

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver
Executive Director

DO
for

ESTIMATED TIME
2 HOURS

DATE: March 20, 2012

SUBJECT: Scallop Management

ACTION REQUIRED

Review Scallop SAFE report and approve catch specifications

BACKGROUND

The Scallop Plan Team met in Anchorage on February 27, 2012 to review the status of the weathervane scallop stocks in Alaska, to prepare the Stock Assessment and Fishery Evaluation (SAFE) report and to recommend an acceptable biological catch (ABC) level to meet Annual Catch Limit (ACL) requirements. The SAFE report was mailed to you on March 12th. The report from the Scallop Plan Team meeting is attached as **Item C-5(a)**. The SAFE report provides an overview of scallop management, scallop harvests and the status of the regional weathervane scallop stocks. Scallop stocks are neither overfished nor approaching an overfished condition.

DRAFT Scallop Plan Team Report

February 27, 2012
Old Federal Bldg, Room 205
Anchorage Alaska.

Plan Team members present: Diana Stram (NPFMC) co-chair, Gregg Rosenkranz (ADF&G Kodiak)-co-chair, Scott Miller (NMFS Juneau), Peggy Murphy (NMFS Juneau), Rich Gustafson (ADF&G), Jie Zheng (ADF&G)

Plan Team members absent: Ryan Burt (ADF&G)

Public and agency personnel present (for some or all of meeting): Jim Stone (Alaska Scallop Association), Doug Woodby (ADF&G), Brendan Harrington (F/V Kilkenny), Karla Bush (ADF&G), Quinn Smith (ADF&G), Brad Harris (APU), Mark Stichert (ADF&G)

Administrative Issues:

Agenda: The agenda for the meeting is attached. The team added a discussion of stock structure to the agenda for the afternoon.

Membership: The team noted that Joe Stratman has taken a different position in Southeast and is no longer going to be participating on the SPT. Quinn Smith will be taking his place with a nomination anticipated to the SSC at the upcoming SSC meeting in March. Brad Harris, a professor at APU, will also be submitting a nomination to the SSC for the SPT. The team welcomed the contributions from both individuals during the meeting.

Email list: Gregg and Diana indicated that they will be compiling a comprehensive email list of all scallop participants, permit holders and interested individuals for informing people of any meetings, documents or management changes. A draft email list will be circulated after the meeting and revised as needed to ensure it includes all interested parties.

Fleet profiles

Diana distributed a draft document on an over view of the fleet profile in the scallop fishery. This is a document to be produced by the Council office and available to the public to inform them of all of the different fishing fleets in the Bering Sea and Gulf of Alaska fisheries. This document was distributed by email prior to the meeting and Diana will compile comments from industry members for revisions to the document prior to publication.

Economic SAFE report

Scott Miller will update the economic section of the SAFE report prior to distribution to the SSC and address SSC comments accordingly. A more detailed economic discussion is still planned in the future.

Stock status:

The team discussed stock status by registration area with a focus on modification to management and stock status in both 2010/11 as well as changes in 2011/12 and potential modification in the coming fishing year.

Yakutat:

The Southeast scallop fisheries occur in two areas: off Yakutat, Area D; and in Northern Southeast Alaska, District 16. The most current data available for these two areas was from a summary of observer data collected during the 2010 fishery. The Yakutat fishery started August 9 and concluded November 8, 2010. Three vessels fished 119 days, 108 of which were observed. A total of 2,020 hauls netted 156,984 pounds of meats equal to 2,053,781 pounds of whole animals. The fishery harvest was under the GHL of 160,000 pounds of meats. Whole pounds of discards equaled 578,494 pounds. A total of 3,495 dredge hours were fished for an estimated CPUE of 45 animals per hour. The District 16 fishery began September 10 and ended 3 days later on September 12, 2010 due to low bed productivity. One vessel participated in the fishery with 100 percent observer coverage. Data confidentiality limits the extent of information reportable. Effort logged during the opening was 83 dredge hours for a total of 54 hauls. The total weight of meats retained was far below the 25,000 pound GHL. Whole weight of discards was slightly less than the retained catch.

This following information, copied from Gregg Rosenkranz's presentation is from observer data following the fishery:

Yakutat	<u>start date</u>	<u>end date</u>	<u>vessels</u>	<u>fishing days</u>	<u>observed days</u>	<u># of hauls</u>
Area D	8/9/10	11/8/10	3	119	108	2020
Southeast						
Dist. 16	9/10/10	9/12/10	1	3	3	54
Yakutat	<u>GHL</u>	<u>retained meats</u>	<u>retained whole</u>	<u>dredge hours</u>	<u>CPUE</u>	<u>discards</u>
Area D	160,000	156,984	2,053,781	3,495	45	578,494
Southeast						
Dist. 16	25,000	3,062	31,845	83	37	28,033

Central Region:

Rich Gustafson, of the Alaska Department of Fish and Game, provided the Scallop Plan Team with an update on Central Region's survey efforts and stock status. ADF&G did not conduct surveys in the Prince William Sound (PWS) area this year. Surveys are biennial with PWS even years Cook Inlet odd years. The most recent survey in the Kayak Island portion of the PWS area was conducted in 2010 and consisted of a complete (all stations) survey of the West bed and a perimeter survey (12 stations) of the East Bed. The East bed survey was hampered by mechanical issues and weather difficulties. The West bed survey shows reduced scallop counts and reduced CPUE thus ADF&G closed the West bed in this past season.

Rich provided an overview of height and weight measurements that will appear in the Scallop SAFE report. The West bed age frequency data generally show larger numbers of small scallops and declines in larger scallops, while the East Bed age frequencies show relatively large numbers of older scallops. The survey plan for this coming year is to conduct a complete East Bed survey as well as a complete West Bed survey. The Solstice (58 limit seiner) will be used for the survey. No sled dredge work will be done due to limited deck space. The intention is to survey complete East and West Bed with an 8' dredge survey. Weather is a major factor in this survey and pushed them out of the area in May of 2010. They went back in July of 2010 and still had weather difficulties.

In 2011, Central Region's survey work focused on the Kamishak Bay area. The Kamishak Bay beds were surveyed beginning in May and into early June and then completed in September. There was a break in surveying due to a weather issue and schedule of the Pandalus. The goals are to continue to develop fishery independent surveys of population abundance, shell height, and age. In addition, the Kamishak survey fully implemented an all species sampling protocol this year, so total catch accounting is now possible. Rich provided an overview of the survey data, showed the abundance estimates, and discussed the meat recovery estimates that are used to set the GHL.

Sled-dredge vs 8' Dredge

Due to inclement weather in the Kamishak survey most of the work done comparing the sled dredge to the 8' dredge was done on a small scallop bed west of the Homer spit in Kachemak Bay. They did some gear modifications, at industry suggestion, but found the modifications to not be effective for survey work. Scallop shell height and age frequency comparison data were presented between the two gear types. Their goal is to move away from the 8' dredge and transition to the 5' camera sled dredge but will continue with both for now. They got really good video from the sled dredge and have done some preliminary data for comparisons.

Abundance estimates for the South bed are still low and the South bed remains closed. However, Rich discussed the cohort survey data that shows the South bed with fewer older scallops than in past years with larger cohorts of young scallops (younger than 10 years) in the bed. The bed is showing good recruitment and there is not a market difference between say a 5 or 6 year old vs. a 15 year old scallop.

The North Bed, although showing overall decline in population remained open and was fished this year with improved CPUE. However, harvesters report that the meats are quite tender and require more care in shucking and there are some mud blister (hydrogen sulfide filled pocket inside of shell due to past injury) problems that result in discards. Rich indicated that they do sample for weak meats in the survey and they are still finding more in the North bed. The harvest in this area is delivered to processors in Homer, presently as fresh meats.

The scallop plan team reviewed the tabular survey data Rich provided and had several suggestions for additions and clarifications in the Scallop SAFE. Among them is to provide shell height along with age and to clarify that Kamishak area fish tickets already have discards in the total harvest. Thus, adding discards to that number would be double counting. This differs from how other regions handle discard estimates and Rich will look into this and provide the adjustment to Diana. Also the Kamishak fishery starts August 15th and ends before the end of the year so it is not double year system like all other areas. Finally, the scallop plan team noted that the Kamishak area has issues with confidentiality in reporting some data.

Estimation of Discard Mortality for the Kamishak Scallop Fishery

During the observer trips we document the number of crushed scallops, live small scallops (discarded), "cluckers /clappers" (both shells connected by ligament) and scallop shells. For all observed tows we weigh each of the above categories and enumerate all except scallop shells (impractical to enumerate). This gives us catch per hour of these scallop "groups" for observed tows (h^0). We also estimate the meat recovery rate (MR) by weighing ten scallops periodically throughout the trip, shucking the scallops and then weighing the scallop meats, and the calculation is the ratio of scallop meat to round scallop weight. The method to determine MR also provides an average weight of shucked scallop meats. From the skippers logs we get the total hours fished (H^1). We apply a 100% mortality to

crushed scallops and 20% mortality to live smalls. We then multiply the total hours fished by the catch rate as follows to estimate discard mortality:

$$\text{Discard mortality} = H^T(\text{number crushed scallops}/h^0 \times 1.0) \times (\text{average scallop meat weight}) + H^T(\text{number small scallops}/h^0 \times 0.2) \times (\text{MR \%}) + \text{Dead loss from fish tickets}$$

Note: in some years we have had spoiled product that has been reported on fish tickets. This dead loss would be added in to the calculation of discard mortality. There was no dead loss reported in the 2010 and 2011 fishery. We recognize that the meat recovery rate from the larger scallops may over estimate smalls meat weight, however that is all we currently have. We may be able to estimate the meat weight of small scallops during the survey and should add that as a special project. Also, Brad Harris mentioned that the 20% discard mortality derived from East coast scallops is probably high due the large geographical gradient, with air temperatures that exceed 90 degrees Fahrenheit. He felt that it would be possible for a study to determine small scallop discard rate through his students at Alaska Pacific University.

Westward:

Gregg Rosenkranz provided an overview of changes or additions to the stock status sections for the Westward region (Kodiak, Bering Sea, Dutch Harbor, Alaska Peninsula, Adak)

Kodiak Northeast District

Management was concerned by the decline in CPUE thus the GHL was reduced from 90K to 75K in 2008/09. This was driven by statistical area 525702 where the GHL was reduced by 10K because of change in CPUE. 2009/10 the GHL was reduced in 2010/11 to 65K -CPUE increased. In 2011-12 GHL remained the same. Video/sled data looked good tentatively so ADF&G may increase the GHL for 2012-13. Additional information has been added to the SAFE report to explain these changes and the CPUE by stat area.

Kodiak Shelikof District

Gregg review the changes in GHL from 170K down to 130K CPUE peaked in 2006/07 season at 70lb/hr. The GHL went down from 170K to 130K in the 2011/2012 season. Changes in the dynamics of the fishery made changes in east to west to multiple bed margins.

Doug Woodby commented that it might be good to scale height frequency data by that year's CPUE. There were comments by the group about the merits of making that change in the SAFE.

Mark Stichert ADF&G commented that they do not manage by discrete beds but rather they looked at Camera/Sled data and discussed the reasoning for lowering the GHL based on the increased of presents of smaller scallops and the decrease in large scallops in the fishery. Mark will provide Greg with language for the discussion in the SAFE.

Area M

2010-2011 is closed

Bering Sea

Data is looking good with high CPUE. Gregg anticipates that they may increase GHL.

There was then discussion about crab bycatch and the need for length/weight data to get a weight to put with the number of crab caught. Mark felt it could be added as a special project to the Kodiak large mesh trawl survey if not available from NMFS. I may also be possible to do it as a special project in Cook Inlet. There was also data from Southeast that could be used as well as *C. opilo* data from the Bering Sea.

Dutch Harbor

Small area with a high CPUE

South West

Gregg will add a section to the SAFE ---no effort in 2010/11 2011/12 there was some catch

ACL recommendation for 2012/13

The team recommended that the ACL for the 2012/13 scallop catch specification be established at the maxABC control rule = 90% of the revised OFL which includes discards. This equates to an ACL recommendation of ABC = **1.161 million pounds of shucked meats** understanding that this will include all catch including discards for which a 20% discard mortality rate will be applied.

BOF proposals

Mark Stichert presented the proposals to the BOF at the meeting. There are five proposals. Three proposals (350, 352 and 353) are made by the Alaska Scallop Association and two (351 and 354) by the ADF&G. Proposal 350 is still a draft, and it would allow a commercial weathervane scallop vessel that carries an independent onboard observer to simultaneously register for more than one registration area at a time. ADF&G opposes the proposal as written. Mark discussed that the proposal needs further development and clarification to address boundary line and observer issues. Doug Woodby suggested finalizing the proposal before the BOF meeting. Proposals 352 and 353 would open some waters for scallop fishing near Mitrofanina Island and Unimak Island. ADF&G opposes proposal 352 due to crab protection and is neutral to proposal 353. Mark further suggested that if proposal 353 is adopted, ADF&G recommends a commissioner's permit to conduct an exploratory fishery. Jim Stone mentioned that some areas closed for scallop fishing due to crab bycatch and the industry would accept a crab bycatch limit for opening. Proposal 351 would establish two management district subsections for scallops within the Eastern Section of the Outside District of the PWS area and proposal 354 would amend the regulatory boundary description for scallops in Registration Area J by updating historical boundary coordinates. Both proposals are housing keeping measures.

Research Priorities:

The team modified their research priorities for the upcoming year. The revised research priorities in track changes from the previous year's list are attached.

Stock Structure Template:

The team discussed the stock structure template employed in discussion stock delineation in Alaska groundfish fisheries. This was suggested by the SSC for application to weathervane scallop stocks. The team discussed the categories on Table 3 of the document and how these might be filled out or modified for better application to scallops. After much discussion the team decided to table including this in the SAFE report this year so that more time and efforts could be spent in better application of the template to scallop stocks in the upcoming SAFE report for 2013. A copy of the report in its entirety and the draft template for scallop stocks will be distributed to the SPT for discussion and revisions in the upcoming year with a more extensive discussion of stock structure to occur at the 2013 SPT meeting.

New Business:

Observer Training: The team was informed of upcoming changes to the observer training for scallop observers. The Observer Training Center in Anchorage is being closed and training will now occur in

Kodiak. This is likely to occur at the NMFS facility in Kodiak, although State observers will continue to be trained by State staff. The team requested an update from Ryan Burt at next year's meeting.

SPT meeting in 2013: The team will meet February 25-26th, 2013 in Kodiak (location TBD). The team reiterates their requests from last year regarding presentation on the CIA-DB, and GOA IERP contingent on funding as well as a discussion of ocean acidification and its likely impacts on scallop stocks.

The team adjourned their meeting at 4:15pm.

Scallop Plan Team meeting

February 27, 2012

Room 205

Old Federal Bldg, 605 West 4th Ave

Anchorage, AK

Draft agenda 2/27/2012

Timing:

Monday, February 27th: 9:00am – 5:00pm

9:00am

- Introduction and approval of agenda
- Review and approve minutes from March 2011 SPT meeting

9:30am

- Fleet profiles overview

10:00am

- Status of Statewide Scallop Stocks and SAFE report-Catch specifications by area
 - Central Region
 - Westward Region
 - Southeast

12:30-1:30pm Lunch

1:30 pm

- BOF proposals or modifications
- Status of Statewide Scallop Stocks and SAFE report-Catch specifications by area (*continued*)
 - Central Region
 - Westward Region
 - Southeast
- Research Priorities-review/revise as needed
- Stock Structure Template

3:00 pm

- New business
 - SPT meeting for 2013
- Continue in work session on SAFE report as needed

Research Priorities

The following research items were noted (in order of prioritization and reflect revisions from 2011 research priorities):

1. Sensitivity analysis of CPUE and observer data for use in assessing fishery performance and stock assessment. Consider additional techniques in other regions for data-poor stock assessment.
- 1.2. Life-history/genetics studies to provide information on sources and sinks of scallop larvae and where they settle is lacking to verify stock structure and larval transport mechanisms.
- 2.3. Computerized image processing for camera sled data.
- 3.4. ~~Fishery independent stock assessment in Yakutat.~~ Fishery independent survey of scallops, e.g., Yakutat area and other major fishery locations.
4. ~~Continue research on weak meats and scallop quality. Environmental parameters should be studied coincident with determining cause of weak meats.~~
5. Field studies estimating Alaskan scallop discard mortality: relationship between capture, release condition and survival of scallops.
- 5.6. Mark-recapture-tagging studies to ~~estimate discard mortality,~~ evaluate scallop movement within and between beds, and growth.
- 6.7. Multi-variate analysis of bycatch data from Scallop observer program (haul composition data) and camera sled data.
7. ~~Continue development of age-structured model in Central region.~~