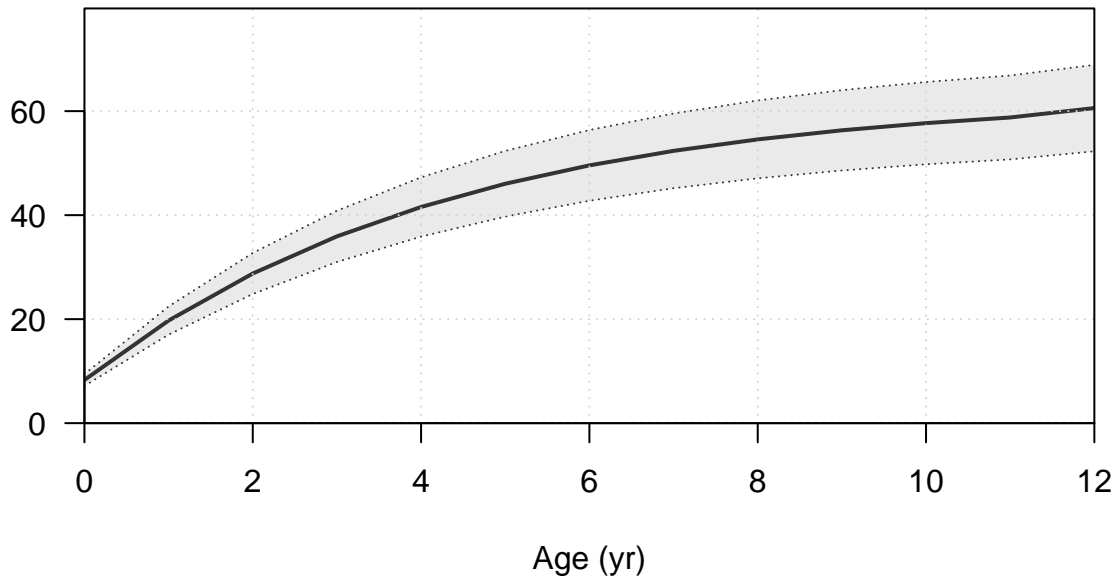
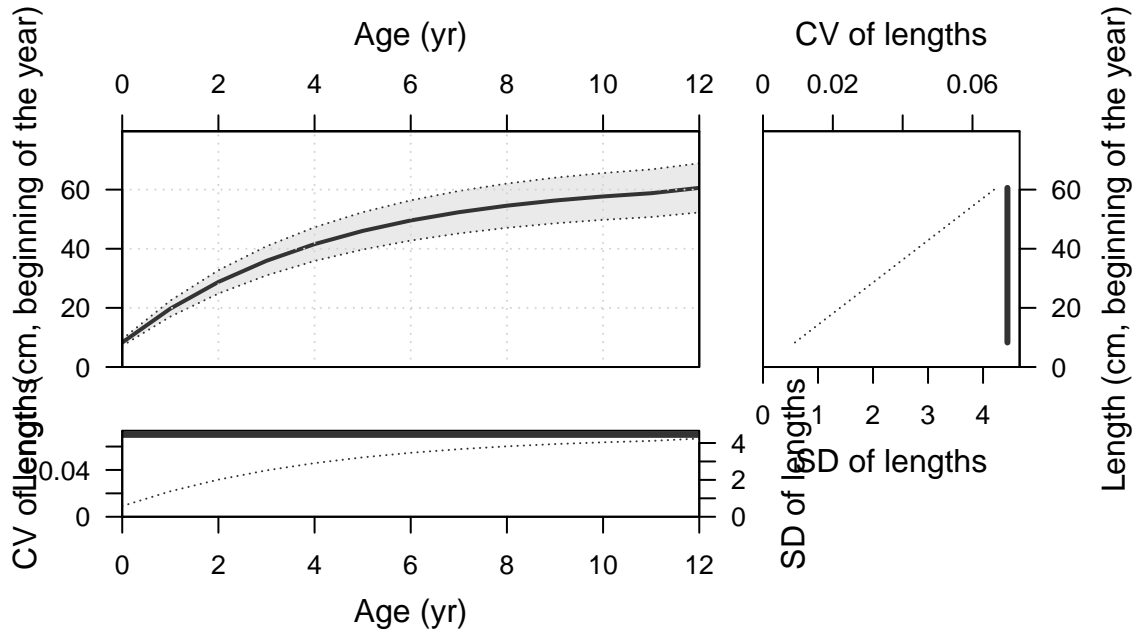
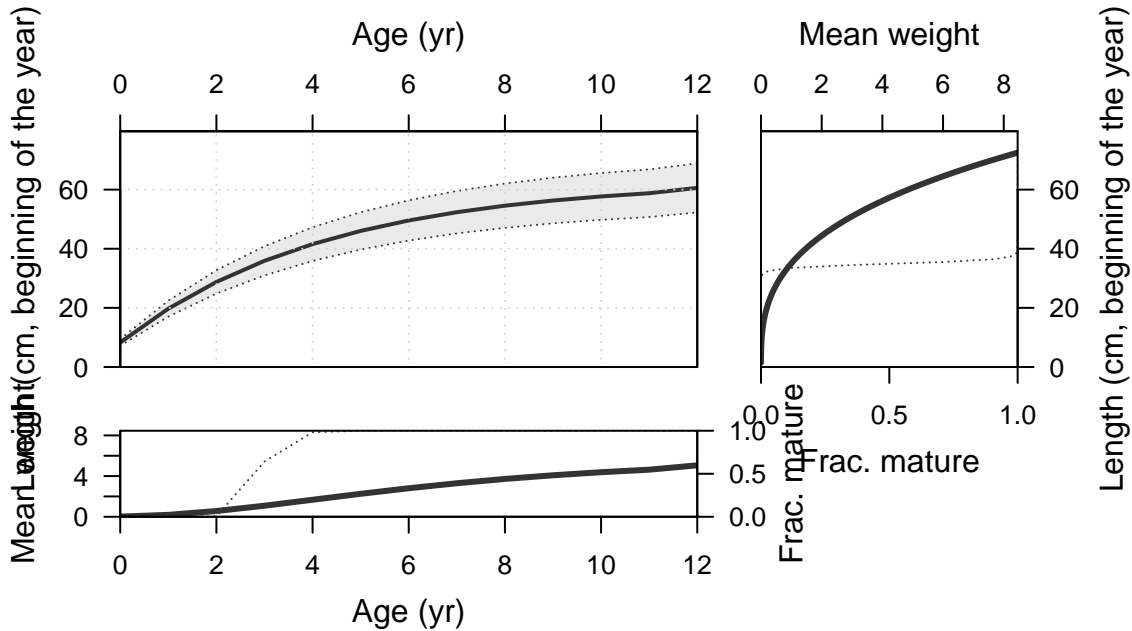


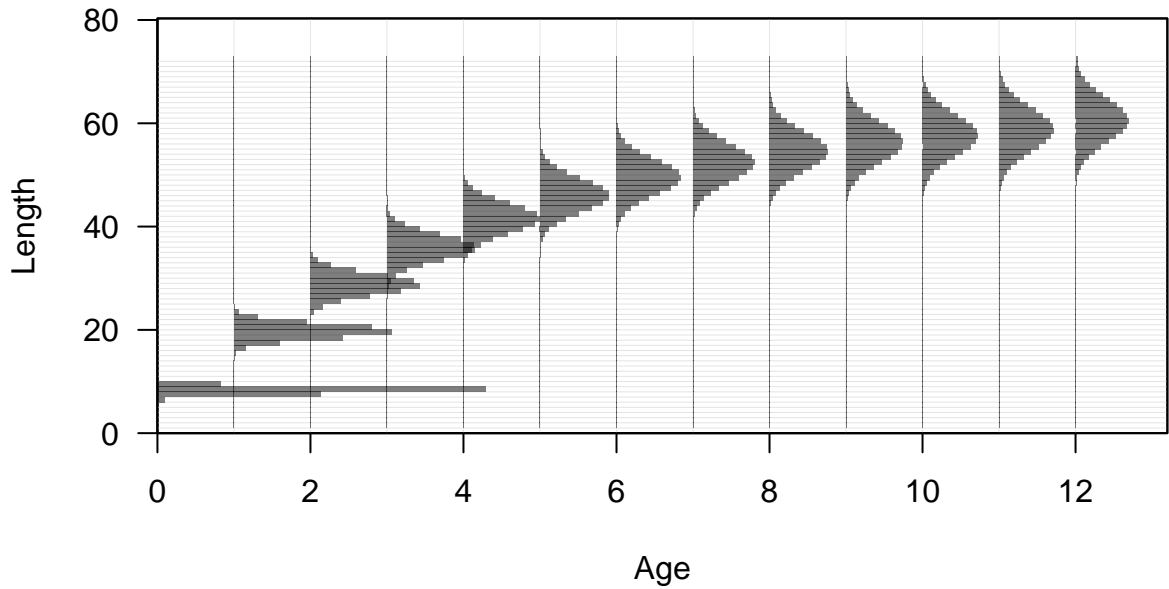
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Wed Aug 03 10:15:25 2022  
Data\_File: data.ss  
Control\_File: control.ss

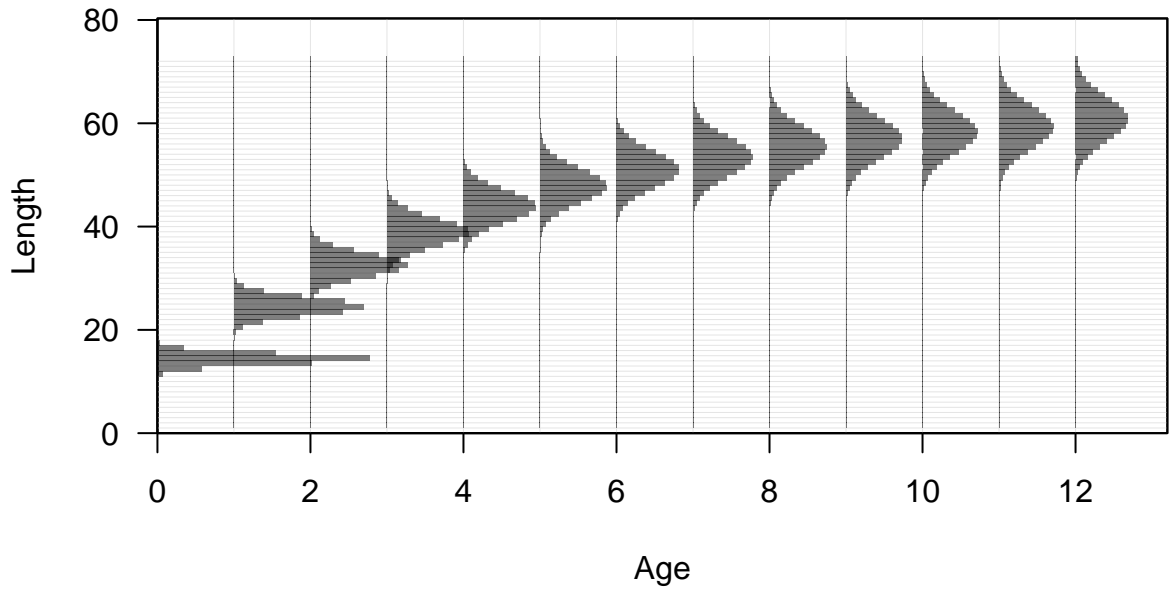
Length (cm, beginning of the year)



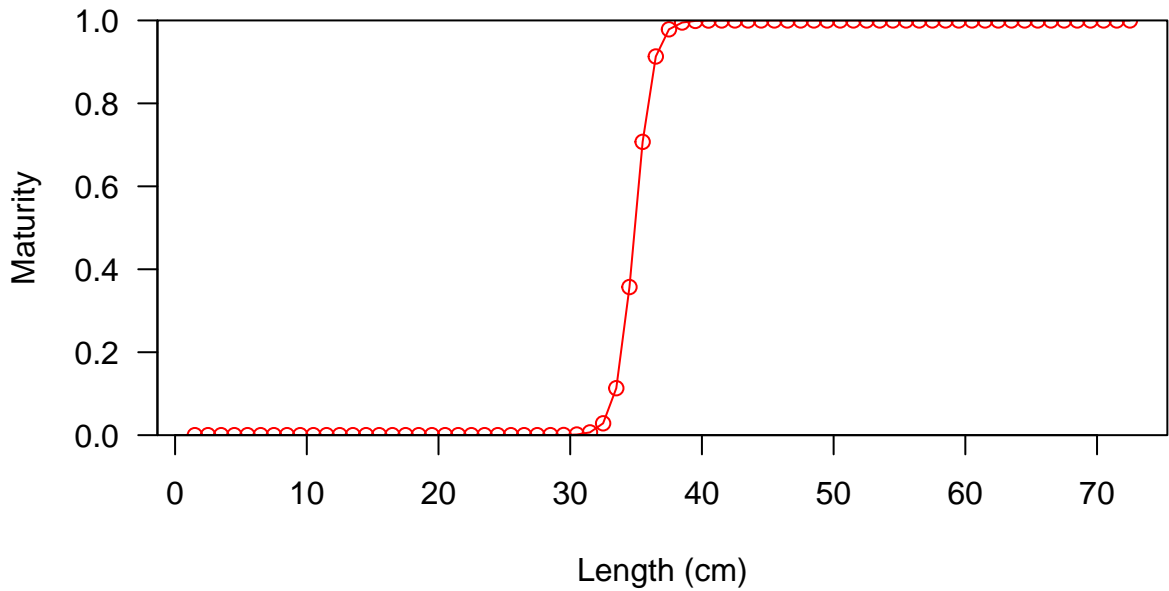








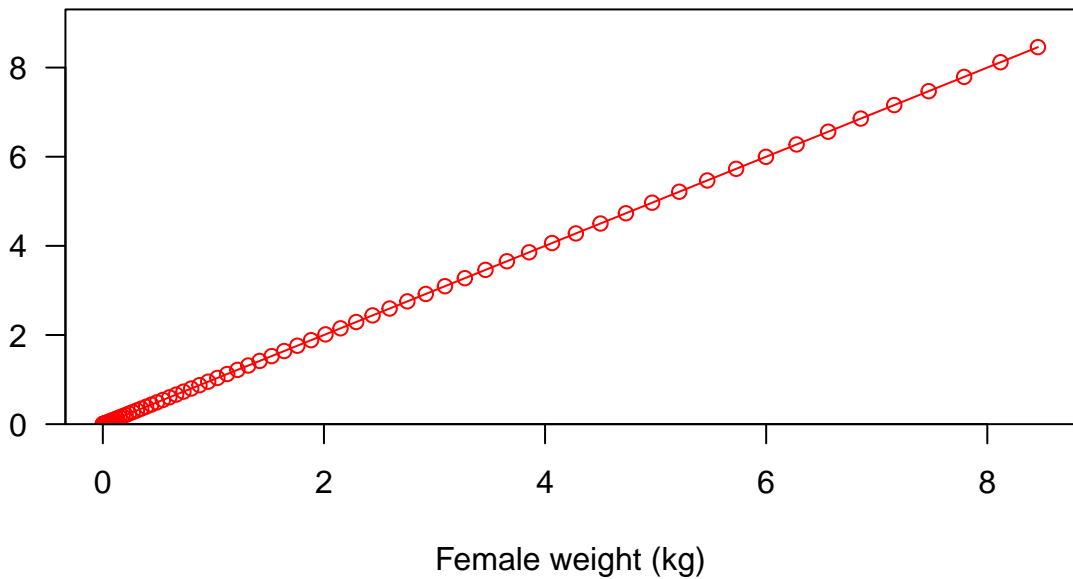








Fecundity



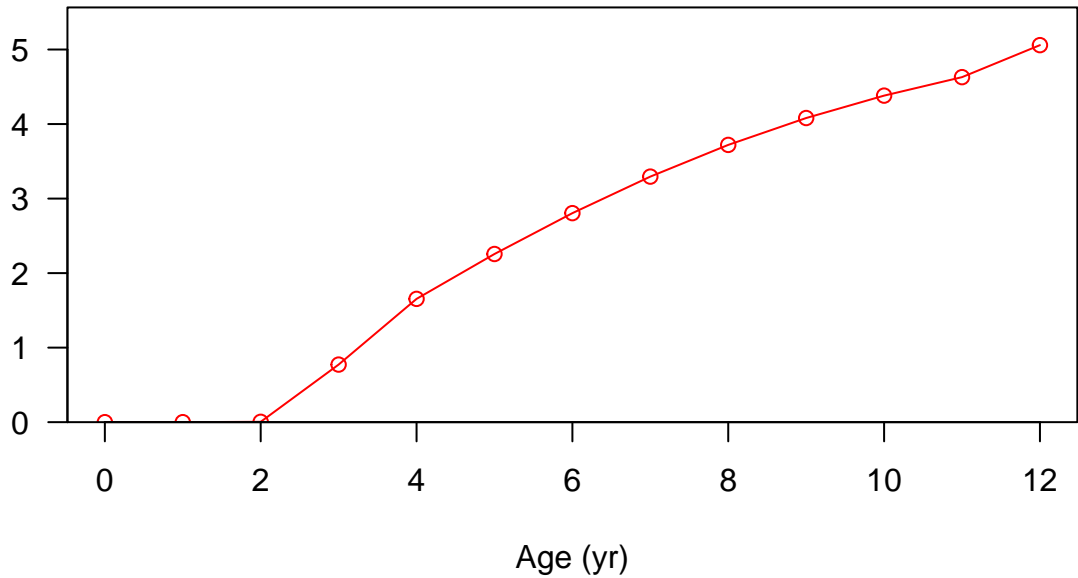
Fecundity

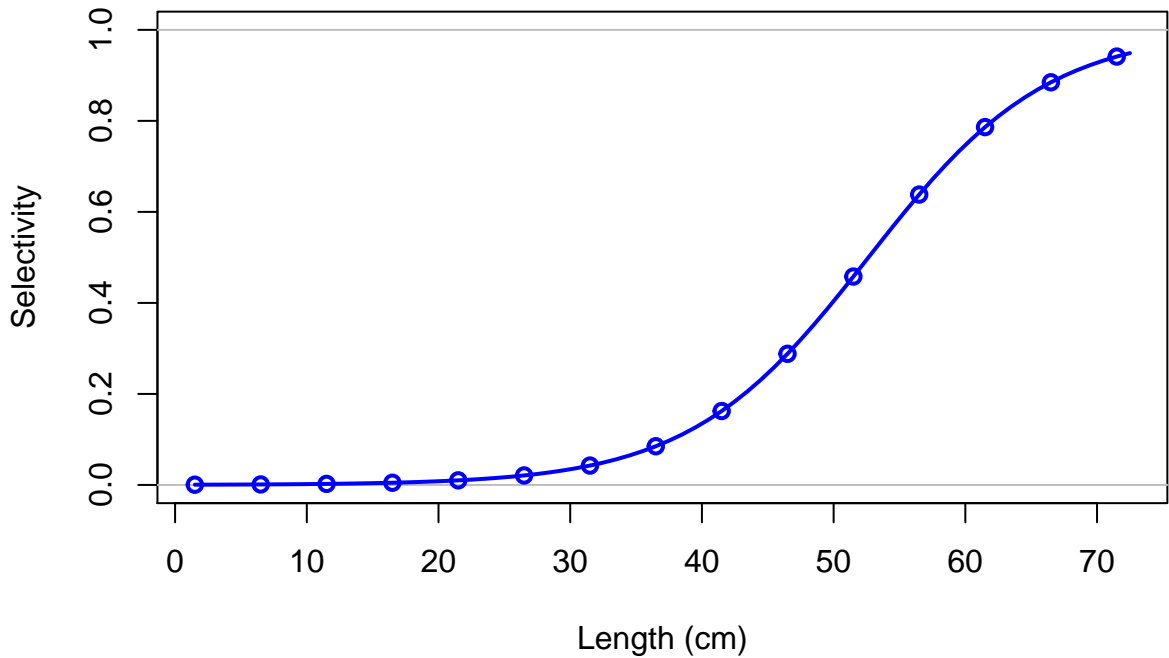


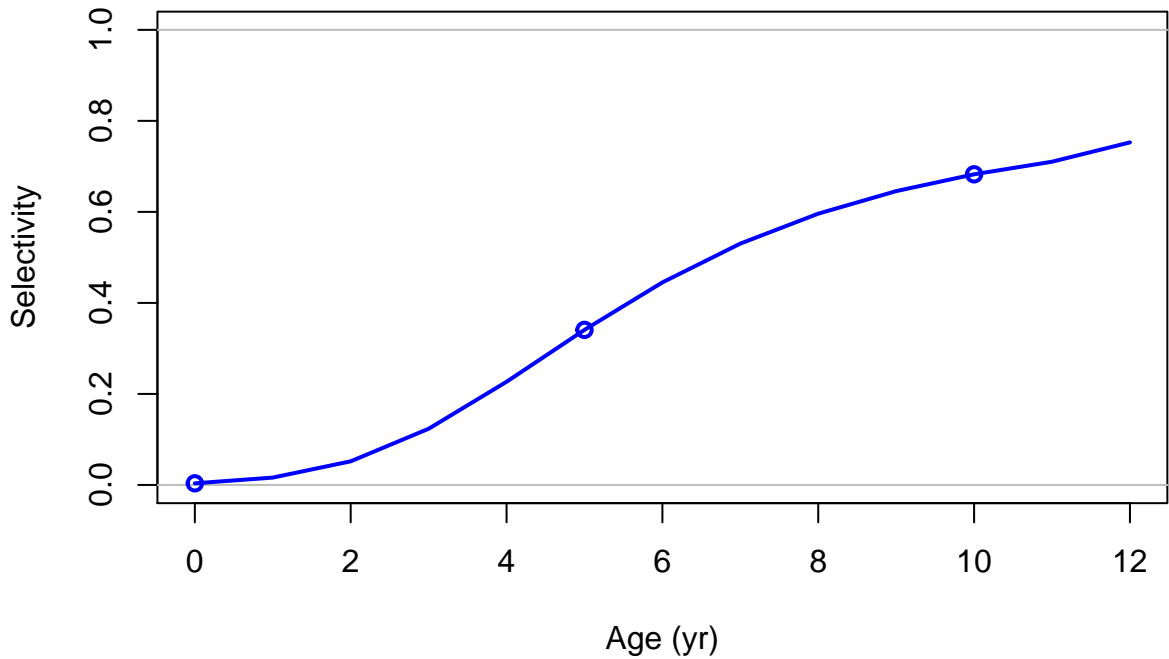
Spawning output



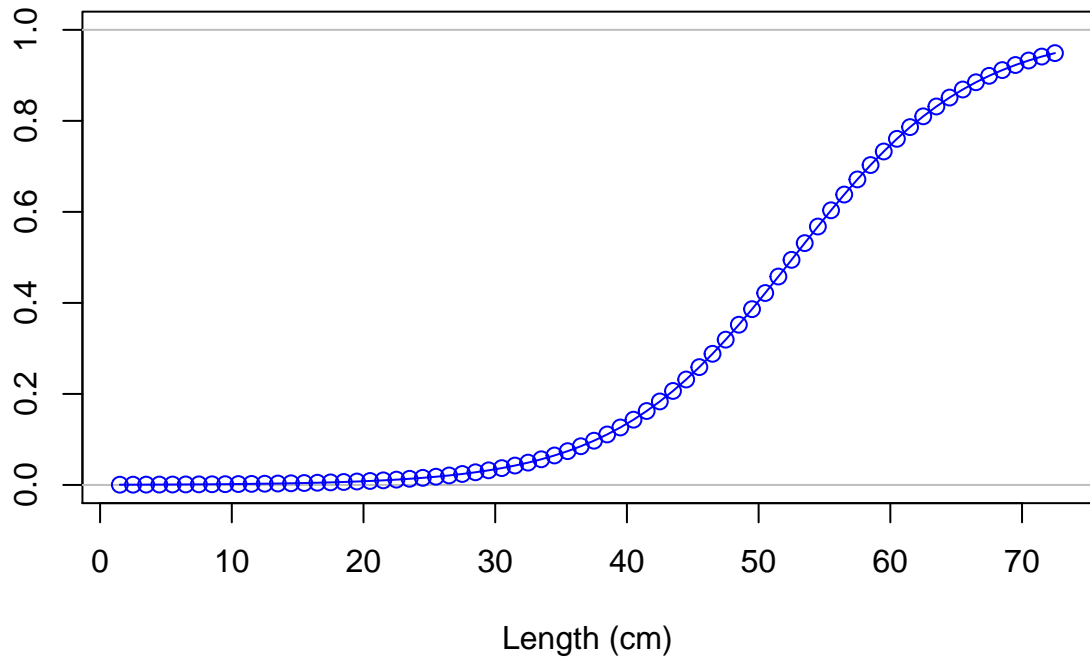
Spawning output



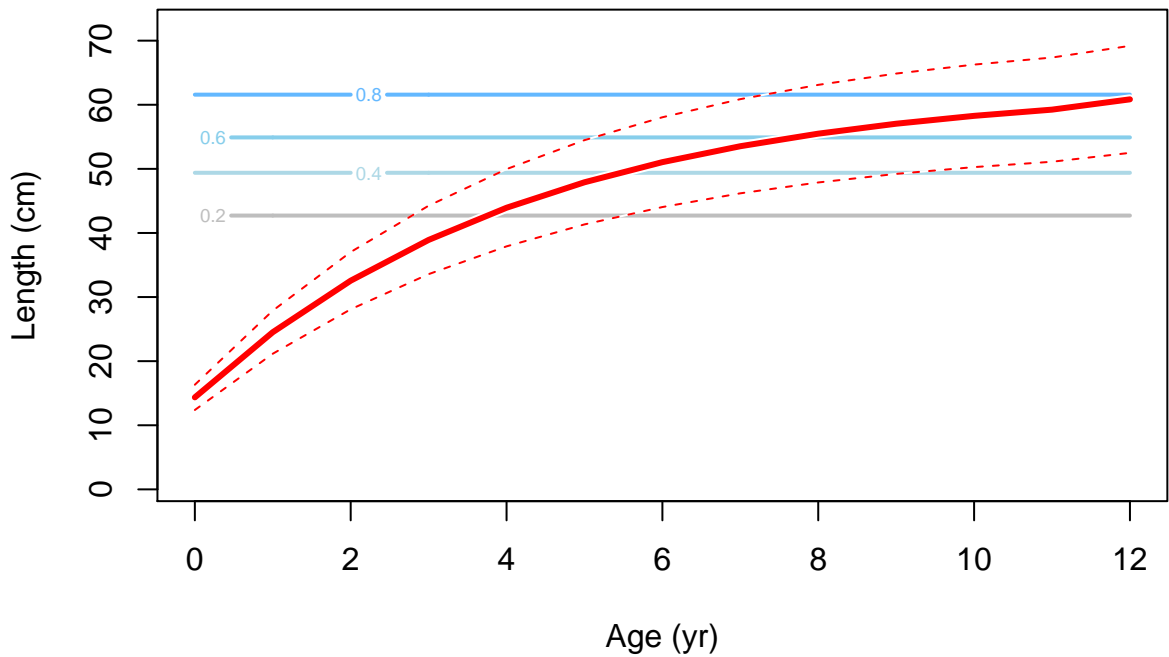


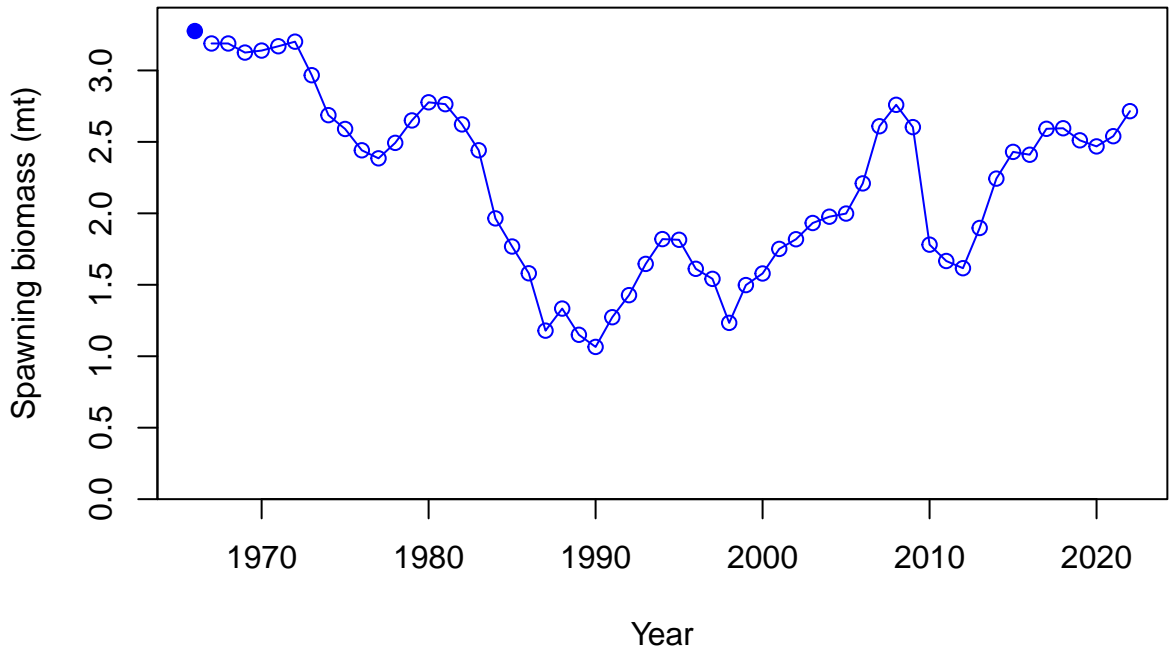


Selectivity

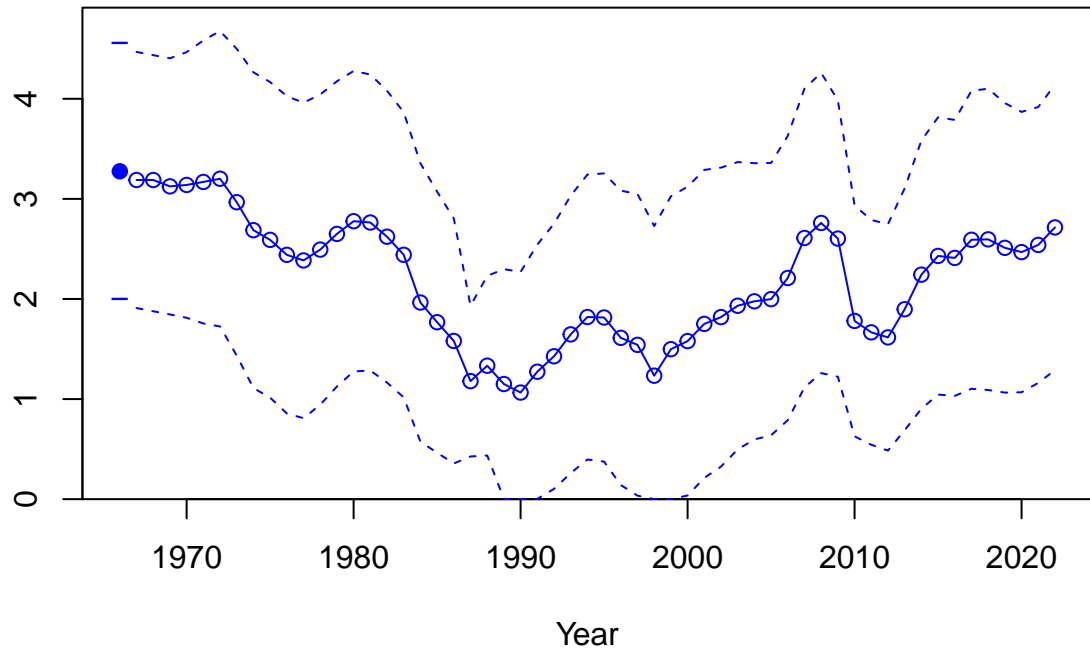




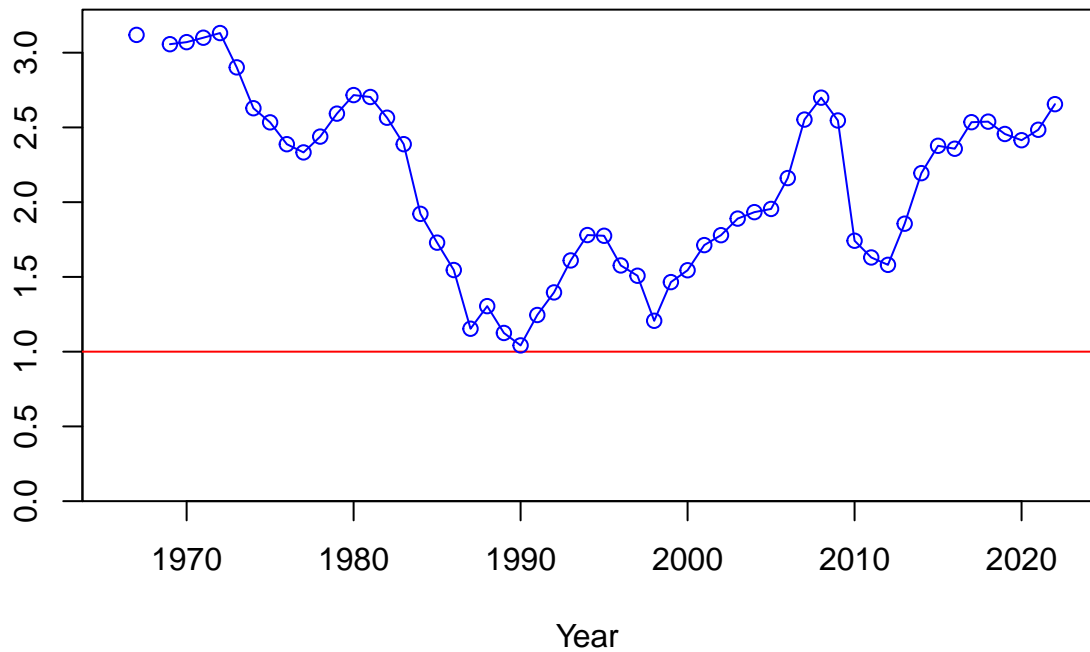




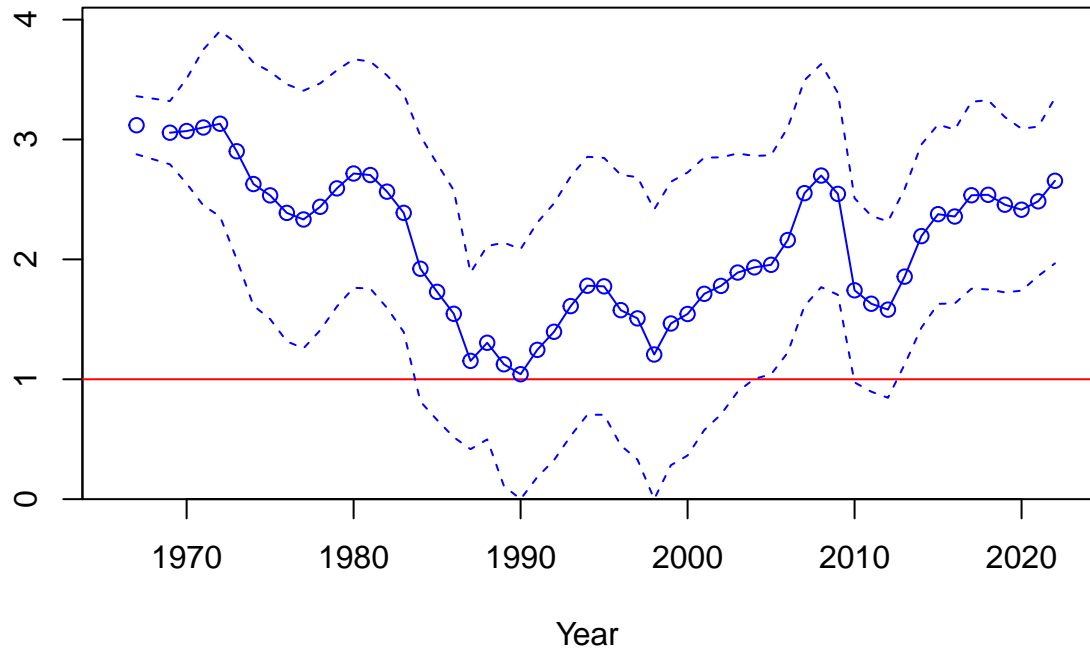
Spawning biomass (mt)

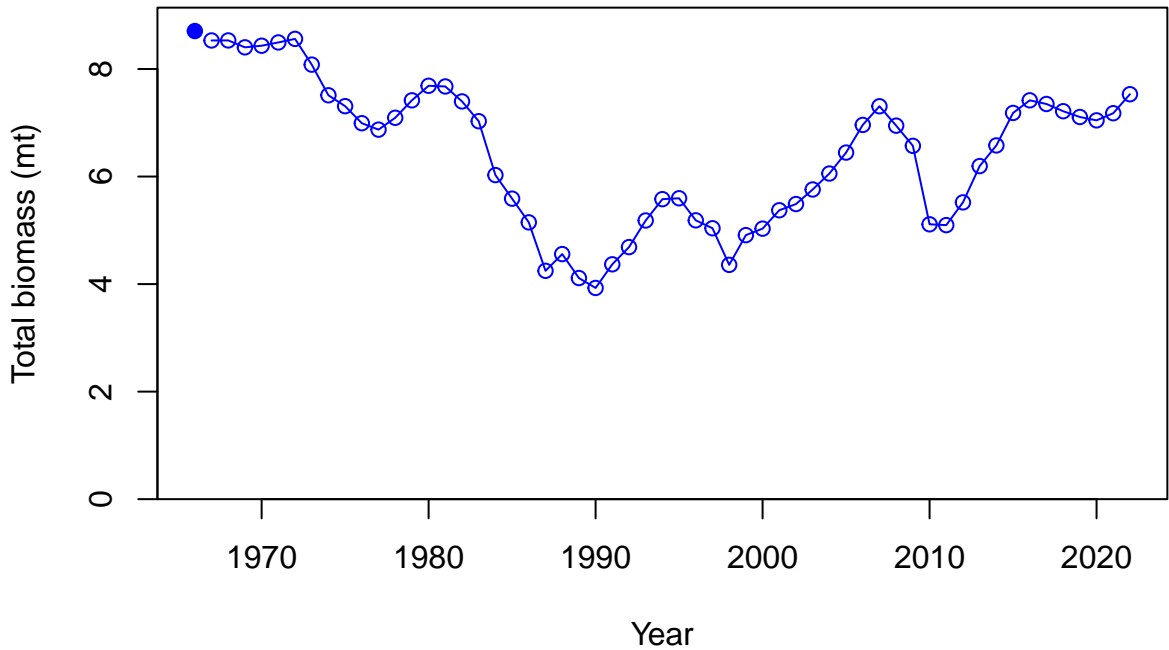


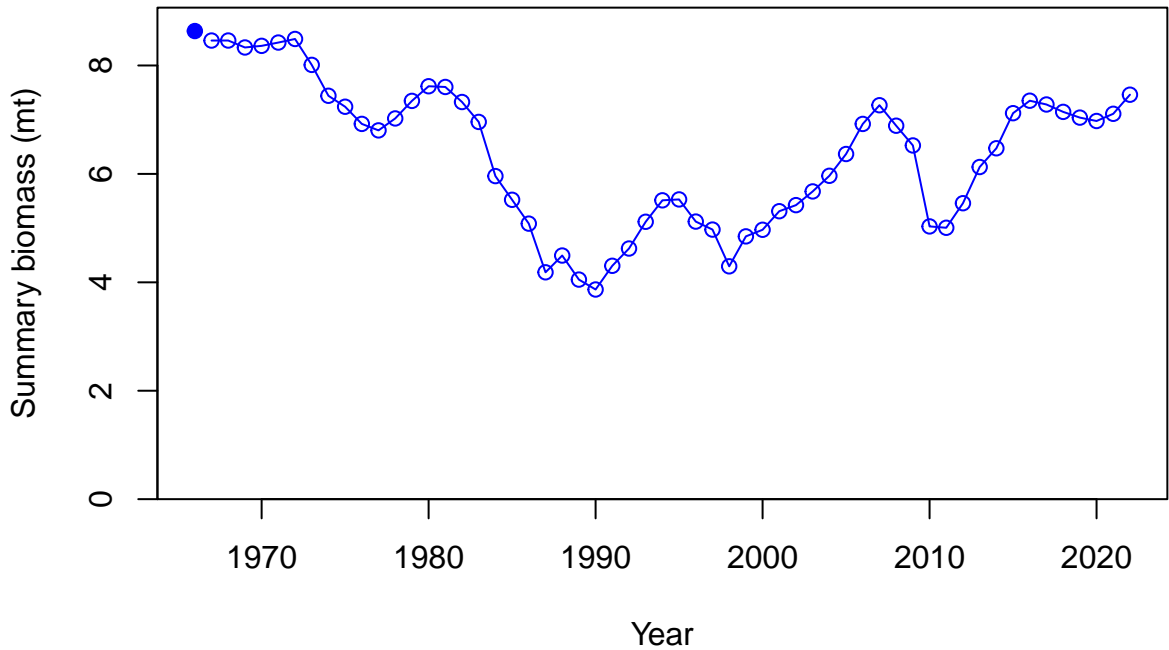
Relative spawning biomass:  $B/B_{MSY}$



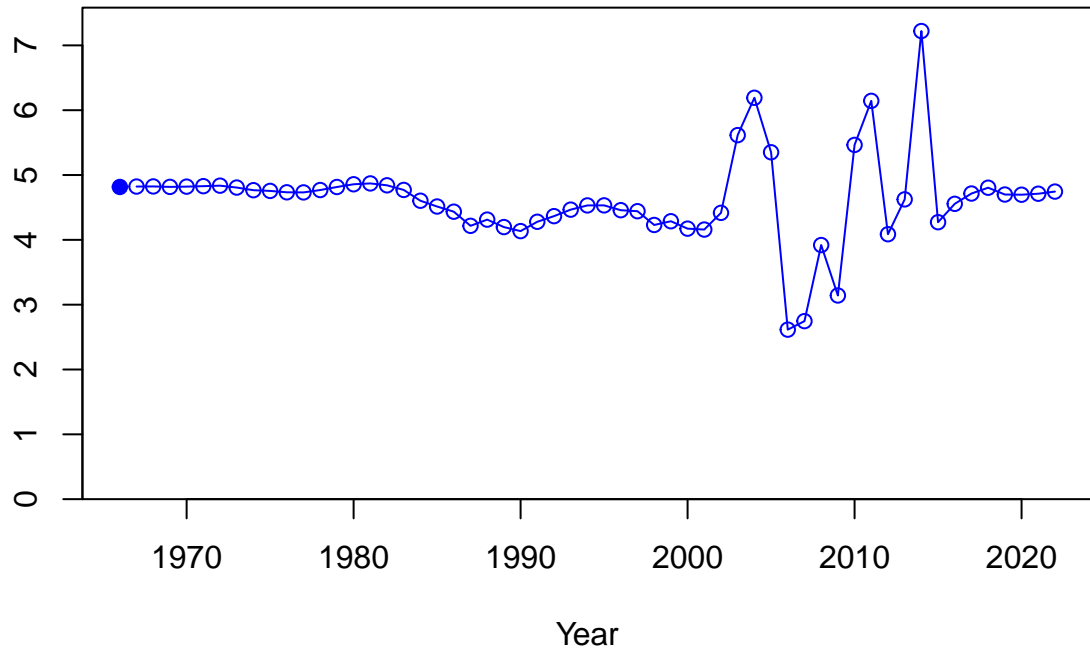
Relative spawning biomass:  $B/B_{MSY}$



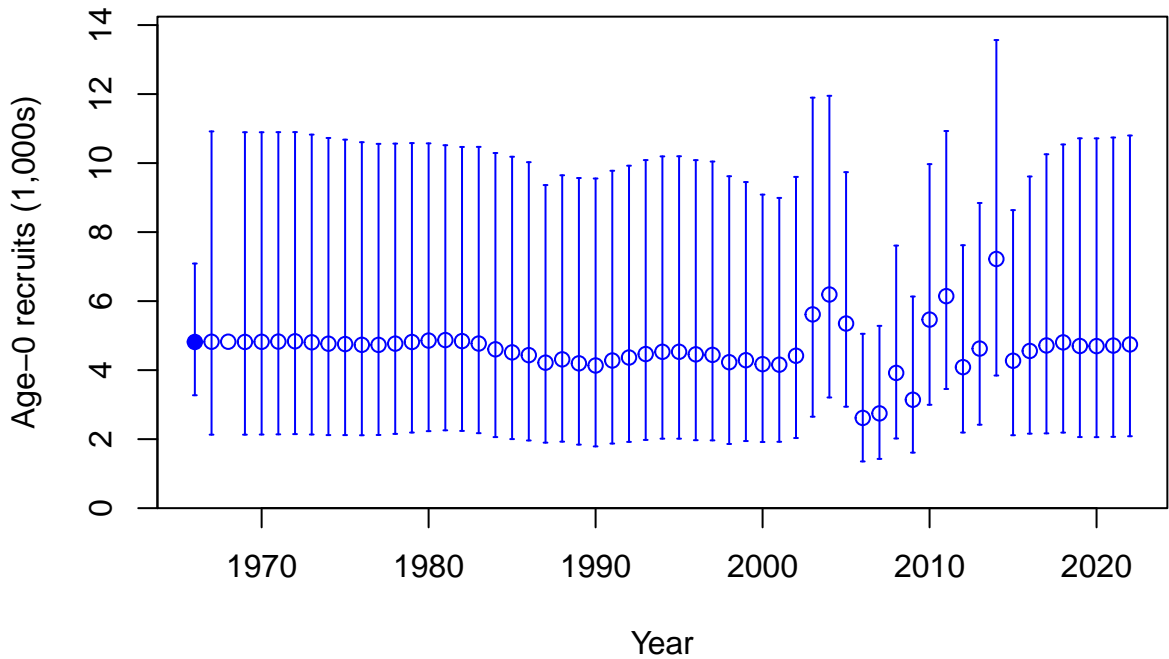




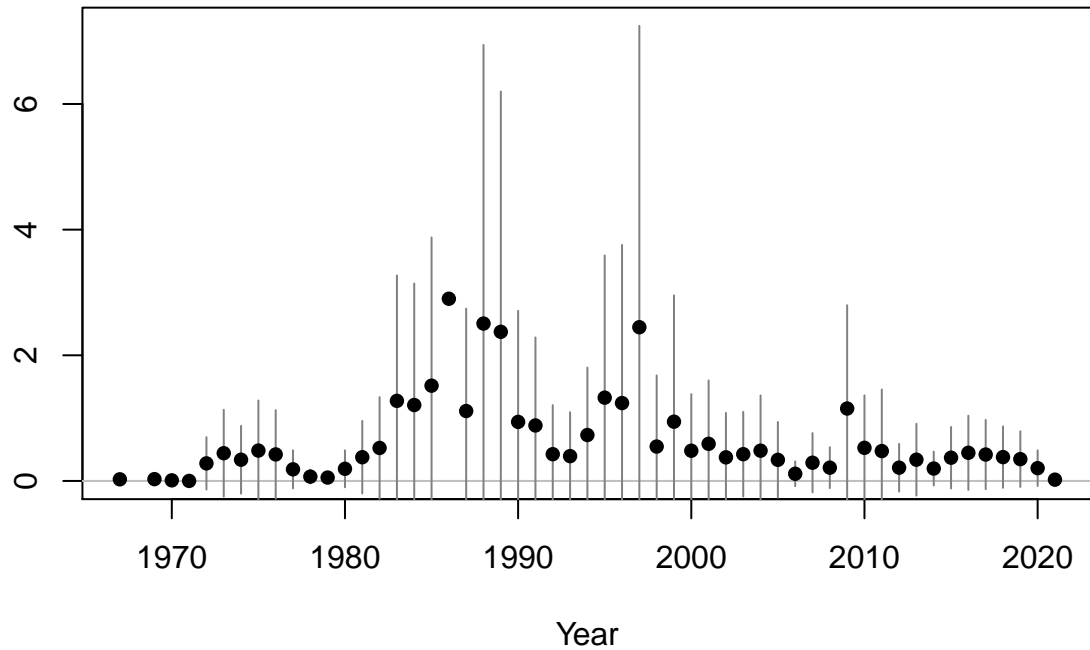
Age-0 recruits (1,000s)

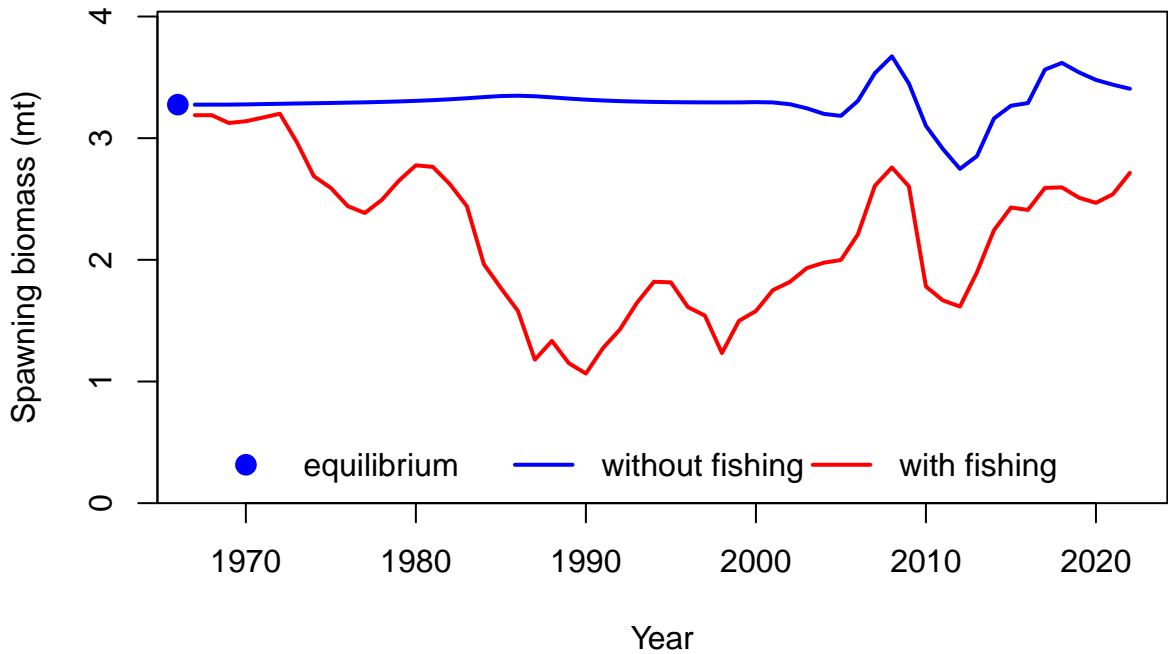






Summary Fishing Mortality





Log recruitment deviation

0.4  
0.2  
0.0  
-0.4

1970

1980

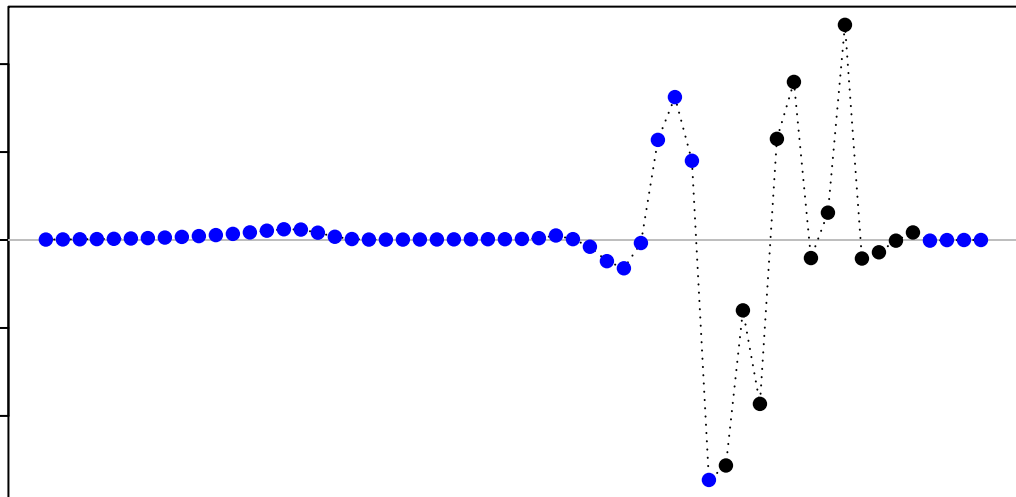
1990

2000

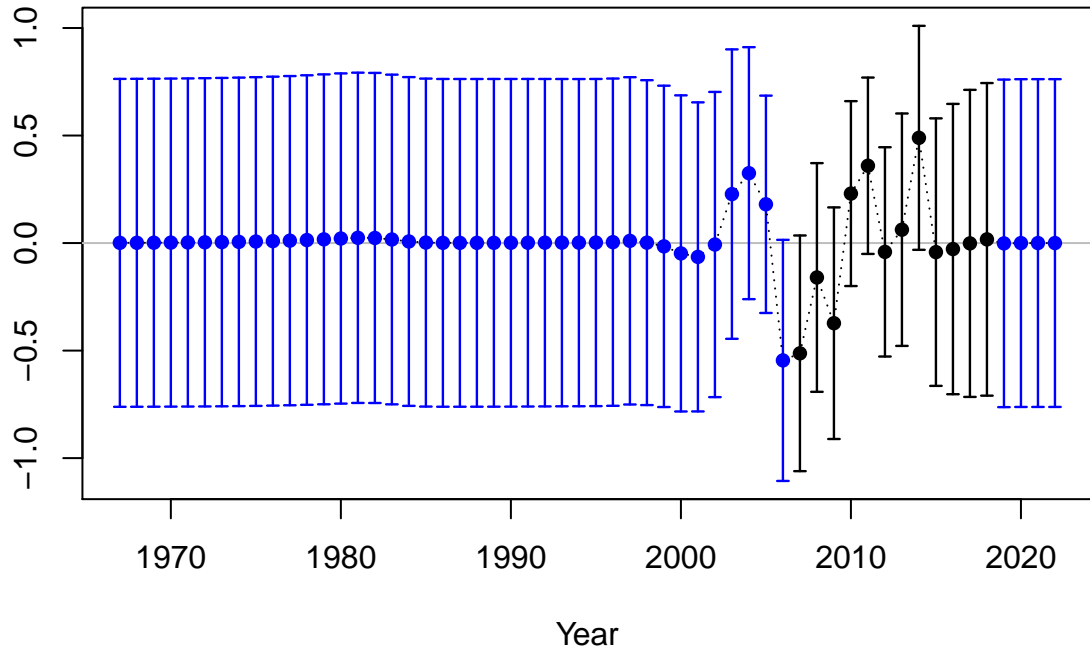
2010

2020

Year

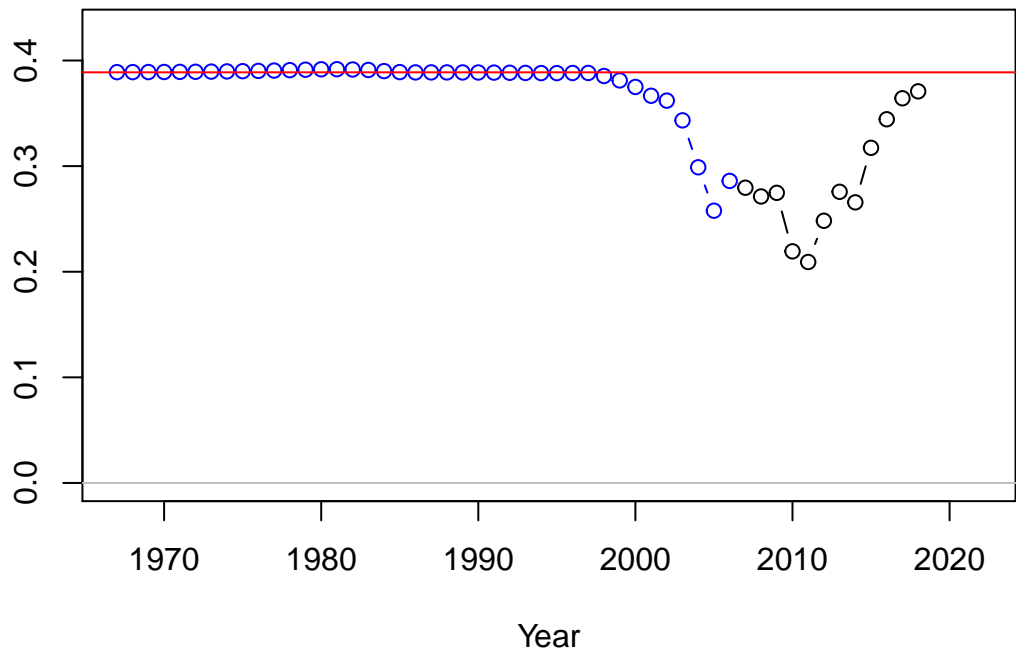


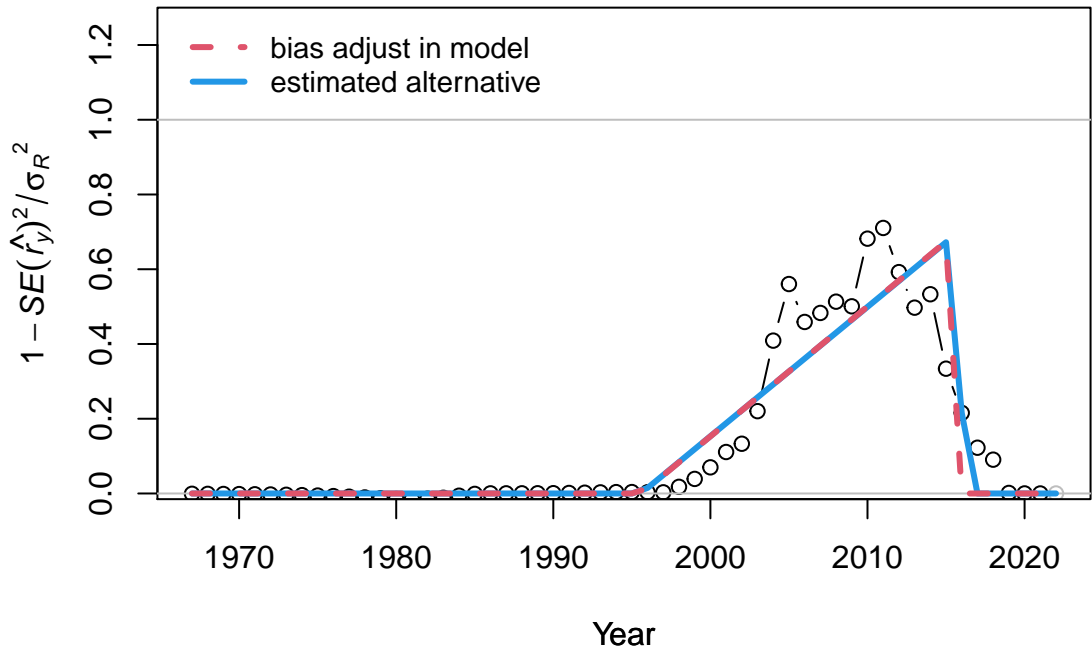
Log recruitment deviation

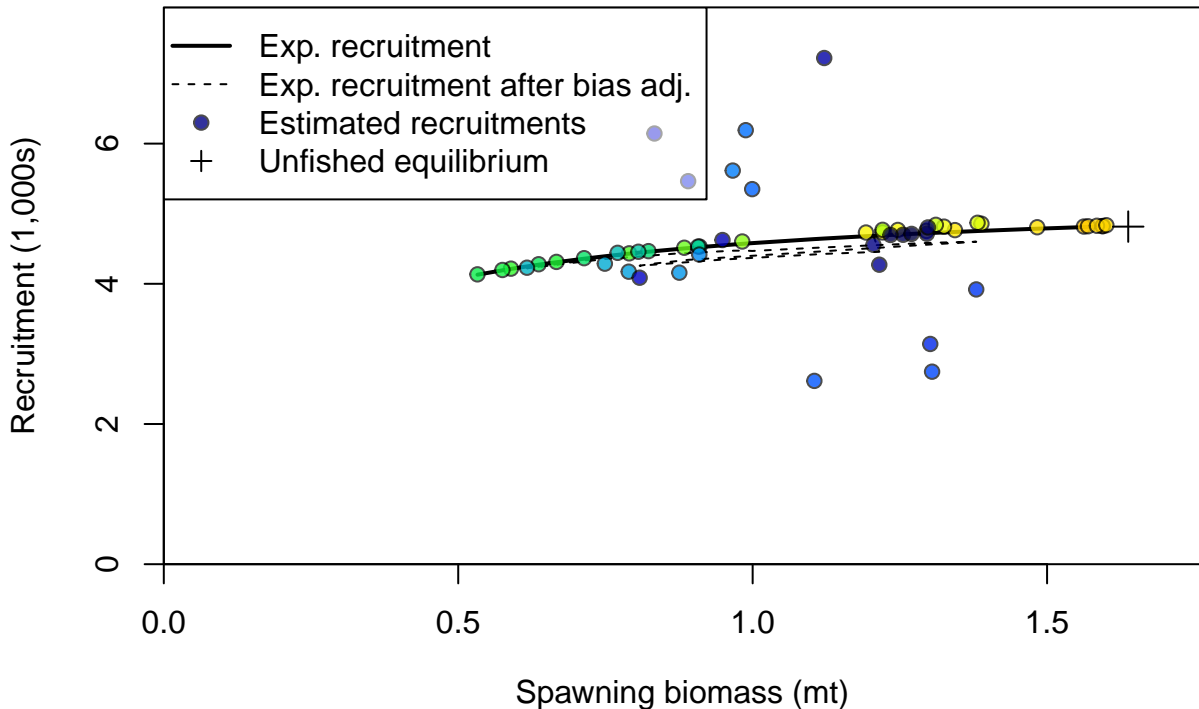


## Recruitment deviation variance

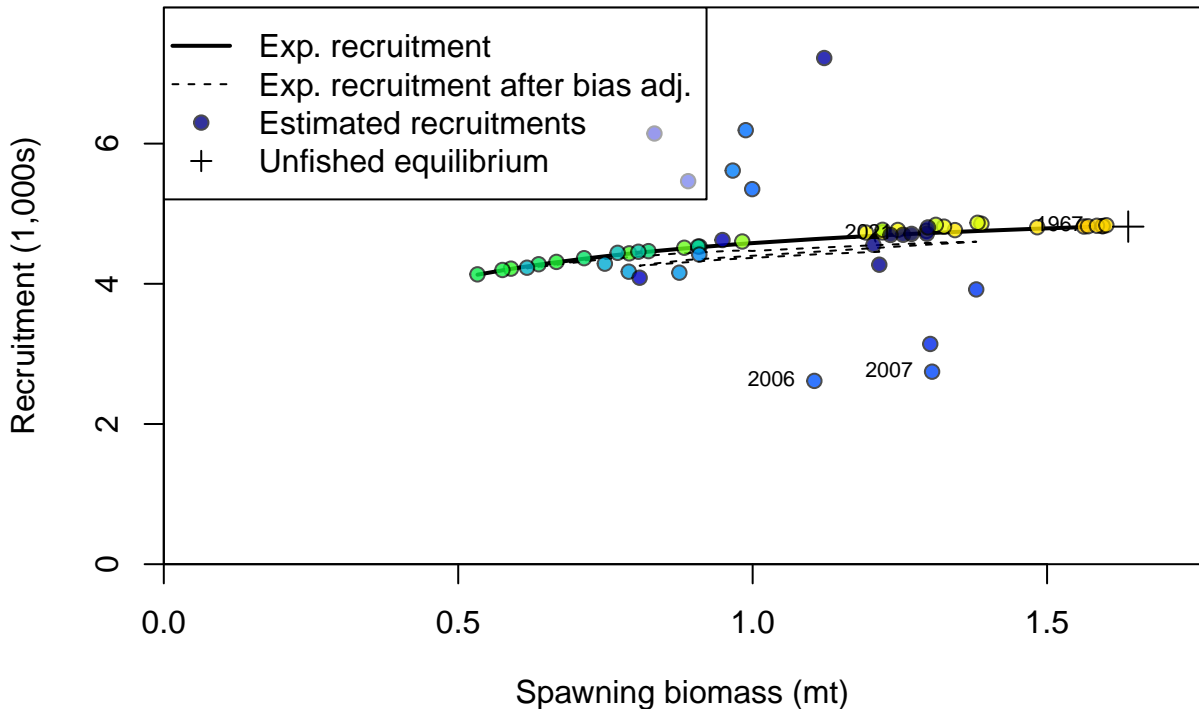
Asymptotic standard error estimate

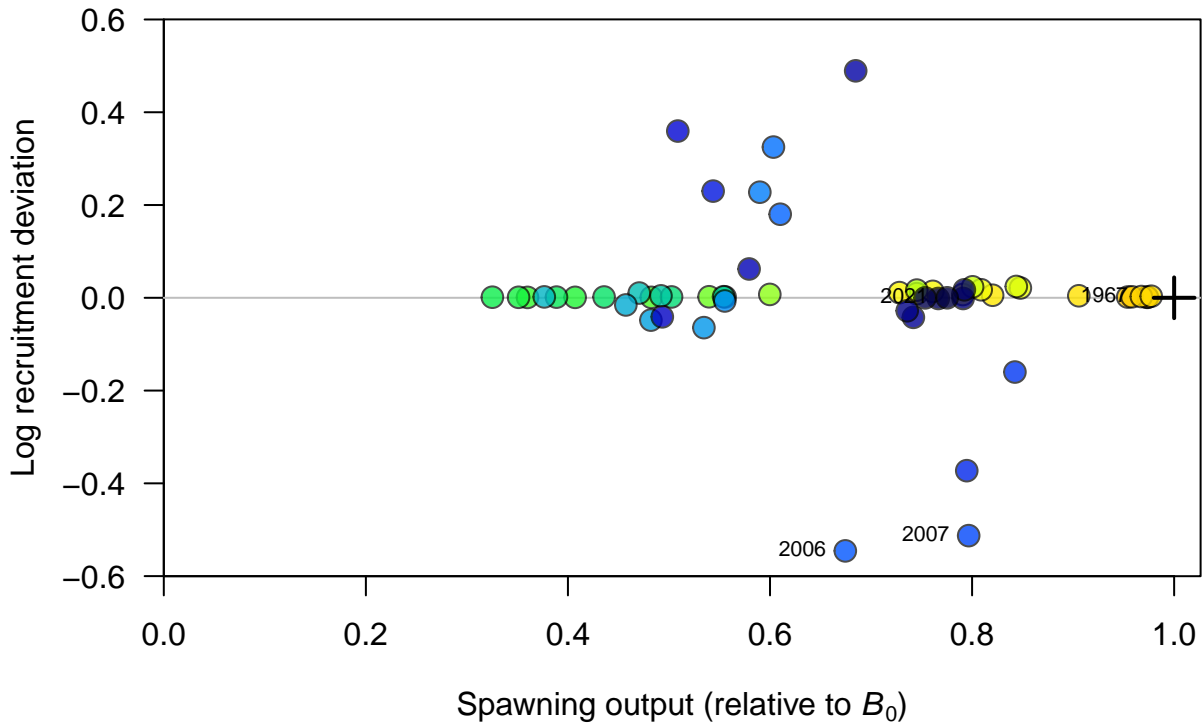


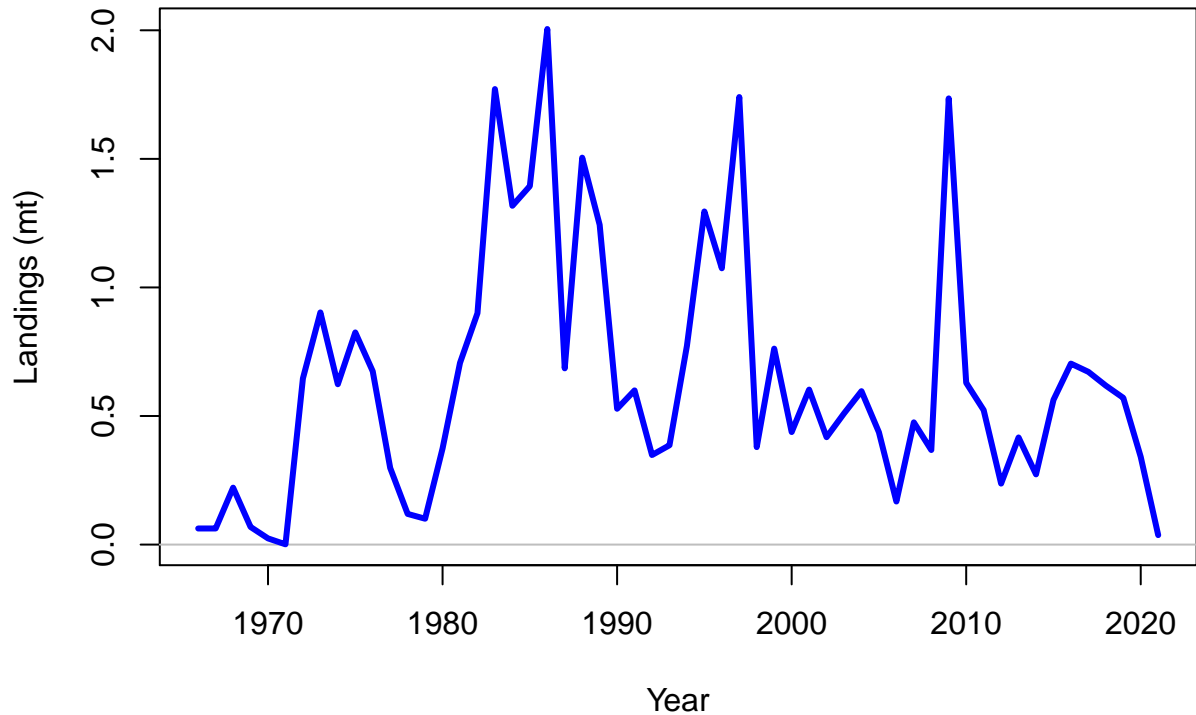


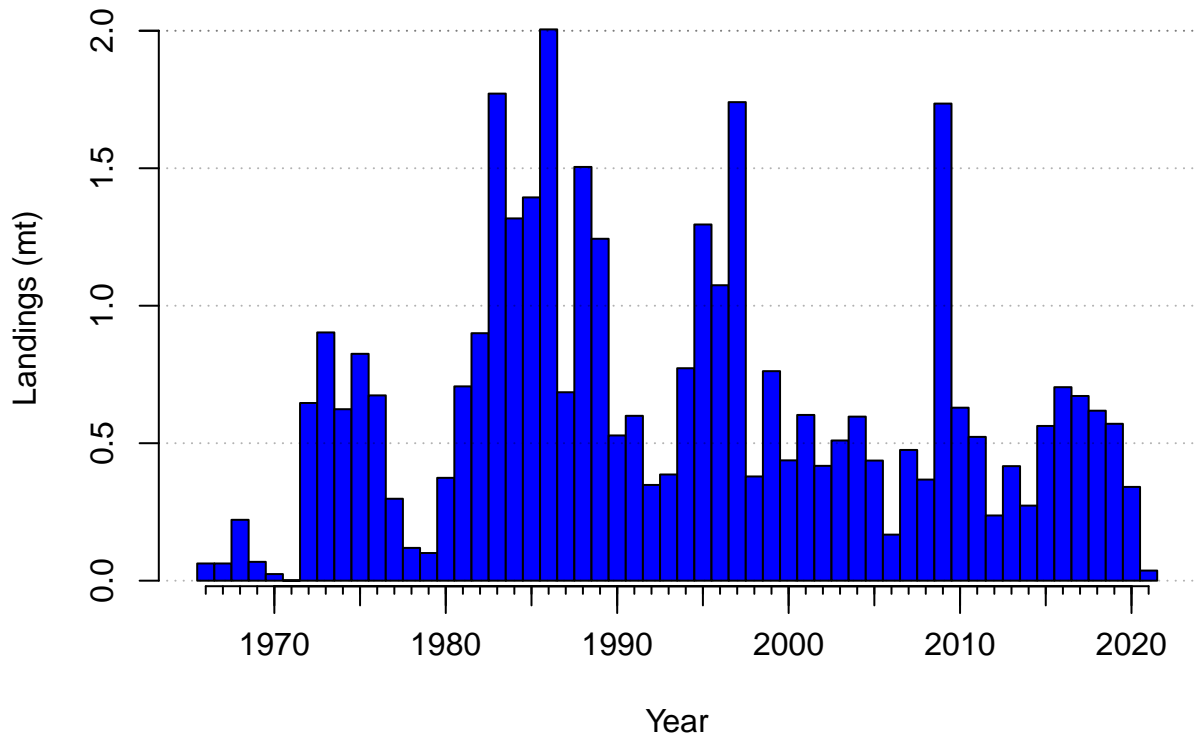


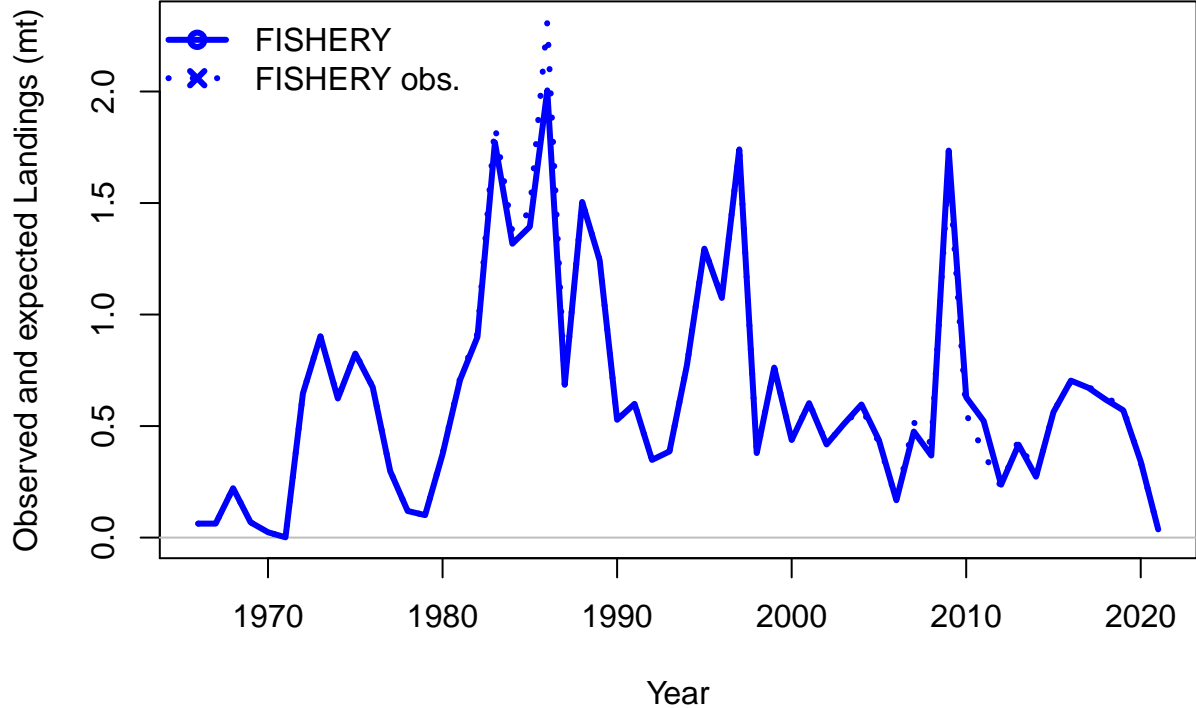


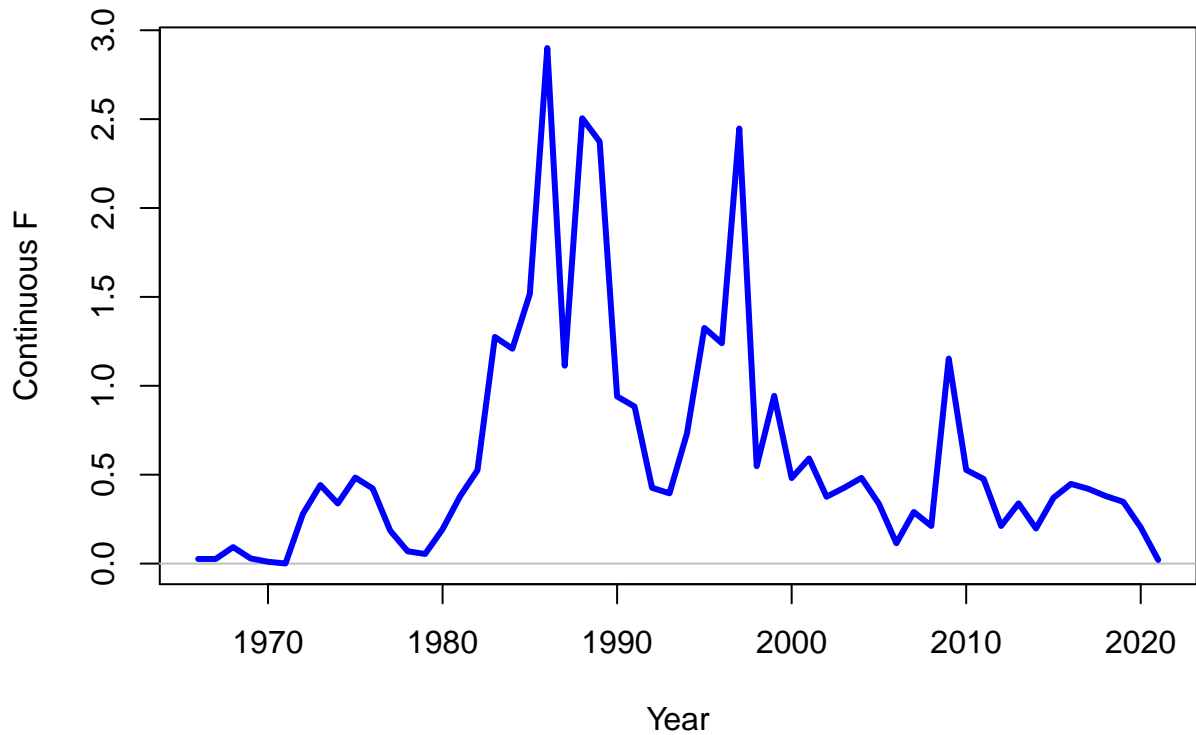




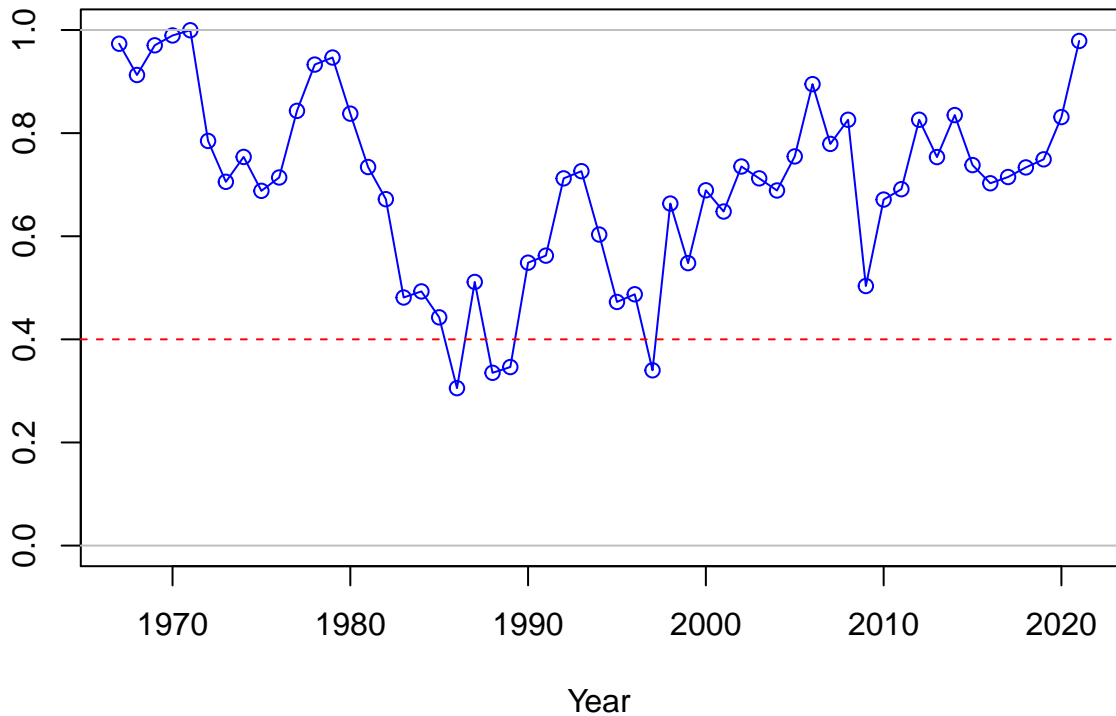




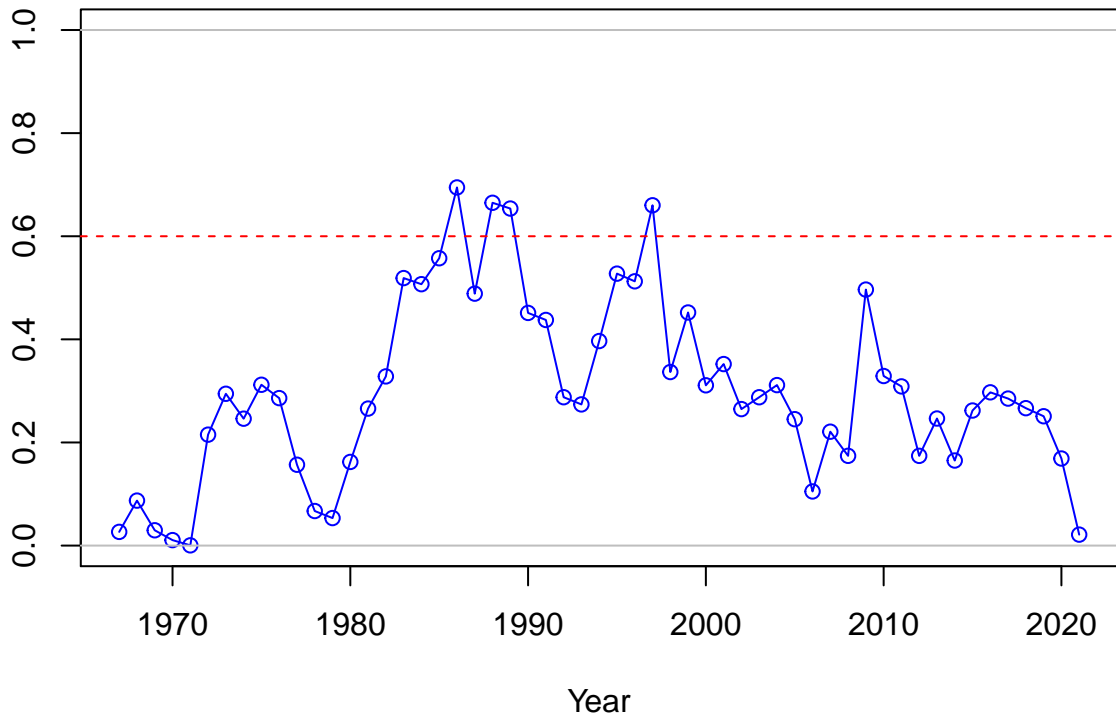




SPR

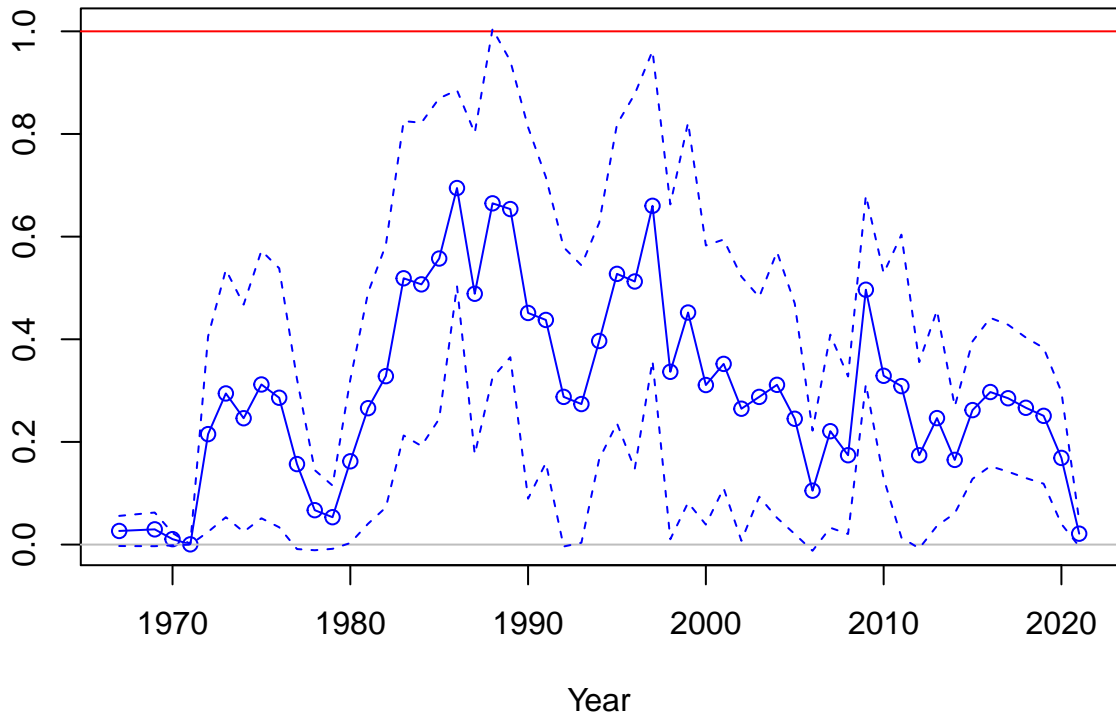


1-SPR

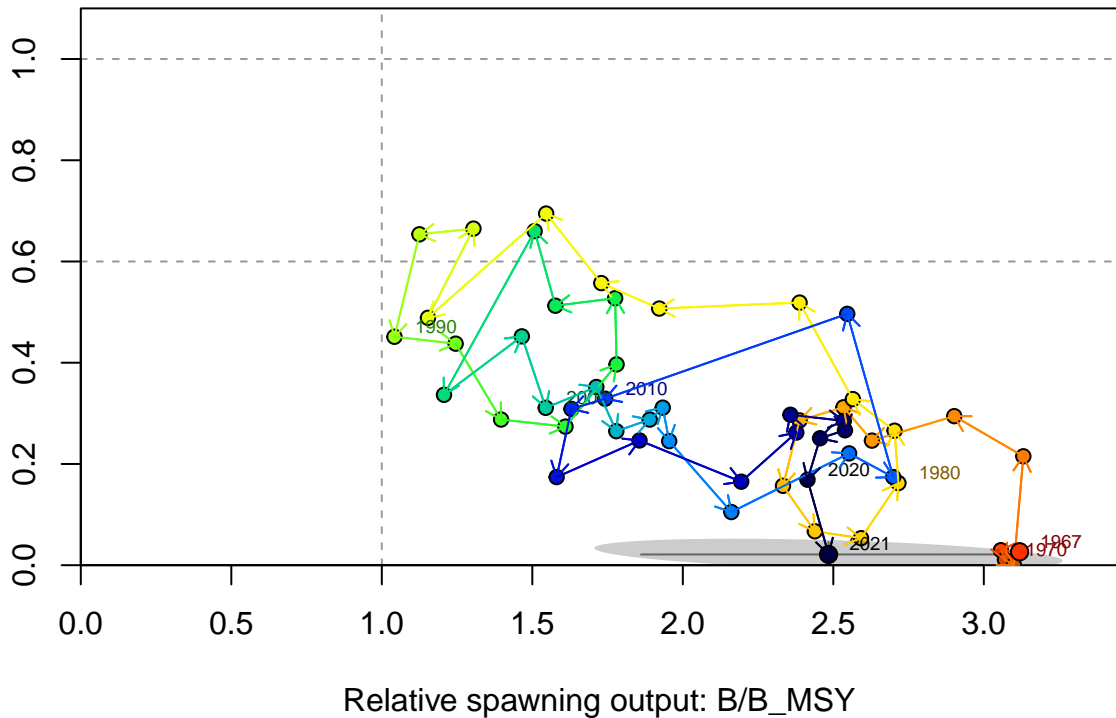




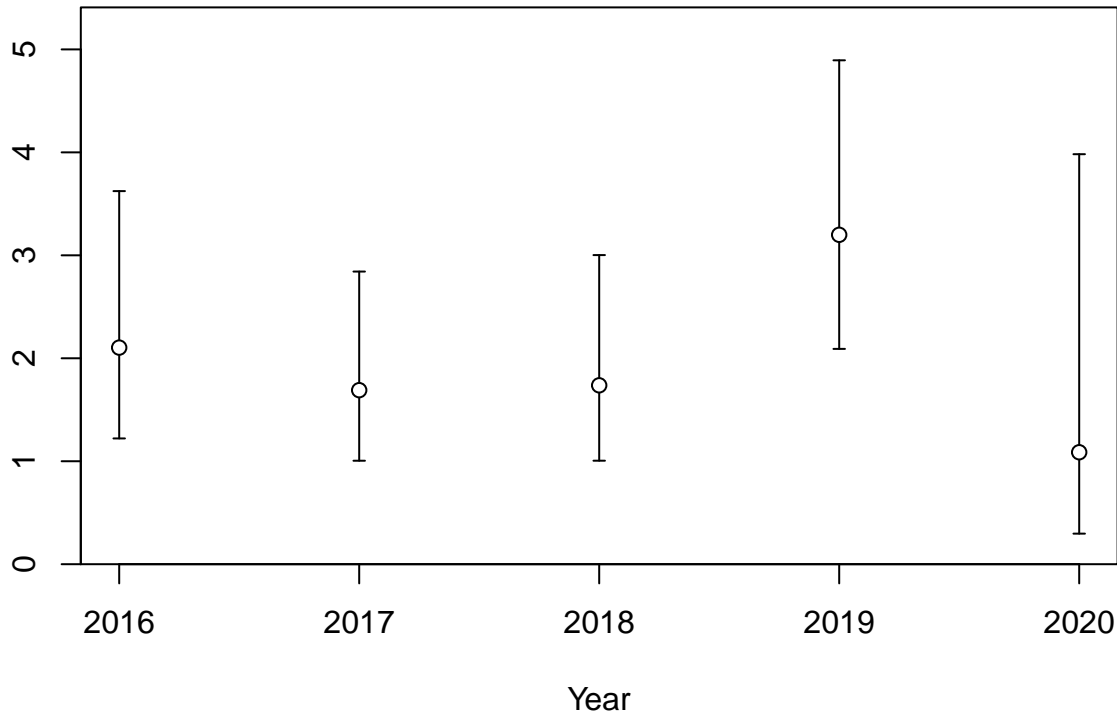
Fishing intensity: 1-SPR

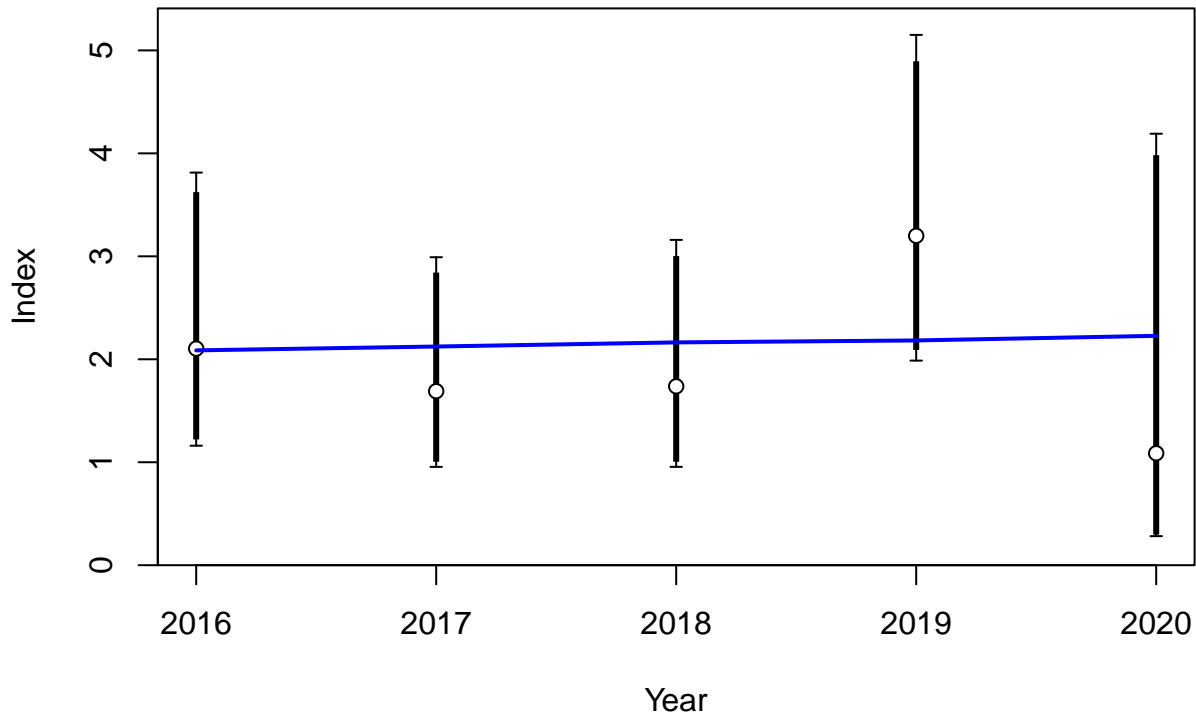


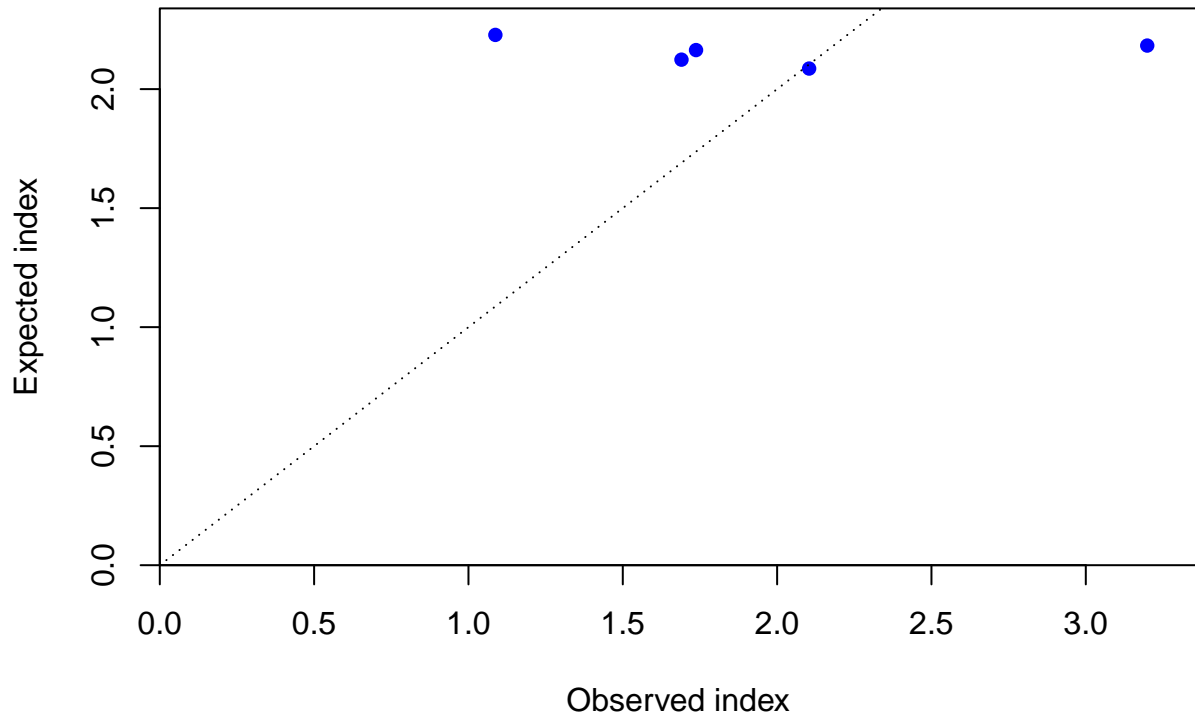
Fishing intensity: 1-SPR

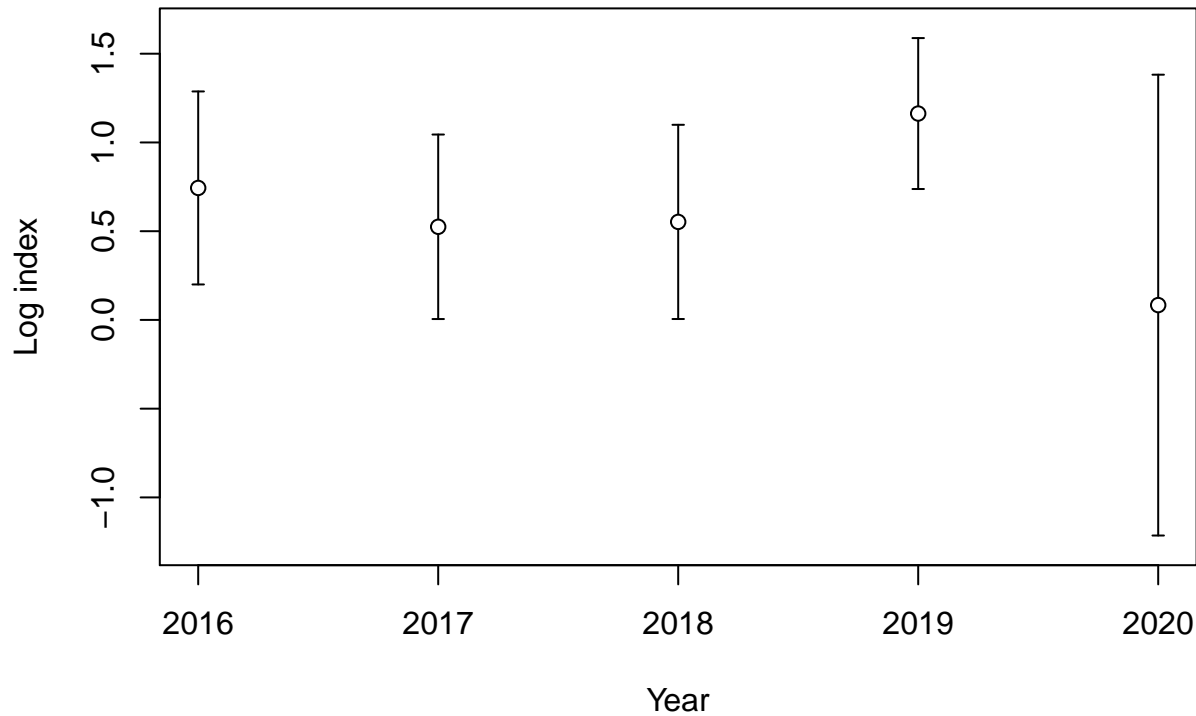


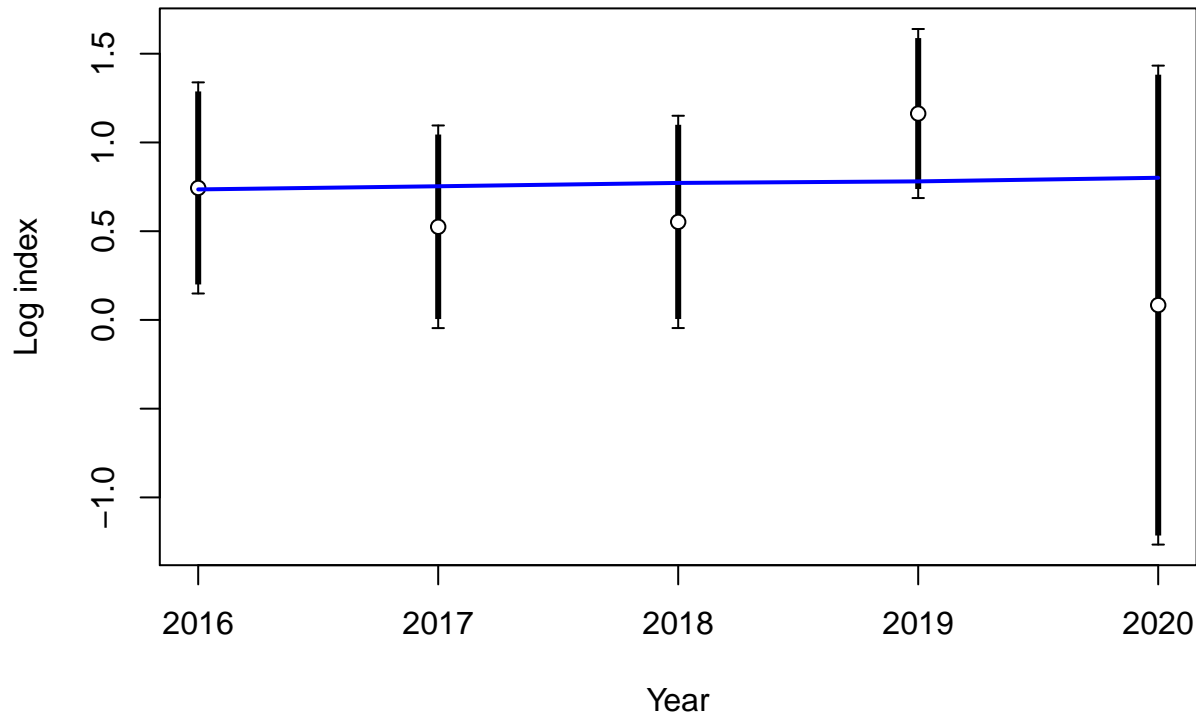
Index

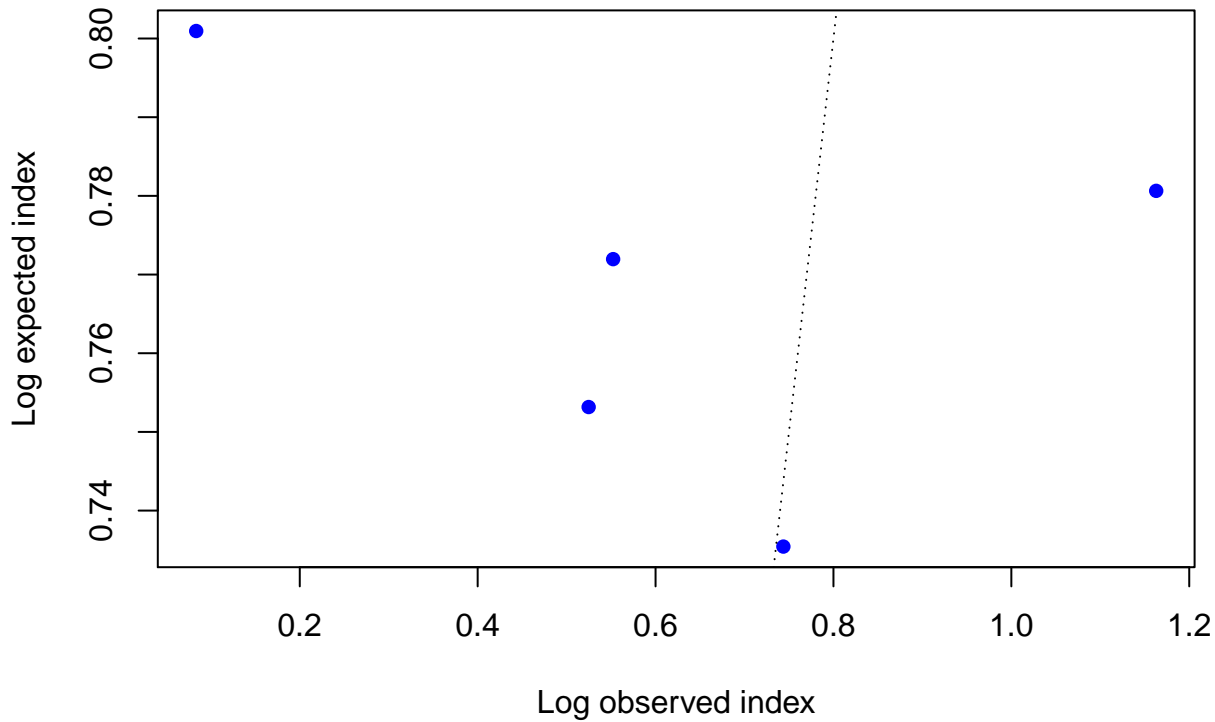






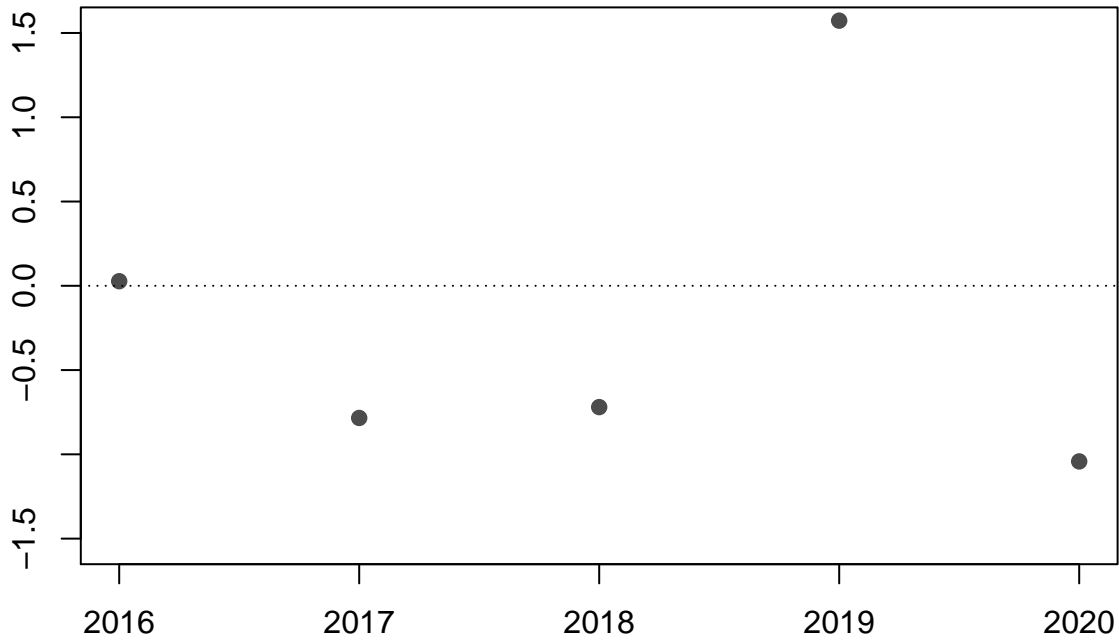




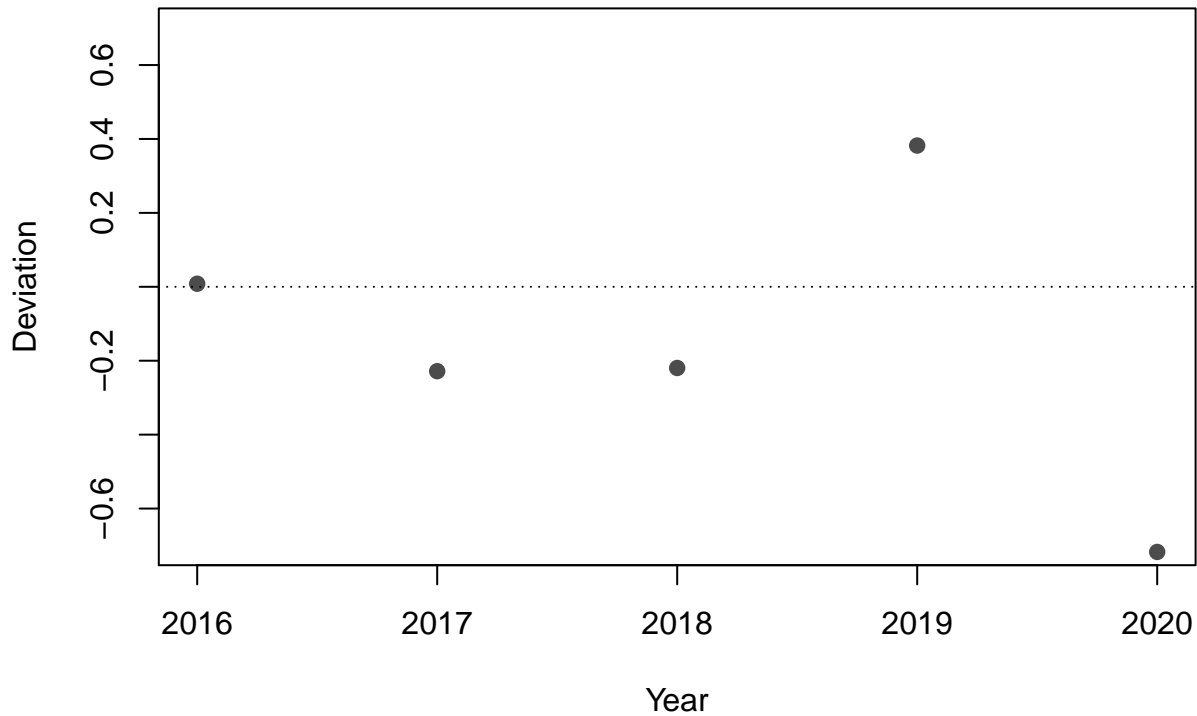


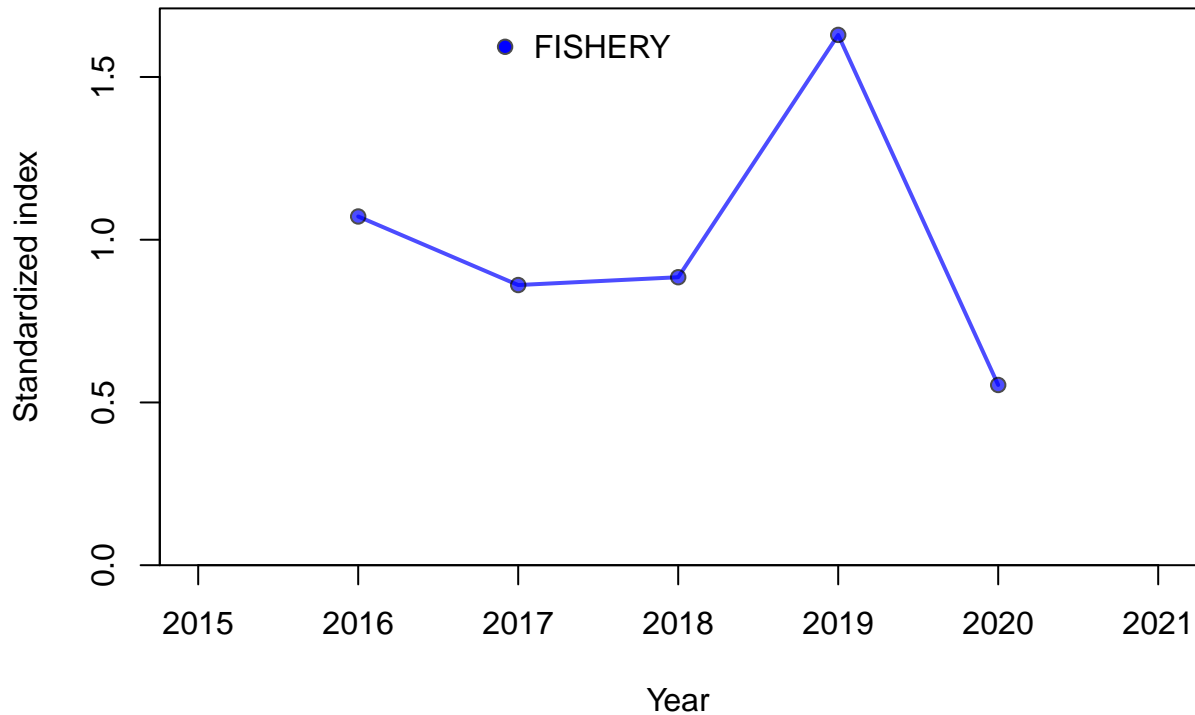


Residual

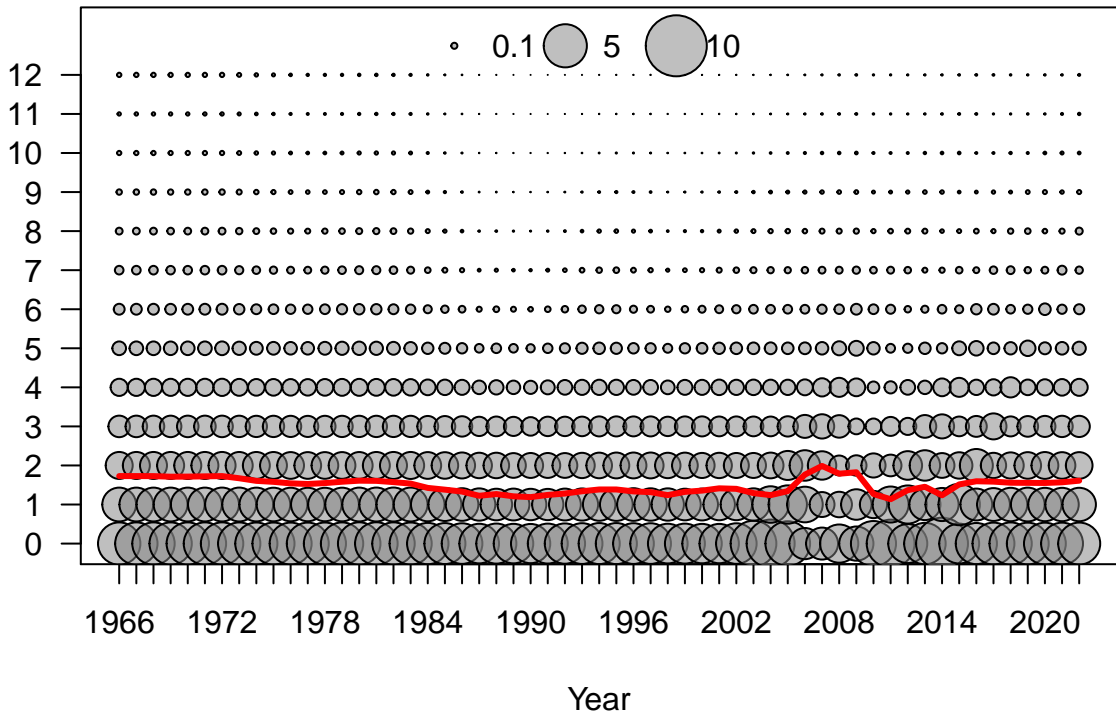


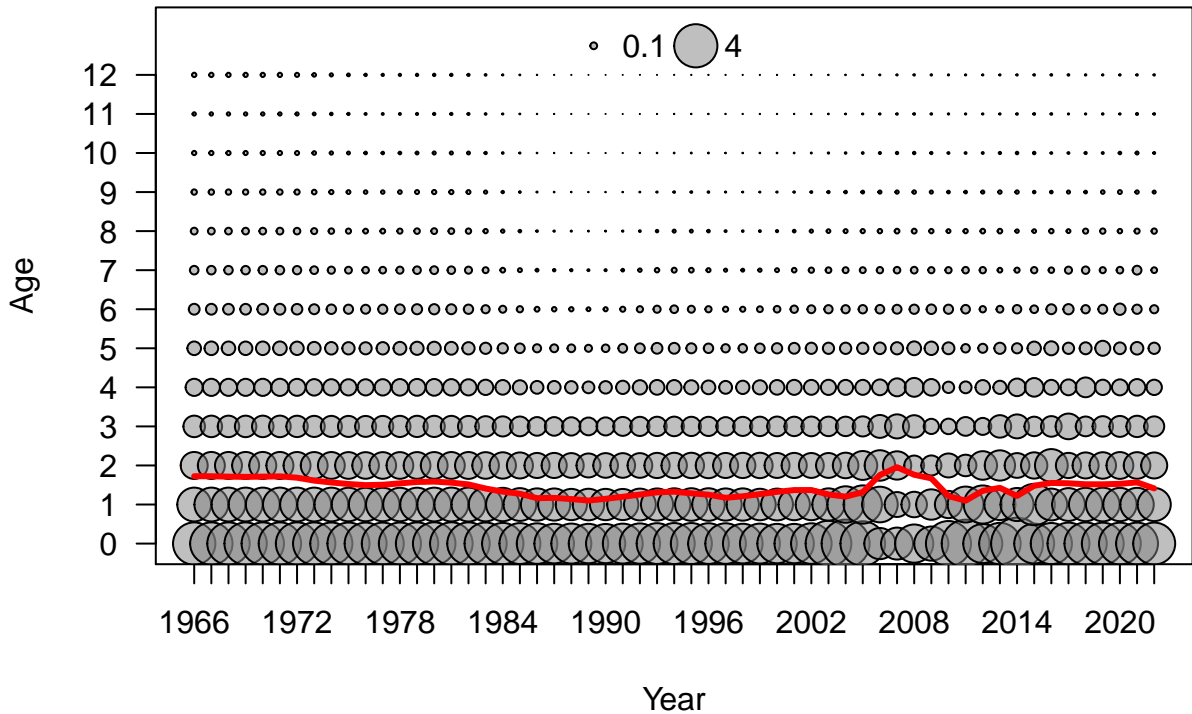
Year



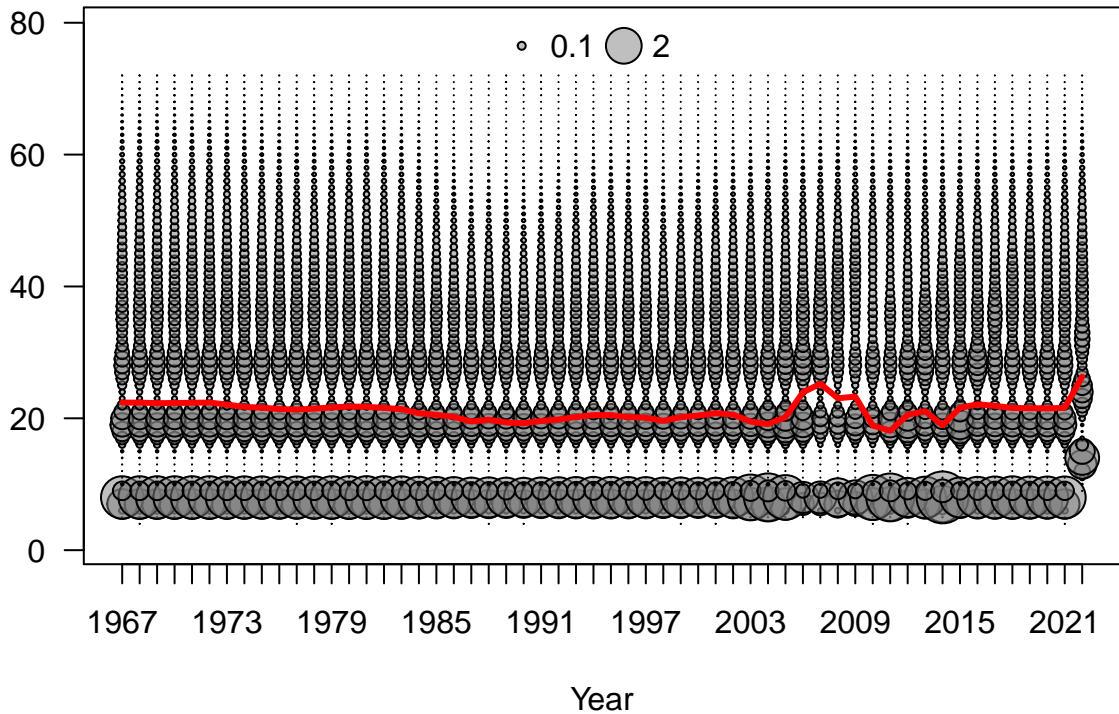


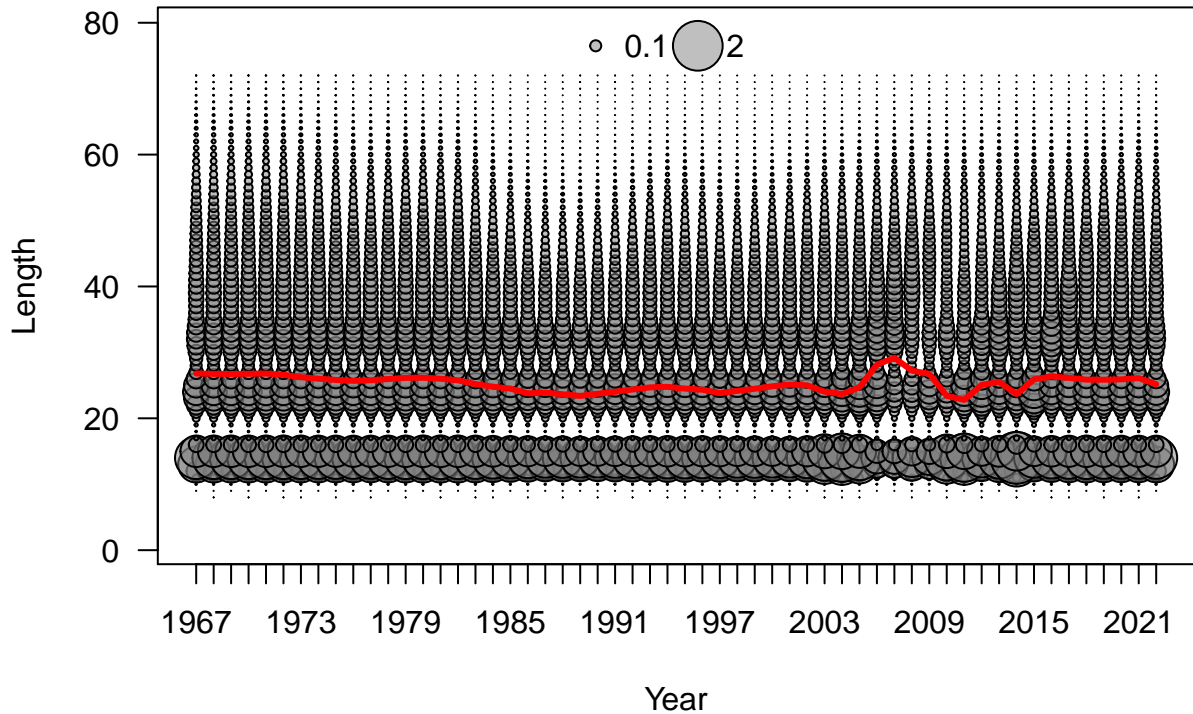
Age

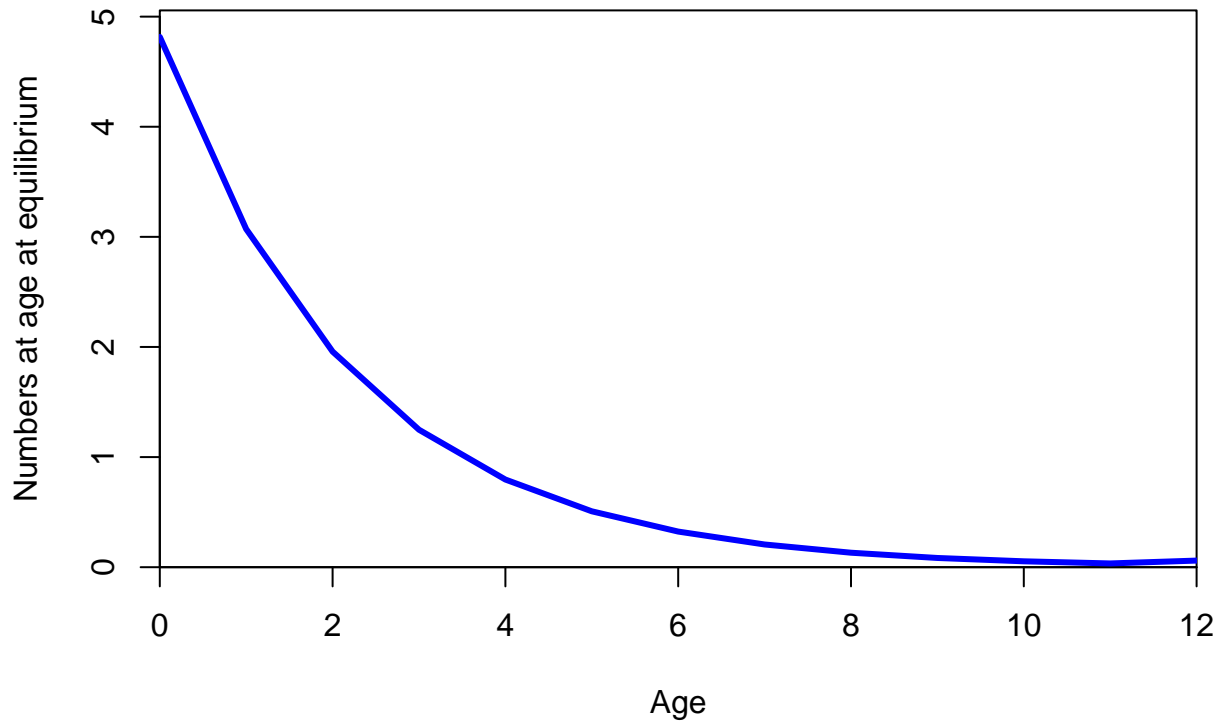




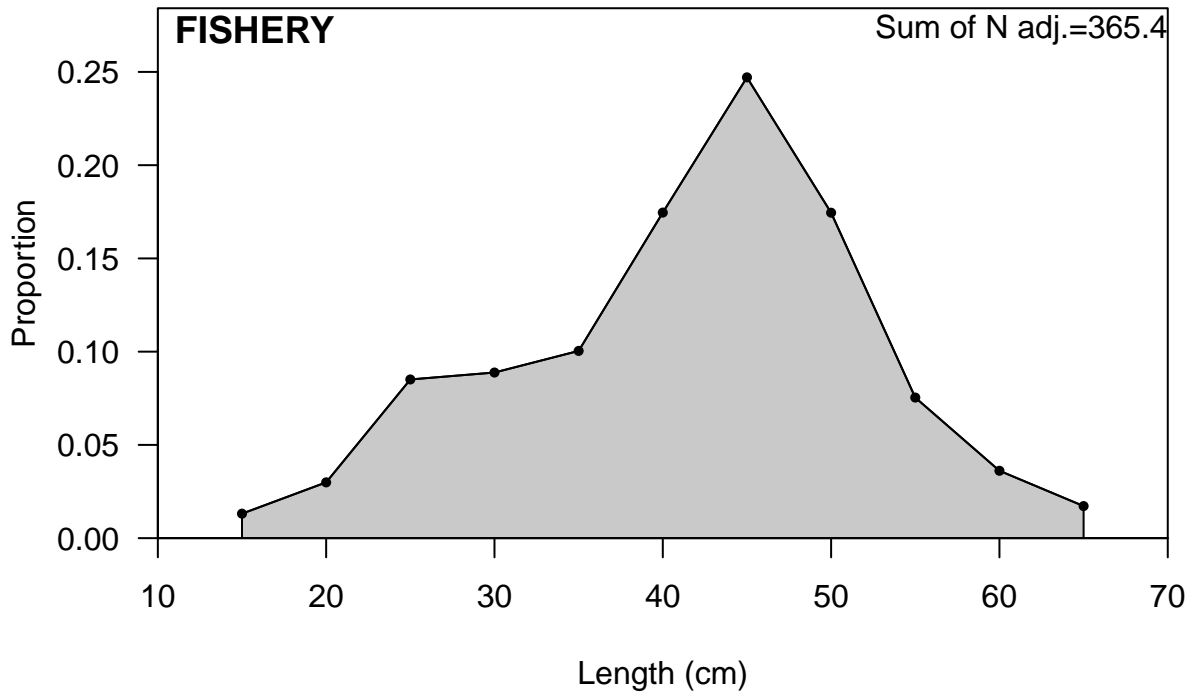
Length





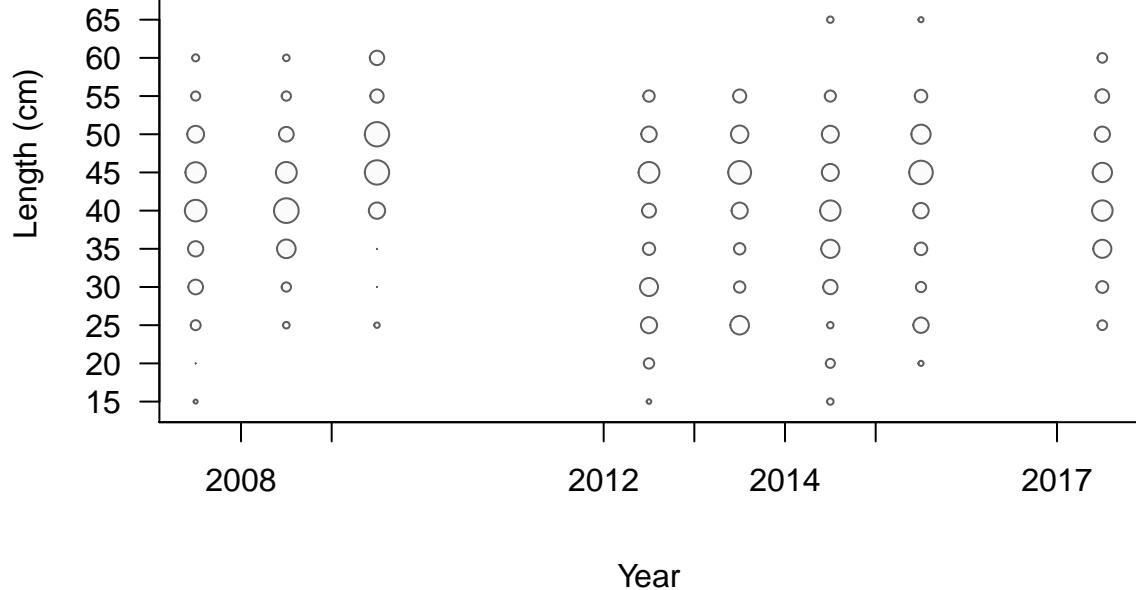




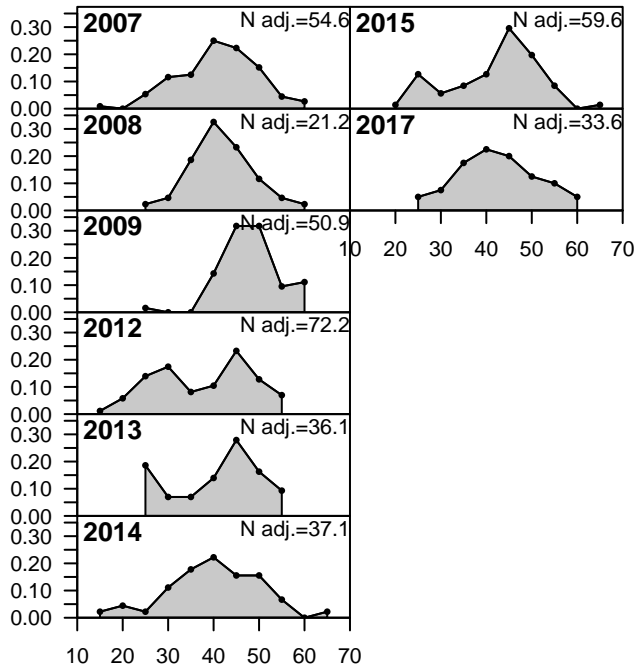


# FISHERY

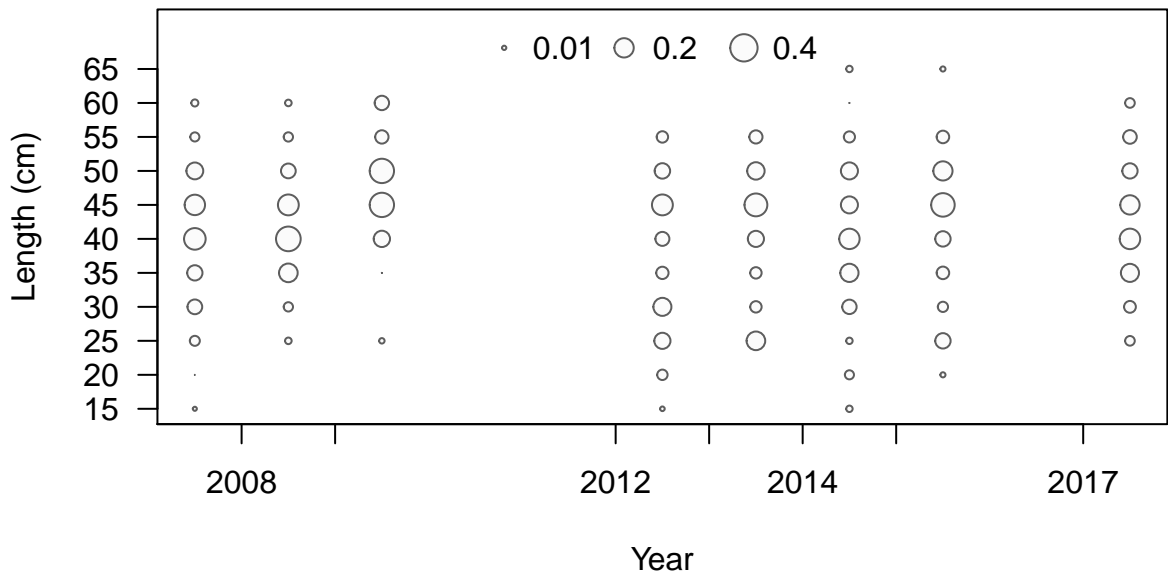
• 0.01 ○ 0.2 ○ 0.4



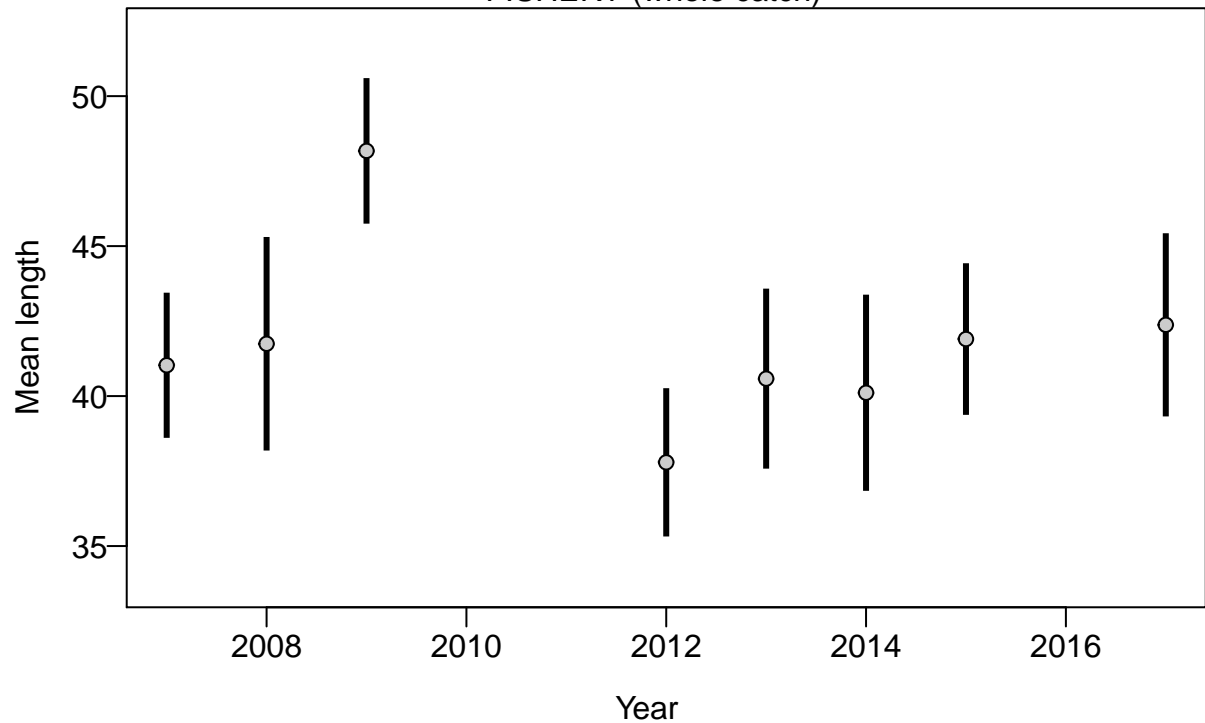
Proportion



Length (cm)

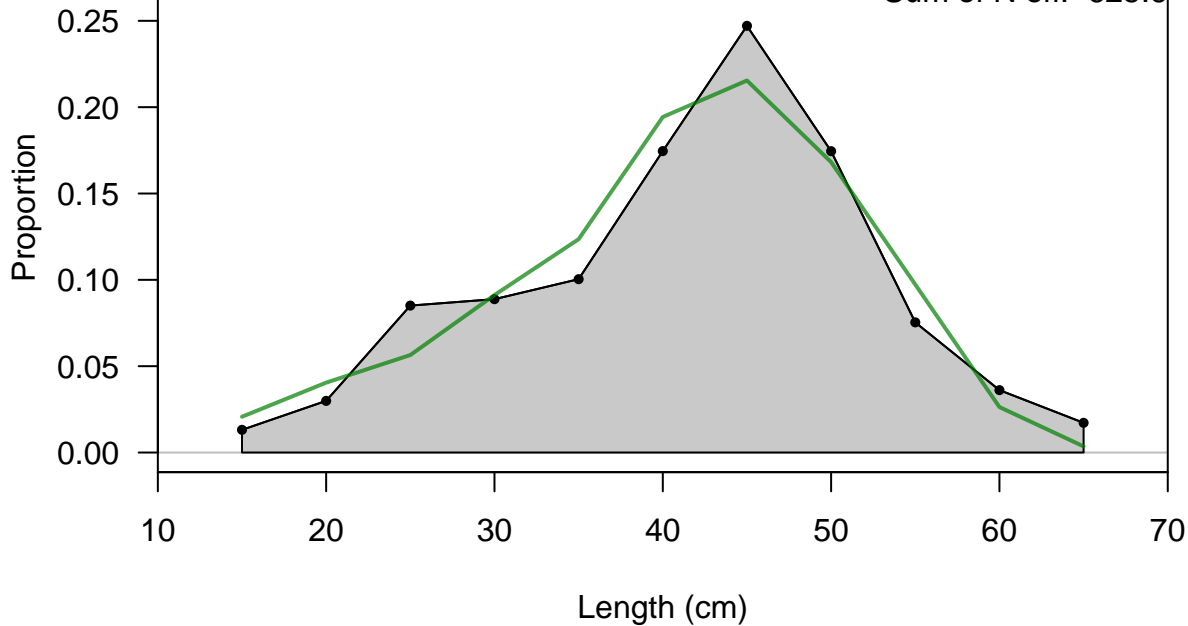


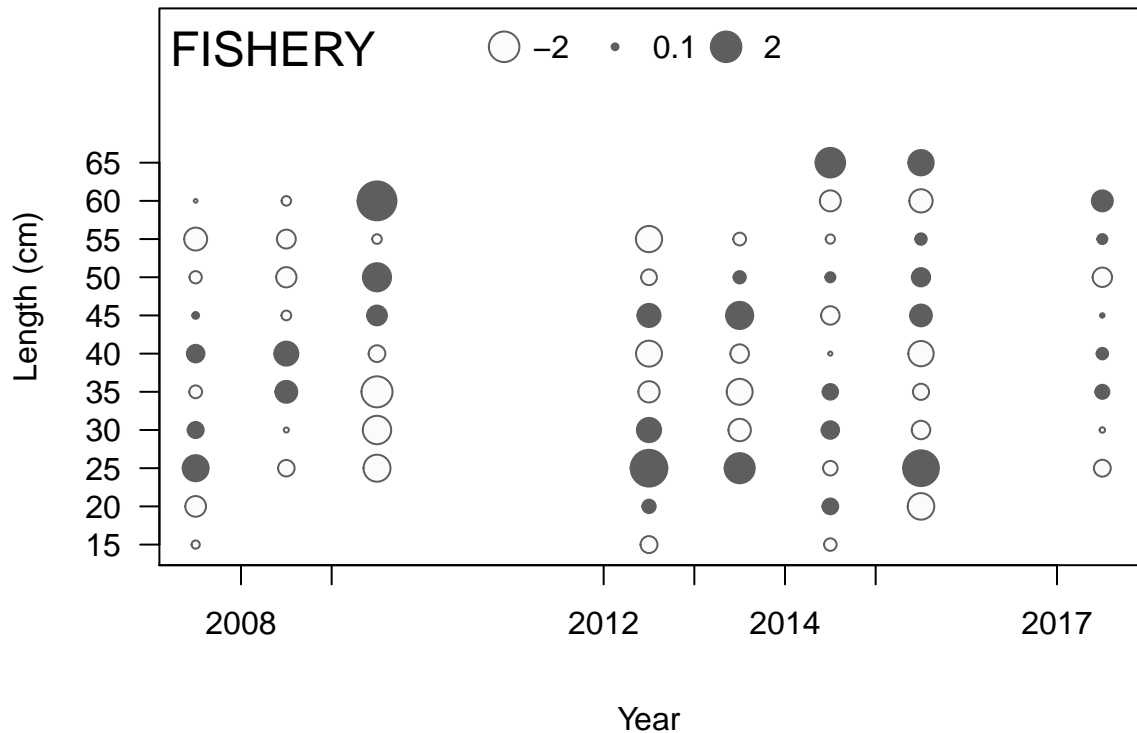
# FISHERY (whole catch)



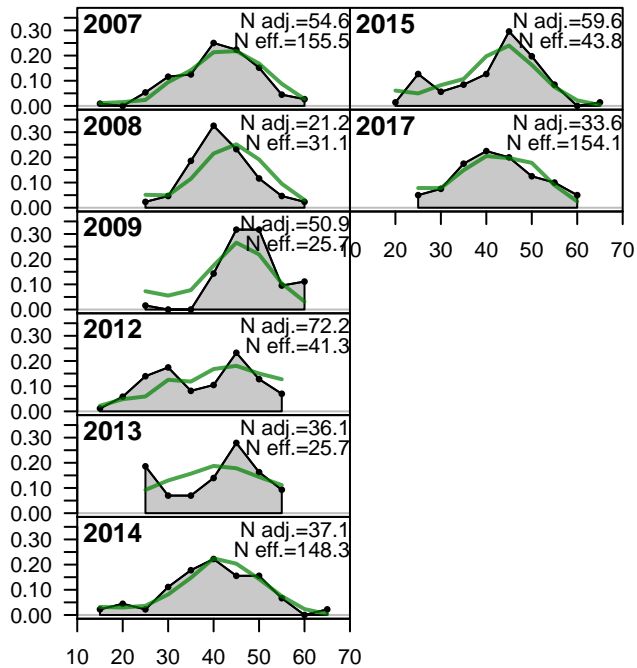
# FISHERY

Sum of N adj.=365.4  
Sum of N eff.=625.6



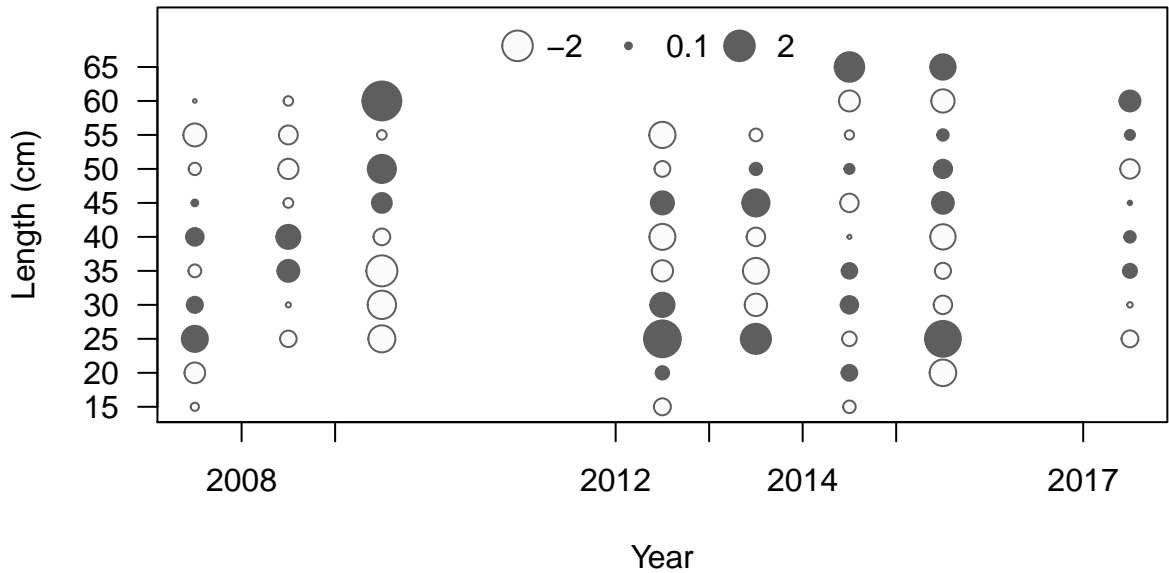


Proportion

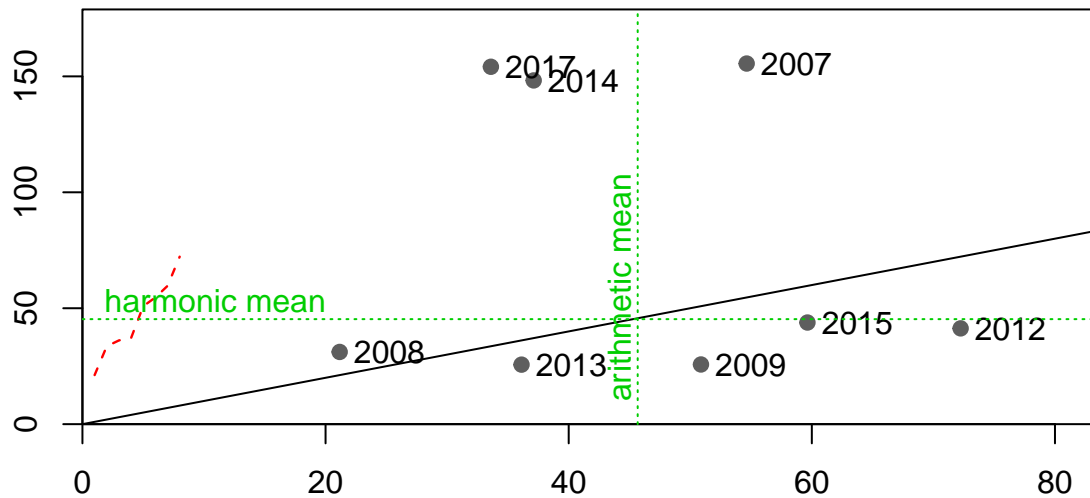


Length (cm)



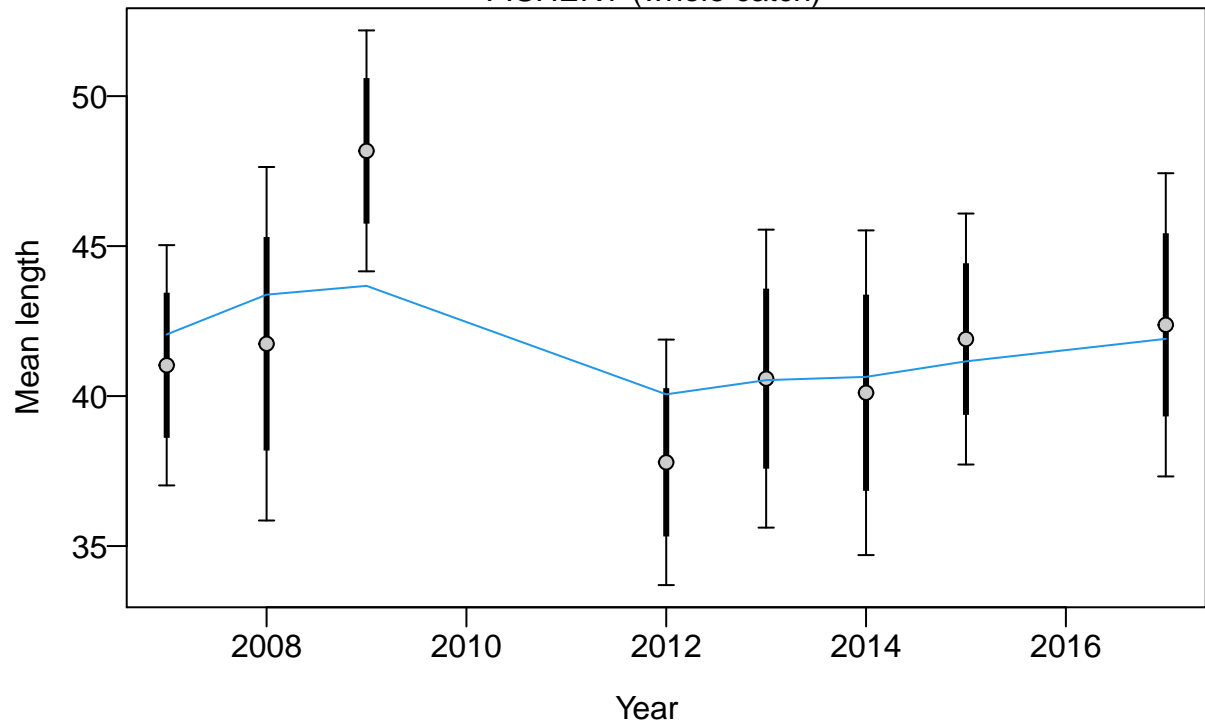


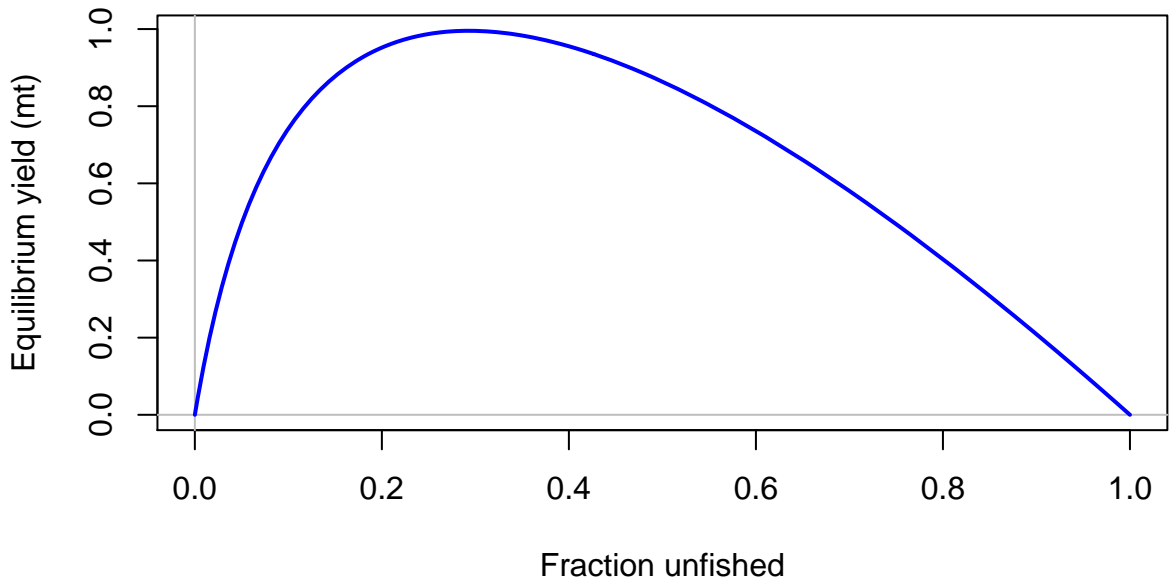
Effective sample size

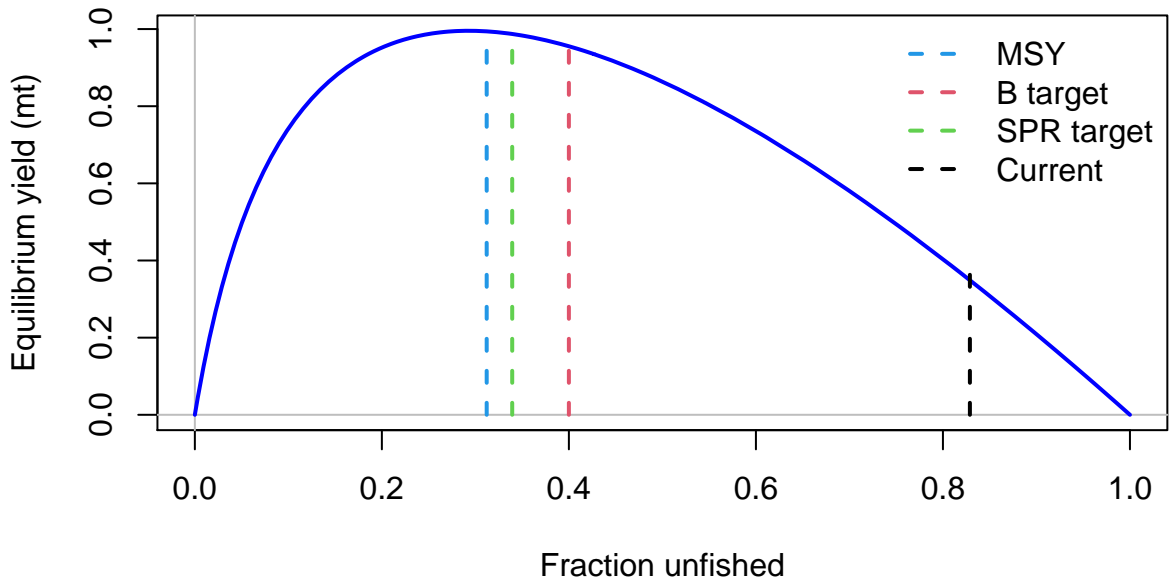


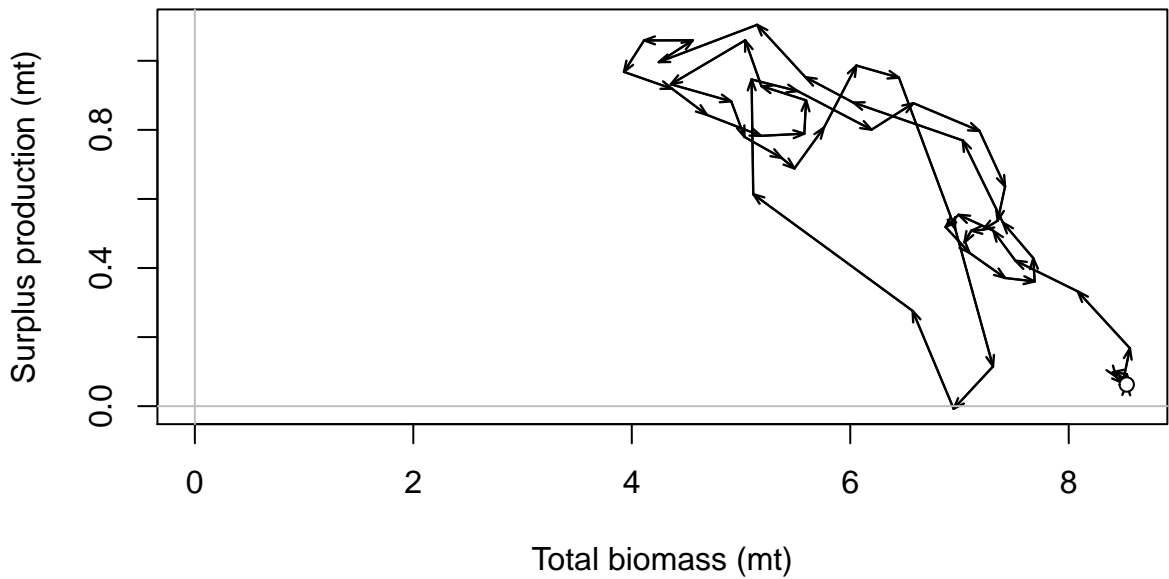
Observed sample size

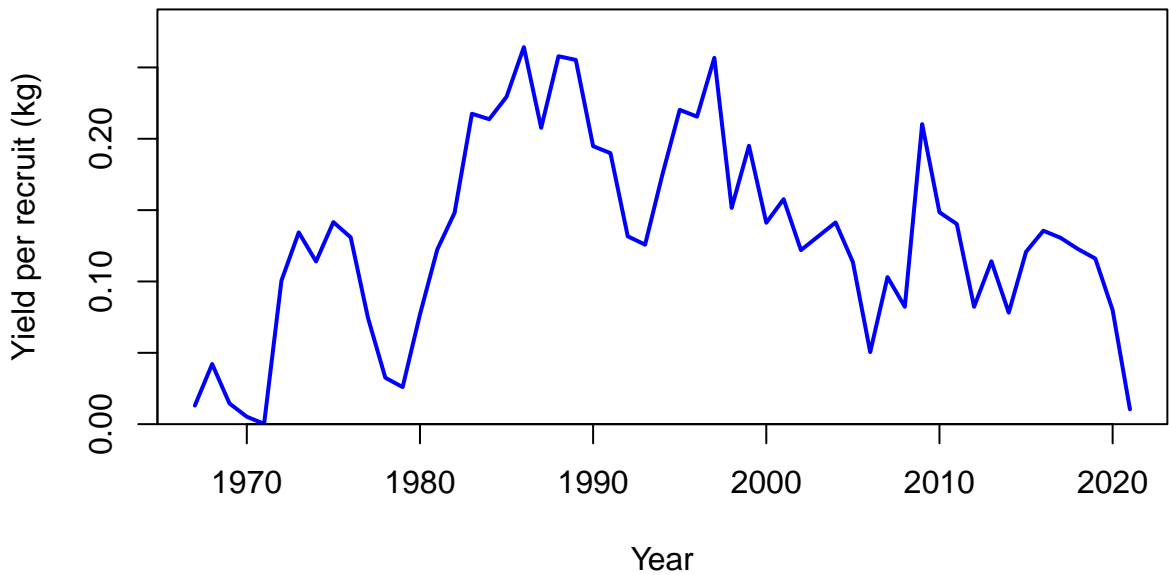
FISHERY (whole catch)

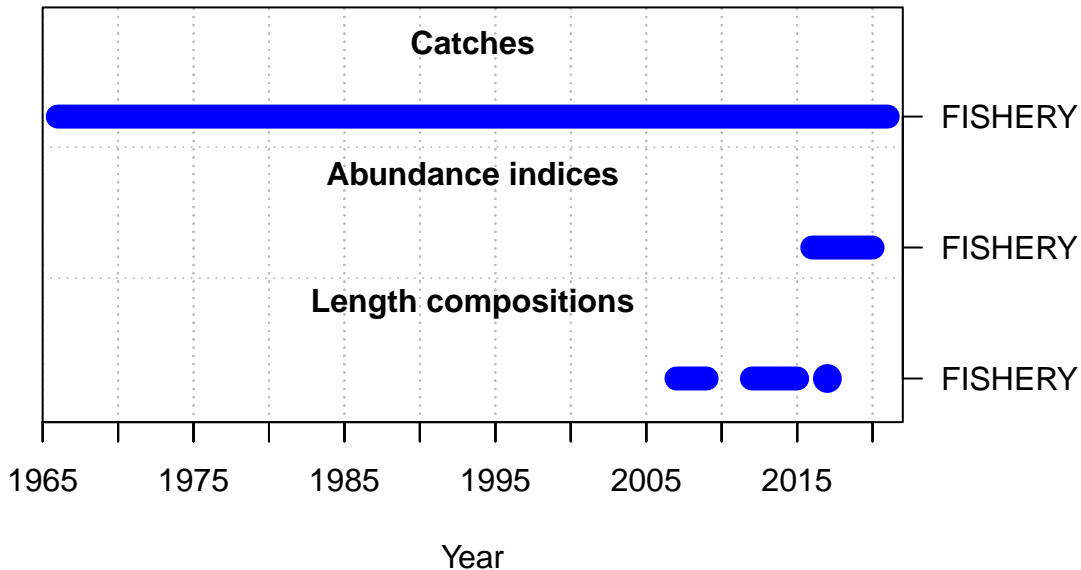




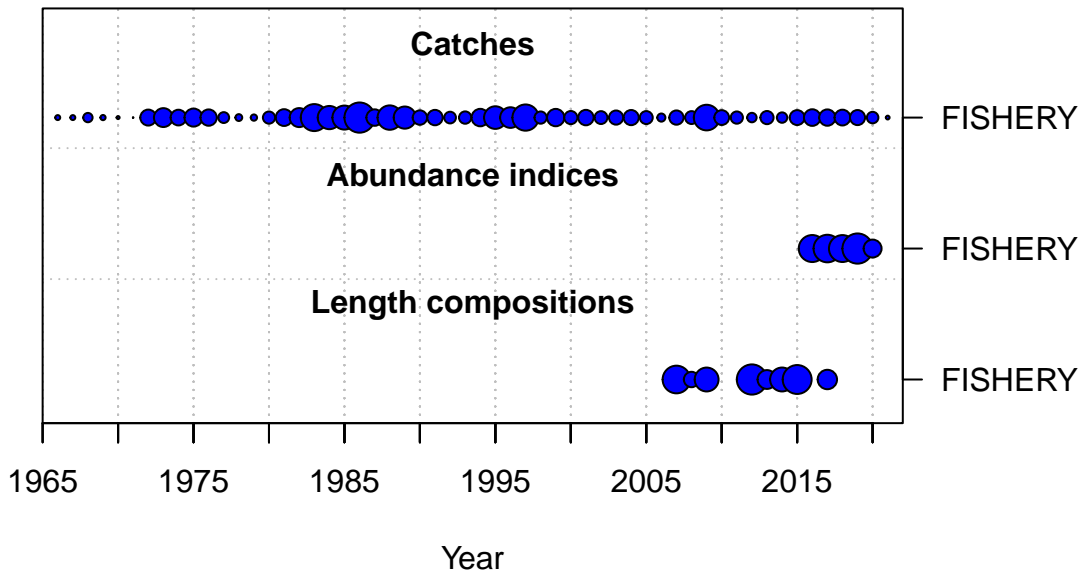




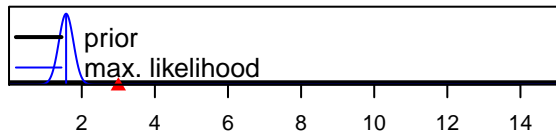




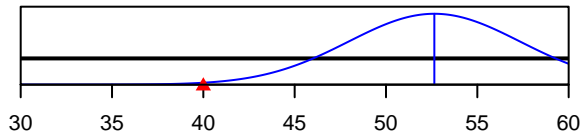




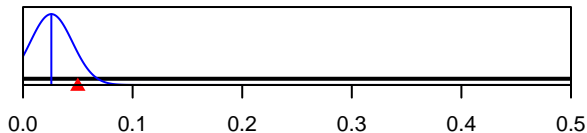
SR\_LN(R0)



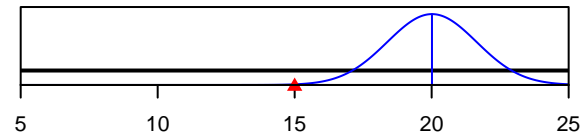
Size\_inflection\_FISHERY(1)



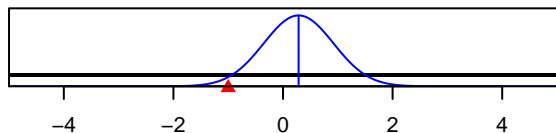
InitF\_seas\_1\_flt\_1FISHERY



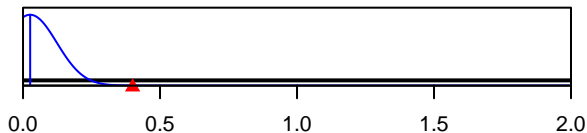
Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



Q\_extraSD\_FISHERY(1)



Parameter value