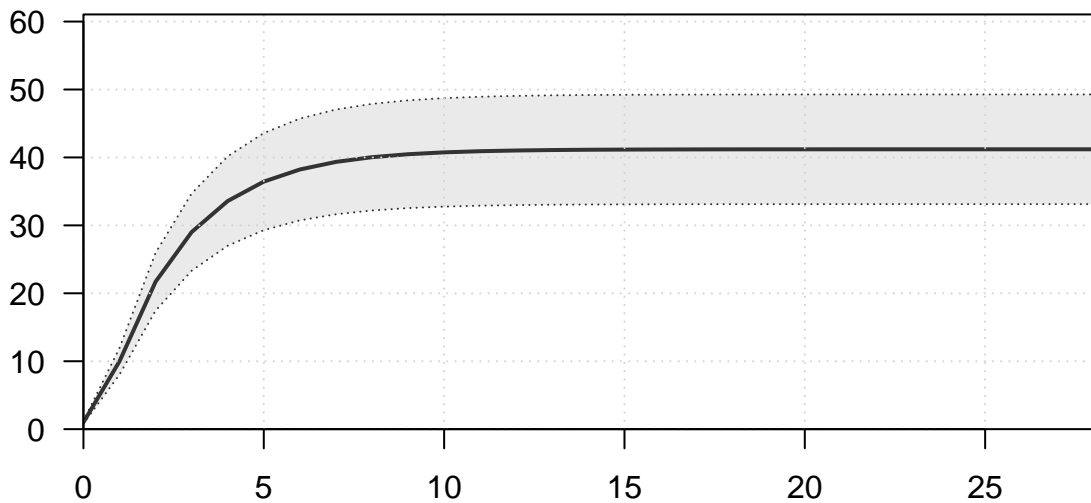
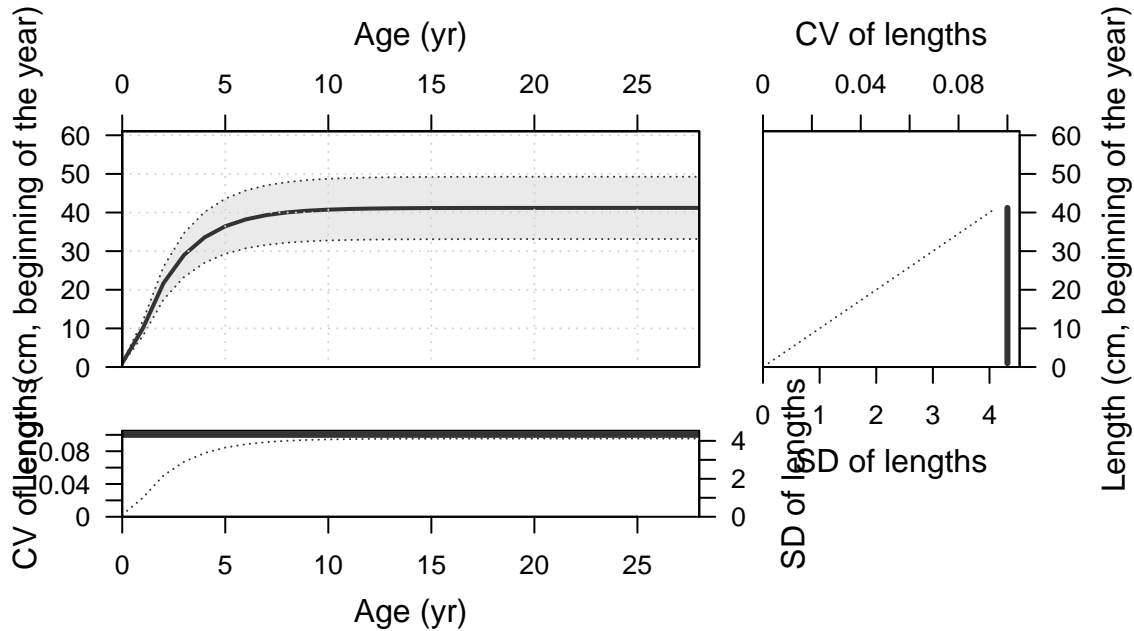


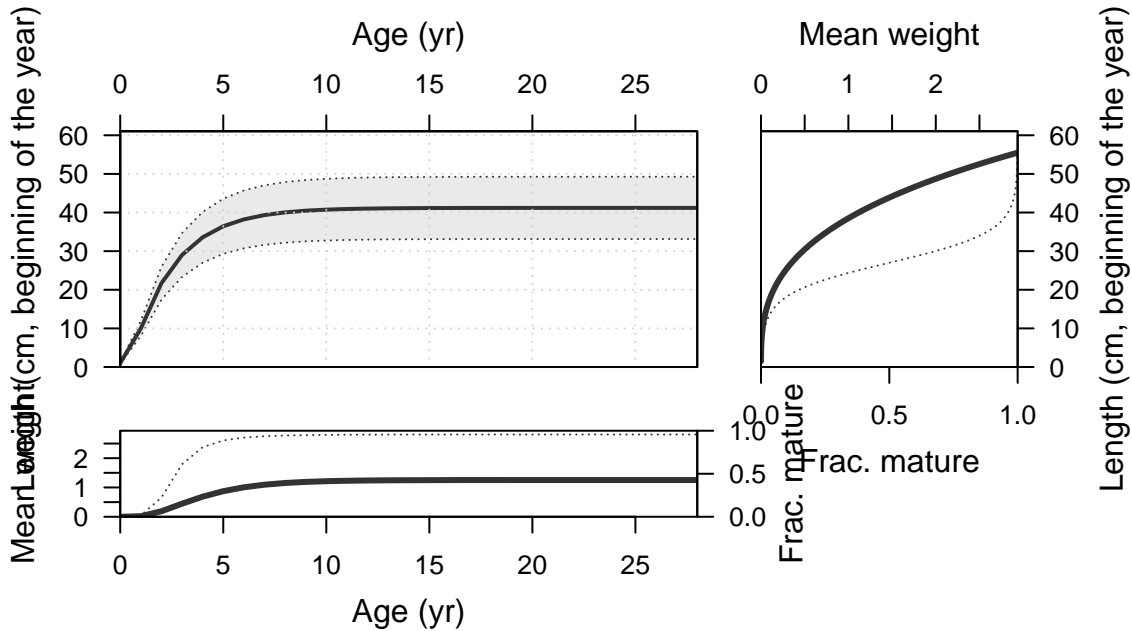
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Mon Jul 18 12:05:24 2022  
Data\_File: data.ss  
Control\_File: control.ss

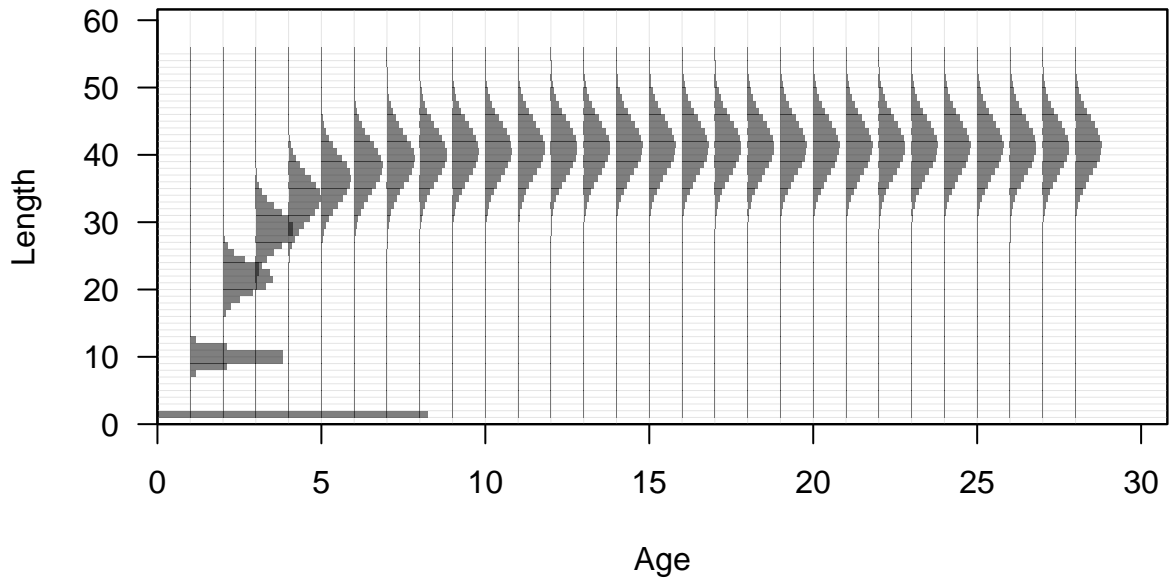
Length (cm, beginning of the year)

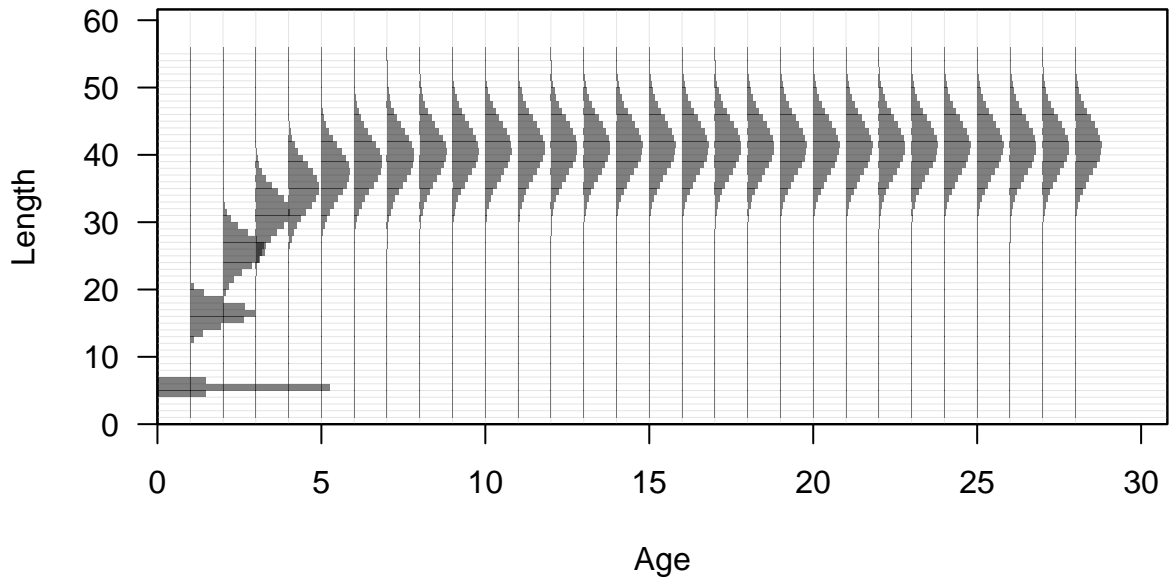


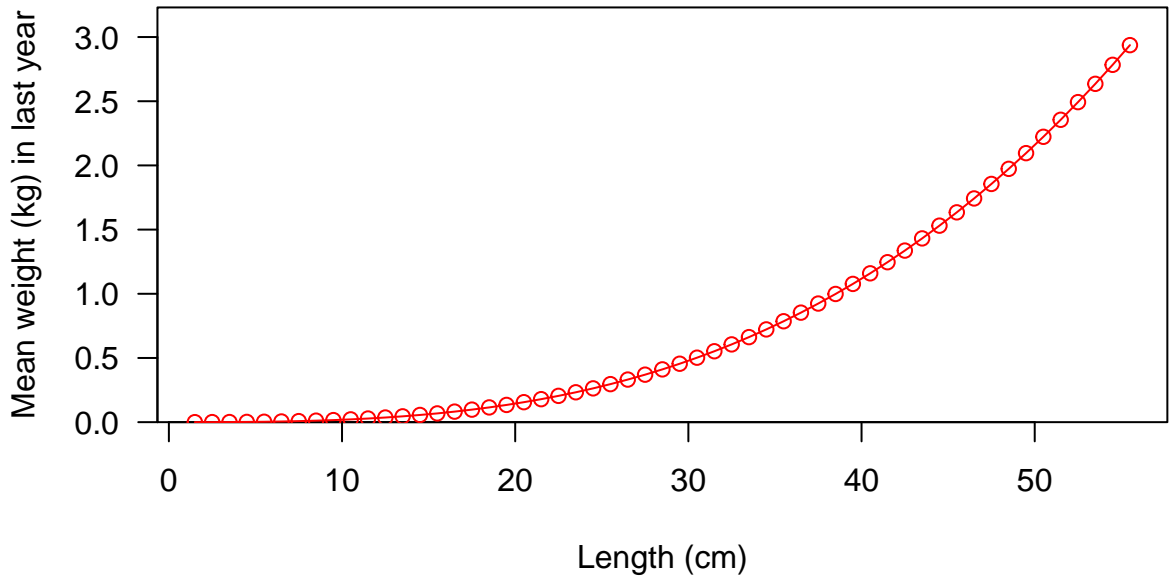
Age (yr)

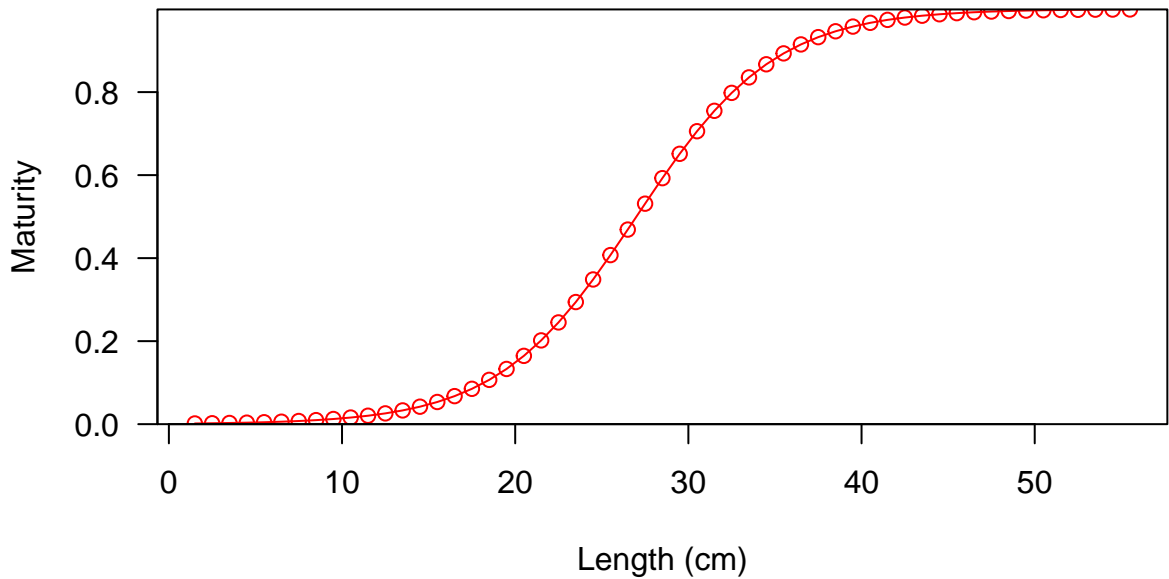




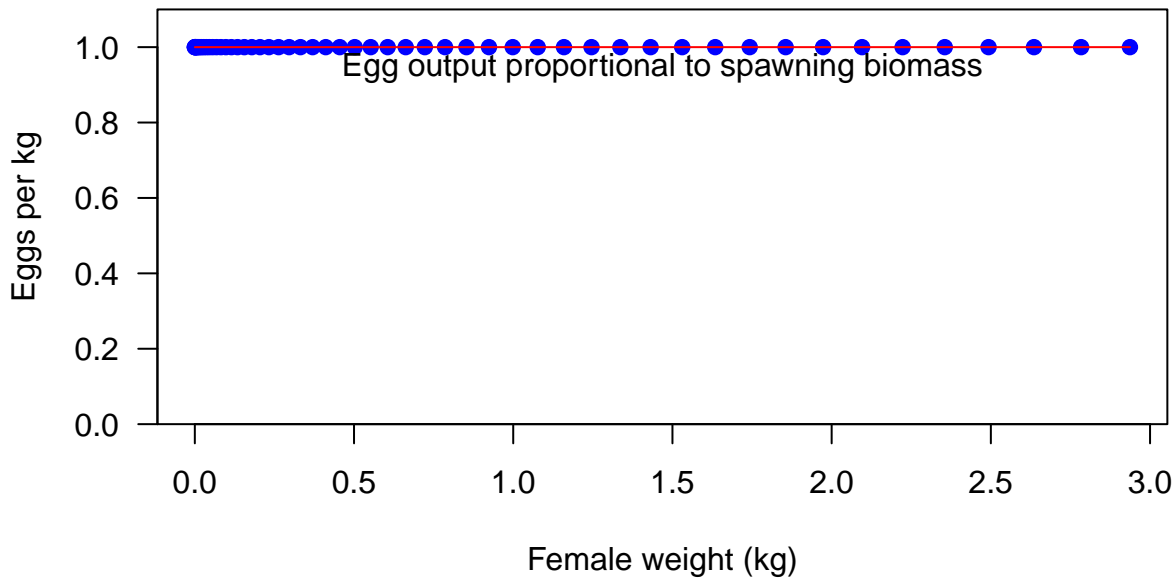


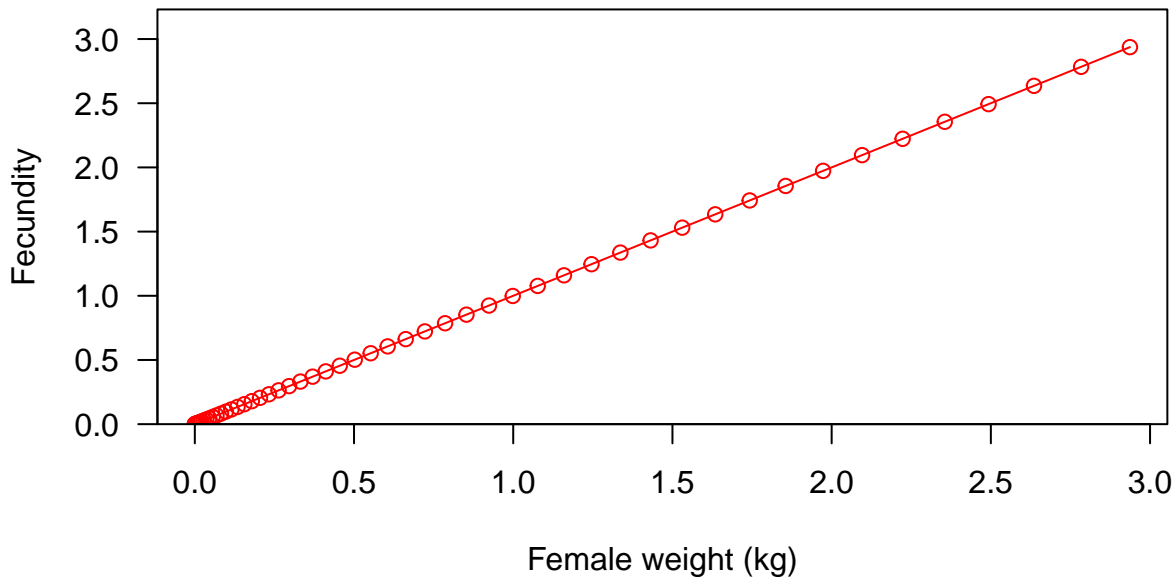


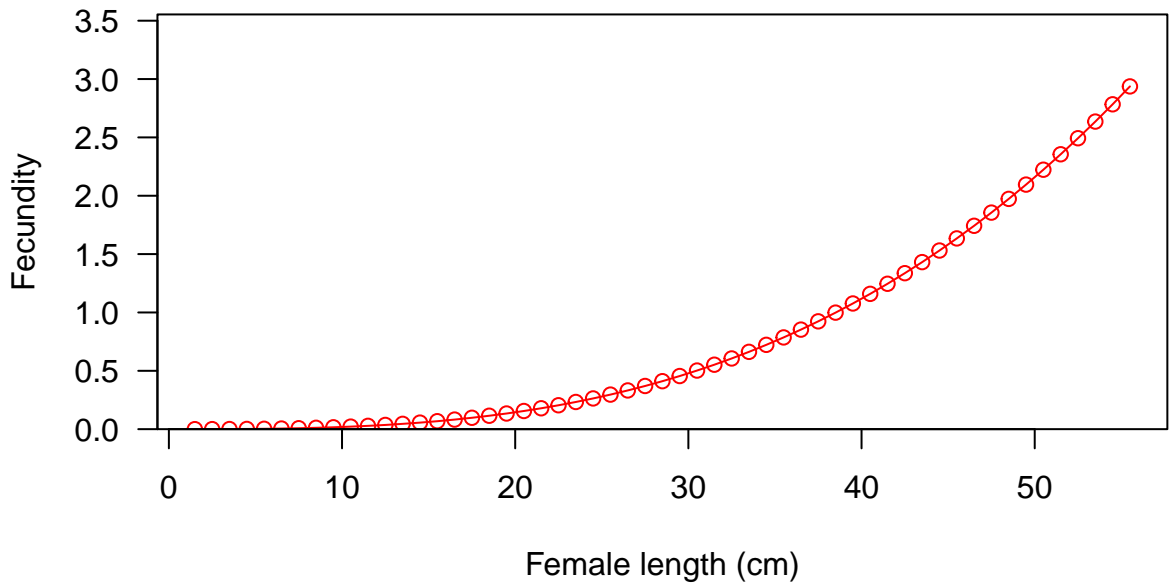


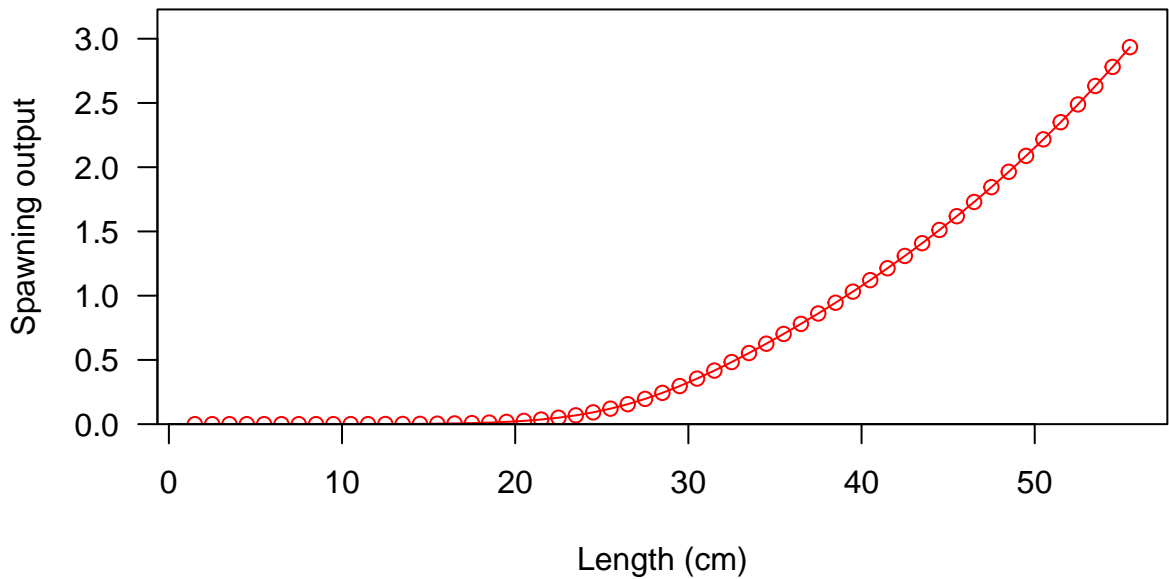


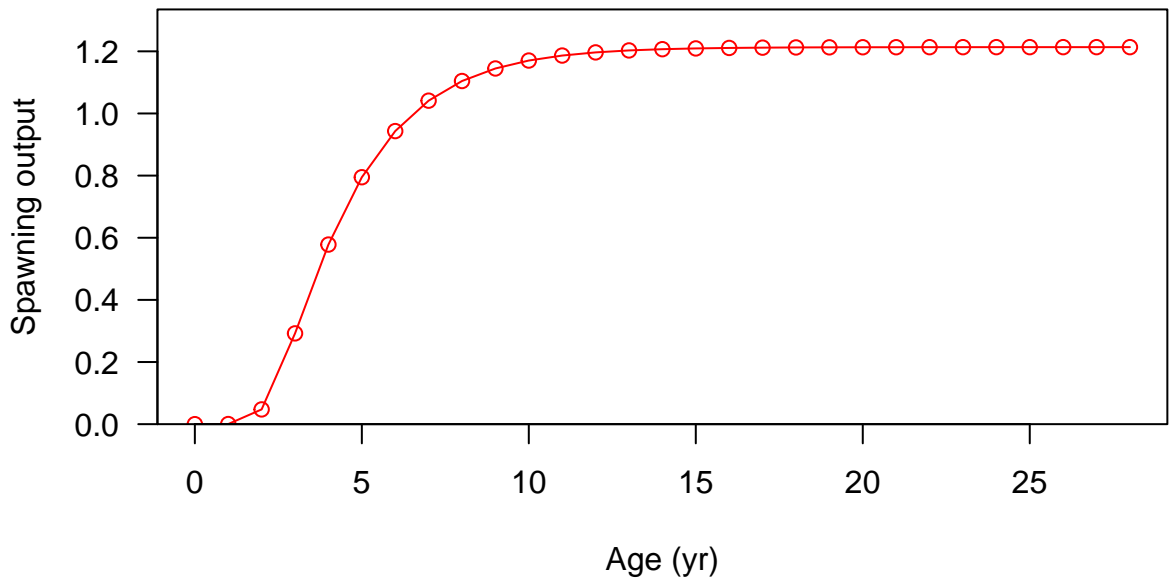




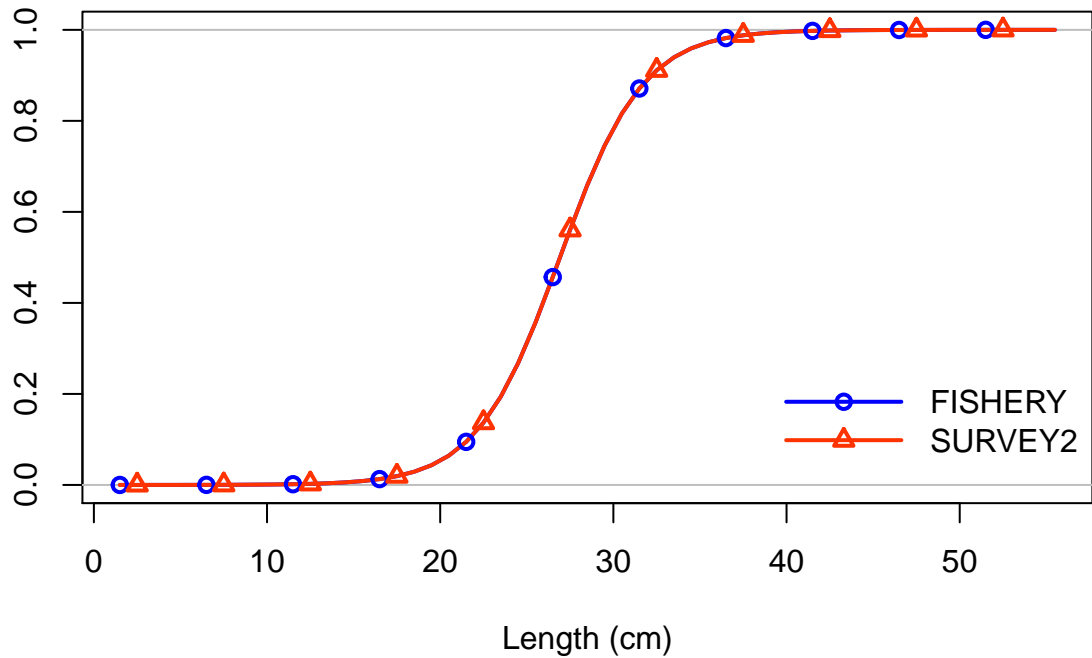




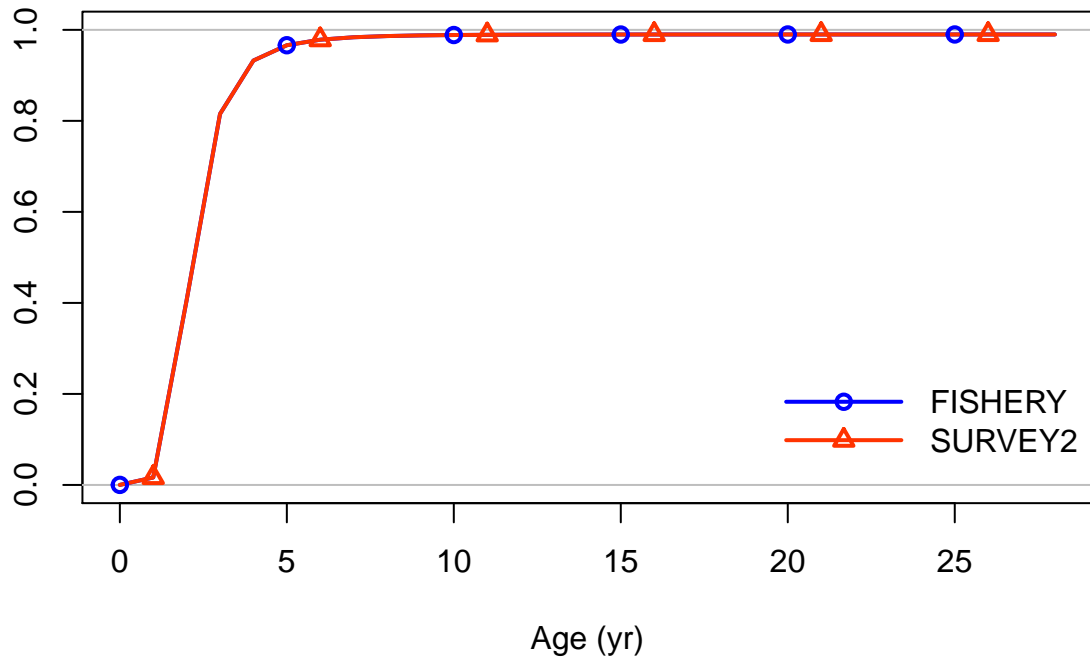




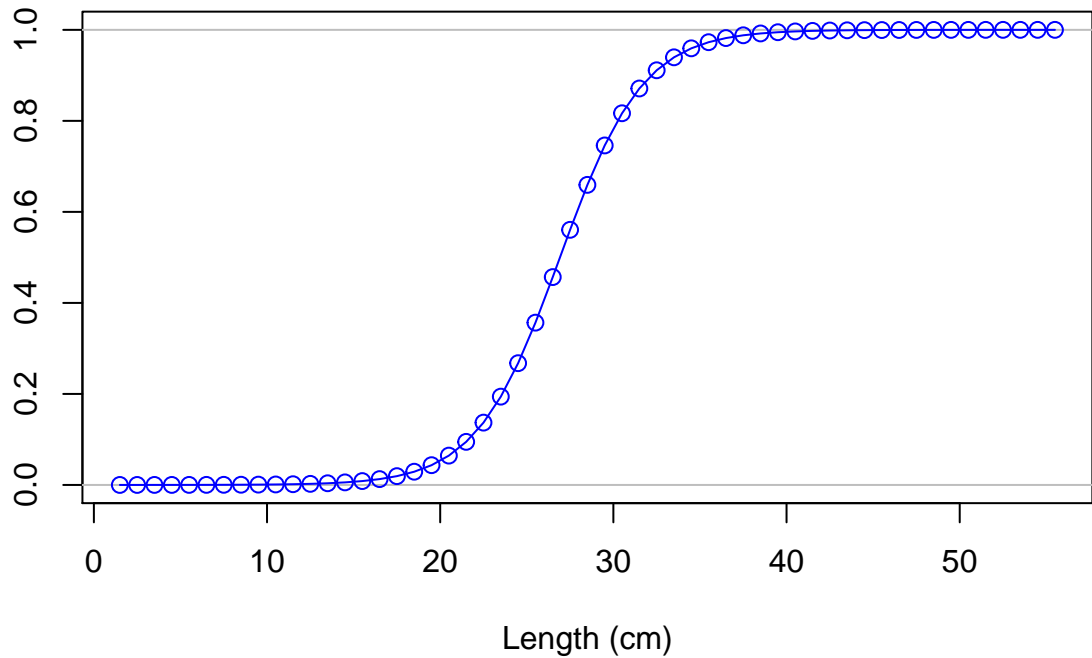
Selectivity



Selectivity

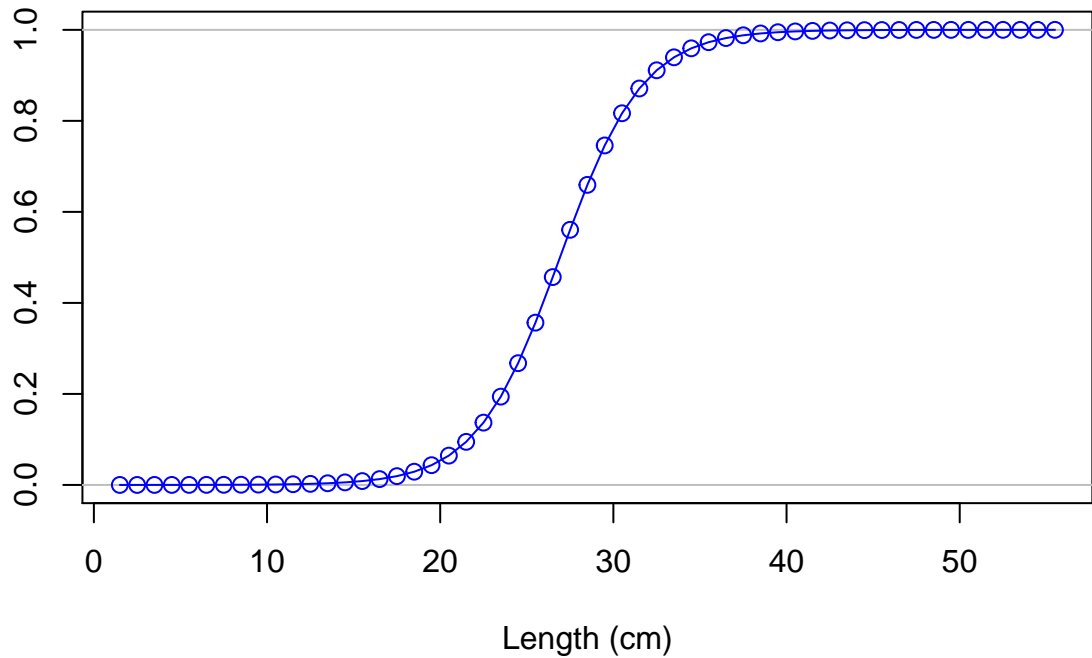


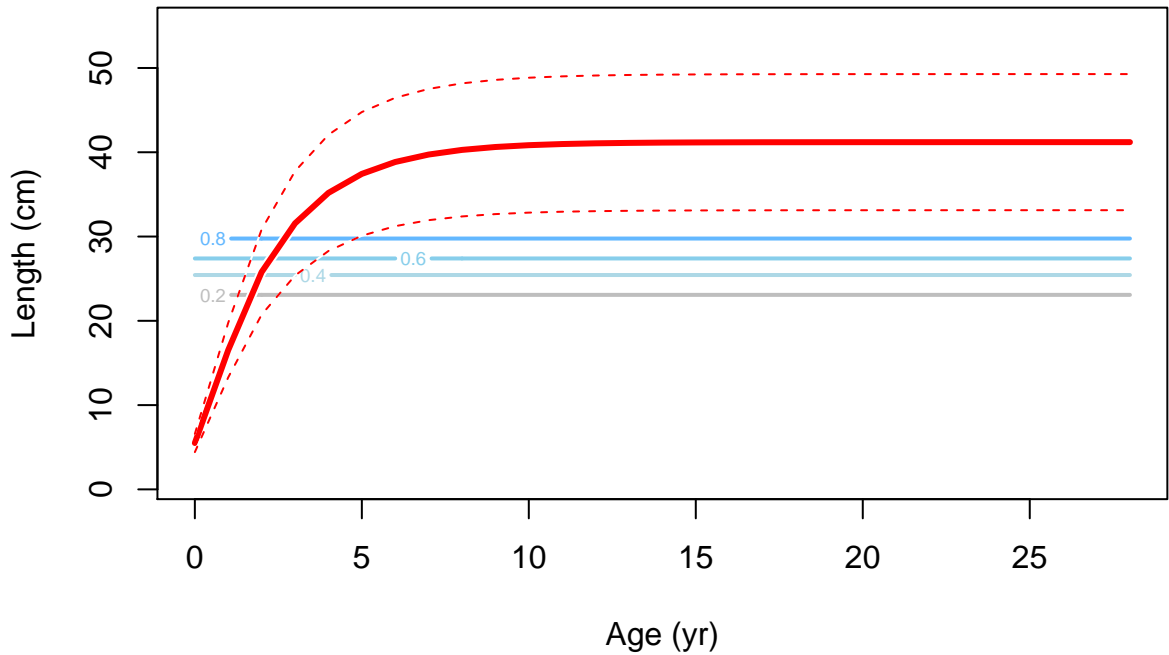
Selectivity

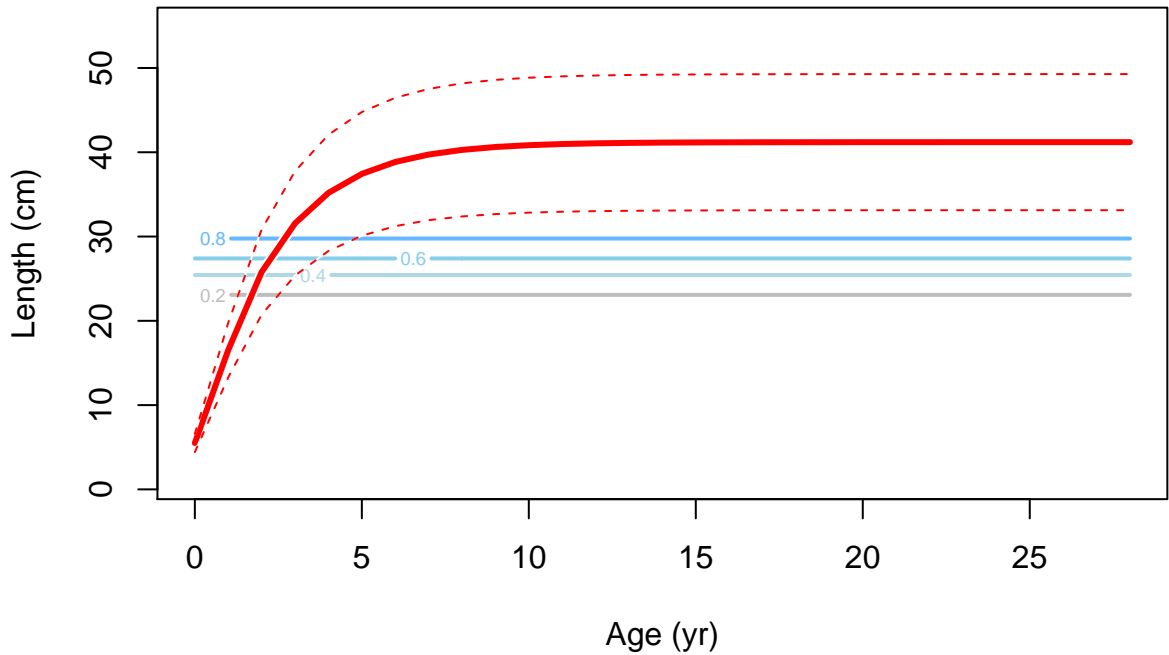




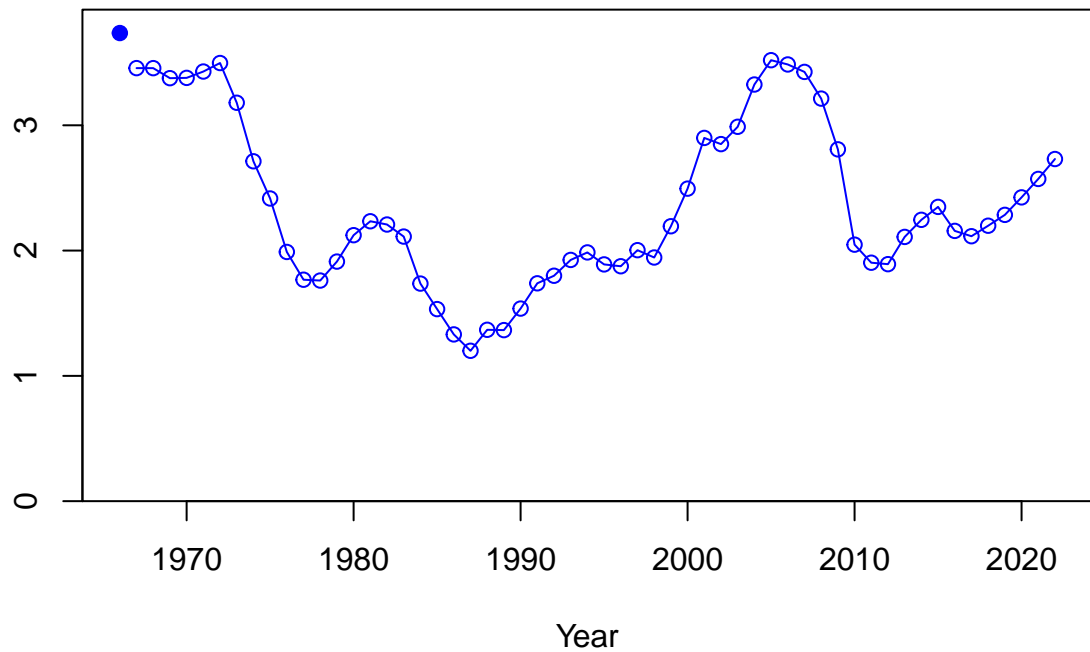
Selectivity



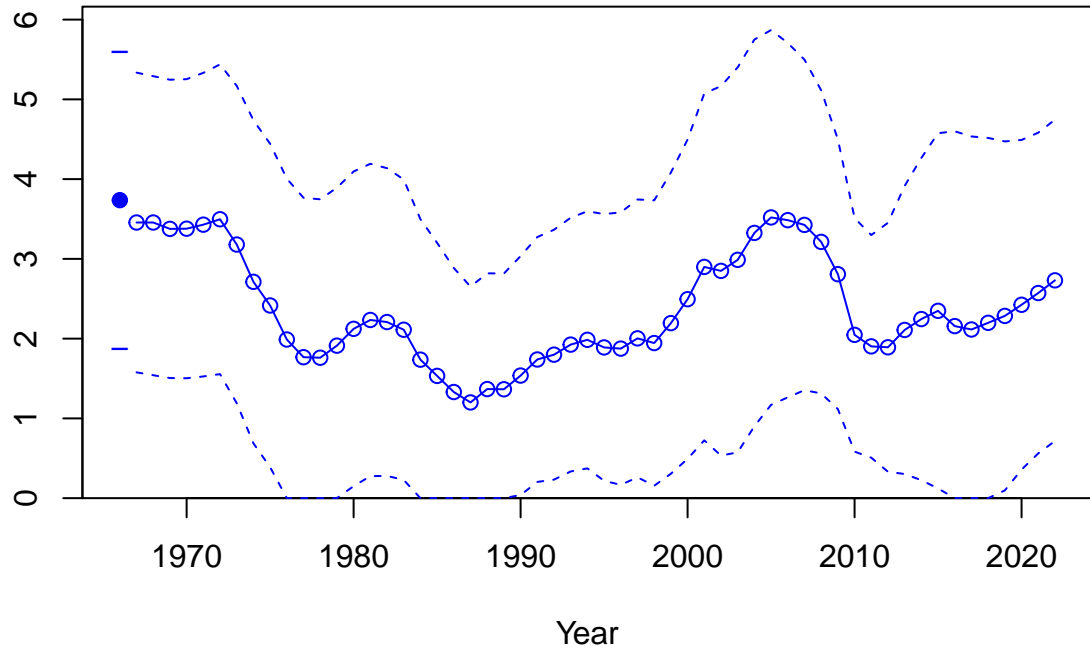




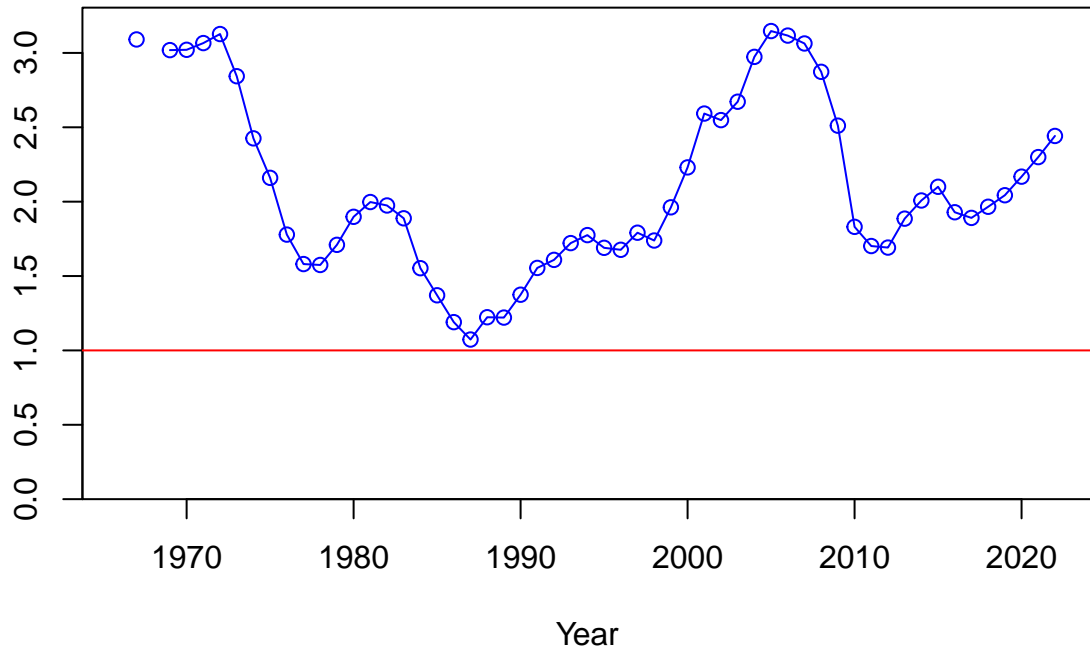
Spawning biomass (mt)



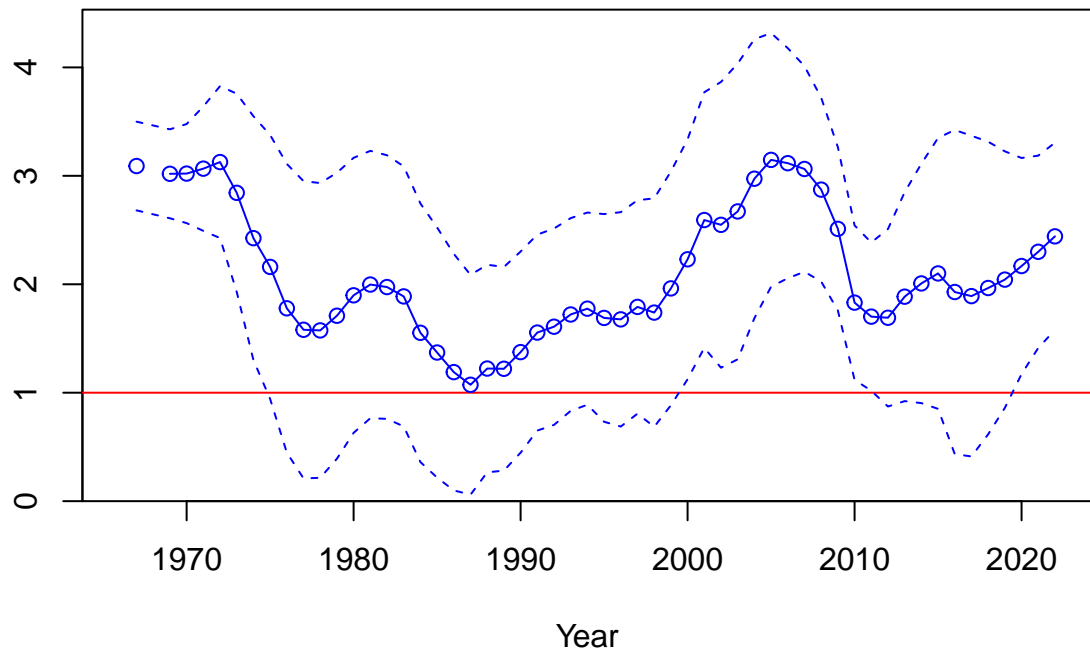
Spawning biomass (mt)

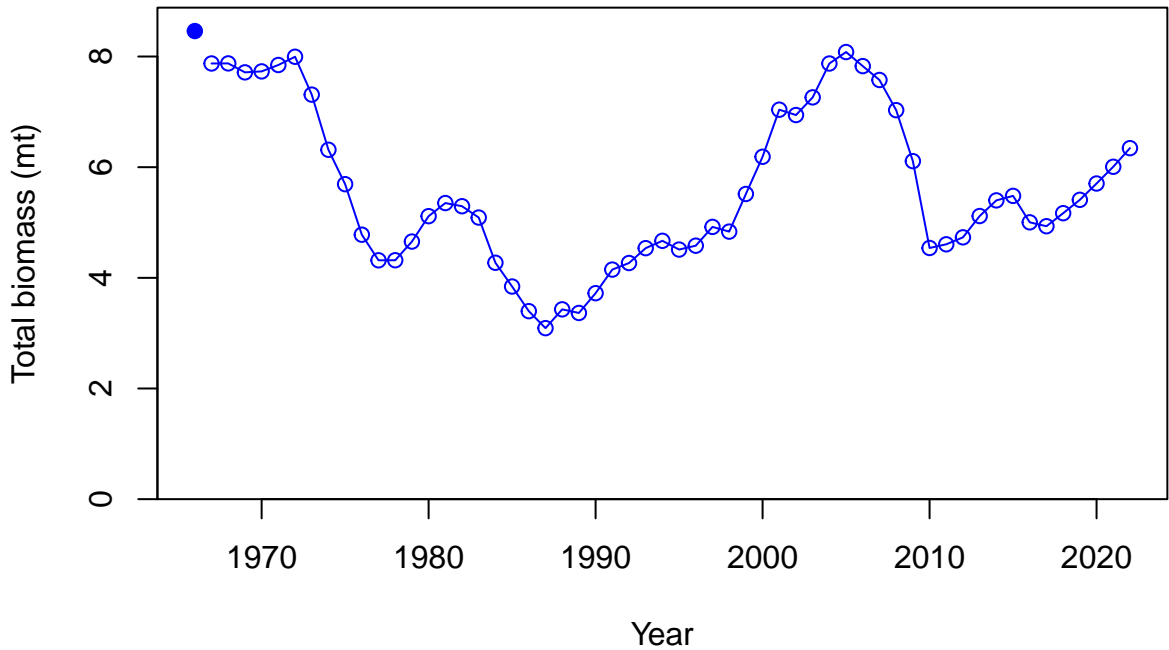


Relative spawning biomass:  $B/B_{MSY}$



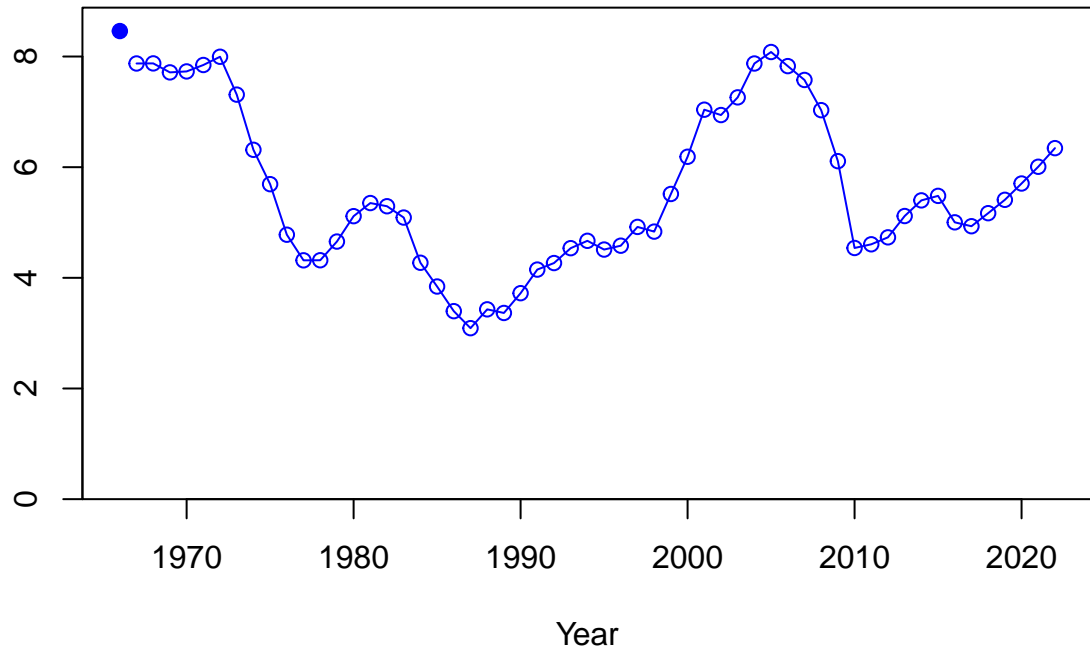
Relative spawning biomass:  $B/B_{MSY}$



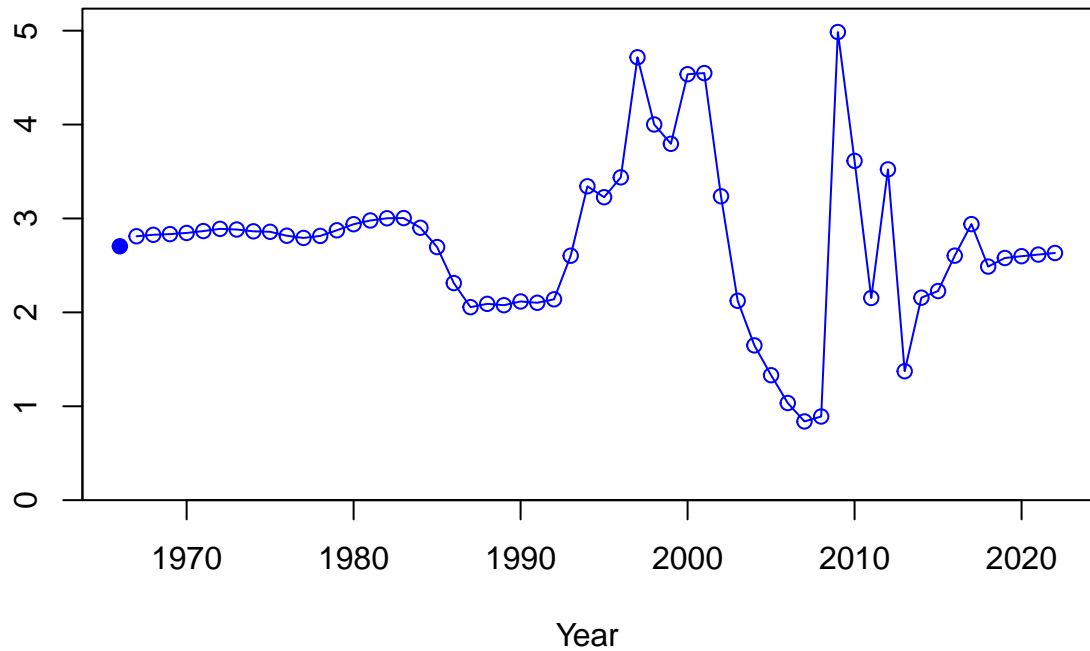




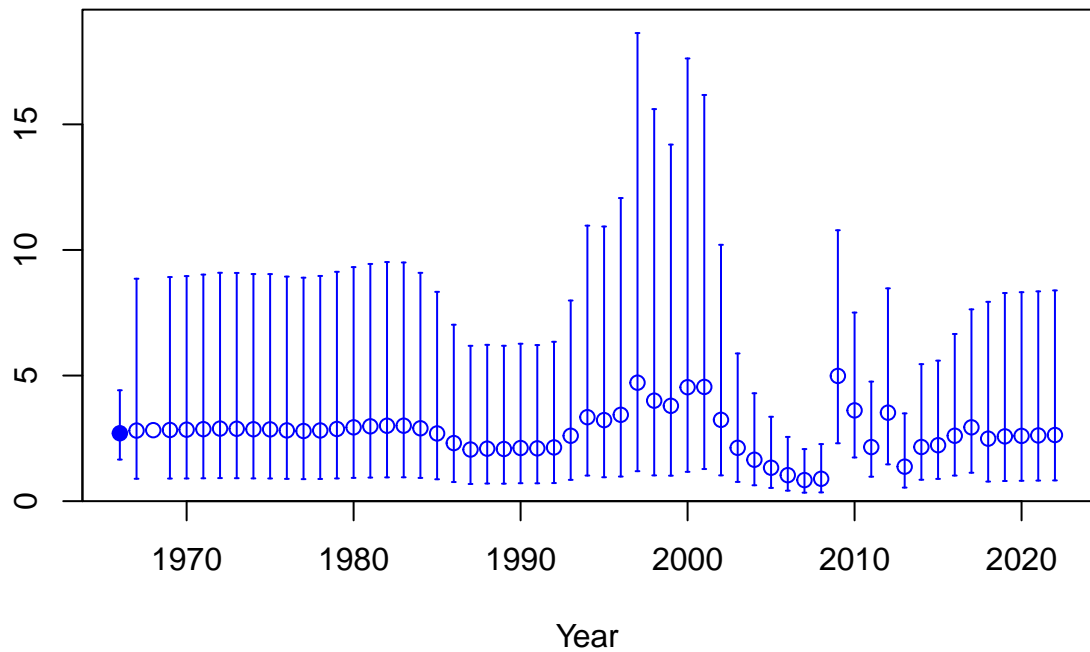
Summary biomass (mt)



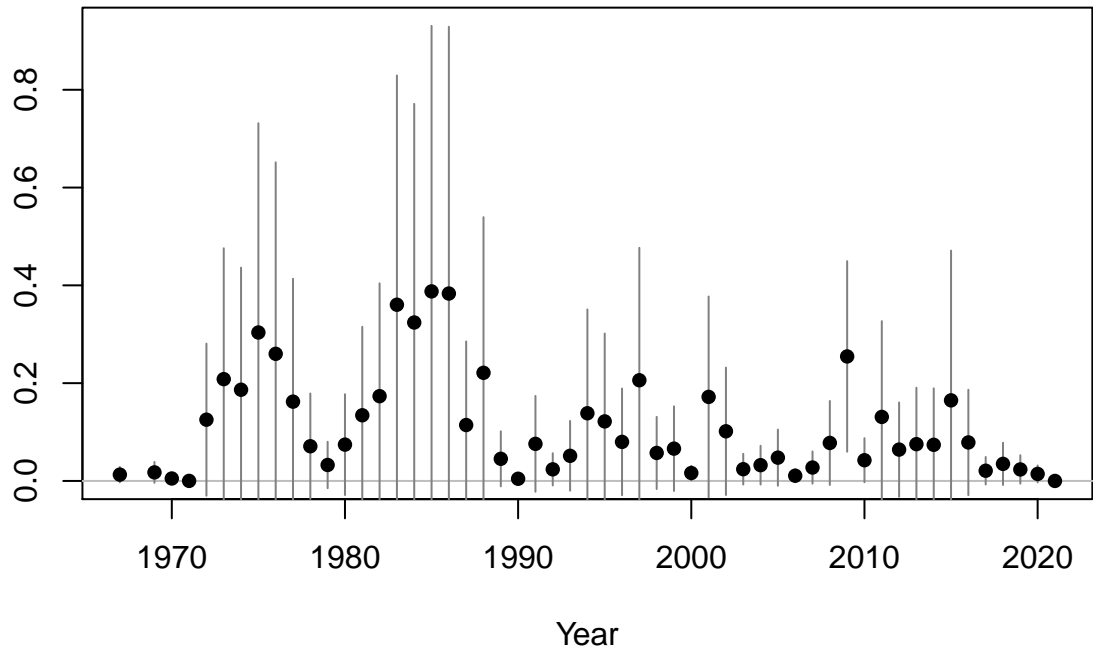
Age-0 recruits (1,000s)

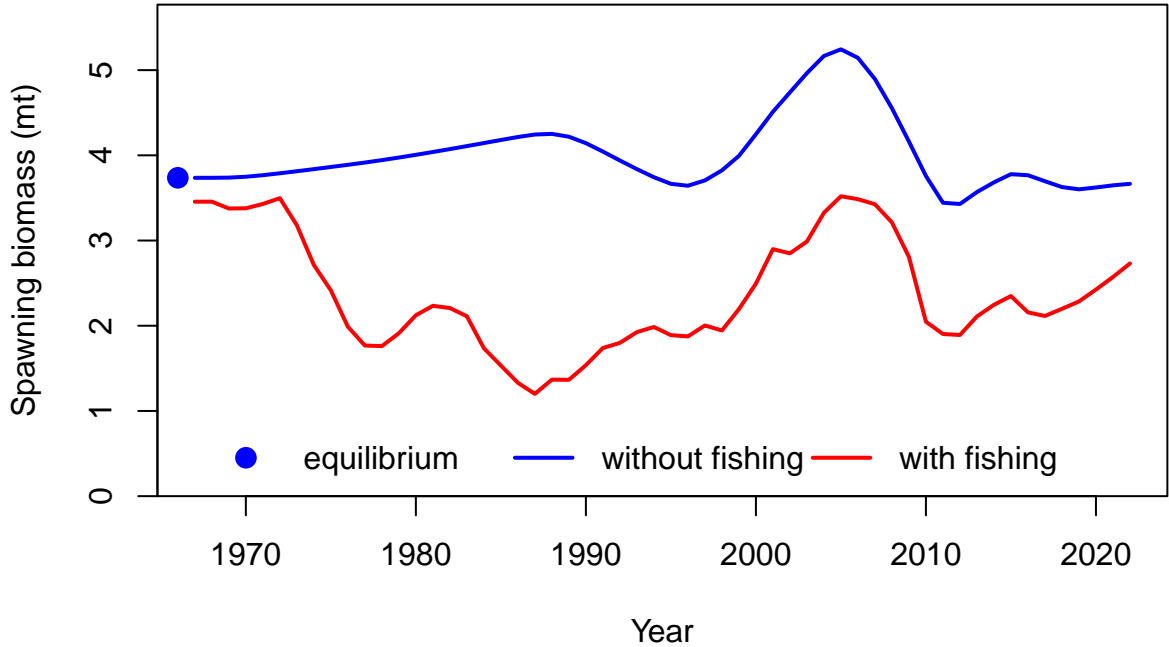


Age-0 recruits (1,000s)

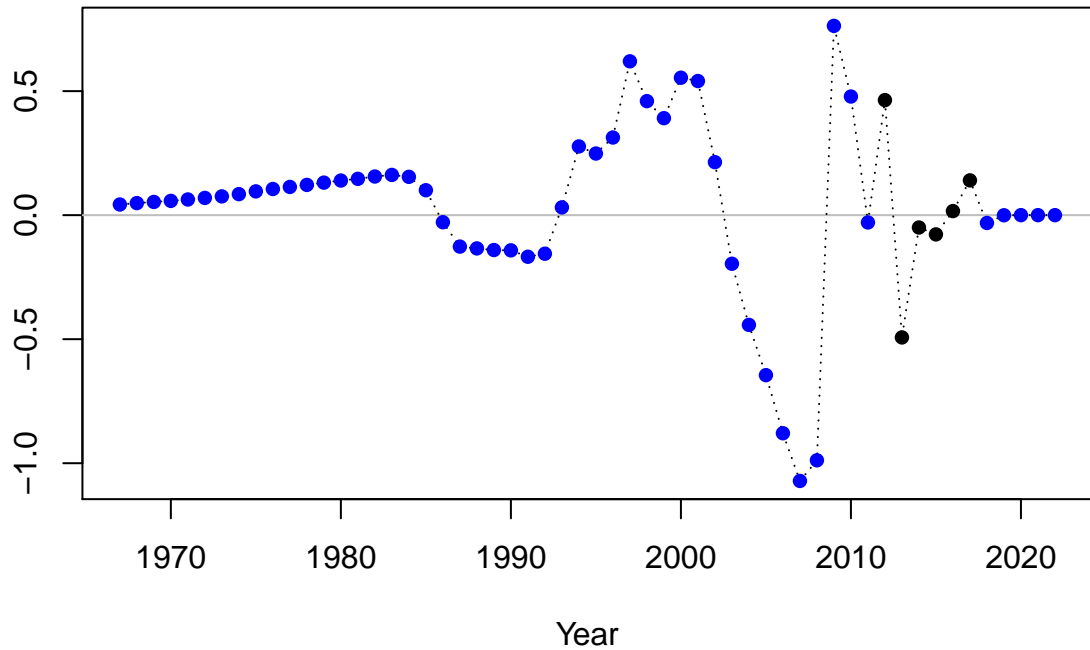


Summary Fishing Mortality

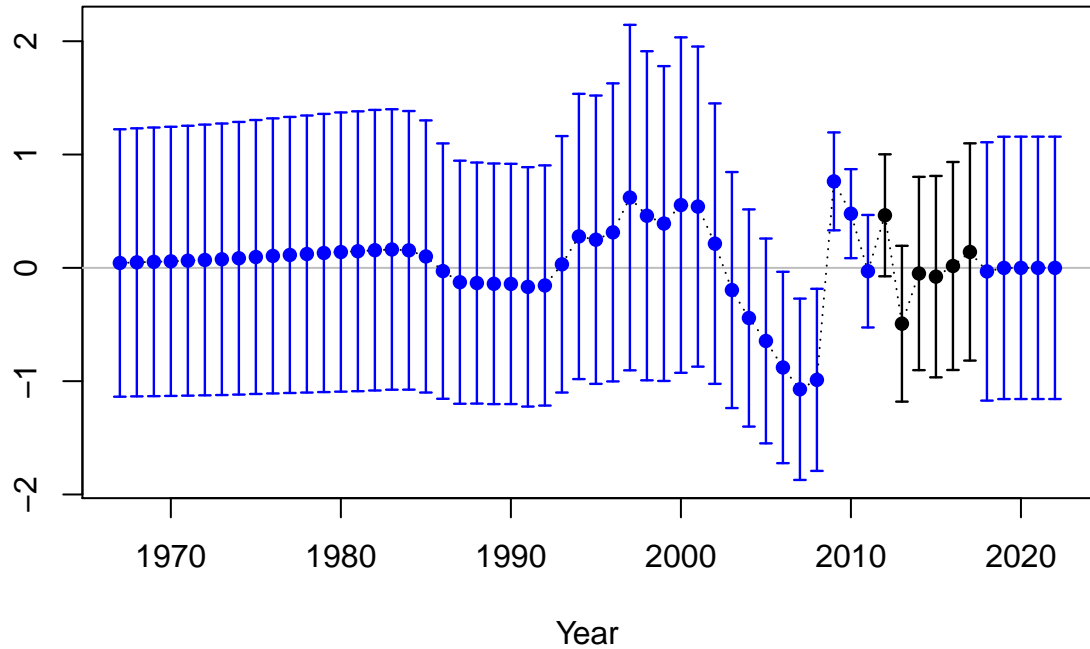




Log recruitment deviation

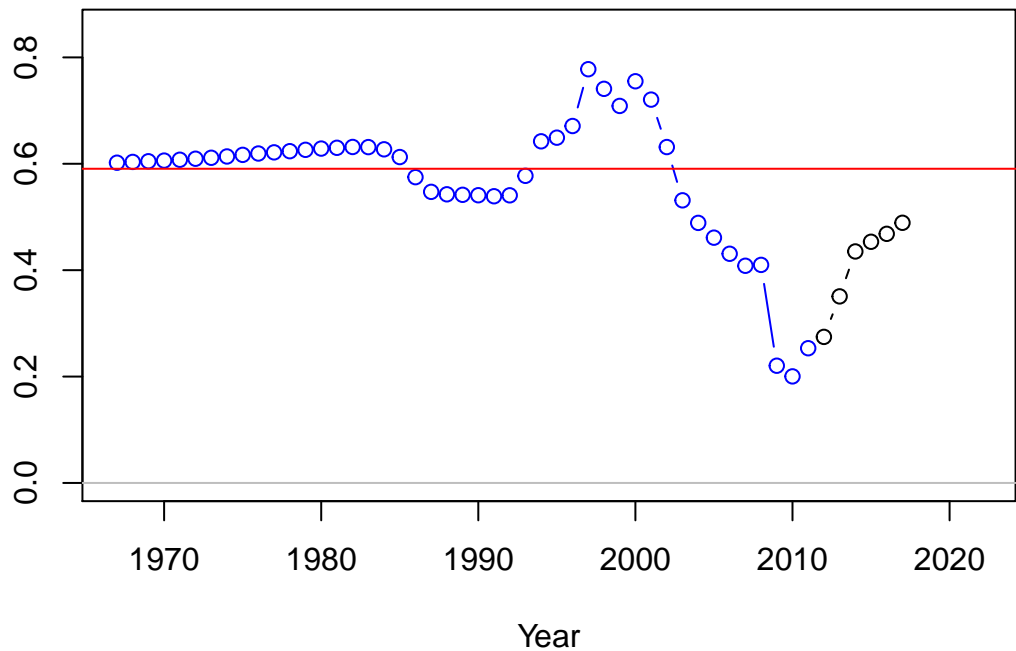


Log recruitment deviation

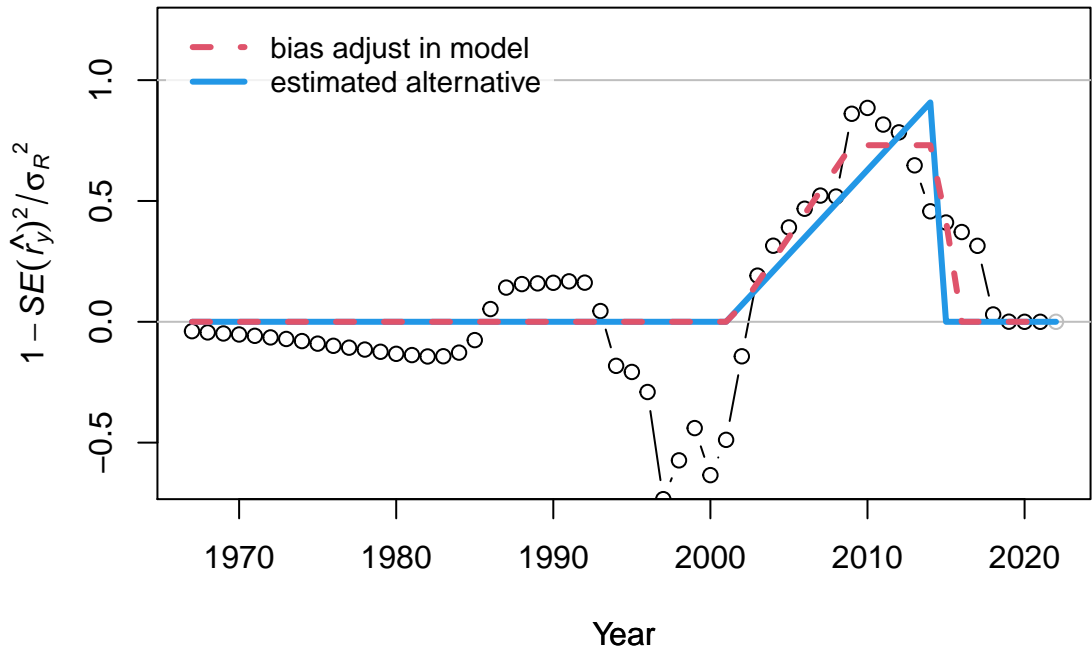


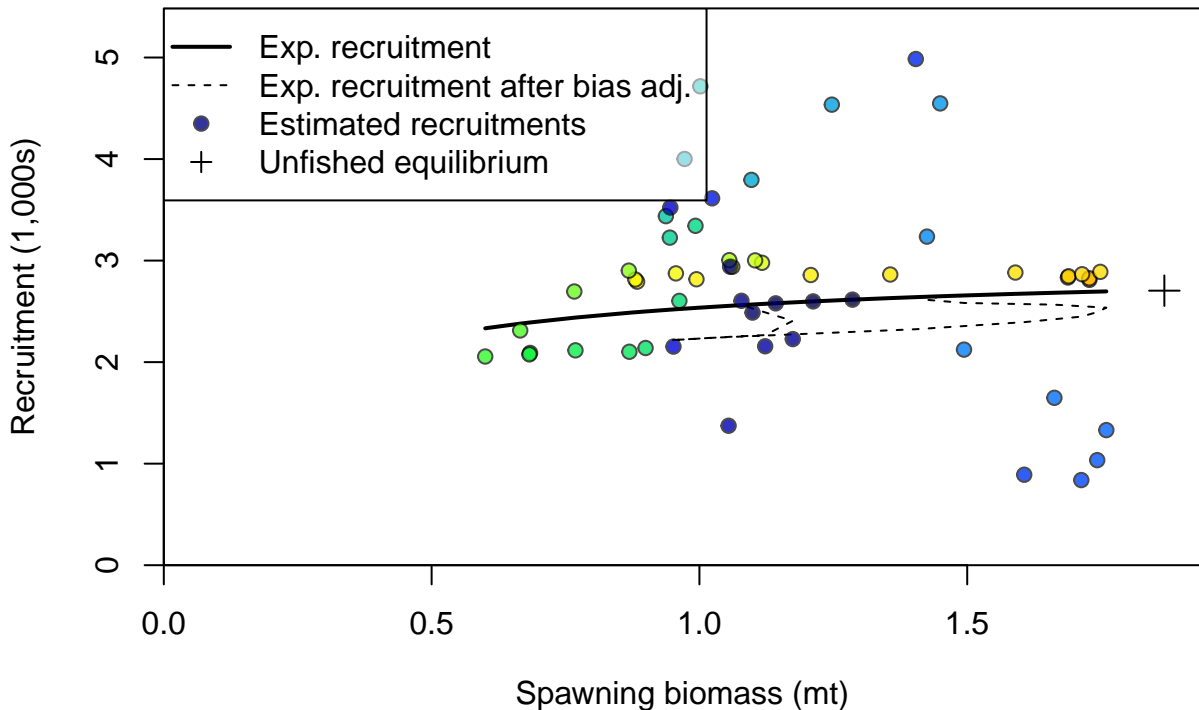
## Recruitment deviation variance

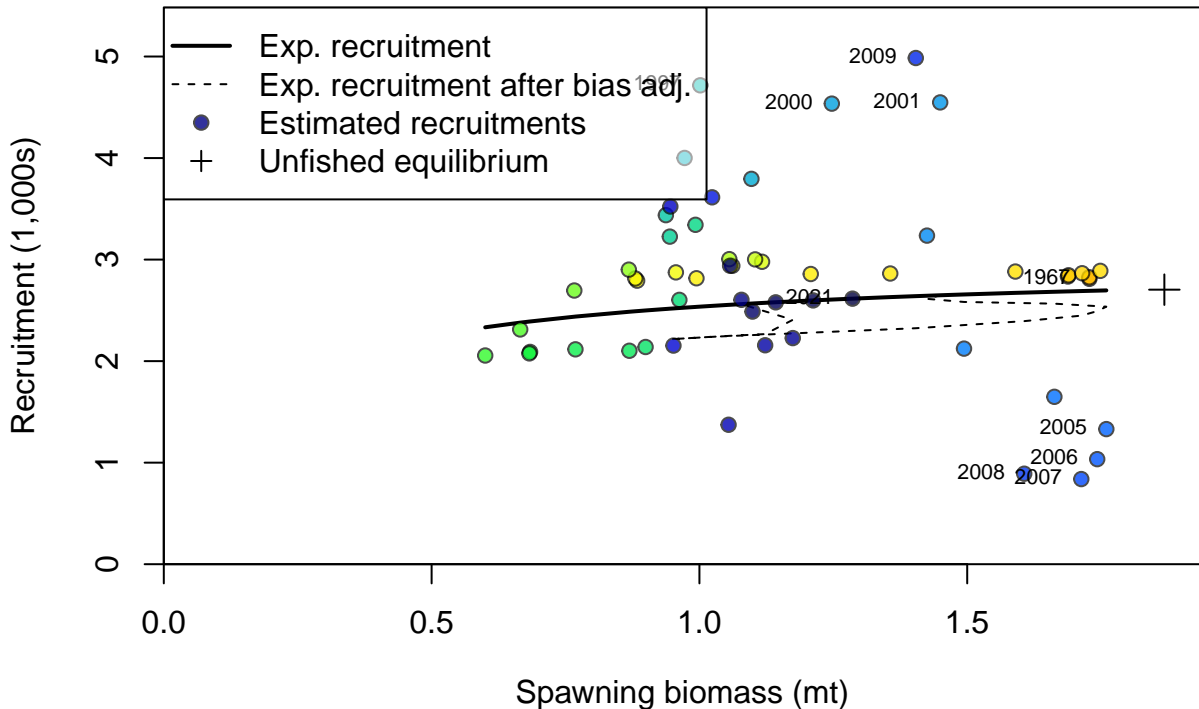
Asymptotic standard error estimate



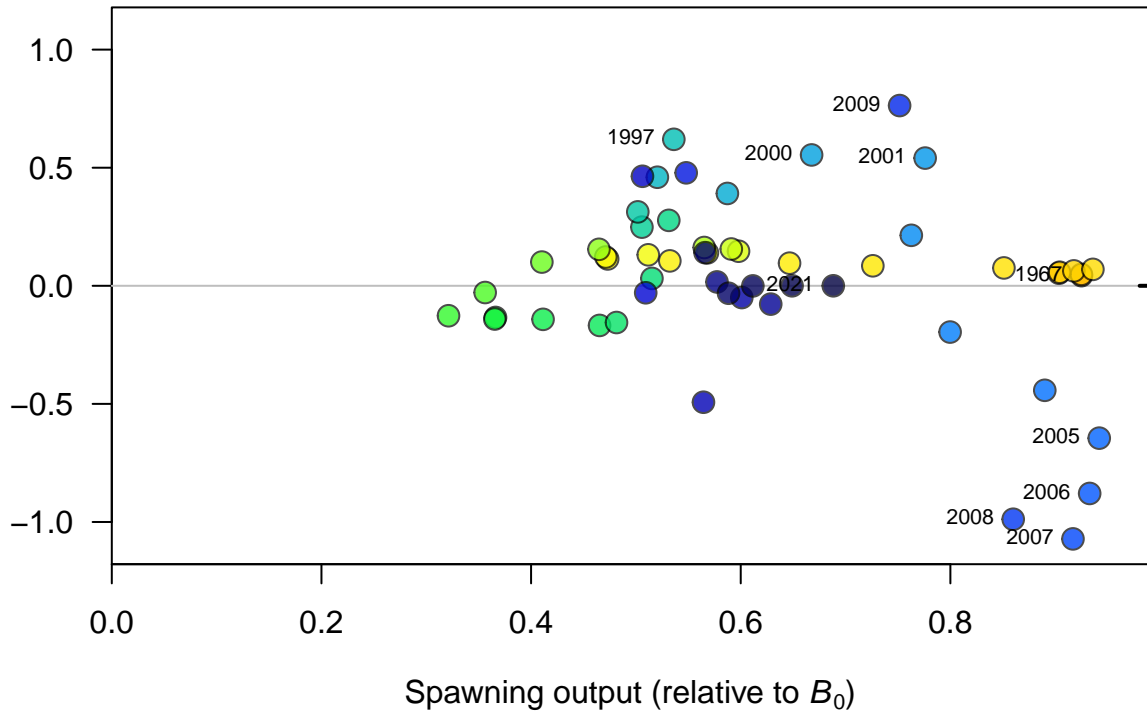


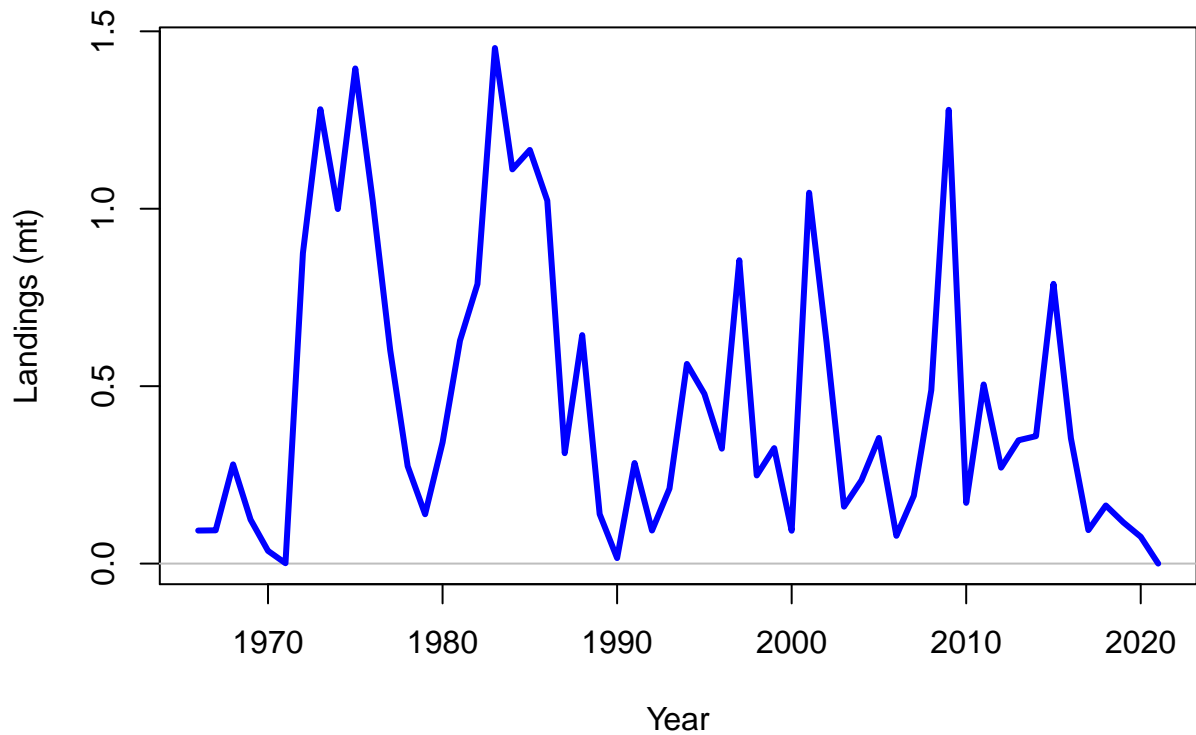


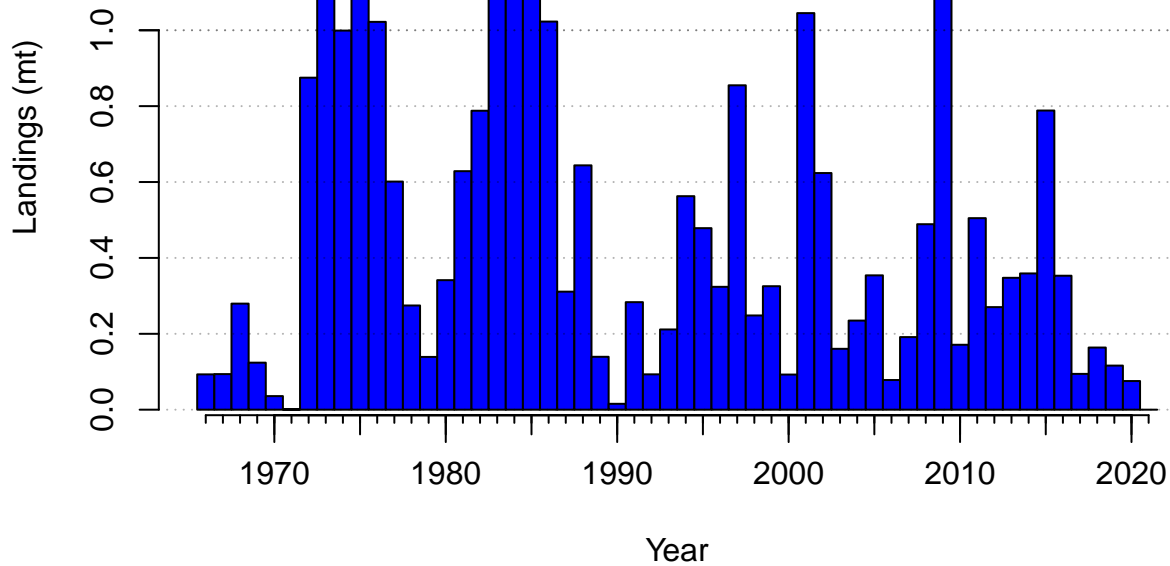




Log recruitment deviation







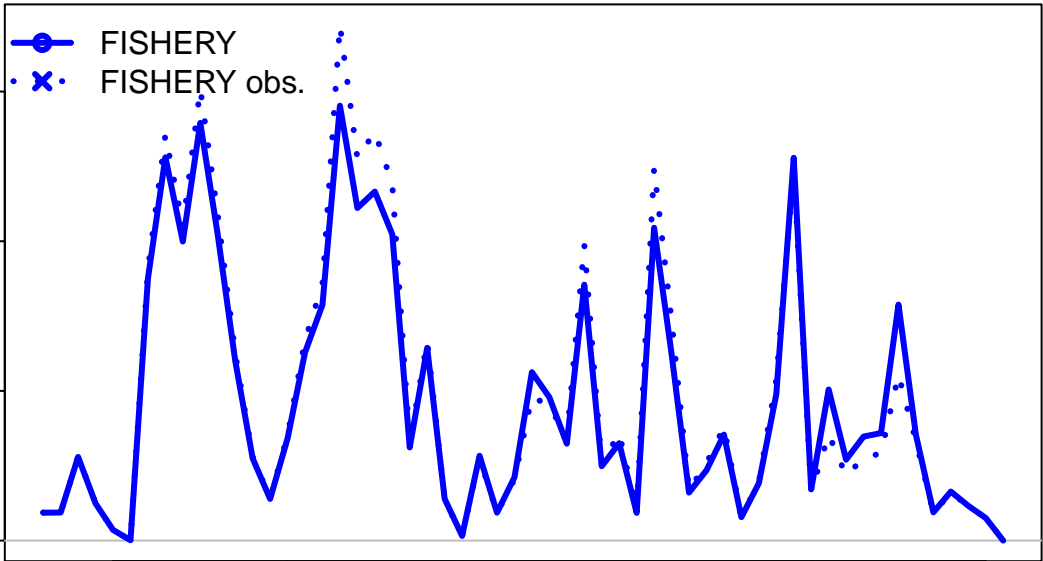
Observed and expected Landings (mt)

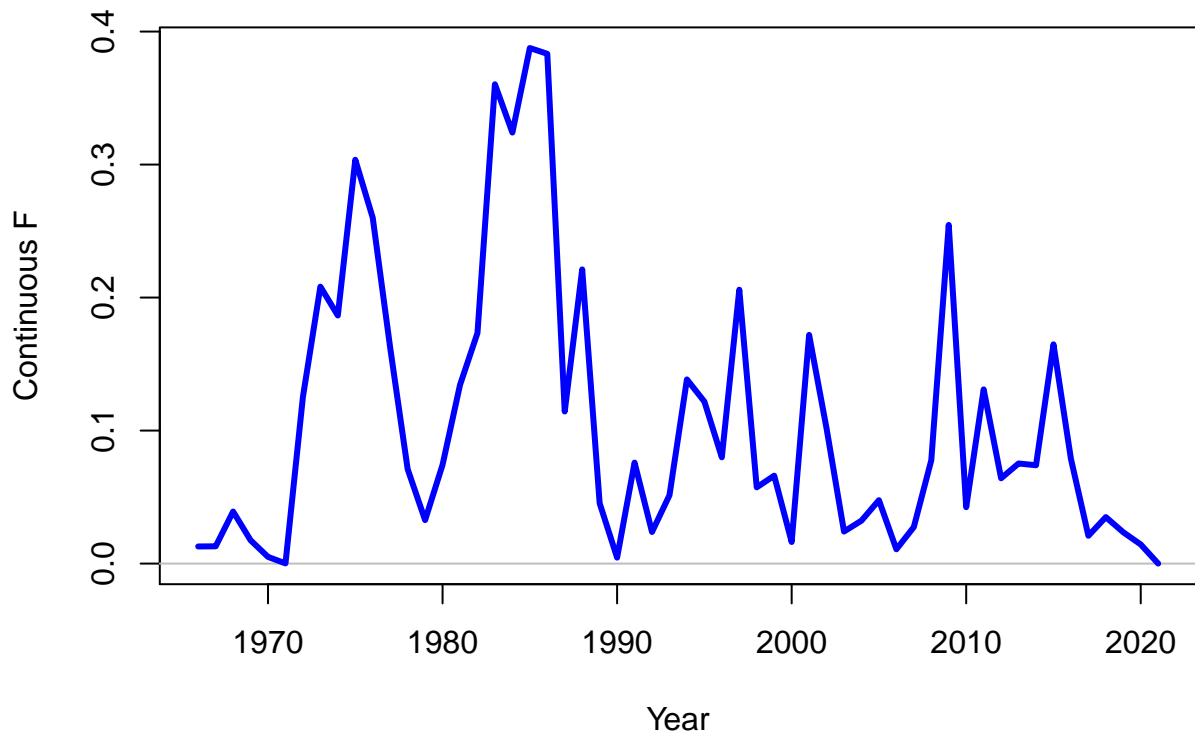
FISHERY  
FISHERY obs.

1.5  
1.0  
0.5  
0.0

1970 1980 1990 2000 2010 2020

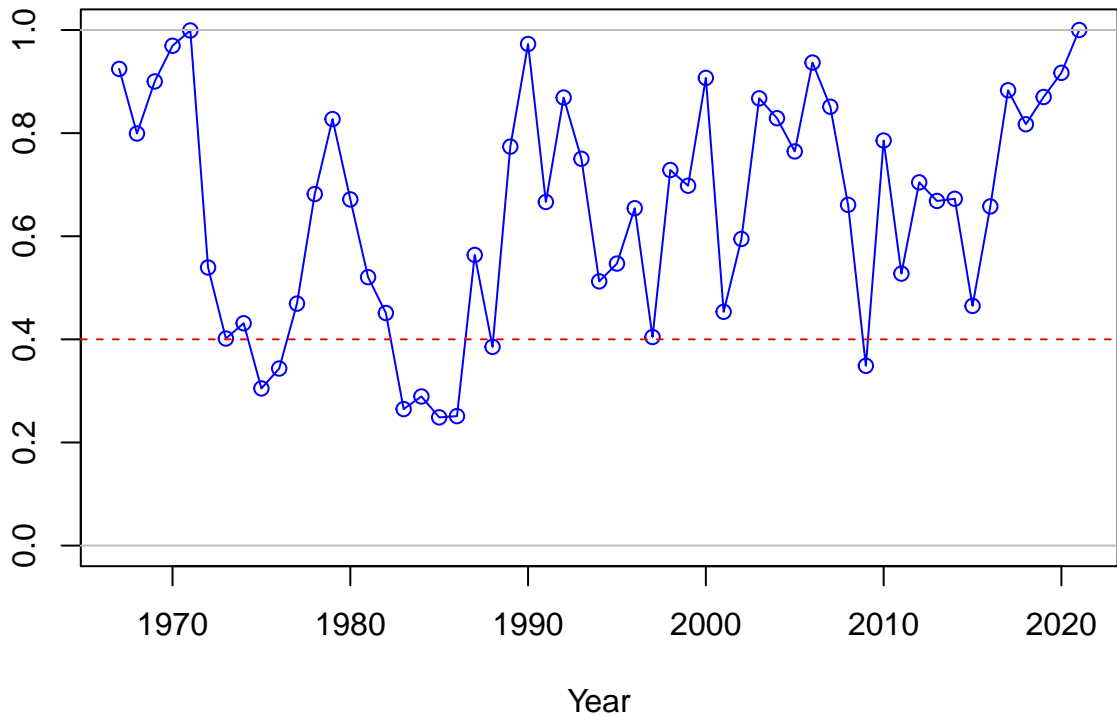
Year

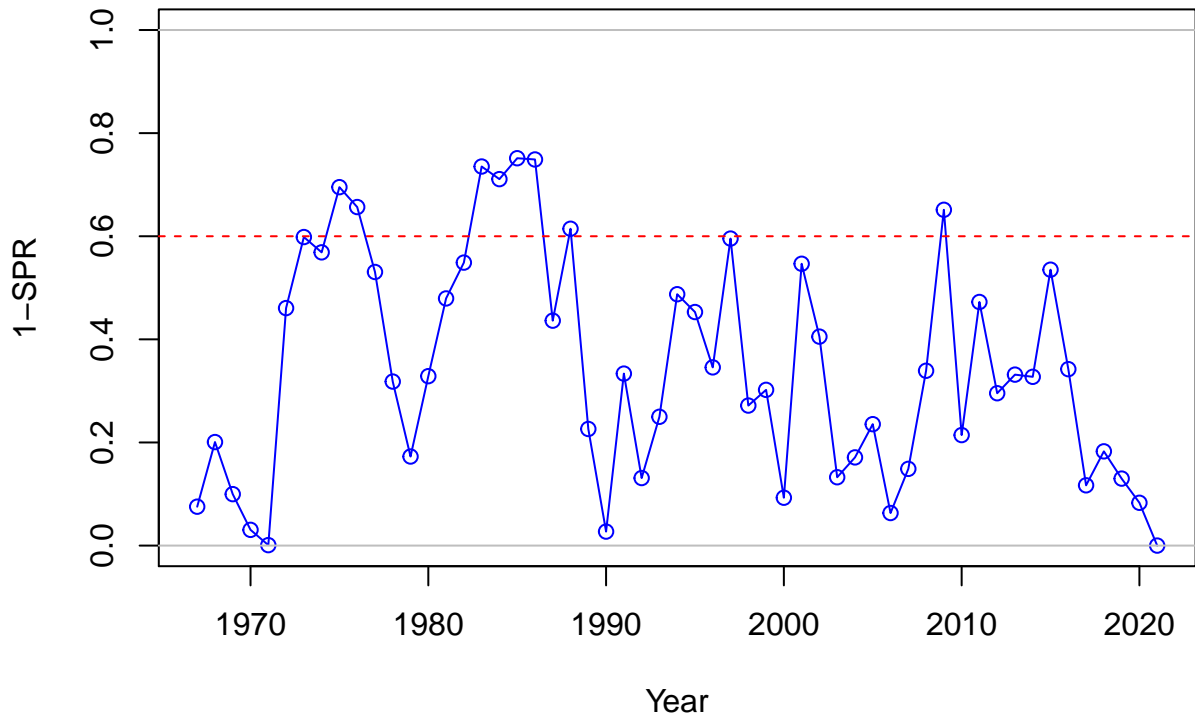




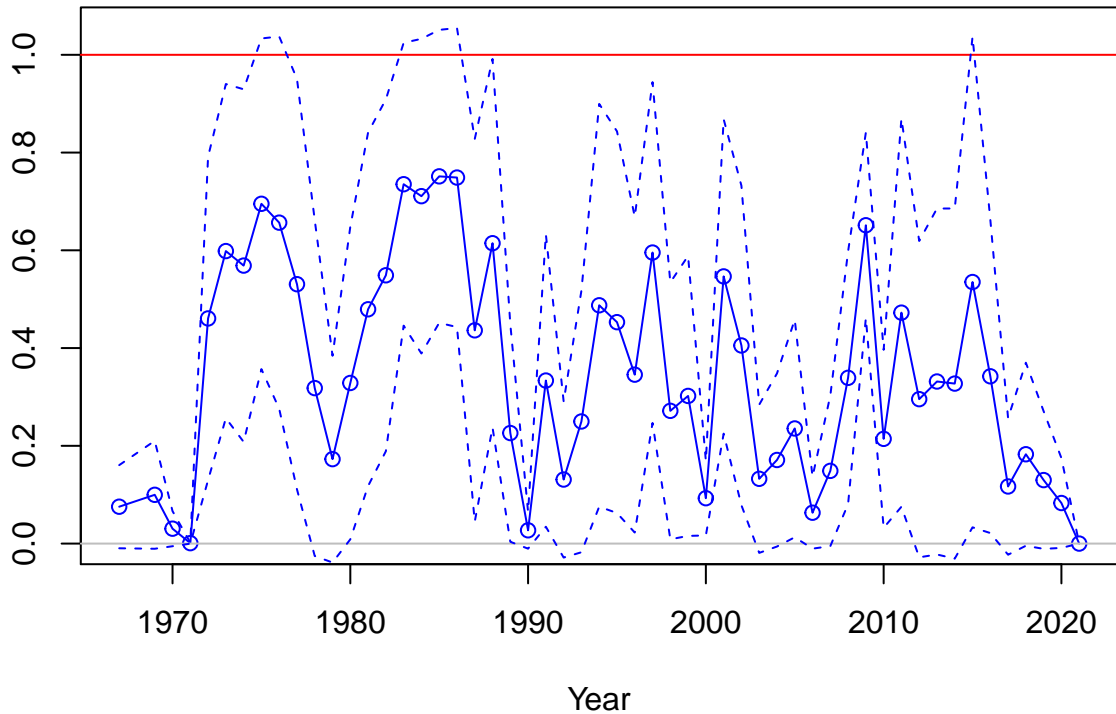


SPR

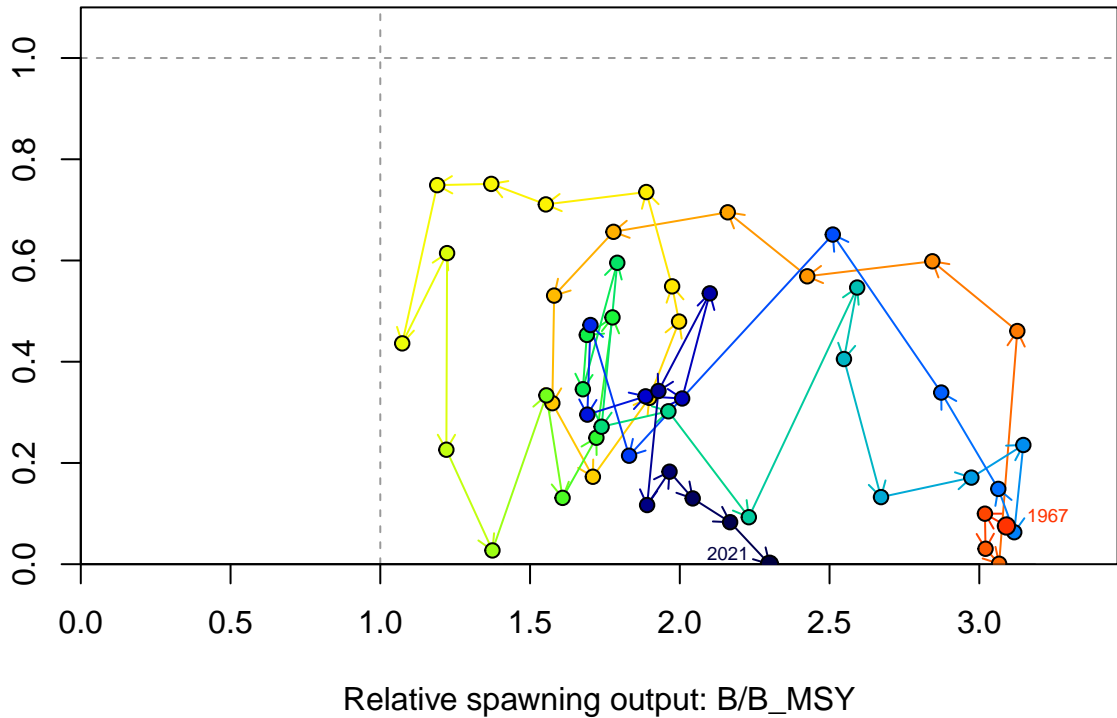


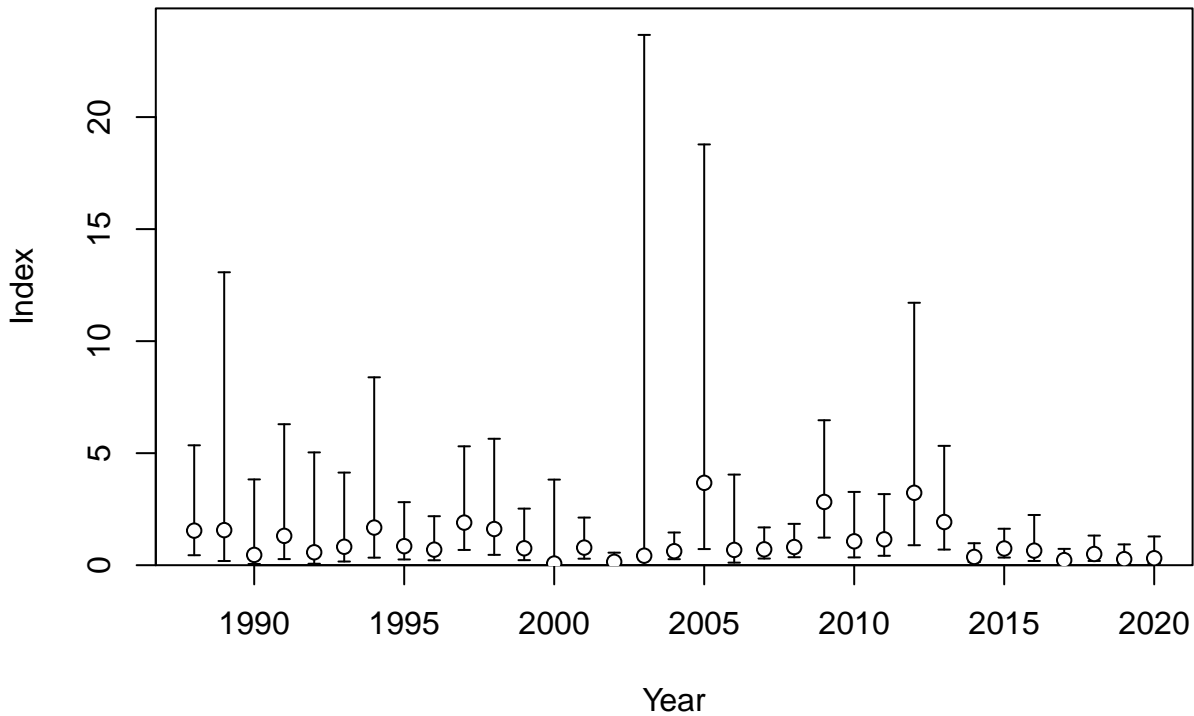


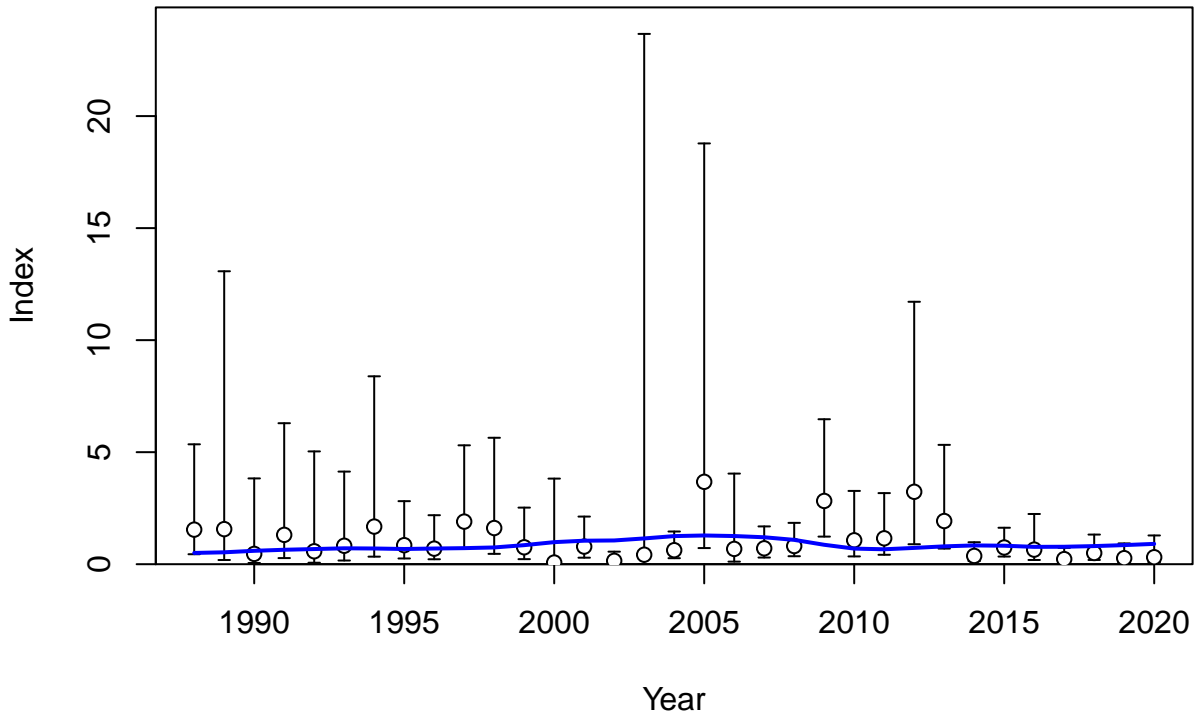
Fishing intensity: 1-SPR

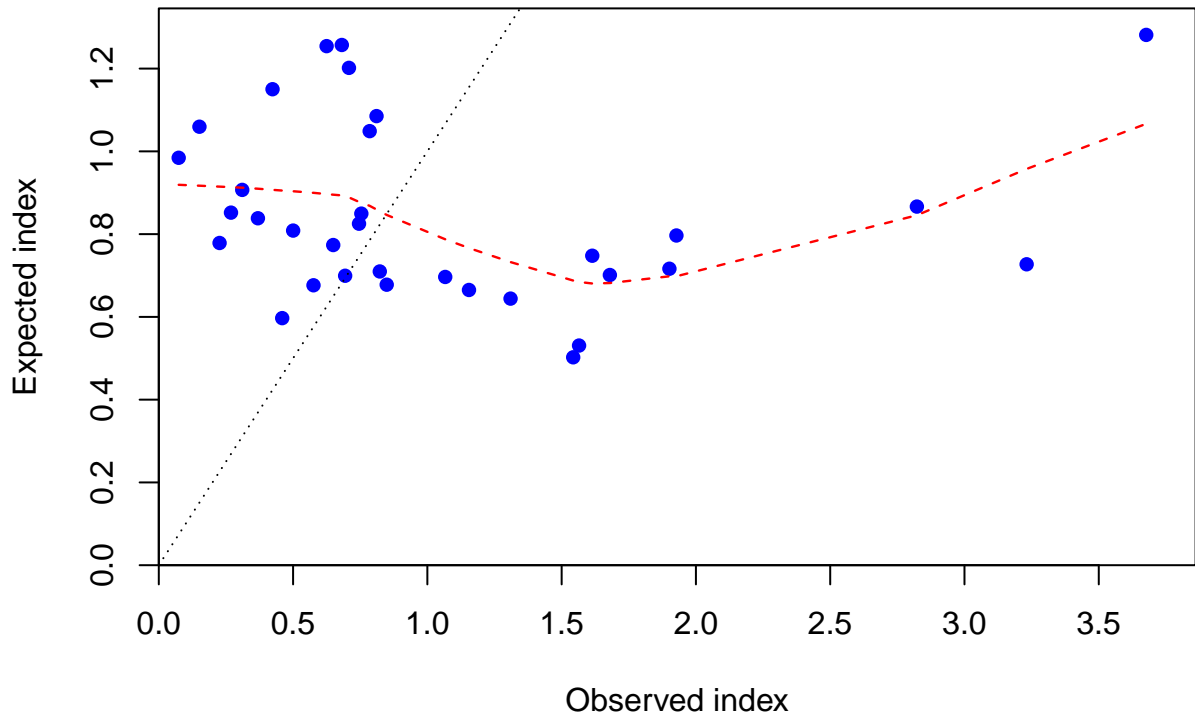


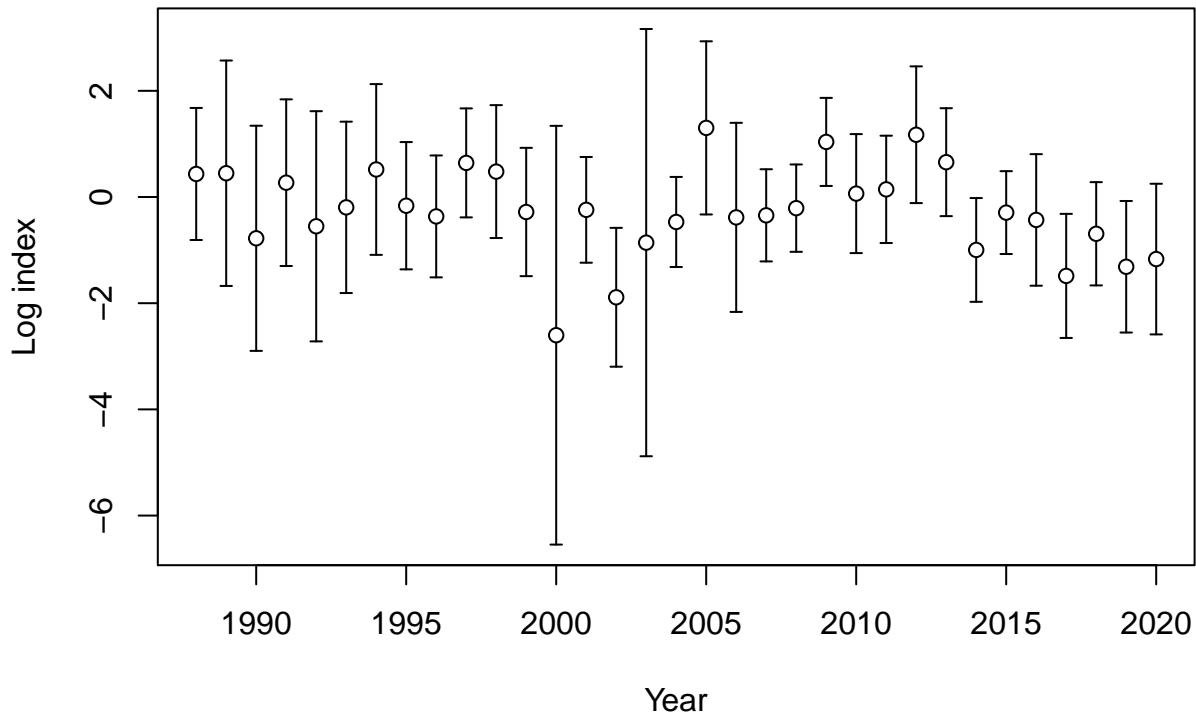
Fishing intensity: 1-SPR



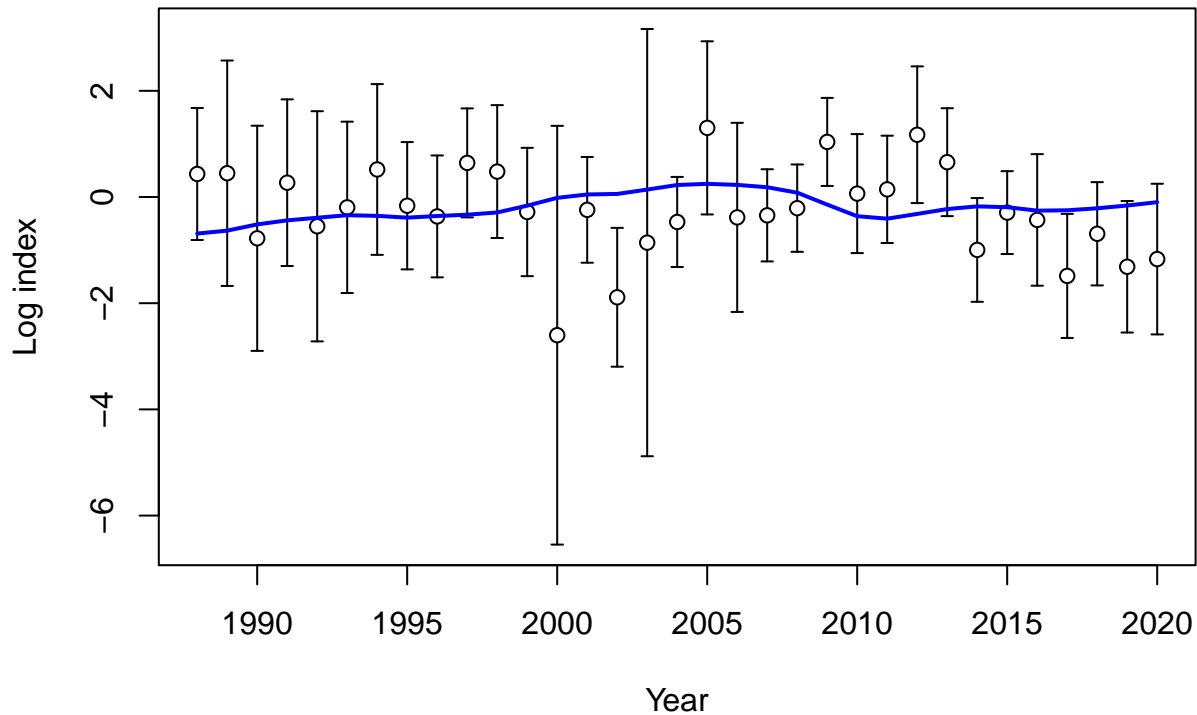


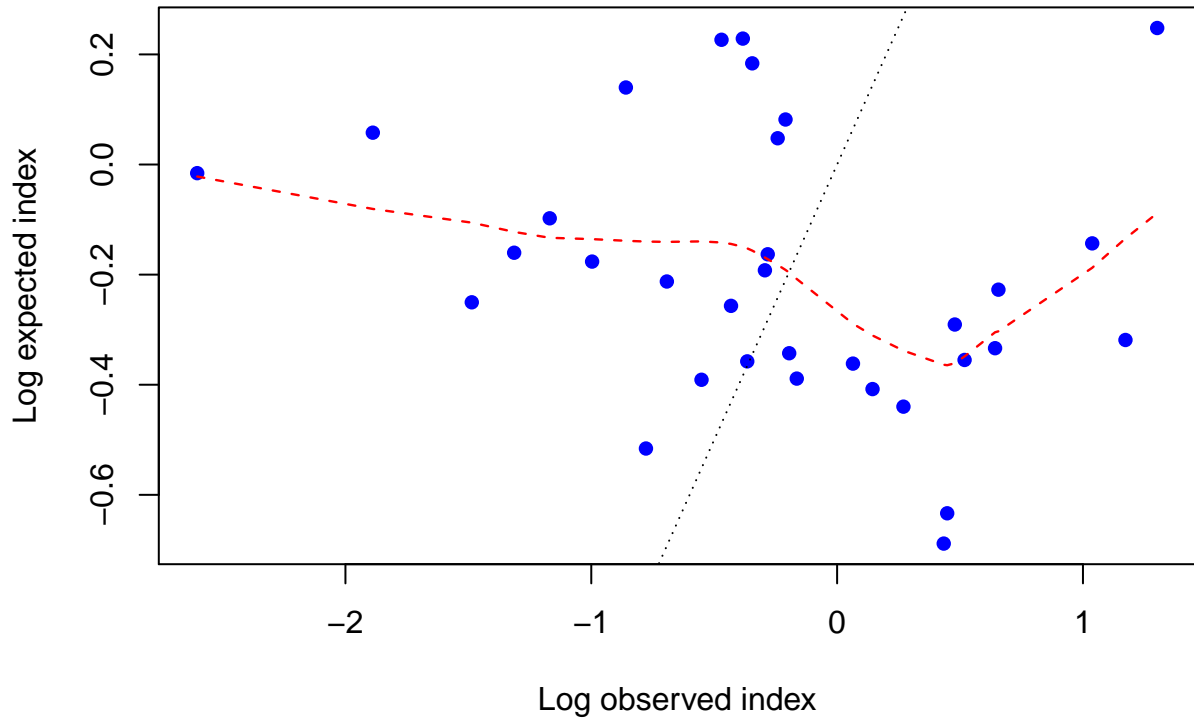




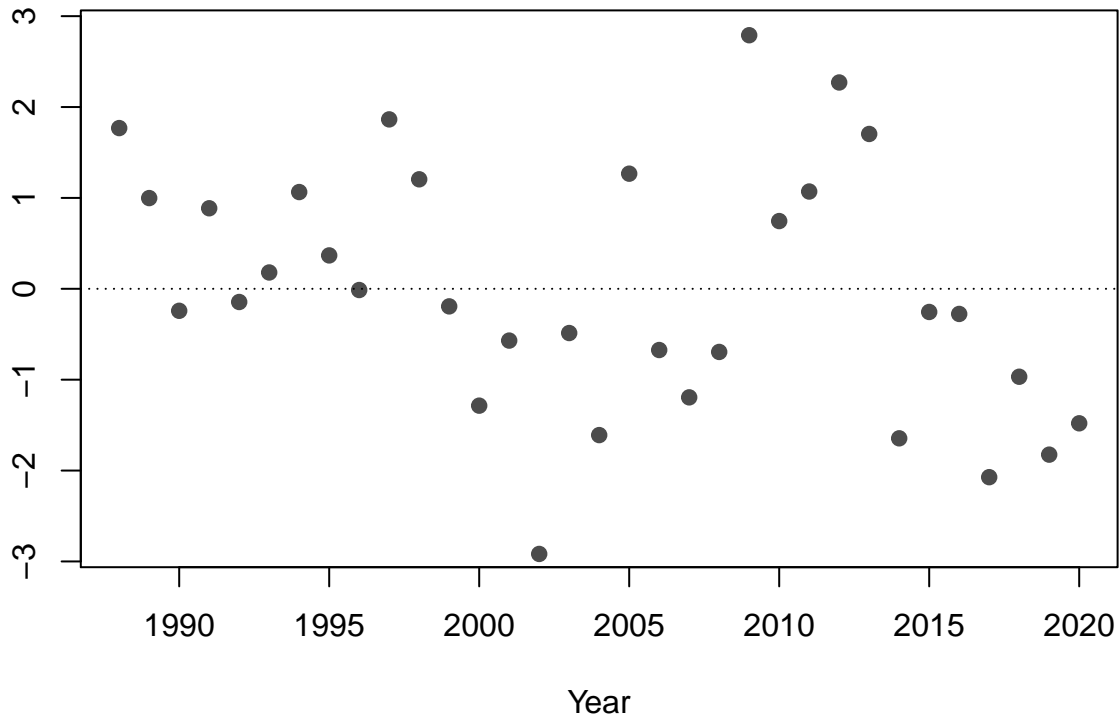


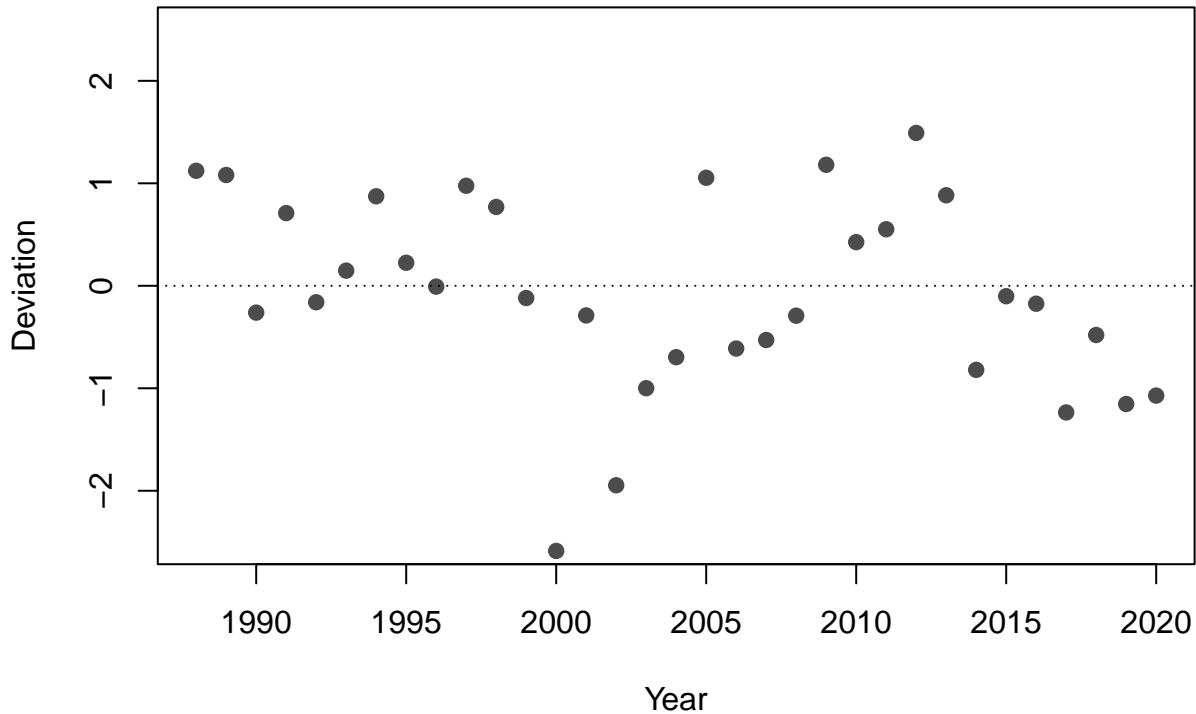


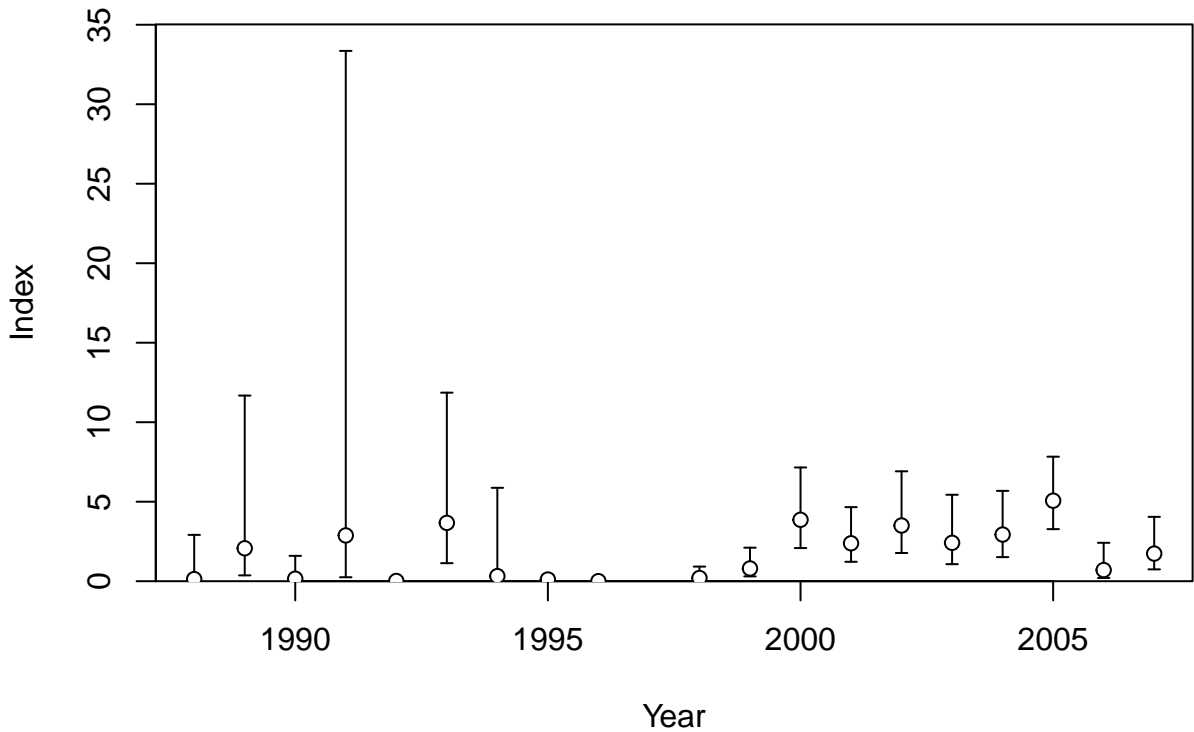


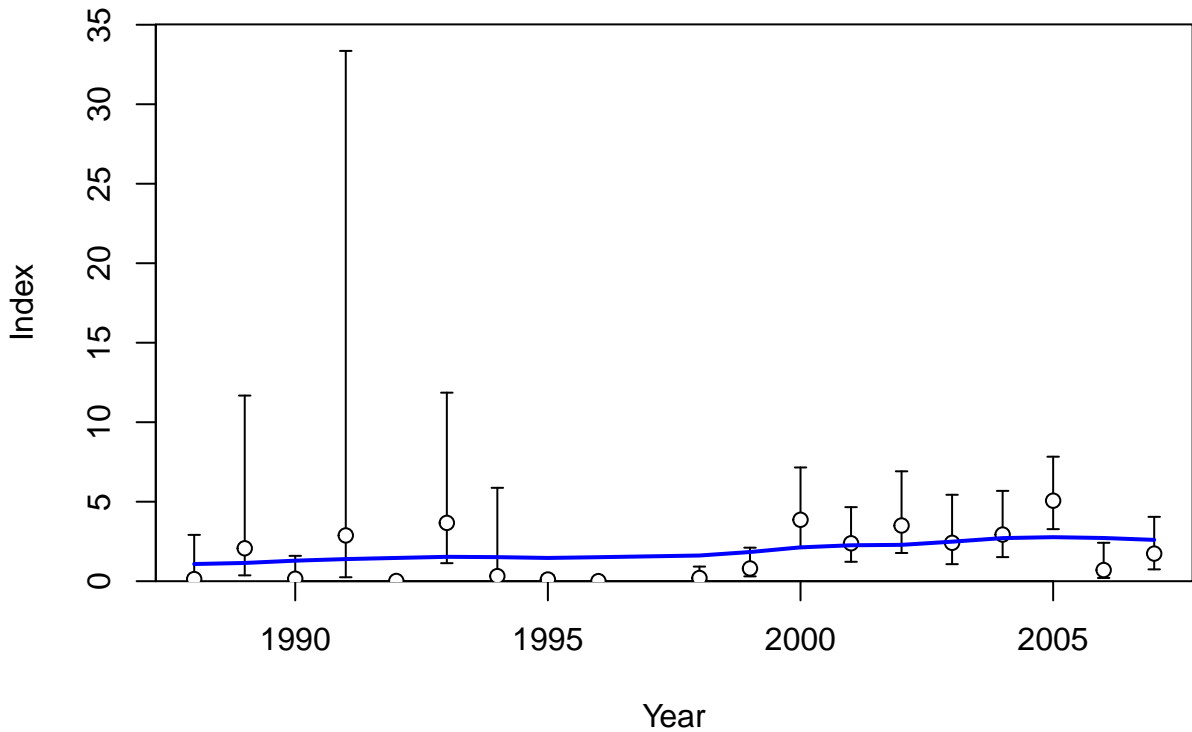


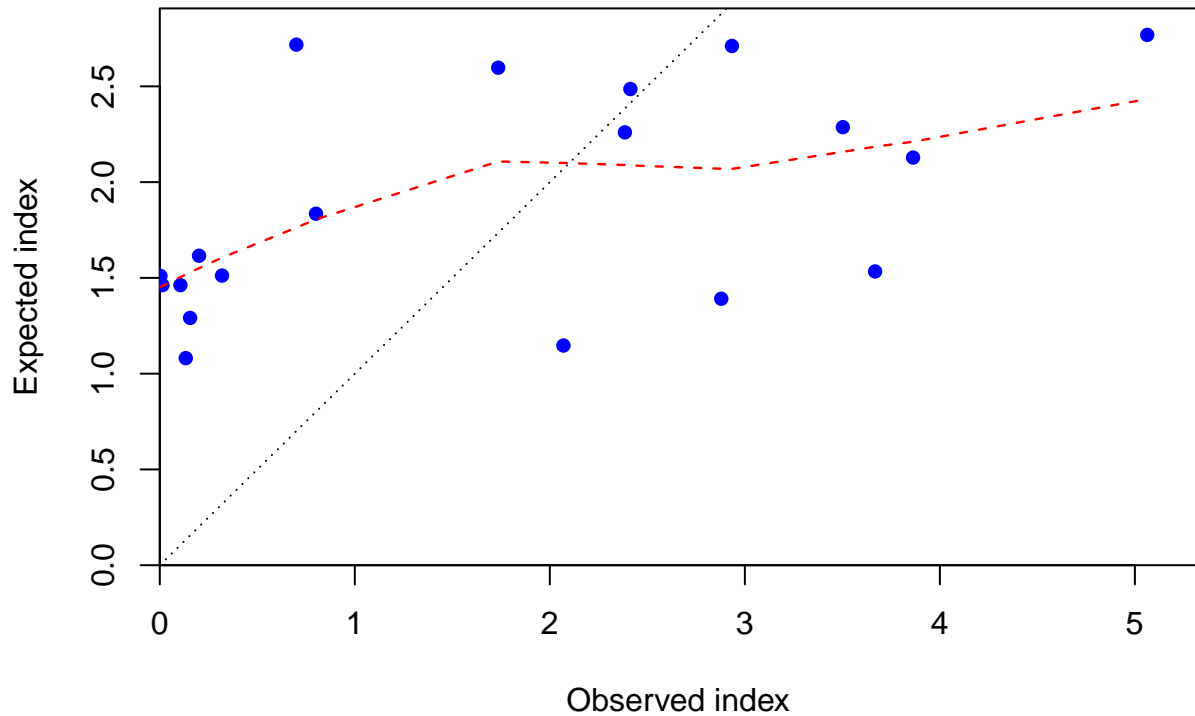
Residual











Log index

2  
0  
-2  
-4  
-6  
-8

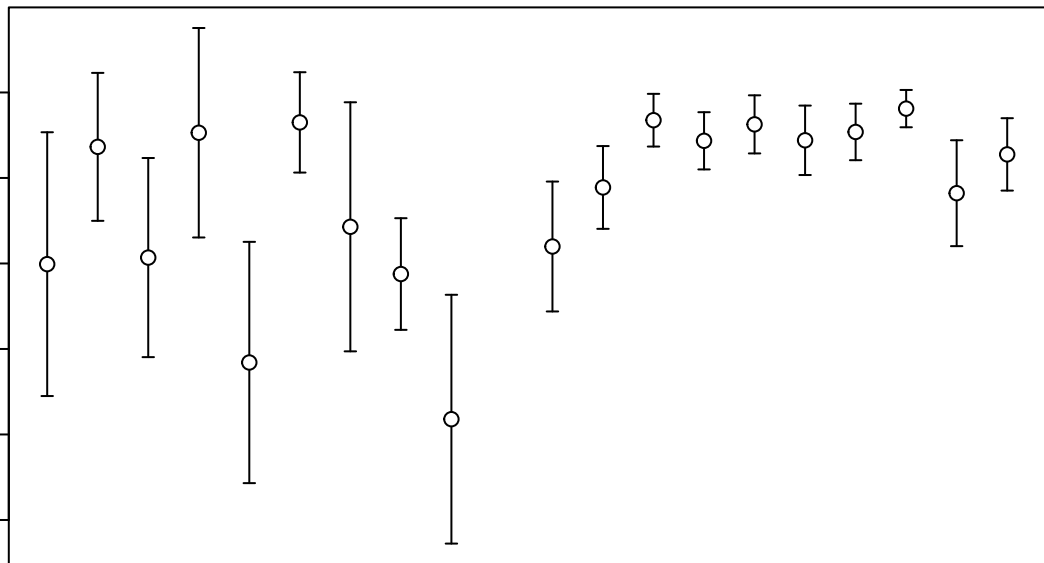
1990

1995

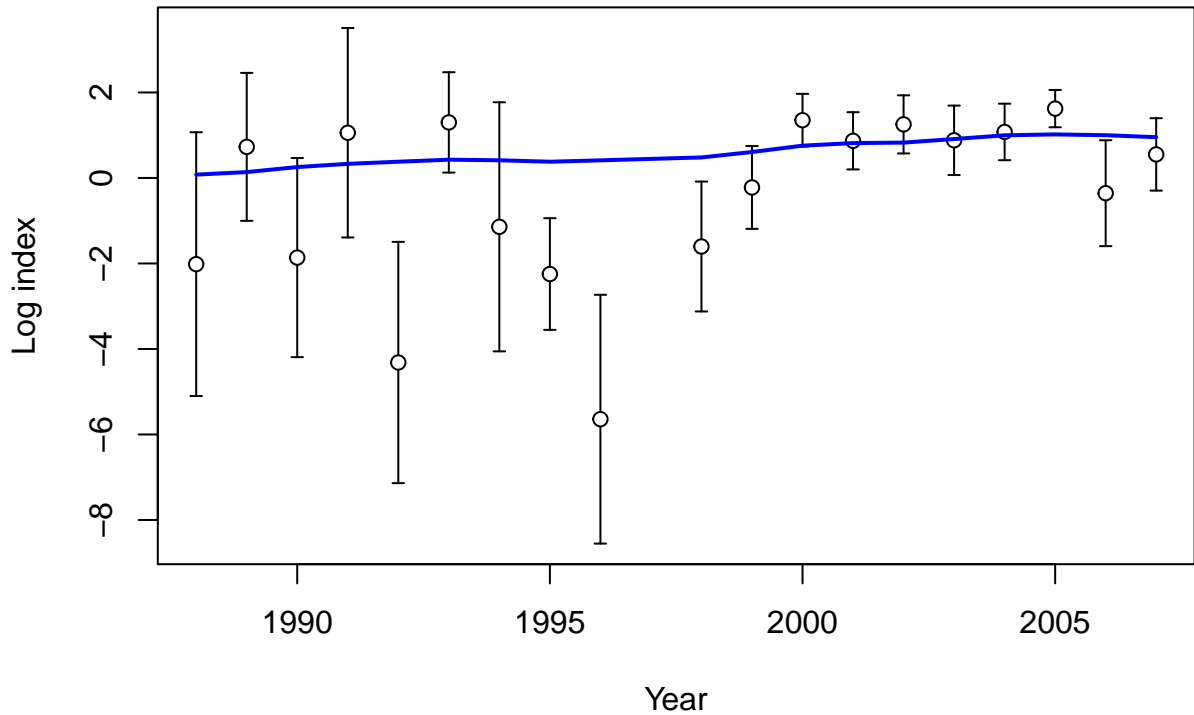
2000

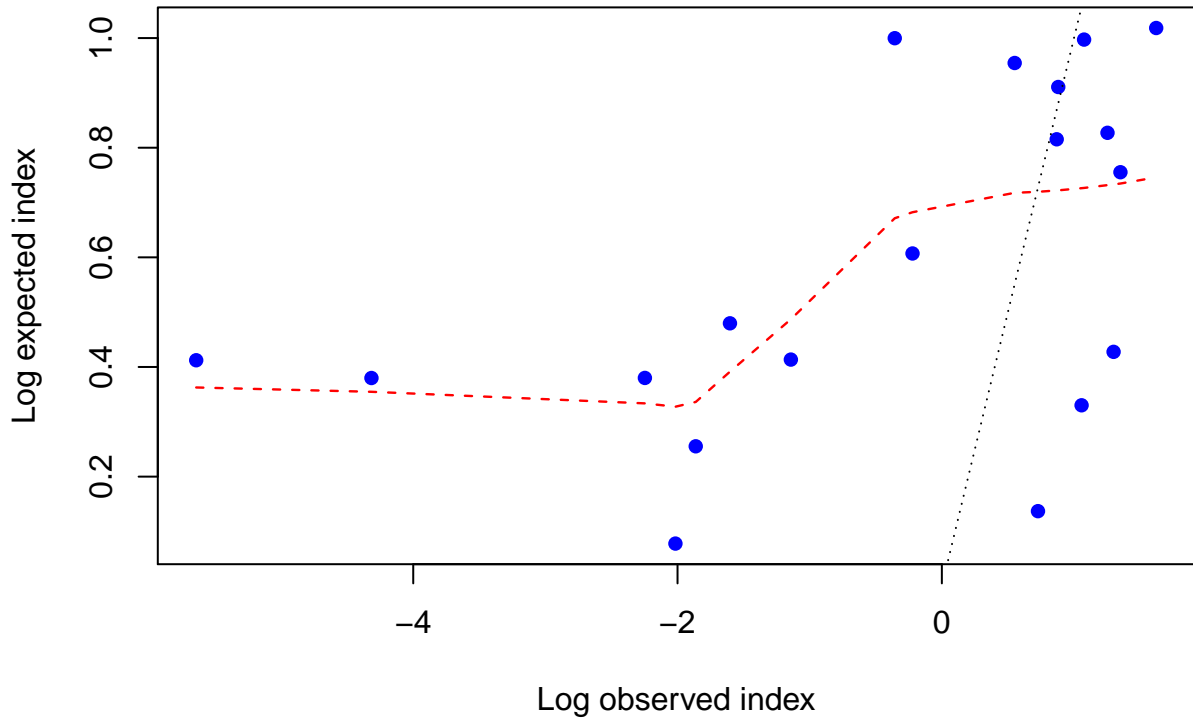
2005

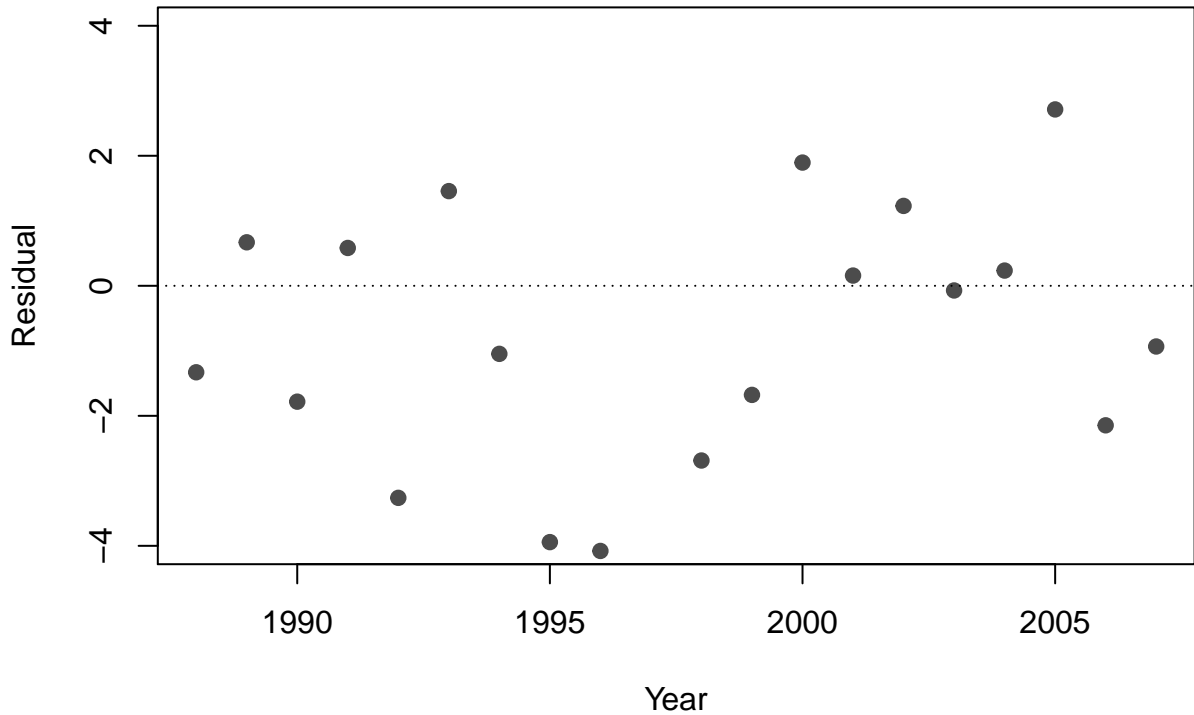
Year

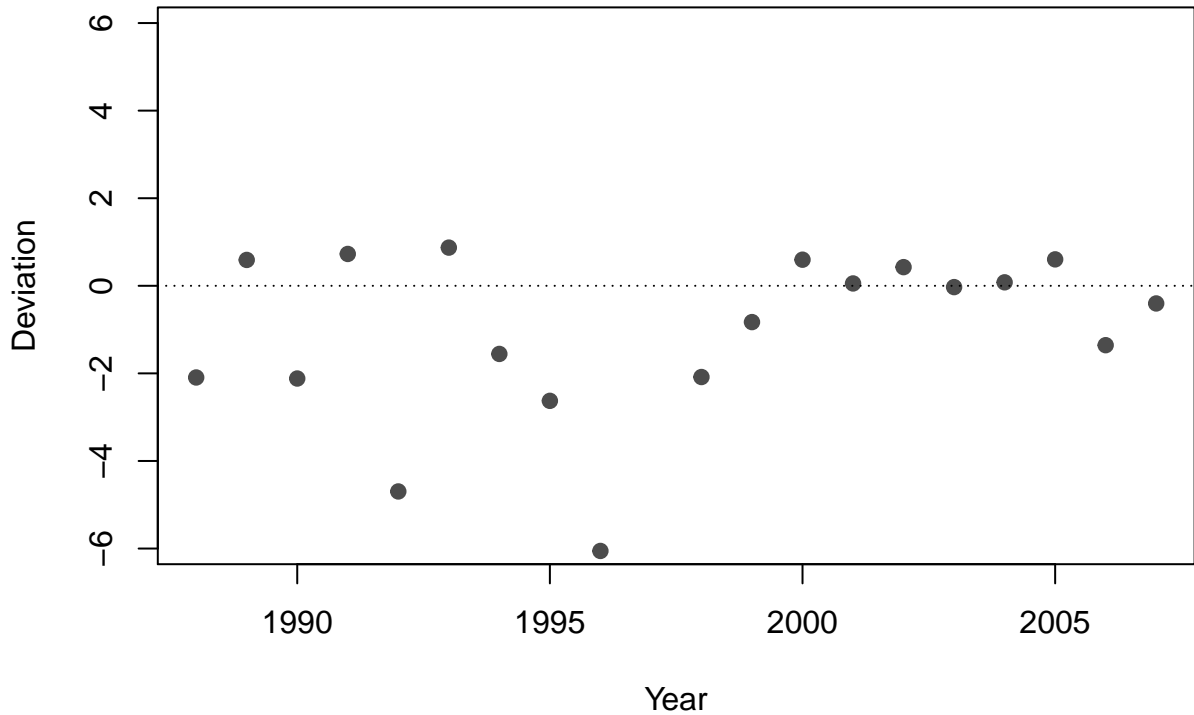




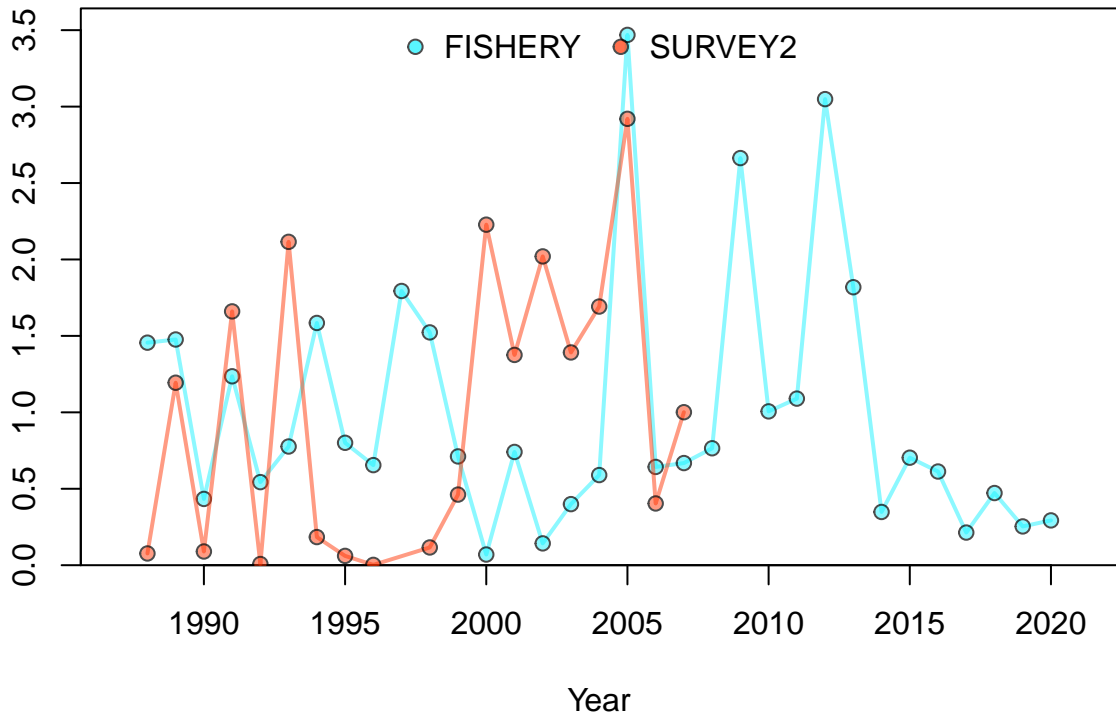


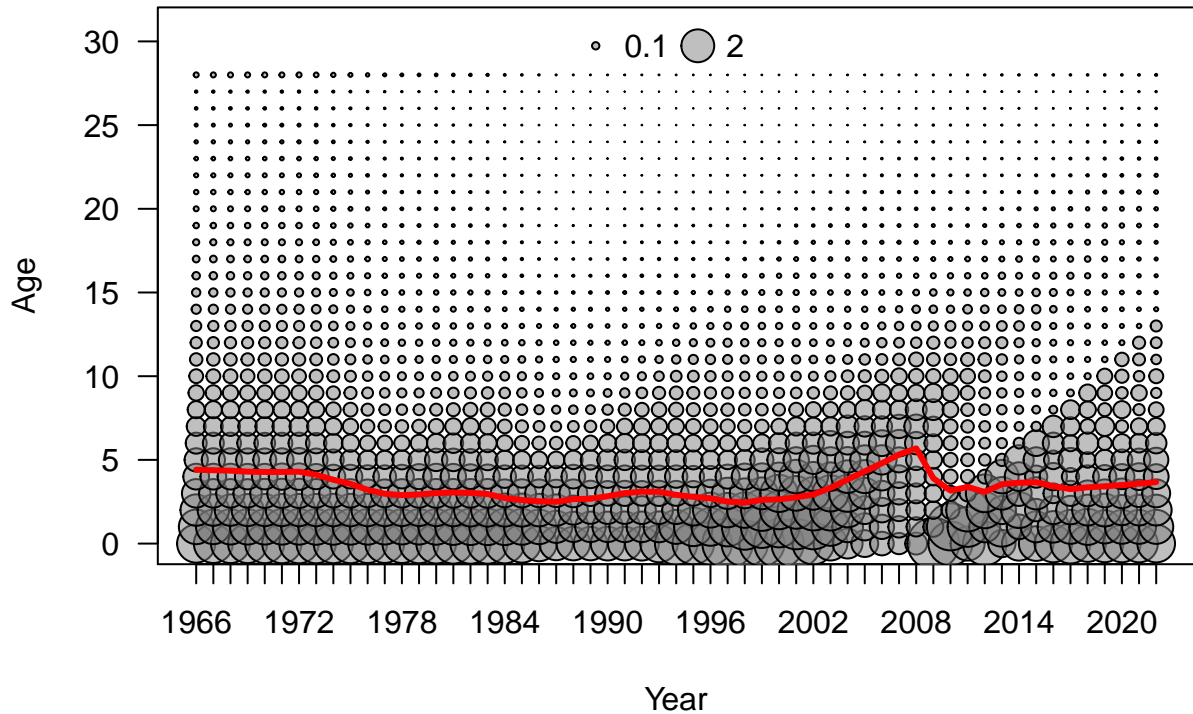


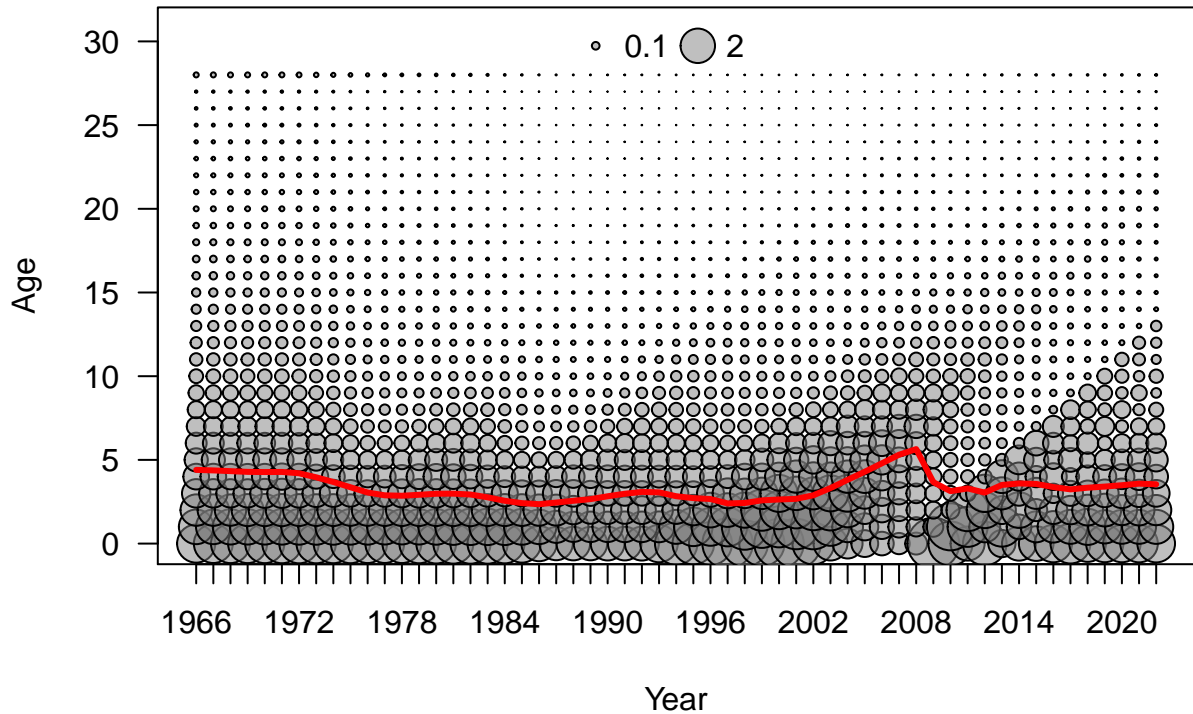




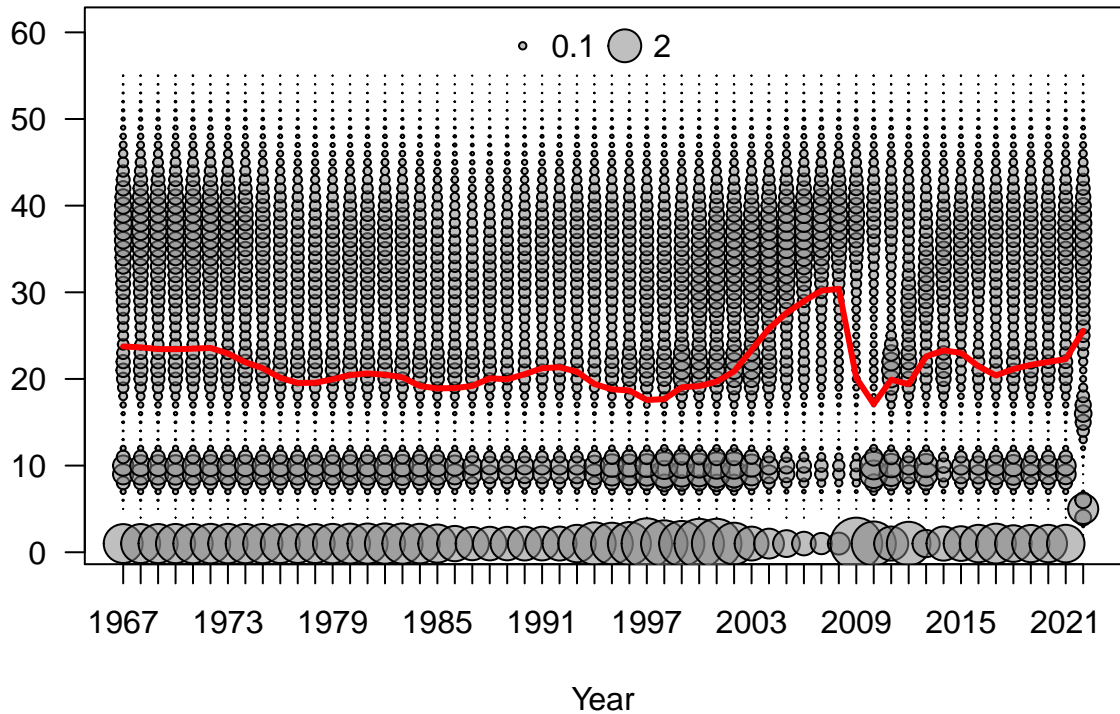
Standardized index



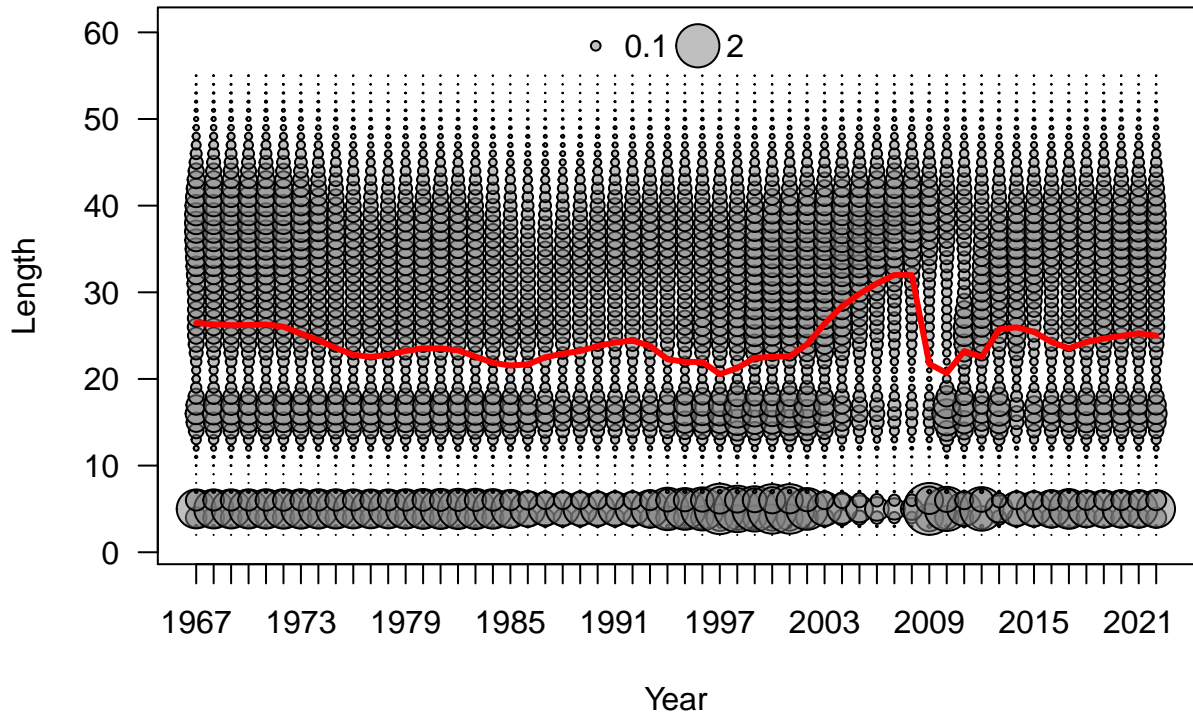


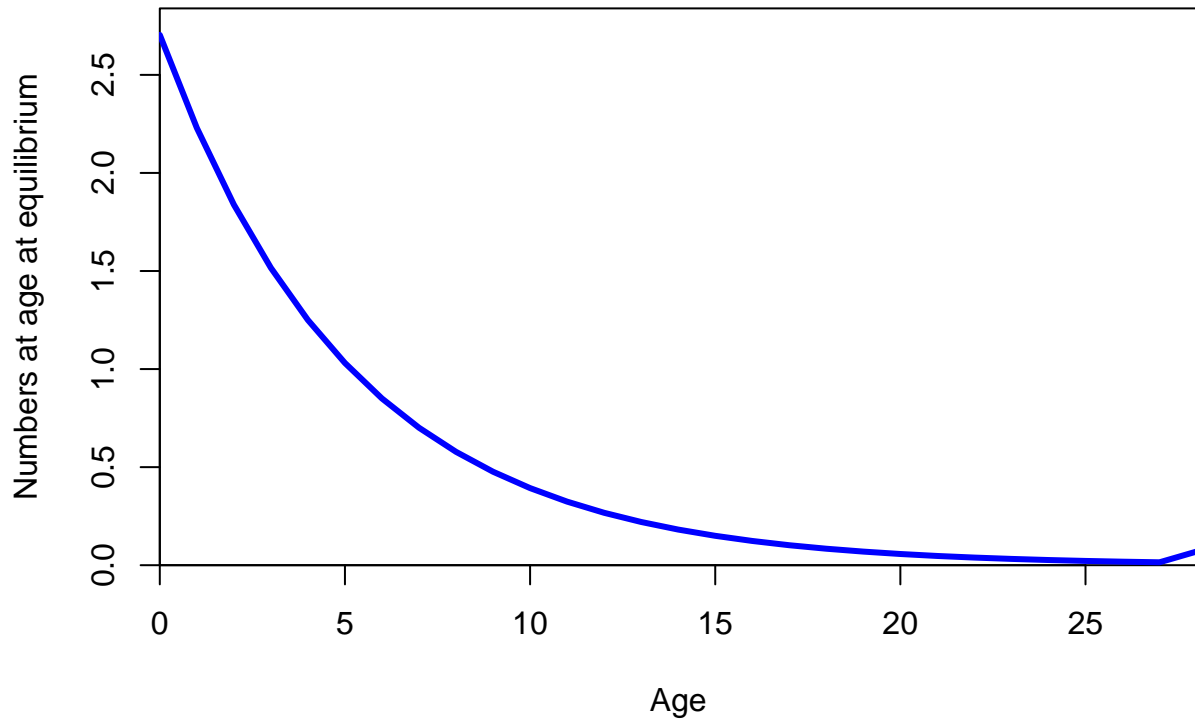


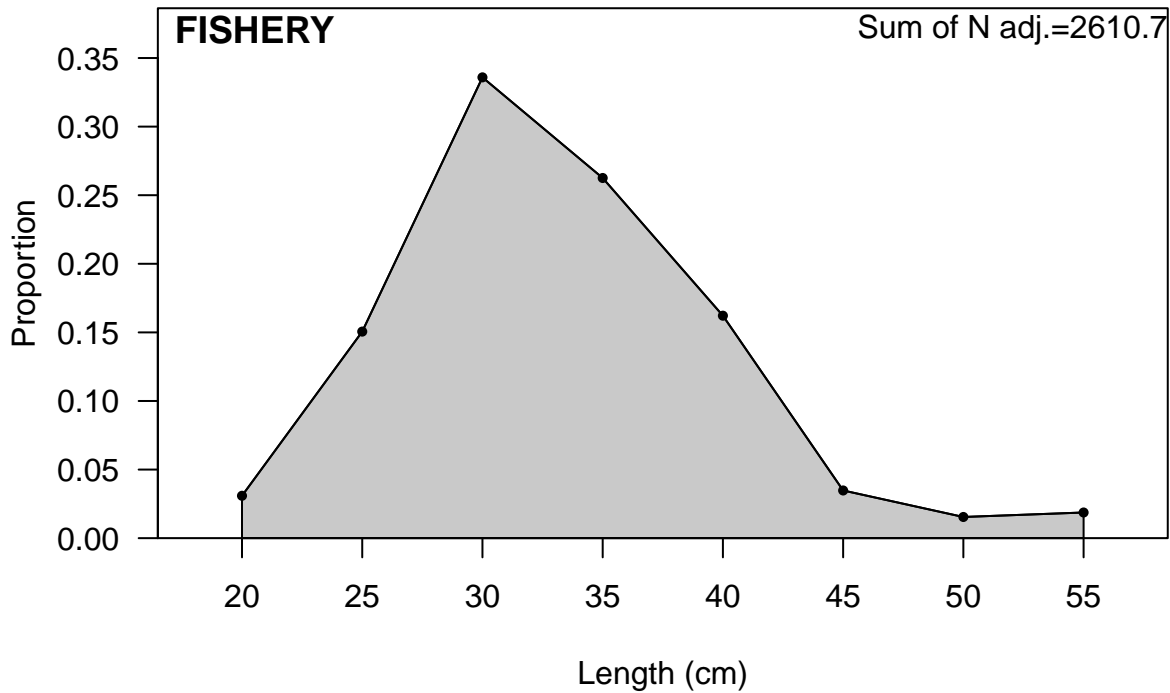
Length

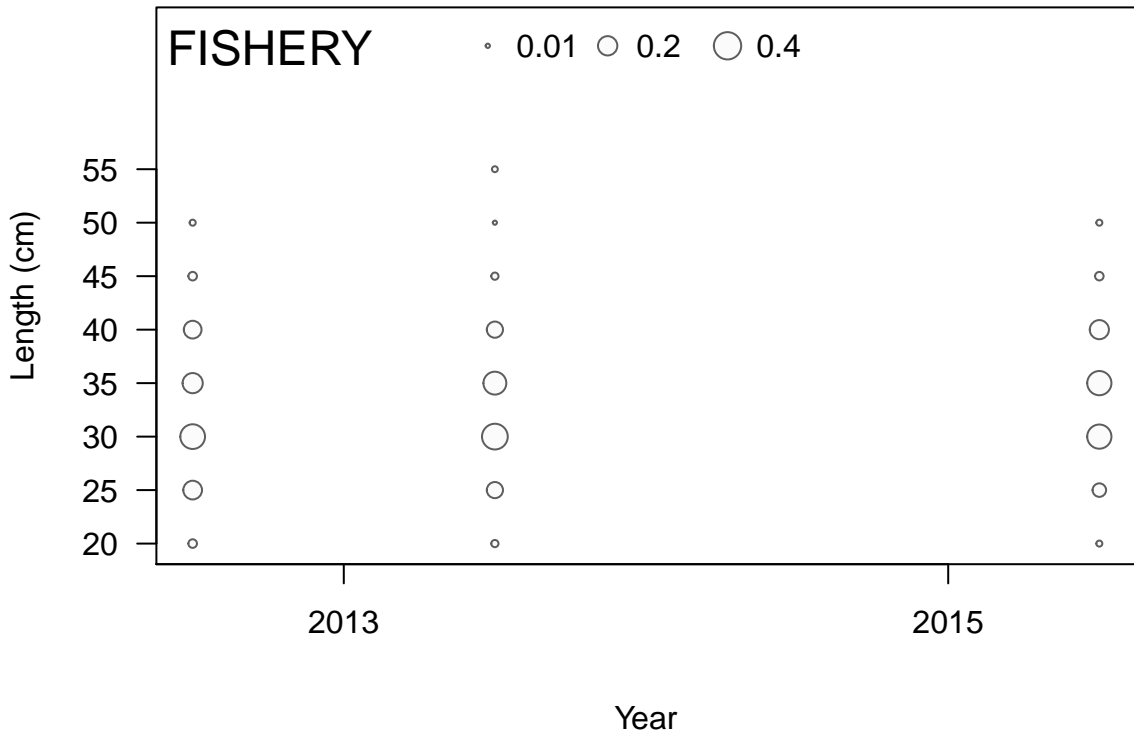


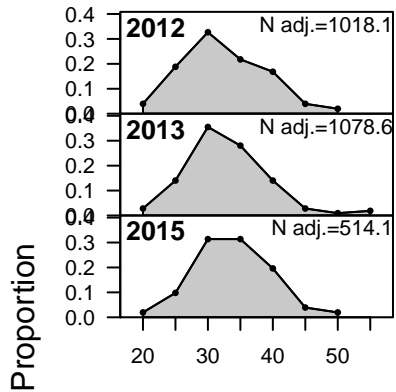




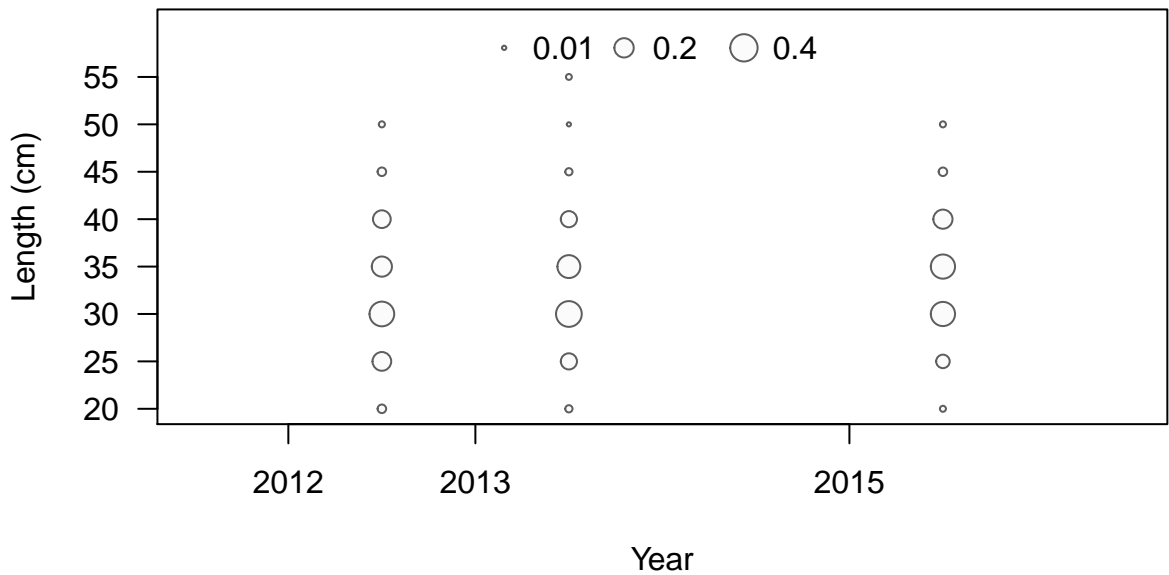




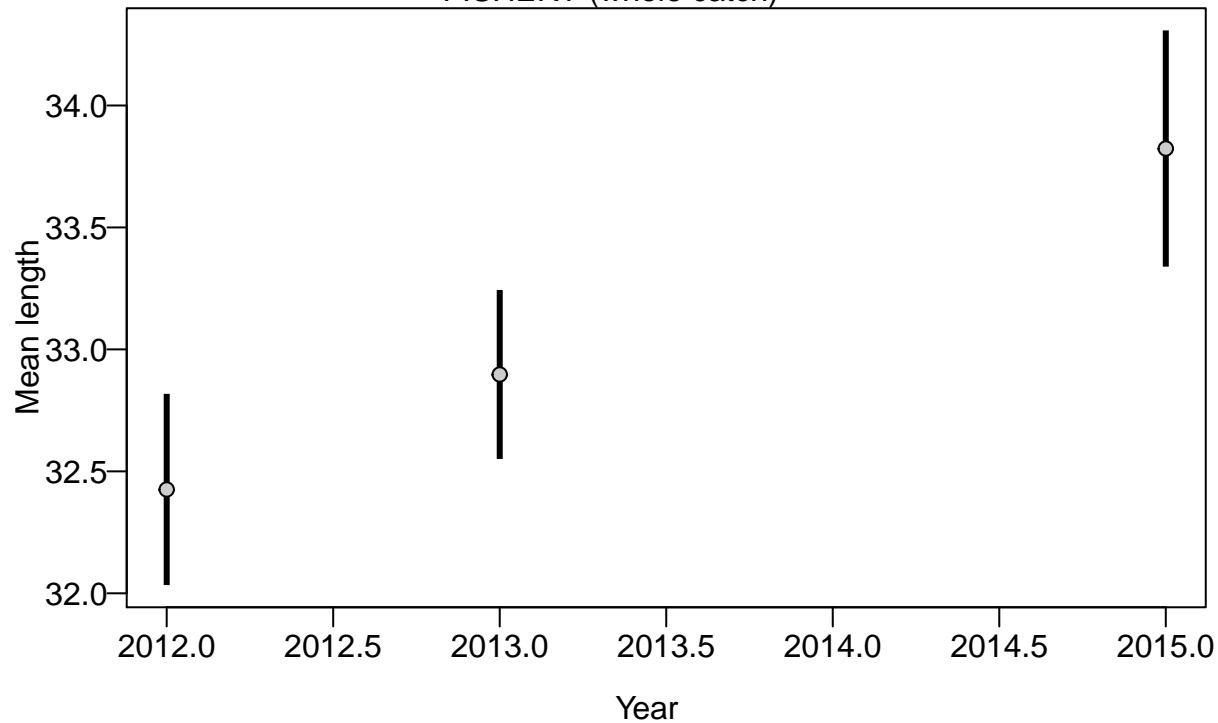


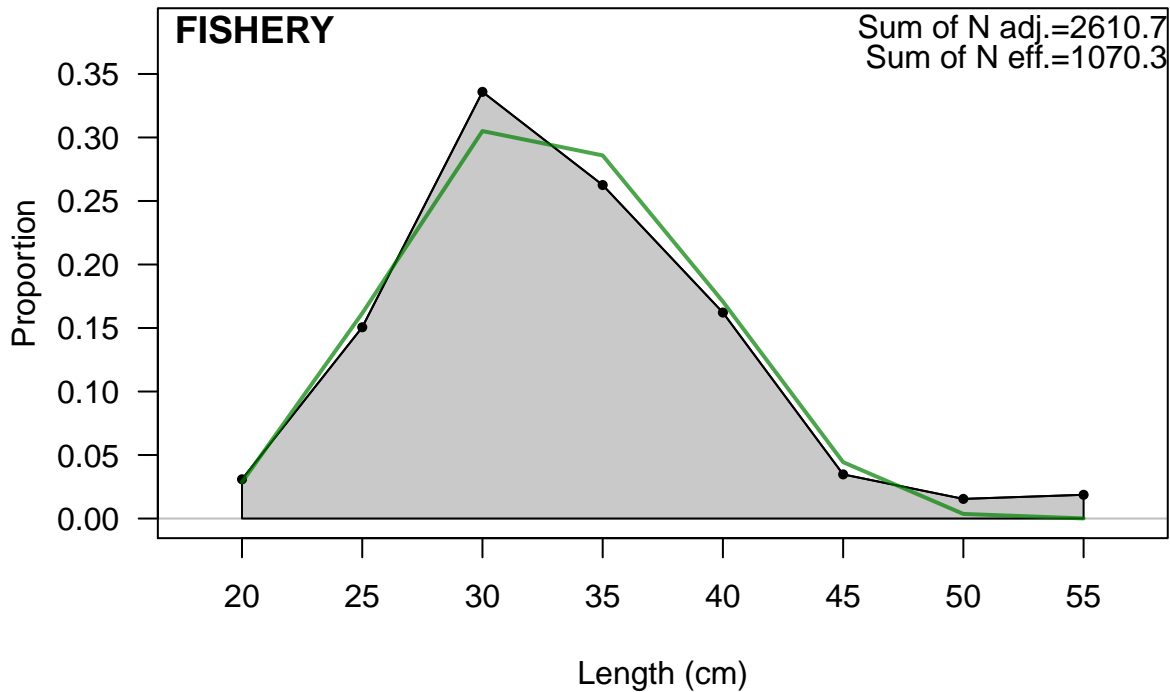


Length (cm)

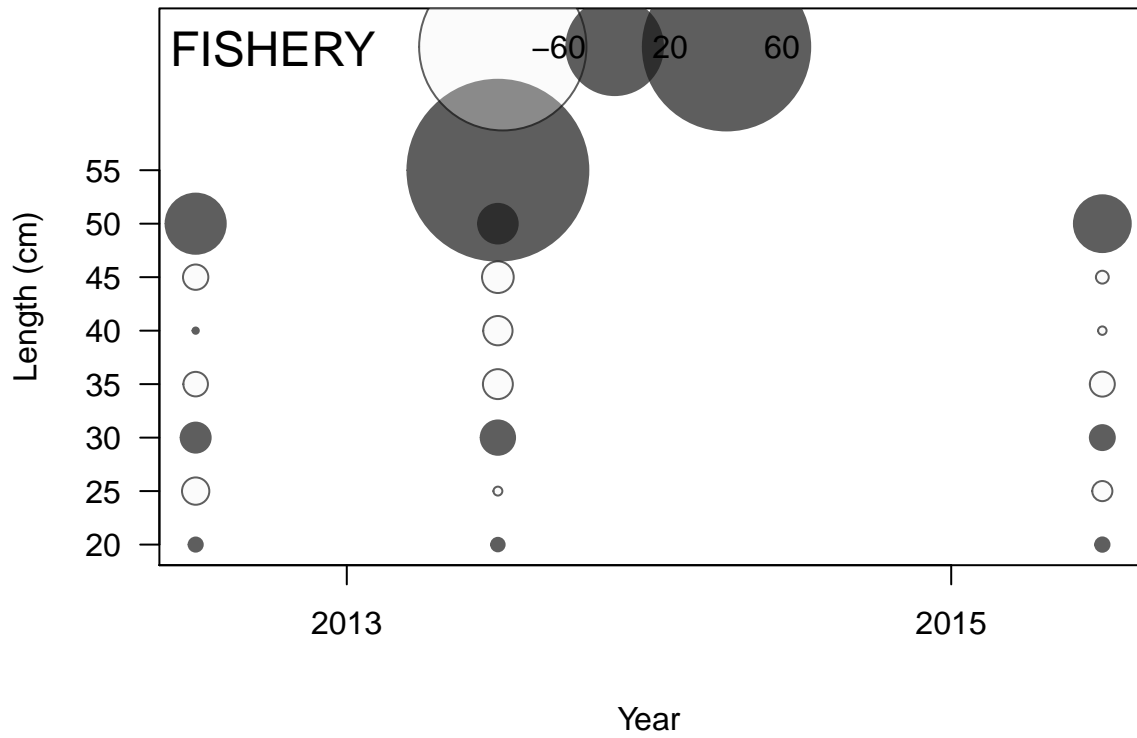


FISHERY (whole catch)

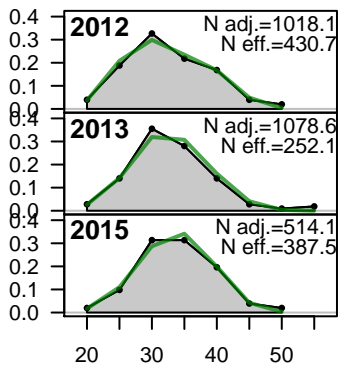




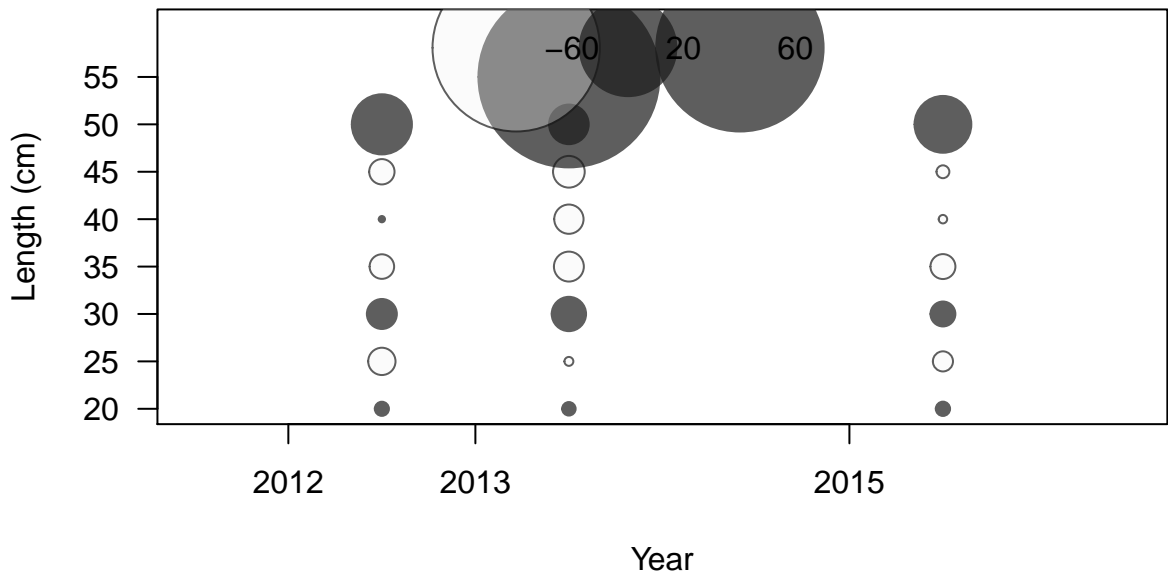




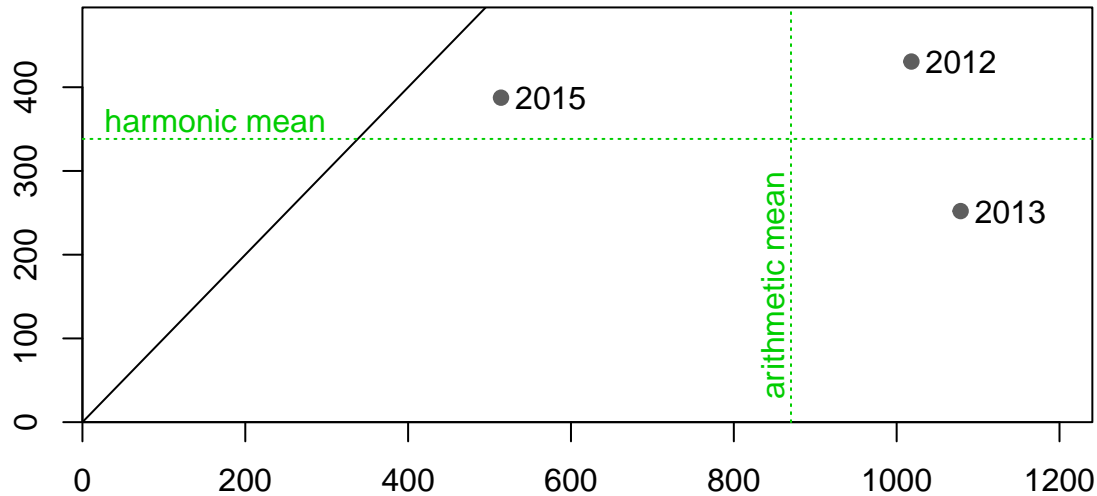
Proportion



Length (cm)

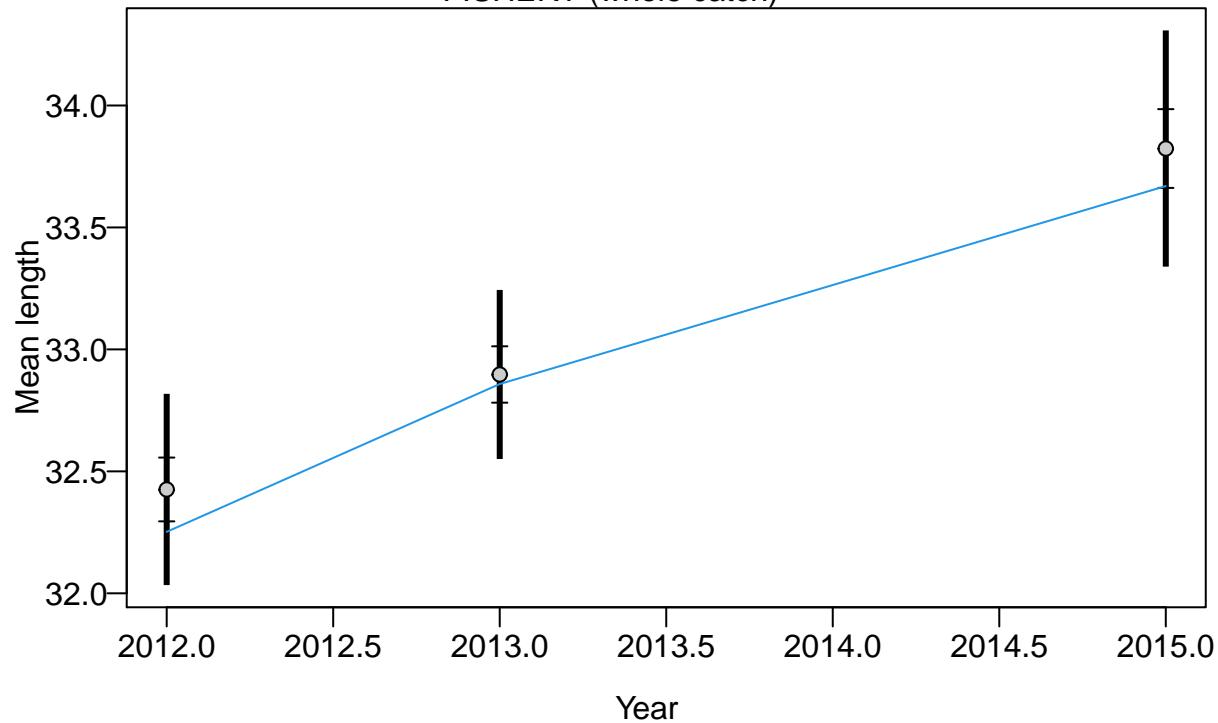


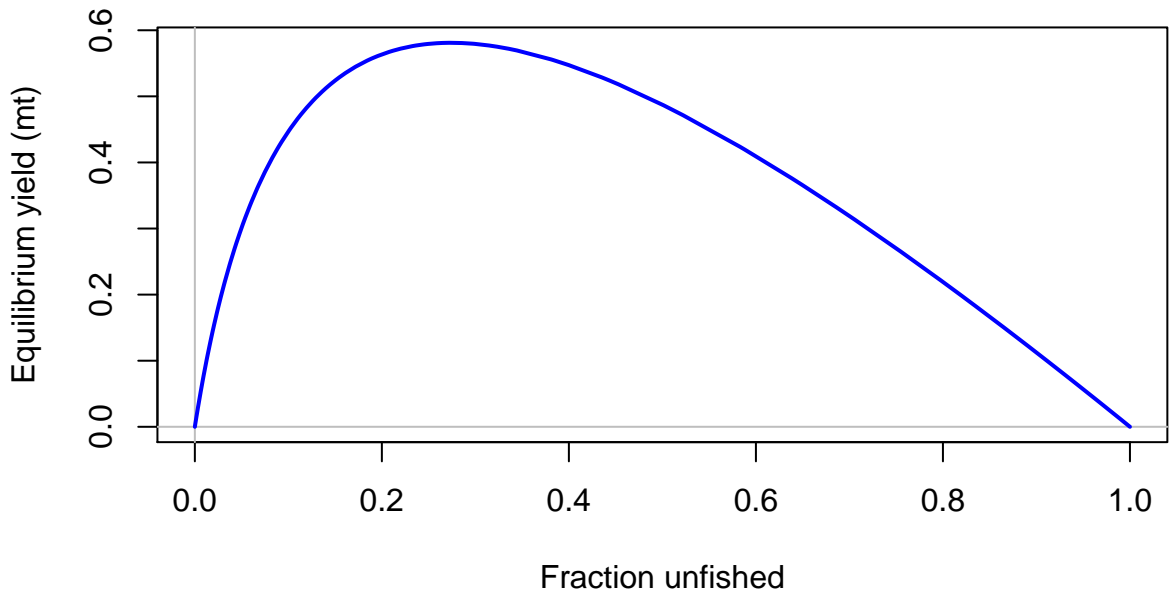
Effective sample size

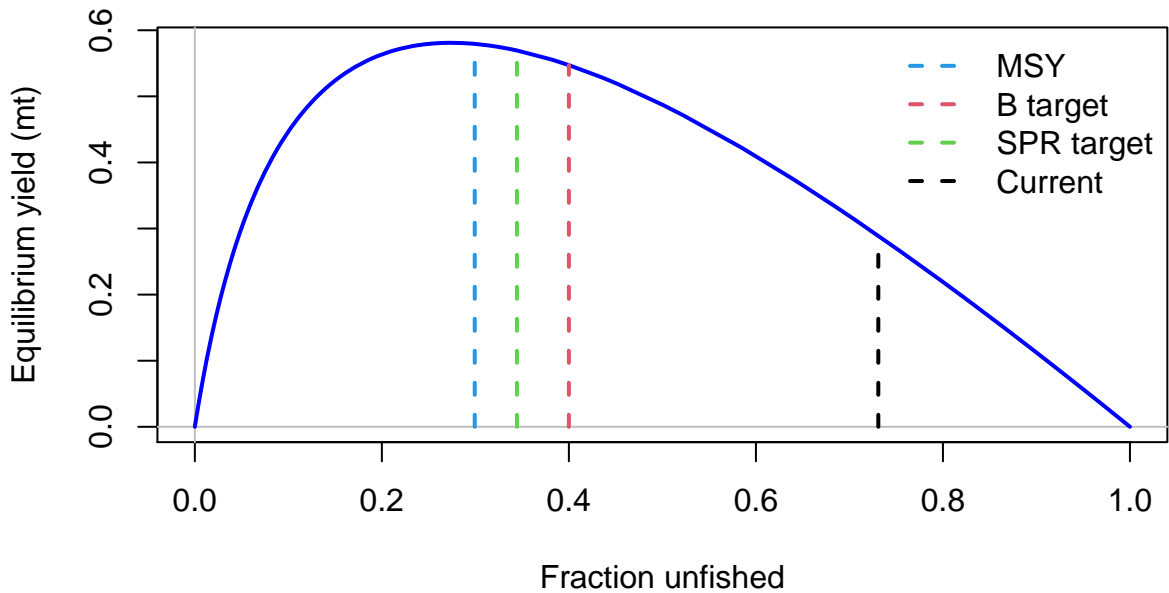


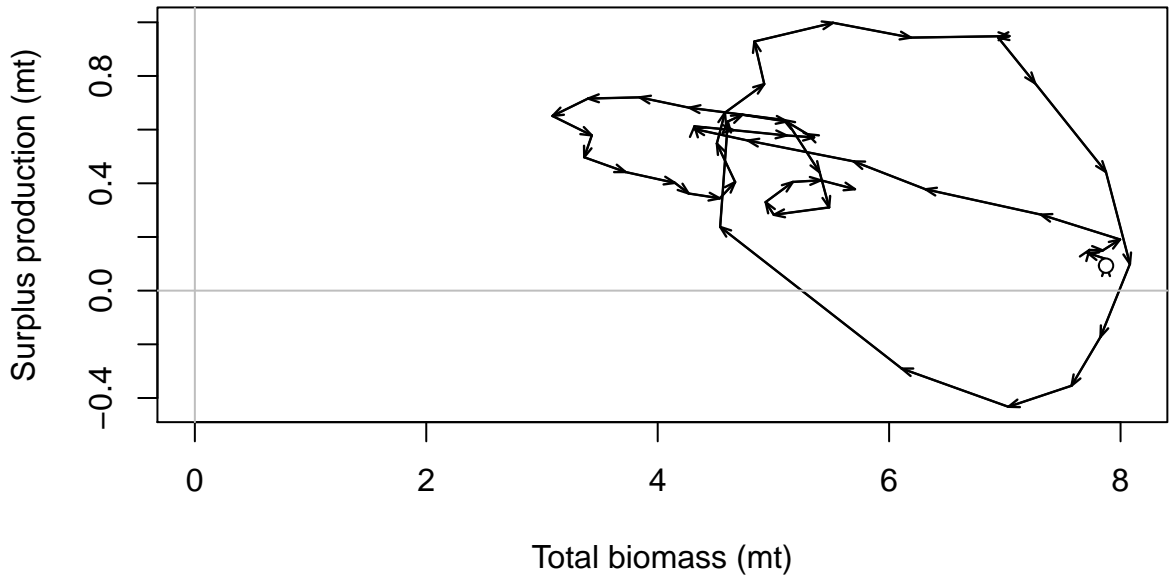
Observed sample size

FISHERY (whole catch)

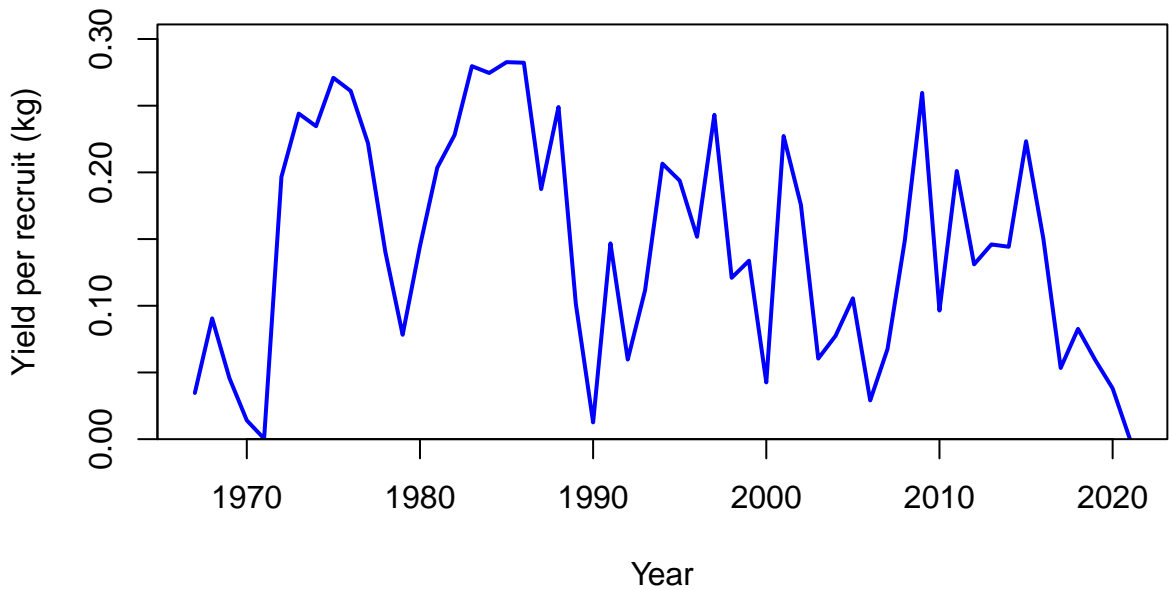


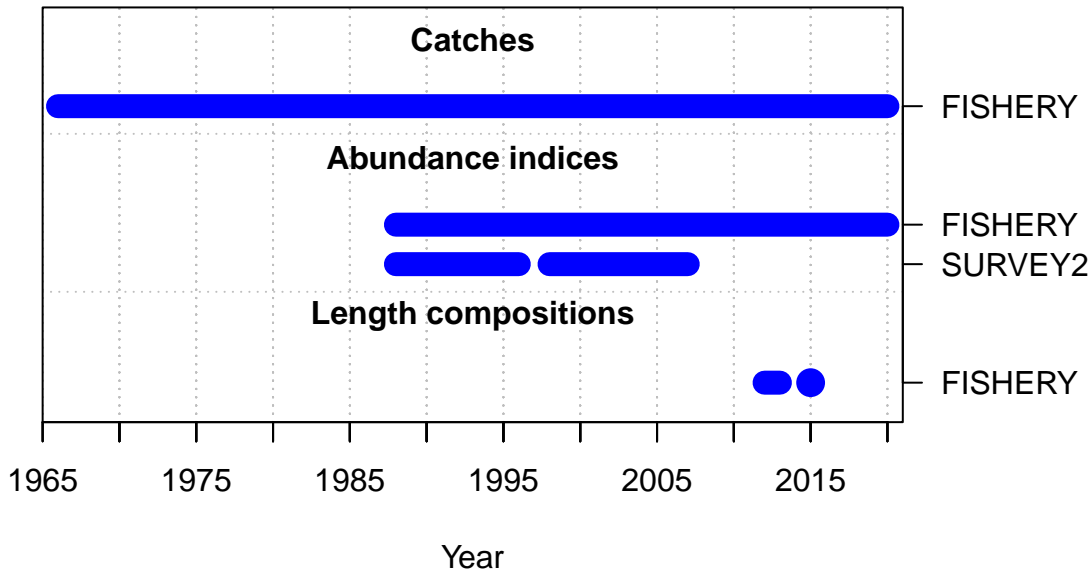


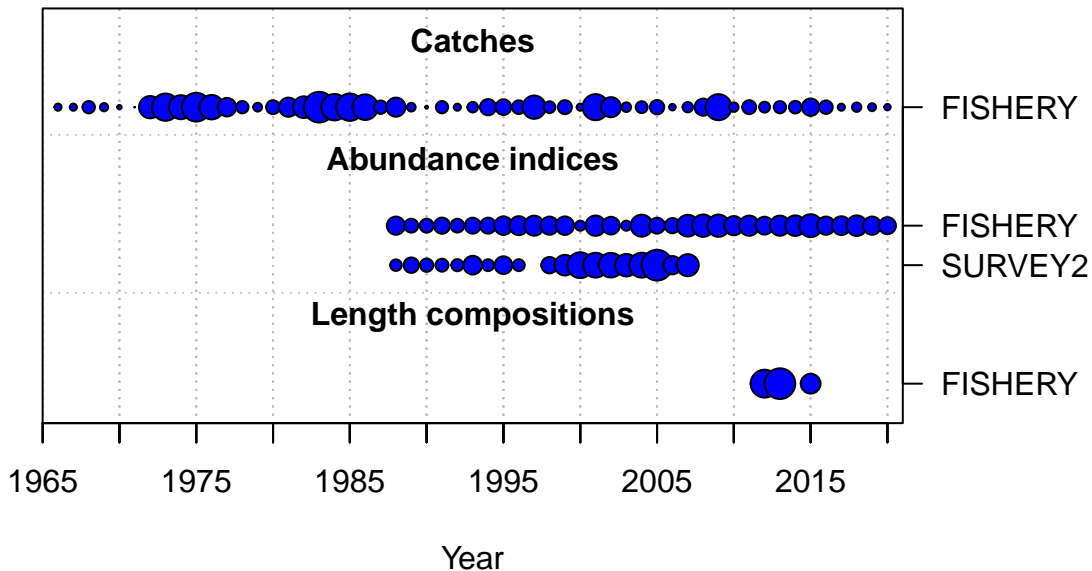




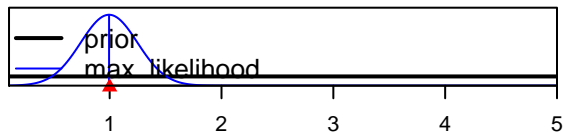




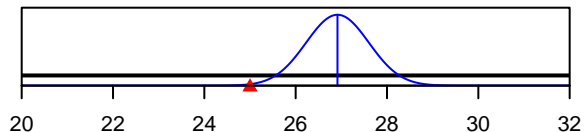




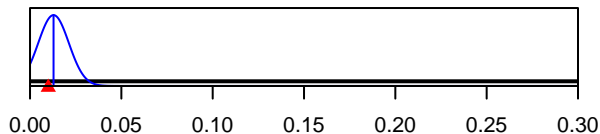
SR\_LN(R0)



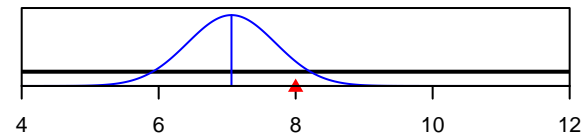
Size\_inflection\_FISHERY(1)



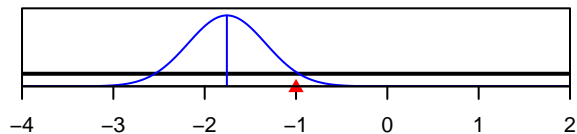
InitF\_seas\_1flt\_1FISHERY



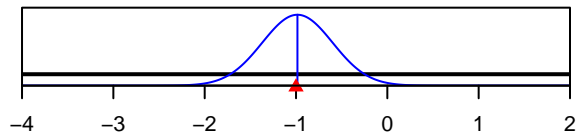
Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



LnQ\_base\_SURVEY2(2)



Parameter value