SCIENTIFIC AND STATISTICAL COMMITTEE (SSC)
APRIL 09-11, 2024
COURTYARD BY MARRIOT, CAROLINA PR (HYBRID)

SUMMARY MINUTES

The meeting was called to order at approximately 10:00 a.m. (AST) by the Chairman, Dr. Vance Vicente certifying a quorum of nine (9) members of the SSC present and one (1) excused SSC member.

SSC Members present: Dr. Vance Vicente, Dr. Todd Gedamke, Dr. Michelle Schärer, Dr. Jorge García, Dr. Walter Keithly, Dr. Juan Cruz, Dr. Erik Williams, Dr. Jason Cope, and Dr. Tarsila Seara.

SSC Member excused: Dr. Richard Appeldoorn.

There was a change in the agenda, for the date April 11, 2024, under Other Business, it was included the Queen Conch ESA Final Listing presentation by Orian Tzadik. There was a motion to approve the agenda with the change, given by Walter Keithly and seconded by Juan Cruz, without opposition. The minutes from September 27, 2023, and November 28, 2023, were approved, motioned by Walter Keithly, and seconded by Juan Cruz, without opposition.

A. SEDAR 80 USVI St. Thomas and St. Croix Queen Triggerfish – Adyan Ríos, SEFSC Caribbean Fisheries Branch, and Kyle Shertzer, SEFSC Atlantic Fisheries Branch.

It was requested by Jason Cope for the Southeast Fisheries Science Center to upload the SEDAR 80 USVI Queen Triggerfish Assessment Models to the SSC Members folder.

Data

Data used in the SEDAR 80 models included commercial landings, Trip Interview Program length samples, and the National Coral Reef Monitoring Program's Reef Fish Visual Census (RVC) length data. RVC data were also used to construct an index of relative abundance. The terminal year for all assessment model inputs was 2019.

Stock Status

The stock assessments were not able to estimate the overfished status for the St. Croix or St. Thomas/St. John Queen Triggerfish stocks; thus, their status remains unknown. However, each model was able to estimate short-term harvest levels that would prevent overfishing (i.e., the overfishing limit [OFL]) by assuming that future recruitment will continue at recent levels. For both St. Croix and St. Thomas/St. John Queen Triggerfish, the models determined that overfishing is not occurring.

Acceptable Biological Catch (ABC) Control Rule

After a discussion of the uncertainties that exist in the models, the SSC agreed to set ABCs for the St. Croix and St. Thomas/St. John Queen Triggerfish stocks using Tier 3b of the ABC control rule. Under Tier 3b, the ABC is determined from the OFL as buffered to account for scientific uncertainty (ABC = buffer *OFL), where the buffer must be ≤ 0.9.

The SSC made the following statements regarding each island platform:

- Considering both the uncertainty in major assessment inputs and outputs, and recognizing that stock status seems healthy, a precautionary approach to establishing an ABC should be used.
- The reference models represent the best scientific information available (BSIA). The projected OFL values are based on a proxy F_{MSY} based on a spawning potential ratio (SPR) of 0.4.
- The ABC is determined by using the F_{MSY} proxy to account for productivity uncertainty, and the constant catch set at the F_{MSY} proxy value is used to establish the ABC. The ABC will thus be a constant value, with a buffer that varies each year relative to the OFL.
- This constant catch decreases variance in catch limits under such (thus avoids chasing noise or uncertainty) and buffers against the uncertainty in the population scale.
- In the case of queen triggerfish, this approach to setting ABC provides catch limits well above what is currently being taken but does not inflate the catch limits to levels that overweight what we believe is known about both the productivity and scale of the stock.

Additionally, SSC members suggested that the ABC control rule chosen during the SSC meeting is a precautionary approach that absorbs some of the uncertainty. This comment was made in response to a short presentation, given by Matt Damiano, on the robustness of an F_{MSY} proxy based on a spawning potential ratio (SPR) of 0.4 to nonstationary in recruitment. Another SSC member provided some general caution against reducing the complexity of the current assessment model framework moving forward, to avoid (additional) strong assumptions that more simplistic models will require.

The SSC will recommend to the Caribbean Fishery Management Council OFL and ABC values for Queen Triggerfish in St. Croix (**Table 1**) and St. Thomas/St. John (**Table 2**) for the years 2024-2027. If new OFL and ABC values from an updated assessment or full SEDAR assessment for the stocks are not conducted and available for years 2028 and later, then the OFL and ABC values specified for the year 2027 will remain in place until amended.

Table 1. Overfishing limit and acceptable biological catch values recommended for the St. Croix Queen Triggerfish stock for years 2024-2027, based on results of the accepted SEDAR 80 stock assessment.

Year	OFL	% Reduction from OFL	ABC
2024	24,651	23.70	18,808
2025	22,773	17.41	18,808
2026	22,316	15.72	18,808
2027	22,025	14.61	18,808

Table 2. Overfishing limit and acceptable biological catch values recommended for the St. Thomas/St. John Queen Triggerfish stock for years 2024-2027, based on results of the accepted SEDAR 80 stock assessment.

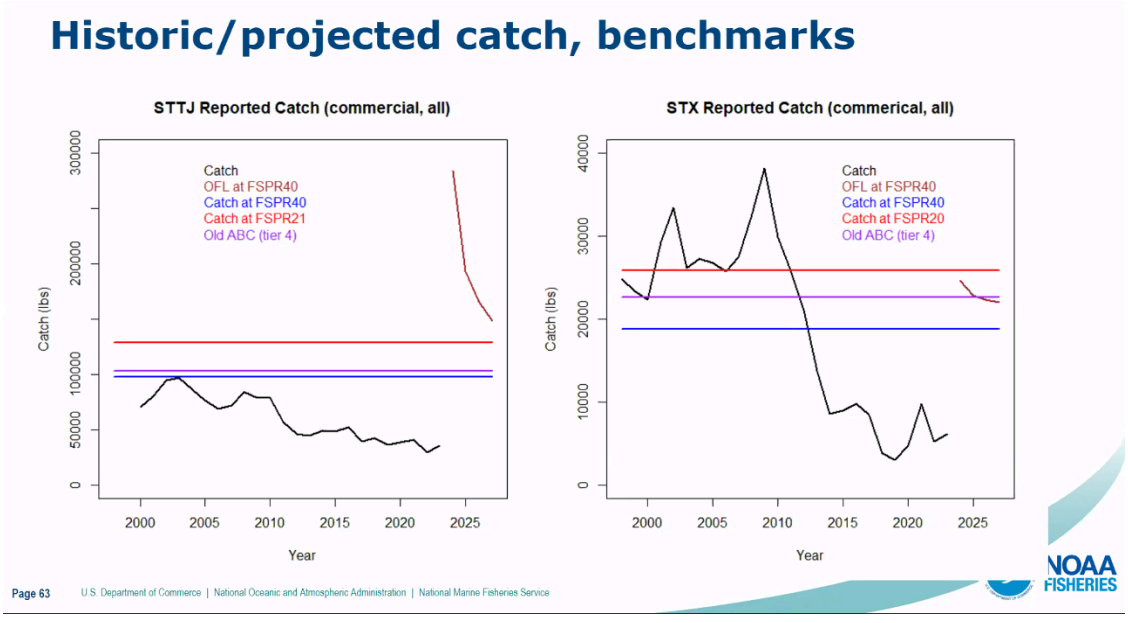
Year	OFL	% Reduction from OFL	ABC
2024	283,918	65.55	97,809
2025	193,378	49.42	97,809
2026	166,220	41.16	97,809
2027	148,223	34.01	97,809

The SSC Members have accepted the framework, the reference model, that it is highly constrained, and that there is a lot of uncertainty:

1. The general integrated modeling **framework** of Stock Synthesis 3 is an acceptable and flexible framework for the current and future application of data from Queen Triggerfish.
2. The current data, life history (both determined through previous meetings), and stock assessment (as reviewed by the SSC) represent the best scientific information available and are useful for management.
3. There are many sources of uncertainty in this **highly constrained** stock assessment that need consideration in future assessments and current discussions on setting catch limits.
4. Several issues regarding research recommendations that need strong consideration in future stock assessments.

— Discussion:

Motion: The SSC moves to accept the catch at FSPR 40 as the ABC for both St. Thomas – St. John (97,809 lbs.) and St. Croix (18,808 lbs.) for Queen Triggerfish.
Motion by: Juan Cruz Motta.
Second by: Jason Cope.
Votes: 8 yes, 1 abstention, 1 absent; by majority the motion carries.



B. Special Announcement American Fisheries Society 2024 – Matt Damiano, Organizer, Southeast Fisheries Science Center

This symposium is co-organized by members of the U.S. National Oceanic and Atmospheric Administration's (NOAA) Pacific Island Fisheries Science Center (PIFSC) and Southeast Fisheries Science Center (SEFSC) in Honolulu, Hawaii.
Objective: We propose an innovative session of full-length presentations, lightning talks, and a panel discussion that will provide a broad forum to share ongoing research, challenges, successes, and future directions in fishery-dependent data collection, scientific survey activity, community engagement, assessment science, and management of these unique island fisheries.

Link: 154th Annual Meeting of the American Fisheries Society
Deadline abstract: April 26, 2024.

For more information and details, contact Matt Damiano, at matt.damiano@noaa.gov

C. SEDAR 91 Caribbean Spiny Lobster SSC Volunteers

Link: SEDAR 91 Caribbean Spiny Lobster – SEDAR – SouthEast Data, Assessment, and Review (sedarweb.org)

The SEDAR 91 Caribbean Spiny Lobster calendar: Data Workshop (Nov. 13-15, 2024; St. Thomas), Assessment Workshop (All virtual, weeks of Jan 27, 2025, Feb 24, 2025, March 24, 2025, April 21, 2025) and Review Workshop (August 2025; Miami).

SSC Member Volunteers? 3 for Data Workshop, 3 Assessment Workshop, and 3 Review Workshop.

SSC Members to participate in the SEDAR 91: **Data Workshop:** Michelle Schärer, Jorge García, and Juan Cruz; for **Assessment Workshop**: Eric Williams, Jason Cope, and Todd Gedamke (maybe); for the **Review Workshop:** Vance Vicente (will be Chair), Walter Keithly. (see table below)

SSC Member	**Data Workshop** (Nov 13-15, 2024; St. Thomas)	**Assessment Workshop** (All virtual. 1 day of ~3-4hrs. Weeks of: Jan 27, 2025, Feb 24, 2025, March 24, 2025, April 21, 2025)	**Review Workshop** (~3 days; August 2025; Miami)
V. Vicente			X*
R. Appeldoorn			
M. Schärer	X		
J. García	X		
W. Keithly			X
J. Cruz	X		
T. Gedamke		X?	
E. Williams		X	
J. Cope		X	
T. Seara			

***Chair**

Caribbean F

D. Eighth National SCS Workshop (2024) August 26-28 in Seaport Hotel, Boston.

Link: Eighth National SCS Workshop (2024)

The topic of the National SCS is Applying Acceptable Biological Catch (ABC) Control Rules in Changing Environment.; a 15-minute talk on the use of local ecological knowledge to set reference points in ABCs.

SSC Member Volunteers? 3 Delegates and 1 Staff.

The SSC will recommend to the CFMC that the following SSC members: Vance Vicente, Juan Cruz, Todd Gedamke, and Jason Cope. (see table below)

SSC Member	Delegate	SSC Member	Delegate
V. Vicente	X	J. Cruz	X
R. Appeldoorn		T. Gedamke	X
M. Schärer		E. Williams	
J. García		J. Cope	X
W. Keithly		T. Seara	

There could be changes to the ones already selected to provide the correct expert who can provide local knowledge. Jason Cope will gladly help support as much as possible with ABC and uncertainty but he doesn't think he should be the expert to participate as he doesn't live in the region and cannot provide local knowledge.

Action Item: Juan Cruz will be giving the presentation. Juan Cruz will meet with Tarsila Seara for ideas about the presentation and then he will give a follow-up to Vance Vicente and Jason Cope for recommendations and/or insight. The SSC Committee needs to see the presentation before the Eighth National SCS Workshop.

E. Harvest control rules in a changing environment: lessons for confronting non-stationarity in the U.S. Caribbean — Matt Damiano and Kyle Shertzer, Southeast Fisheries Science Center.

In statistics, stationarity refers to a process that has a mean and variant that does not change over time, and nonstationarity occurs when you have some sort of time-dependent change in that pattern, this can be manifest in different ways. The first on the bottom left, you have a trend; a change in the mean, and an associated change in the direction of the variant, being a positive trend, the opposite is also an example of nonstationary. Other examples are a shift in the mean and a shift in the variance. These are some of the ways that, statistically, we see nonstationary manifest. These concepts are the ones we relate to environmental processes.

- Julian Magras asked to do this same thing for the Caribbean area, for the Caribbean fisheries, to see what it would look like.

This presentation will have an extended version prepared for the National SCS that will cover some additional simulation work that looks at nonstationarity in growth and survival.

The SSC Committee reviewed and discussed the presentation but took no specific action on this, rather, participated in a question-and-answer segment.

F. Revision ACL Rainbow Runner – Sarah Stephenson, Southeast Regional Office.

The Council is developing an Amendment to the Puerto Rico Fishery Management Plan, to reclassify the Rainbow Runner from a reef fish species to a pelagic fish species. At the December 2023 Council meeting, the Caribbean Fishery Management Council (Council) tasked the SSC with evaluating the need to revisit annual catch limits (ACL) for the Rainbow Runner (the main concern being that the commercial ACL may be too low), specifically, if there is any new information to consider for the species that would help in respecifying ACLs.

At this time, there is no recreational data available to compare to the recreational ACL, and thus the commercial ACL is the ACL for the rainbow runner stock in Puerto Rico.

Summary of recommendations:

1. The SSC requested to have only one ACL for Rainbow Runner.
2. Tell the Council to consider adding the Rainbow Runner to the list.
3. Have a long ACL for the Rainbow Runner.
4. Insist on the data collection for recreational fisheries.
5. Think about the potential of species that can be developed into a full-blast fishery.
6. The Council is thinking of having a workshop on ciguatoxin fish.
7. Regarding changes seen in the environment this species is seen more often than before (e.g. changes in temperature, oceanography, sargassum, and number of fisheries associated with the fishery).

G. Other Business

- Queen Conch ESA Final Listing — Orian Tzadik, Southeast Regional Office.

On February 14, 2024, NOAA Fisheries published a final listing determination to list the Queen Conch (*Aliger gigas*) as threatened under the Endangered Species Act (ESA). A threatened listing does not automatically assign protective regulations to the species, but protections are afforded under section 7 of the ESA.

Status Review of the Queen Conch had key findings on overutilization, regulations, dispensatory processes, broken connectivity, and climate change (see presentation Page 8 for more details). The key findings from the status review were used to inform the proposed listing and ultimately final listing determinations.

- Status review found that the queen conch is at moderate risk of extinction throughout its range.
- No public comments offered any new data that was outside the range of the data that was considered in the status review.

What's next?

1. Section 7 Consultations, the species will now be considered in all Section 7 consultations.
2. Protective Regulations Under Section 4(d) of the ESA: To inform our consideration of appropriate protective regulations for the species, information from the public on possible measures for their conservation will be sought. 8 in-person workshops 94 in US jurisdiction) and several virtual workshops are currently being planned to solicit stakeholder input and suggestions for effective management.
3. Critical Habitat, soliciting information on physical and biological features that may support the designation of critical habitat for queen conch within U.S. jurisdiction.

There is also a lot of science being pursued for this species (see presentation Page 11 for more details).

Reminder: NOAA Fisheries is in the process of developing the recovery plan for queen conch, giving a seminar series in Puerto Rico and on the USVI; 1) May 7, 2024, 3:00 pm – 7:00 pm at Centro Comunal Benito Ubiles, Punta Santiago, Humacao and 2) May 9, 2024, 2:00 pm – 6:00 pm at Biblioteca Municipal, Blanca Colberg Rodriguez, Calle Jose de Diego, Cabo Rojo. In the process of marking calendar dates for Florida and USVI.

After the CFMC April 23-24, 2024 meeting, there will be an update to the SSC Committee on the date of the next SSC meeting. The two-and-a-half-day public hybrid SSC Meeting was adjourned by Jorge García's motion and seconded by Michelle Schärer, without any opposition at approximately 2:10 pm, April 11, 2024.