



New England Fishery Management Council

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MEETING SUMMARY

Northeast Skate Complex Plan Development Team

Four Points Hotel, Wakefield, MA

February 17, 2023

The Northeast Skate Complex Plan Development Team (Skate PDT) met on February 17, 2023, in Wakefield, MA to discuss the 2023 Skate Management Track Assessment, thorny skate research and rebuilding plan, and the 2024-2025 Skate Specifications.

MEETING ATTENDANCE

Dr. Rachel Feeney (PDT Chair) and Connor Buckley (Council staff); Cynthia Ferrio, Ashleigh McCord and Kris Winiarski (GARFO); Kathy Sosebee and Samantha Werner (NEFSC); Eric Schneider (RIDEM), and Scott Olszewski (Skate Committee Chair)

Members of the public included Dr. Jeff Kneebone (Anderson Cabot Center for Ocean Life, New England Aquarium), Patrick Duckworth (skate fisherman, Rhode Island) and Aubrey Church (Cape Cod Commercial Fishermen's Alliance).

2023 TIMELINE AND UPDATES

The PDT briefly reviewed the timeline of 2023 work items. The Skate Advisory Panel and Committee are meeting on March 22. The PDT will next meet after the April 2023 Council meeting.

METHODS FOR FISHERY CATCH SETTING, MONITORING AND ACCOUNTING

The PDT reviewed the agreed upon changes to tracking catch through in-season quota monitoring and year end accounting, and to specification setting.

The PDT also discussed the challenges of tracking catch reported solely via Vessel Trip Reports (VTR; e.g., vessel-to-vessel transfers, bait, home consumption) and how this will be captured by the Catch Accounting and Monitoring System (CAMS) and included in the catch accounting process. Landings reported solely via VTR contribute to the landings monitored in-season against the Total Allowable Landings (TAL) and can trigger accountability measures. Discerning the veracity of these landings is challenging, and the PDT agreed that additional QA/QC will be necessary to validate these data and ensure that all sources of catch are accounted for in year-end quota monitoring. GARFO staff acknowledges this problem and will follow up with further information. The PDT agreed that unifying discard estimate methods between GARFO and NEFSC remains a more pressing issue than addressing VTR-only catch.

Next Steps:

- Winiarski and Werner – consider further the challenges with ensuring VTR-only reported landings are actual landings and how to best track this source of catch.

2023 SKATE MANAGEMENT TRACK ASSESSMENT

NEFSC staff outlined the proposed updates to the assessment, which will likely be a Level 2 assessment (to be determined by the Assessment Oversight Panel, AOP) with additional data limited to the inclusion of recreational skate catch time series in the ABC calculations. Given sufficient time, NEFSC staff will also try to include a method for addressing landings of thorny skate in the ABC calculations, which was a previous recommendation of the SSC.

Updating the long-term time series that maximum sustainable yield estimates are based on would be unlikely to substantially affect the current biomass estimates and was judged by NEFSC staff to not be necessary. This topic will be raised at the AOP meeting, and the PDT agreed that it would be important to use this assessment to revisit the use of B_{MSY} proxies as a method of skate management.

The Index-Based Methods Working Group examined the Skate Method for determining the acceptable biological catch. While it was not one of the better performing methods, it appears to continue to be successful at maintaining stocks already at B_{MSY} (6 of 7 skate species are currently near B_{MSY}). NEFSC staff will be including the results of this work in their presentation at the Stock Assessment Peer Review in September.

THORNY SKATE REBUILDING – CONVERSATION WITH GUEST SCIENTIST

The PDT invited Dr. Jeff Kneebone (Anderson Cabot Center for Ocean Life, New England Aquarium) to speak on several recent research projects relevant to rebuilding thorny skate.

Movement patterns:

Kneebone *et al.* (2020) used a combination of conventional tags and pop-up satellite tags on thorny skates in the Gulf of Maine to track individual movement across time as it related to depth and temperature. There was little evidence of inshore/offshore movement, only localized movement. Dr. Kneebone remarked that the species is incredibly sedentary, and anecdotally the largest skates were found on Caches Ledge, suggesting that closures may be a helpful tool. Thorny skates in the eastern GOM have a narrower thermal range than in the western GOM, and water temperatures are much higher than further north in their northwestern Atlantic range. These results show concrete evidence of a contraction to the western GOM that is at odds with a predicted contraction to colder deeper waters (Hare *et al.* 2016). Potentially, year-round warmer water temperatures (5-9°C) in the eastern GOM are less favorable for thorny skates than the larger swing (3-12°C) in the western GOM. Flooding of the eastern GOM by the Gulf Stream (warmer and more saline water) is a suspected cause of why that region is less hospitable.

Population genetics (Preliminary):

Using mitochondrial genome sequencing, this study is investigating potential genetic differences across the entire thorny skate range (northwest Atlantic to the Arctic), as well as potential genetic differences between the small and large reproductive morphs of thorny skate documented in the Gulf of Maine. The results of the study will be available in the upcoming paper by Kneebone *et al.*

Discard mortality:

Knotek *et al.* (2019) used pop-up satellite tags to estimate long-term (greater than 72 hour) discard mortality of thorny skate. Additionally, specific factors that influence discard mortality such as length, condition, tow length, and handling were considered. Length was the greatest predictor of mortality (16.5 – 24.5% DM), with skates longer than 70 cm being hardier than smaller skates. An earlier study by Mandelman *et al.* (2013) showed that 23-24% DM is generally appropriate and had been used to revise the discard mortality assumption for thorny skate in trawl gear. The more recent study confirmed the earlier results.

Bycatch hotspots (Preliminary):

This study is mining existing fishery-dependent and independent data to forecast areas of high interaction between fisheries and thorny skate across gear type, level of fishing effort, and thorny skate biomass. The results of the study will be available in the upcoming paper by Knotek *et al.*

THORNY SKATE REBUILDING – WHITE PAPER

The PDT reviewed a draft white paper provided by staff describing the current relevant research on thorny skate and potential approaches to addressing the lack of progress in the rebuilding plan. It was clarified by GARFO staff that if a rebuilding plan is not met, the plan is reviewed (by Council or GARFO), the reasons for failure are evaluated, and a new rebuilding plan is established.

The PDT discussed changing the designation of the species from “overfished” to ‘depleted’. This would be an action taken by NOAA and not related to the timing of the rebuilding plan. While not affecting the rebuilding status of the species, it would likely signal that fishing pressure is not the main cause of the low stock status. Removing the species from the Northeast Skate Complex FMP would allow for more flexibility in management of the other species in the complex, but the management authority for thorny skate were this to happen needs to be clarified. There could be a separate FMP for thorny skate. The time series of data that the status of thorny skates is based on could be shifted to functionally ignore historic biomass estimates. However, the PDT cautions against shifting the baseline and potentially opening the species to fishing.

The PDT agreed that the white paper contained the relevant literature and background information and that the white paper should be refined in preparation for the Skate Committee meeting on March 22.

Next Steps:

- Ferrio - investigate further the benefits and consequences for removing thorny skate from the Skate FMP.
- Buckley - revise white paper with PDT input to distribute to Skate Committee for the March 22 meeting

2024-2025 SKATE SPECIFICATIONS ACTION

The PDT reviewed the Draft 2023 Action Plan for 2024-2025 Skate specifications and the specification setting formula. The required NEPA document will likely be a Supplemental Information Report or an Environmental Assessment. This will depend in part on information received in the assessment, as well as whether changes are made (e.g., expanding Barndoor/Smooth skate possession) that were not considered in the prior Environmental Assessment. Updates to the specification setting process were noted to be:

1. CAMS will be used to supply discard estimates for the discard deduction.
2. The state landings deduction will be included using the updated definition (landings without a federal skate permit on day of landing), and by calendar year instead of fishing year to align with other catch.
3. The new deduction for recreational catch will be included using the most recent 3-calendar years.

Recreational Catch

Council staff shared further information about recreational catch of skates to address questions the Council had previously asked regarding the sources of this catch, whether recreational effort is targeting skates, and how reliable the MRIP estimates are. Recreational skate catch is mainly coming from New Jersey and New York, as well as Massachusetts and Virginia, and is coming from Private/For-Hire vessels fishing in inland saltwater bodies or near-shore (< 3 miles) waters, with a consistent amount caught by shore-fishing. There was no evidence of a targeted fishery for skates and catch appears to be incidental and mostly discarded. Species identification remained highly uncertain, with most skates

reported as ‘Skate, Unidentified’ or ‘Raja’. Overall, recreational catch of skates appeared to be decreasing substantially from a peak in 2007. Estimates of catch are highly uncertain, especially when broken down to reporting by state or mode (PSE > 50%). Estimates of recreational skate catch by species aggregated across the Atlantic coast show were still highly uncertain. The PDT was interested to know how the skate PSEs compare to those of species that are more targeted by the recreational fishery (e.g., cod, haddock).

The PDT discussed exploring a new discard mortality rate assumption for the recreational fishery as the assumed 50% DM is likely far higher than the true value, and that discards make up most of the catch. The Skate Committee Chair raised that the Committee may have concerns about including a recreational deduction given the unreliability of the data. Addressing the discrepancy between the apparent downward trend in recreational skate catch with the previously reported increasing trend, the PDT noted that a change in MRIP catch estimation methodology may be in part responsible, and that closer attention should be paid going forward on tracking this source of catch.

Next Steps:

- Buckley - Prepare a PDT memo for the Skate Committee meeting on March 22. Ask groundfish staff how PSEs for recreational catch of groundfish compare and add that to the memo for context.

Possession Limits:

The PDT reviewed current possession limits, as the AP/CTE will be discussing potential revisions to these limits in response to industry feedback. The PDT was not against increasing possession limits, as the percentage of TAL achieved has been low the last few years, but it was noted that having the assessment outcomes and industry input would be helpful.

Barndoor Skate

The PDT discussed the current limit on barndoor skate in the wing fishery and whether there is merit to loosening the restriction at this time. Patrick Duckworth commented that there is significant interest within the fishery in separating the barndoor possession limit from winter skates, as well as changing the trip limit to a daily possession limit. The PDT discussed potential options, such as:

1. Creating a sub-TAL for barndoor,
2. Keeping barndoor within the current TAL but removing its 25% limit, or
3. Keeping the 25% limit for barndoor but increasing the overall possession limit.

GARFO staff commented that possession limits may be changed through a specification action, but creating a sub-TAL would require a framework adjustment action. When the 25% limit for barndoor possession was enacted, there was concern about potential high grading. It appears that this has not been an issue, but the matter should be discussed further. The PDT felt that it would be important to wait until the results of the assessment are known before making a final recommendation.

Smooth Skate

Smooth skate was rebuilt in 2018, but currently no possession is allowed in the Gulf of Maine. The PDT discussed the potential for allowing possession of the species. As this is a smaller skate, it would likely be for the bait fishery. It was noted that a deep-water bait fishery in the GOM may not be feasible. The PDT felt it important to wait for the results of the assessment but concluded that allowing possession of the species would likely be beneficial for the fishery by turning the few smooth skate discards into landings.

Next Steps:

- Ferrio– Confirm options about what changes in barndoor possession would be possible within a specification action
- Sosebee – Update table of skate discards by species.
- All – Review Action Plan and let Feeny know if revisions are needed.

With no other business, the meeting adjourned at 3:20 PM.

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