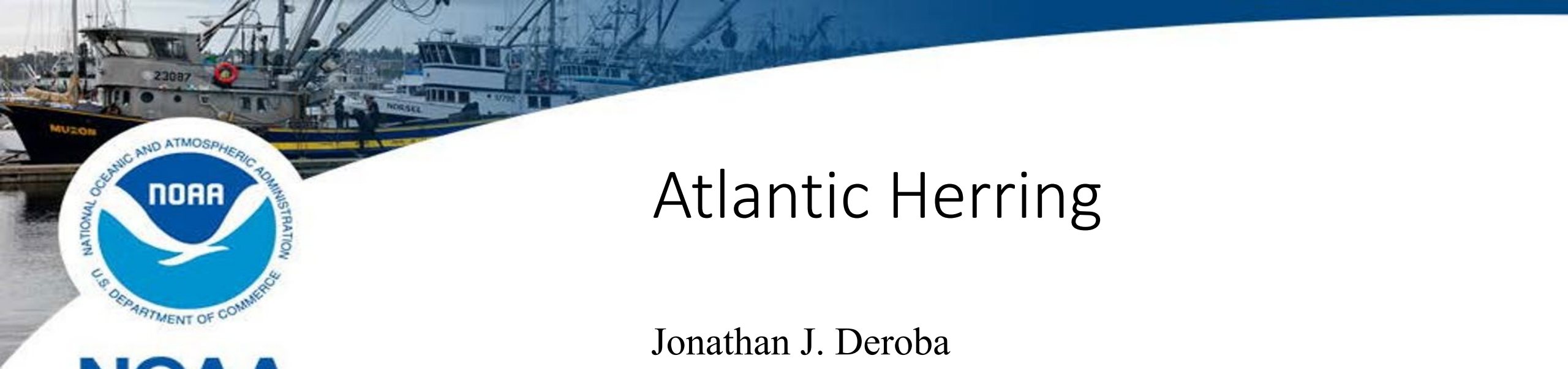


Atlantic Herring

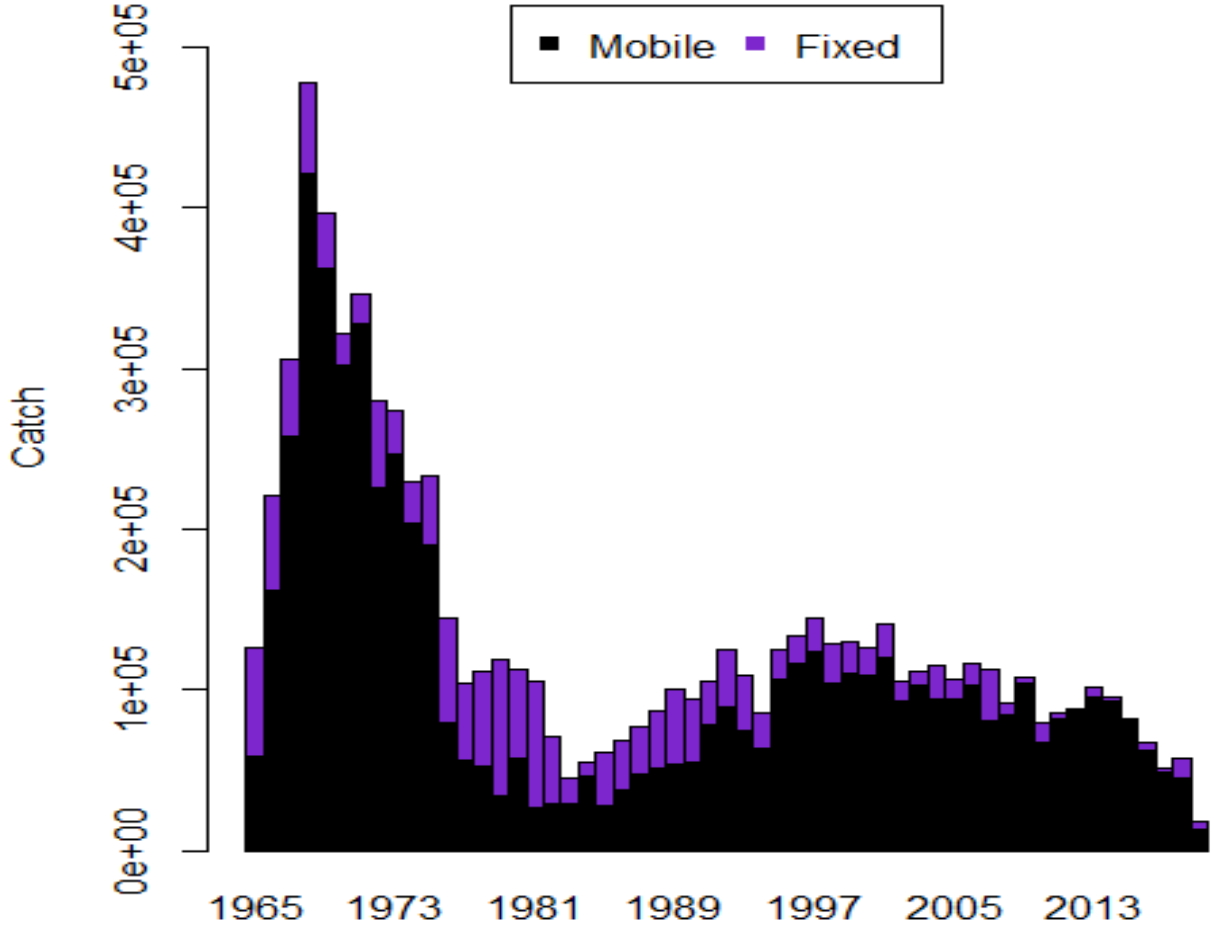
Jonathan J. Deroba
ASMFC
August 5, 2020

Background

- Last assessed and reviewed October 2018 (SAW 65)
- Assessed using ASAP
  - Two fleets (fixed and mobile gears); **fixed catch >90% Canadian**
  - Four surveys: spring BTS, fall BTS, summer/shrimp BTS, acoustic time series collected during fall BTS
  - Constant M=0.35
  - No ability to estimate SR relationship; MSY reference points use F40% as proxy

TOR 1: Estimate catch from all sources including landings and discards

- Catch = landings + discards
  - Discards only available since 1996, but generally <1% of landings



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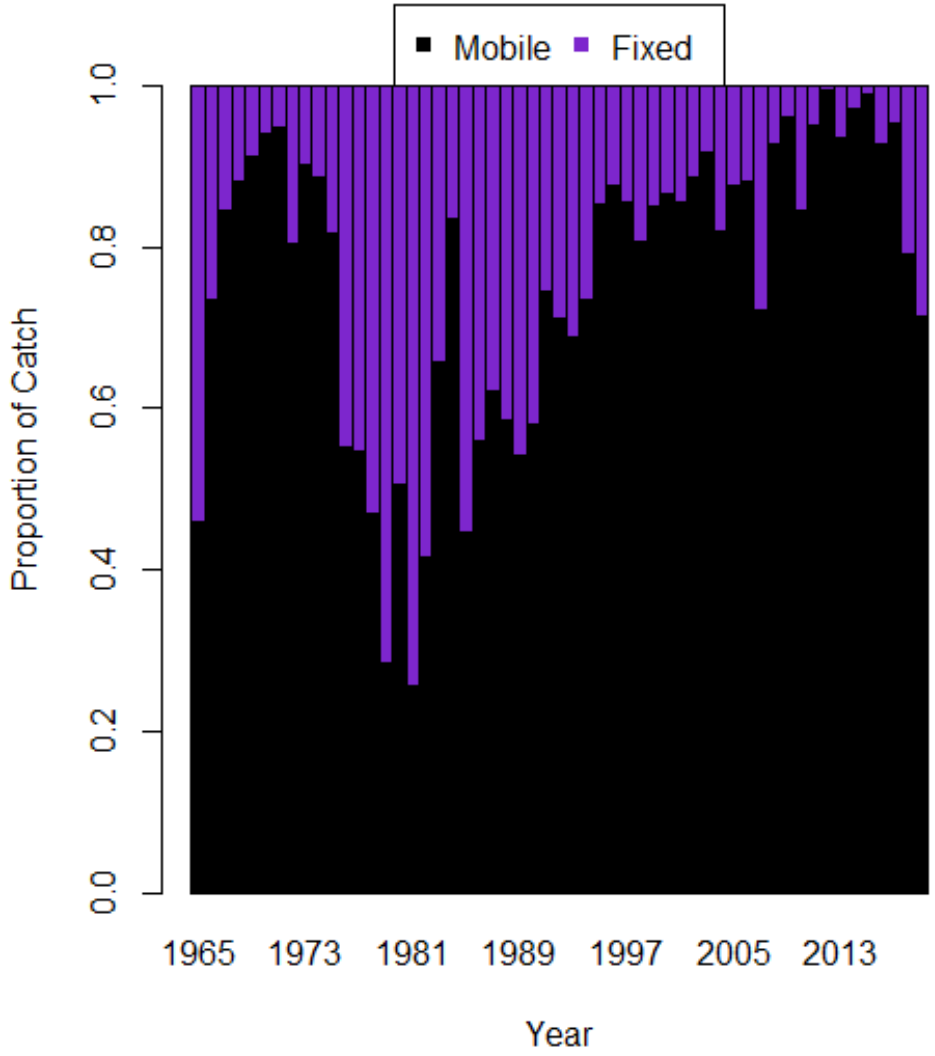
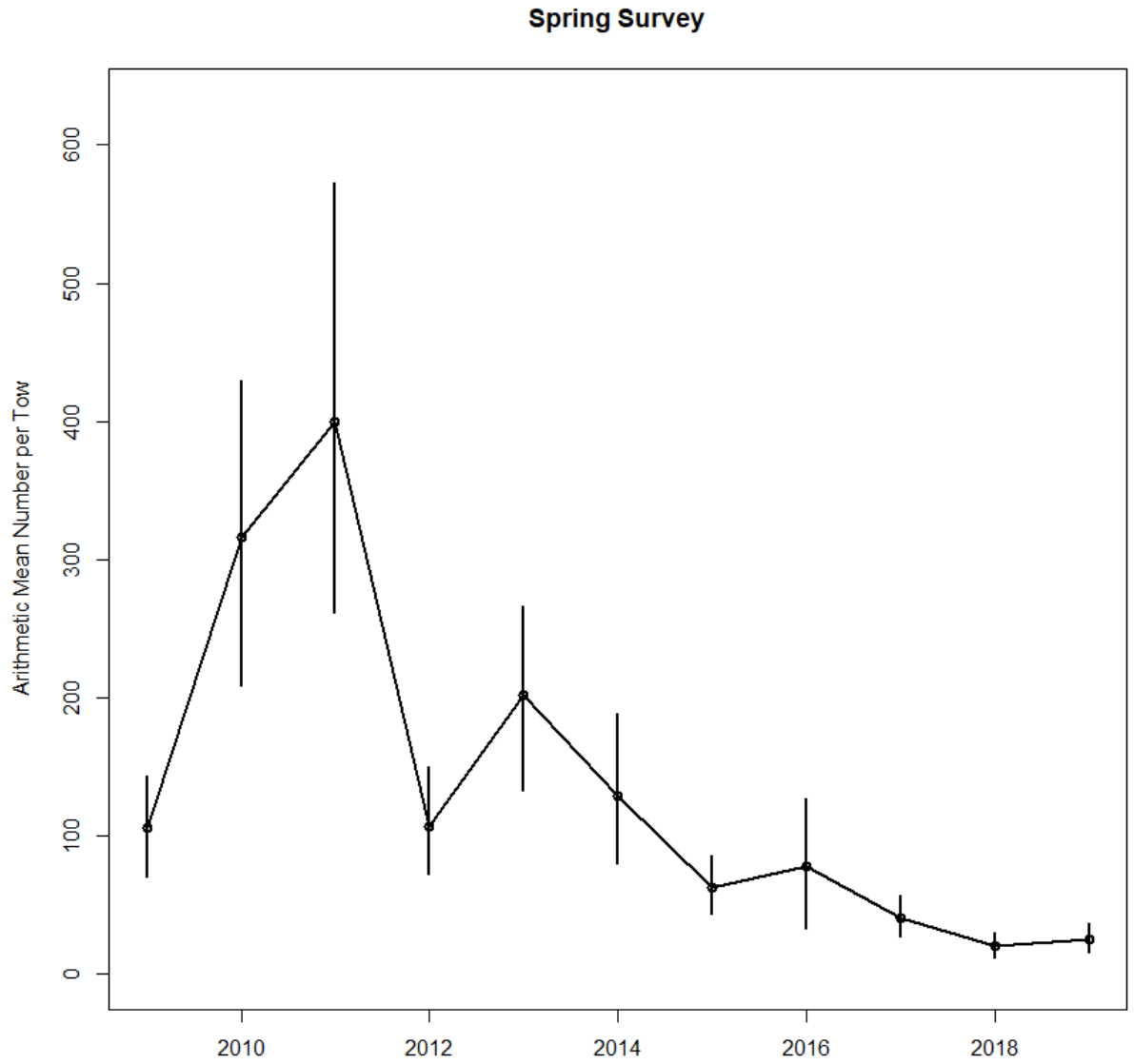


	Mobile	Fixed	%Fixed
2012	87162	513	0.006
2013	95182	6440	0.063
2014	92566	2667	0.028
2015	80465	884	0.011
2016	61808	4849	0.073
2017	48531	2368	0.047
2018	45189	11912	0.209
2019	12721	5115	0.287

TOR 2: Evaluate indices used in the assessment



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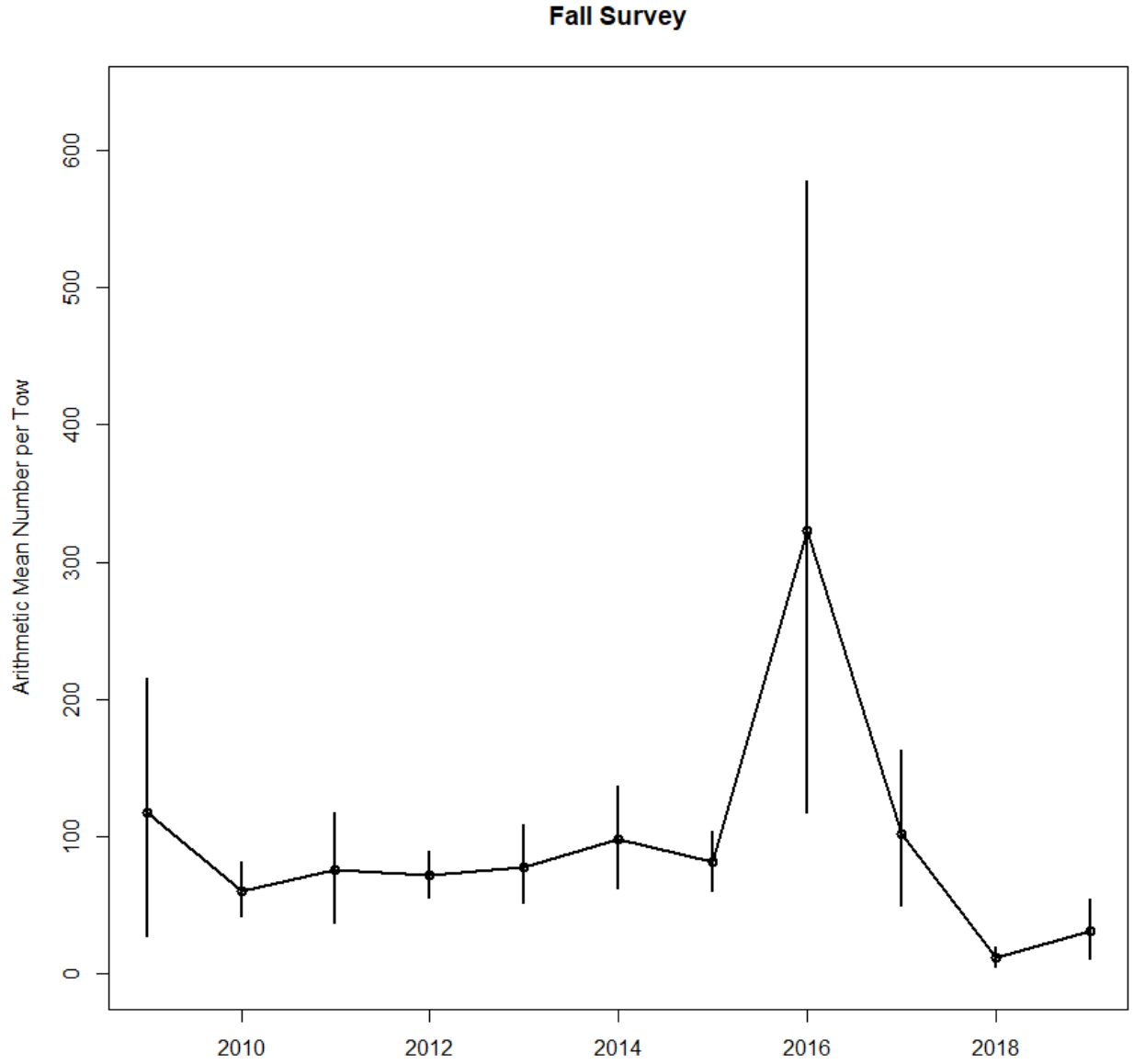

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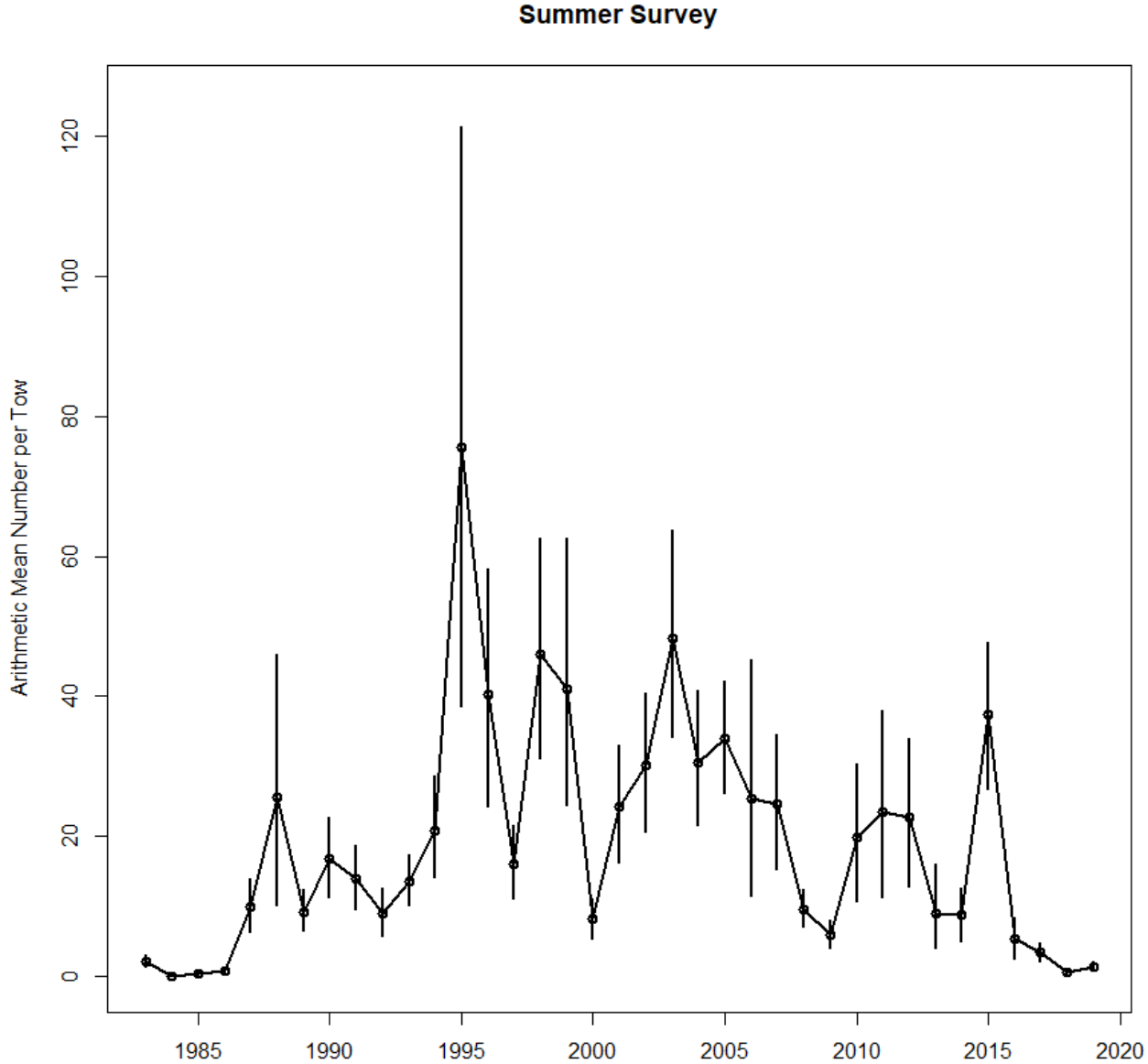

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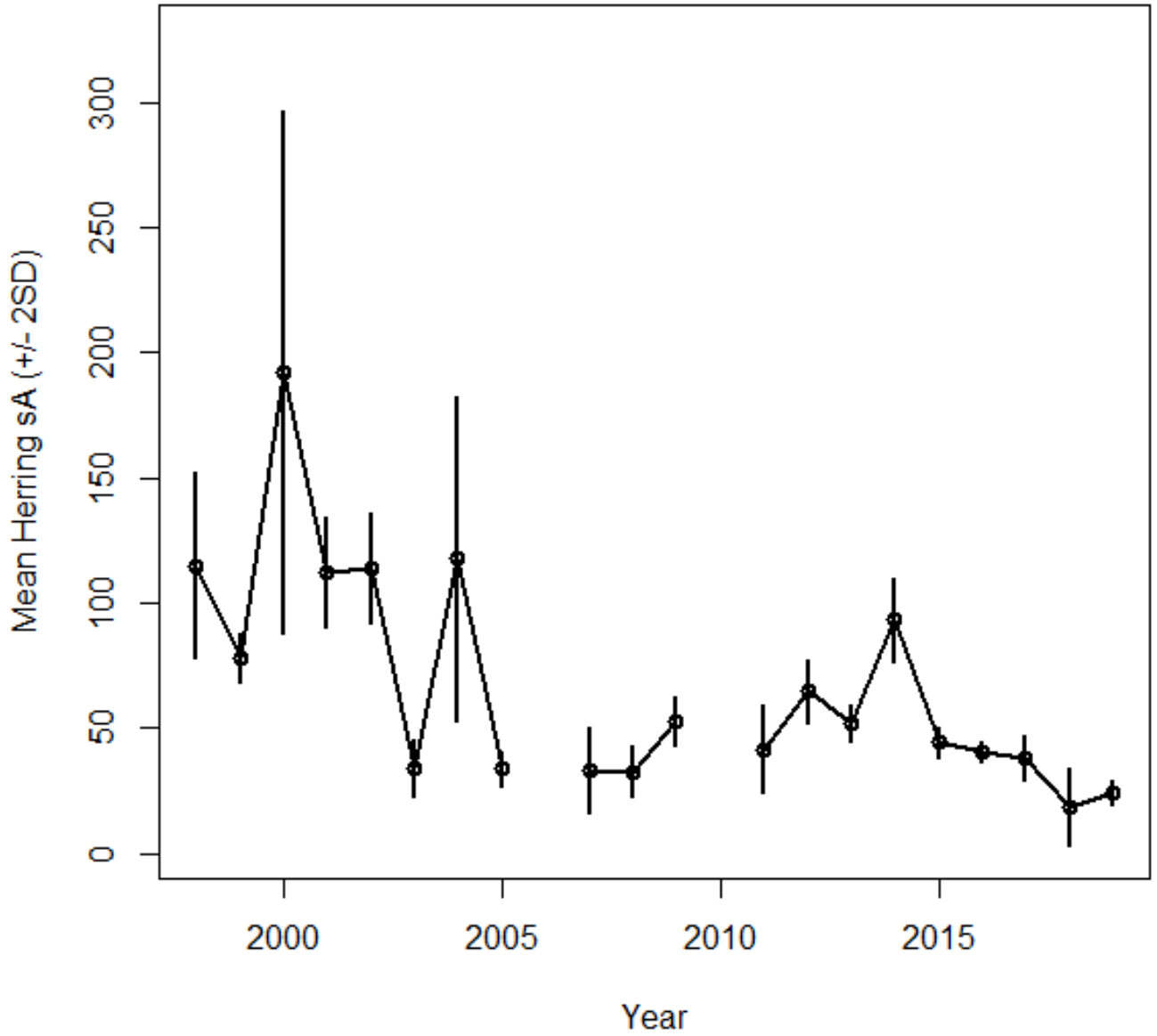
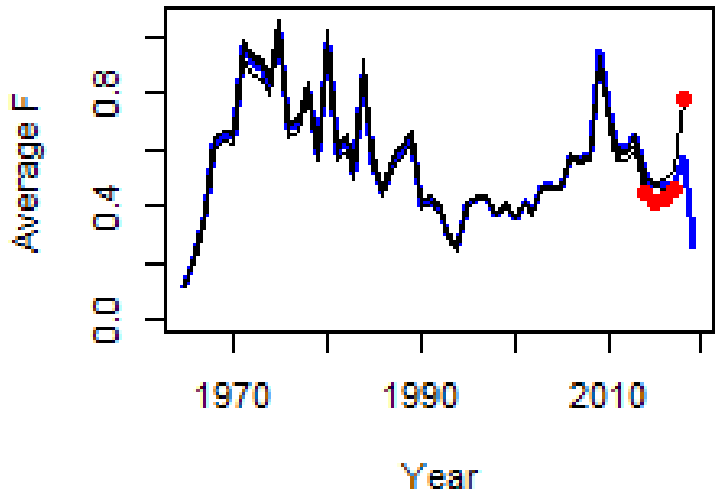
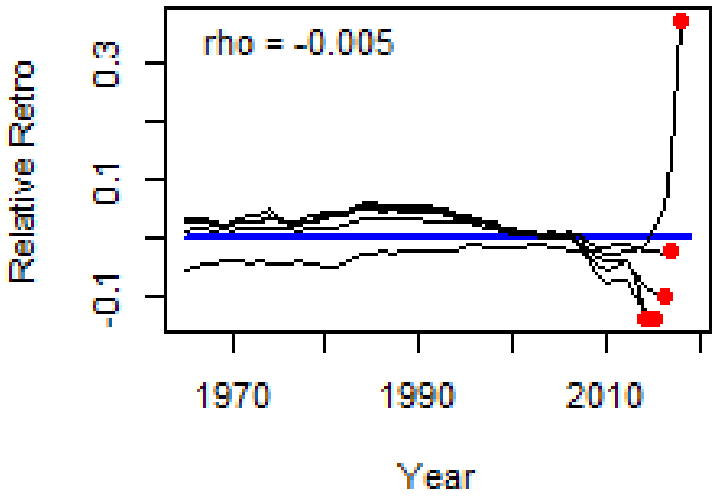


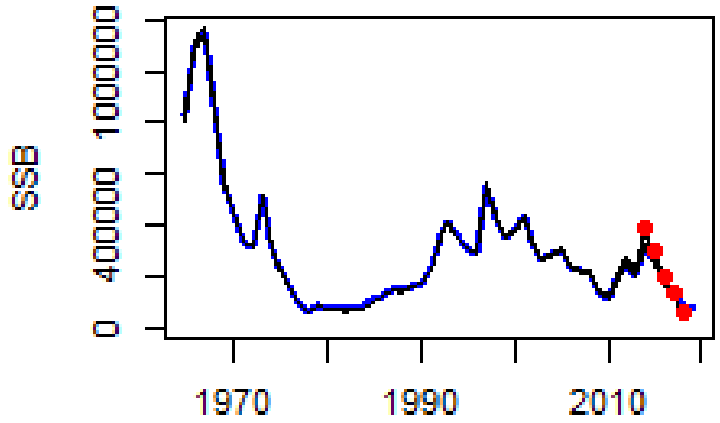
TOR 3: Estimate…

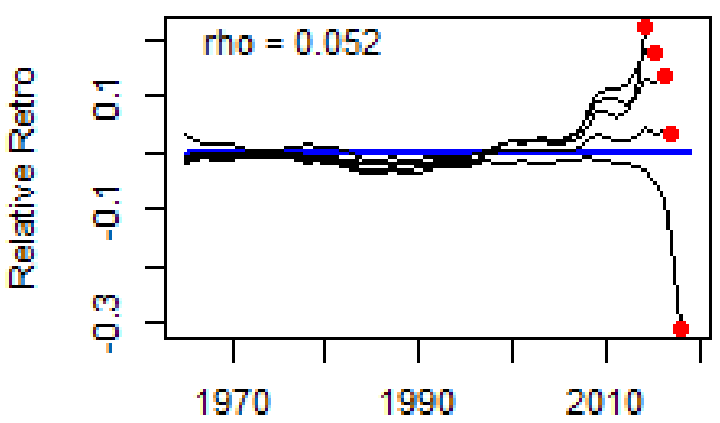
- No changes to ASAP configuration other than to add 2 years of data

TOR 3: Estimate…









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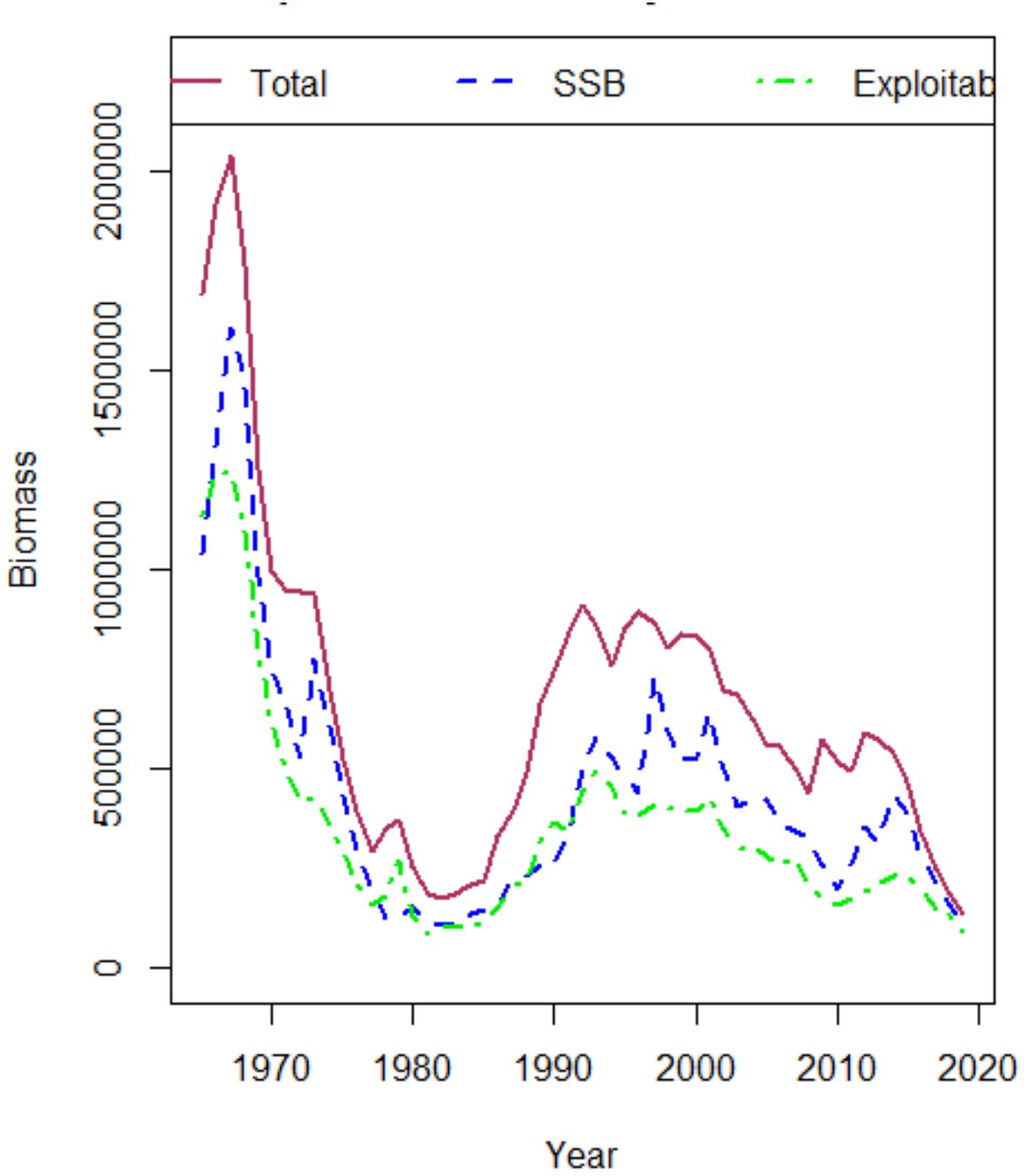

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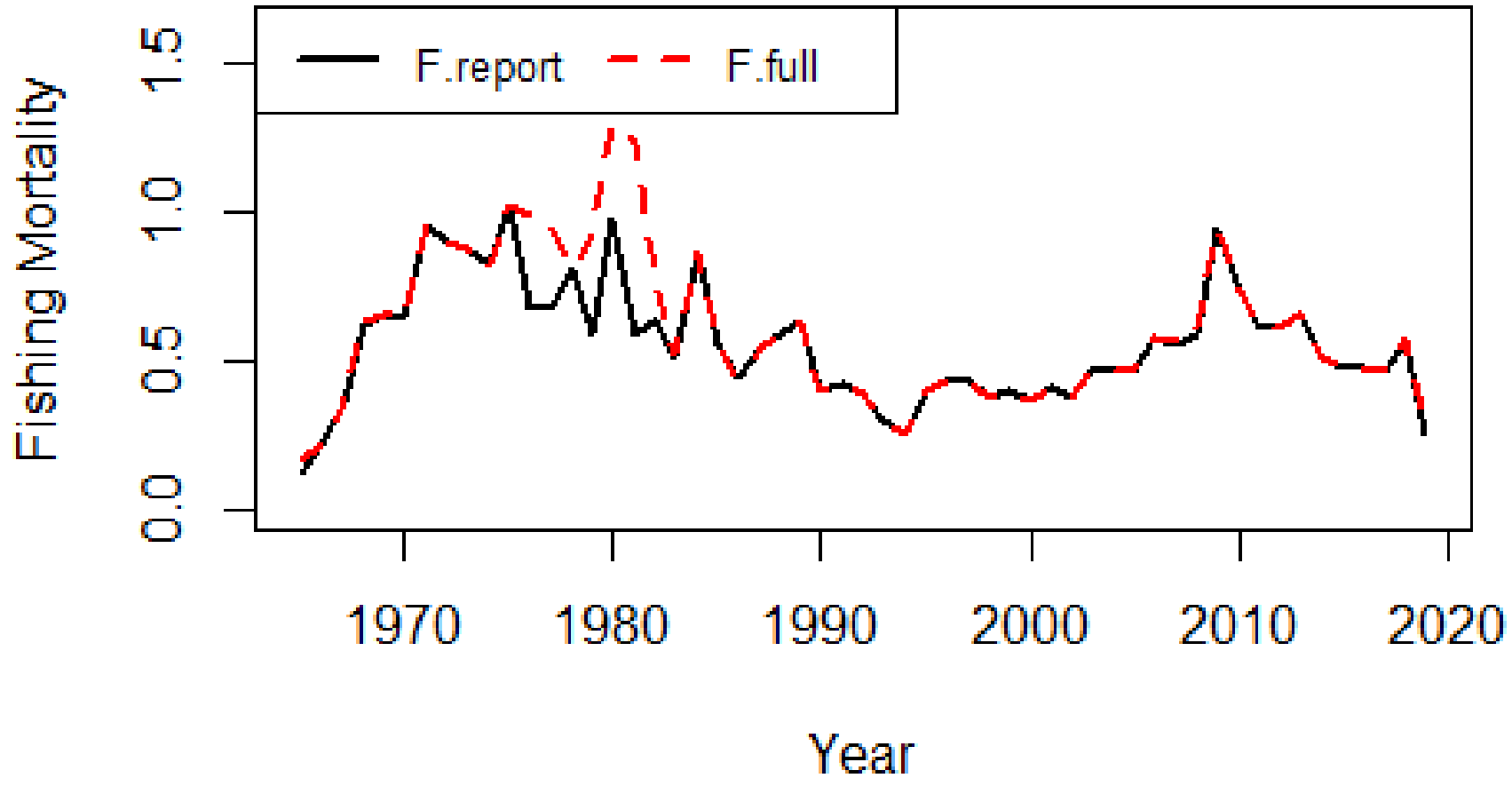

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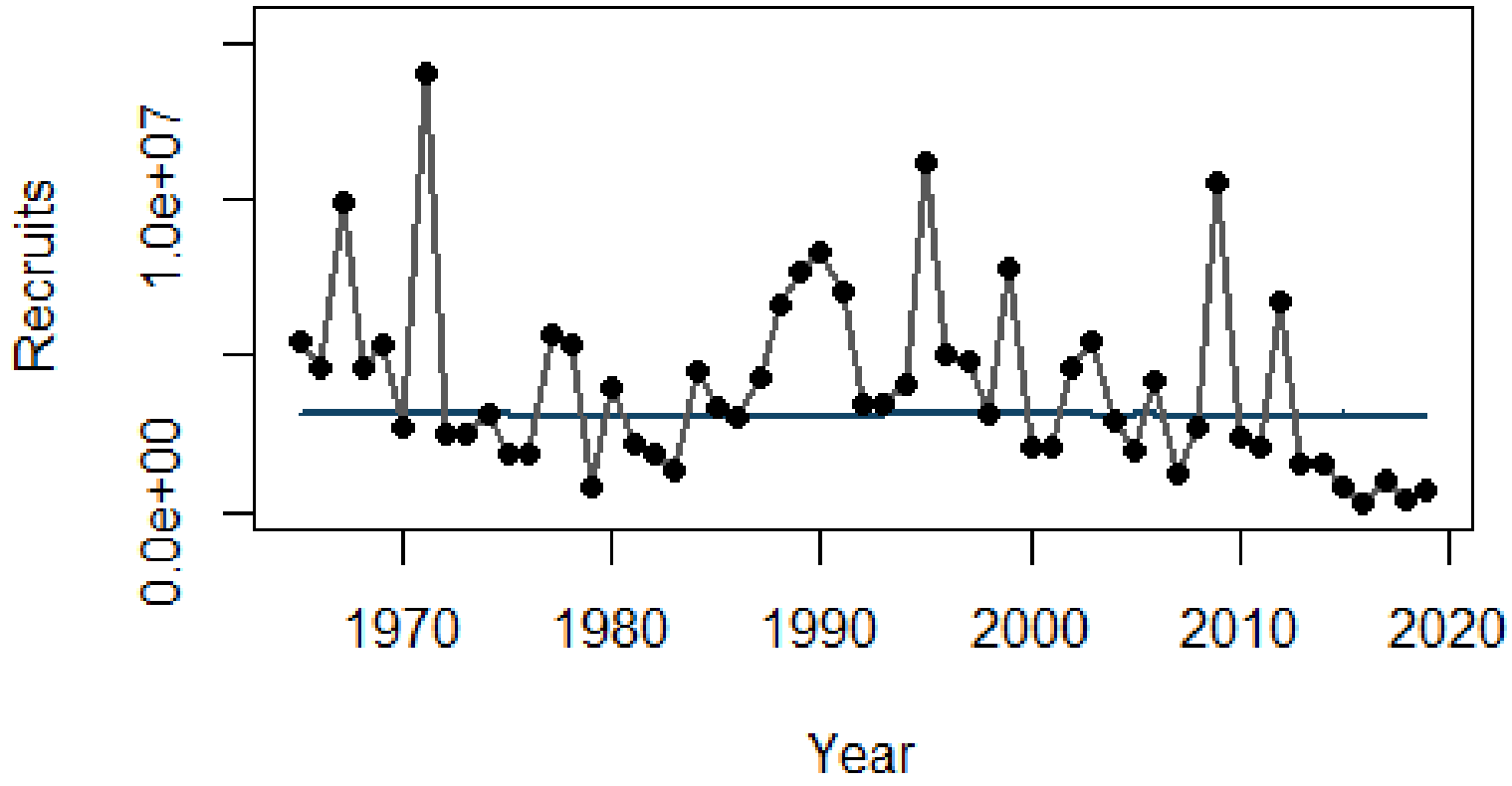
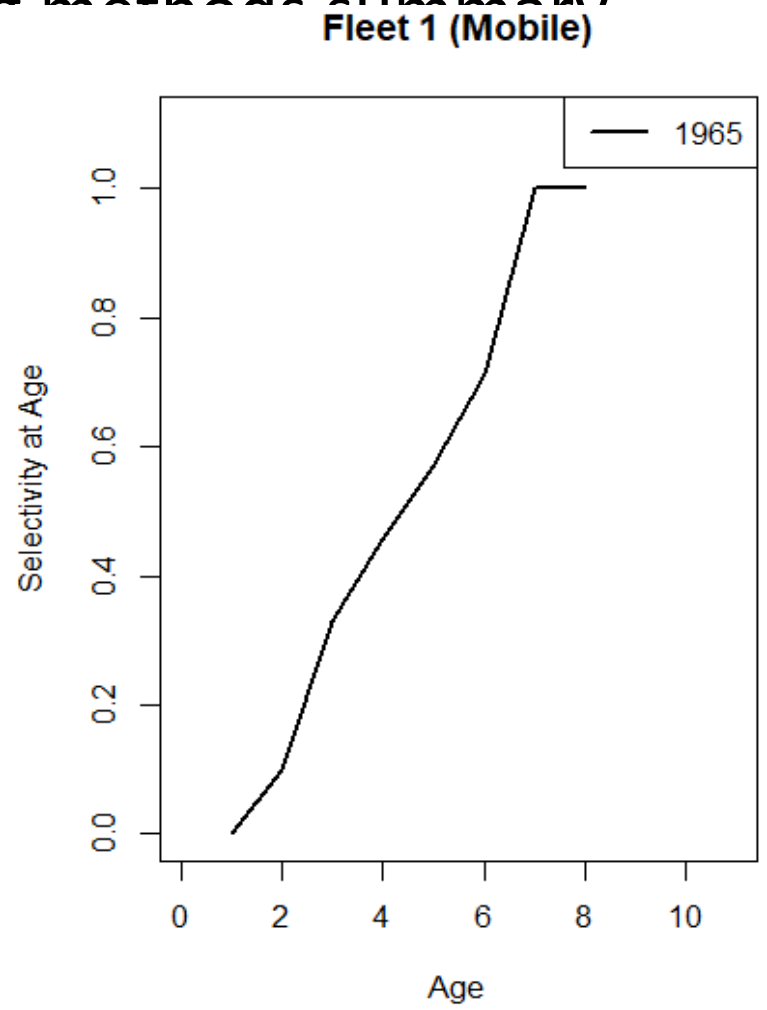
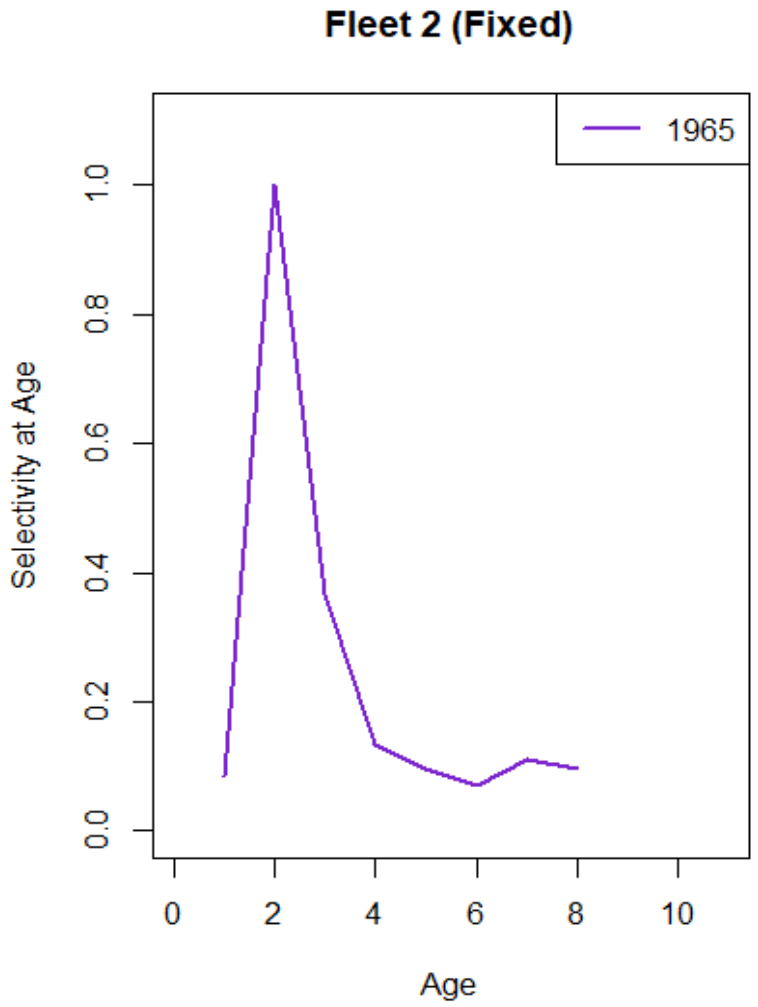


TOR 4: BRPs

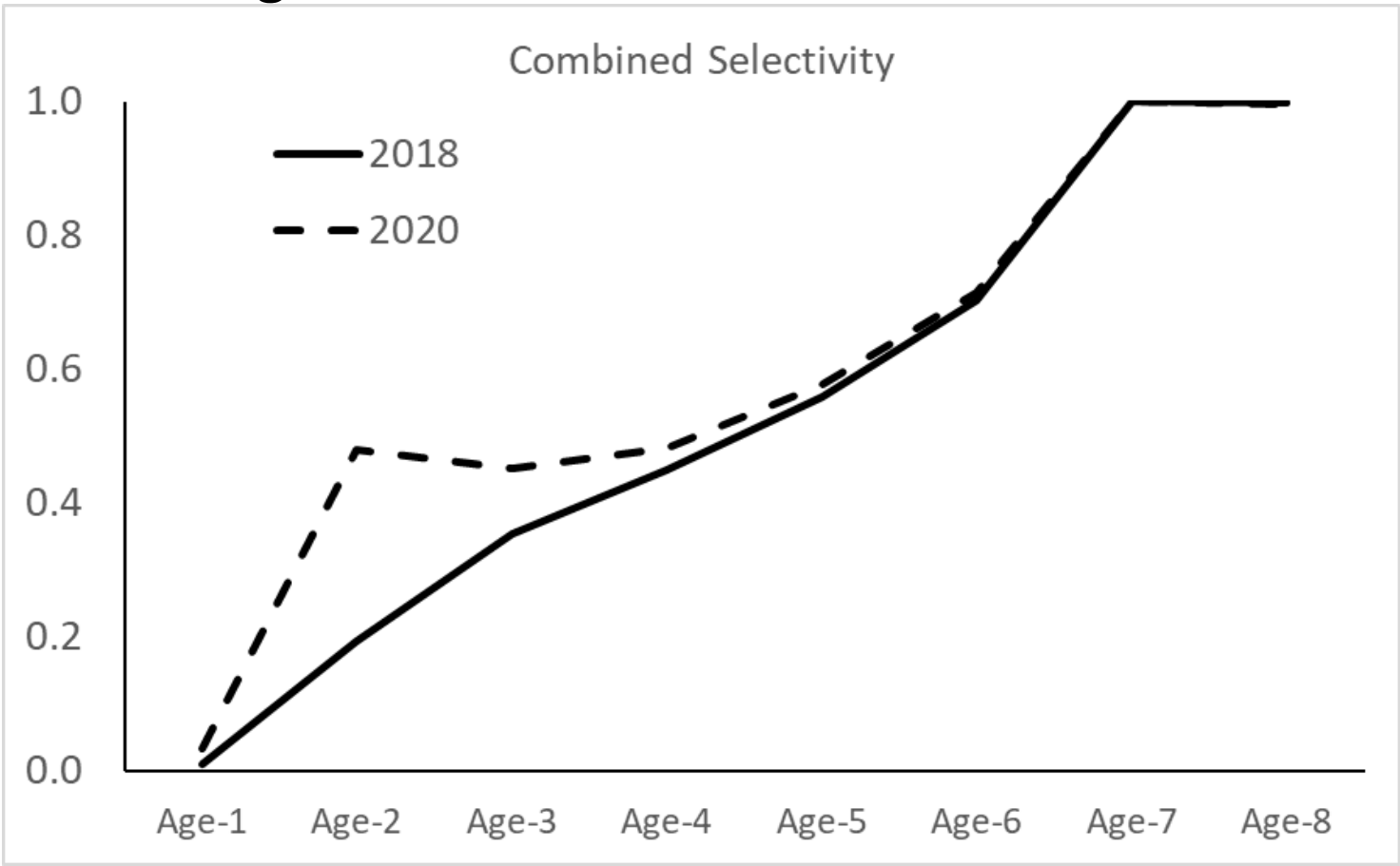
- Previous/existing methods summary
  - Life history tra
  - Selectivity equ … scaled to max of 1.0
  - Recruitment s… …ept most recent two yea
- Short-term proj…
  - A recent avera… …d from the ABC to determine A…
  - Implication is t… …unt of fixed gear catches th…





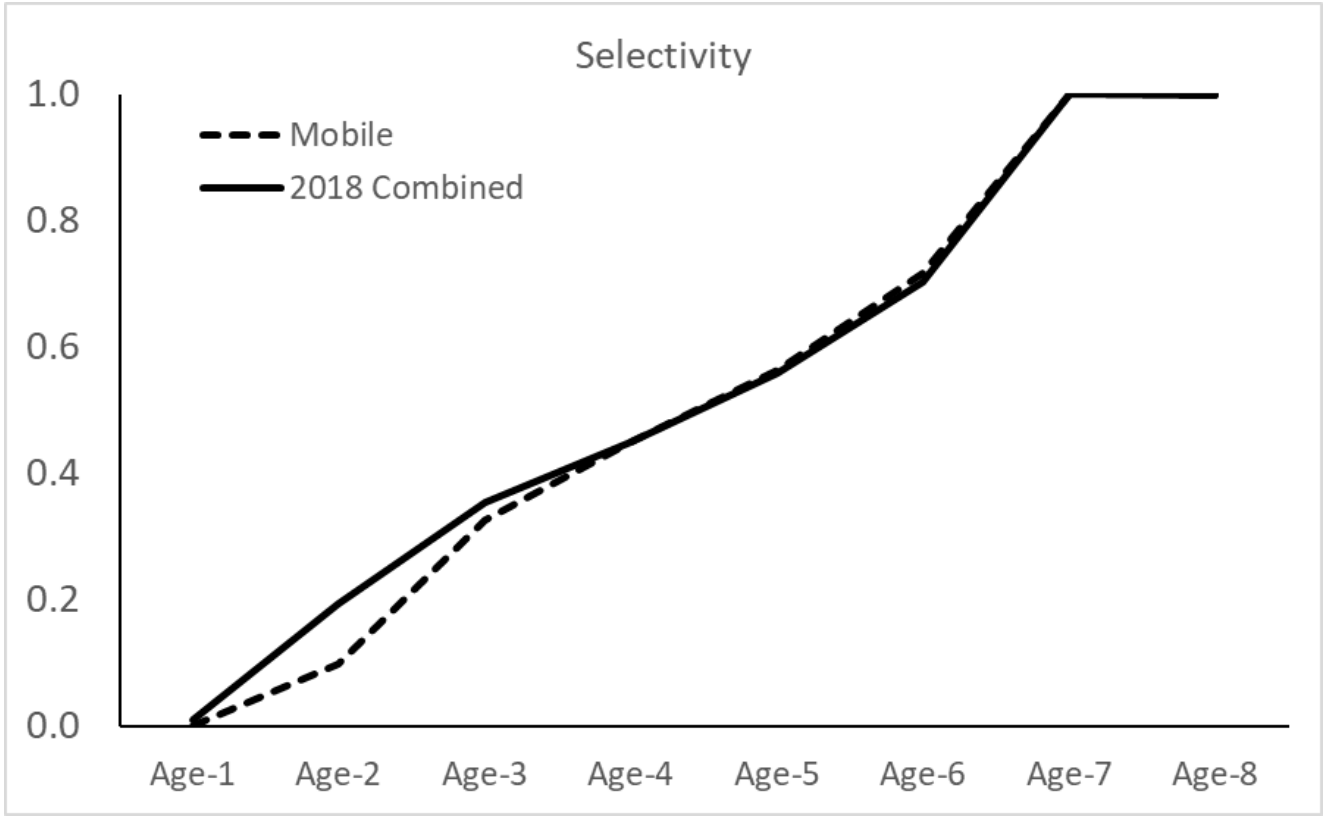
TOR 4: BRPs

- The combined selectivity no longer includes about the right amount of fixed gear catches; the age composition is skewed to fixed gear
- The BRPs are being unduly effected by a foreign fleet; BRPs inappropriate
- Also requires assumption that Canadian fixed gear catch adheres to US HCR



TOR 4: BRPs

- Solution
  - Base BRPs on Mobile fleet selectivity only; no longer affected by foreign fleet
    - Previous/existing BRPs: F40% =0.51; SSBproxy = 189,000 mt (corrected = 266,000 mt)
    - Updated BRPs: F40% =0.54; SSBproxy = 269,000 mt

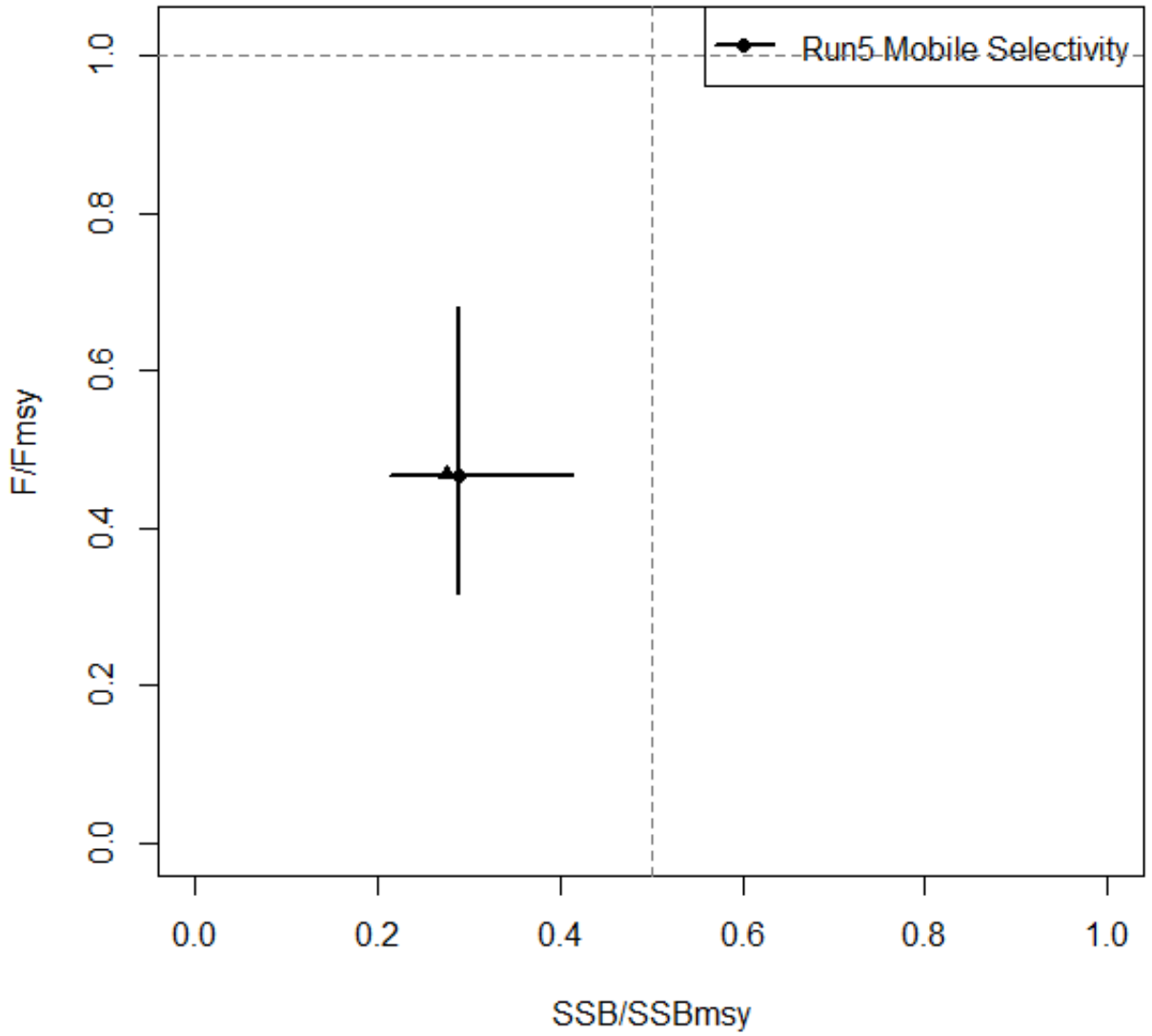


TOR 4: BRPs

- Solution
  - Short-term projections will explicitly include both fleets; fixed catch set equal to a recent average, just as before, but now a specific value as opposed to implicit
  - Probability of overfishing based on comparing Mobile F to Mobile only reference points, but explicitly responsive to input Canadian catch
  - Probability of overfished based on comparing SSB to SSBproxy
  - No other changes to projection methods

TOR 4: BRPs

- The stock is overfished; overfishing is not occurring



TOR 5: Short-term projections

- Fixed gear catches equal in all years and based on 10 year average
- Canadian Catch = 4669 mt; US Fixed Fleet (i.e., stop seine, weir, and pound nets) = 109 mt
- Mobile fleet F based on NEFMC selected harvest control rule

	Mobile Fleet F	SSB	P(overfishing)	P(overfished)	OFL	ABC	SSB/SSBmsy
2020	0.243	56375	0.002	0.999	–	–	0.210
2021	0.119	48841	0.000	0.932	23423	9483	0.182
2022	0.089	45921	0.000	0.903	26292	8767	0.171
2023	0.077	130616	0.000	0.525	44600	11025	0.486

TOR 6: Research

Those listed as "high" priority research areas in 2018

- Further research on the use of acoustic technology for inclusion in stock assessment, including information using industry based platforms
  - No progress
- Evaluate data collected in study fleet program for informing assessment data. Development research ideas that can be addressed within the context of the study fleet
  - Herring depth preference (ongoing)
- Evaluate the ability of state-space models to reliably estimate observation and process error variances under a range of scenarios, as well as their ability to estimate quantities of management interest
  - Several local, national, and international projects

Report and Reviewer Comments

- Draft report imminent
- Reviewer comments largely positive
- Some research recommendations are likely (e.g., defining multi-fleet BRPs)

Questions?

Atlantic Herring Management Area 1A Update

ASMFC Summer Meeting

August 5, 2020

Current Measures

- Category A
  - 4 Landing Days
  - 240,000 lb weekly landing limit per vessel (6 trucks)
- Category C and D SMBT: 5 Landing Days
- No carriers
- Harvester vessel to harvester vessel transfers only

TAC Update - Current Week

- Landings as of this morning ~ 136 MT (299,828 lbs)
- 5 vessels reporting landings to date
- 5-10 vessels participating per week

TAC Update - June 1 through September 30

- June 1 – September 30 TAC = 2,152 MT (4,745,212 lbs)
- ~872 MT taken to date
- ~1280 MT remain

TAC Update - NOAA Quota Monitoring (Through July 31)