



Puerto Rico

Caribbean Strategic Planning Project

Developing a Strategic Plan for Fisheries Stock Assessment in the US Caribbean Region

SSC & EBFM TAP
05/02/2023

Rachel Eckley - NOAA Affiliate

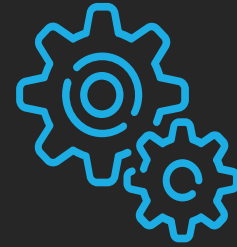
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Shannon Cass-Calay, Nancie Cummings,
Christian Jones, Vivian Matter,
Kate Overly, Adyan Rios, Steve Smith

Funded by: SEFSC ECSAI funds



Rationale

Razón fundamental



Stock assessment

- Numerous US Caribbean stock assessments attempted
 - Most accepted by independent peer reviewers
 - Not used for management
- Catch-only methods used to provide catch advice
 - “Data-moderate” Caribbean spiny lobster and Puerto Rico queen triggerfish assessments used for management advice
- Data triage → few species have sufficient data (8 in PR, 8 in STT/STJ, 2 in STX)

EBFM

- Would benefit from a more organized approach

Project Objective

Objetivos del proyecto



Primary objective:

- Develop a strategic plan for data collection in the US Caribbean to support stock assessments and EBFM within the regional ecosystems



Scope of Work

Ámbito del trabajo



Current data issues in US Caribbean + areas for improvement

- Temporally and spatially extensive FI datasets
- Reliable life history and length/age composition data
- Recreational catch statistics
- Socioeconomic impacts
- Communication within SEFSC branches/divisions
- Collaboration between SEFSC and regional partners
- Education and Outreach



Scope of Work

Ámbito del trabajo



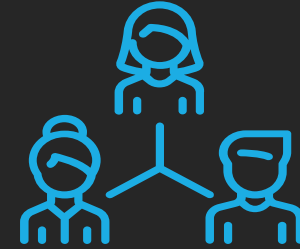
Project objective

- Hoshin Kanri strategic planning method
 - Prioritize activities that are aligned with strategic goals
 - Facilitated workshops: May 16-18, 2022 (SEFSC)
May 22-25, 2023 (SEFSC + regional partners)
Fall/Winter, 2023 / Early 2024 (SEFSC)



Team Members

Miembros del equipo



Sustainable Fisheries Division

- Caribbean Fisheries Branch
- Data Analysis & Assessment Support Branch
- Gulf of Mexico Fisheries Branch

Population & Ecosystems Monitoring Division

- Oceanic & Coastal Pelagics Branch
- Trawl & Plankton Branch
- Gulf & Caribbean Reef Fish Branch
- Atlantic & Caribbean Reef Fish Branch
- Habitat Ecology Branch

Fisheries Assessment, Technology, & Engineering Support Division

- Biology & Life History Branch

Fisheries Statistics Division

- Survey Design, Data Management, & Dissemination Branch
- Catch Validation & Biosampling

Social Science Research Group

- Caribbean EBFM Technical Advisory Panel
- Caribbean Fisheries Management Council
- Caribbean Scientific & Statistical Committee
- National Park Service
- NOAA Headquarters
- NOAA Quality Management & Continuous Improvement Professional Specialty Group
- Puerto Rico Department of Natural & Environmental Resources
- Puerto Rico Sea Grant
- SERO
- University of Miami Cooperative Institute (CIMAS)
- University of Puerto Rico
- University of South Carolina-Aiken
- University of the Virgin Islands
- USVI Department of Planning & Natural Resources

Hoshin Process

Proceso del Hoshin



Pre-work

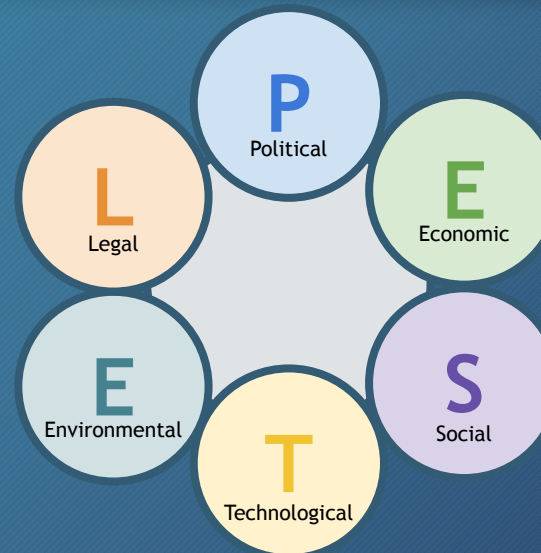
- Review of previous work and effort
- PESTEL Scan
- SWOT Analysis
- Vision, Mission, Long-term goals

Idea Generation

- Brainstorm
- Affinity Grouping
- Tree Diagram
- Arrow Diagram
- Drivers, Means, Outcomes

Deployment

- X-matrix
- Working groups



	Helpful	Harmful
Internal origin	S Strengths	W Weaknesses
External origin	O Opportunities	T Threats

Vision: Effective science and management partnerships and processes in the Caribbean Region

Mission: Conduct and communicate science to support sustainable and resilient fisheries, ecosystems, fishing communities, and economies in the US Caribbean

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First Level Goals

- Data collection
- Data analysis
- Data management and automation
- EBFM + Socioeconomics
- Internal culture and communication
- External collaboration and communication
- Funding

Hoshin Process

Proceso del Hoshin



Pre-work

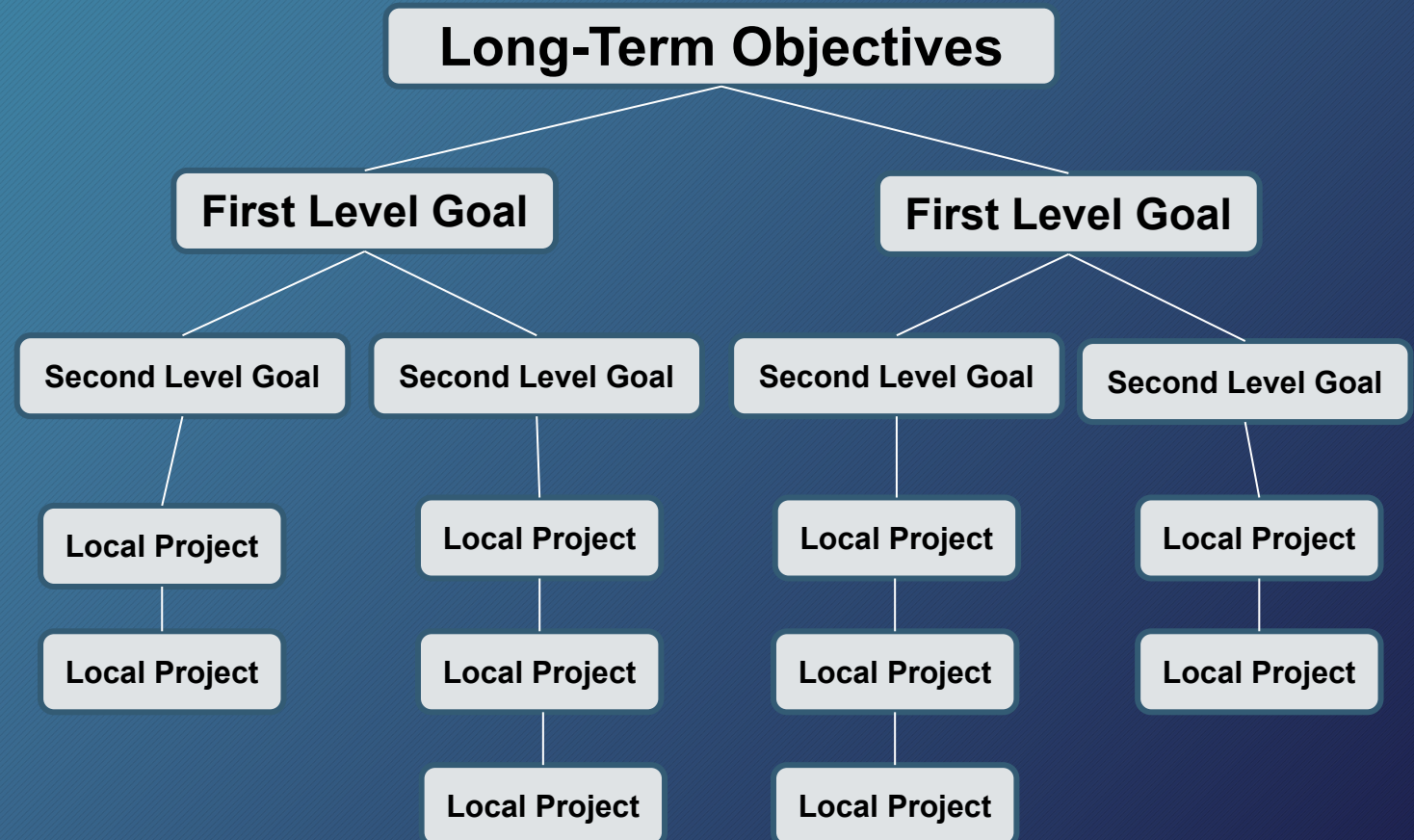
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Hoshin Process

Proceso del Hoshin



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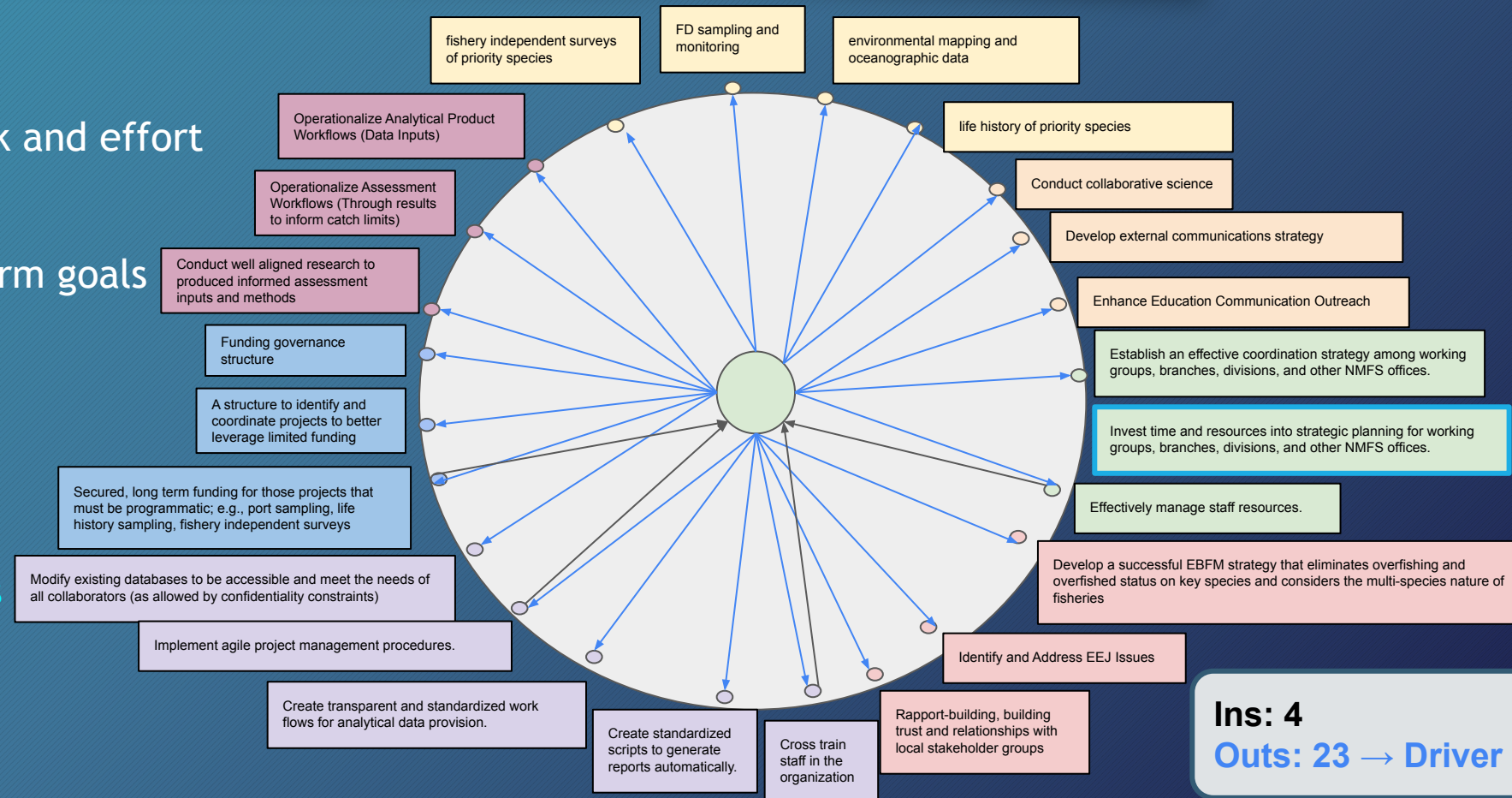
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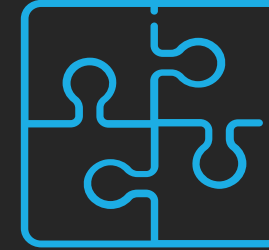
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Ins: 4
Outs: 23 → Driver

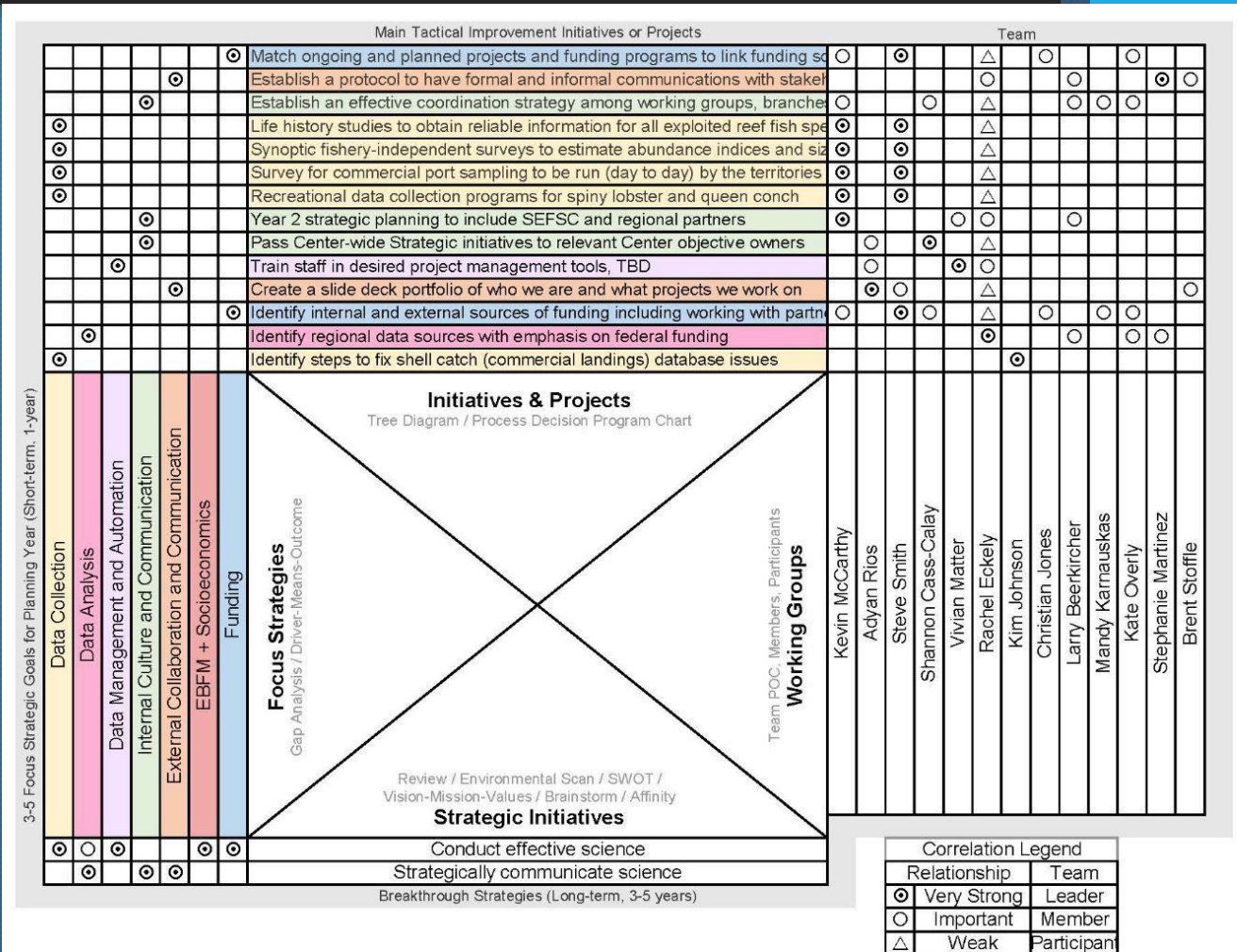
Proceso del Hoshin



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Local Projects

Proyectos actuales

Total Local Projects: 50

Completed Projects: 3

Ongoing Projects: 11

Percent Addressed: 28%



Data Collection

- Recreational data collection programs for spiny lobster and queen conch
- Survey for commercial port sampling (run by the territories) to estimate effort by gear and fleet and catch by species-gear-fleet
- Make Shellcatch data available and accessible
- Synoptic fishery-independent surveys to estimate abundance indices and size compositions for reef fishes, spiny lobster, and conch
- Life history studies to obtain reliable information for reef fish species, spiny lobster, and conch

Data Analysis

- Identify regional data sources with emphasis on federal funding (Caribbean Research Inventory)

Data Management and Automation

- ✓ Train staff in desired project management tools

Internal Culture and Communication

- Establish an effective coordination strategy among working groups, branches, divisions, other NMFS offices, and Caribbean partners
- Pass Center-wide strategic initiatives to relevant Center objective owners
- ✓ Plan and organize the year 2 strategic planning workshop to include SEFSC and regional partners

External Culture and Communication

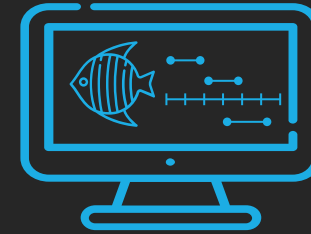
- Establish a protocol to have formal and informal communications with stakeholders in the language of their choice
- Create a portfolio of who we are and what projects we work on

Funding

- ✓ Identify internal sources of funding for US Caribbean stock assessment and EBFM
- Match ongoing and planned projects and funding programs to link funding sources to projects

Caribbean Research Inventory

Inventario de los proyectos de investigación en el Mar Caribe



Data Analysis

- Identify regional data sources with emphasis on federal funding

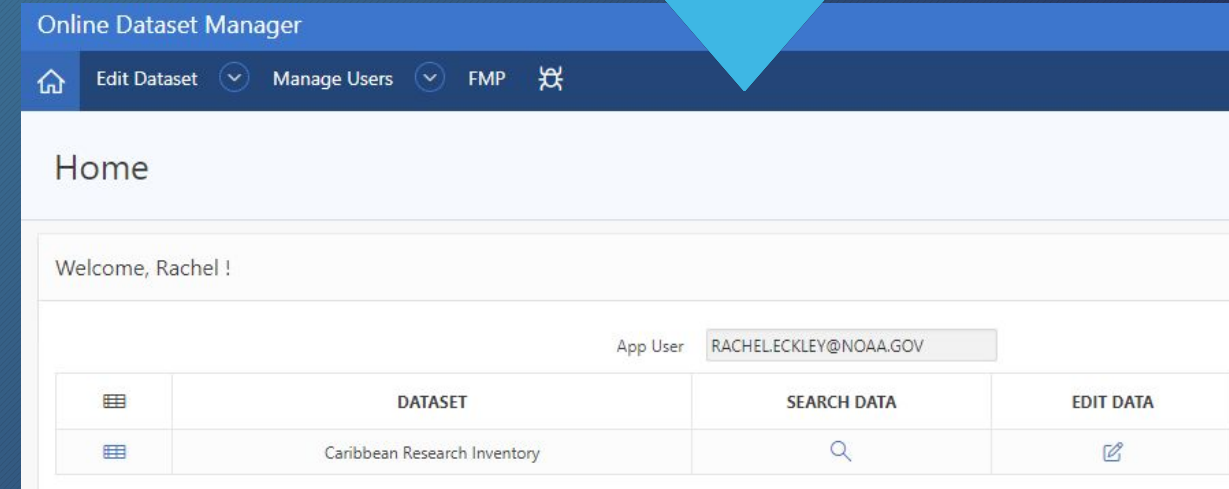
Purpose and use

- Improve data accessibility and availability
- Searchable repository of known Caribbean research
- Built through targeted searches
- Identify sources of data inputs and data gaps

Searchability

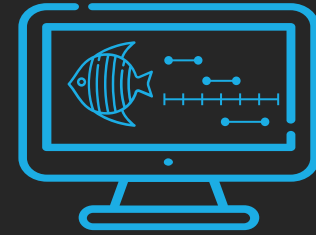
- Temporal and spatial factors
- Target species or species group
- Fishery-dependent or fishery-independent
- Data category

Caribbean Research Inventory



Caribbean Research Inventory

Inventario de los proyectos de investigación en el Mar Caribe

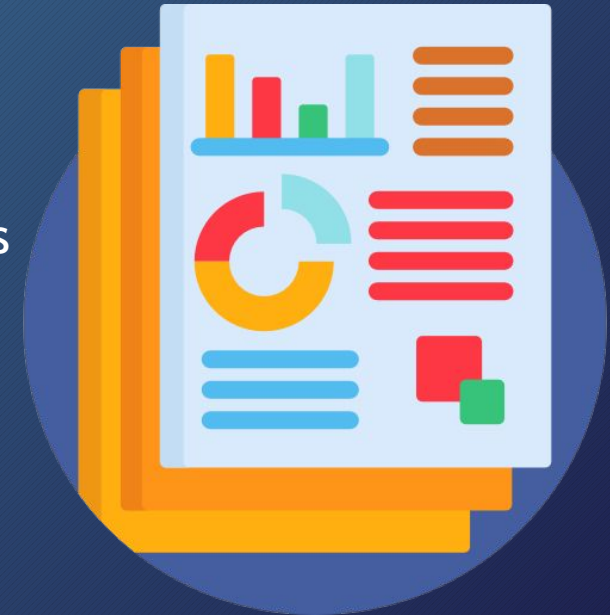


Data Categories

- Age composition
- Aquaculture
- EBFM
- Feeding behavior
- Habitat
- Indices of abundance
- Life history
- Management/regulations/conservation
- MPA Monitoring
- Outreach and Education
- Population and assessment
- Reproductive behavior
- Size composition
- Social science
- Take

Summary

- 640 projects
- 1600 documents and reports
 - 40 Books and chapters
 - 149 Conference papers
 - 49 Cruise reports
 - 35 Dissertations
 - 5 NOAA Professional Papers
 - 108 NOAA Tech Memos
 - 255 Project reports
 - 765 Publications
 - 38 SEDAR papers
 - 38 Theses
- 1900s - current



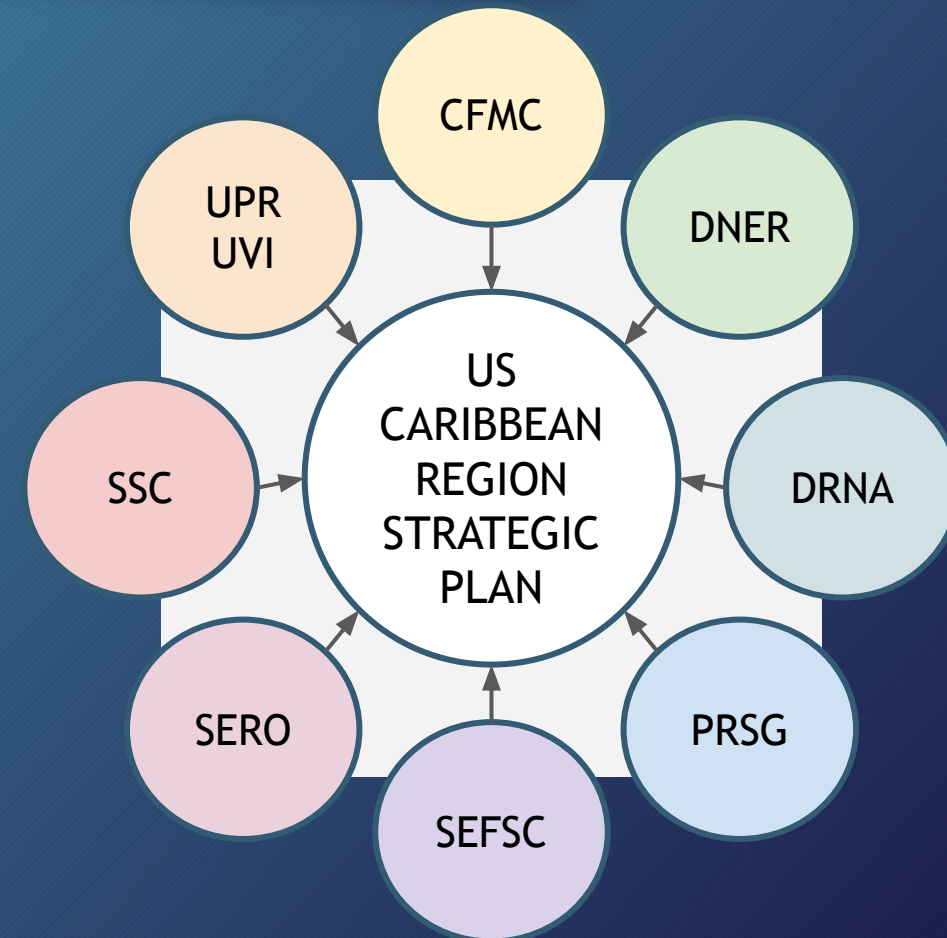
Upcoming Workshop

Taller próximo



May 22-25, 2023 (SEFSC + regional partners)

- San Juan, Puerto Rico
- Hoshin Kanri method
- Strategic goals → collaborative efforts
- Build trust and strengthen rapport





St. Croix

Questions ¿Preguntas?



Thank you to our
regional partners
for your enthusiasm
and willingness to
join this effort



NOAA
FISHERIES



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