


**Mid-Atlantic Fishery Management Council**

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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

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## MEMORANDUM

**Date:** September 25, 2020

**To:** Michael P. Luisi, Chairman, MAFMC

**From:**  Paul J. Rago, Ph.D., Chair, MAFMC Scientific and Statistical Committee

**Subject:** Report of the September 8-9, 2020 SSC meeting

The SSC met via webinar on September 8<sup>th</sup> and 9<sup>th</sup> 2020 to address the following topics: (1) update previously recommended ABC for Spiny Dogfish for 2021 and recommend ABC for 2022 and adjust for revised Council Risk Policy, (2) review previously recommended ABC for Chub Mackerel for 2021, (3) discuss potential effects of missing data for 2020 on SSC deliberations in 2021 and beyond, (4) discuss the scope of work of the socio-economic workgroup, (5) discuss a variety of topics related to wind energy development, and (6) review and comment on the Mid-Atlantic State of the Ecosystem report (Attachment 1). The SSC benefited from the opportunity to discuss several topics in detail including the wind energy presentations from BOEM, RODA, ROSA and the NEFSC.

Nineteen of the 20 of the SSC members participated in the meeting (Attachment 2). All participation was via webinar owing to travel and health concerns. Members of the public also attended the sessions, but only those who spoke are listed in Attachment 2. Technical support of Council staff, as in previous meetings was outstanding. SSC members appreciated the new web feature to obtain all of the meeting materials in a single downloadable file. <https://www.mafmc.org/ssc-meetings/2020/september-8-9>

The meeting proceeded under the usual format of an initial presentation, followed by questions from the SSC, and then members of the public. Subsequent discussions followed a similar pattern and deliberate efforts were made to ensure all attendees had an opportunity to contribute. For Spiny Dogfish and Chub Mackerel, the discussions were guided by the SSC's species leads, Yan Jiao and Gavin Fay, respectively. To ensure accurate and transparent decision making, a rapporteur (Gavin Fay) summarized the Spiny Dogfish decisions. Neither Spiny Dogfish nor Chub Mackerel required the SSC to evaluate an updated coefficient of variation for the Overfishing Limit.

I acknowledge and appreciate the contributions of all the SSC members and in particular those who contributed text to this report directly: Yan Jiao and Gavin Fay for spiny dogfish, Dave Secor for wind energy, Sarah Gaichas for providing her meeting notes, and Brandon Muffley for overall support and preparation of the Attachments. Tom Miller, Ed Houde, and John Boreman provided useful comments on an earlier draft. I also thank all of the representatives from BOEM (Brian

Hooker), RODA (Annie Hawkins), ROSA (Lyndie Hice-Dunton) and NEFSC (Wendy Gabriel, also MAFMC SSC) for their excellent presentations on wind energy development.

## Spiny Dogfish

Jason Didden began with an overview of the current specifications, a review of the previous year's data update from the NEFSC, and a summary of the Fishery Performance Report from the Advisory Panel. No data update from the Northeast Fisheries Science Center (NEFSC) was available for this meeting. The NEFSC Spring Bottom Trawl survey, a pivotal component in the assessment, was not conducted in 2020 due to COVID concerns. Spiny Dogfish specifications for 2021 will be the last year of a 3-year package. A Research Track assessment will be conducted in 2022 but those results may not be available for consideration by the SSC when it meets that year. To compensate for that time lag, staff recommended continuation of the ABC for 2021 into 2022. Application of the Council's updated risk policy increased the 2021 ABC by about 1,500 mt to 17,498 mt because the P\* (the acceptable probability of overfishing) increased from 0.296 to 0.333.

The seasonal pattern of dogfish catches in 2020 have been similar to 2019 despite initial lags due to COVID concerns. Prices have been below \$0.20/lb for the past 3 years. Weak demand, availability of processors and low trip limits (6,000 lb) constrain landings. Some AP member expressed concerns about underestimation of Spiny Dogfish abundance while others noted that stability is needed to maintain prices rather than expand markets.

Follow-up discussions by the SSC focused on utility of the partial year of data for the 2020 spring survey (first leg only), and the potential benefits of updating earlier projections with the actual catch estimates from 2019. Kathy Sosebee, Spiny Dogfish assessment lead, reported that the earlier projections for 2022, under the previous risk policy, was 20,660 mt, or roughly 3,000 mt greater than the staff recommendation for 2022. This reassured the SSC that the continuation of the 2021 quota into 2022 would not, in and of itself, pose a significant risk to the population. SSC discussions noted the importance of Spiny Dogfish as predators and potentially as prey, although relatively little is known about these predator-prey relationships. The influence of temperature and salinity on the distribution of Spiny Dogfish has been summarized in the literature but its utility for adjusting abundance estimates for availability has not been evaluated.

The SSC's responses to the terms of reference provided by the MAFMC (in italics) are as follows:

- 1. Specify a revised ABC for the 2021 fishing season based on the Council's recently approved changes to the risk policy. If revising the 2021 ABC with the new risk policy is inappropriate, specify an alternative ABC for 2021 (e.g., previous recommendation) and provide any supporting information used to make this determination;*

The SSC recommends a revision of the 2021 ABC upwards to **17,498 mt** for the 2021 fishing season, based on the Council's revised risk policy (P\* = 0.333). This recommendation agrees with the Council Staff recommendation.

The SSC notes that the estimated 2019 female biomass was above the biomass threshold, the 2019 data update indicated little evidence to suggest that stock condition has changed substantially from what was indicated in the 2018 benchmark assessment, and there are no biomass or trend updates for 2020 because the NEFSC spring trawl survey was not conducted in 2020.

- 2. Specify an ABC for the 2022 fishing season the SSC deems most appropriate with the information given;*

The SSC recommends a 2021 ABC of **17,498 mt** extend to the 2022 fishing year.

A research track assessment for Spiny Dogfish is planned for March 2022, that will reveal new scientific information about the status of the stock.

The SSC is concerned about the uncertainty caused by the lack of the 2020 NEFSC spring trawl survey and reliance on the longer-term projection from the 2018 assessment. However, based on the stock projection from the 2018 benchmark assessment the SSB is expected to continue to increase given the estimated MSY proxy level. Slow growth, late age of maturity, low fecundity, and high age of recruitment create inertia in the stock dynamics and therefore reduce interannual fluctuations in forecasts. Coupled with the way the index information is used in the assessment, reliance on a projection may then be less sensitive for Spiny Dogfish than for some other stocks. If index data from the 2021 NEFSC spring trawl survey becomes available these could provide an opportunity for revision if needed.

- 3. Provide any relevant data and/or assessment considerations for the 2022 research track assessment.*

The SSC agrees with the recommendations from the 2018 assessment, with some revision to recommendations 4 and 7.

1. Revise the assessment model to investigate the effects of stock structure, distribution, sex ratio, and size of pups on birth rate and first year survival of pups.
2. Explore model-based methods to derive survey indices for Spiny Dogfish.
3. Consider development of a state-space assessment model.
4. Compile and examine the available data from large scale (international) tagging programs, including conventional external tags, data storage tags, and satellite pop-up tags, and evaluate their use for clarifying movement patterns and migration rates.
5. Investigate the distribution of Spiny Dogfish beyond the depth range of current NEFSC trawl surveys, possibly by using experimental research or supplemental surveys.
6. Continue aging studies for Spiny Dogfish age structures (e.g., fins, spines) obtained from all sampling programs (include additional age validation and age structure exchanges), and conduct an aging workshop for Spiny Dogfish, encouraging participation by NEFSC, Canada DFO, other interested state agencies, academia, and other international investigators with an interest in dogfish aging (US and Canada Pacific Coast, ICES).
7. Evaluate the ecosystem context of Spiny Dogfish including quantifying their role as predator and prey, and effects of climatic factors such as changes in temperature and salinity on the distribution, growth and survival, as they impact both population dynamics and reference points.