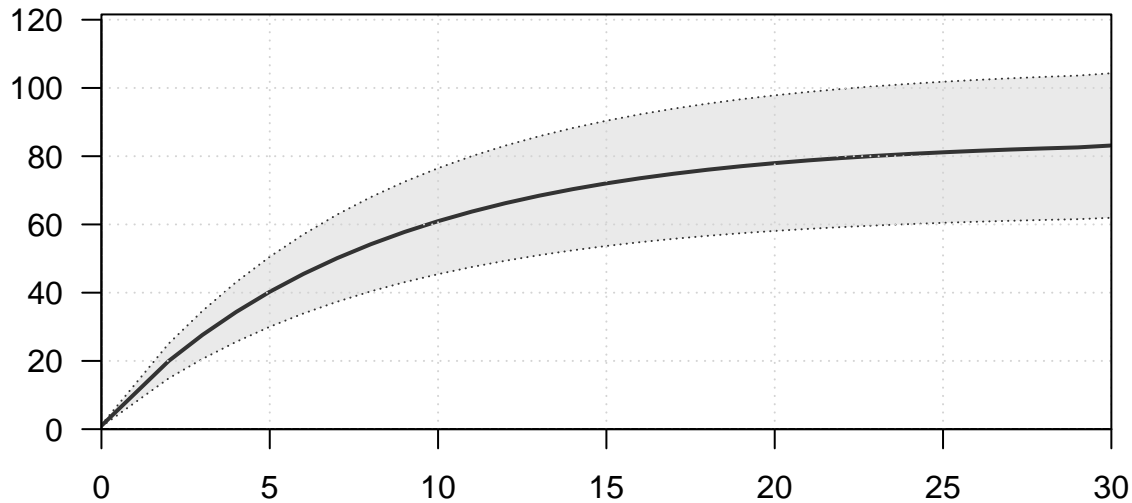
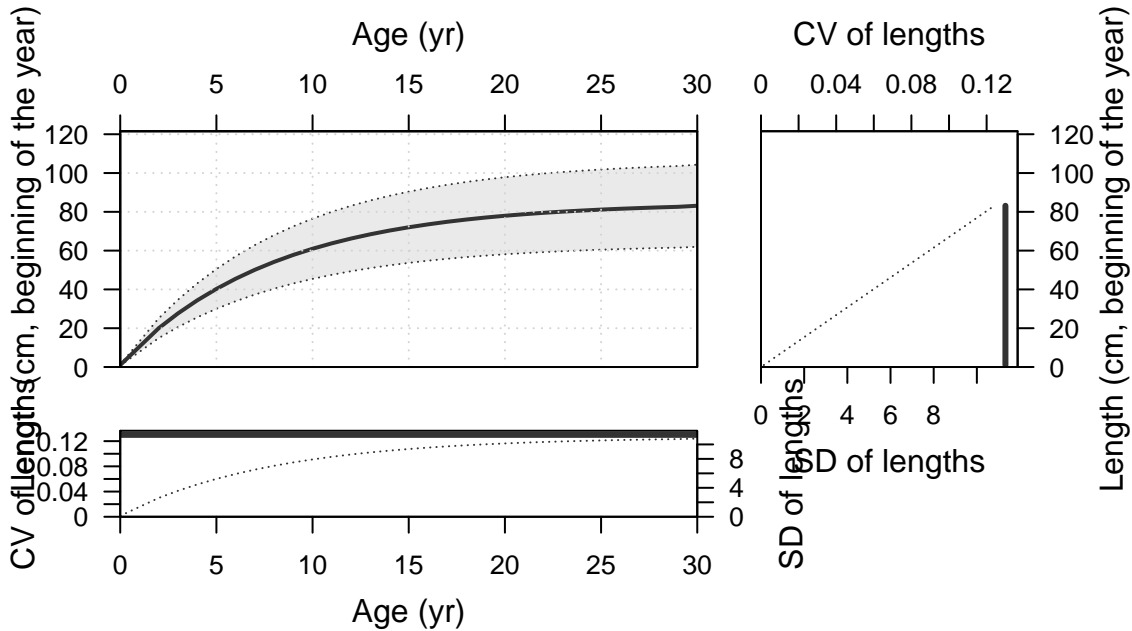


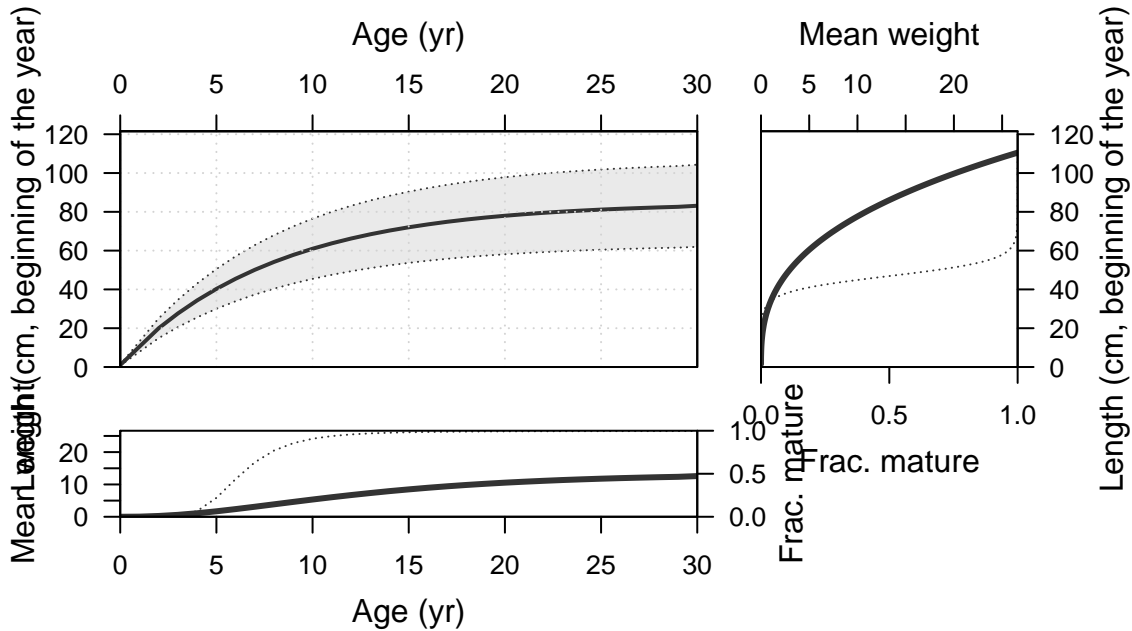
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Fri Jun 17 14:19:05 2022  
Data\_File: data.ss  
Control\_File: control.ss

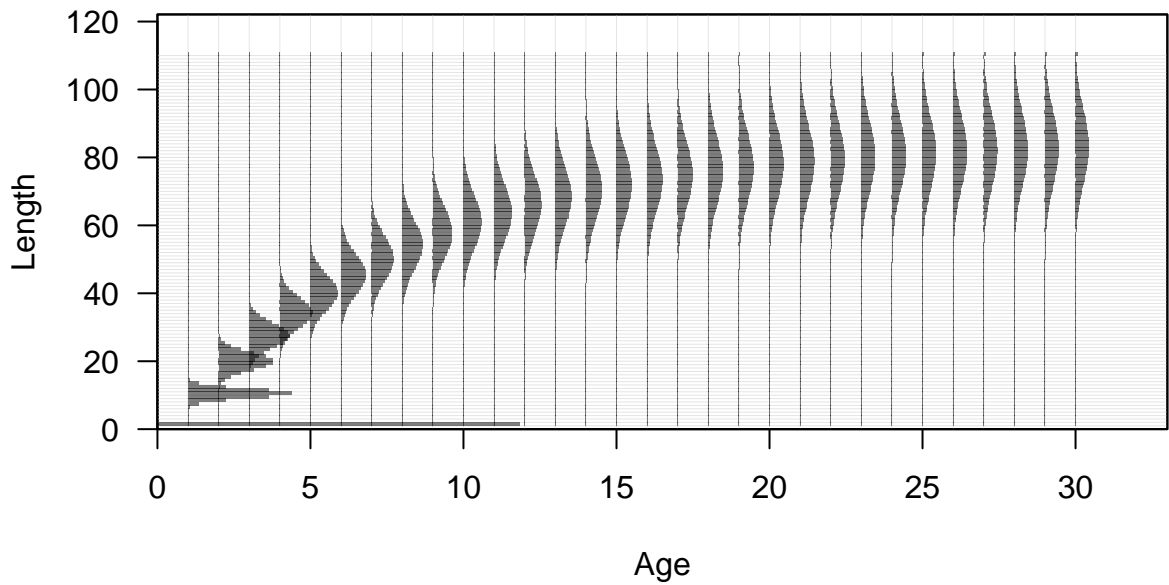
Length (cm, beginning of the year)

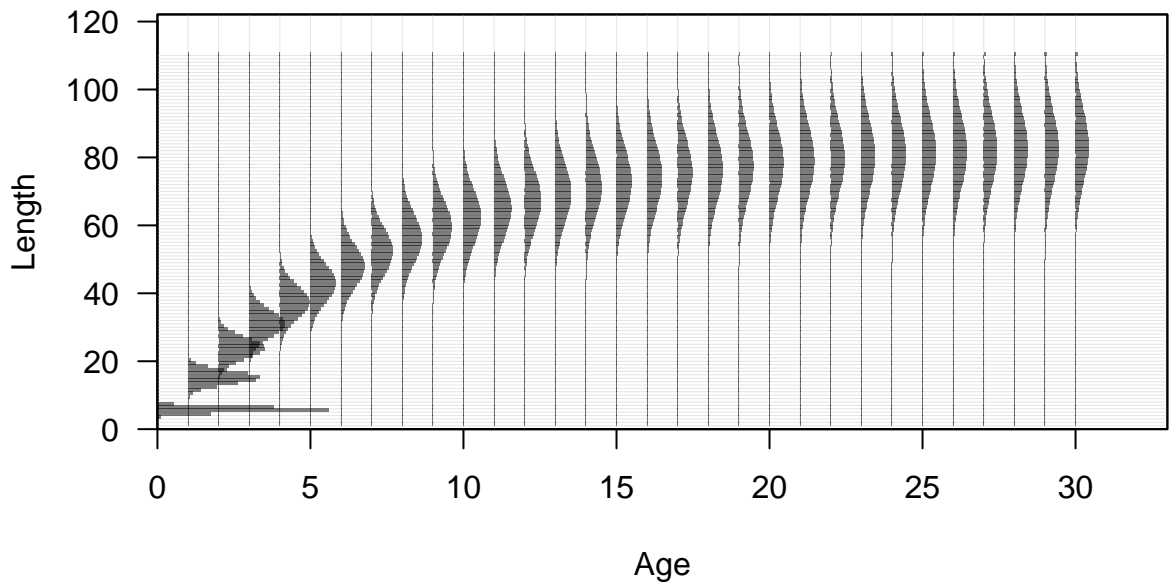


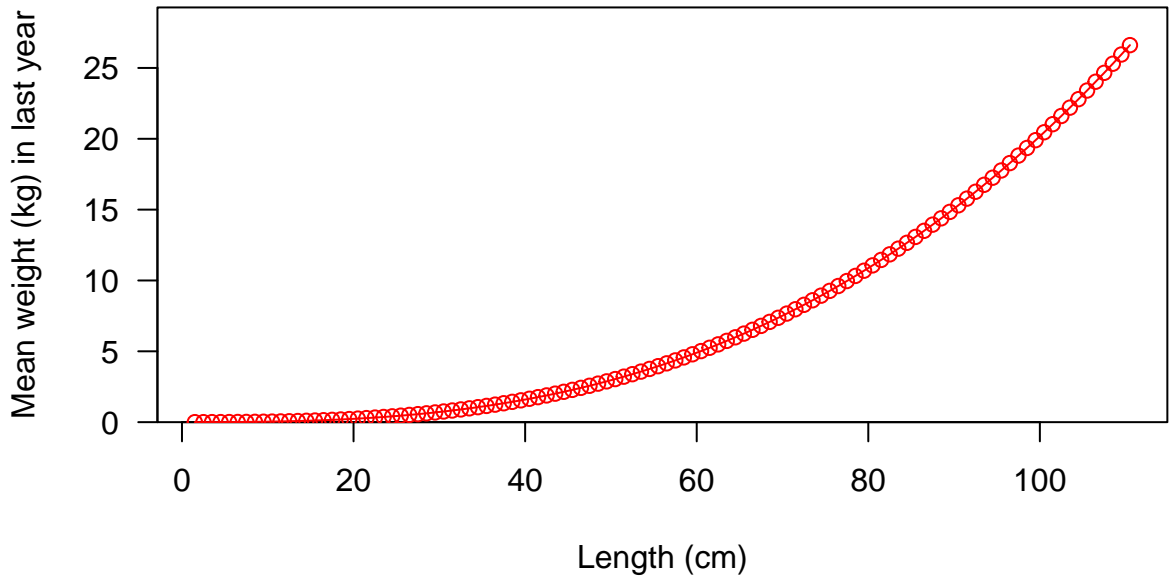
Age (yr)

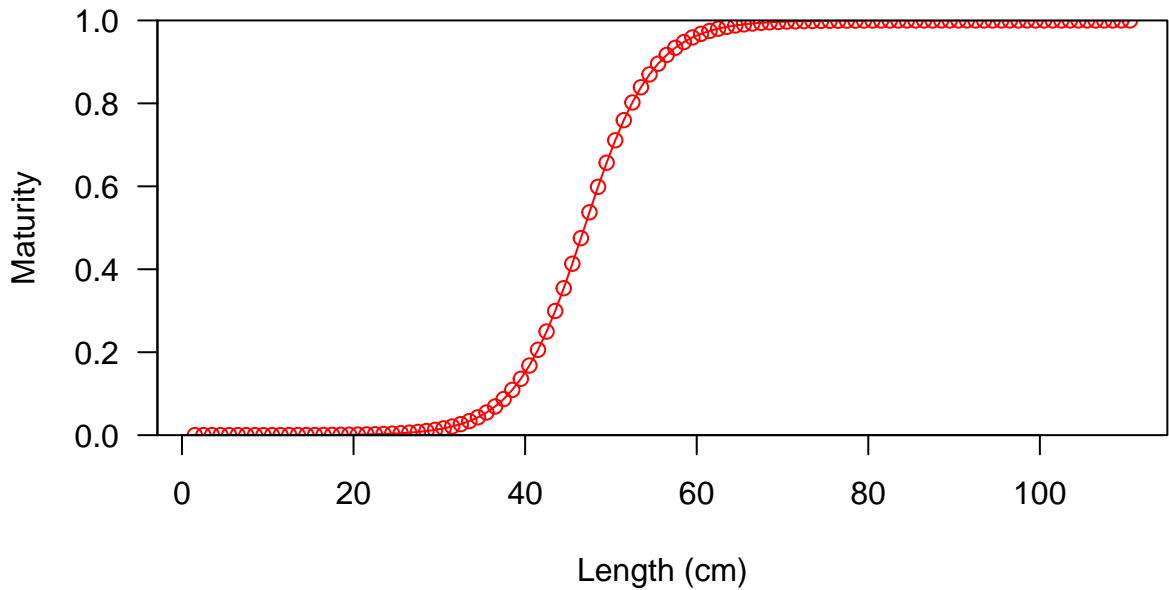




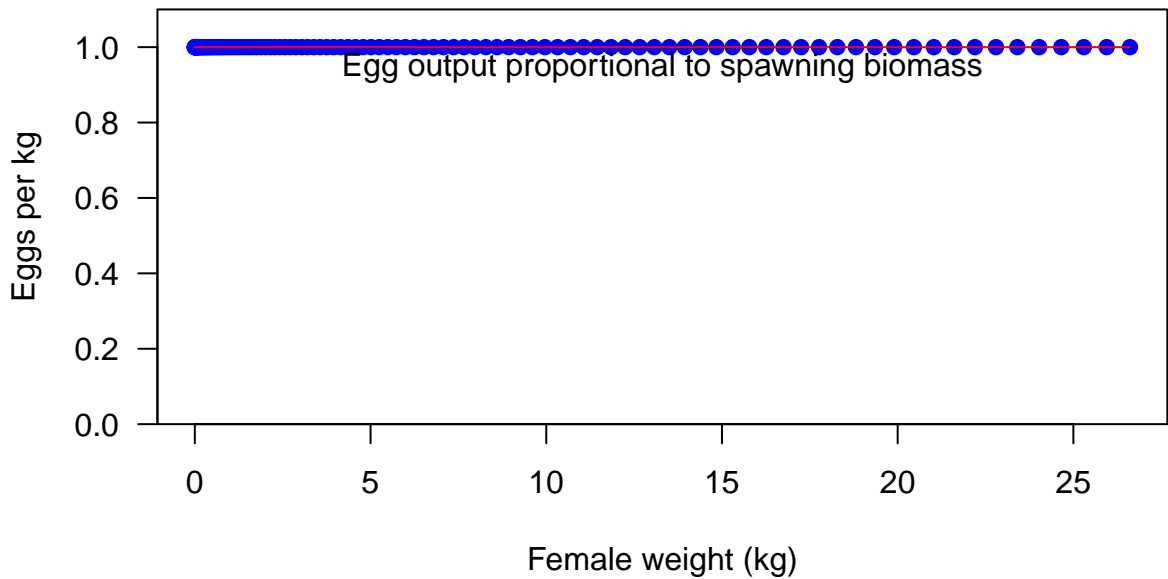


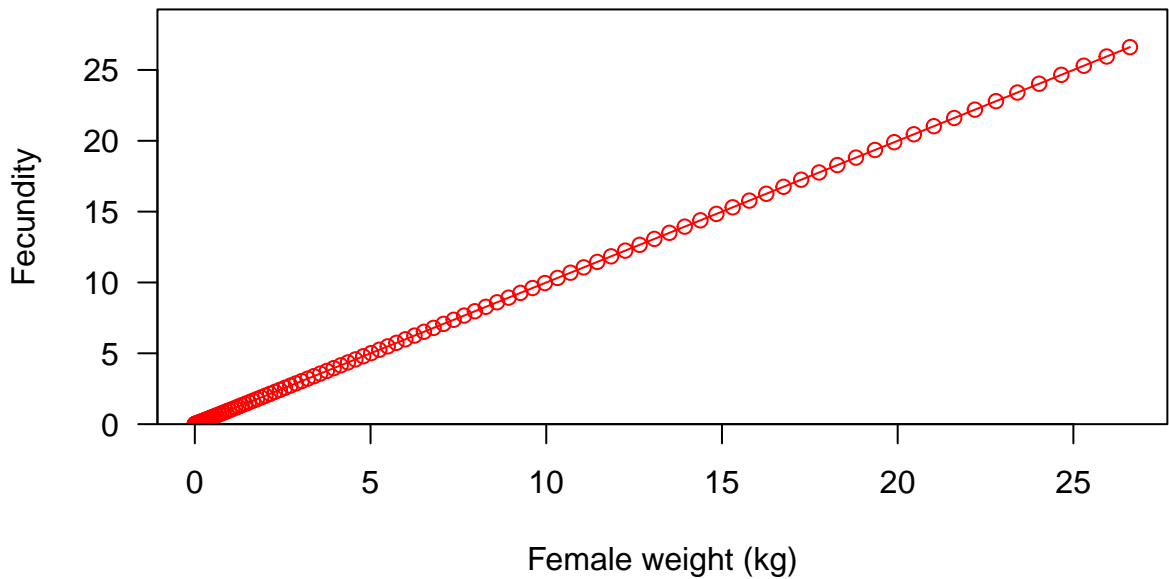




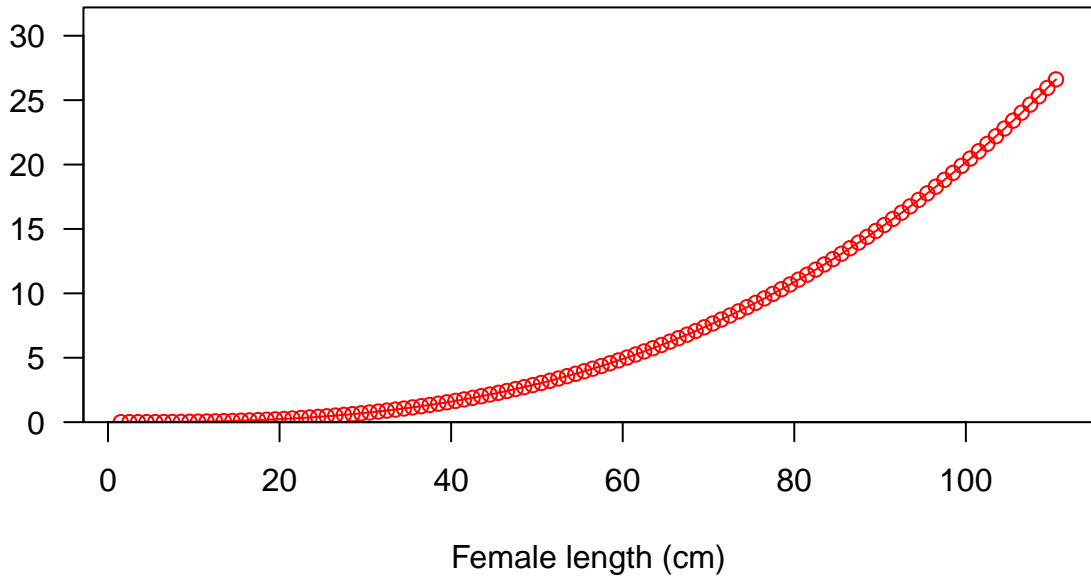




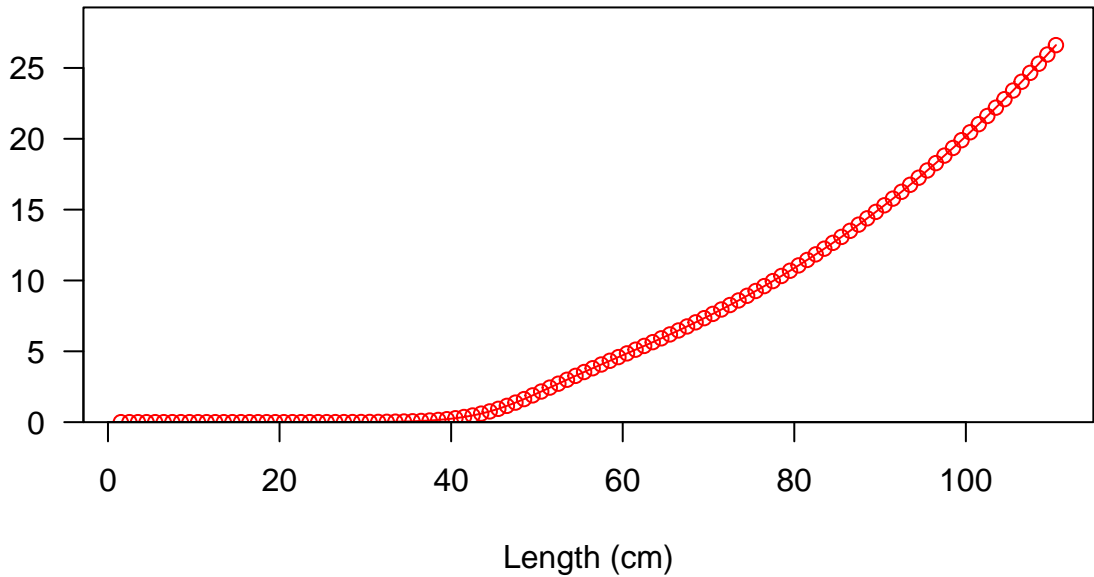




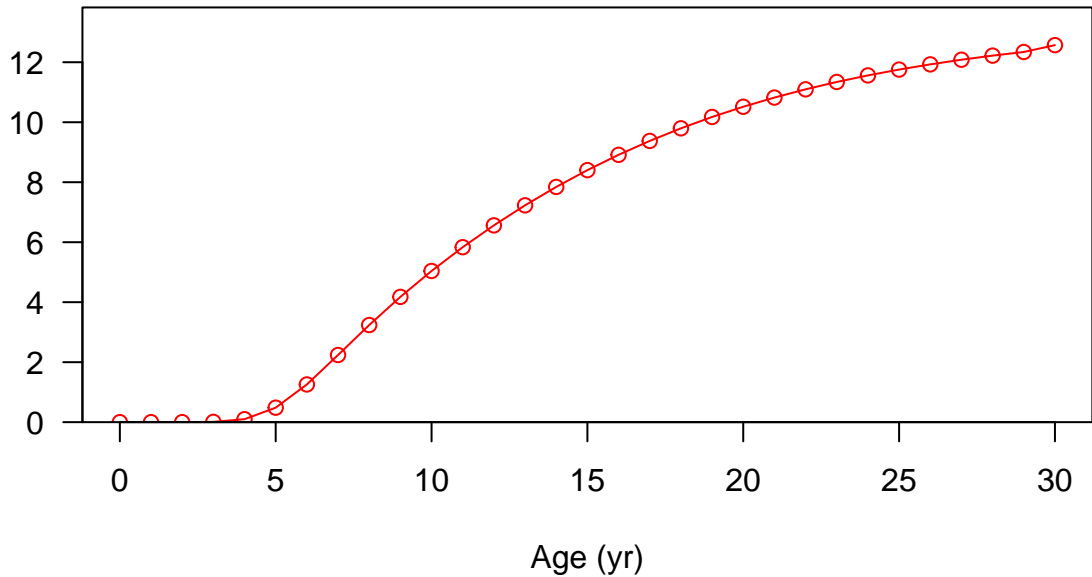
Fecundity



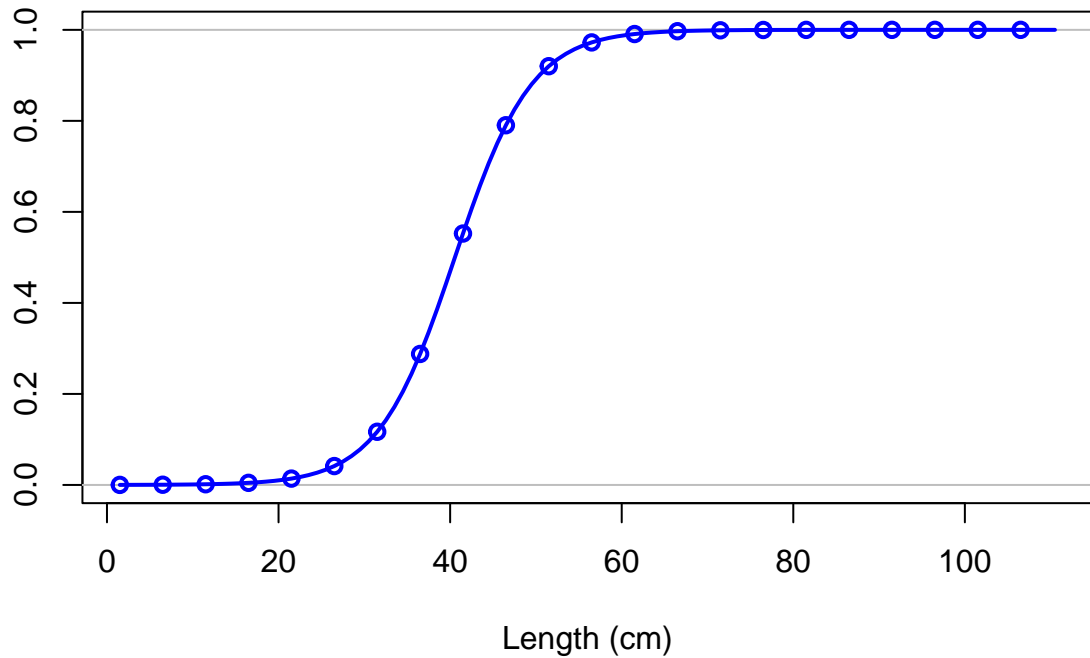
Spawning output



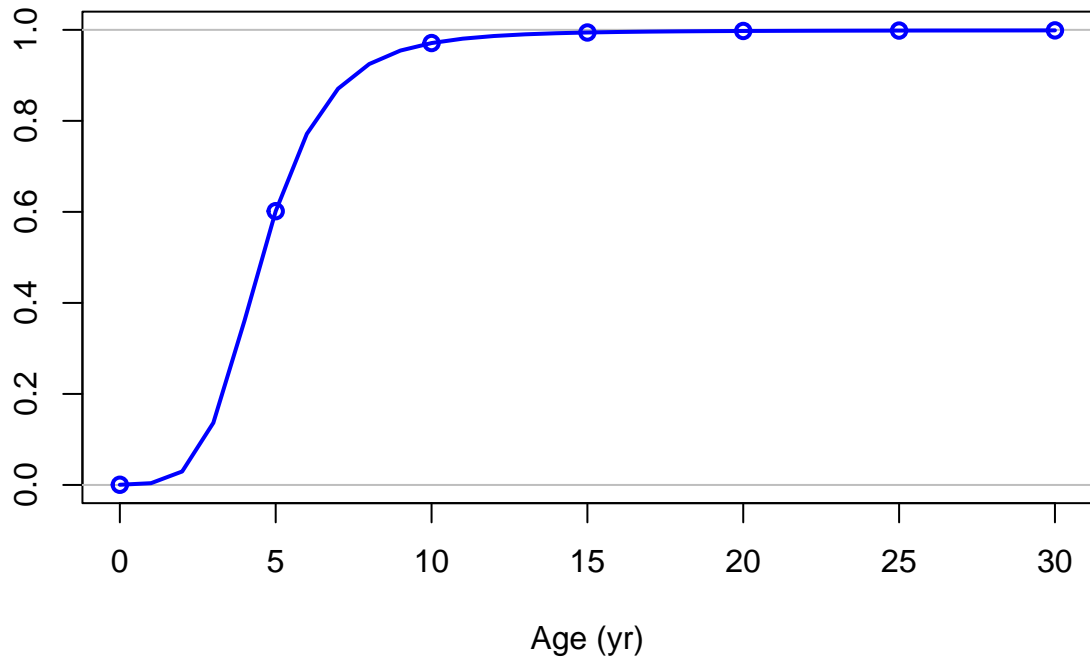
Spawning output



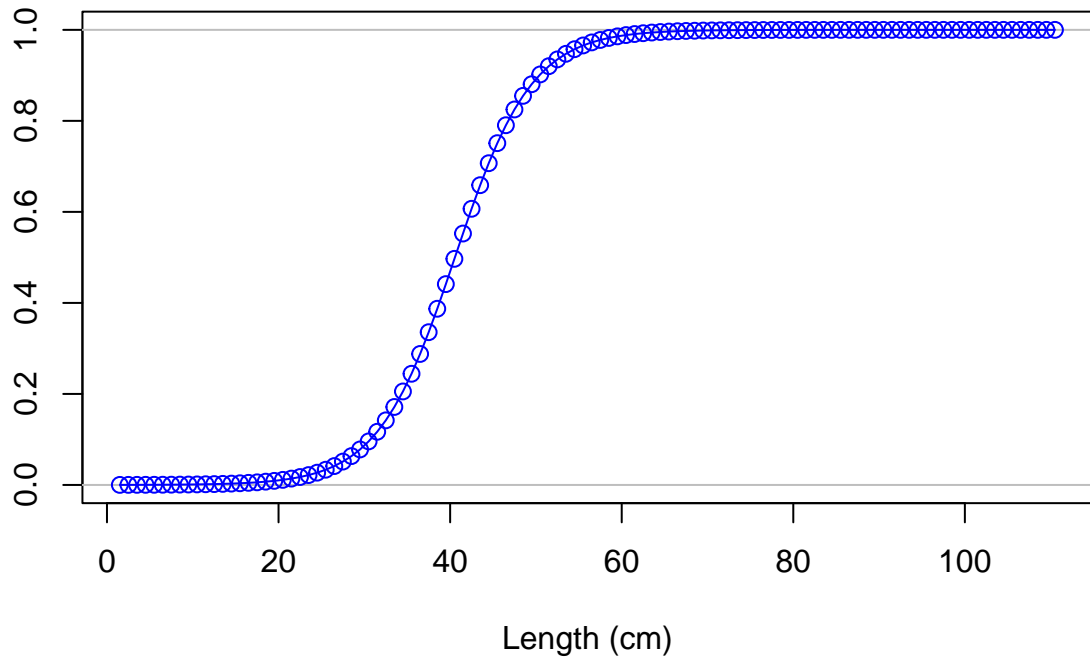
Selectivity



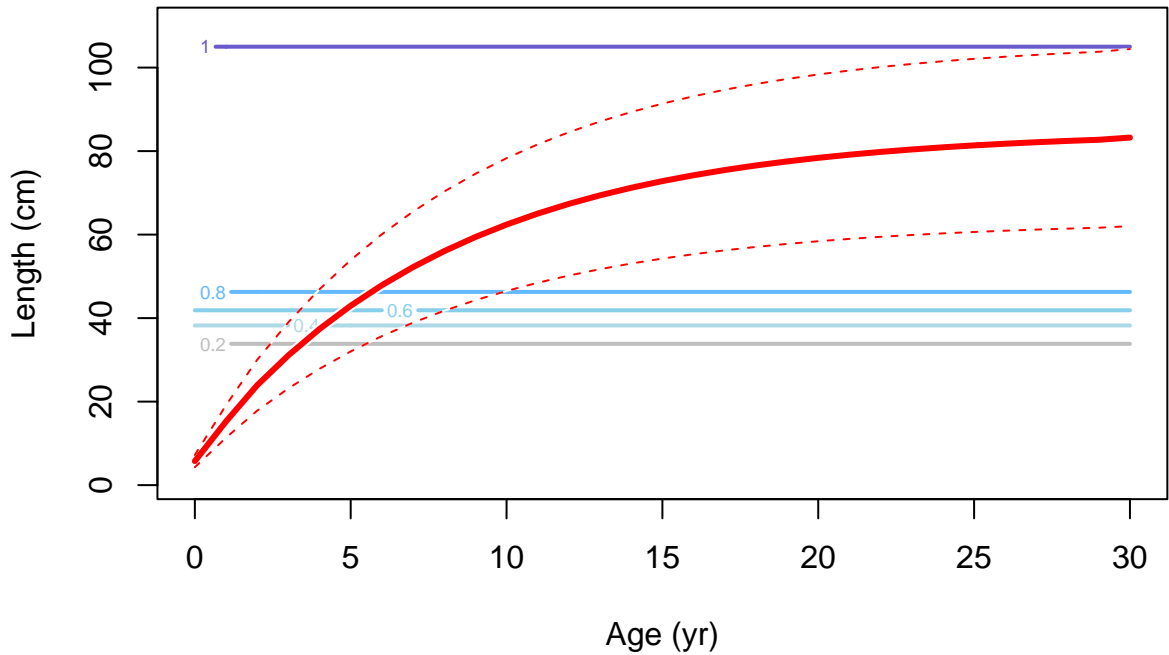
Selectivity

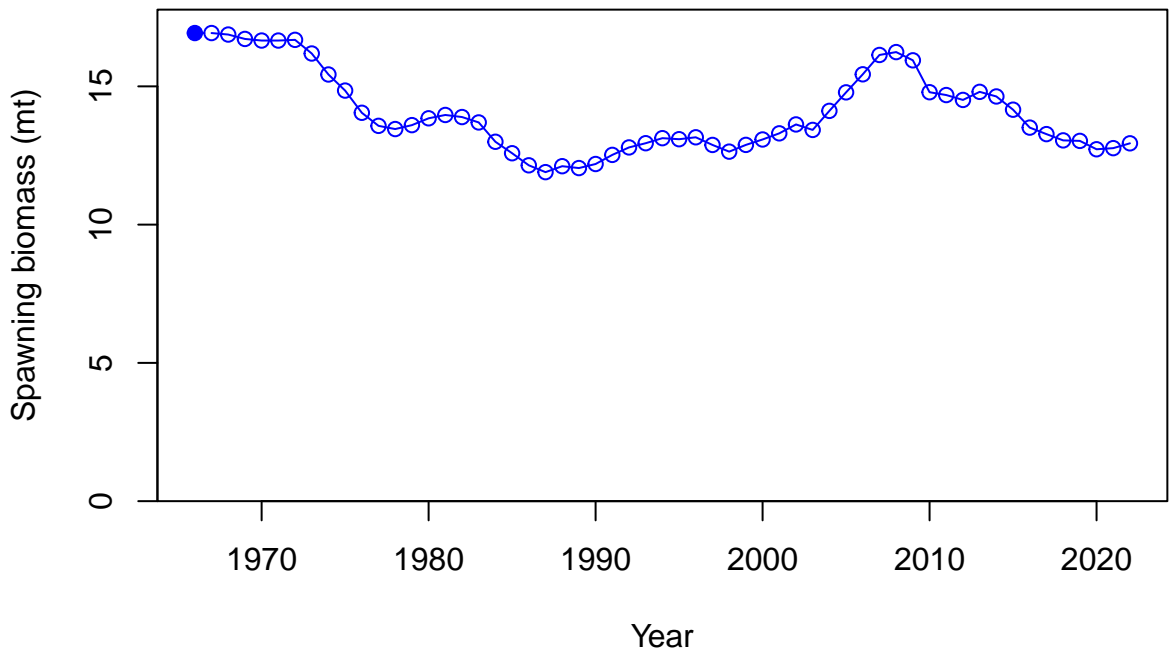


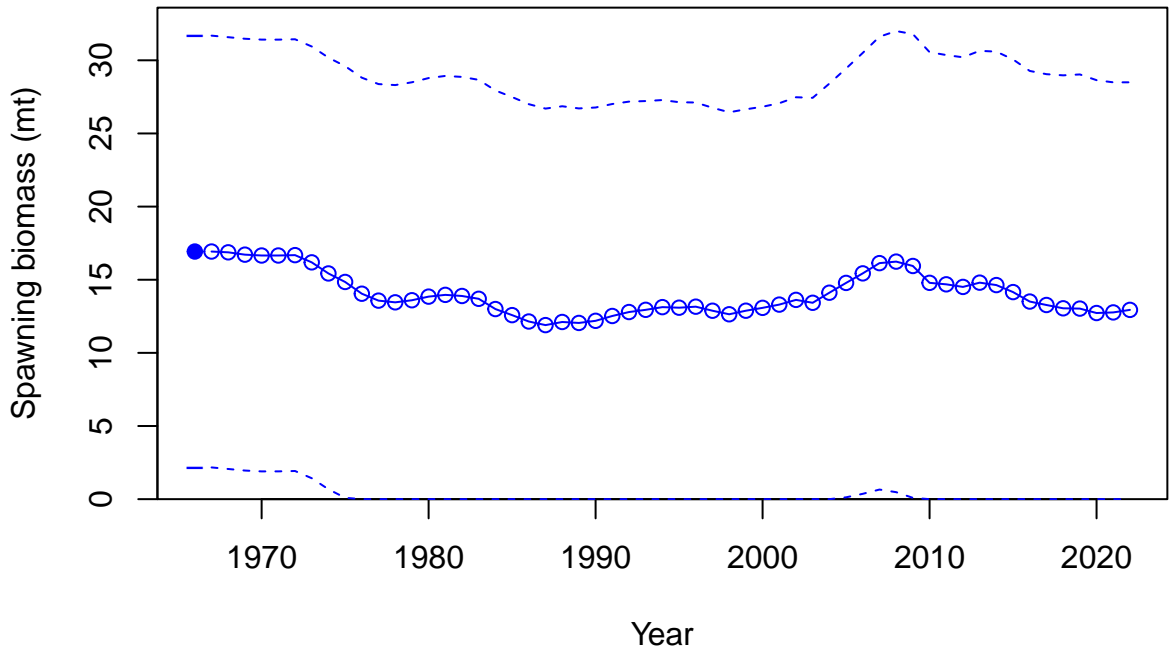
Selectivity



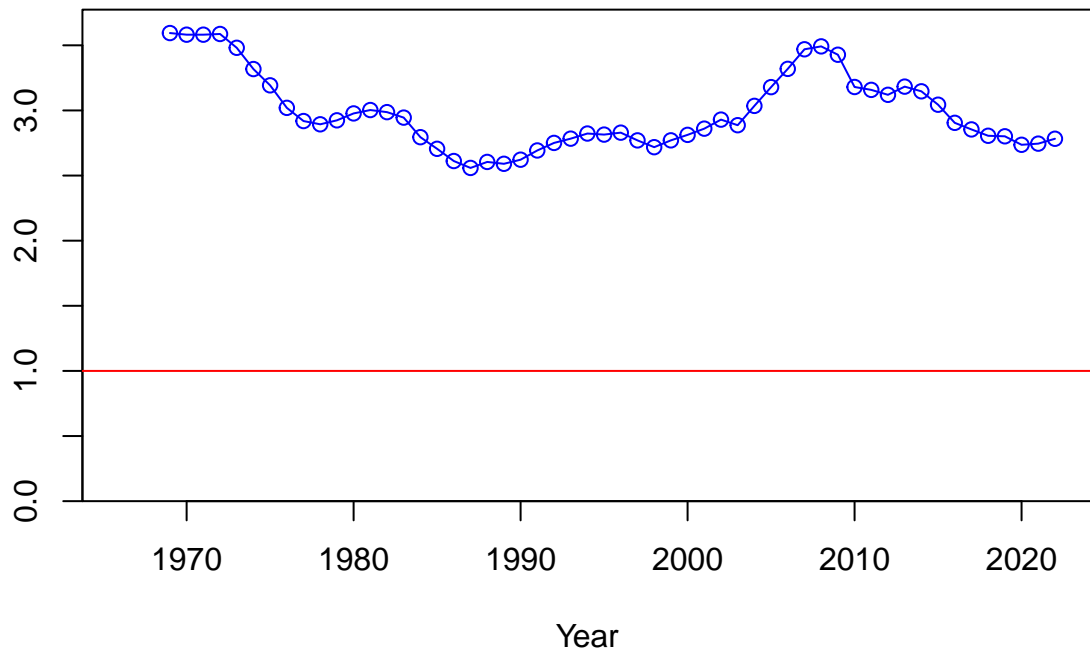




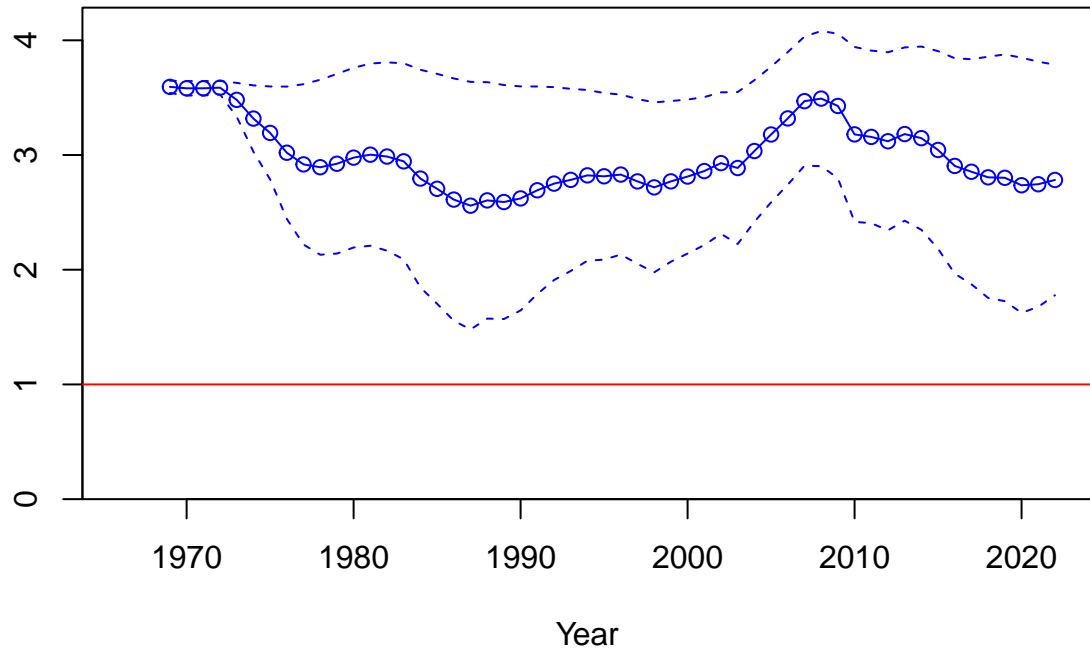


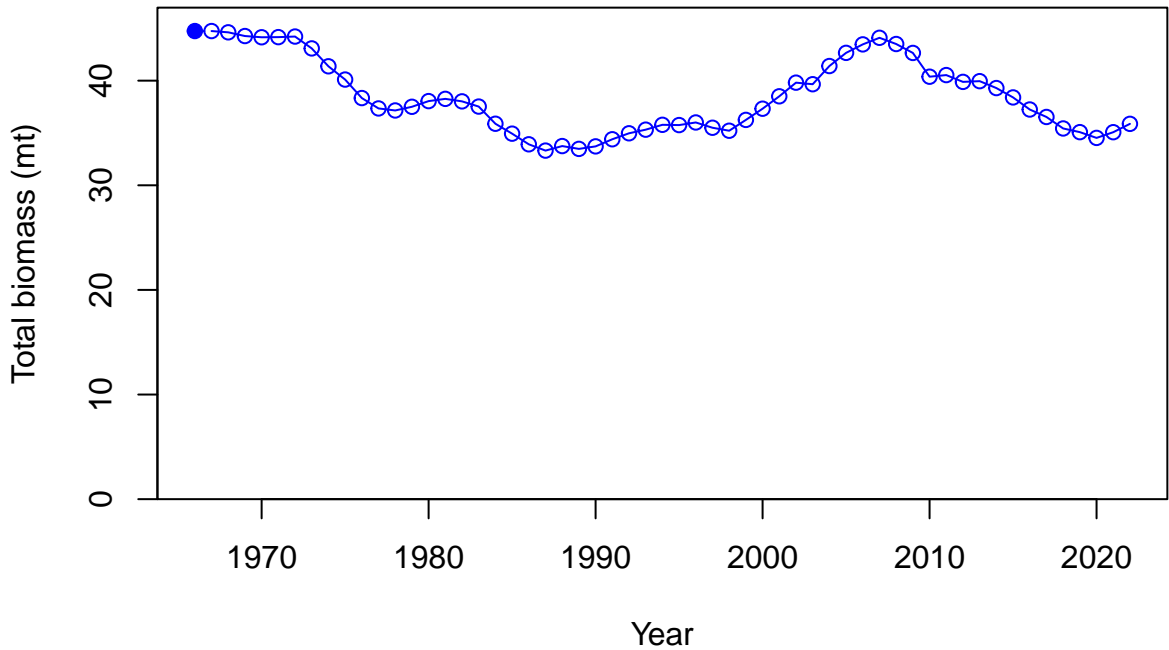


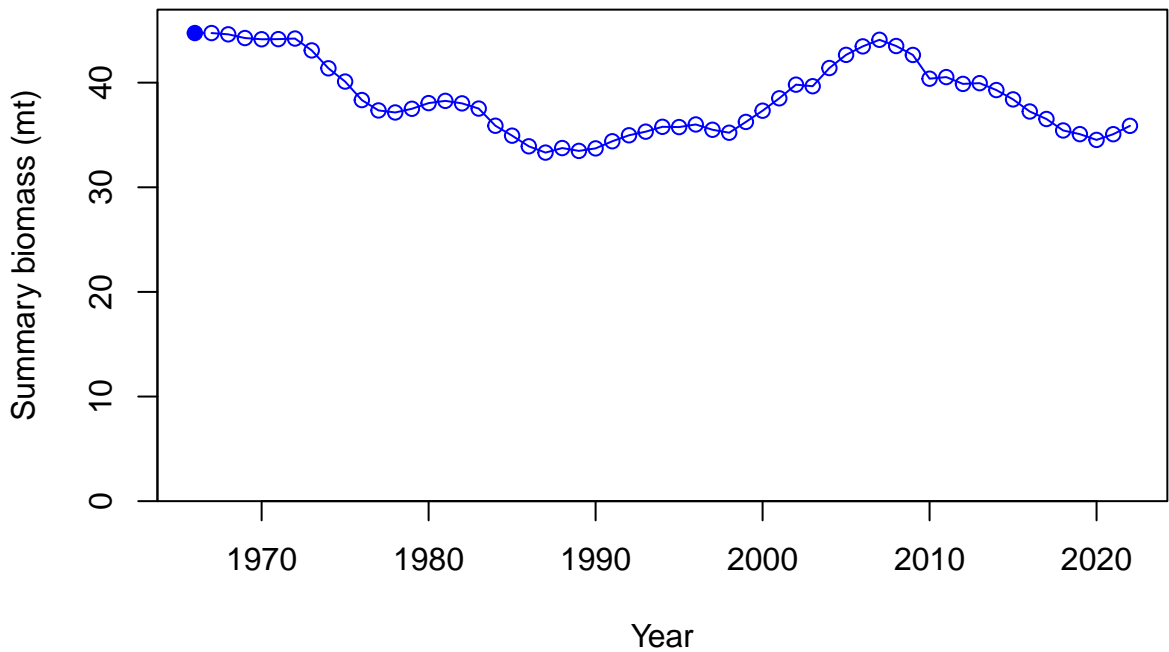
Relative spawning biomass:  $B/B_{MSY}$



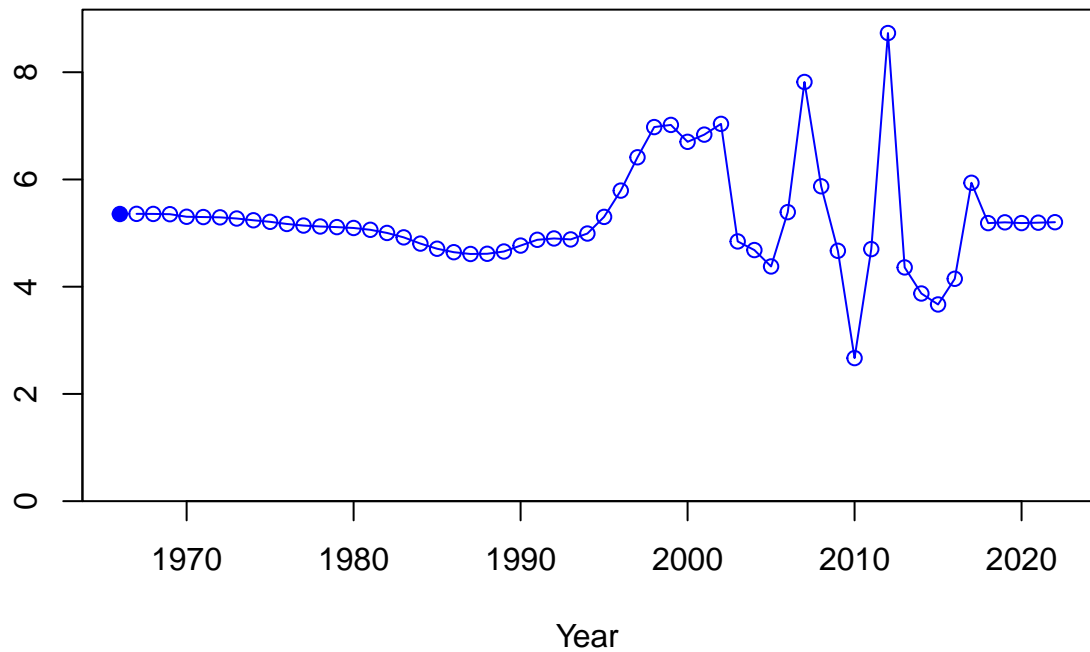
Relative spawning biomass:  $B/B_{MSY}$





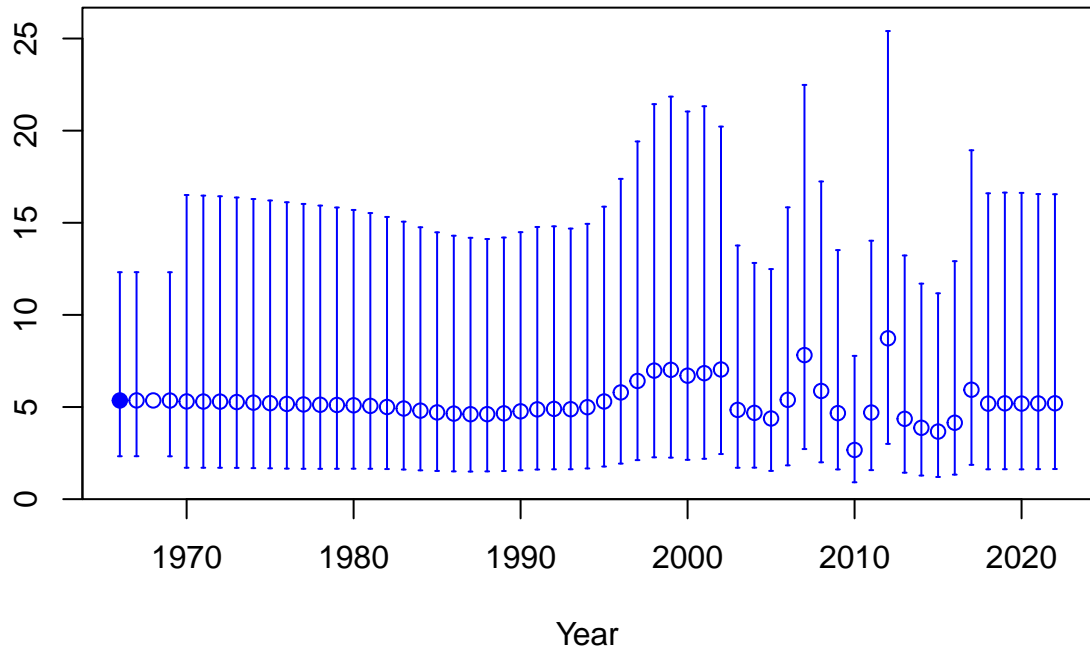


Age-0 recruits (1,000s)

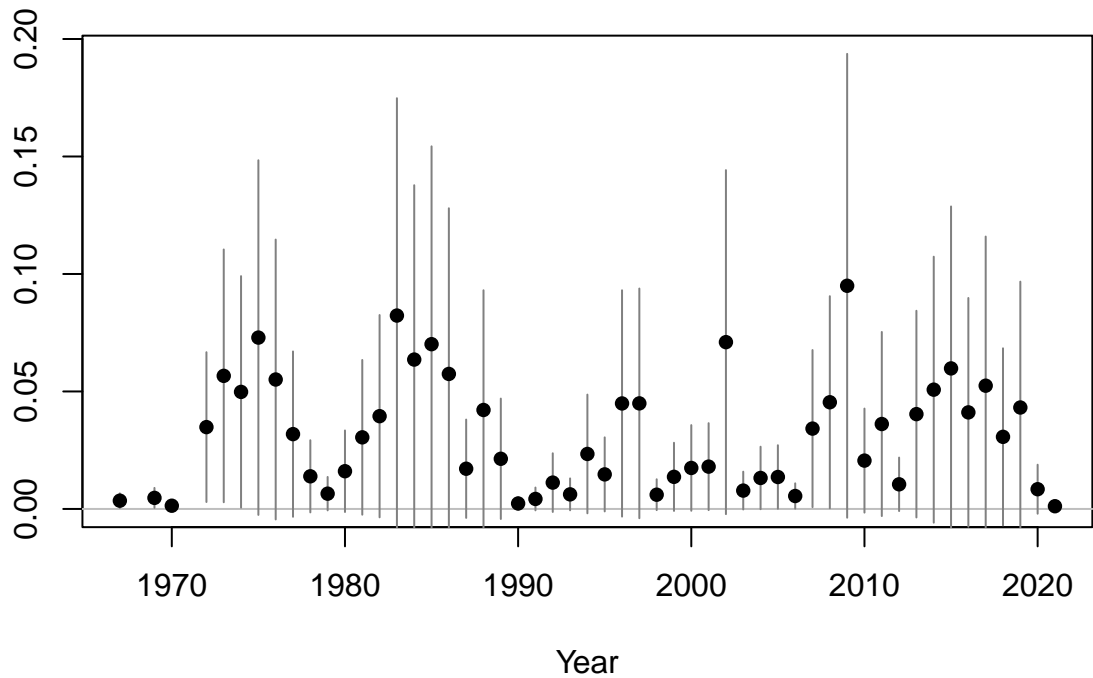


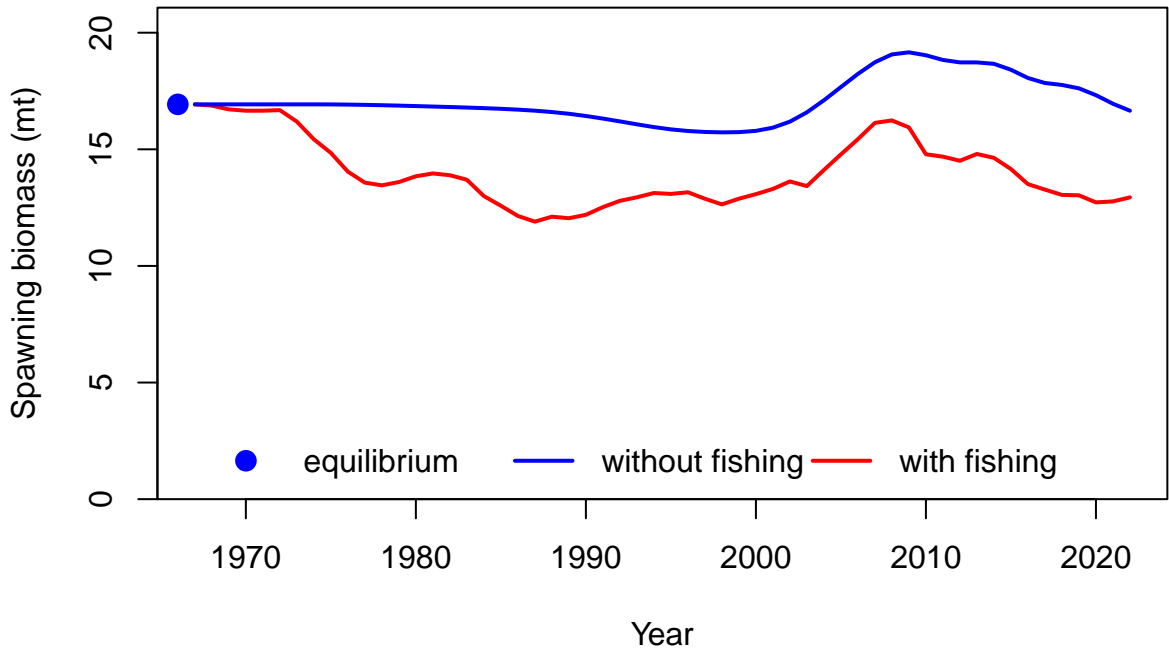


Age-0 recruits (1,000s)

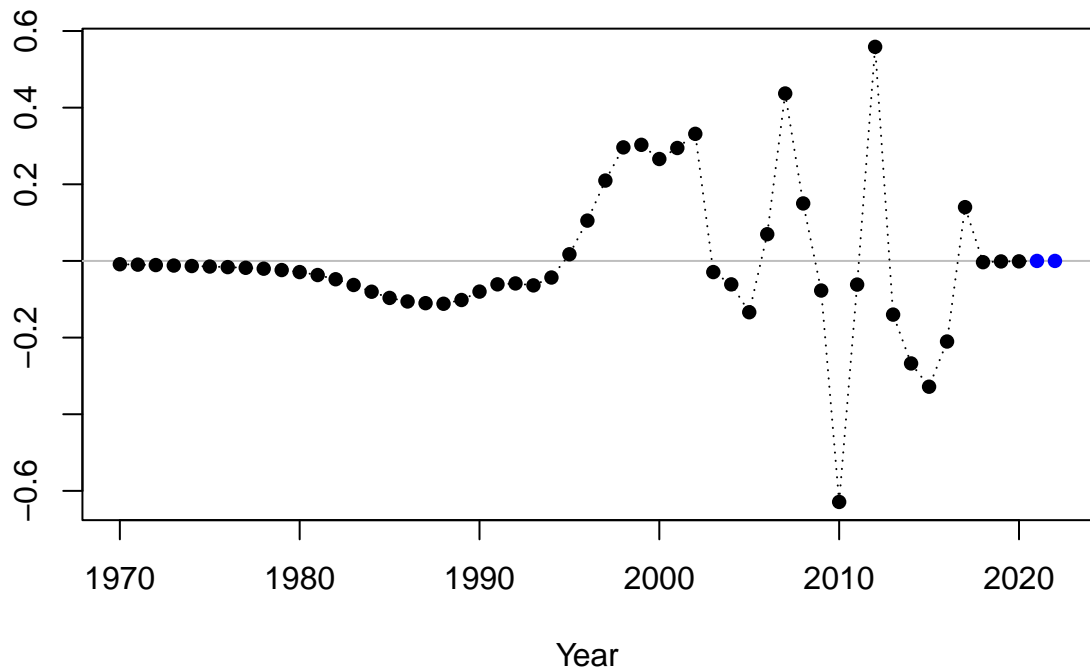


Summary Fishing Mortality





Log recruitment deviation



Log recruitment deviation

1.0  
0.5  
0.0  
-0.5  
-1.0

1970

1980

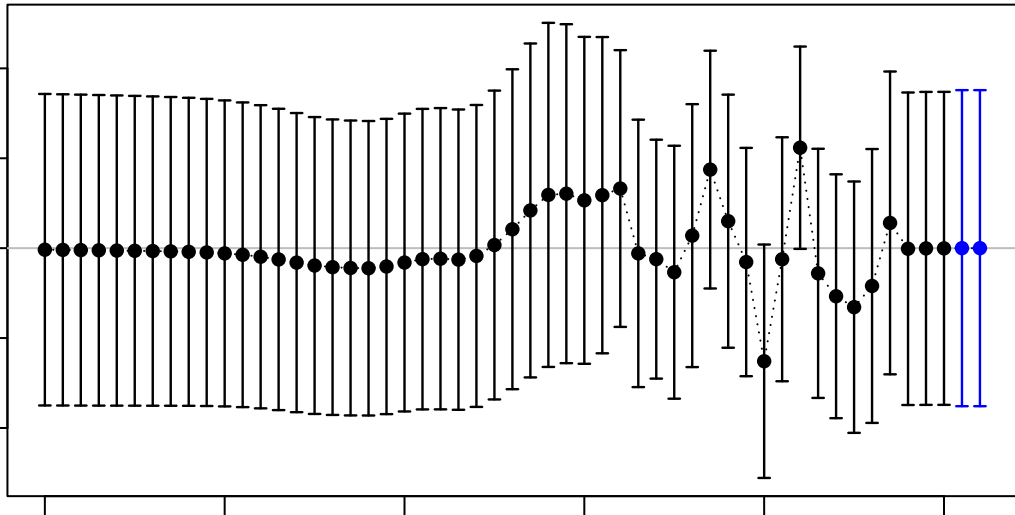
1990

2000

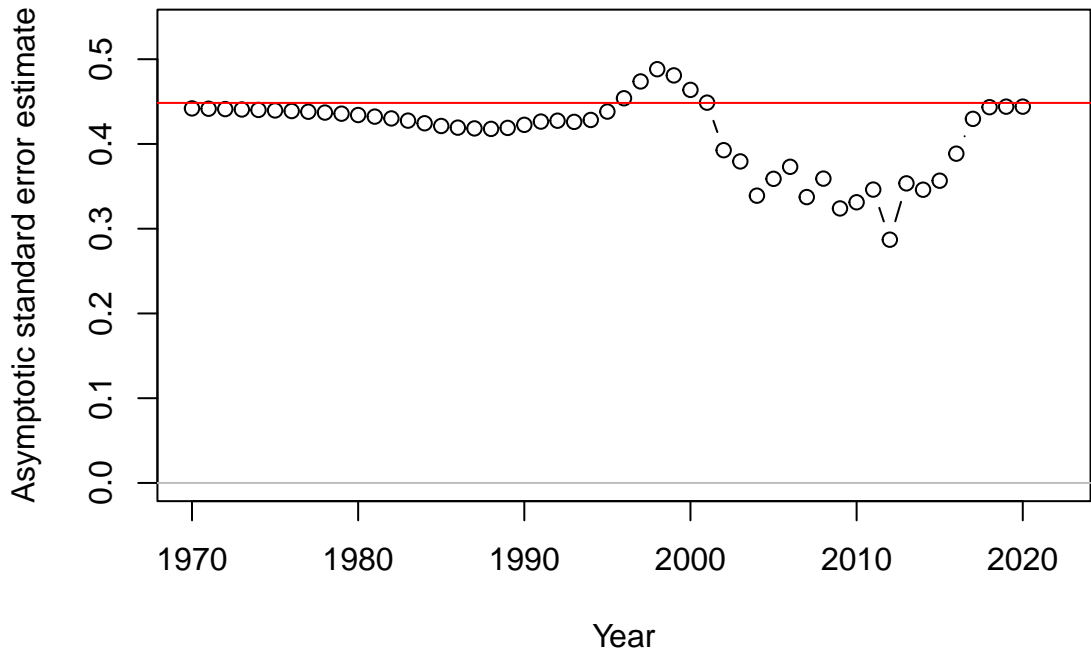
2010

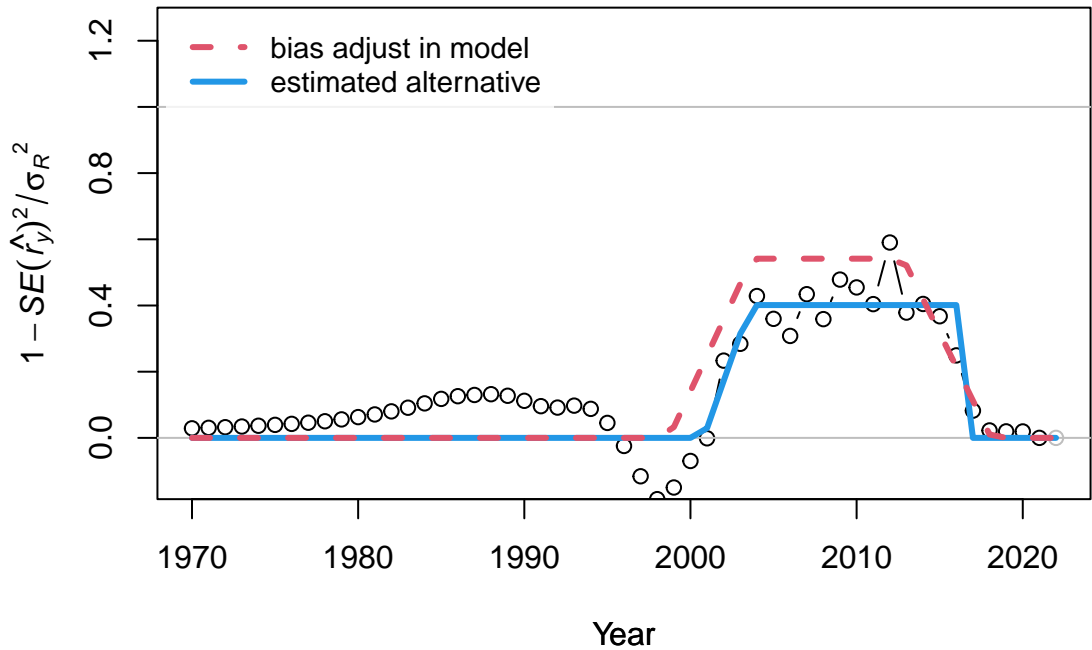
2020

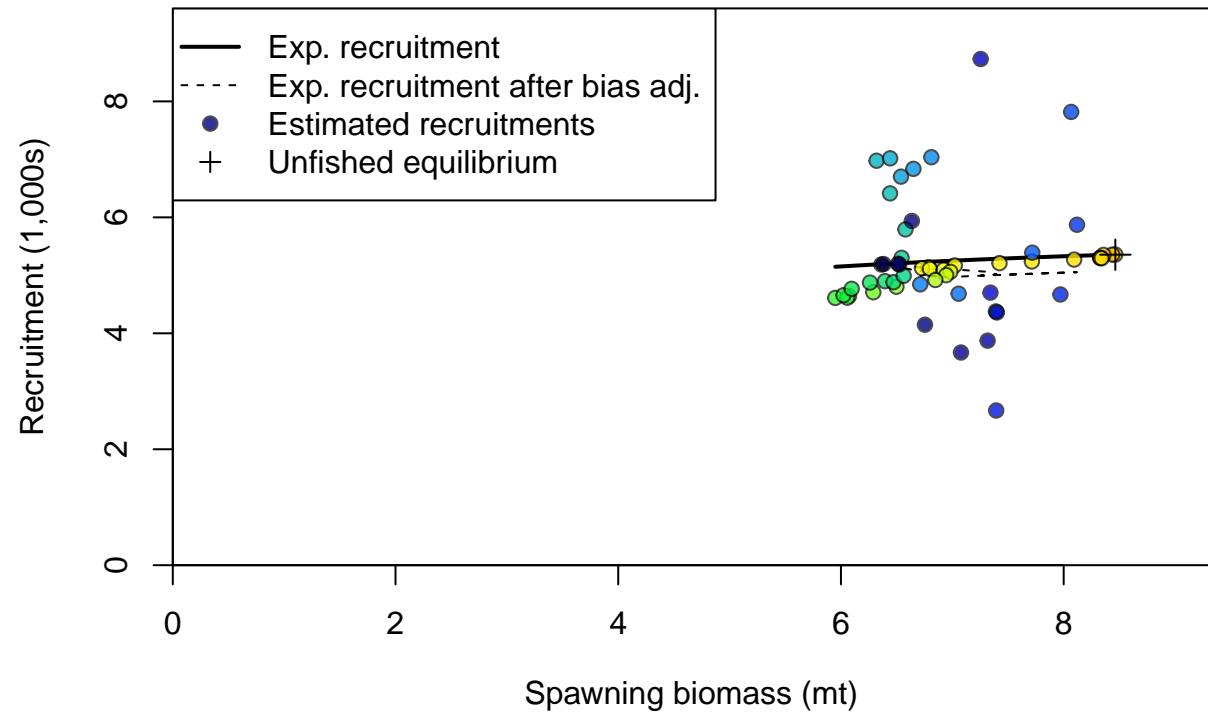
Year



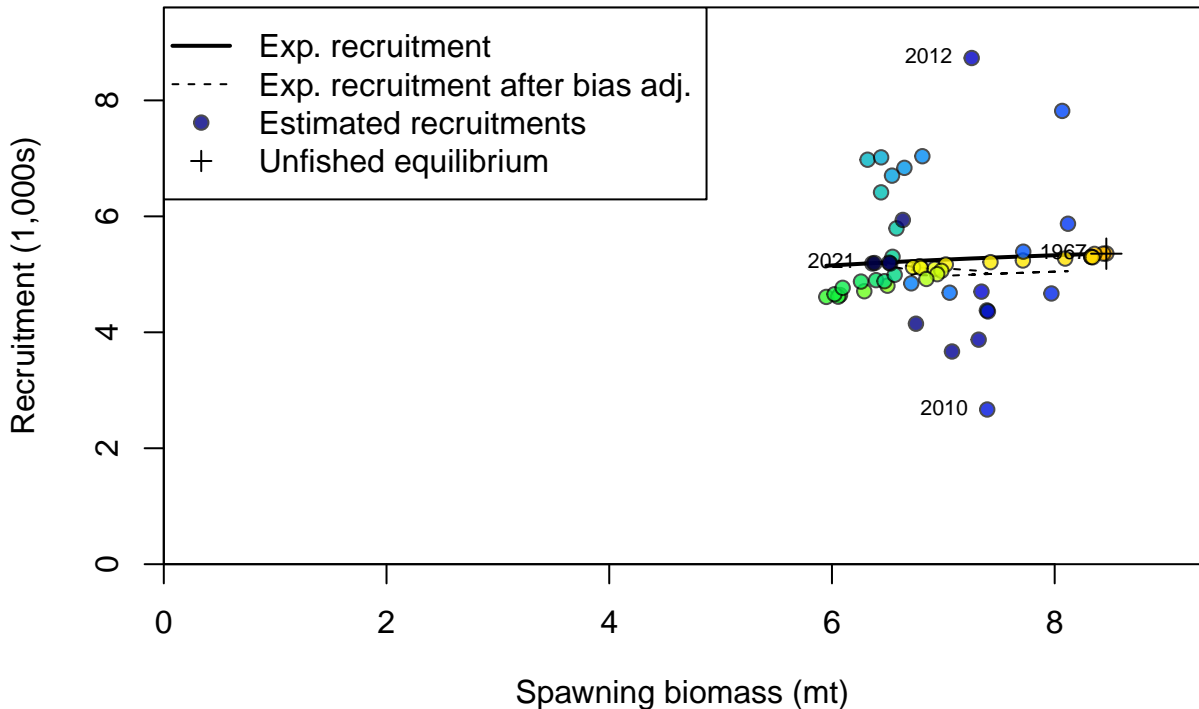
## Recruitment deviation variance

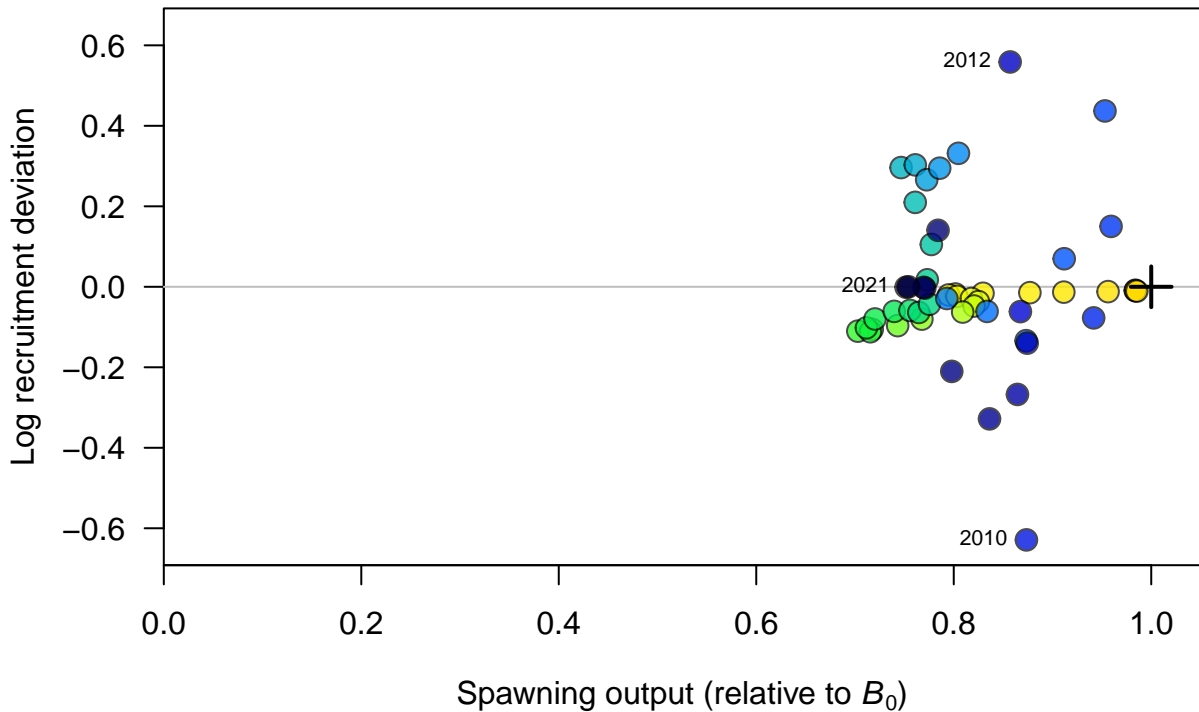


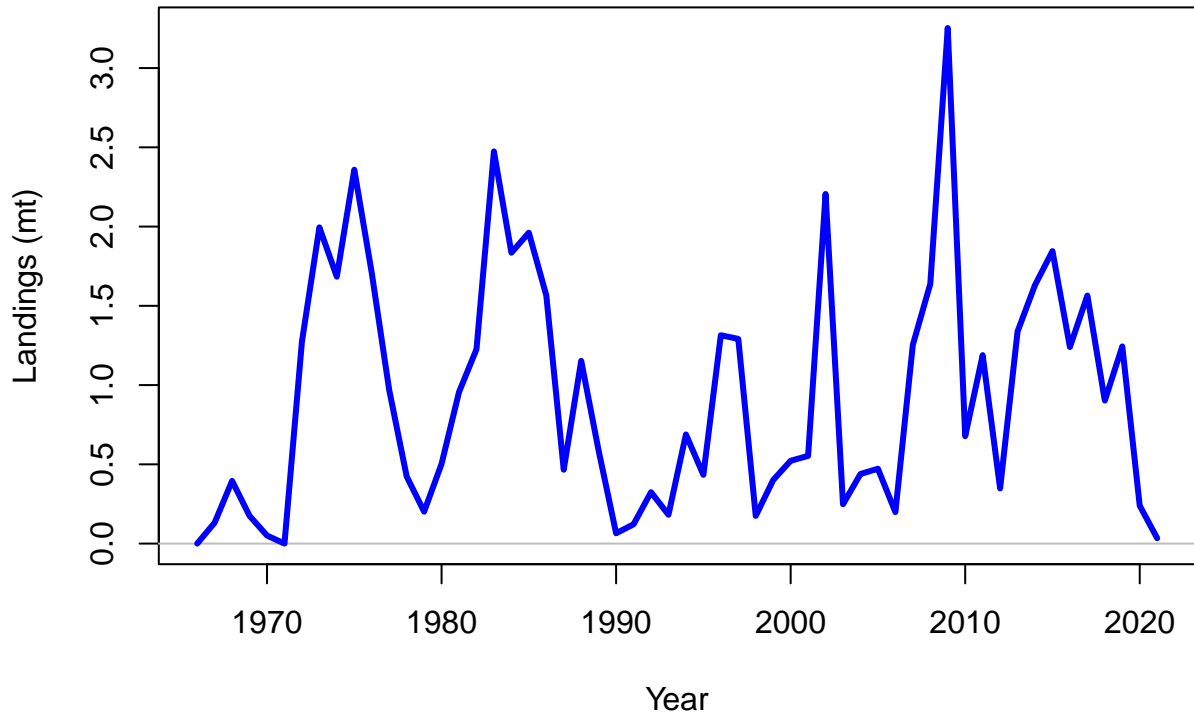


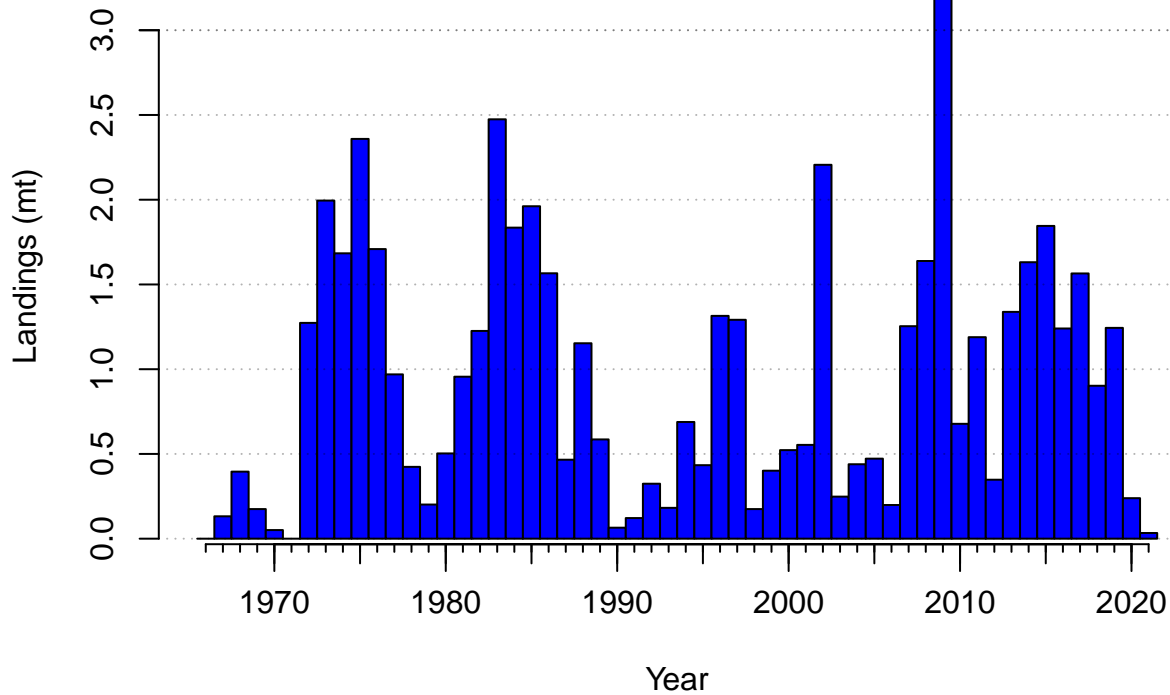


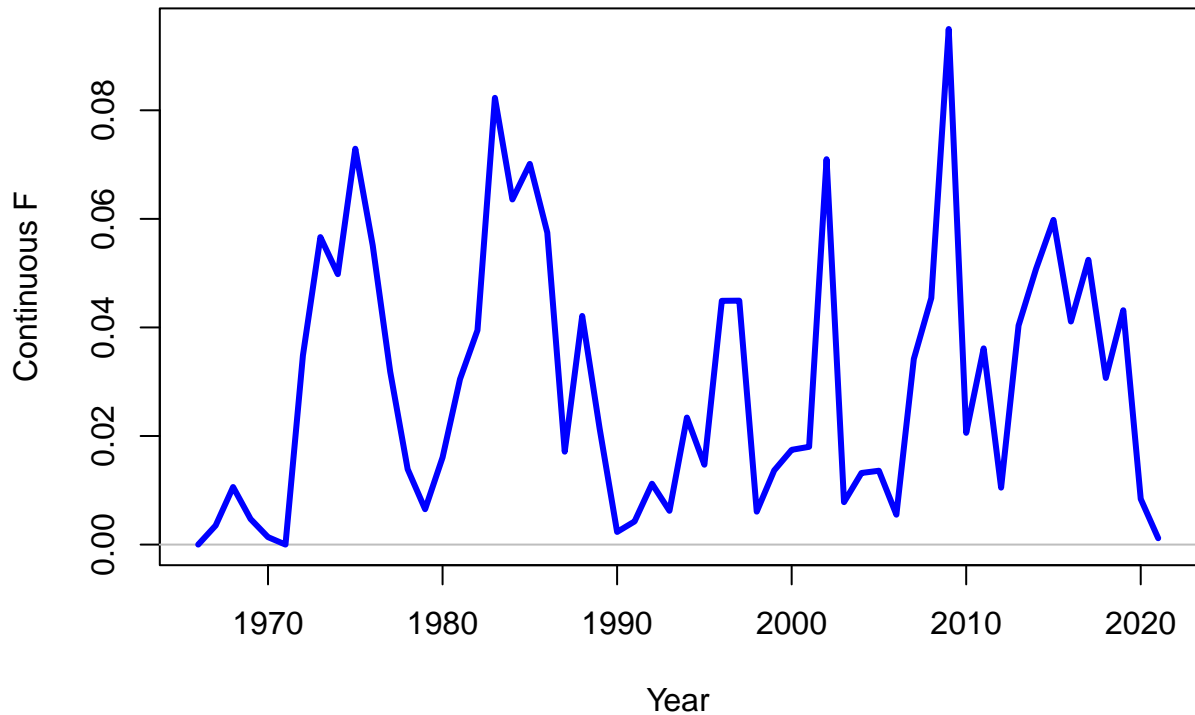




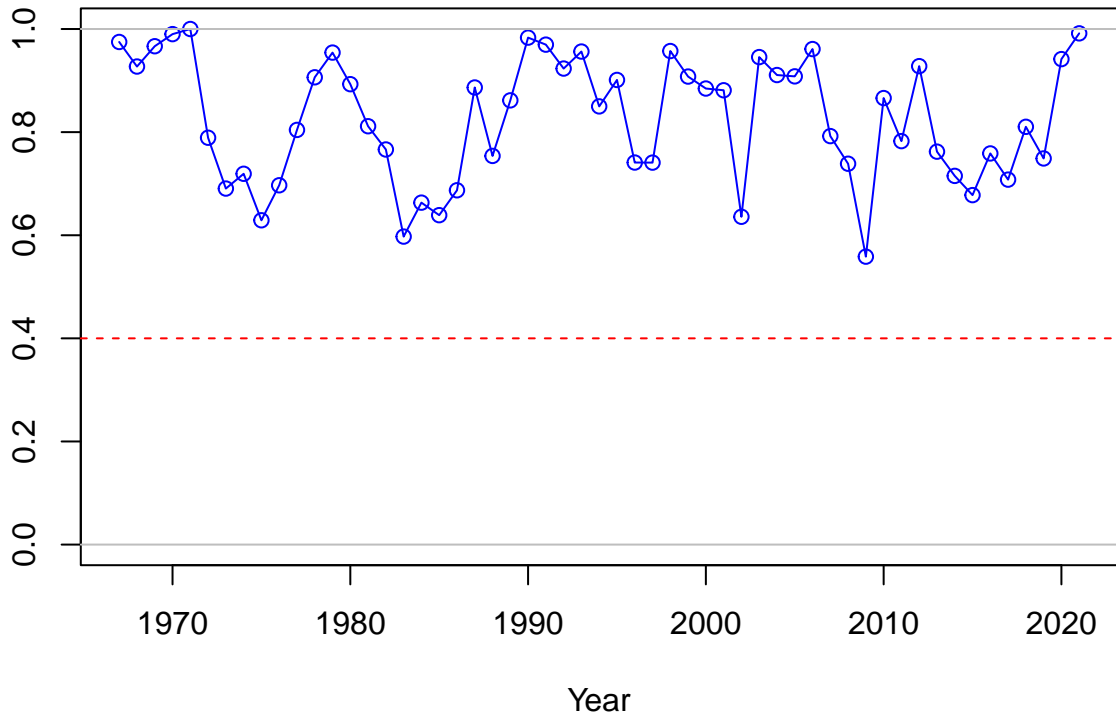




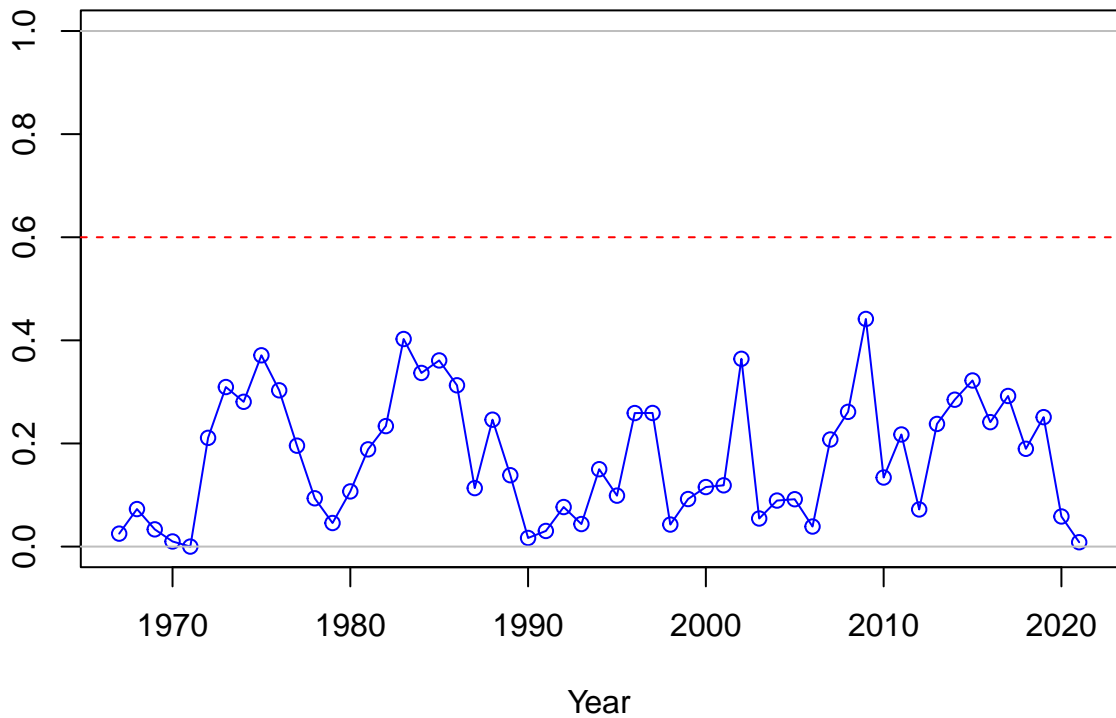




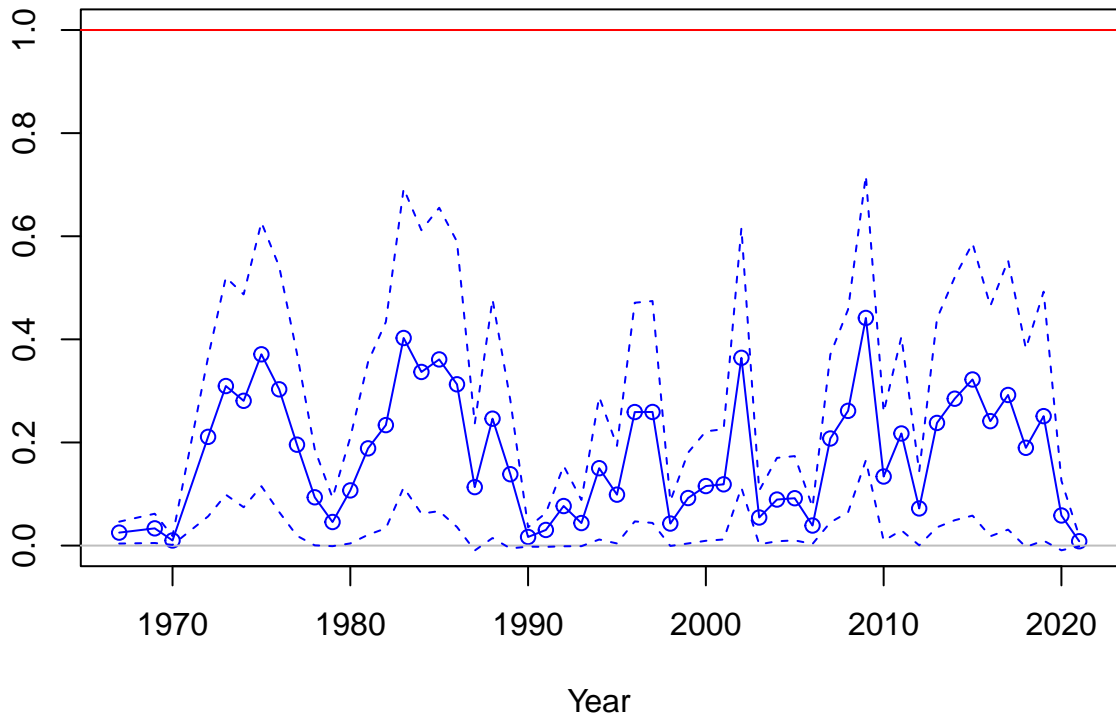
SPR



1-SPR

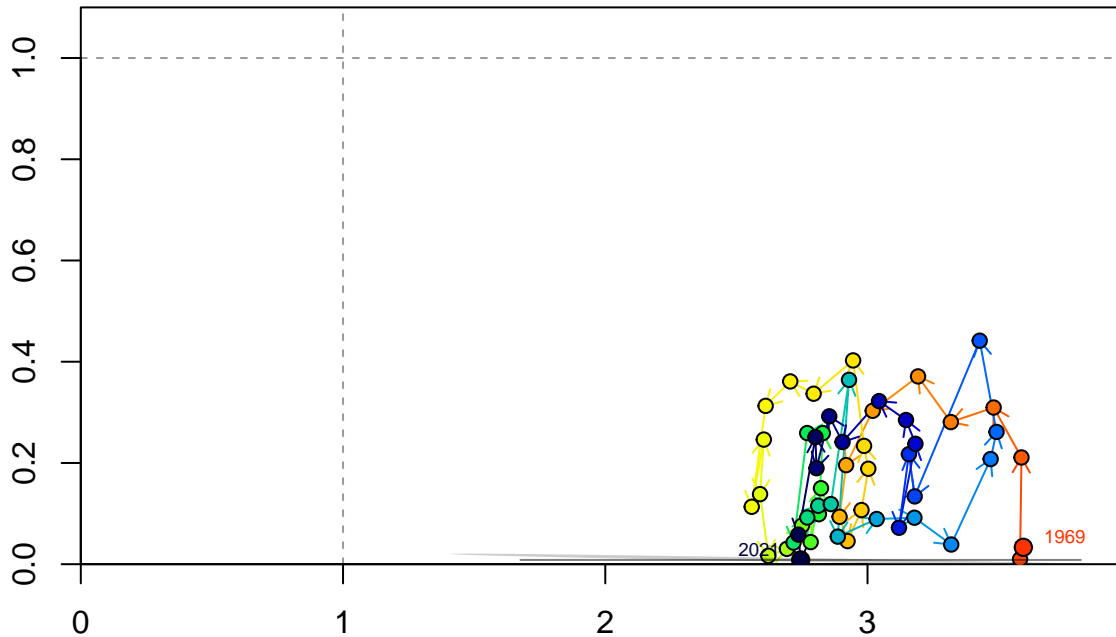


Fishing intensity: 1-SPR



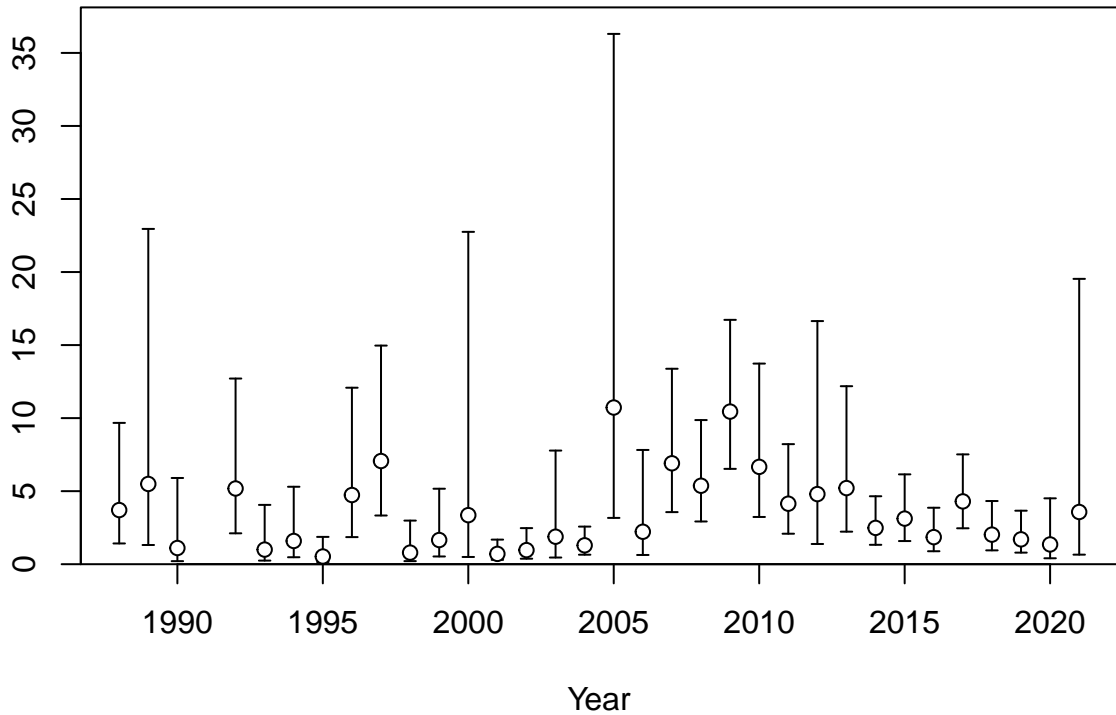


Fishing intensity: 1-SPR

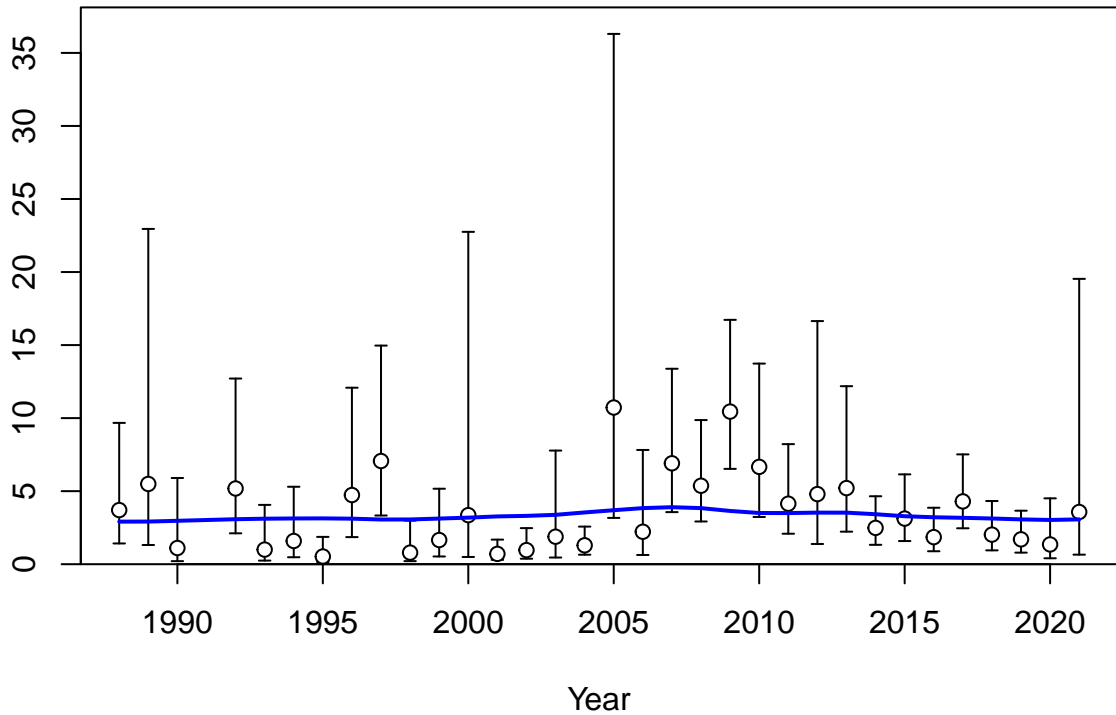


Relative spawning output:  $B/B_{MSY}$

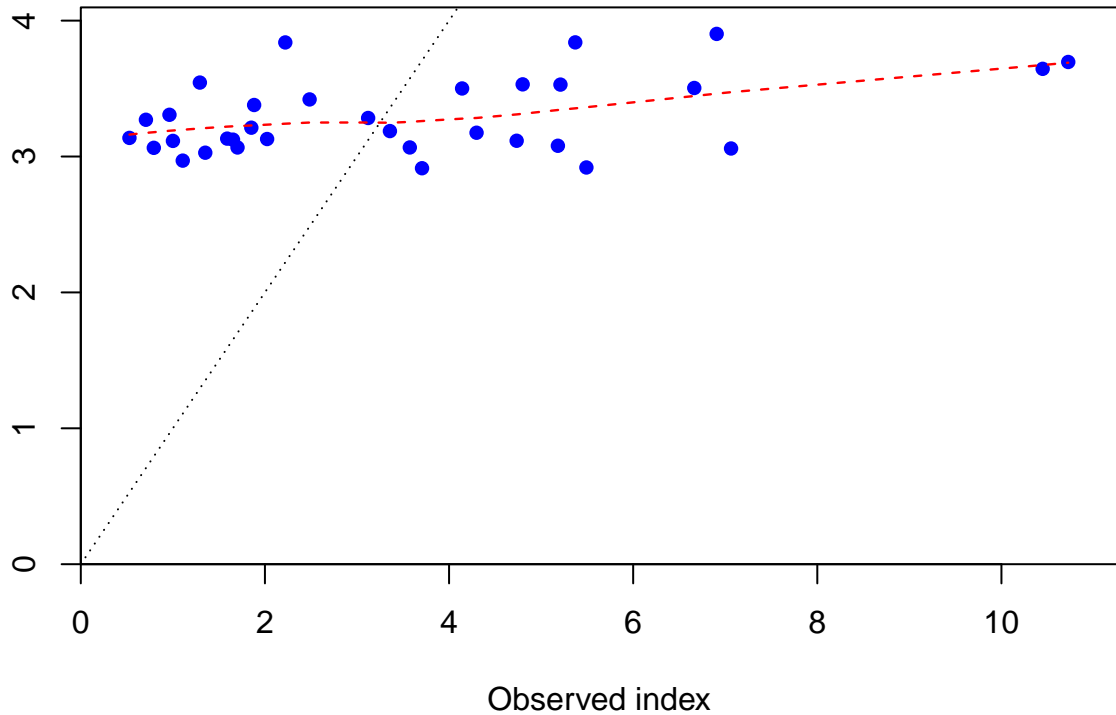
Index

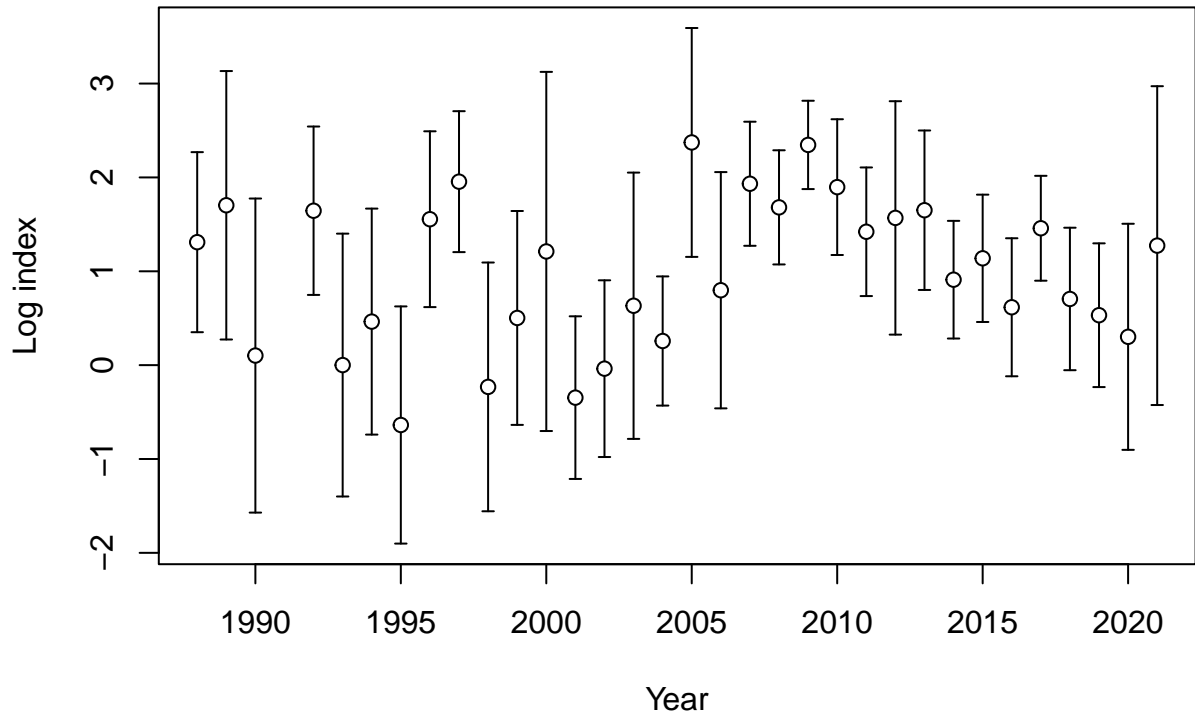


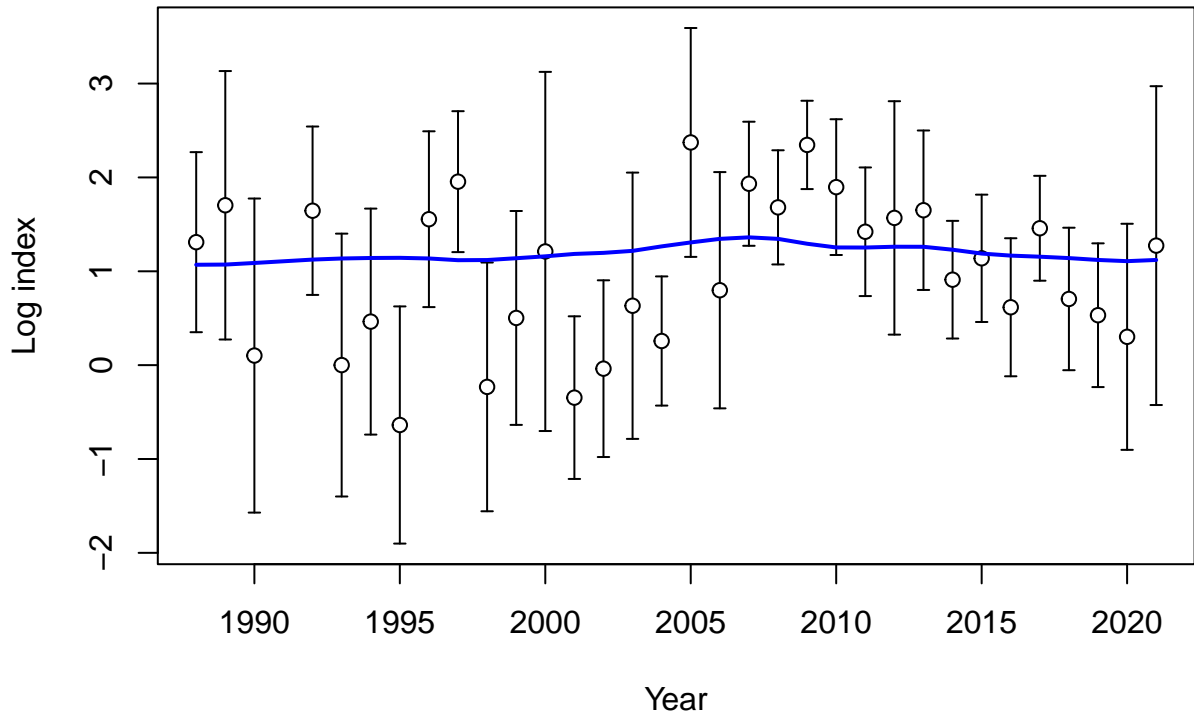
Index

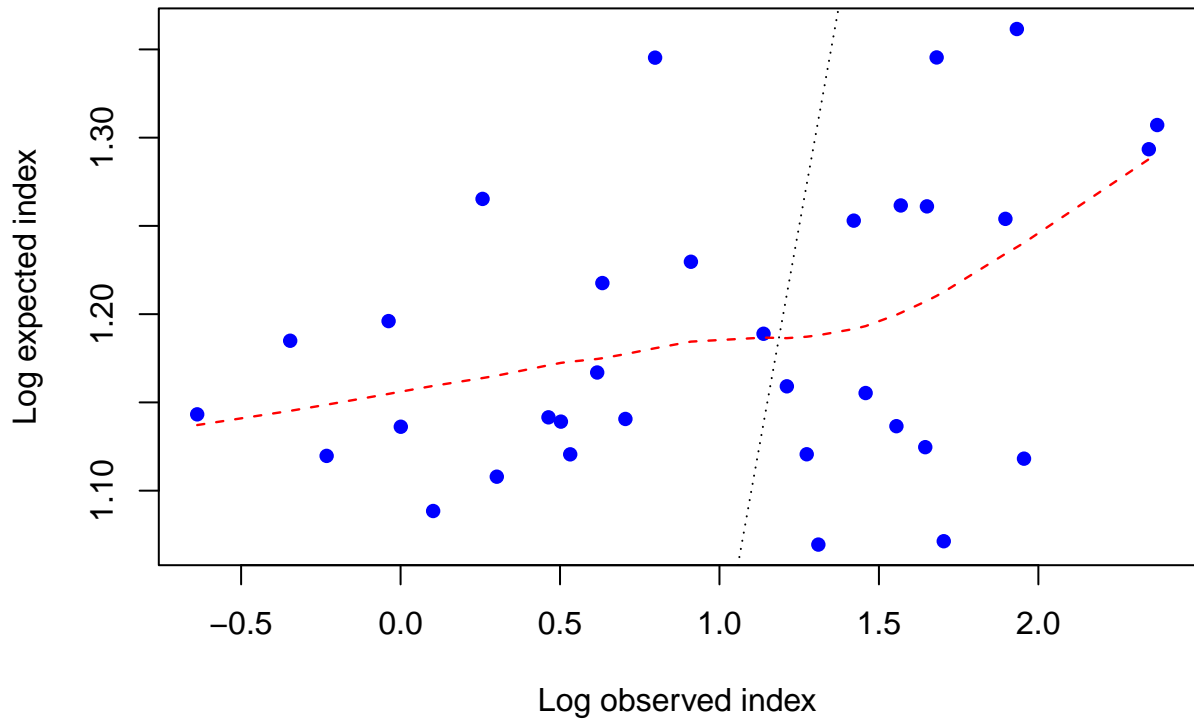


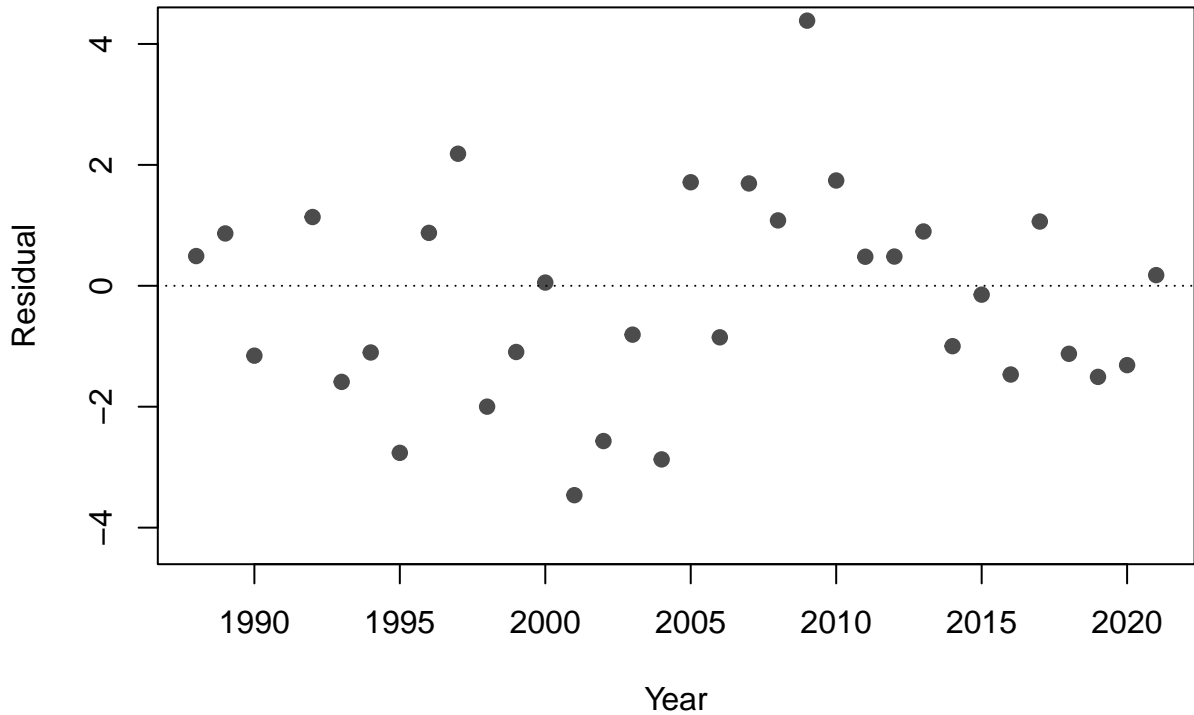
Expected index



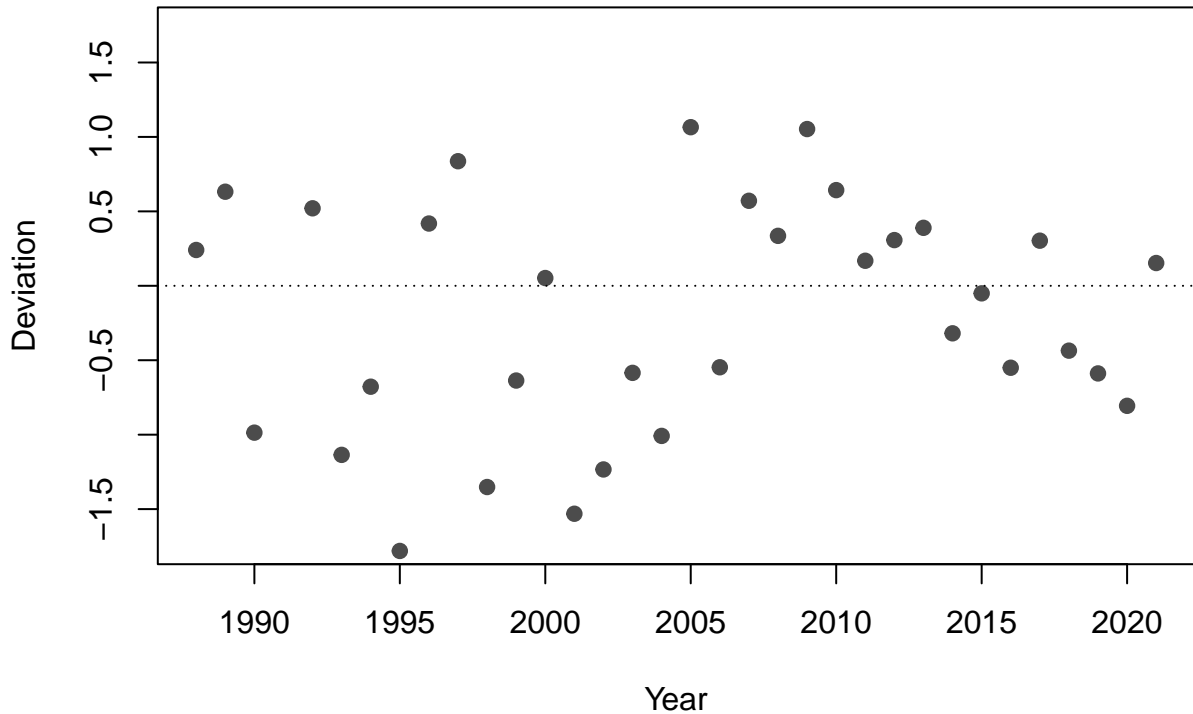


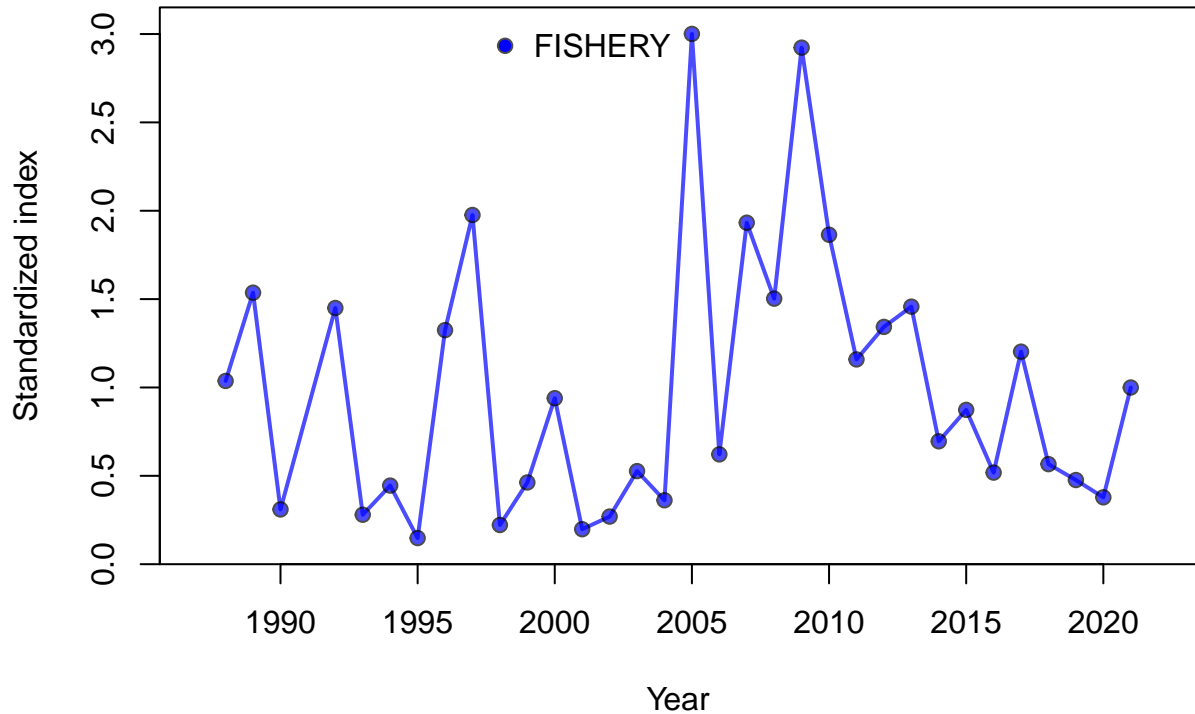


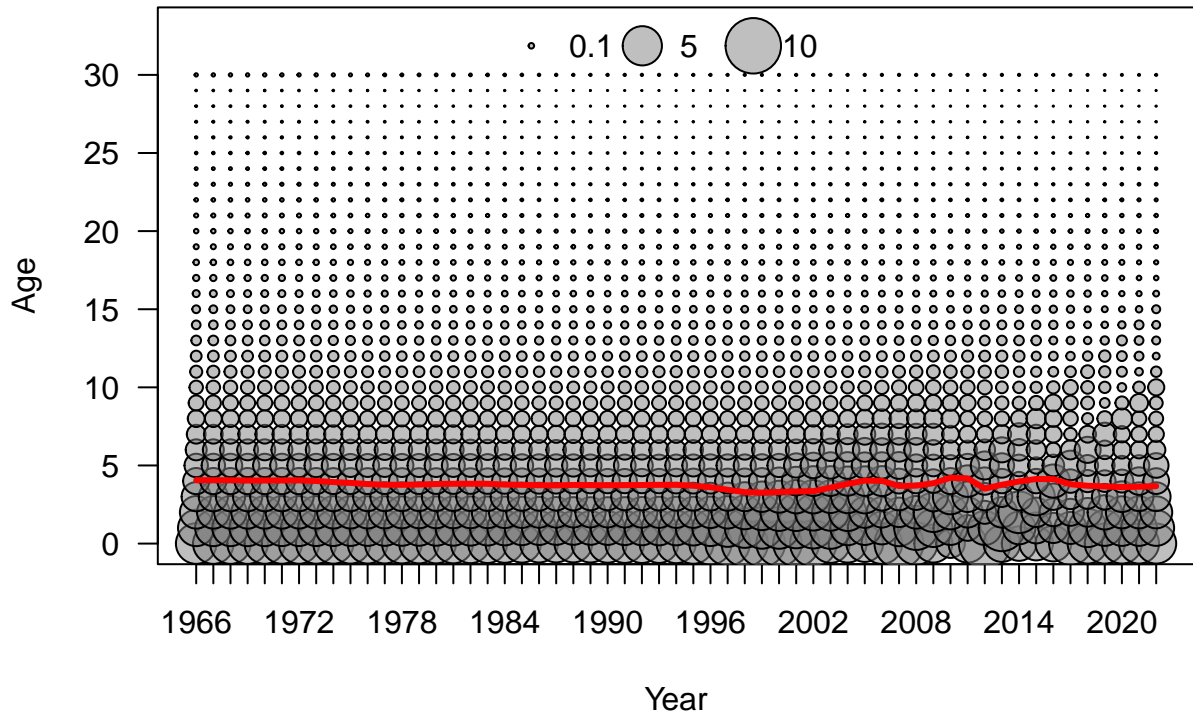


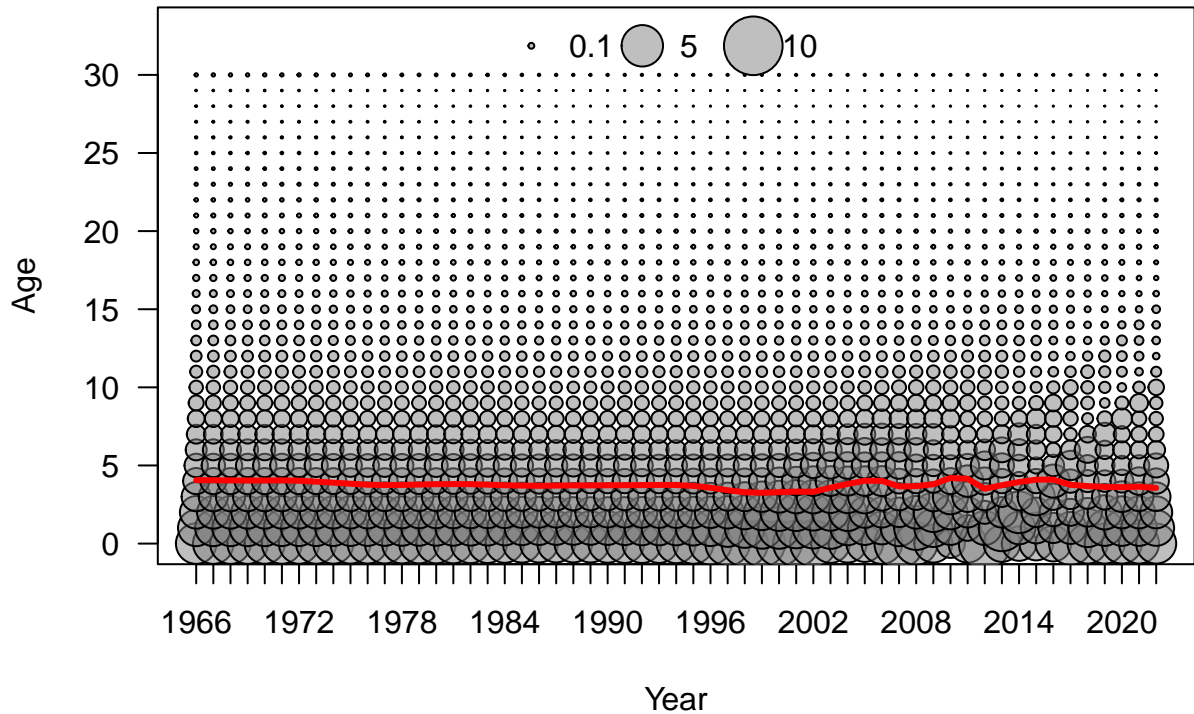


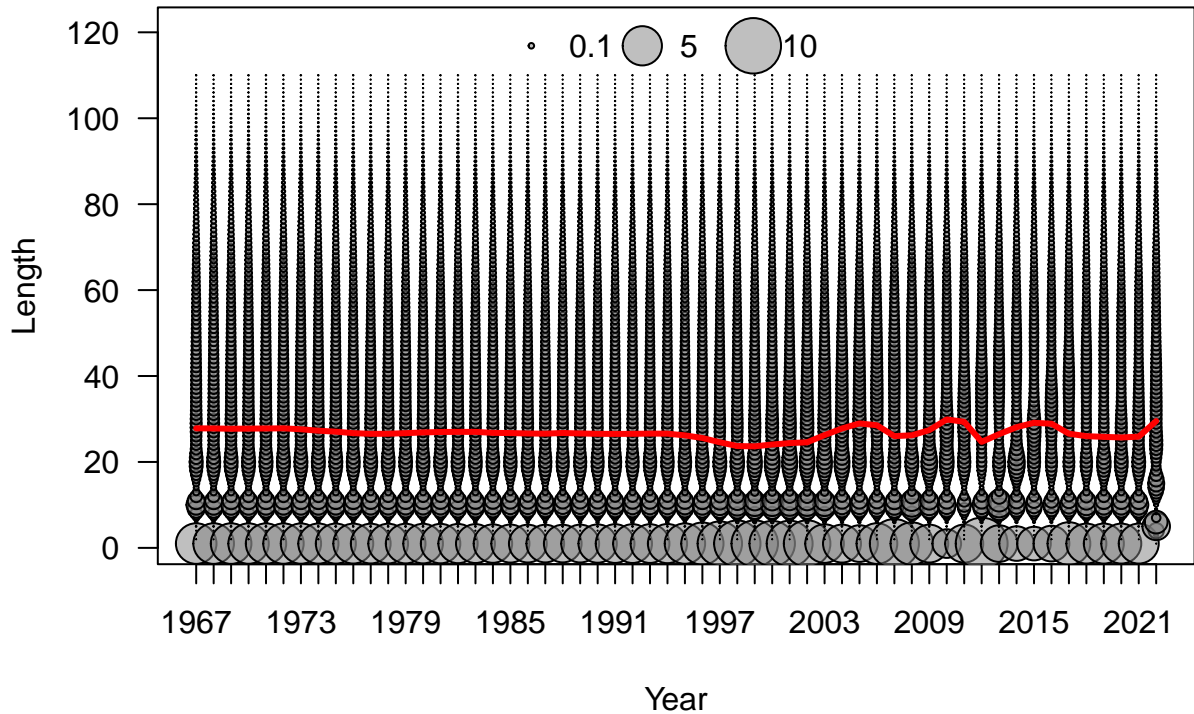


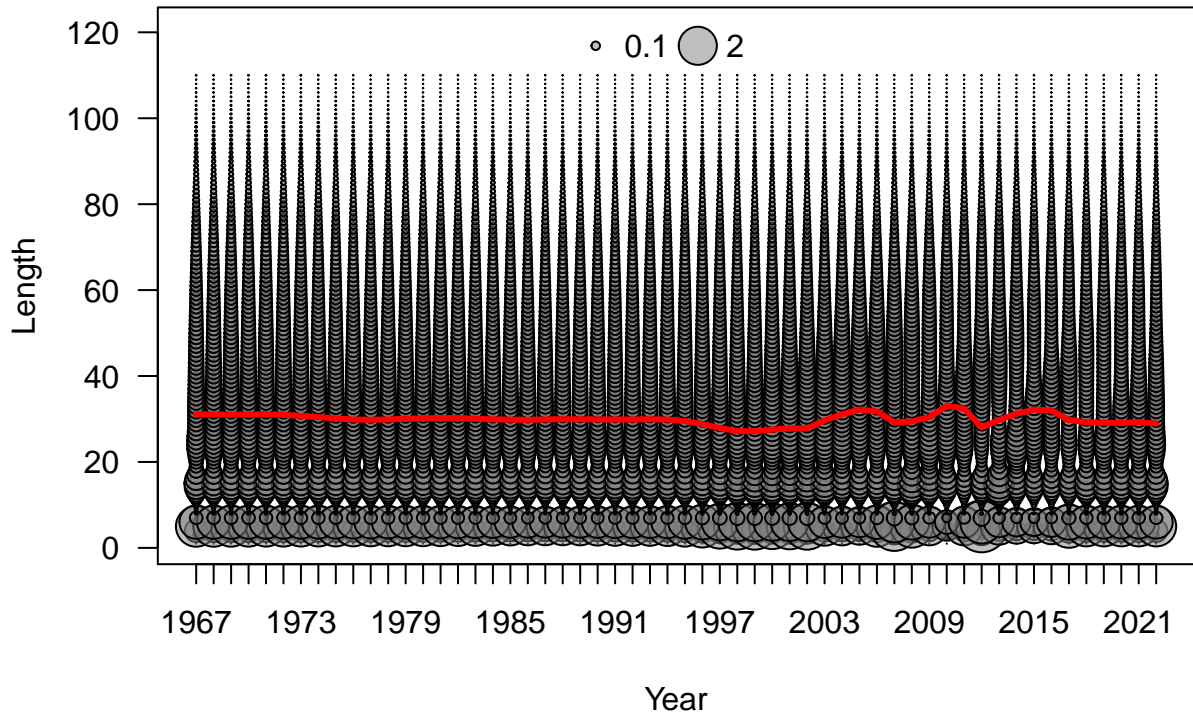


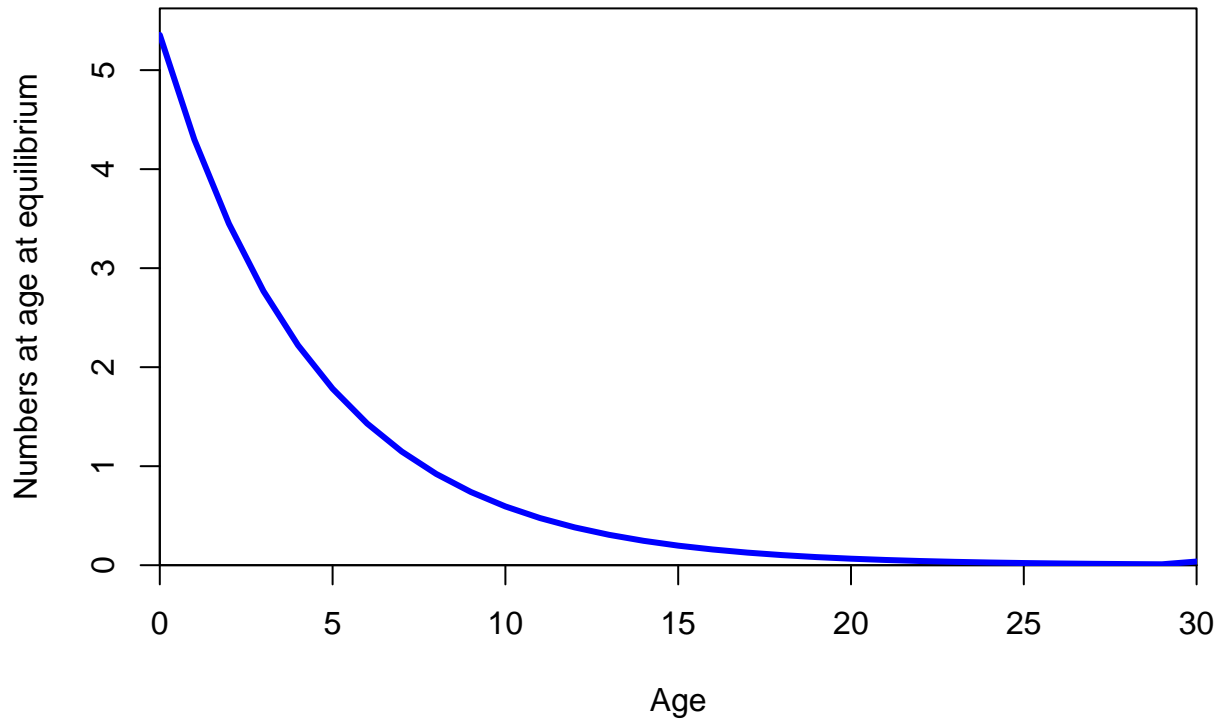






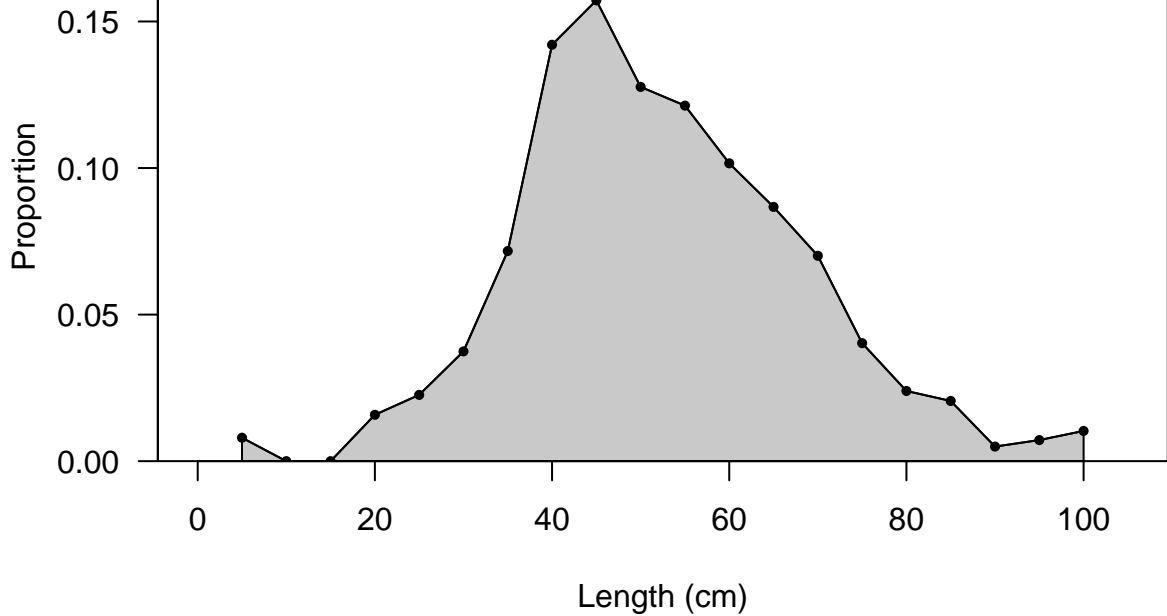




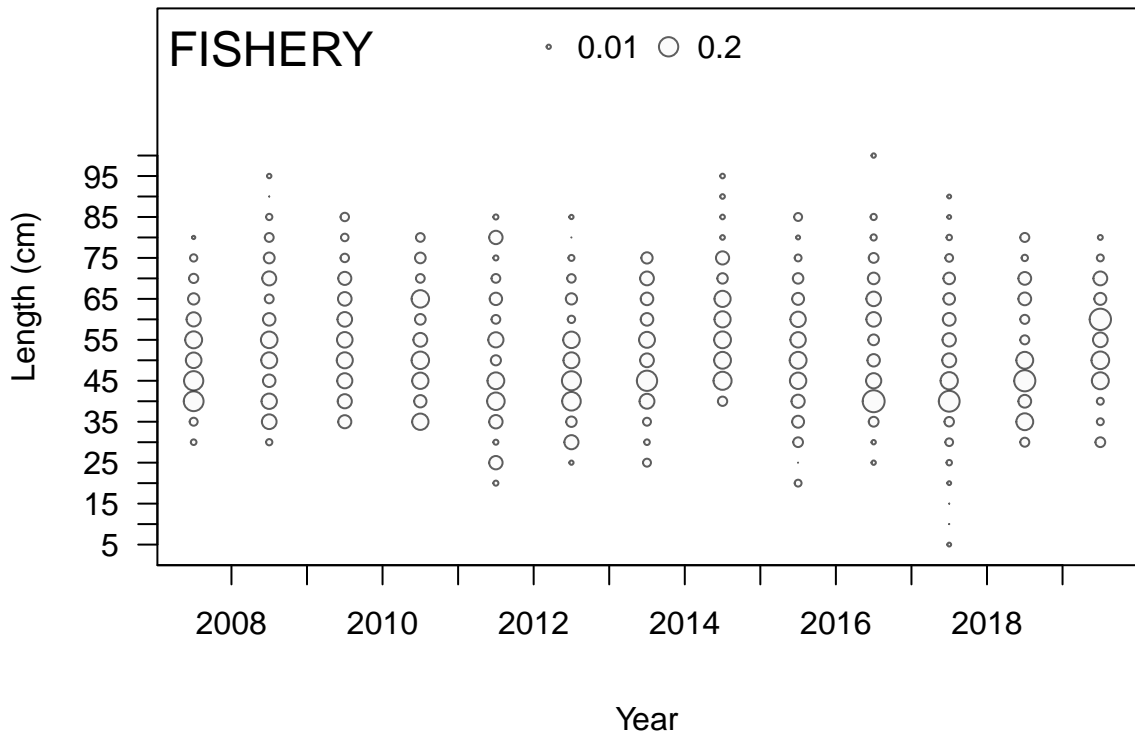


# FISHERY

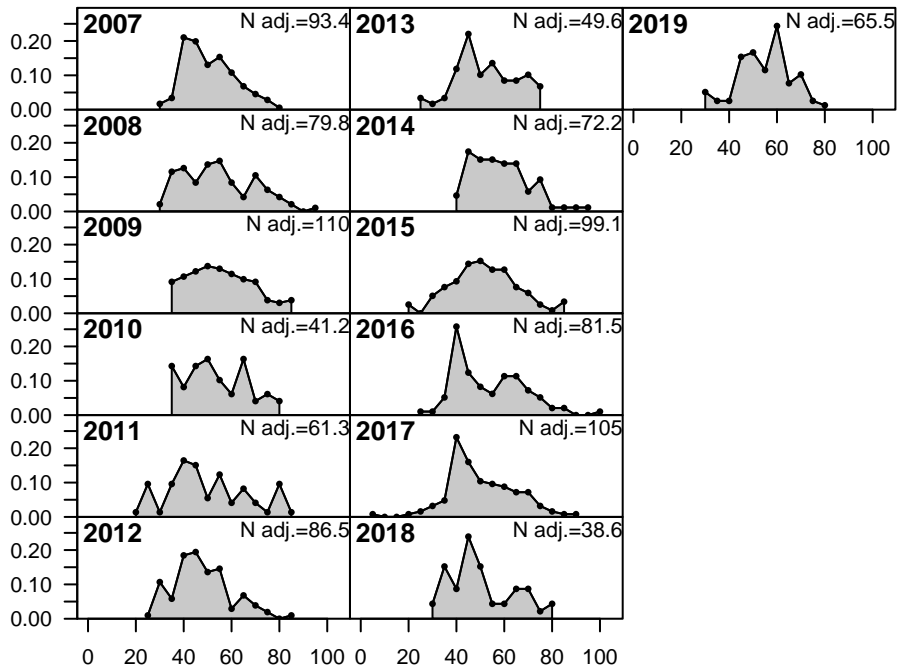
Sum of N adj.=983.8



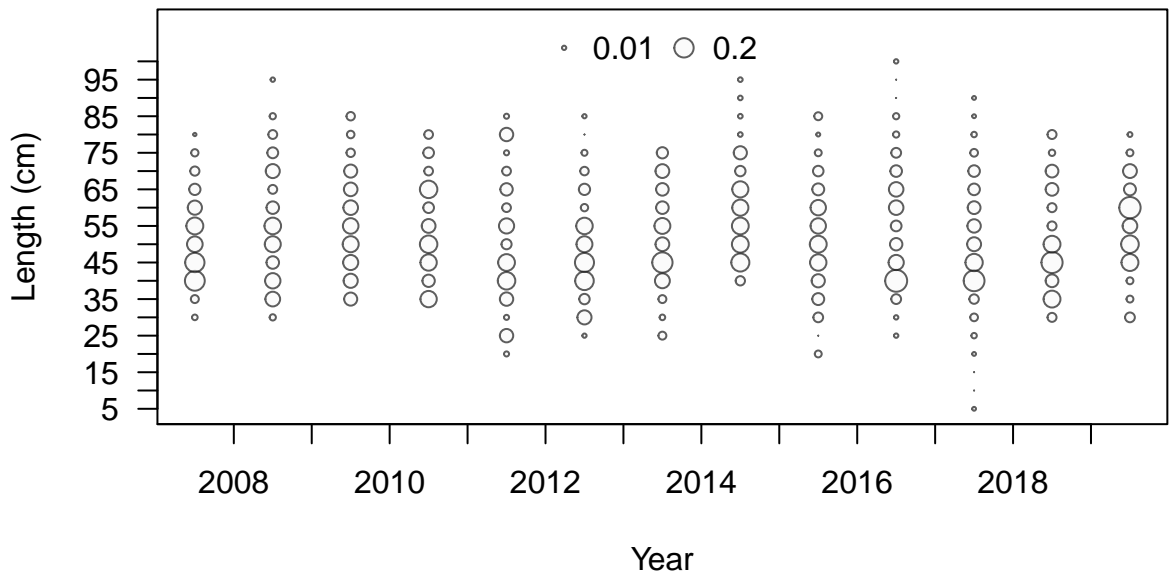




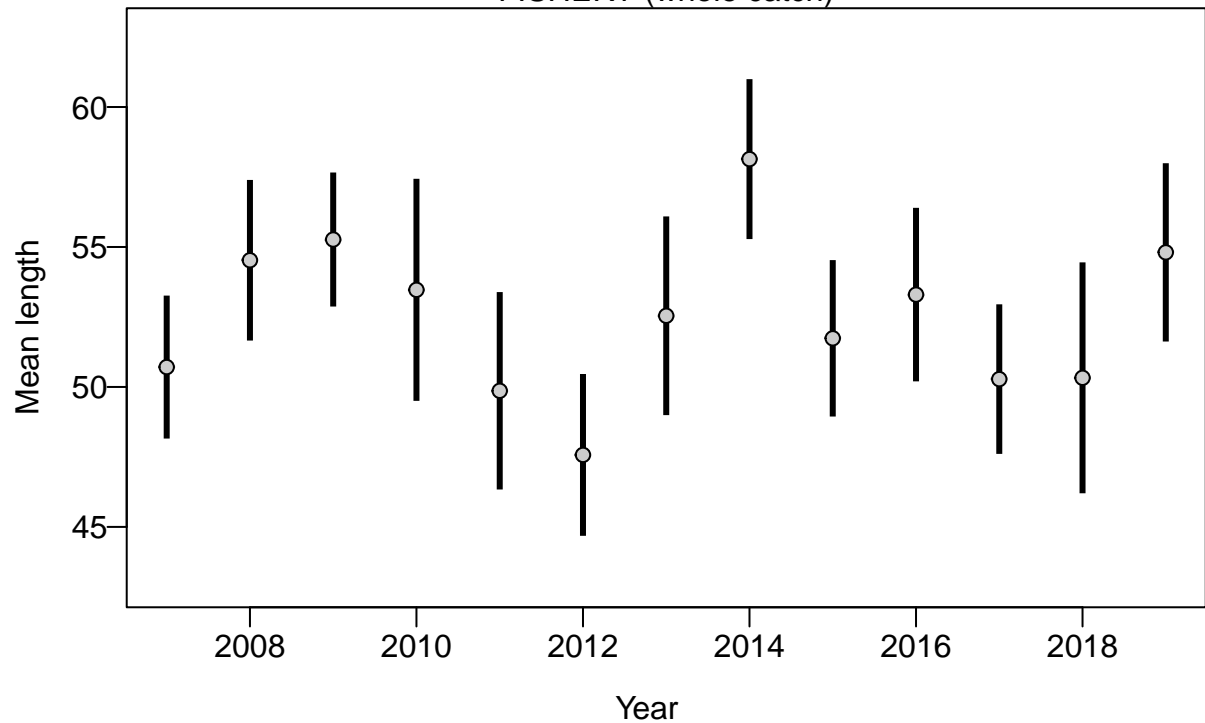
Proportion



Length (cm)

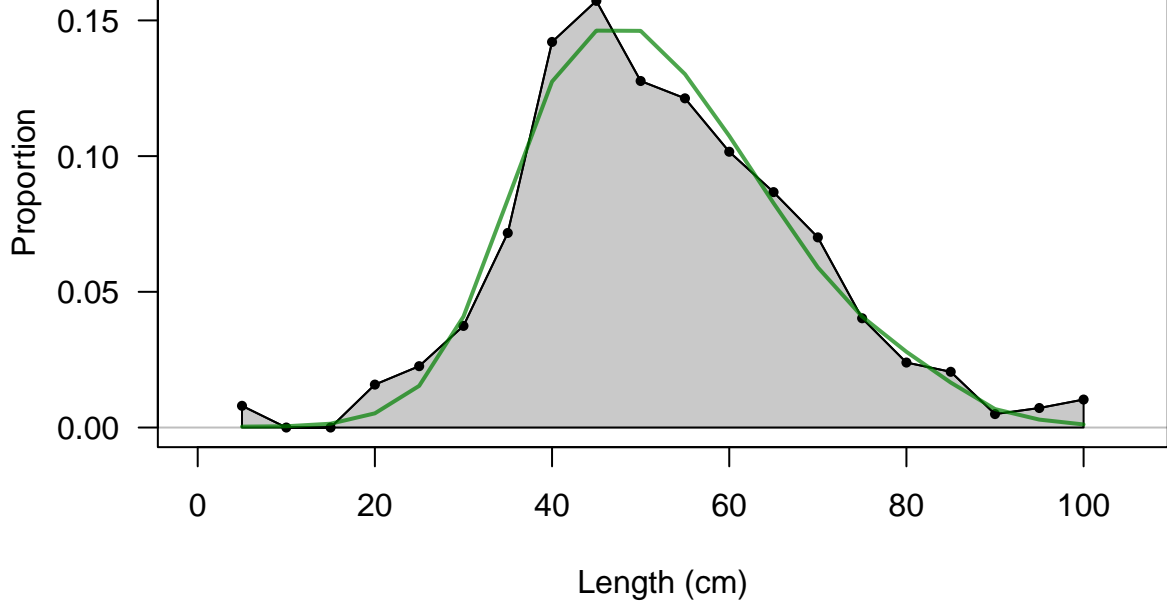


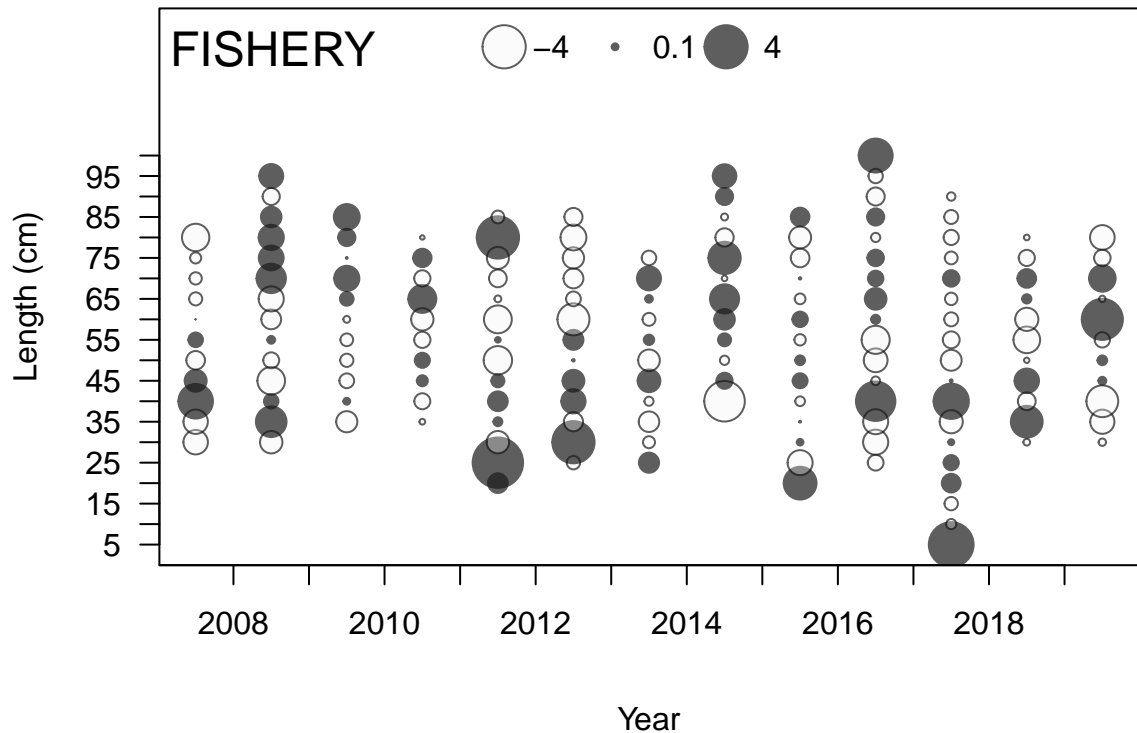
FISHERY (whole catch)



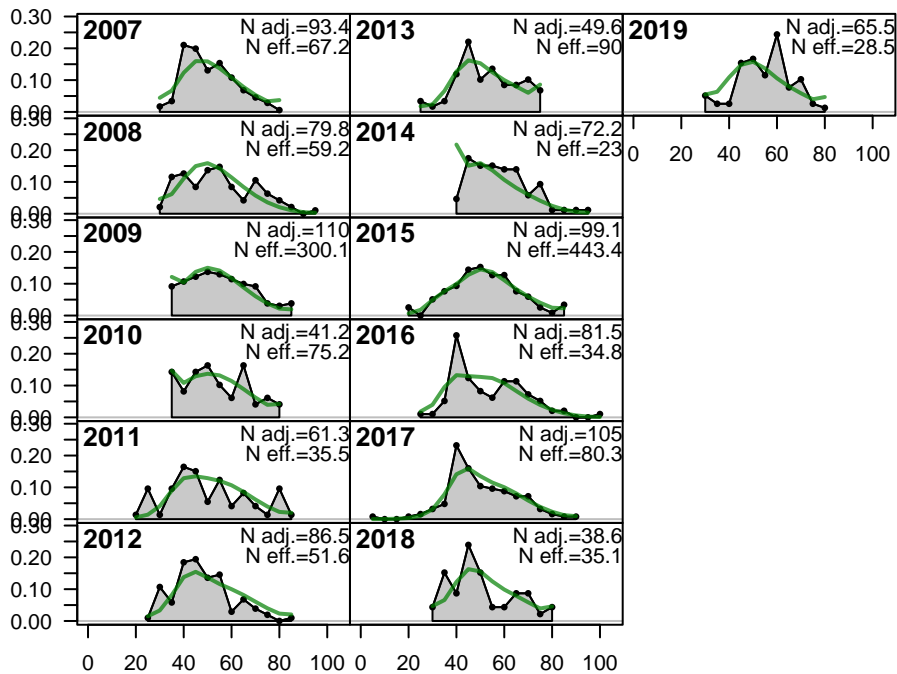
# FISHERY

Sum of N adj.=983.8  
Sum of N eff.=1323.7

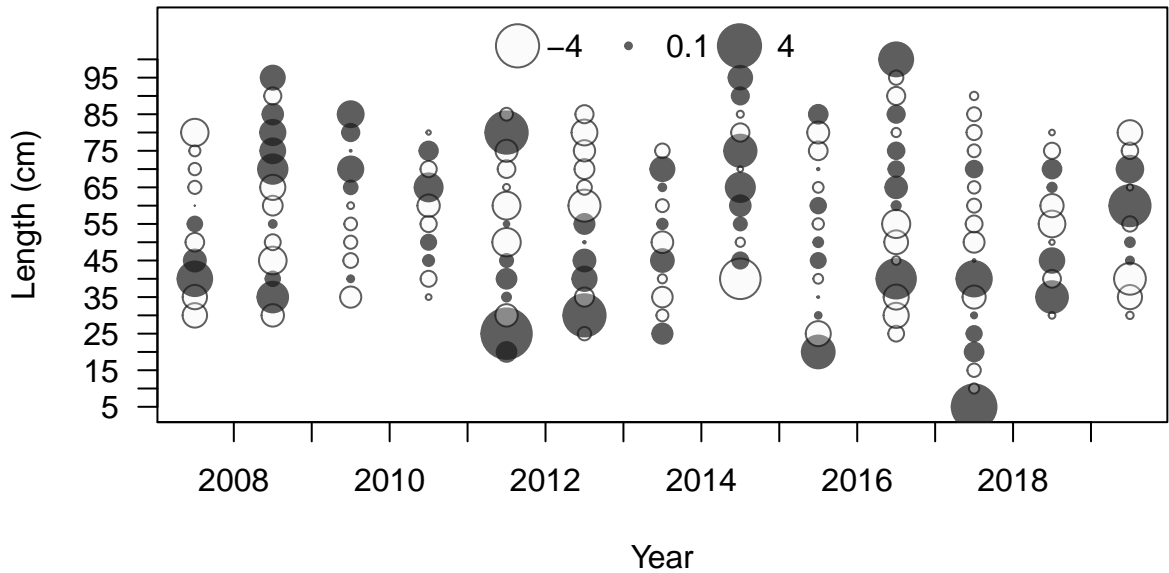




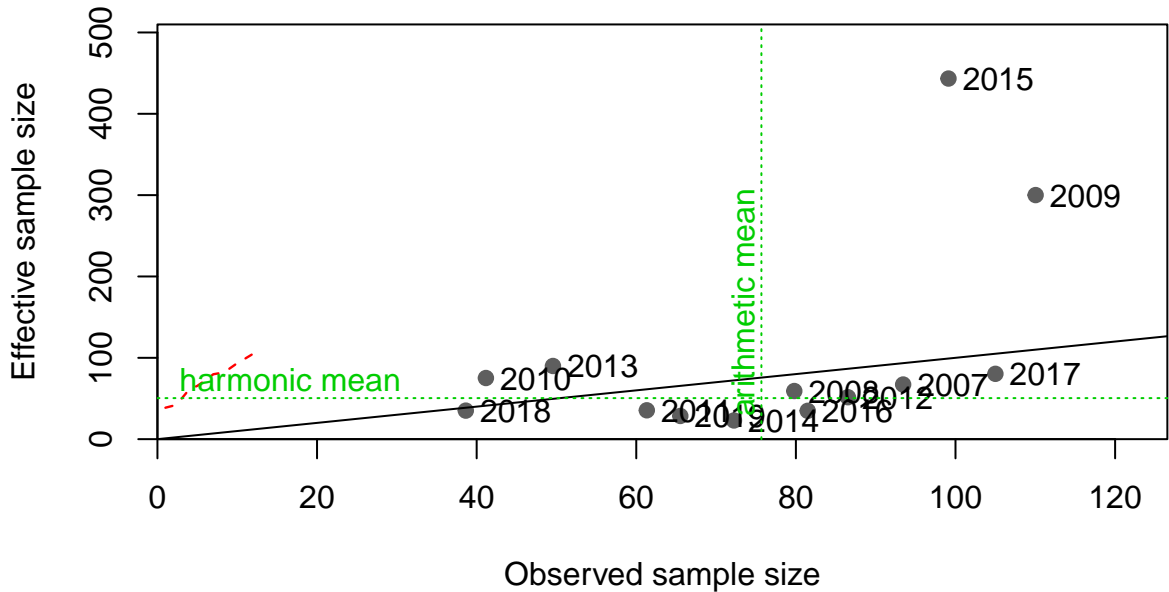
Proportion



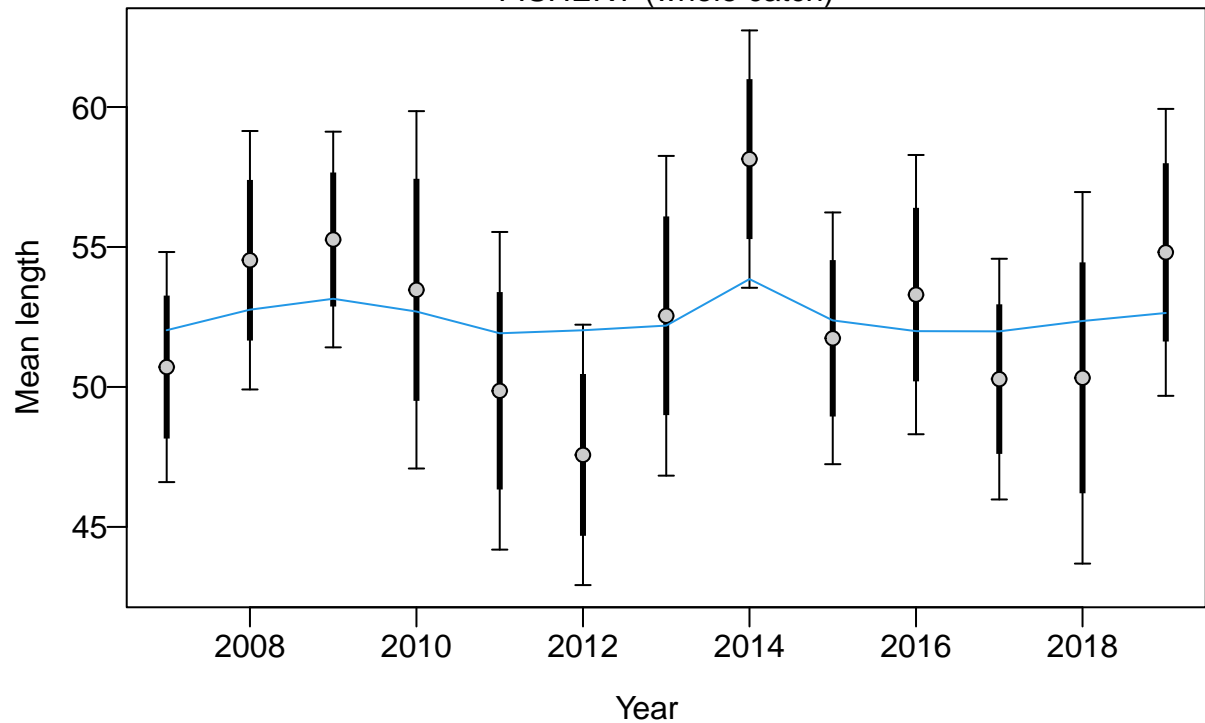
Length (cm)

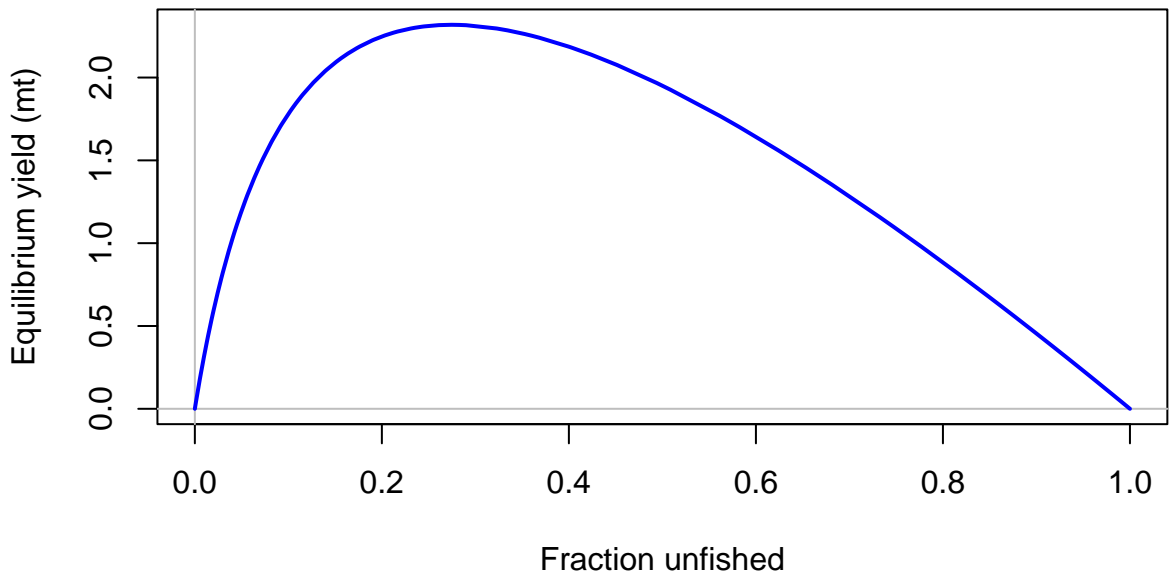


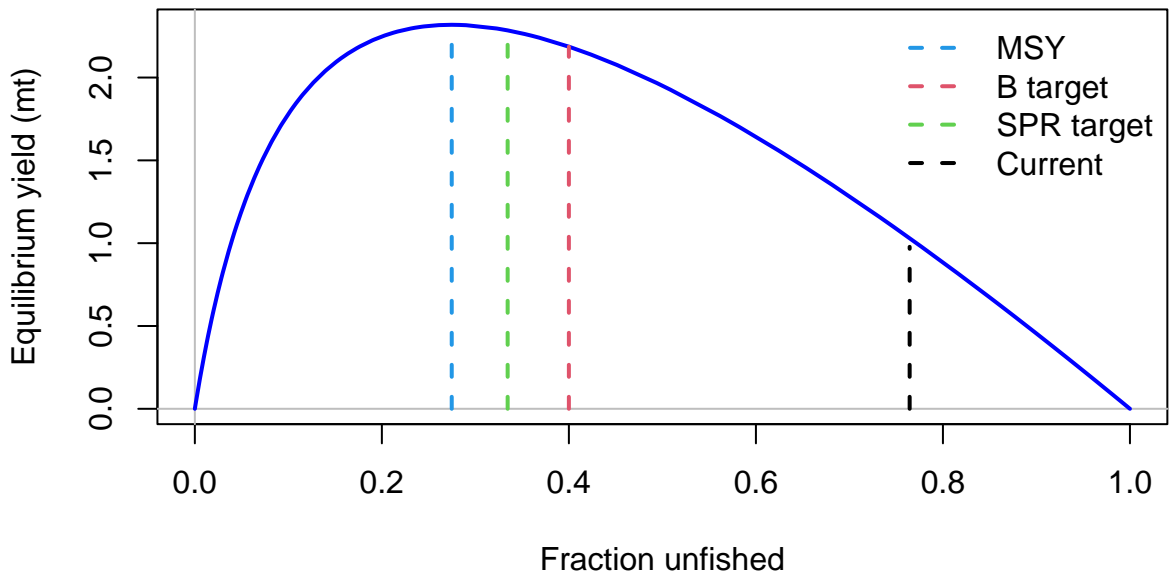


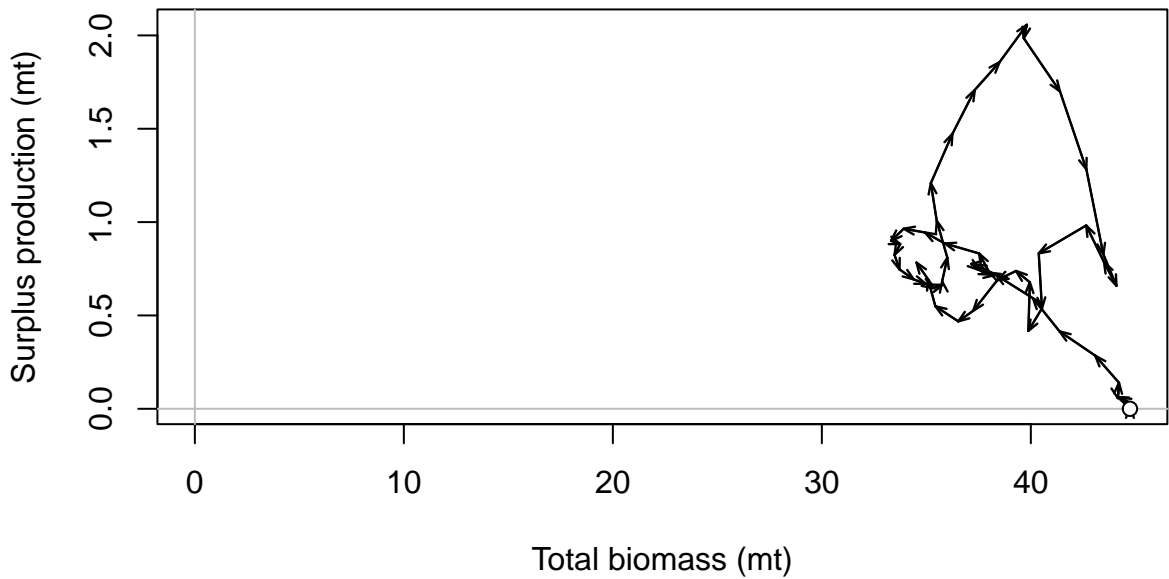


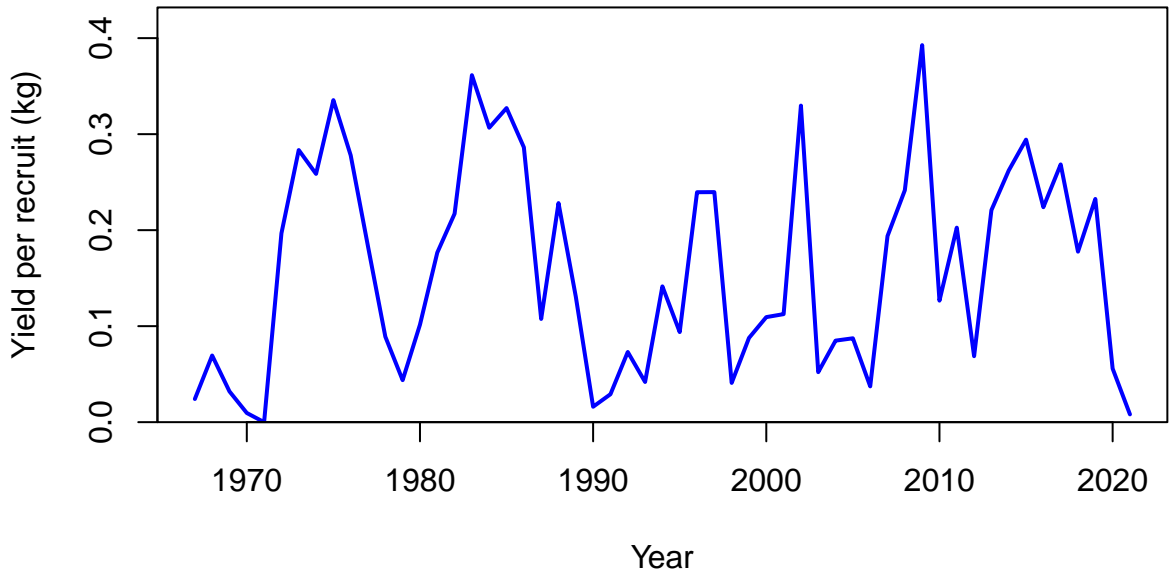
FISHERY (whole catch)

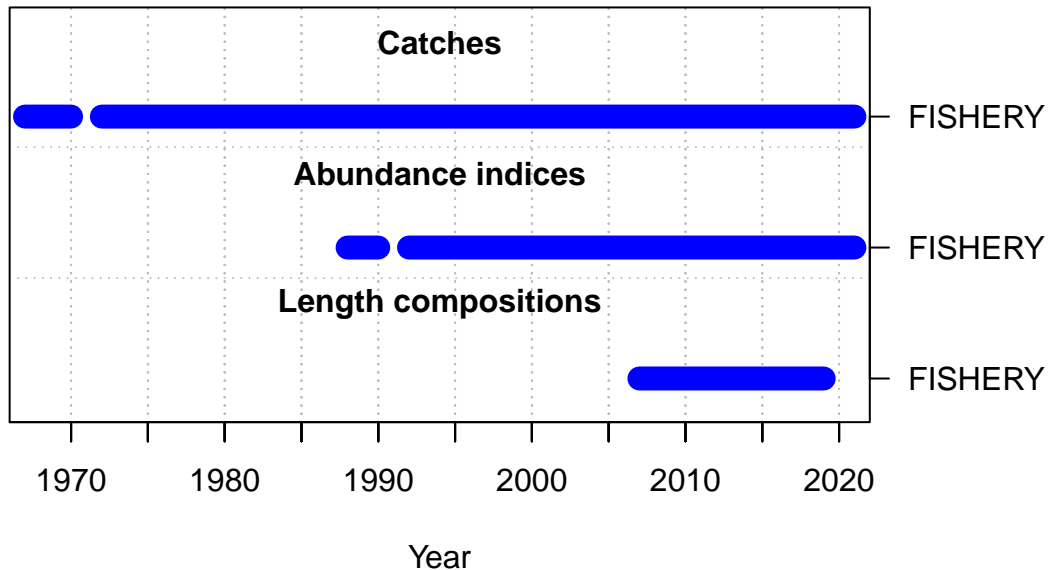


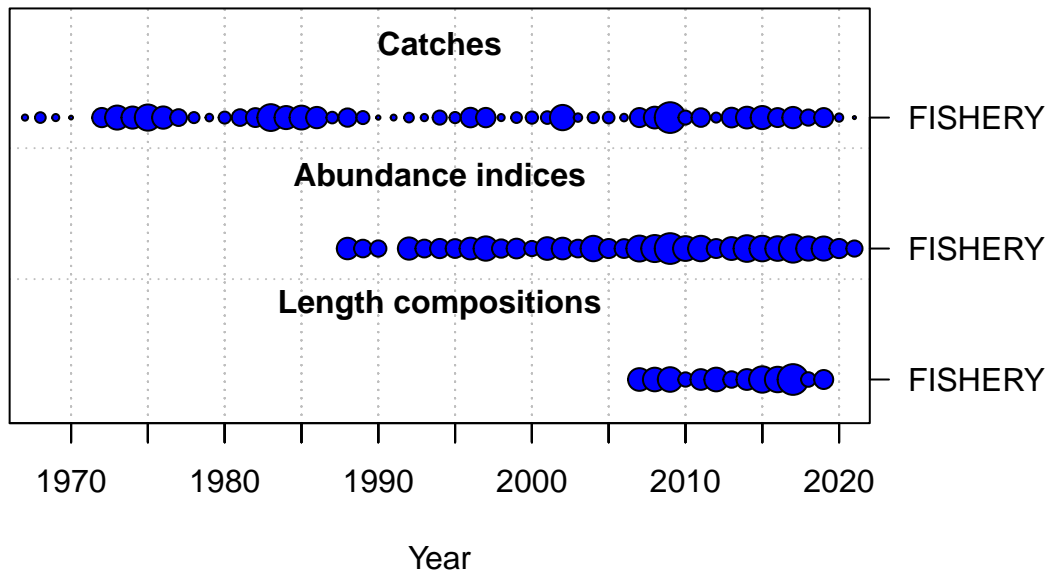










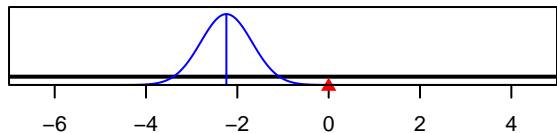




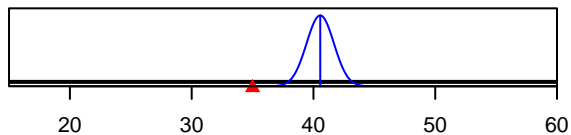
SR\_LN(R0)



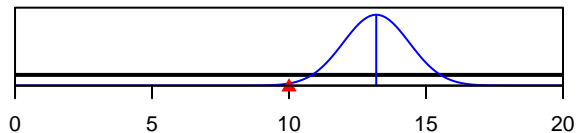
LnQ\_base\_FISHERY(1)



Size\_inflection\_FISHERY(1)



Size\_95%width\_FISHERY(1)



Parameter value

Density