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# Cumulative Discard Methodology Review

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# Discard Peer Review Meeting

- The peer review panel will be assembled by the Center for Independent Experts (CIE)
- The review meeting will be held Nov 7-9 at GARFO offices in Gloucester
- Public will be welcome to attend
- <https://www.greateratlantic.fisheries.noaa.gov/aps/discard/review/index.html>

# Discard Review Project Description

Revisit the annual cumulative discard methodology developed in 2010 for sector monitoring

The methodology is used for in-season catch monitoring, NOT stock assessment estimation of discards

The methodology is used to estimate groundfish discards, YT discards in scallop fleet, and has been further expanded to other fisheries: butterfish discards in longfin fleet; haddock in herring fleet, and river herring in herring/mackerel fleet.

# Discard Review Project Scope

- The discard review will be reviewing methods to improve the current implementation of the cumulative discard method
- The review will not be comparing alternative methods to the cumulative method
- The review will not be addressing observer bias
- For Northeast Multispecies, alternatives for discard methods and ASM coverage rates will be reviewed in an upcoming council action

# Discard Review Project Structure

For each fishery subject to in-season discard monitoring utilizing the cumulative discard method

1. Using measureable stratification schemes, identify improved implementations of the existing cumulative discard methodology.
2. Examine methods for including past years' discard information to improve in-season estimation
3. Compare methods based on precision, consistency, needed observer coverage
4. The comparison will use archived data to simulate in-season behavior



# Discard Peer Review Contacts

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# Terms of Reference

1. For each fishery subject to in-season discard monitoring utilizing the cumulative discard method, summarize the variability in discard rate by measurable strata: fishery, gear, area, season, volume of catch, etc.
  
2. Identify more optimal applications of the current cumulative method for in-season estimation of discards in comparison to existing cumulative discard methodology and stratification schemes. Alternatives identified will include
  - a. Existing cumulative discard methodology and stratification scheme as a baseline
  - b. Pooling data across current stratifications to increase information and precision. As an example, pooling across sectors and gears.
  - c. Including seasonality as a stratification
  - d. Allocate/restrict sampling requirements to those strata which in aggregate constitute a target fraction of total stock-specific discards. (i.e, excluding or minimizing sampling for strata with negligible discard totals)

# Attachments: Terms of Reference

3. Methods identified in TOR 2 will be compared using the following metrics
  - a. Precision of the discard estimates for a given level of observer coverage
  - b. Consistency of discard estimates calculated over the course of the fishing year.
  - c. Precision and consistency of the CV discard metric for a given level of observer coverage
  - d. Sensitivity to missing or erroneous data.
  
4. Examine methods for including data from past years to improve predicting the in-season estimation of discards.
  
5. Use archived data to simulate in-season behavior (with various time steps and discarding patterns) and recommend a preferred method for each fishery with consideration of the following:
  - a. Feasibility, particularly the implications of stratum size and within-year pattern of precision.
  - b. The probability and timing of premature closure (i.e. false positive).
  - c. The probability and magnitude of exceeding a cap (i.e. e. false negative).