



**NOAA  
FISHERIES**

# Caribbean Fisheries Branch Update Report to the CFMC

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

- Modeling hermaphroditism for first time  
*Stoplight Parrotfish female → male*
- Incorporating continuous recruitment dynamics –year round reproduction  
*Common in Caribbean species*
- Short time series – challenge in USVI particularly
- Assessment Workshop report in progress – to be circulated January 28<sup>th</sup>
- Review workshop in February (CIE/SSC)

## SEDAR 91 – Spiny Lobster (all islands)

- Completed Data Workshop in St. Thomas - November 13-15
- On track to meet Data Workshop report deadlines
- Assessment Workshop scheduled to begin week of January 27<sup>th</sup> as a series of webinars

*Will include SSC participation*

- Review workshop scheduled for August
- Assessment to be reviewed by the **SSC in November 2025** and presented to the **CFMC in December 2025**



# **IRA SEFSC Caribbean funded projects FY23-24+**



# Fishery independent lobster trap survey (includes pre-exploited and exploited phase lobsters)

- Extend existing Puerto Rico survey into the US Virgin Islands.
- This work will be conducted as ***cooperative research with US Virgin Islands commercial fishers.***
- This extended survey will leverage existing Cooperative Research Program funding for the Puerto Rico survey.
- USVI survey design analysis will be conducted following the field component of the work. The survey design analysis will be funded using matching funds (e.g., FIS, Territorial Initiative).
- ***This work is an outgrowth of key needs identified in the Caribbean Strategic Planning workshop.***

# Fishery independent survey for reef fishes

- Extend existing Puerto Rico deep-water reef fish survey into US Virgin Islands and include shallower water sampling sites (20-450m).
- Extend PR survey into shallow water (to overlap with NCRMP diver survey that extends to 30m)
- ***Work will be conducted as cooperative research with US Caribbean commercial fishers.***
- This extended survey will leverage existing Cooperative Research Program funding for the Puerto Rico survey.

## Fishery independent survey for reef fishes

- **Analytical support for classification of benthic habitats** (depth, substrate complexity, substrate hardness) from existing multi-beam sonar datasets to design sampling survey frame (***this work may also inform all fisheries surveys in the region***).
- USVI survey design analysis will be conducted following the field component of the work. The survey design analysis will be funded using matching funds (e.g., FIS, Territorial Initiative).
- This work is an outgrowth of key needs identified in the Caribbean Strategic Planning workshop.

# Research Associate to integrate and coordinate fishery independent sampling surveys in the US Caribbean

- ***The research associate will be located in the US Caribbean.***
- The associate will work:
  - To identify and develop partnerships with Puerto Rico and US Virgin Islands scientific consulting firms that have the necessary capabilities to conduct cooperative research (e.g., subcontract with local fishers) with the SEFSC and other federal researchers.
  - To identify and help better integrate existing fishery independent survey work currently ongoing (or planned).
  - With survey design analysts to prepare existing survey data for developing future survey designs.
- This work is an outgrowth of key needs identified in the Caribbean Strategic Planning workshop.

# UVI student to develop methodology to use remote sensing (e.g., satellite photos) to estimate total fishing effort

- Initial analysis of existing satellite photos will be conducted to determine feasibility of the approach (i.e., ability to classify vessel types and length classes).
- Develop ground truth and/or alternative methodologies for counting and classifying vessels.
- This pilot study will be conducted in St. Thomas, USVI.
- This work is an outgrowth of key needs identified in the Caribbean Strategic Planning workshop.

# Incorporating AI/machine learning to improve fishery independent queen conch surveys – *Caribbean student(s)*

- Develop a prototype camera system for use in Queen Conch surveys.
- A primary goal of this project is to develop a survey method that has reduced costs compared to large scale diver surveys by more effectively assigning diver effort within future two-stage survey designs.
- This project will benefit from experience gained in a previous FIS funded AI project using image analysis to improve port sampling efficiency in the US Caribbean.
- This work is an outgrowth of key needs identified in the Caribbean Strategic Planning workshop.

# Caribbean Fisheries Branch



## Strategic Planning

24 ongoing projects

**Improving** collaborative data collection to support fisheries management

**Enhancing** collaborations and workflows

**Engaging** regional federal, territorial, and university partners and stakeholders



Adyan



Carly



David



Katherine



Kevin



Matt



Rachel



Refik



Stephanie



## Data Collection

*Collaborate with regional partners and local fishers to conduct:*

- Port sampling in Puerto Rico and US Virgin Islands
- Cooperative lobster trap surveys in Puerto Rico
- Reef fish life history sampling in Puerto Rico
- Research with regional graduate students



## Data Analysis and Provision

*Reproducible workflows to support:*

- Stock assessments
- Western Central Atlantic Fishery Commission reporting requirements
- Caribbean Fishery Management Council and external requests
- Data storage and automation
- Aquaculture stakeholders
- Management Strategy Evaluation



## Stock Assessments

*Coordinated by the SouthEast Data and Review Process*

**2024**

Queen Triggerfish  
Yellowtail Snapper  
Stoplight Parrotfish  
Spiny Lobster

**2025**

Hogfish and Red Hind

# Questions??

