



**NOAA
FISHERIES**

**Southeast
Fisheries
Science Center**

SEFSC MRIP modifications

TOR 1B
Scientific and Statistical Committee
MRIP Data Workshop

Vivian Matter

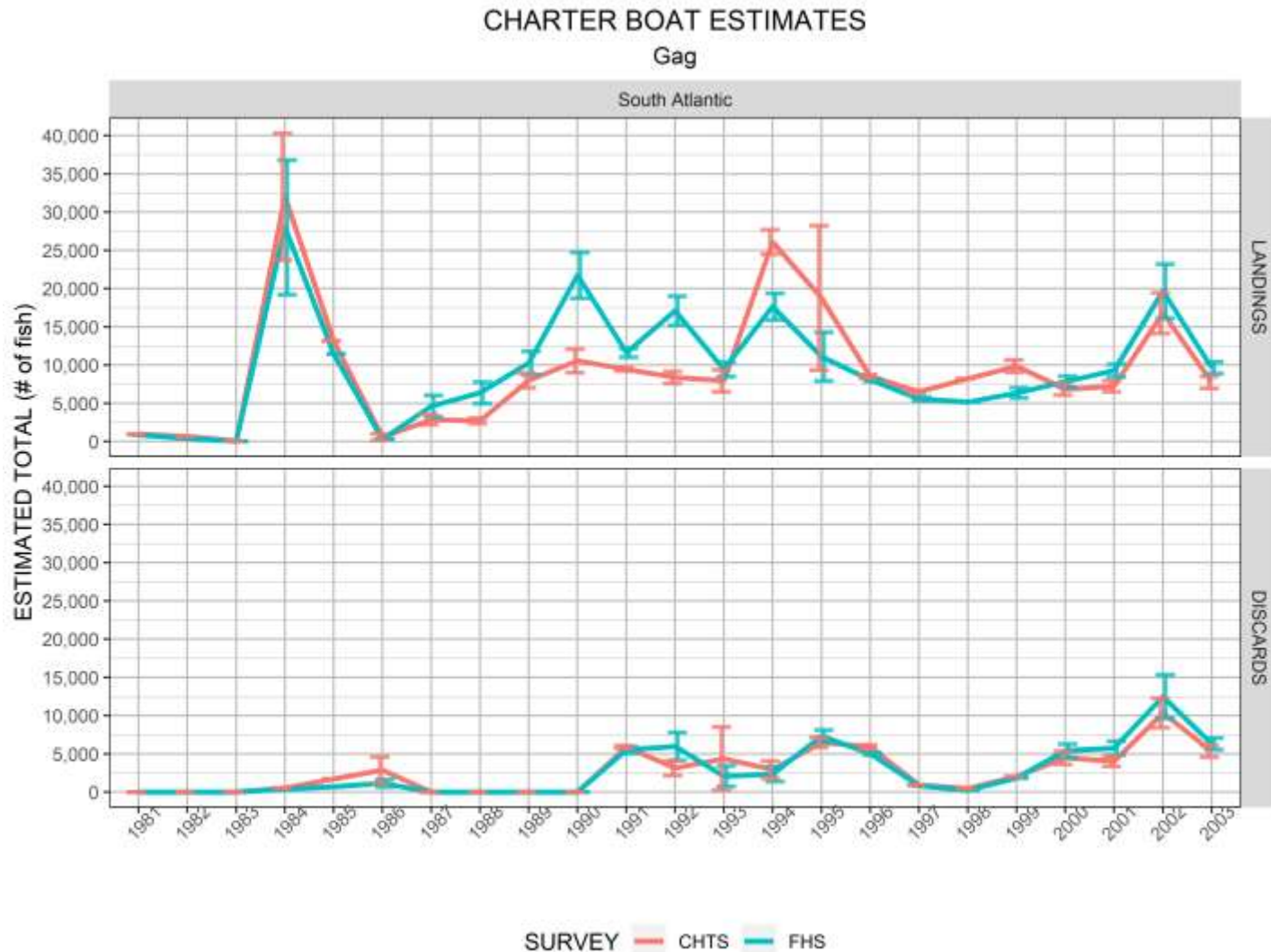
August 20, 2019

For Hire Survey adjustment

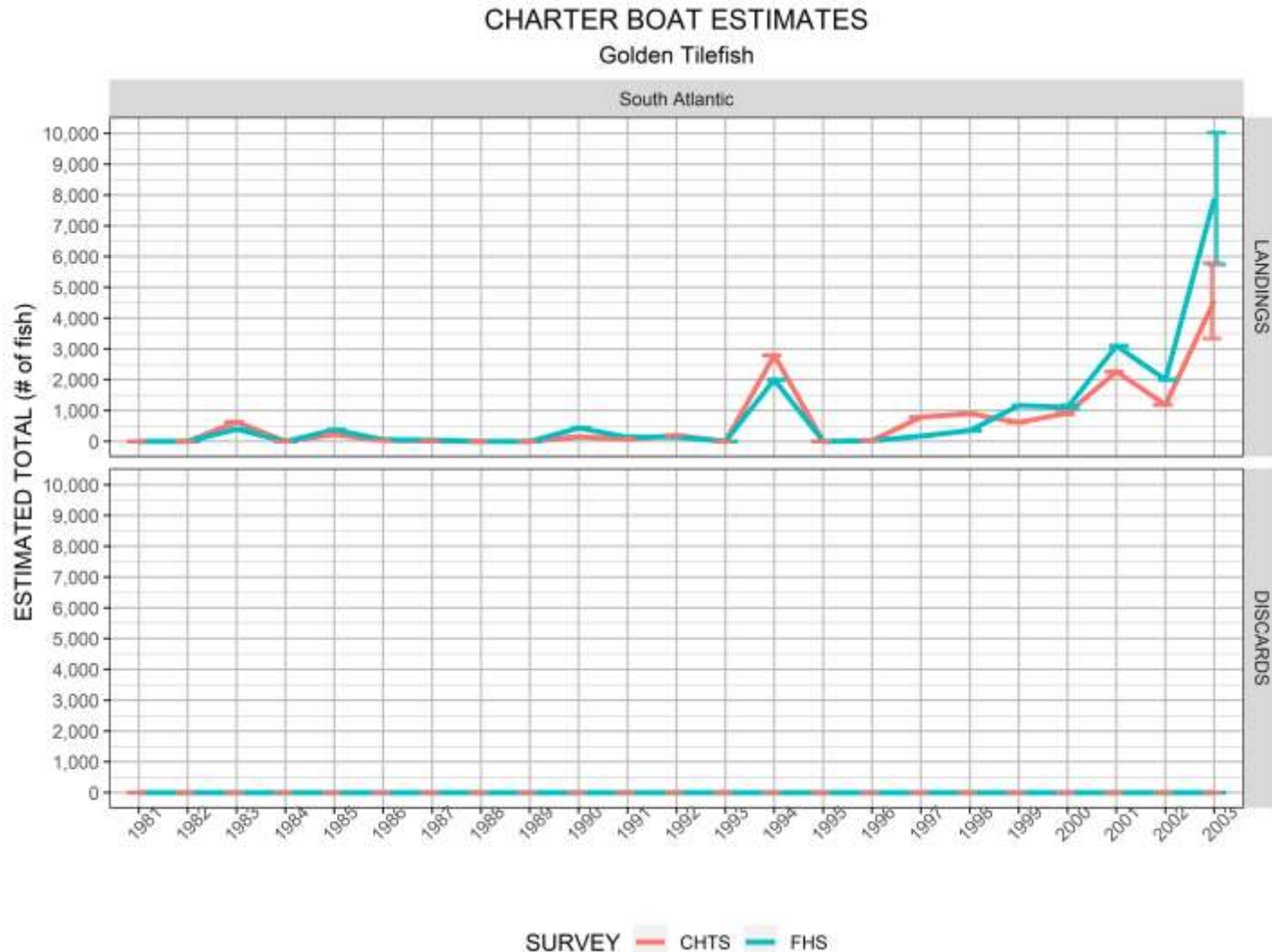
For Hire Survey change

- 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

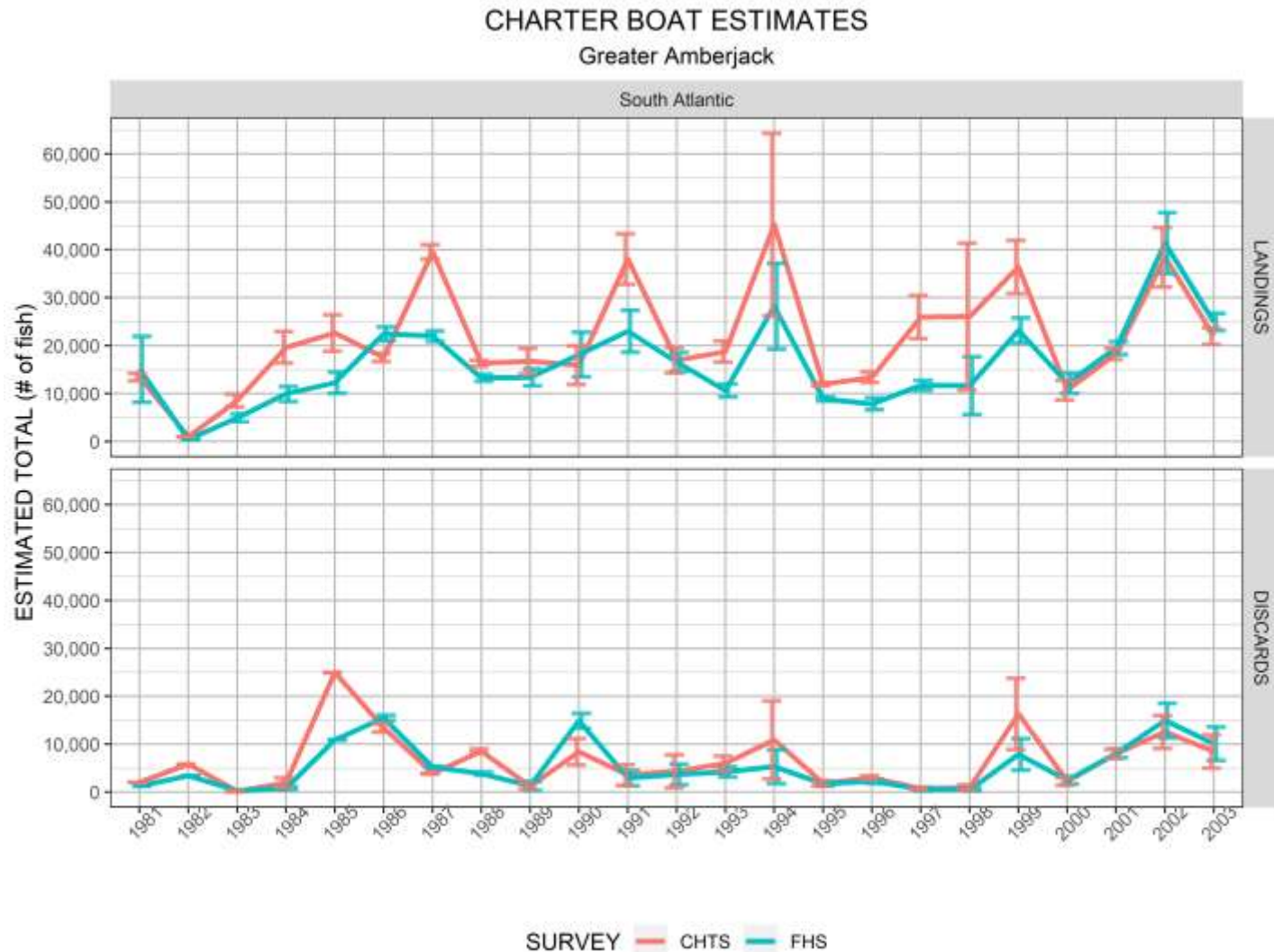
CHTS/FHS Estimate Comparisons



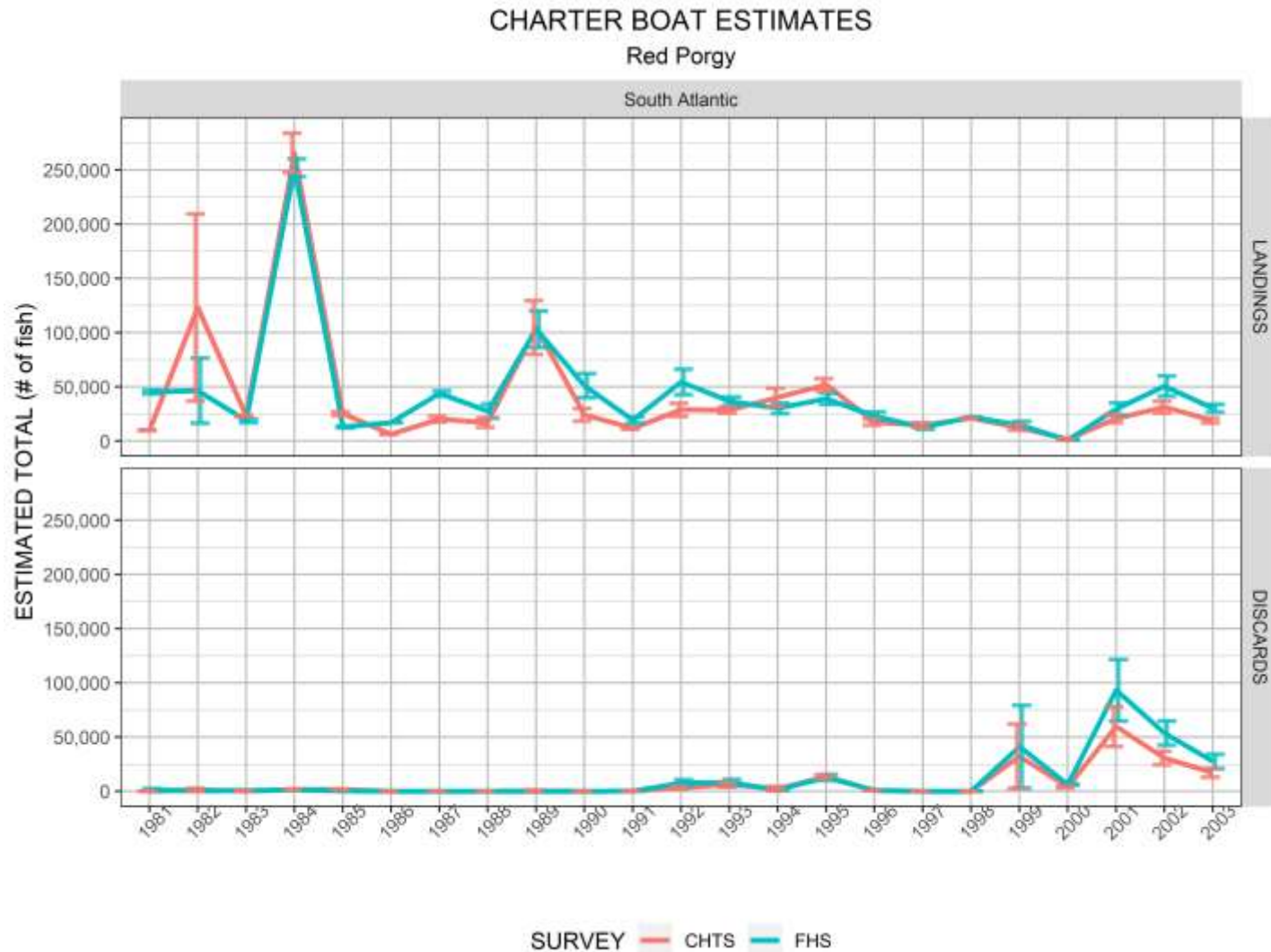
CHTS/FHS Estimate Comparisons



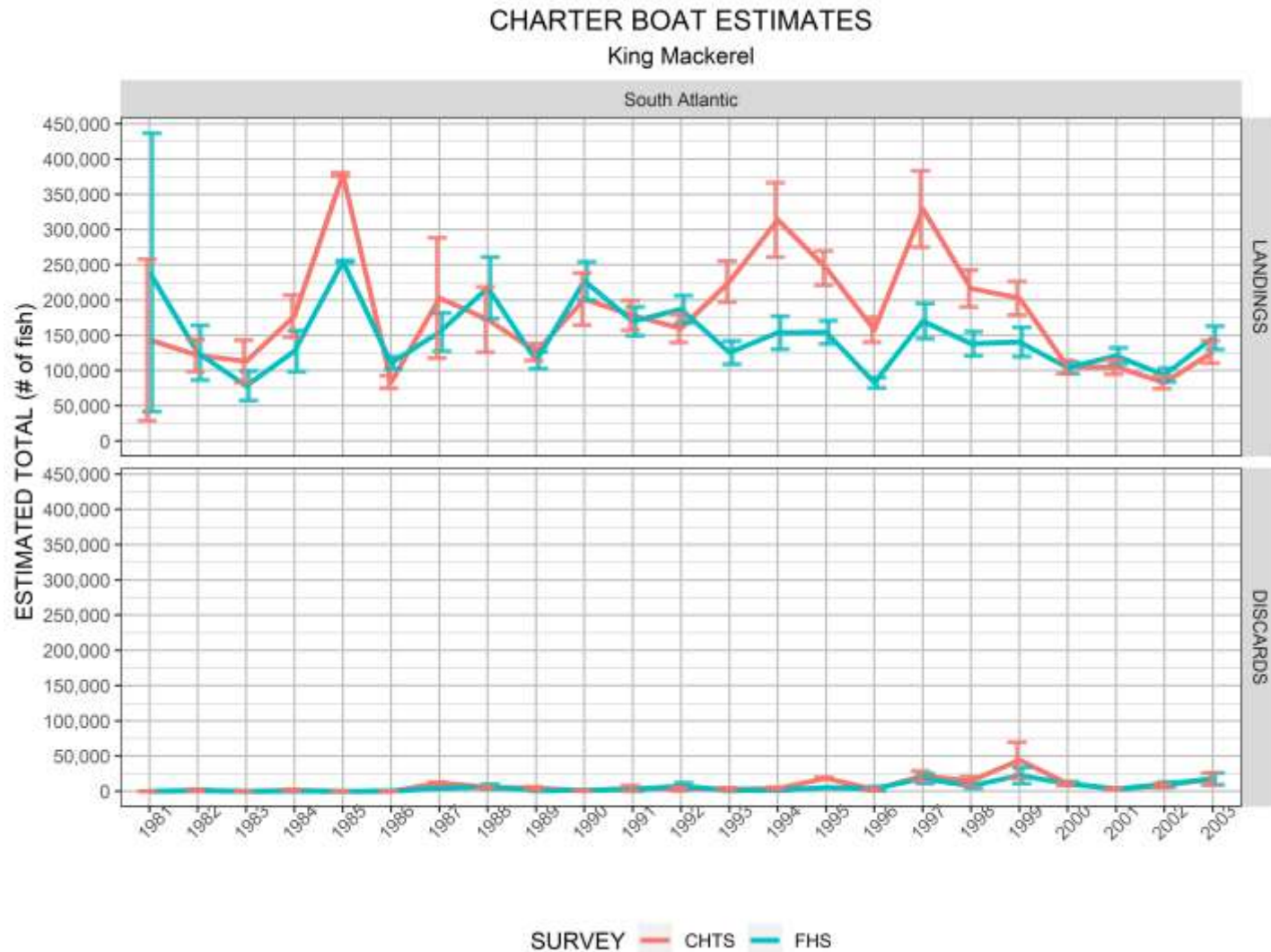
CHTS/FHS Estimate Comparisons



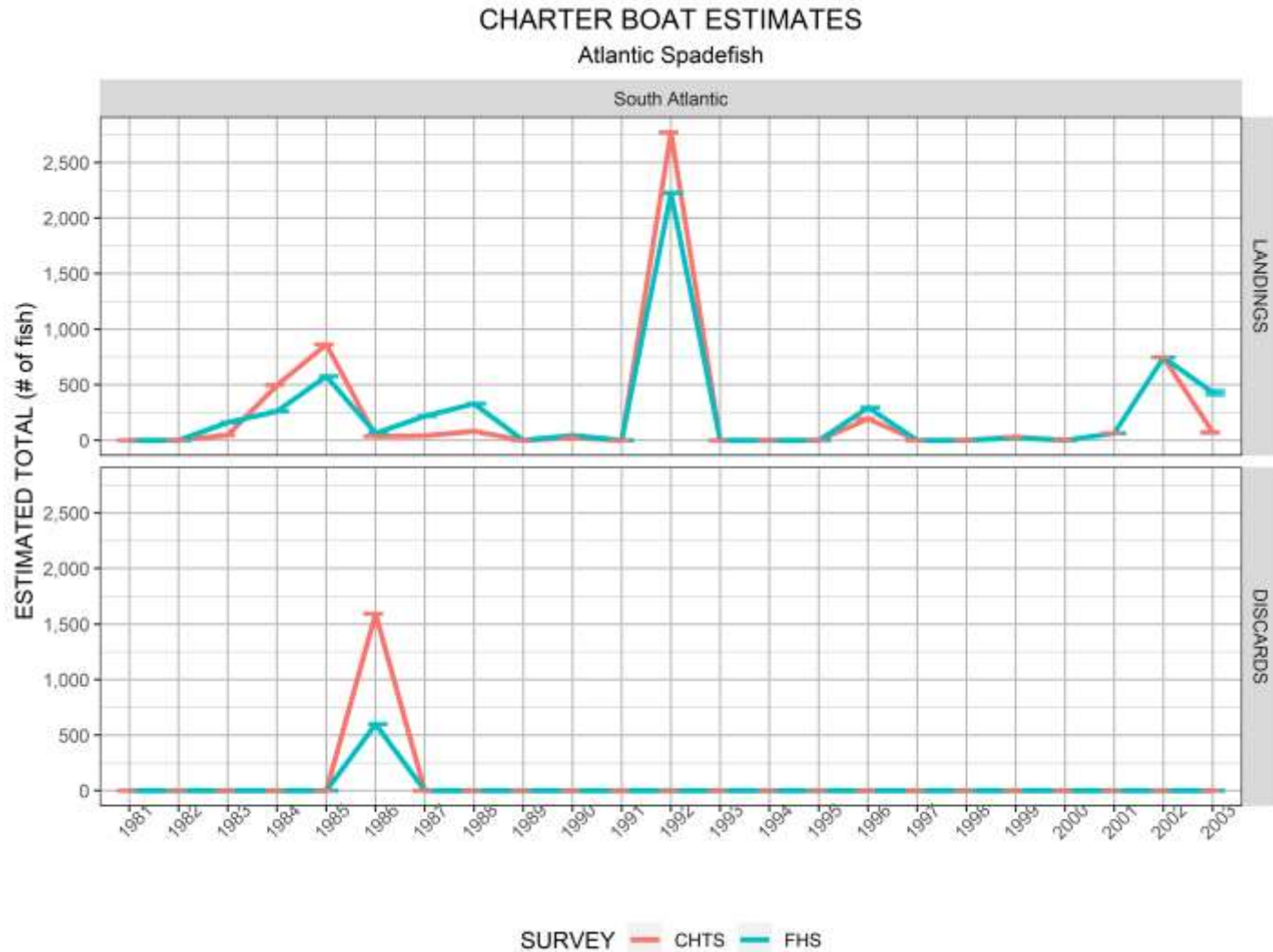
CHTS/FHS Estimate Comparisons



CHTS/FHS Estimate Comparisons



CHTS/FHS Estimate Comparisons

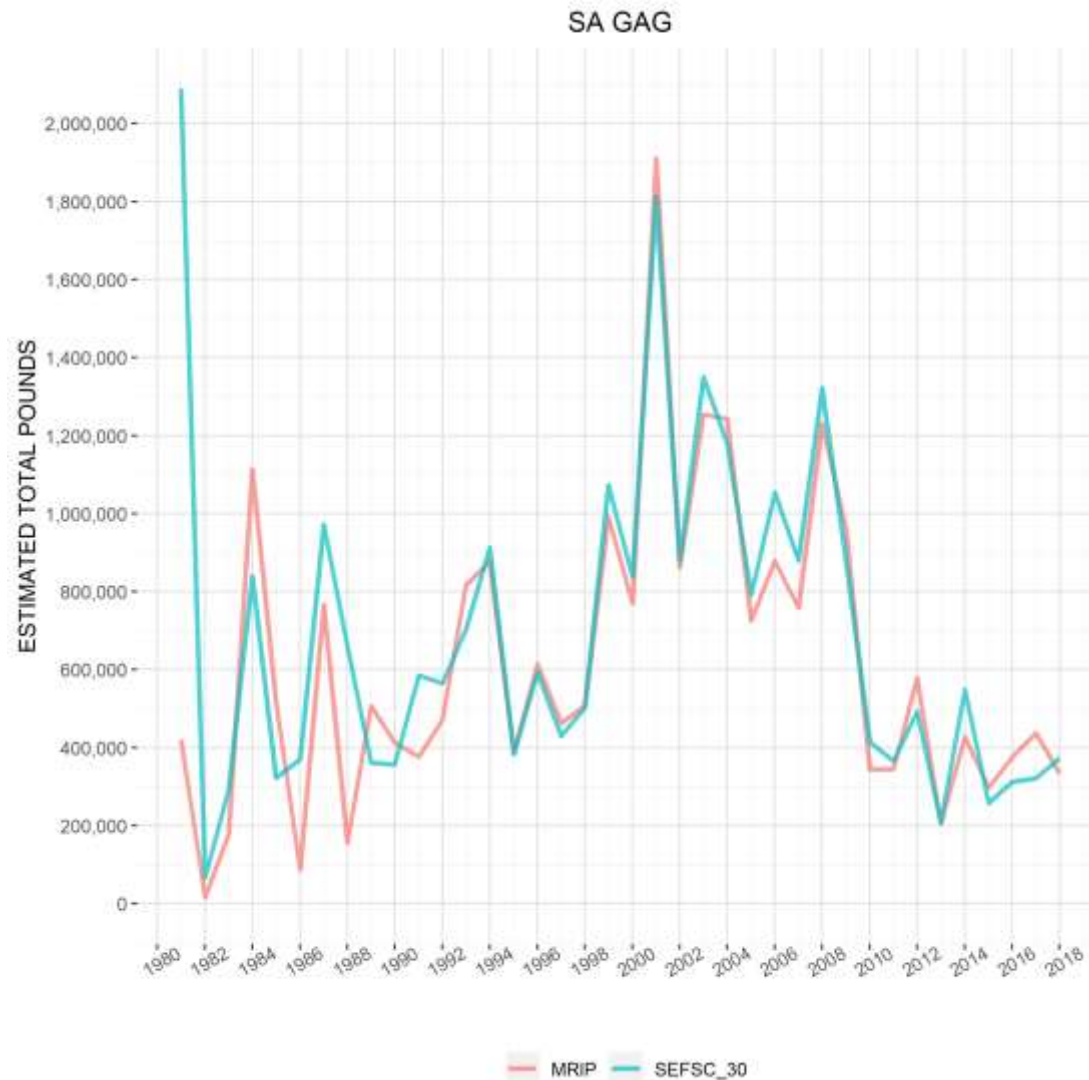


Weight Estimation procedure

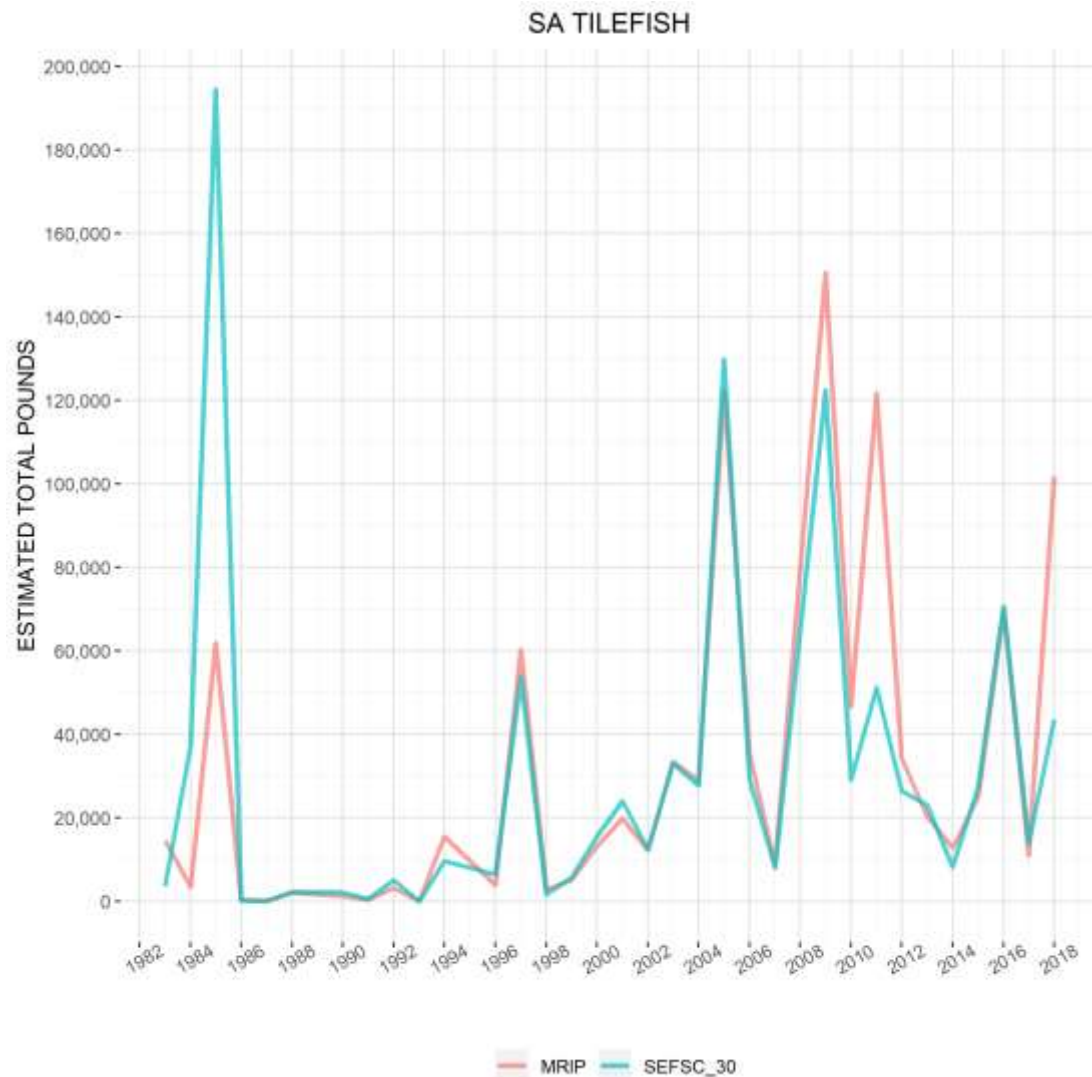
SEFSC weight estimation

- 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

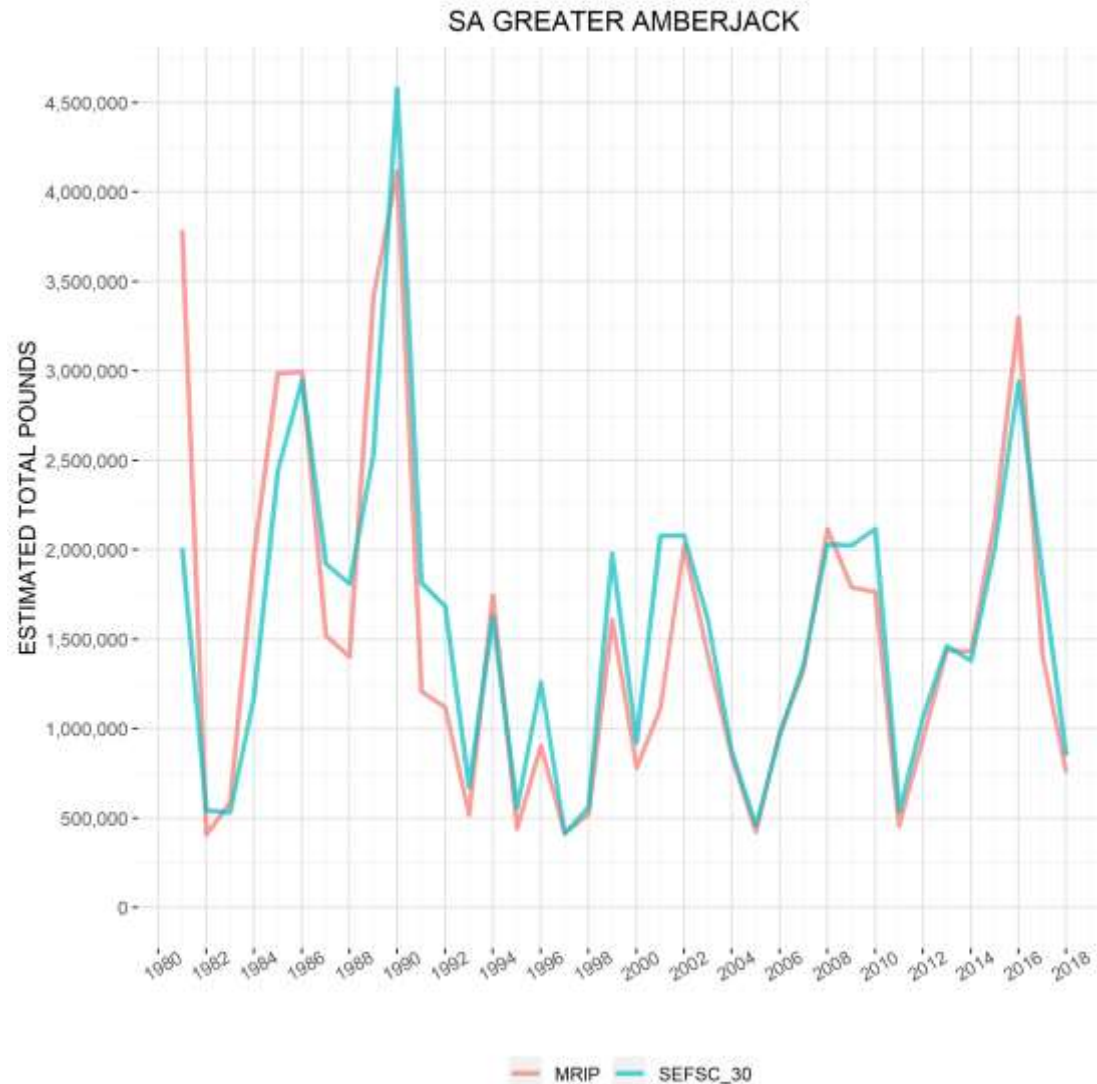
Weight Estimation Comparisons



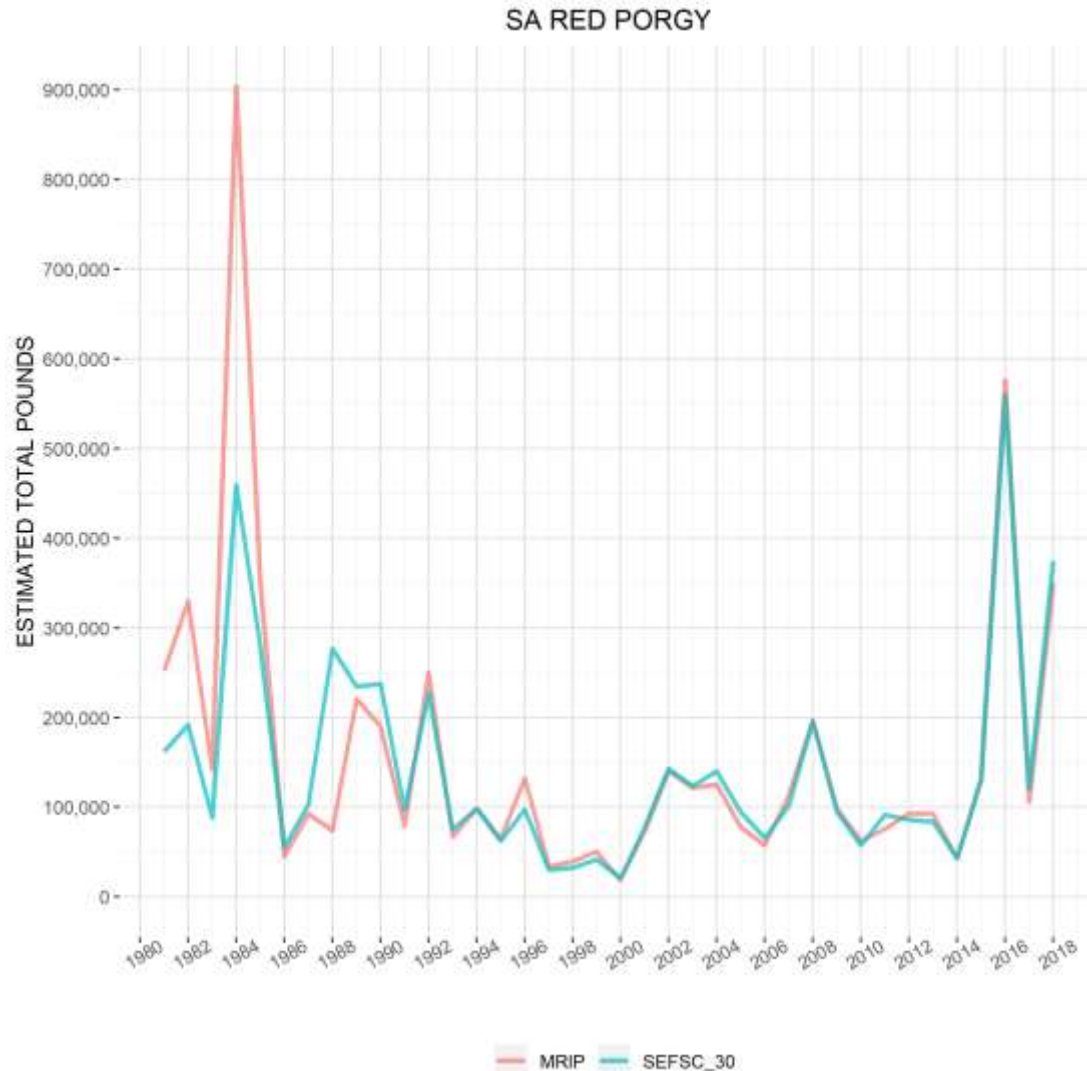
Weight Estimation Comparisons



Weight Estimation Comparisons

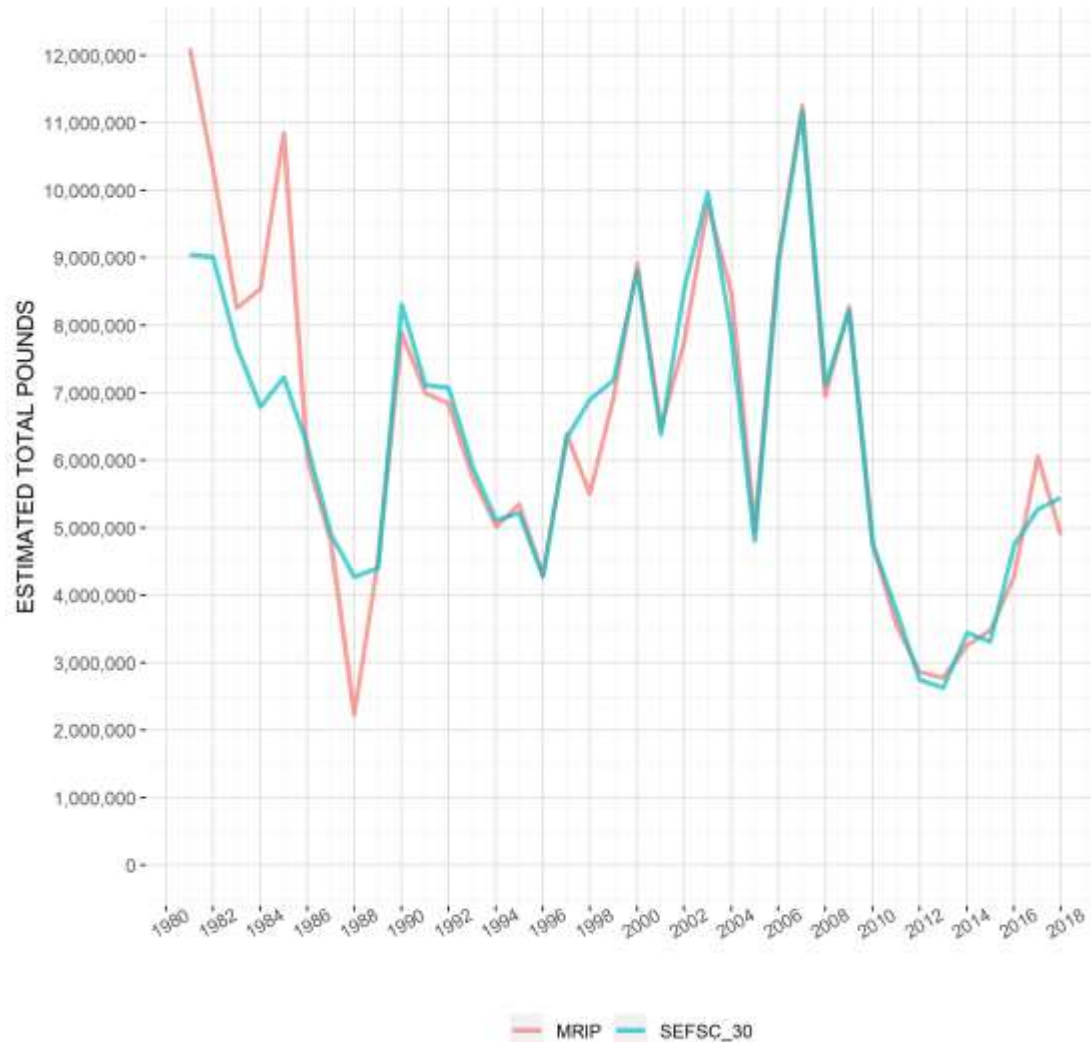


Weight Estimation Comparisons

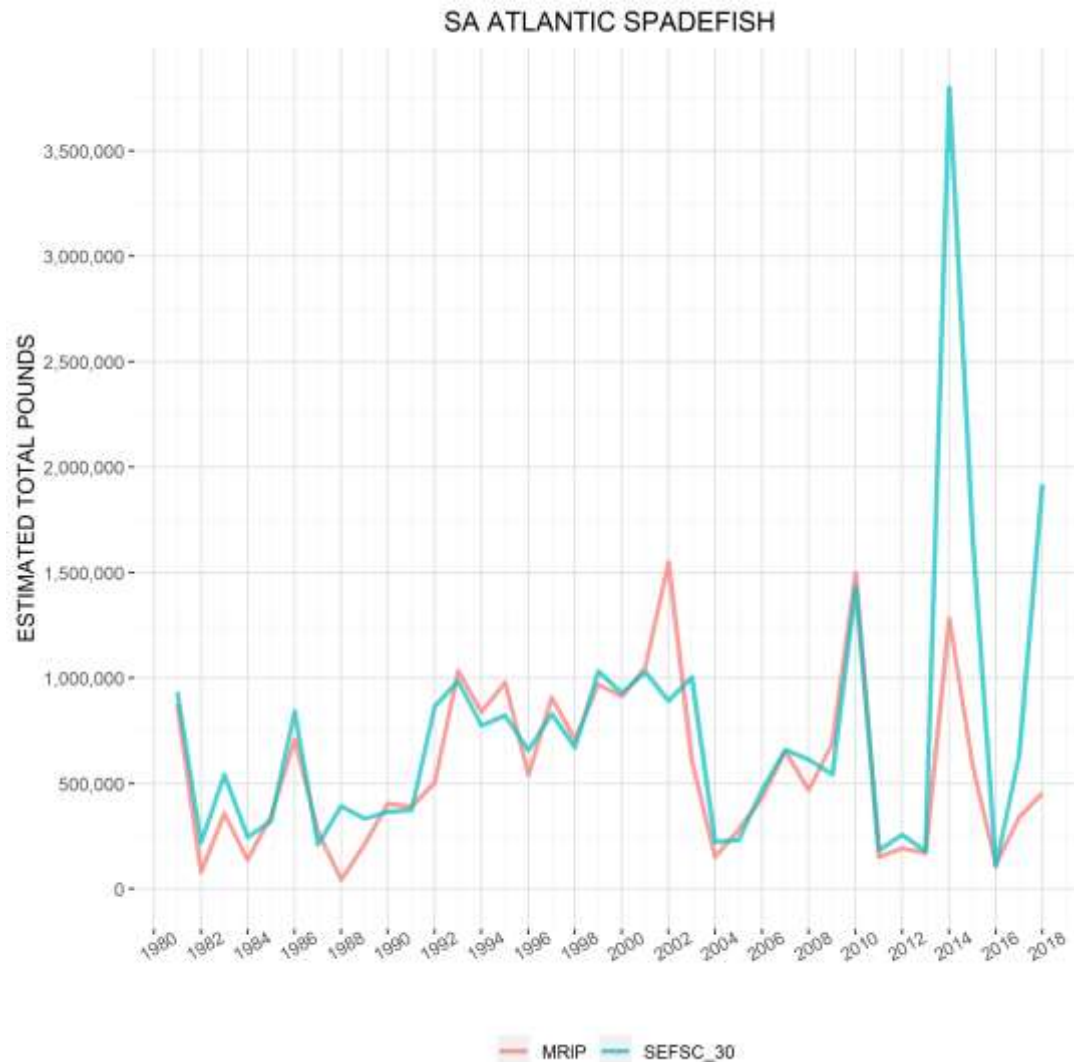


Weight Estimation Comparisons

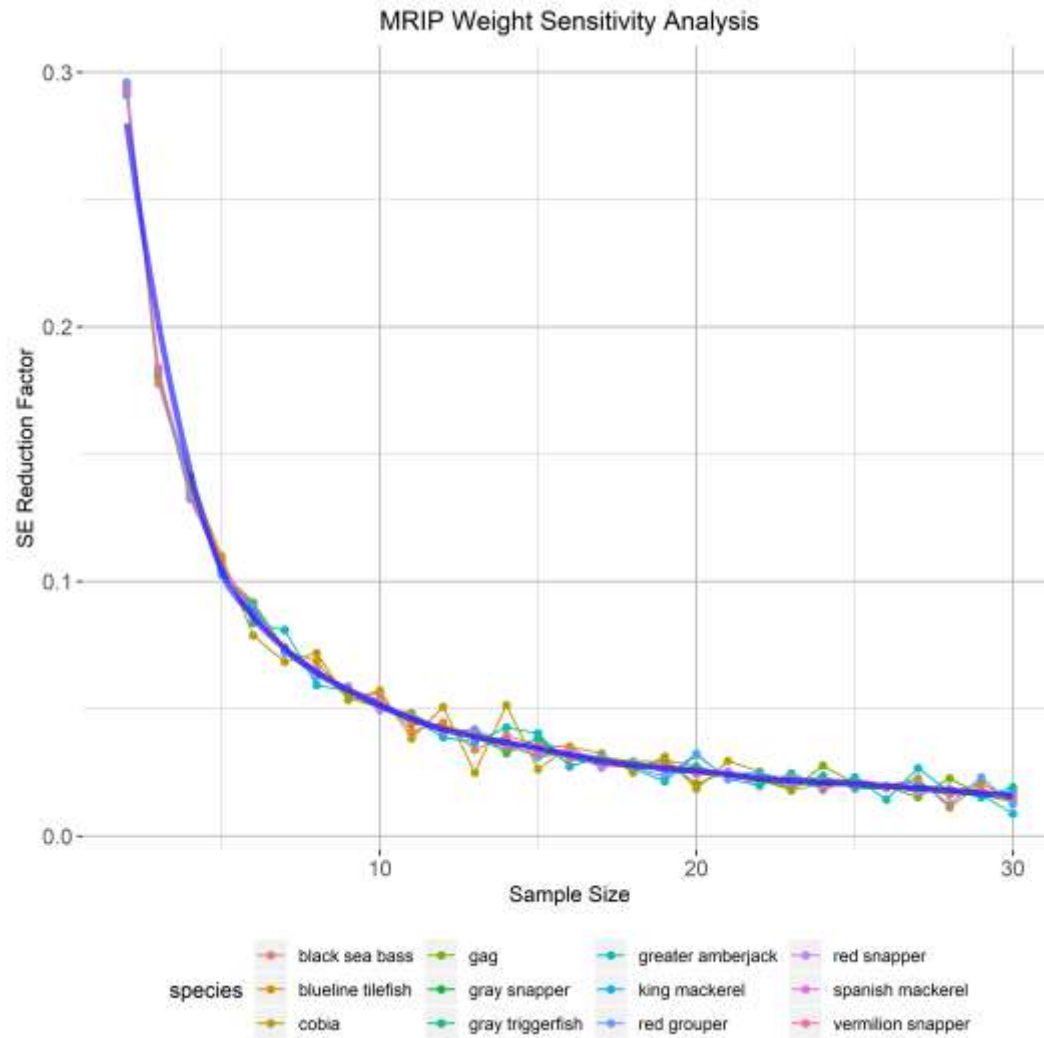
SA KING MACKEREL



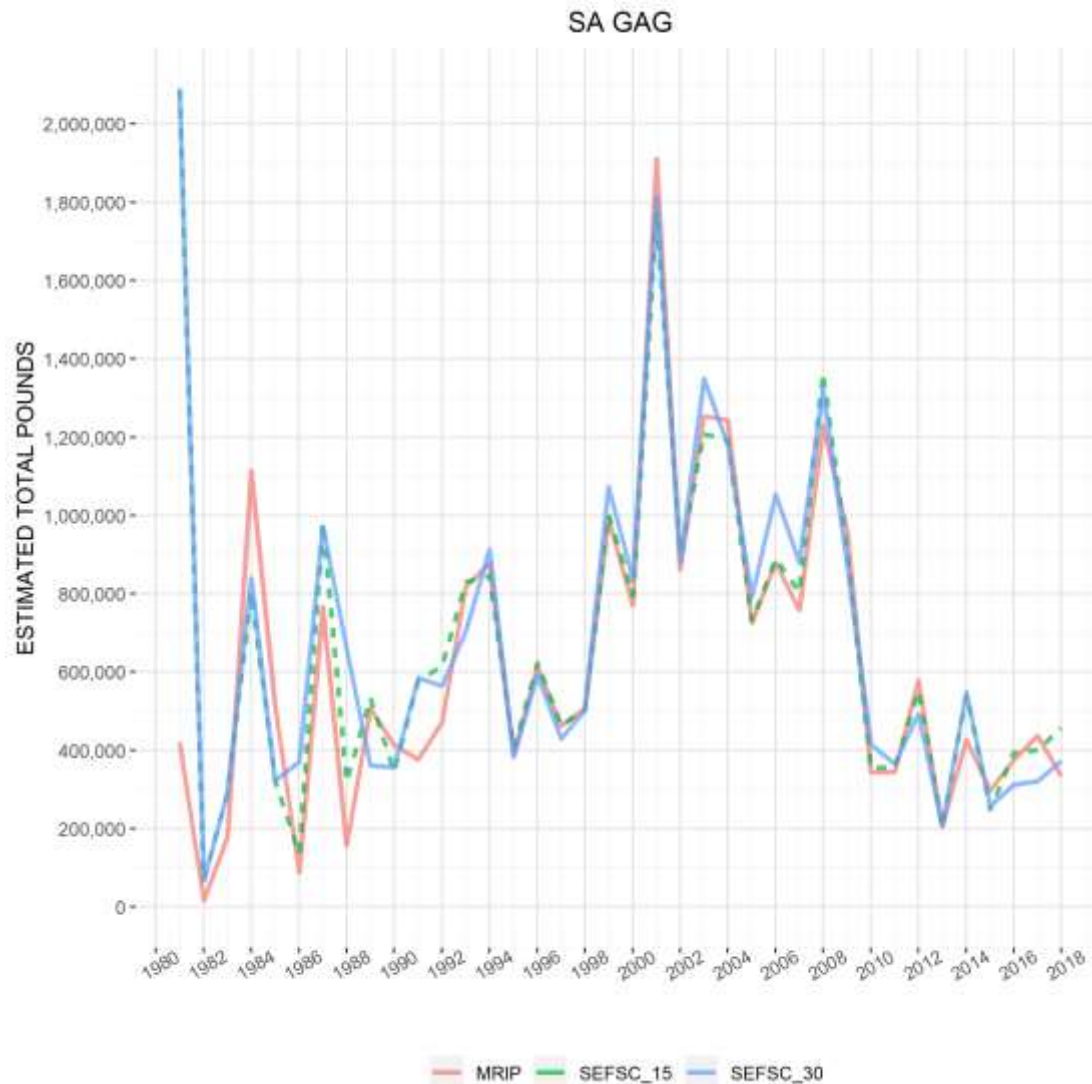
Weight Estimation Comparisons



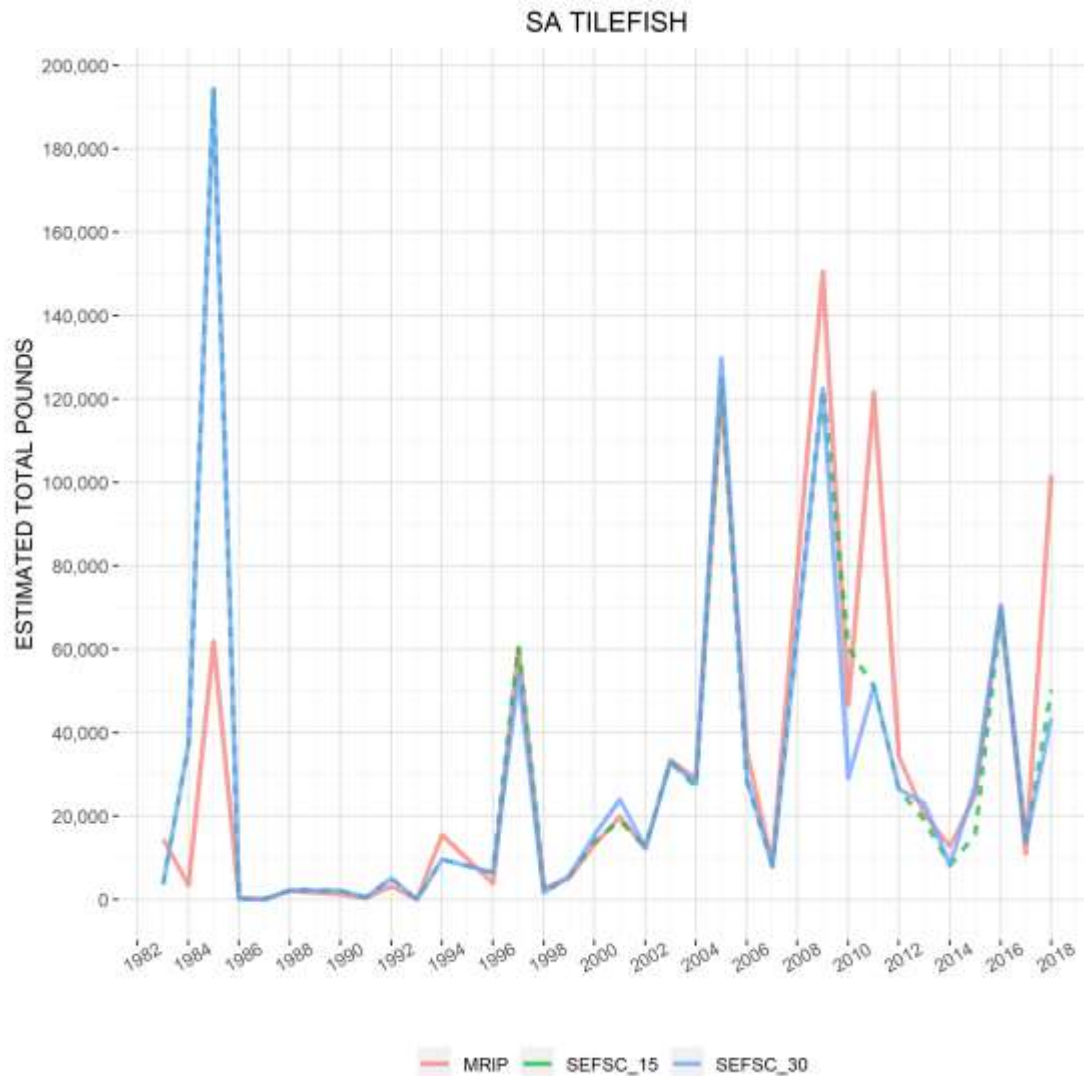
Evaluation of minimum sample size



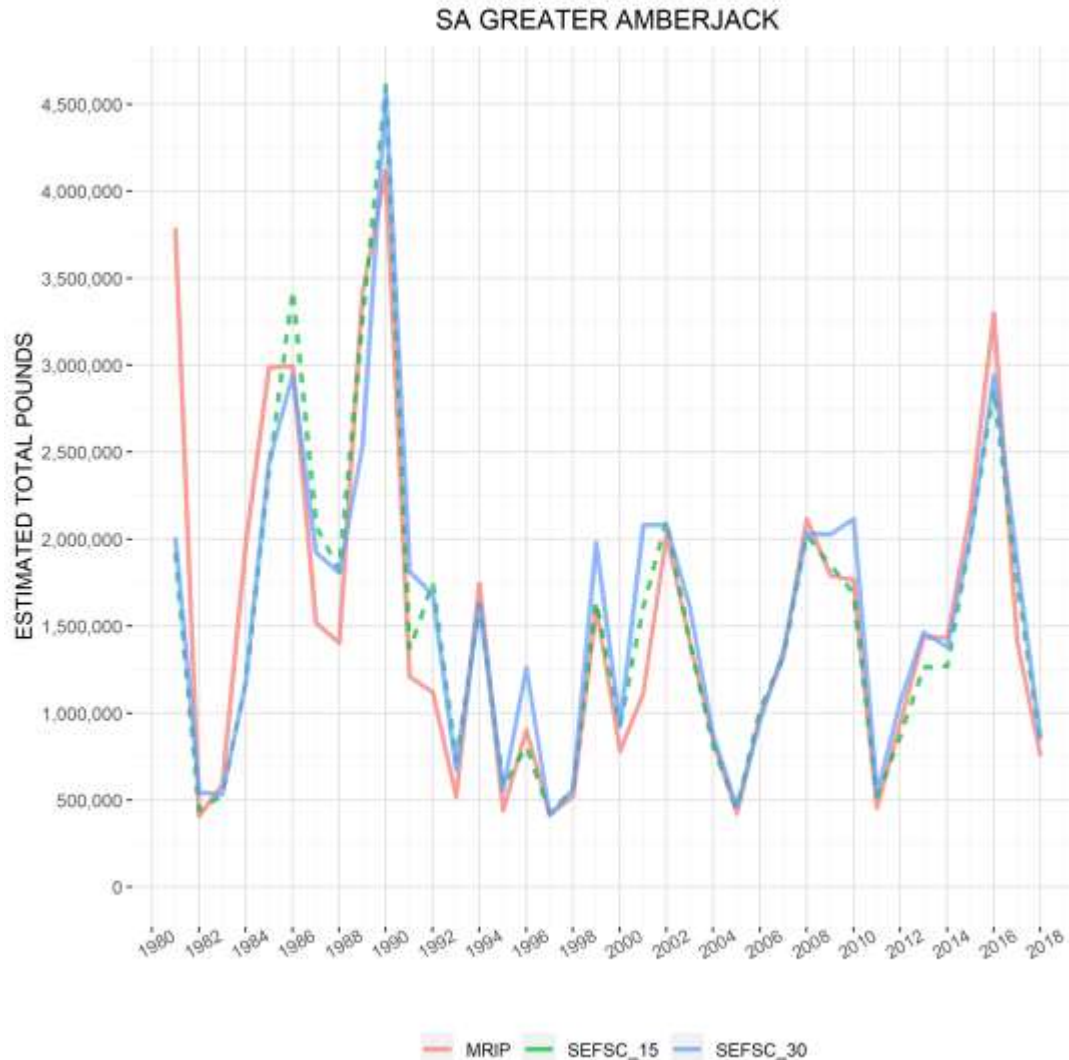
Weight Estimation Comparisons



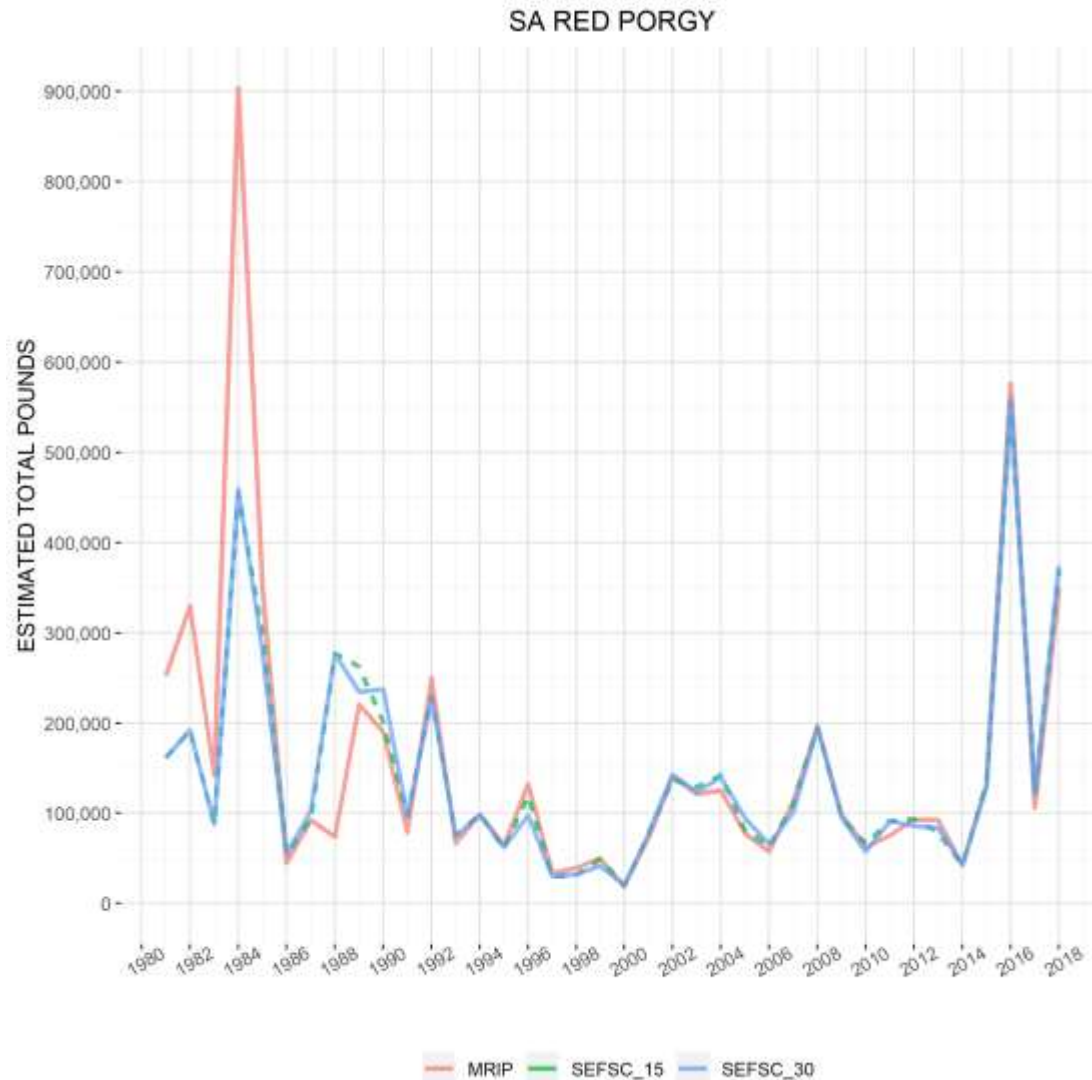
Weight Estimation Comparisons



Weight Estimation Comparisons



Weight Estimation Comparisons

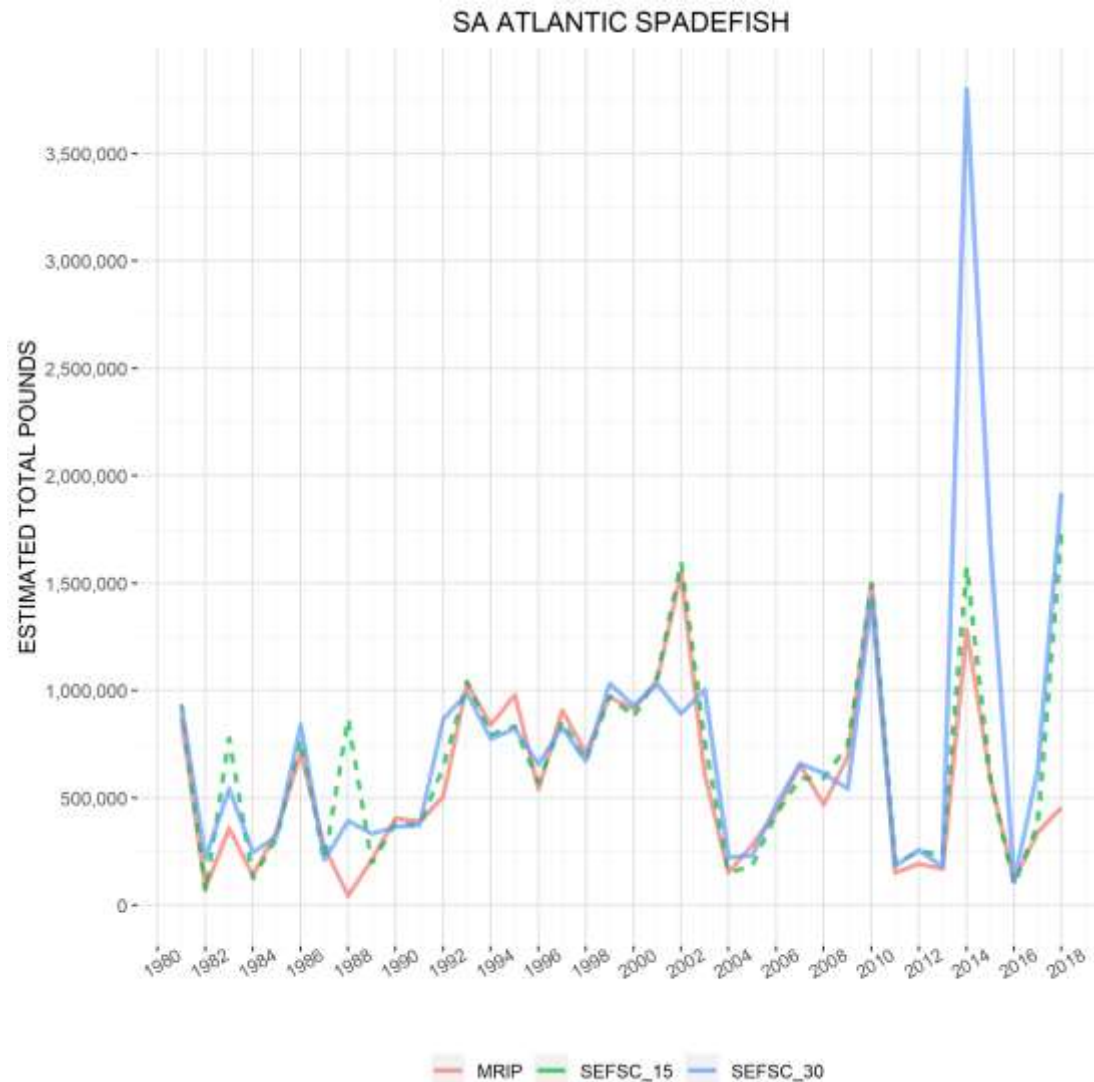


Weight Estimation Comparisons

SA KING MACKEREL



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