

2019-2020 Standards Review: Highlights of Proposed Revisions

Standard for Fisheries

Criterion 1

- Changed the productivity and susceptibility factors assessed in and scoring methodology of the PSA. Proposed changes will more closely align with the literature and help ensure that data poor fisheries do not score better than data rich fisheries
- Defined what SFW considers a forage species
- Resolved challenges in scoring abundance and fishing mortality of forage species based on static reference points while ensuring that fishing mortality thresholds are properly set.
- Revised guidance on reference points to ensure that their appropriateness is judged based on principles of conservation and system resilience, rather than a comparison to MSY.
- Amended our use of data-limited stock assessments such that where there is confidence in the results of a data-limited assessment, a single assessment can be used to score Factor 1.1, independent of a PSA.
- Clarified the definition of a substantial contributor and identify what would be considered a 'non-substantial contributor', by creating a decision tree.

Criterion 2

- Clarified the process of selecting main species by developing a decision tree that identifies the questions that should be asked in making this determination.
- Created a scoring table that uses the preliminary Marine Mammal Protection Act List of Foreign Fisheries (LOFF) to help score impacts to marine mammals by non-US fisheries. Once the final LOFF is developed, marine mammal bycatch from imported fisheries will be scored similarly to the way U.S. fisheries are scored in Table 2.2.1.a.
- Developed additional guidance in Criterion 2 outlines when the impact of bait fisheries should be included in a Seafood Watch report
- Created a methodology to revise the Unknown Bycatch Matrices. Seafood Watch is hosting a series of workshops to elicit expert opinion regarding bycatch susceptibility of the assemblages mentioned above as well as batoids.

Criterion 3

- Added guidance to Appendix 3 to ensure precautionary, flexible and resilient management practices are included. These edits were made to improve Seafood Watch's assessment of forage fish management and account for the impacts of climate change in management but are relevant to all fisheries.
- Added scoring options under moderately effective and ineffective for Factor 3.1. The purpose of this is to capture those situations where there is uncertainty regarding the implementation of a management system.

- Within factor 3.2, changed the assessment of the management of bait fisheries and identified whether there are any obvious concerns in this area (where bait species have been identified as a main species as described previously in Criterion 2).
- Modified Factor 3.2 Bycatch Strategy to incorporate the best practices recommended by Global Ghost Gear Initiative.
- To clarify the distinction between Factors 3.3 and 3.4, we amended their titles and distinguish the term 'monitoring' from the term 'surveillance' by defining monitoring to be more consistent with the FAO and Marine Stewardship Council (MSC) definitions. The term 'surveillance' will exclusively be used in Factor 3.4 to refer to observations required to obtain information about compliance with laws and regulations.

Criterion 4

- To better account for the ecosystem level impacts of fishing on forage species, Seafood Watch created a new decision rule to reflect the importance of forage species to the ecosystem such that where a high concern is scored for factor 4.3, Criterion 4 is considered red for the purposes of other decision rules, *and* add a critical scoring option where demonstrable ecosystem impacts result from the fishery. This critical score would result in an overall rating of Avoid.
- Moved the Lenfest Forage Fish Task Force recommendations on conservative harvest control rules necessary ensure sufficient forage for ecosystem needs (namely the needs of dependent predators) from C1 to C4.

Standard for Salmon Fisheries

Overall

- Changed title from 'Standard for Salmonid fisheries' to 'Standard for Salmon fisheries' and referred to 'salmon' throughout
- Added table of key terms and definitions to preamble
- Added changes to Standard for Fisheries made during the 2019-2020 review to the Standard for Salmon Fisheries

Criterion 1

- Changed scoring requirements for Factor 1.1 such that appropriate reference points must be exceeded in at least 80% of the last 15 years to score 'very low concern' (previously 70%), and at least 60% of the last 15 years to score 'low concern' (previously 50%).
- Changed Factor 1.2 scoring table such that if fishing mortality relative to reference points is unknown or mortality-based reference points are not established, a fishery would be scored as 'moderate concern.'

Criterion 2

- Made no changes unique to the Salmon Standard (changes made to Criterion 1 and 2 in the Fisheries Standard were made here as well, if applicable).

Criterion 3

- Added guidance regarding how to score salmon fisheries that release salmon (including minor SMUs).

Criterion 4

- Changed captions for tables 4.1.1 and 4.1.2 captions to allow for assessment/mitigation of impacts in freshwater habitats from salmon fisheries that operate within freshwater areas

Criterion 5X

- Added guidance regarding the timescale of assessing impacts of artificial production.
- Combined information previously presented in 5.1.3 into Table 5.1.2, to clarify the two approaches available to score factor 5.1, dependent on the available data.
- Within Table 5.1.2, 'Impacts' column, slightly changed pHOS thresholds for minor/moderate to match recommendations from HSRG (2015).
- Added reference to 'primary' populations (if available) for setting management goals for 'highly effective' in 5.2.1.
- Added requirements to Table 5.2.4 for scoring the ecosystem-based management of artificial production, relating to the level of coordination with other groups in implementing artificial production plans.

Appendix 8

- Factor 1.1. Added guidance for determining minor vs. major SMUs. Guidance was added for scoring selective salmon fisheries that release certain species or SMUs.
- Factor 3.1. Added a new section of guidance for Evaluating Management of Salmon Fisheries; this section contains guidance related to 'alternative management strategies' and 'recovery of stocks of concern.'
- Factor 4.1. Added a new section of guidance for 'Evaluating Impact on Habitats' regarding potential habitat impacts from freshwater fisheries.'
- Factor 4.3. Added a new section of guidance for 'Ecosystem Based Management of Salmon Fisheries' regarding consideration of habitat restoration efforts.
- Factor 5.1. Added guidance regarding evaluation methods for pHOS and pNOB, and methods for evaluating impacts of artificial production when pHOS and pNOB are not available.
- Factor 5.2. Added guidance regarding population designations, and the value of this strategy for recovering and maintaining viable salmon populations.

Standard for Aquaculture

All Criteria

- Changed scoring table concern column “no concern” indicator to “very low”.

Criterion 2 – Effluent and Criterion 3 – Habitat

- The scope of effluent was modified such that all effluent discharges from farms (including those from net pens) are now considered in Criterion 2 – Effluent, regardless of the distance of that impact from the farm. Previously, net pen effluent discharges impacting the benthos were split between the two criteria, with impacts outside an allowable zone of effect (AZE) considered in Criterion 2 – Effluent and impacts within an AZE considered in Criterion 3 – Habitat. The intent of this change is to assess the cumulative nutrient-related impacts of any industry under Criterion 2 – Effluent, and assess the cumulative physical impacts (e.g. physical impacts of farm structures, habitat fragmentation, plastics, etc.) under Criterion 3 – Habitat.

Criterion 2 – Effluent

- Inserted some guidance for assessing polyculture systems with further guidance in Appendix 4. This guidance intends to ensure basic nutrient dynamics associated with multi-species systems can be accounted for in the calculation of likely impact from discharges of such systems. Guidance for polyculture has also been inserted into other criteria, as well as the scope of assessment in the standard’s introduction, but the most substantial change has been its incorporation into Criterion 2 and Criterion 5.

Criterion 4 – Chemical Use

- Modified language for a score of 10 out of 10 to require that chemical treatments have not been used for the most recent three consecutive production cycles or three consecutive years for cycles longer than one year, and the species or production system has a demonstrably low need for chemical use.
- Modified language such that the use of antimicrobials critically important for human medicine in significant quantities (defined as more than once per production cycle) or unknown quantities to be considered a Critical conservation concern. A Critical concern drives the overall rating to a red Avoid regardless of how the rest of the criteria are scored.
- Modified language such that the use of antimicrobials highly important for human medicine in significant quantities (defined as more than once per production cycle) remains at a score of 2 out of 10, but the use of those products in unknown quantities is now considered a score of 0 out of 10.

Criterion 5 – Feed

- Inserted guidance for assessing polyculture systems (inclusive of cleaner fish and multi-

trophic systems) and is further described in Appendix 4.

- *Factor 5.1 – Wild Fish Use*
Increasing the weighting of the sustainability of the source fisheries for marine ingredients, and partially including the use of by-product fishmeal and fish oil in the calculation of FFER.
- *Factor 5.2 – Net Protein Gain/Loss*
Simplifying the ‘protein budget’ calculation to a simple “all protein in, all protein out”; this is in recognition of the incredibly complex determinations (as a result of often-conflicting ecological, economic, and social values) of the ‘edibility’ of ingredients used in aquafeeds.
- *Factor 5.3 – Feed Footprint*
The transition from a crude Earth-area-based metric to the utilization of a new, robust, and publicly- available life cycle assessment database to estimate the global warming potential (via CO₂-equivalents) of feed production on a per-kg of harvested fish protein basis.

Criterion 8X – Source of Stock

- Provided explicit guidance that the use of any species actively stocked to be a part of the farming system, including those not otherwise the primary harvestable species (e.g. cleaner fish used in salmon farming systems), must be scored in Criterion 8X.
- Modified language such that sourcing of Seafood Watch Red/Avoid fishery products for species actively stocked to be a part of the system is now considered a Critical conservation concern.

Criterion 9X – Wildlife Mortalities

- Restructured to allow for both Evidence-based and Risk-Based Assessment options, depending on data availability. Incorporating the concept of Potential Biological Removal, this will allow data on the impact of any aquaculture-related wildlife mortalities, where they exist, to be more robustly used. This also allowed scoring options for when robust data are not available to be more distinguishable from one another and result in clearer risk-based scoring decisions.