SSC Report to the Caribbean Fishery Management Council

April 2022

SSC Met April 12-13
Issues Discussed

- Integrative analyses and visualization of SEAMAP-Caribbean data
- SEFSC Caribbean Branch
- SEFSC Research Inventory Update
- SEDAR-Stock Assessment Matrix
- SERO/NOAA Fisheries-Updated OFLs/ABCs spiny lobster 2024-26
- National SSC update (SCS7)
- Lobster Selectivity Study update

Issues Discussed

- Ecosystem-Based Fishery Management
  - Technical Advisory Panel (EBFM TAP) Update
  - Lenfest overview
  - Plan to Meld Conceptual Models
- Island-Based FMPs and Amendments Update
- CFMC 5-year Strategic Plan
- Puerto Rico Port Sampling and Catch Validation Project
- Life history Update

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- Life history Update
- SSC Research Plan Recommendations

Puerto Rico Port Sampling and Catch Validation Project

- Incorporation of digital methods
- Estimation of catch – 24 species = 87% of catch
- Application of expansion factors
  - Some species match raw data (e.g., spiny lobster)
  - Others match expanded data (e.g., conch)
  - Unexpected landings: e.g., common octopus (#9), slipper lobster (#27)
  - Some species not targeted well (rare, landings outside sampling time/site), E.g., yellowtail snapper
  - Some species are just confusing

Puerto Rico Port Sampling and Catch Validation Project
Applications and Next Steps

- **Full data set needs to be analyzed !**
- Better target distribution/effort of port samplers
- Application of species-specific expansion factors
- Continued targeted, prioritized sampling
  - Provide species composition (to split aggregate landings data)
  - Provide length-frequency data (mortality, relation to maturity)
  - Verify expansion factors
  - All at reduced effort and cost
- Incorporation of digital methods

Life History Update

Age, growth, longevity, maturation, spawning

- Groupers
  - Red hind, Coney
- Snappers
  - Mutton, Blackfin, Queen, Silk
- Hogfish
- Parrotfishes
  - Stoplight, Queen, Redtail, Redband, Princess
- White Grunt

Life History Update

- Otolith ageing techniques have been well validated
- Data collection and processing good when there is funding
- Most species are being done on an ad-hoc/opportunity basis
- Are potential gear-selectivity issues
  - need more targeted sampling
- Gut samples are stored when available – diet composition
- Opportunistic gonad/gut sampling suffers from poor icing

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- Targeted work needs to be linked with priority species and funding

Research Recommendations

- Last formal attempt by the SSC was in 2014
- Had 2 hours to discuss
- Discussion was weighted by
  - The 2014 plan
  - Presentations on port sampling and life-history
  - New developments
    - EBFM, (h)(2) flexibilities*, e-Reporting, Digital tools, etc.
- Produced a bullet list of research priorities as starting point
- No discussion or formal ranking, not necessarily inclusive

*for setting OFLs/ABCs/ACLs when catch data are insufficient

Research Recommendations

Improve Landings Data

- Analyze the MER report of PR landings
  - improve port sampling
  - expansion factor estimation and application
  - length composition
- Improve landings data collection via digital tools
- Evaluate digital formats for reporting and validate vs paper reporting
- Initiate a MER-style study of landings in the USVI

Research Recommendations

Collection of biological data for life-history/population parameters

- Improve biological data collection via digital tools
- Timely prioritization of collection by species (using e.g., IBFMPs, SEDAR)
  - Review and formalize stock prioritization process

Effort estimation

- Develop alternate methods for estimating efforts

Research Recommendations

EBFM

- Evaluate effectiveness and impacts of closed areas
- Develop habitat maps from existing NOS multibeam/lidar data
- Review of status of spawning aggregations within closed areas
- To evaluate the closed season relative to the spawning seasons
- Investigate the functional ecology of our habitats
- Construct an electronic species habitat database

Research Recommendations

Prepare for (h)(2) flexibilities

- Simulations to test alternate ACLs for (h) (2) flexibility
- How to incorporate uncertainty into defining ABCs from OFLs
- Collect life history information

Monitoring and Surveys

- Monitoring program of fish populations in closed areas
- Cooperative fisheries-based surveys
- Train and delegate to fishers' fisheries monitoring activities

Research Recommendations

Socio-Economic data for management

- Determine the economic values of fisheries that can be used in assessing benefits and costs of alternative management measures
- Periodic systematic collection of data to provide a baseline and comparative basis for social impact assessments
- Research to assess and integrate Local Ecological Knowledge into decision-making

Facilitate the above with:

MOU between the Council, SEFSC and territories for monitoring