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**SEFSC**

**April 2023**

# **SEFSC US Caribbean Projects – Lobster and Other Work**

# Data requirements for stock assessment

## Abundance

- FI surveys (Reef Visual Census)
- Catch rate from fishers (com logbook CPUE)

## Biological

- Size composition (Trip Interview Program)
- Life history (maturity, age, and growth)

## Catch

- Commercial landings (logbook)
- Recreational landings

# Data available for SEDAR 57 update assessment of Spiny Lobster

- Commercial landings by gear
  - *Recreational landings not available*
- Size composition data from Trip Interview Program (commercial port sampling) by gear
  - No fishery independent size composition data available
- Life history data (e.g., size at maturity)
- Gear selectivity assumed to be dome shaped
- *No indices of abundance available*



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# Conclusions from Spiny Lobster SEDARs

SEDAR 57 update result: small reduction in the OFLs and ABCs, but the fishers are reporting more spiny lobster

- The need for a FI\* index of spiny lobster
- A reliable index of abundance would greatly improve the stock assessment
- The SEFSC believes that CRP\*-based FI indices should be developed using the fishing community to sample on the water.



# Conclusions from Spiny Lobster SEDARs

- Spiny Lobster will be assessed again in 2024.
  - Benchmark assessment and will be conducted by SEDAR.
  - Spiny Lobster are a commercial priority and the SEFSC has recommended frequent assessments (every 3 years).
  - Interim assessments would allow us to update the ABCs annually (catch recommendations are not static).
- We strongly encourage the fishing community to participate in conceptual workshops and SEDAR stock assessments. Their insights are valued.
- The Center also is considering stakeholder workshops (*no current funding*)
  - Quantify the temporal and spatial scope of fishermen's observations.
  - Conclusions of workshops like this can be incorporated directly into stock assessments.



# Summary of Spiny Lobster Indices Projects

- Puerto Rico fishery dependent lobster survey in collaboration with commercial fishers (**size composition and abundance information**).  
*Direct result of a fisher initiated study and a gear selectivity project*
- Additional funding was received to continue an fishery independent lobster recruit survey in collaboration with commercial fishers in Puerto Rico. (**Size composition and abundance information**)
- ***Critical goal for the SEFSC is to establish collaborative research with US Caribbean fishers***





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# Other SEFSC projects



# Summary of Finfish Projects

- SEFSC is providing funding for two University of Puerto Rico graduate students to collect **size composition data** in collaboration with UPR and MER Consultants in ongoing port sampling research projects
- Additional funding was received to expand a deepwater snapper survey in Puerto Rico that is conducted in collaboration with commercial fishers (**Size composition and abundance index**)
- Additional funding was received to continue a **life history** sampling project conducted in collaboration with commercial fishers in Puerto Rico



# Summary of Port Sampling Projects

- Port sampling survey design work in the US Virgin Islands is ongoing in partnership with DPNR DFW (**Size composition, landings**)
- Support of DNER recreational port sampling design work is ongoing (**Size composition, landings**)
- New funding was received to begin work to improve port sampling efficiency and accuracy using AI/machine learning (**Size composition, landings**)



# Caribbean Strategic Planning Workshop



The SEFSC is in the final year of a three year project to develop a strategic plan for data collection that informs stock assessment and EBFM in the U.S. Caribbean.

- In the first year, we convened a virtual SEFSC-specific workshop to identify and prioritize projects to improve the availability of data that informs
  - stock assessment and EBFM, as well as,
  - Education, outreach, and collaborative efforts.
- We are preparing for an additional strategic planning workshop in May 2023, which will include:
  - Council staff and SSC
  - DNER and DPNR DFW
  - UPR and UVI
  - SERO, SEFSC, NOAA HQ, and NPS



# Proposals Funded

**“Modernize and automate the provision of existing and EM fishery dependent length composition data required for all US Caribbean assessments and wider research needs” Collaborators: Adyan Rios and Molly Stevens.**

**“Evaluation of queen conch fisheries in the U.S. Caribbean to inform stock assessments and management” Collaborators: Jennifer Doerr and Juan Agar**



# Proposals Submitted

- **Three life history proposals submitted to the Coral Reef Conservation Program for laboratory processing of previously collected samples and to collect additional samples in collaboration with US Caribbean fishers**
- **The SEFSC is interested in documenting local knowledge to help fill critical information gaps and inform stock assessment of the spiny lobster fishery**





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# Questions

