NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
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Scallop Plan Team

REPORT

April 6, 2026

Virtual Meeting

Committee Members in attendance:

Tyler Jackson (ADF&G, Co-chair)
Anita Kroska (NPFMC, Co-chair/Coordinator)
Scott Miller (NMFS-SF)
Ryan Burt (ADF&G)

Introductions, Council updates

The 2026 Scallop Plan Team (SPT) meeting was held on April 6, 2026 online via Zoom. All meeting materials and connection information were posted to the SPT eAgenda. Due to increased security, Council Plan Team and Committee meetings now require Zoom registration. This meeting included the first full SAFE Report since 2024 after Scallop FMP Amendment 18 went into effect. Former SPT member, Skylar Bayer (formerly NOAA-HCD), moved on to a different position at UAS, therefore decreasing SPT membership in the interim.

2025 ADF&G Dredge Survey Results, 2026 Survey Plan

Ryan Burt (ADF&G) provided a presentation covering the 2025 Scallop Dredge Survey. This survey covered beds in the Cook Inlet and Kodiak areas. The survey has been expanded since 2016 from Cook Inlet and Prince Willian Sound to include Kodiak, Shelikof, Northeast districts as well as the Yakutat District. The survey now rotates from year to year between Kodiak/Cook Inlet and Yakutat/Kayak Island.

The presentation covered scallop abundance and biomass, shell height, meat weight biomass, gonad condition, shell infections, and meat conditions as well as an update of plans for the 2026 survey. There are 530 active stations and the survey randomly sampled 50 stations in Kamishak Bay, 45 in Shelikof, and 83 in the Northeast district for a total of 178 stations sampled. The survey has a 33% sampling rate overall. The Survey is based on historic fishing locations from 1996-2014.

A Fishing Log and the Dredgemaster sensor is used as well as a standardized 12-degree angle and 15-minute tow and map track lines using ECC Globe software. Environmental data including conductivity, temperature and depth is collected at 33 subsampling sites. The catch sampling method involves sorting sizes above and below 100 mm and taking a species composition subsample of bycatch to assess count and weight. Natural mortality of scallops is

also assessed for clappers and predators. For size composition assessment, 20 individual scallops, 10 from each size category, were randomly selected and shucked to assess biological metrics.

Survey results show that overall abundance of exploitable scallops (large) increased in Kamishak Bay, Shelikof, but decreased in the Northeast District, while the overall abundance of small scallops decreased in all districts. Meat weight biomass, which is 10 percent of round weight, increased in Kamishak Bay and Bed KNE3 but decreases elsewhere. Meat weight and round weight are largely coupled across beds. Also, shell height to meat weight relationships are similar to what was observed in previous surveys in these areas. It was also noted that shell height to meat weight ratios differ by survey timing. For example, in the 2019 Kamishak Bay survey meat weight to shell height ratios were found to be considerably larger than in previous surveys; however, that survey was done in September and October of 2019 versus spring surveys in other years. Survey timing will affect meat to shell height ratios.

Scallop gonad conditions are sampled to monitor reproductive timing. Sampled gonads are assessed for growth and rated from immature to full condition. Scallops with no gonad present are assumed to be indicative of a recent spawning. Overall results show that scallops in all areas appear to be in similar stages of gonad development relative to each other. Gonad development affects meat weight of exploitable scallops, as the scallops sacrifice meat weight to produce the gonads. Defining this relationship has become an increasing priority with a move towards a population model that attempts to translate individual biomass to meat weight biomass that can then be used to manage the fishery. One interesting survey result is that there were no full gonads observed in the 2025 surveys, likely due to the survey occurring early in the gonad development cycle.

The survey also assesses the presence and severity of shell infections caused by borers and parasites. In the past the terminology used was shell works and mud blisters but these conditions are now treated as shell infections and the state of progression of the pathogens is assessed in the survey. Overall, rates of infection in all sampled beds have been very low with the majority of scallops experiencing either mild or no effect at all.

Scallops sampled are also assessed for meat conditions. Weak meats (that tear or rip when shucking) have been an issue in some areas in the past. This survey, no weak meats in small scallops were found, and there was low incidence in most beds for large scallops except in the Shelikof and Kamishak North beds. Weak meats are a stress indicator but it is not known why these two beds are experiencing weak meats but it is noted that these Cook Inlet beds are also experiencing a higher rate of shell infections than other beds.

The survey Plan for 2026 is to survey Kayak Island and Yakutat beds. The survey cruise will last for 18 days but there are usually weather days that limit sampling. The survey plan, based on past survey results, is to survey an average of 14 stations per day within the survey grids and to randomly survey for oceanographic conditions.

2025-26 Statewide Fishery Performance

Tyler Jackson (ADF&G, Kodiak) provided a recap of the 2025/26 scallop fishery and proposed biological reference points for the next assessment cycle. The 2025/26 scallop fishery was open in the Bering Sea registration area (7,500 lb), Dutch Harbor registration area (10,000 lb), Alaska peninsula registration area (15,000 lb), Northeast district (40,000 lb), Shelikof district (100,000 lb), Southwest district (35,000 lb), Southeast district (15,000 lb), and Semidi district (Exploratory) of the Kodiak registration area, West Kayak subsection of the Prince William Sound registration area (7,200 lb) , and Yakutat registration area (145,000 lb). Guideline harvest levels (GHLs) were met in all areas except the Alaska Peninsula, Dutch Harbor, and Kodiak Southwest. The fleet stopped fishing in Kodiak Southwest and Dutch Harbor prior to meeting GHLs due to poor CPUE and meat quality. Meat weight CPUE increased in the Bering Sea, Alaska Peninsula, and Yakutat while all other areas slightly decreased. Jim Stone (AWS) noted that the fleet has been seeing the Bering Sea and Alaska Peninsula beds start to bounce back with larger catches and improved meat quality. Fishing performance during the 2024/25 season was discussed at the 2025 scallop plan team meeting: 2025 SPT Report.

Overfishing Determination, Stock Status 2025-26

The 2024/25 and 2025/26 OFL was 1.284 mil lb and the ABC was 1.156 mil lb shucked meats. Combined total fishery mortality was 285,696 lb in 2024/25 and 327,377 in 2025/26. Overfishing did not occur during either season. In lieu of a stock biomass estimates, status relative to overfished remains 'unknown'. **The SPT recommended continuing with the OFL prescribed in the FMP of 1.284 mil lb for the next cycle**. Tyler discussed potential for setting a lower ABC to account for high uncertainty in the reproductive capacity of the stock given current catch limits are much reduced relative to the 1990 – 1997 reference period that serves as the basis for optimum yield. The SPT agreed that a larger buffer would be arbitrary and that if it were based on a new reference period of catch, then it should also be applied to the OFL. **Therefore, the SPT recommended a 10% ABC buffer in keeping with the maximum ABC control rule (ABC = 1.156 mil lb)**. Despite biological reference points being large enough to warrant conservation concern, the joint federal-state management system acts as its own buffer since ADF&G tends to manage the stock much more conservatively.

Amendment 18 allows for setting harvest specifications for up to three years. The last assessment was in 2024 and the SPT recommended a biennial cycle. Given recent progress, a size-structured, model-based assessment could be viable after the current cycle. **The SPT recommended a triennial year cycle to provide more time for new survey data, model diagnosis, and development of a harvest control rule. The OFL (1.284 mil lb) and ABC (1.156 mil lb) will be established for 2026/27 – 2028/29**. The SPT also recommended that assessment frequency be revisited should a model-based assessment be adopted in 2029.

Socioeconomic Update

Scott Miller (NOAA) presented the 2024 version of the socioeconomic report to review uses and potential changes for a report this cycle. The socioeconomic report provides an update of available economic information to identify factors that have contributed to major changes in the Alaska scallop fishery over time. The last iteration of the Socioeconomic Considerations Appendix was two years ago (so the data is from three years ago). It retains the history of the fishery, fishery participation, catch and revenue as well as economic performance since the implementation of the License Limitation Program (LLP). There were not a lot of recent changes to note except that some license ownerships have changed since the implementation of the LLP, and more recently, the consolidation of most of the licenses into the Alaska Scallop Cooperative by joint ownership.

Scott then described Table A2.1, which shows historical fishing effort, catch and economic values and that the fishery has been extremely stable. He noted that since the fishing fleet has dropped to under three vessels, the Alaska Department of Revenue is keeping the revenue information confidential, but Jim Stone (with the Alaska Scallop Cooperative) usually provides the information as a courtesy. Scott expects the value of recent fisheries to be very similar to what it has been in the past, with a wholesale value of between $3.5 to $4 million dollars overall. Scott then recommended to pare down the information in table A2.1 to reduce the amount of historical data and present only the data since the inception of the LLP and formation of the Alaska Scallop Cooperative going forward. The historical information exists in past Weathervane scallop SAFE reports and can be incorporated by reference. The SPT agreed that information could be reduced as long as past documents are referenced.

Scott reviewed the section on economic performance and stated that this section was created in response to questions and comments from the SSC during a time when the former limited entry program sunset and the Alaska legislature came up with a new state waters fishery management plan. Since its inception, one entity has registered to fish state waters, but never actually fished. Again, the historical information exists in past Weathervane scallop SAFE reports and can be incorporated by reference.

Scott then transitioned to table A2.2 – Scallop Landings by Port. Weathervane scallops are currently all processed at sea and the product that's delivered is as a first wholesale value. ADF&G provided port of landings data in the past and recently, most landings have occurred in Kodiak with a few in Yakutat. The SSC wanted to see the historical data because there were multiple communities involved in this fishery including Sitka, Seward, Homer, Cordova, Dutch Harbor and Bellingham. However, the fleet is now based in Kodiak, so most deliveries occur in Kodiak, where some of the product is held by the cooperative for sale over the year as they get orders.

Scott then described License Limitation Program permit ownership, consolidation, current participation and the changes that have occurred. He referenced table A2.4 and noted that there are currently 9 valid licenses and pointed out two current errors in the table – LLP 003 is now

owned by Arctic Hunter and LLP 004 is now owned by Provider. The SPT agreed that this reporting could also be consolidated as Scott deemed appropriate.

Scott described difficulty in accessing information on current scallop market conditions. Unfortunately, a lot of scallop market data and our international import data used to be maintained in a local, web presence, but now since the market data was transitioned to a national portal, it no longer includes scallops. Scott has submitted queries to the international trade people to try to find out why the scallop data is not available in that portal. This situation makes it difficult to obtain information on the Atlantic Sea Scallop fishery value in pounds. It can be gleaned from IntraFish and Seafoodnews (two seafood and aquaculture news sources) or from news articles. However, instead of replicating table A2.8 and figures, Scott proposed to include a brief discussion of the relationships of landings and values between Alaska scallop and Atlantic Sea Scallop fisheries. Scott suggested providing a summary from news and other sources instead of replicating this whole section because, as noted above, the information could be incorporated by reference, and it would be more relevant to start from 2010.

The SPT requested that Scott consider exploring how to qualitatively describe vessel portfolio diversification, and whether vessels that fish for scallops also fish for other targets. Scott and other SPT members did not see any concerns or issues with a potential extension in assessment cycle timing for reporting socioeconomic information on a three year timeline, exogenous markets aside.

Status of Assessment Development

Tyler presented progress in development of a size-structured population dynamics model for scallop using the GMACS framework (Appendix A). The need for model simplicity was emphasized since ADF&G and the SPT does not have the capacity to track area specific model complexities across the range of stock. The model used a combination of catch-at-size data from the directed fishery and ADF&G dredge survey from the Shelikof (KSH) and Northeast (KNE) districts of the Kodiak management area, the West (WKI) and East (EKI) Kayak Island subsections of the Prince William Sound management area, and the Yakutat management area (YAK). KSH, KNE, and YAK models started in 1990, while WKI and EKI models started in 1997. Size structure included 10 mm size bins ranging from 41 – 160+ mm shell height. Tyler noted that it may be simpler to reduce the number of size bins, though high resolution shell composition and growth data are available and it would be easier to diagnose model misspecification with more refined size bins.

The annual structure of the model began with the survey on May 1, applied natural mortality until the mid-point of the fishery at which point a pulse fishery occurred before applying the remaining proportion of natural mortality, followed by growth and recruitment on April 30. Note that the scallop fishery is open from July 1 – Feb 15th annually, and SSB was evaluated on June 1 (spawning occurs during the summer).

All biological processes, including growth, were estimated outside of the model using primarily survey data specific to each district. Tyler noted that fixing biological parameters may lead to

bias, but doing so reduces complexity and improves model stability given the short survey time series. Natural mortality was assumed $M = 0.13$ yr^{-1} based on prior research by Kruse and Funk (1995) that evaluated a variety of estimation methods.

Models fit retained and discarded catch data well and models estimated logistic fishery selectivity and retention curves. The primary index data used in the model was fishery CPUE, standardized by the same GAM method used in 2024. Additional CV was estimated to allow the model to reweight CPUE data, since observed estimates were unrealistically precise. Catchability was estimated for the fishery. Models also fit ADF&G dredge survey biomass. Survey catchability was fixed at 1. Fits to size composition data were good in aggregate, but highlighted some misspecification on an annual basis. Models KSH, KNE, WKI, and EKI were not able to estimate dredge survey selectivity. Tyler noted that the dredge survey employs a 38 mm mesh liner, lending to the plausibility that selectivity should be fixed at or near 1 across all sizes. He also noted that recruitment variability may be flexible enough to account for changes in the short index and size composition time series, leaving selectivity poorly informed by the data.

Jittering analysis found multiple minima near the MLE for all models, and all models had jitter runs that converged to the putative MLE with low maximum gradients. KSH and KNE had large SSB retrospective patterns which Tyler attributed to heavy reliance on the short survey time series. Overall, the model appears to capture population dynamics of each district without undue complexity.

Tyler listed a few hurdles to using this modeling framework to set harvest specifications for the stock. First, the scallop FMP does not specify a harvest control rule that would be applied to a current stock biomass estimate. Following FMPs for crab and groundfish stocks, Tyler explained that information availability for the modeled portion of the scallop stock likely falls under Tier 4 for crab and Tier 5 for groundfish, in which maximum fishing mortality is capped by natural mortality. Second, this modeling framework could not be applied to the portion of the stock that does not have a dredge survey. Tyler suggested revisiting the core/non-core stock delineation detailed in Appendix B of the 2024 SAFE, or some similar method. By delineating the stock based on data availability, biological reference points could be estimated using a model-based assessment and harvest control rule for surveyed/regularly fished portions of the stocks and total catch-based reference points could be used for the non-surveyed/irregularly fished portion of the stock. Last, Tyler emphasized the need for quantitative review at the plan team level. Tyler presented a preliminary version of Appendix A to the Crab Plan Team at the January 2026 modelling workshop, but more dedicated attention would be required to effectively evaluate the model, particularly during a final assessment.

The SPT acknowledged Tyler's progress in developing a model-based assessment, but recommended that continuing model development be contingent on:

1) Devising a means to implement a model-based assessment that only covers a portion of the stock;
2) Having dedicated access to quantitative expertise at the plan team level through joint meetings / merging with a different plan team.

Future Planning & New Business

Scallop FMP Amendment 18 allows for non-annual assessments and to set harvest specifications less frequently than an annual basis. As a result, the SPT will present a final scallop SAFE report next cycle in 2029. The next final assessment is tentatively planned for April, 2029.

The SPT also discussed the attrition in membership that has been compounding in recent years, specifically the lack of quantitative expertise and biological expertise specific to scallops. Currently, the SPT has three non-Council staff members, which provides limited capacity to critically evaluate any recommendations outside of the status-quo. Leveraging the expertise of other plan teams' membership through joint meetings, or merging, would solve the SPT's capacity issue and facilitate a more functional federal management process. Tyler suggested that the Crab Plan Team is most aligned with scallops, given the development of a size-structured model and the joint federal-state management structure.

Others in attendance:

Skylar Bayer
Carlton Burnside
Karla Bush
Alyssa Hopkins
Eric Keller
Kevin McNeel
Ethan Nicols
Katie Palof
Alex Reich
Serine Reeves
Janet Rumble
Mark Stichert
Jim Stone
Joseph Stratman