NPFMC/IPHC Workshop on Halibut Bycatch Management

November, 2011 DRAFT

**Background**

The North Pacific Fishery Management Council (Council) is evaluating proposed reductions to the halibut prohibited species catch (PSC) limits for trawl/longline fisheries in the Gulf of Alaska (GOA). The evaluation needs to consider the impacts of halibut bycatch mortality on stock yield (CEY), exploitable and spawning biomass, and the dynamics of the halibut stock. In response to this need, the IPHC staff provided an analysis of these issues, which was included both in the Council analysis and as an appendix to the GOA Halibut PSC Limit EA/RIR.

Halibut bycatch mortality impacts are a combination of both the level of bycatch mortality and its cumulative impact on yield and spawning biomass, both coast-wide and by IPHC management area. The area impacts are influenced both by the distribution of halibut biomass as estimated from the resource surveys and halibut movements estimated from tagging studies. That is, the impacts of halibut bycatch are a function of both halibut ecology (movement, growth, mortality, maturity), and the amount of bycatch mortality; both components require analysis and evaluation.

On migration, the IPHC staff is preparing a white paper detailing the current understanding of halibut movements, including sources of information and analyses. This research synopsis paper may inform the Council’s discussion of what the area-specific impacts of bycatch might be, given the available data. The migration white paper is anticipated to be made available in December, and would be a subject of the workshop discussion. Implications of the “slow growth” currently being observed in halibut, including its interaction with current minimum size limits, would also be reviewed at the workshop.

On bycatch estimation, the current levels of bycatch in the GOA are not completely understood, partly because of necessary extrapolations to vessels not subject to observer coverage. Recognizing that the groundfish observer program in the GOA is being restructured to address these deficiencies, and to provide for better use of available observer coverage, a review and assessment of bycatch estimation at this workshop could be very informative to the restructuring process. It could also inform the Council desire to consider more comprehensive bycatch management measures (e.g., IBQs or similar ‘rationalized’ approaches).

The absolute level of bycatch mortality is important because the Commission staff considers estimated bycatch as one of the factors that determines the appropriate harvest rate for the halibut stock. Essentially, the harvest rate for the stock is reduced to account for some of the bycatch mortality that is estimated to occur. If that estimate is too low by a substantial amount, it means that the halibut harvest rate, and the consequent yield taken from the halibut stock, is incorrect and the stock overexploited. However, regardless of uncertainties in total bycatch estimation in any given year, one goal of this workshop is to understand the impacts of *a given amount* of bycatch (for example, the current halibut PSC caps) on the IPHC yield management strategy.

Discussions within the Council, between the Council and the Commission staffs, and between all Pacific halibut stakeholders and the Commission would benefit from a better understanding of halibut bycatch mortality and its impacts. In addition, the Council desires to better appreciate the current understanding of halibut migration and halibut growth in order to understand both the coast-wide and the area-specific impacts of halibut bycatch mortality on halibut stock biomass, yield, and productivity, and the relevance of halibut PSC limits. At its June 2011 meeting, the Council requested a jointly sponsored workshop with IPHC to examine the current understanding of halibut movements and growth.

**Workshop Outline**

Commission and Council staffs therefore propose that a public workshop be held to review the methodology and accuracy of the estimation of halibut bycatch in trawl/longline groundfish fisheries off Alaska, and the impacts of any given amount of halibut bycatch on the halibut stock, both coast-wide and by area given the current understanding of halibut migration. This workshop will also discuss halibut ecology, including recent trends in exploitable biomass, spawning biomass, and age at length correlations, as well as information concerning the causes and implications of halibut slow growth.

The staffs believe that the workshop focus should extend beyond just the GOA because halibut movement is a coastwide phenomenon and the Council has stated its intent to review halibut PSC limits in the Bering Sea/Aleutian Islands (BSAI) in the future. The workshop would be jointly funded by the IPHC and the Council, and could replace the proposed SSC review of halibut migration (originally scheduled for February 2012).

Tentative dates for the workshop have been identified as April 24-25, 2012 due to current IPHC, NPFMC, and NMFS meeting schedules and staff tasking, the need to develop background documentation and analyses of bycatch estimation, and ongoing interactions between IPHC staff and scientists contracted by the groundfish industry regarding halibut growth, migration, and harvest strategy, which are all subjects of the proposed workshop. The latter, which will extend from mid-February through March 2012, is intended to develop a joint understanding of halibut bycatch and its impacts on halibut stock dynamics and yields. Neither the workshop nor the meeting report would be available to inform the Council on its selection of a preferred alternative for revising GOA halibut PSC limits, which is scheduled for early April 2012 in order to be implemented in mid-2013, although the significant details of bycatch impact on the halibut stock were included in the September EA/RIR as noted. The workshop would be held in Seattle.

The workshop would be comprised of short summary presentations from agency science staffs and industry scientists, with a scientific panel that would be charged with providing a review of the discussion and its findings. The presentations would summarize documents that will be made available to the public/participants prior to the workshop. The panel would include staff from IPHC, the NMFS Alaska Fisheries Science Center, the Council’s SSC, Canada’s DFO, and independent scientists sponsored by industry. Also discussed has been the inclusion of one or two international bycatch experts.

Suggested workshop presentations include the following:

1. Halibut ecology;
   1. Recent (last 30 years) evolution of exploitable biomass, spawning biomass, and age/length relationships by sex of Pacific halibut stock (IPHC designate)
   2. Diet overlap of halibut and abundant Alaska flatfish — (co- presentation with IPHC designate and Kerim Aydin, AFSC)
   3. Synopsis of theoretical and empirical evidence concerning the causes of halibut slow growth and potential differences in natural mortality by sex — (Tom Jagielo, industry consultant) Existing presentation suggestion #7
   4. Review of empirical evidence of slow growth, sexual dimorphism and differences in natural mortality by sex among non-halibut flatfish — (Tom Wilderbuer, AFSC)
2. Impacts of halibut bycatch;
   1. Halibut bycatch and wastage estimates from the BSAI and GOA groundfish fisheries and the Alaska halibut fisheries (co-presentation NMFS AFSC designate and IPHC designate). Existing presentation suggestion #3.
   2. Halibut bycatch and wastage estimates in the Canada groundfish and halibut fisheries (co-presentation DFO designate and IPHC designate).
   3. Incorporating halibut bycatch and wastage impacts within the IPHC harvest policy (IPHC designate). Existing presentation suggestion #5.
   4. Impacts of halibut bycatch and wastage in the GOA and BSAI on halibut coast wide CEY and spawning biomass, (Steve Martell, industry consultant). Possibility of a co-presentation with IPHC, existing presentation suggestion #4.
   5. Effects of halibut migration on estimates of halibut bycatch (co presentation Tom Jagielo, industry consultant and Juan Valero, IPHC). Existing presentation suggestion #6.
3. Optimal management of halibut bycatch;
   1. Reducing halibut bycatch mortality rates in Alaska groundfish fisheries. Description of past and current research and programs to return bycaught halibut to the sea with minimal injury (co presentation IPHC and Kenny Downs / John Gauvin / Todd Loomis, industry consultants). Exiting presentation suggestion #8.
   2. Effects of a smaller size limit on halibut coast-wide CEY, spawning biomass, and wastage in the commercial setline fishery (co presentation Steve Martell, industry consultant and IPHC). Existing presentation suggestion #7.
   3. Implementing improvements in estimating halibut bycatch (co- presentation with DFO designate talking about Canadian programs and Nicole Kimball, NPFMC/Craig Faunce NPGOP, about Alaska groundfish observer program restructuring).
   4. Experience with tradable individual halibut bycatch quotas (co-presentation with DFO designate and NMFS/NWR designate). Existing presentation suggestions #1 and #2.
   5. Experience with north pacific catch share programs and halibut bycatch reductions – Rockfish Pilot Program and Amendment 80 (co-presentation Bonney and Anderson, industry consultants).
4. Results and policy implications;
   1. Stakeholder discussion: A chairperson led discussion of the implications of the results for halibut management where the attendees (stakeholders) are asked to provide their views on the implications of the results for halibut management, and during a process of moderated discussion the panel members provide feedback and-or questions about stakeholder views and suggestions as well as what additional research may be useful or required to determine which suggestions may be “optimal.”
   2. Panel discussion: A chairperson led synthesis and discussion of the implications of the results and stakeholder views for halibut management in the north pacific by a workshop panel constituted in advance of the workshop.