

**2011 Research Advisory Board (RAB) Meeting
IPHC Offices, Seattle WA**

17 November, 2011

RAB members: Tony Blore, Dave Boyes, Art Davidson, Lu Dochtermann, Jim Hubbard, Brad Mirau, John Woodruff, Rob Wurm

IPHC staff: Bruce Leaman, Steve Keith, Joan Forsberg, Gregg Williams, Heather Gilroy, Claude Dykstra, Tim Loher, Eric Soderlund, Ray Webster, Linda Gibbs, Kirsten MacTavish, Juan Valero, Aregash Tesfatsion, Evangeline White, Lauri Sadorus, Steve Kaimmer.

1. Review of issues from previous meetings

- 1.1. Change in minimum size limit – Bruce noted that the staff’s analysis may not be ready by the Interim Meeting but is more probable for the Annual Meeting. The analysis shows that the impacts depend on the assumptions made about fleet behavior and the effect on selectivity. David Boyes noted that he doesn’t catch many small fish any more with 16/0 circle hooks. David B suggested that what we might see in the catch would be similar to what was seen in the early 1970s with the 26-inch size limit. Also, the BC fishery has 100% monitoring, so highgrading is very low to nonexistent. The monitoring has created an avoidance behavior as a result. He sees a lot of U32 fish which are covered in sand fleas and dead, and Cdn fishers want to discourage that type of fishing mortality. Regarding the preponderance of smaller fish, John Woodruff commented that he believes arrowtooth flounder (ATF) has had a great influence on the reduced size at age. He is also interested in changes in the ecosystem brought about by fishing. Juan noted the staff has examined the size limit several times since the 1970s. John W believes that small fish can be marketed, although the recovery rate is lower on small fish, around 48% and they are difficult to fillet. He’s worried a smaller size limit would lead to highgrading. Jim H commented that he believes highgrading is mainly a hired skipper issue, i.e., those that have no stake in the fishery. He also mentioned that in the hired-skipper scenario, the owner requires all #1 fish – if any #2s, these are deducted from crew shares, hence a greater incentive to highgrade. Tony B noted a new split in the 10/20 size category, to 10/15 and 15/20, bringing about a price differential. This has resulted in less incentive for skippers to bring those smaller fish in, because with the lower catch limits, a skipper has to maximize his revenue. Additional discussion followed on the significant amount of U32 fish landed in 2B and 2A; shows a lack of attention to an obvious enforcement issue. Tony noted the small fish in the 10/15 category have also allowed an opportunity for farm fish to possibly enter the market, as those fish are also small. In addition, the high halibut prices are allowing a foothold in the market for farmed halibut which are cheaper to produce than buying wild-caught halibut at these prices. Jim H noted he saw more ‘chubby’ fish this year in 3B in June and 3A in July. Tim commented that it could mean they are healthier or it could also mean that they are allocating their energy reserves away from reproductive functions and towards growth instead (skip spawning?). Ideally, chubby halibut would be examined or followed every year to get a clear idea of what is going on. Tony B commented on the ‘skinny’ fish he saw. Tim Loher noted it is unclear what isolated or spot observations really mean.
- 1.2. Survey modifications – Bruce L opened this discussion by saying the staff is looking at both a ‘densification’ of stations within the 20-275 fm range, as well as expansion into the 10-20 fm and 275-400 fm ranges. The current design has a potential for bias, which isn’t good. He noted the 2B survey as an example – no stations in Strait of Georgia or Dogfish Bank. However, it could be very costly to add the additional stations (~\$1.5 million) and difficult to budget because

of market volatility. It was suggested by Ray, that the expansion could be done, but not every year, or a different subsample of the expanded areas could be surveyed every year. For that reason, the commissioners may be interested in some type of subsampling approach.

- 1.3. Profiler data and fishery catches – Lauri S presented several geographical figures she had prepared on the data collected by the profilers. The figures showed the correlations with halibut catch rates and broad environmental conditions. Lauri agreed to email to the RAB members the figures and also the link to the NOS web site.
- 1.4. Arrowtooth flounder (ATF) – This was John W’s favorite topic. John would love to see 1 Mlbs of ATF taken out of the Gulf of AK, and observe how the ecosystem would respond. This led to a discussion of bycatch problems in the Gulf. Several RAB members expressed the view that ATF could not be harvested without substantial halibut bycatch problems. However, ATF appears to be caught fairly cleanly in the Bering Sea, so perhaps the technology is there to catch them. It was noted that ATF could be marketed if processed at sea within 24 hours.
- 1.5. Small fish and stock fecundity – Bruce commented that in some species, larval survival can be influenced by egg quality and that older (larger) females sometimes had better (higher organic content) egg quality. However, the differences in egg quality with younger fish are quite small.
- 1.6. Survey bait – This will be discussed in the afternoon.
- 1.7. Area 2C stock status – There was a discussion on the reliability of the sport fishery estimates supplied by ADF&G (i.e., creel samplers cannot get data from lodges, only public dock/boat ramp landings), and the effect poor estimates would have on IPHC’s ability to manage the fisheries in the area. The discussion included anecdotal evidence of charter fishing operations shifting to “shepherded” unguided operations to avoid the charter rules.
- 1.8. POST project wrap up - Tim summarized what we experienced with the equipment; essentially, detection distances and reliability would mean a much higher density of receivers than would be economically viable. While this may have some great application to pelagic species, our concerns about the ability to track a demersal species such as halibut proved to be well founded. Instead, the Commission is putting its resources into high quality geomagnetic archival tags.

2. New Issues raised by RAB members

- 2.1. David Boyes – Very concerned about the Species At Risk Act (SARA) evaluations of quillback rockfish in BC. He has seen some big differences between the COSEWIC evaluations, and those of DFO. He wonders if the evaluations are being done properly and objectively. David asked if there was a role for IPHC in the process. A second issue was sport fishery management in BC. He noted that the 2011 fishery exceeded the allocation. DFO is not using the licensing process to collect data, so it’s difficult to estimate the catch. He had also heard of an organized boycott of DFO’s Experimental Recreational License program. He also mentioned an Environment Canada bird zone around Triangle Island, where fishers must show that they are not affecting the birds.
- 2.2. Brad Mirau –Is there anything new regarding whale depredation? Claude D responded with what he knew about the group out of Sitka, though they have been quiet for the past several years. He reviewed several proposals which have been circulated. IPHC is still collecting information on the surveys. Jim H said he’s had success in keeping whales away by running a skiff around the boat while hauling. Art said he’s never seen sperm whales inside Dixon Entrance and doesn’t know why.
- 2.3. Rob Wurm – Rob would like to see protection of the larger, older females if the size limit gets lowered. He realizes the fishing pressure may decline on the larger fish but still wants to see more protection. There ensued a discussion about the benefits of saving larger fish.
- 2.4. Art Davidson mentioned that in 2B there are 151 RCAs and the IFMP. With these two in place, the large females are being protected by default because the RCAs are often on rock piles where larger halibut are found. Jim H. noted that if you can’t fish or survey these areas, then you never get to study the impact of the RCAs on the stocks or targeted species.
- 2.5. RAB members described their experience with this year’s commercial fishery.

3. Staff research in 2011

The staff reviewed several notable research projects conducted in 2011, including the pilot bait study, the survey expansion in 2A, and geomagnetic tags.

4. IPHC research proposed for 2012

Bruce and the staff reviewed several projects being proposed for 2012. The RAB was asked for their views and opinions.

- 4.1. Depth expansion of the survey – The need for this was supported by anecdotal reports heard by Jim H of large catches off California (5000 lbs). The question was raised about how often an expanded survey should be conducted, given the cost. Jim H suggested no more than every 3rd year, and Brad M and Art D agreed. Bruce commented that the commissioners may say how often it gets done within our current resources. Rob W questioned the usefulness of the additional data given the cost, especially if the additional survey effort is not sustainable.
- 4.2. Bait study – Bruce explained the need to look at this question, i.e., unstable supply and increased cost of chum salmon. Bruce described the preliminary discussions the staff has had about the possible configurations of bait types within the survey sets. David B said he always avoids setting more than 8 skate sets. There was quite a bit of discussion about sources of variability, in bait quality, across areas.
- 4.3. Size at age – Bruce and Tim L reviewed the paper recently drafted by Tim, examining the possible causes and potential lines of research. Tim noted that most of the factors which would influence size at age are broad, decadal-scale processes, which are not easily identified or measured. Tim suggested that perhaps the best thing we can do now is to initiate studies which will help us 10 years from now, as further changes occur.
- 4.4. Whisker hooks – Steve K explained his proposal to look at the potential for a hook with a wire appendage across the gap to reduce rockfish bycatch in the halibut fishery.
- 4.5. Ichthyophonus – Claude D explained the staff's proposal to collaborate with USGS on studying the geographic spread of this parasite in halibut. Tissue samples would be collected from a small number of samples of fish caught on the assessment and trawl surveys in 2012, and analyzed by USGS.

5. Other research topics

- 5.1. Lamprey occurrence – Eric S asked if any RAB members had any observations of lamprey damage to halibut. Jim H said he saw a higher percentage in Prince William Sound this season. Occasionally one would come on board. No one had ever seen one on a sablefish.

Closing Comments

Bruce thanked the RAB members for attending this year, given the conflict with the Pacific Marine Expo.