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Southeast Fisheries Science Center Update Report to the CFMC

December 3, 2025



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Update topics for CFMC

Stock assessment updates – SEDARs 84, 91, 103

Collaborative projects with US Caribbean partners

Social Science projects



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US Caribbean Stock Assessment Updates

SEDAR 84 – Yellowtail Snapper (PR & STTJ), Stoplight Parrotfish (STX)

- SSC review scheduled for November, 2025 postponed due to federal government lapse in funding.
- Assessment and Review (CIE/SSC) Workshop Reports – have been released to the public, additional work completed at RW have been added to AW reports, see *SEDAR website (SEDARweb.org)*.
- Additional models runs for Puerto Rico, as recommended by the SSC in September, will be explored for SSC review. *US Virgin Islands modeling complete and ready for SSC review. Puerto Rico models will include updated inputs to include data through 2024.*
- Assessments to be reviewed by the **SSC in Spring 2026.**

SEDAR 91 – Spiny Lobster (all islands)

- Assessment workshop reports available, see *SEDAR website (SEDARweb.org)*.
- USVI assessments reviewed by the SSC in September, 2025. Accepted as best available science and recommended to be used to inform management decisions.
- SSC review of Puerto Rico assessment scheduled for November, 2025 postponed due to federal government lapse in funding.
- Puerto Rico models will include the recommendation for model sensitivity runs with an index of abundance and updated inputs to include data through 2024.
- Assessments to be reviewed by the **SSC in Spring 2026.**

SEDAR 103 Caribbean Application of Alternate Assessment Methods

- Review and recommend options for alternative approaches to providing scientific advice to managers
 - Approaches likely to differ among species and species groups
 - ***Goal is to have analytical approaches recommended for every federally managed species in the US Caribbean***
- Organizing committee included CFMC staff, SSC, SEFSC, CIMAS, SEDAR

SEDAR 103

- TORS and Schedule Finalized
 - Workshop Appointments
 - Scoping Webinar
 - *Discuss ToRs, scope of work, discuss working papers and reference documents*
 - Data webinar I
- July 2025
- August - November 2025
- week of January 12, 2026*
- week of February 12, 2026*

SEDAR 103

- Data webinar II *week of March 23, 2026*
- Data webinar III *week of April XX , 2026*
- Pre-Workshop Webinar/ Data webinar IV *week of May XX , 2026*
- Working paper submission *TBD, May/June? 2026*
- **In-Person Method Development Workshop** **TBD – Summer 2026**

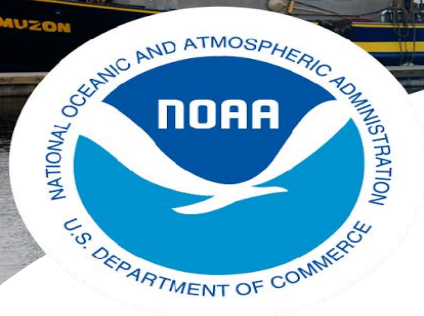


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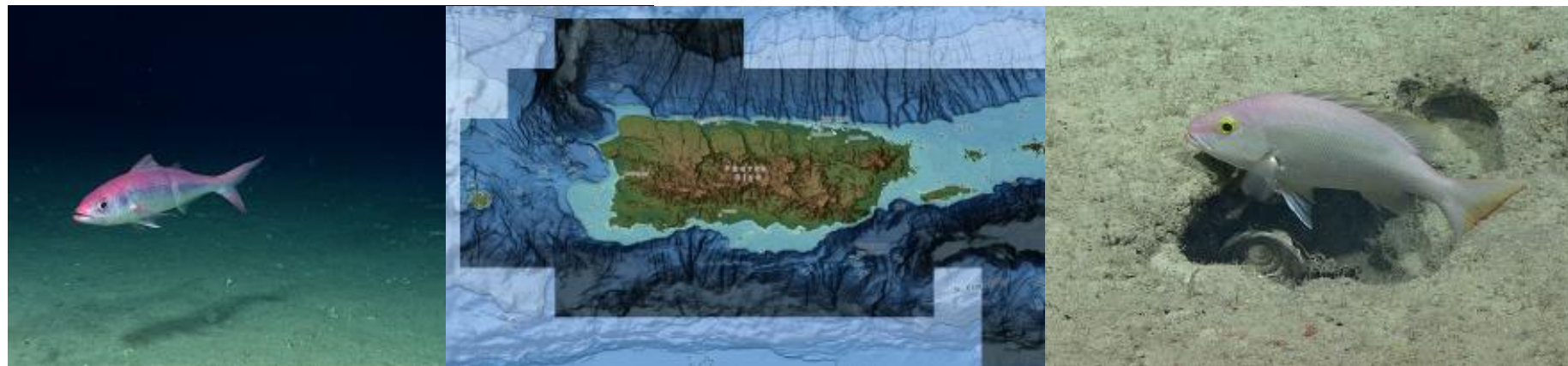
Collaborative Projects with US Caribbean Partners

Puerto Rico Reef Fish Survey

On-going project since 2018



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Southeast Fisheries Science Center
Populations and Ecosystem Monitoring Division
Gulf and Caribbean Reef Fish Branch
Slides Prepared by Kate Overly (Project PI)

Project Overview

- Development of a collaborative (with industry) fishery-independent survey implemented **island-wide** in Puerto Rico (50 – 450 m) from the ground up - now into shallow water
 - Hook and line fishing
 - Stratified random sampling (depth/rugosity)
 - Buy-in from commercial fishers
 - Work directly with local scientists and observers in Puerto Rico
 - Two new fishers recruited to survey this past field season for a total of four participating
- Generate indices of abundance and size structure for commercially important snapper and grouper species
 - Currently the only comprehensive deepwater fishery-independent survey in this region
- Diversity indices, spatial distributions
- Focal species – snappers and groupers
 - Sampling optimized for silk snapper and queen snapper
 - Biological samples: age, growth, reproduction, population connectivity, genetic databases

Target species

Pristipomoides aquilonaris
(wenchman snapper)



Epinephelus guttatus
(red hind)



Etelis oculatus
(queen snapper)



Lutjanus vivanus
(silk snapper)



Lutjanus buccanella
(blackfin snapper)



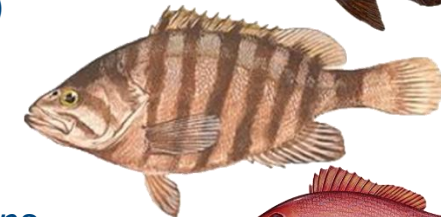
Pristipomoides macrophthalmus
(cardinal snapper)



Apsilus dentatus
(black snapper)




Hyporthodus mystacinus
(misty grouper)



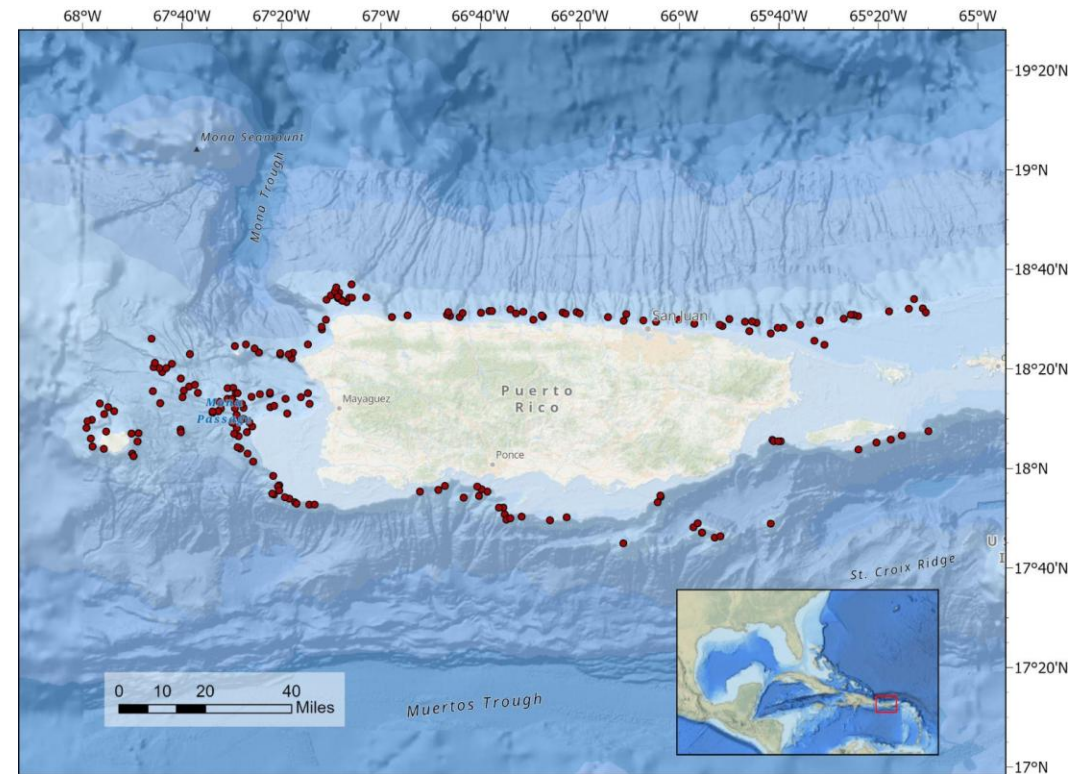
Rhomboplites aurorubens
(vermilion snapper)



Recent Results

- Developed island-wide sampling
 - Full spatial coverage
 - First sampling at Mona Island
- Completed 200 stations 
- Collected biological samples from target specimens
 - Silk and queen snapper currently being aged by University of South Carolina: Aiken (CRP – external funded)
- Presented survey results at National AFS
 - Optimization of survey design resulting in a 55% (silk) and 70% (queen) decrease in effort and funds
 - CV of 23% and 13% for queen and silk snapper

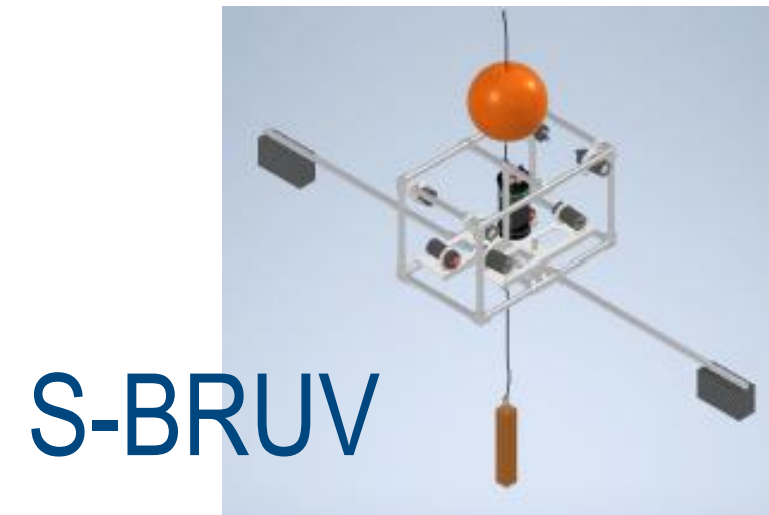
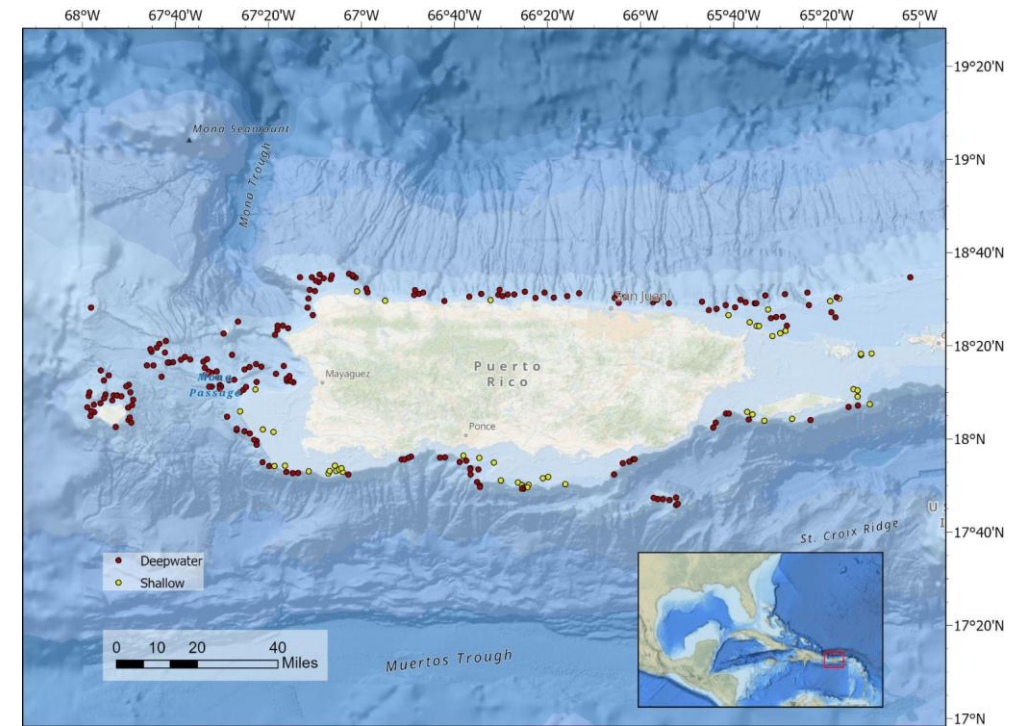
2025 Completed Stations Island-wide



Species	Avg. CPUE	SE	CV (%)
Queen Snapper	0.2398	0.0560	23.3
Silk Snapper	0.4798	0.0615	12.8

Next Steps for the Survey

- Sampling has begun for FY26
 - ~270 stations island-wide (20 – 450 m) →
 - Sampling “shallow” and “deep”
- Expansion into shallow-water (20 - 50 m) in Puerto Rico using leveraged funding (IRA)
 - Provides overlap with other shallow-water surveys
- Manuscript in-prep on survey universe design
 - Continued survey design optimization as sample size increases
- Received 300k in leveraged funds through the EASA funding source for the next 5 years which will partially fund:
 - Internal development of final S-BRUV
 - AI/ML pipeline development for video reading
 - Gear comparison studies between camera, hook and line, and diver sampling (diver sampling through NCRMP)



Ongoing Projects with Regional Partners

- Puerto Rico Recreational Port Sampling
 - Collaborative work between Puerto Rico DRNA and the SEFSC
 - Seventh 8-week round of stratified random sampling is ongoing
 - Two port samplers, each sampling 4 times per week
 - 175 fishing trips sampled
 - 65 species sampled
 - Continuing to work on survey design and stratification analyses
- Puerto Rico lobster survey – additional year of sampling to begin in winter 2025/26 with paired trap design



Ongoing Projects with Regional Partners

National Coral Reef Monitoring Program

- In 2025, the NCRMP fishery-independent survey collected data from the shallow-water (≤ 30 m) coral reefs in Puerto Rico and the U.S. Virgin Islands.
 - 268 survey sites in St. Croix
 - 266 sites in St. Thomas and St. John
 - 231 sites in Puerto Rico.
 - These data will be QAQCed and made publicly available for inclusion in any upcoming reef fish assessments in spring 2026.
- Planning a meeting of all fishery independent spiny lobster programs (SEAMAP-C, NCRMP, and NPS) in spring 2026 to better coordinate the surveys.

Queen Conch Surveys

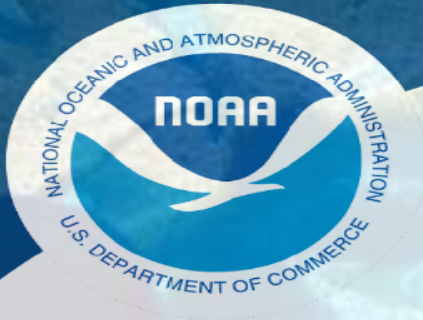
- Fishery independent diver survey
- Population surveys are in their final year:
 - - 2023 - St. Thomas and St. John
 - - 2024 - St. Croix
 - - 2025 - Puerto Rico (planned for September in conjunction with SEAMAP-C program, postponed due to contract delays, awaiting carryover funds to complete survey in 2026)

Genetic connectivity study:

- - sequencing and bioinformatic analysis of samples from the Florida Keys, Dry Tortugas, USVI, and PR is nearly complete
- - additional samples have been collected from the BVI, Saba, Bermuda, Tobago, and Grand Cayman with efforts under way to acquire samples from the Turks and Caicos, Barbados, and Belize in 2026

Aquaculture Collaboration with UPRM

- Renewed interest in aquaculture at the University of Puerto Rico with hiring of new professor and possible collaboration with SEFSC scientists
- Projects could include:
 - Rearing Red Hind or Yellowtail Snapper juveniles for heat stress experiments
 - Rearing Caribbean Spiny Lobster to determine molt frequency and growth rates and heat stress experiments



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Social Science Projects

SSRG Research Efforts in the Caribbean

- St. Croix oral history interviews September 3 - 12, 2025. Completed 9 and still collecting others via Zoom
- Collecting additional oral histories in Puerto Rico in 2025
- St. Thomas Oral Histories now in the Voices Database with existing Puerto Rico histories to be added (noaa.gov/noaa-voices, collection is “U.S. Caribbean Oral History Project”)
- Writing a paper that discusses the use of oral histories as a means of incorporating Local Ecological Knowledge into Fisheries Management
- Examining perceived and experienced changes in the marine environment, particularly regarding Sargassum
- Interviewing St. Croix lobster fishermen regarding the history of lobster fishing in St. Croix
- Worked with Pelagic Fishermen in St. Croix to discuss the use of FADs and the idea of conflict among users
- Working on IPT “Options for Revising FMP Selection Criteria for the Caribbean”.



Questions??

