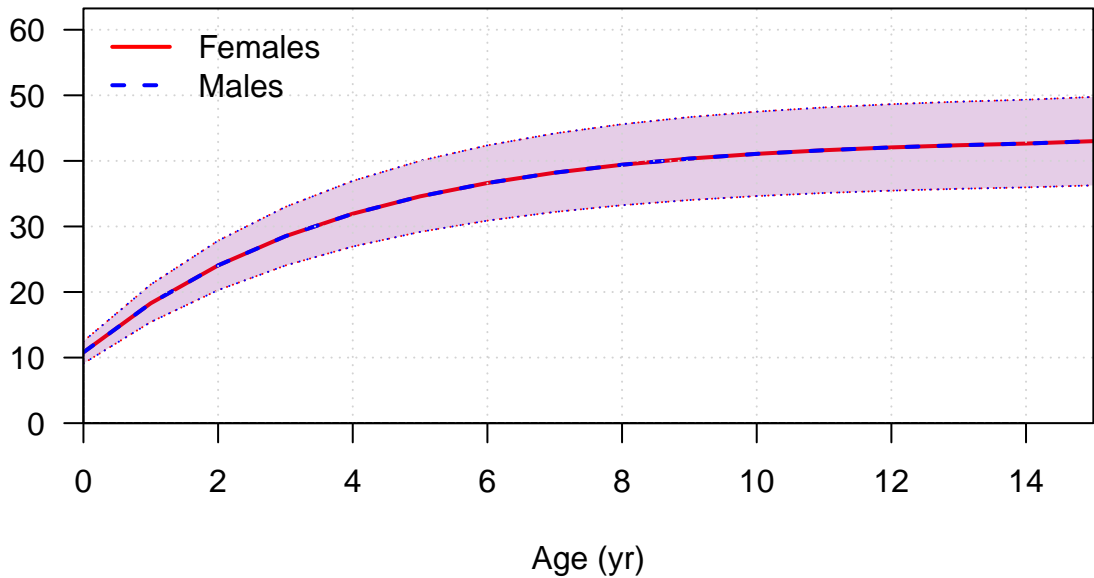
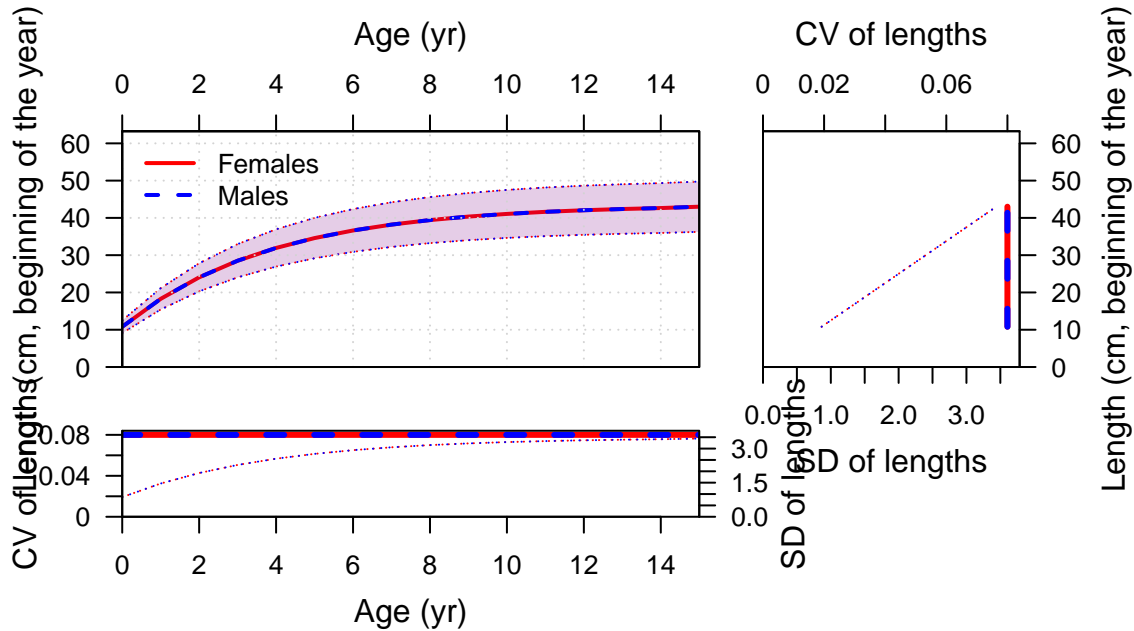
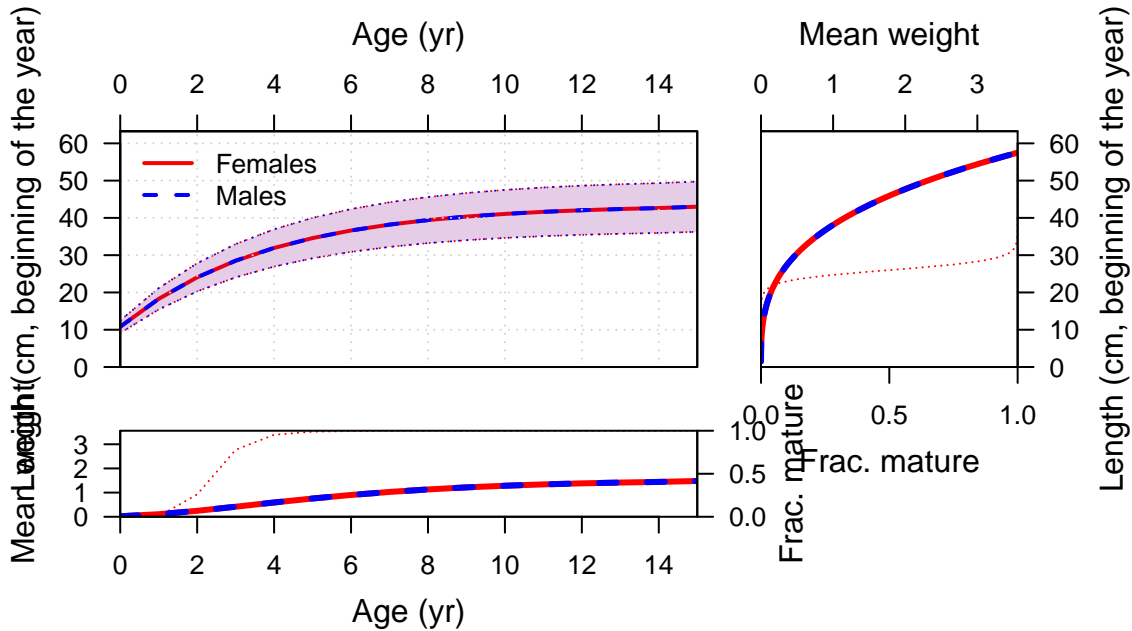


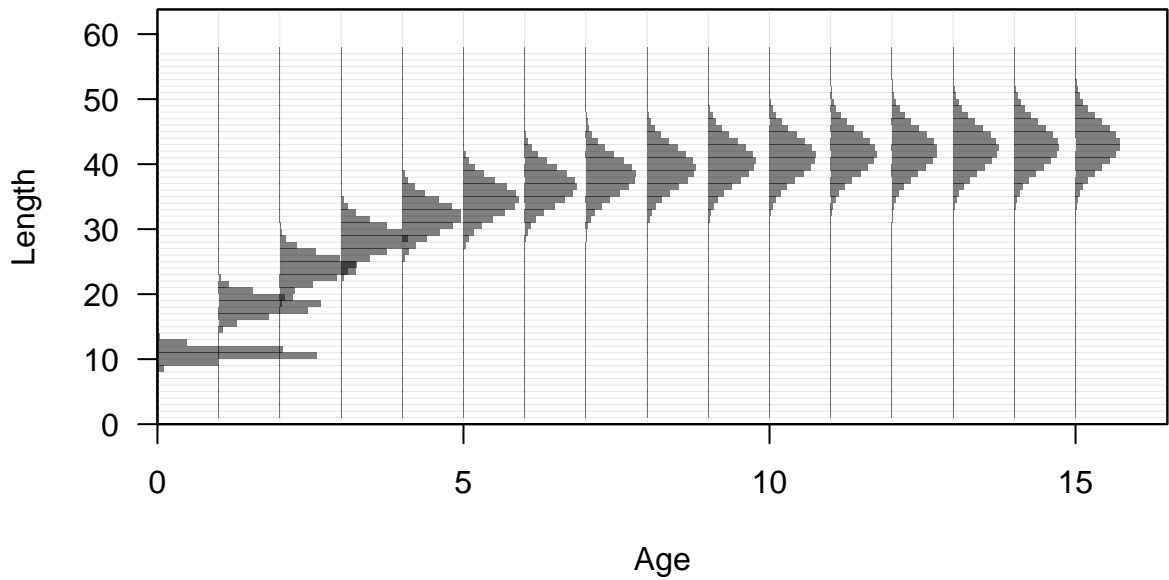
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Wed Aug 03 11:42:25 2022  
Data\_File: data.ss  
Control\_File: control.ss

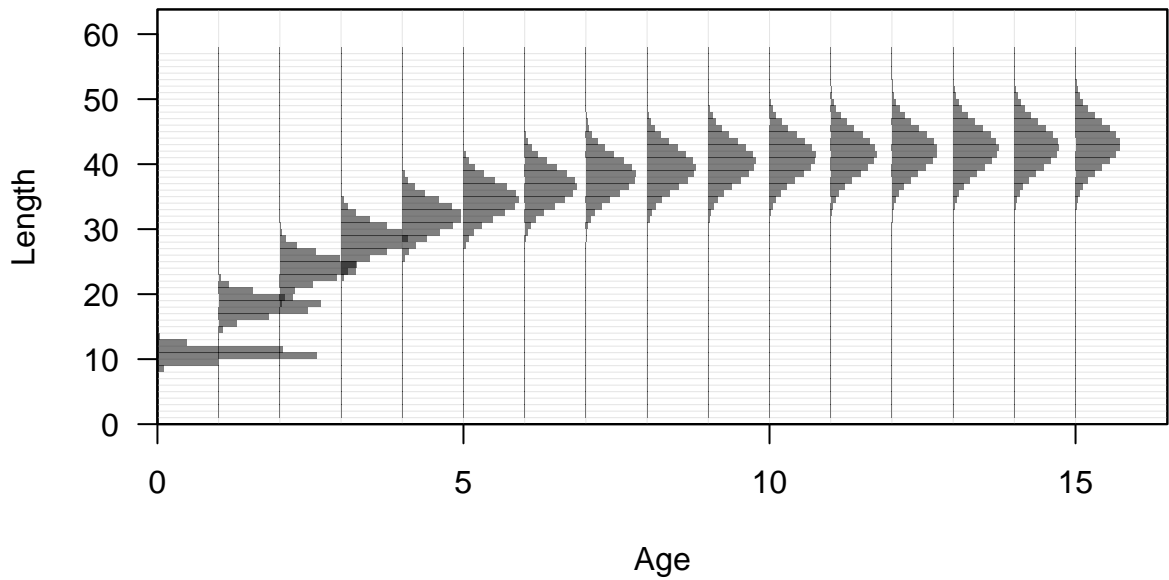
Length (cm, beginning of the year)

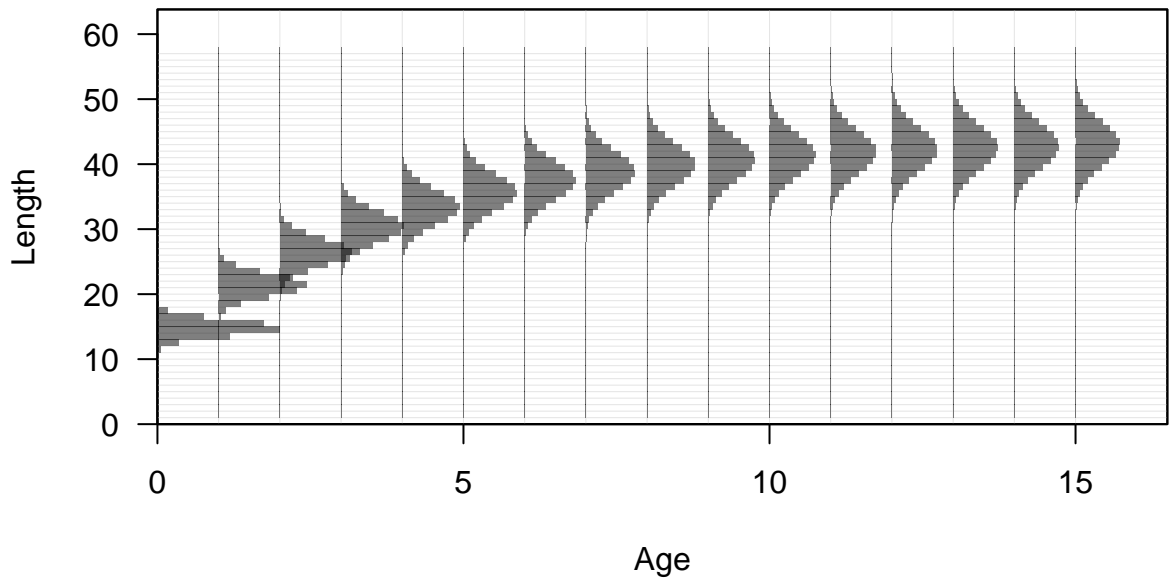


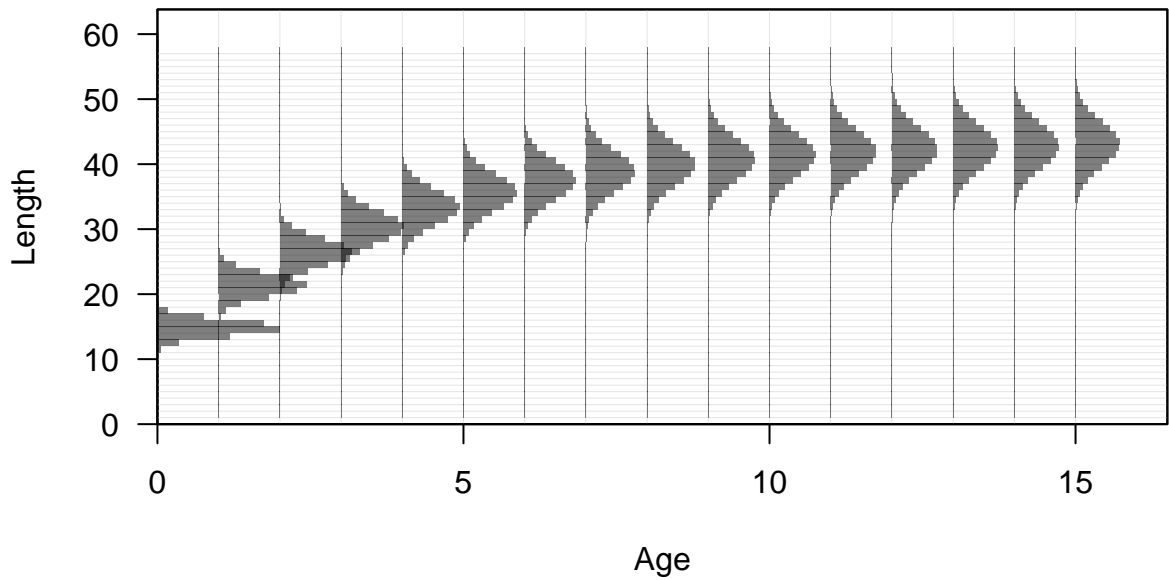






















Fecundity



Fecundity



Spawning output

3

2

1

0

0

10

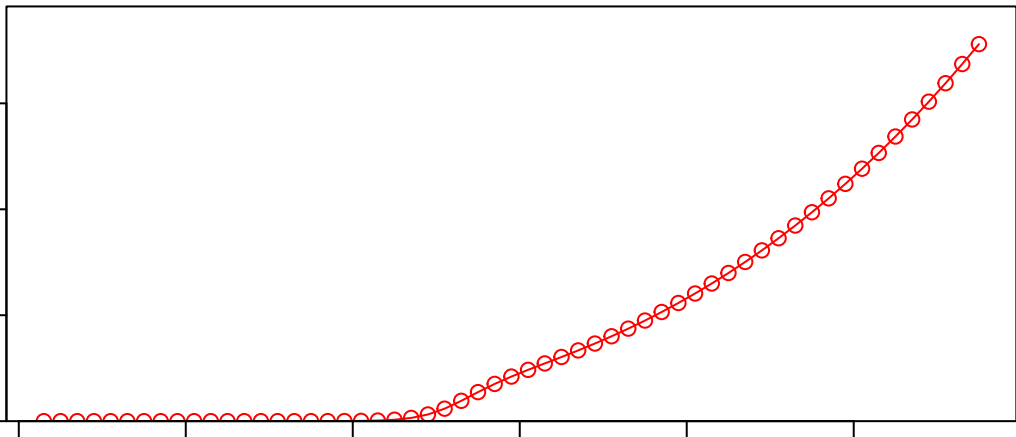
20

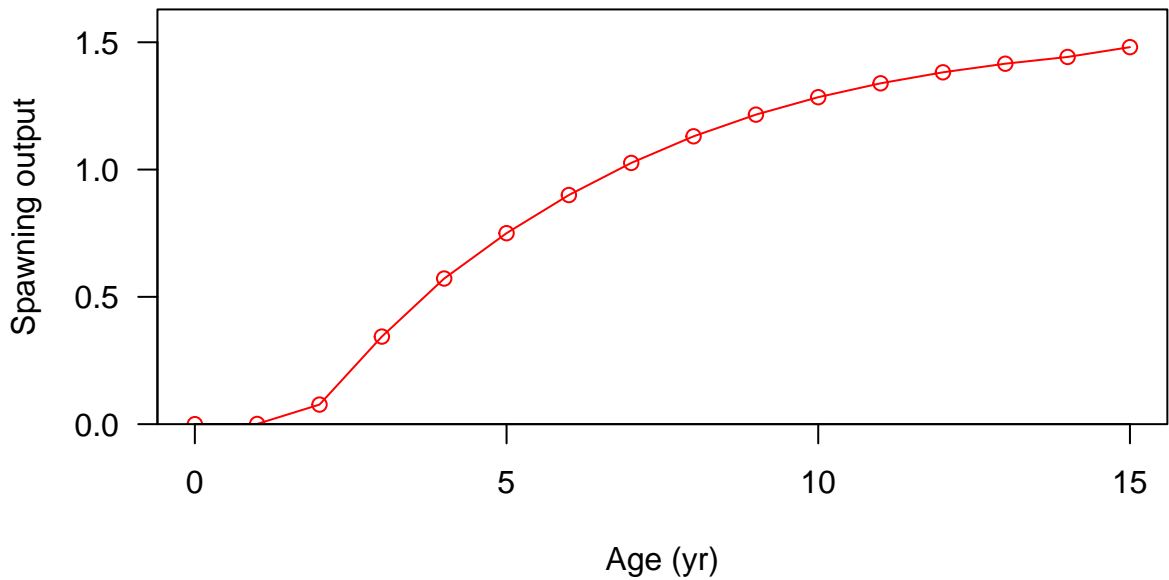
30

40

50

Length (cm)







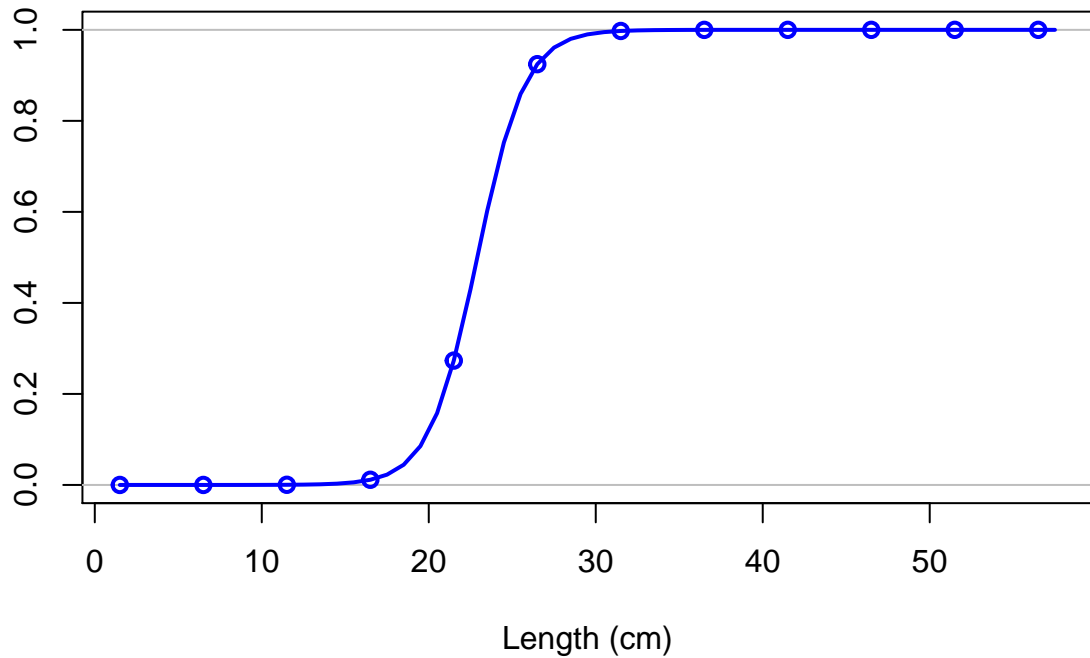
Hermaphroditism transition rate



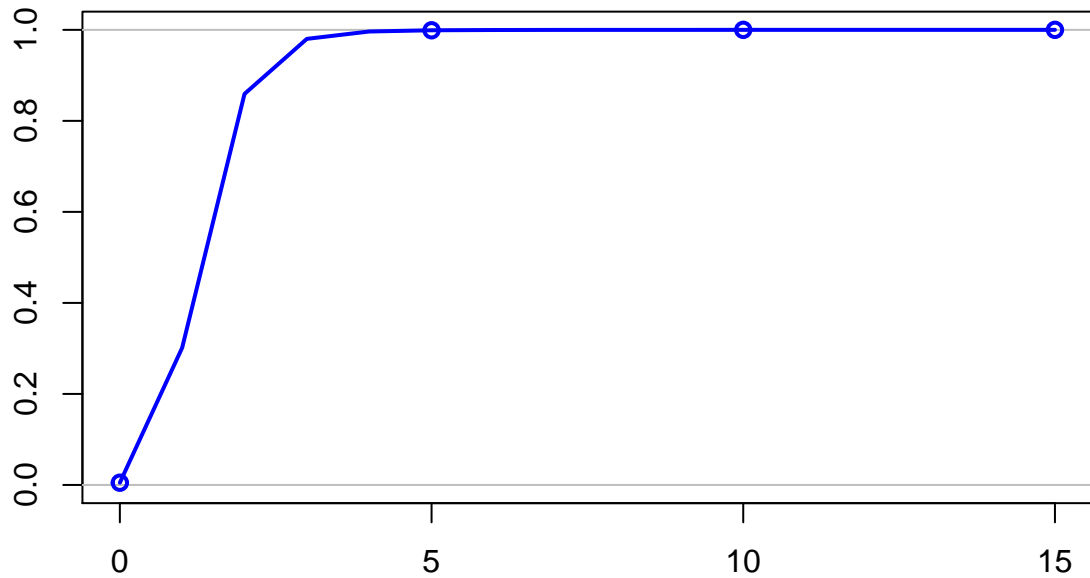
Fraction females by age at equilibrium



Selectivity

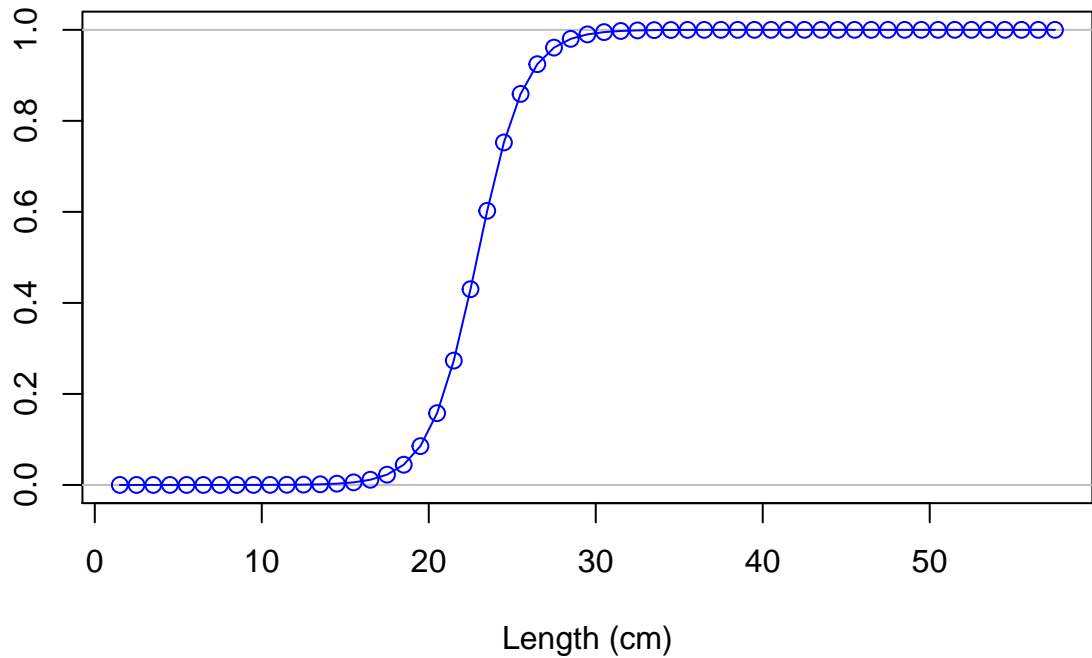


Selectivity

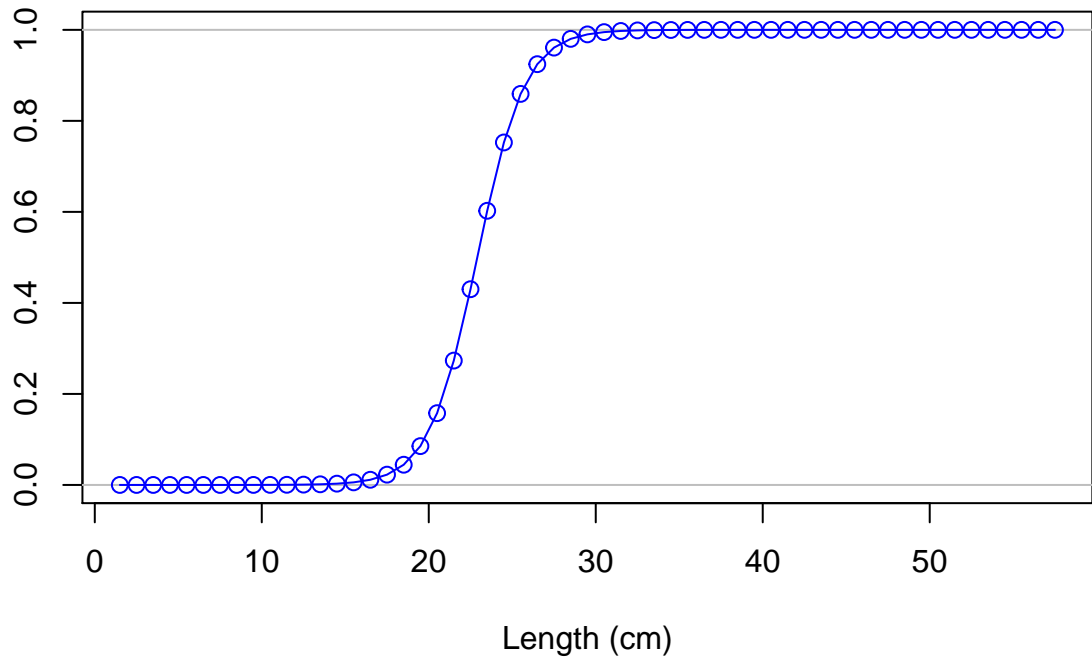


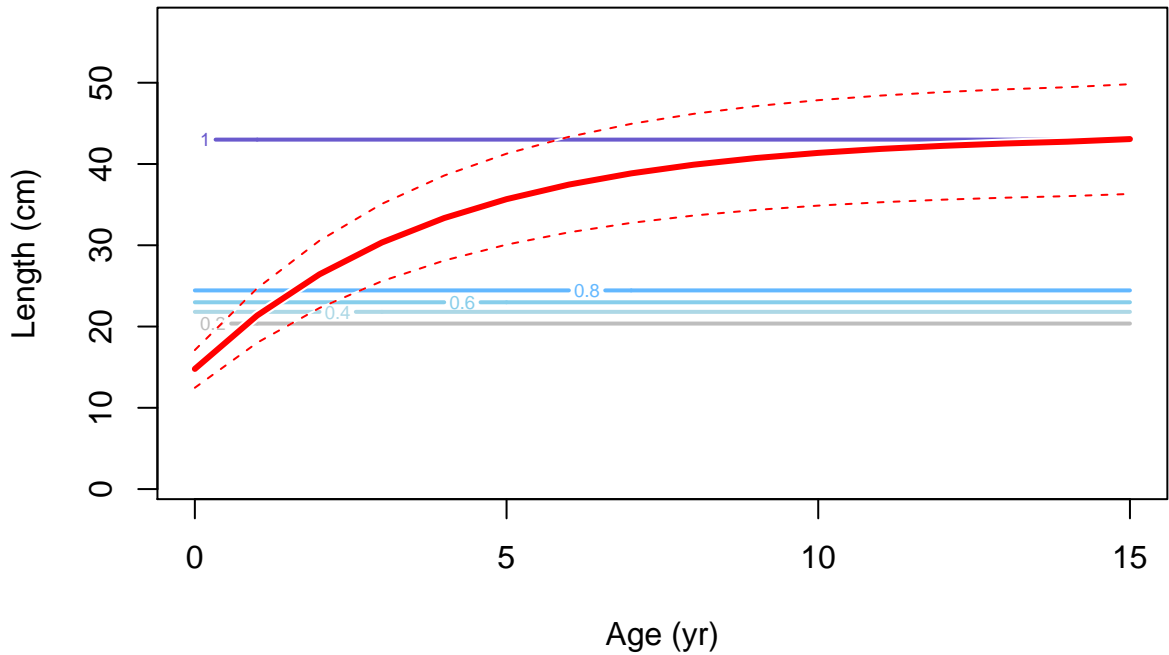
Age (yr)

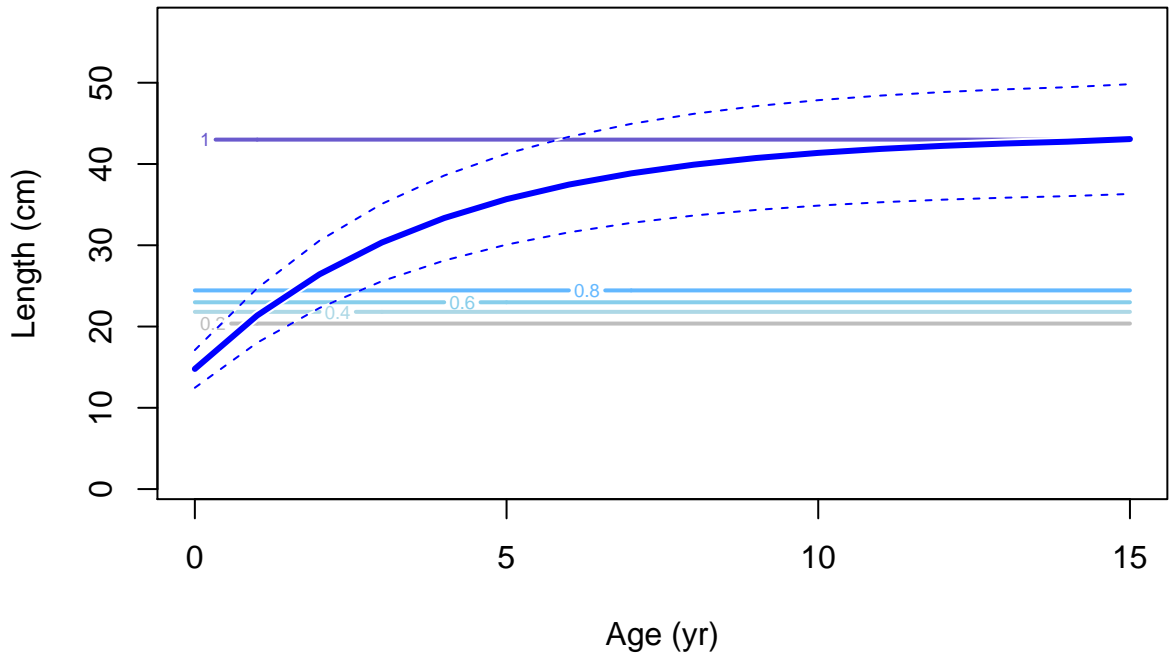
Selectivity



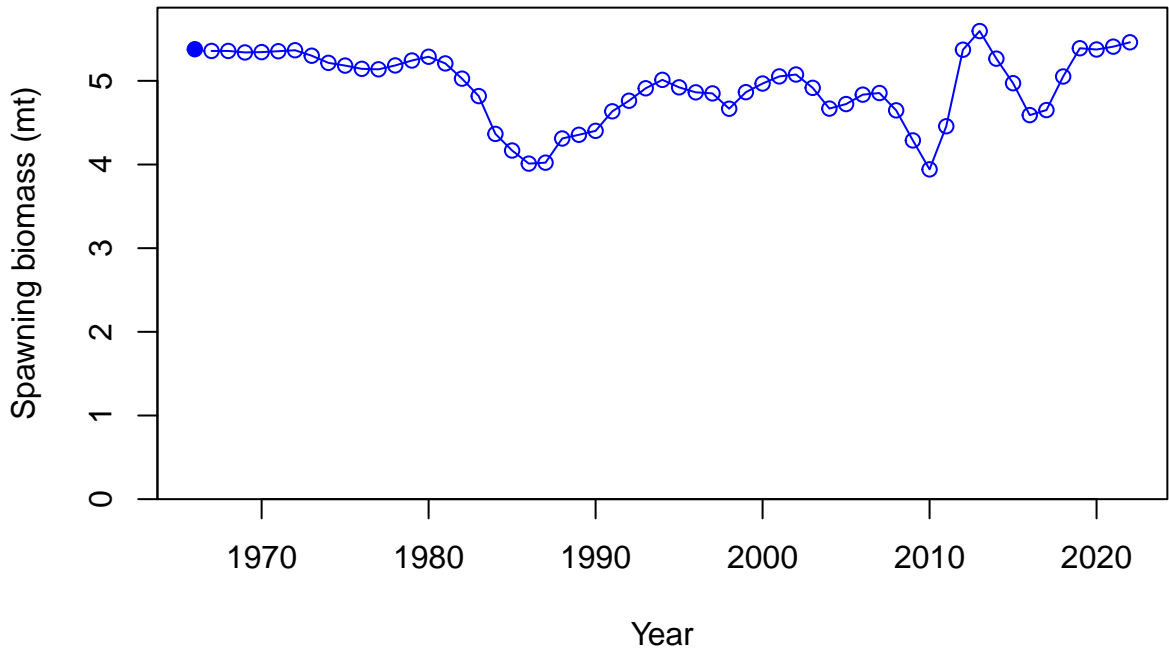
Selectivity



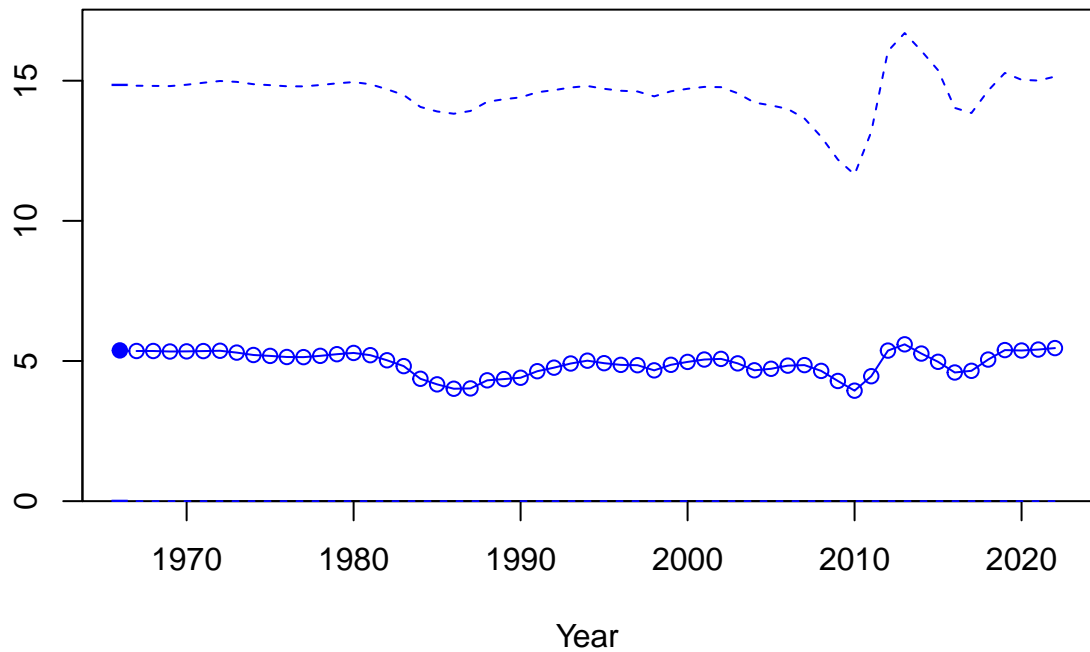




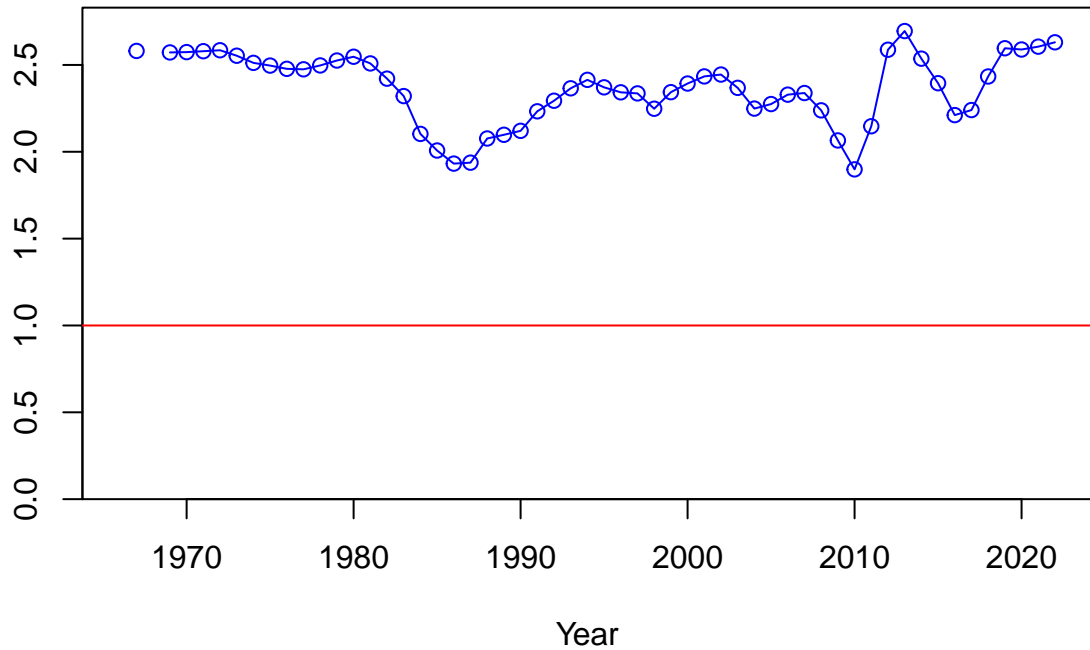




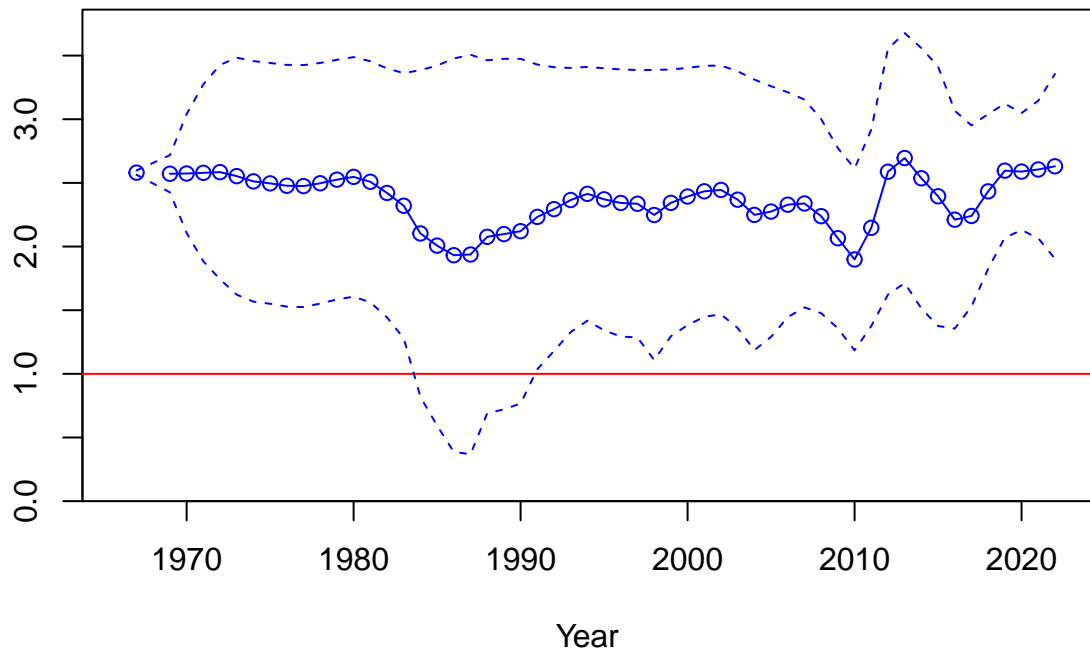
Spawning biomass (mt)

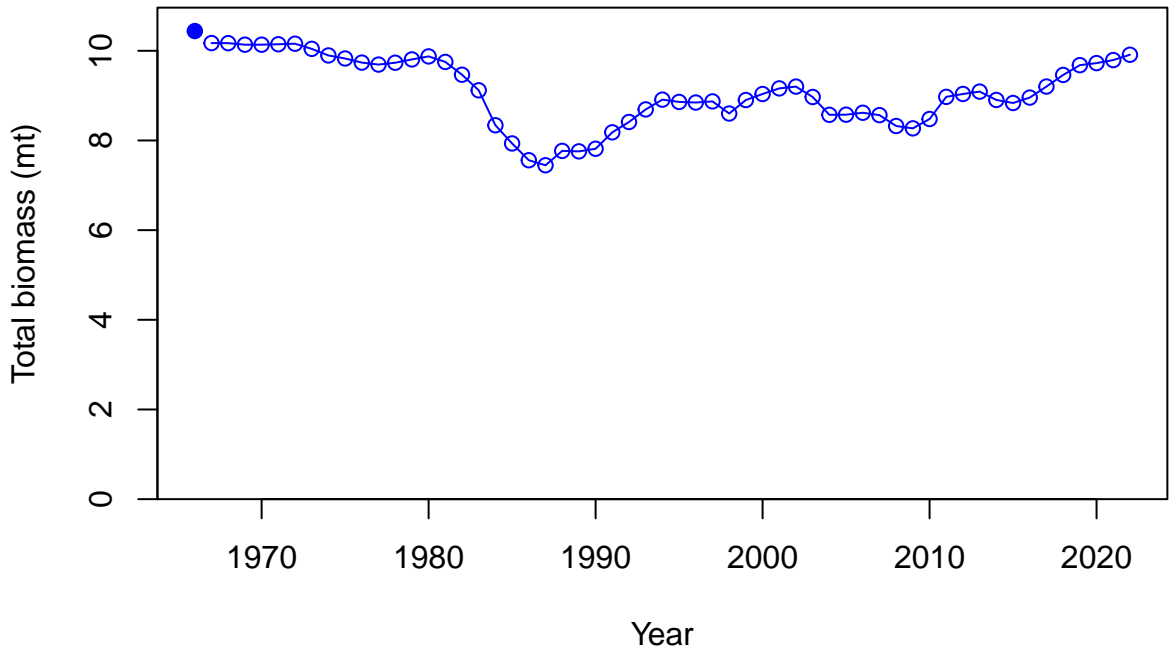


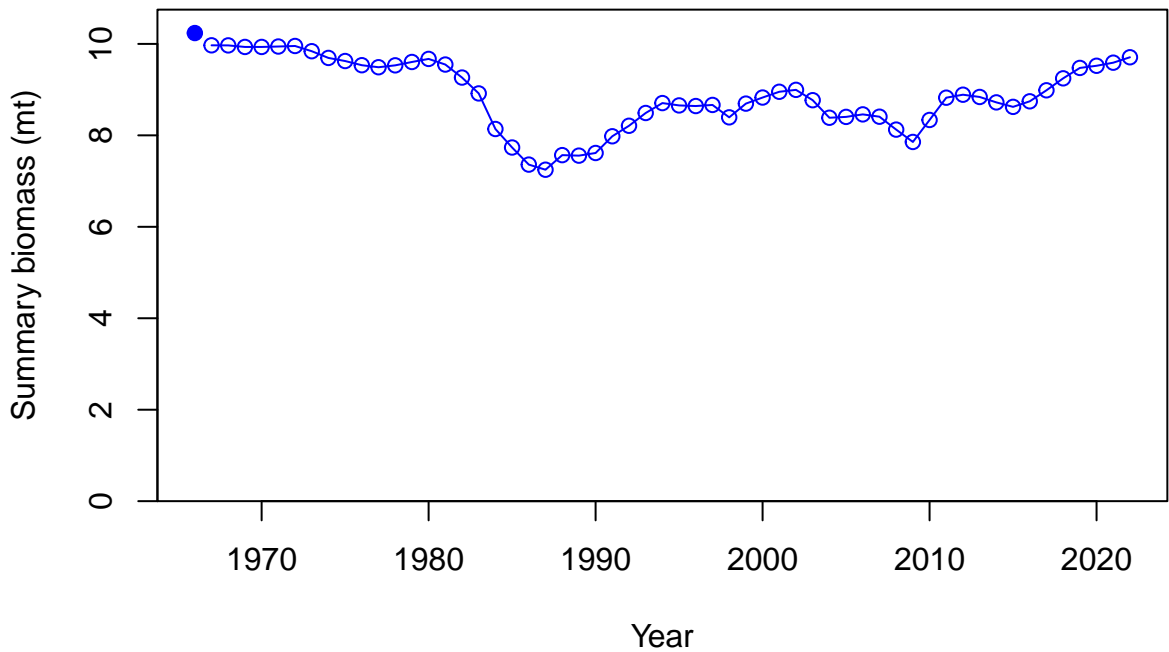
Relative spawning biomass:  $B/B_{MSY}$



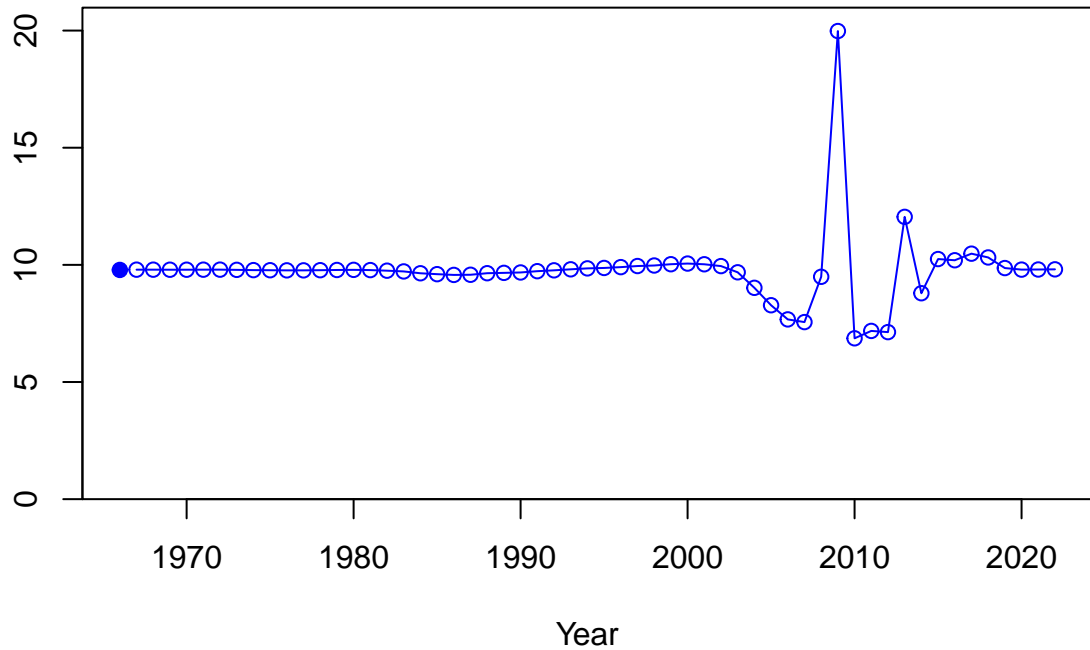
Relative spawning biomass:  $B/B_{MSY}$



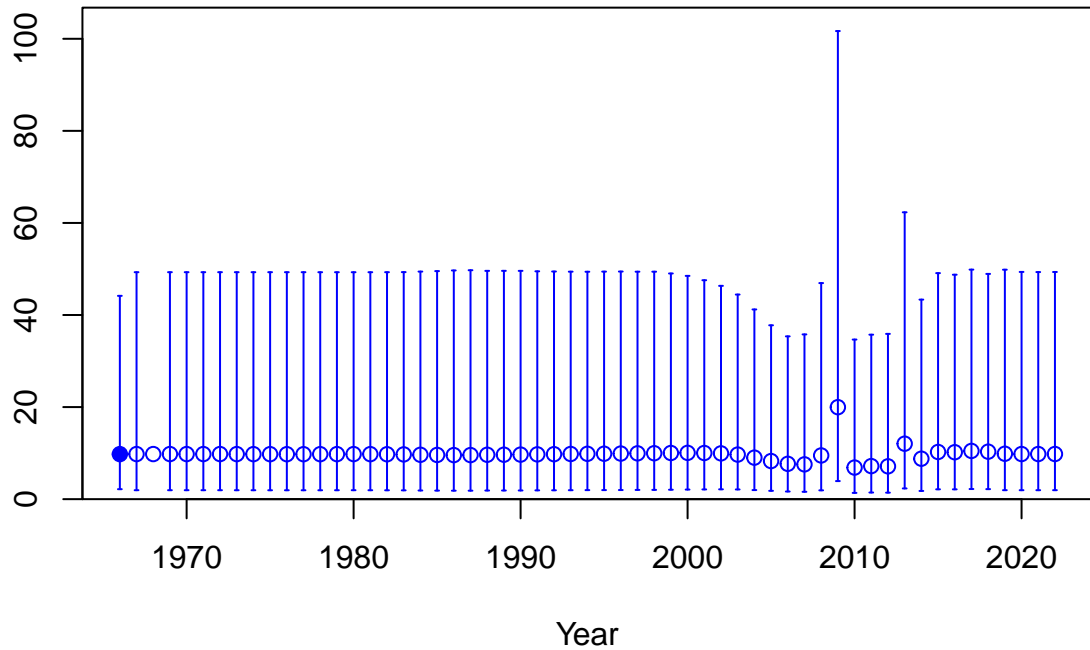




Age-0 recruits (1,000s)

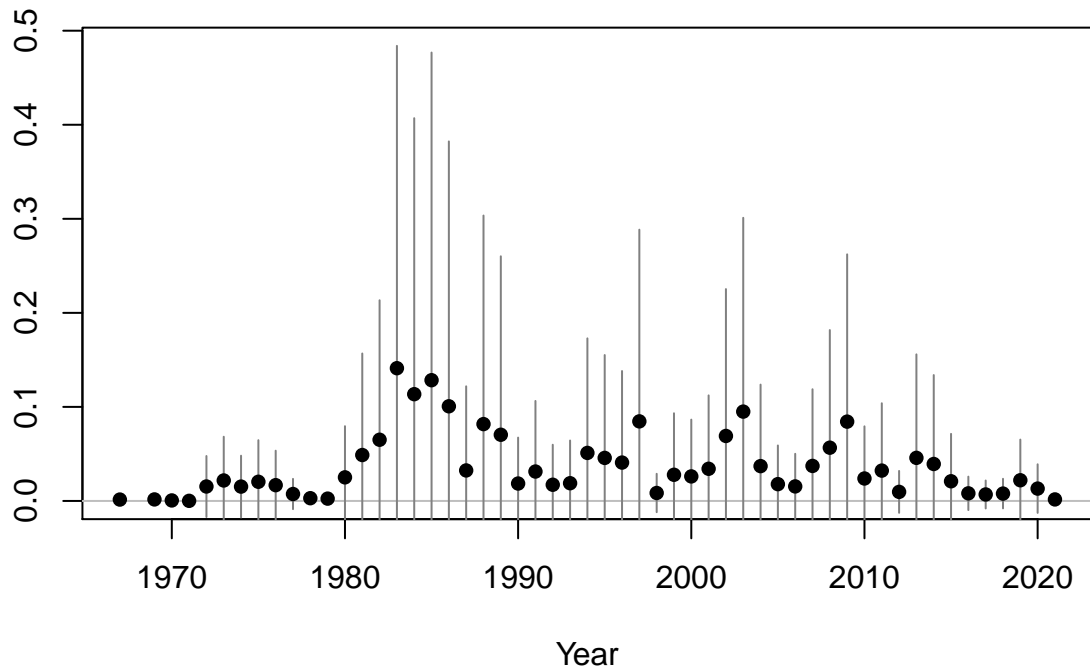


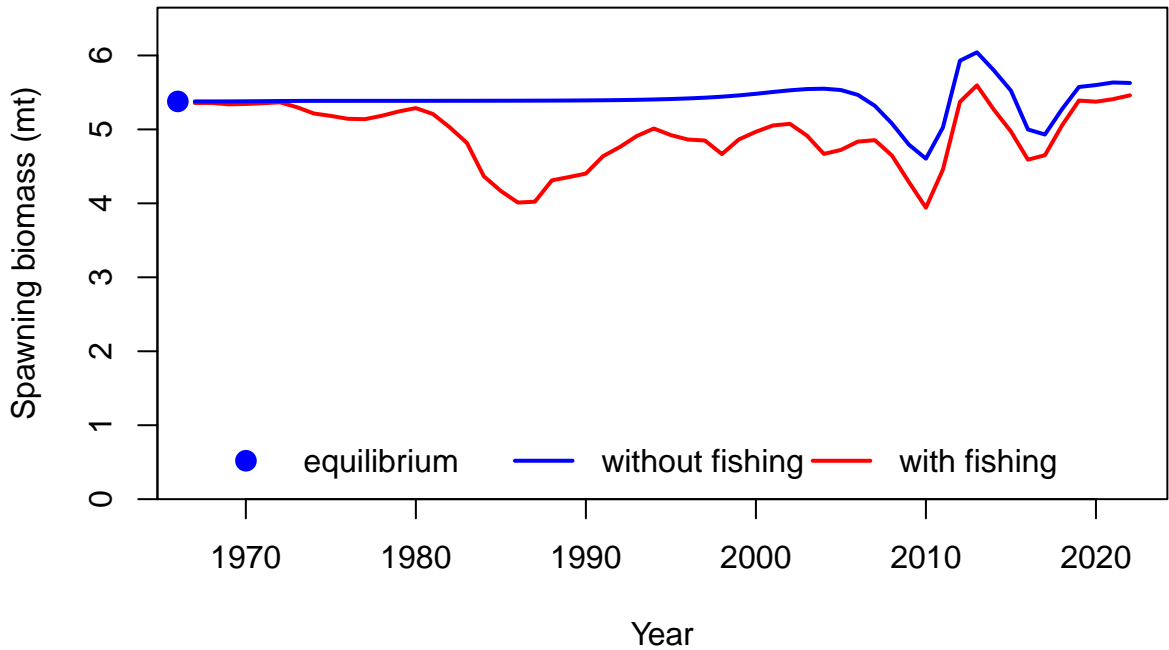
Age-0 recruits (1,000s)

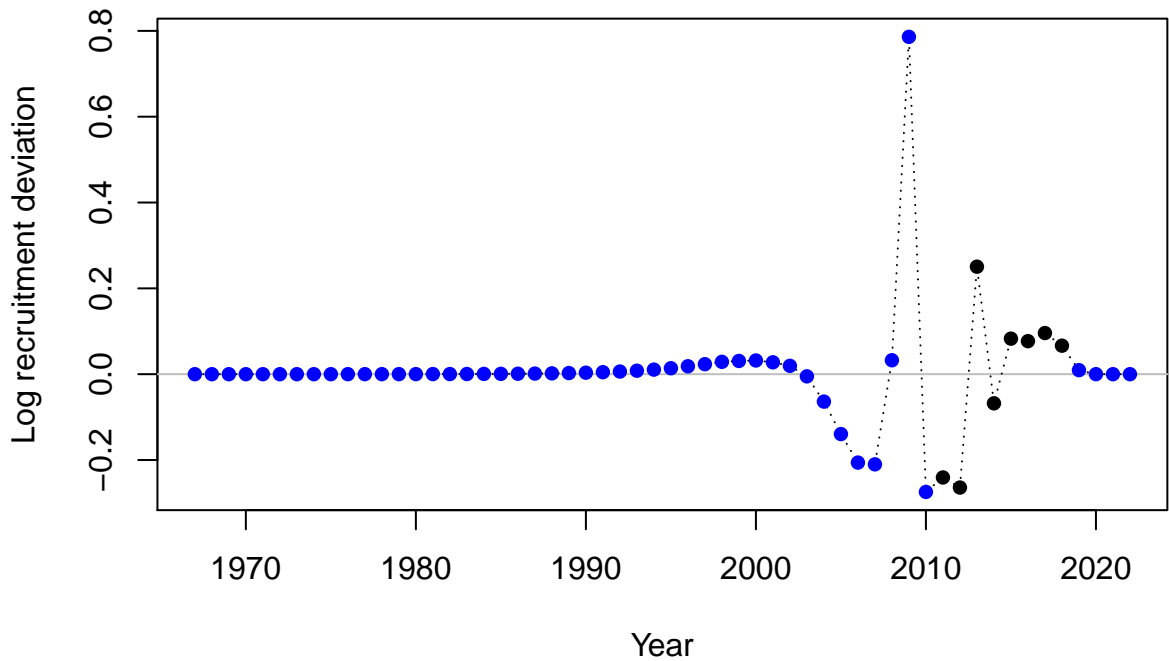




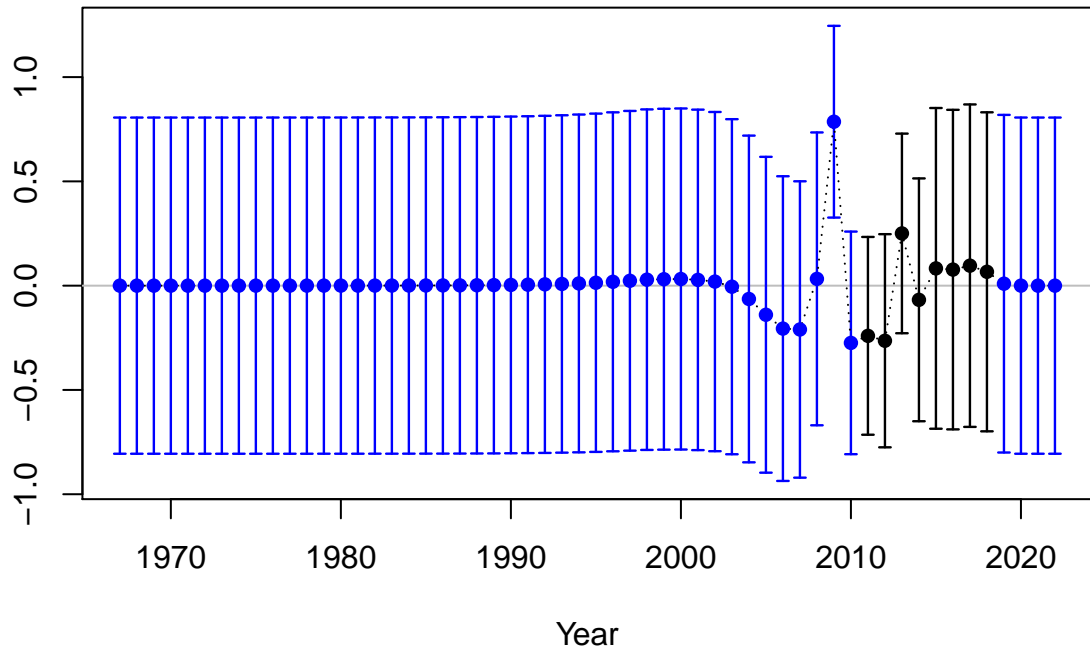
Summary Fishing Mortality





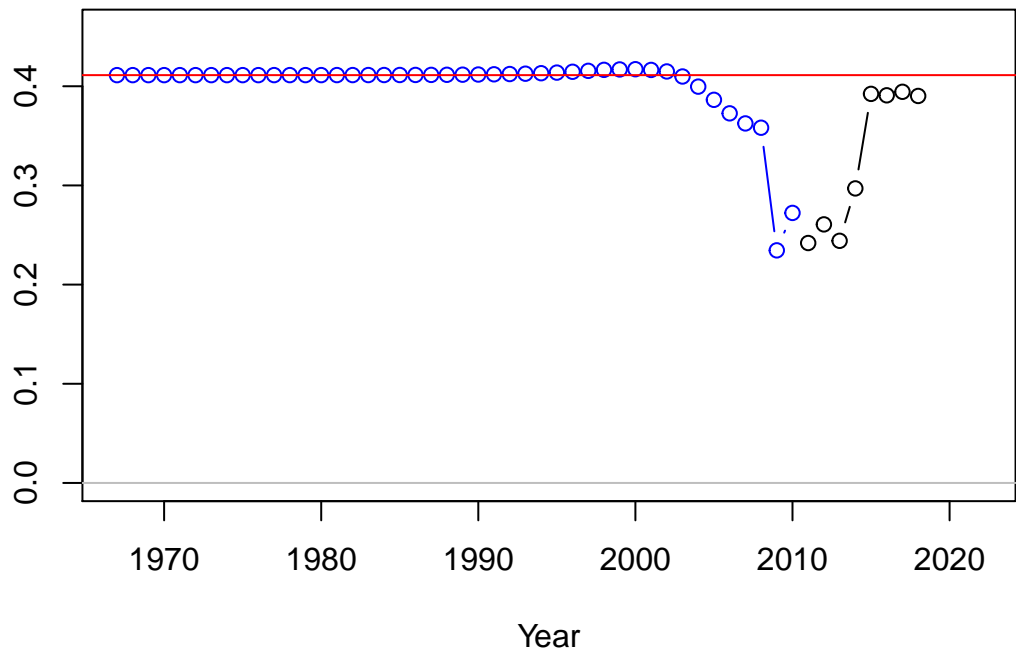


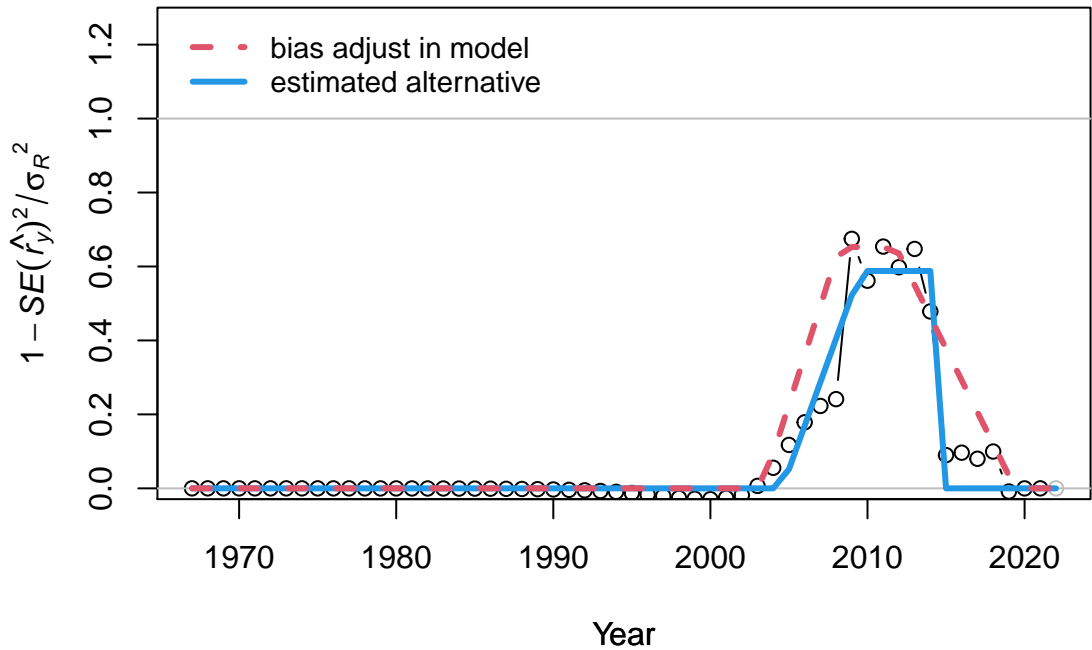
Log recruitment deviation

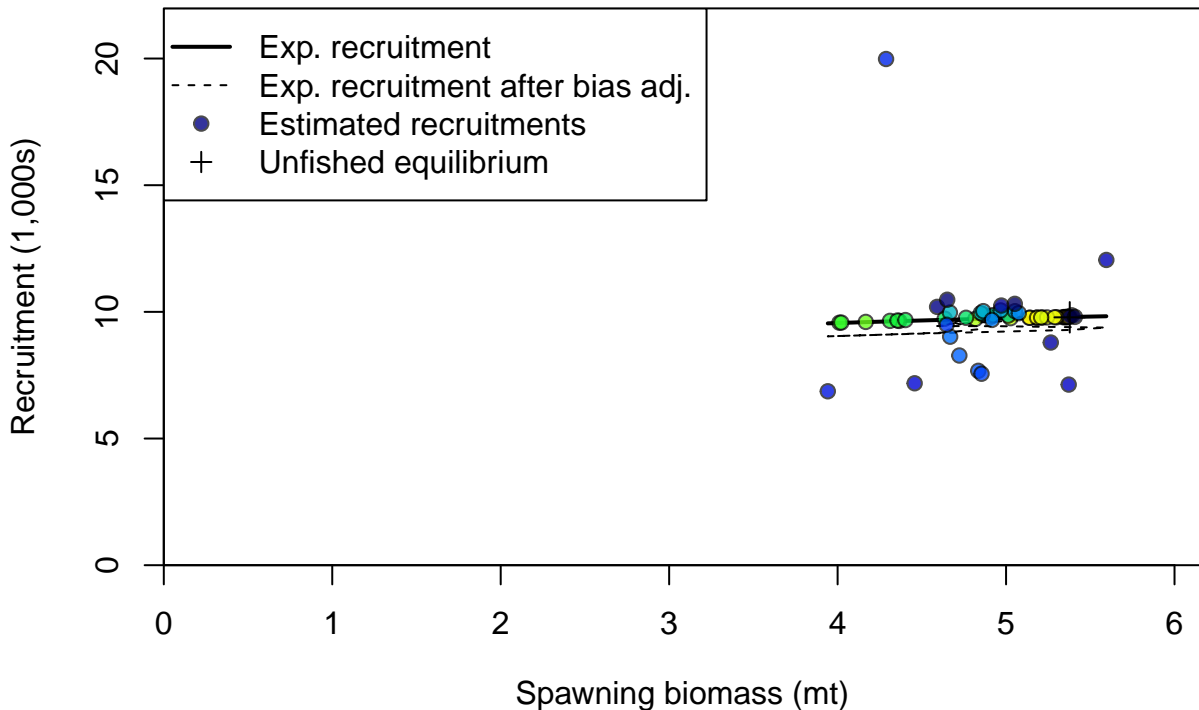


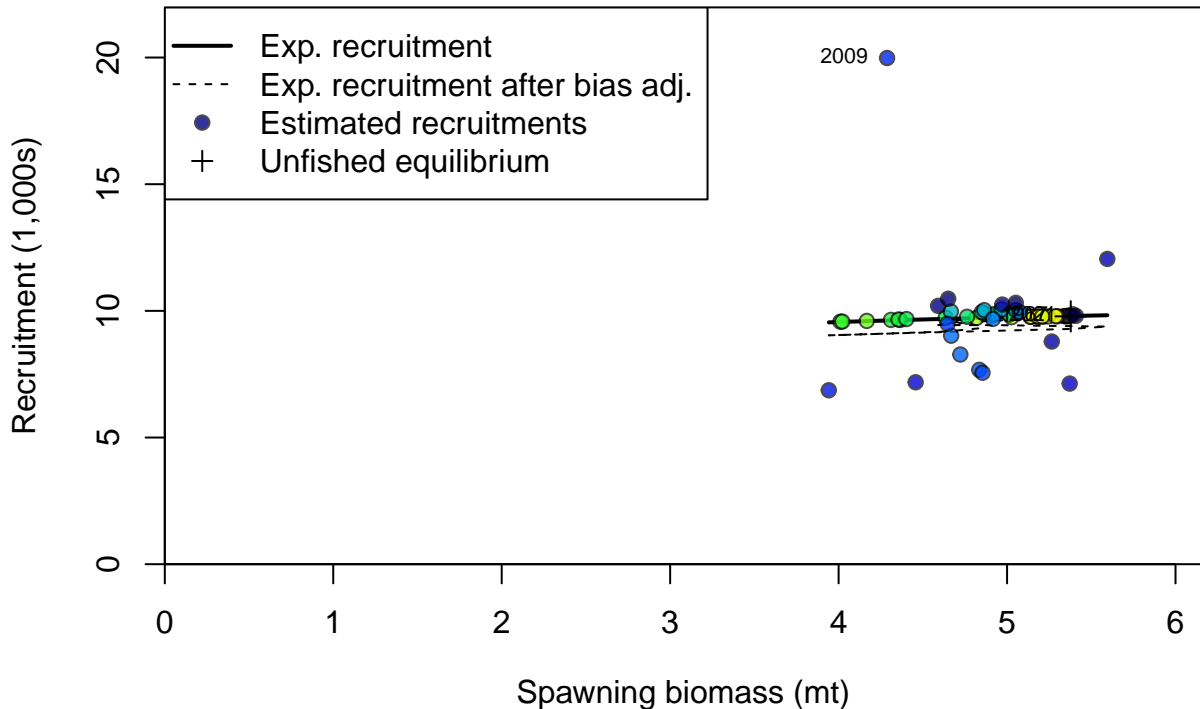
## Recruitment deviation variance

Asymptotic standard error estimate



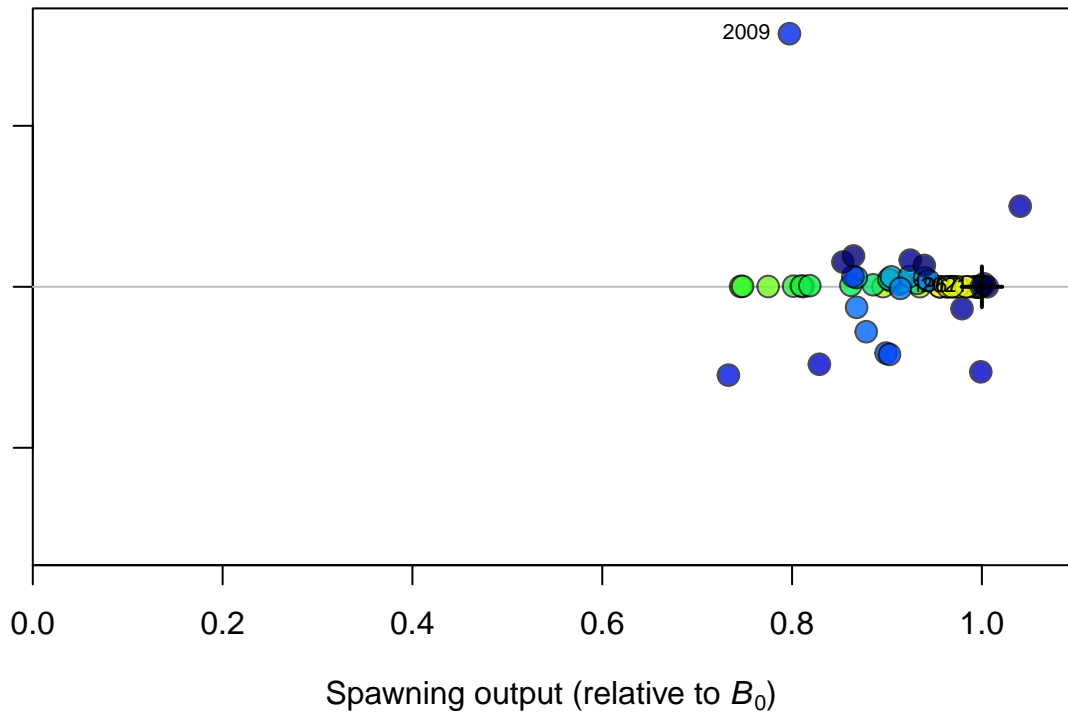


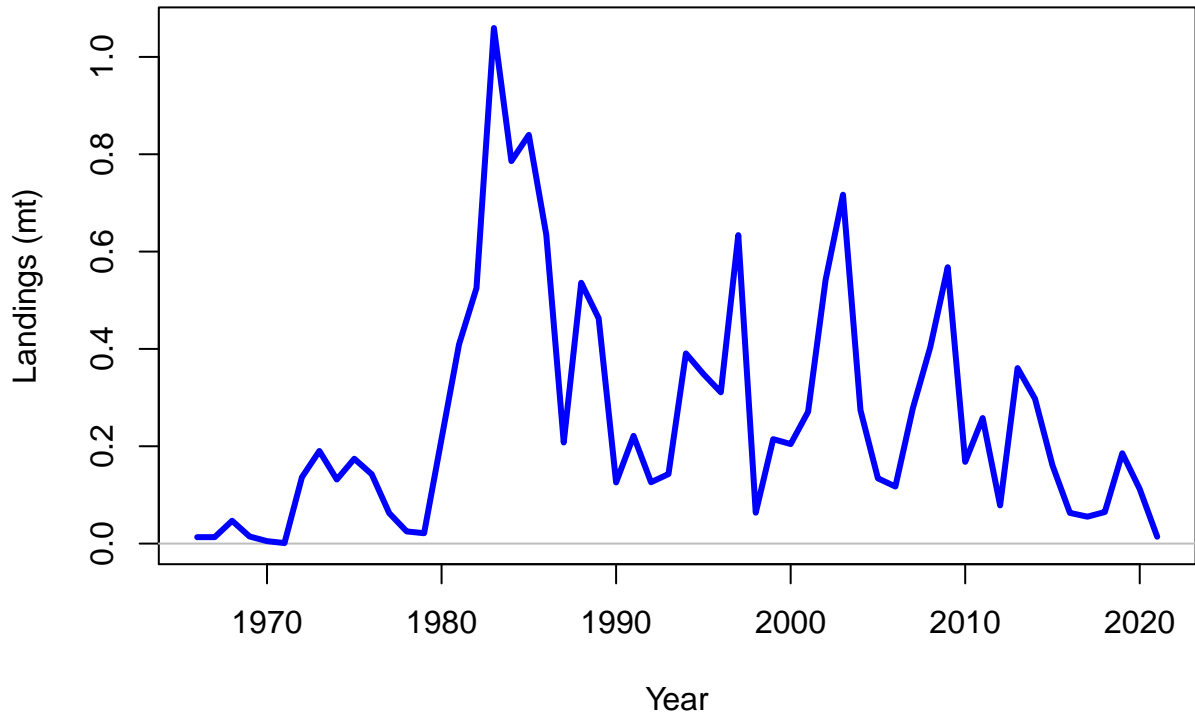


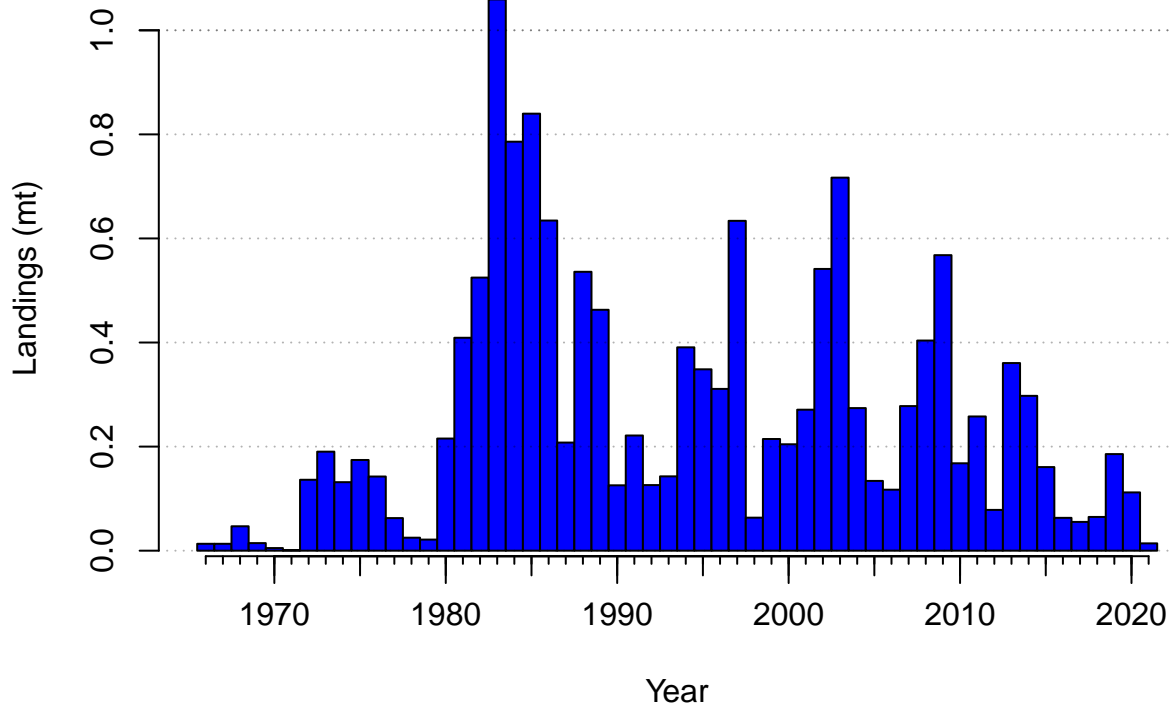


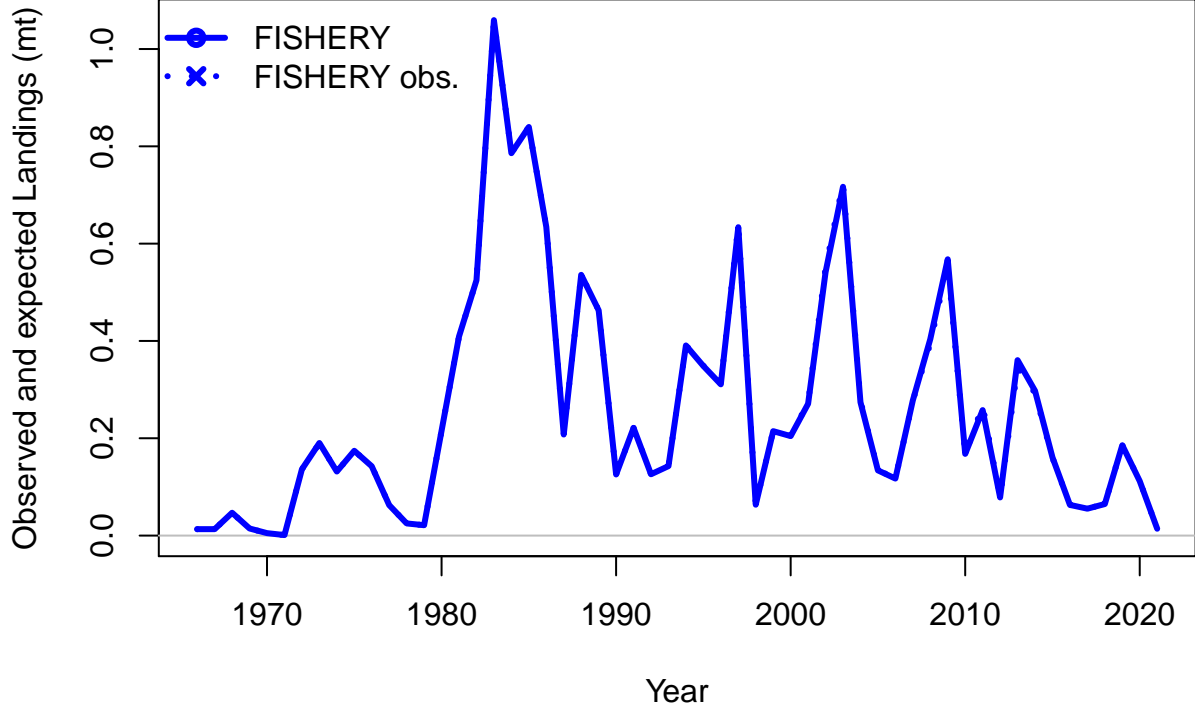


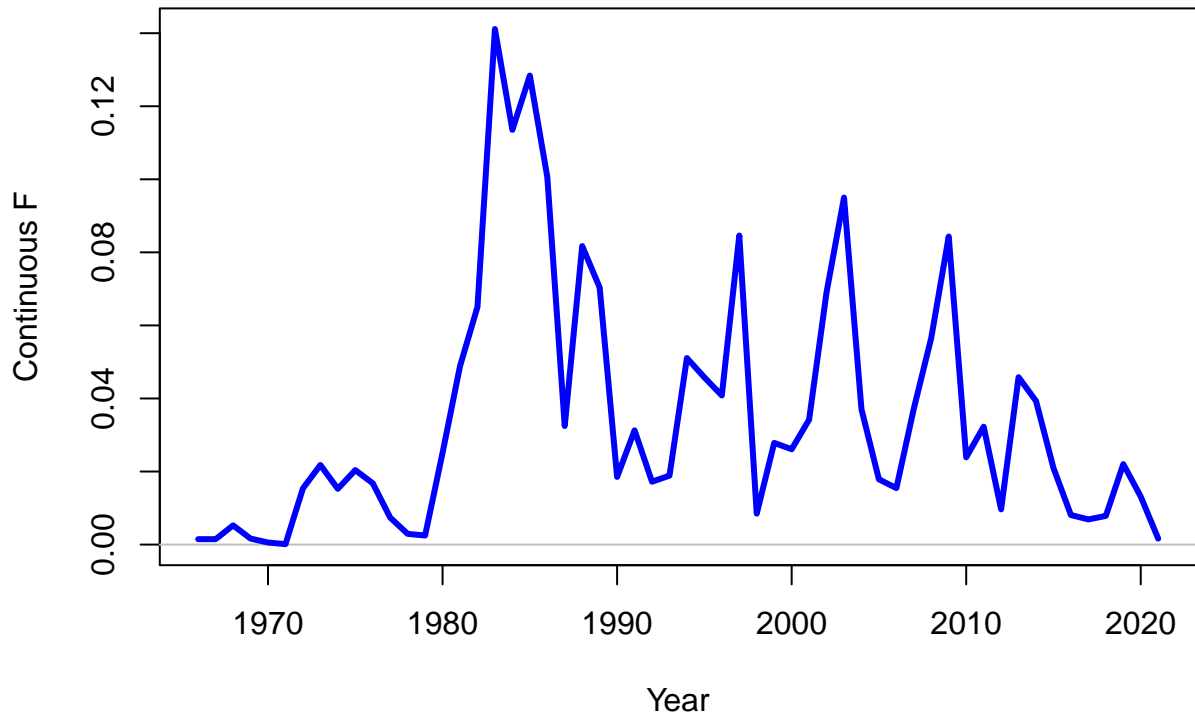
Log recruitment deviation



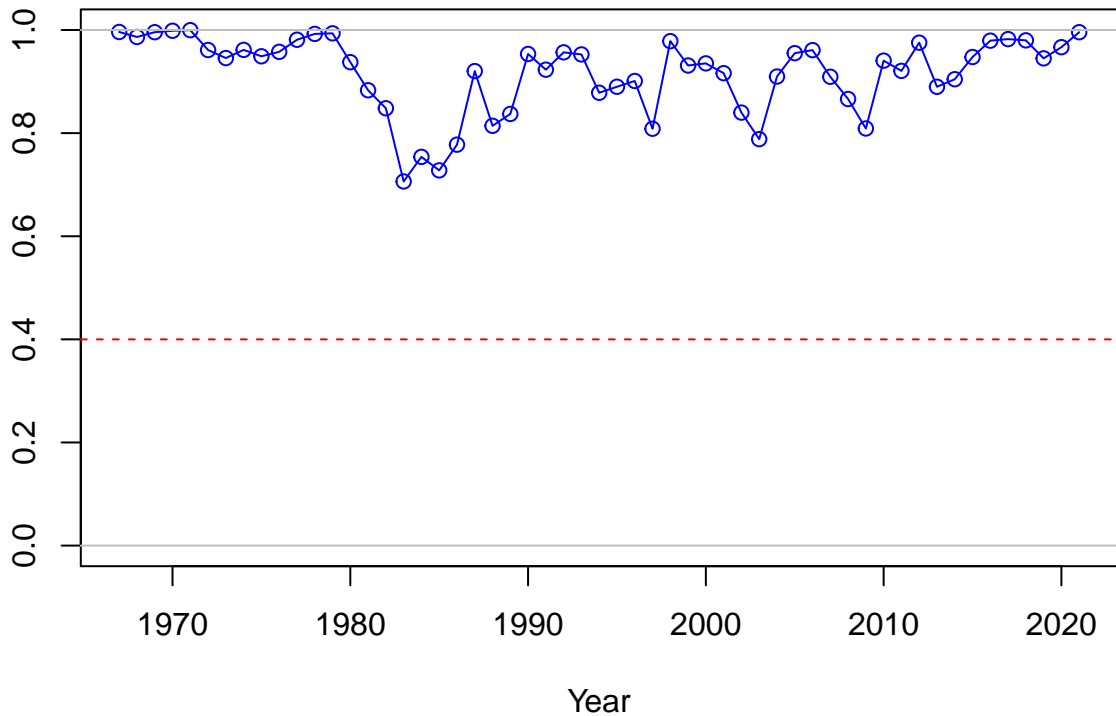




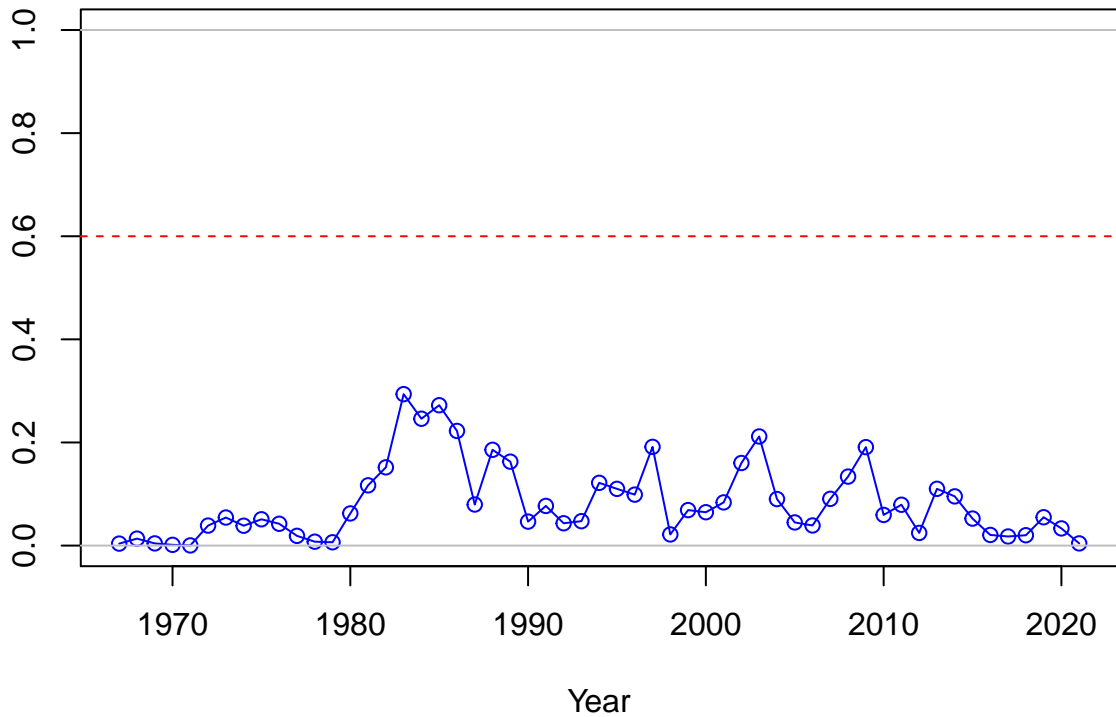




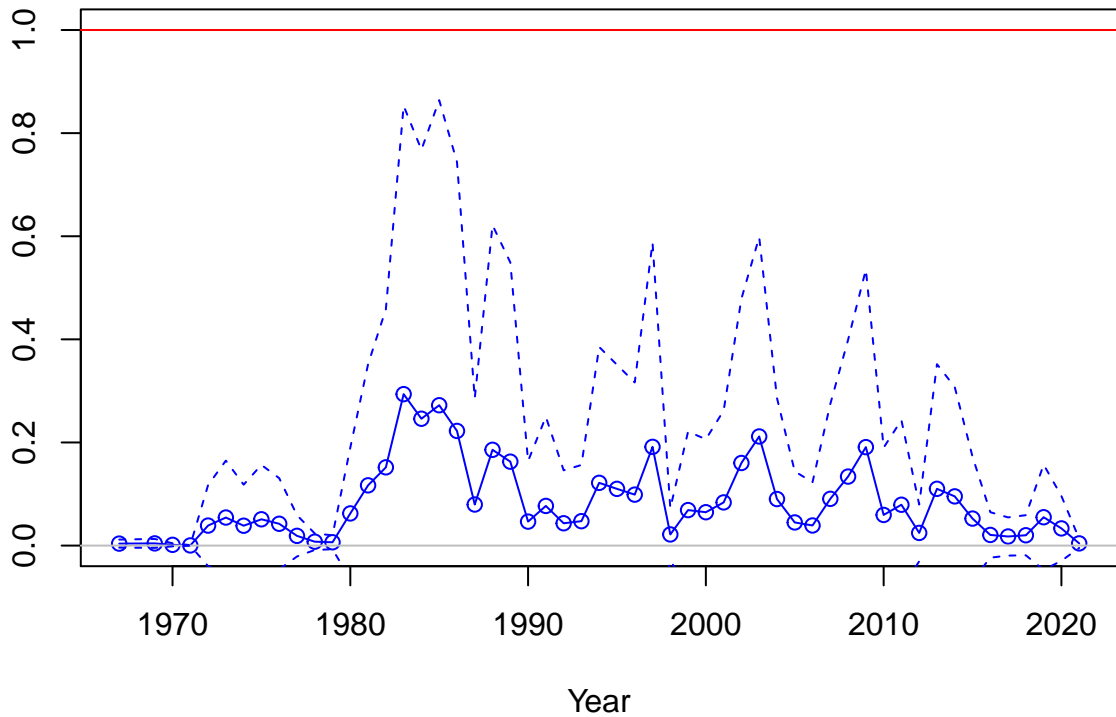
SPR



1-SPR

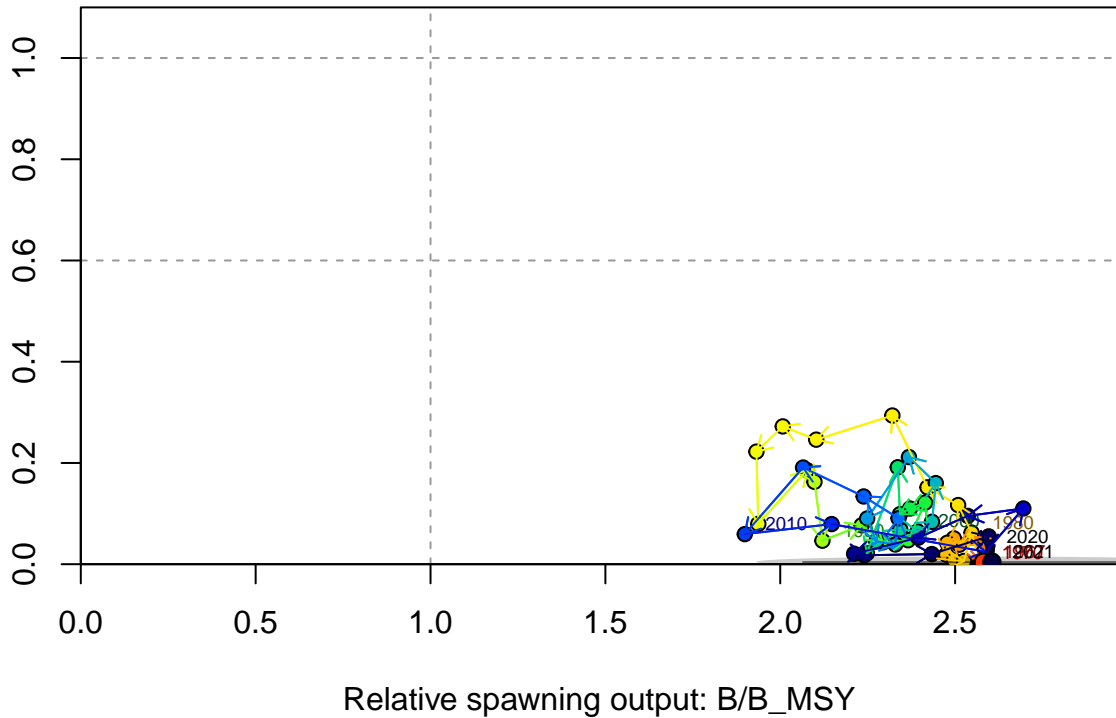


Fishing intensity: 1-SPR

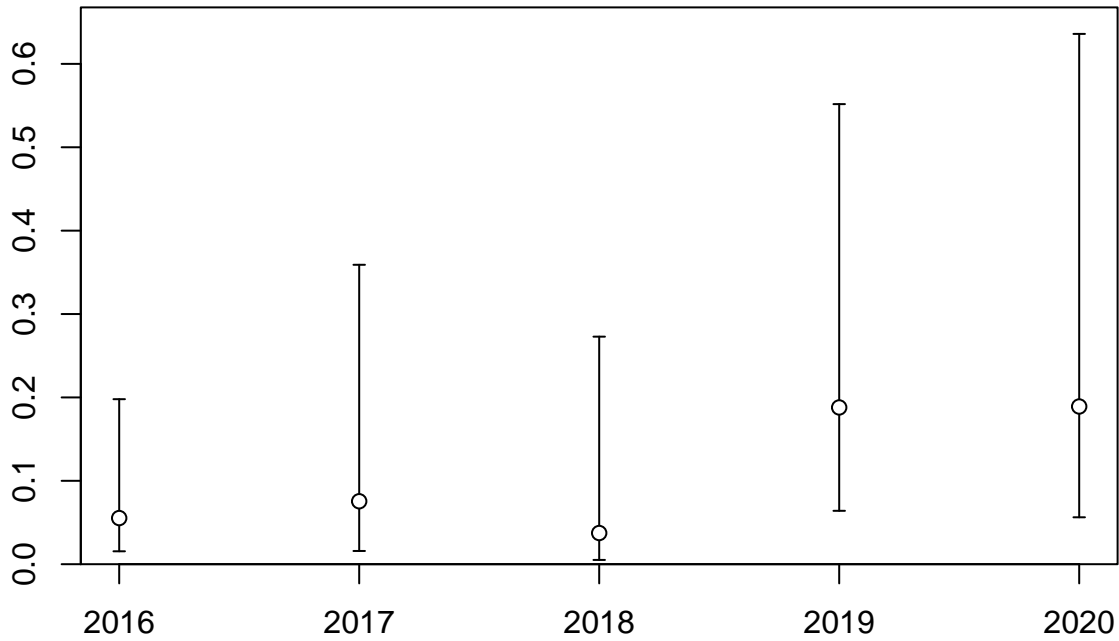




Fishing intensity: 1-SPR

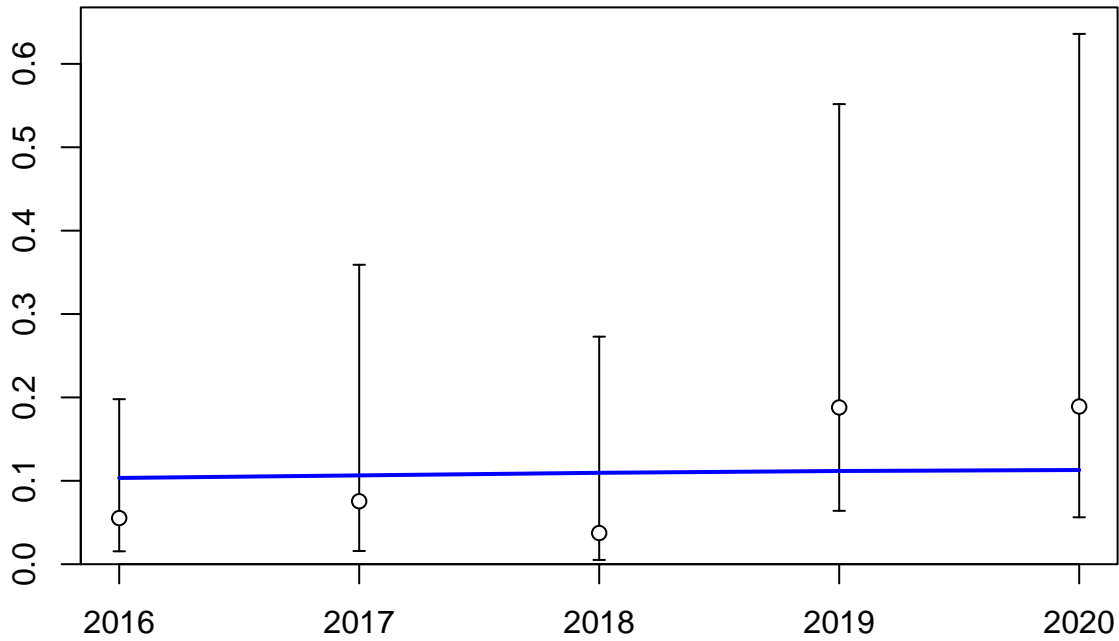


Index

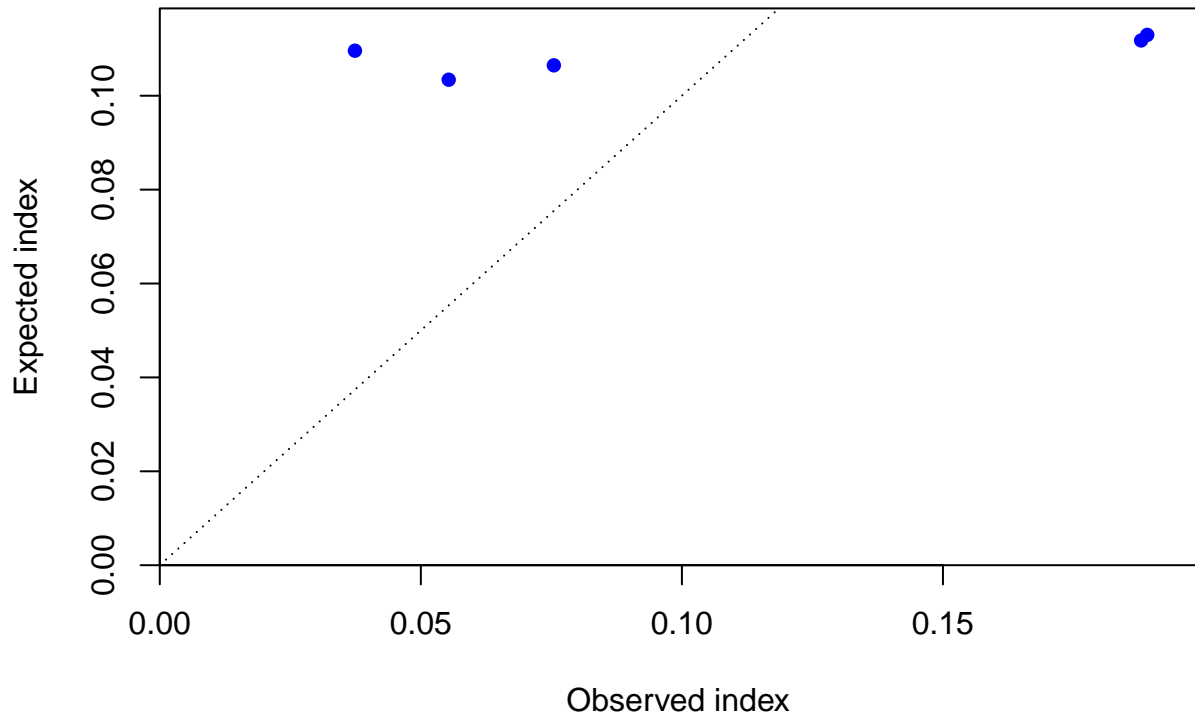


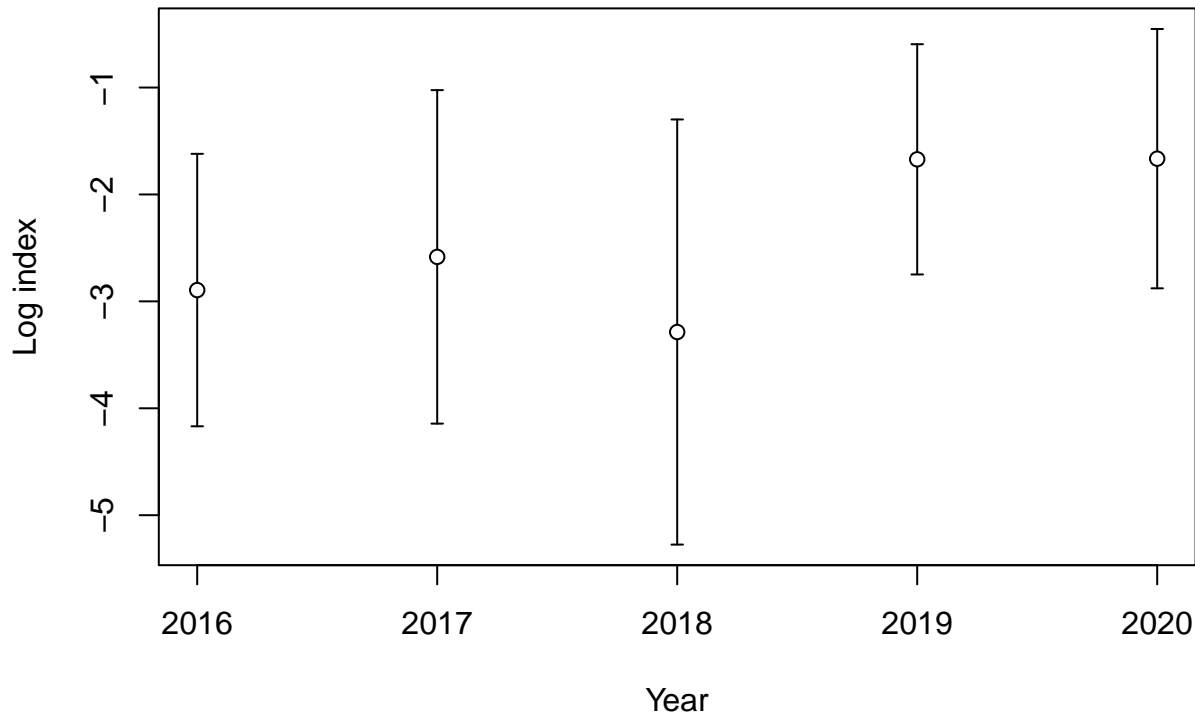
Year

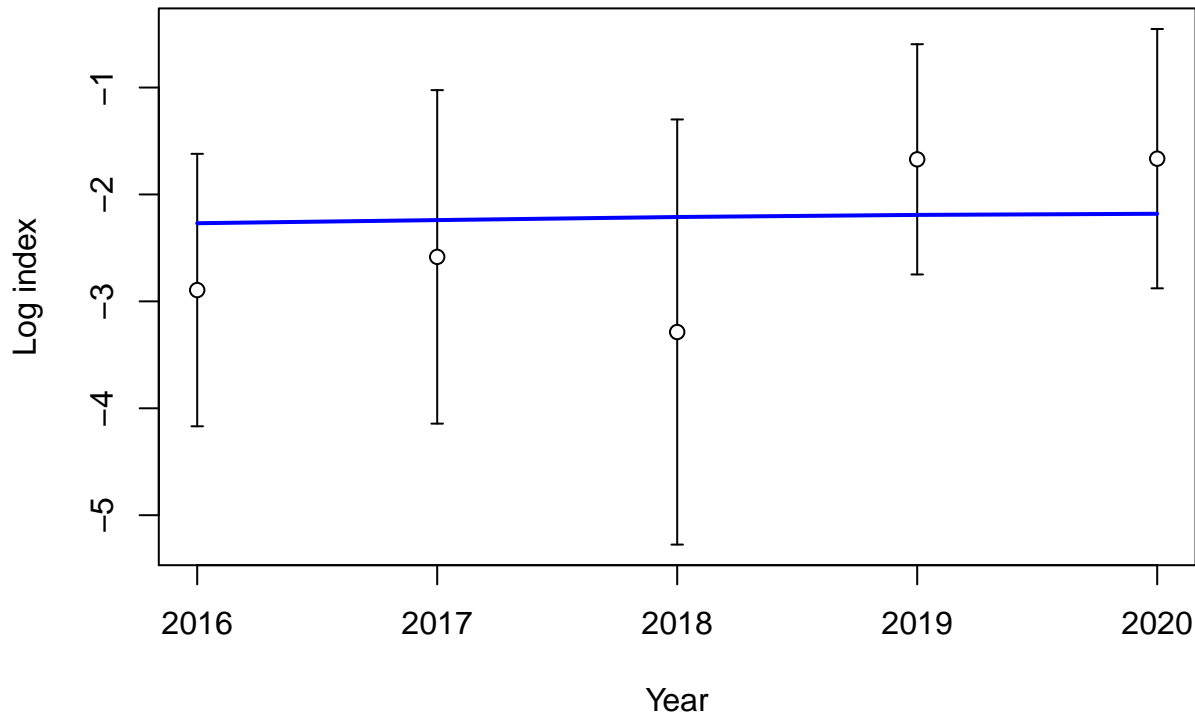
Index

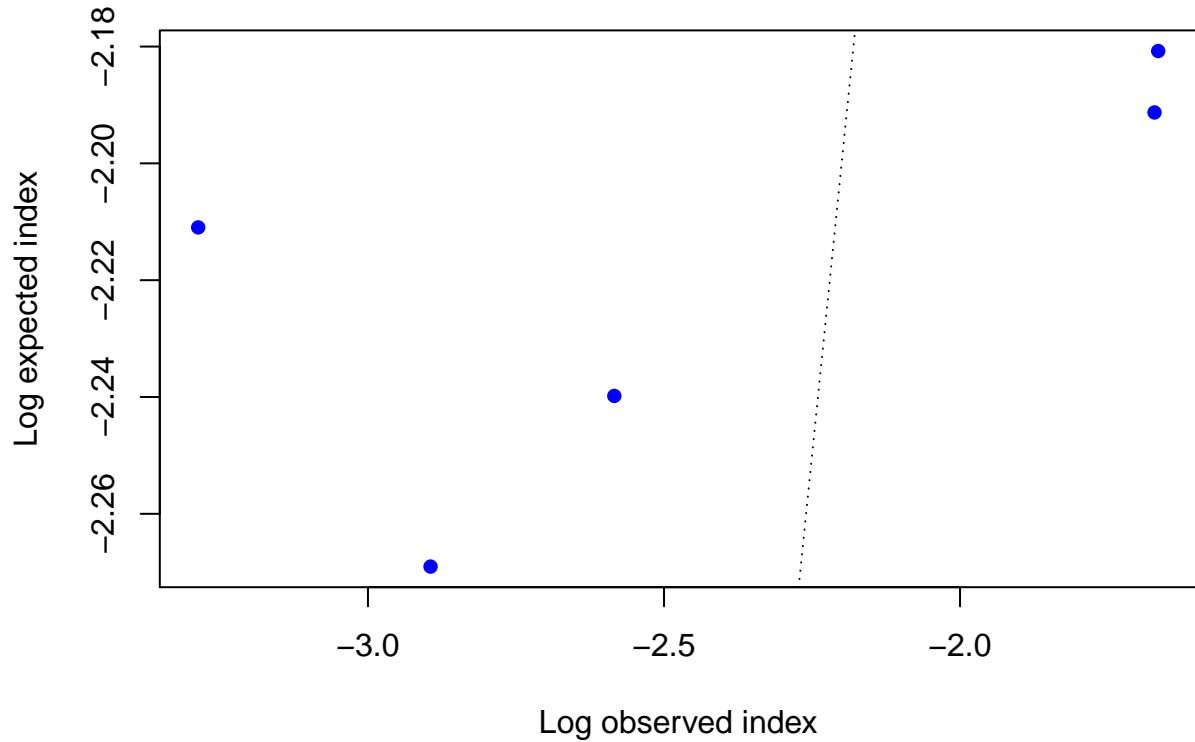


Year

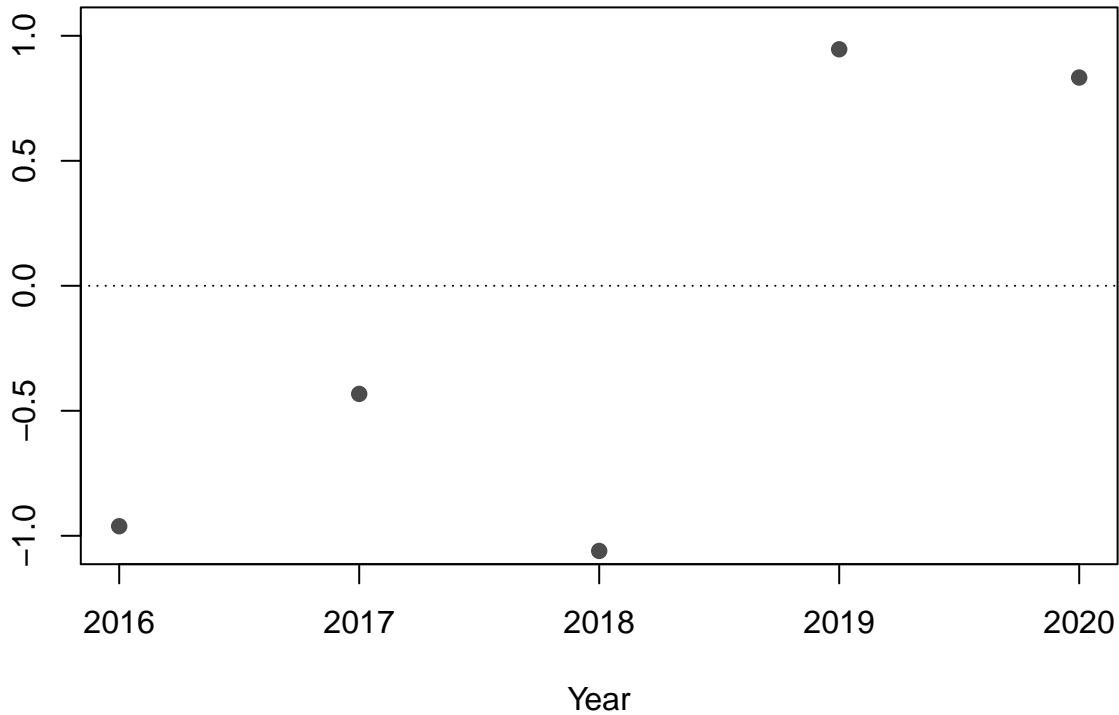






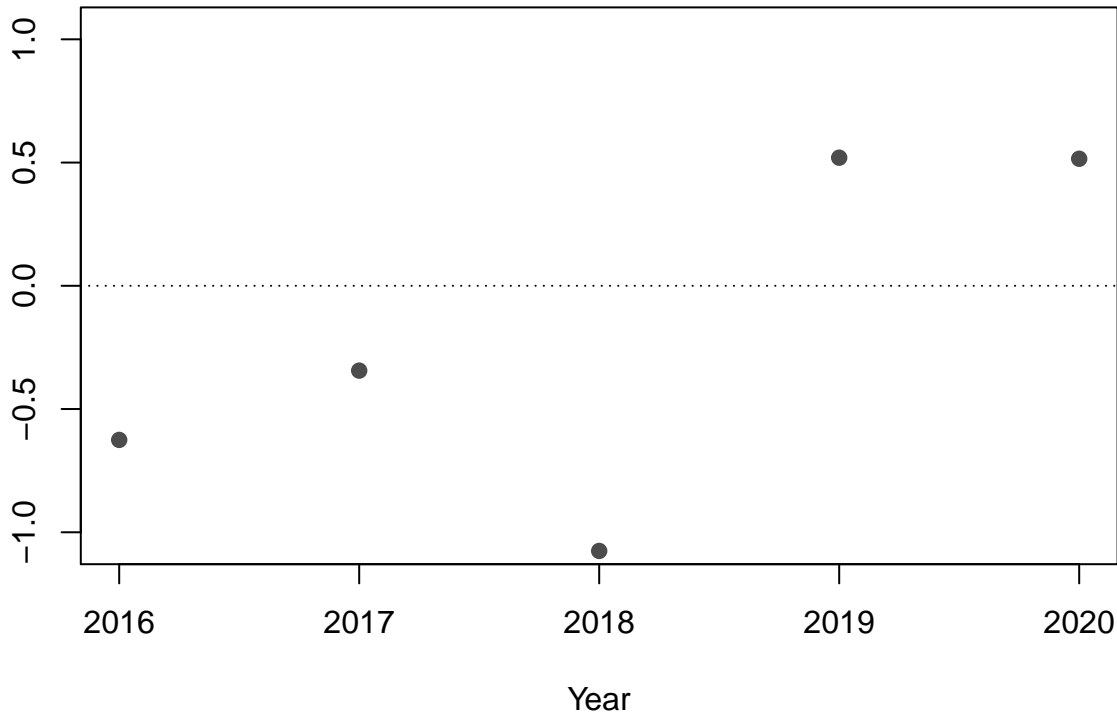


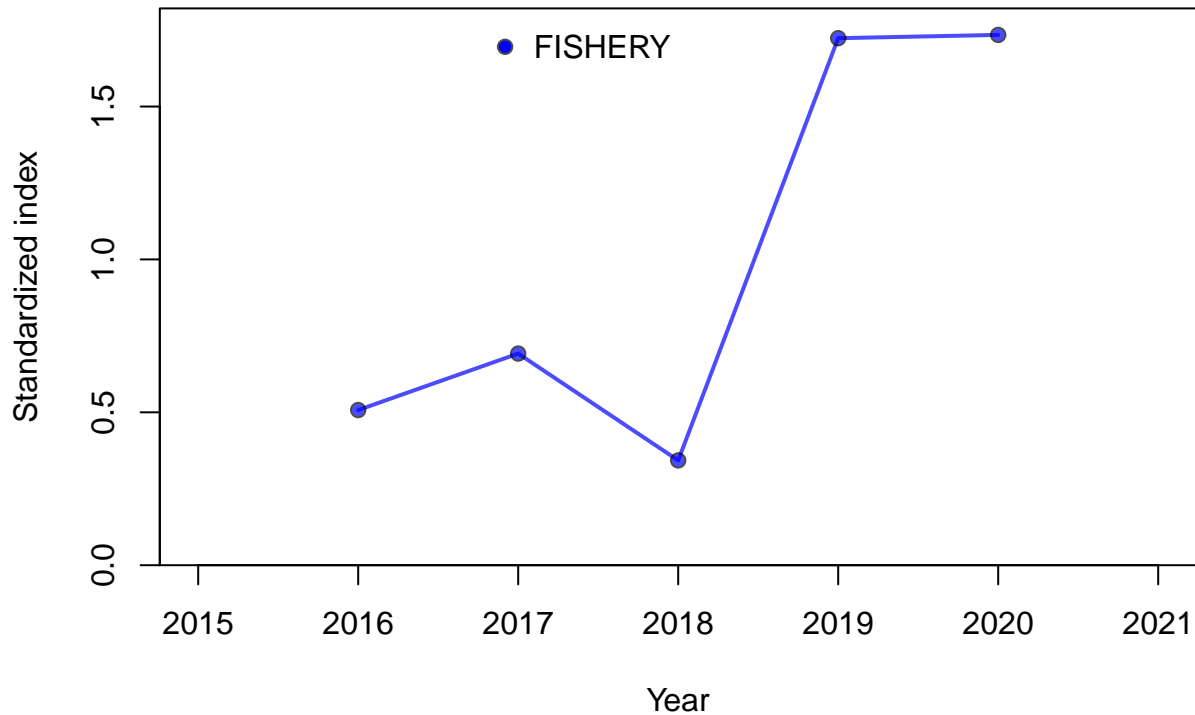
Residual

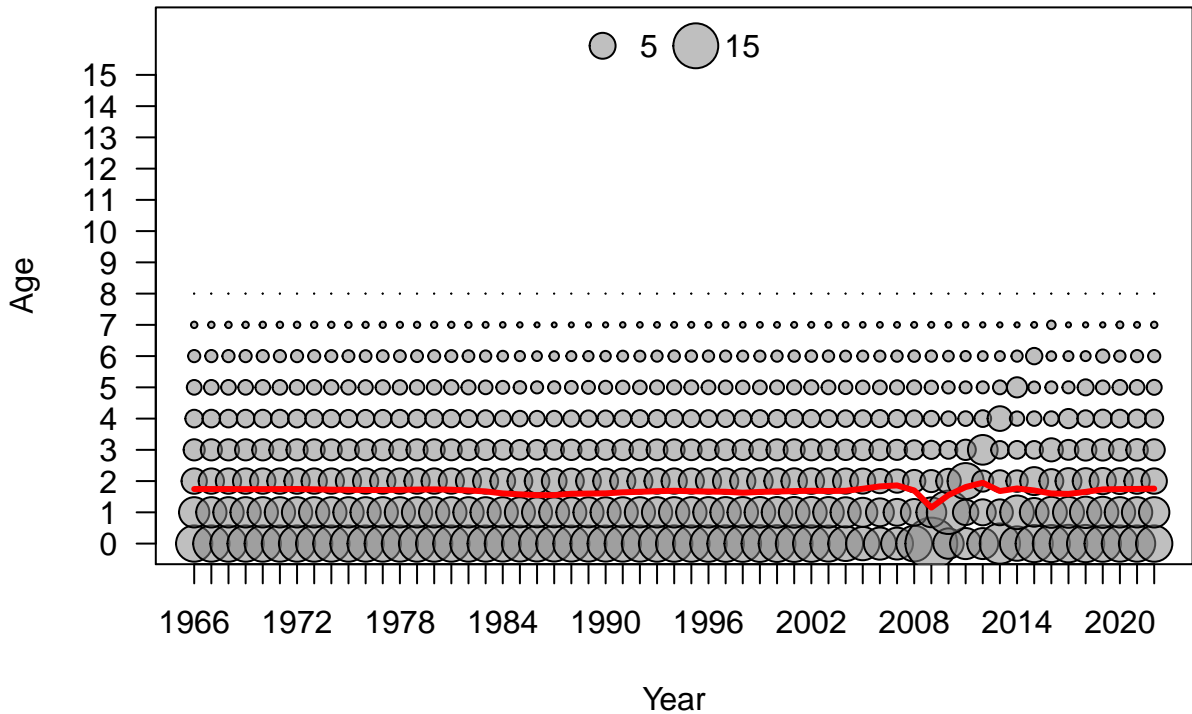


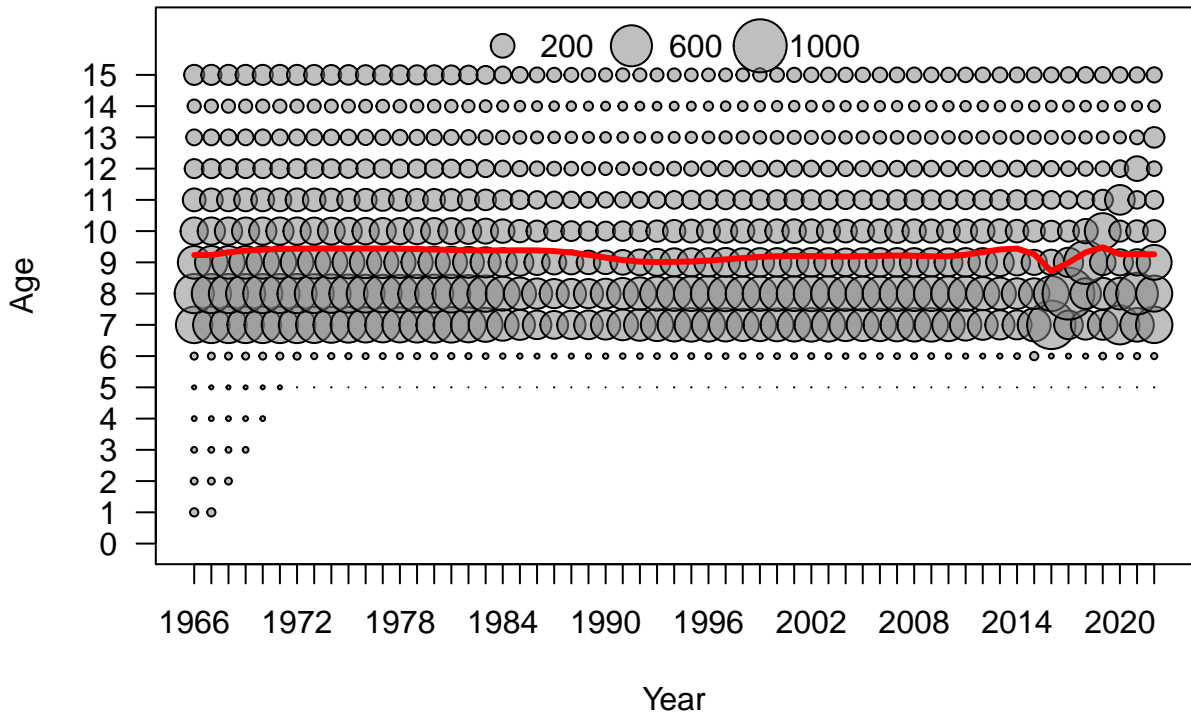


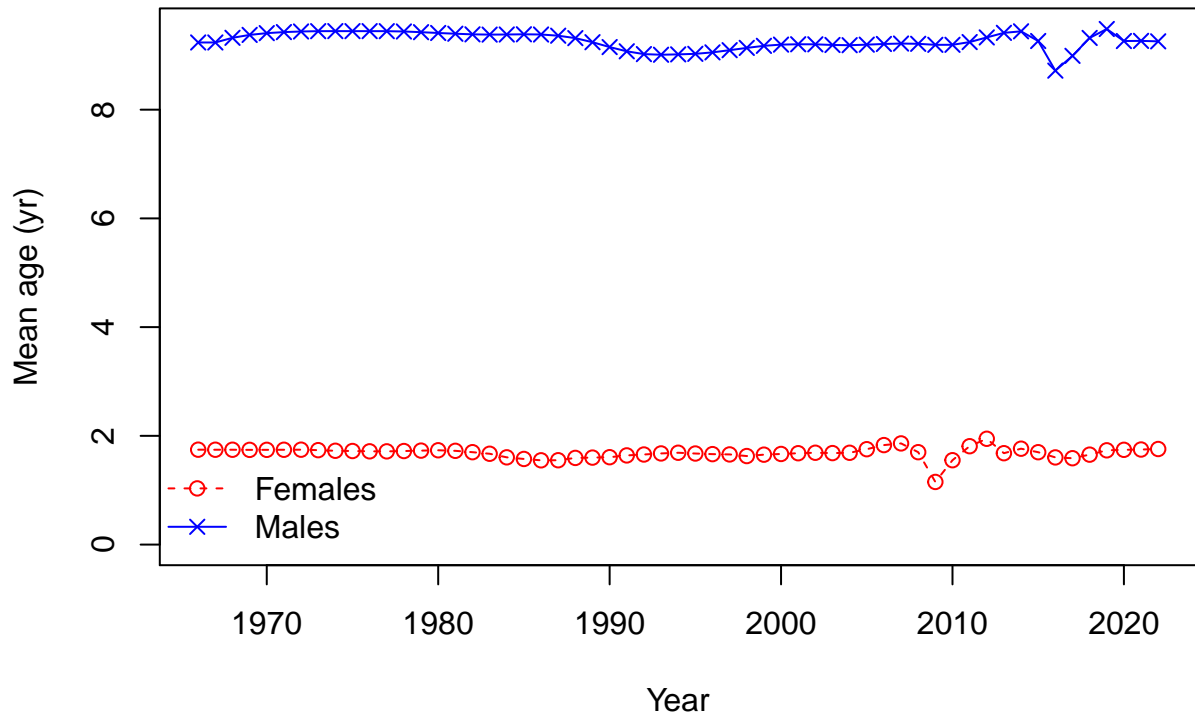
Deviation

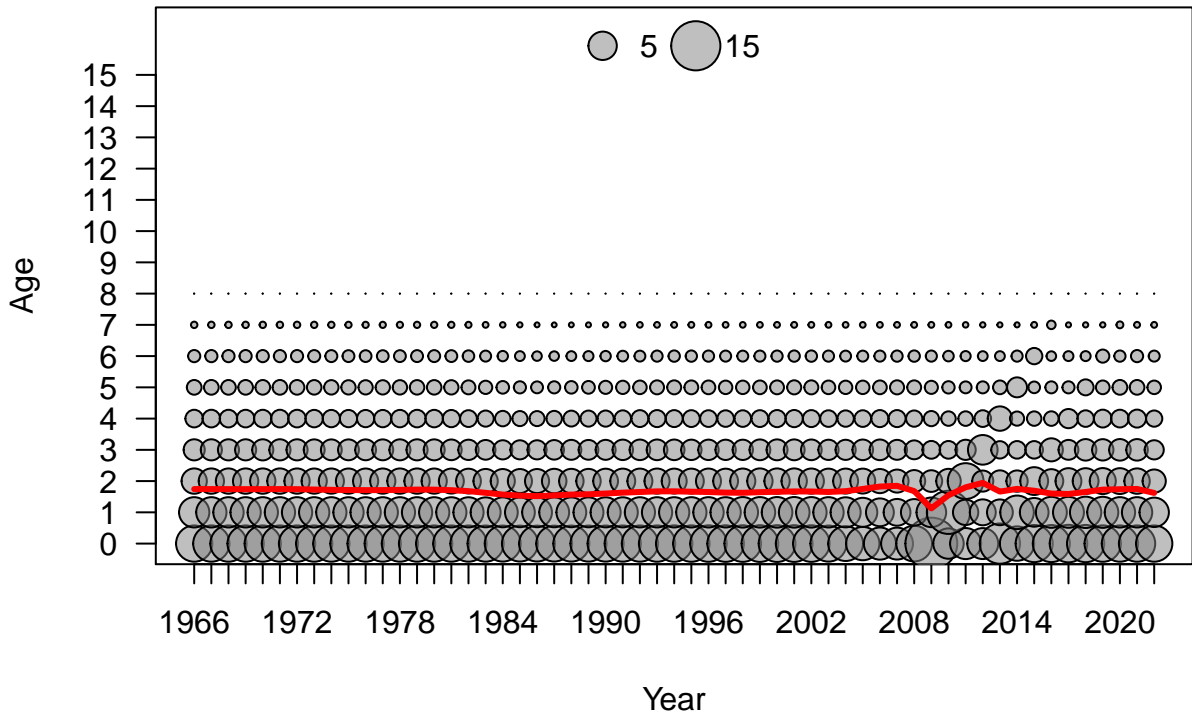


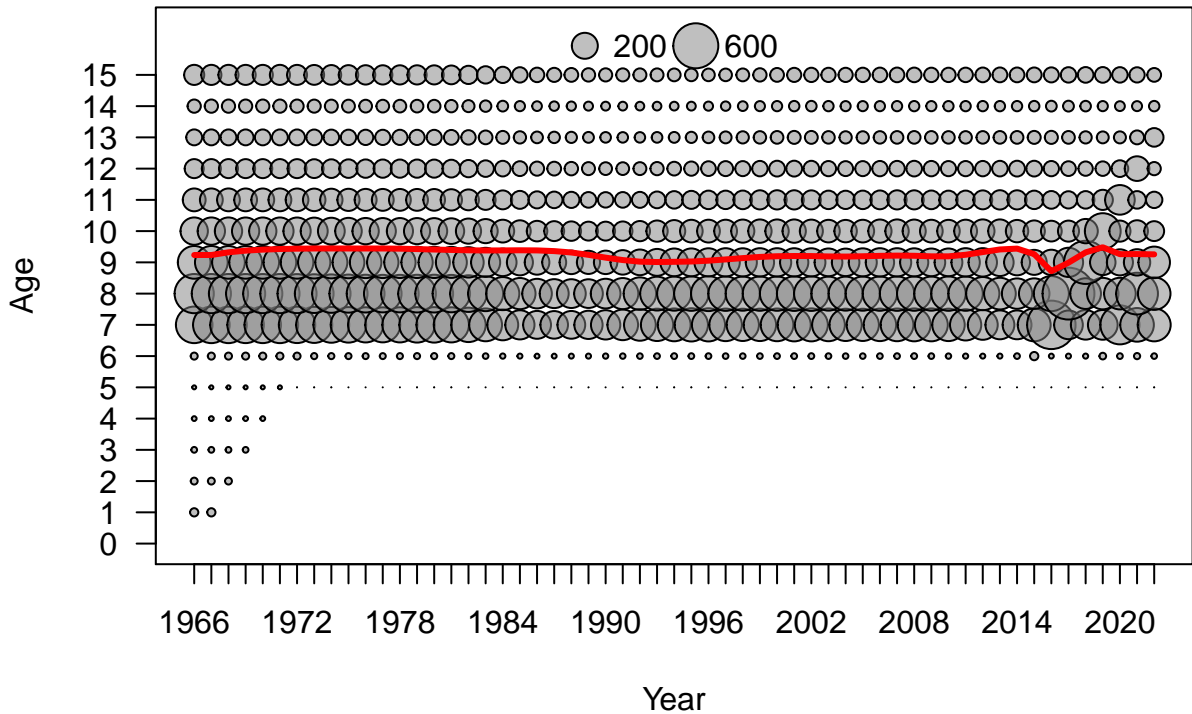


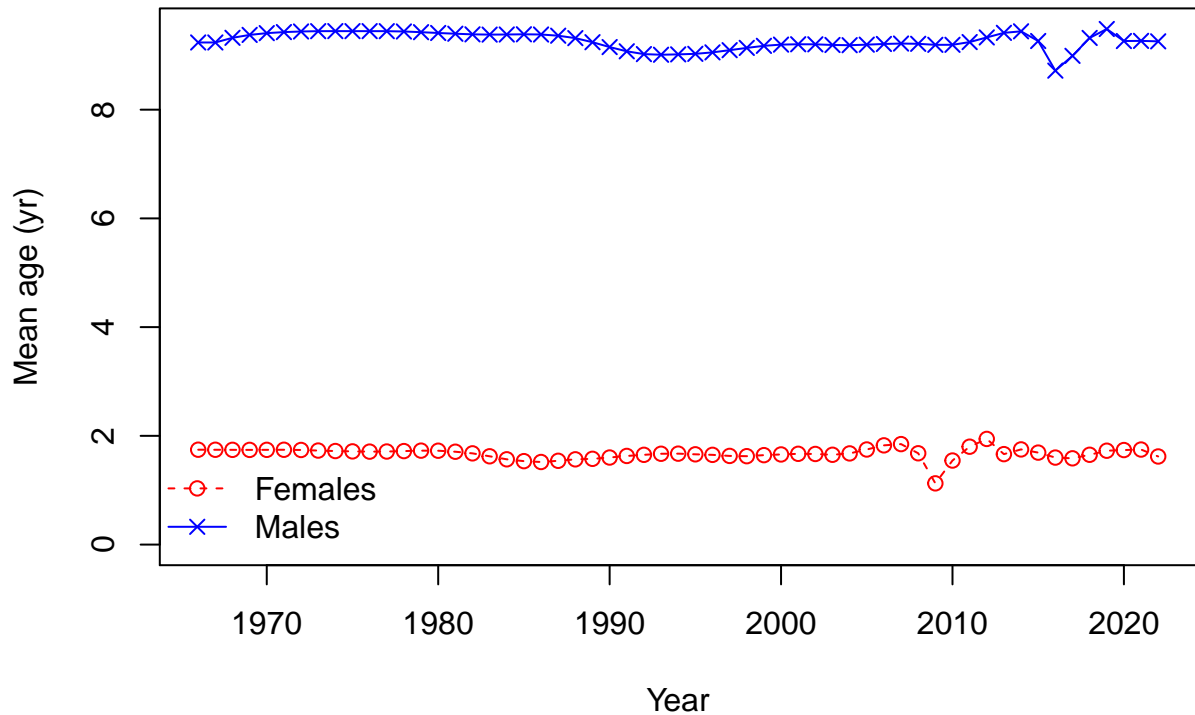














Age

14  
12  
10  
8  
6  
4  
2  
0

1970

1980

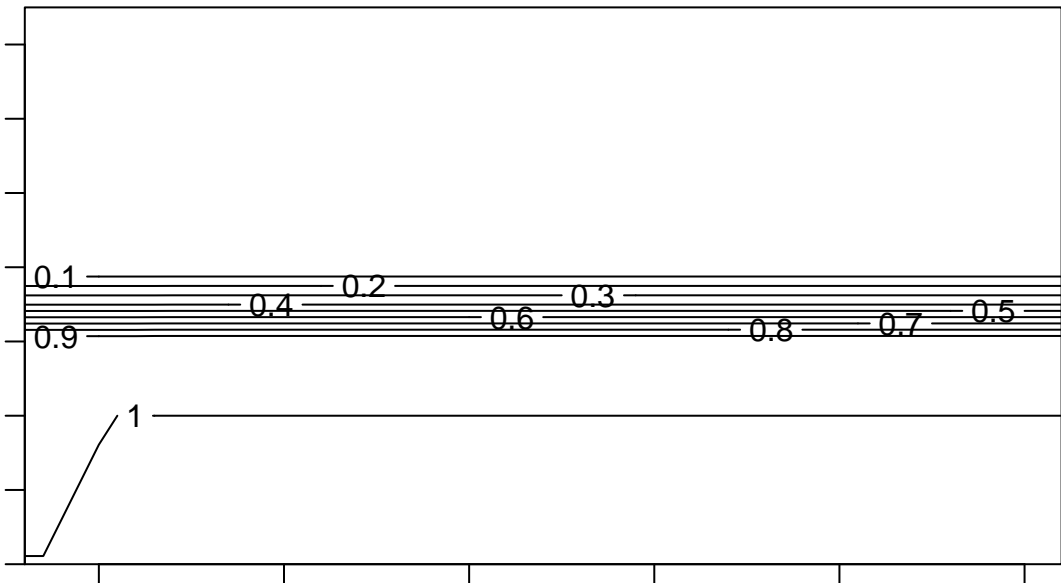
1990

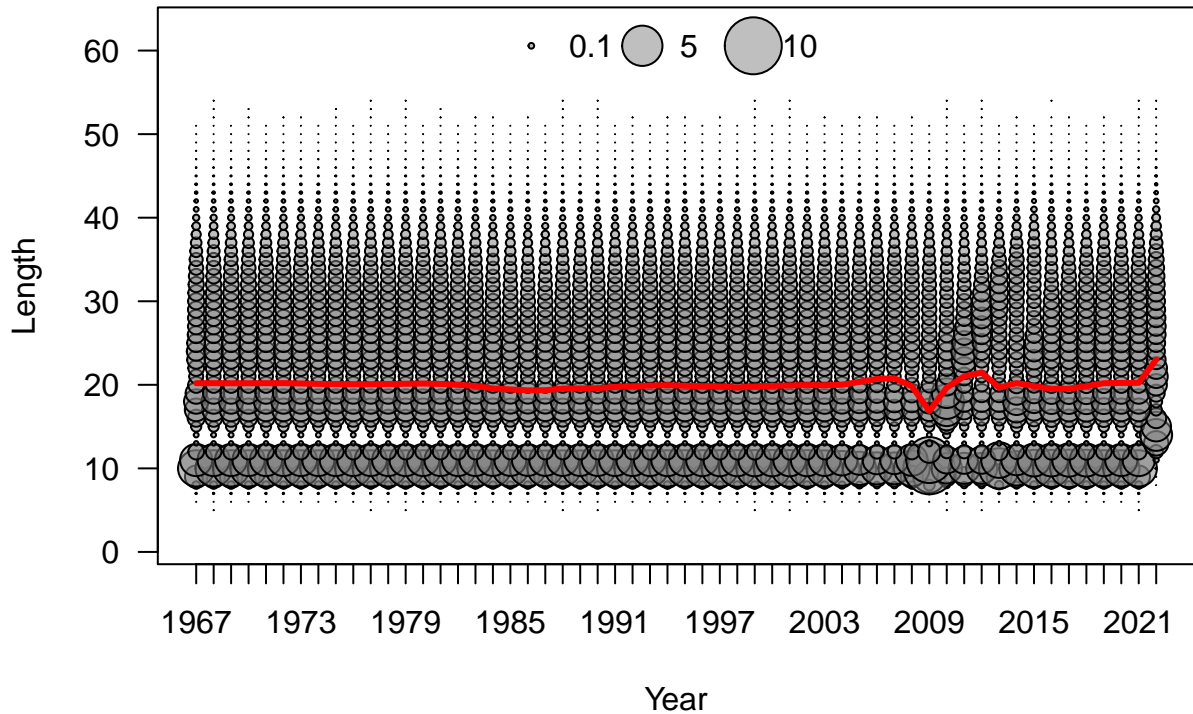
2000

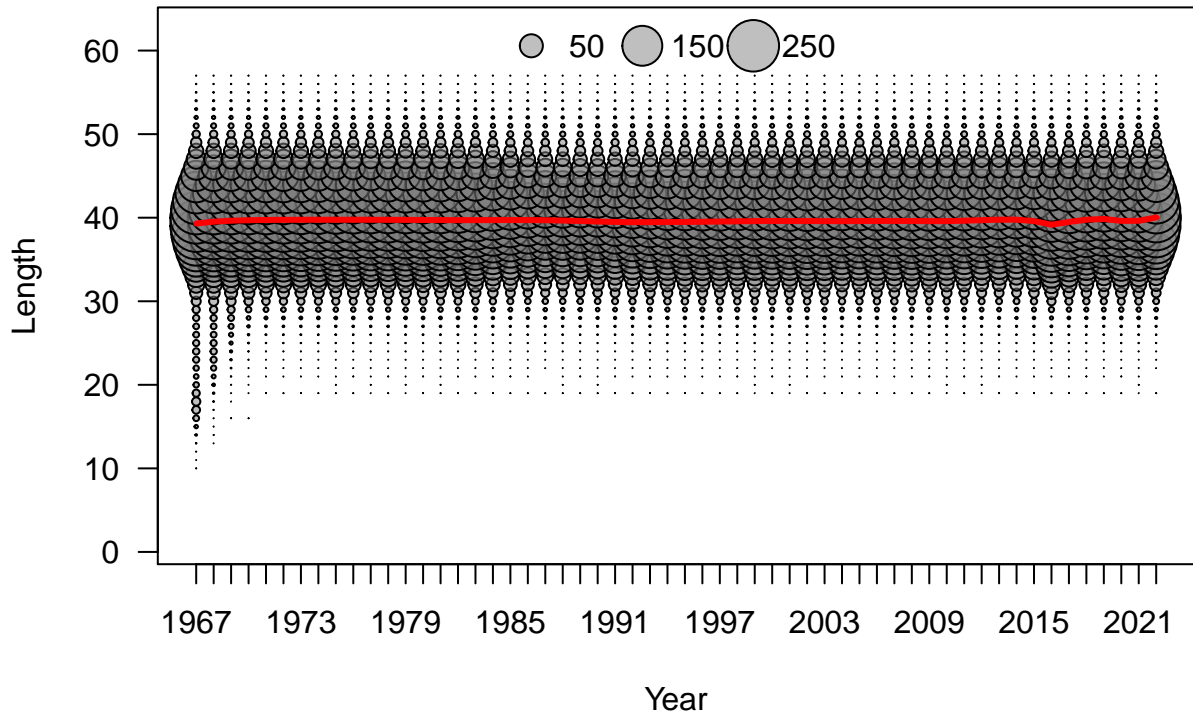
2010

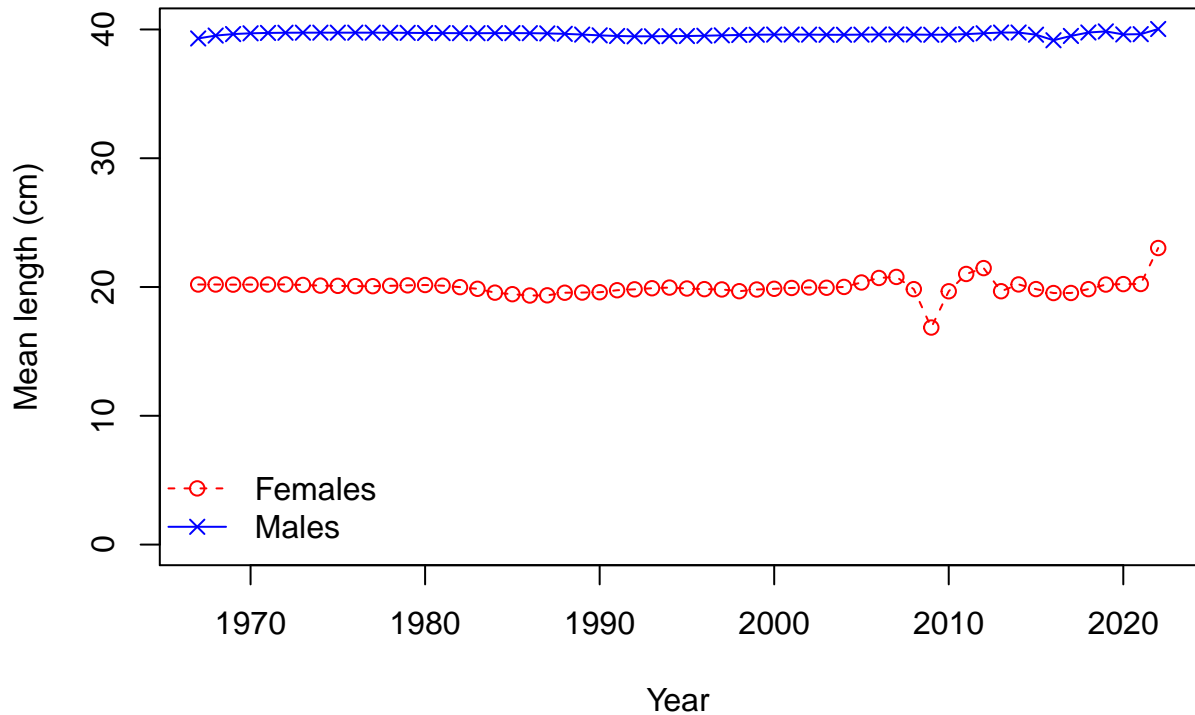
2020

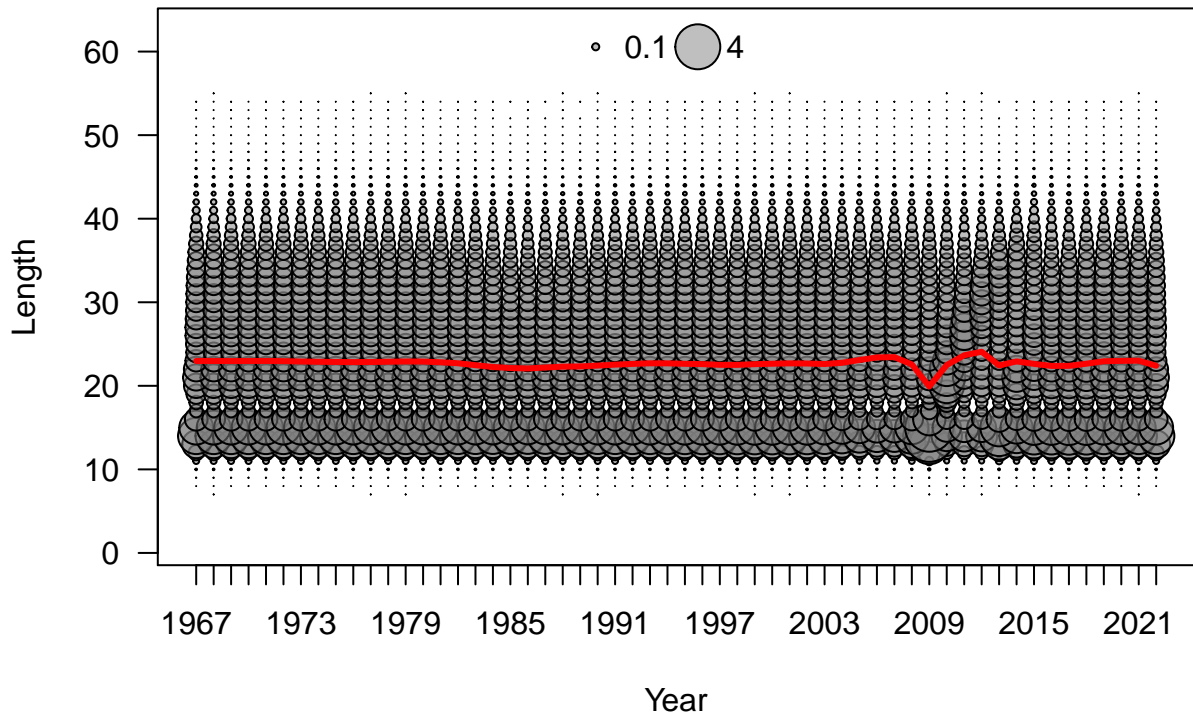
Year

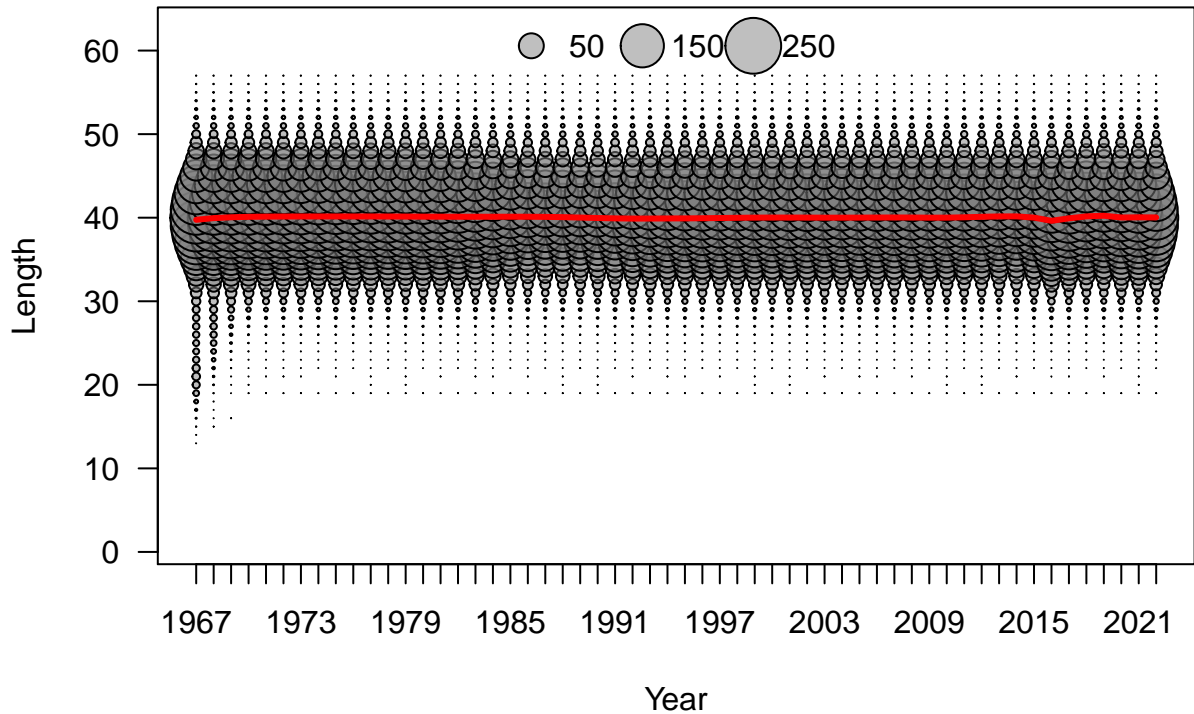


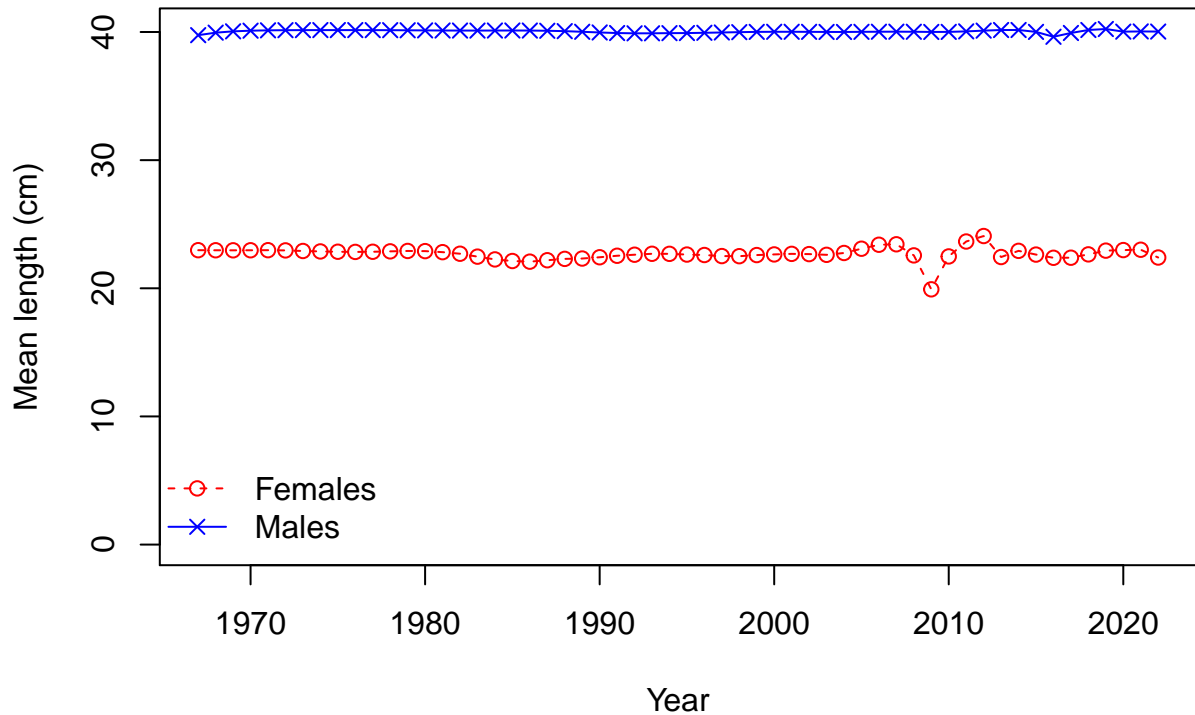


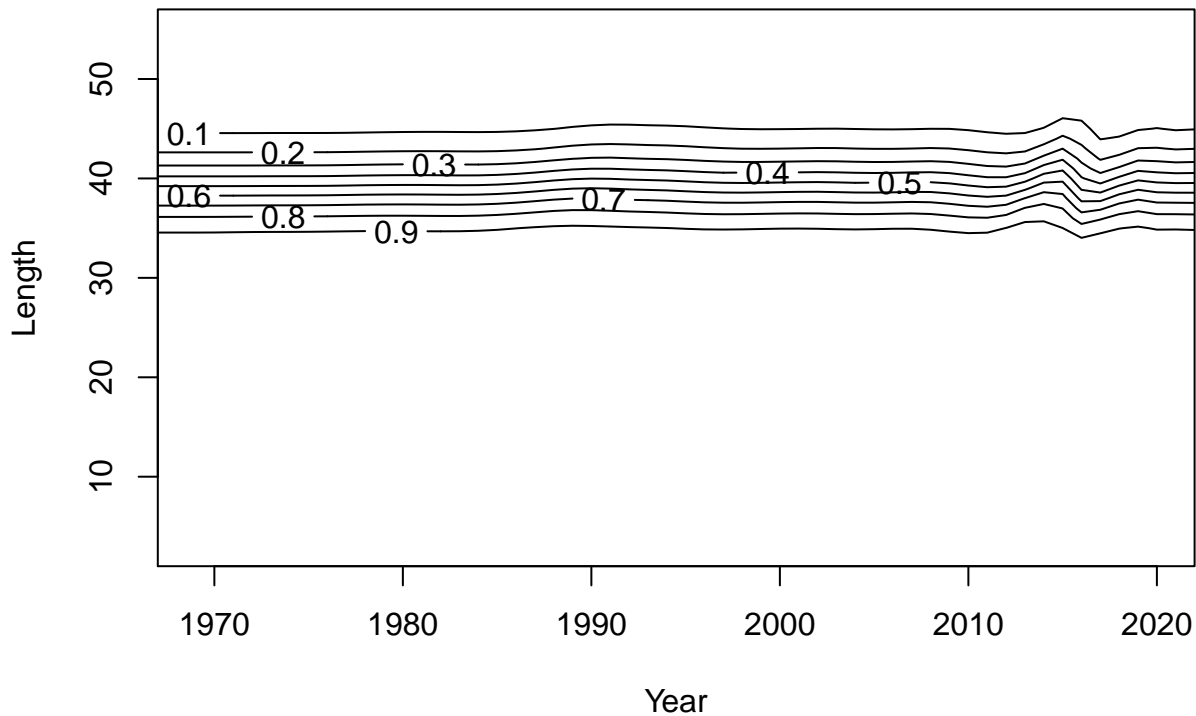




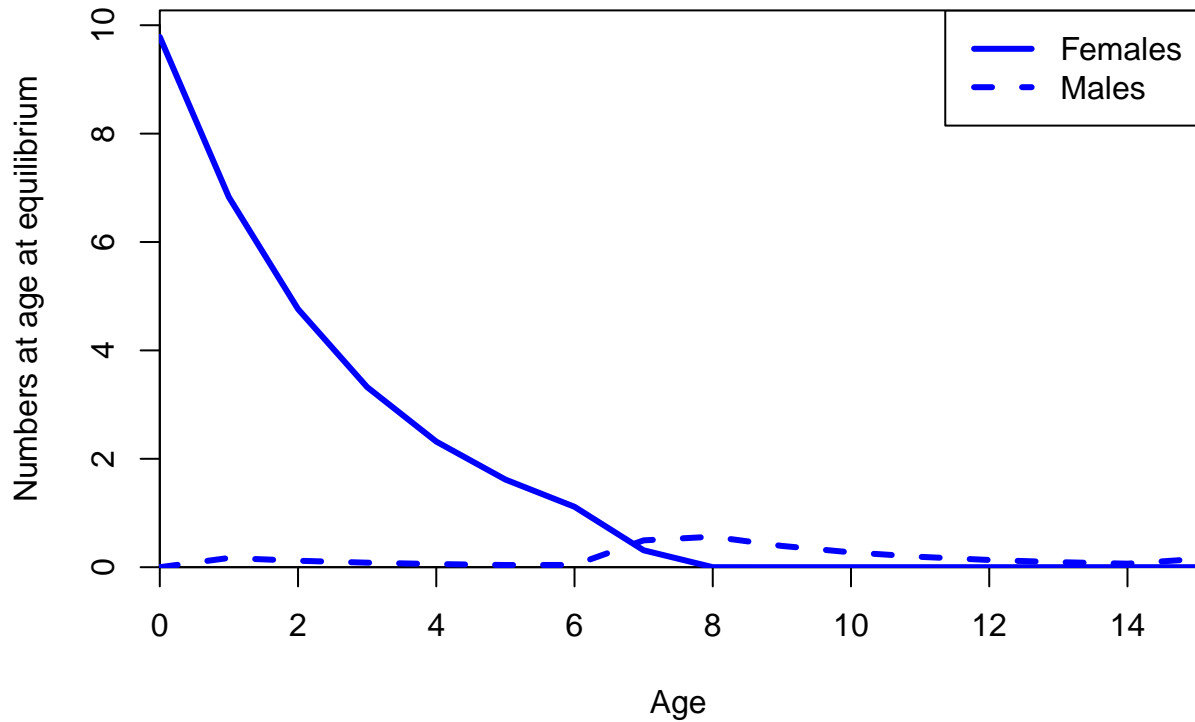


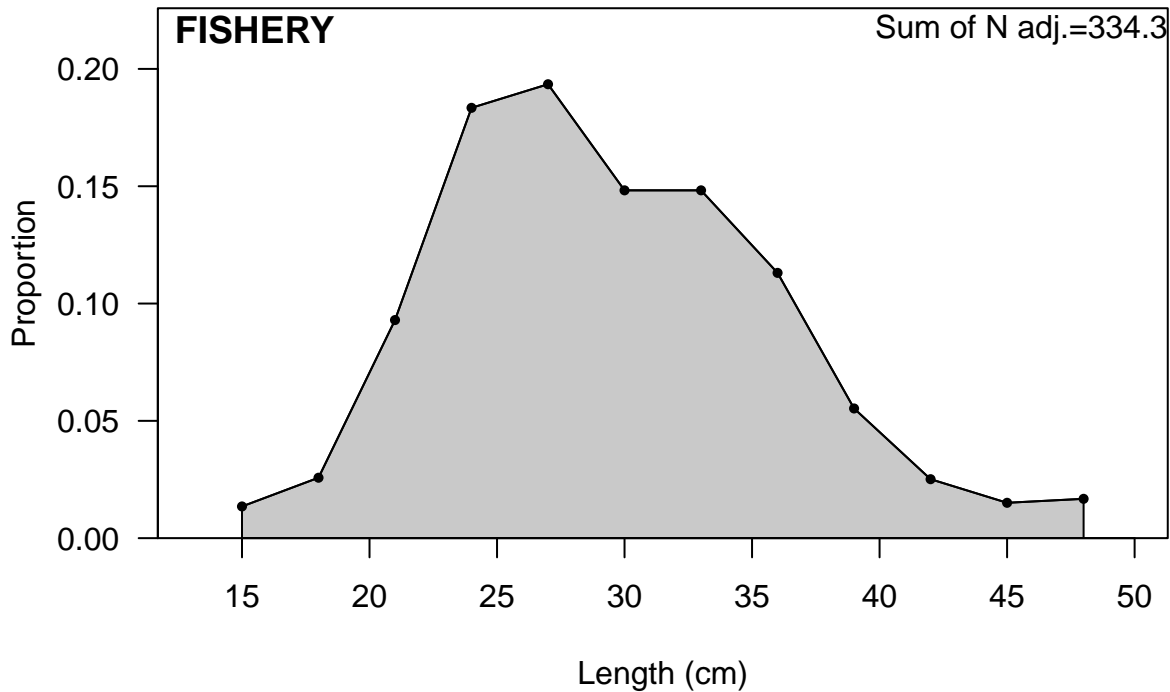


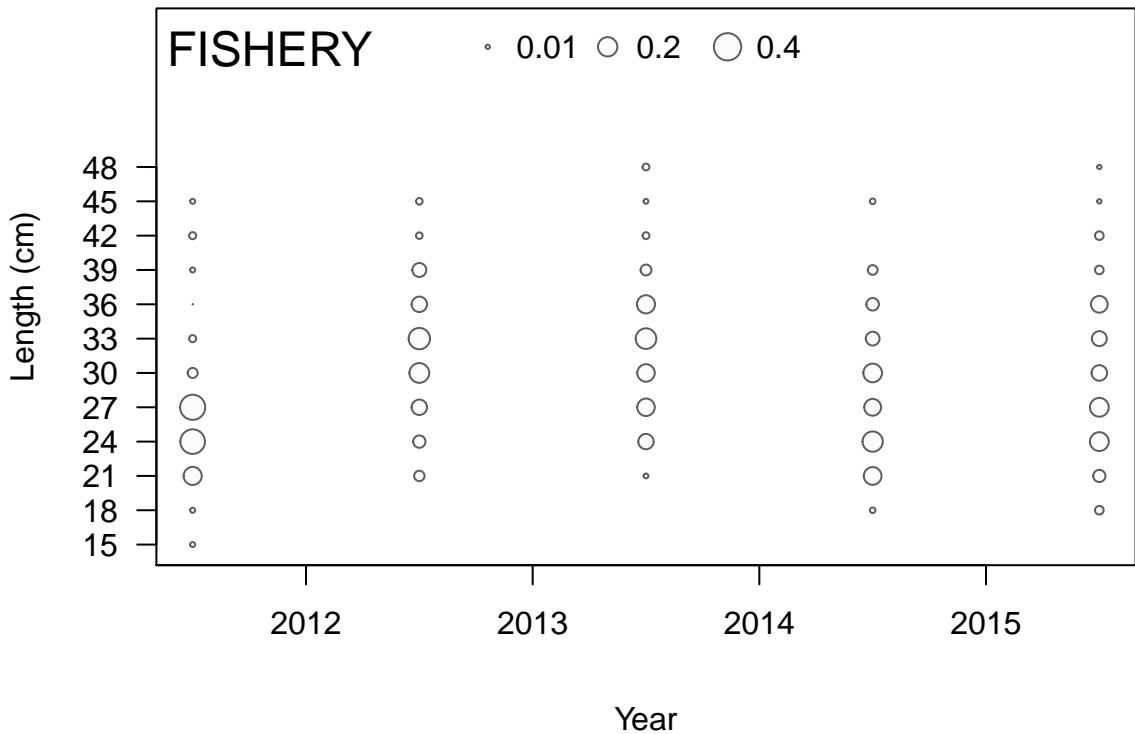




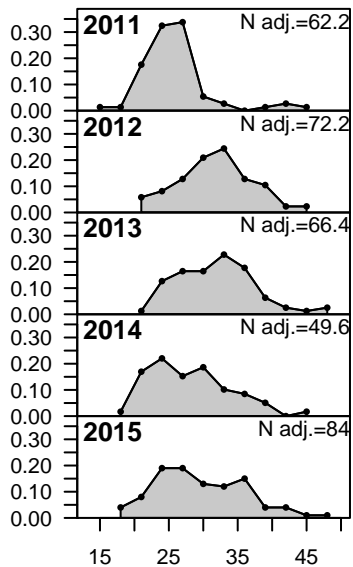




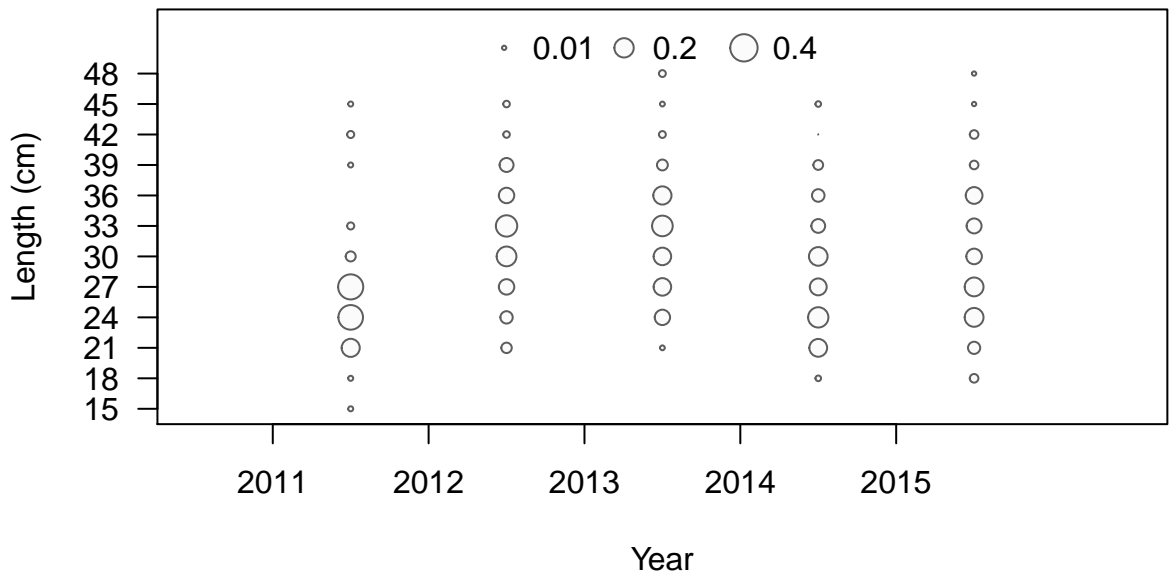




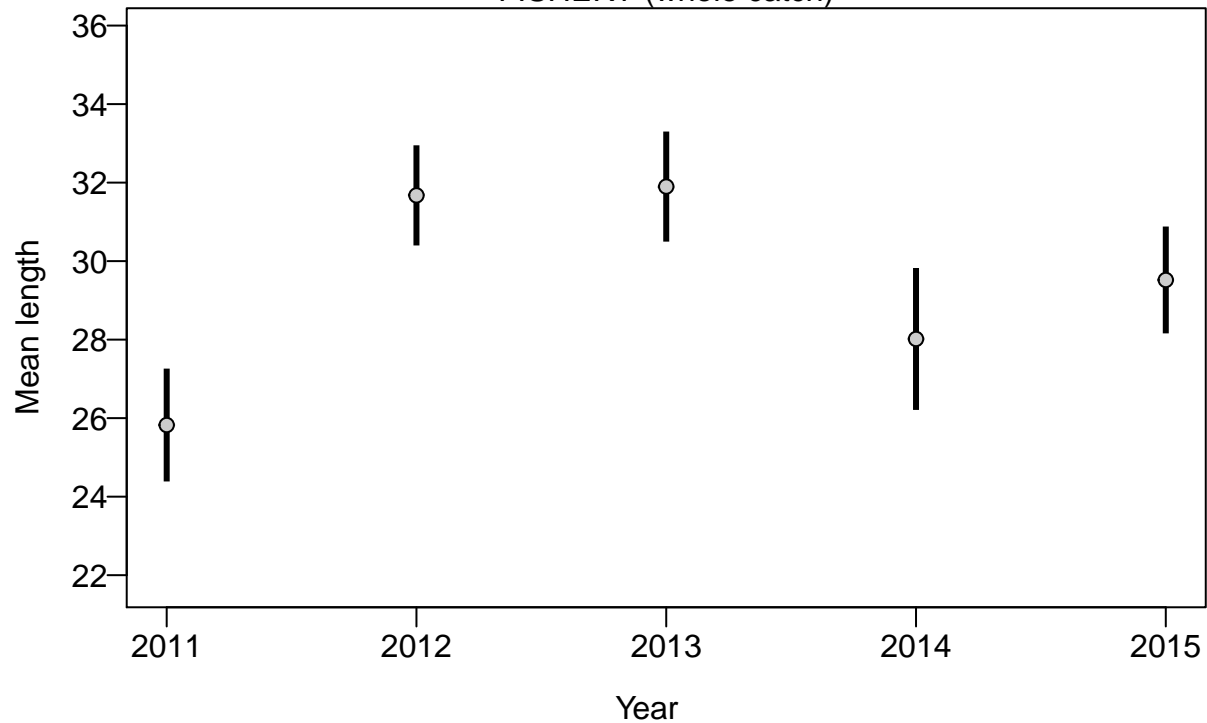
Proportion



Length (cm)

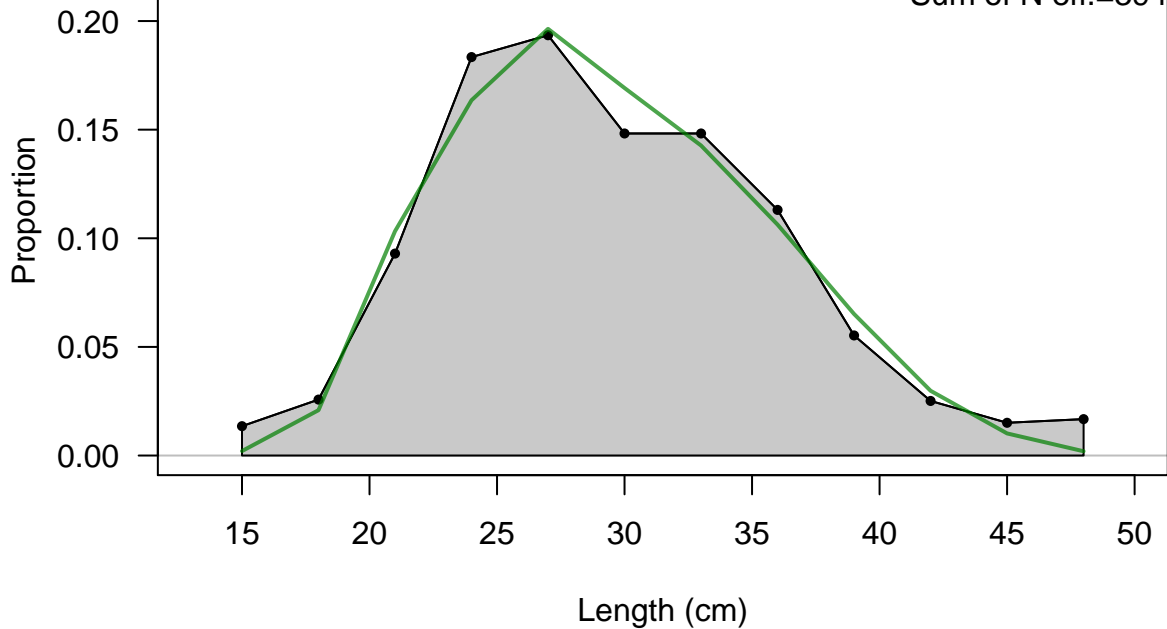


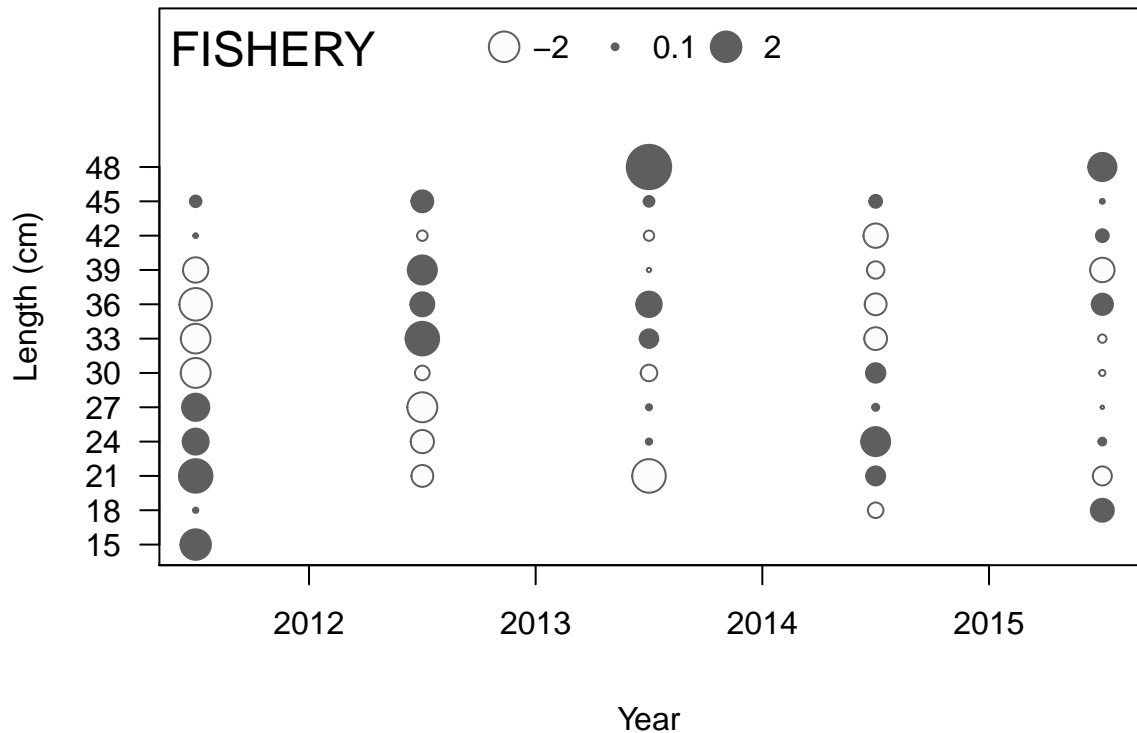
FISHERY (whole catch)



# FISHERY

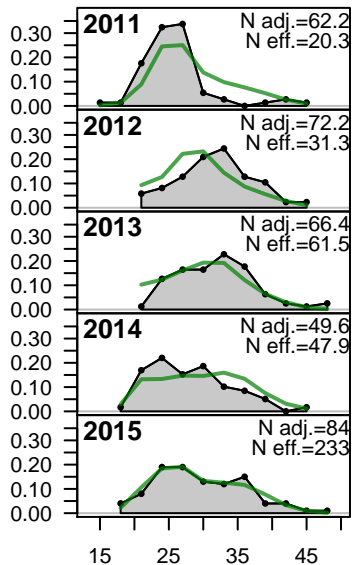
Sum of N adj.=334.3  
Sum of N eff.=394



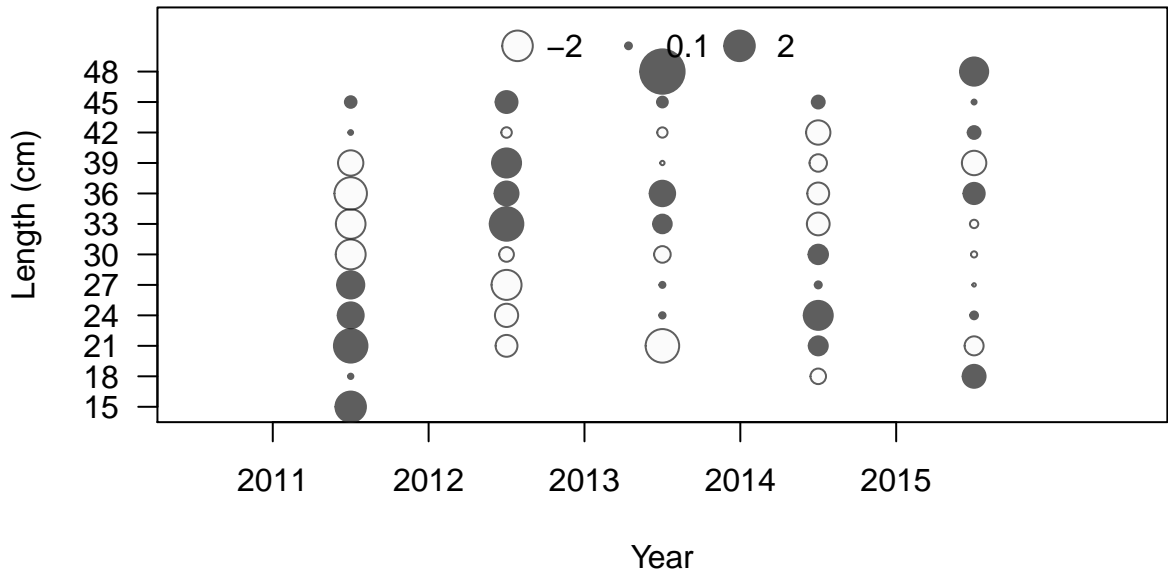




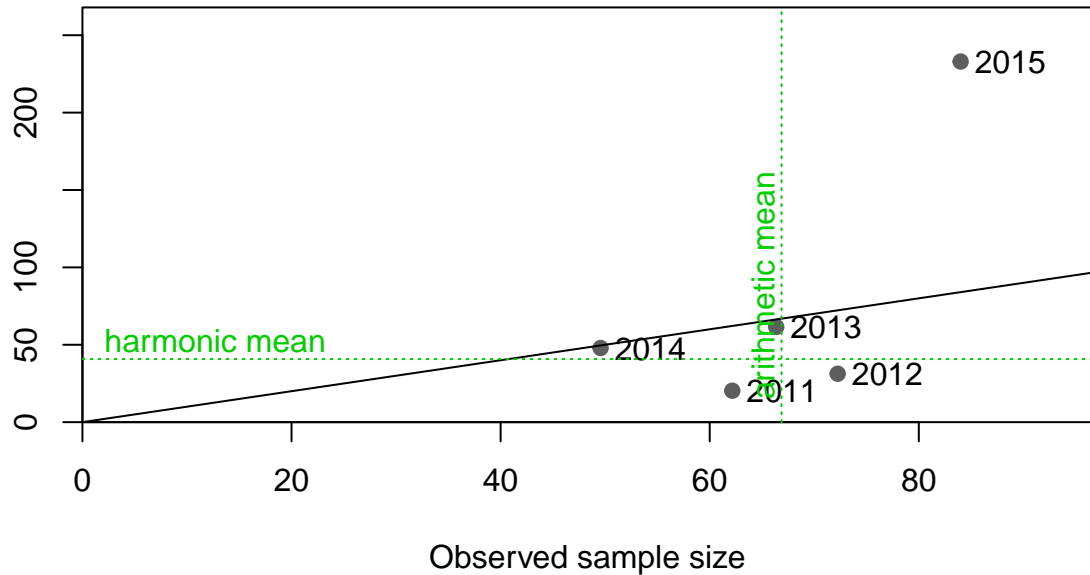
Proportion



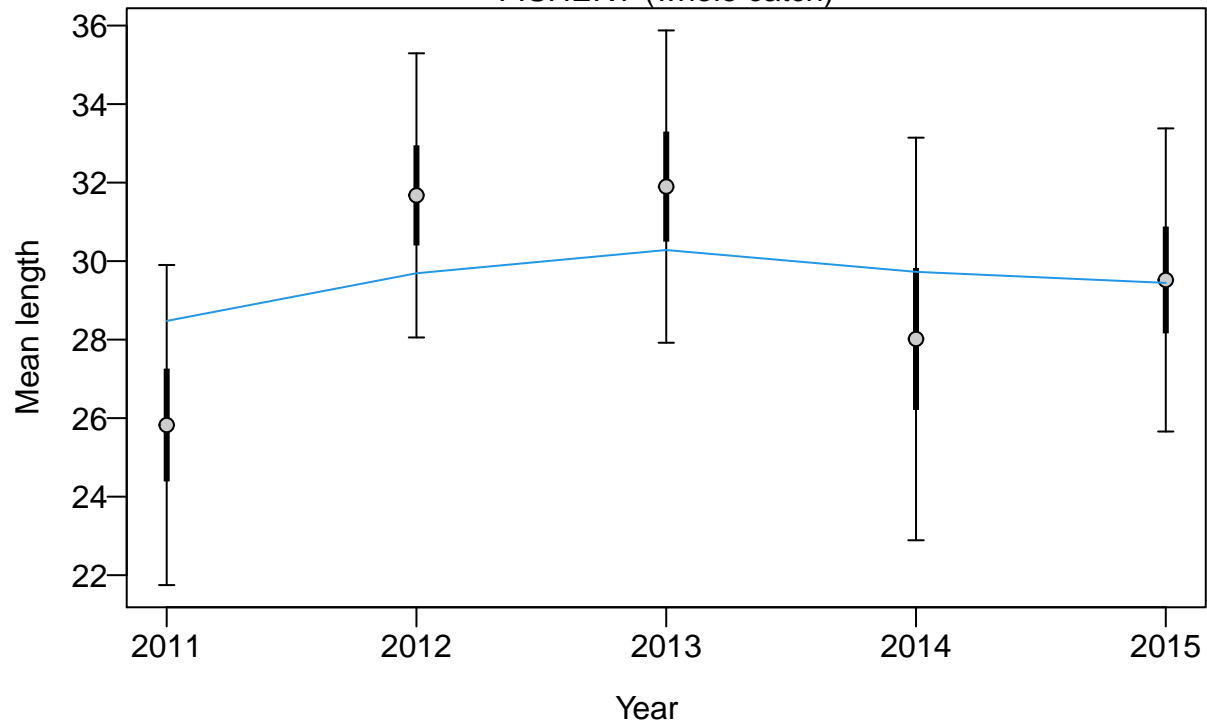
Length (cm)

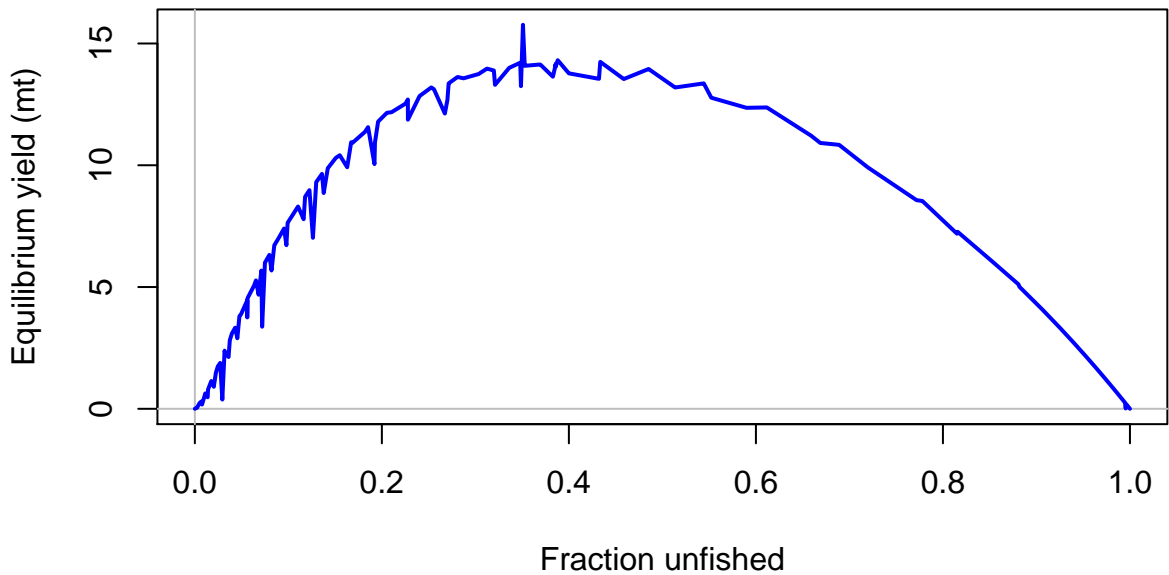


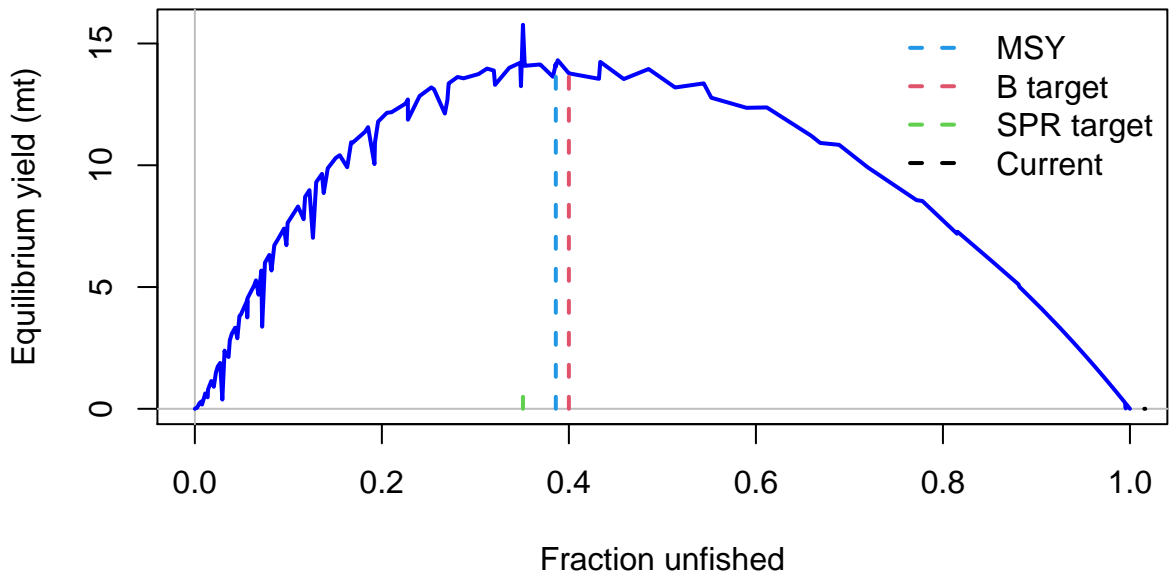
Effective sample size

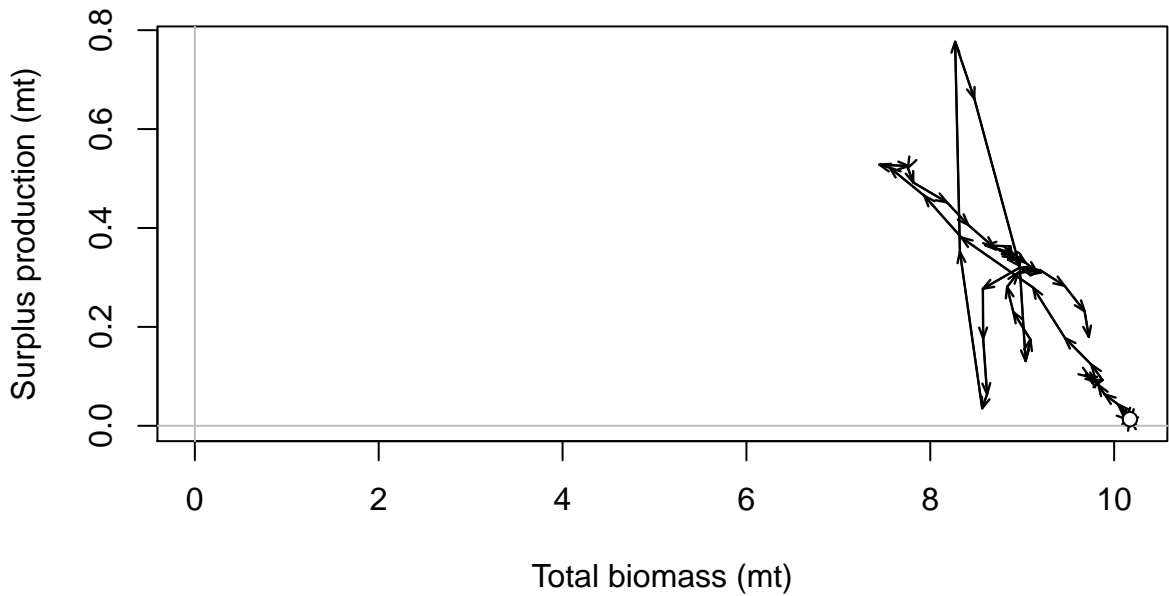


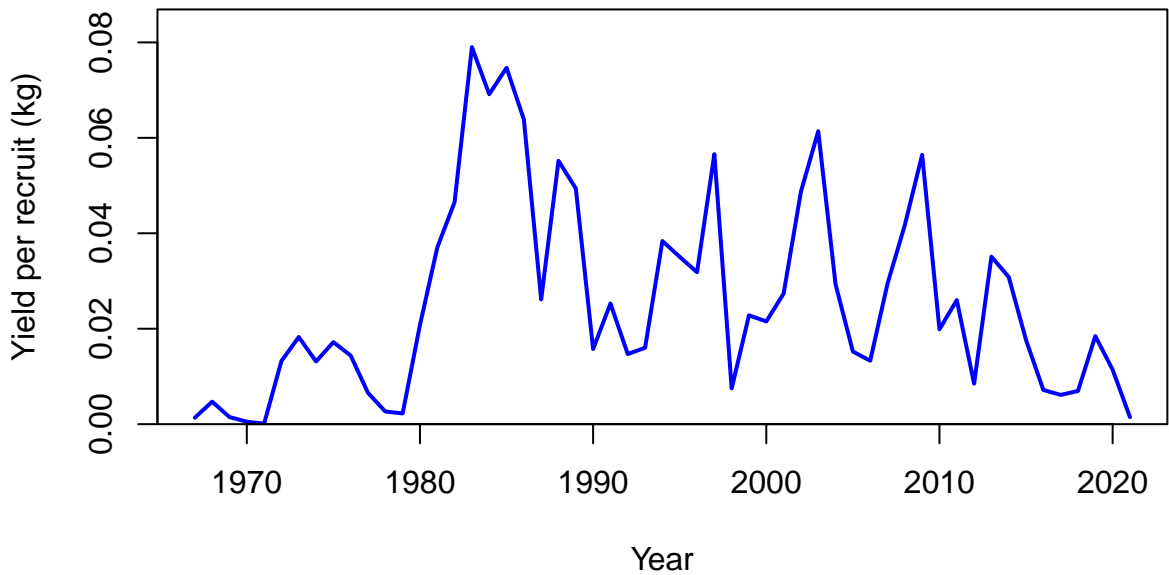
FISHERY (whole catch)



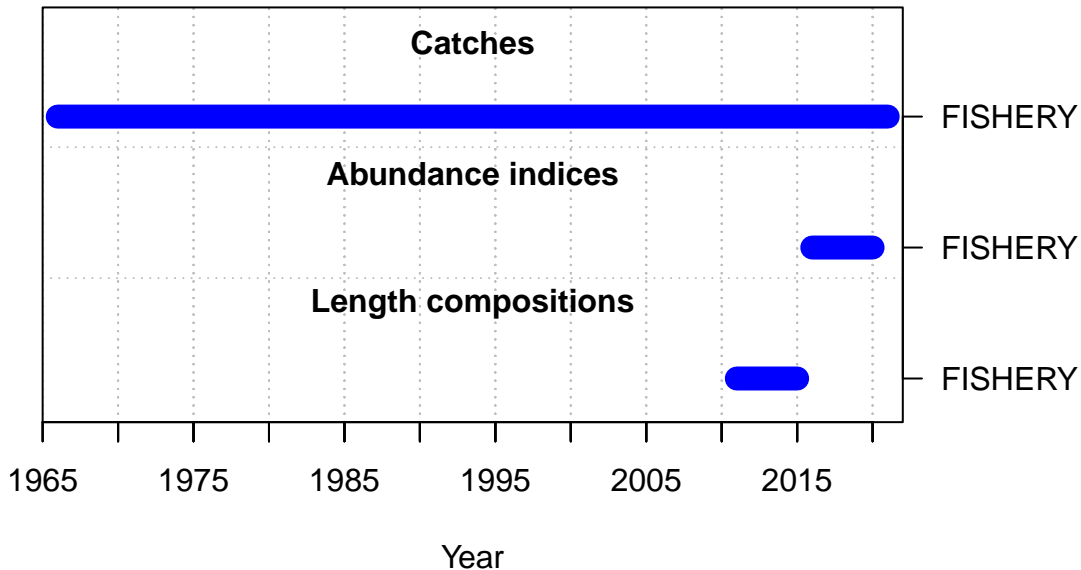


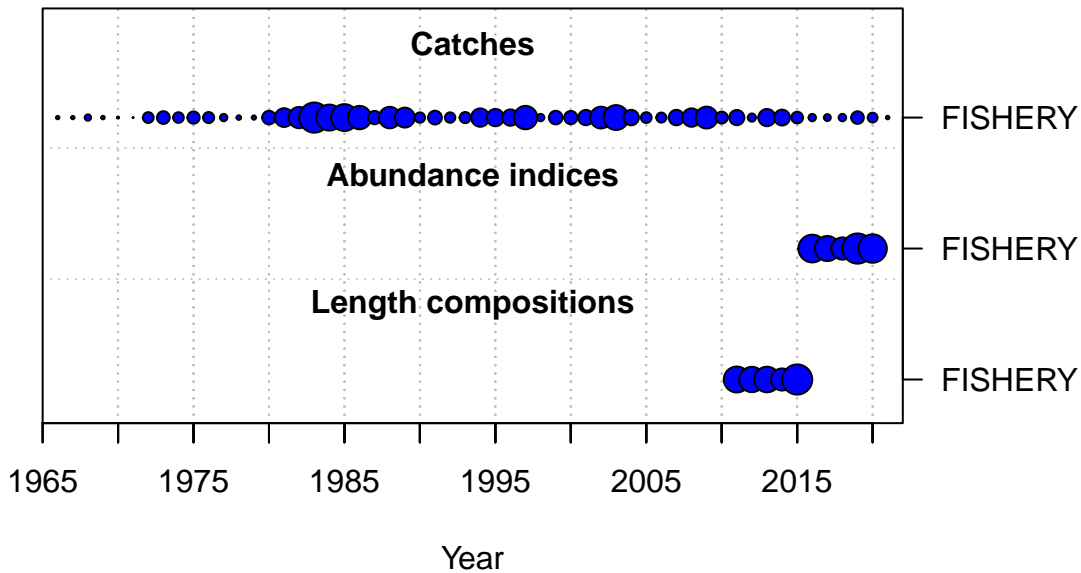




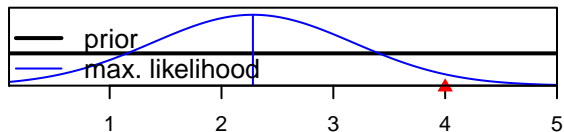




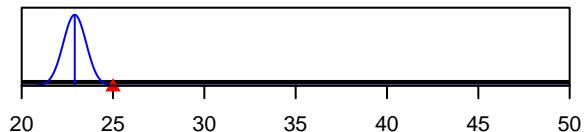




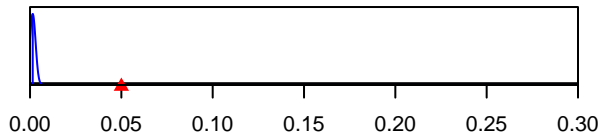
SR\_LN(R0)



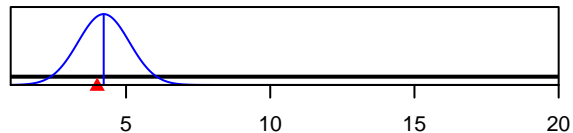
Size\_inflection\_FISHERY(1)



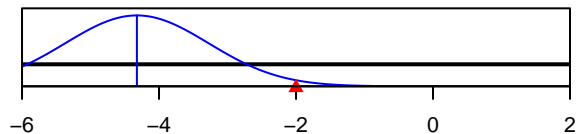
InitF\_seas\_1\_flt\_1FISHERY



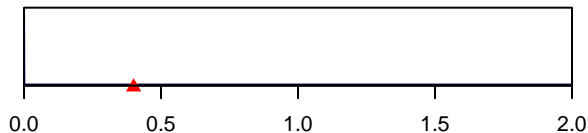
Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



Q\_extraSD\_FISHERY(1)



Density

Parameter value