

Scallop Plan Team Meeting

February 22-23, 2007

Hilton Hotel, Anchorage, AK

Plan Team members present:

Gregg Rosenkranz (ADF&G Kodiak), Herman Savikko (ADF&G Juneau), Scott Miller (NMFS), Jie Zheng (ADF&G Juneau), Diana Stram (NPFMC)

Plan Team members absent:

Jeff Barnhart (ADF&G Kodiak), Gretchen Harrington (NMFS)

Public and agency personnel present: Theresa Kandianis, Mark Kandianis, Jim Stone, Tom Minio, Max Hulse, John Lemar, Scott Hulse

The Scallop Plan Team meeting convened on February 23rd at the Hilton Hotel in Anchorage, Alaska. The attached agenda was approved for the meeting. Diana Stram chaired the meeting as the chair, Jeff Barnhart, was unable to attend.

Draft Assessment Review Guidelines:

The team reviewed a draft document on guidelines for external reviews of stock assessments. The team was requested to modify this document as necessary to meet the particular needs of scallop management (timing, information available) prior to SSC review at the March meeting. The team noted that the fishing season ends February 15th and begins again on July 1st, thus the time period between the seasons is utilized to summarize the previous year's data and schedule all surveys. News releases are typically published in early June for the GHR. This time period should be avoided should an external review be sought.

Currently there are no stock assessments for scallop stocks. However, in the future, assessments are anticipated as per new assessment methodology (video surveying and modeling efforts) thus the team discussed the applicable timing and notification needs should assessments be available in the future.

The team noted that there is necessarily a time lag following scallop surveys to incorporate data into models. It is difficult at present to predict how the timing of assessment modeling would unfold. Assessment timing would be February to May if the assessment relied upon the previous survey data. It does not appear to be possible to incorporate survey data from the Feb. 15–July 1 time period into modeling and have it be done prior to the season start in that year.

The team agreed that the appropriate time period for an external review would be July to December. This would allow time for an external review and subsequent workshop with follow up discussion at the February plan team meeting. The team notes that it is important to clarify the expectations regarding the results of the review and subsequent recommendations. This varies by fishery as management differs for groundfish, scallops, and crabs. For scallops, the SSC can make recommendations to the State on their findings. There is no absolute authority of the SSC to force the State to make changes to the assessment but they can serve in their role as a scientific advisor. The team noted that these guidelines are clearly more applicable for groundfish than for scallops, and a different set of guidelines for crabs and scallops would likely be more similar.

The team agreed with the notations in the guidelines regarding vetting a disagreement between the stock assessment author and review results through the SPT and SSC but notes that these remain advisory bodies.

Gregg Rosenkranz offered to communicate further with stock assessment authors on the east coast for scallops regarding their review process. He noted that he was invited to participate in one of their assessment review process meetings but was unable to attend due to departmental constraints. Gregg further suggested that Jie Zheng would also be a good reviewer for the assessments on the east coast. Jie noted that Canadians send out reports for external review and receive comments back. Gregg suggested that assessment review be sent out, with comments then received but that the reviewer is not necessarily included in the assessment workshop.

Notification changes: The team suggested that notification be made to ADF&G and the Council. The guidelines should be posted on the Council and State websites for public access.

The team discussed the need for a transparent process for using survey and observer data to manage scallop stocks and establish GHRs. Formalizing an external review process for assessments (eg models) would be useful provided it does not inadvertently constrain the open process and lines of communication between industry and the department in management of the fishery as currently pursued

Machine Vision Benthic Imaging in the GOA

Gregg Rosenkranz provided a presentation on new scallop stock assessment methods using video technology. His presentation updated the team on on-going work and built upon his presentation from last year. He described improved imaging using the new equipment. Average scallop density from a 2007 survey in the eastern GOA was approximately 1 scallop per 10m sq. . For the next two to three years , both dredge and video surveys will be conducted to compare techniques. Dredge surveys may be replaced with imaging surveys after the comparative work. Other extensions of this project include construction of a new sled, a June survey of Shelikof and Kamishak Bay scallop beds, nearshore proposal for automated image processing, evaluation of data for habitat classification, and evaluation of data for non-scallop assessment work

Gregg noted that ADF&G will begin training additional personnel so that others know how to utilize the equipment. Gregg noted that software development is expensive and is being done through Woods Hole. Difficulties in application to Alaskan conditions are being resolved.

The team discussed the potential relevance to applications such as EFH and other habitat area. Could this be utilized for crab surveys? Gregg noted that there is some discussion regarding potential application to the Bering Sea crab survey. Application to other organisms is difficult in that it requires further studies on mobility of other animals.

Mark Kandianis questioned the timeframe for further video surveying. Gregg commented that it is that contingent on funding as ship time for surveying is expensive. Current funding allows for a couple weeks in June for surveying. The plan is to replace the current vessel but funding for a new vessel is unknown. Therefore both staffing and vessel limitations exist. Industry members requested information on how they might assist and noted that it might be possible to tow the camera sled and perform scallop surveys from scallop vessels.

Gregg noted that current funding is from the State and is possibly not a stable funding source. It might be possible for additional assistance from industry but not sure of the amount of assistance that would be required. Gregg sees industry participation through vessel use and costs. Theresa Kandianis commented that Gordon Kruse talked about a master's student to look at underutilized data. Gregg noted that they have a proposal in the works to fund a student to evaluate observer data and possibly survey data and use multivariate statistics to characterize these data. Theresa noted that observer data should provide some subsample of data across GOA and BS area and should have potential for broader application beyond scallop fishery.

Theresa commented that while observer costs can be high in years of low revenue the overall utility of the observer data over time has been very useful and worthwhile. Scallop Plan Team has already gone on record as noting the importance of 100% observer coverage. This is the official position of the department as well.

The team and members of the public commend Gregg for the work that he has continued to do to improve this assessment technique and work to apply it in Alaska.

The team discussed the potential for application to habitat studies, and at sea research on smaller less expensive platforms. Large scale oceanographic studies are very expensive. The team discussed the upcoming GOA and BS IERP and potential to be included in GOA study.

Discussion of current and future Scallop Survey techniques

Gregg noted that ADF&G is working to develop a plan for assessing each area. The goal is to combine observer data with survey data and model these areas based on age or size for continuity between years and then to formulate harvest strategies by area. Harvest strategies are to be developed at least for those areas with the most data.

Theresa Kandianis questioned whether there will be a plan for bed specific modeling? Gregg noted that genetic work has been done in the past. The default assumption has been that the bed is a self-sustaining unit. It would be difficult to model the entire GOA together but possibly smaller areas could be modeled. The team discussed the genetic work and whether it has been completed. Gregg noted that no real results have been finalized but preliminary information on genetics has been completed for basis of future comparison. No studies on larval drift to date to help elucidate where scallop from various regions are connected or originate. The team discussed oceanographic conditions and impact on larval drift.

Jie noted that application of video survey technique to crab surveys may not be effective as the video technique is not well suited for large areas like Bering Sea. The team suggested application to smaller areas such as Kodiak.

The team notes the need for studies on the connection between oceanographic conditions (prey availability) and scallop population and distributional affects. The team specifically notes that the Yakutat area would benefit from further study. Scallops in Yakutat appear to be food limited and not always of good quality. Industry members noting that fleet should be given the ability to not harvest areas as necessary when quality appears insufficient without being criticized for leaving scallops in water if there is an approved rationale for why this is occurring. They requested that under these circumstances the GHR should not be reduced when the fleet is responding to environmental conditions and the impacts on markets. The industry members felt

that in the past they have deliberately foregone catch due to quality issues and then been penalized by the department reducing the GHR as a result of this.

The team and members of the public discussed the Yakutat scallop quality issue at length. Here the scallops are at times not commercially viable. Industry members commented that - meat recovery experiments were performed in the past in conjunction with the onboard observer program but have been discontinued. Seasonal signals in meat recovery percentage were not evident in the data due to vessels fishing at different times of the year and moving to find better quality scallops. Tom Minio commented that they saw improved quality in Yakutat scallops this past year. There was further discussion of the possible environmental conditions contributing to this. No one seems to know the overall cause of grayish-colored 'weak meats', but lack of food is suspected. Gregg made a note to inquire of aquaculturists as to possible causes.

Gregg commented that in the future they intend to have a dredge component to the survey to be able to also look at scallops, meat recovery, etc simultaneously with camera sled work. Industry noted that buyers in the past have requested no shipments from Yakutat. This year was not a problem. Vessels tend to move to areas with lower catch rates but better quality meats. Abundance is not an issue but scallop quality and lack of market conditions are. They noted that low CPUE from the fishery does not necessarily indicated low abundance due to the quality issue and effects on fleet behavior. .

Theresa noted a BOF change at the request of industry for a change in the season opening date. The primary competition is from Canadian scallops that are also frozen at sea. Scott commented that it would be interesting to look at the economic implications. Industry members commented that their market is to high end restaurants, officers clubs and markets for very high quality scallops. European markets also demand high end quality. Scott questioned the actual price establishment for scallops from the State established price information. Theresa commented that she would be happy to work with Scott on a better characterization of actual prices. Prices tend to be subject to production issues worldwide, especially Japanese scallops and east coast scallops which manipulate the ex-vessel prices. Alaska is not a driver of the international market.

Scallop Population Modeling Prospects

Jie Zheng provided the team an overview of possibilities for assessment modeling of scallop populations. Jie discussed potential for evaluating meta population structures as well as application of modeling techniques for model-based stock assessment. He noted that different areas have differing available information, thus different modeling techniques would be applied for various areas. Some would be more complex than others. Jie noted that he needs to look at the aging information. Bill Bechtol worked on a preliminary age-structured model for Kayak Island. Ken Goldman intends to update this model in the future. There has not been a time indicated for this, and Ken needs to be consulted about his availability to update that model. Two areas are candidates for Stock Synthesis modeling with survey data available. Gregg noted that there are some catchability issues with the survey data available (i.e. problem with gear deployment) but some survey data is available for these areas. Estimating survey catchability outside of the model is recommended. Gregg noted that mortality estimates (from Gordon) gave a median estimate that could be utilized in a modeling study. Jie commented that this may not be a problem for introducing errors if survey data is also available for this area.

The team discussed the metapopulation hypothesis. Genetic information may not delineate if populations are self-seeding or represent a joined population. The default hypothesis is that beds represent a closed population and a conservative harvest strategy needs to be developed for this. Gregg noted that some scallop larval studies were conducted back to 80s. BASIS survey might have some additional larval information. Gregg explained that weathervane larvae may be very difficult to distinguish depending on age and size. The team noted that it would be a good idea to contact BASIS to find out what they may have for possibly relevant data. Jeff Knapp of FOCI may also have data available for larval studies. These data have been shown to be useful for presence or absence information so could also be useful for scallop data.

The team discussed a spat collection project in Kodiak in mid-80s in conjunction with scallop aquaculture potential. The project only obtained 2 spat. Tom Minio noted some sites were established in Shelikof but there was difficulty in retrieving samples given prevailing oceanographic conditions and currents in that area. Interesting oceanographic conditions characterize the Shelikof area, and some form of retention mechanism is likely present. The team discussed settlement versus survival mechanisms and their effect on recruitment, noting that this highlights overarching research questions for scallop research. There is very limited data on larval stages of weathervane scallop. Questions from the industry members focused on what the appropriate means to obtain better information would be. Unfortunately, ADF&G scallop biologist (Jeff Barnhart) was not able to attend the meeting.

Jie discussed his timeline for assessment and modeling studies. He is currently involved in inventorying the available information available by area. Ken Goldman is anticipated to update Bill Bechtol's model. Diana suggested that the team request participation from Ken for the next SPT meeting in 2008. Team members noted that they should also include a presentation from Jeff Barnhart on aging. The team noted the need for standardization on aging methodology by Jeff and Rich Gustafson from the Homer ADF&G office, and the necessity of publishing information on aging, (i.e. institutional knowledge in Jeff and Rich). Gregg requested clarification regarding aging error (1-2 yrs) and how this is to be accounted for in modeling. One source of error is in the identification of the first annual ring. Jeff is collecting small scallop shells to save in order to assist in delineating the first ring. Jie commented that he believes that one year error is not a problem as long as the aging error is consistent. Gregg noted that it would be useful to be able to include size data in modeling as a large quantity of shell height data is available for a range of areas.

Theresa commented that they have size data from the standpoint of meat size and could put together on an area by area basis as gross data (now on recent on fish tickets too) if this would be useful for assessment purposes. Jie commented that a long time series of these data would be useful. Theresa offered to compile the data as available and possibly by management district (older data is not by stat area, gross data for some periods, finer scale for more recent). These data are available since the early 1990s. Herman commented that the meat to shell size correlation depends on area and year. Gregg noted that there is the possibility of year to year variation in shell height/meat weight relationships, and ADF&G will look at this using combination dredge and video surveys in the future.

Diana offered to contact the Seeb's regarding their genetic differentiation work on scallops and the current status of this work. It was unclear previously to what extent their work was going to be helpful in differentiating subpopulations of scallops.

Theresa updated the teams that the scallop fishing vessel cooperative is looking into a pre-assessment for MSC certification for scallops.

Stock Assessment Fishery Evaluation Report

The team discussed the overview of items to include in the SAFE report this year. They noted that there will not be many additional publications included. The team's policy is to include only publications from the previous year so as not to repeat information that has been previously included. Gregg noted that the 3 year observer report is in internal review and therefore not yet available for inclusion this year.

Scott Miller will update the economic appendix paper and the table in the economic section in the SAFE report. The team reiterated that they would like to see the appendix paper modified and included as an economic chapter in the SAFE report. The team should discuss next year what economic data should be included in the SAFE report annually. Theresa noted that the historical overview is a useful addition and should be included each year. This provides a good overview in conjunction with the information provided in earlier sections of the SAFE report as well. Gregg suggested that next year this draft paper be provided to the team and the public in advance of the meeting such that the team could then walk through and provide detailed comments prior to inclusion in the SAFE as a chapter next year.

Theresa updated the team on the status of legislative actions regarding the State LLP.

The team discussed including the summary table in the Kruse et al. paper in future introductory materials for the SAFE report. This might be useful in section 2.0. The team discussed each section of the SAFE to be updated including individual fishery area sections. Some questions from the public were posed regarding the indication in 2001 that the GHR was not fully harvested. Gregg noted that this occurred primarily from the Yakutat and Bering Sea areas. The team decided to ask Jeff to update this table to include present management actions in next year's SAFE with the intent to iteratively update the table for current management.

Theresa noted that it would be useful to clarify when the GHR is not fully harvested and for what means the fishery was closed. Team members noted that it may be difficult to caveat all years and all harvests. Members of the public expressed their discomfort with some statements in the SAFE and the assumption that harvests less than the GHR ceiling are due to less participation. The team and members of the public discussed areas where crab bycatch appears to be the limiting factor despite not hitting the CBL due to management restrictions on crab bycatch rates and closures due to exceeding this rate. Theresa noted that fuel costs to fish in Bering Sea very high and thus it is difficult to allocate boats to go fish there when they may be crab bycatch limited.

Scott suggested including a column in the summary statistics for why the fishery is closed by year (e.g. when limited by crab bycatch, when effort limited by product quality issues). This suggestion was discussed by the team. The team noted it would be useful to possibly annotate and footnote that there are additional reasons why the GHR is not taken annually in some areas. It was suggested to look to historical overviews to ascertain rationales for closures by year. The team discussed the formulation of scallop management plan in 1993 and rationale for the underharvest of the GHR in Yakutat.

Crab bycatch was noted to be effectively limited by in-season management to a rate of less than 1 crab per pound of scallop meats regardless of crab size. This rate may limit scallop catch long before the crab bycatch limit is reached. Therefore, while published information indicates that closures have not been due to crab bycatch limits being reached, in-season closures and

management decisions are made to avoid this rate. This rate was suggested by the BOF some years ago and utilized for practical purposes since that time.

Members of the industry discussed crab bycatch issues in the Bering Sea scallop fishery and problems encountered when they run into crab bycatch. Additional information could be added to the SAFE report to demonstrate actual numbers of crabs. Further descriptive information should be added as noted regarding why quotas are not taken and the rationale for the in-season management rate-based approach for crab bycatch. Industry members noted that given this management practice, if crab abundance increases, it makes scallop fishing even worse because this rate-based approach further constrains the scallop fishery when there are increases in the crab population. Members of the industry stated that they would like to see the BOF and ADF&G re-evaluate this rate.

Diana suggested also including additional information in the Crab OFD EA with respect to the Scallop CBLs and the indirect impact on scallop fishing practices as a result of increased population of Tanner crabs. The Crab Plan Team will review and discuss the revised Crab OFD EA in May including the direct and indirect effects of increased population of crabs. Scott Miller commented that there is also a problem with using the number of animals versus poundage (eg size) of crabs as bycatch. The team noted that it would like to agenda this issue for further discussion.

Diana agreed to add information to the SAFE report on crab bycatch in the scallop fishery as compared with groundfish and crab fisheries. The team also agreed to add some description of the inseason management response of managing on a rate-based approach.

The team agreed to add the following description to the Yakutat section 3.1 regarding product quality and reports of weak-meat scallops in this region (most recently in 2005):

Members of the industry have noted that there is variability in scallop quality in the Yakutat region from year to year and bed to bed with no clear spatial or temporal pattern nor understanding of what factors or combination thereof account for this. Scallops in this condition are not marketable thus the fleet moves to other areas to search for better quality scallops. This results in underutilization of the Scallop GHR in this region. Further study is encouraged to understand this problem.

Team did not review by stock the actual status noting that information to be included is through the previous season and will be updated in the SAFE report. Due to scallop season dates and meeting dates of the SPT, the most recent data included in the SAFE is from the season that ended the previous February. The team discussed selected management areas and listened to comments from industry.

The team and members of the industry discussed Area M (Alaska Peninsula). The last significant harvest in that area was in 1999/2000 with limited effort since that time. The area was closed in 2000/01 and 2002/03 due to concerns of localized depletion. The public noted that less scallops were found in the previously closed areas than prior to the closures being instituted. Gregg noted that there is likely very limited recruitment to this area. He noted that in the first three years there was a broad distribution of ages, while the 2000/01 showed a much narrower distribution of sizes (this could represent anything from age 5-15 as aging is notable difficult after a certain age). From the available information it does not appear that the policy of “no fishing to allow for rebuilding” was effective.

District 16: Gregg commented that the department will include D16 and area D into one contiguous area, such that a single bed does not have a regulatory boundary through it. Healthy scallops have been found in the area with some growth noted in figure 7 historically. The public noted that beds here are very shallow.

Kodiak NE: Few scallops were found in an exploratory fishery north of Cape Izhut during the 2006/07 season. Some small scallops were found but further fishing was hampered by weather. The public noted that weather is a major issue for the ability to prospect for new fishing areas and commented that it is useful to leave such an area open in case a weather opportunity arises for exploratory fishing (there was a small quota for the 2006/07 season). The Northeast quota increased in 2006 to 90,000 with the quota assigned to the northern section of 15,000 and remainder of 75,000. Trawl survey data north of there to the Kenai showed limited scallop abundance. Members of the public noted that Middleton Island should be separate from the Kayak Island area but isn't.

The team reviewed the SSC comments from 2006 and how to address each in the report. Gregg will redo the survey maps for greater clarity. The dredge survey catchability issue is being addressed this year. The video survey application to additional areas is also being addressed as well as the training of additional staff to use the equipment. Discards and survivability: no investigations currently planned to look into this. A range is given and divided into broken scallops and intact scallops.

#1: CPUE standard error: this is presented as a statistic not an estimate and thus has no associated standard error.

#2: Gregg to address

#3: Revise by removing sentence and move sentence about limited abundance information

#4: add sentence that 100% observer coverage in all areas outside of Cook Inlet where limited to single 6 ft dredge and observer coverage is not required. [Section 7.0 Bycatch]

#5: Changes in GHRs over time: add information in management section as possible

#6: Gregg to revise

#7: Ecosystem impacts section: Diana and Gregg to work on draft ecosystem section for this year to improve on in future.

Community impact discussion paper:

Scott Miller reviewed what he would like to look at in this project in the future. This includes:

- Community impacts with respect to crew jobs
- Community level landings, crew shares and expenditures by area

Theresa commented that he could look at days fished from fish ticket information. Scott would like to create a database on pricing information from industry to look at changes over time. Catch and area database to be crafted to look at cost production and other issues. Scott will update the section on consolidation in the fishery for inclusion in the appendix paper. Theresa noted that members of the industry can provide information on the number of days fished. The discussion should be broadened for other issues with respect to the services available in Yakutat (ie limited fuel), and other areas that have also led to some community decisions that are not solely a result of the formation of the cooperative. Tom Minio noted that Yakutat has fuel but it is in limited quantities. Industry members noted that logistical difficulties have always existed in southeast Alaska for deliveries. The issues with coastal communities depend heavily on the degree of infrastructure. They can save money on the actual landing tax by not offloading in AK but still pay an inside 3 mile tax and thus often offload in Alaska regardless.

Max Hulse asked if it is possible to have landings outside of 3 miles and do you need to pay landing tax if so. It was noted that this has to do with specifics of tramper landings and it is usually not safe to do so outside of 3 miles. Theresa noted that the paper should clarify that there are reasons to be considered in landings outside of AK and that it not to save money on taxes but is usually more of a logistical issue. Scott commented that he is looking for information on the distribution of landings taxes to communities. Theresa commented that it is where you catch fish not where you land it that is the pertinent issue as that forms the basis for the tax determination. Fishing is still occurring in the same areas but catch amounts vary and this is where the decline in taxes is evident (ie not due to consolidation but decline in catch by some areas). Theresa suggested following quotas among various management units might provide a better indication of money to specific communities.

Scott commented that landings are no longer occurring in Kodiak. Theresa clarified that it is not true as most landings are still occurring in Kodiak and that at-sea landing just means that a tramper is delivering but the actual benefit to the community would be exactly the same. These benefits depend entirely on logistics. A tramper is useful only for offloading (and occasional groceries) but boats cannot get fuel from them so they still have to go to port to get fuel. This means that vessels are still spending money in local communities, even in Yakutat, by shopping for groceries and fueling.

Theresa noted that they do save on efficiencies but not entirely as they would have anticipated. There is a free-market situation within the cooperative, i.e., no buy outs all individual interactions and they are not in derby with each other for commercial operations, but it is not a true coop or rationalized fishery.

New Business

Mark Kandianis questioned the possibility for earlier opening dates, reiterating previous concerns with efficiency. Herman Savikko noted that he would need to propose to the BOF regarding a season opening change. Gregg indicated that the department position is likely to be either neutral or opposed to this as this could be a problem with moving into the spawning period. He suggested that Mark go back to look at the official record of season changes prior to reopening this issue again.

The team discussed the timing for next year's meeting and again decided to schedule for the third week in February.

Members of the industry indicated that they would like to interact with central and southeast ADF&G staff. The Team would like to invite the participation in the meeting next year of Central and Southeast ADF&G scallop management staff. The team would like to request an update on the stock assessment from Ken Goldman as well as a discussion of scallop aging from Jeff at next years meeting. The team did not decide upon a location for the meeting and reiterated that other locations outside of Anchorage will be considered in planning the meeting.

The meeting adjourned at 12:50pm.