



**NOAA**  
**FISHERIES**

**Southeast  
Fisheries  
Science Center**

# SEFSC MRIP modifications

TOR 1B  
Scientific and Statistical Committee  
MRIP Data Workshop

Vivian Matter

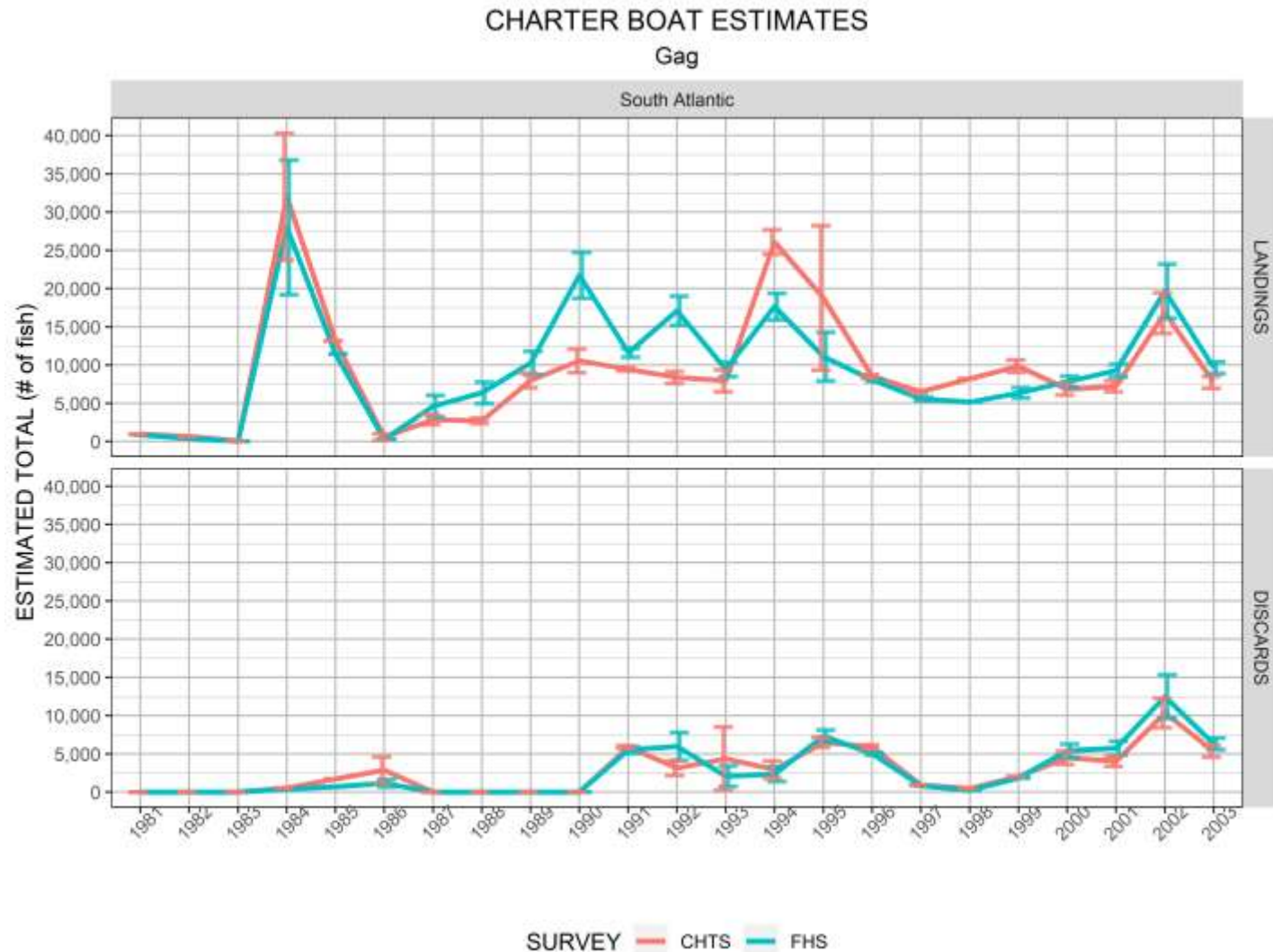
August 20, 2019

# For Hire Survey adjustment

# For Hire Survey change

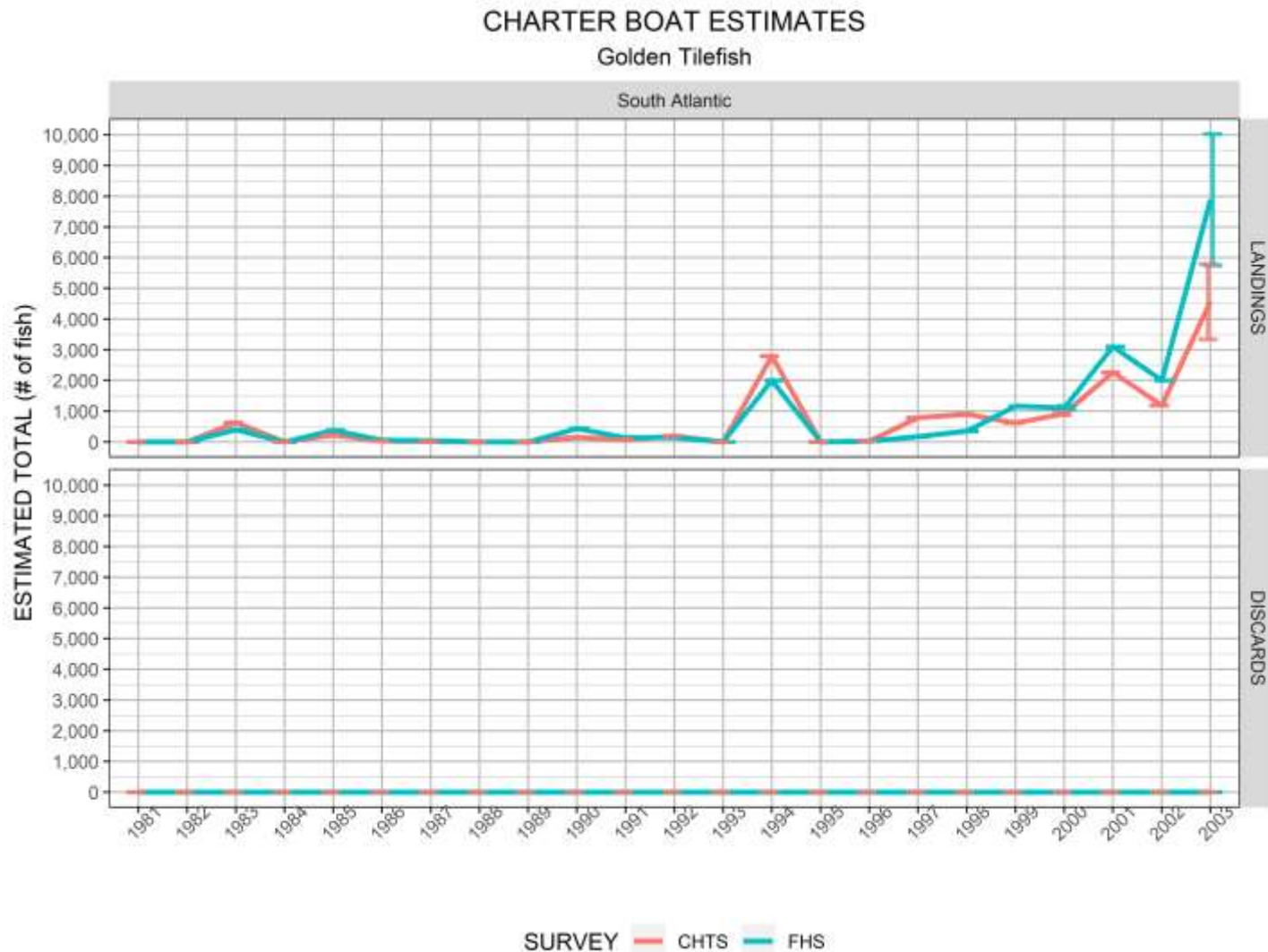
- Charter and headboat fishing modes
- Implemented in the Gulf of Mexico in 2000 and Atlantic in 2004
- Change from Coastal Household Telephone Survey (CHTS) to For-Hire Survey (FHS) of charter captains
  - FHS provides more efficient, precise, and credible charter angler effort estimates than the CHTS
- SEFSC has adjusted for this change in methodology since 2008
- New analysis conducted after NOAA Fisheries released new recreational catch estimates
  - APAIS impacts for hire estimates (off frame correction)
  - Generalized linear models with a Gamma response structure and log-link

# CHTS/FHS Estimate Comparisons

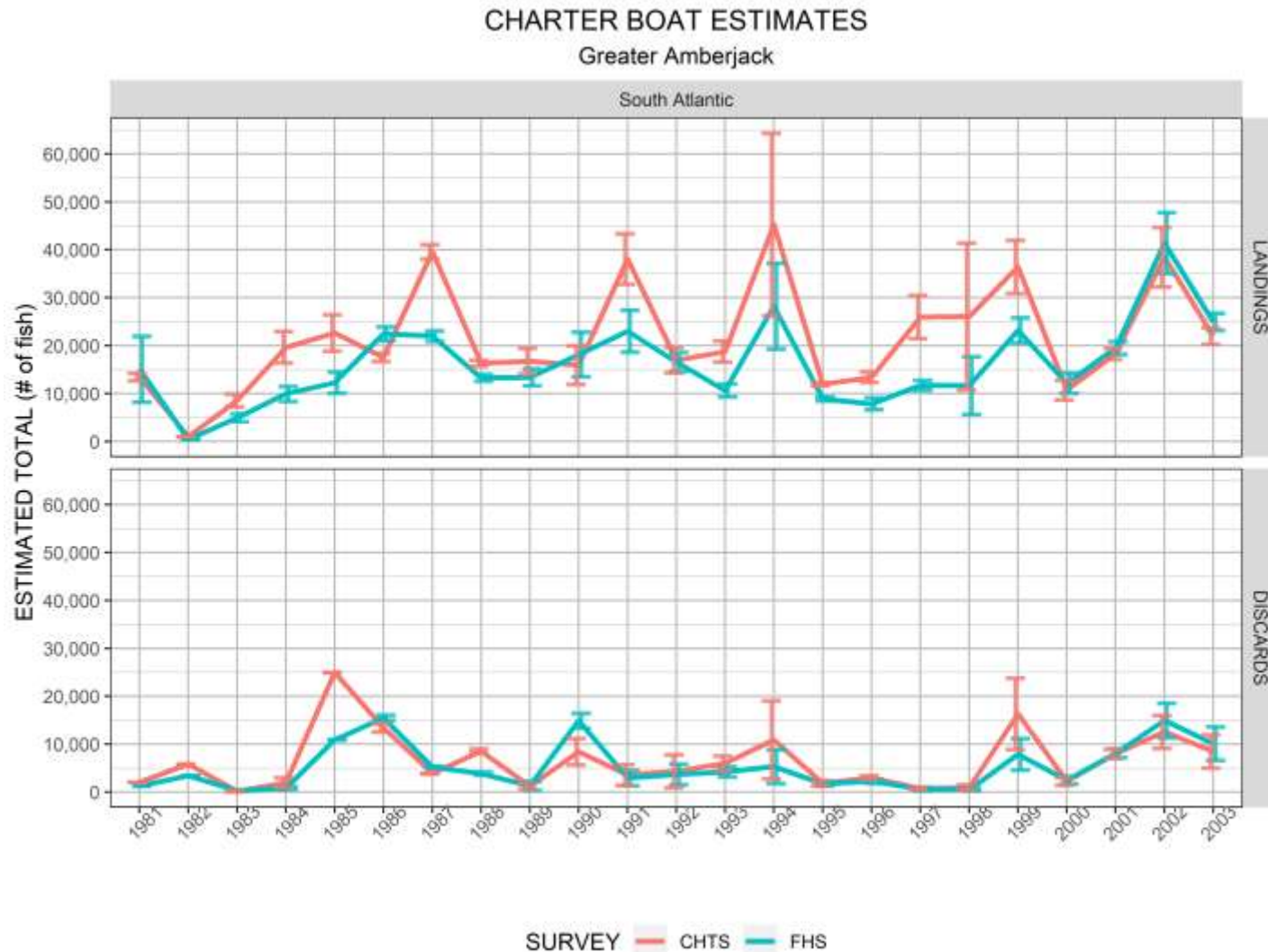




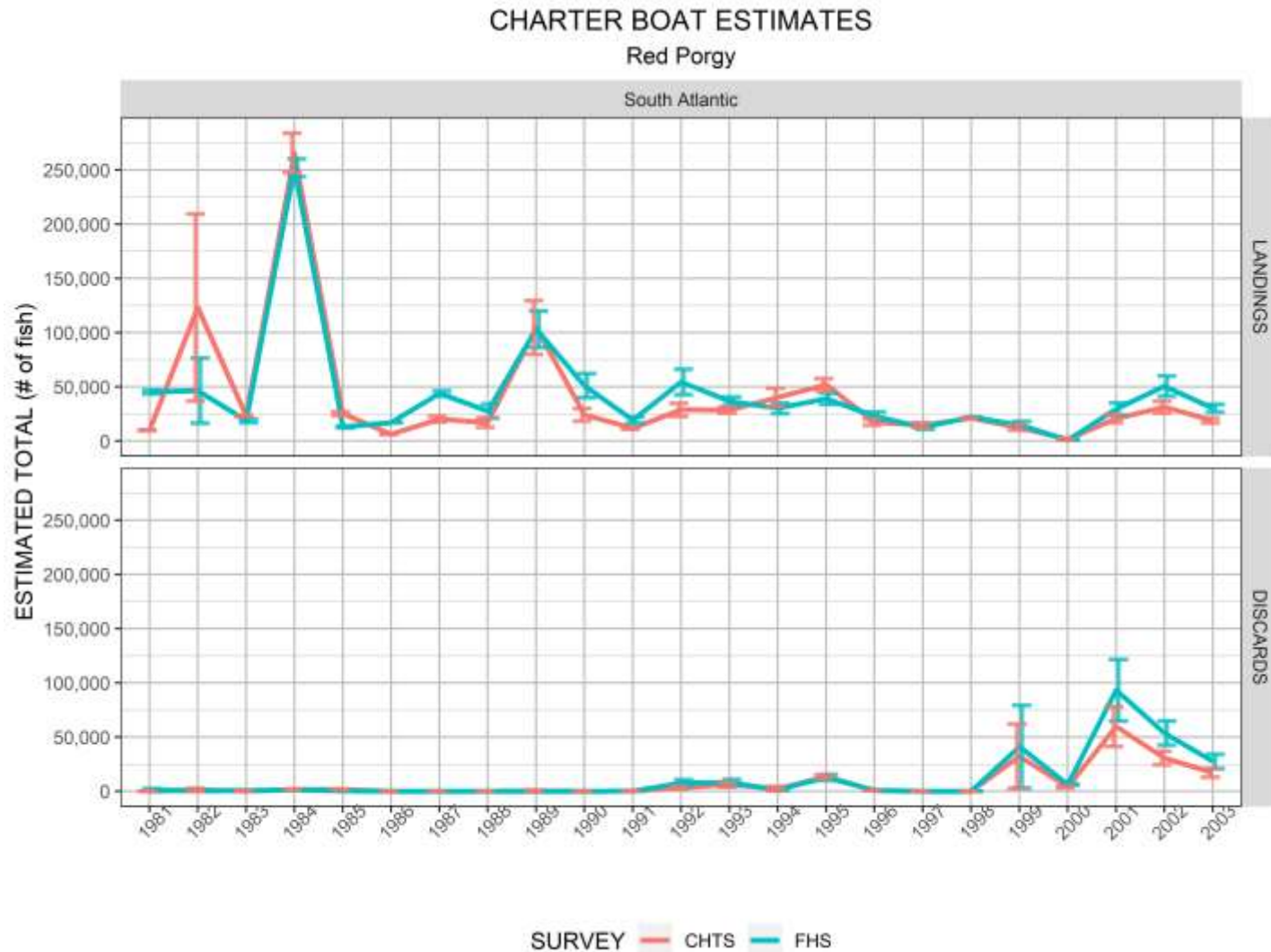
# CHTS/FHS Estimate Comparisons



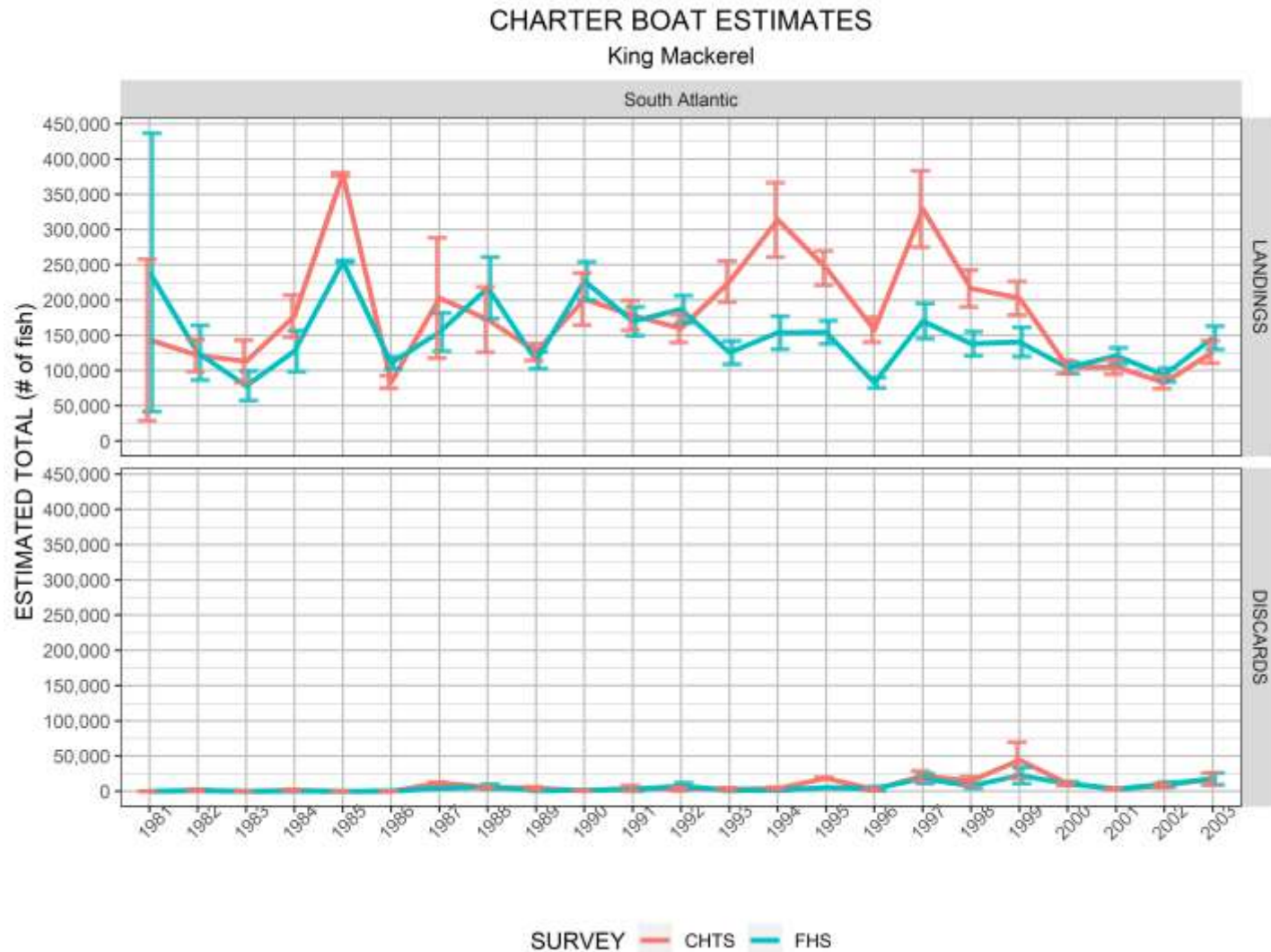
# CHTS/FHS Estimate Comparisons



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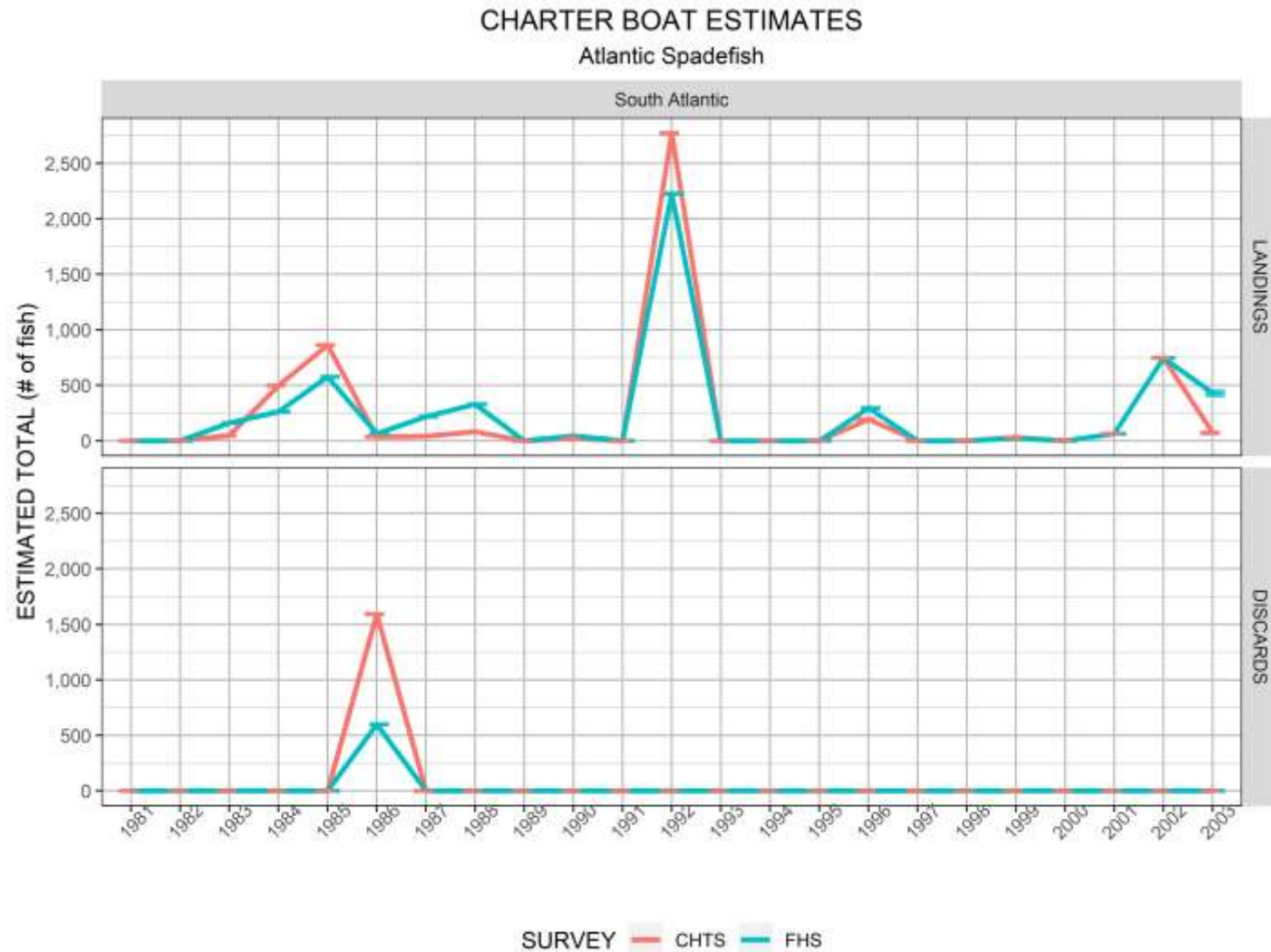


# CHTS/FHS Estimate Comparisons





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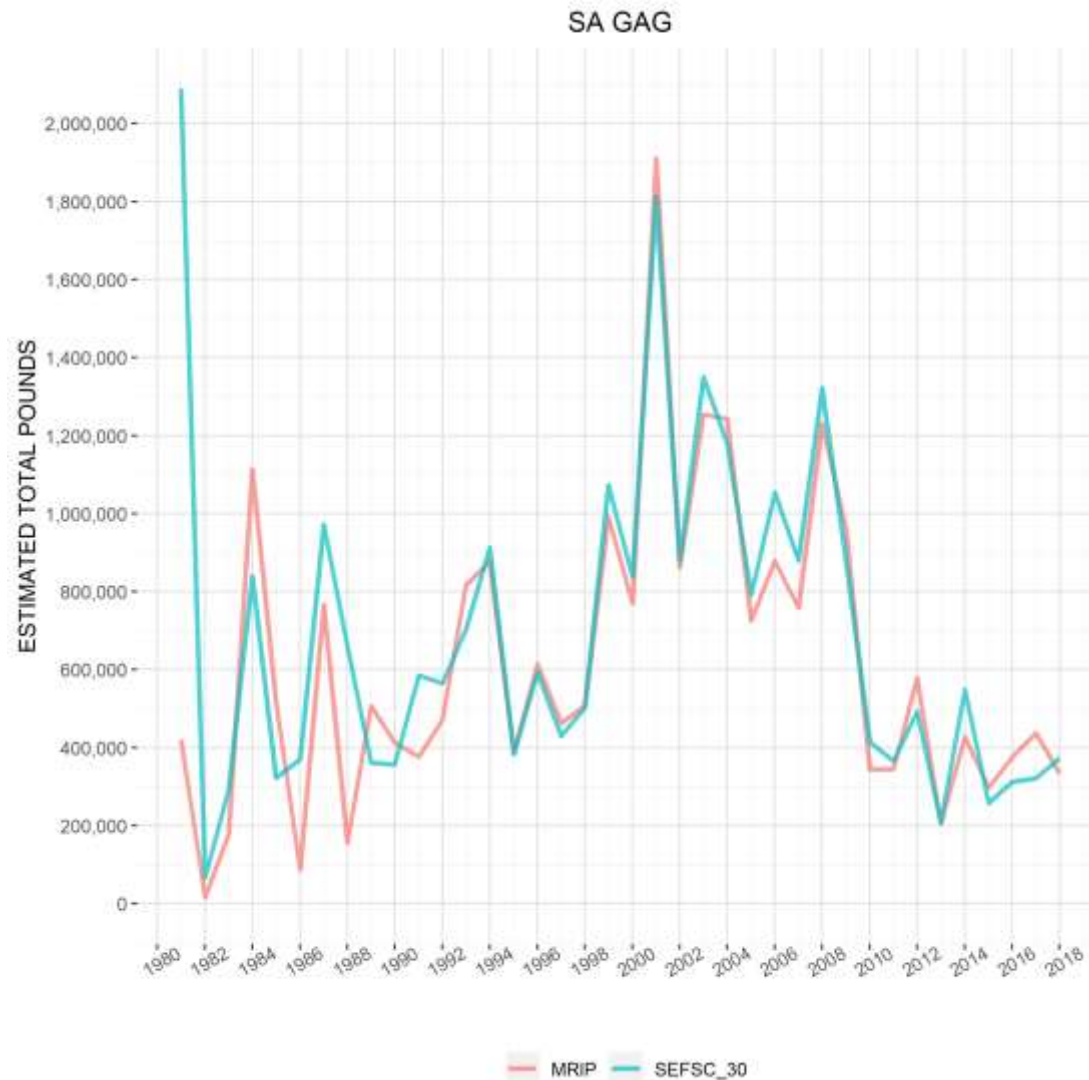


# Weight Estimation procedure

# SEFSC weight estimation

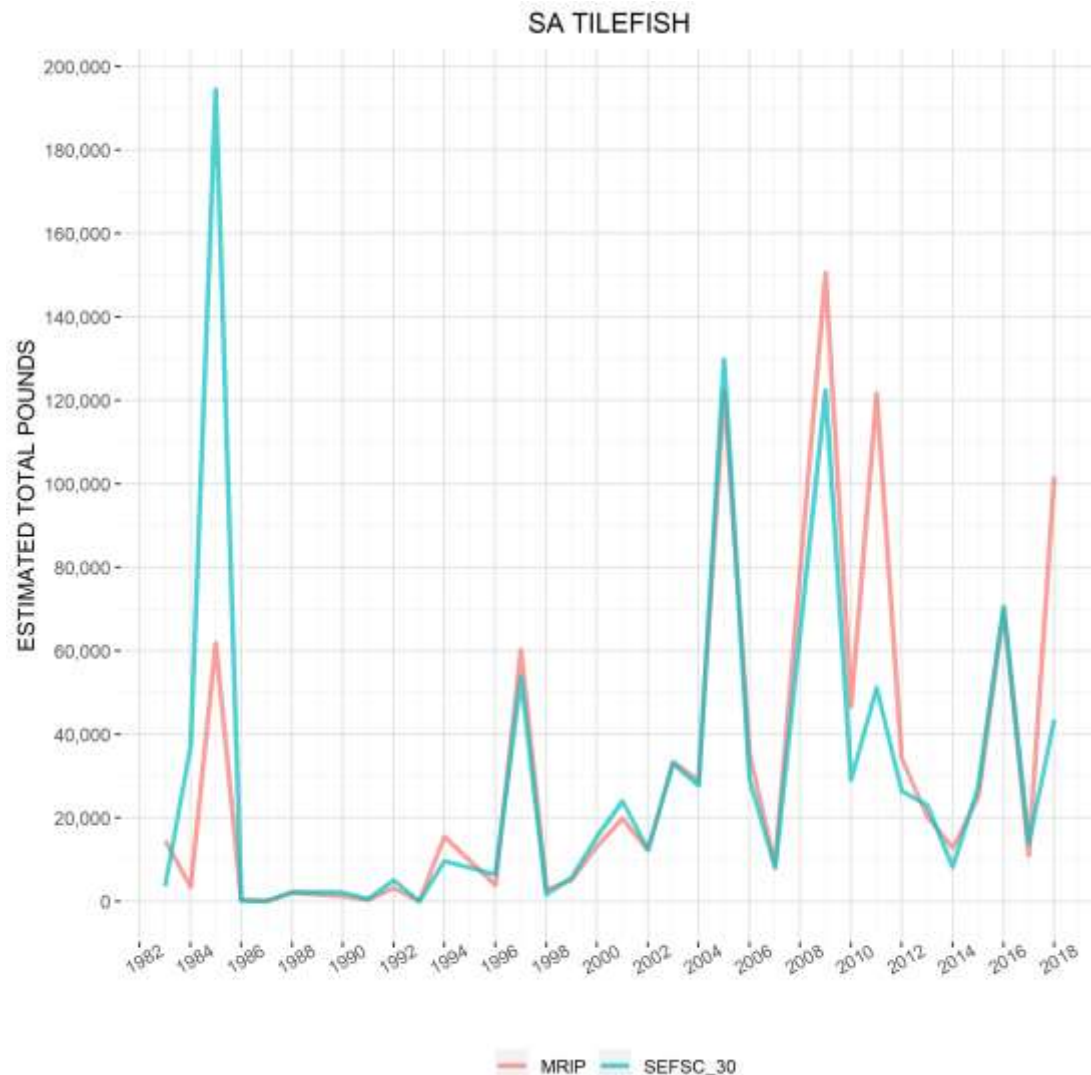
- Ensures consistent weight estimation methodology across all years
- Current process uses new MRIP size datasets, including weights imputed by the survey program
  - calculate average weights by strata
  - strata hierarchy: species, region, year, state, mode, wave, and area fished.
  - 30 minimum sample size
- Comparison of MRIP weight estimates versus those calculated at SEFSC
  - MRIP charter mode weight estimates are adjusted to FHS

# Weight Estimation Comparisons

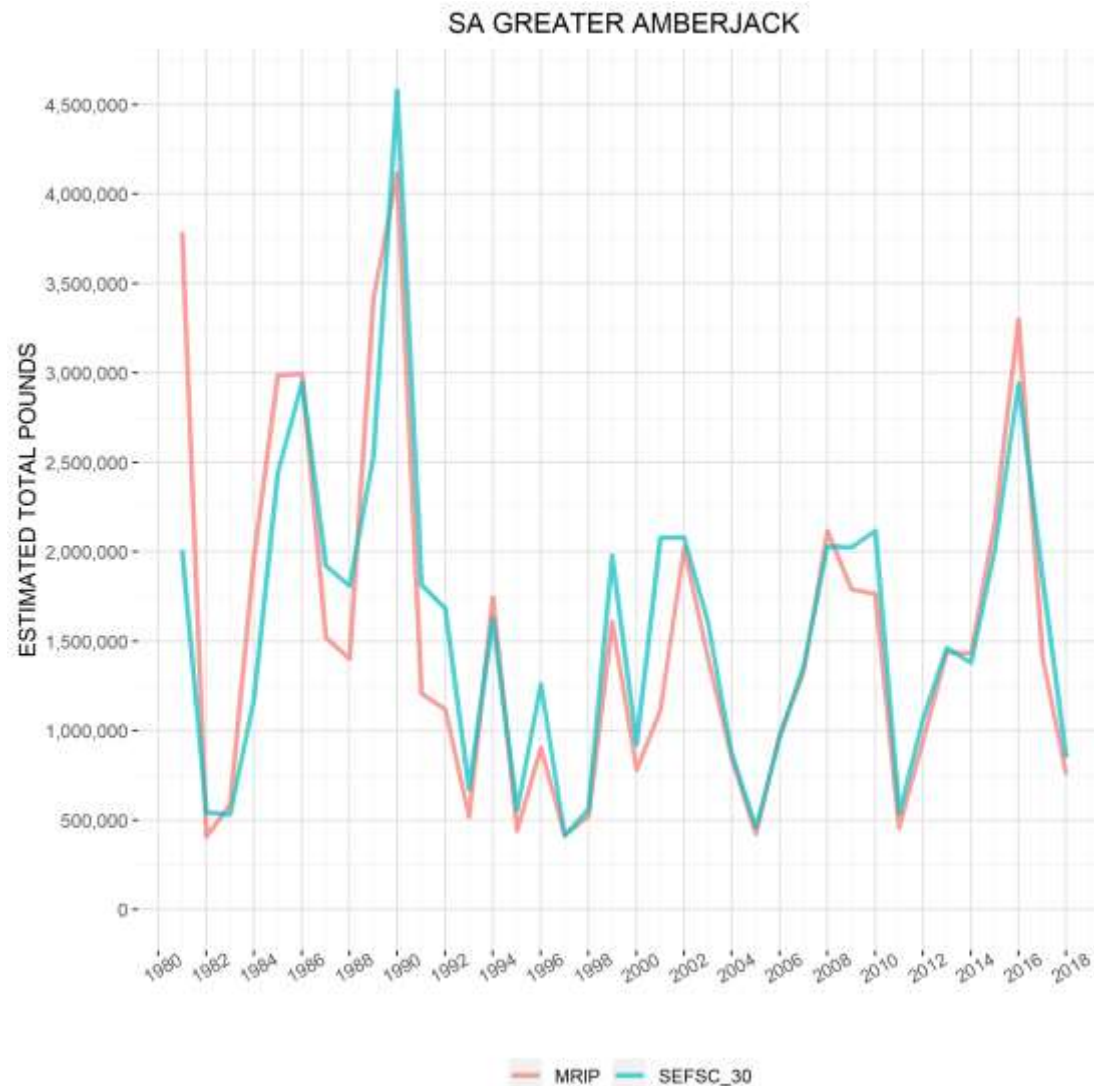




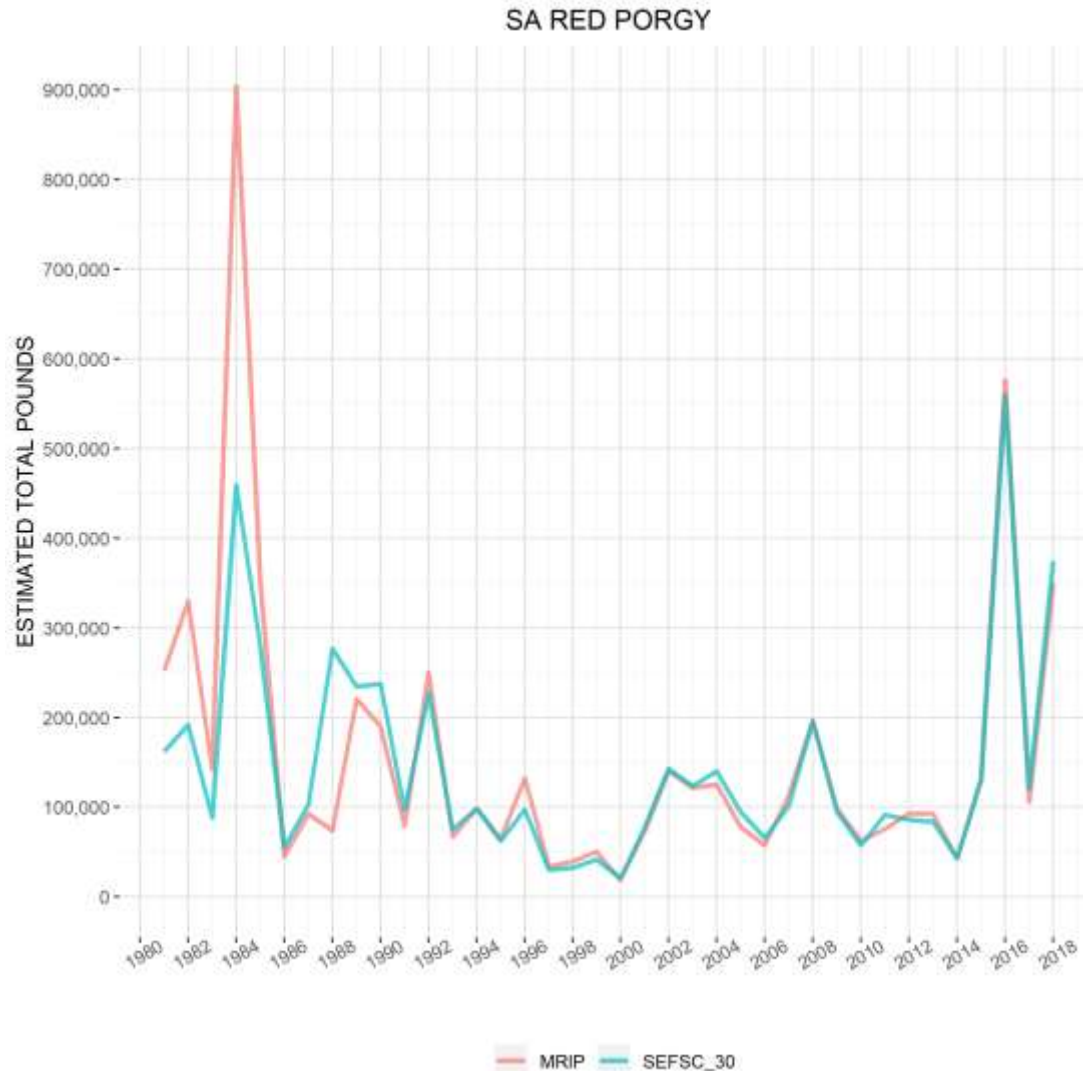
# Weight Estimation Comparisons



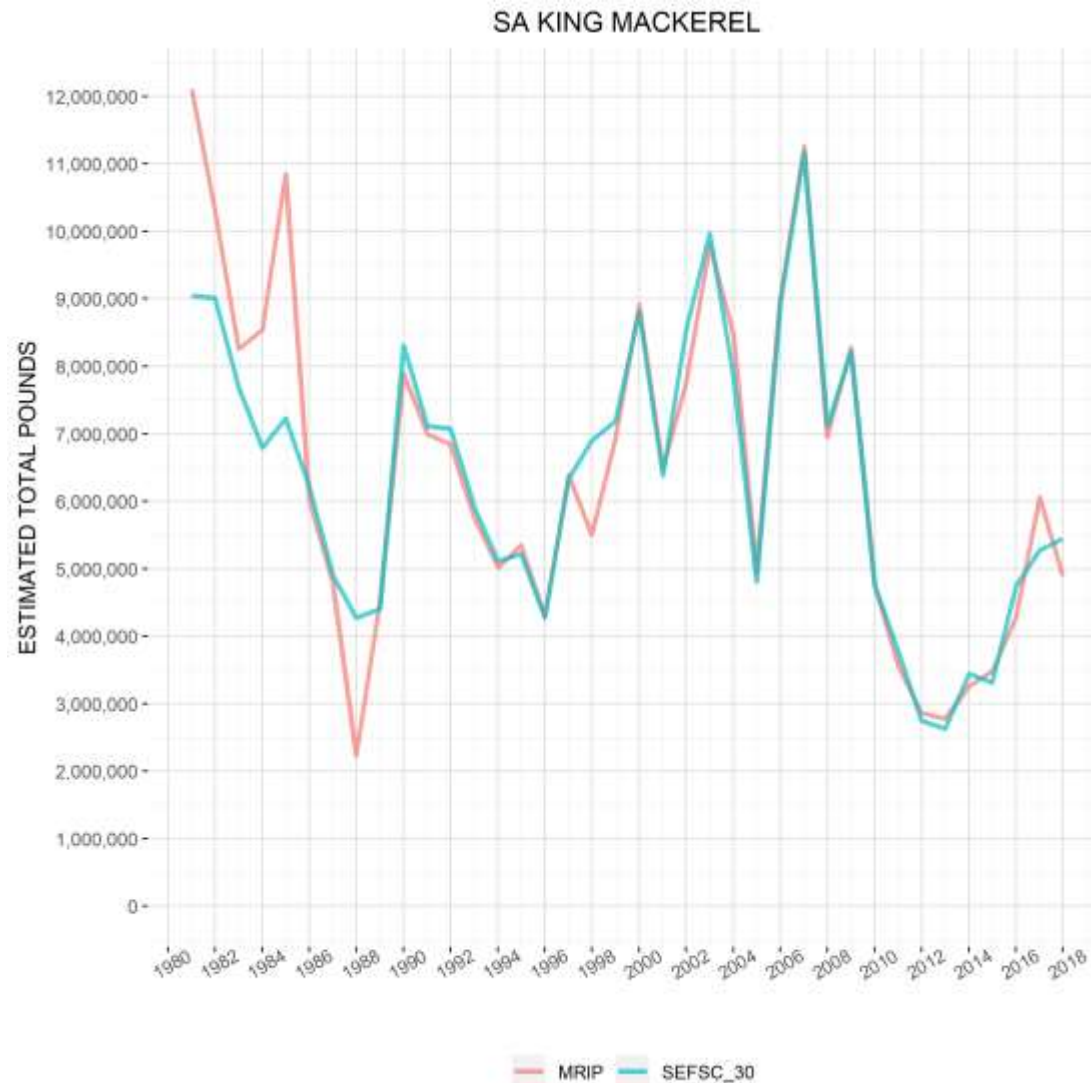
# Weight Estimation Comparisons



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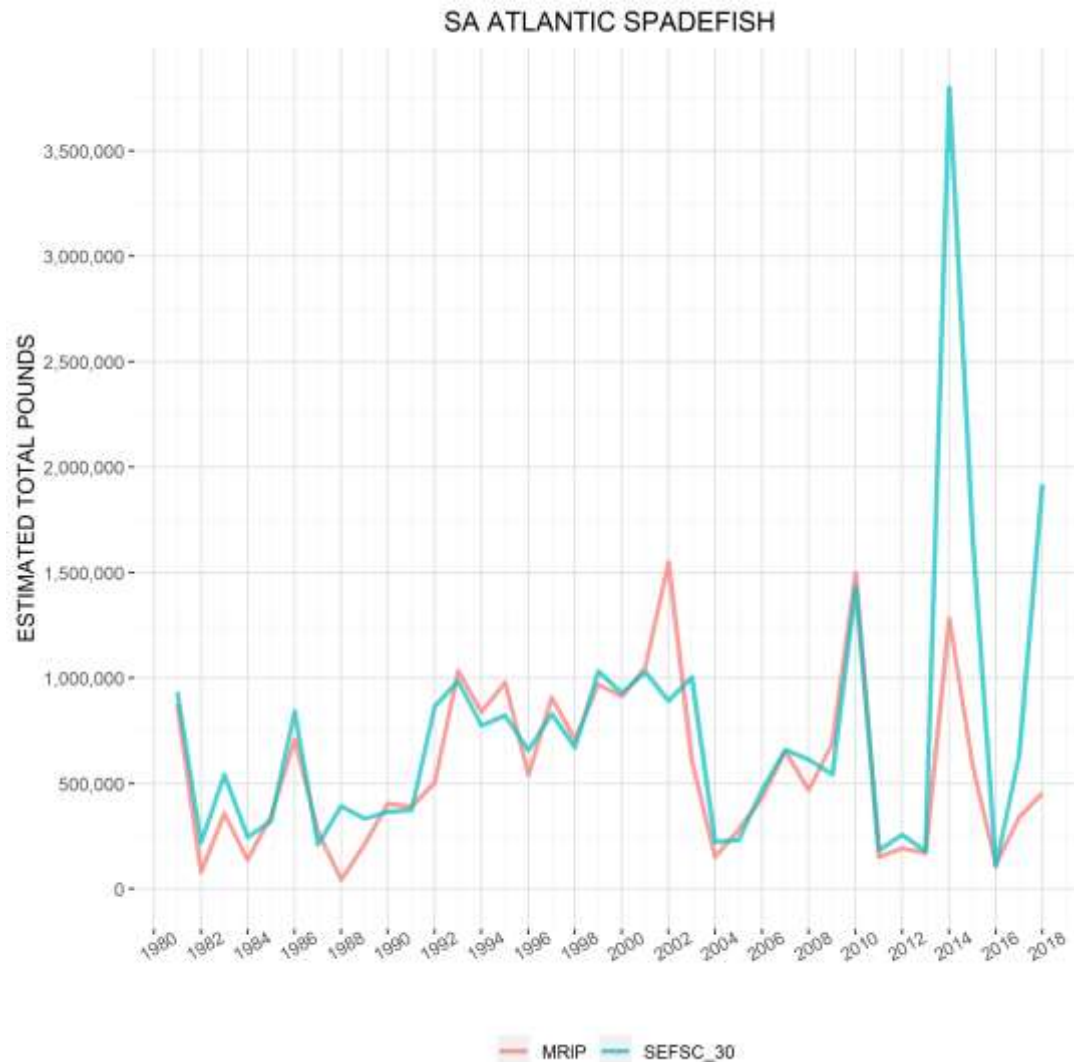


# Weight Estimation Comparisons

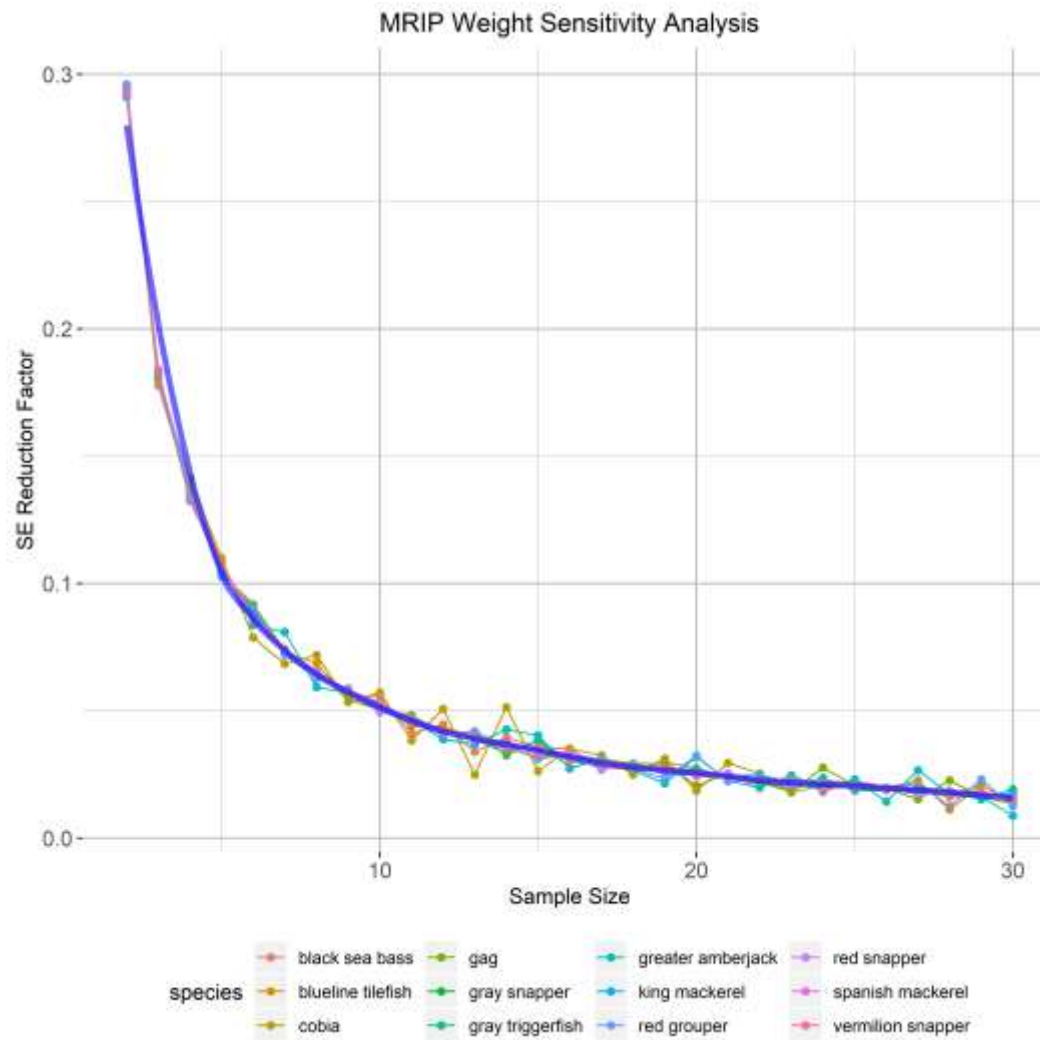




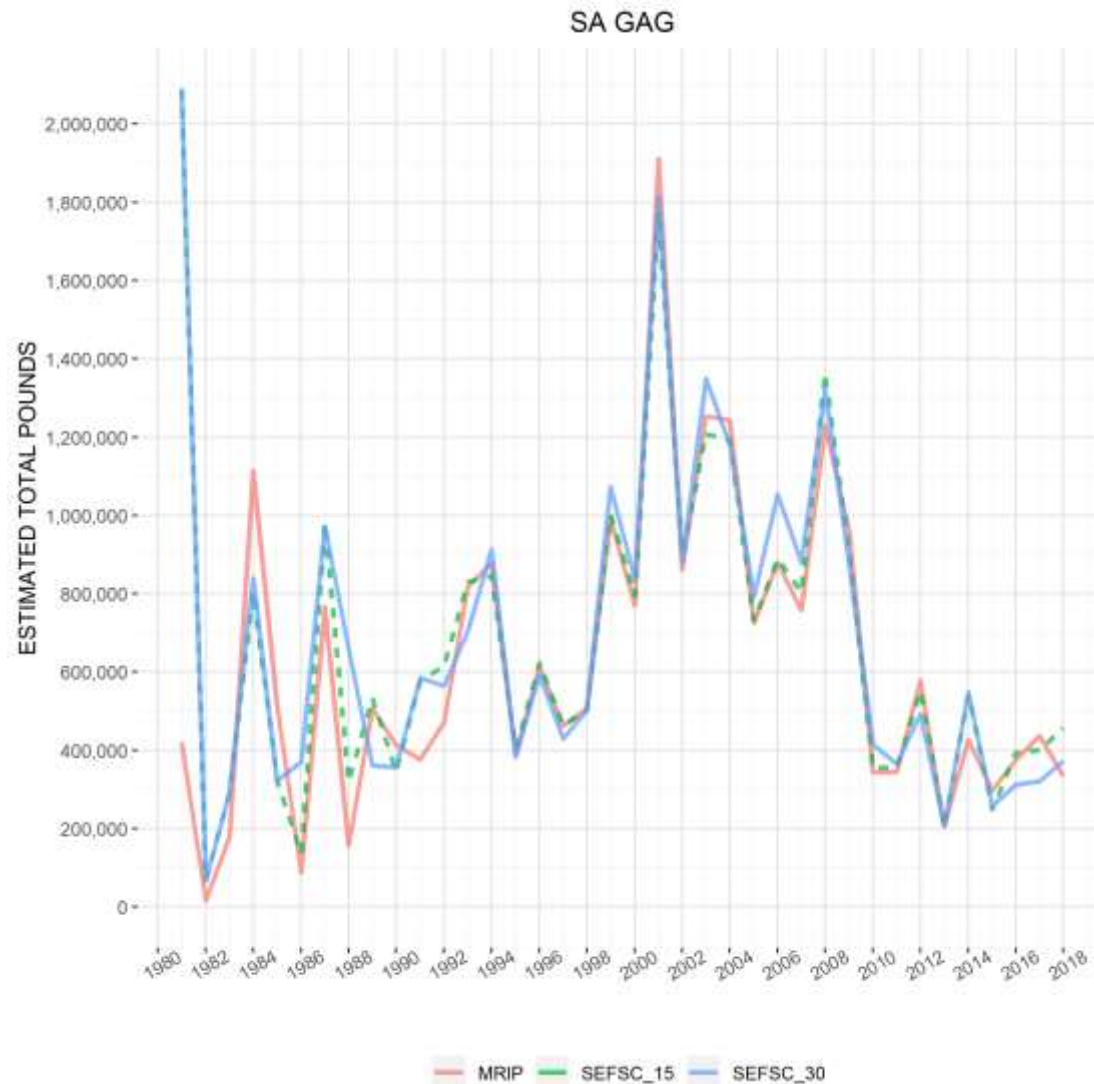
# Weight Estimation Comparisons



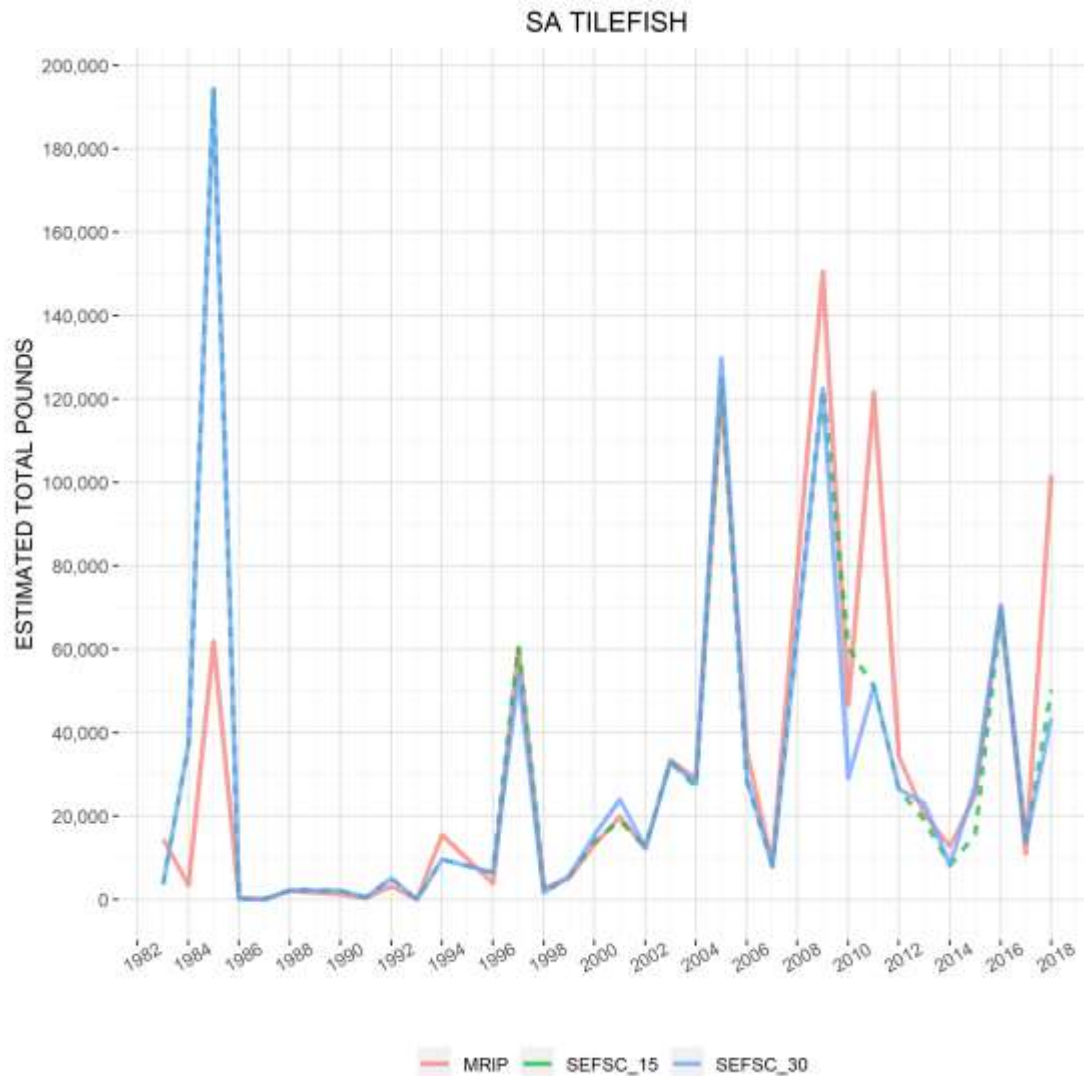
# Evaluation of minimum sample size



# Weight Estimation Comparisons

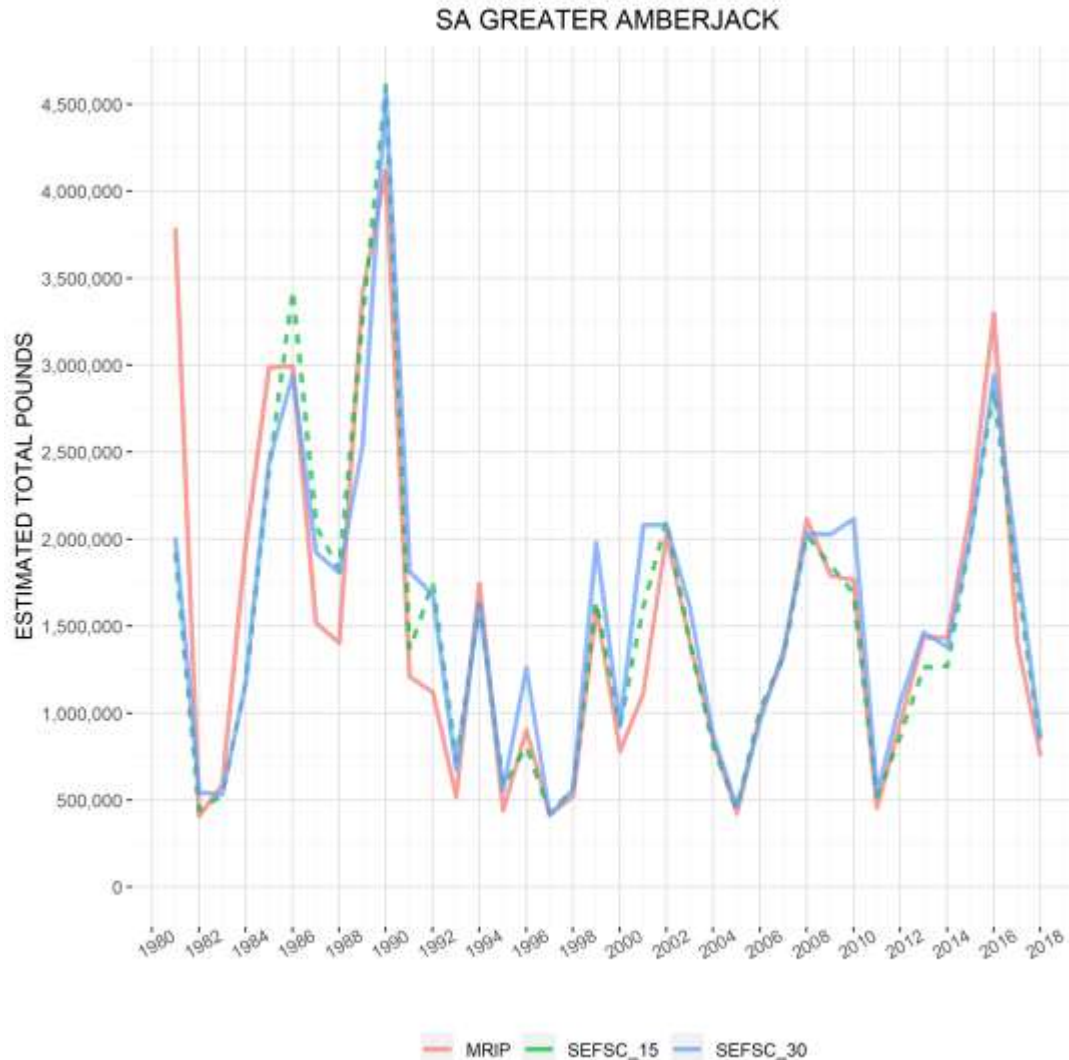


# Weight Estimation Comparisons

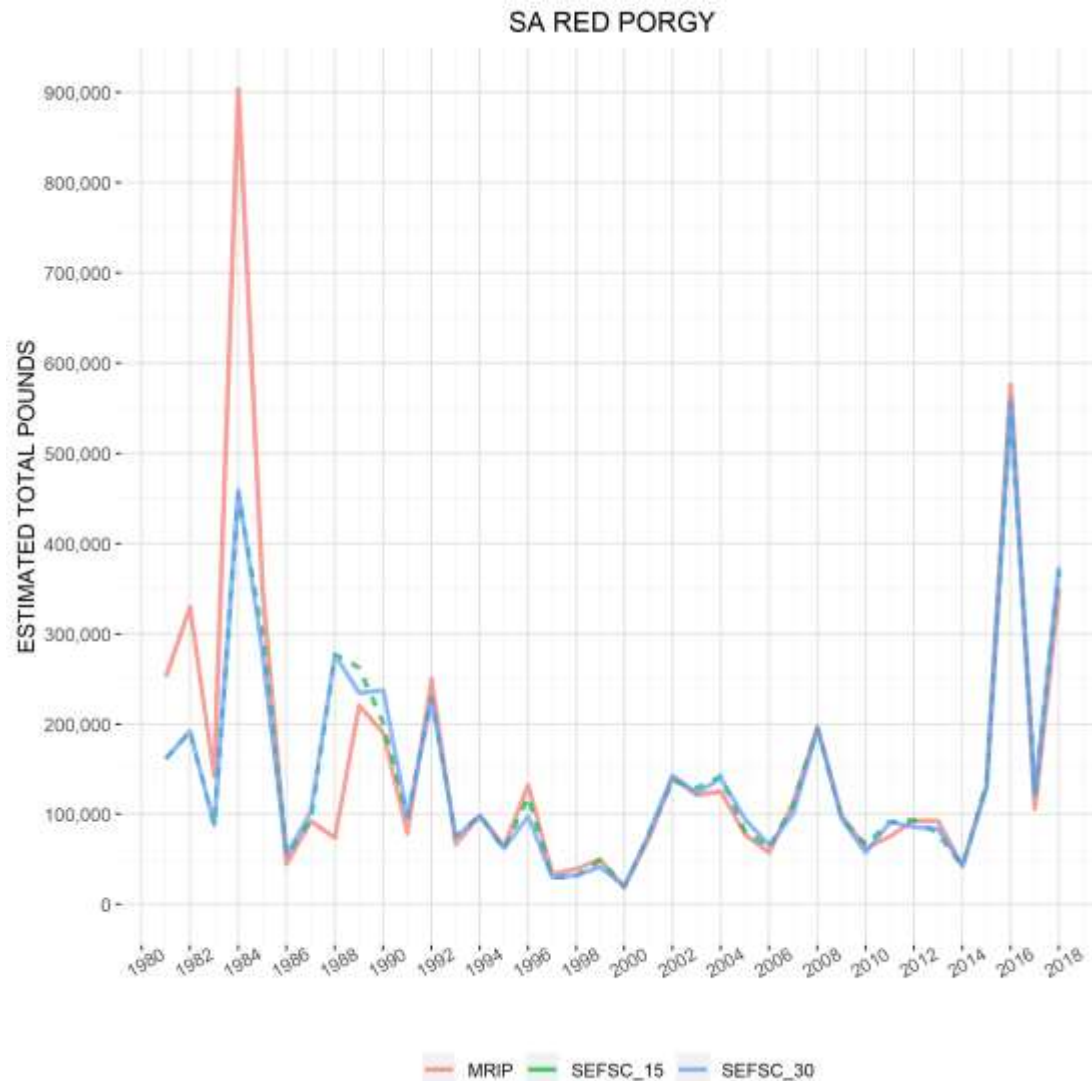




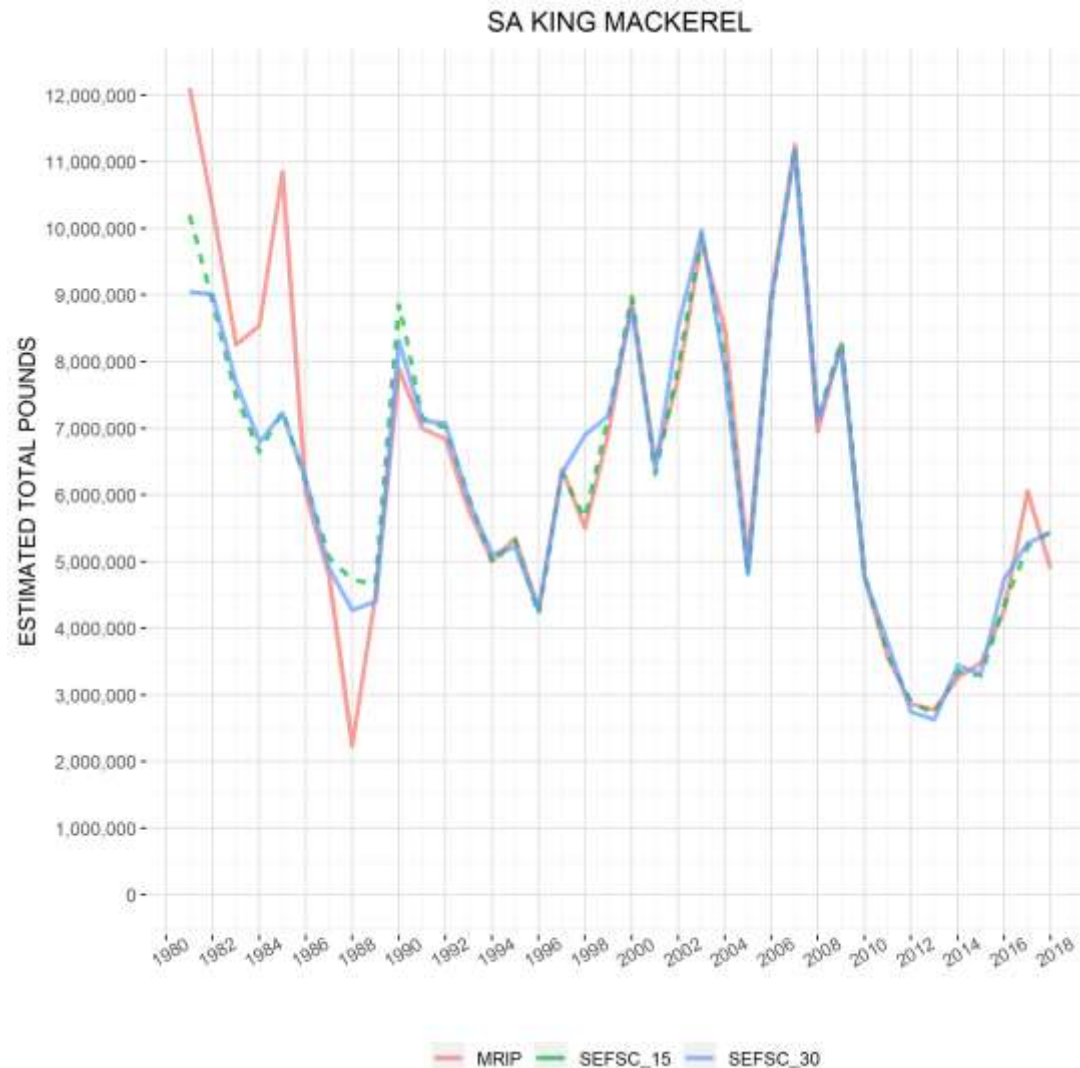
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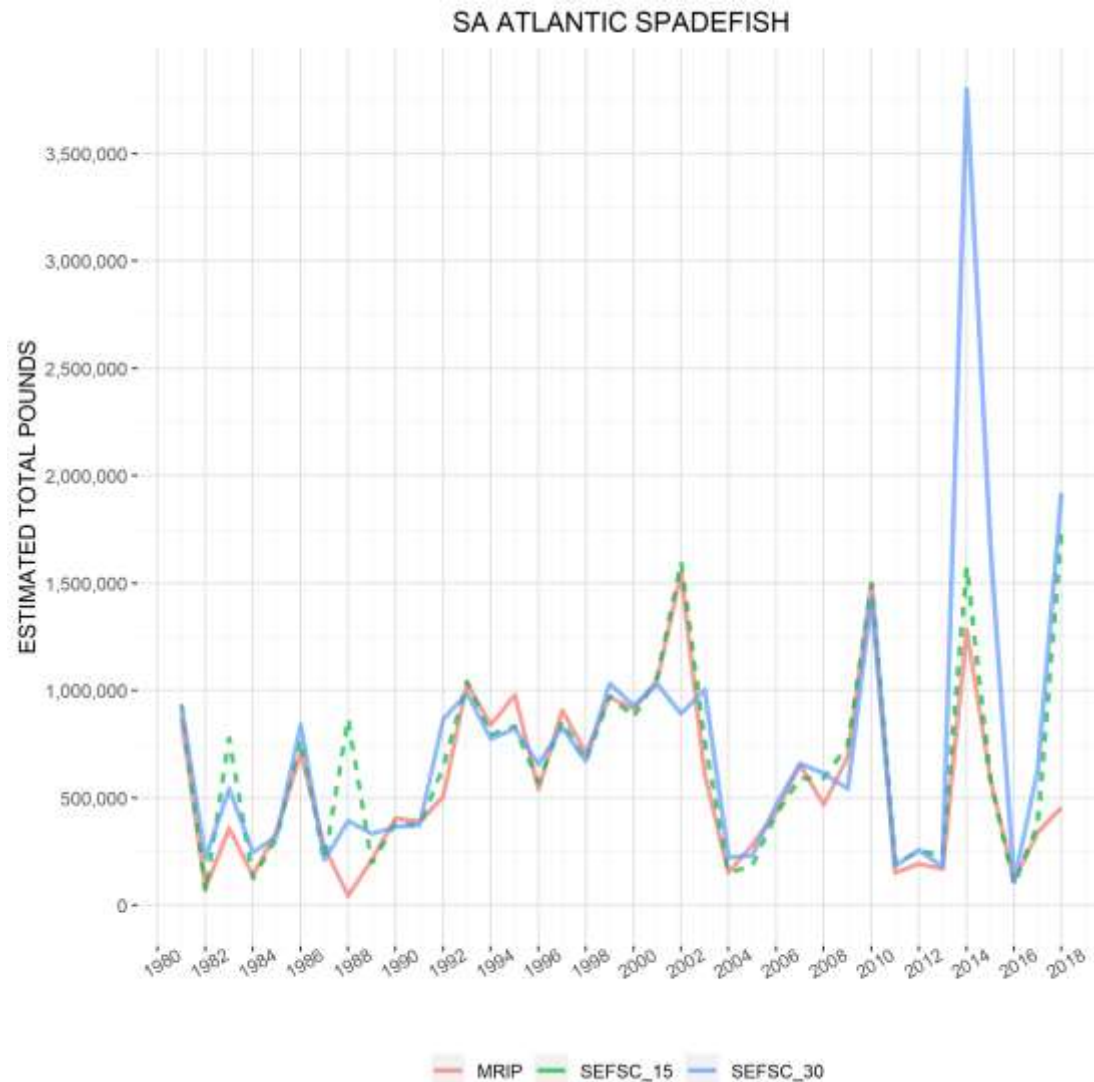
# Weight Estimation Comparisons



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# Weight Estimation Comparisons



# Summary

- The FHS adjustment (for hire modes) does not impact the calibration between CHTS and FES (private and shore modes)
- The SEFSC weight estimation procedure, which applies to all modes, occurs after all calibrations are completed. The comparisons shown here isolate the differences between methodologies.
  - Consistent methodology is important for stock assessments
  - Proposed 15 fish minimum sample size



# Questions