



NOAA
FISHERIES

March 2017

Gulf of Mexico Recreational Landings: Methods and Adjustments

Southeast Science Center

April 2017

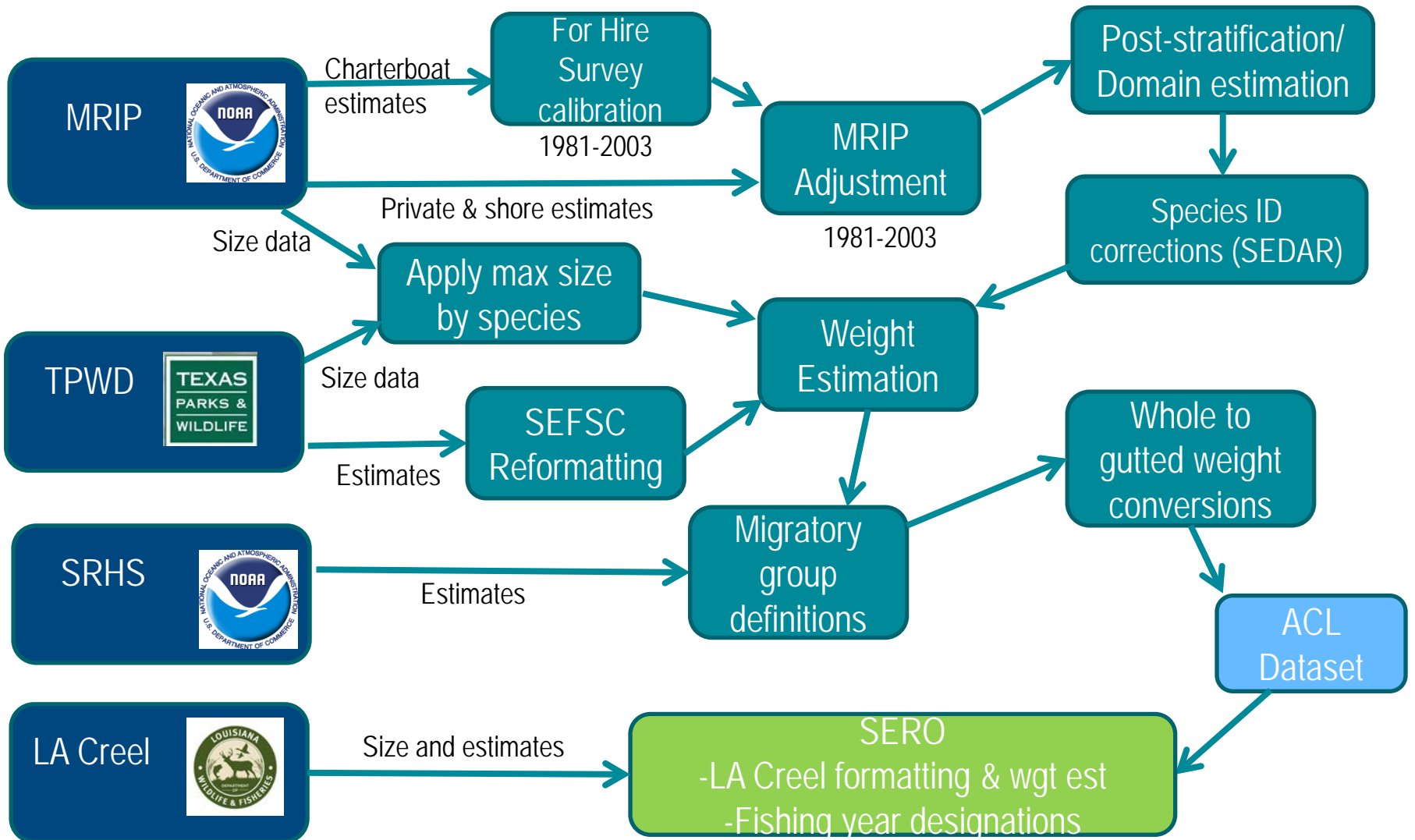
Why are ACL monitoring recreational landings different than the landings on the NOAA recreational statistics website?

- SEFSC/SERO landings estimates:
 - Include Southeast Region Headboat Survey (SRHS), Texas Parks and Wildlife Department (TPWD), and LA Creel survey landings
 - Assign landings to management jurisdiction (ex. Florida Keys landings are assigned to the Atlantic for specific stocks)
 - Include some species ID corrections
 - Use different weight estimation methodologies

Why are ACL monitoring recreational landings different than the landings on the NOAA recreational statistics website?

- SEFSC/SERO landings estimates:
 - Assigns some species to migratory groups
 - Use gutted weight estimates to monitor some species' ACLs
 - Assign landings to fishing year when necessary
 - Use MRIP estimates that have been converted to MRFSS landings for monitoring some species (those whose ACLs were set using MRFSS estimates)

Process flow for ACL file



Adjustments to historical recreational estimates

- For Hire Survey calibration
 - Gulf of Mexico 1981-1997
 - Change from Coastal Household Telephone Survey to the For-Hire Survey
 - Charterboat mode only
 - Effort methodology change; not species specific
- MRIP adjustment
 - 1981-2004
 - Re-weighted estimation methodology change
 - Species specific
 - Uses ratio estimators based on the means of the MRFSS and MRIP landings from 2004-2012

Post-stratification and domain estimation

- Methods used to generate landings estimates at a finer level than the official state estimates
- Used only for specific species to properly assign landings to the proper management jurisdiction
 - Florida Keys excluded from the Gulf of Mexico
- Programs and guidance provided by S&T
 - 1981-2003 post stratification programs
 - 2004+ domain estimation programs

Weight estimation procedures

- MRFSS ACL file (used to monitor assessed species)
 - Weight estimates provided by survey are used.
 - In cases where there is an estimate of fish landed in number but not weight, SEFSC has filled in these holes using sample data.
 - Sample data is prepared using both MRFSS and Texas Parks and Wildlife (TPWD) sample data.
 - SEFSC cleans up the sample data by applying maximum weight and length by species (plus 5% buffer) and excluding any size greater than maximum or less than 25.4 mm.

Weight estimation procedures

- MRFSS ACL file (used to monitor assessed species)
 - Holes are filled using average weights in the sample data collapsed across strata.
 - Hierarchy of the strata is species, region, year, state, mode, and wave.
 - Minimum of 30 fish is required at each level in order to use the average weight. At the species level the minimum number of fish required is one.
 - Detailed in SEDAR22-DW12

Weight estimation procedures

- MRIP ACL file (used to monitor un-assessed species)
 - In order to provide a consistent time series of MRIP weight estimates for assessments and management, SEFSC has used one weight estimation procedure for all weight estimates.
 - Detailed in SEDAR 32-DW-02
 - Hierarchy of the strata is species, region, year, state, mode, wave, and area.

Texas Parks and Wildlife Department

- SEFSC reformats the data in order to integrate with recreational estimates from MRIP
 - Seasonal TPWD estimates are broken down into wave estimates using TPWD intercept data
 - “Other species” estimates are broken down into individual species’ estimates using TPWD intercept data

LA Creel Survey

- SERO reformats the data in order to integrate with recreational estimates from MRIP
- LA Creel weight estimation (SERO) uses average weights of each species from the LA Creel biological sampling data
 - 30 fish minimum size sample
 - If less than 30 weights, MRIP sample sizes are included following the SEFSC weight estimation methodology

Other adjustments

- Species ID corrections
 - These follow SEDAR recommendations for species misidentification and unidentified landings
 - Gag/black grouper, unidentified tilefish, etc.
- Migratory group designations
 - Cobia, Spanish mackerel, and king mackerel
- Whole to gutted weight conversions
- Assignment of landings to fishing year (SERO)

SEDAR recreational landings

- MRIP APAIS adjustment
 - Change in intercept survey starting in 2013
 - 2004-2012 adjustment accounts for time of day differences between the two intercept methods
 - Program and guidance provided by S&T
 - 1981-2003 adjustment follows same methodology as the MRIP re-weighted estimation change

Summary

- SEFSC/SERO estimates include Southeast Region Headboat Survey, TPWD, and LA Creel data
- Landings assigned to Gulf and/or Coastal Pelagic management stock
- Species ID corrections
- MRIP and SEFSC use different weight estimation procedures
- SEFSC makes conversion for ACLs monitored in gutted weight or MRFSS units instead of MRIP
- Historical calibrations to For-Hire Survey and MRIP

A large school of blue fish, possibly sardines or anchovies, swimming in the water. The fish are densely packed and moving in a coordinated pattern. The word "Questions?" is overlaid in white text in the center of the image.

Questions?