v. 12/11/15

**QUESTIONNAIRE FOR MEMBERSHIP ON WITCH FLOUNDER STOCK ASSESSMENT WORKSHOP**

**WORKING GROUP (SAW WG)***

**Name:**

**Address:**

**Email address:**

**Phone number:**

**Today's date**:

**Select the species that you would like to assess:** Witch Flounder

**Selection Criterion #1: Independence** (Members of the SAW WG cannot peer review their own work, and in that sense must have independence.)

> **Question #1(a).** Do you, or will you, serve as a member of another group (e.g., working group, committee, or council) that will peer review the stock assessment produced by the SAW WG, or make fishery management recommendations based on that stock assessment?

> **Question #1(b).** If you answered "yes" to #1(a), please provide additional details here regarding a.) the name of the other group, b.) your role in that group, and c.) types of recommendations that group will make that are based on the stock assessment produced by the SAW WG.

**Selection Criterion #2: Expertise and Education** (Members of the SAW WG must have technical expertise and knowledge required to make meaningful contributions to the stock assessment, specifically to the assessment Terms of Reference – see Attachment A.)

> **Question #2.** Describe your areas of expertise, training, and background that relate to carrying out a fishery stock assessment for the stock(s) under consideration by the SAW WG.

*Please note that the number of participants on the SAW WG is limited and appropriate qualifications do not guarantee you a position as a decision-making member of the WG. Composition and balance of the SAW WG will also be considered. Public participation in the WG meeting and discussion is still permitted.

**Attachment A. Generic Terms of Reference (vers. 6/2015) for fishery stock assessments in SAW/SARC process.**

1. Estimate catch from all sources including landings and discards. Describe the spatial and temporal distribution of landings, discards, and fishing effort. Characterize the uncertainty in these sources of data.

2. Present the survey data being used in the assessment (e.g., indices of relative or absolute abundance, recruitment, state surveys, age-length data, etc.). Investigate the utility of commercial or recreational LPUE as a measure of relative abundance. Characterize the uncertainty and any bias in these sources of data.

3. *(An ecosystem-related TOR. [this could involve interspecific biological interactions such as with predators, competitors or prey, or it could involve physical factors such as water temperature or circulation]. If possible, integrate the results into the stock assessment (TOR-4).*

4. Estimate annual fishing mortality, recruitment and stock biomass (both total and spawning stock) for the time series (integrating results from TOR-4), and estimate their uncertainty. Include a historical retrospective analysis to allow a comparison with previous assessment results and previous projections.

5. State the existing stock status definitions for "overfished" and "overfishing". Then update or redefine biological reference points (BRPs; point estimates or proxies for $B_{MSY}$, $B_{THRESHOLD}$, $F_{MSY}$ and MSY) and provide estimates of their uncertainty. If analytic model-based estimates are unavailable, consider recommending alternative measurable proxies for BRPs. Comment on the scientific adequacy of existing BRPs and the "new" (i.e., updated, redefined, or alternative) BRPs.

6. Evaluate stock status with respect to the existing model (from previous peer reviewed accepted assessment) and with respect to a new model developed for this peer review. In both cases, evaluate whether the stock is rebuilt (if in a rebuilding plan).

    a. When working with the existing model, update it with new data and evaluate stock status (overfished and overfishing) with respect to the existing BRP estimates.

    b. Then use the newly proposed model and evaluate stock status with respect to "new" BRPs and their estimates (from TOR-5).

7. Develop approaches and apply them to conduct stock projections.

    a. Provide numerical annual projections (XX years) and the statistical distribution (e.g., probability density function) of the OFL (overfishing level) (see Appendix to the SAW TORs). Each projection should estimate and report annual probabilities of exceeding threshold BRPs for F, and probabilities of falling below threshold BRPs for biomass. Use a sensitivity analysis approach in which a range of assumptions about the most important uncertainties in the assessment are considered (e.g., terminal year abundance, variability in recruitment).
    b. Comment on which projections seem most realistic. Consider the major uncertainties in the assessment as well as sensitivity of the projections to various assumptions.
    c. Describe this stock's vulnerability (see "Appendix to the SAW TORs") to becoming overfished, and how this could affect the choice of ABC.

8. Evaluate the validity of the current stock definition, taking into account what is known about migration among stock areas. Make a recommendation about whether there is a need to modify the current stock definition for future stock assessments.

9. Review, evaluate and report on the status of the SARC and Working Group research recommendations listed in most recent SARC reviewed assessment and review panel reports. Identify new research recommendations.