



CFMC Data Hub

Martha Prada, Graciela Garcia-Moliner & Liajay Rivera
(Illustrations by Manuel Rodriguez)

Partners



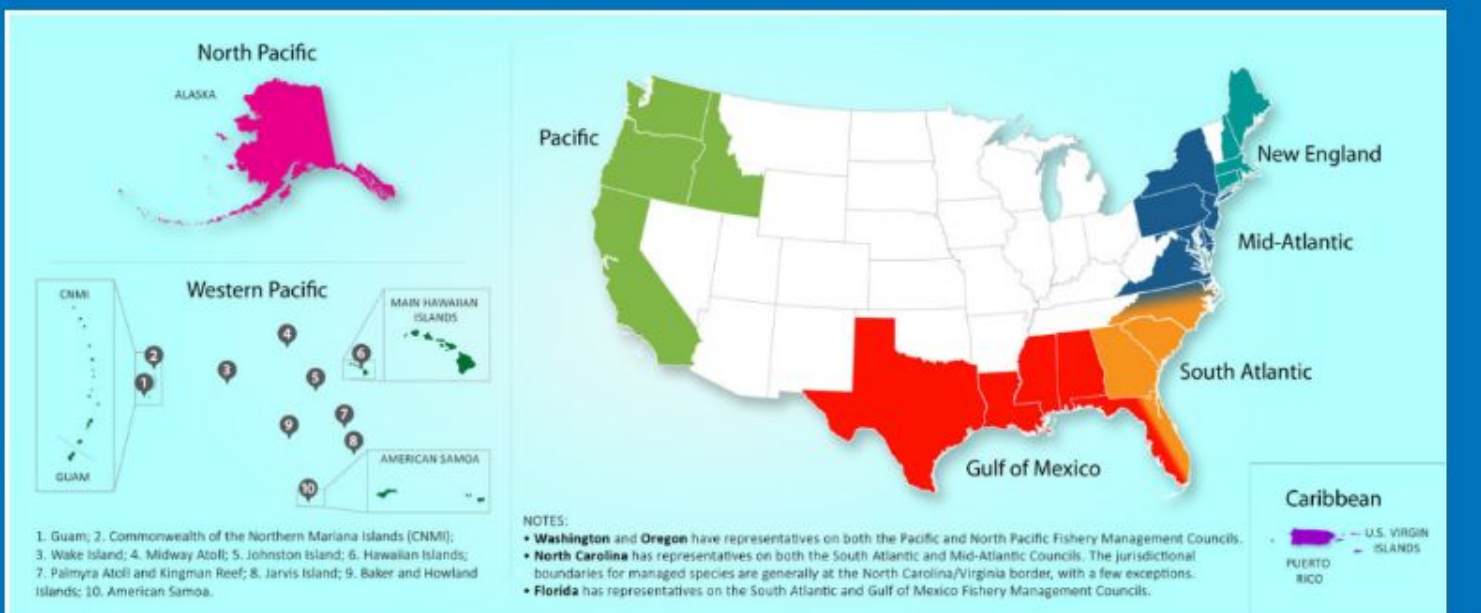
Scientific and Statistic Committee (SSC) and
the Ecosystem-Based Fishery Management Technical Advisory Panel (EBFM TAP)
May 1-5, 2023



Welcome!!!

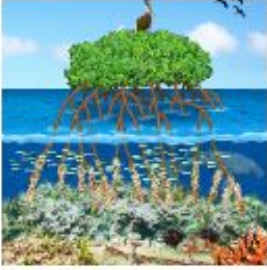
The Caribbean Fisheries Management Council (CFMC) is one of the eight regional council system designed to allow regional, participatory governance in fishery management allowing for management strategies for each region's unique fisheries, challenges, and opportunities. The system was created by the Magnuson-Stevens Fishery Conservation and Management Act first passed in 1976 and later reauthorized in 2007.

Information presented in this portal intends to integrate data on different aspects needed for application of ecosystem-based fisheries management recognizing complex interactions rather than single species considerations. The Caribbean Council establishes conservation measures for more than 300 species of fish and shellfish managed under four Fishery Management Plans (<https://www.fisherycouncils.org/>)



Introduction

Structure

 JURISDICTION Access maps and other relevant information about the Caribbean Fisheries Management Council jurisdiction areas.	 FISHERY ASSOCIATED DATA Access databases that compiled fishers reporting on commercial landings, starting systematically in the mid 1970's. It include surveys and interviews from recreational fishers.	 FISHERY INDEPENDENT DATA Access databases containing information on selected key species from surveys and other specific research that are considered fishery independent.	 BENTHIC HABITAT DATA Access benthic habitat maps around Puerto Rico and the US Virgin Islands.	 MANAGED AREAS INFORMATION Access maps and associated information on Marine Managed Areas in Puerto Rico and the US Virgin Islands.	 OTHER ECOSYSTEM INFORMATION Access additional information on the water quality and other relevant ecosystem parameters.
--	---	--	--	--	---

Partners



Commercial landings integrated entries

N USVI by decade

1983-1990 = 103,486
1991-2000 = 264,769
2001-2010 = 533,262
2011-2021 = 262,779

N USVI by species

Conch	35,307
Lobster	99,974
Groupers	75,677
Snappers	137,074
Dolphinfish	15,173
Parrotfish	122,480

N PR by decade

1983-1990 = 389,490
1991-2000 = 852,007
2001-2010 = 737,692
2011-2021 = in construction

USVI database fields

No.	Parameter
1	DISTRICT
2	ZONE
3	GEAR CODE
4	GEAR_NAME
5	SPECIES ITIS CODE
6	SPECIES NAME
7	TOTAL WEIGHT
8	MONTH
9	DAY
10	YEAR

No.	Parameter
1	LANDING SITE
2	CD1
3	CD2
4	CD3
5	DEPTH

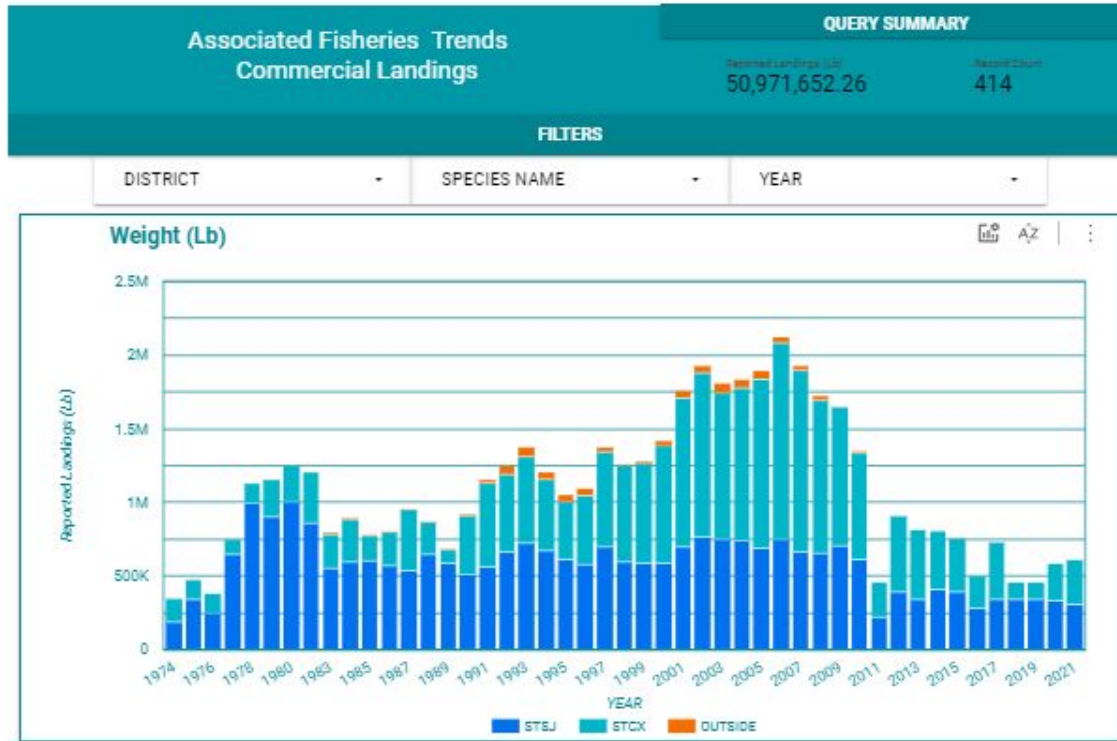
PR database fields

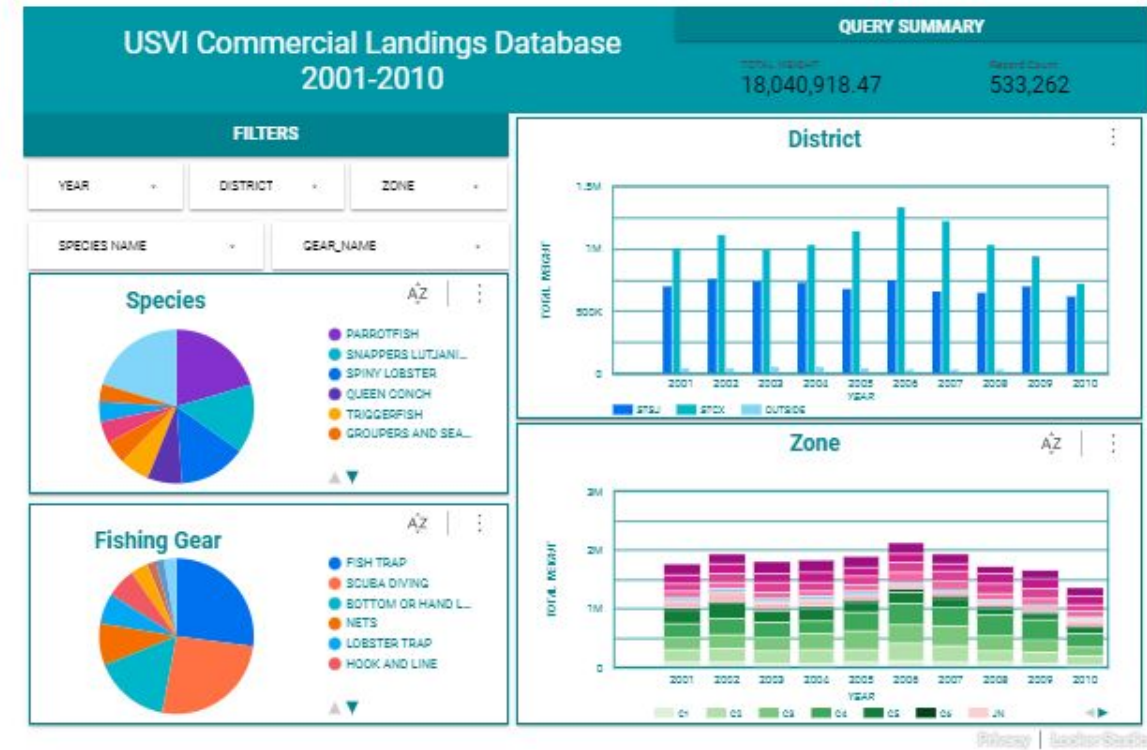
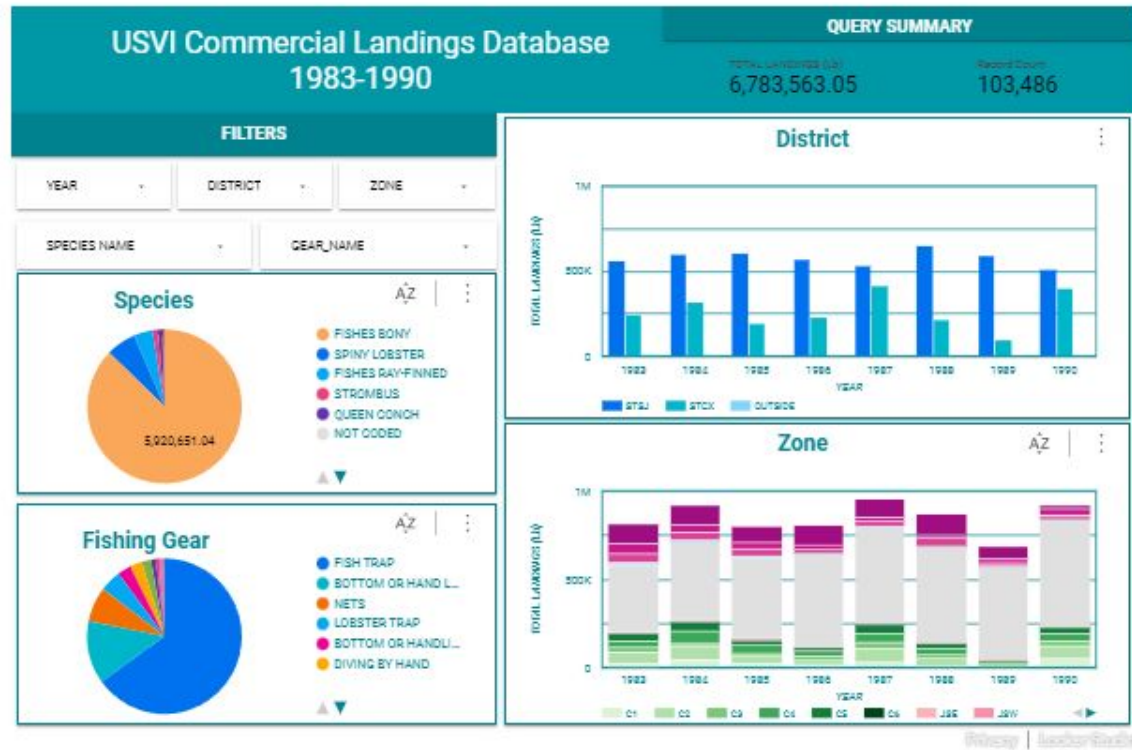
No.	Parameter
1	OBJECTID
2	DATE
3	ID_CODE
4	REGION
5	CENTER_CODE
6	CENTER_NAME
7	MUNIC. CODE
8	MUNICIP. NAME
9	GEAR_CODE
10	GEAR_NAME
11	NO_TRIPS

No.	Parameter
12	ERDMAN CODE
13	ITIS CODE
14	SPA COMMON NAME
15	ENG COMMON NAME
16	SCIENTIFIC NAME / TAXON
17	TOT_WT
18	PRICE
19	VALUE
20	MON
21	DAY

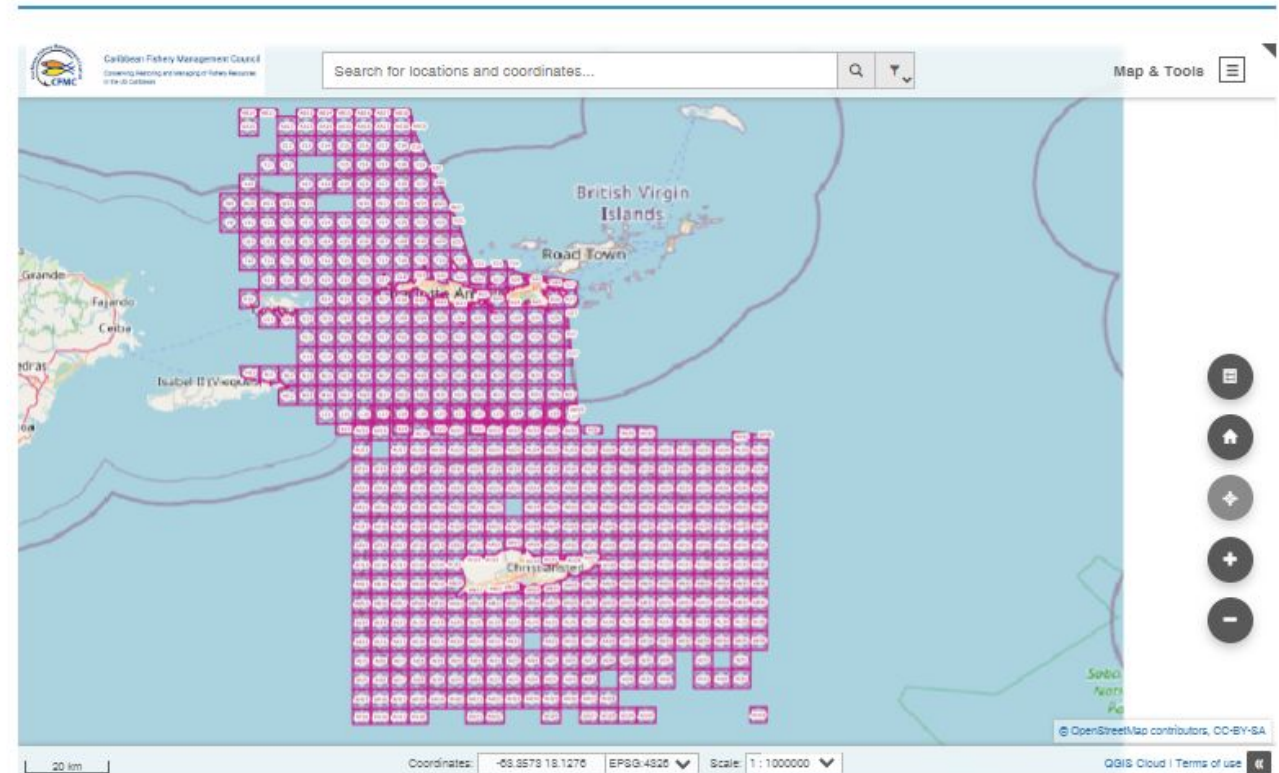
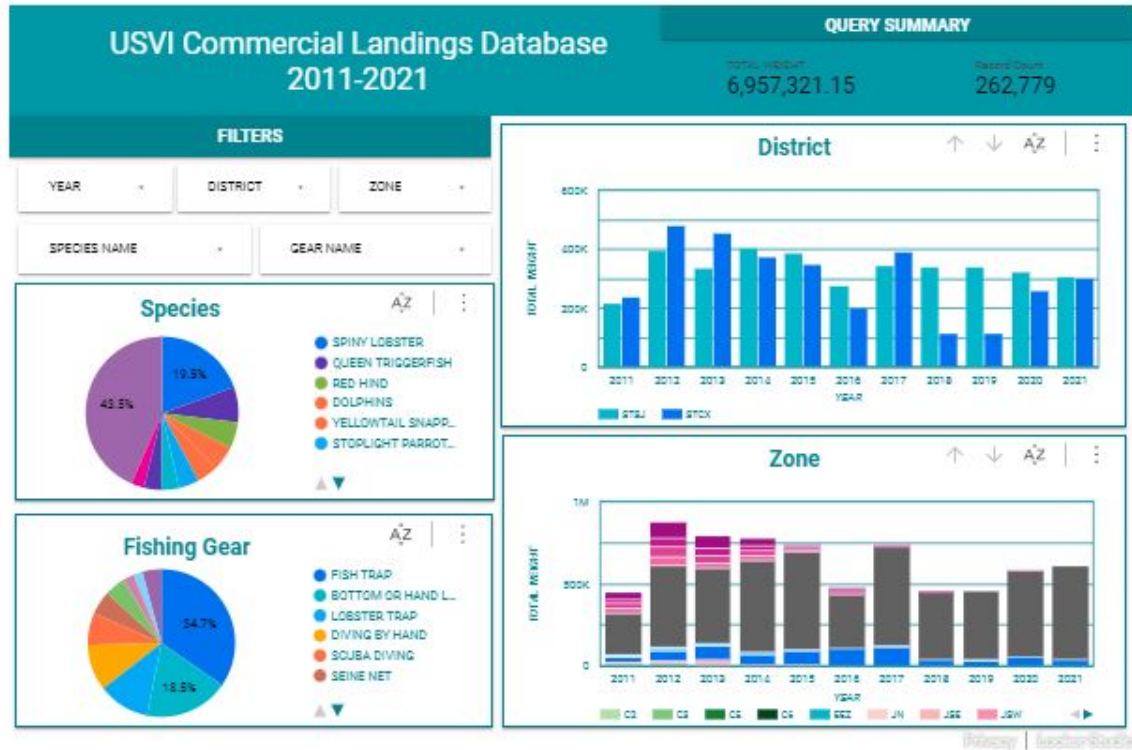
[Landings](#)[Fishers census](#)[Price trends](#)

USVI Historical Trends





USVI by decade



USVI Latest decade update

Decade 2001 – 2010

2001: On January 17, President William J. Clinton expanded the Buck Island Monument's size by 18,135 acres, which now includes over 19,000 acres of both submerged and dry lands. Buck Island Expansion. Hunting and trapping are prohibited, unless authorized for research, academic or scientific purposes, or to remove invasive species. All extractive uses are prohibited.

2001: Moratoria on issuance of new commercial fishing licenses in the USVI. Higher unemployment on STCX resulting in more interest in commercial fishing and the STCX Fisheries Advisory Committee (FAC) approving more license transfers than the STT/STJ FAC.

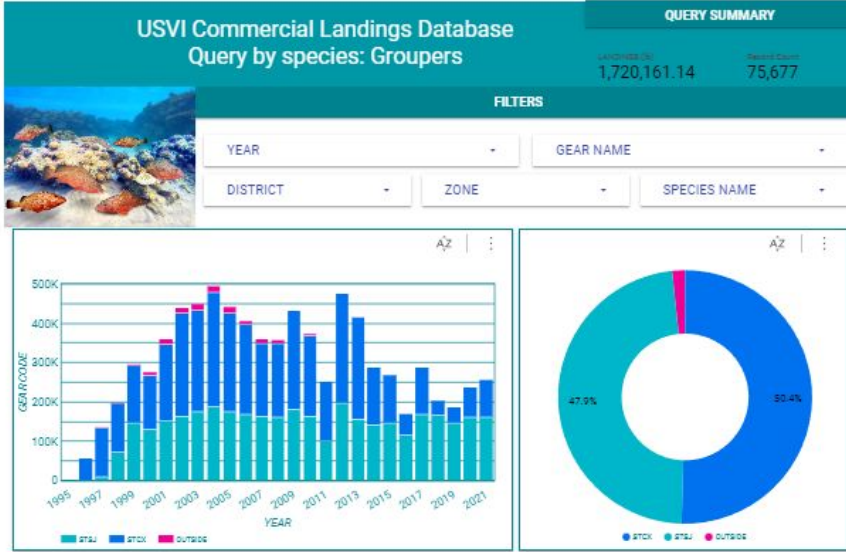
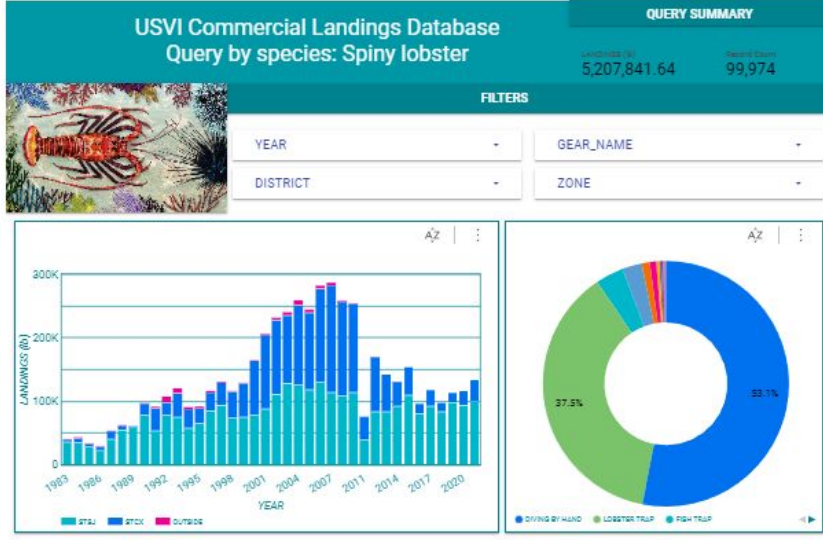
2003: The East End Marine Park was established in St. Croix under V.I. Code Title 12, Section 903-906, Act #6572, as part of the U.S. National System of MPAs and the Virgin Islands Marine Protected Area Network. The initial management plan was updated in 2016. The park is aimed to protect territorially significant marine resources, promote sustainability of marine ecosystems, including coral reefs, sea grass beds, wildlife habitats and other resources, and to conserve and preserve significant natural areas for the use and benefit of future generations.

2003: Accordingly with Kojis 2004, majority of boats in the USVI have changed from wood to either fiberglass or wood and fiberglass. Most had engines, and a variety of mechanical and electronic equipment (winches, reels to haul in lines set in deep water, marine radios, and/or echo sounders). Fish traps were still important especially in St. Thomas/St. John District. However, other gears such as nets and vertical setlines were more commonly reported in 2003 than in 1930 or 1968. Scuba was an important component of the USVI commercial fishery, especially in STX District, but not reported before.

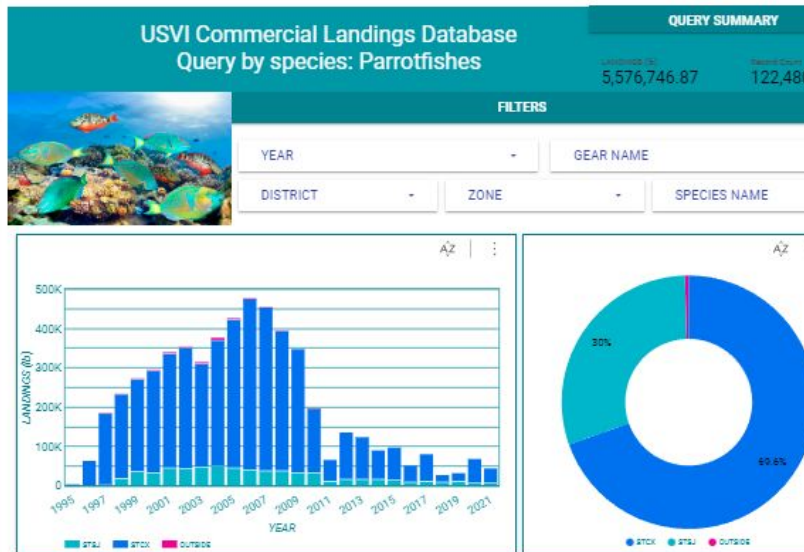
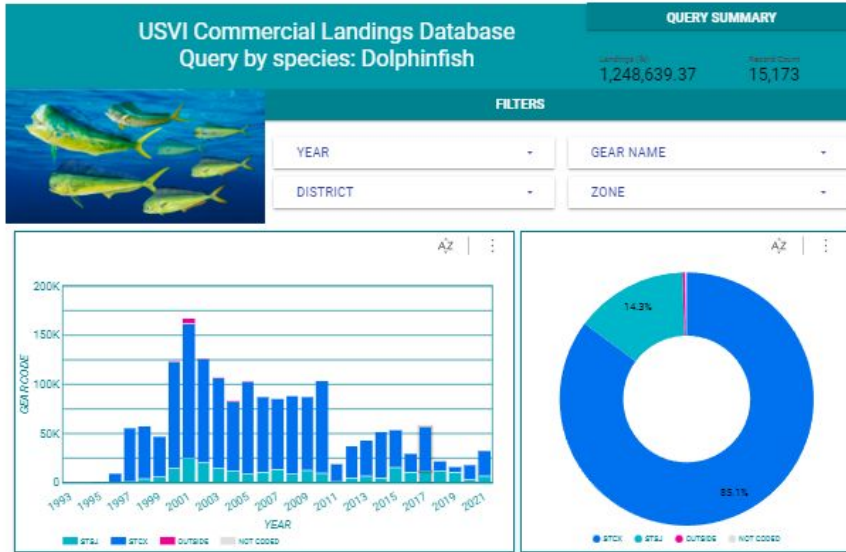
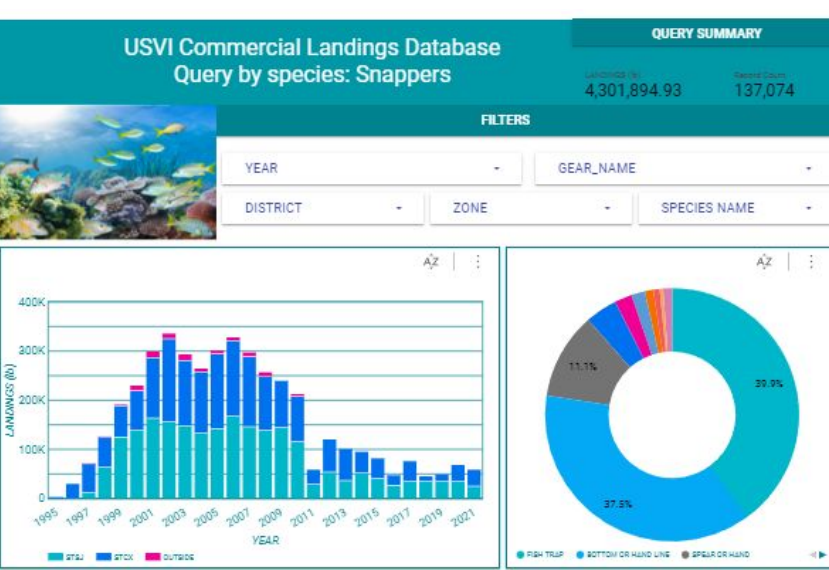
2005: Mass bleaching event (July and November) caused a significant decline in hard coral live cover in US Caribbean by approximately 51.5%. Bleaching occurred in 22 coral species over a wide range of depths. Sea surface temperatures exceeded the 29.5°C coral bleaching threshold for 12 weeks, with maximum temperatures exceeding 30°C. The reefs suffered more thermal stress during this period than during the previous 20 years combined. Mass coral bleaching events in the Wider Caribbean were also experienced in 1987, 1995, 2010, 2015, 2016, and 2017, thus becoming more frequent and intense since they were first observed (Baker, 2001; Riegl 2002; Gilmour et al. 2013; Hughes et al. 2018).

2006: The Fishery Management Plan for Atlantic Tunas, Swordfish, and Shark and the Atlantic Billfish Fishery Management Plan enters into force. The Atlantic Highly Migratory Species are managed under the dual authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA).

2007: The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act aimed to place U.S. fisheries on the path to global leadership. The revision included annual catch limits and accountability measures for every fishery. It strengthens the role of science through peer review, scientific and statistical committees, and the Marine Recreational Information Program. It also strengthened international fisheries management organizations and addressed illegal, unreported, and unregulated fishing and bycatch to protect marine life.



USVI by species



Queen conch (*Aliger gigas*, *Strombus gigas* or *Lobatus gigas*)

Management: The queen conch is a Caribbean large and slow-moving mollusk, a benthic herbivore that uses different habitats through ontogeny including seagrass beds, sand plains, and coral reefs. The species is harvested intensively throughout the Caribbean for its meat, shell, and pearls. It is also a cultural symbol, being a significant local food source for hundreds of years. The shortage of local conch resources is substantiated by the record of imports of frozen meats since 1886. Landing data for this species in the USVI is available since the early 1980's, and in general, its abundance is exhibiting negative trends in both Puerto Rico and the U.S. Virgin Islands. Expected overfishing led to a 5-year closure of the conch fishery through the USVI, a fishery that was reopening under a rebuilding [queen conch fishery management](#) in 1994. In 2019, the Comprehensive Fishery Management Plan for the [St. Croix Exclusive Economic Zone](#) and [St. Thomas-St. John Exclusive Economic Zone](#) were formally adopted. Overall, for the management of this species there is consistency in the regulatory framework at territorial and federal waters. These regulations cover different aspects:

Size limits: Minimum size of 9-inch shell length from the tip of the spire to the distal end of the shell, or 3/8-inch lip thickness (width) at its widest point. No harvest of undersized conch.

Harvest quota: 50,000 pounds for the St. Croix district only.

Commercial trip limit: 200 conch per day per registered commercial fishing vessel on which a licensed commercial fisher must be present.

Recreational bag: 6 conch per day per recreational (personal use) fisher; not to exceed 24 conch per boat per day in territorial waters. 3 queen conch per person/day or, if more than 4 persons are aboard, not to exceed 12 queen conch per vessel/day in federal waters.

Landings restrictions: Conch must be landed alive, in the shell, and reported in the district from which they were harvested. It is prohibited to land conch shells on offshore islands and cays for the purpose of removing meat from the shell. It is prohibited to dispose of conch shells by throwing the empty shells back in the water.

Sale restrictions: No sale of undersized conch shell or meat from undersized conch. No sale of imported conch meat unless shipment is accompanied by a CITES permit and shipment is cleared at the Port of Miami.

Closed season: No harvest or possession June 1 through October 31. No harvest, possession, or sale of fresh or preserved (frozen, salted, or treated in chemical solution) conch which has been caught in the U.S. Virgin Islands seven days after the start of the closed season. Sale and transportation of conch is permitted during the closed season if the conch is imported from outside the U.S. Virgin Islands or is caught and stored prior to the closing of the season.

Fishing areas: only in the area east of 64°34' W. longitude which includes Lang Bank east of St. Croix, USVI.

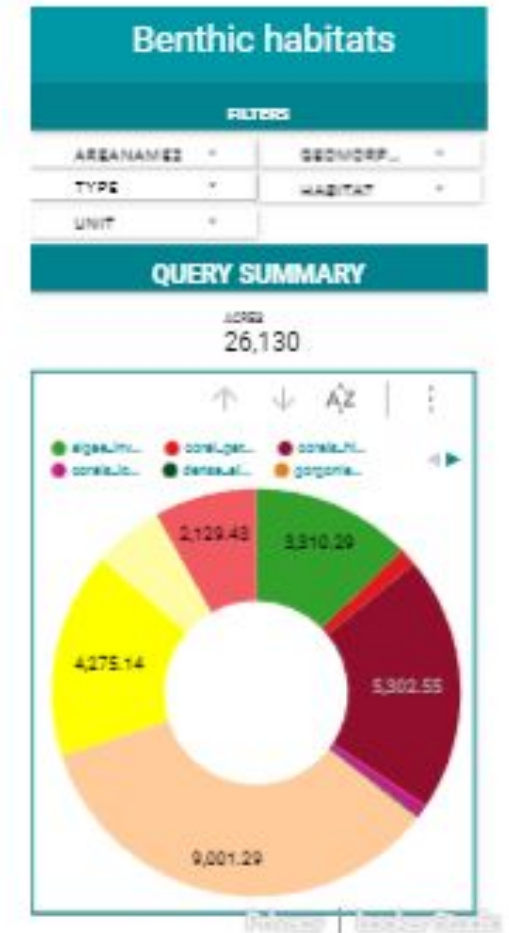
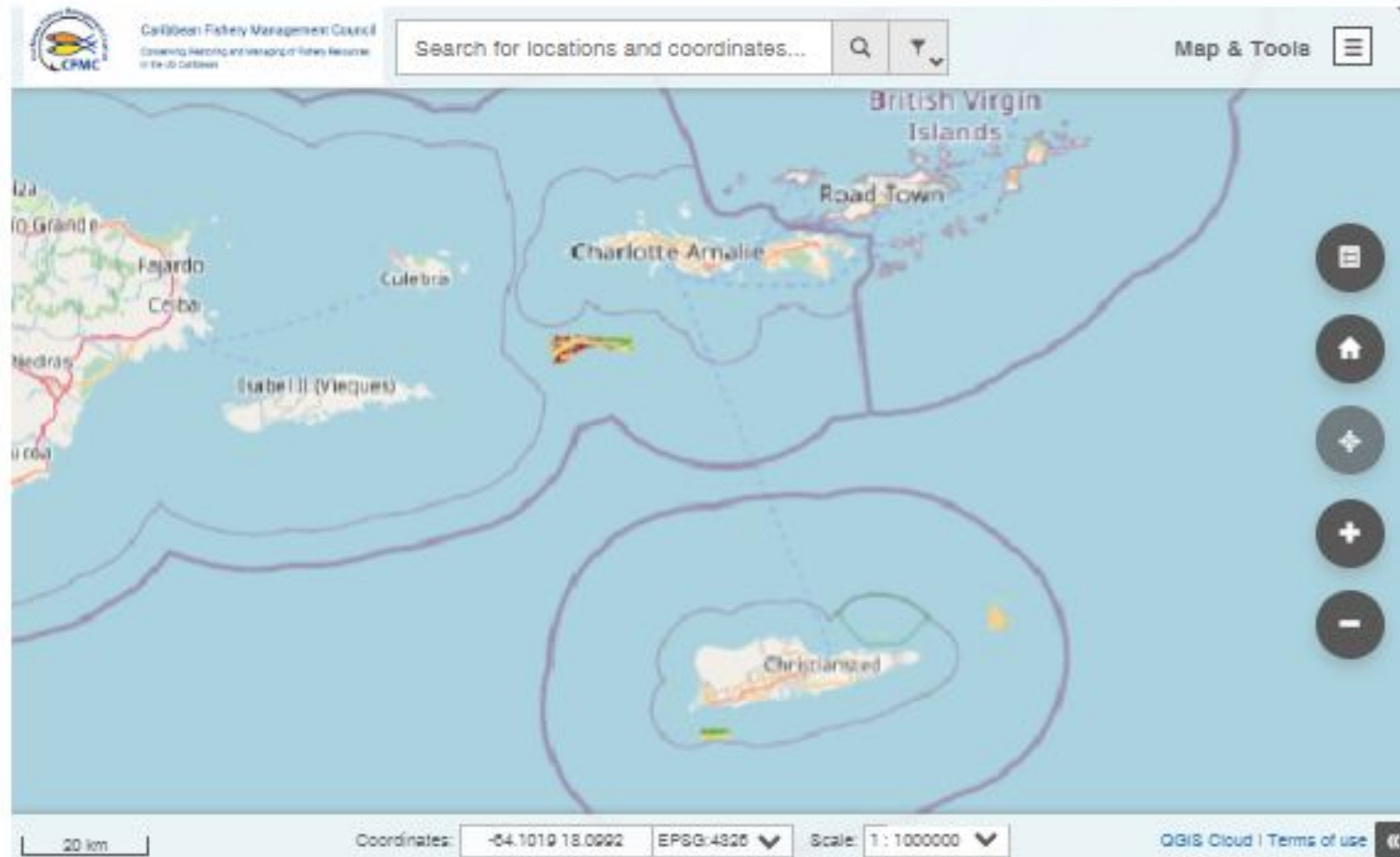
1983-1990 1991-2000 2001-2010 2011-2021



PR by decade



USVI Benthic maps from SSS imagery (CFMC – GPR)



A work in progress

Thank you!!!