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Marisa Keefe
Fisheries and Oceans Canada
1420-401 Burrard Street, Vancouver, BC
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January 20, 2021

Subject: MCC response to the draft 2020/2021 Pacific herring IFMP

Dear Marisa Keefe,

The *Pacific Marine Conservation Caucus* (MCC) is submitting this letter in response to the draft 2020/2021 Pacific Herring IFMP. This letter contains additional points and a reiteration of our position described in our previous letters (November 13, 2020, January 17, 2020 and November 22, 2019).

In short we continue to recommend the transition of the Strait of Georgia herring fishery toward a precautionary harvest strategy with a primary aim to grow and maintain the stock in the “Healthy Zone” ($SBt \geq 0.6SB0$). Maintaining the stock in the healthy zone (1) upholds the requirements of DFO’s precautionary approach policy and recent fish stock rebuilding provisions, (2) reflects the intentions of the management strategy evaluation process, (3) transitions the fishery toward an ecosystem approach, and (4) considers uncertainties in spatial structure of herring populations.

Recommendation for 2020/21 Pacific Herring Integrated Fisheries Management Plan:

The MCC recommends an intentional transition of Pacific herring management toward an ecosystem based fishery through lowering the harvest rate and implementing operational control points to maintain the biomass at a higher level (Healthy Zone). This approach will reduce risk to herring and reliant predators, acknowledge uncertainties in the population structure, and maintain fishing opportunities within the context of an ecosystem based fishery. For the 2020/21 Strait of Georgia herring fishery the MCC MP (HS30-60_HR.1) is the best-suited option to achieve these objectives.

First Nations Rights and Titles

Participating organizations of the MCC support the government of Canada upholding the legal and constitutionally enshrined rights of Indigenous peoples. To that end we acknowledge that the government of Canada must work with First Nations that have an interest in Pacific herring, recognizing that a single approach may not be suitable for all Nations.

DFO's Precautionary Approach Policy and Fisheries Act Fish Stock Rebuilding Provisions

The Pacific Herring IFMP purports to follow the guidance of the '[Precautionary Approach](#)' policy under DFO's Sustainable Fisheries Framework. The proposed harvest strategy and resultant quotas in the draft 2020/2021 IFMP reflect the minimal conservation intent of this policy. That is, avoid driving the stock below the LRP or 'critical zone'. The only stated justification in the draft IFMP for the current harvest strategy for the Strait of Georgia (SoG) population is summarized in one sentence "all tested MPs [management procedures] could maintain the spawning biomass above the LRP with 75 to 85% probability across all natural mortality (M) scenarios" (pg. 91). What this means is that the fishery is being managed with a 3 out of 4 chance of not entering the critical zone. While this goal provides moderate assurance that the stock will not fall below the LRP, it does not reflect the ecosystem importance of this species and does not uphold DFO's primary policy directive for sustainable fisheries.

The full intent of the precautionary approach policy is to maintain or grow stocks above the Upper Stock Reference (USR) point (i.e., healthy zone) through applying appropriate management procedures. Currently the SoG herring population is in the cautious zone below the 2020/2021 acknowledged USR ($SBt \geq 0.6SB0 \geq 0.5$). When a stock is below the USR, the PA policy states that harvest rate should "progressively decrease from the established maximum and should promote stock rebuilding to the Healthy Zone". Furthermore, the recent [Regulatory Impact Analysis Statement](#) in the Canada Gazette 1 fish stock rebuilding provisions (Part I, V.155 (1)) adds additional interpretation of the PA policy and states that stocks in the cautious zone are to be managed with the goal toward the "growth of the stock towards the healthy zone" and "existing policies recommend that a fisheries management plan should aim to continue the stock's regrowth towards the healthy zone if *possible*". In the case of Strait of Georgia herring, maintaining the stock in the healthy zone is *possible* but it will require consideration of alternative management procedures, such as those identified in the MSE process, to increase the likelihood.

The draft 2020/21 IFMP interpretation of DFO's PA Policy is a continuance of a focus on the low end of the conservation guidance. There has been no discussion or consideration of alternative management procedures that would maintain/grow the stock toward the healthy zone and no effort to implement a "progressive reduction in removals" (i.e., hockey stick MPs).

It is important to also recognize that the Fisheries Act (s. 2.5(a)) identifies the "application of the precautionary approach and an ecosystem approach" as the first mentioned considerations for the Minister when making a decision. The draft 2020/2021 IFMP only reflects the minimum conservation intent of the PA policy and has no measures toward an ecosystem approach.

With the fish stock rebuilding provisions coming into effect, it is becoming increasingly apparent that there is an internal inconsistency within DFO to continue with the conservation objective for herring to be the same level as the rebuilding threshold (i.e., LRP ($SBt \geq 0.3SB0 \geq 0.75$)). Stated another way, the

current primary management objective is to avoid hitting the rebuilding threshold. It is clear that the PA policy and the rebuilding provisions are intended to keep stocks healthy while providing a regulatory backstop for when management has failed.

Management Strategy Evaluation

Since 2017 a considerable portion of DFO's herring science effort has been directed toward the Management Strategy Evaluation process. The MSE process is characterized by DFO as an iterative process allowing for diverse and varying perspectives to be evaluated and measured against other ecological and societal values. Despite this effort, the Strait of Georgia management procedure adopted and presented in the draft 2020/2021 IFMP is a continuation of long-standing conventional fisheries management approaches. There has been no consideration of ecosystem based objectives, reduced risk profiles, or selecting management procedures to grow and maintain the population into the healthy zone.

In our previous letter, the MCC voiced our support of the MP which best characterizes the transition toward an ecosystem based, lower risk fishery referred to as HS30-60_HR.1. It should be noted that none of the MPs with the exception of 'NoFish_FSC' are able to keep the population above the USR under all scenarios. The MCC scenario provides the best option for maintaining and possibly growing the biomass while allowing for the continuation of a viable commercial fishery.

At a minimum, if DFO is using MSE processes and the PA policy as intended to guide management decisions, then the harvest strategy should reflect a management procedure that progressively decreases from the established maximum (i.e., hockey stick). Both the HS30-60_HR.15 and HS30-60_HR.20 would at least be more in line with the 'progressive decrease' aspect of the PA policy.

Toward an Ecosystem Approach

As mentioned in this letter and in previous submissions, the harvest strategy proposed in the draft IFMP has no objectives toward maintaining the ecosystem role of herring as part of the strategy. The simplified long-standing justification of how the IFMP maintains the ecosystem role of herring, going back at least 15 years, is that a harvest rate of 20% of the spawning stock leaves 80% of the adult biomass and all juveniles to support ecosystem processes. This explanation falls short in several ways, but most notably, it assumes that the ecosystem role is somehow maintained through a species-specific harvest rate of the SSB with no consideration of the stock status relative to reference points, future trajectory of the stock, or spatial structure. Similar to the 'progressive decrease' provision of the PA policy to maintain the stock in the healthy zone, a similar approach is required to accommodate for impacts to the ecosystem. Again, the PA policy recognizes that there are "resultant impacts to the ecosystem" as the stock declines.

Spatial Structure

The harvest strategy in the draft 2020/2021 IFMP has not attempted to address any spatial objectives. The "Ecosystem Risks" section in the draft recognizes the "uncertain impact of the fishery on smaller spatial areas". In our previous letters we have explained how a more precautionary harvest strategy is the best approach to address uncertainty in the spatial structure. Again in this letter the MCC is recommending that DFO chooses a harvest strategy that maintains and grows the stock into the 'Healthy Zone' as the most practical immediate course of action to take. In particular a harvest strategy

that maintains and grows the biomass through a reduced harvest rate and a progressive decline in harvest rate with respect to the SSB, in combination with closed areas is the best way to address the uncertainty in the spatial structure. The MCC continues to recommend the management procedure HS30-60_HR.1 to achieve this objective.

Recommendation for 2020/21 Pacific Herring Integrated Fisheries Management Plan:

The MCC recommends an intentional transition of Pacific herring management toward an ecosystem based fishery through lowering the harvest rate and implementing operational control points to maintain the biomass at a higher level (Healthy Zone). This approach will reduce risk to herring and reliant predators, acknowledge uncertainties in the population structure, and maintain fishing opportunities within the context of an ecosystem based fishery. For the 2020/21 Strait of Georgia herring fishery the MCC MP (HS30-60_HR.1) is the best-suited option to achieve these objectives.

Thank you for considering these options. We feel it is long overdue for DFO to consider other conservation objectives and transition the Strait of Georgia herring fishery toward Canada's first ecosystem-based fishery. We are also requesting a full explanation as to how our points are being considered in advance of any decision for the 2021 roe herring fishery.

Sincerely,



Scott Wallace, Ph.D.

Senior Research Scientist, David Suzuki Foundation
Integrated Herring Harvest Planning Committee, MCC Representative

On behalf of the Pacific Marine Conservation Caucus

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