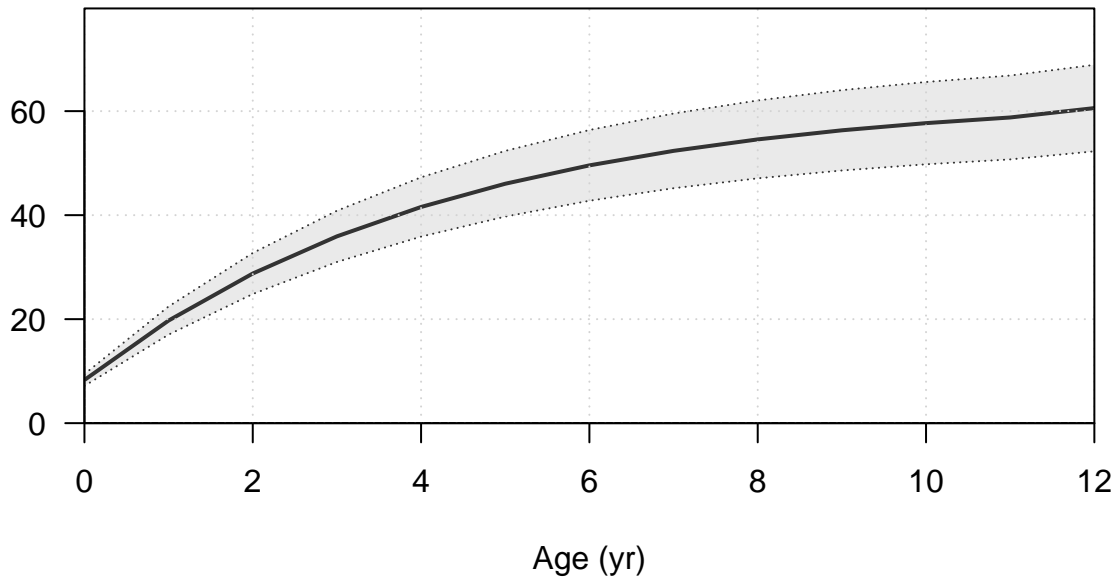
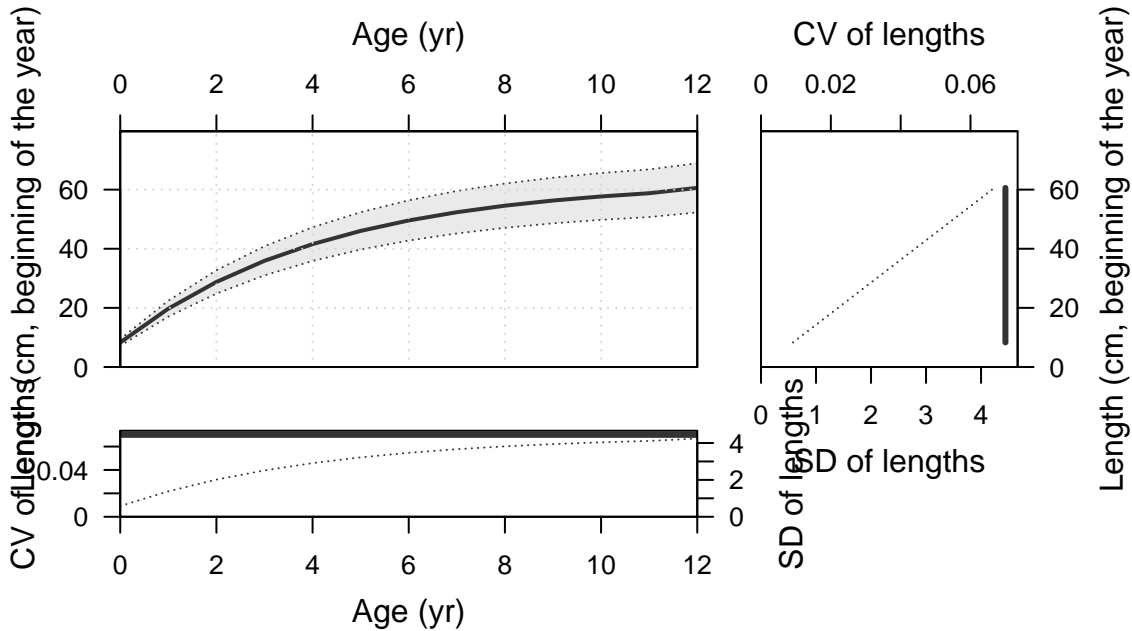
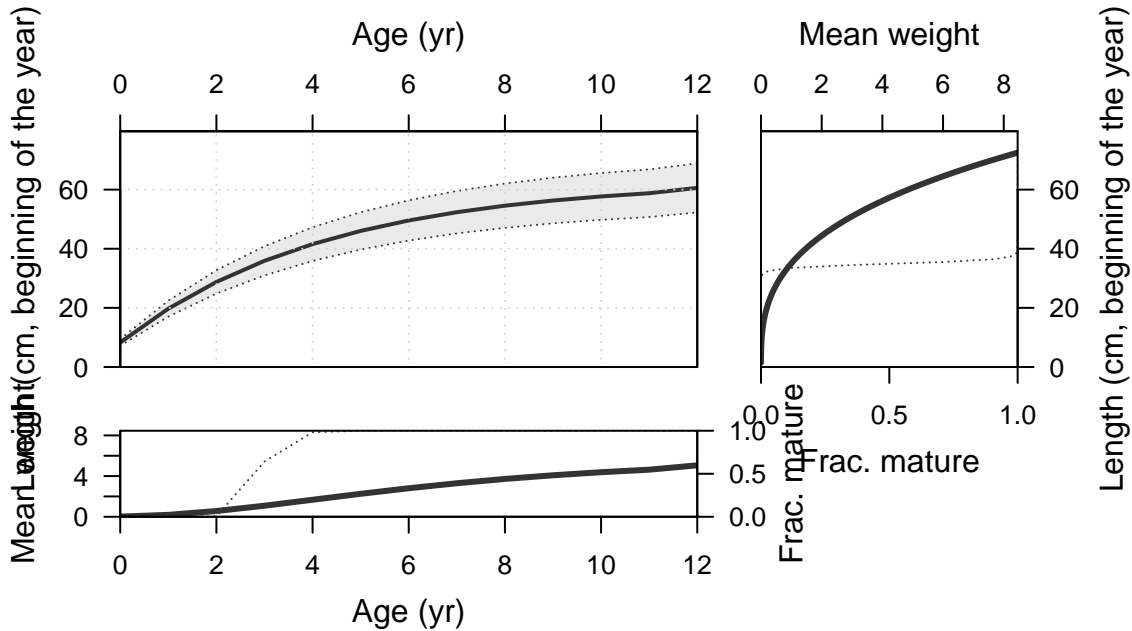


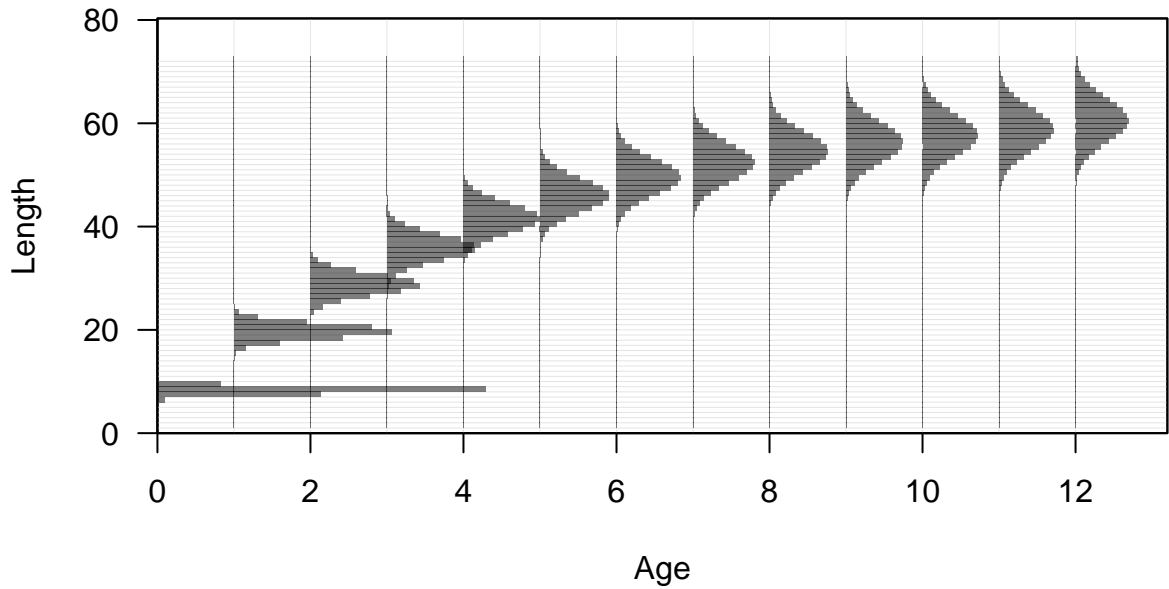
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Mon Aug 08 11:04:46 2022  
Data\_File: data.ss  
Control\_File: control.ss

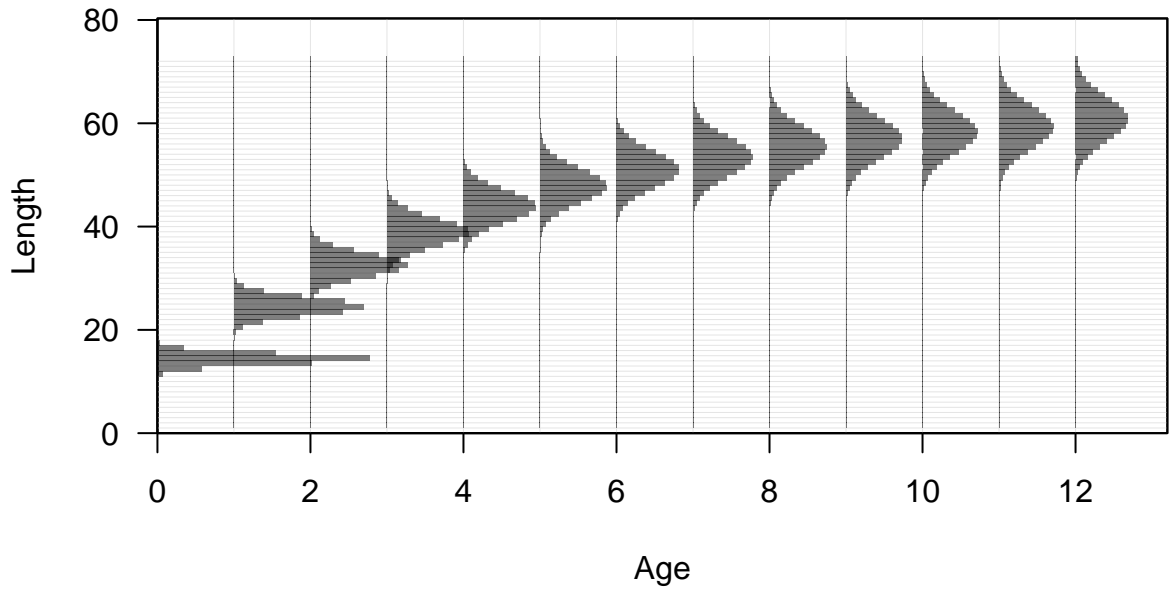
Length (cm, beginning of the year)



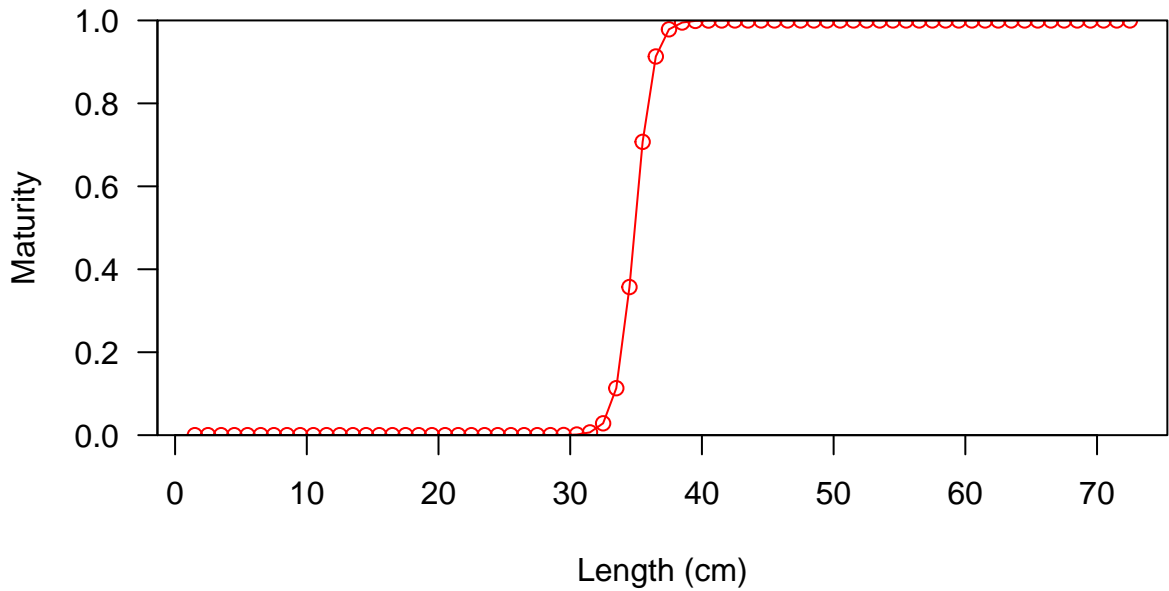








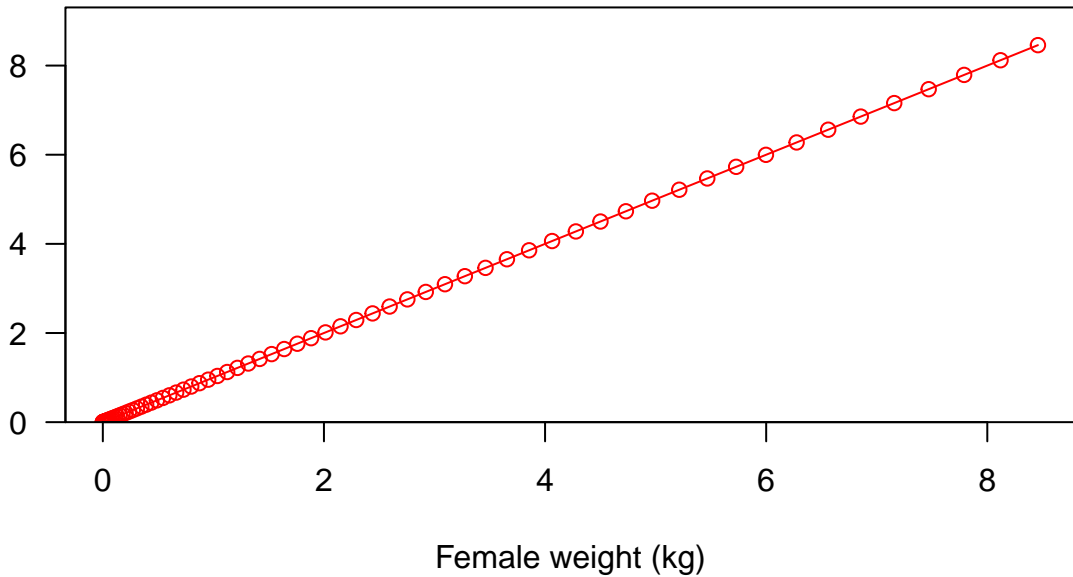








Fecundity



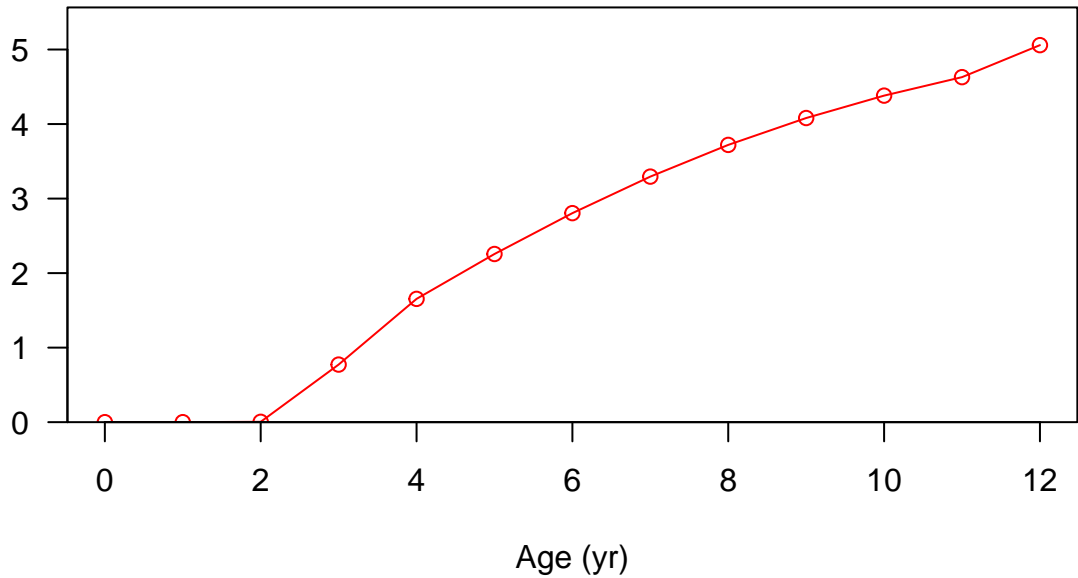
Fecundity



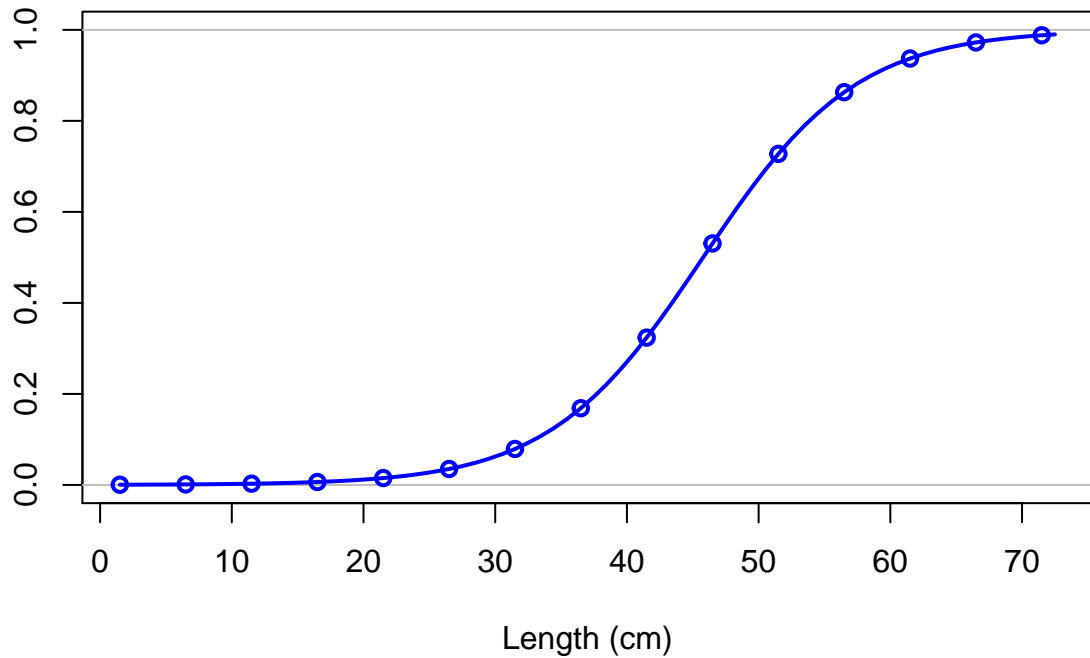
Spawning output



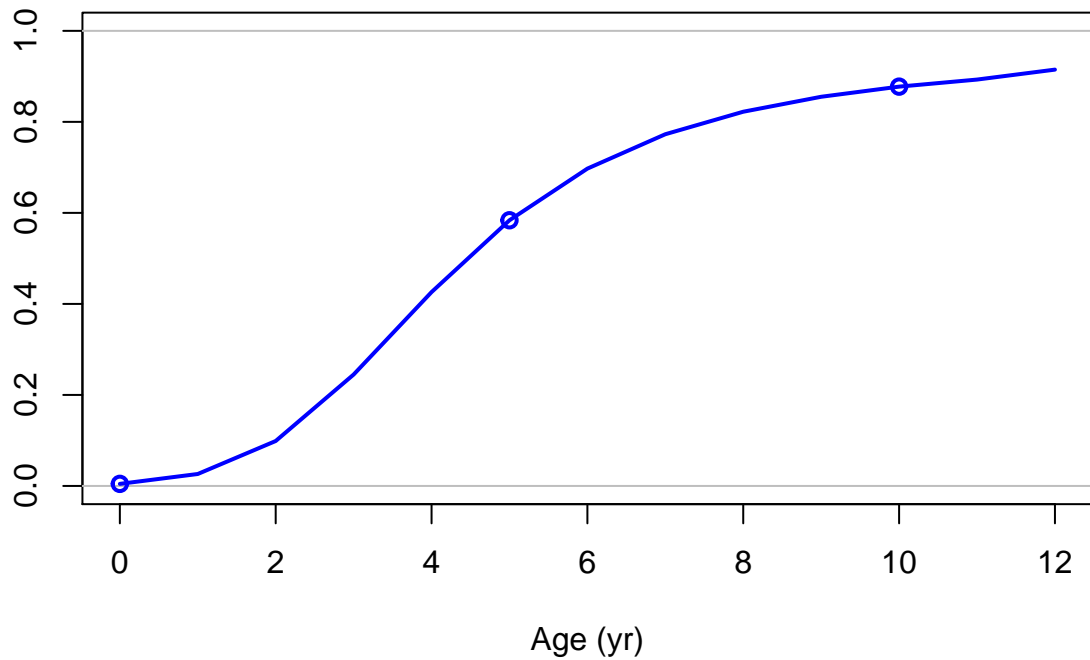
Spawning output



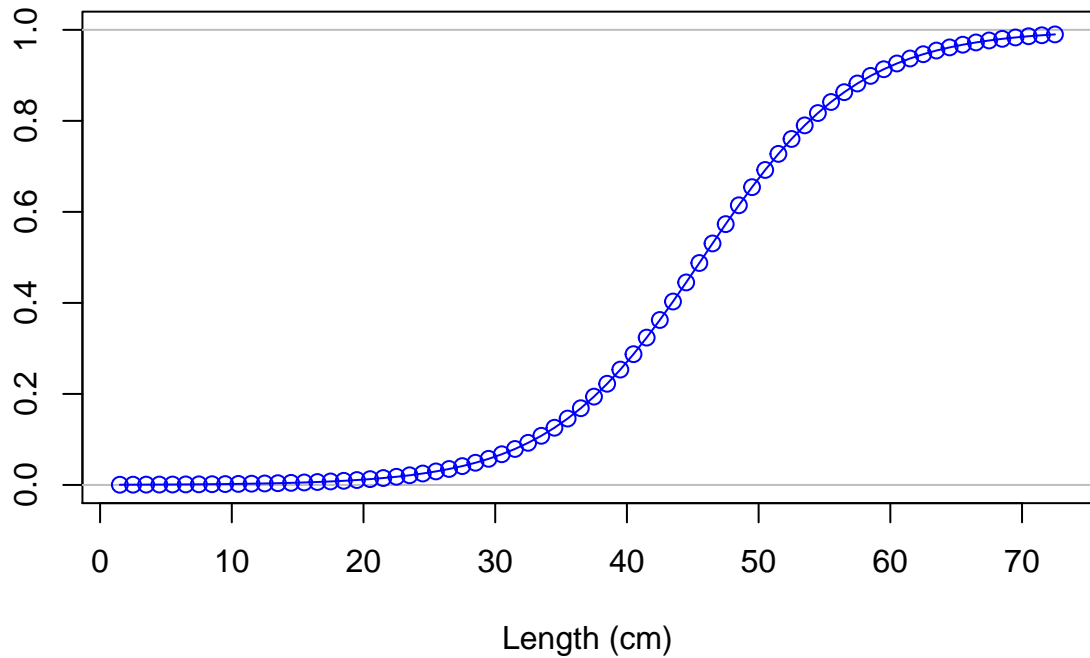
Selectivity



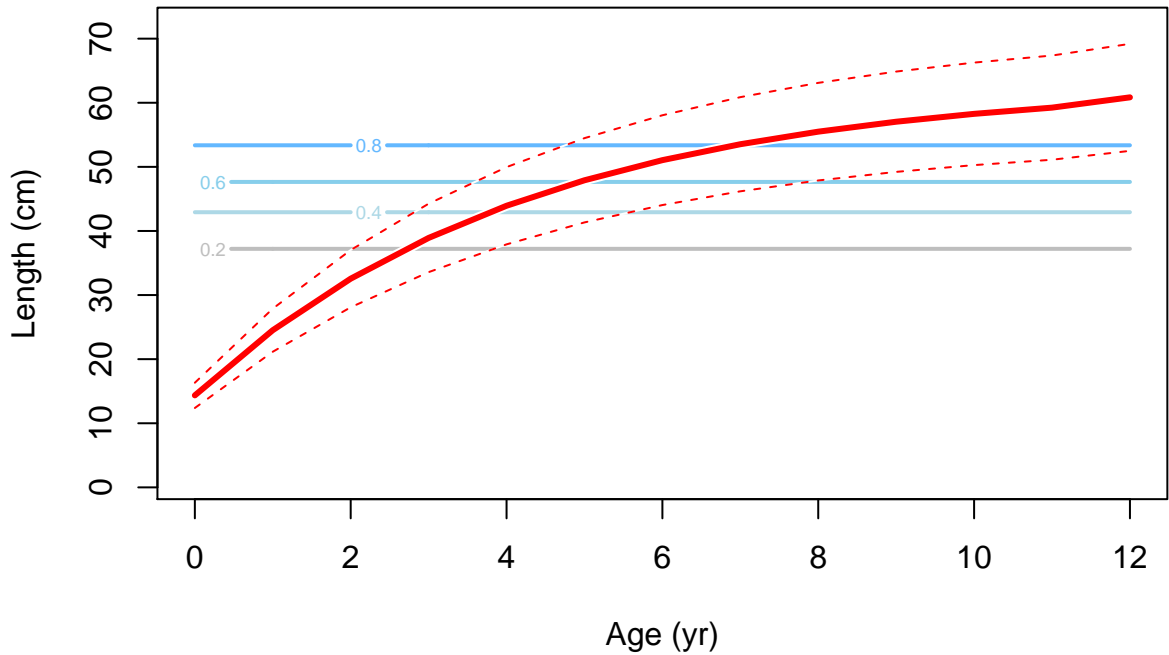
Selectivity

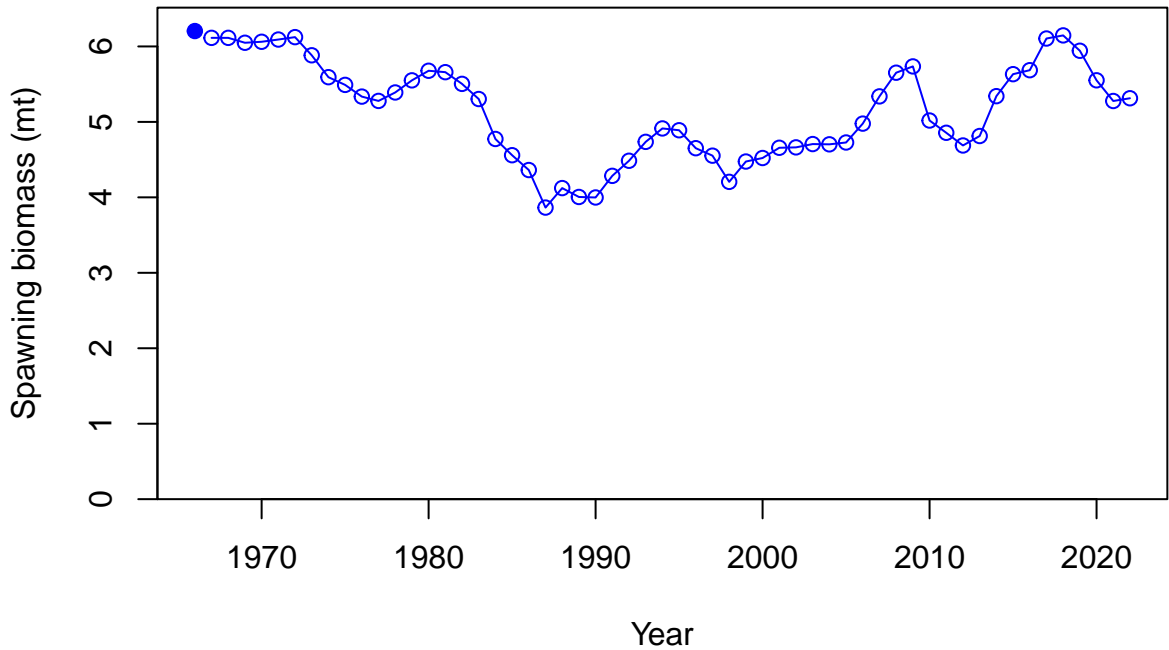


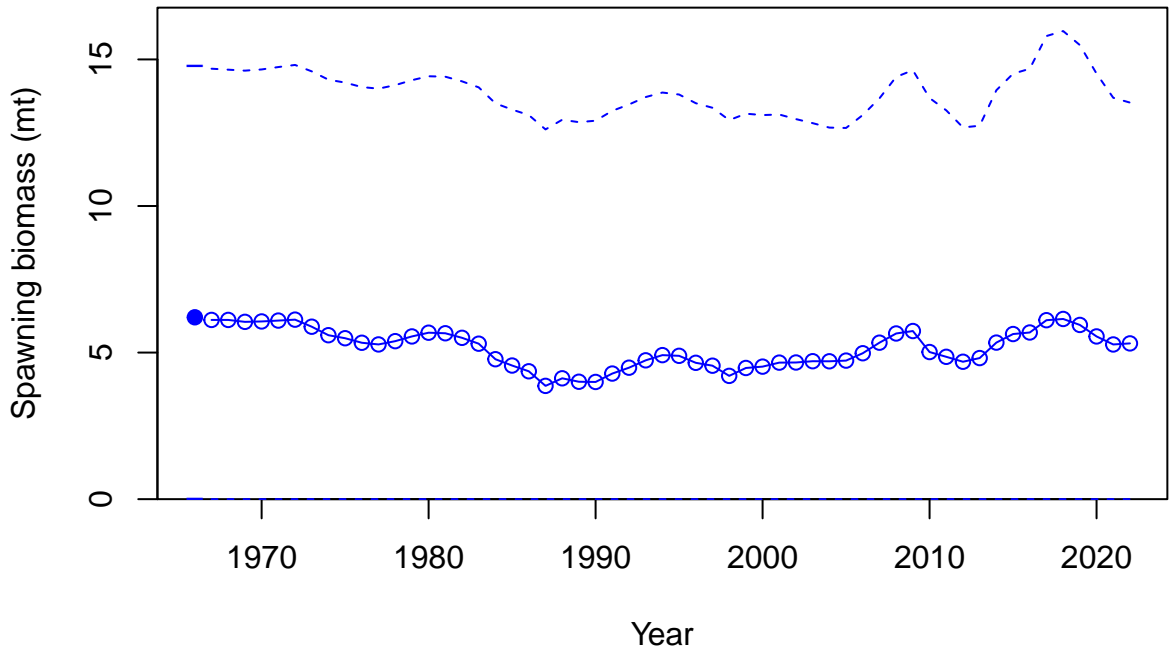
Selectivity



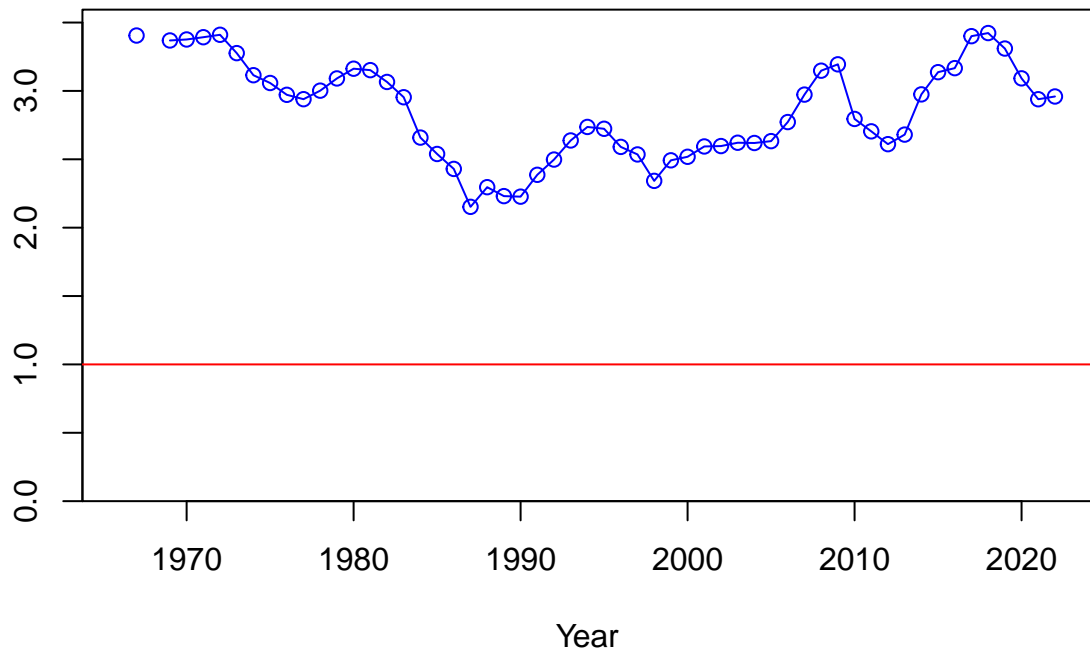




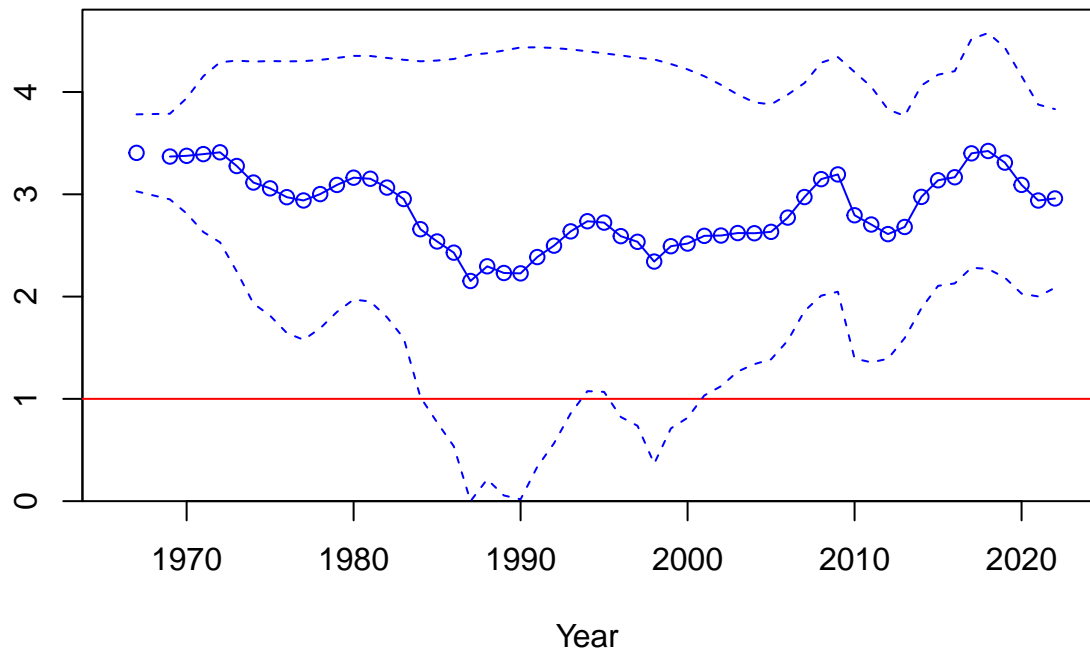


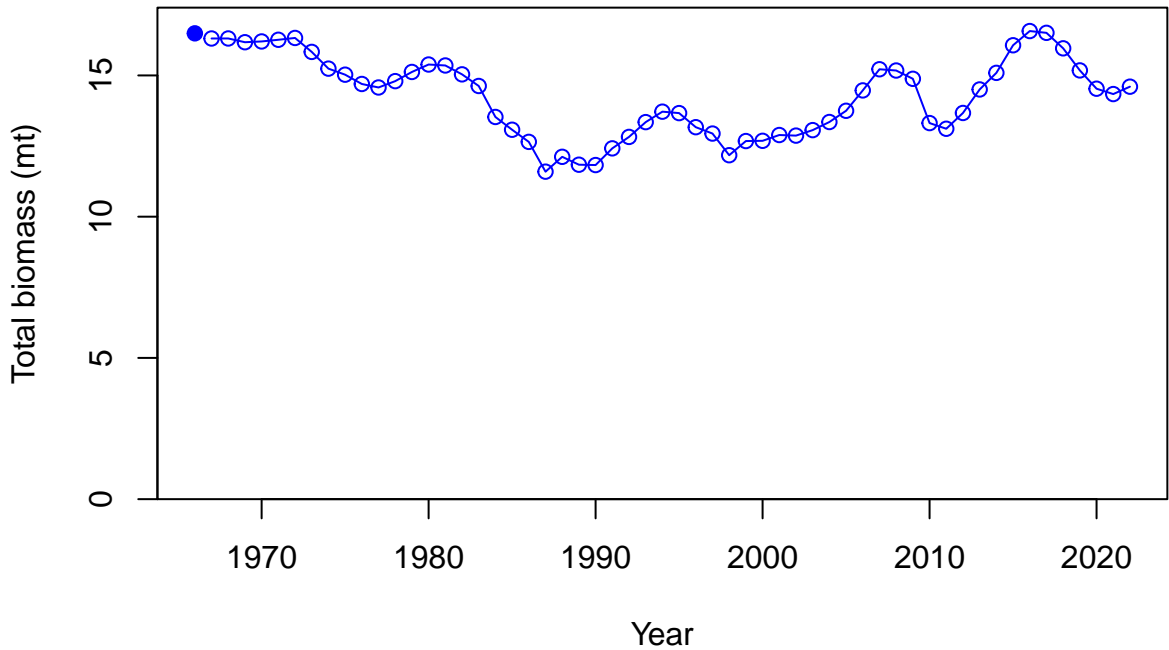


Relative spawning biomass:  $B/B_{MSY}$

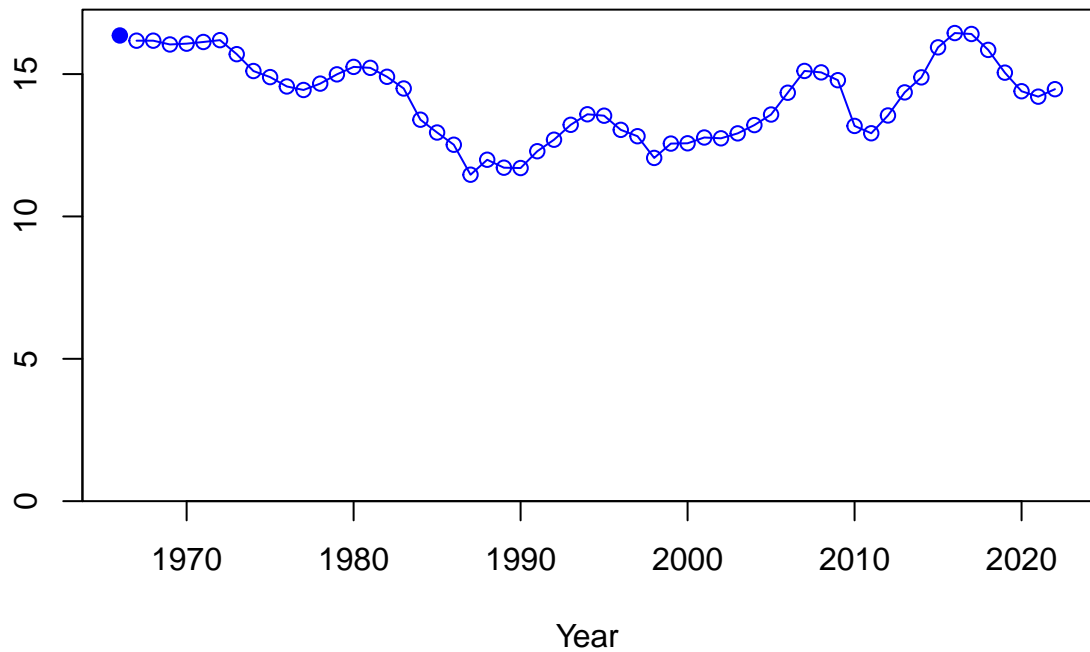


Relative spawning biomass:  $B/B_{MSY}$

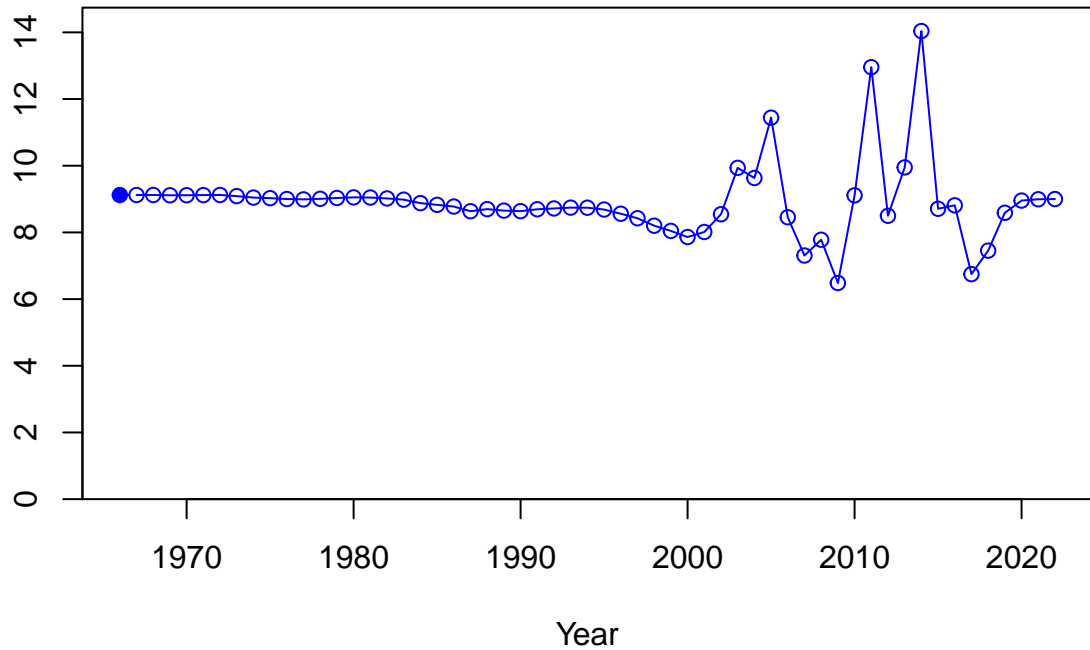




Summary biomass (mt)

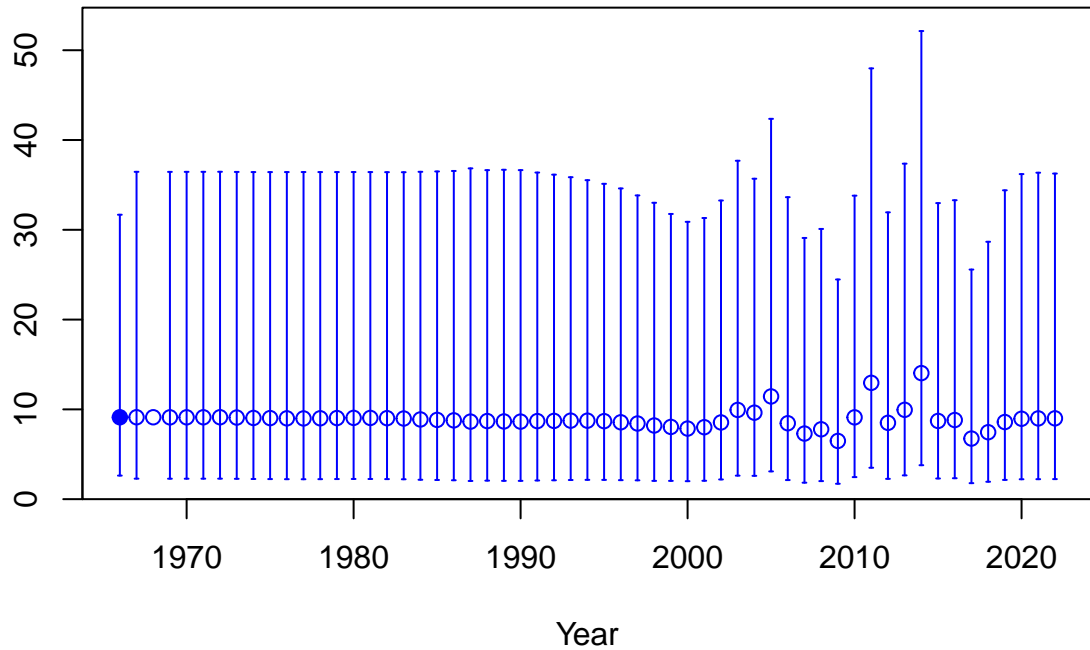


Age-0 recruits (1,000s)

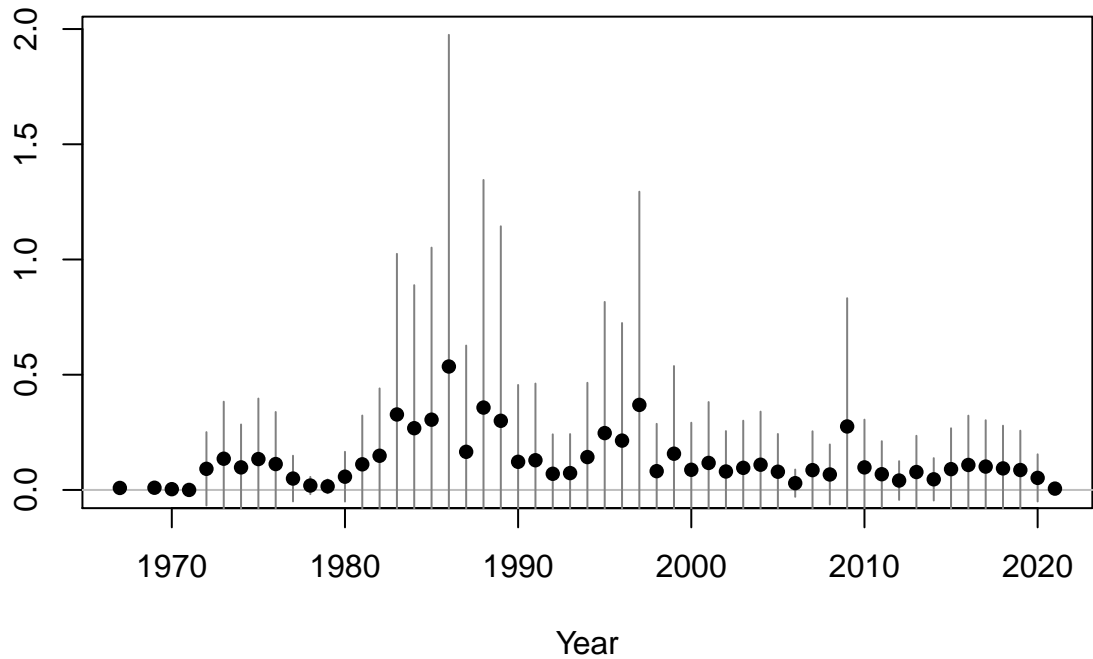


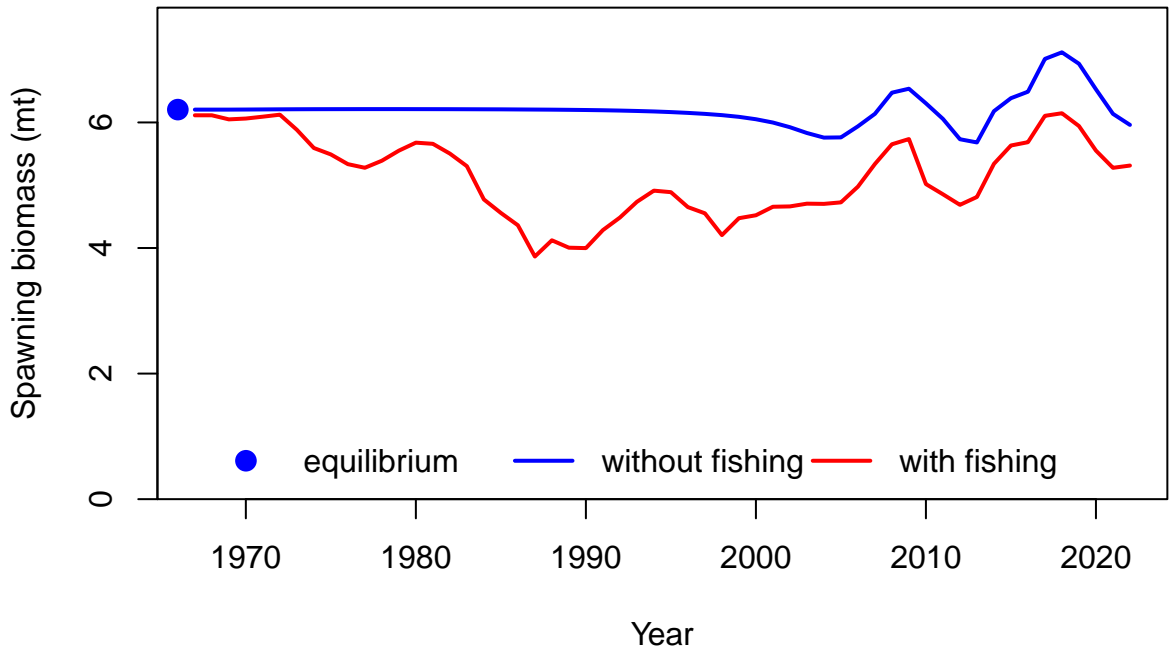


Age-0 recruits (1,000s)



Summary Fishing Mortality





Log recruitment deviation

0.4  
0.2  
0.0  
-0.2

1970

1980

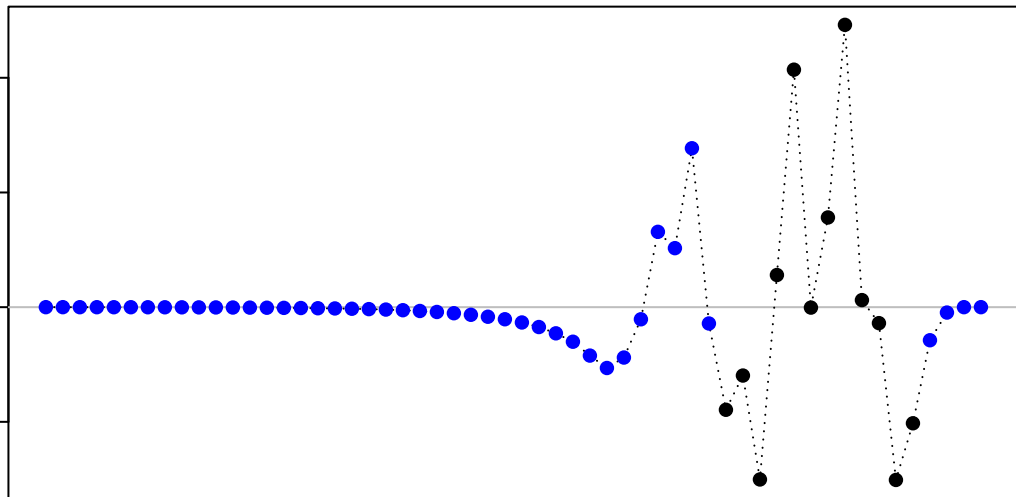
1990

2000

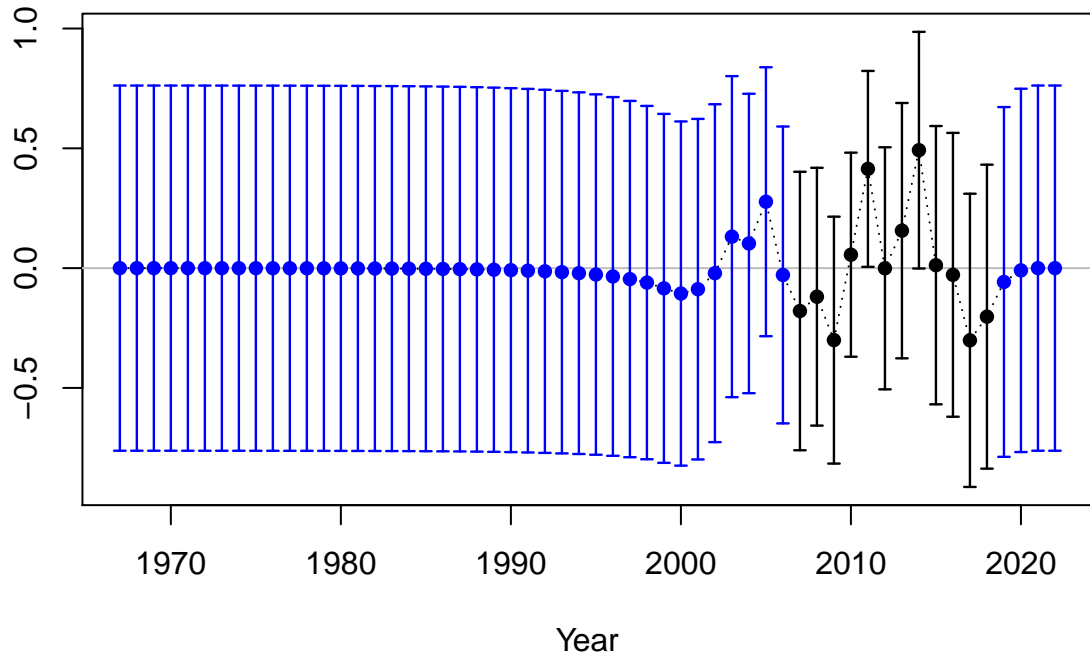
2010

2020

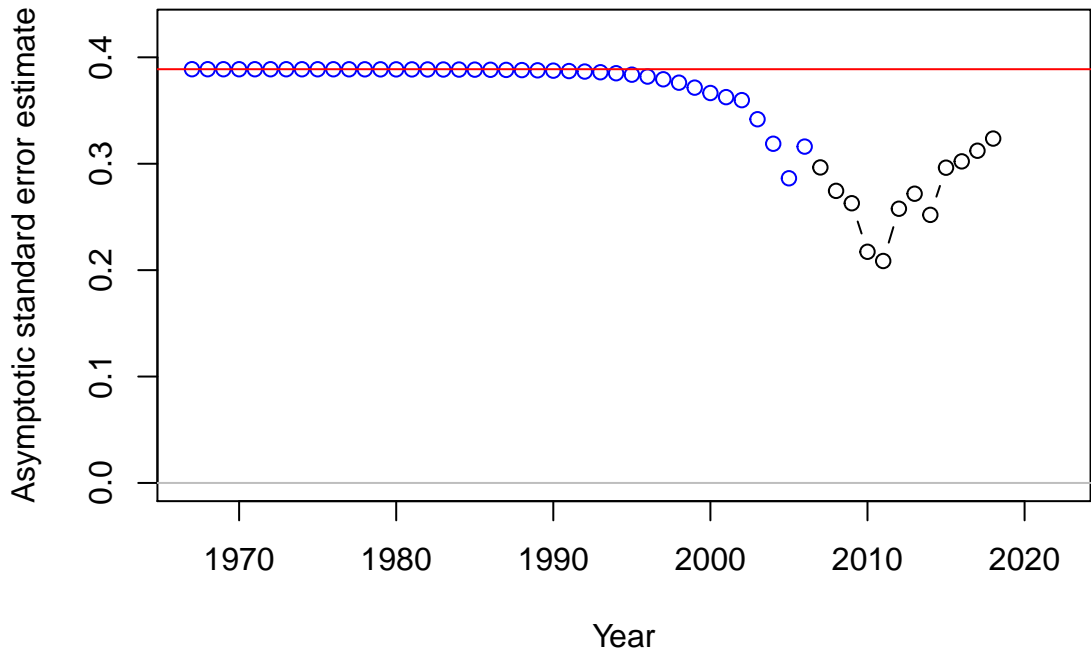
Year

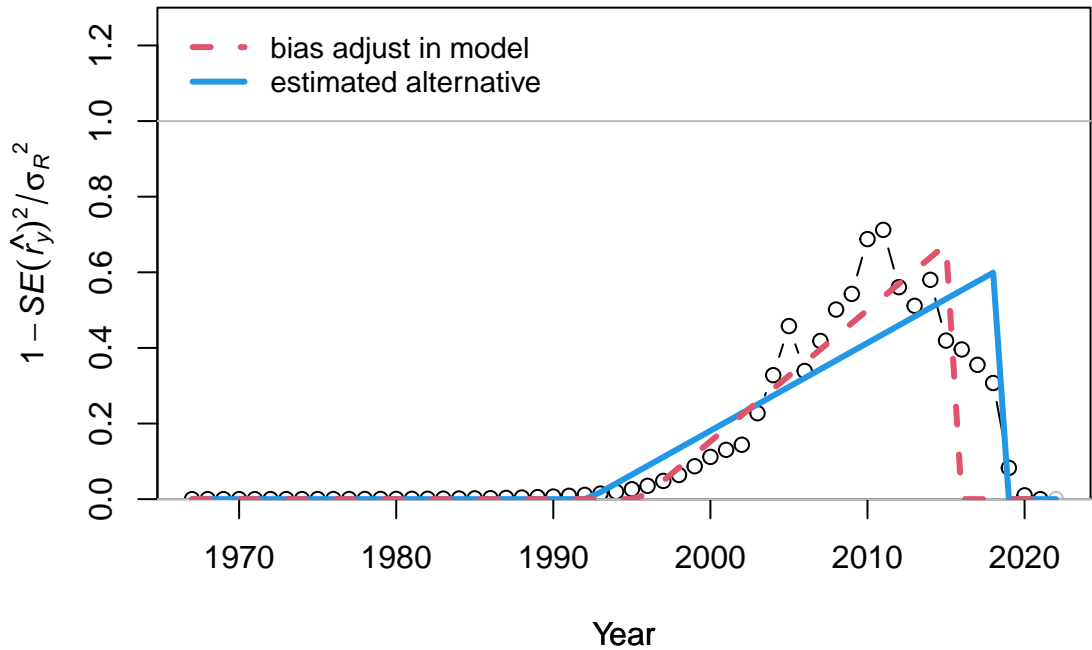


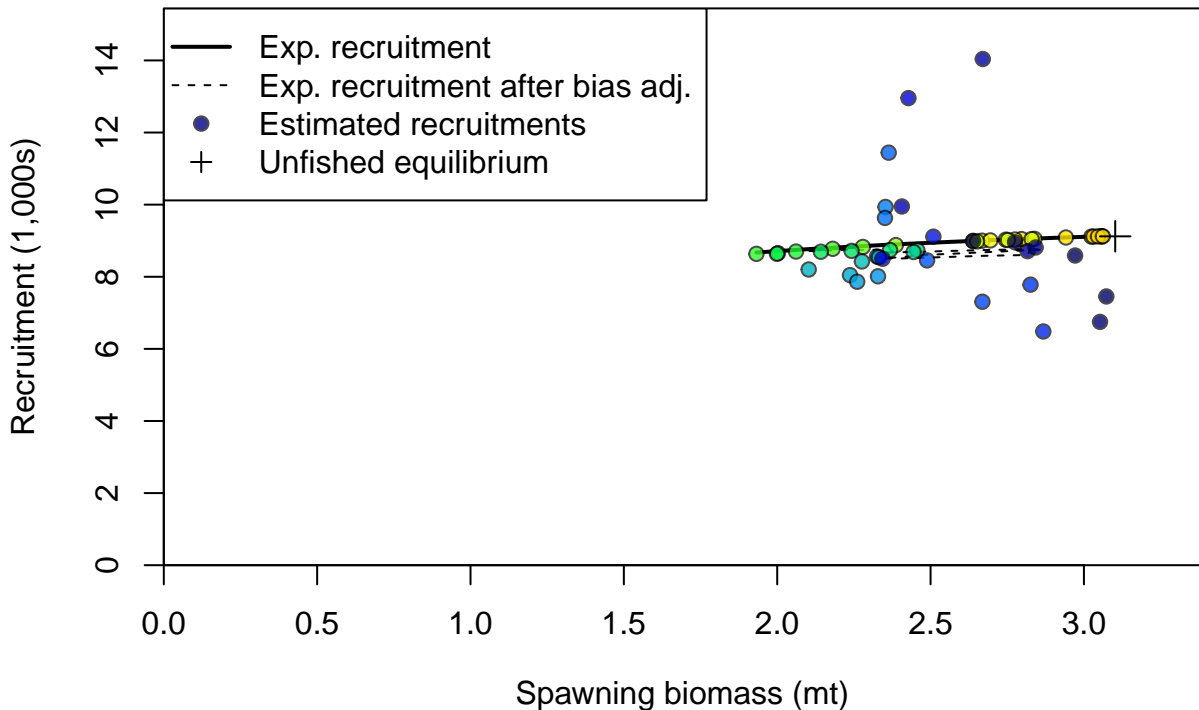
Log recruitment deviation



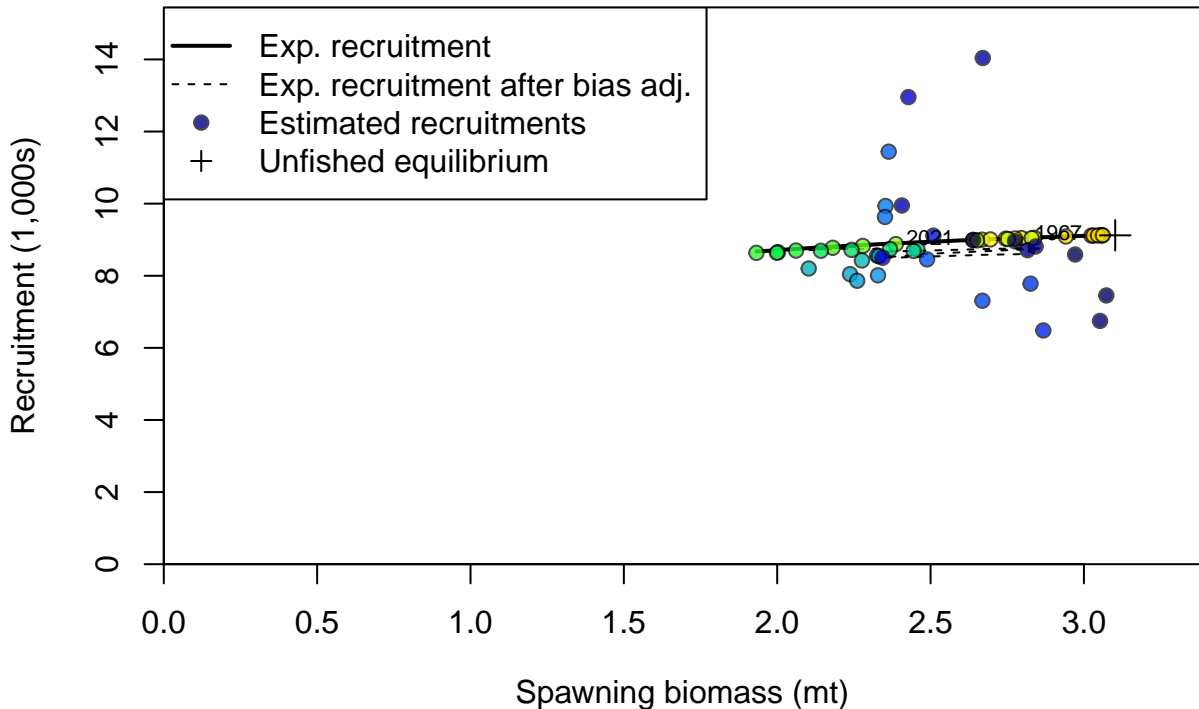
## Recruitment deviation variance



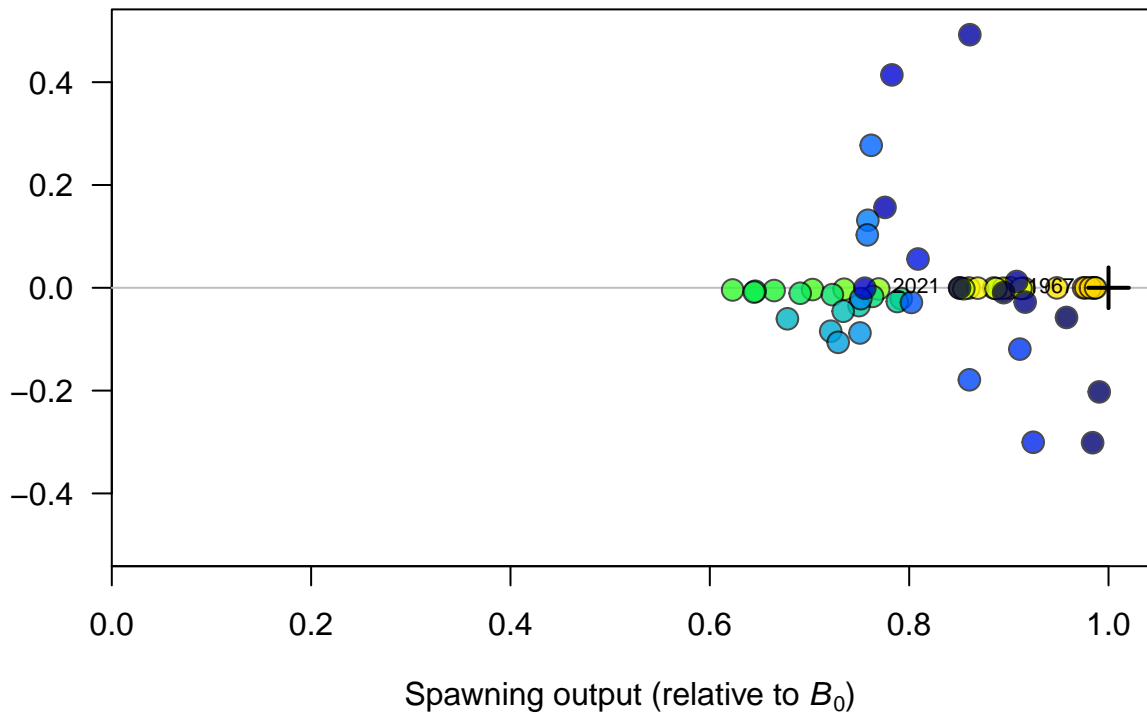


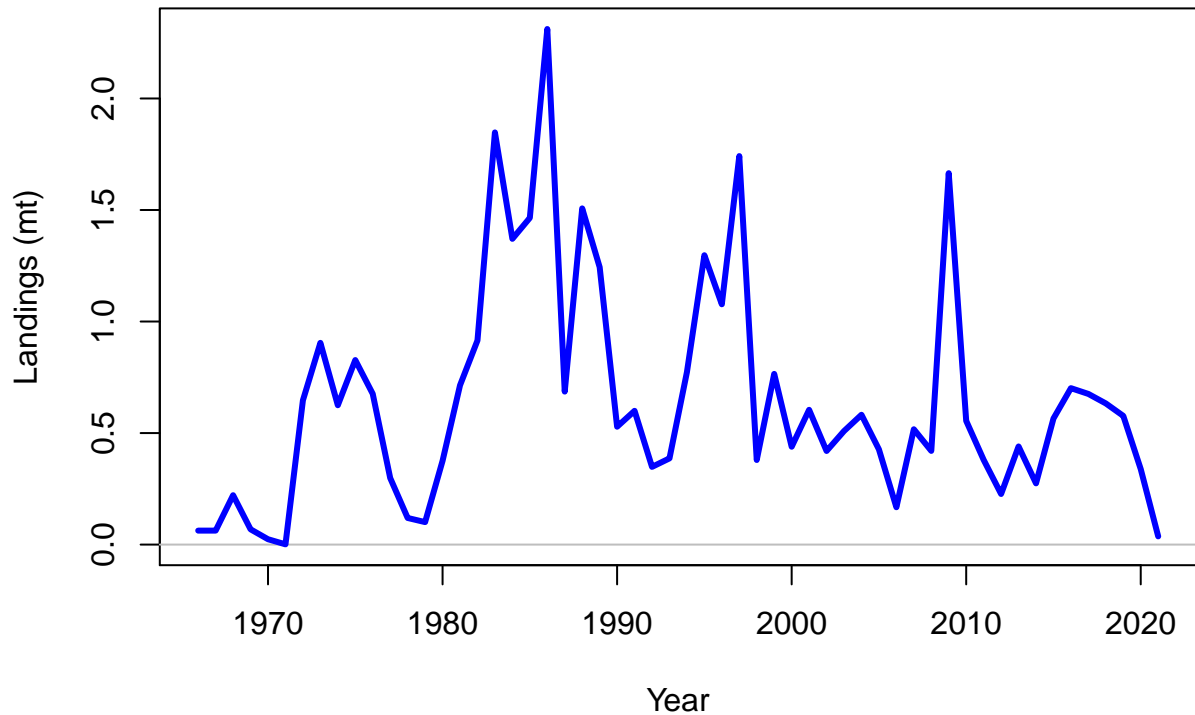


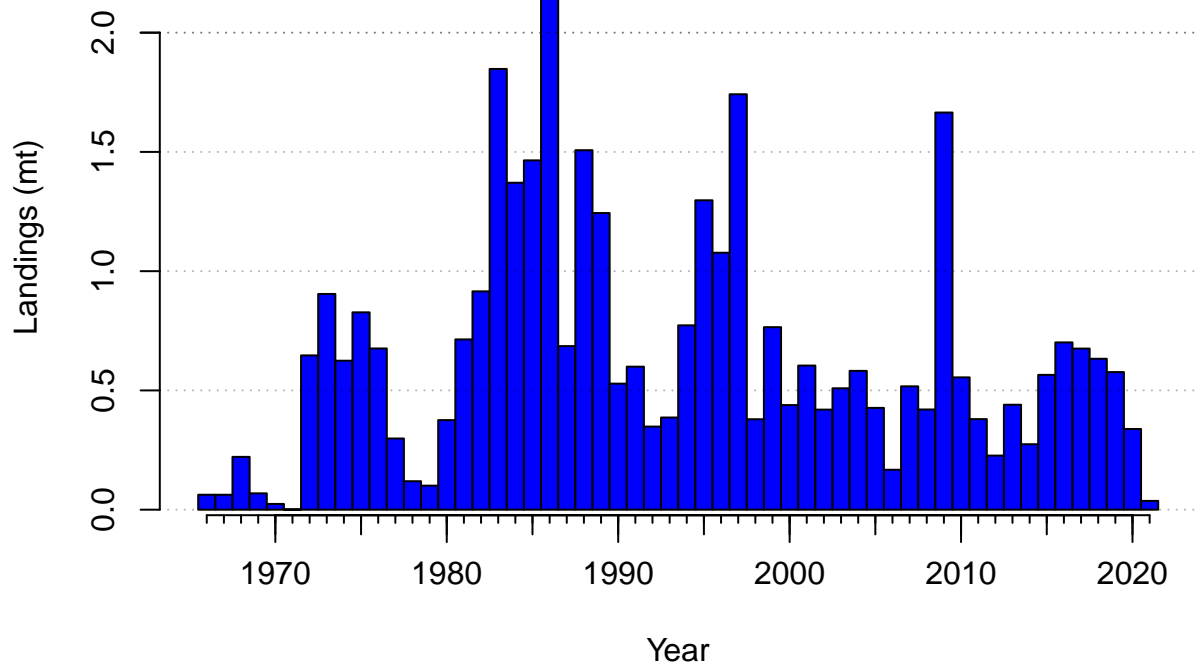


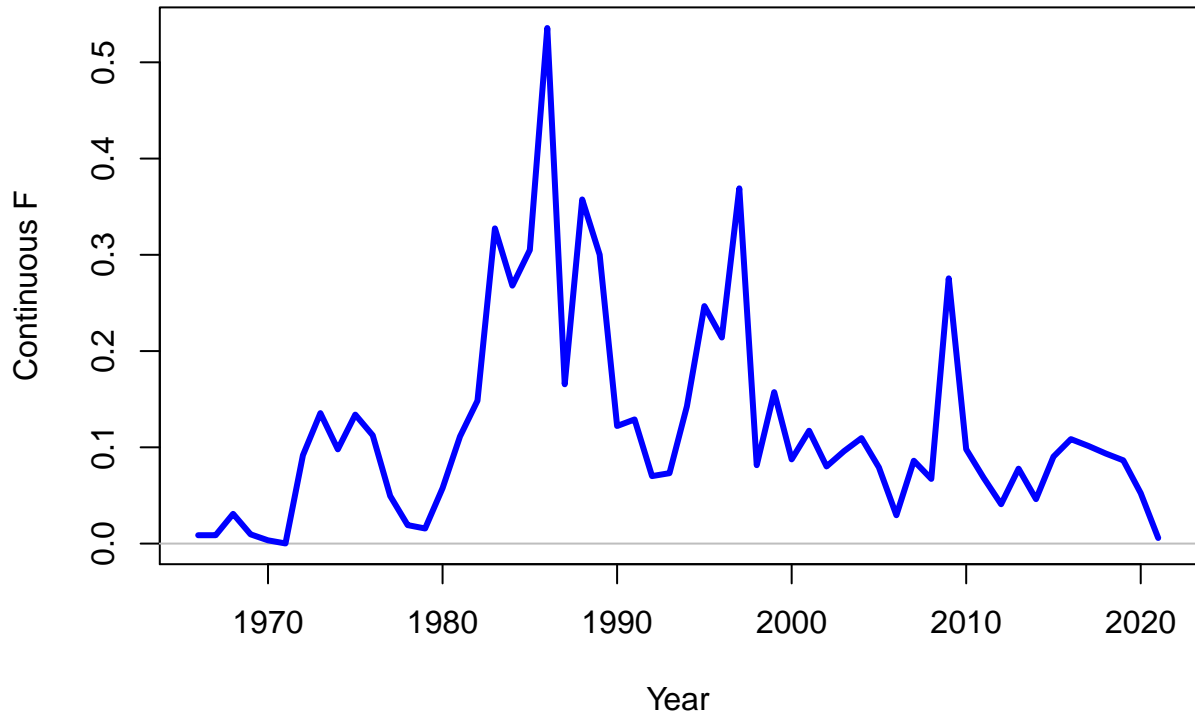


Log recruitment deviation

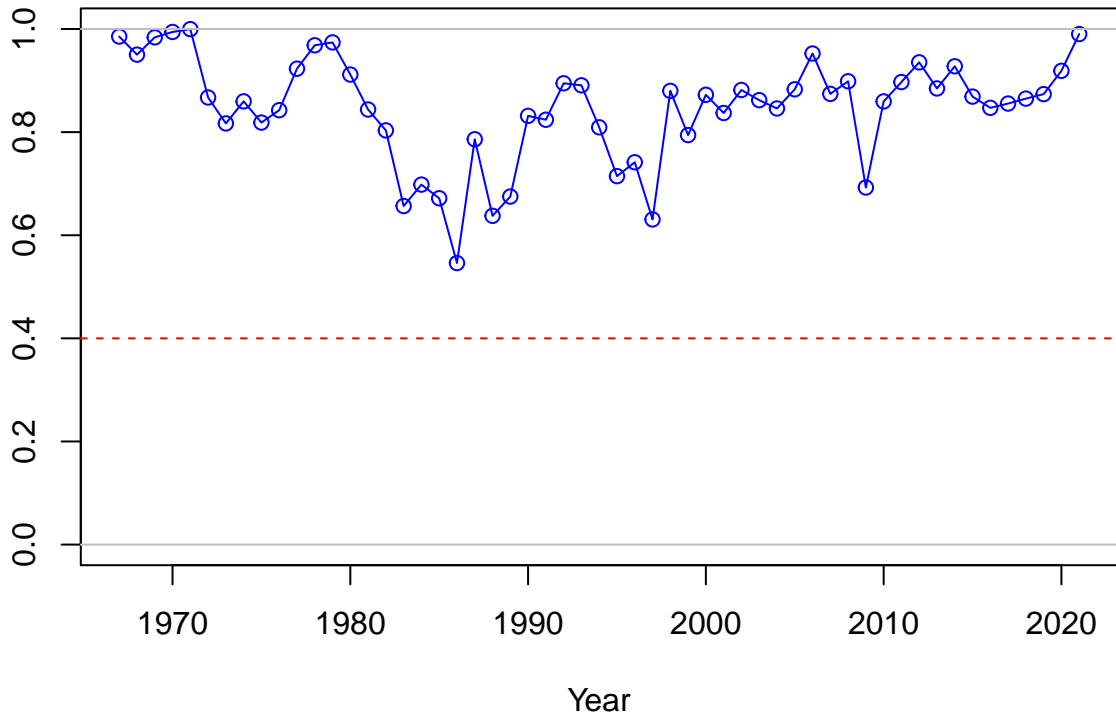




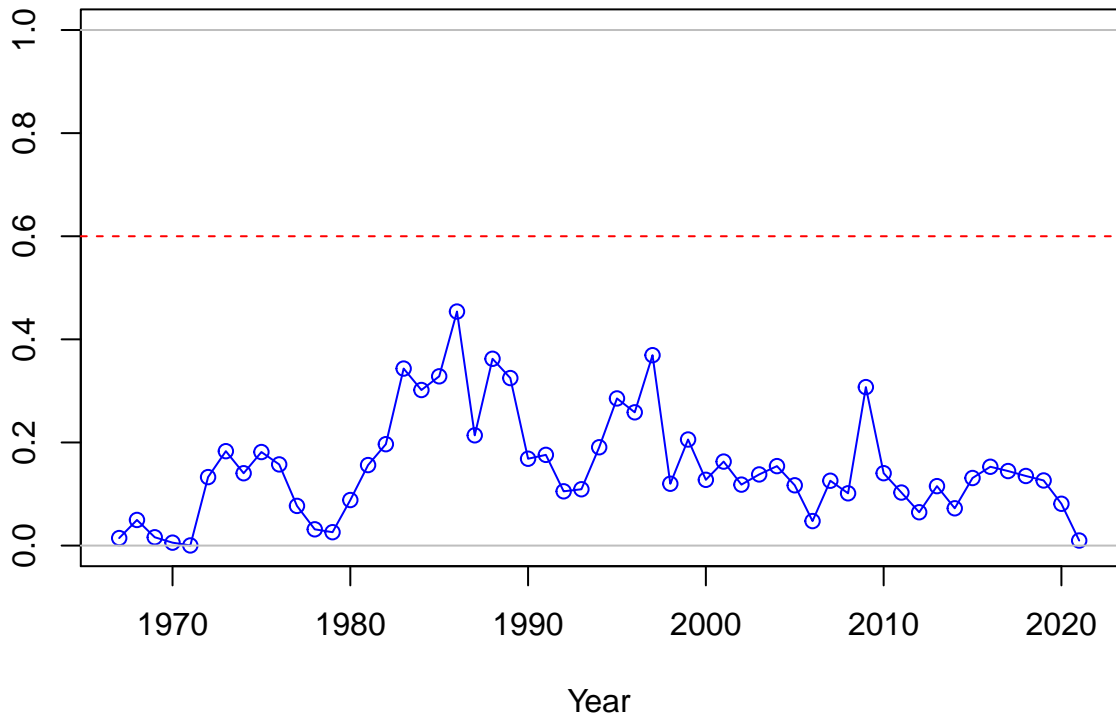




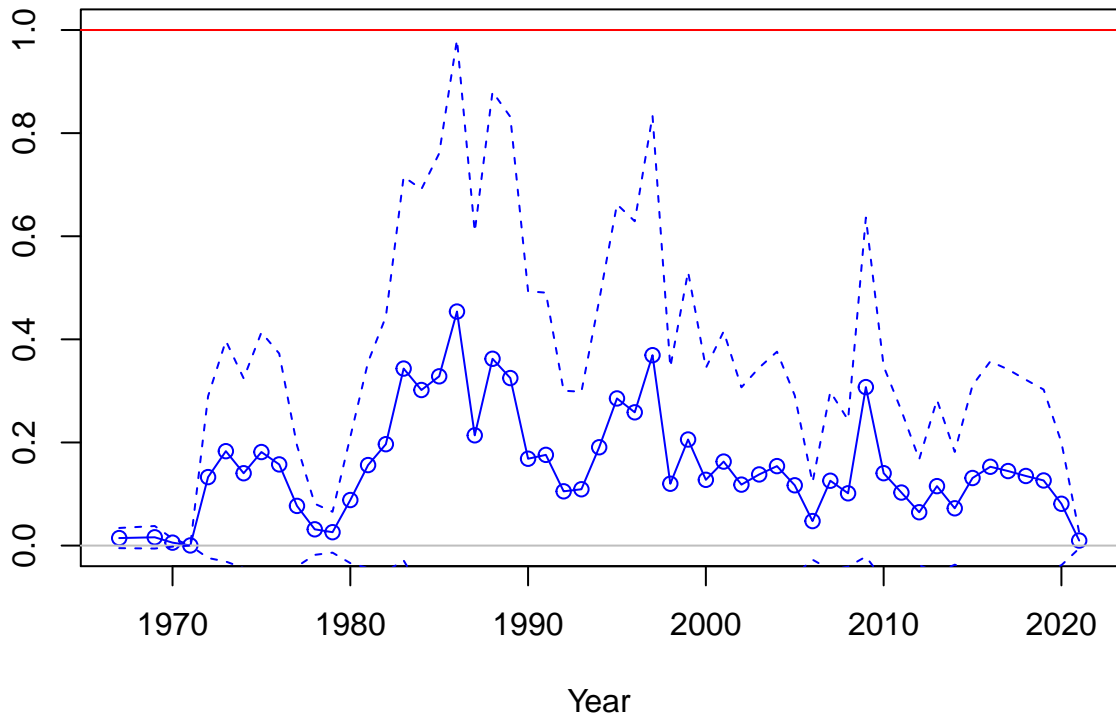
SPR



1-SPR

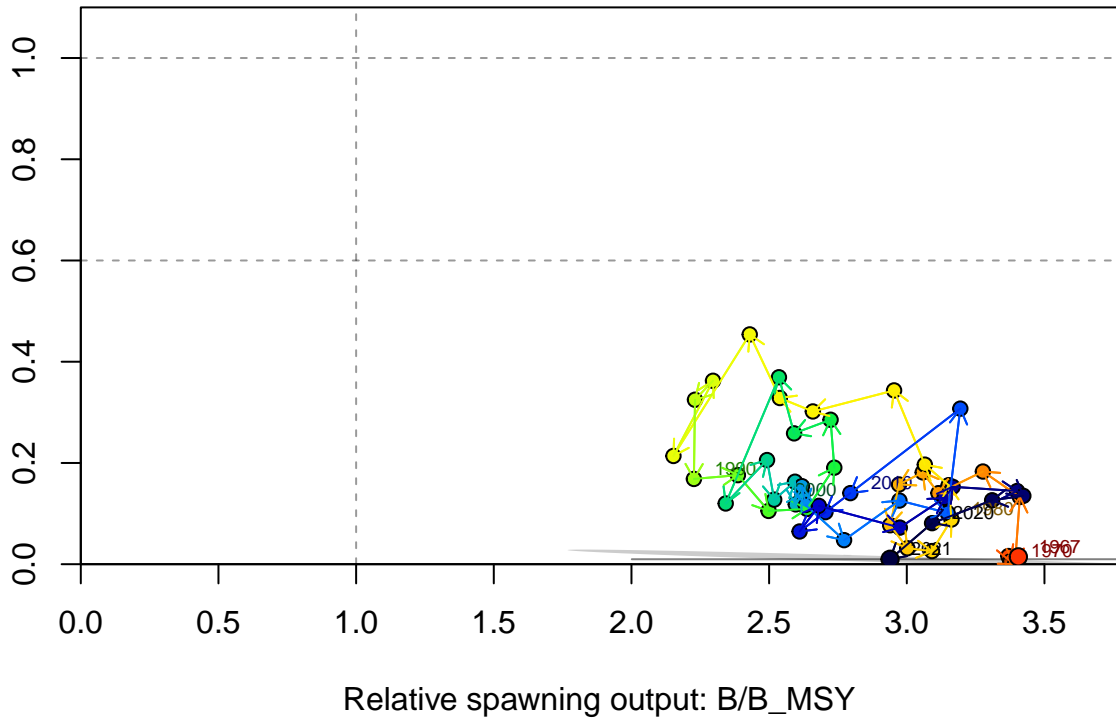


Fishing intensity: 1-SPR





Fishing intensity: 1-SPR



Index

5  
4  
3  
2  
1  
0

2016

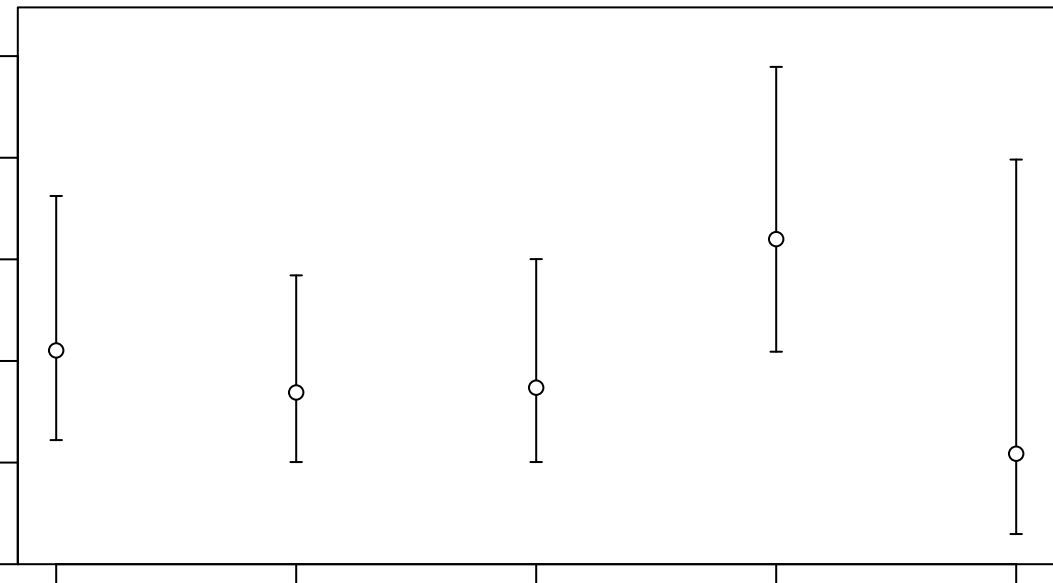
2017

2018

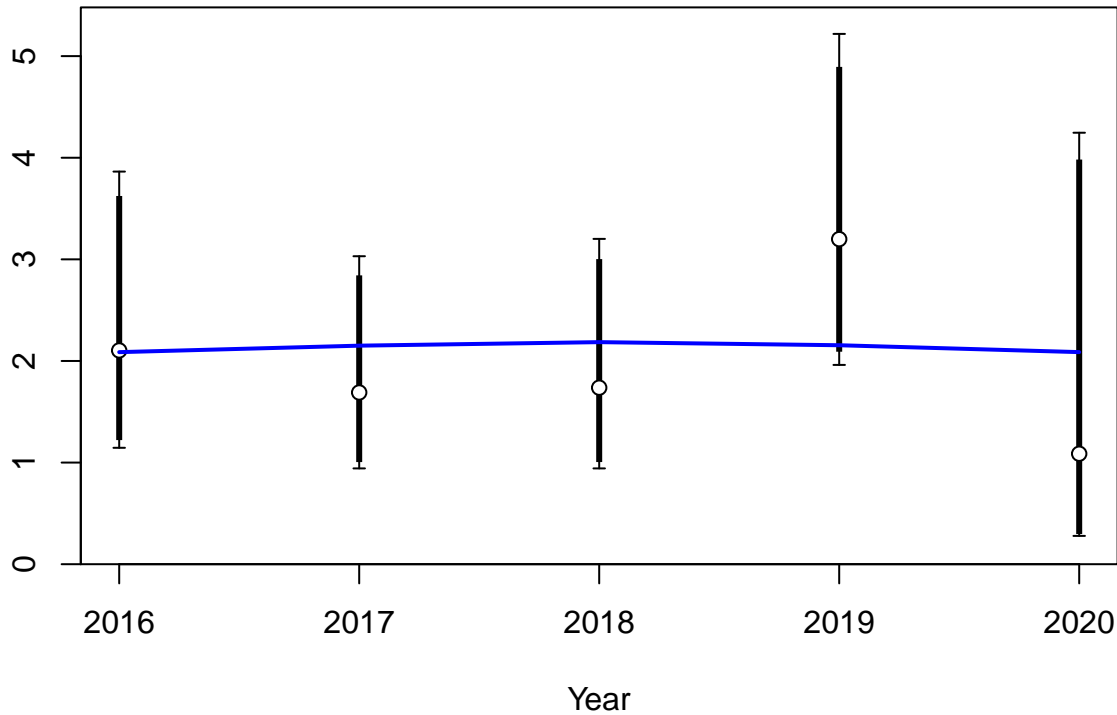
2019

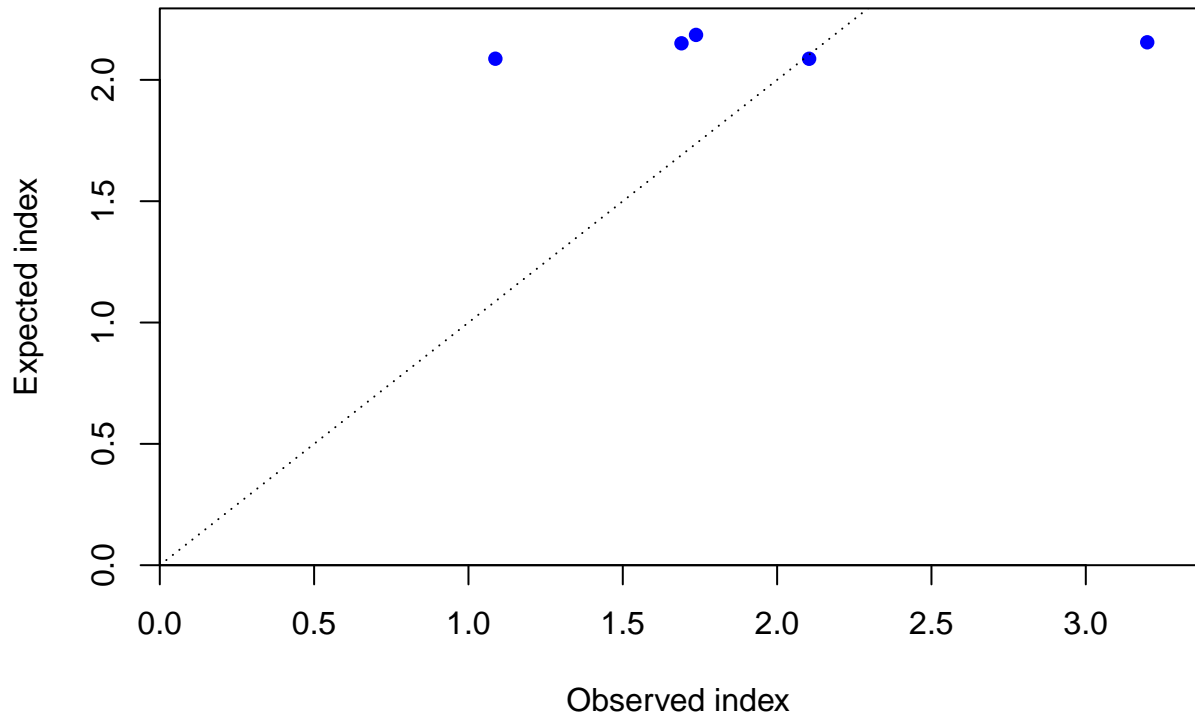
2020

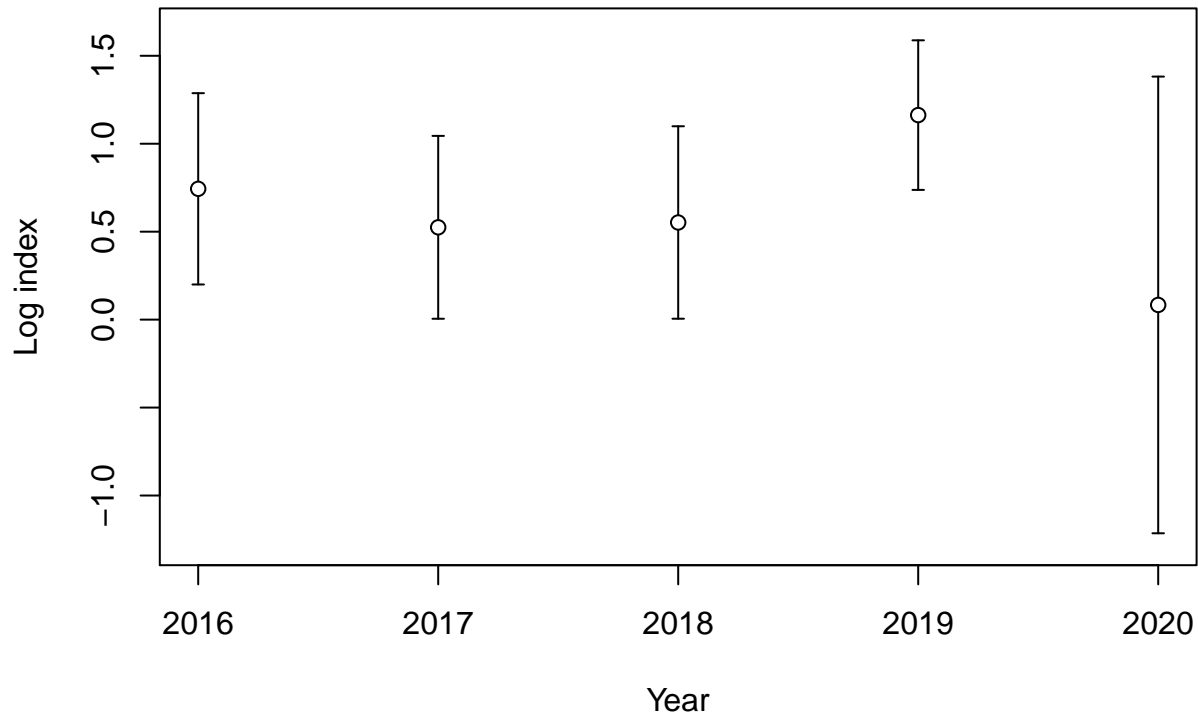
Year

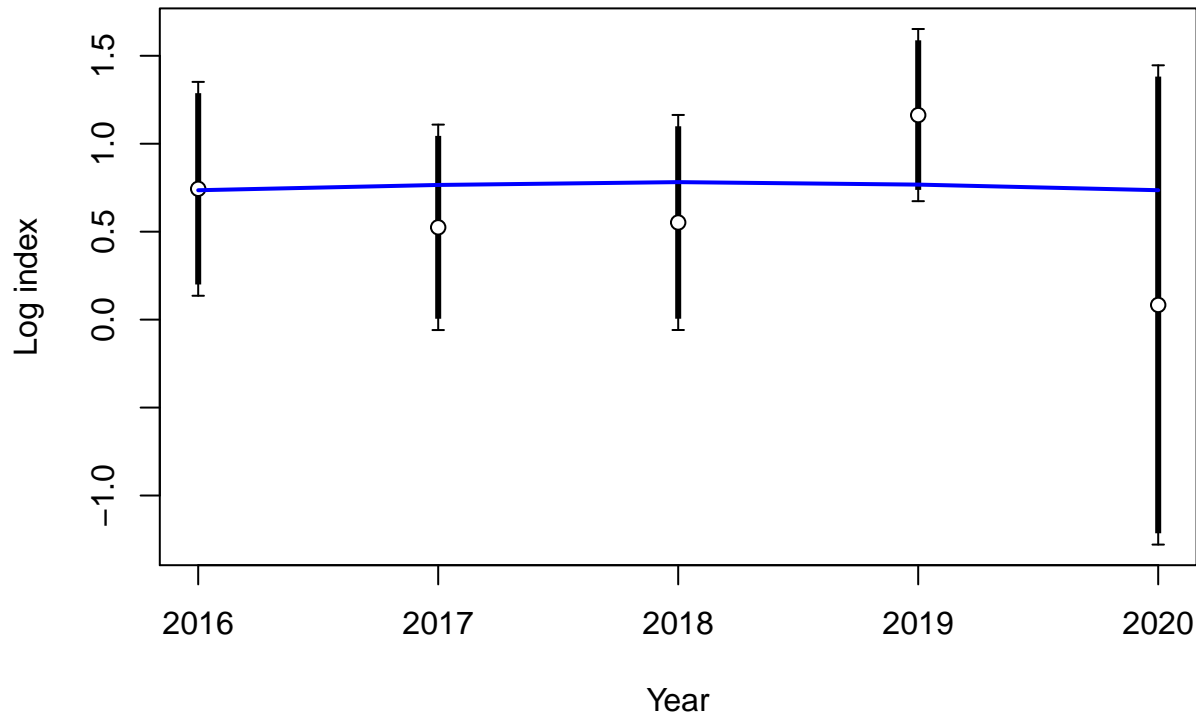


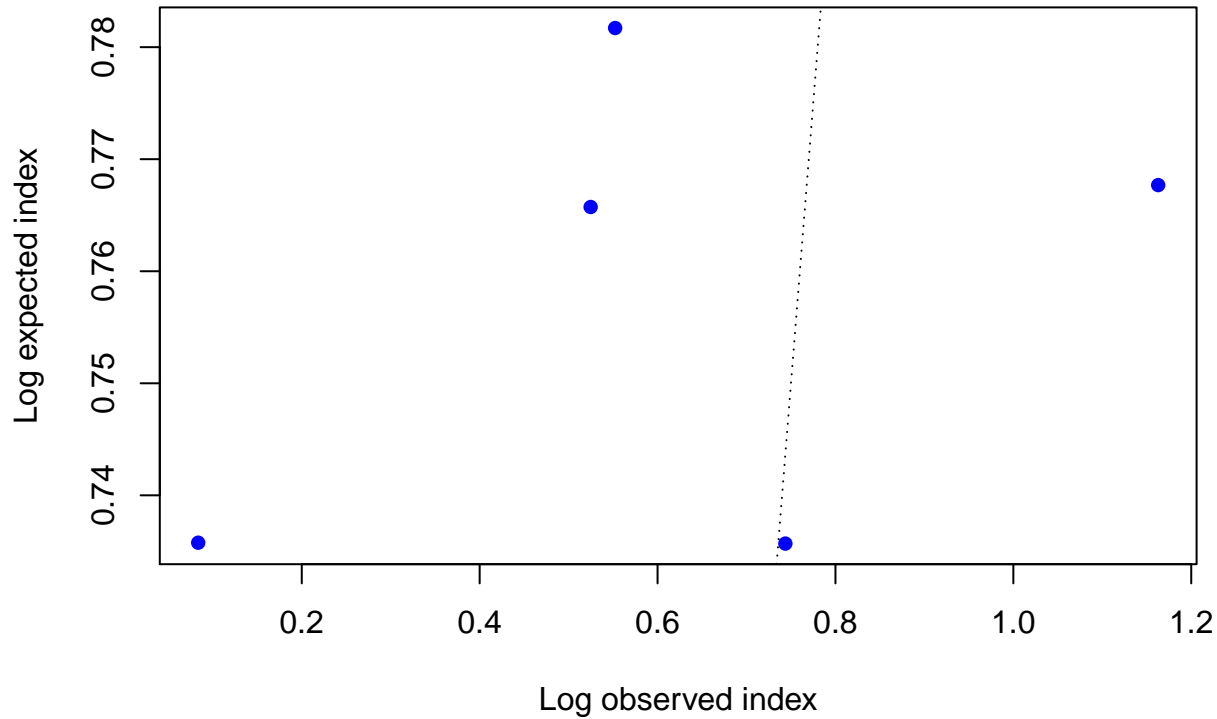
Index



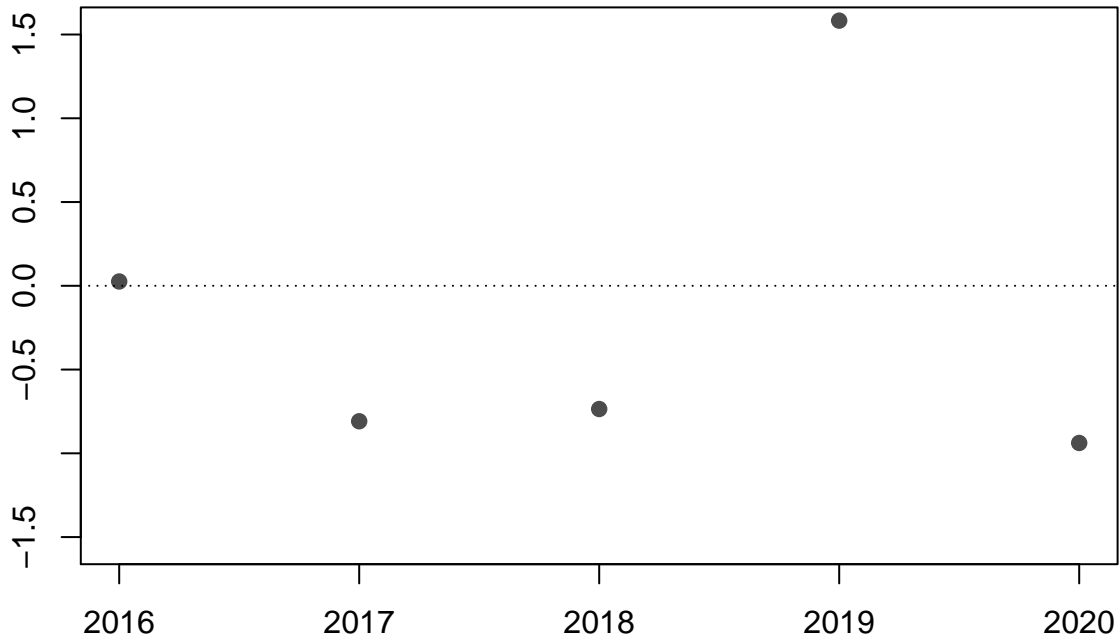








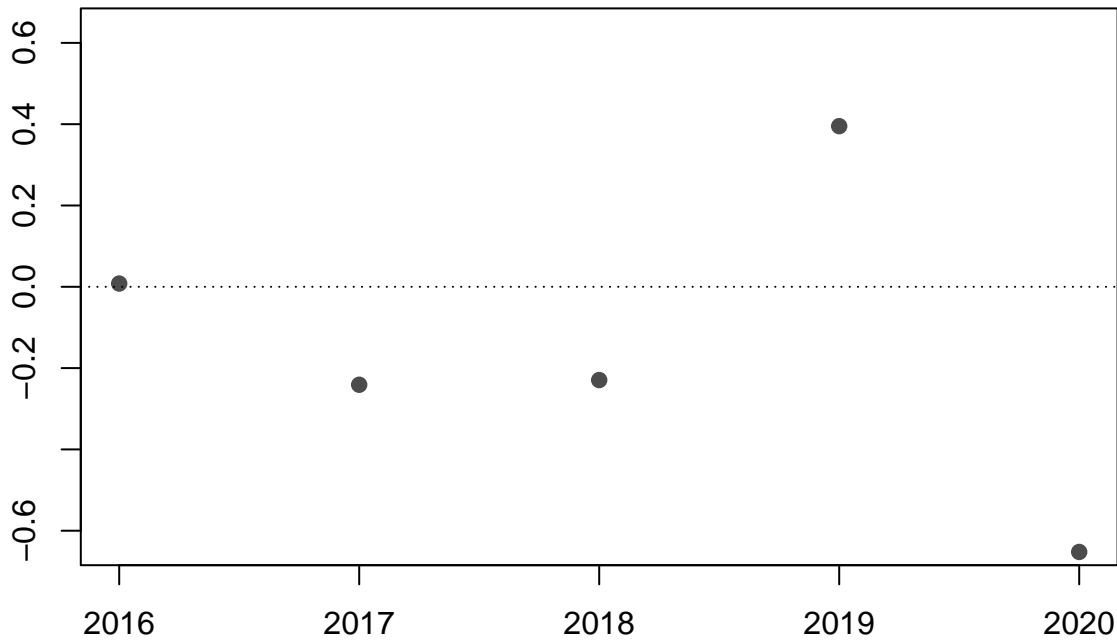
Residual



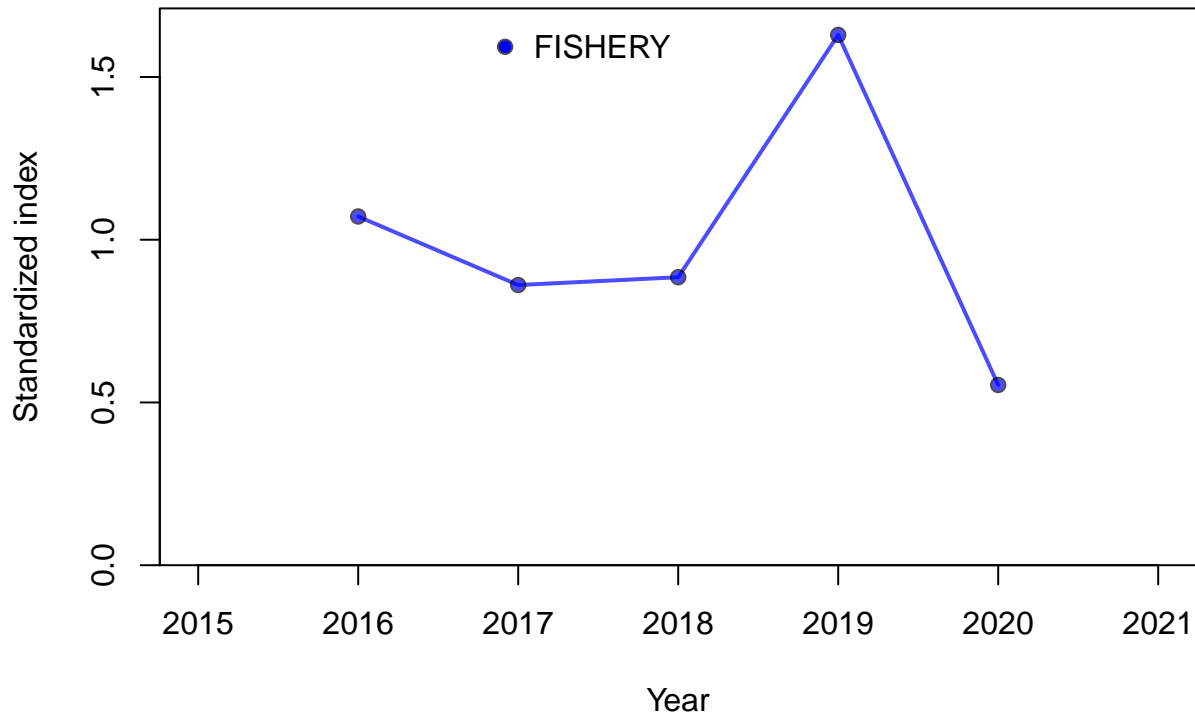
Year



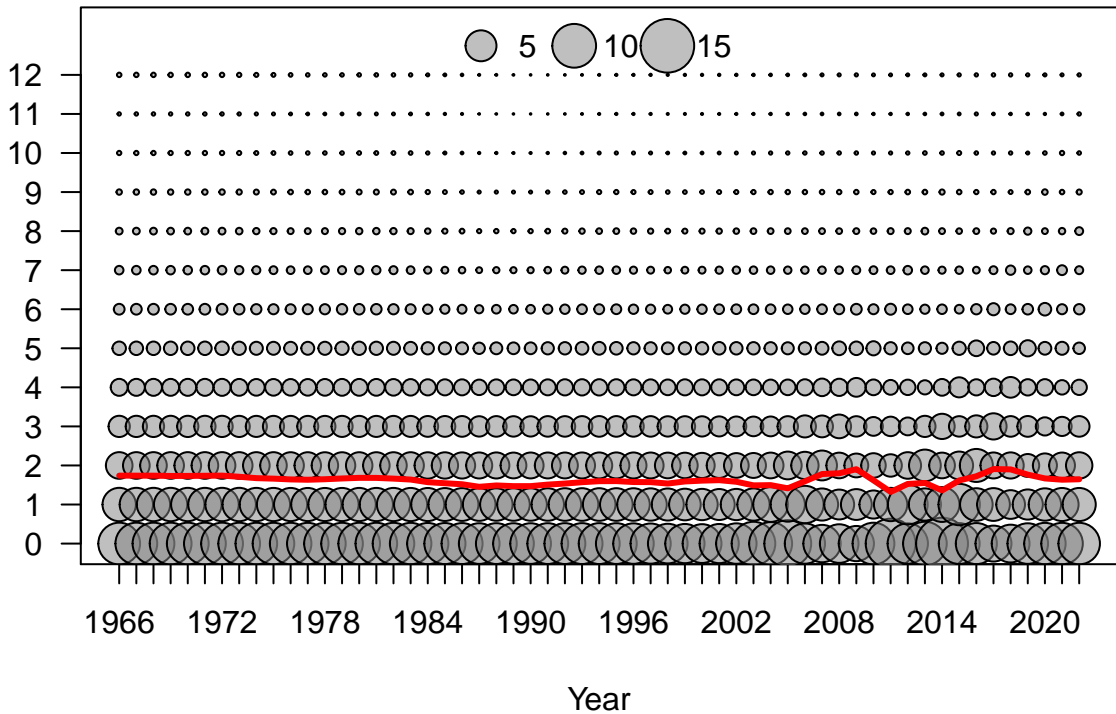
Deviation



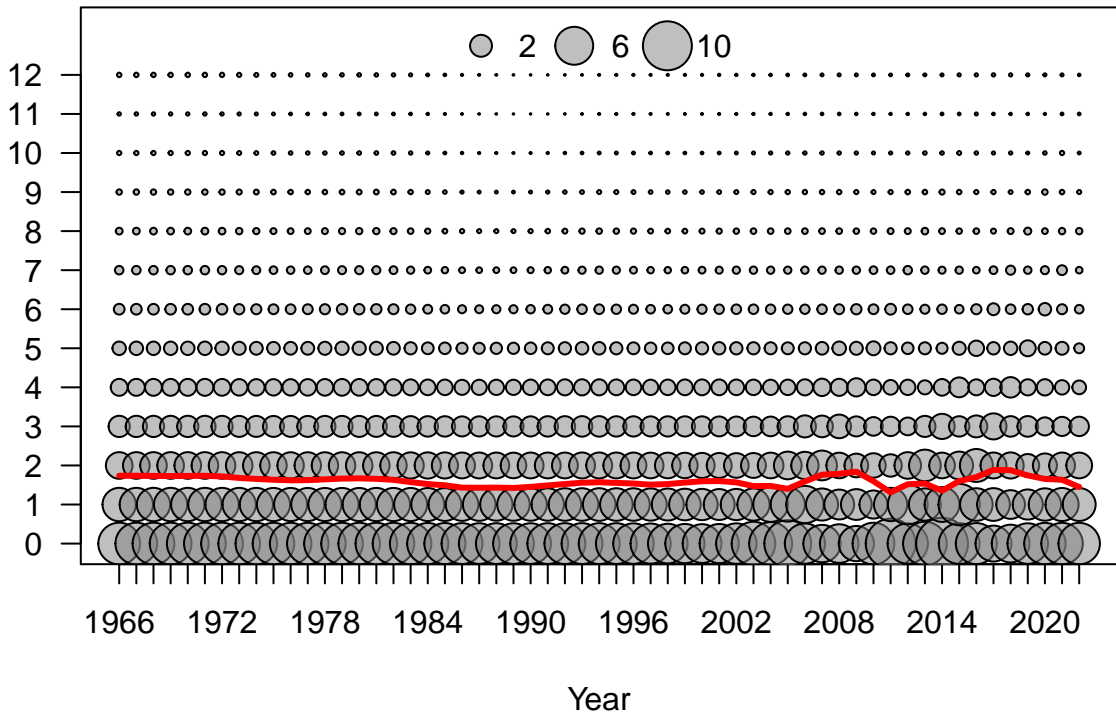
Year

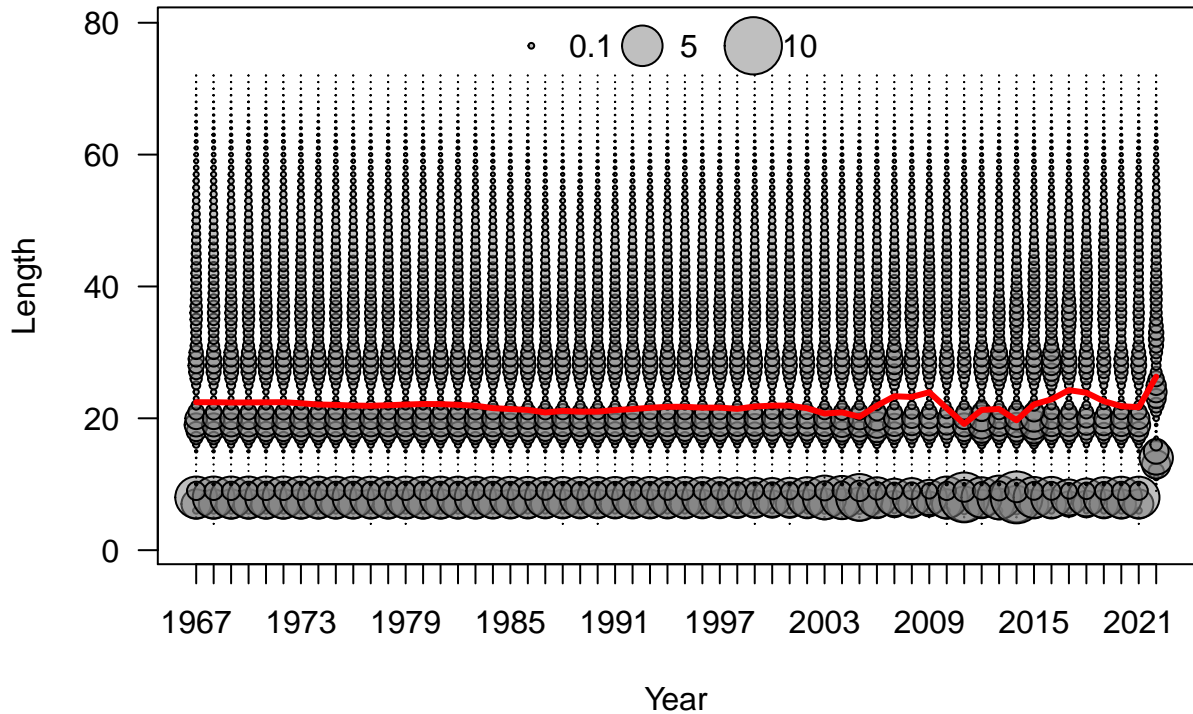


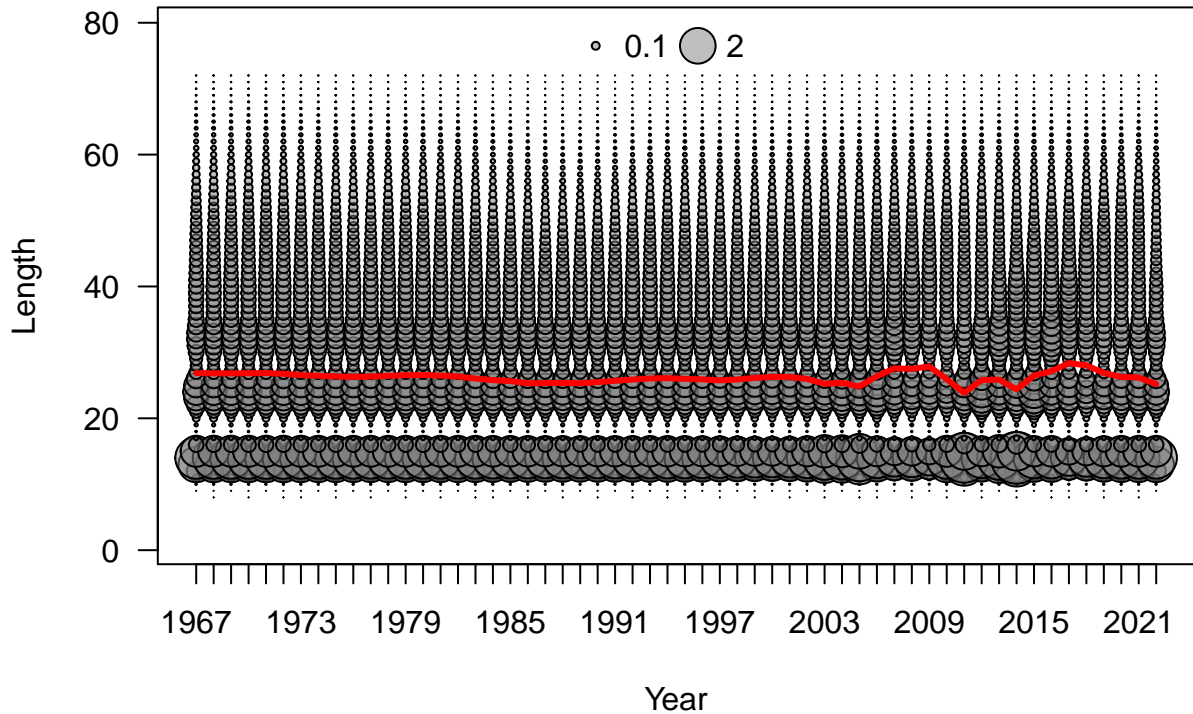
Age

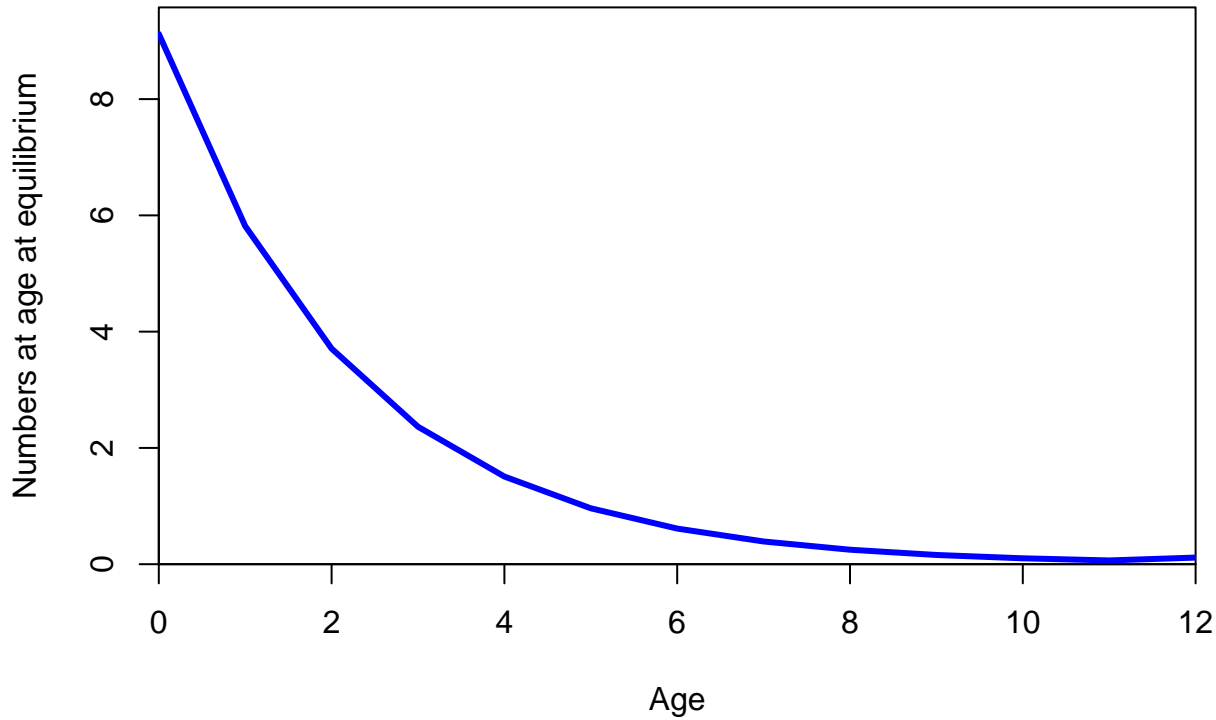


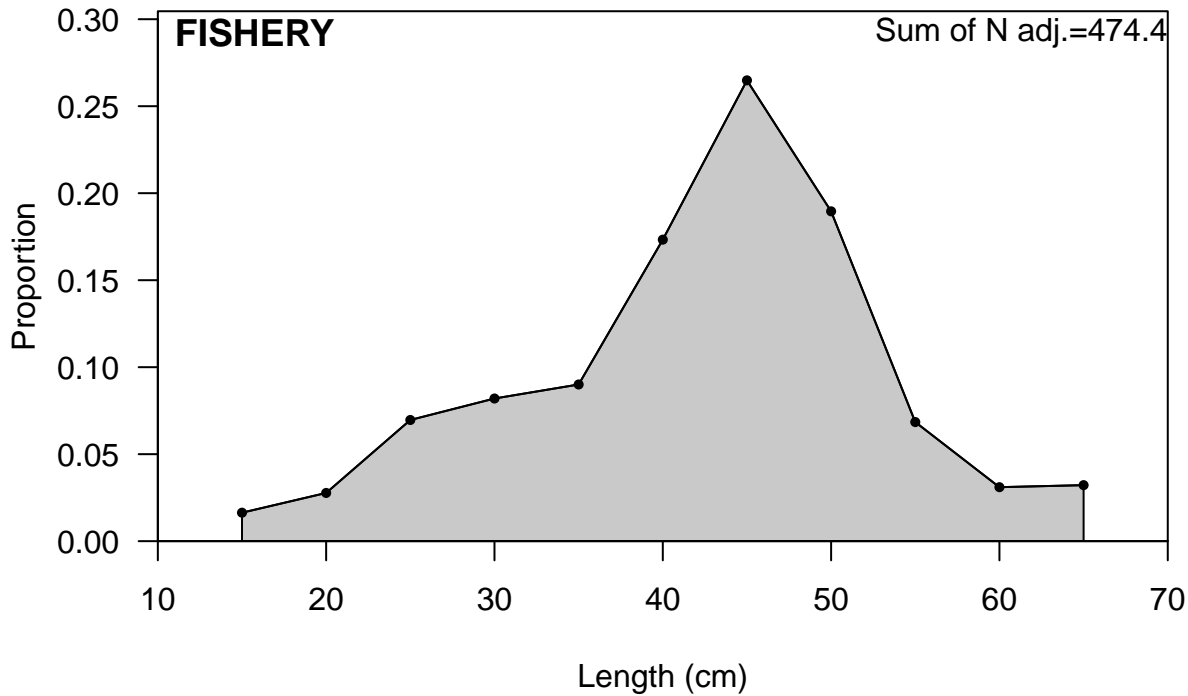
Age







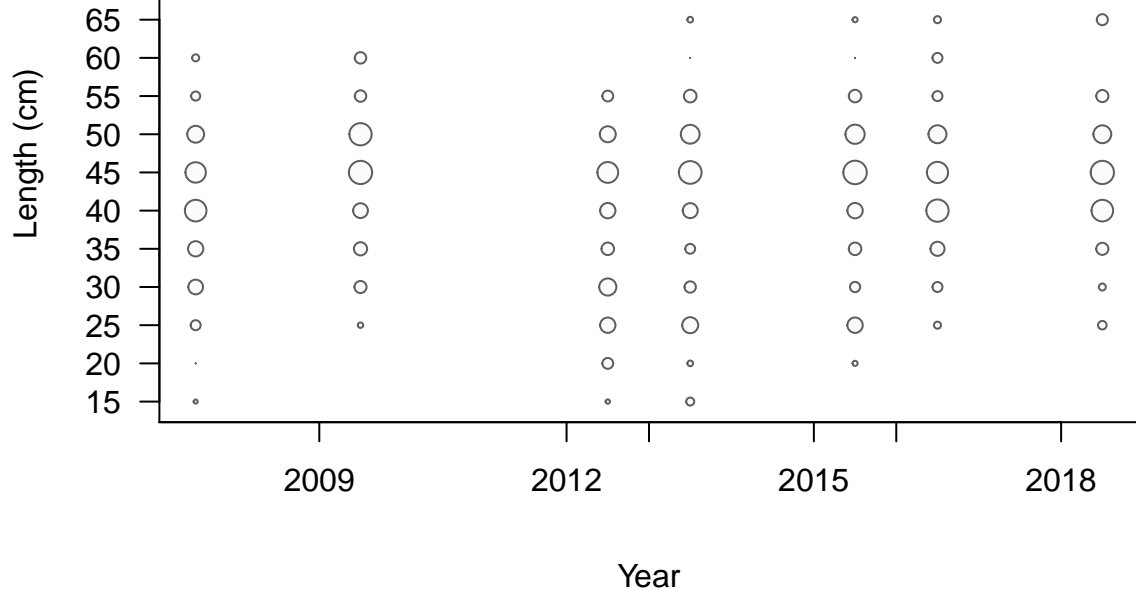




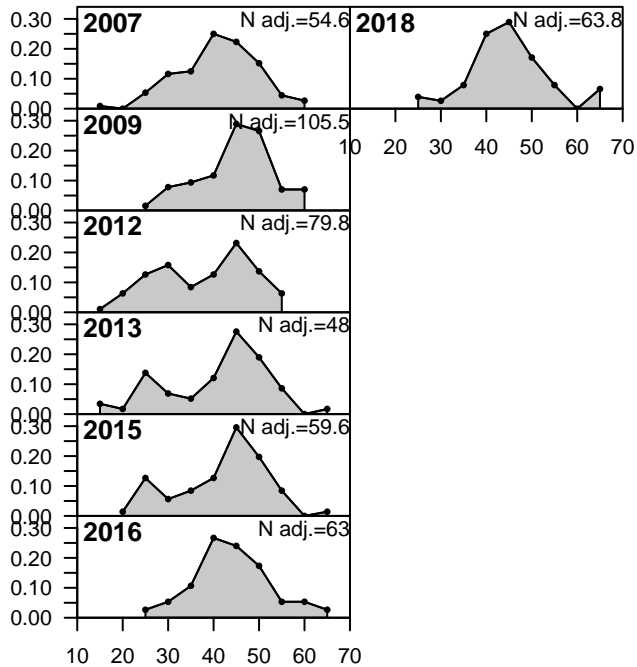


# FISHERY

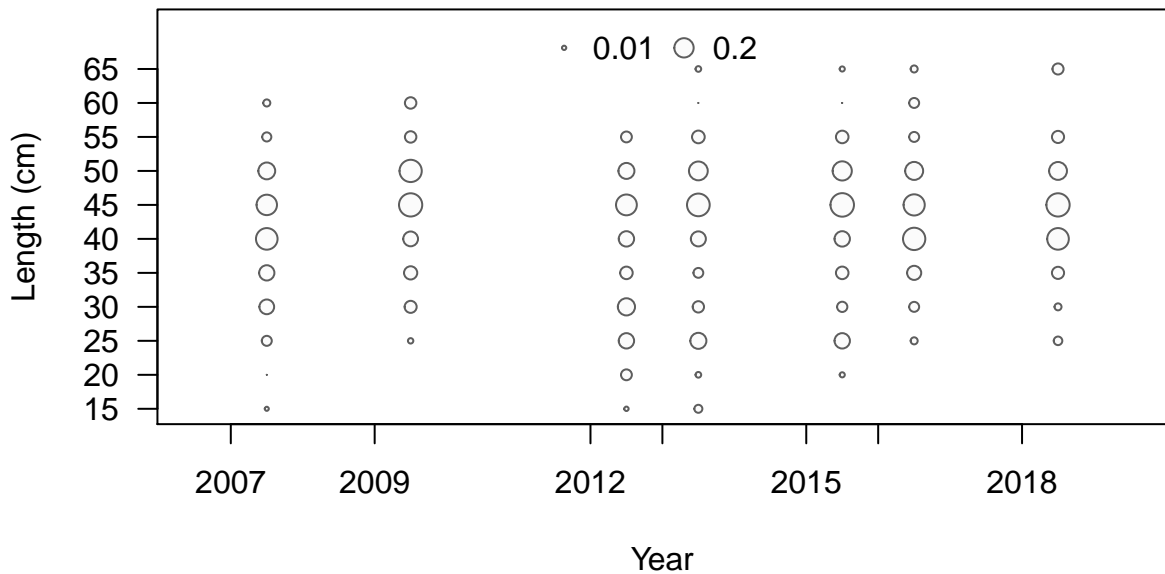
• 0.01 ○ 0.2



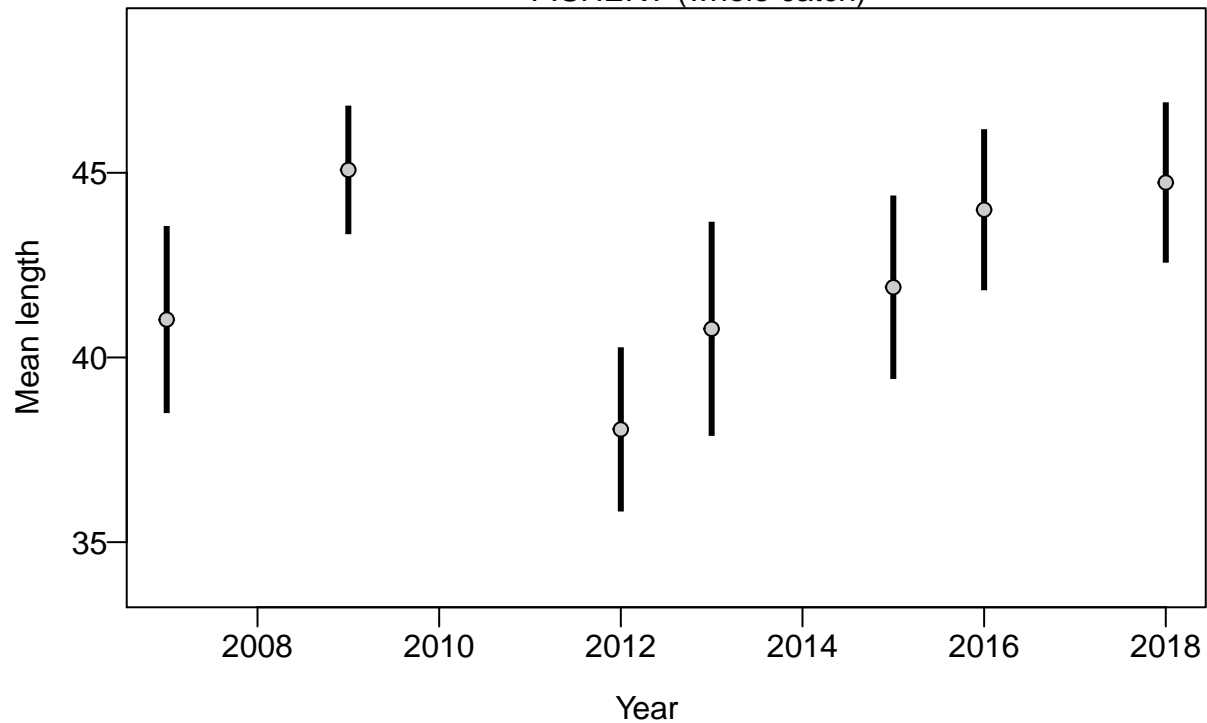
Proportion

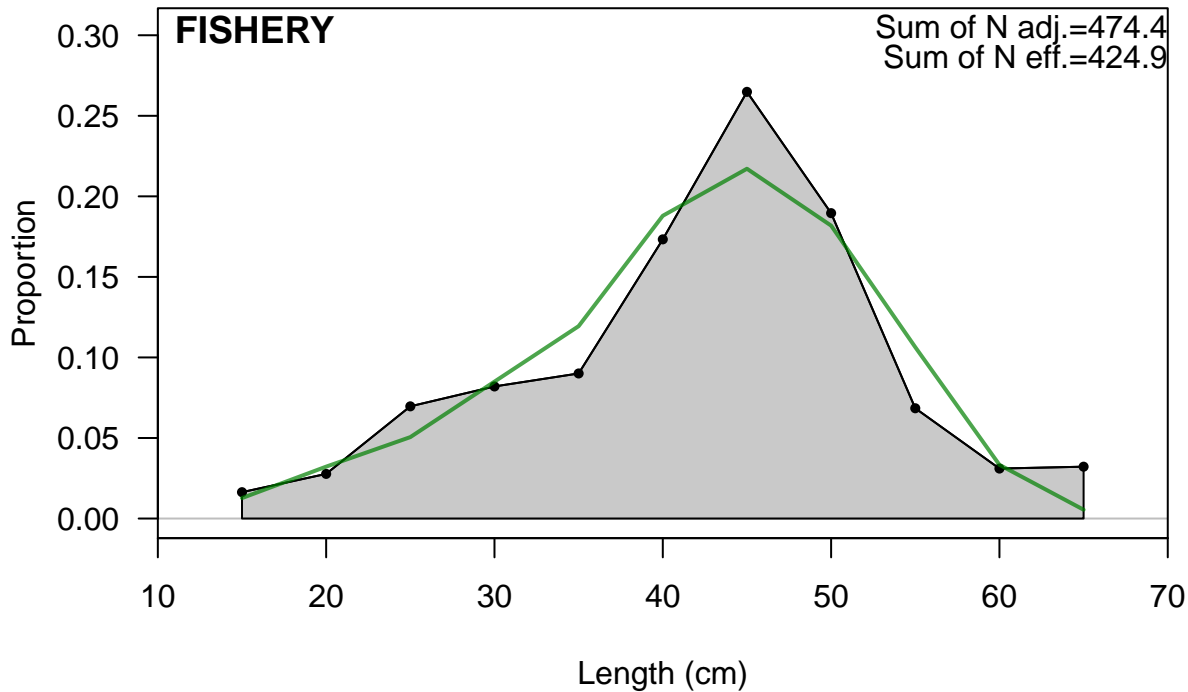


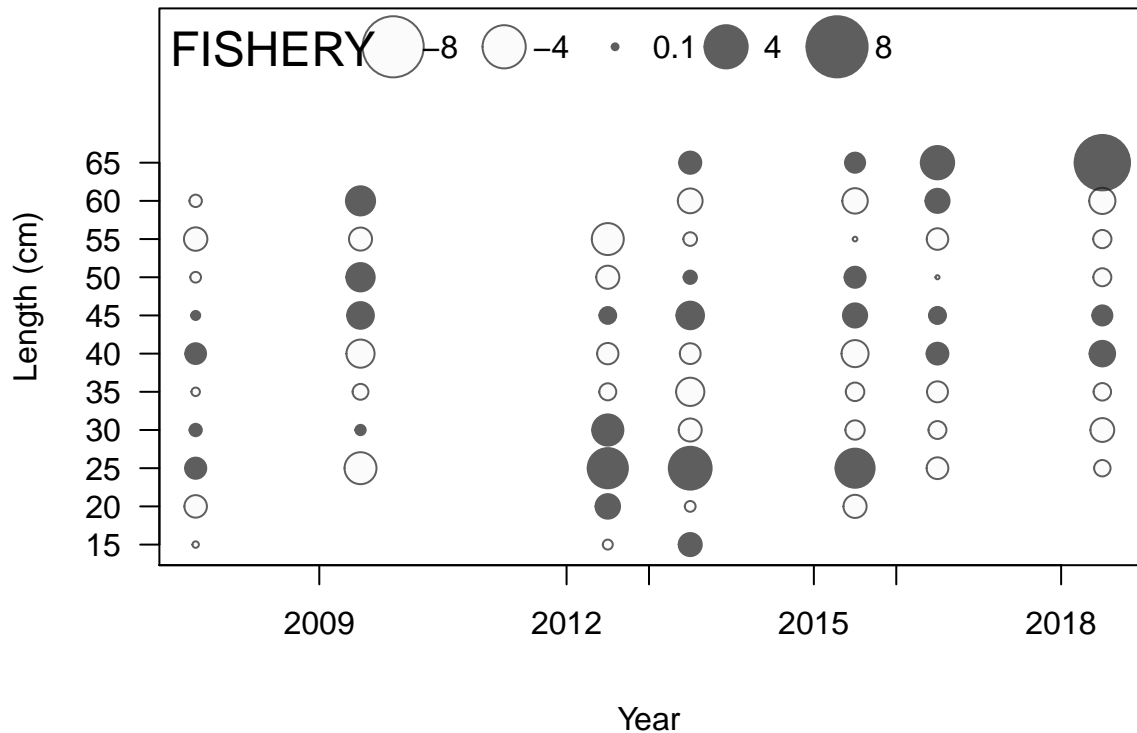
Length (cm)



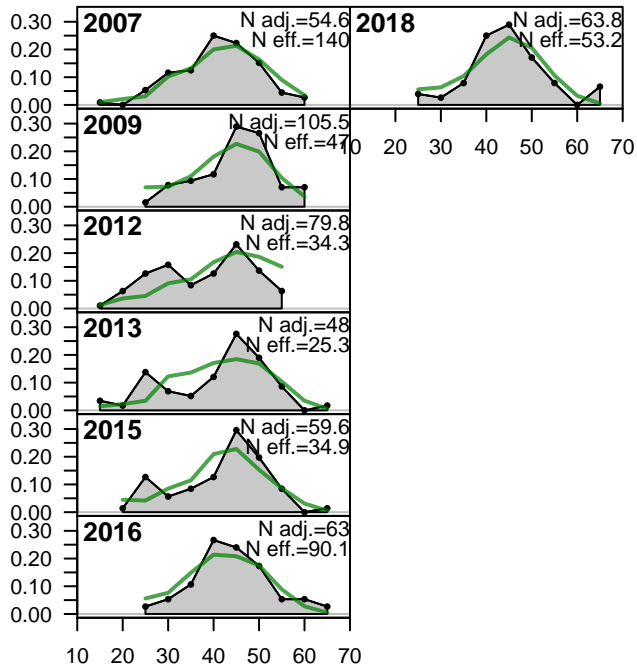
# FISHERY (whole catch)



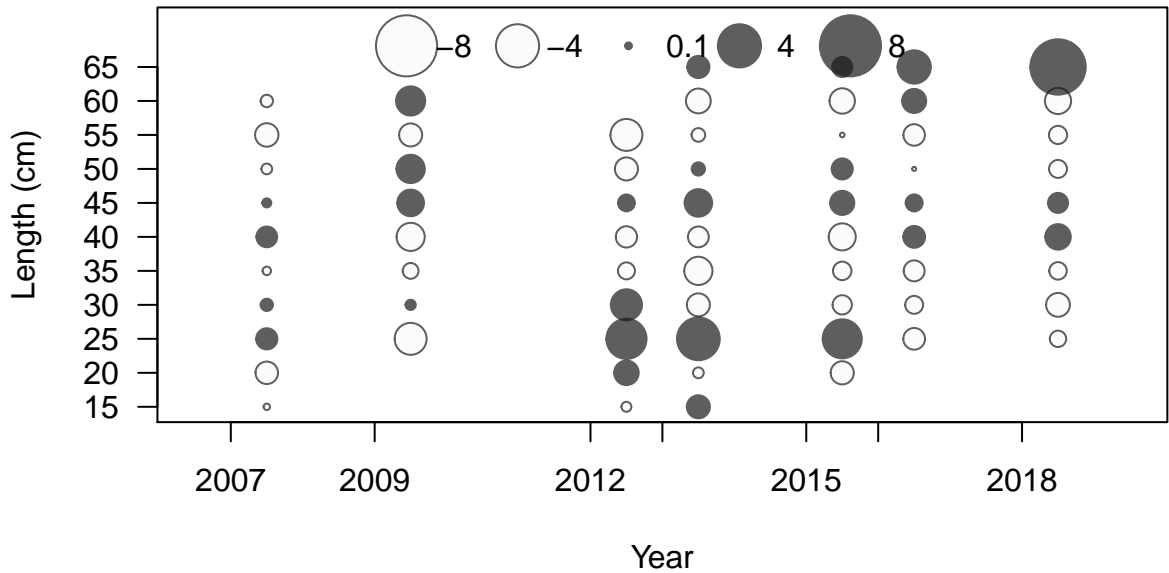




Proportion

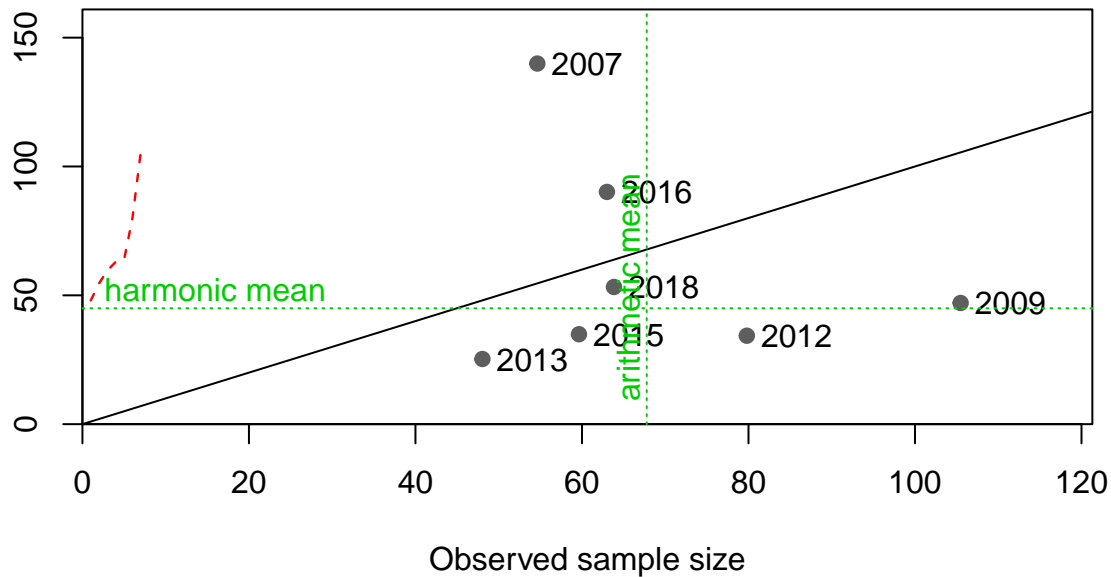


Length (cm)

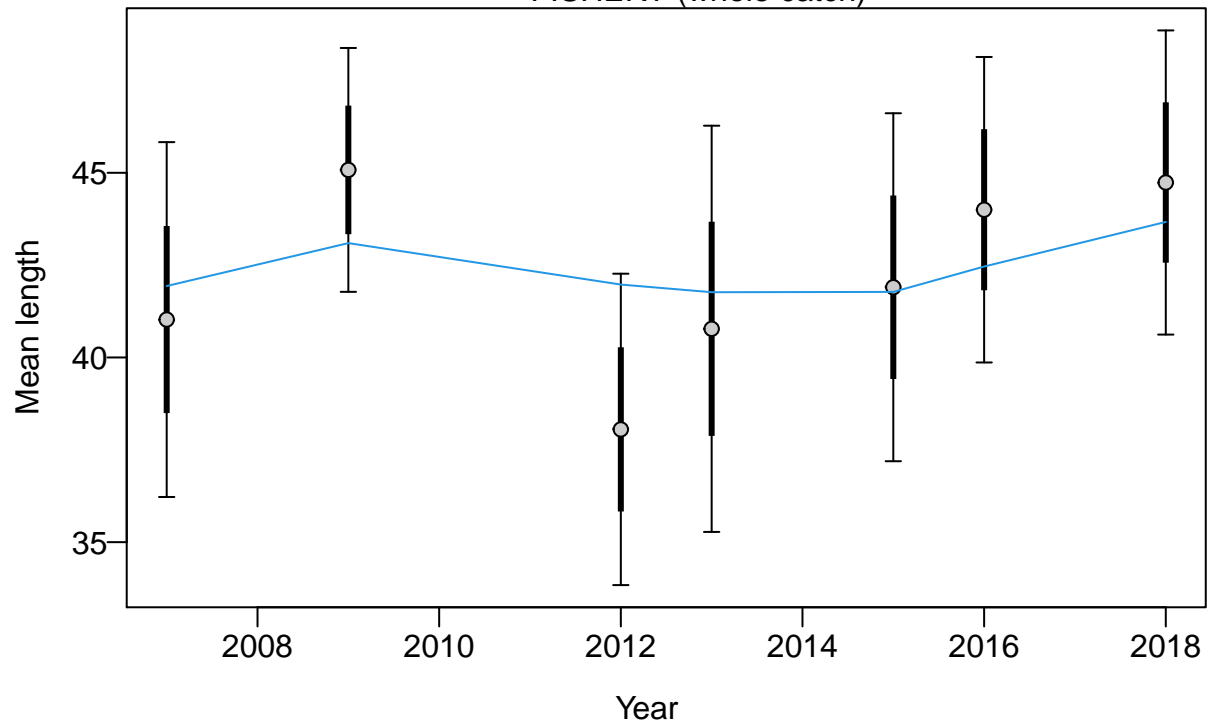


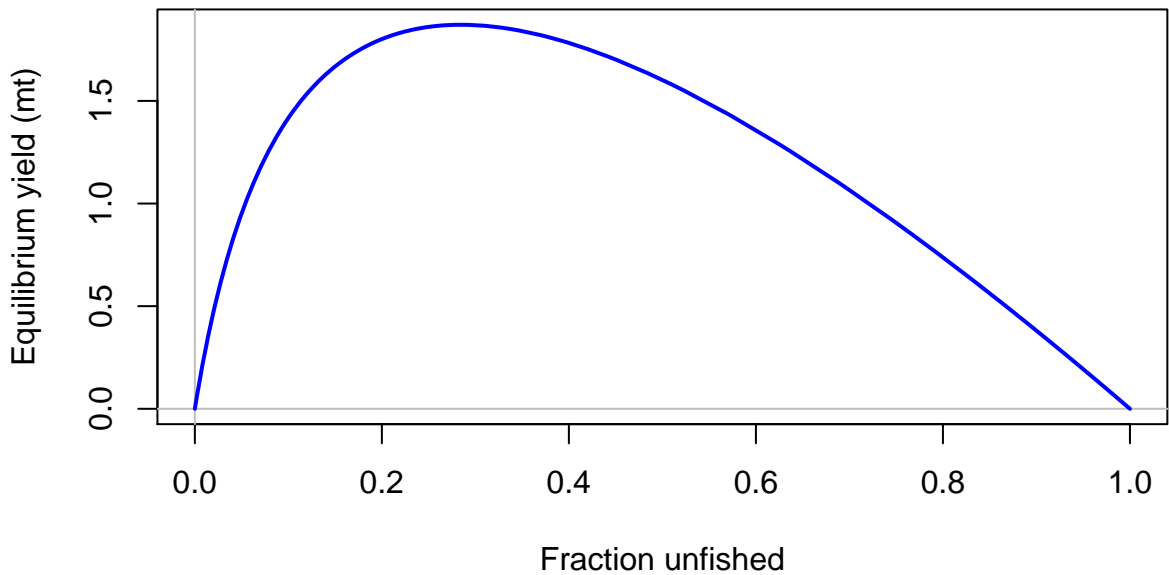


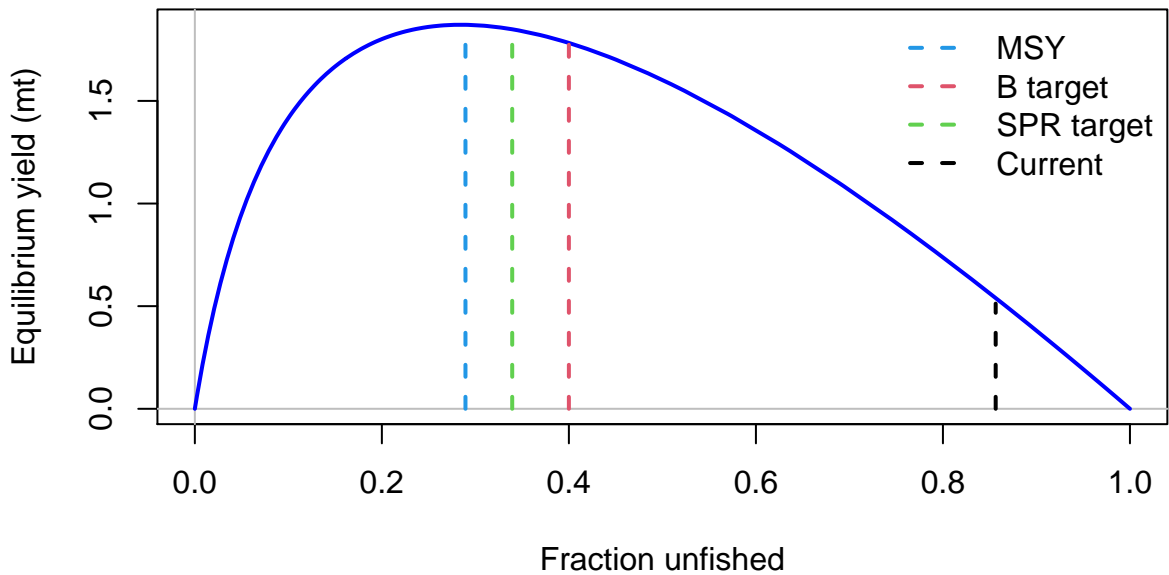
Effective sample size

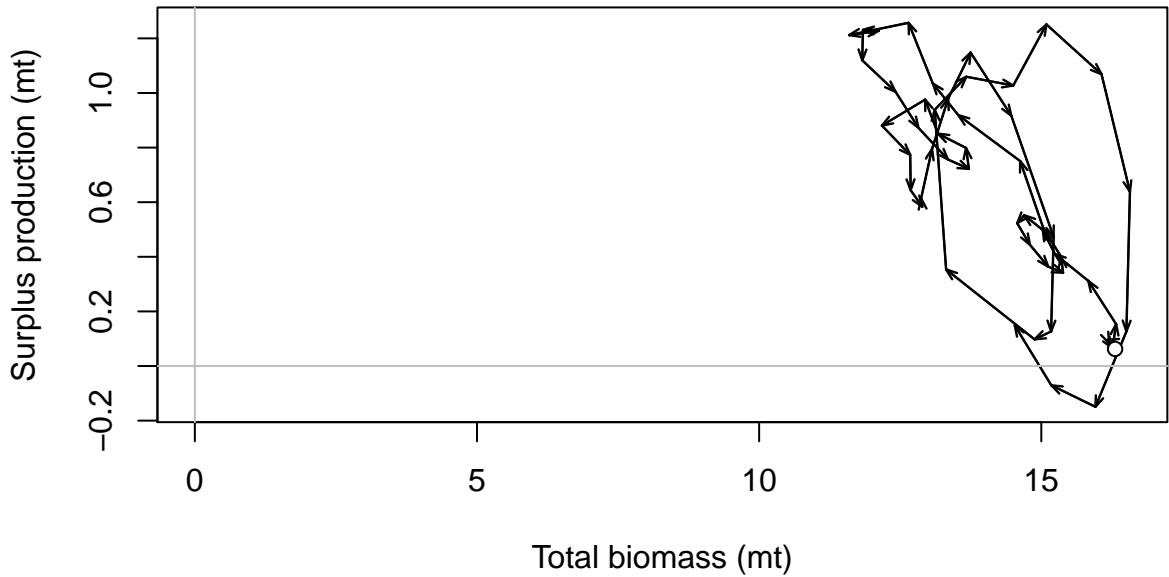


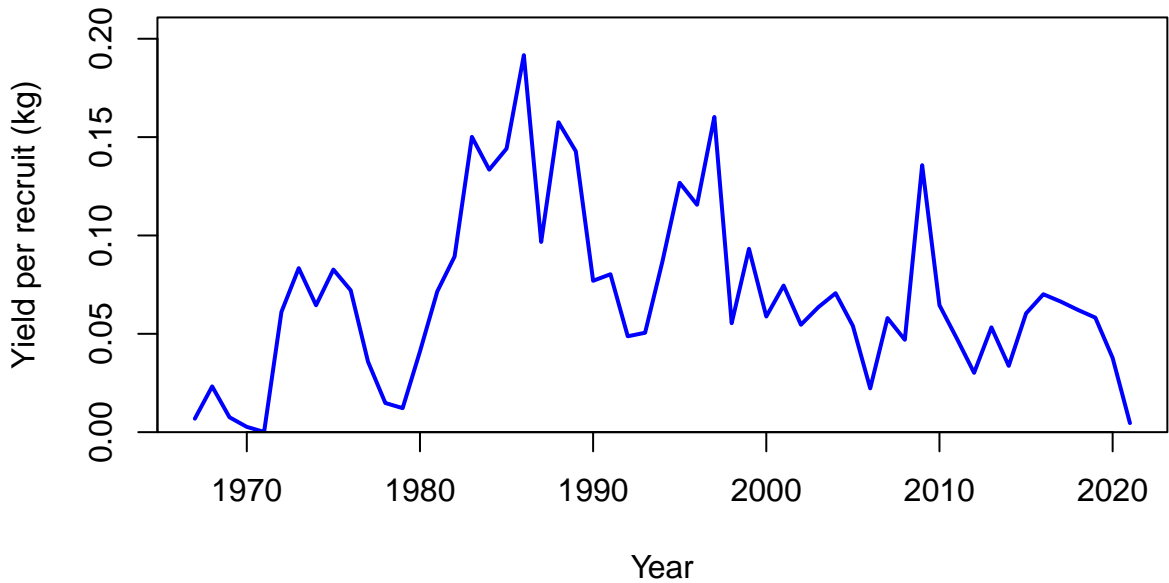
## FISHERY (whole catch)

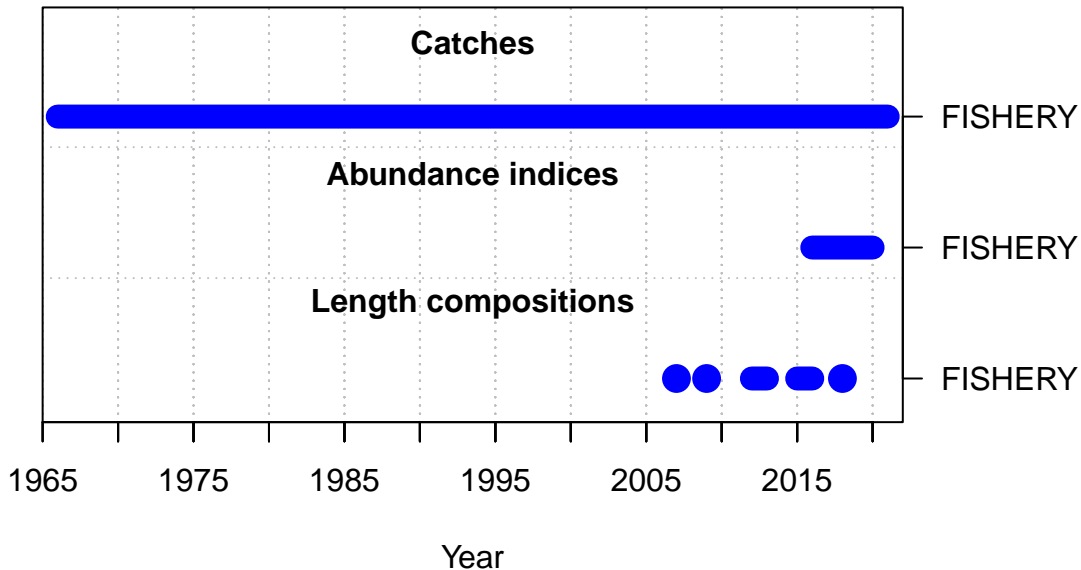


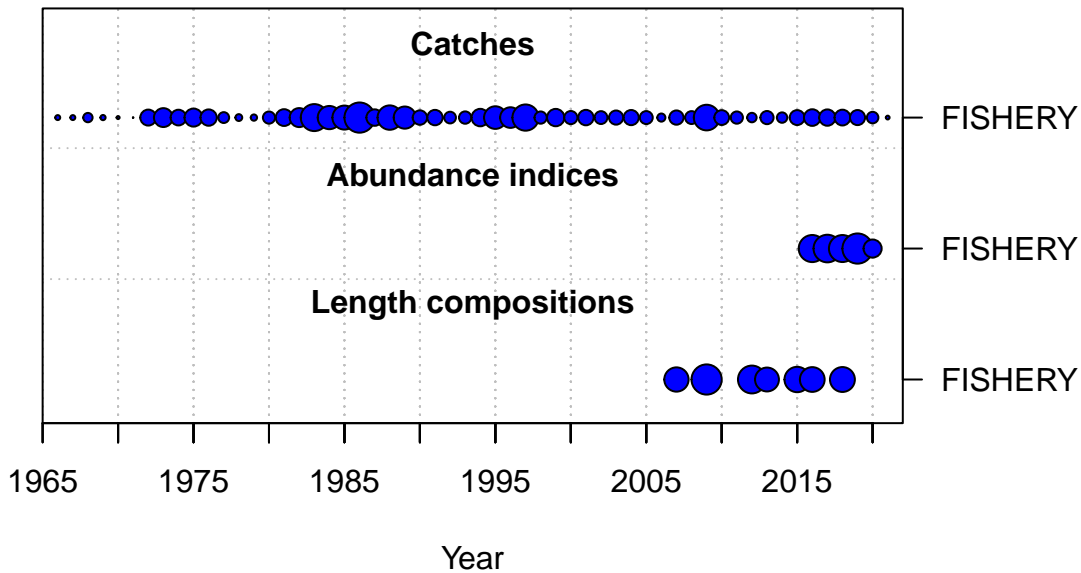






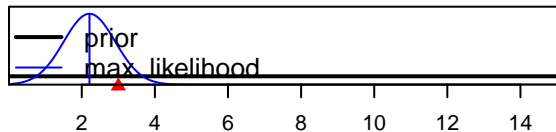




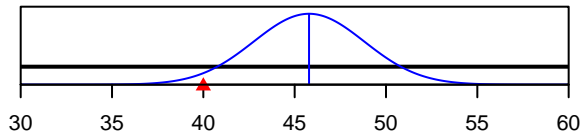




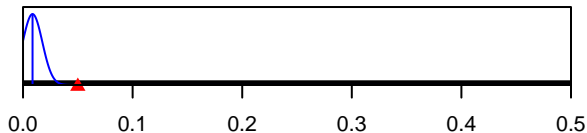
SR\_LN(R0)



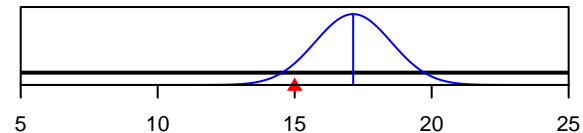
Size\_inflection\_FISHERY(1)



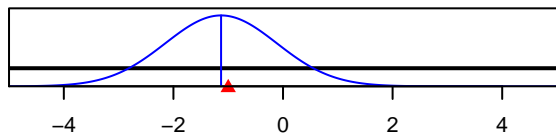
InitF\_seas\_1\_flt\_1FISHERY



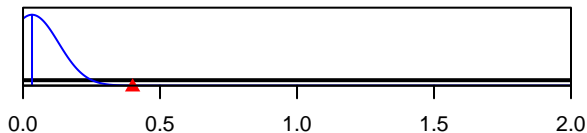
Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



Q\_extraSD\_FISHERY(1)



Parameter value