

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON
DRIFT GILLNET PERFORMANCE METRICS METHODOLOGY

The Scientific and Statistical Committee (SSC) reviewed the random forest regression tree method used to estimate protected species bycatch and interactions in the drift gillnet fishery. Mr. Jim Carretta (Southwest Fisheries Science Center) presented the new approach, compared it to the ratio estimator approach, and answered questions. Random forest regression tree bycatch estimates are based on models that potentially incorporate location, gear, and oceanographic covariates.

The SSC considers the regression tree method an improved approach for estimating annual bycatch levels compared to the ratio estimator approach. It is also a more efficient way to use all available data to predict mean bycatch per unit effort for unobserved sets and is potentially responsive to changes in fishing behavior and oceanographic conditions when those factors prove to be significant predictors of bycatch rate. This approach may also identify factors that managers or industry can use to reduce future bycatch.

The SSC finds the use of the regression tree method to be an improvement over the ratio estimator approach for estimating bycatch in the drift gillnet fishery.

PFMC
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