

**NCCOS Metadata:
NCRMP Florida 2022 Fish**

Item Identification

*Dataset Title	National Coral Reef Monitoring Program: Assessment of coral reef fish communities within the Florida Reef Tract 2022-06-01 to 2022-11-28
Short Title	NCRMP Florida 2022 Fish
*Status <i>Complete, In Work, Planned</i>	Complete
*Abstract <i>Dataset description</i> ● <i>Parameters included</i> ● <i>Scientific keywords</i>	<p>The National Coral Reef Monitoring Program (NCRMP) assessed coral reef fish communities within the Florida Reef Tract using the stationary point count method (7.5m radius cylinder).</p> <p>The stationary point count method (7.5m radius cylinder) is used to conduct fish surveys in Florida as part of the National Coral Reef Monitoring Program (NCRMP). This method collects and reports information on species composition, density, size structure, abundance and derived metrics (e.g., species richness, diversity). Data are collected using a 1-stage, stratified random survey design in hardbottom and coral reef habitats less than 30m in depth. Data provided in this data set are from three (3) distinct regions along the Florida reef tract; 1) Dry Tortugas, 2) Florida Keys from Key West north to Miami and 3) Miami north to Martin County. Data are collected using a 2-stage, stratified random survey design.</p> <p>Lead agencies involved include the National Oceanic and Atmospheric Administration's Southeast Fisheries Science Center (SEFSC), National Centers for Coastal Ocean Science (NCCOS), and the National Park Service (NPS).</p>
*Purpose <i>Project overview</i> ● <i>Partnerships</i> ● <i>Dataset purpose</i>	The National Coral Reef Monitoring Program (NCRMP) details a long-term approach to provide an ecosystem perspective via monitoring climate, fish, benthic, and socioeconomic variables in a consistent and integrated manner. The NCRMP is intended to coordinate various Coral Reef Conservation Coral Reef Program (CRCP) biological, physical, and human dimensions activities into a cohesive NOAA-wide effort. Through the implementation of the NCRMP, NOAA will be able to clearly and concisely communicate results of national-scale monitoring to national, state, and territorial policy makers, resource managers, and the public on a periodic basis.
Cited Publications	[blank]
Supplemental Information ● <i>Collaborators</i> ● <i>Partner Entities</i> ● <i>Base Funding</i> ● <i>NCCOS Project</i> ● <i>Additional Funding</i> ● <i>Additional Projects</i>	The National Coral Reef Monitoring Program (NCRMP) is a framework for conducting sustained observations of biological, climate, and socioeconomic indicators at 10 priority coral reefs across the U.S. and its territories. This integrated approach will consolidate monitoring of coral reefs under a uniform method in the Pacific, Atlantic, Caribbean, and the Gulf of Mexico for the first time. NCRMP is funded by the NOAA Coral Reef Conservation Program (CRCP) under CRCP Project #743 "National Coral Reef Monitoring Plan (NCRMP) Implementation," and supported by NOAA's National Centers for Coastal Ocean Science (NCCOS) under NCCOS Project #180 "National Coral Reef Monitoring Program Implementation: Biological and Socioeconomic Monitoring" and NOAA Southeast Fisheries Science Center (SEFSC). These biological monitoring missions gather data on coral reef benthic and fish communities in the U.S. Caribbean, Florida, and the Gulf of Mexico. Each year, NOAA scientists work closely with CRCP and local partners to collect biological data from strategically selected sites. We then develop products that give fellow scientists, managers, decision makers and the public a better understanding of a region's resources and how they are changing over time. The biological component of NCRMP provides a biennial ecological characterization at a broad spatial scale of general reef condition for reef fishes, corals and benthic habitat (i.e., fish species composition/density/size, benthic cover, and coral density/size/condition). Data collection occurs at stratified random sites where the sampling domain for each region is partitioned by habitat type and depth, sub-regional location (e.g., along-shelf position) and management zone.
DOI (Digital Object Identifier)	https://doi.org/10.7289/v52n50ks

Keywords

NCCOS Keywords <i>See Appendix</i>	NCCOS Research Priority > Marine Spatial Ecology NCCOS Research Topic > Ecological and Biogeographic Assessments NCCOS Research Location > Region > Atlantic Ocean
--	--

**NCCOS Metadata:
NCRMP Florida 2022 Fish**

	NCCOS Research Location > U.S. States of America > Florida NCCOS Research Data Type > Field Observation NCCOS Research Data Type > Long-term Monitoring
CoRIS Keywords (Required if CRCP-funded) See link for CoRIS keywords. Select at least one each for Theme, Discovery, and Place (include both COUNTRY/TERRITORY and matching OCEAN BASIN).	CoRIS Theme Thesaurus: EARTH SCIENCE > Biosphere > Zoology > Corals > Reef Monitoring and Assessment > Reef Fish Census > Stationary EARTH SCIENCE > Oceans > Marine Biology > Fish EARTH SCIENCE > Oceans > Marine Biology > Fish > Fish Census CoRIS Discovery Thesaurus: Numeric Data Sets > Fish Census CoRIS Place Keywords: COUNTRY/TERRITORY > United States of America > Florida OCEAN BASIN > Atlantic Ocean > Florida CRCP Project: 743 National Coral Reef Monitoring Plan (NCRMP) Implementation
GCMD Keywords Use the current list	Earth Science: Earth Science > Biosphere > Ecosystems > Marine Ecosystems > Reef > Coral Reef Earth Science > Biological Classification > Animals/Vertebrates > Fish Location: Ocean > Atlantic Ocean > Florida
Sea Areas or Regions	[blank]
Marine Protected Areas	Florida Keys National Marine Sanctuary, Dry Tortugas National Park, Biscayne Bay National Park
NOAA Ships	[blank]
Other Ships or Platforms	[blank]

Physical Location

*Organization	National Centers for Coastal Ocean Science (NCCOS) Silver Spring, MD
----------------------	---

Data Set Information

Data Set Scope Code	Data Set
Data Set Type	CSV Files
Maintenance Frequency	None Planned
*Data Set Publication Status Published, Unpublished, or Unknown	Published
*Data Set Publication Date	2022
*Data Presentation Form Document, Image, Map, Profile, Table, Video, Audio, Other	Table (digital)
Entity Attribute Overview	<p>Three datasets are provided under the stationary point count fish protocols and are distributed as one compiled package: (1) Analysis Ready dataset, (2) Boatlog/Station dataset, and (3) raw QAQC'd sample data file. The methodology used for these surveys can be found in the point count fish protocols.</p> <p>All three datasets contain data fields on general station information (survey strata, depth, rugosity). Each of these data tables contain additional survey-specific data fields. For complete information and descriptions of attributes and data fields for all data tables, refer to the data dictionaries.</p> <p>Fish protocols:</p> <p>CRCP. 2022. National Coral Reef Monitoring Program (NCRMP) Reef Visual Census (RVC) Fish Survey Protocols U.S. Atlantic: Florida, Flower Garden Banks, Puerto Rico, and U.S. Virgin Islands. 2022. NOAA Coral Reef Conservation Program. 21 pp. https://doi.org/10.25923/1baa-5g44</p>
Distribution Liability	NOAA makes no warranty, expressed or implied, regarding these data, nor does the fact of distribution constitute such a warranty. NOAA cannot assume liability for any damages caused by any errors or omissions in these data.

**NCCOS Metadata:
NCRMP Florida 2022 Fish**

Data Set Credit	Lead agencies include NOAA SEFSC, NOAA NCCOS and National Park Service. Academic partners include University of Miami's Rosenstiel School of Marine and Atmospheric Science (UM-RSMAS) and Nova Southeastern University (NSU), state partners include Florida Fish and Wildlife Conservation Commission (FWC) and Florida Department of Environmental Protection (FDEP), federal partners include National Park Service (NPS) and Florida Keys National Marine Sanctuary (FKNMS), Environmental Protection Agency (EPA) and county partners include Broward and Miami-Dade counties.
------------------------	---

Support Roles

*Data Steward	2022 Jay Grove jay.grove@noaa.gov Southeast Fisheries Science Center (SEFSC) www.sefsc.noaa.gov
*Distributor	2014 National Centers for Environmental Information - Silver Spring, Maryland (NCEI-MD) (301) 713-3277
*Metadata Contact	2022 Jay Grove jay.grove@noaa.gov Southeast Fisheries Science Center (SEFSC) www.sefsc.noaa.gov
Originator	2014 NOAA Coral Reef Conservation Program (CRCP) http://coralreef.noaa.gov
Originator	2014 NCCOS Scientific Data Coordinator nccos.data@noaa.gov National Centers for Coastal Ocean Science (NCCOS) http://coastalscience.noaa.gov/
Originator	2016 Southeast Fisheries Science Center (SEFSC) www.sefsc.noaa.gov
Point of Contact	2022 Jay Grove jay.grove@noaa.gov Southeast Fisheries Science Center (SEFSC) www.sefsc.noaa.gov
!Principal Investigator	2016 Kimberly Edwards kimberly.edwards@noaa.gov National Centers for Coastal Ocean Science (NCCOS) http://coastalscience.noaa.gov/
Additional Principal Investigator(s)	2022 Jay Grove jay.grove@noaa.gov Southeast Fisheries Science Center (SEFSC) www.sefsc.noaa.gov

Extents

Extent Group 1

Currentness Reference	Ground Condition
*Western Boundary	-82.9014
*Eastern Boundary	-79.9944
*Northern Boundary	27.18748
*Southern Boundary	24.55064
Description	Data were collected in the shallow (<30m) hardbottom shelf habitats along the Florida Reef Tract
*Time Frame Type <i>Continuing, Range, Discrete</i>	Range

**NCCOS Metadata:
NCRMP Florida 2022 Fish**

*Start Date	2022-06-01
*End Date	2022-11-28
Description	

Access Information

*Security Class	Unclassified
Security Classification System	Not applicable
Security Handling Description	Not applicable
*Data Access Procedure	Data can be accessed via the NOAA National Centers for Environmental Information (NCEI) Ocean Archive.
*Data Access Constraints	None
*Data Use Constraints	<p>Please reference NOAA/NMFS/SEFSC and NOAA/NOS/NCCOS and when utilizing these data in a report or peer reviewed publication.</p> <p>Cite as: Southeast Fisheries Science Center (SEFSC) and National Centers for Coastal Ocean Science (NCCOS)2023. National Coral Reef Monitoring Program: Assessment of coral reef fish communities of the Florida Reef Tract from 2022-06-01 to 2022-11-28 (NCEI Accession XXXXXXXX). NOAA National Centers for Environmental Information. Dataset. doi: XXXXXXXX [access date]</p> <p>Additionally, knowledge of how this dataset has been of use and which organizations are utilizing it is of great benefit for ensuring this information continues to meet the needs of the management and research communities. Therefore, it is requested but not mandatory, that any user of this data supply this information to the Project Co-Investigators (Atlantic/Caribbean): Jay Grove (jay.grove@noaa.gov) and Kimberly Edwards (kimberly.edwards@noaa.gov).</p>

Distribution Information (copy/paste for each downloadable file)

*Download URL	https://doi.org/10.7289/v52n50ks
File Name	NCRMP Florida Fish Data Collection
Description	NOAA Southeast Fisheries Science Center; NOAA National Centers for Coastal Ocean Science (2018). National Coral Reef Monitoring Program: Assessment of coral reef fish communities in the Florida Reef Tract. [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. https://doi.org/10.7289/v52n50ks . Accessed [date].
*File Type	NCEI Archived Data Accession

*Download URL	https://www.ncei.noaa.gov/archive/accession/0253454
File Name	NCRMP Florida Fish Data Accession 2020-2021
Description	NOAA National Centers for Coastal Ocean Science; NOAA Southeast Fisheries Science Center (2022). National Coral Reef Monitoring Program: Assessment of fish communities in the Florida Reef Tract from 2020-06-29 to 2021-10-27 (NCEI Accession 0253454). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. https://www.ncei.noaa.gov/archive/accession/0253454 . Accessed [date].
*File Type	NCEI Archived Data Accession

*Download URL	https://www.ncei.noaa.gov/archive/accession/0208321
File Name	NCRMP Florida Fish Data Accession 2018
Description	NOAA Southeast Fisheries Science Center; NOAA National Centers for Coastal Ocean Science (2020). National Coral Reef Monitoring Program: Assessment of fish communities in the Florida Reef Tract from 2018-06-05 to 2018-12-17 (NCEI Accession 0208321). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. https://www.ncei.noaa.gov/archive/accession/0208321 . Accessed [date].
*File Type	NCEI Archived Data Accession

*Download URL	https://www.ncei.noaa.gov/archive/accession/0169400
----------------------	---

**NCCOS Metadata:
NCRMP Florida 2022 Fish**

File Name	NCRMP Florida Fish Data Accession 2016
Description	NOAA National Centers for Coastal Ocean Science (NCCOS); Southeast Fisheries Science Center (SEFSC); University of Miami Rosenstiel School of Marine and Atmospheric Science (UM-RSMAS); Nova Southeastern University (NSU); Florida Fish and Wildlife Conservation Commission (FWC); Florida Department of Environmental Protection (FDEP); National Park Service (NPS); Florida Keys National Marine Sanctuary (FKNMS); Broward and Miami-Dade counties (2018). National Coral Reef Monitoring Program: Assessment of fish communities in the Florida Reef Tract from 2016-05-01 to 2016-12-15 (NCEI Accession 0169400). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. https://www.ncei.noaa.gov/archive/accession/0169400 . Accessed [date].
*File Type	NCEI Archived Data Accession

*Download URL	https://www.ncei.noaa.gov/archive/accession/0156445
File Name	NCRMP Florida Fish Data Accession 2014
Description	National Oceanic and Atmospheric Administration; Florida Fish and Wildlife Commission; National Park Service; University of Miami; Nova Southeastern University (2016). National Coral Reef Monitoring Program: Assessment of fish communities in the Florida Reef Tract from 2014-05-01 to 2014-10-01 (NCEI Accession 0156445). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. https://www.ncei.noaa.gov/archive/accession/0156445 . Accessed [date].
*File Type	NCEI Archived Data Accession

*Download URL	https://doi.org/10.7289/v5xw4h4z
File Name	NCRMP Florida Benthic Data Collection
Description	NOAA Southeast Fisheries Science Center; NOAA National Centers for Coastal Ocean Science (2018). National Coral Reef Monitoring Program: Assessment of coral reef benthic communities in the Florida Reef Tract. [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. https://doi.org/10.7289/v5xw4h4z . Accessed [date].
*File Type	NCEI Archived Data Accession

*Download URL	https://www.ncei.noaa.gov/archive/accession/0253452
File Name	NCRMP Florida Benthic Data Accession 2022
Description	NOAA National Centers for Coastal Ocean Science; NOAA Southeast Fisheries Science Center (2022). National Coral Reef Monitoring Program: Assessment of coral communities in the Florida Reef Tract from 2020-08-21 to 2021-09-21 (NCEI Accession 0253452). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. https://www.ncei.noaa.gov/archive/accession/0253452 . Accessed [date].
*File Type	NCEI Archived Data Accession

*Download URL	https://www.ncei.noaa.gov/archive/accession/0208321
File Name	NCRMP Florida Benthic Data Accession 2018
Description	NOAA Southeast Fisheries Science Center; NOAA National Centers for Coastal Ocean Science (2020). National Coral Reef Monitoring Program: Assessment of fish communities in the Florida Reef Tract from 2018-06-05 to 2018-12-17 (NCEI Accession 0208321). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. https://www.ncei.noaa.gov/archive/accession/0208321 . Accessed [date].
*File Type	NCEI Archived Data Accession

*Download URL	https://www.ncei.noaa.gov/archive/accession/0169400
File Name	NCRMP Florida Benthic Data Accession 2016
Description	NOAA National Centers for Coastal Ocean Science (NCCOS); Southeast Fisheries Science Center (SEFSC); University of Miami Rosenstiel School of Marine and Atmospheric Science (UM-RSMAS); Nova Southeastern University (NSU); Florida Fish and Wildlife Conservation Commission (FWC); Florida Department of Environmental Protection (FDEP); National Park Service (NPS); Florida Keys National Marine Sanctuary (FKNMS); Broward and Miami-Dade counties (2018). National Coral Reef Monitoring Program: Assessment of fish communities in the

**NCCOS Metadata:
NCRMP Florida 2022 Fish**

	Florida Reef Tract from 2016-05-01 to 2016-12-15 (NCEI Accession 0169400). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. https://www.ncei.noaa.gov/archive/accession/0169400 . Accessed [date].
*File Type	NCEI Archived Data Accession

*Download URL	https://www.ncei.noaa.gov/archive/accession/0156445
File Name	NCRMP Florida Benthic Data Accession 2014
Description	National Oceanic and Atmospheric Administration; Florida Fish and Wildlife Commission; National Park Service; University of Miami; Nova Southeastern University (2016). National Coral Reef Monitoring Program: Assessment of fish communities in the Florida Reef Tract from 2014-05-01 to 2014-10-01 (NCEI Accession 0156445). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. https://www.ncei.noaa.gov/archive/accession/0156445 . Accessed [date].
*File Type	NCEI Archived Data Accession

*Download URL	https://accession.nodc.noaa.gov/0157633
File Name	NCRMP Documentation Accession
Description	Coral Reef Conservation Program (2016). Documentation for NOAA's Coral Reef Conservation Program (CRCP) National Coral Reef Monitoring Program (NCRMP) data archived at NCEI (NCEI Accession 0157633). NOAA National Centers for Environmental Information.
*File Type	NCEI Archived Documentation Accession

URLS - Related Webpages (copy/paste for each URL)

*URL	https://coastalscience.noaa.gov/project/national-coral-reef-monitoring-program-biological-socioeconomic/
Description	National Coral Reef Monitoring Program Implementation: Biological and Socioeconomic Monitoring - NCCOS Project Page
*URL Type	Online Resource

*URL	http://www.coris.noaa.gov/monitoring/
Description	NOAA's National Coral Reef Monitoring Program - CRCP Project Page
*URL Type	Online Resource

*URL	https://grunt.sefsc.noaa.gov/rvc_analysis20/
Description	NOAA's SEFSC Reef Visual Census Fish Analysis Ready datasets and custom R-package
*URL Type	Online Resource

*URL	https://github.com/MSE-NCCOS-NOAA/NCRMP_benthics_
Description	NCRMP benthics statistical package in R. R package version 1.0.0.
*URL Type	Online Resource

Data Quality

*Completeness Report	[blank]
Quality Control Procedures Employed	<p>Quality control procedures are implemented in four main stages: (1) ongoing routine training of observers (initial detailed training, annual refresher training); (2) data check following data collection, where divers trade datasheets immediately upon returning to boat after dive, to ensure all data were collected accurately and required information is complete; (3) independent reviewers compare datasheets with database entries; and (4) statistical analyses are conducted as the final check before distribution.</p> <p>Before implementation the sampling design was reviewed and agreed upon by representatives from program partners, as well as NCCOS scientists.</p>

Lineage

*Lineage Statement	Datasets and protocols are year specific. Datasets are based on year-specific protocols utilized for data collection.
---------------------------	---

**NCCOS Metadata:
NCRMP Florida 2022 Fish**

*Source	<p>Title: National Coral Reef Monitoring Program (NCRMP) Reef Visual Census (RVC) Fish Survey Protocols U.S. Atlantic: Florida, Flower Garden Banks, Puerto Rico, and U.S. Virgin Islands 2022</p> <p>Corporate Authors(s): Coral Reef Conservation Program (U.S.)</p> <p>Published Date : 2022</p> <p>DOI : https://doi.org/10.25923/1baa-5g44</p>
*Source	<p>Title: Sampling Design Protocol for the U.S. Caribbean and Flower Garden Banks National Marine Sanctuary (2018)</p> <p>Originator: National Centers for Coastal Ocean Science (NCCOS)</p>
Additional Source	<p>Title: National Coral Reef Monitoring Program (NCRMP) Reef Visual Census (RVC) Fish Survey Protocols U.S. Atlantic: Florida, Flower Garden Banks, Puerto Rico, and U.S. Virgin Islands (2022) Originator: Coral Reef Conservation Program (CRCP) and National Oceanic and Atmospheric Administration (NOAA). DOI: https://doi.org/10.25923/1baa-5g44</p>
*Process Step	<p>Number: 1</p> <p>Description:</p> <p>2021 RVC survey locations were selected using a stratified random sampling design within the Florida study area. Locations selected for coral demographic surveys are a subset of fish and benthic assessment survey sites. Detailed information describing the sampling design is provided in the NCRMP Sample Frame Protocols.</p> <p>Briefly, surveys were located on shallow-water coral reefs and hardbottom habitats to a depth of 30 meters. Survey site selection was stratified according to depth classes, benthic habitat types, large marine biotopes and administrative zones. Samples were allocated disproportionate to area and consequently sampling weights are an integral component of data analysis. Variables addressing the sampling design process such as stratum documentation and sampling weights are provided in all data tables as survey attributes</p> <p>Data provided from this process are provided in all data tables as station information in addition to a main survey attribute table (sample strata, sampling weights). Refer to data dictionary for complete listing of terms and descriptions.</p> <p>Process Date/Time: [blank]</p> <p>Process Contact: National Centers for Coastal Ocean Science</p>
Additional Process Step	<p>Number: 2</p> <p>Description:</p> <p>2021 Stationary Point Count:</p> <p>The Stationary Point Count component of the protocols were modified in 2016 to integrate with similar methods used in Florida, another NCRMP sampling location. These changes were instituted in USVI in 2017 and are reflected in the 2021 USVI data sets. The Stationary Point Count data collection provides information on fish species collects and reports information on species composition, density, size structure, abundance and derived metrics (e.g., species richness, diversity) and of overall species diversity in a stratified random sampling design in hardbottom and coral reef habitats in the U.S. Caribbean and FGBNMS.</p> <p>Stationary point count surveys were conducted at all sample locations and co-located with a subset of Coral Demographic and Benthic Assessment surveys.</p> <p>Process Date/Time: [blank]</p> <p>Process Contact: National Centers for Coastal Ocean Science</p> <p>Citation:</p> <p>Reef Visual Census (RVC) Survey Protocol for the U.S. Caribbean and Flower Garden Banks National Marine Sanctuary (2017)</p>

Appendix: NCCOS Discovery Keywords

Research Priorities

- Marine Spatial Ecology
- Stressor Impacts and Mitigation
- Coastal Change: Vulnerability, Mitigation, and Restoration
- Social Science

Research Topics

- Ecological and Biogeographic Assessments
- Habitat Mapping
- Regional Ecosystem Science
- Coastal Aquaculture Siting and Sustainability
- Harmful Algal Bloom (HAB) Detection and Forecasting
- Biological Effects of Contaminants and Nutrients
- Vulnerability and Risk Assessment
- Natural and Nature-based Features
- Climate Impacts on Ecosystems
- Restoration
- Ecosystem Services Valuation
- Assessing Human Use
- Assessing Vulnerability and Resilience

Research Locations

- Regions
 - Atlantic Ocean
 - Bering Sea
 - Caribbean Sea
 - Great Lakes
 - Gulf of Mexico
 - Pacific Ocean
 - International
- U.S. States and Territories
 - [list all applicable]

Research Data Types

- Field Observation
- Long-term Monitoring
- Geospatial
- Derived Data Product
- Model
- Field Experiment
- Laboratory Experiment