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SEFSC  
Caribbean  
Fisheries Branch

K. McCarthy

April 19, 2022

# SEFSC Caribbean Branch Update

# Caribbean Fisheries Branch Work

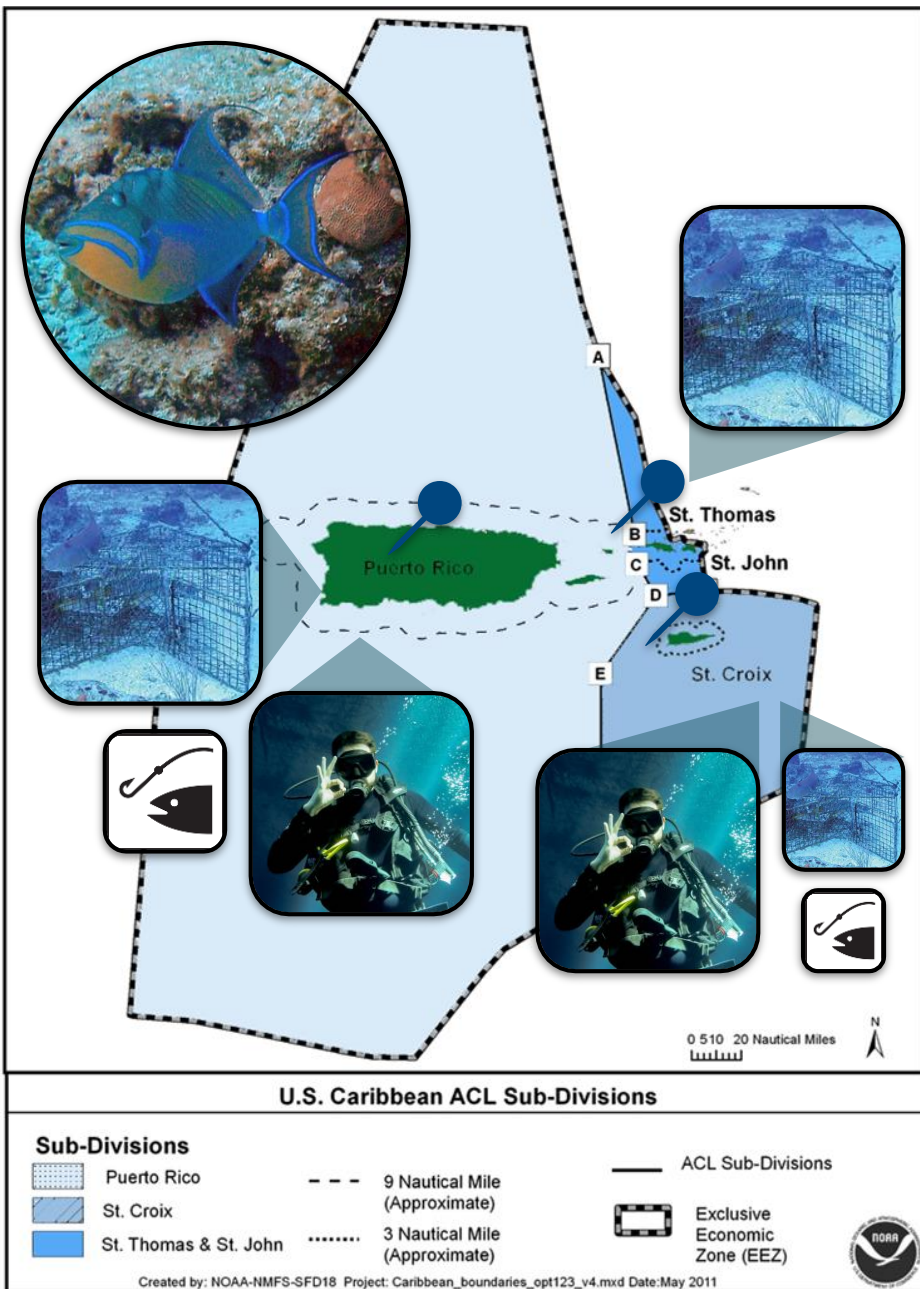
- Stock assessments
- Strategic planning
- Caribbean research inventory
- Port sampling design
- Gear selectivity studies
- Data triage



# Stock Assessments



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## SEDAR 80 U.S. Caribbean Queen Triggerfish Operational Assessments

**Terminal year:** 2019

**Lead Analyst:** Nancie Cummings

**Data Contact:** Adyan Rios

**Data inputs**  
x3 Island Platforms

- Commercial Logbook Landings
- Commercial Logbook Indices
- Trip Interview Program Lengths
- Region-Specific Life History
- Socio-econ. & Fishing Behavior
- Fishery Ind. RVC Indices

**FY22 SEFSC Milestone**  
First CFB assessment attempted  
using Stock Synthesis & indices  
and robust local life history



**CFMC Public Meeting - December 7, 2021**  
Adyan Rios, SEFSC SFD Caribbean Fisheries Branch

### **2022 Roadmap** SEDAR 80 Project Schedule

- |  |          |
|--|----------|
| <input type="checkbox"/> Life History TWG    | 1/28     |
| <input type="checkbox"/> Indices Final TWG   | 2/28     |
| <input type="checkbox"/> Selectivity TWG     | 2/28-3/2 |
| <input type="checkbox"/> Analytical Products | 3/4      |
| <input type="checkbox"/> Reports to SEDAR    | 7/1      |
| <input type="checkbox"/> Reports to Council  | 7/8      |



# Spiny Lobster Update Assessment

## OFL/ABC/ACL Status

- An update assessment for 2022 will be presented for the Fall SSC meeting.
  - The update will bring length and landings data streams to the most recent complete year of data.
  - Terminal year of updated data streams 2021 for USVI, TBD year PR
- An operational SEDAR assessment is on the calendar for 2024.
  - This will revisit the life history assumptions and look into additional data sources for inclusion in the models

# Future Assessments

- 2023 assessments – *Yellowtail Snapper*  
St. Thomas/St. John, Puerto Rico  
*Stoplight Parrotfish* St. Croix
- 2024 assessments – *Spiny Lobster* all islands

# Strategic Planning



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# Caribbean Strategic Planning Project



## Goal

- Develop a strategic plan for data collection, analytical best practices, and outreach/education in the US Caribbean to support stock assessments

## Principal investigators

- Kevin McCarthy, Skyler Sagarese, Shannon Cass-Calay, Nancie Cummings, Christian Jones, Vivian Matter, Kate Overly, Adyan Rios, Steven Smith





# Caribbean Strategic Planning Project



## Three-year, collaborative project

### Fundamental step towards improved stock assessment

- Identify data gaps through the Caribbean Projects Inventory and Data Triage
- Prioritize, coordinate, and optimize data collection strategies
- Improve processes; for example data delivery systems and analyses

### Caribbean Strategic Planning workshop

- Quality Management and Continuous Improvement tools (QM/CI)
- May 16 - 19, 2022
- Establish working groups



# Caribbean Research Inventory

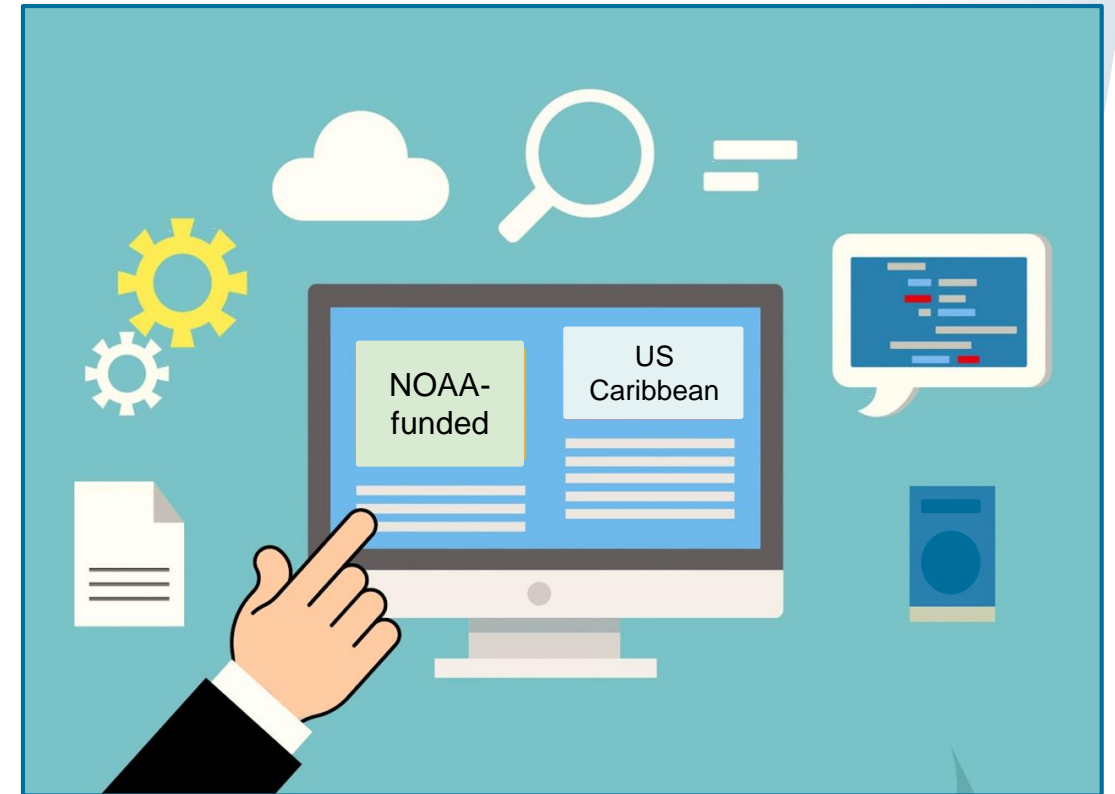


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# Purpose of Caribbean Research Inventory



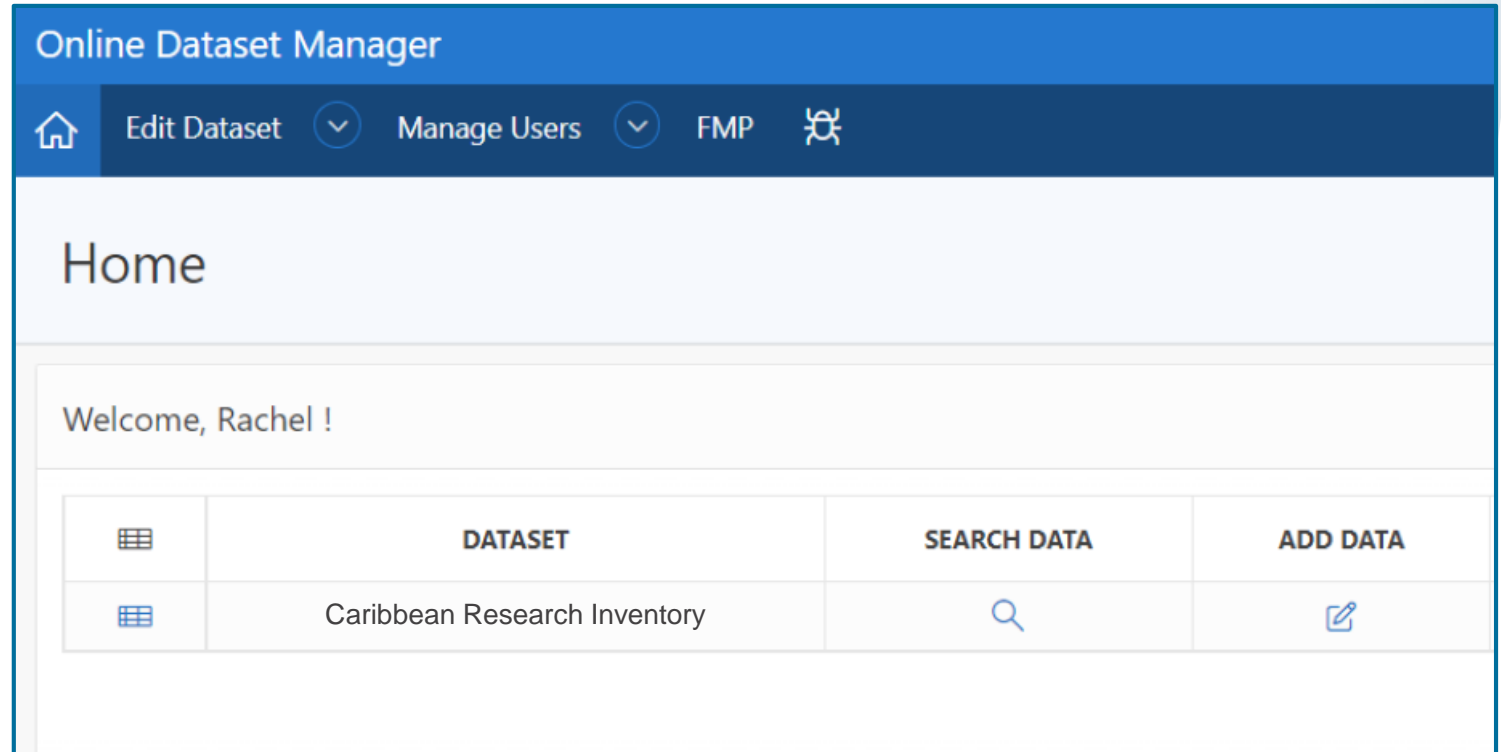
- Data accessibility/availability in US Caribbean
- Building centralized repository
  - Searchable annotated bibliography
- Identify existing data sources
- Identify data gaps
- Focus areas for data collection



# Current Status



- 542 projects
- 1,244 documents







- Upload to ODM
  - Dynamic data warehouse for SEFSC datasets
    - Management History, HMS Pelagic Logbook History, Morphometric Conversions



# Current Status



- Formatting – in progress 
  - Searchable fields
  - Output design
- Testers – upcoming 
  - Perform searches
  - Provide feedback
- Add non-NOAA research – future 
  - Data sources
  - Funding sources
- Assess data usability – future 
  - SEFSC Strategic Planning workshop, May 2022



# Other Projects in Progress

# Additional Projects – Ongoing

***Puerto Rico Survey Design Project*** – port sampling to provide estimates of landings and size composition, ongoing, focused on specific portions of the commercial fishery (e.g., yellowtail snapper, deep water snapper, Vieques)

***US Virgin Islands Survey Design Project*** – port sampling to provide estimates of landings and size composition, ongoing

***FIS funded AI project for port sampling efficiency*** – improve port sampling efficiency

***Puerto Rico Lobster Trap Selectivity Project*** – size composition of lobsters caught in traps to inform assessment models

***US Virgin Islands Lobster Trap Selectivity Projects*** – size composition of lobsters caught in traps to inform assessment models





# Additional Projects – Ongoing

***FIS funded AI project for port sampling efficiency*** – improve port sampling efficiency

***Puerto Rico Lobster shallow water Life History Project*** – life history information

***Puerto Rico lobster recruit survey*** – abundance of pre-recruit lobsters

**Management History database** – database of management actions

***Puerto Rico Electronic Logbook data*** – migrate from Shellcatch cloud database

***Puerto Rico Correction Factor Calculation*** – automate calculation to reduce DNER staff burden





# Caribbean Data Triage



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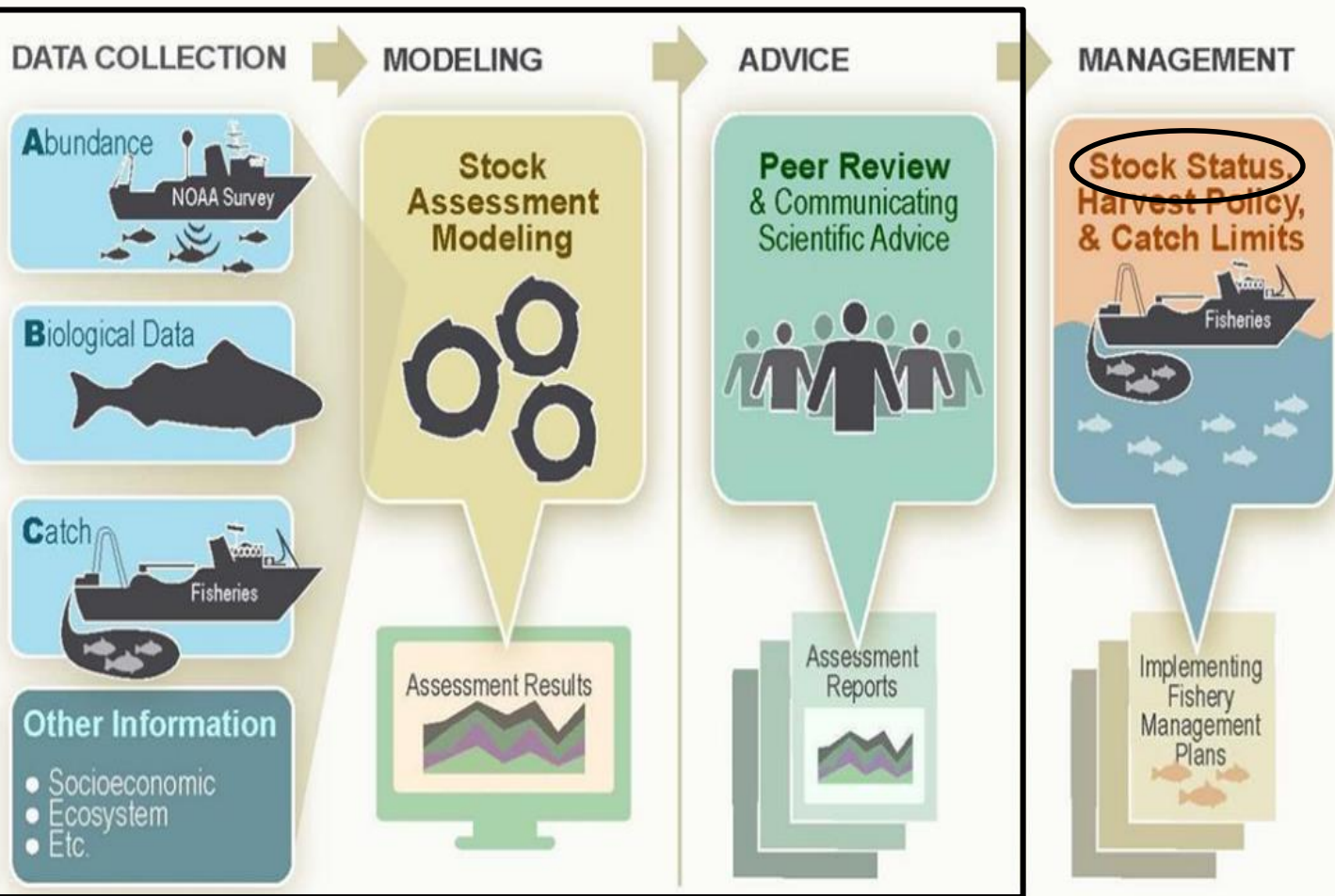
# Assessment Prioritization Data Triage Overview

## NOAA Fisheries Stock Assessment Process

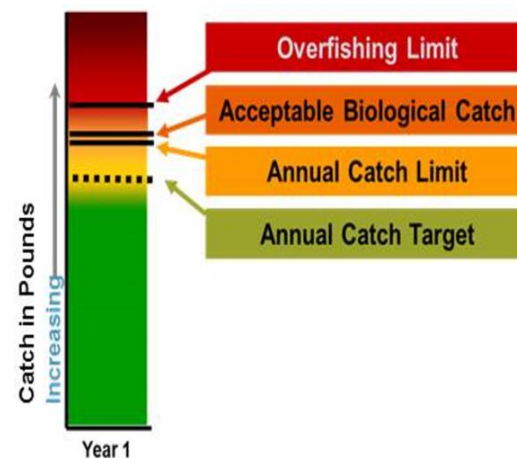
The Science Behind Sustainable Fisheries Management



Healthy Fish Stocks  
= Sustainable Jobs,  
Fisheries, and Food



The Magnuson-Stevens Reauthorization Act calls for the **best scientific information available** to manage U.S. commercial and recreational fisheries.



**Stock Assessments Provide Scientific Advice For Sound Fisheries Management**



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# Preliminary information

St. Thomas/St. John	COM LANDINGS		SIZE COMPOSITION		LIFE HISTORY		INDEX	
	Pounds	Time Series	Samples by Year	# of Years	Maturity	Age	Fishery Ind	Fishery Dep
YELLOWTAIL SNAPPER**	✓	2011	✓	31	✓	✓	✓	✓
QUEEN TRIGGERFISH**	✓	2011	✓	31	✓	✓	✓	✓
RED HIND*	✓	2011	✓	31	✓	✓	✓	✓
SPINY LOBSTER**	✓	1974	✓	31	✓	TBD	✕	✓
BLUE RUNNER**	✓	2011	✓	24	TBD	TBD	✓	✓
WHITE GRUNT*	✓	2011	✓	30	✓	✓	✓	✓
CONEY	✓	2011	✓	30	✓	✓	✓	✓
DOCTORFISH*	✓	2011	✓	28	✓	✓	✓	✓
STOPLIGHT PARROTFISH*	✓	2011	✓	30	✓	✓	✓	✓
BLUESTRIPED GRUNT	✓	2011	✓	30	✓	✓	✓	✓

\*Indicator Species

\*\*Single Species Unit



Appropriate for assessment



Require further investigation



Not available

TBD

To be determined



# Preliminary information

St. Croix	COM LANDINGS		SIZE COMPOSITION		LIFE HISTORY		INDEX	
	Pounds	Time Series	Samples by Year	# of Years	Maturity	Age	Fishery Ind	Fishery Dep
REDTAIL PARROTFISH*	✓	2011	✓	33	✓	✓	✕	✓
STOPLIGHT PARROTFISH*	✓	2011	✓	33	✓	✓	✓	✓
QUEEN TRIGGERFISH**	✓	2011	✓	35	✓	✓	✓	✓
RED HIND*	✓	2011	✓	35	✓	✓	✓	✓
CONEY*	✓	2011	✓	35	✓	✓	✓	✓
SCHOOLMASTER**	✓	2011	✓	34	✓	✓	✓	✓
WHITE GRUNT	✓	2011	✓	35	✓	✓	✓	✓
DOCTORFISH	✓	2011	✓	34	✓	✓	✓	✓
BLUE TANG	✓	2011	✓	34	✓	✓	✓	✓
BLACKFIN SNAPPER*	✓	2011	✓	30	✓	✓	✕	✓

\*Indicator Species

\*\*Single Species Unit



Appropriate for assessment



Require further investigation



Not available

TBD

To be determined



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# Preliminary information

Puerto Rico	COM LANDINGS		SIZE COMPOSITION		LIFE HISTORY		INDEX	
	Pounds	Time Series	Samples by Year	# of Years	Maturity	Age	Fishery Ind	Fishery Dep
YELLOWTAIL SNAPPER**	✓	1983	✓	40	✓	✓	✓	✓
SPINY LOBSTER**	✓	1983	✓	41	✓	TBD	✗	✓
WHITE GRUNT**	✓	1983	✓	39	✓	✓	✓	✓
LANE SNAPPER**	✓	1983	✓	39	✓	✓	✗	✓
SILK SNAPPER*	✓	1983	✓	40	✗	✗	✗	✓
RED HIND*	✓	1986	✓	39	✓	✓	✓	✓
CONEY*	✓	1986	✓	38	✓	✓	✓	✓
STOPLIGHT PARROTFISH	✓	1993	✓	36	✓	✓	✓	✓
REDTAIL PARROTFISH	✓	1999	✓	37	✓	✓	✗	✓
VERMILION SNAPPER	✓	1987	✓	40	✓	✓	✗	✓

\*Indicator Species

\*\*Single Species Unit



Appropriate for assessment



Require further investigation



Not available

TBD

To be determined



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April 12, 2022

# Questions

