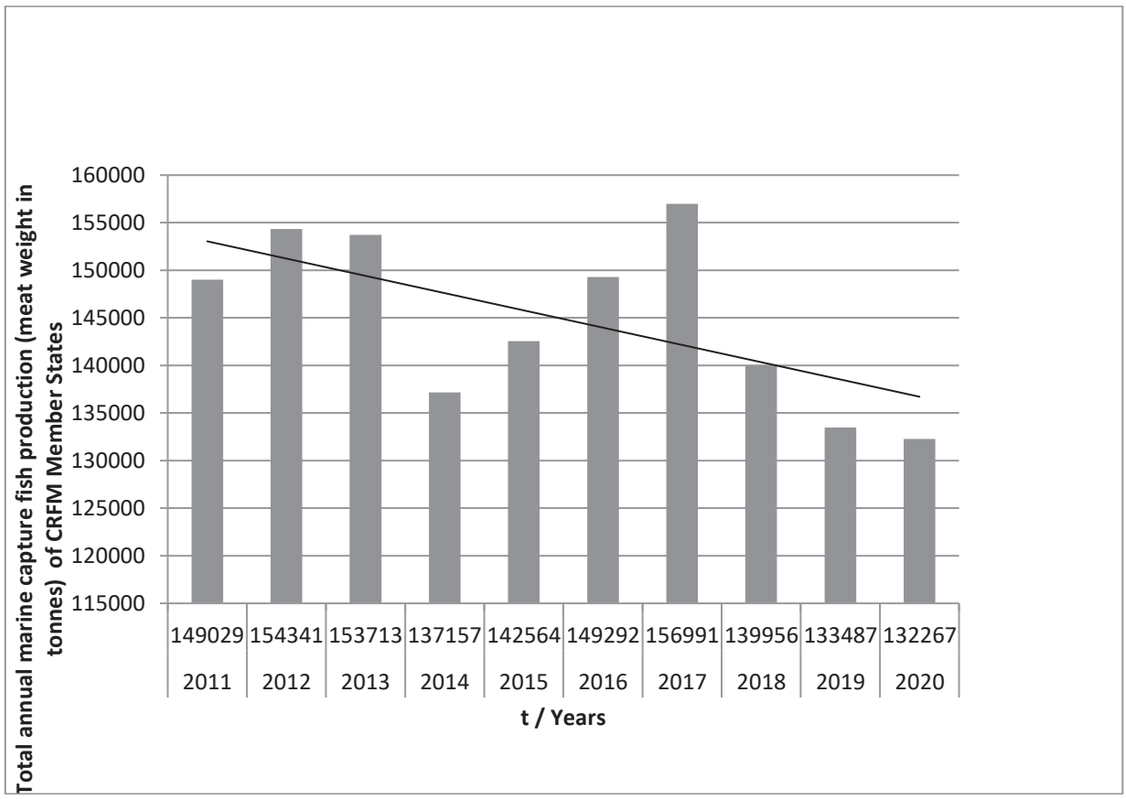

Figure 4: Annual total capture fish production (meat weight in tonnes) of CRFM States for period 2011 to 2020

Table 12: Annual marine capture fish production (live weight [83]in tonnes) and period average of CRFM Member States for the period 2007 to 2020

Member States	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019P	2020P	Average 2011-2020
Anguilla[84]	250	760	681	701	1 007	1 118	858	940	872	1 013	1 310	1 310	1 310	1 310	**1 105**
Antigua and Barbuda[85]	3 092	3 521	2 490	2 293	3 191	5 951	4 606	3 114	3 165	3 165	3 165	3 164	6 049	6 049	**4 162**
Bahamas	10 809	14 704	13 731	16 190	15 164	16 557	12 734	11 795	11 297	11 620	11 593	11 140	9 892	7 195	**11 899**
Barbados[86]	2 391	3 220	3 467	3 229	1 773	1 304	2 919	2 153	1 414	1 652	1 658	1 552	847	936	**1 621**
Belize	4 195	4 205	4 922	4 529	4 930	5 835	4 720	3 887	3 764	4 053	4 486	6 517	7 924	5 656	**5 177**
Dominica[87]	824	732	686	560	662	625	528	730	945	770	703	763	763	763	**725**
Grenada	2 393	2 407	2 387	2 458	2 451	2 445	2 952	3 028	2 904	2 982	2 636	2 636	2 735	2 363	**2 713**
Guyana	42 615	41 366	42 056	46 040	44 364	53 093	49 576	36 946	35 835	41 808	42 694	41 247	38 386	33 536	**41 749**
Haiti[88]	11 950	17 950	17 950	17 950	17 800	17 800	17 800	17 800	17 300	18 500	18 580	18 580	18 580	18 580	**18 132**
Jamaica	15 998	12 625	15 805	15 174	17 507	14 518	17 513	14 506	16 327	16 240	18 381	14 333	12 372	11 526	**15 322**
Montserrat	22	31	37	24	33	37	40	37	37	27	27	27	18	15	**30**
St. Kitts and Nevis[89]	1 154	1 171	1 213	1 093	1 155	1 155	383	423	896	945	861	1 047	655	655	**818**
St. Lucia	1 776	2 069	2 078	1 983	1 946	2 116	1 895	2 162	2 245	2 299	2 349	2 148	1 553	1 269	**1 998**
St. Vincent and the Grenadines	982	636	971	819	848	746	1 021	1 075	1 029	892	2 386	2 232	4 009	4 411	**1 865**
Suriname	2 9013	23 449	25 575	33 842	36 225	36 650	38 719	37 708	43 915	42 197	48 580	37 558	30 537	37 340	**38 943**
Trinidad and Tobago (R)[90]	13 204	13 834	13854	13 930	13 107	12 062	13 138	13 201	13 271	13 045	12 899	13 234	12 983	12 983	**12 992**
Turks and Caicos Islands (R[91])	6 134	6 803	5 446	3 801	3 326	1 959	2 013	2 360	2 917	3 144	1 324	2 090	1 243	1 297	**2 167**
Totals	**146 802**	**149 482**	**153 349**	**164 616**	**165 489**	**173 970**	**171 415**	**151 866**	**158 133**	**164 350**	**173 631**	**159 577**	**149 856**	**145 883**	**161 417**

P = Provisional data
R = Revised data

Source: Obtained directly from the fisheries authority in the respective Member States, national reports presented at the Annual CRFM Scientific Meetings, and literature searches.

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[83] Conversion factor for meat weight/50% clean to live weight is x 7.9 (Prada et al., 2017) except for Antigua and Barbuda conversion factor 6.77 (Horsford et al., 2011).
[84] Anguilla: last available estimate was 2017.
[85] Antigua and Barbuda: provisional estimates used were: for 2016 and 2017 (2015 estimate), and 2020 (2019 estimate).
[86] Data 2010-2018 were revised.
[87] Dominica: last available estimate was 2018.
[88] Haiti: last available estimate was 2016.
[89] St. Kitts and Nevis last available estimate was 2019.
[90] Trinidad and Tobago last available estimate was 2019.
[91] Turks and Caicos Islands; all estimates were revised up to 2020.

Table 13: Annual marine capture fish production (meat weight [92]in tonnes) of CRFM Member States for the period 2011 to 2020

Member States	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019P	2020P	Average 2011 to 2020
Anguilla[93]	250	702	493	461	643	706	655	752	694	733	758	758	758	758	**722**
Antigua and Barbuda[94]	2 644	2 345	1 833	1 631	1 975	2 596	1 752	1 709	1 815	1 815	1 815	1 815	3 622	3 622	**2 254**
Bahamas	8 345	9 127	9 025	11 621	10 289	11 451	7 845	8 176	7 783	9 286	8 567	7 434	8 304	6 351	**8 549**
Barbados (R)[95]	2 391	3 220	3 467	3 229	1 773	1 304	2 919	2 153	1 414	1 652	1 658	1 552	847	936	**1 621**
Belize	2 489	2 592	2 926	2 618	2 401	2 635	1 874	1 755	1 548	1 548	1 421	1 590	1 562	1 350	**1 768**
Dominica[96]	824	732	686	700	662	625	528	730	945	770	703	763	763	763	**725**
Grenada	2 211	2 387	2 374	2 451	2 321	2 266	2 698	2 854	2 711	2 823	2 472	2 472	2 735	2 363	**2 571**
Guyana	42 615	41 366	42 056	46 040	44 364	53 093	49 576	36 946	35 835	41 808	42 694	41 247	38 386	33 536	**41 749**
Haiti[97]	10 000	16 000	16 000	16 000	16 500	16 500	16 500	16 500	16 000	17 200	17 200	17 200	17 200	17 200	**16 800**
Jamaica	11 838	10 025	13 205	12 314	14 907	10 943	14 263	11 256	13 077	12 990	14 931	10 883	12 372	11 526	**12 715**
Montserrat	22	31	37	24	33	37	40	37	37	27	27	27	18	15	**30**
St. Kitts and Nevis[98]	517	540	589	475	654	654	383	423	454	412	454	585	360	360	**474**
St. Lucia	1 509	1 809	1 857	1 801	1 693	1 709	1 639	1 695	1 616	1 702	1 669	1 633	1 553	1 269	**1 618**
St. Vincent and the Grenadines	982	636	971	819	783	668	714	732	809	649	815	802	1 155	1 538	**867**
Suriname	29 013	23 449	25 575	33 842	36 225	36 650	38 719	37 708	43 915	42 197	48 580	37 558	30 537	37 340	**38 943**
Trinidad and Tobago (R)[99]	13 204	13 834	13 854	13 930	13 107	12 062	13 138	13 201	13 271	13 045	12 899	13 234	12 983	12 983	**12 992**
Turks and Caicos Islands (R)[100]	1 200	1 110	865	705	698	443	471	530	641	634	328	403	332	358	**484**
Annual Totals for CRFM region	**130 054**	**129 905**	**135 813**	**148 661**	**149 029**	**154 341**	**153 713**	**137 157**	**142 564**	**149 292**	**156 991**	**139 956**	**133 487**	**132 267**	**144 880**

P = Provisional data,
R = Revised.
Source: Obtained directly from the Fisheries Authority in the respective Member States, National Reports presented at the Annual CRFM Scientific Meetings, and literature searches

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[92] *Meat weight taken as landings.*
[93] *Anguilla: last available estimate was 2017.*
[94] *Antigua and Barbuda: provisional estimates used were: for 2016 and 2017 (2015 estimate), and 2020 (2019 estimate).*
[95] *Data 2010 to 2018 were revised.*
[96] *Dominica: last available estimate was 2018.*
[97] *Haiti: last available estimate was 2016.*
[98] *St. Kitts and Nevis last available estimate was 2019.*
[99] *Trinidad and Tobago last available estimate was 2019.*
[100] *Turks and Caicos Islands– all estimates were revised up to 2020.*

Table 14: Marine capture fish production (meat weight in tonnes) of high seas fleets from the CRFM region for 2011 to 2020

Member States from the CRFM region	High seas fishery production (t) 2011	High seas fishery production (t) 2012	High seas fishery production (t) 2013	High seas fishery production (t) 2014	High seas fishery production (t) 2015	High seas fishery production (t) 2016	High seas fishery production (t) 2017	High seas fishery production (t) 2018	High seas fishery production (t) 2019	High seas fishery production (t) 2020	Source of data
Belize	16 949	24 844	18 089	21 536	22 883	17 556	20 432	33 208	215 737	160 711	Belize High Seas Fisheries Unit (V. Lanza, personal communication February 10, 2020 & April 14, 2021)
St. Kitts and Nevis	29 261	19 703	15 900	65 401	99 506	64 756	84 502	NA	0	0	Department of Marine Resources, St. Kitts and Nevis (N. Browne, personal communication, Jan.15, 2020)
St. Vincent and the Grenadines	1 715	1 158	851	2 212	1 198	1 803	2 489	1 365	871	NA	Fisheries Division St. Vincent and the Grenadines (C. Jackson, personal communication, Sep. 6, 2018 and June 22 ,2021)
Totals	**47 925**	**45 705**	**34 840**	**89 149**	**123 587**	**84 115**	**107 423**	**34 573**	**216 608**	**NA**	

Table 15: The production[101] (Prod.) in tonnes (t) of the six highest marine capture fish producers (in descending order) from among the CRFM Member States for the period 2015 to 2020

Order of Member State	Member States	Prod. (t) 2015	Member States	Prod. (t) 2016	Member States	Prod. (t) 2017[102]	Member States	Prod.[103] (t) 2018	Member States	Prod. (t) 2019	Member States	Prod.[104] (t) 2020
1st	Suriname	43 915	Suriname	42 197	Suriname	48 580	Guyana	41 247	Guyana	38 386	Suriname	37 340
2nd	Guyana	35 835	Guyana	41 808	Guyana	42 694	Suriname	37 558	Suriname	30 537	Guyana	33 536
3rd	Haiti	16 000	Haiti	17 200	Haiti	17 200	Haiti	17 200	Haiti	17 200	Haiti	17 200
4th	Trinidad and Tobago	13 271	Trinidad and Tobago	13 045	Jamaica	14 931	Trinidad and Tobago	13 234	Trinidad and Tobago	12 983	Trinidad and Tobago	12 983
5th	Jamaica	13 077	Jamaica	12 990	Trinidad and Tobago	12 899	Jamaica	10 883	Jamaica	12 372	Jamaica	11 526
6th	Bahamas	7 783	Bahamas	9 286	Bahamas	8 567	Bahamas	7 434	Bahamas	8 304	Bahamas	6 351

[101] *Calculations were based on meat weight (landings).*
[102] *Provisional estimates used for 2017: Haiti, Barbados and Montserrat - 2016 est.; Antigua and Barbuda 2015 est.*
[103] *Provisional estimates used for 2018: Haiti and Barbados and Montserrat - 2016 est.; Anguilla and Grenada - 2017 est.; Antigua and Barbuda 2015 est.*
[104] *Provisional estimates used for 2020: Haiti - 2016 est.; Trinidad and Tobago 2019 est.*

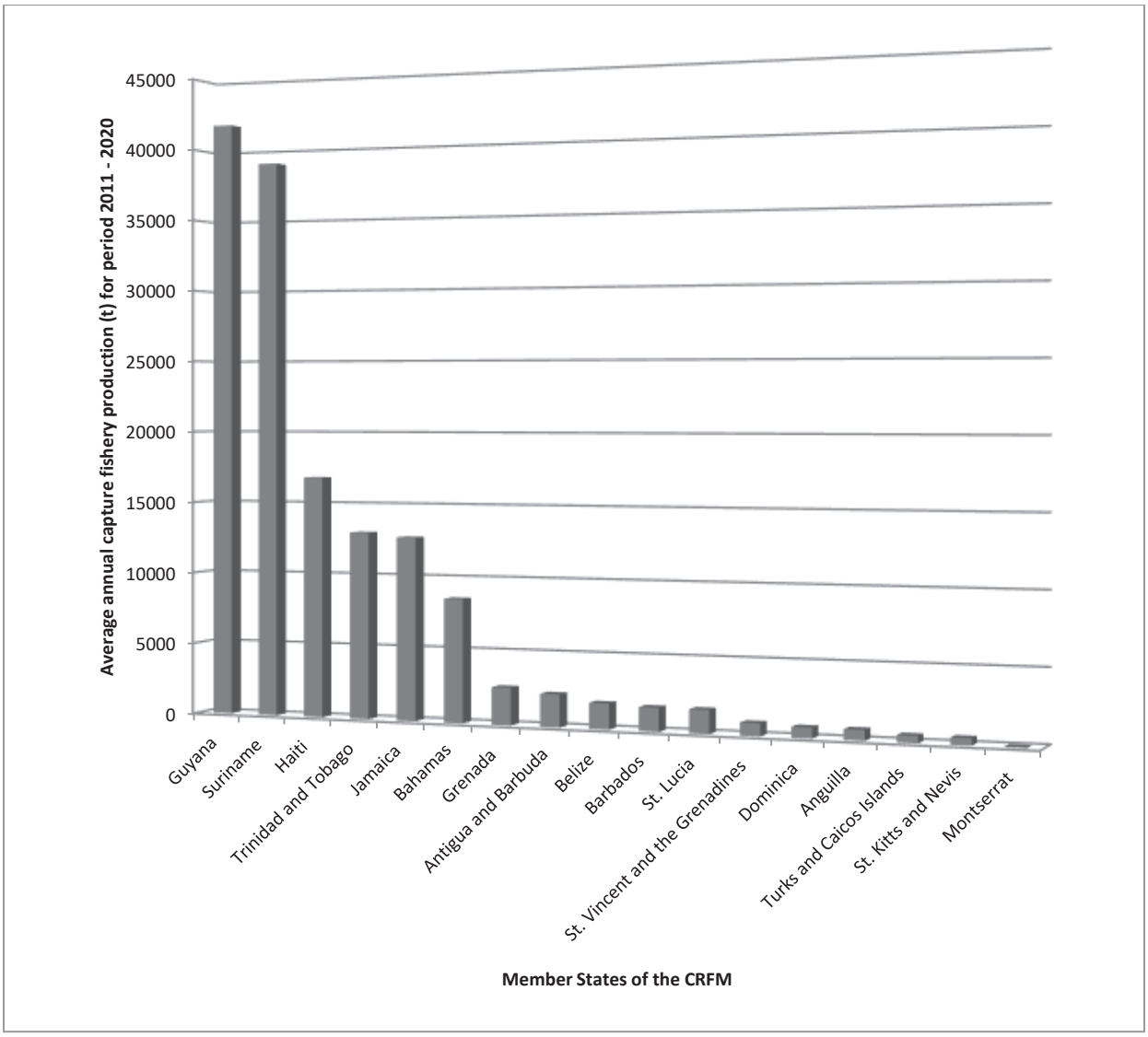

Figure 5: Average annual marine capture fisheries production (meat weight in tonnes) of CRFM Member States (in descending order) for period 2011 to 2020

Over the last two-year period (2019 to 2020), Guyana, Suriname, Haiti, Trinidad and Tobago, Jamaica and the Bahamas (the top six meat weight producers respectively), produced approximately 90% of the average total meat weight of the marine fish production of the CRFM Member States[105], and over the longer time period of 2011 to 2020 (10 years) they produced 91% of the total. Over the 10 year period, Guyana's average annual contribution to the average total marine capture fish production of the region was approximately 29% of the annual total, that of Suriname approximately 27% and that of the other top producers between 6% and 11% and the other CRFM Member States combined, contributed approximately 9% annually (Table 16 and Figure 6).

[105] *Calculations were based on meat weight (landings) values*

Table 17 shows marine capture fish production (in tonnes) of CRFM Member States by fishery and species for 2017 (unless otherwise stated).

Table 16: Average annual production and percentage contributions by CRFM Member States to the total average annual fish production (meat weight in tonnes) for the periods 2011 to 2020 and 2019 to 2020[106]

Member States	Average annual production (meat weight in t) 2011 to 2020	% contribution to the total average annual production (meat weight in t) 2011 to 2020	Member States	Average annual production (meat weight in t) 2019 to 2020	% contribution to the total average annual production (meat weight in t) 2019 to 2020
Guyana	41 749	28.8	**Guyana**	35 961	27.06
Suriname	38 943	26.9	**Suriname**	33 939	25.54
Haiti	16 800	11.6	**Haiti**	17 200	12.94
Trinidad and Tobago	12 992	9.0	**Trinidad and Tobago**	12 983	9.77
Jamaica	12 715	8.8	**Jamaica**	11 949	8.99
Bahamas	8 549	5.9	**Bahamas**	7 327	5.51
Grenada	2 571	1.8	**Antigua and Barbuda**	3 622	2.73
Antigua and Barbuda	2 254	1.6	**Grenada**	2 549	1.92
Belize	1 768	1.2	**Belize**	1 456	1.10
Barbados	1 621	1.1	**St. Lucia**	1 411	1.06
St. Lucia	1 618	1.1	**St. Vincent and the Grenadines**	1 347	1.01
St. Vincent and the Grenadines	867	0.6	**Barbados**	892	0.67
Dominica	725	0.5	**Dominica**	763	0.57
Anguilla	722	0.5	**Anguilla**	758	0.57
Turks and Caicos Islands	484	0.3	**St. Kitts and Nevis**	360	0.27
St. Kitts and Nevis	474	0.3	**Turks and Caicos Islands**	345	0.26
Montserrat	30	0.0	**Montserrat**	17	0.01
Total average annual fish production (meat weight in t)	**144 880 (2011-2020)**	**100%**		**132 877 (2011-2020)**	**100.00 %**

[106] *Calculations were done based on the values found in Table 13.*

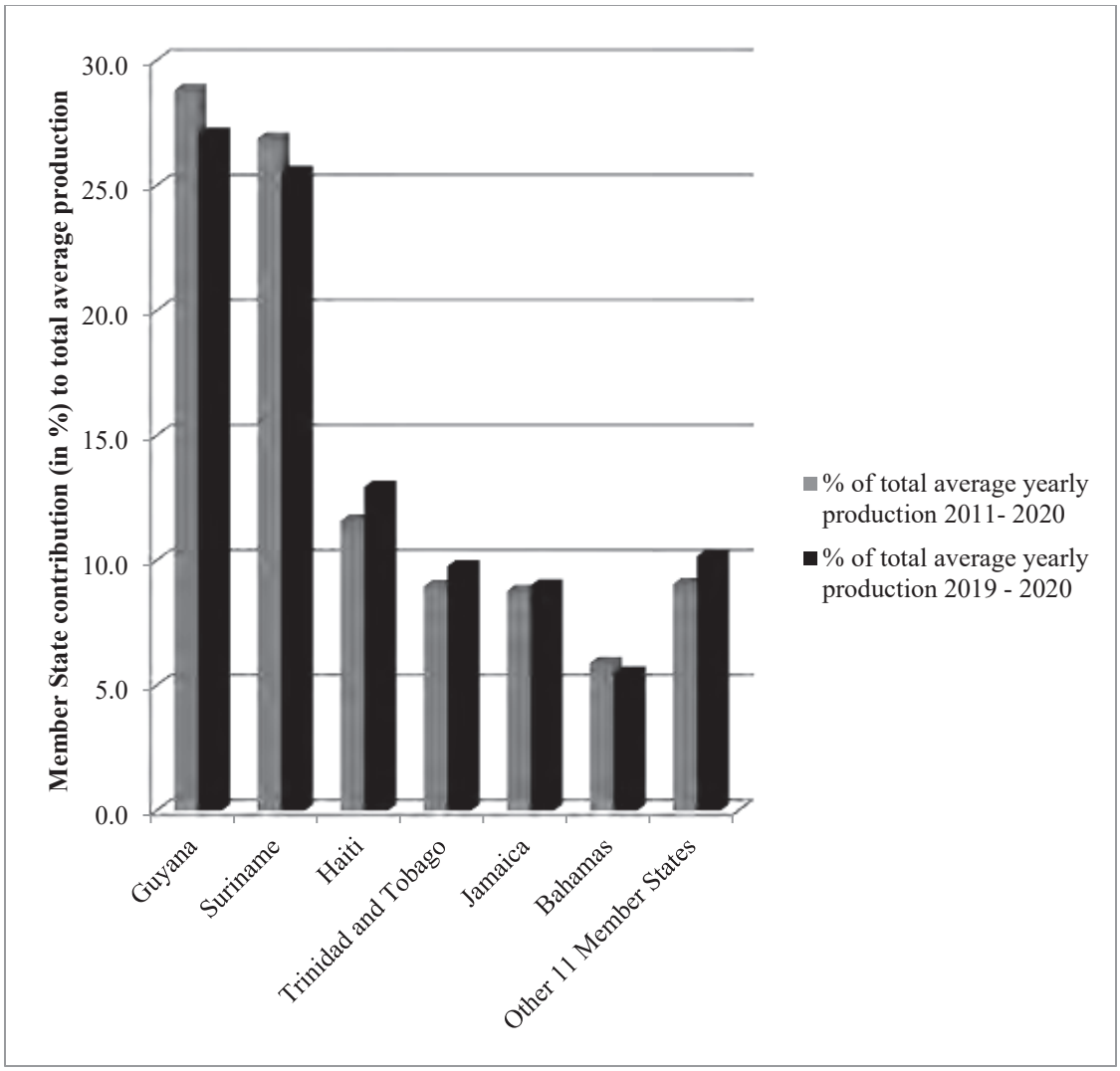

Figure 6: Percentage contributions to the total average annual fish production (meat weight in tonnes) for the period 2011 to 2020 and 2019 to 2020, of the six highest marine capture fisheries producers and all others combined, from CRFM Member States

Table 17: Production (meat weight in tonnes) of the marine capture fishery of CRFM Member States by species and fishery for year 2017[107] (unless otherwise stated)I

Fishery	Species	AN	A&B[108]	BAH	BAR[109]	BEL	DOM	GRE	GUY	HAI[110]	JAM[111]	MON[112]	SKN	SLU	SVG	SUR[113]	T&T	TCI[114]
SMALL COASTAL PELAGICS	Jacks							40.68				0.70			29.11		254.25	
	Scads							10.89					2.00		40.48			
	Carangids aggregated		15.00	21.00	43.00										0.00			
	Herrings & Shads														111.84		0.51	
	Needlefish / Gar							0.18				10.77	14.00		6.32			
	Flyingfish				469.00			0.88					9.00	0.71	0.02			
	Halfbeaks/Ballyhoo (Hemiramphus sp.)											0.90			30.97			
	Others aggregated																	
Total ; Small coastal pelagic fishery		0.00	15.00	21.00	512.00	0.00	0.00	52.63	0.00	0.00	0.00	12.37	25.00	0.71	218.74	0.00	254.76	0.00
SHALLOW SHELF AND REEF FISHERY	Snappers	52.00	333.00	192.00	31.00			87.31	950.00			3.63	47.00	34.77	26.33			
	Grunts		126.00	42.00				6.31					12.00		1.82			
	Red hind & Coney & Butterfish							130.13				2.40			52.87			
	Other groupers		163.00					1.64					52.00		0.01			
	Triggerfishes		119.00	9.64				2.90				1.20	13.00		0.93			
	Parrotfishes		53.00					94.64					47.00		7.52			
	Squirrelfishes		11.00					4.61				0.70	13.00		0.21			
	Angelfishes		19.00					0.64										
	Porgies, Seabreams		2.00												0.01			
	Surgeonfishes (doctorfishes)		151.00					2.56				0.90	16.00		0.21			
	Other marine fishes																	

[107] *Disaggregated species weights were not available for 2019 and 2020 for most CRFM Member States.*
[108] *2015 estimates.*
[109] *2016 estimates.*
[110] *2011 estimates.*
[111] *Finfish species were not disaggregated.*
[112] *2014 data used as 2017 data were not available.*
[113] *Data for fin fish was not disaggregated.*
[114] *Missing is the 2017 estimate of fin fish catch - not available.*

Fishery	Species	AN	A&B[108]	BAH	BAR[109]	BEL	DOM	GRE	GUY	HAI[110]	JAM[111]	MON[112]	SKN	SLU	SVG	SUR[113]	T&T	TCI[114]
	Other mollusks, oysters, squids							0.04										
	Crabs		1.00	28.33	0.00	1.78											50.16	
Total; Shallow shelf and reef fishery		52.00	978.00	271.97	31.00	1.78	0.00	330.77	950.00	0.00	0.00	8.83	200.00	34.77	89.92	0.00	50.16	0.00
SHELF AND DEEP SLOPE	Deep water snappers														2.11			
	Nassau groupers			51.10											0.01			
	Other groupers/seabasses			44.11											0.22			
	Others aggregated																	
Total ; Shelf and deep slope fishery		0.00	0.00	95.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.34	0.00	0.00	0.00
LARGE OFFSHORE PELAGICS FISHERY	Yellowfin tuna						135.90	1 257.60					30.00		58.21		889.91	
	Blackfin tuna						32.10	95.90							4.89		5.02	
	Wahoo						5.30	32.35				0.20	15.00	109.78	9.03		8.51	
	Common dolphinfish		22.00		405.00		228.30	122.76				0.10	65.00	403.09	44.45		7.56	
	Other tunas/ tuna-like fishes		20.00		307.00		31.80	113.69	417.00			0.03	7.00	537.80	48.31		442.13	
	Barracudas		4.00	3.50				103.89				0.10			19.77		0.01	
	Swordfish				16.00		0.50	36.28									35.61	
	Marlins						70.70	62.82					9.00	134.87	6.55		0.17	
	Sailfishes						2.60	165.15									63.50	
	Other mackerels				13.00			6.06							0.30		1 250.38	
	Others/aggregated				76.00			4.57							0.55			
	Sharks, rays, skates		22.00		13.00	24.36		18.14						5.15	6.80		531.39	
Total; Large offshore pelagics fishery		0.00	68.00	3.50	830.00	24.36	507.20	2 019.21	417.00	0.00	0.00	0.43	126.00	1 190.7	198.86	0.00	3 234.17	0.00
MARINE MAMMAL FISHERY	Pilot whales														7.83			
	Porpoises														2.52			
	Others aggregated														0.00			
Total; Marine mammal fishery		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.35	0.00	0.00	0.00
LOBSTER FISHERY	Caribbean spiny lobster	205.00	277.00	7 709.0		927.89		35.67			483.67		30.00	18.60	54.13		21.32	153.48
	Spanish slipper lobster	0.00																

Fishery	Species	AN	A&B[108]	BAH	BAR[109]	BEL	DOM	GRE	GUY	HAI[110]	JAM[111]	MON[112]	SKN	SLU	SVG	SUR[113]	T&T	TCI[114]
	Others/aggregated	20.00								600.00					0.00			
Total; Lobster Fishery		225.00	277.00	7 709.0	0.00	927.89	0.00	35.67	0.00	600.00	483.67	0.00	30.00	18.60	54.13	0.00	21.32	153.48
CONCH FISHERY	Queen conch	80.00	233.83	438.53		444.25		23.74		200.00	500.00		59.00	98.58	227.68			96.8
	Others aggregated																	
Total; Conch Fishery		80.00	233.83	438.53	0.00	444.25	0.00	23.74	0.00	200.00	500.00	0.00	59.00	98.58	227.68	0.00	0.00	96.8
SEA TURTLES FISHERY	Sea turtles							1.06										
Total; Sea turtles fishery		0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ECHINODERM FISHERY	White sea eggs																	
	Sea cucumber																	
Total; Echinoderm fishery		0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHRIMP FISHERY	Seabob								21 765.00							8 272.00	687.12	
	Other shrimp								1 686.00	50.00						315.00		
Total; Shrimp fishery		0.00	0.00	0.00	0.00	0.00	0.00	0.00	23 451.00	50.00	0.00	0.00	0.00	0.00	0.00	8 587.00	687.12	0.00
Marine fish nei[115]		401.0	244.0	28.2	63.0	22.5	195.7	8.6	17 876.0	15 650.0	13 947.8	15.6	14.0	325.3	9.1	39 993.0	8 651.3	
TOTAL: ALL FISHERIES		758.0	1 815.8	8 567.4	1 436.0	1 420.8	702.9	2 471.7	42 694.0	16 500.0	14 931.4	37.3	454.0	1 668.6	811.1[116]	48 580.0	12 898.8	250[117]

Notes:
Marine fish nei - includes all marine fish which were not identified.

[115] *nei = not elsewhere included.*
[116] *3.9 tonnes of Sicydium plumieri (Tri-tri) not included in this total as it was recorded under Inland Catches- see Table 3.*
[117] *Fin fish data were not available.*

3.2 Aquaculture fish production of CRFM Member States

During the period 2013 to 2020 the region produced approximately 8,577 tonnes of fish annually from aquaculture systems. Belize was the largest aquaculture producer over the period 2013 to 2015, producing approximately 6,025 tonnes annually. In 2017 new information received from the Fisheries Department of Haiti indicated that aquaculture production in 2016 was 6,400 tonnes (Haiti did not have available new estimates for 2017 to 2020) (Table 18). In 2015 and 2016 Belize experienced the occurrence of a shrimp disease (Early Mortality Syndrome - EMS) which caused production losses and the sector also suffered from the impact of COVID-19. Belize produced only 457 tonnes in 2019 and 290 tonnes in 2020. Jamaica's production had been increasing since 2016 (44% in 2016, 45% in 2017 and 13% in 2018). Jamaica reported that this resulted from the entrance of a large producer who was responsible for approximately 50% of the total aquaculture production over those years. Additionally, some veteran fish farmers also re-entered the production of tilapia in order to take advantage of an increasing demand for fresh fish, and some existing farmers increased their production acreage (A. Smikle, personal communication February 14, 2020). However, in 2019 Jamaica's production decrease to approximately 1,118 t, and due to the impacts of COVID-19 produced only 912 tonnes in 2020 (Table 18). Table 19 shows total fish (meat weight) production (prod.) in tonnes from marine capture fisheries (MCF) added to the aquaculture production (AC prod) for CRFM Member States for period 2013 to 2020.

Table 18: Annual aquaculture production[118] (AC prod. in tonnes) and average annual aquaculture production of CRFM Member States for period 2013 to 2020

Member States	AC prod. (meat weight in t) 2013	AC prod. (meat weight in t) 2014	AC prod. (meat weight in t) 2015	AC prod. (meat weight in t) 2016	AC prod. (meat weight in t) 2017	AC prod. (meat weight in t) 2018	AC prod. (meat weight in t) 2019	AC prod. (meat weight in t) 2020
Anguilla	0	0	0	0	0	0	0	0
Antigua and Barbuda	NA	NA	NA	NA	NA	14.7	25	25[119]
Bahamas	NA	NA	NA	NA	NA	NA	NA	NA
Barbados	0	0	0	0	0	0	0	0
Belize[120]	6 834	6 489	4 752	1 109	648	573	457	290
Dominica	NA	NA	0	0	0	0	0	0
Grenada	NA	NA	NA	NA	NA	NA	NA	NA
Guyana	218	379	418	470	696.6	311	247	138
Haiti[121]	560	560	2 600	6 400	6 400	6 400	6 400	6 400
Jamaica	836	698	646	927	1 340	1 512	1 118	912
Montserrat	0	0	0	0	0	0	0	0
St. Kitts and Nevis	NA	NA	NA	NA	NA	NA	NA	NA
St. Lucia	14	12	24	27	13	14	17	9
St. Vincent and the Grenadines	0	0	0	0	0	0	0	0
Suriname	79	80.37	122	122	82	58	55	22
Trinidad and Tobago	8	5.45	24	11	5	5	3	3
Turks and Caicos Islands	NA	NA	NA	NA	0	0	0	0
Totals	**8 549**	**8 224**	**8 585**	**9 067**	**9 185**	**8 888**	**8 322**	**7 799**

NA= Not Available

[118] *Calculations were based on meat weight.*
[119] *2019 estimate.*
[120] *Figures are the export quantities and values taken to be equivalent to production.*
[121] *Last available estimate was 2016.*

Table 19: Total fish (meat weight) production (prod.) in tonnes (t) from marine capture fisheries (MCF) and aquaculture (AC) for CRFM Member States for period 2013 to 2020

Member States	MCF prod. + AC prod. (t) 2013	MCF prod. + AC prod. (t) 2014	MCF prod. + AC prod. (t) 2015	MCF prod. + AC prod. (t) 2016	MCF prod. + AC prod. (t) 2017	MCF prod. + AC prod. (t) 2018	MCF prod. + AC prod. (t) 2019	MCF prod. + AC prod. (t) 2020
Anguilla[122]	655	752	694	733	758	758	758	758
Antigua and Barbuda[123]	1 752	1 709	1 815	1 815	1 815	1 830	3 646	3 646
Bahamas	7 845	8 176	7 783	9 286	8 567	7 434	8 304	6 351
Barbados (R)[124]	2 919	2 153	1 414	1 652	1 658	1 552	847	936
Belize	8 708	8 244	6 300	2 657	2 069	2 163	2 020	1 639
Dominica[125]	528	730	945	770	703	763	763	763
Grenada	2 698	2 854	2 711	2 823	2 472	2 472	2 735	2 363
Guyana	49 794	37 325	36 253	42 278	43 391	41 558	38 633	33 674
Haiti[126]	17 060	17 060	18 600	23 600	23 600	23 600	23 600	23 600
Jamaica	15 099	11 954	13 723	13 917	16 271	12 395	13 490	12 438
Montserrat	40	37	37	27	27	27	18	15
St. Kitts and Nevis[127]	383	423	454	412	454	585	360	360
St. Lucia	1 653	1 707	1 640	1 729	1 682	1 647	1 570	1 278
St. Vincent and the Grenadines	714	732	809	649	815	802	1 155	1 538
Suriname	38 798	37 788.	44 037	42 319	48 662	37 616	30 592	37 362
Trinidad and Tobago (R)[128]	13 146	13 205	13 295	13 056	12 904	13 239	12 986	12 986
Turks and Caicos Islands (R)[129]	471	530	641	634	328	403	332	358
Totals	**162 262**	**145 381**	**151 151**	**158 358**	**166 176**	**148 845**	**141 809**	**140 066**

[122] *Anguilla: last available estimate was 2017.*
[123] *Antigua and Barbuda: provisional estimates used were: for 2016 and 2017 (2015 estimate), and 2020 (2019 estimate).*
[124] *Production data 2010 to 2018 were revised.*
[125] *Dominica: last available estimate was 2018.*
[126] *Haiti: last available estimate was 2016.*
[127] *St. Kitts and Nevis last available estimate was 2019.*
[128] *Trinidad and Tobago last available estimate was 2019.*
[129] *Turks and Caicos Islands – all estimates were revised up to 2020.*

CHAPTER 4: EMPLOYMENT IN THE FISHERIES SECTOR OF CRFM MEMBER STATES

4.1 Number of persons employed in direct production in the fisheries sector of the CRFM region

The number of persons employed in direct production in the commercial marine capture fisheries and aquaculture sub-sectors (including full time[130] and part time[131] fishers, harvesters and farmers engaged in, artisanal / subsistence[132] and commercial activities) in the CRFM region in 2019, was approximately 118,053 persons (113,257 persons employed in direct production in the marine capture fisheries and 4,796 persons employed in direct production in aquaculture) (Table 20). The 2018 estimates were approximately 123,540 persons (118,811 persons employed in direct production in the marine capture fisheries and 4,729 persons employed in direct production in aquaculture). Therefore the 2019 estimate has decreased by 5,487 persons. Fishers who harvest fish exclusively for recreation[133] and or sport as well as those fishers harvesting exclusively from inland freshwater systems (where these fishers were not registered by the fisheries authority of the Member State), were not accounted for as those data were not available. Member States with inland waters/fresh water systems that are of cultural and /or subsistence, and/or economic importance includes: Antigua and Barbuda, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago. However, most of these Member States did not have available information on the number of persons employed in direct production from the inland waters and or freshwater systems (rivers, ponds, lakes etc.).

The fisheries sector also provides employment for many persons who supply services and goods to the primary producers. This includes persons engaged in processing, preserving, storing, transporting, marketing and distribution or selling fish or fish products, as well as other ancillary activities, such as net and gear making, ice production and supply, vessel construction and maintenance as well as persons involved in research, development and administration linked with the fisheries sector. Most CRFM Member States did not have available the number of persons involved in supplying goods and services to the fishing industry. However according to FAO (2010), some estimates indicate that, for each person employed in capture fisheries and aquaculture production, about three jobs are produced in the secondary activities, including post-harvest. When this estimate was applied, the total number of persons employed in the fisheries sector of the CRFM region was estimated at approximately 472,212 in 2019 which was approximately 5.4% of the workforce of the region (Table 21). In 2018 the total number of persons employed in the fisheries sector of the CRFM region was estimated at approximately 494,160, which was approximately 5.8% of the workforce of the region.

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[130] Full-time fishers receive at least 90% of their livelihood from fishing or spend at least 90% of their working time in that occupation (FAO, 2012a).

[131] Part-time fishers receive at least 30% but less than 90% of their livelihood from fishing or spend at least 30% but less than 90% of their working time in that occupation (FAO, 2012a).

[132] Artisanal fisheries are traditional fisheries involving fishing households (as opposed to commercial companies), using relatively small amount of capital and energy, relatively small fishing vessels (if any), making short fishing trips, close to shore, mainly for local consumption. In practice, definition varies between countries, e.g., from gleaning or a one-man canoe in poor developing countries, to more than 20 m trawlers, seiners, or long-liners in developed ones. Artisanal fisheries can be subsistence or commercial fisheries, providing for local consumption or export. They are sometimes referred to as small-scale fisheries (FAO, 2005a).

[133] Recreational Fishery can be defined as a non-commercial (i.e. not for sale, barter, or trade) subset of capture/harvest fisheries; motivated by catching fish for fun, pleasure, or sport (Gaudin & De Young, 2007).

Table 20: Number of persons employed in direct production in the marine capture fisheries, aquaculture and other fisheries dependent activities in Member States of the CRFM region in 2018 and 2019

MEMBER STATES	Number of persons employed in direct production in the marine commercial capture fisheries[134]		Source (Year of estimate)	Number of persons employed in direct production in aquaculture		Source (Year of estimate)	Number of persons employed in other fisheries dependent activities 2019		Fishing Sector Employment (2019 estimates)	
	2018	2019		2018	2019		Country provided estimates	Calculated after FAO, 2010**	Country provided estimates	Calculated after FAO, 2010**
Anguilla	207	207	Dept. of Fisheries & Marine Resources Anguilla, 2019* (2017 est.).	0	2	Dept. of Fisheries & Marine Resources Anguilla, 2019* (2017 & 2019 est.).	NA	627	NA	836
Antigua and Barbuda	1 894[135]	2 149	Fisheries Division Antigua and Barbuda, 2021* (2015 and 2019 est.).	2	4	Fisheries Division Antigua and Barbuda, 2021* (2015 and 2019 est.).	97	6 459	2 250	8 612
Bahamas	9 000	10 000	Department of Marine Resources Bahamas, 2019[136]* and 2021*. (2017 and 2019 est.).	4	8	Department of Marine Resources Bahamas, 2019 and 2021* (2017 and 2019 est.).	1 100	30 024	11 108	40 032
Barbados	2 200	2 200	Fisheries Division Ministry of Agriculture and Rural Development, 2004 (2002 est.).	0	0	JICA & IC Net Limited, 2012; Fisheries Division Barbados, 2021* (2011 and 2019 est.).	NA	6 600	NA	8 800
Belize	2 525	2 200	Fisheries Department Belize, 2020 and 2021* (2018 and 2019 est.).	2 182	1 806	Statistical Institute of Belize, 2017 and 2021* (2017 and 2019 est.).	279	12 018	4 285	16 024
Dominica	912	912	Fisheries Division Dominica, 2019* (2017 est.).	5	5	Fisheries Division Dominica, 2019* (2017 est.).	NA	2 751	NA	3 668

[134] The figures presented represent the Member State's registered fishers or the best estimate of number of marine capture fishers and aquaculture farmers provided by the Member State.
[135] Revised to 2085 in 2021.
[136] Data from the last Bahamas fisheries census conducted in 1995 (Deleveaux and Higgs, 1995).

MEMBER STATES	Number of persons employed in direct production in the marine commercial capture fisheries[134]		Source (Year of estimate)	Number of persons employed in direct production in aquaculture		Source (Year of estimate)	Number of persons employed in other fisheries dependent activities 2019		Fishing Sector Employment (2019 estimates)	
	2018	2019		2018	2019		Country provided estimates	Calculated after FAO, 2010**	Country provided estimates	Calculated after FAO, 2010**
Grenada	2 729	2 552	CRFM, 2014 (2013 est.) ; Fisheries Division Grenada, 2021* (2019 est.).	0	0	CRFM, 2014 (2013 est.) ; Fisheries Division Grenada, 2021 (2019 est.).	NA	7 656	NA	10 208
Guyana	7 875	8 175	Fisheries Department Guyana, 2019* (2018 and 2019 est.).	45	55	Fisheries Department Guyana, 2019* (2018 and 2019 est.).	5 000	24 690	13 230	32 920
Haiti	46 000	46 000	Fisheries Department Haiti, 2017* (2016 est.).	2 034	2 034	Fisheries Department Haiti, 2017* (2016 est.).	NA	144 102	NA	192 136
Jamaica	26 382	25 274	National Fisheries Authority Jamaica, 2020 and 2021* (2018 and 2019 est.).	107	500	National Fisheries Authority Jamaica, 2020 and 2021* (2018 and 2019 est.).	NA	77 322	NA	103 096
Montserrat	85	120	Department of Fisheries Montserrat, 2016*; Fisheries and Ocean Governance Unit Montserrat, 2021*(2015 and 2019 est.).	0	0	Department of Fisheries Montserrat, 2016*; Fisheries and Ocean Governance Unit Montserrat, 2021*(2015 and 2019 est.).	NA	360	NA	480
St. Kitts and Nevis	696	777	Department of Marine Resources St. Kitts and Nevis, 2019 and 2021* (2018 and 2019 est.).	17	19	Department of Marine Resources St. Kitts and Nevis, 2019 and 2021* (2018 and 2019 est.).	NA	2 388	NA	3 184
St. Lucia	3 282	3 364	Department of Fisheries St. Lucia, 2019 and 2021* (2018 and 2019 est.).	114	296	Department of Fisheries St. Lucia, 2019 and 2021* (2018 and 2019 est.).	NA	10 980	NA	14 640
St. Vincent and the Grenadines	1 142	1 142	Fisheries Division St. Vincent and the Grenadines, 2019* (2017 est.).	0	0	Fisheries Division St. Vincent and the Grenadines, 2019* (2017 est.).	NA	3 426	NA	4 568

MEMBER STATES	Number of persons employed in direct production in the marine commercial capture fisheries[134]		Source (Year of estimate)	Number of persons employed in direct production in aquaculture		Source (Year of estimate)	Number of persons employed in other fisheries dependent activities 2019		Fishing Sector Employment (2019 estimates)	
	2018	2019		2018	2019		Country provided estimates	Calculated after FAO, 2010**	Country provided estimates	Calculated after FAO, 2010**
Suriname	8 000	4 500	Department of Fisheries Suriname, 2017 and 2021* (2017 and 2019 est.).	99	25	FAO, 2008 (taken as 2007/2008 est.); Department of Fisheries Suriname, 2021* (2019 est.).	3 000	13 575	7 525	18 100
Trinidad and Tobago	5 626	3 347	Fisheries Division Trinidad and Tobago, 2020 and 2021* (2018 and 2019 est.).	120	42	Fisheries Division Trinidad and Tobago, 2019 and 2021* (2018 and 2019 est.).	NA	10 167	NA	13 556
Turks and Caicos Islands	256	338	Department of Environment and Coastal Resources Turks and Caicos Island, 2014* (2012 /13 and 2019 est.).	0	0	Department of Environment and Coastal Resources Turks and Caicos Island, 2014* (2012 /13 and 2019 est.).	309	1 014	647	1 352
Totals	**118 811**	**113 257**		**4 729**	**4 796**		**NA**	**354 159**	**NA**	**472 212**

** Data collected directly from the Fisheries Data Unit or Statistics Unit in the Member State.*

***Calculated using "Some estimates indicate that, for each person employed in capture fisheries and aquaculture production, about three jobs are produced in the secondary activities" (FAO, 2010).*

Table 21: The labour force (in 2018 and 2019 or latest estimates to), estimated number of persons employed in the fisheries sector in 2018 and 2019, and the percentage of the labour force employed in fisheries in 2018 and 2019 for CRFM Member States

Member States	Labour force 2018 (or latest estimate to 2018)	Estimated fishing sector employment 2018 (calculated after FAO, 2010*)	% of the labour force employed in fisheries 2018 (calculated estimates after FAO, 2010*)	Labour force 2019 (or latest estimate to 2019)	Estimated fishing sector employment 2019 (calculated after FAO, 2010*)	% of the labour force employed in fisheries 2019 (calculated estimates after FAO, 2010*)
Anguilla	6 049[(1)] (2001 est.)	828	13.7	6 049[(1)] (2001 est.)	836	13.8
Antigua and Barbuda	30 000[(1)] (2006 est.)	7 584	25.3	51 931[(5)] (2018 est.)	8 612	16.6
Bahamas	223 064[(2)]	36 016	16.1	225 780[(6)]	40 032	17.7
Barbados	155 314[(2)]	8 800	5.7	154 988[(6)]	8 800	5.7
Belize	173 515[(2)]	18 828	10.9	184 610[(6)]	16 024	8.7
Dominica	25 000[(1)] (2003 est.)	3 668	14.7	31 222[(7)] (2018 est.)	3 668	11.7
Grenada	59 900[(1)] (2013 est.)	10 916	18.2	55 270[(8)] (2017 est.)	10 208	18.5
Guyana	314 014[(2)]	31 680	10.1	324 943[(6)]	32 920	10.1
Haiti	4 975 289[(2)]	192 136	3.9	5 151 007[(6)]	192 136	3.7
Jamaica	1 473 383[(2)]	105 956	7.2	1 514 936[(6)]	103 096	6.8
Montserrat	4 521 [(1)] (2012 est.)	340	7.5	2 703 [(9)] (2018 est.)	480	17.8
St. Kitts and Nevis	17 044 [(3)] (2001 est.)	2 852	16.7	25 000 [(10)] (2019 est.)	3 184	12.7
St. Lucia	99 309[(2)]	13 584	13.7	100 714[(6)]	14 640	14.5
St. Vincent and the Grenadines	56 243[(2)]	4 568	8.1	58 666[(6)]	4 568	7.8
Suriname	214 906[(2)]	32 396	15.1	219 109[(6)]	18 100	8.3
Trinidad and Tobago	667 593[(2)]	22 984	3.4	669 324[(6)]	13 556	2.0
Turks and Caicos Islands	18 000[(4)] (2015/2016 est.)	1 024	5.7	20 940[(11)] (2019 est.)	1 352	6.5
Totals	**8 513 144**	**494 160**	**5.8**	**8 797 192**	**472 212**	**5.4**
% of the workforce involved in the fishing sector of the CRFM region 2018 &2019			**5.8%**			**5.4%**

**Calculated using "Some estimates indicate that, for each person employed in capture fisheries and aquaculture production, about three jobs are produced in the secondary activities" (FAO, 2010).*

Sources:
[(1)]IndexMundi, 2020.
[(2)]World Bank Group, 2019.
[(3)]Caribbean Community (CARICOM) Secretariat, 2011.
[(4)]Government of the Turks and Caicos Islands, 2016.
[(5)]UNDP, UNICEF and UN Women, 2020a.
[(6)]IndexMundi, 2019.
[(7)] UNDP, UNICEF and UN Women, 2020b.
[(8)]CIA, 2020b.
[(9)]Montserrat Statistics Department, 2019.
[(10)]US Department of State, 2019.
[(11)]Invest TCI, 2020.

CHAPTER 5: ECONOMIC IMPORTANCE OF FISHERIES TO THE CRFM REGION

5.1 Fisheries contribution to GDP

Table 22 shows the percentage contribution of the fisheries sector to GDP (in current prices) in CRFM Member States 2010 to 2020. The data indicates that, in 2019/2020 (among those Member States with data available for 2019 and 2020) the fisheries sector contributed to the GDP of Member States from a low of 0.06% (Barbados 2019) to a high of 3.21% in Anguilla 2020.

5.2 Economic contribution to livelihoods

Mahon *et al* (2007), studied the value of Barbados' fisheries, and showed that as the fish moved through the various market pathways to the consumer it increases in value and contributes to livelihood, and that the overall additional value was 2.6 times the landed value of the fishery.

During the period 2019 to 2020, at ex-vessel prices (the point of first sale) the value of the marine capture fishery production for the region was estimated at approximately US$435.4 million annually and the value of the aquaculture fishery was US$42.5 million annually, giving a total value of approximately US$477.9 million annually (Table 23 and Table 24).

During the period 2017 to 2018, at ex-vessel prices (the point of first sale) the value of the marine capture fishery production for the region was estimated at approximately US$520.1 million annually and the value of the aquaculture fishery was US$46.58 million annually giving a total value of approximately US$566.68 million annually over the period. The value of the domestic production between the two periods (2017/2018 and 2019/2020) decreased by US$88.78 million.

Table 22: Percentage contribution to gross domestic product (GDP) by the fishing industry of CRFM Member States (in current prices) 2012 to 2020

Member States	2012	2013	2014	2015	2016	2017	2018	2019	2020	Source
Anguilla	2.28	2.02	1.96	1.91	2.72	1.59	3.14	3.16	3.21	Eastern Caribbean Central Bank, 2020.
Antigua and Barbuda	1.17	1.25	0.80	0.98	0.96	0.96	0.95	0.93	0.93	Eastern Caribbean Central Bank, 2020.
Bahamas	1.30	1.00	1.00	0.90	0.66	0.60	0.50	0.32	0.33	Caribbean Community (CARICOM) Secretariat, 2016
Barbados	0.12	0.20	0.14	0.13	0.14	0.18	0.14	0.06	NA	Caribbean Community (CARICOM) Secretariat, 2018.
Belize (R)	2.1	3.2	3.0	2.3	1.1	1.0	1.0	1.1	NA	Caribbean Community (CARICOM) Secretariat, 2018.
Dominica	0.37	0.34	0.48	0.54	0.54	0.48	0.40	0.36	0.34	Eastern Caribbean Central Bank, 2020.

Member States	2012	2013	2014	2015	2016	2017	2018	2019	2020	Source
Grenada	1.61	1.52	1.39	1.4	1.40	1.28	1.16	1.04	0.94	Eastern Caribbean Central Bank, 2020.
Guyana	2.36	2.18	1.66	1.67	1.78	1.84	1.57	1.2	NA	Caribbean Community (CARICOM) Secretariat, 2016 &2018.
Haiti	1.5	NA	NA	NA	NA	NA	NA	NA	NA	CRFM, 2011a.
Jamaica	0.36	0.41	0.50	0.51	0.52	0.52	0.49	0.49	NA	Caribbean Community (CARICOM) Secretariat, 2018.
Montserrat	0.35	0.37	0.38	0.3	0.3	0.26	0.24	0.24	0.25	Eastern Caribbean Central Bank, 2020.
St. Kitts and Nevis	0.49	0.39	0.44	0.47	0.36	0.46	0.51	0.53	0.57	Eastern Caribbean Central Bank, 2020.
St. Lucia	0.57	0.60	0.56	0.53	0.55	0.49	0.55	0.44	0.42	Eastern Caribbean Central Bank, 2020.
St. Vincent and the Grenadines	0.44	0.48	0.48	0.53	0.50	0.57	0.60	0.61	0.63	Eastern Caribbean Central Bank, 2020.
Suriname	2.49	3.23	3.90	3.75	3.11	4.17	3.4	2.7	NA	Caribbean Community (CARICOM) Secretariat, 2018; General Bureau of Statistics Suriname, 2021.
Trinidad and Tobago	0.04	0.03	0.04	0.05	0.06	0.07	0.07	NA	NA	Caribbean Community (CARICOM) Secretariat, 2018.
Turks and Caicos Islands	0.42	0.54	0.51	0.58	0.57	0.56	0.56	0.31	NA	Caribbean Community (CARICOM) Secretariat, 2018.

R. - Revised
P. - Preliminary
NA - Not Available

Table 23: Marine capture fish production (meat weight in tonnes), with corresponding ex-vessel value (in millions United States dollars) of Member States of the CRFM for period 2019 and 2020

Member States	Marine capture fish production (meat weight in t) 2019	Value of marine capture fish production (in millions United States dollars) 2019	Sources for values[137]	Marine capture fish production (meat weight in t) 2020	Value of marine capture fish production (in millions United States dollars) 2020	Source for values[138]
Anguilla[139]	758	10.04	Dept. of Fisheries and Marine Resources Anguilla, 2019*.	758	10.04	Dept. of Fisheries and Marine Resources Anguilla, 2019*.
Antigua and Barbuda[140]	3 622	29.56	Fisheries Division Antigua and Barbuda, 2021*.	3 622	29.56	Fisheries Division Antigua and Barbuda, 2021*.
Bahamas	8 304	64.55	Department of Marine Resources Bahamas, 2021*.	6 351	76.76	Department of Marine Resources Bahamas, 2021*.
Barbados	847	4.67	Calculated from rate from prices provided by Barbados Statistics Department, 2013 and Mahon *et al*, 2007.	936	5.16	Calculated from rate from prices provided by Barbados Statistics Department, 2013 and Mahon *et al*, 2007.
Belize	1 562	21.35	Fisheries Department Belize, 2021*.	1 350	17.17	Fisheries Department Belize, 2021*.

[137] *Data are preliminary and will be revised in 2021*
[138] *Data are preliminary and will be revised in 2021*
[139] *2017 estimates*
[140] *Both estimates are 2019*

Member States	Marine capture fish production (meat weight in t) 2019	Value of marine capture fish production (in millions United States dollars) 2019	Sources for values[137]	Marine capture fish production (meat weight in t) 2020	Value of marine capture fish production (in millions United States dollars) 2020	Source for values[138]
Dominica[141]	763	4.64	Fisheries Division Dominica, 2020*.	763	4.64	Fisheries Division Dominica, 2020*.
Grenada[142]	2 735	15.15	Calculated from rate obtained from 2018 value and production.	2 363	13.09	Calculated from rate obtained from 2018 value and production.
Guyana	38 386	95.49	Fisheries Department Guyana, 2021*.	33 536	85.11	Fisheries Department Guyana, 2021*.
Haiti[143]	17 200	56.29	Calculated using rate from CRFM, 2011a (2011 est.).	17 200	56.29	Calculated using rate from CRFM, 2011a (2011 est.).
Jamaica	12 372	44.06	Calculated from rate obtained from 2018 value and production.	11 526	41.05	Calculated from rate obtained from 2018 value and production.
Montserrat[144]	18	0.14	Calculated from rate obtained from 2014 value and production.	15	0.12	Calculated from rate obtained from 2014 value and production.
St. Kitts and Nevis[145]	360	3.24	Department of Marine Resources, St. Kitts and Nevis, 2021*.	360	3.24	Department of Marine Resources, St. Kitts and Nevis, 2021*.
St. Lucia	1 553	10.07	Fisheries Department St. Lucia, 2021*.	1 269	7.68	Fisheries Department St. Lucia, 2021*.

[141] *2018 estimates.*
[142] *2019 and 2020 values calculated from 2018 rates.*
[143] *2016 estimates.*
[144] *Calculated from 2018 rates.*
[145] *Both estimates are 2019 estimate.*

Member States	Marine capture fish production (meat weight in t) 2019	Value of marine capture fish production (in millions United States dollars) 2019	Sources for values[137]	Marine capture fish production (meat weight in t) 2020	Value of marine capture fish production (in millions United States dollars) 2020	Source for values[138]
St. Vincent and the Grenadines	1 155	6.42	Fisheries Division St. Vincent and the Grenadines, 2021*.	1 538	7.81	Fisheries Division St. Vincent and the Grenadines, 2021*.
Suriname	30 537	30.41	Calculated using rate from Seijo, (2013).	37 340	37.18	Calculated using rate from Seijo, (2013).
Trinidad and[146] Tobago	12 983	37.51	Fisheries Division Trinidad and Tobago, 2021*.	12 983	37.51	Fisheries Division Trinidad and Tobago, 2021*.
Turks and Caicos Islands	332	2.26	Dept. of Environment and Coastal Resources, Turks and Caicos Island, 2021*.	358	2.64	Dept. of Environment and Coastal Resources, Turks and Caicos Island, 2021*.
Totals (t) / US$	**133 487**	**435.84**		**132 267**	**435.05**	
Average for region 2019-2020						**132 877 t US$435.4 million**

** Data collected directly from the Fisheries Data Unit or Statistics Unit in the Member State.*

[146] *Both estimates are 2019 estimate.*

Table 24: Aquaculture fish production (meat weight in tonnes), with corresponding value (in millions US$) of CRFM Member States for period 2017 to 2020

Member States	Aquaculture fish production (meat weight in t) 2017	Value of aquaculture fish production (in millions United States dollars) 2017	Aquaculture fish production (meat weight in t) 2018	Value of aquaculture fish production (in millions United States dollars) 2018	Aquaculture fish production (meat weight in t) 2019	Value of aquaculture fish production (in millions United States dollars) 2019	Aquaculture fish production (meat weight in t) 2020	Value of aquaculture fish production (in millions United States dollars) 2020
Anguilla	0.0	0.00	0.0	0.00	0	0.00	0	0.00
Antigua and Barbuda	0.0	0.00	14.7	0.13	25	0.22	25[147]	0.22
Bahamas	0.0	0.00	0.0	0.00	NA	0.00	NA	0.00
Barbados	0.0	0.00	0.0	0.00	0	0.00	0	0.00
Belize	647.5	4.84	572.5	2.83	457	2.92	290	1.77
Dominica	0.0	0.00	0.0	0.00	0	0.00	0	0.00
Grenada	0.0	0.00	0.0	0.00	NA	0.00	NA	0.00
Guyana	696.6	3.21	310.7	0.57	247	1.78	138	0.99
Haiti	6 400.0	33.86	6 400.0	33.86	6 400	33.86	6 400	33.86
Jamaica	1 340.2	5.86	1 511.6	6.84	1 118	4.93	912	4.20
Montserrat	0.0	0.00	0.0	0.00	0	0.00	0	0.00
St. Kitts and Nevis	0.0	0.00	0.0	0.00	NA	0.00	NA	0.00
St. Lucia	13.4	0.05	14.2	0.05	17.2	0.16	9	0.08
St. Vincent and the Grenadines	0.0	0.00	0.0	0.00	0	0.00	0	0.00
Suriname[148]	81.8	0.59	58.4	0.42	55	NA	22	NA
Trinidad and Tobago	5.5	0.03	5.5	0.03	3	0.01	3	0.01
Turks and Caicos Islands	0.0	0.00	0.0	0.00	0	0.00	0	0.00
Totals	**9 185.1**	**48.44**	**8 887.6**	**44.73**	**8 321**	**43.89**	**7 798**	**41.15**

NA=Not Available

[147] *2019 estimate.*

[148] *Values for Suriname2017&2018 calculated using 2016 average price over all species. Values for production 2019 &2020 were not available.*

Table 25: Value (in millions US dollars) of fish production (meat weight in tonnes) from marine capture fisheries (MCF) and aquaculture (AC) production (prod.) of CRFM Member States for period 2017 to 2020

Member States	Value of MCF prod. + AC prod. (in millions United States dollars) 2017	Value of MCF prod. + AC prod. (in millions United States dollars) 2018	Value of MCF prod. + AC prod. (in millions United States dollars) 2019	Value of MCF prod. + AC prod. (in millions United States dollars) 2020
Anguilla	10.04	10.04	10.04	10.04
Antigua and Barbuda	14.77	14.90	29.78	29.78
Bahamas	67.38	57.12	64.55	76.76
Barbados (R)	9.13	8.55	4.67	5.16
Belize	20.00	21.42	24.27	18.95
Dominica	3.79	4.64	4.64	4.64
Grenada	13.81	13.81	15.15	13.09
Guyana	191.07	177.40	97.27	86.10
Haiti (R)	90.15	90.15	90.15	90.15
Jamaica	59.15	45.60	48.99	45.25
Montserrat	0.20	0.20	0.14	0.12
St. Kitts and Nevis	4.31	5.53	3.24	3.24
St. Lucia	10.31	10.33	10.23	7.76
St. Vincent and the Grenadines	4.60	7.08	6.42	7.81
Suriname	48.96	37.82	30.41	37.18
Trinidad and Tobago	37.04	39.86	37.53	37.53
Turks and Caicos Islands (R)	1.96	2.34	2.26	2.64
Totals	**586.66**	**546.78**	**479.73**	**476.20**

R = Revised

CHAPTER 6: TRADE IN FISH AND FISHERY PRODUCTS BY CRFM MEMBER STATES

6.1 Imports of fish into the CRFM region

In 2019 and 2020 total imports of fish for all CRFM Member States combined (including imports of fish for food, bait and live ornamental fish for breeding or rearing) averaged approximately 99,114 tonnes annually (compared to 84,447 tonnes annually in 2017/2018 period) (product weight). Most of this difference (a difference of 14,667 t) can be attributed to the updating of the Haiti estimate from 12,500 tonnes (2009 estimate) to 25,340 tonnes (FAO, 2018), a difference of 12,840 t.

98,566 tonnes (product weight) were imported in 2019 and 99,972 tonnes (product weight) imported in 2020. Fish imported for food accounted for approximately 99.9% of the total. The total value of the fish imports for all Member States combined was approximately US$341.7 million in 2019 and US$332.1 million in 2020 (an average of approximately US$336.9 million annually 2019/2020 period) Tables 26, 27 and 28.

Table 26: Product weight (in tonnes) and value (in millions of United States dollars) of imports of fish for food bait and ornamental purposes by CRFM Member States 2019[149]

Member States	Weight of fish imports for food (t) 2019	Value of fish imports for food (in millions of United States dollars) 2019	Weight of fish imports for ornamental purposes (t) 2019	Value of fish imports for ornamental purposes (in millions of United States dollars) 2019	Weight of fish imports for bait (t) 2019	Value of fish imports for bait (in millions of United States dollars) 2019	Total weight of fish imports for food, bait & ornamentals (t) 2019	Total value of fish imports for food, bait and ornamental (in millions of United States dollars) 2019
Anguilla	461	3.1	5.58	0.012	0.00	0.00	466	3.1
Antigua and Barbuda	1 942	8.80	2.32	0.017	0.00	0.00	1 945	8.8
Bahamas	4 727	30.2	5.11	0.040	68.1	0.4	4 800	30.6
Barbados	7 470	28.5	6.88	0.093	0.00	0.00	7 476	28.6
Belize	210	0.5	0.26	0.002	0.00	0.00	210	0.5
Dominica	681	2.6	0.15	0.006	0.00	0.00	681	2.6
Grenada	715	3.9	0.74	0.006	0.00	0.00	716	3.9
Guyana	3 475	4.7	4.83	0.014	0.00	0.00	3 480	4.7
Haiti *(FAO, 2018)*	25 340	53.9	0.00	0.00	0.00	0.00	25 340	53.9
Jamaica[150] (*Weights from 2018 est.*)	33 522	126.9	2.40	0.001	0.00	0.00	33 524	126.9
Montserrat	63	0.41	0.00	0.000	0.00	0.00	63	0.4
St. Kitts and Nevis	1 240	5.9	1.70	0.017	0.00	0.00	1 242	5.9
St. Lucia	2 186	10.0	2.20	0.011	0.00	0.00	2 188	10.0
St. Vincent and the Grenadines	440	2.3	1.57	0.007	0.00	0.00	441	2.3
Suriname	3 268	8.0	0.00	0.000	0.00	0.00	3 268	8.0
Trinidad and Tobago	11 132	44.3	2.43	0.022	0.00	0.00	11 135	44.4
Turks and Caicos Islands	1 580	7.2	0.00	0.000	0.00	0.00	1 580	7.2

[149] *Provisional est. used for HAI, JAM, and TCI.*

[150] *Jamaica had available only preliminary data on value. 2019 weights were not available. Weights from 2018 were substituted. Information will be reviewed in 2021.*

(2016 est.)								
Totals	**98 452**	**341.0**	**36.16**	**0.247**	**68.1**	**0.4**	**98 556**	**341.7**

Source: data collected directly from the Government Statistical Department of the Member State unless otherwise stated.

Table 27: Product weight (in tonnes) and value (in millions of United States dollars) of imports of fish for food, bait and ornamental purposes by CRFM Member States 2020[151]

Member States	Weight of fish imports for food (t) 2020	Value of fish imports for food (in millions of United States dollars) 2020	Weight of fish imports for ornamental purposes (t) 2020	Value of fish imports for ornamental purposes (in millions of United States dollars) 2020	Weight of fish imports for bait (t) 2020	Value of fish imports for bait (in millions of United States dollars) 2020	Total weight of fish imports for food, bait and ornamentals (t) 2020	Total value of fish imports for food, bait and ornamentals (in millions of United States dollars) 2020
Anguilla	390	2.2	0.0	0.001	0.0	0.0	390	2.2
Antigua and Barbuda	1 627	6.9	1.2	0.012	0.0	0.0	1 628	6.9
Bahamas (*2019 est.)*	4 727	30.2	5.1	0.040	68.1	0.4	4 800	30.6
Barbados	7 223	24.4	5.7	0.075	0.0	0.0	7 229	24.5
Belize	241	0.5	0.4	0.011	0.0	0.0	241	0.5
Dominica	657	2.5	0.3	0.003	0.0	0.0	657	2.5
Grenada	741	3.3	0.5	0.004	0.0	0.0	742	3.3
Guyana	3 462	6.1	1.6	0.015	0.0	0.0	3 464	6.1
Haiti (FAO, 2018 est.)	25 340	53.9	0.0	0.00	0.0	0.0	25 340	53.9
Jamaica[152] *(value 2019 est; wt. 2018 est.)*	33 522	126.9	2.4	0.001	0.0	0.0	33 524	126.9
Montserrat	779	0.5	0.1	0.000	0.0	0.0	779	0.5
St. Kitts and Nevis	1 206	5.5	6.6	0.024	0.0	0.0	1 213	5.5
St. Lucia	1 997	8.7	0.7	0.003	0.0	0.0	1 998	8.7
St. Vincent and the Grenadines	406	2.4	1.4	0.005	0.0	0.0	407	2.4
Suriname	4 547	6.1	0.0	0.005	0.0	0.0	4 547	6.1
Trinidad and Tobago *(2019 est.)*	11 132	44.3	2.4	0.022	0.0	0.0	11 135	44.4
Turks and Caicos Islands *(2016 est.)*	1 580	7.2	0.0	0.000	0.0	0.0	1 580	7.2
Totals	**99 576**	**331.5**	**28.5**	**0.222**	**68.1**	**0.4**	**99 672**	**332.1**

Source: data collected directly from the Government Statistical Department of the Member State unless otherwise stated.

A comparison of the product weight and value of the fish imported in 2019 and 2020 for each country showed that the product weight and value of imported fish remained fairly constant over the period although there was a 1.13% increase in the weight of fish product imported in 2020 (Table 28 and Figure 7). The three largest importers of fish (tonnes of fish imported) among the CRFM Member States over the period were Jamaica, Haiti, and Trinidad and Tobago respectively (Table 28 and Figure 7). Jamaica, Haiti and Trinidad and Tobago also had the highest values associated with the import of fish for food, bait and ornamentals (Table 29 and Figure 8).

[151] *Provisional est. used for BAH, HAI, JAM, T&T and TCI.*

[152] *Jamaica had available only preliminary data on value for 2019. 2019 weights were not available. Weights from 2018 were substituted and 2019 value used for both 2019 and 2020. Information will be reviewed in 2021.*

Table 28: Product weight of imports and average weight of imports of fish for food bait and ornamental purposes (product weight in tonnes) by CRFM Member States for the period 2019 to 2020[153]

Member States	Weight of fish imports for food, bait and ornamentals (t) 2019	Weight of fish imports for food, bait and ornamentals (t) 2020	Average weight of fish imports for food, bait and ornamentals (t) 2019 to 2020
Jamaica[154] *(both are 2018 est.)*	33 524	33 524	33 524
Haiti *(both are 2018 FAO est.)*	25 340	25 340	25 340
Trinidad and Tobago *(both are 2019 est.)*	11 135	11 135	11 135
Barbados	7 476	7 229	7 353
Bahamas *(both are 2019 est.)*	4 800	4 800	4 800
Suriname	3 268	4 547	3 908
Guyana	3 480	3 464	3 472
St. Lucia	2 188	1 998	2 093
Antigua and Barbuda	1 945	1 628	1 786
Turks and Caicos Islands *(both are 2016 est.)*	1 580	1 580	1 580
St. Kitts and Nevis	1 242	1 213	1 227
Grenada	716	742	729
Dominica	681	657	669
Anguilla	466	390	428
St. Vincent and the Grenadines	441	407	424
Montserrat	63	779	421
Belize	210	241	226
Totals	**98 556**	**99 672**	**99 114**

Source: Weight data collected directly from the Government Statistical Department of the Member State unless otherwise stated.

[153] *Provisional est. used for BAH, HAI, JAM, T&T and TCI.*

[154] *Jamaica had available only preliminary data on value 2019. Weights were not available. Weights from 2018 were substituted and 2019 value used for both 2019 and 2020. Information will be reviewed in 2021.*

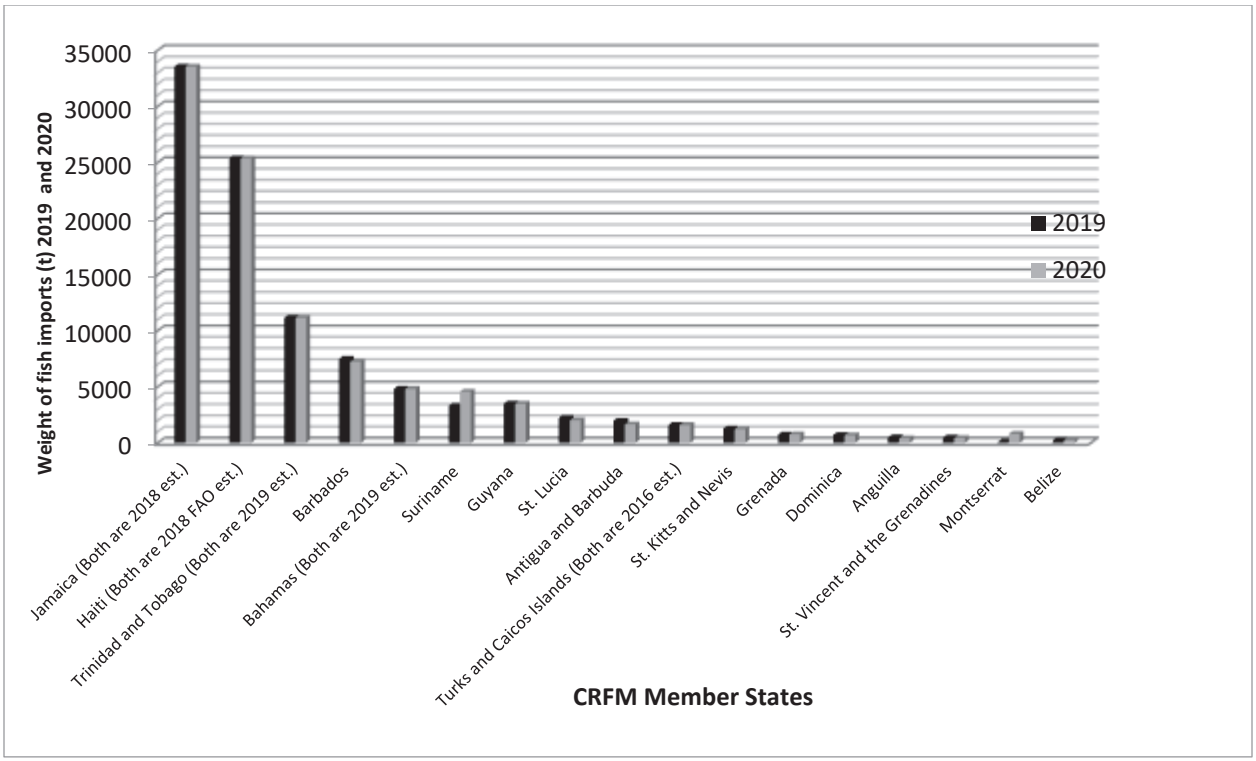

Figure 7: Product weight of imports of fish for food, bait and ornamental purposes (in tonnes) by CRFM Member States for 2019 and 2020[155]

Table 29: Value and average value of fish imported for food, bait and ornamental purposes (in millions of United States dollars) by CRFM Member States for period 2019 and 2020

Member States	Value of fish imported for food, bait and ornamentals (millions US$) 2019	Value of fish imported for food, bait and ornamentals (millions US$) 2020	Average value of fish imported for food, bait and ornamentals (millions US$) 2019-2020
Jamaica *(both are 2019 est.)*	126.9	126.9	126.9
Haiti *(both are 2018 FAO est.)*	53.9	53.9	53.9
Trinidad and Tobago *(both are 2019 est.)*	44.4	44.4	44.4
Bahamas *(both are 2019 est.)*	30.6	30.6	30.6
Barbados	28.6	24.5	26.5
St. Lucia	10.0	8.7	9.4
Antigua and Barbuda	8.8	6.9	7.9
Turks and Caicos Islands *(both are 2016 est.)*	7.2	7.2	7.2
Suriname	8.0	6.1	7.0
St. Kitts and Nevis	5.9	5.5	5.7
Guyana	4.7	6.1	5.4
Grenada	3.9	3.3	3.6

[155] *Provisional est. used for BAH, HAI, JAM, T&T and TCI.*

Member States	Value of fish imported for food, bait and ornamentals (millions US$) 2019	Value of fish imported for food, bait and ornamentals (millions US$) 2020	Average value of fish imported for food, bait and ornamentals (millions US$) 2019-2020
Anguilla	3.1	2.2	2.6
Dominica	2.6	2.5	2.5
St. Vincent and the Grenadines	2.3	2.4	2.3
Belize	0.5	0.5	0.5
Montserrat	0.4	0.5	0.4
Totals	**341.7**	**332.1**	**336.9**

Source: Value data collected directly from the Government Statistical Department of the Member State unless otherwise stated.

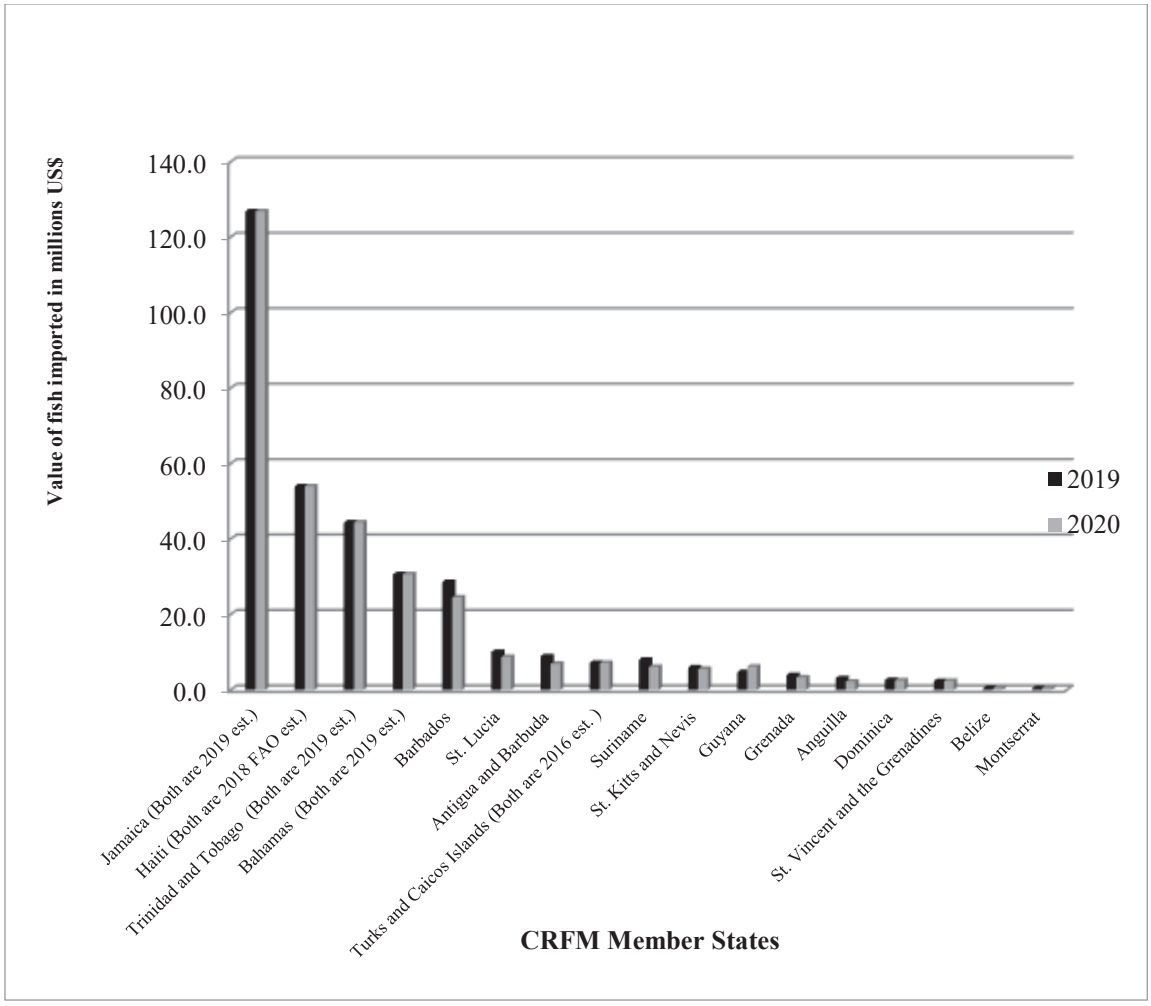

Figure 8: Value (in millions of United States dollars) of fish imported for food, bait and ornamental purposes by CRFM Member States for period 2019 and 2020[156]

[156] *Provisional est. used for HAI, JAM, and TCI.*

In 2019 and 2020 CRFM Member States imported an additional 69% and 71% respectively of the production from marine capture fisheries plus aquaculture production of the region that was fit for human consumption. Fish fit for human consumption included the categories chilled fresh or frozen fish, dried salted smoked pickled (cured) fish and canned fish. In 2019 imports of chilled/fresh or frozen fish accounted for 44% of the edible fish imported, canned fish accounted for approximately 40% while imports of dried, salted, smoked, pickled (cured) fish accounted for approximately 16% of product weight (Table 30 and 31; Figure 9,10 and 11). Table 30 and 31 show the fish imports (product weight in tonnes) and values (millions US$) by categories of chilled fresh or frozen; dried salted smoked pickled (cured); and canned imported by CRFM Member States in 2019 and 2020 respectively.

Table 30: Fish imports (product weight in tonnes and value in millions US dollars) by categories of chilled, fresh or frozen, dried salted smoked pickled (cured) and canned, imported by CRFM Member States in 2019

Member States	Imports of chilled fresh or frozen fish (t) 2019	Value of imports of chilled fresh or frozen fish (millions US$) 2019	Imports of dried, salted, smoked, pickled (cured) (t) fish 2019	Value of imports of dried, salted, smoked, pickled (cured) fish (millions US$) 2019	Imports of canned fish (t) 2019	Value of imports of canned fish (millions US$) 2019	Total fish imports (t) 2019	Total value of fish imports (millions US$) 2019
Anguilla	303	2.3	34	0.3	124	0.5	461	3.1
Antigua and Barbuda	742	4.4	691	2.6	509	1.7	1 942	8.8
Bahamas	2 013	18.9	159	1.8	2 555	9.5	4 727	30.2
Barbados	3 636	15.8	779	3.0	3 054	9.6	7 470	28.5
Belize	26	0.1	0	0.0	184	0.4	210	0.5
Dominica	66	0.2	319	1.3	296	1.0	681	2.6
Grenada	63	0.5	238	1.8	414	1.6	715	3.9
Guyana	2 027	1.5	25	0.1	1 422	3.1	3 475	4.7
Haiti *(FAO, 2018 est.)*	NA	NA	NA	NA	NA	NA	25 340	53.9
Jamaica[157] *(value 2019 est; wt. 2018 est.)*	14 395	50.2	5387	26.0	13 739	50.6	33 522	126.9
Montserrat	22	0.2	25	0.2	16	0.1	63.2	0.4
St. Kitts and Nevis	657	3.3	264	1.3	320	1.2	1 240	5.9
St. Lucia	834	2.6	428	2.4	924	5.0	2 186	10.0
St. Vincent and the Grenadines	29	0.4	250	1.2	160	0.7	440	2.3
Suriname[158]	1 346	2.3	0	0.0	1 922	5.7	3 268	8.0
Trinidad and Tobago	4 783	19.2	2 655	11.4	3 695	13.7	11 132	44.3
Turks and Caicos Islands *(2016 est.)*	1 132	6.1	201	0.3	247	0.8	1 580	7.2
Totals	**32 072**	**127.9**	**11458**	**53.7**	**29 582**	**105.5**	**98 452**	**341.0**

Source: data collected directly from the Government Statistical Department of the Member State unless otherwise stated.

[157] *Jamaica had available only preliminary data on value 2019 weights were not available. Weights from 2018 were substituted and 2019 values used for both 2019 and 2020.*

[158] *The disaggregated data are provisional pending more information from General Bureau of Statistics, Suriname and will be reviewed in 2021.*

Table 31: Fish imports (product weight in tonnes and value in US dollars) by categories of chilled, fresh or frozen, dried salted smoked pickled (cured) and canned, imported by CRFM Member States in 2020

Member States	Imports of chilled fresh or frozen fish (t) 2020	Value of imports of chilled fresh or frozen fish (millions US$) 2020	Imports of dried, salted, smoked, pickled (cured) fish (t) 2020	Value of imports of dried, salted, smoked, pickled (cured) fish (millions US$) 2020	Imports of canned fish (t) 2020	Value of imports of canned fish (millions US$) 2020	Total fish imports(t) 2020	Total value of fish imports (millions US) 2020
Anguilla	184.0	1.3	34.6	0.3	171	0.6	390	2.2
Antigua and Barbuda	515.7	2.8	656.4	2.5	455	1.6	1 627	6.9
Bahamas (*2019 est.)*	2 012.8	18.9	159.4	1.8	2 555	9.5	4 727	30.2
Barbados	2 667.6	10.7	741.9	2.8	3 813	10.9	7 223	24.4
Belize	12.7	0.0	0.4	0.002	227	0.5	241	0.5
Dominica	52.0	0.1	285.2	1.3	320	1.1	657	2.5
Grenada	17.4	0.2	197.7	1.6	526	1.5	741	3.3
Guyana	1 731.6	2.1	17.6	0.040	1 713	3.9	3 462	6.1
Haiti *(FAO, 2018 est.)*	NA	NA	NA	NA	NA	NA	25 340	53.9
Jamaica[159] *(value 2019 est; wt. 2018 est.)*	14 395.2	50.2	5 387.2	26.0	13 739	50.6	33 522	126.9
Montserrat	24.9	0.2	27.8	0.2	726	0.1	779	0.5
St. Kitts and Nevis	652.1	2.9	249.7	1.3	304	1.3	1 206	5.5
St. Lucia	666.8	2.3	371.0	2.1	959	4.3	1 997	8.7
St. Vincent and the Grenadines	38.2	0.3	248.0	1.3	120	0.7	406	2.4
Suriname	NA	NA	NA	NA	NA	NA	4 547	6.1
Trinidad and Tobago *(2019 est.)*	4 782.5	19.2	2 655.1	11.4	3 695	13.7	11 132	44.3
Turks and Caicos Islands *(2016 estimates)*	1 131.5	6.1	200.9	0.3	247	0.8	1 580	7.2
Totals	**28885.2**	**117.4**	**11 232.8**	**52.83**	**29 570**	**101.3**	**99 575**	**331.5**

Source: data collected directly from the Government Statistical Department of the Member State unless otherwise stated.
NB: Import weights are product weights.

[159] *Jamaica had available only preliminary data on value 2019 weights were not available. Weights from 2018 were substituted and 2019 values used for both 2019 and 2020.*

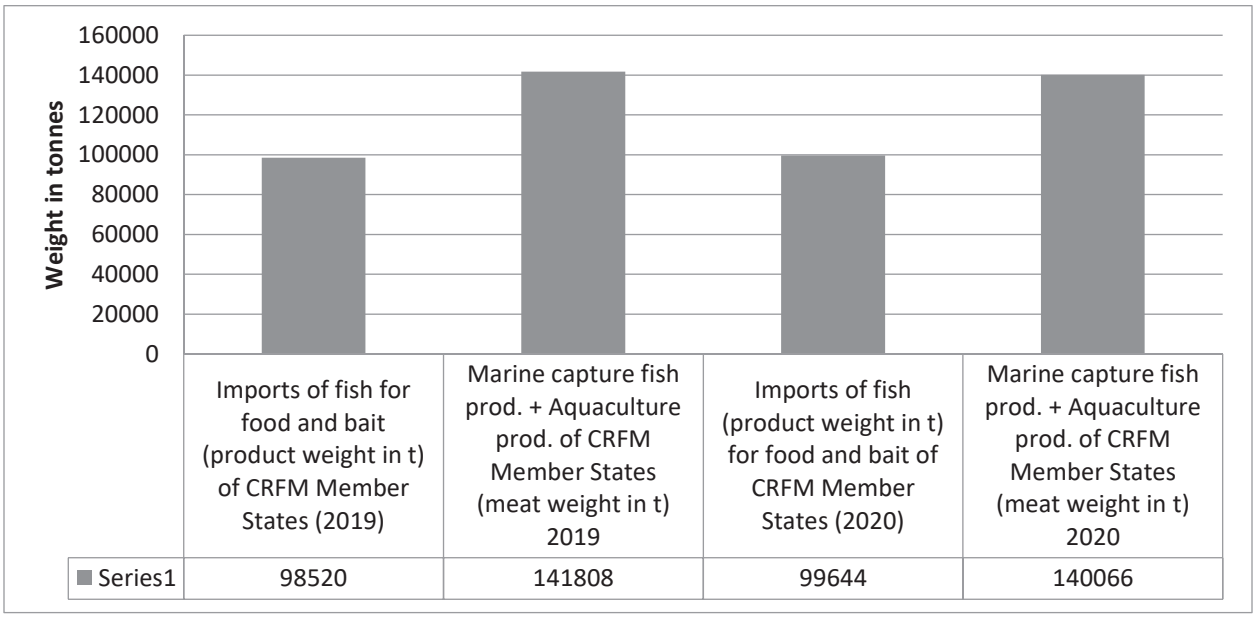

Figure 9: Fish imports for food and bait (product weight in tonnes) versus the total production from marine capture fisheries and aquaculture production (meat weight in tonnes) of the Member States of the CRFM in 2019 and 2020

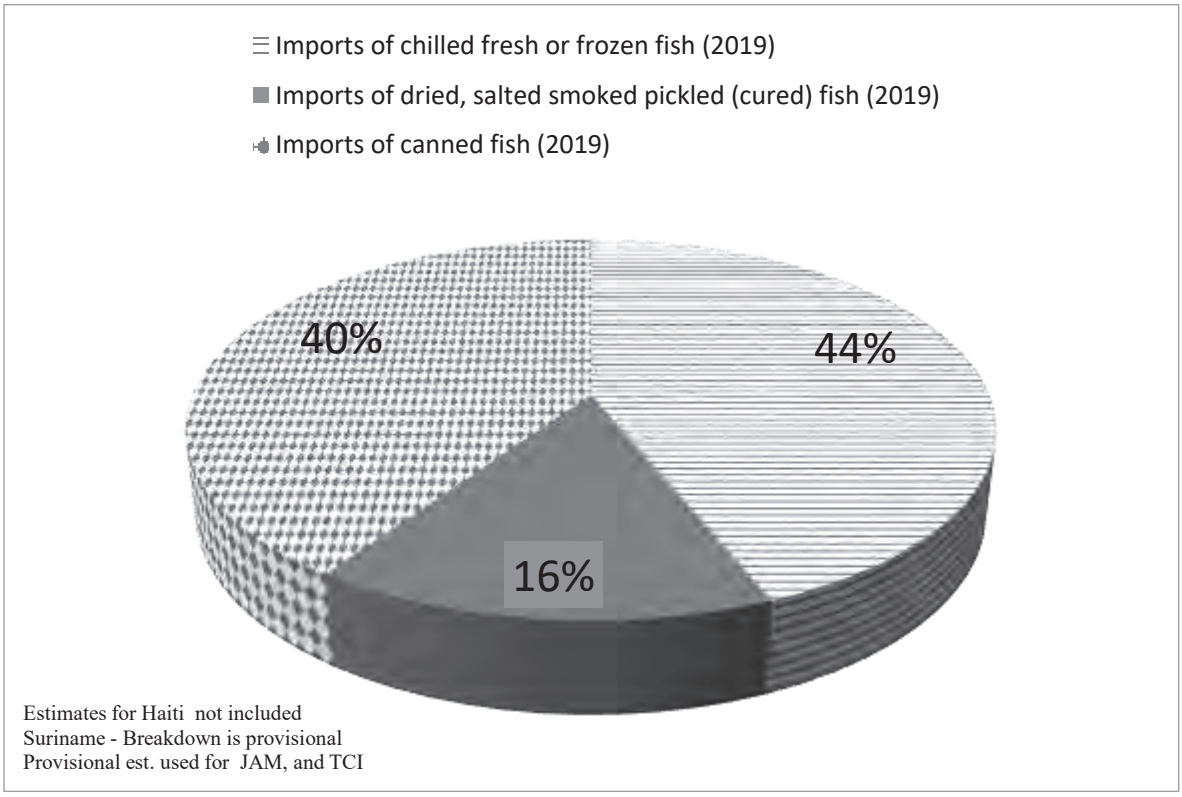

Figure 10: Categories of fish products (product weight) by percentage composition, imported into the CRFM region in 2019

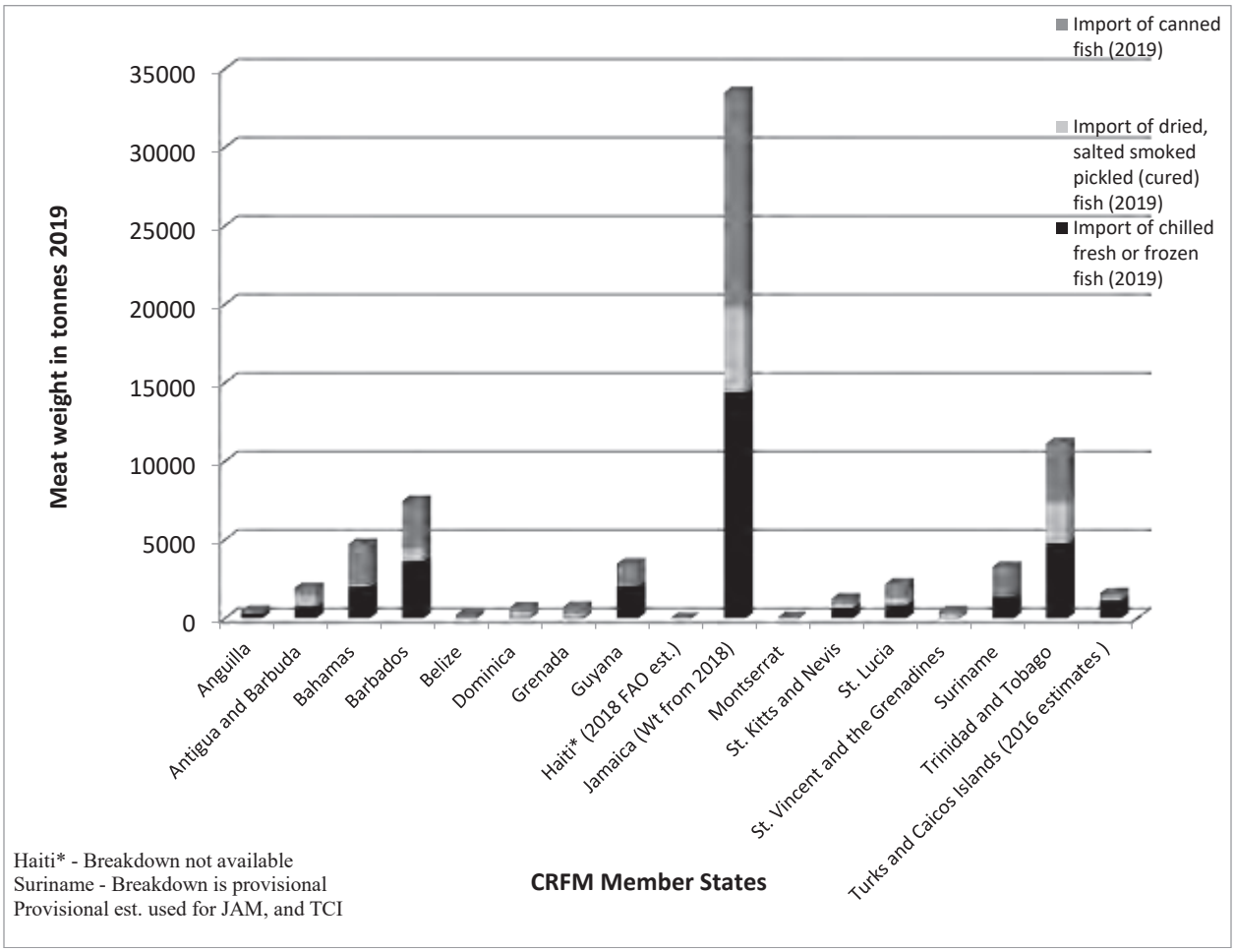

Figure 11: Fish imports by categories of; chilled fresh or frozen, dried salted smoked pickled (cured) and canned (product weight in tonnes), imported by CRFM Member States in 2019

Barbados and Turks and Caicos Islands imported (for food) more than 800% and 400% respectively (or greater than 8 and 4 times the amount) of the meat weight production from the marine capture fisheries and the aquaculture production in 2019. Other Member States that imported more than 100% of the meat weight production from the marine capture fisheries and the aquaculture production in 2019 included; Montserrat, St. Kitts and Nevis, Jamaica, and St. Lucia and Haiti (Table 32 and Figure 12).

Table 32. Fish imports for food 2019 of the CRFM Member States expressed as a percentage of the marine capture fisheries (MCF) and the aquaculture production (AC prod.) 2019

Member States	MCF prod. + AC prod. (meat weight in tonnes) 2019[160]	Fish imports for food (product weight in tonnes) 2019[161]	% of MCF prod. + AC prod. that was imported in 2019 (x100)
Barbados	847	7 470	8.82
Turks and Caicos Islands	332	1 580	4.76
Montserrat	18	63	3.51
St. Kitts and Nevis	360	1 240	3.44
Jamaica	13 490	33 522	2.48
St. Lucia	1 570	2 186	1.39
Haiti	23 600	25 340	1.07
Dominica	763	681	0.89
Trinidad and Tobago	12 986	11 132	0.86
Anguilla	758	461	0.61
Bahamas	8 304	4 727	0.57
Antigua and Barbuda	3 646	1 942	0.53
St. Vincent and the Grenadines	1 155	440	0.38
Grenada	2 735	715	0.26
Suriname	30 592	3 268	0.11
Belize	2 020	210	0.10
Guyana	38 633	3 475	0.09
Totals	**141 808**	**98 452**	**69.4**

[160] *For detailed explanations of the estimates used for marine fish production and aquaculture production see footnotes of Table 12 and 18.*
[161] *Provisional est. used for HAI, JAM, and TCI.*

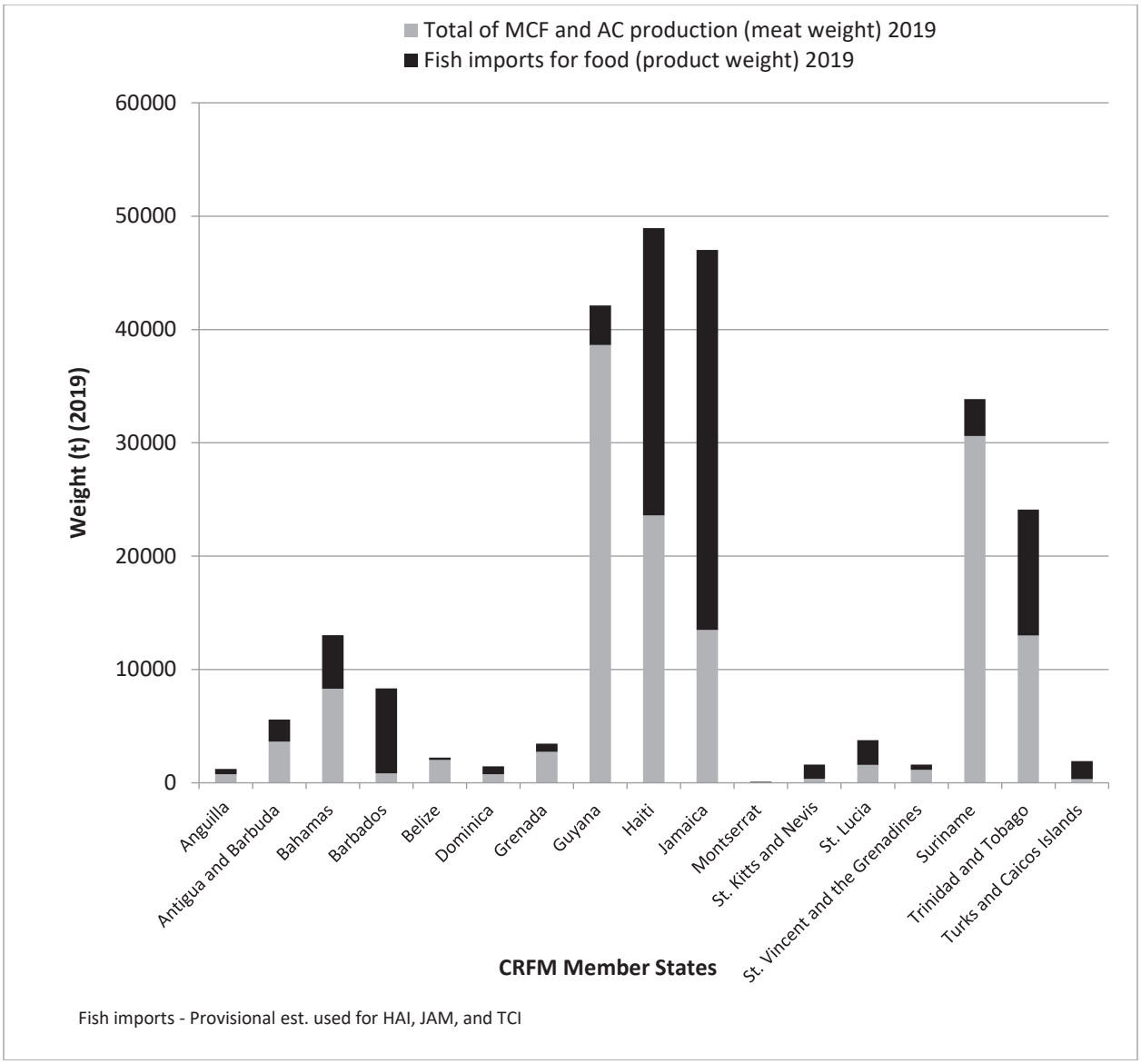

Figure 12: Weight of fish imported for food (product weight in tonnes) vs the meat weight production from the marine capture fisheries and the aquaculture production of CRFM Member States in 2019

6.2 Fish exports from the CRFM region

In 2019 and 2020 total domestic exports[162] of fish from the CRFM region (including exports of fish for food, bait and live ornamental fish for breeding or rearing) was approximately 61,648 tonnes annually (67,824 tonnes in 2019 and 55,472 tonnes in 2020). Fish exported for food accounted for 99.9% of the total. The total value of the domestic exports from all Member States combined was US$292.5 million in 2019 and US$234.81 million in 2020 (an average of US$263.7 million annually) (Tables 33, 34 and 35).

[162] *Exports of goods which were grown, produced, mined, or manufactured in the country from which exported.*

Table 33: Product weight (tonnes) and value (in millions of United States dollars) of domestic exports of fish for food, bait and ornamental purposes by CRFM Member States 2019

Member States	Domestic exports of fish for food (t) 2019	Value of domestic exports of fish for food (in millions of United States dollars) 2019	Domestic exports of fish for ornamental purpose (t) 2019	Value of domestic exports of fish for ornamental purposes (in millions of US dollars) 2019	Domestic export of fish for bait (t) 2019	Value of domestic exports of fish for bait (in millions of United States dollars) 2019	Total weight of domestic exports of fish for food, bait and ornamental (t) 2019	Total value of domestic exports of fish for food, bait and ornamental (in millions of US dollars) 2019
Anguilla	0.18	0.001	0.0	0.0	0.0	0.0	0.18	0.0015
Antigua and Barbuda	55	1.2	0.0	0.0	0.0	0.0	55	1.2
Bahamas	2 226	81.3	0.0	0.0	0.0	0.0	2 226	81.3
Barbados	94	0.3	0.09	0.001	0.0	0.0	94	0.3
Belize	1 450	24.7	1.3	0.05	0.0	0.0	1 452	24.8
Dominica	10	0.1	0.0	0.0	0.0	0.0	10	0.1
Grenada	653	6.6	0.0	0.0	0.0	0.0	653	6.6
Guyana	21 546	101.2	3.3	0.003			21 549	101.2
Haiti *(2018 FAO est.)*	269	10.5	0.0	0.0	0.0	0.0	269	10.5
Jamaica *(wt. 2018 est.)* [163]	499	8.9	0.0	0.0	0.0	0.0	499	8.9
Montserrat	0	0.0	0.0	0.0	0.0	0.0	0	0.0
St. Kitts and Nevis	38	0.25	0.0	0.0	0.0	0.0	38	0.2
St. Lucia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
St. Vincent and the Grenadines	511	5.1	0.0	0.0	0.0	0.0	511	5.1
Suriname	34 080	37.6	7.7	0.02	0.0	0.0	34 087	37.6
Trinidad and Tobago	6 261	13.2	24.6	0.089	0.0	0.0	6 286	13.2
Turks and Caicos Islands *(2016 estimates)*	93	1.4	0.0	0.0	0.0	0.0	93	1.4
Totals	**67 787**	**292.4**	**37**	**0.164**	**0.0**	**0.0**	**67 824**	**292.5**

Source: data collected directly from the Government Statistical Department of the Member State unless otherwise stated.

[163] *There were no exports of ornamentals in 2019. Therefore 2.233 tonnes of ornamentals (2018 ornamentals est.) was subtracted from the 501.665 tonnes of exports for 2018 and the result used provisionally for 2019 and 2020 weight of exports.*

Table 34: Product weight (in tonnes) and value (in millions of United States dollars) of domestic exports of fish for food, bait and ornamental purposes by CRFM Member States 2020

Member States	Domestic exports of fish for food (t) 2020	Value of domestic exports of fish for food (in millions of United States dollars) 2020	Domestic exports of fish for ornamental purposes (t) 2020	Value of domestic exports of fish for ornamental purposes (in millions of United States dollars) 2020	Domestic export of fish for bait (t) 2020	Value of domestic exports of fish for bait (in millions of United States dollars) 2020	Total weight of domestic exports of fish for food, bait and ornamentals (t) 2020	Total value of domestic exports of fish for food, bait and ornamentals (in millions of United States dollars) 2020
Anguilla	50	0.3	0.0	0.0	0.0	0.0	50	0.31
Antigua and Barbuda	57	1.44	0.0	0.0	0.0	0.0	57	1.44
Bahamas *(2019 est.)*	2 226	81.3	0.0	0.0	0.0	0.0	2 226	81.3
Barbados	110	0.3	0.0	0.0	0.0	0.0	110	0.30
Belize	1 057	19.7	5.3	0.081	0.0	0.0	1 062	19.76
Dominica	9	0.05	0.0	0.0	0.0	0.0	9	0.05
Grenada	390	3.3	0.0	0.0	0.0	0.0	390	3.26
Guyana	12 657	54.8	0.0	0.0	0.0	0.0	12 657	54.83
Haiti *(FAO, 2018. est.)*	269	10.5	0.0	0.0	0.0	0.0	269	10.5
Jamaica *(wt. 2018 est; value 2019 est.)* [164]	499	8.9	0.0	0.0	0.0	0.0	499	8.9
Montserrat	0	0.0	0.0	0.0	0.0	0.0	0	0.00
St. Kitts and Nevis	12	0.1	0.0	0.0	0.0	0.0	12	0.09
St. Lucia	0	0.0	0.0	0.0	0.0	0.0	0	0.00
St. Vincent and the Grenadines	572	5.6	0.0	0.0	0.0	0.0	572	5.59
Suriname	31 174	33.7	6.3	0.030	0.0	0.0	31 180	33.75
Trinidad and Tobago *(2019 est.)*	6 261	13.2	24.6	0.089	0.0	0.0	6 286	13.24
Turks and Caicos Islands *(2016 est.)*	93	1.4	0.0	0.0	0.0	0.0	93	1.43
Totals	**5 5436**	**234.6**	**36.1**	**0.200**	**0.0**	**0.0**	**55 472**	**234.81**

[164] *There were no exports of ornamentals in 2019. Therefore 2.233 tonnes of ornamentals (2018 ornamentals est.) was subtracted from the 501.665 tonnes of exports for 2018 and the result used provisionally for 2019 and 2020 weight of exports.*

Source: data collected directly from the Government Statistical Department of the Member State unless otherwise stated.

Over the period 2015 to 2020 Suriname followed by Guyana exported the highest weights, Suriname exported approximately 32,442 tonnes annually and Guyana exported approximately 22,142 tonnes annually (Table 35 and Figure 13). Since 2017 a decreasing trend in the weight of fish (product weight) exported was noted; a decrease of 2.6% in 2018 and 7.1% in 2019. However, the decrease over the 2019 to 2020 period is particularly noteworthy at 18.2%. The value gained from the exports also showed a decreasing trend.

Table 35: Total and average weight (product weight in tonnes) of domestic exports of fish for food, bait and ornamental purposes from CRFM Member States 2015 to 2020

Member States	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2015	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2016	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2017	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2018	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2019	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2020	Average weight (t) of domestic exports of fish for food, bait and ornamentals 2015 to 2020
Suriname	32 376	27 986	33 563	35 456	34 087	31 180	32 442
Guyana	23 094	23 788	27 827	23 936	21 549	12 657	22 142
Trinidad and Tobago	3 847	4 816	7 393	7 699	6 286	6 286[165]	6 055
Bahamas	2 502	2 287	2 673	2 532	2 226	2 226[166]	2 408
Belize	5 397	1 666	1 442	1 425	1 452	1 062	2 074
Grenada	812	630	641	653	653	390	630
Jamaica[167]	700	724	840	502	499[168]	499[169]	627
St. Vincent and the Grenadines	120	105	240	464	511	572	335
Barbados	189	223	152	145	94	110	152
Turks and Caicos Islands *(last est. available is 2016)*	178	93	93	93	93	93	107

[165] *2019 estimate.*
[166] *2019 estimate.*
[167] *2018 est. was used as provisional weight est. for 2019 & 2020.*
[168] *There were no exports of ornamentals in 2019. Therefore 2.233 tonnes of ornamentals (2018 ornamentals est.) was subtracted from the 501.665 tonnes of exports for 2018 and the result used provisionally for 2019 and 2020 weight of exports.*
[169] *There were no exports of ornamentals in 2019, therefore 2.233 tonnes of ornamentals (2018 ornamentals est.) was subtracted from the 501.665 tonnes of exports and the result used provisionally for 2019 and 2020 weight of exports.*

Member States	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2015	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2016	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2017	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2018	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2019	Total weight (t) of domestic exports of fish for food, bait and ornamentals 2020	Average weight (t) of domestic exports of fish for food, bait and ornamentals 2015 to 2020
Haiti *(2018 FAO est.)*	0.0	0.0	0	269	269	269	135
Antigua and Barbuda	0	10	30	47	55	57	33
St. Kitts and Nevis	27	37	18	19	38	12	25
Dominica	8.5	8.7	2	15	10	9	9
Anguilla	0.0	0.0	0	0	0	50	8
St. Lucia	1.7	2	0	0	0	0	1
Montserrat	0.0	0.0	0	0	0	0	0
Totals	**69 250**	**62 377**	**74 913**	**72 986**	**67 824**	**55 472**	

Source: data collected directly from the Government Statistical Department of the Member State unless otherwise stated.

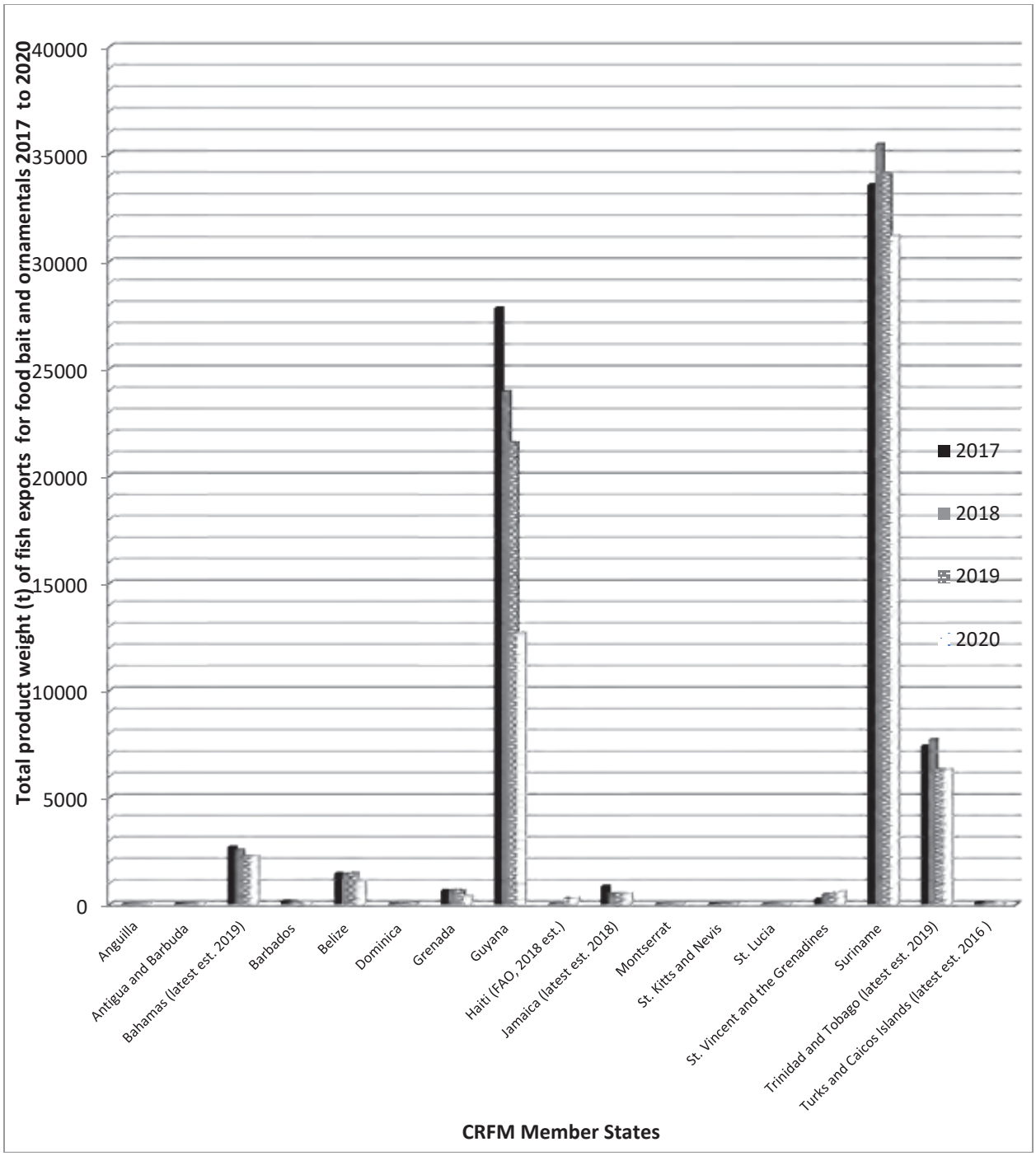

Figure 13: Total weight (product weight in tonnes) of fish domestic exports for food, bait and ornamental purposes 2017 to 2020

A comparison of the value of the total fish exports at the country level over the period of 2015 to 2020 showed that Guyana had the highest value for fish exported with an average of US$94.2 million annually and was followed by The Bahamas with an average of US$76.8 million annually (Table 36 and Figure 14).

Table 36: Value and average value of domestic exports of fish for food, bait and ornamental purposes (in millions of United States dollars) from CRFM Member States for 2015 to 2020

Member States	Value of domestic exports of fish for food, bait and ornamentals (in millions of United States dollars) 2015	Value of domestic exports of fish for food, bait and ornamentals (in millions of United States dollars) 2016	Value of domestic exports of fish for food, bait and ornamentals (in millions of United States dollars) 2017	Value of domestic exports of fish for food, bait and ornamentals (in millions of United States dollars) 2018	Value of domestic exports of fish for food, bait and ornamentals (in millions of United States dollars) 2019	Value of domestic exports of fish for food, bait and ornamentals (in millions of United States dollars) 2020	Average value of domestic exports of fish for food, bait and ornamentals (in millions of United States dollars) 2015 to 2020
Guyana	87.3	99.3	111.8	110.9	101.2	54.8	94.2
Bahamas *(latest est. 2019)*	62.1	70.9	83.6	81.2	81.3	81.3	76.8
Suriname	36.5	31.4	39.2	41.7	37.6	33.7	36.7
Belize	44.6	21.6	20.4	21.5	24.8	19.8	25.4
Trinidad and Tobago *(latest est. 2019)*	9.6	12.2	17.6	17.1	13.2	13.2	13.8
Jamaica *(latest est. 2019)*	10.6	11.7	12.9	9.3	8.9	8.9	10.4
Grenada	8.5	6.0	6.5	6.6	6.6	3.3	6.2
Haiti *(latest est. FAO, 2018 est.)*	0.0	0.0	0.0	0.0	10.5	10.5	3.5
St. Vincent and the Grenadines	0.6	0.6	1.2	2.5	5.1	5.6	2.6
Turks and Caicos Islands *(latest est. 2016)*	2.9	1.4	1.4	1.4	1.4	1.4	1.7
Antigua and Barbuda	0.0	0.0	0.3	0.8	1.2	1.4	0.6
Barbados	0.5	0.6	0.4	0.5	0.3	0.3	0.4
St. Kitts and Nevis	0.1	0.2	0.1	0.1	0.2	0.1	0.2
Anguilla	0.0	0.0	0.0	0.0	0.0	0.3	0.1
Dominica	0.02	0.1	0.0	0.1	0.1	0.1	0.05
St. Lucia	0.008	0.008	0.0	0.0	0.0	0.0	0.003
Montserrat	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**263.3**	**256.2**	**295.5**	**293.8**	**292.5**	**234.8**	

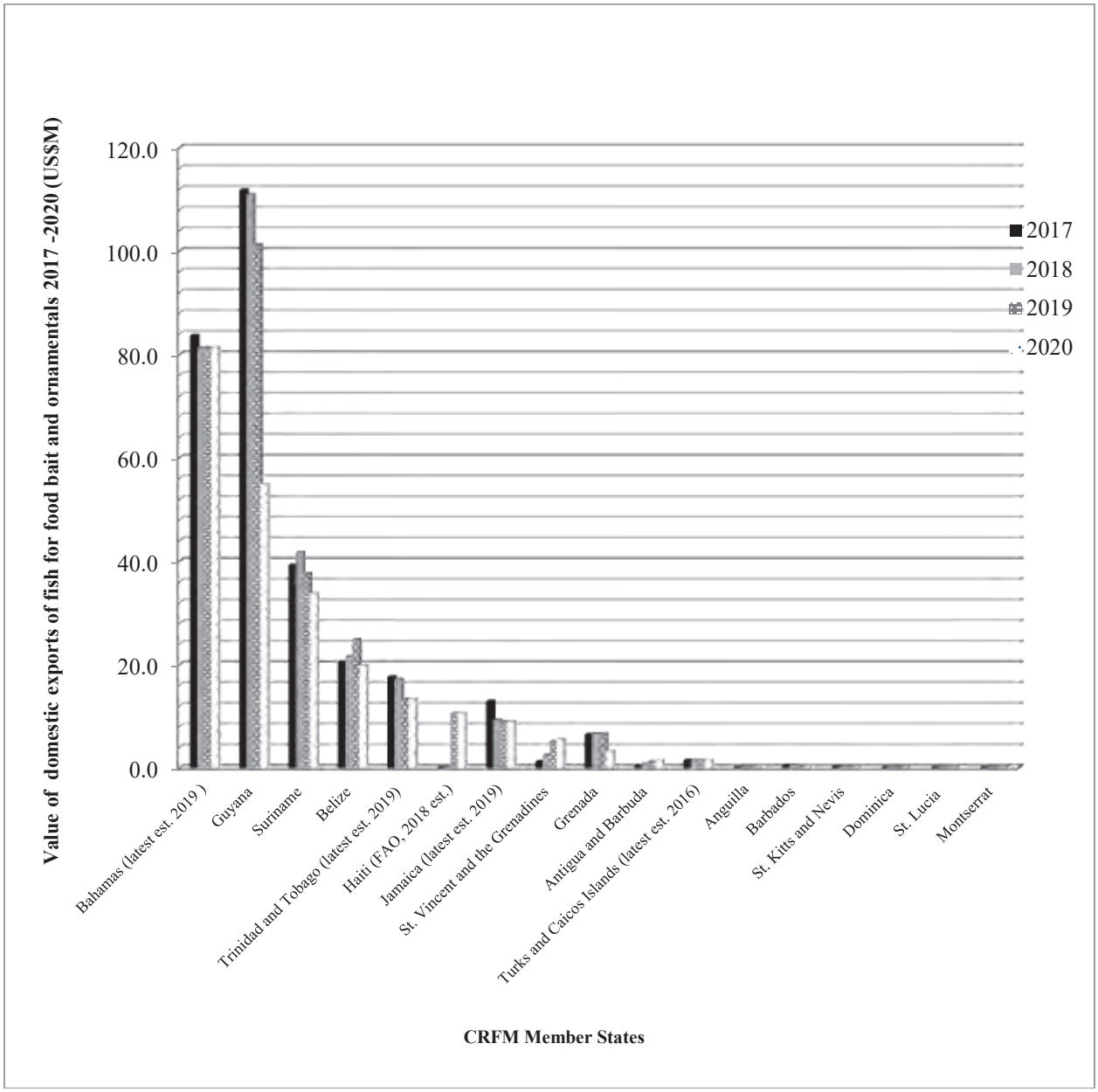

Figure 14: Value of domestic exports of fish for food, bait and ornamental purposes (in millions US dollars) from CRFM Member States for 2017 to 2020

In 2017 domestic exports of fish for food and bait from the CRFM region was approximately 74,866 tonnes (45% of the meat weight production from marine capture fisheries plus aquaculture production of the region). In 2018 domestic exports for food and bait fell to 72,923 tonnes and this corresponded to 49% of the meat weight production from marine capture fisheries plus aquaculture production of the region. In 2019 and 2020 domestic exports for food and bait fell to 67,787 tonnes and 55,436 tonnes respectively and this corresponded to 47% (in 2019) and 40% (in 2020), of the meat weight production from marine capture fisheries plus aquaculture production of the region (Figure 15). A small portion of the fish imported was re-exported (of 98,452 tonnes imported in 2019, 1,730 tonnes (~1.8%) was re-exported (Table 37). The three largest domestic exporters of fish (tonnes of fish exported) among the

CRFM Member States in 2019 were Suriname, Guyana and Trinidad and Tobago respectively, together they accounted for 91% of total domestic exports of fish from the region (Table 37).

Table 37: Domestic exports of fish for food, total domestic fish exports and re-exports (product weight in tonnes) 2019 and percentage contribution by Member State to total export of the CRFM region 2019 and 2017 to 2020

Member States	Domestic exports of fish for food (product weight in t) 2019	Total domestic exports of fish (product weight in t) 2019	% contribution to the total domestic exports of fish for the CRFM region 2019	Average weight (t) of domestic exports of fish for food, bait and ornamentals 2017 to 2020	% contribution to the total average weight of exports of fish for the CRFM region 2017 to 2020	Re-exports (product weight in t) 2019
Anguilla	0.178	0.178	0.00	12	0.02	0.1
Antigua and Barbuda	55	55	0.08	47	0.07	2.2
Bahamas	2 226	2 226	3.28	2 414	3.56	0.5
Barbados	94	94	0.14	125	0.18	4.5
Belize	1 450	1 452	2.14	1 345	1.98	0.0
Dominica	10	10	0.01	9	0.01	0.0
Grenada	653	653	0.96	584	0.86	0.0
Guyana	21 546	21 549	31.77	21 492	31.70	0.0
Haiti *(FAO, 2018 est.)*	269	269	0.40	135	0.20	0.0
Jamaica *(latest wt. est. 2018)* [170]	499	499	0.74	585	0.86	371.3
Montserrat	0	0	0.00	0	0.00	0.0
St. Kitts and Nevis	38	38	0.06	22	0.03	4.2
St. Lucia	0.0	0	0.00	0	0.00	1.1
St. Vincent and the Grenadines	511	511	0.75	447	0.66	0.0
Suriname	34 080	34 087	50.26	33 572	49.52	0.0
Trinidad and Tobago	6 261	6 286	9.27	6916	10.20	1 346.0
Turks and Caicos Islands *(2016 est.)*	93	93	0.14	93	0.14	0.0
Totals	**67 787**	**67 824**	**100**	**67 798**	**100**	**1 729.8**

Source: Product weight data collected directly from the Government Statistical Department of the Member State unless otherwise stated.

[170] *There were no exports of ornamentals in 2019. Therefore 2.233 tonnes of ornamentals (2018 ornamentals est.) was subtracted from the 501.665 tonnes of exports for 2018 and the result used provisionally for 2019 and 2020 weight of exports.*

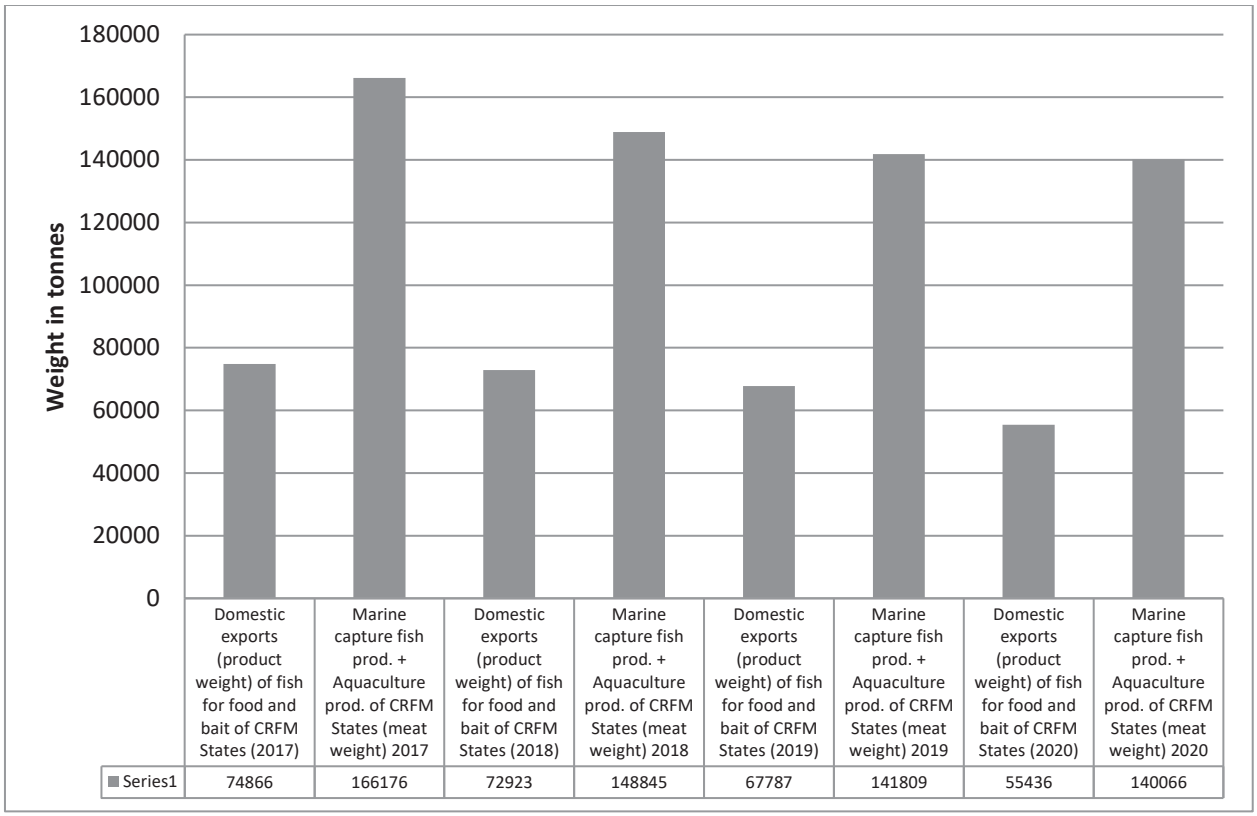

Figure 15: Domestic exports of fish for food and bait (product weight in tonnes) compared to the total production from marine capture fisheries and aquaculture production (meat weight in tonnes) of the CRFM Member States 2017 to 2020

The species exported for food included: lobsters, shrimp, conch, tunas, snappers, groupers, and various other finfish species and aquatic invertebrates (Table 38). The disaggregated data of domestic exports from 12 Member States in 2019 (disaggregated data were not available for Grenada and Suriname, and provisional data used for Jamaica, Haiti and the Turks and Caicos Islands were not included), showed that, exports of shrimp accounted for approximately 21% of the exports from those Member States, valued at US$34 million. Exports of conch accounted for approximately 3% of exports (value US$12 million), of lobsters 7% (value US$89 million) and various finfish including tunas, snappers, flyingfish, mackerel, bangamary and groupers accounted for approximately 68% (value US$84 million) of the export from the 12 Member States analysed (Table 38a & 38b and Table 39).

Table 38a: The species (common name) and weight (meat weight in tonnes) of fish exported for food by Member States of the CRFM in 2019

Member States	Lobster (t)	Conch (t)	Yellowfin tuna (t)	Other tunas (skipjack, bluefin tuna etc.) (t)	Mackerels, Wahoo and Kingfish Marlins, Swordfish (t)	Dolphin fish (t)	Groupers (t)	Snappers (t)	Flying fish (t)	Fin fish aggregated (snapper, croaker, grouper, dolphin, bangamary & sea trout) (t)	Other fin fish (t)	Crabs (t)	Shrimp/prawns (t)	Aquatic invertebrates & other crustaceans (t)	Sharks and Rays (t)	Totals (t)
Anguilla	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.178
Antigua and Barbuda	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55.20
Bahamas	1 789	254	0	0	0	0	0	21	0	0	21	89	0	53	0	2 226
Barbados	0	0	84	1	1.54	0.0	0	0	0	0	5	0.16	1	0.60	0	94.00
Belize	430	274	0	0	3	0	0	0	0	7	42	1	437	257	0.1	1 450
Dominica	0	0	0	0	0.0	0	0	0	2	3	4	0	0	0	0.00	10
Grenada	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	653
Guyana	1	0	2	278	17	0	0	0	73	9 570	5 323	52	6 180	36	13	21 546
Haiti *(2018 FAO est.)*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	269
Jamaica *(wt. is 2018 est.)*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	499
Montserrat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. Kitts and Nevis	2	20	0	0	0	0	0	0	0	0	0.00	0.6	15	0	0	37.75
St. Lucia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
St. Vincent and the Grenadines	62	362	19	0.55	0.3	0	0	0	0	1.4	65	0.4	0	0	0	511
Suriname (NA)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	34 080
Trinidad and Tobago	36	0	3 398	68	5	0	0	0	0	0	2 744	3	4	0.5	3	6 261
Turks and Caicos Islands *(2016 est.)*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	93
Total of 12 Member States 32 192	**2 375**	**910**	**3 504**	**348**	**27**	**0**	**0**	**21**	**75**	**9 581**	**8 205**	**147**	**6 637**	**348**	**16**	
% of the total domestic exports for food[171] 2019	**7.38**	**2.83**	**10.88**	**1.08**	**0.08**	**0.00**	**0.00**	**0.07**	**0.23**	**29.76**	**25.49**	**0.46**	**20.62**	**1.08**	**0.05**	

Sources: Data were collected directly from the Government Statistics Department in the Member State unless otherwise stated
NA=Not Available (disaggregated data were not available for Grenada and Suriname, and provisional data used for Jamaica, Haiti and the Turks and Caicos Islands were not included)

[171] *For 12 of the 17 Member States.*

Table 38b: The value (in millions of US$) by species (common name weight of product) of fish exported for food by Member States of the CRFM in 2019

Member States	Lobster (M US$)	Conch (M US$)	Yellowfin tuna (M US$)	Other tunas (skipjack, bluefin tuna etc.) (M US$)	Mackerels, Wahoo and Kingfish Marlins, Swordfish (M US$)	Dolphin fish (M US$)	Groupers (M US$)	Snappers (M US$)	Flying fish (M US$)	Fin fish aggregated (snapper, croaker, grouper, dolphin, bangamary & sea trout (M US$)	Other fin fish (M US$)	Crabs (M US$)	Shrimp/prawns (M US$)	Aquatic invertebrates & other crustaceans (M US$)	Sharks and Rays (M US$)	Totals (M US$)
Anguilla	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.00
Antigua and Barbuda	1.241	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	1.24
Bahamas	72.946	4.138	0.000	0.000	0.000	0.000	0.000	0.049	0.000	0.000	0.057	3.214	0.004	0.890	0.000	81.30
Barbados	0.017	0.000	0.143	0.005	0.002	0.000	0.000	0.000	0.006	0.000	0.069	0.001	0.004	0.012	0.000	0.26
Belize	13.559	4.350	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.016	0.115	0.032	2.899	3.743	0.001	24.73
Dominica	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.021	0.022	0.000	0.000	0.000	0.000	0.06
Grenada	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.61
Guyana	0.007	0.000	0.010	1.826	0.079	0.000	0.000	0.000	0.240	35.532	32.294	0.163	30.906	0.088	0.061	101.21
Haiti *(2018 FAO est.)*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.50
Jamaica	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.93
Montserrat	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
St. Kitts and Nevis	0.010	0.125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.110	0.000	0.000	0.25
St. Lucia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
St. Vincent and the Grenadines	1.190	3.423	0.128	0.003	0.001	0.000	0.000	0.000	0.000	0.009	0.305	0.011	0.000	0.000	0.000	5.07
Suriname	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.61
Trinidad and Tobago	0.224	0.000	7.957	0.163	0.042	0.000	0.000	0.000	0.000	0.000	4.681	0.015	0.029	0.003	0.054	13.17
Turks and Caicos Islands *(2016 est.)*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.43
Value of 12 Member States 227.3 (M US$)	**89.197**	**12.037**	**8.238**	**1.996**	**0.136**	**0.000**	**0.000**	**0.049**	**0.256**	**35.578**	**37.544**	**3.438**	**33.952**	**4.738**	**0.116**	
% of the value of total domestic exports for food 2019	**39.25**	**5.30**	**3.62**	**0.88**	**0.06**	**0.00**	**0.00**	**0.02**	**0.11**	**15.65**	**16.52**	**1.51**	**14.94**	**2.08**	**0.05**	

Source: data collected directly from the Government Statistical Department of the Member State unless otherwise stated.

Table 39: Product weight (t), value (millions of United states dollars) and corresponding percentage contribution of species exported for food by twelve CRFM Member Stated in 2019

Species of fish exported	Total product weight (t) for food exported by 12[172] of the 17 CRFM Member States (2019)	% contribution that the species made to the total product weight exported (2019)	Total value (millions of United states dollars) exported for food by 12[173] of the 17 CRFM Member States (2019)	% contribution that the species made to the total value exported (2019)
Lobster	2 375.5	7.38	89.20	39.24
Conch	910.0	2.83	12.04	5.30
Yellowfin tuna	3 503.6	10.88	8.24	3.63
Other tunas	347.5	1.08	2.00	0.88
Mackerel	26.6	0.08	0.14	0.06
Dolphinfish	0.0	0.00	0.00	0.00
Grouper	0.0	0.00	0.00	0.00
Snapper	21.0	0.07	0.05	0.02
Flying Fish	75.3	0.23	0.26	0.11
Fin fish aggregated (snapper, croaker, grouper, dolphin, bangamary & sea trout)	9 581.3	29.76	35.58	15.65
Other fish	8 204.7	25.49	37.54	16.52
Crab	146.5	0.46	3.44	1.51
Shrimp	6 636.9	20.62	33.95	14.94
Other aquatic invertebrates	347.5	1.08	4.74	2.09
Shark	16.0	0.05	0.12	0.05
Total	**32 192.4**	**100**	**227.30**	**100**

Suriname exported more than 100% of the fish production from the marine capture fisheries and the aquaculture production in 2019 as food (no bait was exported). This could be as a result of fish caught in the previous year being exported in 2019. Belize (71.8%), Guyana (55.8%), St. Vincent and the Grenadines (44.3%) and Trinidad and Tobago (48.2 %), also exported substantial amounts of the production from the marine capture fisheries and the aquaculture production in 2019 (Table 40 and Figure 16).

[172] *Disaggregated data were not available for Grenada and Suriname, and provisional data used for Jamaica, Haiti and the Turks and Caicos Islands were not included.*

[173] *Disaggregated data not available for Grenada and Suriname, and provisional data used for Haiti, Jamaica and the Turks and Caicos Island were not included*

Table 40: Domestic exports of fish for food and bait (product weight in tonnes) 2019 and production (meat weight) from the marine capture fisheries production (MCF prod.) plus the aquaculture production (AC prod.) that was exported in 2019 (meat weight in tonnes and percentage) by CRFM Member States

Member States	Domestic exports of fish for food and bait (product weight in tonnes) 2019	MCF prod. + AC prod. (meat weight in tonnes) 2019	% of MCF prod. + AC prod. that was exported in 2019
Suriname	34 080	30 592	111.4
Belize	1 450	2 020	71.8
Guyana	21 546	38 633	55.8
Trinidad and Tobago	6 261	12 986	48.2
St. Vincent and the Grenadines	511	1 155	44.3
Turks and Caicos Islands *(2016 estimates)*	93	332	28.0
Bahamas	2 226	8 304	26.8
Grenada	653	2 735	23.9
Barbados	94	847	11.1
St. Kitts and Nevis	38	360	10.5
Jamaica *(wt. 2018 est.)*	499	13 490	3.7
Antigua and Barbuda	55	3 646	1.5
Dominica	10	763	1.3
Haiti *(2018 FAO est.)*	269	23 600	1.1
Anguilla	0.178	758	0.0
Montserrat	0	18	0.0
St. Lucia	0.00	1 570	0.0
Totals	**67 787**	**141 808**	

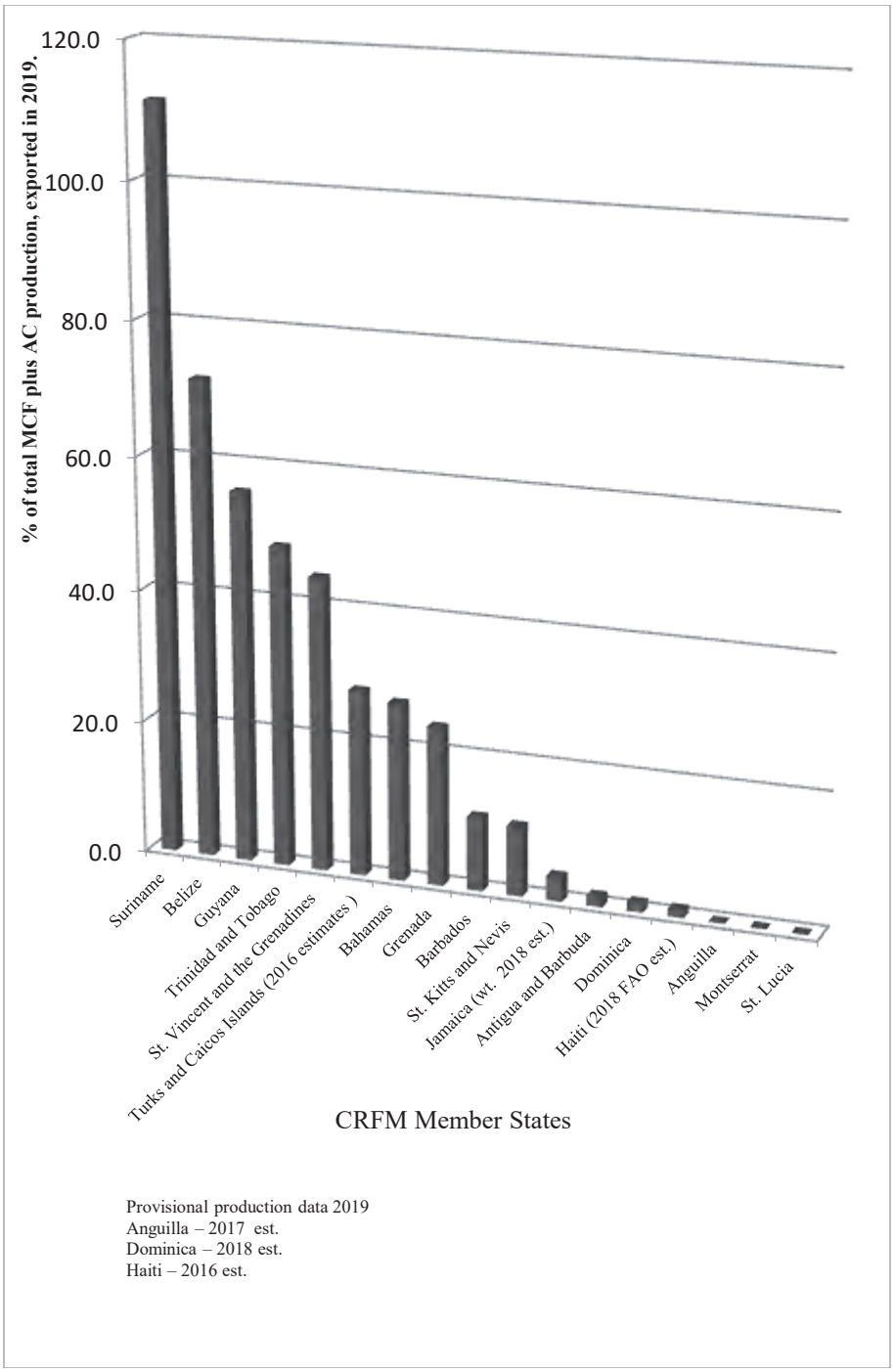

Figure 16: Domestic fish exports (food and bait) of CRFM Member States expressed as a percentage of the total marine capture fisheries plus aquaculture fish production (meat weight 2019)

Table 4 assumes that all the fish imported and captured locally are consumed by the local population, and tourist and visitors are not accounted for. Therefore the data should be used with caution as it is preliminary.

Table 41. Calculation table for consumption of fish (assuming that the local population consumed all the available fish) within CRFM Member States (in kg per person) for 2019

Column 1 (C1)	Column 2 (C2)	Column 3 (C 3)	Column 4 (C 4)	Column 5 (C 5)	Column 6 (C 6)	Column 7 (C 7)	Column 8 (C 8)	Column 9 (C 9)	Column 10 (C 10)	Column 11 (C 11)
Member States	**Marine Capture Fish Prod. + Aquaculture Prod. (t) 2019**	**Domestic Exports (t) 2019**	**Re-exports (t) 2019**	**Imports of chilled fresh or frozen fish (t) 2019**	**Imports of dried, salted smoked pickled (cured) fish (t) 2019**	**Imports of canned fish (t) 2019**	**Total fish imports for food (t) 2019 =C5+C6+C7**	**Total fish supply (t) 2019 =C2-C3-C4+C8**	**Population 2019**	**Total Fish Supply Per Capita (kg/2019) =(C9*1000)/C10**
Anguilla	758	0.178	0.1	303	34	124	**461**	1 218	**14 869**	82
Antigua and Barbuda	3 646	55	2.2	742	691	509	**1 942**	5 531	**97 118**	57
Bahamas	8 304	2 226	0.5	2 013	159	2 555	**4 727**	10 804	**389 482**	28
Barbados	847	94	4.5	3 636	779	3 054	**7 470**	8 218	**287 025**	29
Belize	2 020	1 450	0.0	26	0	184	**210**	779	**390 353**	2
Dominica	763	10	0.0	66	319	296	**681**	1 434	**71 808**	20
Grenada	2 735	653	0.0	63	238	414	**715**	2 797	**112 003**	25
Guyana	38 633	21 546	0.0	2 027	25	1 422	**3 475**	20 562	**782 766**	26
Haiti*	23 600	269	0.0	0	0	0	**25 340**	48 671	**11 263 077**	4
Jamaica	13 490	499	371	14 395	5 387	13 739	**33 522**	46 141	**2 948 279**	16
Montserrat	18	0	0.0	22	25	16	**63**	81	**4 989**	16
St. Kitts & Nevis	360	38	4.2	657	264	320	**1 240**	1 558	**52 823**	29
St. Lucia	1 570	0.0	1.1	834	428	924	**2 186**	3 755	**182 790**	21
St. Vincent & the Grenadines	1 155	511	0.0	29	250	160	**440**	1 084	**110 589**	10
Suriname	30 592	34 080	0.0	1 346	0	1 922	**3 268**	-220	**581 372**	0[174]
Trinidad & Tobago	12 986	6 261	1 346	4 783	2 655	3 695	**11 132**	16 511	**1 394 973**	12
Turks and Caicos Islands	332	93	0.0	1 132	201	247	**1 580**	1 819	**38 191**	48
Totals	**141 809**	**67 787**	**1 729.8**	**32 072**	**11 458**	**29 582**	**98 452**	**170 744**	**18 722 507**	**9**

Source for population: Worldometers, 2021.
Notes: For detailed explanations on data used for Marine Capture Fish Prod. + Aquaculture Prod. (t) 2019, see Table 13 and 18.
For detailed explanations on data used for Domestic Exports (t) 2019 see Table 33 and for Imports2019 (t) see Table 30.

[174] *Needs further clarification.*

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The CRFM is an inter go ernmental organi ation whose mission is to "Promote and facilitate the responsible utili ation of the region's fisheries and other aquatic resources for the economic and social benefits of the current and future population of the region". The CRFM consists of three bodies – the Ministerial Council the Caribbean Fisheries Forum and the CRFM ecretariat. CRFM members are nguilla ntigua and arbuda The ahamas arbados eli e ominica renada u ana aiti amaica Montserrat t. itts and e is t. ucia t. incent and the renadines uriname Trinidad and Tobago and the Tur s and Caicos slands.

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