## Use of Sweep Efficiency Research Data in 2020 Stock Assessments

Stock	Level of Assessment Review *	Lead Assessment Scientist	Description (Use of Catch Efficiency)
Gulf of Maine/Georges Bank Acadian redfish	2	Brian Linton	Not applicable
Northwestern Atlantic Coast Atlantic halibut	1	Dan Hennen	Not applicable
Gulf of Maine/Georges Bank	2	Charles Adams	Not applicable
Northwestern Atlantic Coast Ocean pout	1	Charles Adams	Not applicable
Gulf of Maine/Northern Georges Bank Red hake	3	Toni Chute	Sweep Efficiency Research catch efficiency directly incorporated into the biomass estimate
Southern Georges Bank/Mid- Atlantic Red hake	3	Toni Chute	Sweep Efficiency Research catch efficiency directly incorporated into the biomass estimate
Gulf of Maine/Georges Bank Windowpane flounder	2	Toni Chute	Sweep Efficiency Research catch efficiency directly incorporated into the biomass estimate
Southern New England/Mid- Atlantic Windowpane flounder	2	Toni Chute	Sweep Efficiency Research catchability estimates were used to calculate a survey swept area biomass and calculate exploitation rates. The primary AIM assessment provides only relative indices of abundance and fishing mortality, and so catchability estimates would not have affected those results.
Georges Bank Winter flounder	3	Tony Wood	The length composition from the Sweep Efficiency Research does not reflect the length composition of the Georges Bank stock (i.e., the studies included few fish > 38 cm total length)
Gulf of Maine Winter flounder	2	Paul Nitschke	Sweep Efficiency Research catch efficiency directly incorporated into the 30+cm biomass estimates
Southern New England/Mid- Atlantic Winter flounder	3	Tony Wood	The swept area biomass indices derived from the Sweep Efficiency Research were used as a check on the age-structured assessment results.
Eastern Georges Bank (TRAC) Atlantic Cod	NA	Gary Shepherd	Not applicable
Eastern Georges Bank (TRAC) Haddock	NA	Liz Brooks	Not applicable
Georges Bank (TRAC) Yellowtail Flounder	NA	Chris Legault	Empirical approach uses q from Sweep Efficiency Research to expand survey to population estimate

\* Assessment Review Levels

1 Direct Delivery: A Level 1 management track assessment is essential a simple update the previously approved assessment with new data. This level of assessment update will be delivered directly from the NEFSC to the appropriate Council or Commission technical body (e.g., SSC) and will not undergo peer review beyond that conducted by those technical bodies.

2 Expedited Review: A Level 2 management track assessment can involve a little more flexibility for deviations from the previously accepted assessment, but that flexibility is limited to allow for efficient peer review of multiple assessments in one peer review meeting, similar to what previously had been carried out for the groundfish operational assessments for the NEFMC. Level 2 assessments will undergo a formal, but expedited (1-2 hour maximum), peer review by a small panel of SSC members from the relevant Council(s), along with additional external experts if desired, before submission to the appropriate Council or Commission body.

3 More Formal Peer Review: A Level 3 management track assessment will permit more extensive changes than a level 2 assessments and therefore requires a more extensive peer review (one-half to a one full day). The flexibility in level 3 provides an opportunity to make progress within the management track toward the Next Generation Assessments envisioned in the Stock Assessment Improvement Plan, by including more detailed spatial, temporal, environmental and species interactions within existing model frameworks.