

**IPHC Apportionment Workshop Summary  
September 4<sup>th</sup>, 2008  
Red Lion Hotel and Convention Center  
Bellevue, WA**

**Commissioners attending**

James Balsiger  
Laura Richards  
Gary Robinson

**IPHC Staff attending**

**Presenters**

Bruce Leaman  
Steven Hare  
Ray Webster  
Juan Valero

**Others**

Claude Dykstra  
Tracee Geernaert  
Heather Gilroy  
Kirsten Gravel  
Lara Hutton  
Steve Kaimmer  
Thomas Kong  
Michael Larsen  
Lauri Sadorus  
Robert Tobin  
Jay Walker  
Gregg Williams

**Moderator**

Richard Marasco

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The workshop was convened by IPHC Executive Director, Dr. Bruce Leaman. He noted that the presentations would be online after the meeting; proceedings and presentations would also be made available via DVD upon request and free of charge.

Dr. Richard Marasco was introduced as the workshop moderator.

Dr. Leaman introduced the subject matter by explaining that the IPHC instituted a coastwide assessment approach two years prior; a change from the closed area assessments done previously. The issue then became how to apportion the biomass among areas. This workshop provided a chance to gain information and engage in discussion. It is not a decision-making meeting.

Dr. Leaman began the discussion by noting that there would be several candidate apportionment methods presented by staff. The chosen method must address the needs of stockwide management, have feedback built into it, protect area-specific spawning contributions, be precautionary, and be robust in terms of stock structure. Opening statements were invited.

Mr. Gary Logan from Canada's Department of Fisheries and Oceans (DFO) thanked the Commission for putting the workshop together. He noted that Canada is pleased to hear this will be a discussion workshop only and will not include policy decision-making. A steering committee has been formed in Canada to process this information and possibly form a suite of questions for the IPHC staff. He continued by saying that Canada accepted the concept of a coastwide assessment. However, it is in a severe socio-economic downturn currently and the fleet has taken on the additional costs of an integrated program. Canada does not accept the survey apportionment method for Area 2 because it is unfair. The committee has some thoughts that will be presented at this meeting.

Mr. Don Bodenmiller of Oregon Department of Fisheries and Oceans (ODFW) commented that there has been a lot of support for the coastwide assessment, but agreed that survey apportionment for Area 2 is unfair. There are questions of catchability in all areas that need to be addressed as well as socio-economic issues. ODFW sees apportionment as a policy decision, and if it's not broken, why fix it.

Dr. Marasco commented that in his experience with the North Pacific Fishery Management Council's (NPFMC) Scientific and Statistical Committee, he found it very useful to generate as much information as possible for policy makers and that's what this meeting was about. He invited attendees to share their comments, views, and opinions.

Dr. Ray Webster presented the results of the IPHC PIT tag program. Several main points were made by participants:

- 1) The time period between release and recovery varies, and at what point is a halibut considered in its “home” area. Dr. Webster responded that the majority of recoveries are in the summer months, with only a small number recovered in the spring and fall seasons. However, those that are recovered in early spring and late fall are more likely to be captured outside the area of release than tagged fish recovered in the summer months. These fish are a relatively small proportion of tag recoveries, and therefore are unlikely to have a major impact on estimation.
- 2) The point was made that Area 2A releases began in 2003 from the setline survey that covers the entire area. However, since that time, the distribution of the fishery itself has changed, for example the halibut fishery has been moved to outside 100 fathoms. The decreased chance of capture of PIT tagged fish in this area needs to be factored into the equation. Dr. Webster explained that reduced tag-recoveries because of reductions in commercial fishing range should not be a problem.
- 3) Since there is less chance of tag recovery in the western areas because of less effort, it would seem to overestimate the migration rate to the east. Dr. Webster explained that the lower exploitation in western areas is accounted for in the model.
- 4) There was some confusion over biomass estimates within the tagging model. Dr. Webster explained that there were now exploitable biomass estimates independent of the stock assessment for each area. It uses the exploitation rate derived from the tagged:untagged ratio in the catch to estimate the exploitable population. The low recovery rates in western areas would suggest a biomass ten times what we believe is actually there. The reason for the discrepancy is being addressed through PAT tagging.
- 5) There was interest in how commercial recoveries compare to recoveries on the setline survey. Dr. Webster noted that recoveries on the surveys show relatively high site fidelity of tagged fish. He added that as long as the fleet is not intentionally targeting or avoiding survey stations, this should not be a problem. There was a request to test how robust the model is to non-randomness of commercial fishing effort.
- 6) There was a suggestion to look at different survival rates of the tagging process based on size of fish as well as water temperature, air temperature during tagging, etc. It was suggested also that the trawl fishery in the western areas could be picking up a large number of fish and tags. Dr. Leaman commented that the staff discussed the possibility of observers scanning for tags, but that it would be a full time job for them and not feasible. Furthermore, the trawl fishery and halibut tagging tended to take place in different areas, and the size composition of bycatch in the trawl fisheries is overwhelmingly smaller than fish caught and tagged on the surveys.
- 7) There was some discussion of possible migration to the west into Russian waters. Dr. Webster noted that it may be that the tagged fish only migrate west and the untagged fish do not. Dr. Leaman explained that 125 PAT tags were deployed this year to look at this problem. Results from previous PAT and current PIT tagging suggest similar results – about 20% of the fish are moving while 80% are staying close to area of release.

Following a break, Dr. Steven Hare presented information about the IPHC stock assessment and harvest policy.

Mr. Gary Williamson commented that in all of Area 2, recruitment is decreasing, but increasing in Area 3A, which is the center of the stock. If migration was a major contributor to the stock in Area 2, and the quotas were going up or remaining the same in Area 3A, then it appeared the fish were being caught before they had a chance to migrate.

Many attendees expressed frustration regarding the uncertainty of the migration information and how this uncertain information was creating huge impacts in the stock assessment for Area 2. Dr. Hare iterated that the take home message from the PIT tagging experiment is that the fish do migrate to the east, making closed area assessments not feasible. To what degree, the staff has not yet determined.

A representative from the Makah tribe thanked the IPHC for providing industry the opportunity to dialogue with staff on the work being done. He noted that the Makah's support the theme brought forth earlier by the Canadian delegation. There is also the concern of being regulated out of the fishery. Every year the biologists hold meetings with the tribal fishers to present IPHC information and for the past couple of years, it's been frightening to them. The tribe is forced to conduct a strictly regulated, short, fast fishery that has weather, fuel, and tide concerns among others. The catch therefore does not truly reflect the CPUE for the area. During the summer troll fisheries, halibut are a common bycatch and this seems contrary to a declining biomass. The tribe requested that the IPHC look back at what was allocated in the past few years as evidence that the fishery is truly sustainable. In addition, the Makah technical staff would like to have further interaction with the IPHC staff leading up to the release of catch limit recommendations.

There were several comments and clarifications regarding the perceived biomass in Area 2 and how it could have sustained over the past several years of heavy fishing if it was truly being overfished. Dr. Hare commented that the goal is to have a constant fishing mortality across all regions of the stock so that harvest is in proportion to how the stock is distributed naturally. There is a reason that the stock was distributed this way to begin with. He added that a classic sign of an overfished population is a decrease in average age of the stock, and that signal is clear in Area 2.

The staff was asked to compare the NMFS trawl survey in Area 2C with the setline survey results as is done in Areas 3A and 3B.

Differing selectivity and catchability among areas was brought up several times as a source of concern. The staff responded that determining these factors is a priority.

Following a break for lunch, Dr. Hare presented various apportionment options.

Several attendees noted that there were aspects of the setline survey that could have produced errors, such as timing of the charter from one year to the next, standardization of gear, and tides to name a few. Many suggested that if the staff wanted to use the setline survey as a direct reflection of abundance of fish on the grounds of each area, then it should be proven. Dr. Hare responded that the gear is standardized, but there are certainly still catchability questions that could be related to other factors such as timing and tides. He agreed that further study would be advantageous.

There were also concerns expressed regarding surveying grounds that had been recently fished versus grounds allowed to “rest” for a period of time prior to survey fishing. Dr. Webster commented that he had examined this, presented results in this year’s RARA, and found no effect. There was a suggestion to test the method to see at what point a difference could be detected. It may be that the model was not sensitive enough to detect the changes. Dr. Webster agreed to do the analysis. Dr. Leaman commented that changing how the survey operated now, for example implementing a rolling stand down of commercial fishing, would affect the standardization of the entire survey and that in the absence of any demonstrated effects, it would be unwise to change the survey process.

Dr. Juan Valero presented computer generated tools to look at apportionment options.

Mr. Jim Whitethorn of the West Brothers group in Area 2C suggested a slow up-slow down policy using a 15-year average of commercial catch instead of the current 3-year average of survey CPUE. This would be less of a burden financially on the fishers in the area. He commented that based on experience, there were a large number of migratory fish in Area 2C, and July and August would be better months to perform the survey since June has always yielded lower catches. He added that the declining catch limits should be spread throughout the system and not concentrated in Area 2 only.

Concerns were expressed by Area 4 fishers that Area 4B has a different structure than the rest of the stock and these differences were being ignored. Dr. Hare noted that Area 4B is indeed oceanographically unique and there was research being conducted in the area. He also explained that Area 4B enjoyed a relatively high catch limit for several years because it was an under-exploited stock. However, that level of fishing was unsustainable in the long run and eventually a new exploited equilibrium is reached that is lower than the one-time bonanza harvests.

There were many inquiries about, if indeed exploitation rates in Area 2B have been around 50%, how could there still be a viable fishery there. Dr. Hare explained that the exploitable biomass is only a small portion of the total biomass in an area. The fish are constantly growing and moving. The past couple of decades worth of fishing were heavily dependent on a few very large year classes that recruited into the fishery. Those year classes have now been fished out and replaced by much smaller ones. A big indicator that exploitation is too high is the fact that the average age of the commercially caught halibut is young, at about 9 years old. That means that the average fish is below spawning age and is caught before contributing back to the population. So, if fishing were to continue at this high exploitation rate, but there is adequate out of area recruitment, the fishery could sustain for several more years. However, if a large portion of the recruitment in Area 2B comes from Area 2B females, then there could be a stock crash.

Dr. Valero demonstrated the impacts on the stock of varying degrees of immigration using the simulating tool.

A representative of Washington Department of Fish and Wildlife suggested looking only at the CPUE for the first 20% of commercial catch in a given year, stating that it’s very difficult to solve the problem of time in the survey.

Other questions included:

- 1) Understanding the tradeoff between a pound of fish that emigrates. Dr. Hare explained that it is nowhere near a pound for a pound. So if a pound of halibut emigrates from Area 3B and ends up in Area 2B, the realized yield would be significantly less than one pound.
- 2) Looking at a 30-inch instead of a 32-inch size limit and whether that would keep more larger females on the grounds. Dr. Leaman explained that the staff has looked at that scenario and the problem was that there was no way to tell how the industry would behave. The result would be a change in the definition of exploitable biomass and in theory a higher catch limit. However, if the fleet did not land fish according to how they occurred naturally (e.g. high-grading) then the worst situation would result – a higher catch on the existing exploitable biomass.
- 3) Whether the staff has looked at blended alternatives with the simulation tool. Dr. Valero commented that the staff is looking at multiple management models.

Mr. Steve Joner, Makah tribe, commented that in 1887, the Makahs harvested 1.2 million pounds of halibut from what is now Area 2A. That is about what is being taken out now. The current harvest in Area 2A seems sustainable so what is the evidence that the stock is being overexploited? Dr. Hare responded that while it seems to be holding its own, the survey and commercial CPUE in the area has declined 50% in the past several years. If that fact is added to the fact that there is a decline of larger females, it presents a classic picture of an overexploited stock. He added that in this year's stock assessment, there will be a graphic describing the contribution of the spawning biomass in Area 2 illustrating the contribution to be very small. Regarding depletion in Area 3, Dr. Hare explained that if each area feeds off its own recruitment, then theoretically, Area 3 would not be affected by an Area 2 recruitment failure, but we don't know if this is true. Mr. Joner asked the staff to run a simulation to see how long it would take to reach a biomass level with the characteristics of an unfished stock if fishing were to cease. Dr. Hare agreed. He also asked for a meeting with staff in October which Dr. Leaman agreed to.

Mr. Phil Anderson (WDFW/PFMC) thanked the staff for the information presented and for preparing the workshop. He stated that there was a lot of surprise and confusion after the 2008 Annual Meeting and this workshop helped to explain some of it. WDFW and PFMC are committed to conservation and believe the coastwide assessment is appropriate. Apportionment is more complex when overlaid with conservation issues and since Area 2A takes such a small portion of the overall exploitable biomass, there is still more convincing to be done before agreeing that a 30-40% cut is warranted. He added that Area 2A is ready to step up to the changes needed though. He also asked the Commission to consider the timing of the PFMC process and its implementation of the catch sharing plan when making significant changes to the assessment process that could impact the overall catch limits.

Several comments were made regarding the economic hardships of a downturn in the stock, and asked that before any dramatic changes took place, to be sure the problem is real and not hypothetical. The point was also made that while the age structure changes appear real, there is still a disconnect as to how the Area 2 fishery has sustained so long. It was suggested that the increased harvest rates in the west are the one factor that have changed the dynamics. Dr. Hare responded that while the harvest rates in the west have increased, it is clearly not the only cause of a downturn in the east.

Comments were also made from workshop participants warning other participants to be cautious and to put the resource first even if it is difficult economically. It was further stated that the halibut fishery has been sustainable because scientists and harvesters have worked together through the years with the resource as the primary concern.

Other comments included:

- 1) Staff was asked to look at the way that stocks could be rebuilt in Area 2 with less dramatic cuts.
- 2) Agreement that Area 2C catch rates were not performing well, but that there are still significant questions about catchability in the survey that need to be addressed.
- 3) Staff was asked to revisit the bycatch problem in Area 4 as a source of loss to areas further east.
- 4) The staff was asked to explore the idea of changing the size limit to harvest more old, small males and keep the larger females in the water.
- 5) Concern that there could be local depletion of some survey stations due to the survey itself. Dr. Leaman responded that ODFW and IPHC worked together on a paired station experiment this past summer to look at that possibility. Results were not yet available.

In closing, Dr. Leaman commented that one directive to this workshop was to increase the understanding about the information available and to get opinions on how stakeholders were feeling about it. It is not a surprise to staff that folks are concerned, and a common theme seems to be that a phase-in approach is favored.

Dr. Richards thanked participants for coming. She acknowledged that sometimes these sorts of venues create more questions and work, as did this workshop, but they are useful. It is not unusual to have conflicting views and information and it's now the Commission's job to wade through it. She added that overall, she felt that participants were interested first in the conservation of the stock.

The workshop was adjourned.