



Mid-Atlantic Fishery Management Council

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MEMORANDUM

Date: September 19, 2022
To: Spiny Dogfish Committee
From: Jason Didden, Council staff
Subject: Spiny Dogfish Specifications

A Spiny Dogfish Monitoring Committee (MC) meeting summary follows this cover memo. The MC summary provides several options for management uncertainty buffers as part of the 2023 specifications. The primary source of catch uncertainty is the level of 2023 discards.

The management uncertainty buffers address whether the fishery might exceed its Annual Catch Limit (ACL). Exceeding the ACL could negatively impact the stock and 2023 overages would most likely be repaid in 2025. The preliminary signals coming out of the ongoing research track assessment suggest to staff that 2025 catch limits will not likely be higher to absorb overage repayments.

Staff weighed the concerns regarding negatively impacting the spiny dogfish stock and/or the 2025 fishery. Industry members on the MC indicated that 2023 quotas lower than 12 million pounds may mean that there will be no remaining fishery infrastructure to even worry about affecting in 2025.

Given the considerable uncertainty in the discard specification for 2023 and the input from industry, staff recommends a 5% uncertainty buffer as described in the MC summary. If assessment developments warrant additional concern in late 2022 upon conclusion of the research track assessment, or in mid-2023 after the management track assessment, the Council could request emergency action at that time if deemed appropriate.

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Spiny Dogfish Monitoring Committee Meeting (MC) Summary

September 16, 2022

Webinar

The Mid-Atlantic Fishery Management Council's (Council) Spiny Dogfish Monitoring Committee (MC) met on September 16, 2022 to develop recommendations regarding 2023 spiny dogfish specifications.

Monitoring Committee Attendees: Jason Didden, Cynthia Ferrio, Nichola Meserve, Dvora Hart, John Whiteside, Scott MacDonald, and Chris Kellogg (left early) (7 of 10).

Other Attendees: Mark Alexander, Daniel Salerno, Jesse Hornstein, Kris Winiarski, and James Fletcher.

Staff reviewed the binding 2023 spiny dogfish Acceptable Biological Catch (ABC) recommendation from the Council's Scientific and Statistical Committee (SSC): 7,788 MT. Noting the uncertainty and challenge of setting ABCs without assessments, the SSC used the approximately 40% decline from the 2016/17/18 Northeast Fisheries Science Center spring trawl survey index average to the subsequent 2021/2022 average (no survey in 2020 due to COVID) to scale what would have been the 2019 ABC under the current risk policy [12,978 metric tons (MT)] down to a 2023 ABC of 7,788 MT. A 40% decline over the survey years' midpoints equates to about an 11% decline in the stock each year over this 4.5-year period.

A research track assessment is scheduled for peer review for December 2022 with a management track assessment scheduled for 2023 to determine stock status and future ABCs. The preliminary indications of the assessment suggest the stock has been in decline and has been less productive recently. While the MC noted this preliminary information as background, the MC also voiced caution regarding basing decisions on preliminary assessment outputs.

The current charge of the MC is to make appropriately justified recommendations on measures that ensure that the annual catch limit (ACL) is not exceeded, i.e., to address management uncertainty (not the scientific uncertainty addressed by the SSC). Staff noted the only way to completely ensure no ACL overages would be to essentially close the fishery, but the general approach has been to recommend measures that seem reasonably likely to adhere to the ACL, and to explain the potential risks of overages. Besides potential harm to the stock, a key risk of exceeding the ACL is that overages trigger paybacks. Any 2023 overages are likely to be deducted from the 2025 fishery's ACL. If ABCs are higher in 2025 than 2023, paybacks have less impact. However, if ABCs are even lower in 2025, paybacks have even more impact. The management uncertainty buffer provides more assurance that the ACL is not exceeded, or at least not exceeded by as much as would occur without some buffer.

Given recent trends, the MC agreed that setting aside 37 MT for Canadian landings (= 2019 estimate) and 214 MT for U.S. recreational landings (= 2021 estimate) should be sufficient.

Canadian landings have been low since 2009. Based on the last 20 years of U.S. recreational landings, occasional landings above 200 MT are usually followed by similar or lower landings two years later (i.e. 2021 to 2023) and recreational landings have usually been lower than 200 MT. Setting aside 214 MT for 2023 recreational landings will likely provide some inherent buffering, as opposed to the three-year (2019–2021) average of 129 MT as was discussed as a possible alternative.

Discussion then turned to an appropriate amount to set aside for discards, the primary specification that could lead to overages. Staff noted analyses done for the SSC that indicated annual *trawl fishery spiny dogfish observed catch rates* (i.e., observer data of trawl fishing) seem to closely track the NEFSC spring index (<https://www.mafmc.org/s/Spiny-dogfish-trawl-observer-data-analysis.pdf>). Exploratory trawl catch per unit of effort (CPUE) analyses for the research track assessment also align with the staff analysis, and suggest further catch rate declines after 2019 into 2021. (The staff analyses stop in 2019 due to COVID-related issues with the observer program, but the CPUE analyses for the assessment also integrate study fleet data which were not as impacted by COVID.) With most dead discards occurring incidentally in trawl fisheries in recent years, these lines of evidence suggested to staff that if spiny dogfish biomass is actually declining, discards should also go down. The 2016-2018 dead discard average equaled 3,479 MT. Reducing that amount by the same 40% as the SSC used results in a 2023 discard set aside of 2,088 MT. The MC settled on 2,088 MT of discards for 2023 being a reasonable approach, though also discussed a proposal by John Whiteside that would have scaled discards down more, to 1,816 MT based in the 55.5% reduction between the 2022 and 2023 ABCs. Part of obtaining consensus on this discard set-aside was noting that other approaches could have resulted in lower discard set-asides, potentially creating some buffering via the agreed-upon discard set-aside, which some MC members noted should be considered in discussion of a management uncertainty buffer. While this approach seems reasonable given the available information, 2,088 MT involves substantial uncertainty and would be less discards than estimated for any time in the time series being considered in the current research track assessment (1989-2019). A management uncertainty buffer, discussed next, could guard against this discard projection uncertainty causing an ACL overage if realized discards are higher.

Regarding an appropriate management uncertainty buffer, the primary concern communicated by staff is that if the fishery catches its quota and the recreational landings projection is accurate, then any underestimate of discards is likely to force paybacks in 2025. For example, if 2,088 MT are set aside for discards without any management uncertainty buffer and 4,088 MT ends up as the 2023 discard estimate, then 2,000 MT (4.4 million pounds) would have to be paid back in 2025 (assuming the other catches occur as predicted). If the base quota in 2025 is even lower than 2023, then any paybacks may be even more impactful.

The ex-officio industry MC members recommended no management uncertainty buffer because the ABC is already accounting for substantial precaution and quotas lower than 12 million pounds would threaten the survival of the last remaining processor, the survival of the industry, and related infrastructure. They indicated the fishery is already hanging on by a thread. While the danger of paybacks in 2025 was acknowledged, the focus was on allowing the industry to survive at least through the 2023 fishing year. It was also noted that state/regional allocations/quotas will cause logistical challenges for fully landing a 12-million-pound (or similarly low) quota because of the needed contortions for interstate transfers and states'

hesitancy to transfer quota early in the fishing year. For example, the fishery was constrained by state quotas in 2019 and ended up about 1.4 million pounds below the coastwide quota largely due to transfer challenges according to the industry MC members. It was also noted that while some increase in vessel interest is beginning due to the higher 7,500-pound trip limit (as of May 1, 2022), in Virginia a substantial component of relevant fleet travels there for fishing, and they won't be convinced to travel for a small quota. Overall, the industry MC members concluded these issues will create enough of a *de facto* buffer against any uncertainty in discards and that the imminent risk to the fishery from quotas below 12 million justifies accepting some possible risk for 2025 paybacks (otherwise there won't be a fishery around to worry about in 2025).

Other MC members (i.e., not John Whiteside or Scott McDonald) focused on the risk of underestimating 2023 discards and causing paybacks in 2025. Staff noted that buffering by 18% (holding back about the amount of the proposed discard reduction from the 2016-2018 average) would likely mitigate the potential for at least large paybacks. However, the MC concluded that, if the approaches justifying a lower presumed 2023 discard value are reasonable, it doesn't seem appropriate to then just set the same amount aside as a buffer. The issue is really "now risk" versus "later risk" and depends on the Councils' risk tolerances. The MC struggled with a particular amount to recommend given all the various factors, including immediate survival of the industry, the relatively high amount set aside for recreational landings, and the state apportionment and transfer issue described above.

The MC could not come up with a particular recommendation, but agreed that discards are the key source of uncertainty in terms of risk of exceeding the ACL in 2023 and triggering paybacks. It was noted that a 13% buffer would create about 1,000 MT (2.2 million pounds) of buffer, which would cover about a 50% higher realized discard estimate for 2023. The MC also noted that a 5% buffer would be nearly a million pounds, and if a similar landings quota underage as 2019 occurred (1.4 million pounds), the combined effects would be roughly equivalent to a 13% uncertainty buffer scenario (if all landings occurred with the 13% scenario). See Table 1 below for the 2023 specifications resulting from the range of management uncertainty buffers discussed (0%, 5%, 13%, and 18%).

The MC did not delve into the trip limit issue, but noted that the Councils have been planning for a potential action to consider trip limit modifications once the assessment results are available.

The MC also noted that potential gear restriction actions related to mitigating risks for protected resources (e.g., sturgeon) are likely for 2023, and warrant tracking by interested parties.

Table 1. 2023 Specification Options with Different Management Uncertainty Buffers

Specifications	2023		2023		2023		2023	
	mil pounds	metric tons	mil pounds	metric tons	mil pounds	metric tons	mil pounds	metric tons
OFL (from SSC)	na	na	na	na	na	na	na	na
ABC (from SSC)	17.2	7,788	17.2	7,788	17.2	7,788	17.2	7,788
Canadian Landings	0.1	37	0.1	37	0.1	37	0.1	37
Domestic ABC	17.1	7,751	17.1	7,751	17.1	7,751	17.1	7,751
ACL = ABC	17.1	7,751	17.1	7,751	17.1	7,751	17.1	7,751
Mgmt Uncert Buffer	0%	0%	5%	5%	13%	13%	18%	18%
Amount of buffer	0	0	0.9	388	2.2	1,008	3.1	1,395
ACT (minus buffer)	17.1	7,751	16.2	7,363	14.9	6,743	14.0	6,356
U.S. Discards	4.6	2,088	4.6	2,088	4.6	2,088	4.6	2,088
TAL (minus discards)	12.5	5,663	11.6	5,275	10.3	4,655	9.4	4,268
U.S. Rec Landings	0.5	214	0.5	214	0.5	214	0.5	214
Com Quota (Minus Rec)	12.0	5,449	11.2	5,061	9.8	4,441	8.9	4,054
Rationale for Management Uncertainty Buffer	No buffer: other buffers effectively built in; concern that further reduced quota will collapse infrastructure.		Some explicit buffer included (discard uncertainty primary concern); other factors will limit landings below the specified quota.		A 13% buffer could absorb a realized 2023 discard estimate that is 50% higher than specified even if other specified catches occur.		An 18% buffer fully offsets the reduction in specified discards; least likely to result in large 2023 overages and large 2025 paybacks if discards don't decrease as predicted.	

Public comments

J. Fletcher: The real issue is the collection of the science or entering of the data and using bad data to set the ABC. Staff noted that one of two scenarios must be true given the quotas have not been exceeded: either the science is wrong now, or the science was wrong in recent years when those quotas were set.

D Salerno: While we may see higher discard rates than projected, effort and trawl landings may be reduced.