

## Regional EFH Profile: Caribbean

*This document was prepared by the Fisheries Leadership & Sustainability Forum with input from council and NOAA Fisheries staff as briefing material for the National Essential Fish Habitat Summit, May 17-19, 2016.*

### Summary

The Caribbean Fishery Management Council (Council) is proposing to transition management of federal fisheries in the U.S. Caribbean from the current species-based fishery management plans (FMPs) to island-based FMPs. Currently, the Council and NOAA Fisheries organize FMPs in the U.S. Caribbean by species or species groups (i.e., Spiny Lobster, Reef Fish). Island-based FMPs will be structured by island or island group and will require reviewing existing Essential Fish Habitat (EFH) and new EFH if new species are proposed for management.

### EFH timeline

1998	Generic EFH Amendment to Reef Fish, Spiny Lobster, the Queen Conch, and the Coral FMPs identifies and describes EFH for 17 managed species and the coral complex
2004	Environmental Impact Statement (EIS) for a Generic EFH Amendment (EFH-EIS)
2005	Comprehensive SFA Amendment to the FMPs of the U.S. Caribbean
2011	EFH 5-year review

### EFH identification and review

#### *Generic Amendment*

The Council first identified habitats as an important component of the U.S. Caribbean fisheries in the Fishery Management Plan for Corals and Reef Associated Plants and Invertebrates of Puerto Rico and the US Virgin Islands in 1994; “Coral reefs serve as breeding grounds, nurseries, feeding grounds and refuge ... The fisheries are dependent on the well-being of the habitat and thus wise management is needed ...” (CFMC 1994). The Council first described EFH through a 1998 Generic Amendment that updated all of the region’s fishery management plans. Using level 1 data, the Council described EFH as the functional relationships between life history stages of species and habitat for the spiny lobster, queen conch, reef fish and coral FMPs. EFH was specifically described for various life stages of 17 species and corals representing key managed species from the reef fish, spiny lobster, queen conch and coral FMPs. EFH was described as everywhere the managed species commonly occur. This includes all estuarine and marine waters of the Caribbean from the shoreline to the Exclusive Economic Zone; therefore EFH was defined as:

*“...all waters and substrates (mud, sand, shell, rock and associated biological communities), including coral habitats (coral reefs, coral hardbottoms, and octocoral reefs), sub-tidal vegetation (seagrasses and algae) and adjacent intertidal vegetation (wetlands and mangroves).” (CFMC 1998).*

The Council and NOAA Fisheries developed EFH tables from scientific literature that describe life history and ecological requirements of species by life stage. No management measures or regulations were proposed as a result of the Generic Amendment. At the time, existing habitat protections included a prohibition on the use of explosives, chemicals, and anchoring in sensitive areas, gear restrictions, and the establishment of marine protected areas. The Council also protected habitats important to certain life stages such as seasonal closures for spawning aggregations.

*EIS-EFH and Comprehensive SFA Amendment*

The Council hired a consultant and worked with NOAA Fisheries staff to complete an EIS for a Generic EFH Amendment in 2004. The EIS supported the EFH provisions of the Comprehensive SFA Amendment in 2005, which described EFH for 322 species or species groups using level 1 information. EFH was identified and described using functional relationships between life history stages of species and habitat for the spiny lobster, queen conch, reef fish and coral FMPs.

The council consulted with regional experts, the Scientific and Statistical Committee, and the Habitat AP to identify additional information on species-life stage habitat relationships. Due to data limitations, the Council developed a single aggregate EFH designation and map for each FMP, drawing on habitat utilization from regional experts and the EFH tables developed through the 1998 Generic Amendment.

EFH definitions

<b>FMP</b>	<b>Life stage</b>	<b>EFH Definition</b>
Spiny lobster	Phyllosome larvae	All waters from mean high water to the outer boundary of the EEZ
	Other life stages	Seagrass, benthic algae, mangrove, coral, and live/hard bottom substrates from mean high water to 100 fathoms depth
Queen conch	Eggs/larvae	All waters from mean high water to the outer boundary of the EEZ
	Other life stages	Seagrass, benthic algae, coral, live/hard bottom and sand/shell substrates from mean high water to 100 fathoms depth
Reef fish	Eggs/larvae	All waters from mean high water to the outer boundary of the EEZ
	Other life stages	All substrates from mean high water to 100 fathoms depth
Coral	Larvae	All waters from mean low water to the outer boundary of the EEZ
	Other life stages	Coral and hard bottom substrates from mean low water to 100 fathoms depth

*EFH 5-year review*

The Council completed a EFH 5-year review in 2010 with the help of a contractor, who consulted with the Council, NOAA’s Habitat Conservation Division of the Southeast Regional Office (SERO), and the Habitat Conservation Division of U.S. Caribbean Field Office to review the EFH-EIS for inaccuracies and information needs, which were not identified at the time. As part of the

review, the team conducted a scientific literature search and contacted regional experts and NOAA Fisheries to identify new or updated information for EFH. The team also explored new methods to describe and identify EFH. New information and/ or distribution maps from these studies were used to update or complement the current EFH but the literature search did not find any information that would greatly alter the current EFH. Upon completion of the review, the Council decided a comprehensive or generic EFH amendment was not needed at the time and EFH information could be updated as management actions are developed.

#### **EFH Consultations**

EFH consultations are conducted by NOAA Fisheries Southeast Regional Office staff located in San Juan, Puerto Rico.

#### **Looking ahead**

The Council will continue to address the need to describe and characterize mesophotic and deep water habitats beyond 30 m that are potential coral areas.