

North Pacific Fishery Management Council

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MEMORANDUM

TO: IPHC Commissioners

FROM: Chris Oliver, Executive Director, NPFMC

DATE: November 23, 2016

SUBJECT: Update on Council research priorities and abundance-based PSC management

Following on a September 2016 letter from the IPHC to the Council, IPHC and Council leadership met by teleconference in early November to discuss opportunities for continued communication and coordination between the two bodies, with particular focus on two areas: (1) research activities relevant to management of the halibut resources; and, (2) development of an abundance-based approach to managing halibut PSC (bycatch) in Council managed groundfish fisheries. Pursuant to those discussions, the Council agreed to provide an update on these items to the IPHC at this interim meeting.

Five-year Research Priorities

The Council required by the Magnuson-Stevens Act to submit (annually) a list of five-year research priorities. This list is developed through review by the Council's Plan Teams (groundfish, crab, and scallop Plan Teams jointly) and the Council's Scientific and Statistical Committee (SSC), both of which include representatives of the IPHC. The Council provides final approval of these research priorities each June and submits them to NOAA Fisheries, as well as to numerous research and academic institutions throughout the Nation (including Universities engaged in North Pacific research, the IPHC, and entities such as the North Pacific Research Board). The Council's most recent list of research priorities is attached for your reference.

The five-year research priorities are divided among four categories: (1) CRITICAL – research which supports essential management functions, cannot likely be achieved by other means, or is required by regulation; (2) URGENT – essential for compliance with federal requirements or necessary to decision-making; (3) IMPORTANT – provides information to support near-term management goals; and, (4) STRATEGIC – research which is valuable or supports long-term needs, but is not associated with an immediate need or near-term Council action.

Several of these research priorities are directly or indirectly associated with the biology or management of the halibut resource, including the following:

- #211 - Benefits and costs of directed halibut catch and halibut PSC utilization - URGENT
- #235 – Investigate gear modifications and changes in fishing practices to reduce bycatch – URGENT
- #385 – Study Pacific halibut PSC, bycatch, and discard behavior in fisheries – URGENT
- #388 – Study temporal and spatial patterns in size-at-age of Pacific halibut – URGENT
- #491 – Assess dependence and impacts of halibut management actions on communities – URGENT
- #492 – Investigate factors underlying fishery responses to halibut PSC caps – URGENT
- #493 – Examine the relative importance of historical closed areas in the vicinity of the Pribilof Islands as juvenile halibut nursery habitat relative to other regions coast-wide – URGENT
- #182 – Evaluate current and alternative Council PSC/bycatch reduction initiatives – IMPORTANT
- #209 – Investigate factors affecting the guided angler sector of the halibut fishery – IMPORTANT
- #387 – Determine effects of migration on Pacific halibut population and management – IMPORTANT
- #389 – Investigate ecosystem effects and inter-species interactions of halibut – IMPORTANT
- #386 – Investigate long-term effects of fishing on Pacific halibut – STRATEGIC

Halibut Management Framework research priorities

Beginning in June 2015, the Council began development of the halibut management framework document (Framework), as an over-arching strategic reference and planning document, and to facilitate improved communication and coordination with the IPHC on halibut management issues. Included in the Framework is a section on research priorities, which was initially framed by the joint meeting between the Council and the IPHC in February 2015. The most recent version of the Framework is attached for your reference. Section 4 discusses current research and management issues and Section 4.2 identifies five research PRIORITIES as identified by the Council. These five are:

Development of technical methods to index PSC limits to abundance: this ongoing initiative is discussed further below.

Migration of halibut between areas: this is recognized as extremely important to our collective understanding of the impacts of halibut removals (including bycatch) among areas.

Discard Mortality Rates (DMRs): refinement of DMRs in all fisheries, bycatch and directed, is essential to our understanding and accounting for halibut discards. Revisions to the current DMRs are being developed by a staff workgroup (including IPHC staff), through review by the groundfish Plan Teams and the Council's SSC, and will be reviewed by the Council once again at our December meeting. Revised DMRs, based upon operational characteristics of various fisheries (rather than by target fisheries), are expected to be applied to the 2017 groundfish fisheries.

An integrated decision-making framework, that addresses biological, economic, and social issues: this is a longer-term research initiative which may be augmented by various research proposals under consideration by various funding sources. It should be noted that the Council decision-making process itself already represents such a framework, as required by various Acts and other applicable laws.

Impacts of short-term, medium-term, and long-term changes in the environment on key aspects of halibut life history: this is a very broad and all-inclusive research priority, which could have a number of ‘sub-research’ priorities implied.

Abundance-based PSC management

At its recent October meeting the Council reviewed a discussion paper on the ABM approach which was prepared by an inter-agency workgroup, including Council staff, NMFS, staff, and IPHC staff. This review was preceded by a public workshop on ABM held in Seattle in September of this year. The paper focused primarily on identification of Council objectives for this initiative; data sources for developing an index; candidate indices; and, development of alternative control rules to apply to the chosen index (including consideration of floors and ceilings for a cap).

Objectives identified by the working group, and confirmed by the Council in October, include:

- indexing PSC to abundance
- protecting SSB at low levels
- allowing flexibility in groundfish operations
- maintaining halibut directed fishing operations
- stability in PSC limits.

Clearly some of these objectives are ‘competing’ objectives, and the Council did not specify a prioritization of these objectives at this time, nor did they attempt to quantify any of them. Rather, the Council provided direction to the working group relative to the next iteration of this analysis which would allow for public input into the development of ‘performance metrics’ by which the various alternative indices and control rules could be measured against the objectives currently identified. These performance metrics can then be applied to inform the specification of indices and control rules (including potential floors and ceilings) through further analysis. Ultimately the Council will need to identify specific alternatives, elements, and options for formal analysis under our MSA and NEPA requirements.

The schedule for this process is as follows:

February 2017 (Seattle) – in conjunction with the Council’s February 2017 meeting in Seattle, the working group will hold a public workshop to solicit stakeholder input on appropriate performance metrics. Performance metrics (both quantitative and qualitative) will be developed in relation to the objectives of this action and most likely in four broad categories: 1) Conservation, 2) Fishery metrics, 3) Social metrics, and 4) Incentives. An example of a performance metric for which the workshop will solicit stakeholder input (under the ‘fishery metrics’ category) would be whether a specific numeric range of relative target catch levels to be achieved in directed halibut and directed groundfish fisheries is an appropriate consideration as a metric. IPHC Commissioners are welcome to attend the workshop and provide input at that time; however, this will not be a Council agenda item for February.

February through March 2017 – following input from the public workshop, the workgroup will continue to develop a range of alternative control rules applied to a range of indices to further the process of development of alternatives for this action. These indices include the EBS trawl survey, the IPHC setline survey, a proposed ABM index which integrates across multiple surveys and includes a range of weights on the relative proportions, and an estimate of the exploitable biomass in Area 4. Control rules will be considered which are applied in aggregate based on total bycatch of halibut as well as bycatch by gear type over these indices and consider a suite of slopes and constraints. The workgroup will also provide the draft performance metrics incorporating the stakeholder input from the workshop for distribution in conjunction with the discussion paper on the development of alternatives.

April 2017 (Anchorage) – the Council will review the analyses prepared by the working group and take action as appropriate. This could include further specification of objectives, approval of performance metrics for analyses, and/or identification of specific alternatives, elements, and options for formal analysis. The Council's June 2017 meeting would also provide another opportunity to review progress on this initiative.

Based on this schedule there will be opportunity for further input from the IPHC as this initiative is developed within the Council. A joint meeting between the two bodies may provide an appropriate forum for additional communication and coordination on development of the ABM approach, development of research priorities, and other issues as appropriate. This could be done just prior to the Council's April 2017 meeting in Anchorage, or perhaps in conjunction with the Council's June 2017 meeting in Juneau.