Redtail Surfperch Data Report

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Metadata

The data avalable for the Redtail Surfperch recreational fishery is collected as part of the Recreational Fisheries Information Network (RecFIN). Data from RecFIN comes from two different surveys. All modes of recreational fishing (private rental, CPFV, beach and bank, and manmade structures) were surveyed by Marine Recreational Fisheries Statistics Survey (MRFSS) for size samples and estimates of catch and effort between 1979 and 2003. The Pacific States Marine Fisheries Commission ran these surveys with both federal and state funding. A combination of dockside surveys, CPFV sampling and phone interviews were used to generate the estimates. In January 2004, the California Department of Fish and Wildlife (CDFW) implemented its own sampling survey, the California Recreational Fisheries Survey (CRFS), to replace the MRFSS surveys using similar but different methods. In addition, CRFS also collects length data (fork length in mm) information on retained fish. Estimates from CRFS and MRFSS are not directly comparable due to differences in methodology, so only CRFS data are presented in this report.

Table 1: Table 1. Summary of metadata

Name	Recreational Surfperch
Common Name	Redtail Surfperch
Species	Amphistichus rhodoterus
Region	Northern California
Last Historical Year	2017
Last TAC	NA
Units	kilograms
Last TAE	1
Number of areas	2

Biology

The biology of Redtailed Surfperch is well-studied, and peer reviewed studies are available to inform mortality, growth, and maturity. In addition, CDFW staff have recently conducted sampling to update estimates of these parameters. The Enhanced Status Report (CDFW 2019) summarizes the best available information for each of the biological parameters used in management.

Figure 1. Density plots of biological parameters

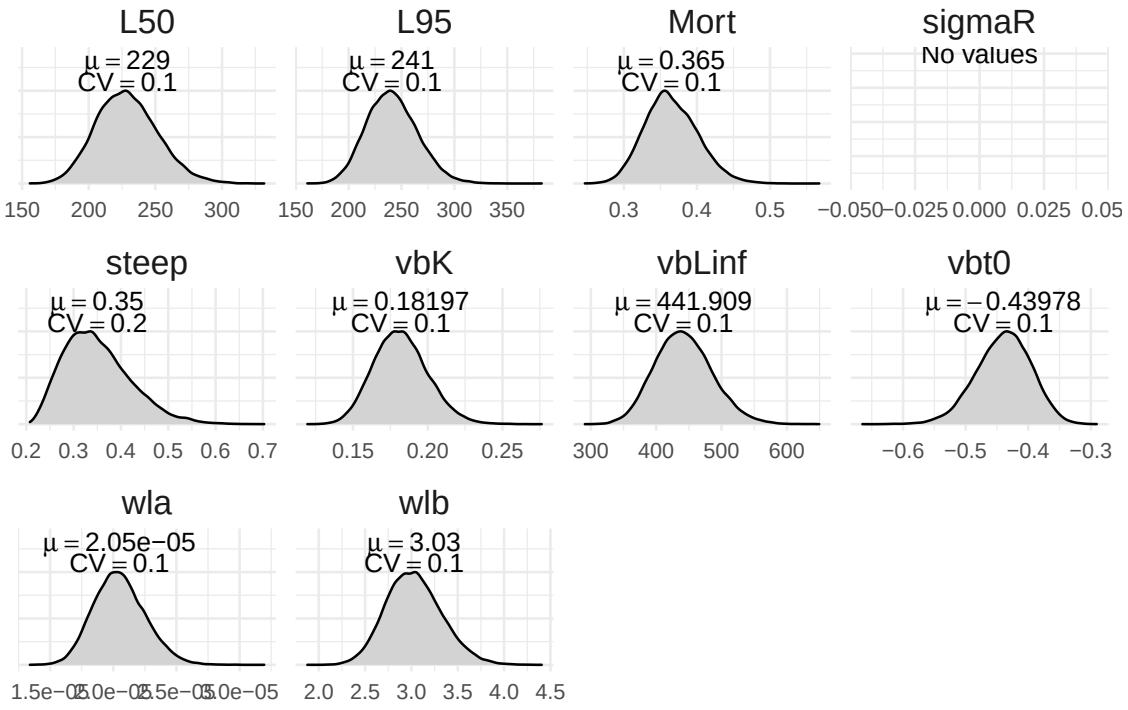
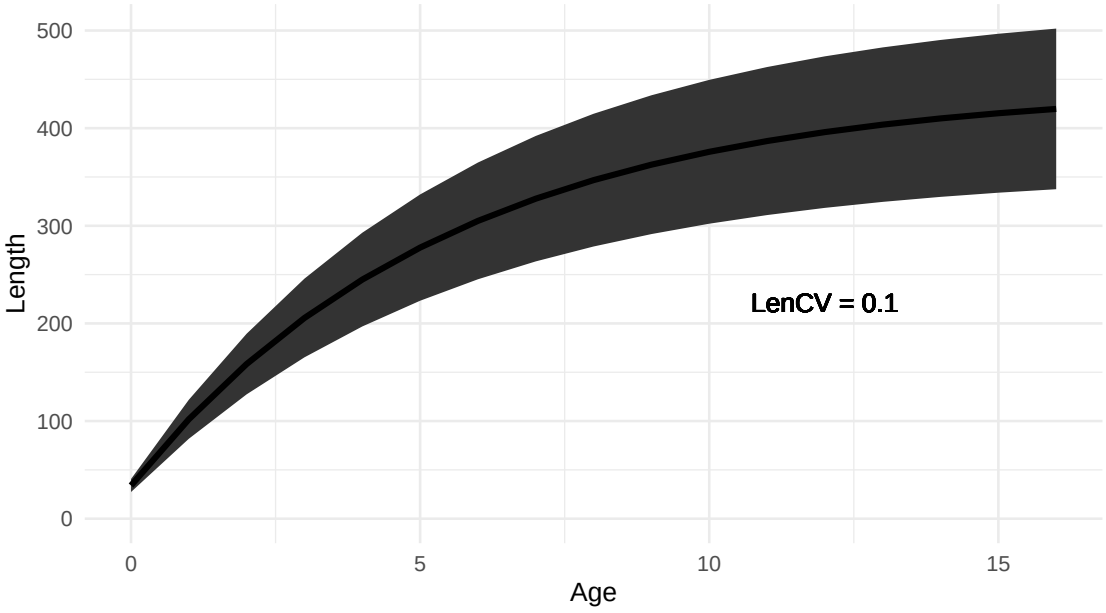


Figure 2. Distribution of length−at−age

Mean length−at−age (solid line) and 2 standard deviations (shaded region)



Selectivity

Selectivity was estimated by fitting a logistic model to fishery-independent length samples collected by CDFW staff as part of project described in the biology section to update biological parameter estimates. Retention

was calculated by fitting a logistic model to CRFS size data between 2005 and 2017.

Figure 3. Density plots of selectivity parameters

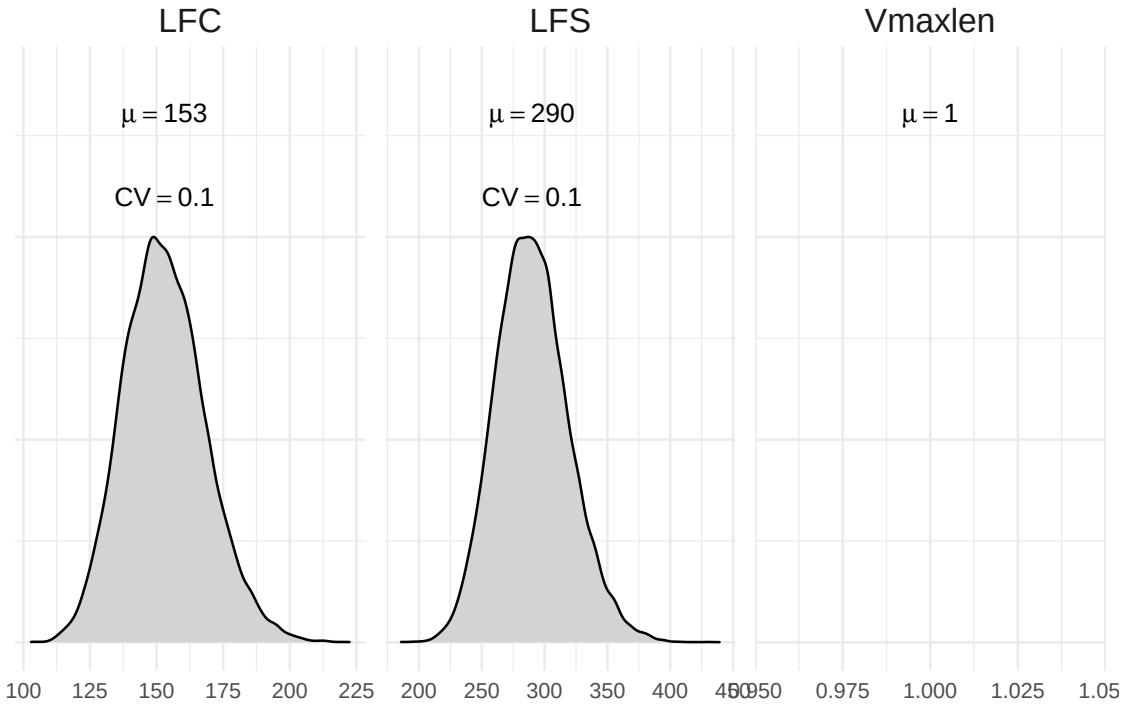
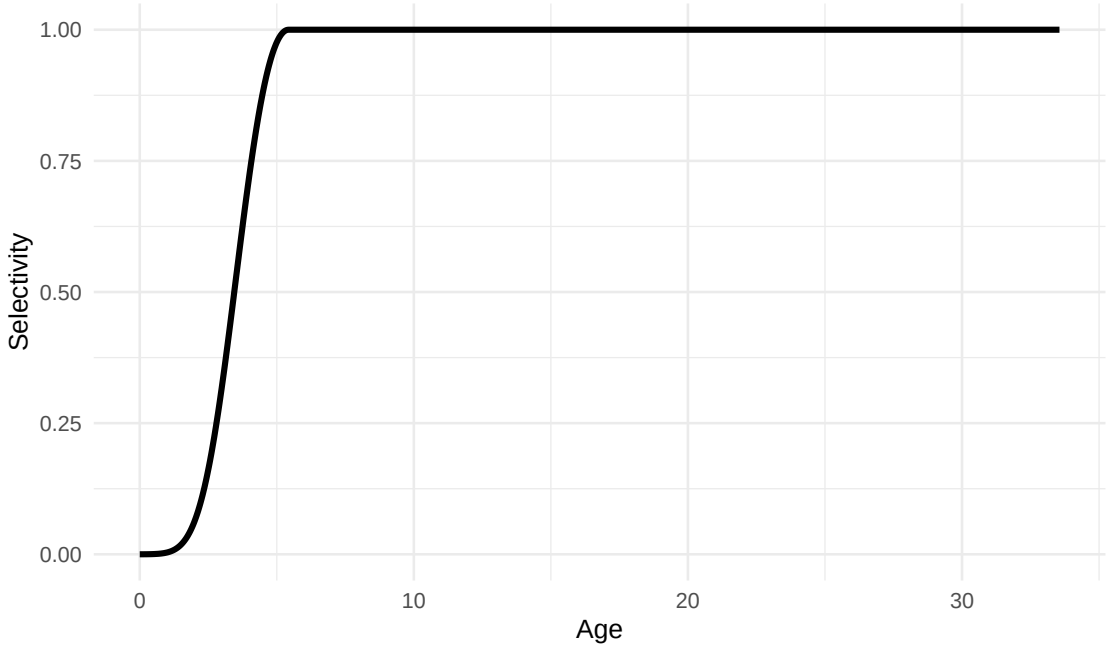
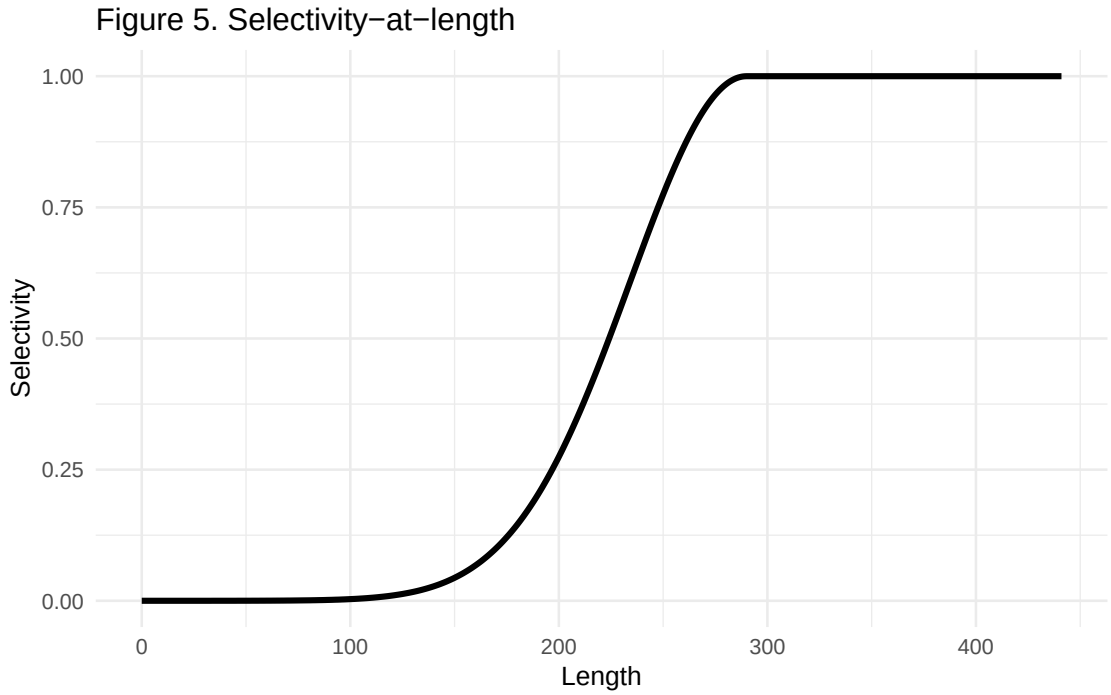


Figure 4. Selectivity−at−age





Time-Series

Catch

Total catch (in numbers of fish) represents an estimate of all fish retained via all fishing modes from all California water areas. Surfperch are primarily caught on beaches, and so the majority of this data is from the beach and bank mode.

Effort

The CRFS program develops effort estimates for each of the four fishing modes sampled, but due to the multi-species nature of recreational fishing in California, it is not possible to use this information estimate the fishing effort targeting Retail Surfperch specifically. Therefore yearly effort data is not available for management use and was not included in the data object.

Abundance

Recruitment

Length

Mean length, modal length, and the mean length above modal length were calculated using RecFIN data for all fish sampled from the beach and bank mode from 2005 to 2017. Note that lengths represent fork lengths.

Figure 6. Time−Series Data

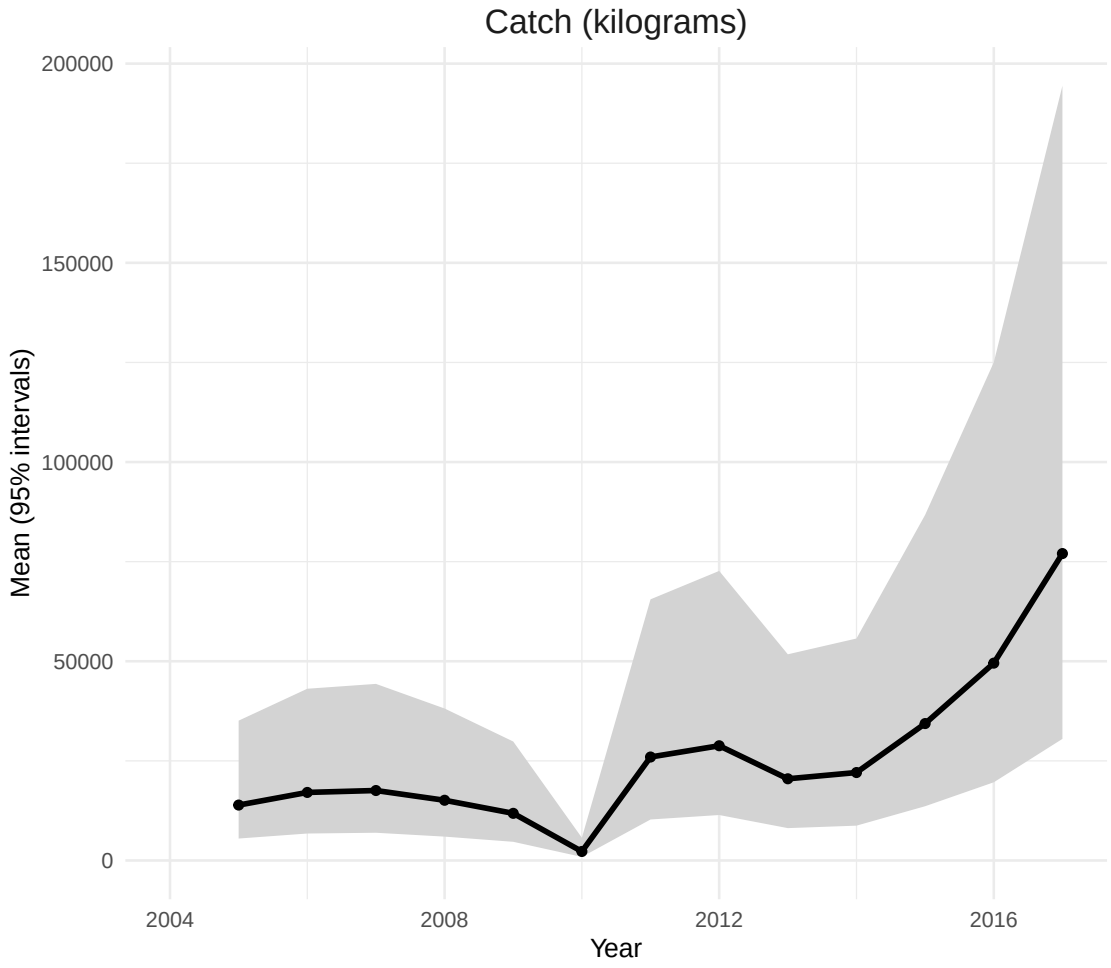
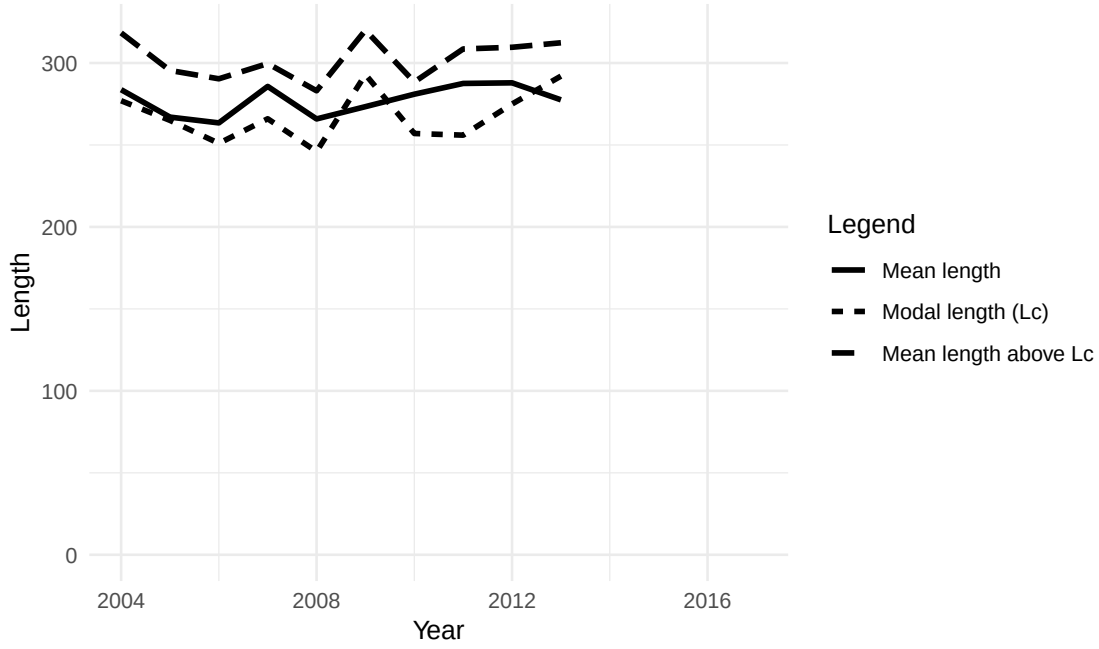


Figure 8. Mean Length Time−Series

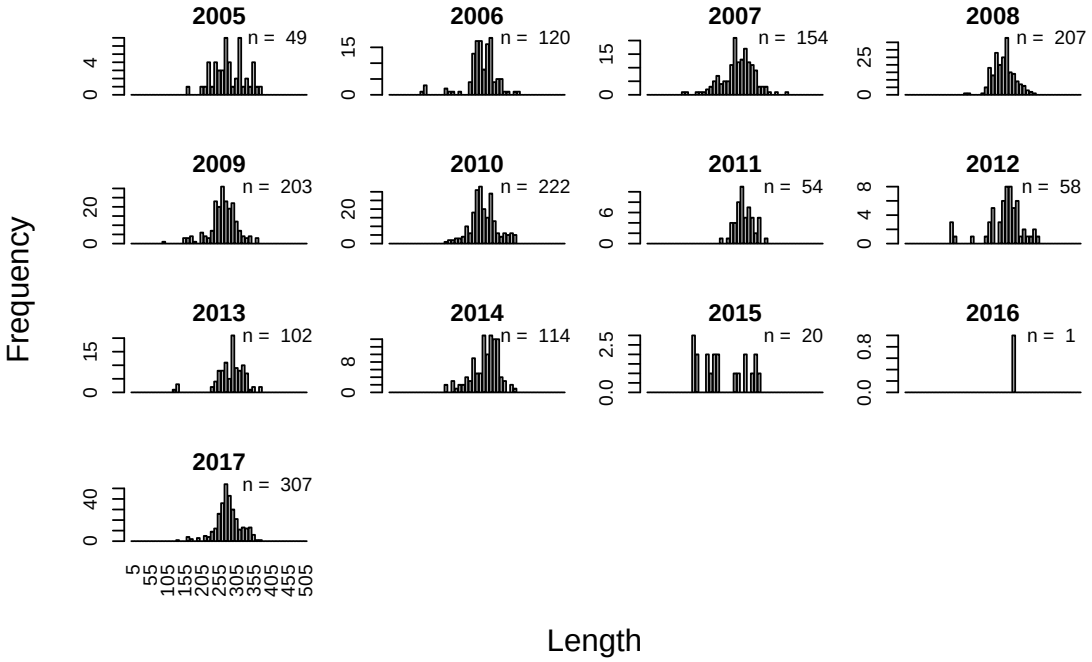


Catch-at-Age

Catch-at-Length

Catch-at-length data was available from RecFIN data for all fish sampled from the beach and bank mode from 2005 to 2017. Note that lengths represent fork lengths. Length bins were 10 mm.

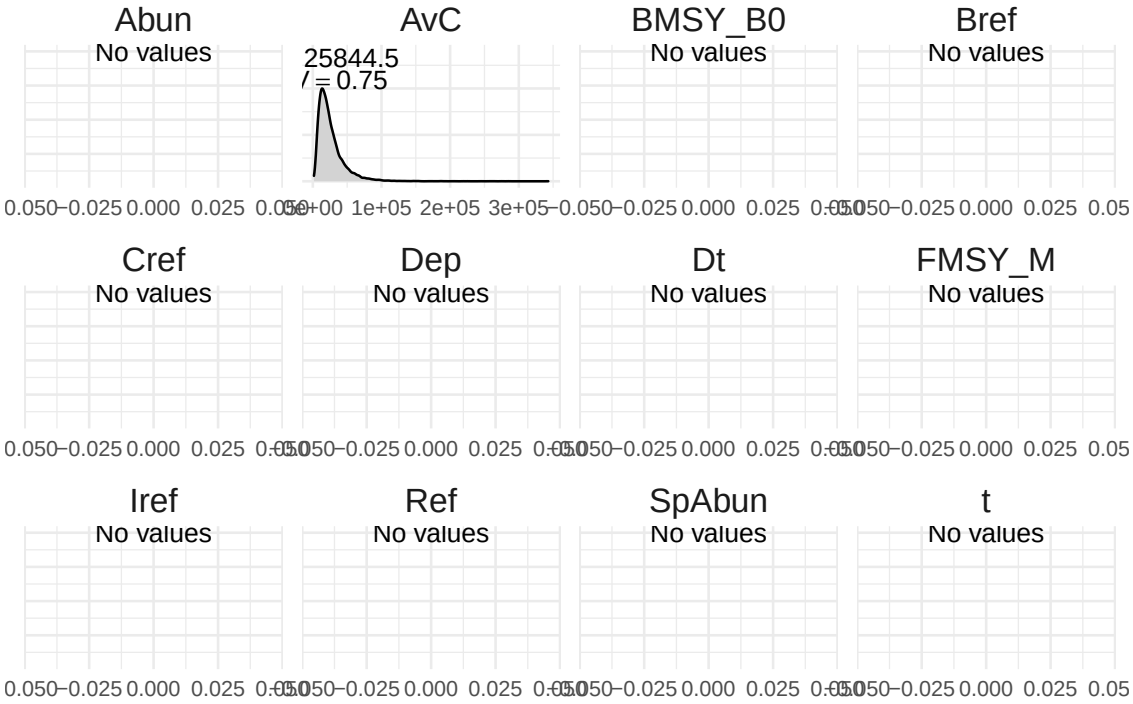
Figure 9. Catch−at−Length (Years 2005 − 2017)



Reference

No formal reference points have been developed for Redtailed Surfperch.

Figure 10. Density plots of Reference parameters



Reference List