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ISC/18/PLENARY/12



PLENARY 12

*18th Meeting of the
International Scientific Committee for Tuna
and Tuna-Like Species in the North Pacific Ocean
Yeosu, Republic of Korea
July 11-16, 2018*

USA Proposed Template for Developing Stock Status and Conservation Information

July 2018

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Template Proposal

The following items should be included in the Executive Summaries of Stock Assessment Reports by Working Groups:

- a. Description of fishery data updates.
- b. Identification and description of model considered the “base case.”
- c. Description of stock assessment model assumptions.
- d. Description of major changes to the data and model structure from last assessment (if not the first assessment of the stock).
- e. Description of any major issues with the results or model that should be considered when interpreting results.
- f. Description of future research directions/research needed to improve stock assessment.
- g. Clearly defined stock boundaries, when one or more stocks are being assessed.

The following is a minimum set of information that should be included in the Stock Status and Conservation Information sections of Stock Assessment Reports by Working Groups, and also put forward by the ISC Plenary.

Stock Status

- a. Describe all existing adopted reference points (RP), including limit (LRP), warning/flag, target (TRP), and rebuilding target reference points and the organizations who adopted them.
- b. Calculated biomass values in an appropriate metric (e.g. B, SSB, etc).
 1. Biomass reference point values (e.g. SSB_{MSY}) and any other relevant adopted or proxy reference points used.
 2. Biomass in the terminal year(s) (e.g. SSB_{2015}) and the ratio of biomass in the terminal year(s) to the calculated adopted RPs or proxy RPs (e.g. B_{MSY}).
- c. Calculated fishing mortality values in an appropriate metric.
 1. Fishing mortality reference point values (e.g. F_{MSY}) and any other relevant adopted or proxy reference points used.
 2. Fishing mortality in the terminal year(s) (e.g. $F_{\text{most recent three years}}$) and the ratio of fishing mortality in the terminal year(s) to the calculated adopted RPs (e.g. F_{MSY} and $1-SPR_{MSY}$) or proxy RPs.
- d. Kobe plots
 1. Plot F and B values for each year throughout time, and terminal F and B values should have labels and confidence intervals. Clearly label and explain axes.
 2. If RPs have been adopted by RFMOs for a stock, develop a Kobe plot with those.
 3. Working groups have the option to develop multiple Kobe plots with different adopted and/or example RPs.
 4. Color code between overfished/not overfished (red/green) only if an LRP adopted by an RFMO for B exists; color code between overfishing/not overfishing (red/green) only if an LRP for F exists; color code all four

- quadrants (red/green/yellow/orange) if LRPs exist for both B and F.
- e. General notes:
1. If there is an adopted LRP for F, use the term “overfishing” if $F > \text{LRP}$, or “not overfishing” if $F \leq \text{LRP}$, and specify the LRP in the same sentence.
 2. If there is an adopted LRP for B, use the term “overfished” if $B < \text{LRP}$, or “not overfished” if $B \geq \text{LRP}$ and specify the LRP in the same sentence.
 3. In cases where there is no adopted LRP for F, and/or B, the terms “overfishing” or “overfished” will be used in the stock status paragraph but the same paragraph must also specify the proxy or example LRP used and must also indicate that the LRP is an example or proxy.
 4. If including language “is not likely” or “is likely” with respect to whether a B or F exceeds or is below an example or adopted LRP, include the % probability of being above or below the example or adopted LRP if that value was calculated in the assessment.
 5. If no adopted RPs exist, include the estimated values of $B_{\text{terminal year}}$ and $F_{\text{terminal year}}$ or any other appropriate metrics to represent most recent average B and/or F values and if desired, also their ratios with respect to any relevant example RPs.
 6. Avoid vague terms, like “current” fishing mortality; specify the year. Examples: F_{2015} or SSB_{2015} .

Conservation Information

Conditional conservation information should be phrased in terms of if/then statements. Example: “If the fishing mortality rate were reduced by x%, then SSB would be expected to increase by y%...”

- a. If available, projection results of future fishery yield, and a biomass metric and stock status metric. Example projection scenarios could include status quo catch, FMSY, and other useful/requested levels.
- b. Important sources of uncertainty that impact the interpretation of assessment results and management advice.
- c. Relevant information from Management Strategy Evaluation reports, if available.