Cumulative Discard Methodology Review

Groundfish

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Current Method – "Baseline"

- Stock discard estimate: Sum observed discards of the stock/observed all fish kept by stratum
- One discard rate for the fishing year
- Stratify by gear/mesh, sector, exemption
- 2010 Review recommended revisiting the method after five years when have actual data
- Used five trip transition rate

Data Sources and Preparation

- FY15 DMIS and observer data
- Apply FY16 sector memberships to trips
- “Make trips like FY16”
  - Eliminate trips on MRIs not fishing in FY16
    - CPH, lease-only sector, cancelled
- Apply FY16 discard mortalities
- Apply FY16 sector exemptions
- Eliminate non-groundfish gear, etc.

Stratification Alternatives

- Looked at four alternatives to baseline
- Baseline modified by:
  - Add stratification by vessel length category
  - Combine sectors together into one stratum (vs. common pool
  - Add stratification by Broad Stock Area (BSA)
  - Both combine sectors and add BSA

Comparing Alternatives

- Metrics looked at: Coefficient of Variation (CV) and Catch estimates with confidence intervals
  - Combined CV based on SBRM formula
  - 95% confidence intervals of catch
- Also look at combined CV as a function of required observer coverage
- Look at probability of premature closure / exceeding the quota based on our estimated catch

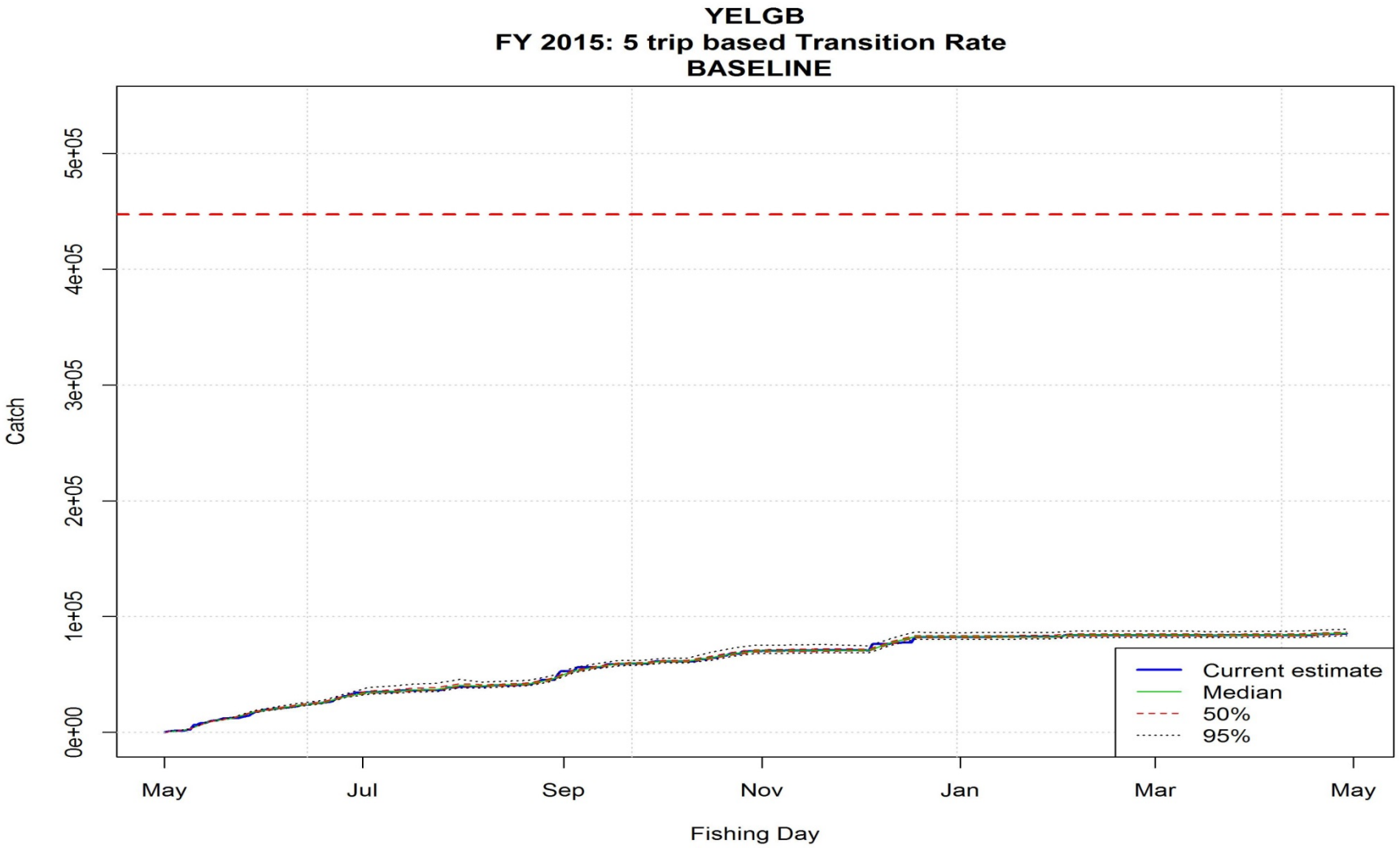
Example CVs (FY15 Trips)

Stock	Baseline	Vessel Length	Combine Sectors	Broad Stock Area (BSA)	Combine Sectors / BSA
GB Yellowtail	0.27	0.31	0.26	0.27	0.26
Northern Windowpane	0.16	0.19	0.17	0.14	0.17

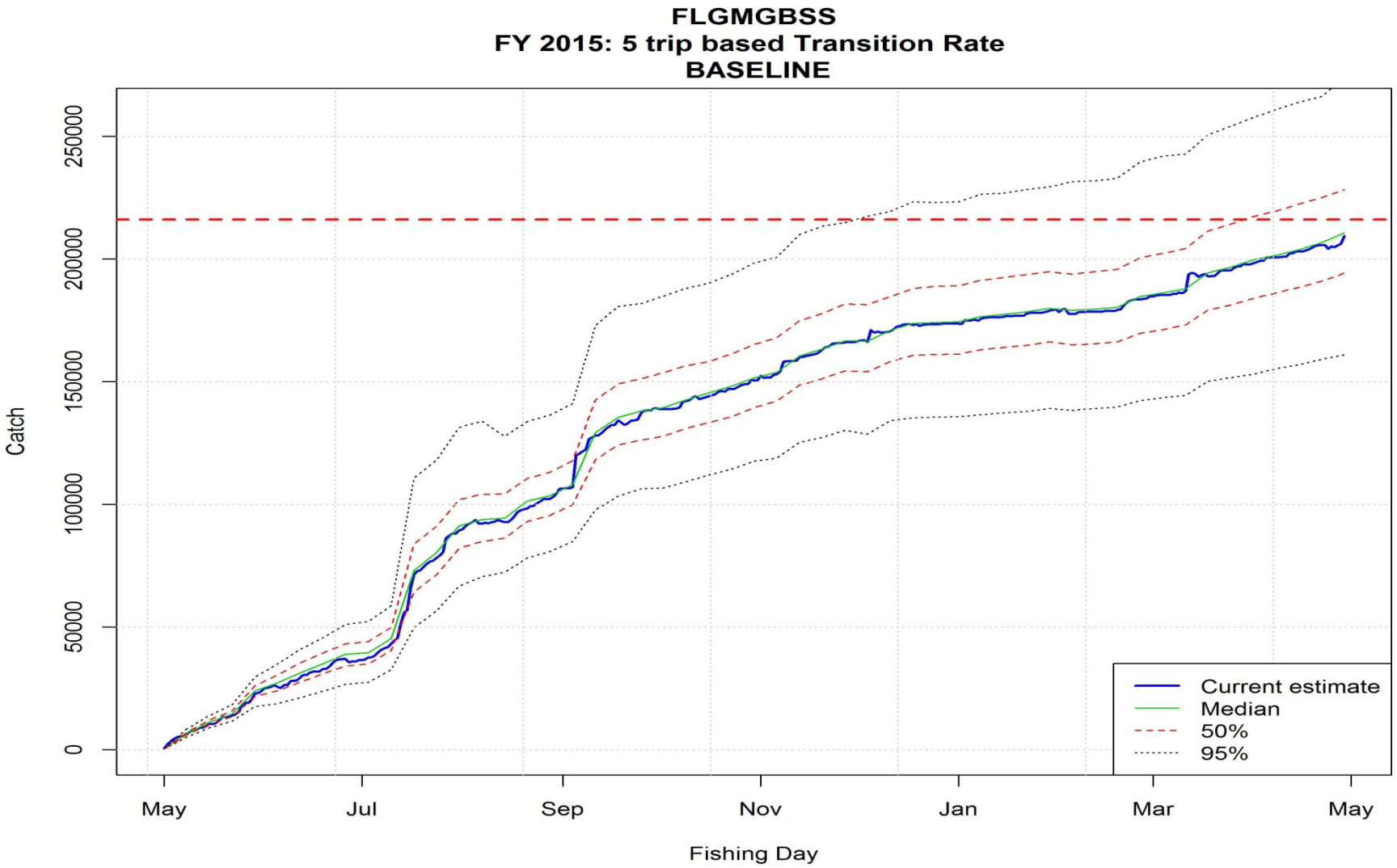
Example Catch Estimates (mt)

Stock	Baseline	Vessel Length	Combine Sectors	Broad Stock Area (BSA)	Combine Sectors / BSA
GB Yellowtail Flounder	38.8 (37.8 – 40.5)	41.2 (39.4 – 44.1)	38.4 (37.6 – 39.7)	38.8 (37.9 – 40.8)	38.5 (37.6 – 39.7)
Northern Windowpane	95.5 (73.0 – 124.2)	100.8 (80.0 – 124.0)	82.8 (61.9 – 114.2)	97.5 (75.8 – 125.4)	88.5 (64.4 – 120.7)

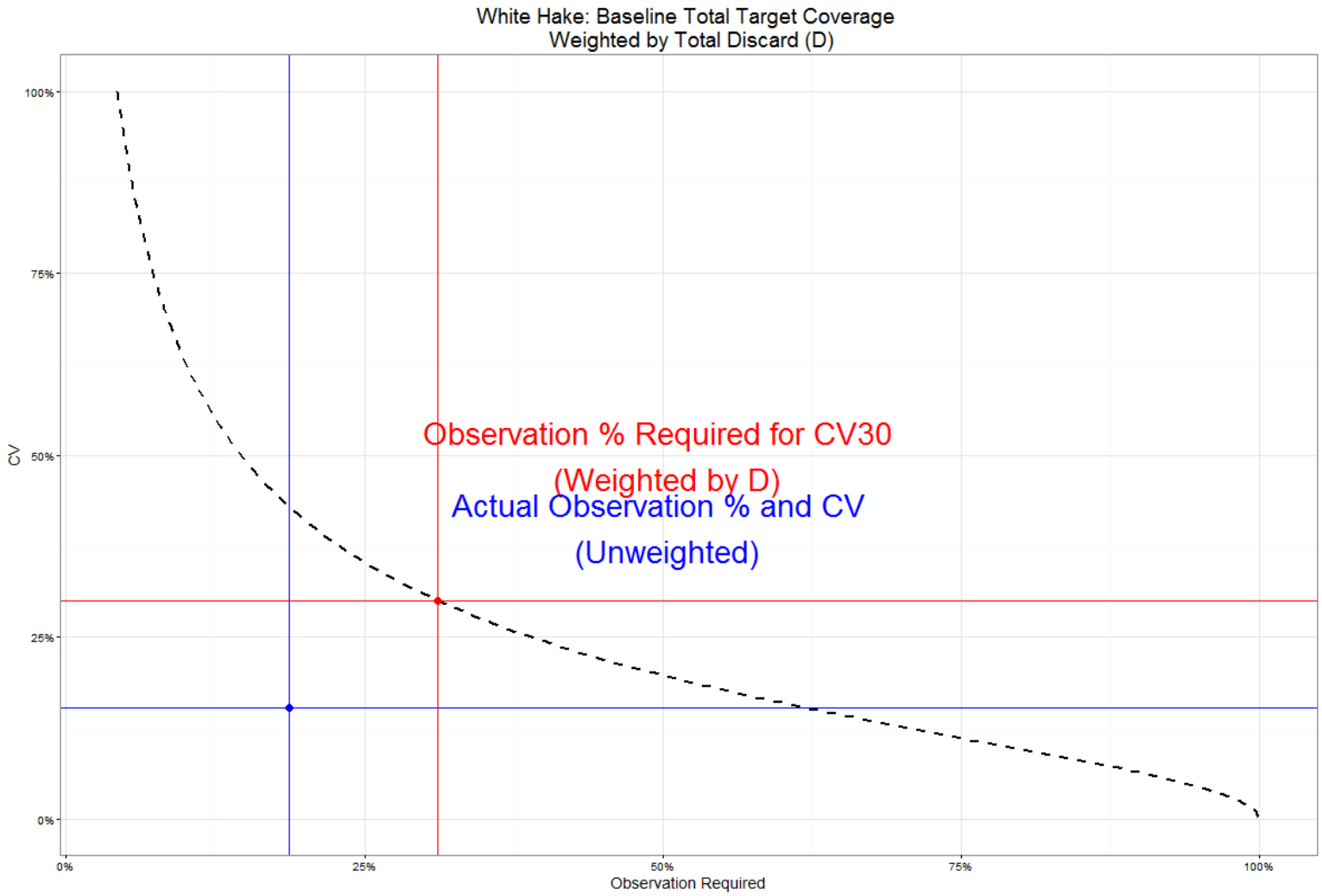
Georges Bank Yellowtail Flounder Catch



Northern Windowpane Flounder



White Hake Combined CV vs. Percent Observer Coverage



Questions?

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