SAFMC Tools

Digital Dashboard and Web Services

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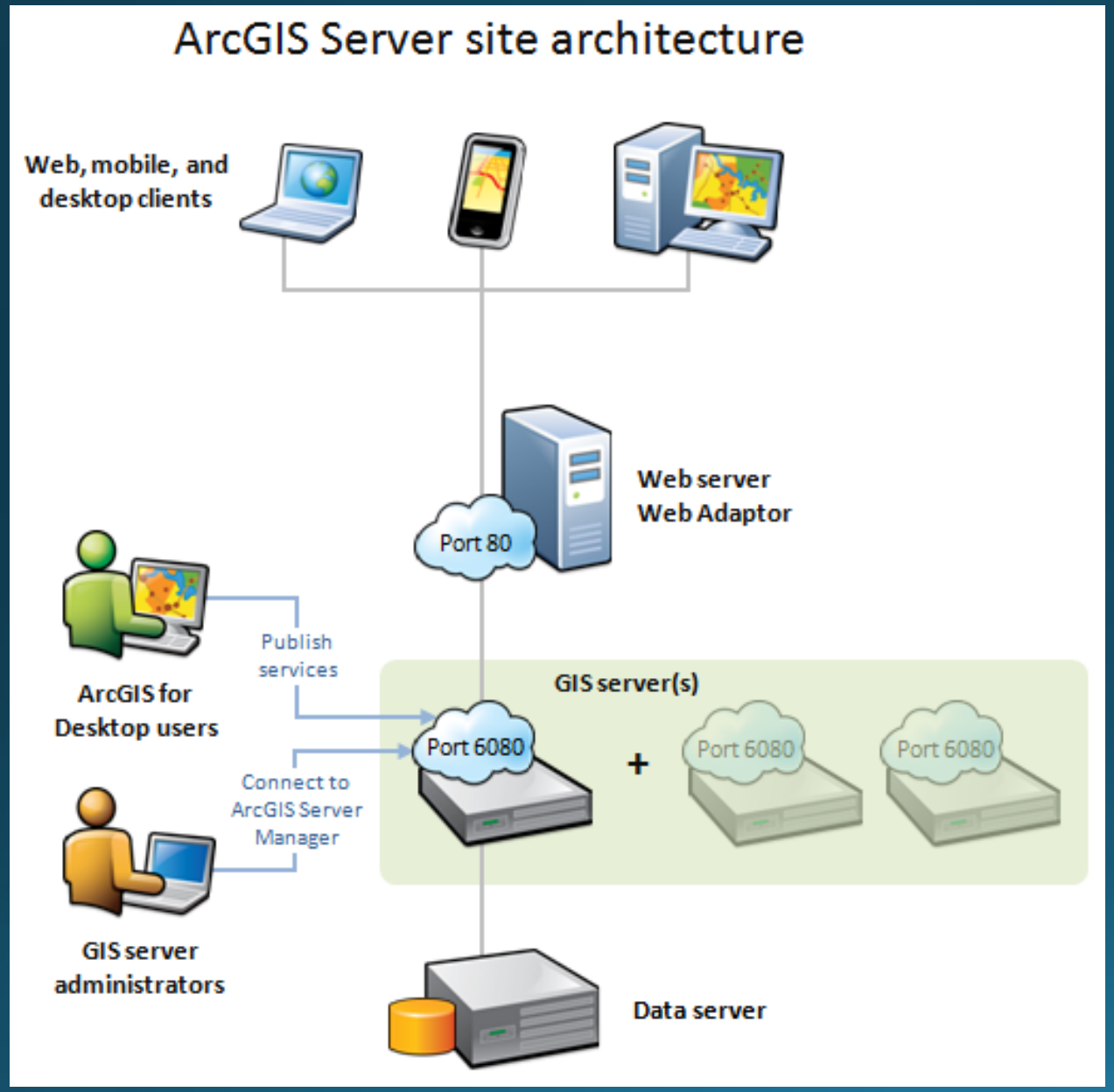
FWC-FWRI

Background

- The Fish and Wildlife Research Institute (FWRI) has collaborated with SAFMC staff to compile, create and host spatial and non-spatial data relevant to essential habitats, management zones, and fisheries in the South Atlantic ecosystem.
- FWRI is using ArcGIS Server and ArcGIS Online to provide GIS data through the web.
- Non-spatial data such as videos, images, and documents are served through a FWC web server.



The client or presentation tier includes desktop and mobile devices

The logical tier includes ArcGIS Server for publishing GIS services; the web server also hosts the digital dashboard

The data tier includes shapefiles, imagery, and geodatabases

SAFMC GIS Data

- Data Catalog
- Map services
- Web Apps
- Story Maps

SAFMC Non-spatial Data

- Videos
- Images
- PDFs
- Metadata

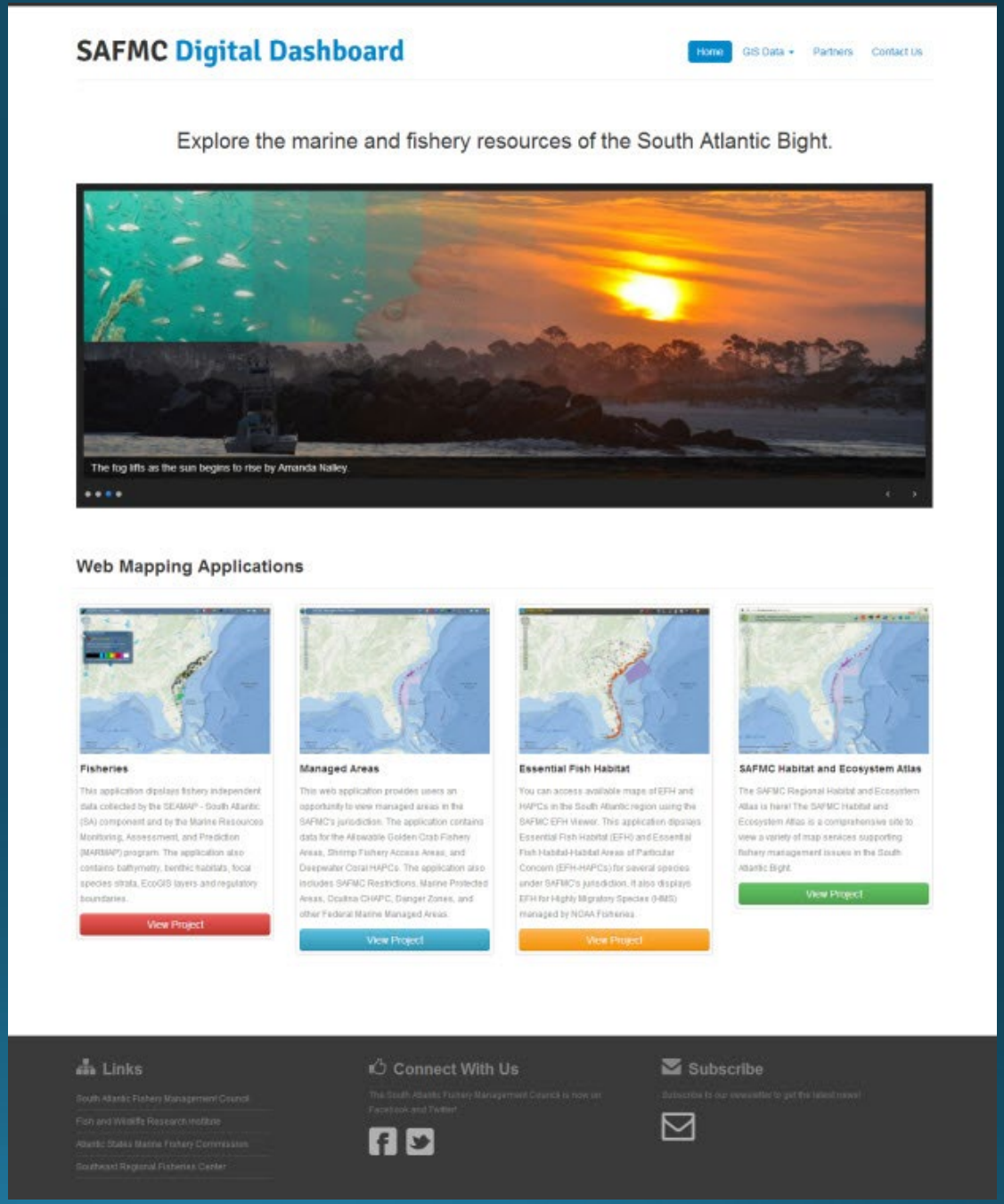
Overview

- Digital Dashboard
- Web Apps and Maps
- Web Metrics
- SAFMC Hub

Digital Dashboard

SAFMC Digital Dashboard

- Serves as a one-stop shop for SAFMC GIS data and applications
- Integrates links to SAFMC collaborative projects
- Builds connections with regional partners
- Enhances the accessibility and visibility of state and regional efforts

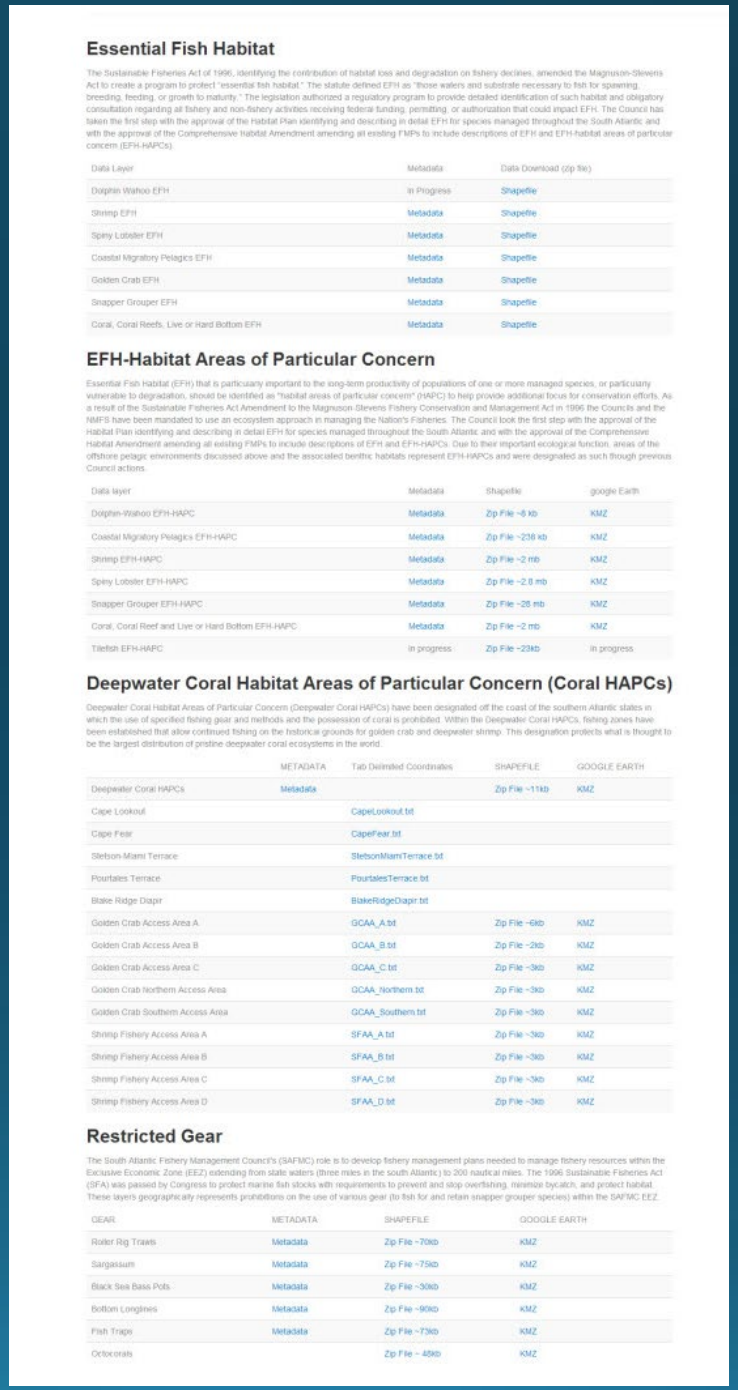


http://ocean.floridamarine.org/safmc_dashboard/index.html

Data Catalog

The data catalog page provides users an opportunity to download zipped shapefiles and accompanying metadata for SAFMC GIS data layers.

Google Earth files in the KMZ format are also available for select layers.



Essential Fish Habitat

The Sustainable Fisheries Act of 1996, identifying the contribution of habitat loss and degradation on fishery declines, amended the Magnuson-Stevens Act to create a program to protect "essential fish habitat." The statute defined EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." The legislation authorized a regulatory program to provide detailed identification of such habitat and obligatory consultation regarding all fishery and non-fishery activities receiving federal funding, permitting, or authorization that could impact EFH. The Council has taken the first step with the approval of the Habitat Plan identifying and describing in detail EFH for species managed throughout the South Atlantic and with the approval of the Comprehensive Habitat Amendment amending all existing FMPs to include descriptions of EFH and EFH-habitat areas of particular concern (EFH-HAPCs).

Data Layer	Metadata	Data Download (zip file)
Dolphin Wahoo EFH	In Progress	Shapefile
Shrimp EFH	Metadata	Shapefile
Spiny Lobster EFH	Metadata	Shapefile
Coastal Migratory Pelagics EFH	Metadata	Shapefile
Golden Crab EFH	Metadata	Shapefile
Snapper Grouper EFH	Metadata	Shapefile
Coral, Coral Reefs, Live or Hard Bottom EFH	Metadata	Shapefile

EFH-Habitat Areas of Particular Concern

Essential Fish Habitat (EFH) that is particuarly important to the long-term productivity of populations of one or more managed species, or particuarly vulnerable to degradation, should be identified as "habitat areas of particular concern" (HAPC) to help provide additional focus for conservation efforts. As a result of the Sustainable Fisheries Act Amendment to the Magnuson-Stevens Fishery Conservation and Management Act in 1996 the Councils and the NMFS have been mandated to use an ecosystem approach in managing the Nation's Fisheries. The Council took the first step with the approval of the Habitat Plan identifying and describing in detail EFH for species managed throughout the South Atlantic and with the approval of the Comprehensive Habitat Amendment amending all existing FMPs to include descriptions of EFH and EFH-HAPCs. Due to their important ecological function, areas of the offshore pelagic environments discussed above and the associated benthic habitats represent EFH-HAPCs and were designated as such through previous Council actions.

Data layer	Metadata	Shapefile	google Earth
Dolphin-Wahoo EFH-HAPC	Metadata	Zip File ~6 kb	KMZ
Coastal Migratory Pelagics EFH-HAPC	Metadata	Zip File ~238 kb	KMZ
Shrimp EFH-HAPC	Metadata	Zip File ~2 mb	KMZ
Spiny Lobster EFH-HAPC	Metadata	Zip File ~2.8 mb	KMZ
Snapper Grouper EFH-HAPC	Metadata	Zip File ~28 mb	KMZ
Coral, Coral Reef and Live or Hard Bottom EFH-HAPC	Metadata	Zip File ~2 mb	KMZ
Tilefish EFH-HAPC	In progress	Zip File ~23kb	In progress

Deepwater Coral Habitat Areas of Particular Concern (Coral HAPCs)

Deepwater Coral Habitat Areas of Particular Concern (Deepwater Coral HAPCs) have been designated off the coast of the southern Atlantic states in which the use of specified fishing gear and methods and the possession of coral is prohibited. Within the Deepwater Coral HAPCs, fishing zones have been established that allow continued fishing on the historical grounds for golden crab and deepwater shrimp. This designation protects what is thought to be the largest distribution of pristine deepwater coral ecosystems in the world.

	METADATA	Tab Delimited Coordinates	SHAPEFILE	GOOGLE EARTH
Deepwater Coral HAPCs	Metadata		Zip File ~11kb	KMZ
Cape Lookout		CapeLookout.txt		
Cape Fear		CapeFear.txt		
Stetson-Miami Terrace		StetsonMiamiTerrace.txt		
Pourtales Terrace		PourtalesTerrace.txt		
Blake Ridge Diapir		BlakeRidgeDiapir.txt		
Golden Crab Access Area A		GCAA_A.txt	Zip File ~6kb	KMZ
Golden Crab Access Area B		GCAA_B.txt	Zip File ~2kb	KMZ
Golden Crab Access Area C		GCAA_C.txt	Zip File ~3kb	KMZ
Golden Crab Northern Access Area		GCAA_Northern.txt	Zip File ~3kb	KMZ
Golden Crab Southern Access Area		GCAA_Southern.txt	Zip File ~3kb	KMZ
Shrimp Fishery Access Area A		SFAA_A.txt	Zip File ~3kb	KMZ
Shrimp Fishery Access Area B		SFAA_B.txt	Zip File ~3kb	KMZ
Shrimp Fishery Access Area C		SFAA_C.txt	Zip File ~3kb	KMZ
Shrimp Fishery Access Area D		SFAA_D.txt	Zip File ~3kb	KMZ

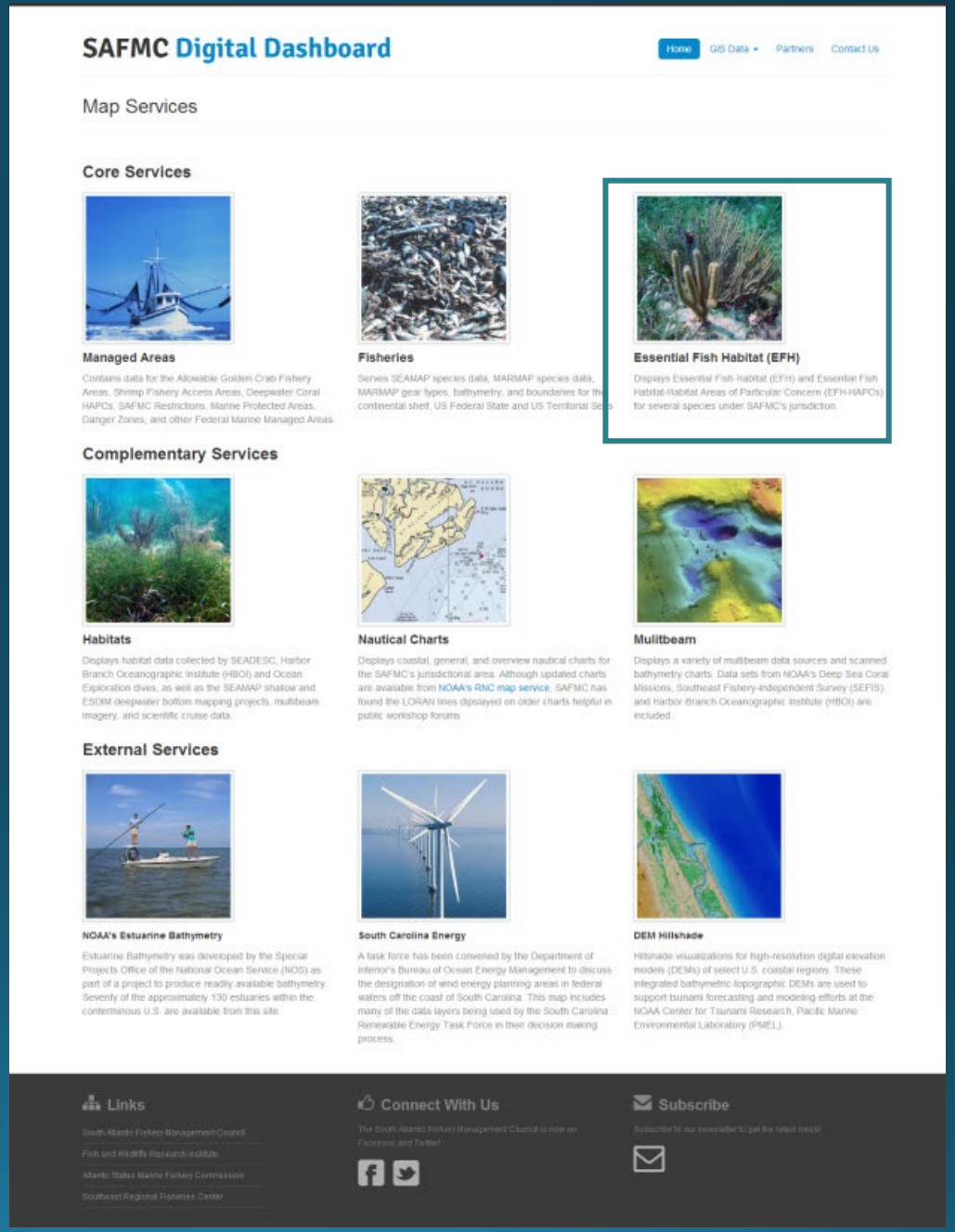
Restricted Gear

The South Atlantic Fishery Management Council's (SAFMC) role is to develop fishery management plans needed to manage fishery resources within the Exclusive Economic Zone (EEZ) extending from state waters (three miles in the south Atlantic) to 200 nautical miles. The 1996 Sustainable Fisheries Act (SFA) was passed by Congress to protect marine fish stocks with requirements to prevent and stop overfishing, minimize bycatch, and protect habitat. These layers geographically represents prohibitions on the use of various gear (to fish for and retain snapper grouper species) within the SAFMC EEZ.

GEAR	METADATA	SHAPEFILE	GOOGLE EARTH
Roller Rig Trawls	Metadata	Zip File ~70kb	KMZ
Sargassum	Metadata	Zip File ~75kb	KMZ
Black Sea Bass Pots	Metadata	Zip File ~30kb	KMZ
Bottom Longlines	Metadata	Zip File ~90kb	KMZ
Fish Traps	Metadata	Zip File ~73kb	KMZ
Octocorals		Zip File ~ 40kb	KMZ

Map Services

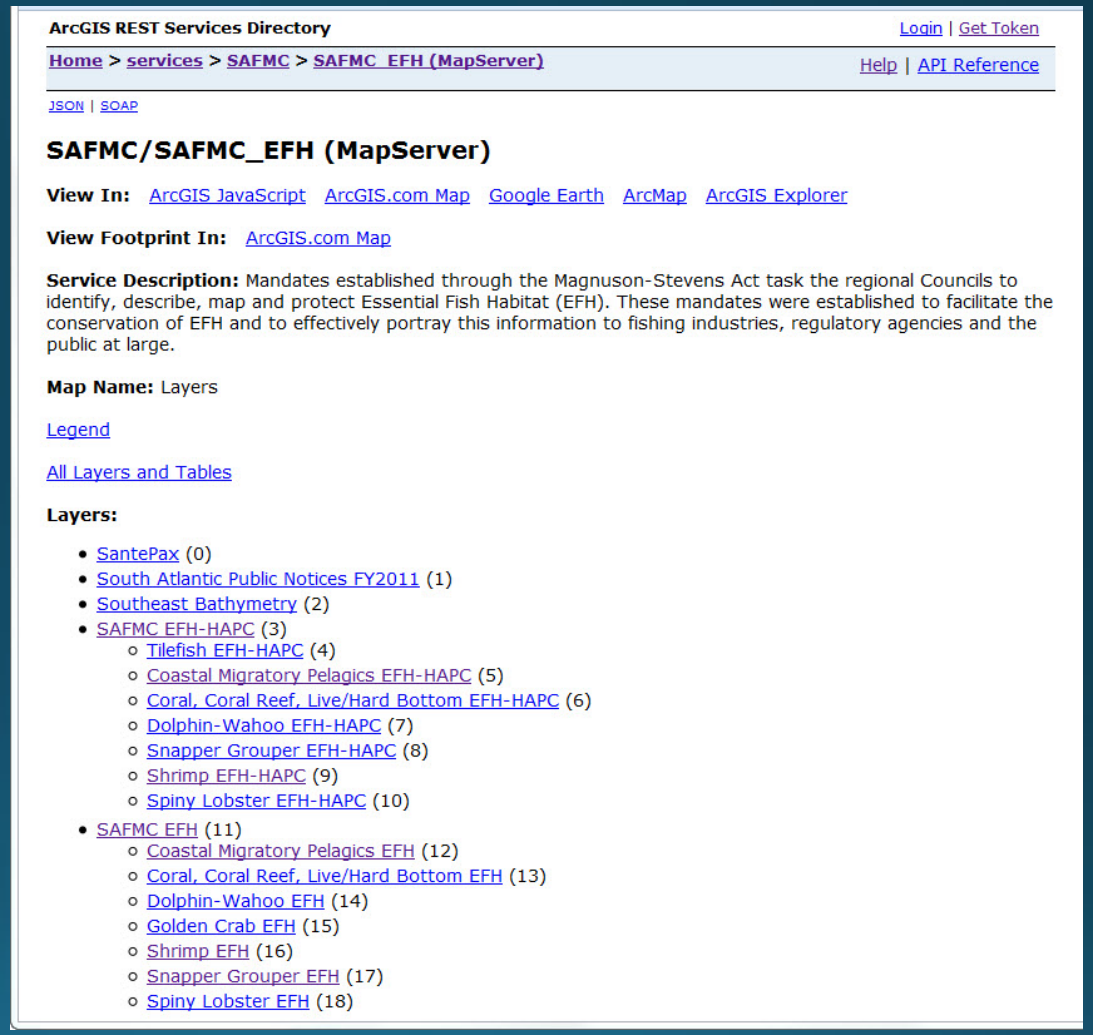
- The map services page provides a brief description of the core, complementary, and external map services used in SAFMC mapping applications.
- The images are linked to each of the map service's REST endpoint.



REST service

The REST endpoint provides details for the map layers, spatial reference, geographic extent, and other supporting information.

Users can view the data in ArcGIS Online, Google Earth, or ArcGIS Desktop.



ArcGIS REST Services Directory — Login | Get Token

Home > services > SAFMC > SAFMC_EFH (MapServer) — Help | API Reference

JSON | SOAP

SAFMC/SAFMC_EFH (MapServer)

View In: ArcGIS JavaScript ArcGIS.com Map Google Earth ArcMap ArcGIS Explorer

View Footprint In: ArcGIS.com Map

Service Description: Mandates established through the Magnuson-Stevens Act task the regional Councils to identify, describe, map and protect Essential Fish Habitat (EFH). These mandates were established to facilitate the conservation of EFH and to effectively portray this information to fishing industries, regulatory agencies and the public at large.

Map Name: Layers

Legend

All Layers and Tables

Layers:

- SantePax (0)
- South Atlantic Public Notices FY2011 (1)
- Southeast Bathymetry (2)
- SAFMC EFH-HAPC (3)
  - Tilefish EFH-HAPC (4)
  - Coastal Migratory Pelagics EFH-HAPC (5)
  - Coral, Coral Reef, Live/Hard Bottom EFH-HAPC (6)
  - Dolphin-Wahoo EFH-HAPC (7)
  - Snapper Grouper EFH-HAPC (8)
  - Shrimp EFH-HAPC (9)
  - Spiny Lobster EFH-HAPC (10)
- SAFMC EFH (11)
  - Coastal Migratory Pelagics EFH (12)
  - Coral, Coral Reef, Live/Hard Bottom EFH (13)
  - Dolphin-Wahoo EFH (14)
  - Golden Crab EFH (15)
  - Shrimp EFH (16)
  - Snapper Grouper EFH (17)
  - Spiny Lobster EFH (18)

SAFMC Map Services

Essential Fish Habitat (EFH) – displays EFH and EFH-HAPCS for SAFMC managed species and NOAA Fisheries Highly Migratory Species

Fisheries - displays Southeast Area Monitoring and Assessment Program South Atlantic (SEAMAP-SA) data; Reef Fish, Coastal Survey, Red Drum, and Pamlico Sound surveys.

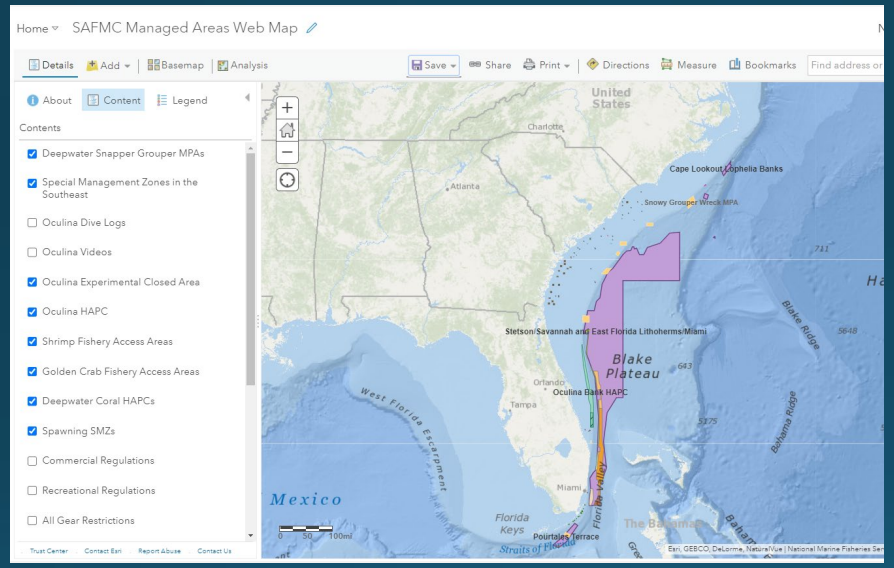
Managed Areas - displays a variety of regulatory boundaries (SAFMC and Federal) or management boundaries within SAFMC's jurisdiction.

Habitat – displays habitat data collected by SEADESC, Harbor Branch Oceanographic Institute (HBOI) and Ocean Exploration dives, as well as the SEAMAP shallow and ESDIM deepwater bottom mapping projects, multibeam imagery, and scientific cruise data.

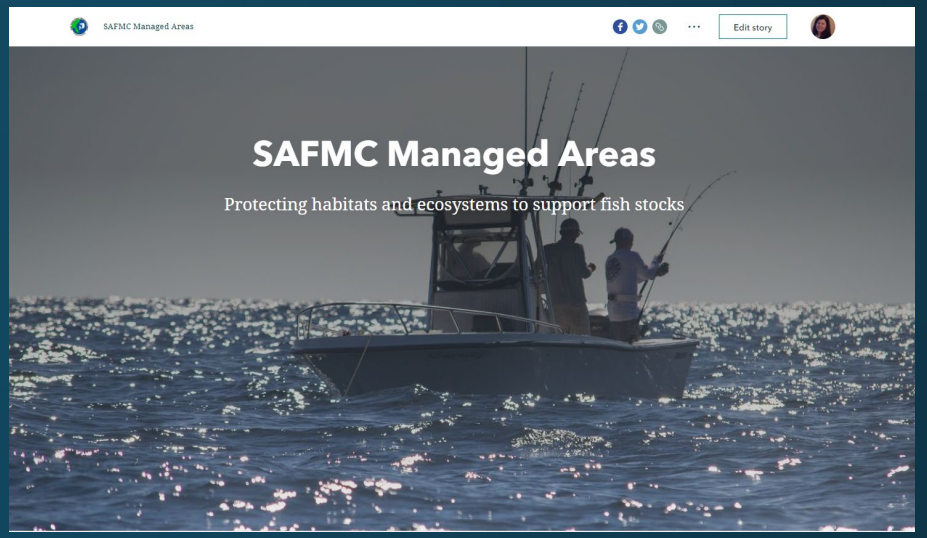
Multibeam Bathymetry - displays a variety of multibeam data sources and scanned bathymetry charts

Nautical Charts – displays coastal, general, and overview nautical charts for the SAFMC's jurisdictional area

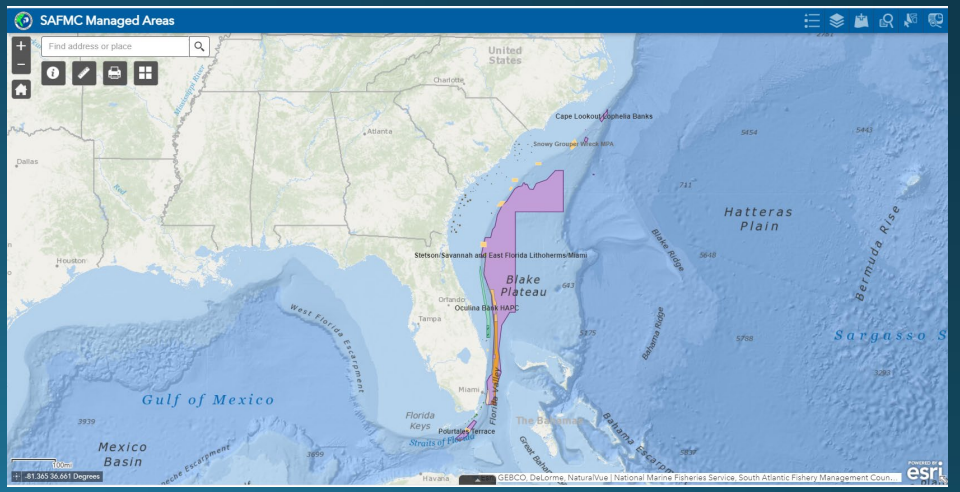
ArcGIS Server REST Map Service



ArcGIS Online Web Map



ArcGIS Online Story Map



ArcGIS Online Web App

Web Maps and Apps

ArcGIS Online Web Map

- Web maps can be useful for sharing preliminary data with SAFMC council or advisory panel members.
- These maps include multiscale basemaps, operational layers, and information pop-ups that allow users to drill into specific features they are interested in.
- They also support visualization, editing, analysis, and time.
- They are the basis of web apps and can be viewed on a wide variety of clients, including mobile devices, desktop applications, and web browsers.

Web Map	Notes
ACCSP	displays previous year's landings and value data for SAFMC managed species
Spawning SMZs	displays for spawning SMZs
Managed Areas	base map for web application and story map
EFH and EFH_HAPC	base map for web application and story map
Oculina CHAPC	originally created to display proposed alternatives for expansions for Coral Amendment 8, now updated to display proposed alternatives for Shrimp Fishery Access Areas through Coral Amendment 10
Artificial Reefs	displays the artificial reef locations and special management zones for several states along the US Southeast Coast, serves as a base map for a story map and web application
SEAMAP-SA FIM Surveys 2022	provides an overview of the latest data available for SEAMAP-SA surveys

ArcGIS Online Web Apps

- Run on any device – desktops, tablets, smart phones
- Customize easily with widgets and themes

Web App	Notes
ACCSP Statistical Areas	provides selection tools to view ACCSP landings and value data for SAFMC managed species from 1961 - 2019
SAFMC Managed Areas	provides an interface to view and query Marine Protected Areas, Deepwater Coral Habitat Areas of Particular Concern, Spawning SMZs, Special Management Zones, SAFMC Closures and Gear Restrictions
SAFMC Essential Fish Habitat	displays available EFH and EFH-HAPCs for many SAFMC managed species
SA Artificial Reefs	displays artificial reefs and special management zones in SAFMC's jurisdiction.
SA Fisheries	displays the latest SEAMAP-SA survey data; provides tools to query and chart data from the following fishery independent surveys: Coastal Survey, Pamlico Sound Survey, Reef Fish Survey, Longline Survey

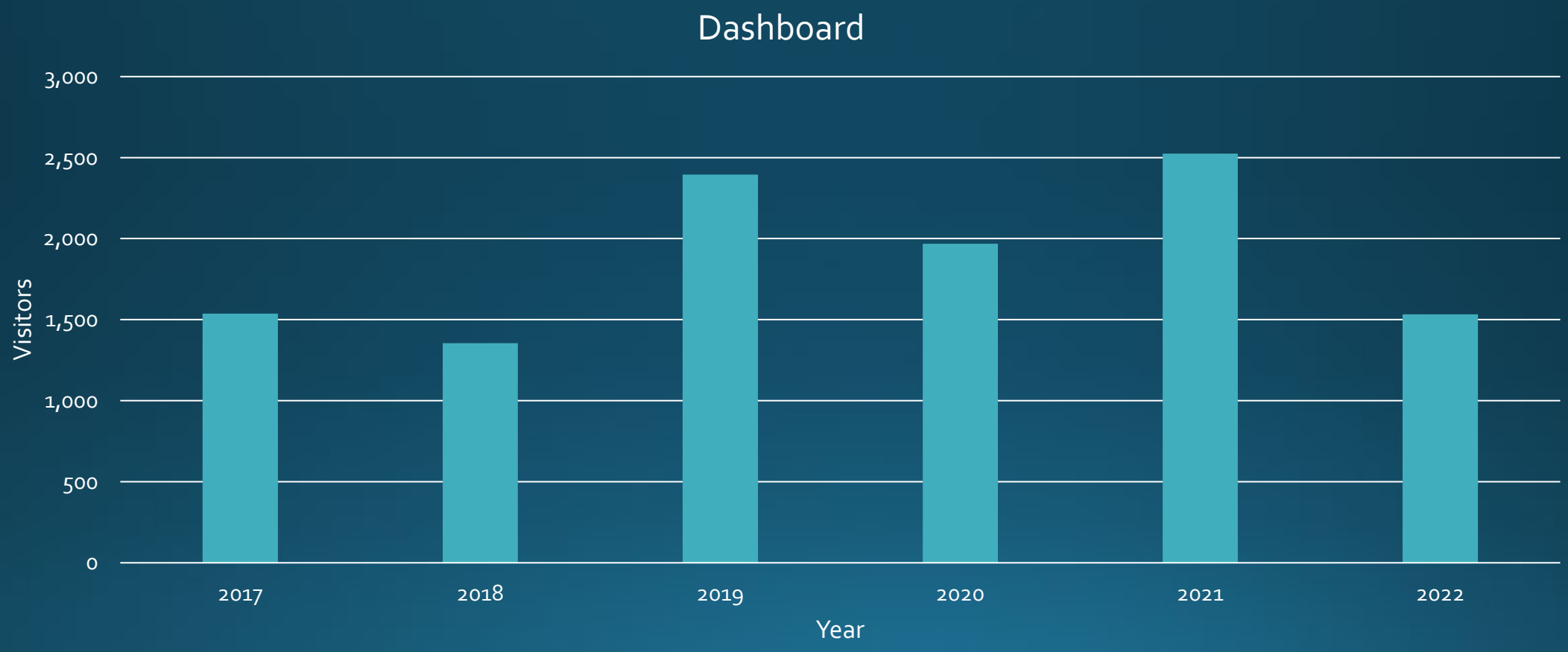
ArcGIS Story Maps

- Stories can include maps, narrative text, lists, images, videos, embedded items, and other media.
- Published stories each have their own URL, and you can use these URLs to share stories within your organization, to specific groups, or with everyone.
- Collections can include stories and ArcGIS web apps bundled together for easy sharing and presenting.

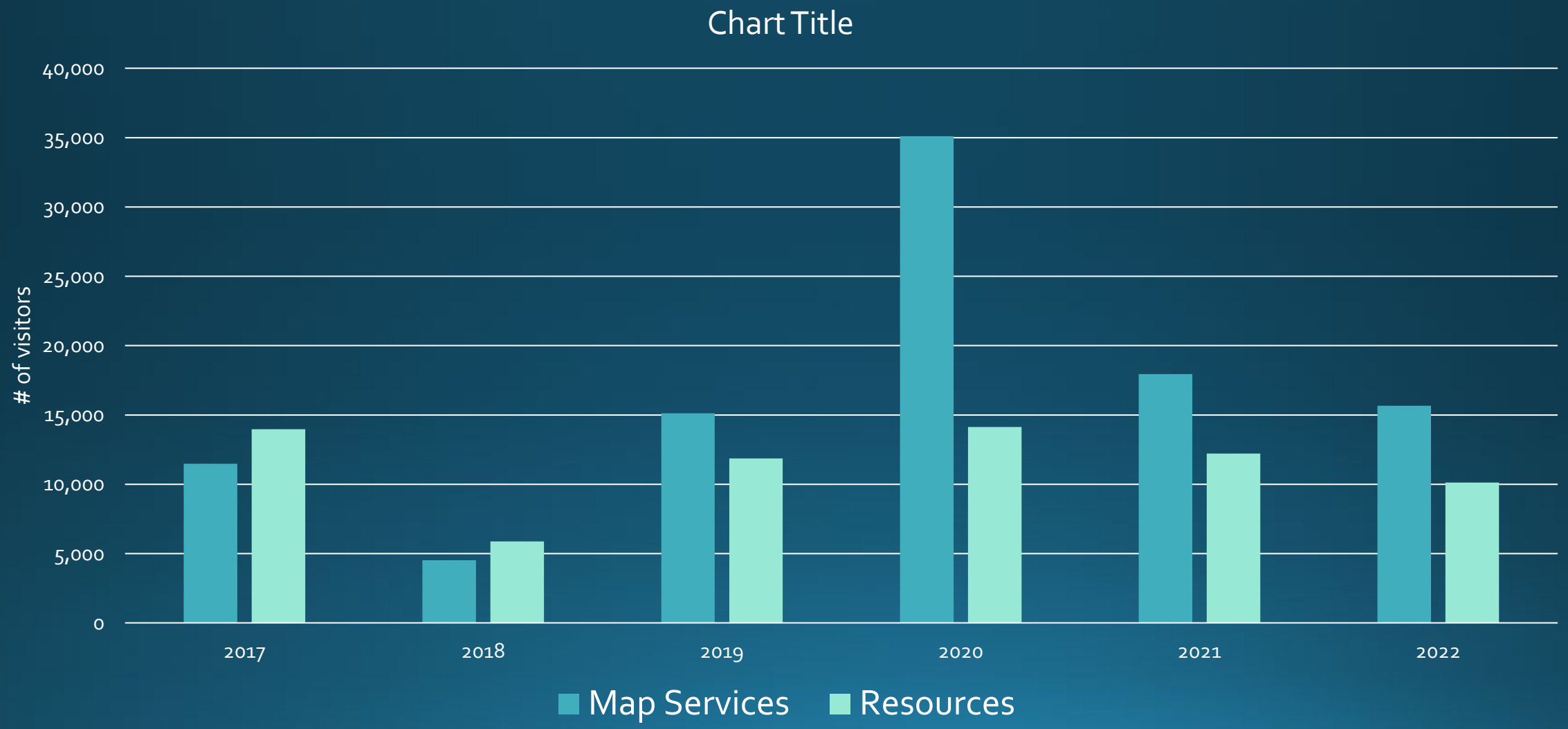
Story Map	Notes
Marine Protected Areas	SAFMC Deep-water MPAs
Special Management Zones (SMZs)	Gear-restricted areas for snapper-grouper fishery management
SAFMC Collection	“One Stop Shop” for SAFMC Managed Areas
SAFMC Managed Areas	Protecting habitats and ecosystems to support fish stocks
SAFMC Spawning SMZs	provides information about spawning Special Management Zones (SMZs) to protect important areas used by snapper grouper species for reproducing

Web Metrics

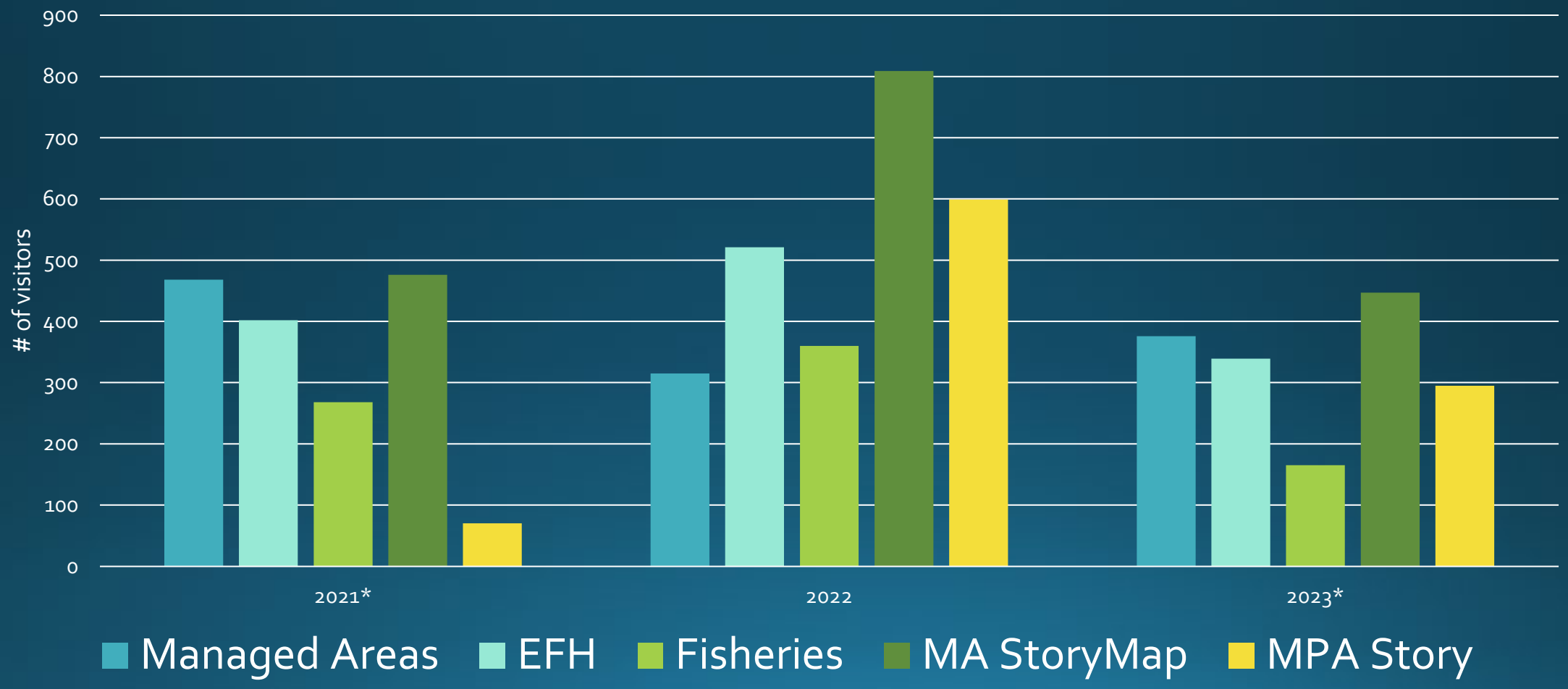
Digital Dashboard Use



Web Server Resources



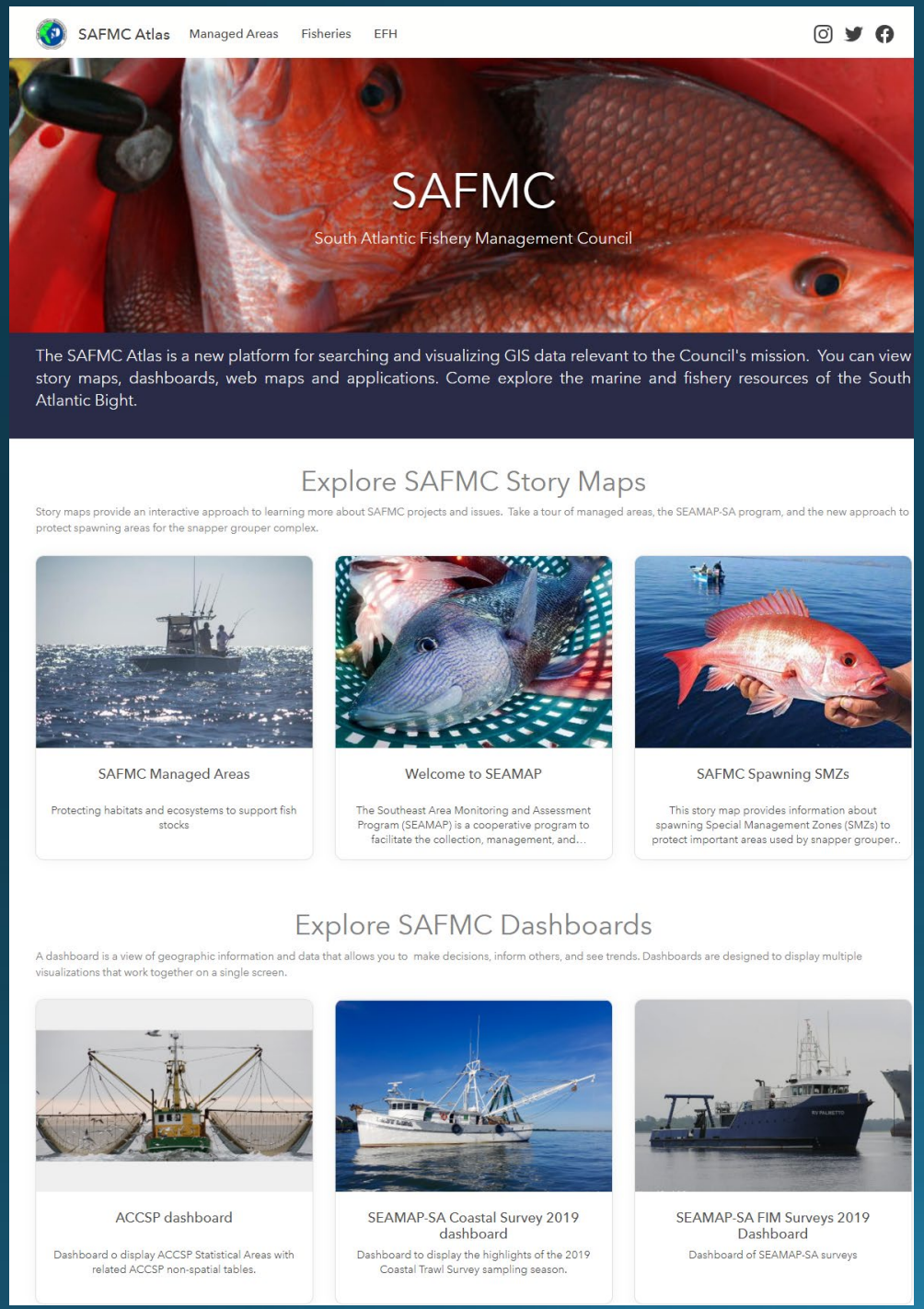
ArcGIS Online Applications



2021* Jul - Dec

2023* Jan - Jun

SAFMC Hub



- The launch page of the SAFMC Hub site includes quick access links to many of the SAFMC story maps and operational dashboards.
- The Hub also has dedicated site pages for Essential Fish Habitat, Managed Areas, and Fisheries.
- The SAFMC Atlas Hub is available for viewing but currently not promoted.

Explore SAFMC data

Essential Fish Habitat

EFH-Habitat Areas of Particular Concern

Deepwater Coral Habitat Areas of Particular Concern (Coral HAPCs)

Oculina Habitat Area of Particular Concern

Deepwater Marine Protected Areas

Restricted Gear

Special Management Zones

Spawning Special Management Zones

SAFMC HUB Survey

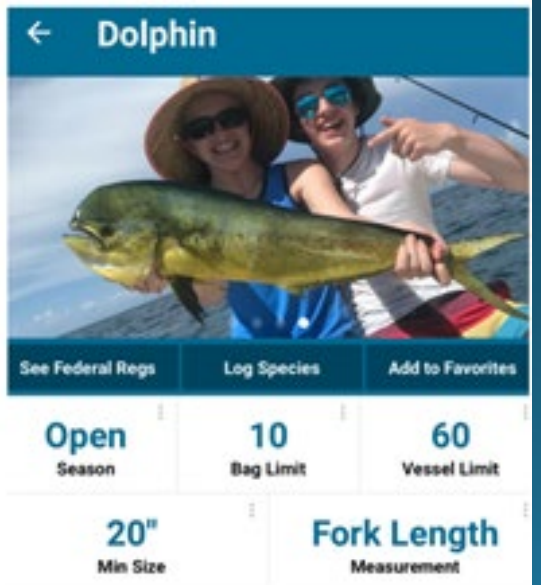
Initial survey to gain interest in the platform

Take Survey

Fish Rules

Federal fishing regulations are complex and change regularly based on new management measures and as fisheries open and close with the season once annual catch limits have been reached.

As of January 1, 2018, the Council transitioned to using the Fish Rules mobile app to keep you updated on federal fishing regulations in the South Atlantic. Learn more about the Fish Rules App here.



Search

New

1

Tina

SAFMC Atlas

Managed Areas

Fisheries

EFH

All

Apps & Maps

Data

Documents

Filters

Reset

1 - 4 of 4 results

Relevance

Content Type

Apply type

- Web Map
- Web Mapping Application
- Dashboard
- Feature Layer
- Microsoft Word

More

Categories

- Biota
- Boundaries
- Oceans
- Fish and Wildlife Species Locations
- Economy

Tags

smz

- FISH
- EFH
- SAFMC
- EFH-HAPC
- FIM

More

Last Updated

Map

Spawning SMZs (web map)

Florida Fish and Wildlife Conservation Commission | Tina.Udouj

Type: Web Map
Uploaded: September 16, 2020

Tags: SAFMC, SMZs, South Atlantic Bight

App

SAFMC Managed Areas Web App

Florida Fish and Wildlife Conservation Commission | Tina.Udouj

Type: Web Mapping Application
Uploaded: January 27, 2020

Tags: MPAs, HAPCs, SMZs, Closures

App

SAFMC Managed Areas Journal Story Map

Florida Fish and Wildlife Conservation Commission | Tina.Udouj

Type: Web Mapping Application
Uploaded: November 1, 2017

Tags: MPAs, HAPCs, SMZs

App

SA Artificial Reefs

Florida Fish and Wildlife Conservation Commission | Tina.Udouj

Type: Web Mapping Application
Uploaded: November 11, 2020

Tags: artificial reefs, smzs, Florida, North Carolina, South Ca...

1 - 4 of 4 results

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Managed Areas

The Council is not only responsible for the conservation and management of fish stocks in the South Atlantic but also the habitats and ecosystems that support fish stocks and other areas of ecological significance. Over the years, the Council has used a variety of management tools to manage and protect both fish and their associated habitats. Click the links below to learn about the Council's efforts on Managed Areas.

SAFMC Managed Areas

Protecting habitats and ecosystems to support fish stocks

Explore

SAFMC Spawning SMZs

This story map provides information about spawning Special Management Zones (SMZs) to...

Explore

SA Artificial Reeds

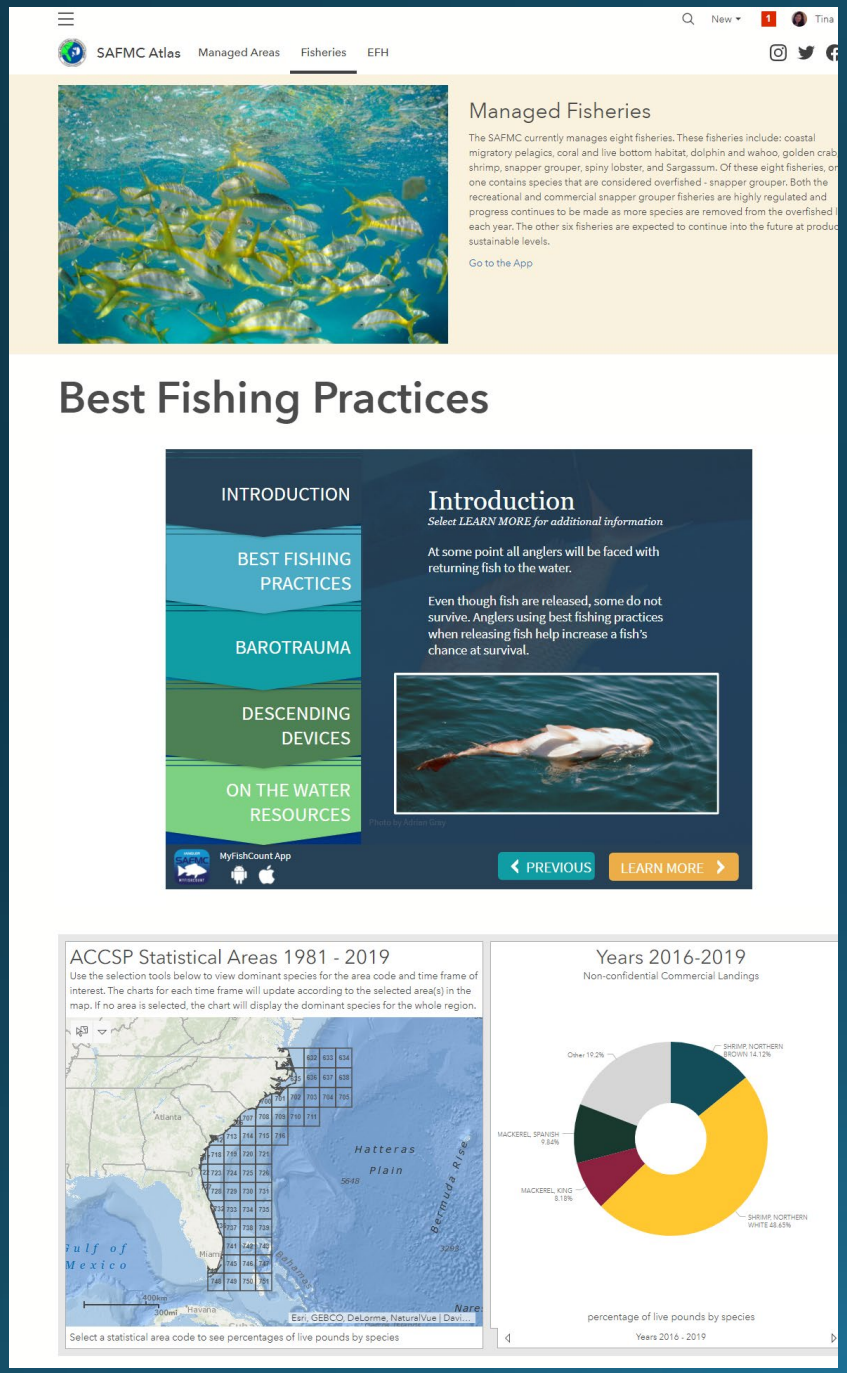
This web application displays artificial reefs and special management zones in SAFMC's...

Explore

SAFMC Managed Areas Web App

Web application to view managed areas in SAFMC's jurisdiction

Explore



The Fisheries page includes:

- a link to the SA Fisheries web app
- Integrated ACCSP dashboard
- Best fishing practices link

Essential Fish Habitat

"The term essential fish habitat means those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity." -- Magnuson-Stevens Act §3(10)

"...each Council should include EFH considerations within the FEP, using the ecosystem approach to describe such habitat based on the EFH descriptions from existing FMPs." -- Ecosystem Report to Congress, 1999

Mandates established through the Magnuson-Stevens Act task the regional Councils to identify, describe, map and protect Essential Fish Habitat (EFH).

Click the link for a table of the South Atlantic Council's EFH Designations and the Fishery Management Plans (FMPs) they pertain to.

A requirement for FMPs is to include maps that display the geographic locations of EFH or the geographic boundaries within which EFH is found. Also FMPs should include maps of Habitat Areas of Particular Concern (HAPCs). HAPCs are subsets of EFH which are rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area. Mapping EFH-HAPCs will make it easier to focus conservation efforts on those areas.

Review the Council's EFH-HAPCs and Coral-HAPCs for applicable protection measures under current FMPs.

Oculina coral thickets - Image courtesy of John Reed/HBOI.

These mandates were established to facilitate the conservation of EFH and to effectively portray this information to fishing industries, regulatory agencies and the public at large. You can access available maps of EFH and HAPCs in the South Atlantic region here.

Go to the App

Subscribe to the SAFMC newsletter to get the latest news!

Helpful Links

- South Atlantic Fishery Management Council
- Fish and Wildlife Research Institute
- Atlantic States Marine Fishery Commission
- Southeast Regional Fisheries Center

Contact Us

- SAFMC Hub Contact
- SAFMC EFH Contact

Thank You!

Email: Tina.Udouj@MyFWC.com