



## **Scallop PDT Meeting**

October 27, 2008

Newburyport, MA

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PDT members in attendance: Deirdre Boelke, Pat Scida (in for Lynn Lankshear), Cate O'Keefe, Erin Kupcha, Pete Christopher, Rula Deisher, Bill DuPaul, Kimberly Murray, Dvora Hart, Demet Haksever, Sarah Thompson, Sarah Pautzke

There were seven audience members in attendance.

Following introductions, Ms. Deirdre Boelke went over agenda items and summarized the 10 documents provided. She noted that there were two primary agenda items: 1) further analysis of Committee request related to potential response to the turtle BiOp, and 2) continue development of annual catch limits (ACLs).

### **COUNCIL RESPONSE TO SCALLOP FISHERY TURTLE BiOp**

Ms. Boelke first outlined the charges of the Council, and the RPM and Term and Condition language. A list of bullet points was provided in Document 2 to guide input from the PDT. The document (#2), a draft Council response to the Turtle BiOp, provides a preliminary analysis of the current Term and Condition for RPM #1 and concludes that it is not reasonable and prudent. It also includes some analysis of alternative ideas and what is "more than minor", the defining of which is the focus of this meeting. Those sections will be expanded on after this PDT meeting.

One comment with regards to document 2 was to include an emphasis on the implementation of rotational areas as a current measure in place that minimizes turtle impacts; effort overall has been reduced compared to when the turtle take estimates were derived. Increased CPUE results in decreased time the gear is in the water, thus reducing the probability of turtle takes. The PDT discussed a different section of Draft Document 2 that would consider a threshold for determining "more than minor" in the context of impacts on turtles. The PDT concluded that this should not be considered because there is no specific reduction of turtle takes identified or required by the ESA, so the section was eliminated.

In order to describe what the threshold for more than minor could be, the following analyses were discussed by the PDT: 1) A description of seasonal effects on meat weights, 2) Relative fishing mortality by year, and 3) percent change in revenue when various constraints are put on the fishery by season and area.

#### **Presentation: Effects of Sea Scallop Seasonal Management**

Dr. Dvora Hart gave a presentation about the effects of sea scallop seasonal management on meat-weight yields in the Mid-Atlantic. The presentation first described the fraction of landings by month (2001-2006) and the meat weight anomaly, showing the biggest meat weights to be from April through August. Then the presentation described the gains and/or losses associated with displacement of effort for particular time spans (examples mainly applicable to Elephant Trunk in which there is already a seasonal closure to compare to). Dr. Hart used the current

seasonal closure in the ETAA as a starting point, showing that the current seasonal closure for September and October results in a net gain of 7% meat yield, creating a gain of \$1.7 million. (based on 24 million lbs [total TAC] \* 0.15 [fraction of effort that would be expected to have occurred during Sept Oct] \* 0.07 = 252,000 lbs = \$1.7 million @ \$6.80/lb).

The main reason is that when meat weights are down, it takes more scallops to equal one pound of meat than when meat weights are higher per scallop. Thus, it is better to fish from April through August. Dr. Hart's presentation showed that displacing effort from May through August creates a loss both of meat weight and revenue. Thus, neither option provided by the RPM is economically beneficial for the industry or biologically beneficial to the scallop resource. In general, depending on the season and amount of effort that is displaced the change in yield is expected to vary by 5-10% based on changes in average meat weights by month. She argued that if area rotation sets out to increase yield per scallop, displacing effort from the spring and summer is not beneficial and likely hampers the FMPs effectiveness in achieving OY. Restricting access in September and October when meat weights are lower is beneficial for both scallops and turtles, and perhaps that season could be expanded to provide more benefit for turtles, but limiting access in months when meat weights are highest (i.e. spring and summer) is not ideal when the goal of area rotation is to promote fishing when yield per unit of effort is highest. Fishing during May should be encouraged, given its combination of good weather, good meat yields, and no or very low probability of turtle takes.

Dr. Hart also summarized fishing mortality from the baseline period to present. Overall total F and F in the Mid-Atlantic from 2003/2004 when the turtle take estimate was generated to more recent years has been reduced by about 50%. Since interactions of turtles and dredges are proportional to the effort level, it could be assumed that the potential for bycatch has also been reduced in half since 2003/2004 if projections for effort in 2010 and beyond are similar to these projections from FW19. In other words, effort is directly proportional to the available harvestable biomass. If the harvestable biomass levels are higher, as they are in access areas, the CPUE goes up. There are fewer opportunities for turtle-dredge interactions if the nets are in the water for less time based on this higher CPUE. The PDT plans to convert the F rates into relative tow time so that for FW21, tow time information can be used to estimate potential impacts on turtle bycatch.

*Presentation: Economic impacts based on two options provided in BiOp*

Dr. Demet Haksever gave a presentation that showed the economic impacts based on the two options in the BiOp for effort displacement (30% May-Nov, 50% June-Oct) compared to what would happen without the measures required by the RPM and Term and Condition of the turtle BiOp. She pointed out that the results change based on current LPUE and with meat weight adjustments. The PDT discussed some assumptions that should be used in this model and Dr. Haksever will work up several additional scenarios for the Committee to consider next week. For example, different assumptions can be made about the percent of effort that will be displaced, impact on LPUE by shifting effort to the other deason, and assumptions about price differences.

### “More than minor” discussion

The PDT discussed defining “more than minor” using the information from the analyses. The rationale is that when “more than minor” is defined, the current term and condition can be judged. If it is more than a minor change to the fishery, then new ideas can be considered. As of yet, there is no precedent that we are aware of regarding identifying what is “more than minor.” Some thought the legal advice was to not base the determination *strictly* on economic terms, but emphasized that economics *can* be included. Ultimately, the PDT decided that the primary driver for the more than minor determination should be – percent change in effort shift from the season when turtle overlap is more likely. Specifically, if a term and condition is expected to shift effort from the summer and early fall to the other time of year more than a certain level (to be determined), then that would be more than a minor change. This was identified as the primary factor to be considered because under area rotation effort is allocated in certain areas when yield is expected to be higher, and shifting that effort to other times and areas can reduce LPUE (greater impacts on EFH, bycatch etc) and increase fishing mortality.

The PDT included a qualitative description of other factors that should be considered when identifying a more than minor change including: concern about safety at sea, bycatch (fluke bycatch increases in winter months), revenue impacts because of changes in price, costs, markets, supply, etc., and general impacts of altering rotational area management and compromising the ability to achieve  $F_{msy}$ . Some argued that we need to be careful about how specific the threshold for more than minor is defined because what is considered more than minor now may be different in the future. The understanding is that this RPM is in place until a new BiOp is reinitiated, potentially changing the RPM, so the RPM is not just for 2010; the FMP will have to adhere to the Term and Condition further in the future unless it is changed. Therefore, concern was voiced over putting a specific percentage trigger on the more than minor threshold, especially if it is economic based.

List of the additional factors that could be taken into account when determining “more than minor”:

- 1) In terms of biomass – rotational areas are designed to maintain a particular biomass and maximize yield per scallop (i.e. let small ones grow) and if we go above or below that, we’re no longer at “optimal.”
- 2) Safety at sea – if we limit the amount fishermen can fish in better weather months and shift that availability to winter months, safety at sea could be compromised.
- 3) Bycatch – by shifting effort from the summer, the bycatch of other species, such as summer flounder, will probably increase. Fluke are inshore in the summer (in areas that do not overlap with the scallop fishery) and offshore in the winter. If we increase scallop effort in the winter by limiting how much can occur in the summer, then fluke bycatch could increase as a result. This is a concern with future ACL discussions if hard TACs are considered.
- 4) Changes in scallop yield – shifting effort from May-Aug to another time of the year results in less optimal yield because scallop meat weights are less from November thru March. Ultimately, this will impact F rates and compromise the effectiveness of area rotation if too much effort is displaced from areas and seasons when it should otherwise be harvested.

### Impacts on bycatch

The PDT discussed what could happen to the scallop fishery if effort is displaced into November through May when fluke and summer flounder have higher bycatch rates. This may be an unintended consequence of this effort shift from the turtle BiOp when in conjunction with ACLs from another fishery. There may be ramifications to the scallop fishery based on ACL and AM measures developed for that bycatch species' management plan. The PDT therefore cautions that any development of a new Term and Condition will need to consider the effects of effort shift on bycatch that may not have previously been considered as problematic.

### Baseline discussion

The PDT believes that a new term and condition should not require a comparison to a historical baseline of fishing year because it would interfere with area rotation and impact the nature of the fishery. It was suggested then that perhaps an idea would be to lay out all these factors to show that cumulatively this Term and Condition causes more than a minor change to the design of the fishery without identifying a fine-line baseline for each. It was also pointed out that we would need to do an analysis of distribution of trips by vessel because this will clearly impact the Mid Atlantic port-based vessels (e.g., New Jersey vessels) more than the northern port-based vessels (e.g., New Bedford vessels). This serves as more justification for why the specific measure implemented to comply with the RPM needs to be included in a framework so a full analysis of impacts can be completed. Staff circulated a draft document with input statements from the PDT as well as an alternative RPM and term and condition. Some suggestions were made and it was decided that the PDT will circulate the RPM by email after the meeting and members can make changes directly. These overall comments from the PDT will be incorporated in the overall document that will be forwarded to the Committee.

### Letter from Oceana – alternative approaches to the T&C

The PDT then discussed a letter from Oceana that was addressed to the PDT with 2 suggestions for an alternative term and condition. One approach would be to still adhere to the current term and condition, but allocate partial trips (lower possession limit) because there is not a sufficient number of trips available to allocate one trip per vessel (i.e. 72 trips for the shorter time window). The other suggestion is to consider a cap on turtle bycatch for the fishery overall. Staff explained these two ideas and the PDT raised some concerns about how some issues were presented in the letter from Oceana. One PDT member noted several concerns including:

- 1) 18% of the dredge interactions are with adults at a 2:1 male:female ratio, thus 12% are adult females and only some percent of those are killed, which conflicts with the comment in paragraph 1, page 2;
- 2) some research that has been conducted has concluded that a strike does not necessarily injure a turtle, but the primary injury/death occurs when the dredge goes over the turtle, which conflicts with a comment made in paragraph 2, page 2;
- 3) based on analysis presented at this meeting (meat weight and economic impact analysis), the comments in paragraph 5 on page 3 are clearly untrue, and
- 4) the bycatch rates are biased high in the appendix, which should be clarified.

Another PDT member clarified that the description of how scallop effort is allocated in the fishery is false (vessels are not allocated trips by season) and this is misleading when considering the impacts of the term and condition. A representative from Oceana did address some of these

issues and pointed out that most of the issues in question were taken right out of NMFS documents, so those may be the source of error.

### **ACL DISCUSSION**

Ms. Sarah Pautzke provided a summary of the measures describing annual catch limits and how they will be applied to the scallop fishery. Several suggestions were made to improve the outline, but in general the PDT was supportive of the development of this section since the last meeting. An error was pointed out by another PDT member:  $B_{msy}$  is the biomass expected on average if we fish at  $F_{msy}$  and is the present target.  $B_{target}$  corresponds to fishing at  $F(0.2)$ , not  $F(0.29)$ .

#### *Biological parameters and sources of uncertainty*

The PDT determined that a more detailed description of the biological parameters used in the assessment should be added to the draft measures to explain biological uncertainty. In addition, a summary of the SAMS model would be useful because it would illustrate that a type of sensitivity analysis is already conducted to assess projected versus actual catch. The PDT discussed various sources of biological uncertainty, including natural and non-harvest mortality. Ultimately it was discussed that some of these parameters are on the low end, so the estimate is precautionary, thus decreasing our need to account for this when determining a level of biological uncertainty.

Additional biological uncertainty stems from the overfishing definition, which includes a target  $F$  that is set using the assumption that  $F$  is uniform spatially. Because  $F$  is not spatially uniform, utilization of the current overfishing definition for the scallop fishery contributes to uncertainty. The PDT discussed management uncertainty described in document #6. Staff will continue to update that section.

#### *ACLs and AMs – scallops in other fisheries, bycatch in the scallop fishery*

The PDT discussed whether sub-ACLs (and resulting AMs) for scallops need to be included in other FMPs or if sub-ACLs (and resulting AMs) for other species need to be considered for the scallop fishery. For example, the monkfish fishery may need a scallop sub-ACL or potentially the scallop fishery may need a monkfish sub-ACL. The PDT reviewed some analysis from the recent SARC and SBRM Amendment that summarized bycatch in the scallop fishery and scallop bycatch in other fisheries. Based on the data presented, it does not appear that scallop sub-ACLs need to be established for other fisheries. None of the other fisheries catch an appreciable amount of scallop bycatch (2% of all scallop discards are from other fisheries and when that is compared to total scallop landings that is about 0.5% - using info from SBRM for CY2005). There are several species caught as bycatch in the scallop fishery that warrant more discussion. A substantial portion of total discards for several species are from scallop gears: YTF, witch flounder, winter flounder, windowpane flounder, and monkfish. The PDT will leave these few species on the list for now for future consideration. Other species mentioned from the last meeting are: fluke, 4 spot flounder, and Icelandic scallops. However, unmanaged species such as 4-spot flounder and Icelandic scallops may not need to be considered at all in the scallop FMP since they do not require management measures under the MSA.

*Oceana advice to consider loggerheads a non-target species*

The PDT reviewed a suggestion from Oceana that was sent to the Scallop Committee related to consideration of loggerhead turtle as a non-target species – thus would receive an ACL. At the last PDT meeting the PDT was under the impression that anything managed under ESA is exempt from ACLs. One PDT member did comment that each BiOp includes an incidental take statement with a monitoring clause. Therefore, it might be useful to consider a maximum amount of turtle takes as an ACL. It was pointed out that we do not have a mandate to reduce takes to a particular limit though, which may mean making an upper cap of turtle takes hard to identify. The PDT seeks clarification from General Counsel regarding whether an FMP is required to include ACLs/AMs for ESA-listed species. The PDT hopes to receive legal guidance prior to the Committee meeting next week. We need official input about whether this is required and what the Act intended because this could have major consequences for what we might need in the future and the precedent it may set (e.g., whether ACLs would be necessary for whales, or for turtles in other fisheries, etc.).

**OTHER BUSINESS**

Staff explained that the 3<sup>rd</sup> agenda item the Committee will consider next week is revisiting the range of alternatives in A15. The Committee will decide what items will be removed and what items warrant more development. The PDT briefly discussed the two that came up at the Council meeting in October: IFQs and converting open area DAS into access area trips. There were no strong feelings expressed to remove them, but the PDT agreed that timing is an issue to keep in mind.