

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON
METHODOLOGY REVIEW: FINAL FISHERY IMPACT MODEL REVIEW TOPICS AND
STOCK ASSESSMENT METHODOLOGIES

Methodologies for review in 2025

The Scientific and Statistical Committee (SSC) was advised that the groundfish incidental-catch projection model for non-sablefish, non-nearshore fishing was no longer being proposed for review. However, a method for extrapolating discard mortality for the open access sector may be available for review during 2025. If this method is developed, it could be reviewed by the SSC Groundfish Subcommittee (GFSC) prior to the June 2025 Council meeting.

Review of the Fourier Transformed Near-Infrared Spectroscopy (FT-NIRS) ageing method

The GFSC conducted a review of the FT-NIRS methodology for use in fish age estimation for groundfish stock assessments of U.S. West Coast species on October 1-2, 2024. This method has the potential to estimate fish ages more efficiently than traditional methods, improve standardization of ageing approaches, and increase replicability of ageing. FT-NIRS has been applied by Northwest Fisheries Science Center (NWFSC) staff to sablefish, Pacific hake, and rougheye/blackspotted rockfish, and the GFSC reviewed these applications.

The work reviewed by the GFSC is part of a national initiative to operationalize FT-NIRS across National Oceanic and Atmospheric Administration (NOAA) ageing laboratories. The review benefited from the participation of Alaska Fisheries Science Center staff, in particular, Thomas Helser, and members of the Committee of Age Reading Experts (CARE).

The SSC reviewed the [GFSC report](#) and endorsed its key research recommendations, and recommends that:

- FT-NIRS age estimates should not be included in groundfish update assessments in 2025 because benchmark assessments provide more opportunity to evaluate the use of FT-NIRS ages.
- The 2025 assessment of sablefish should include a relatively small number of FT-NIRS ages, with sensitivity of assessment results provided to assess the effects of inclusion of these data.
- The 2025 assessment of rougheye/blackspotted rockfish should not include FT-NIRS ages owing to the low agreement between FT-NIRS and traditional age estimates.
- FT-NIRS ages could be considered for inclusion in the 2025 assessment for chilipepper rockfish if appropriate FT-NIRS models can be developed.
- The pre-assessment workshops should include a presentation or update of FT-NIRS model diagnostics and results for any stock for which FT-NIRS ages may be included in an assessment.
- Fish length or weight should not be used as covariates in models used to develop FT-NIRS age estimates owing to the potential for “double use” of length and weight data in the assessments.

While use of FT-NIRS is likely to increase the number of age estimates available for assessments, the SSC highlights that information from traditional ages is still needed to calibrate the model and refine the FT-NIRS algorithms due to changes in environmental conditions.

PFMC
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