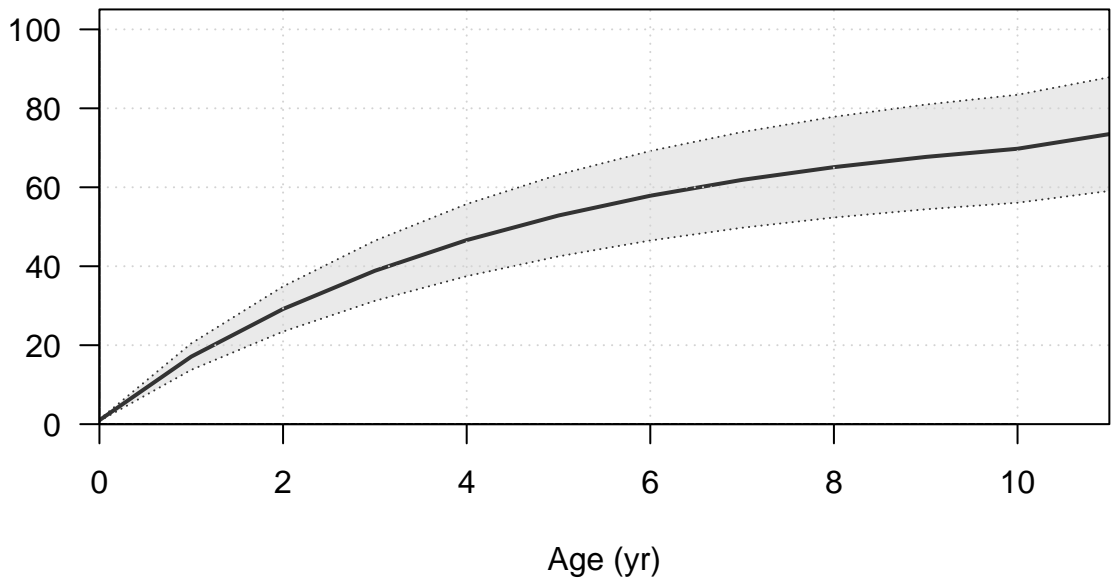
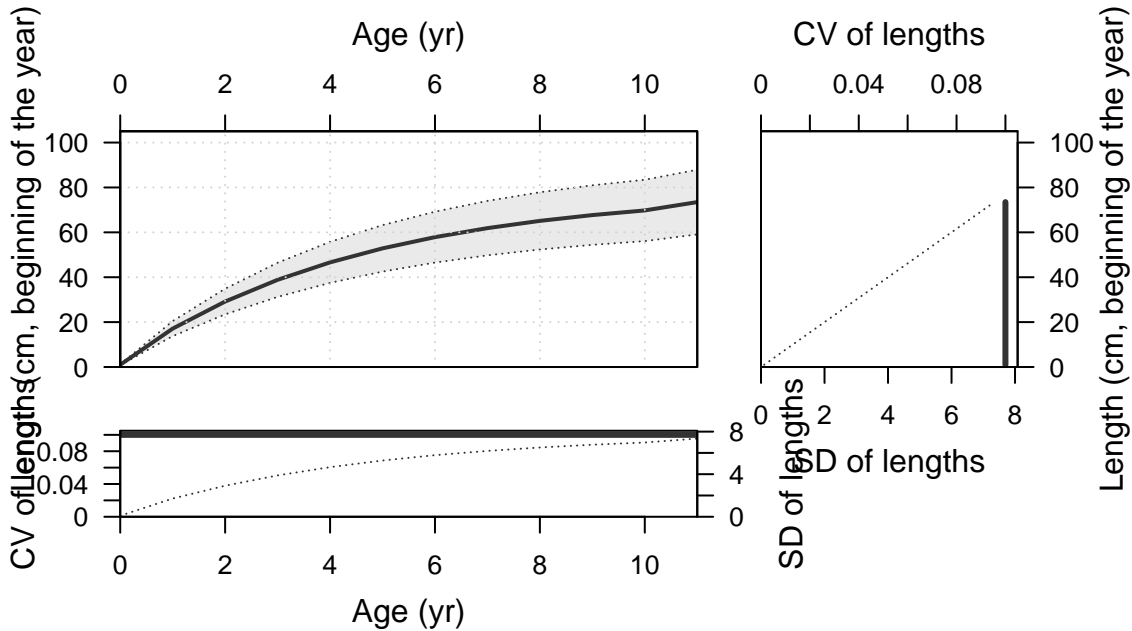
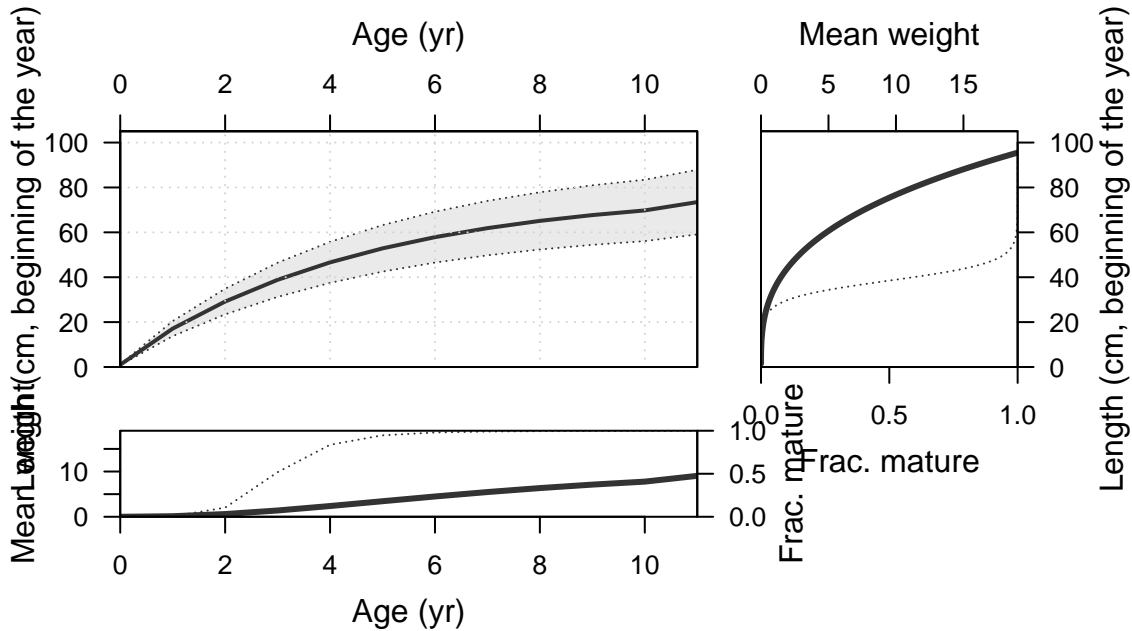


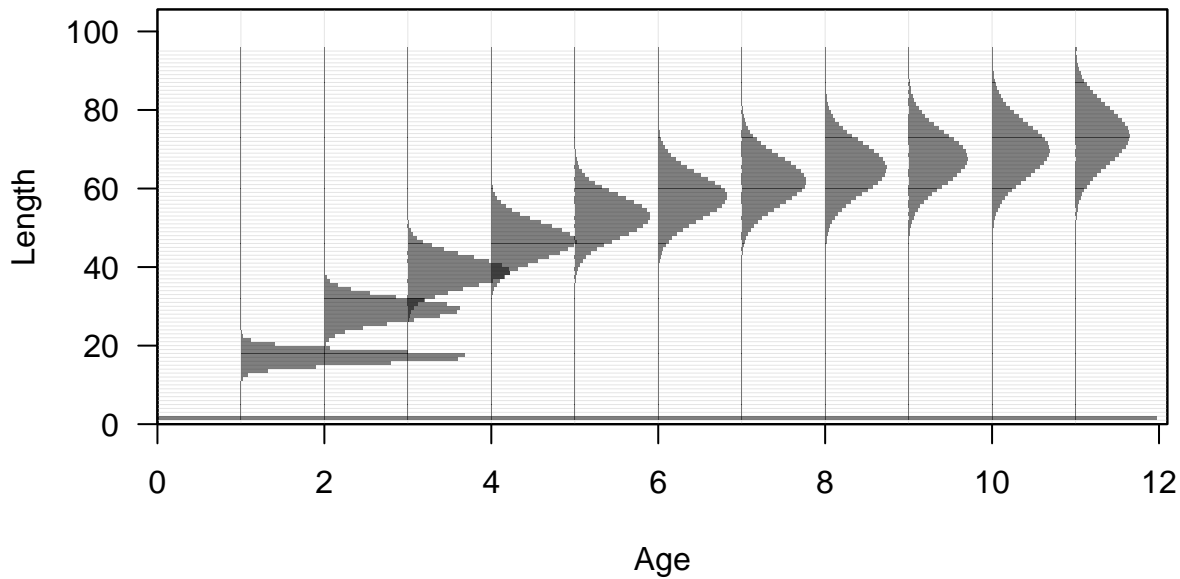
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Mon Jul 11 15:59:04 2022  
Data\_File: data.ss  
Control\_File: control.ss

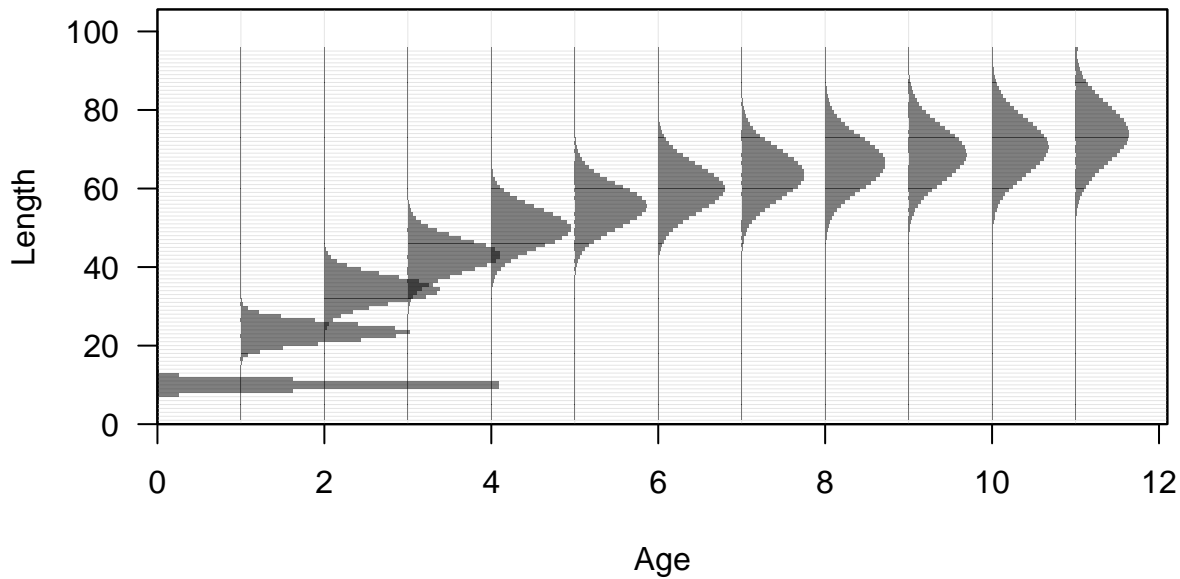
Length (cm, beginning of the year)



















Fecundity

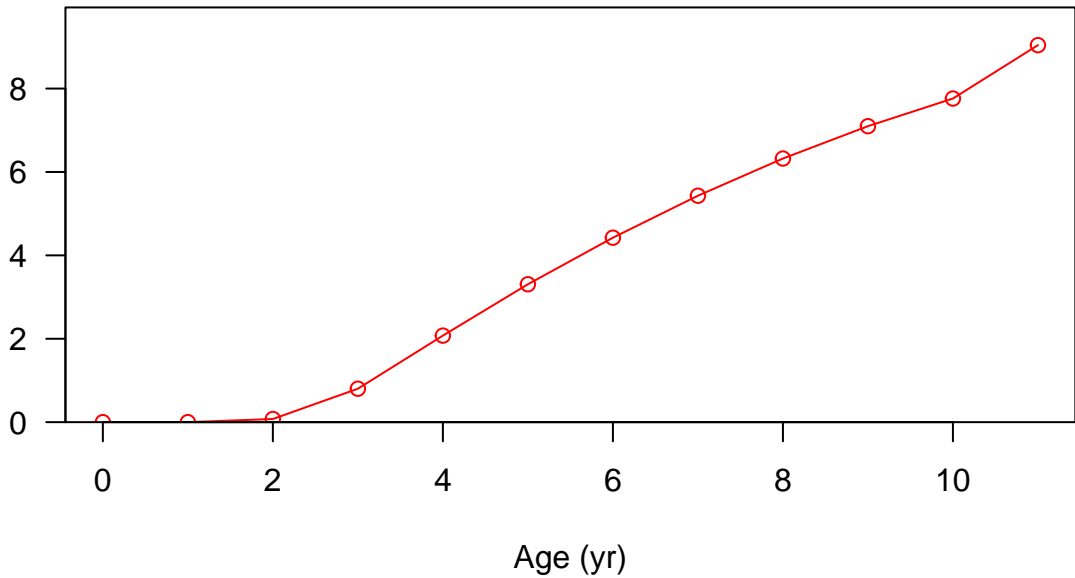




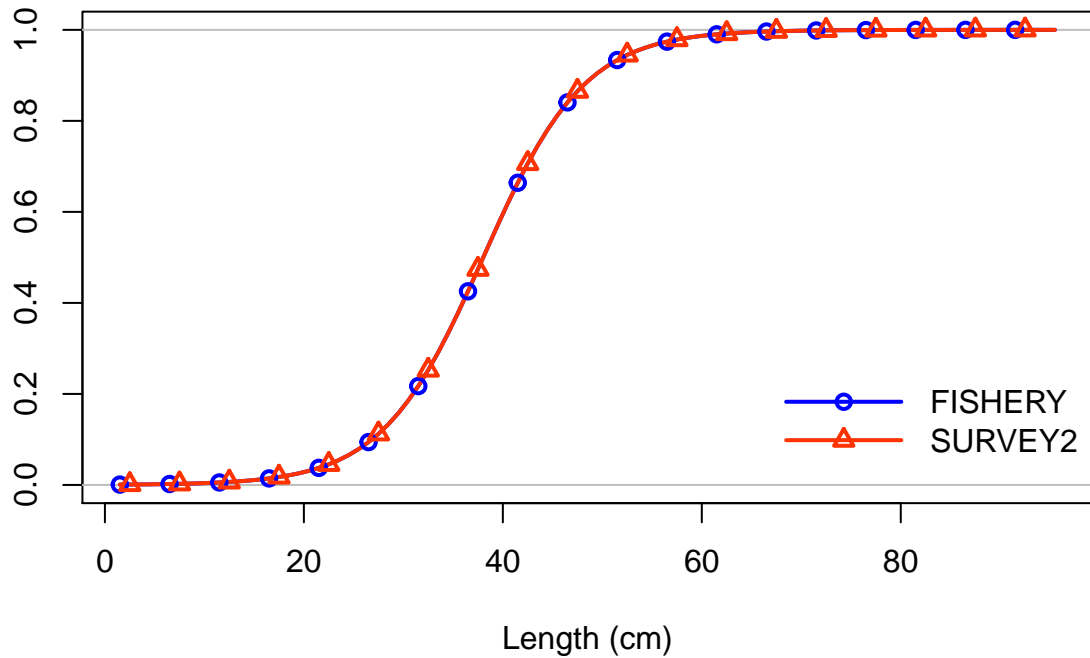
Spawning output



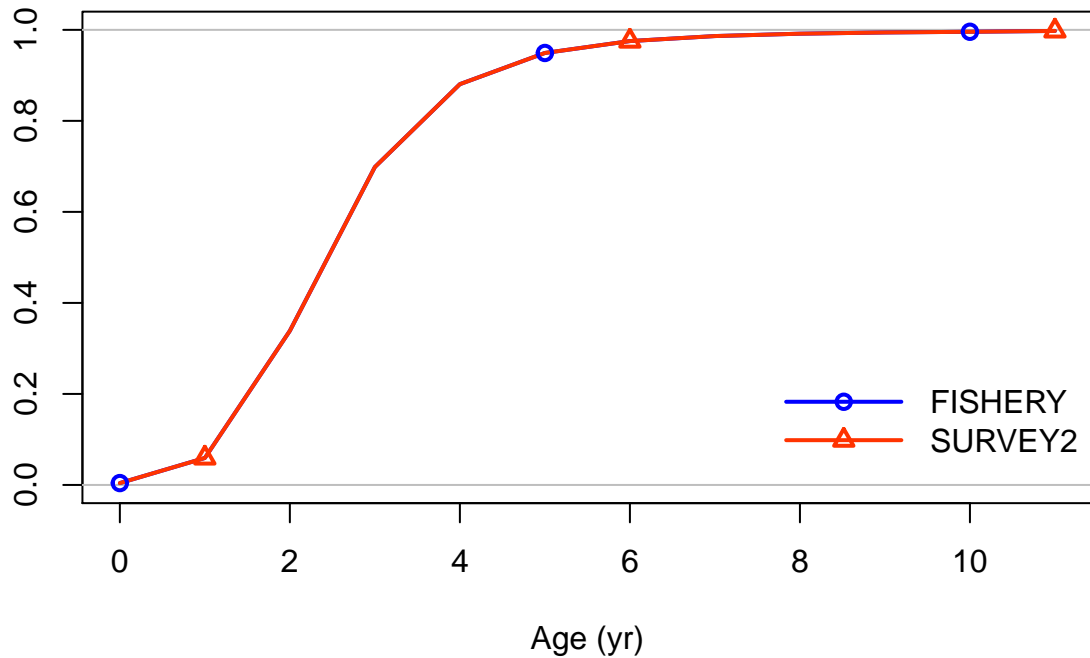
Spawning output



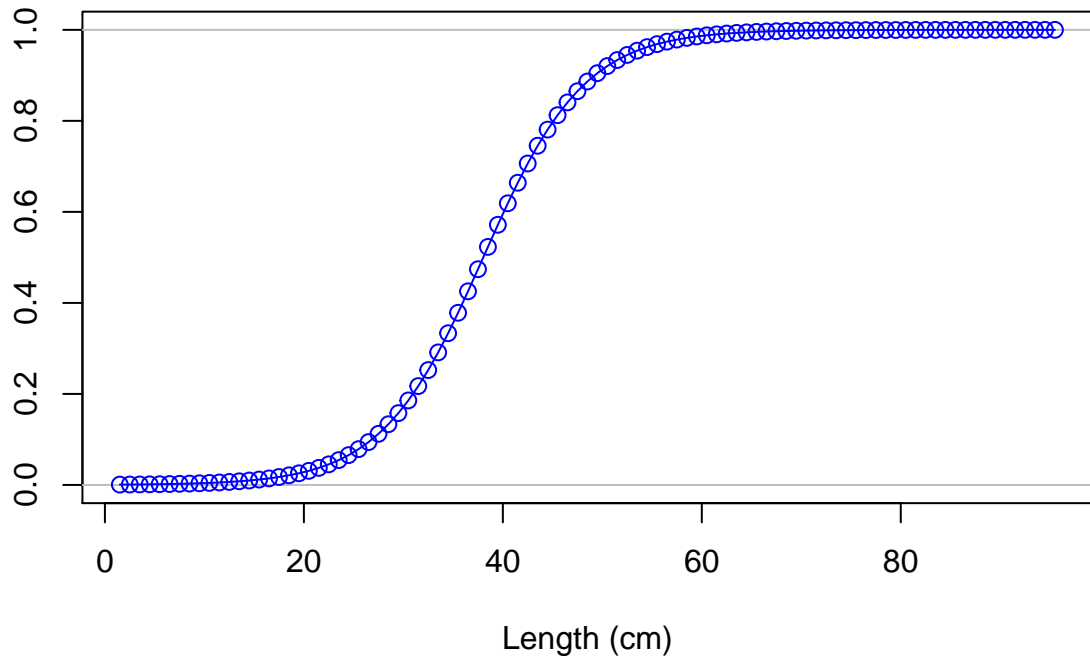
Selectivity



Selectivity

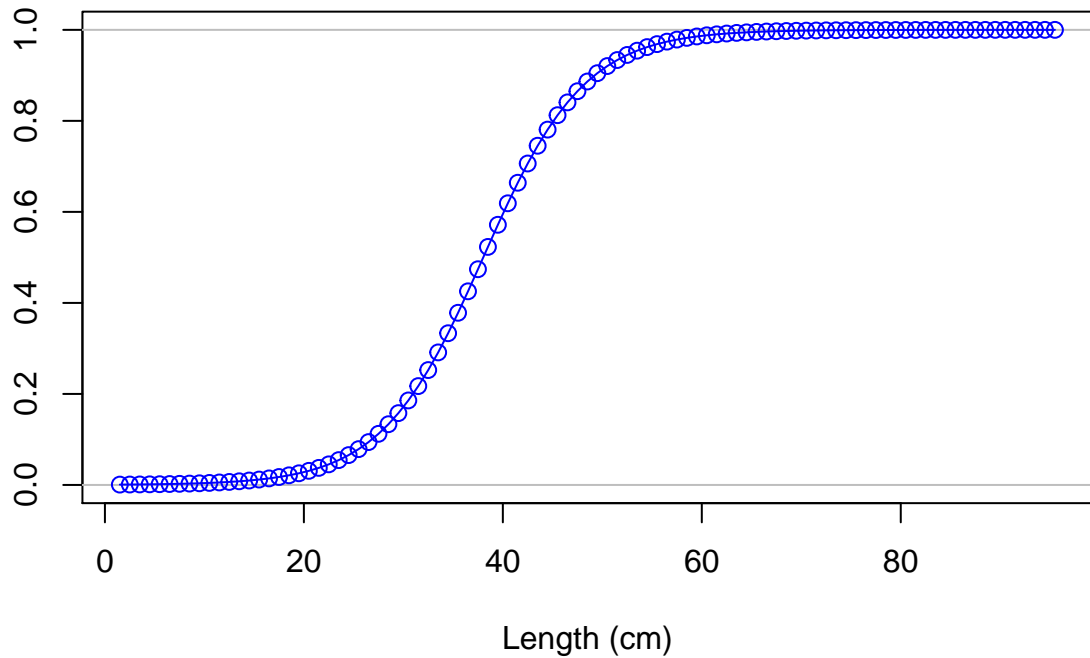


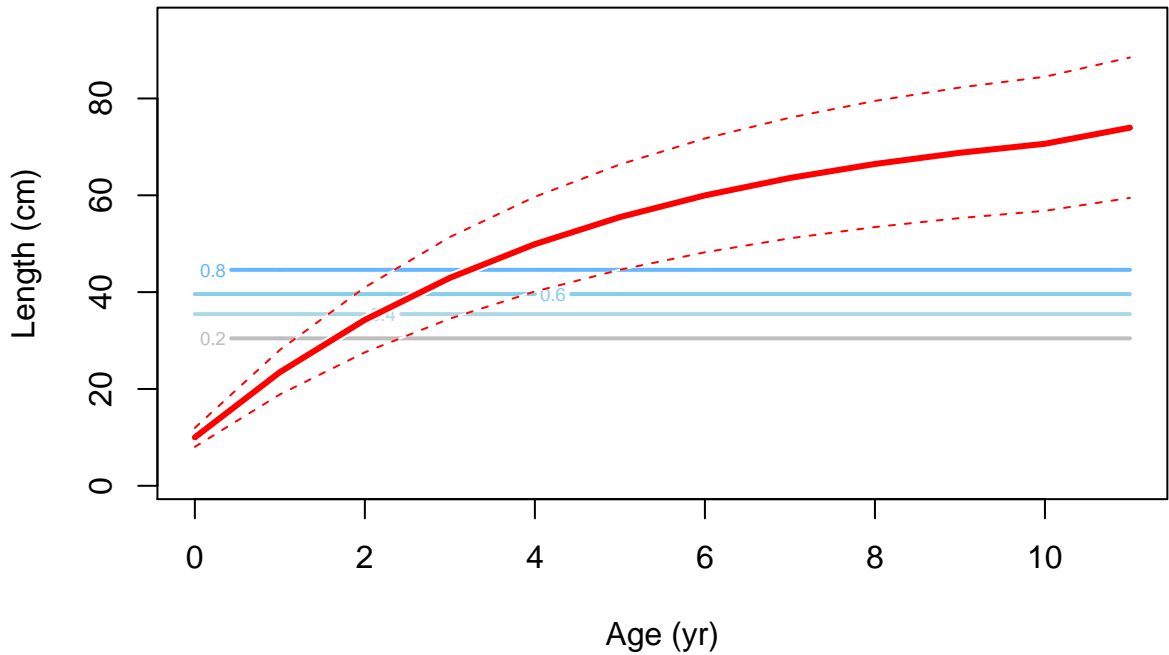
Selectivity

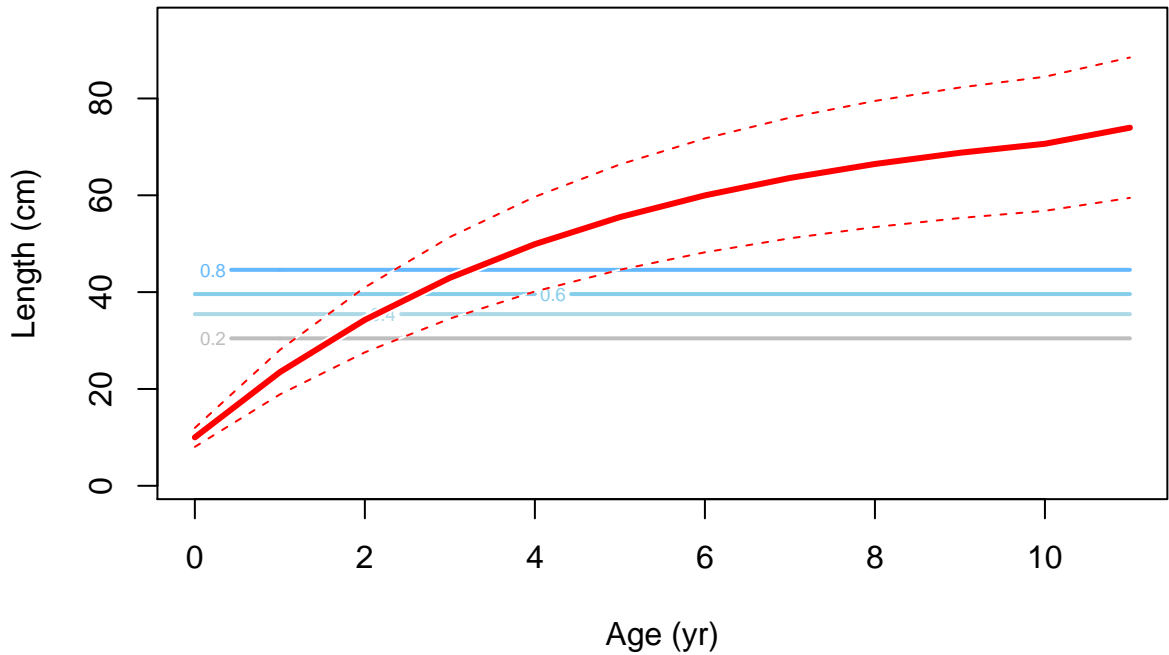




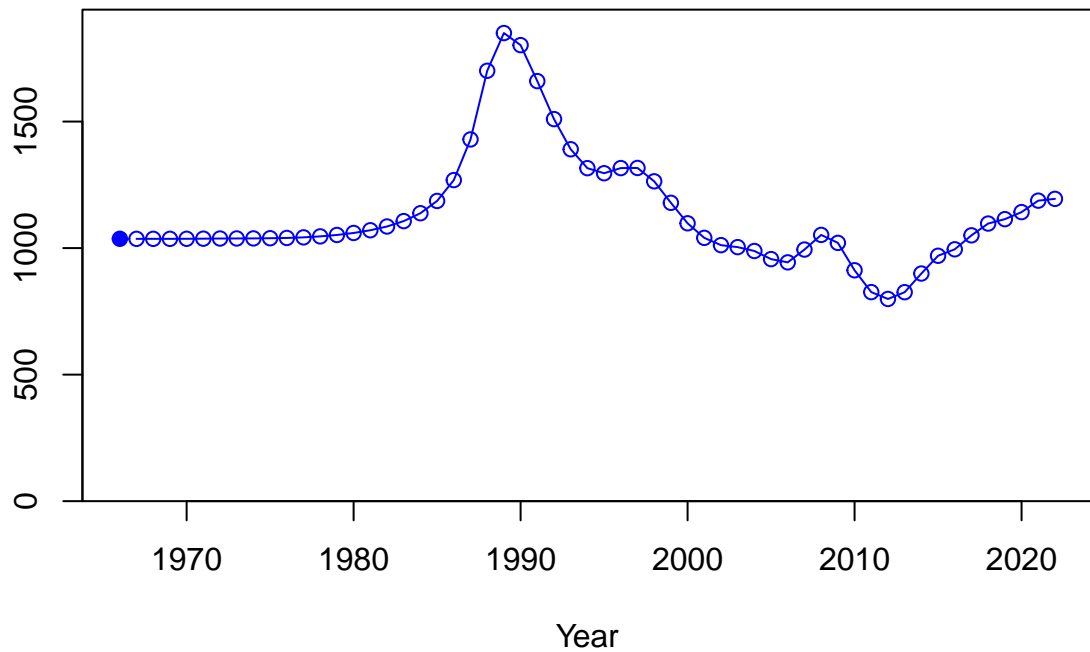
Selectivity

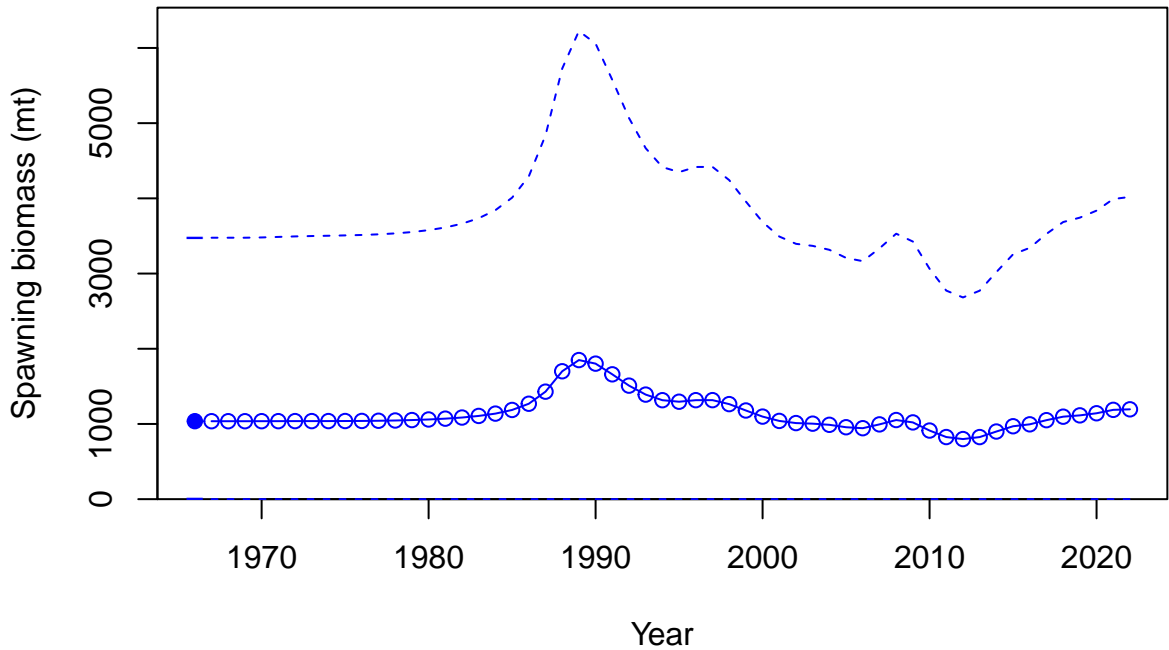




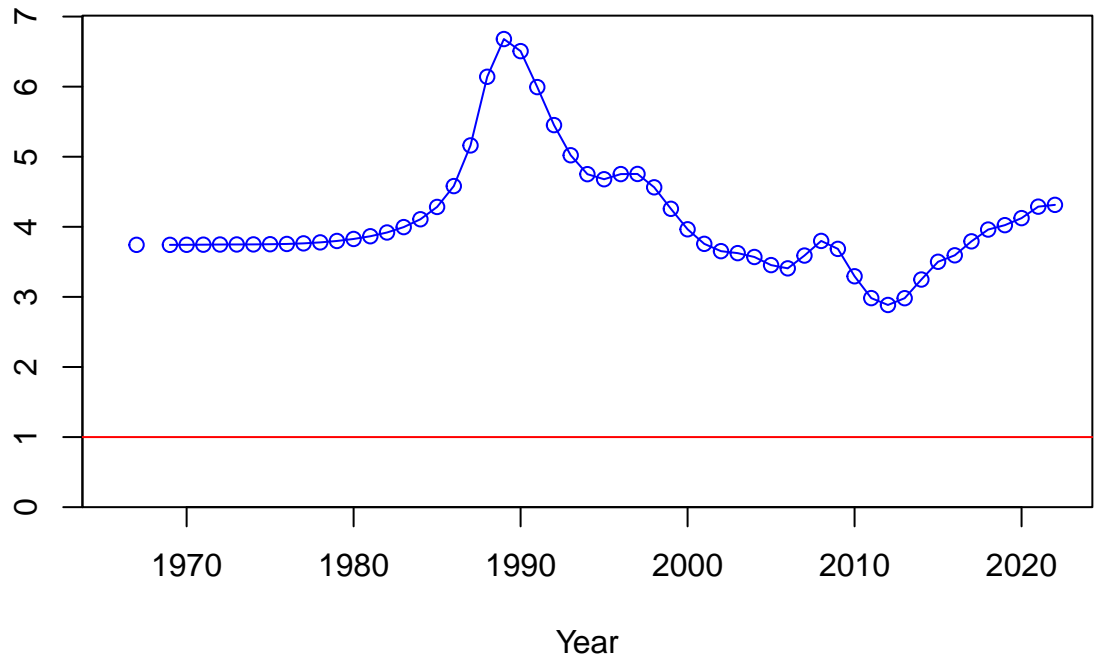


Spawning biomass (mt)

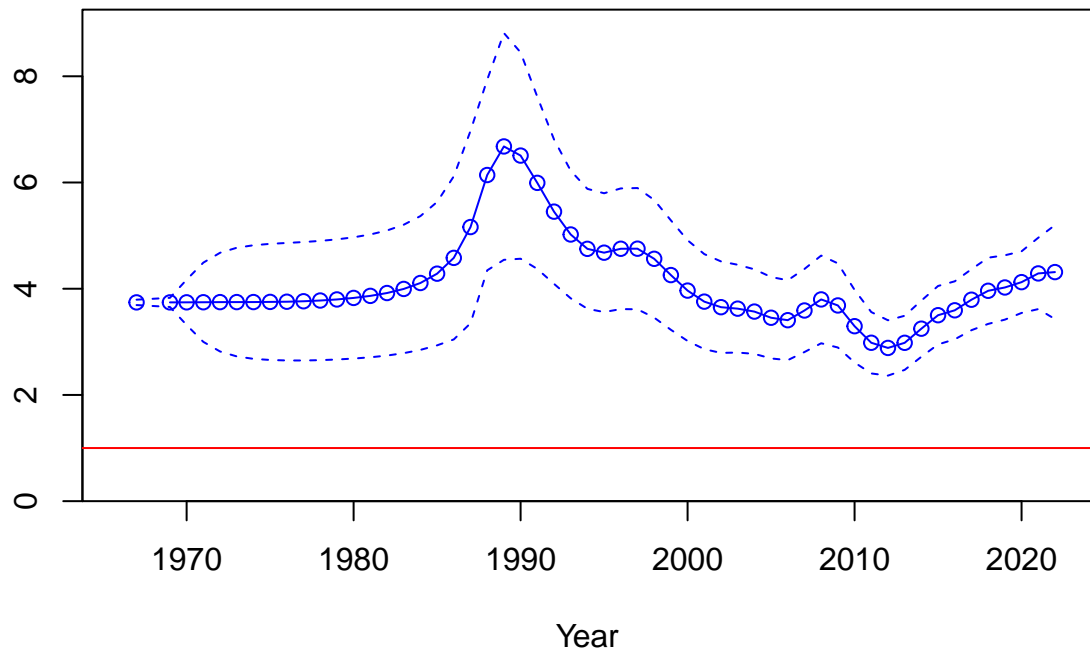


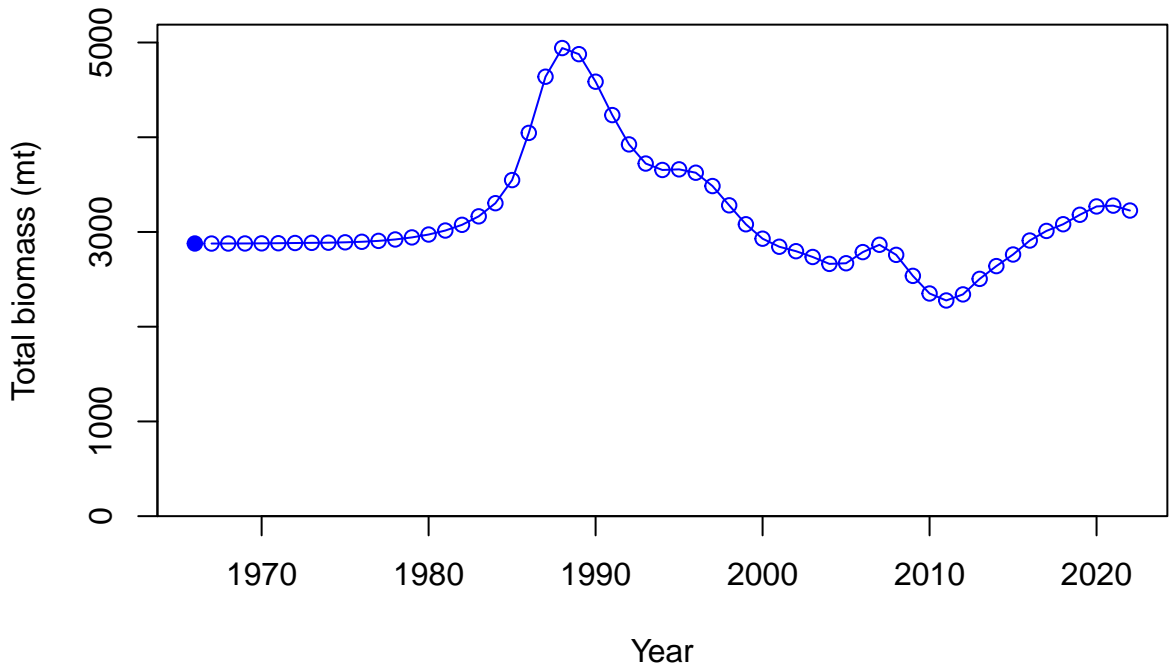


Relative spawning biomass:  $B/B_{MSY}$

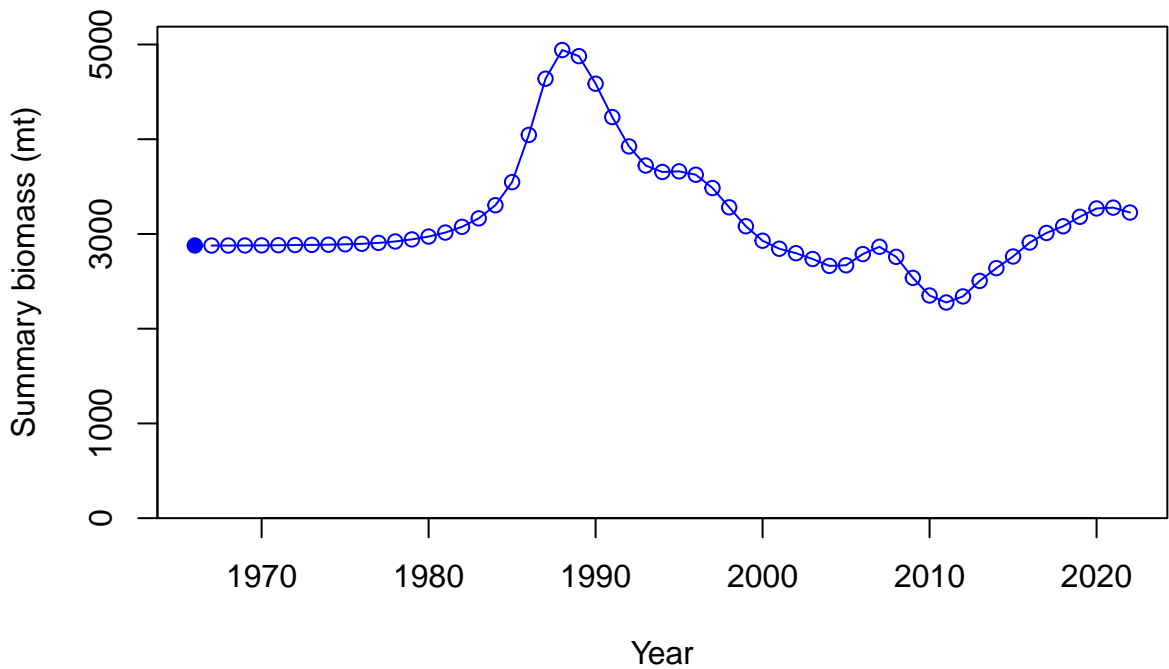


Relative spawning biomass:  $B/B_{MSY}$

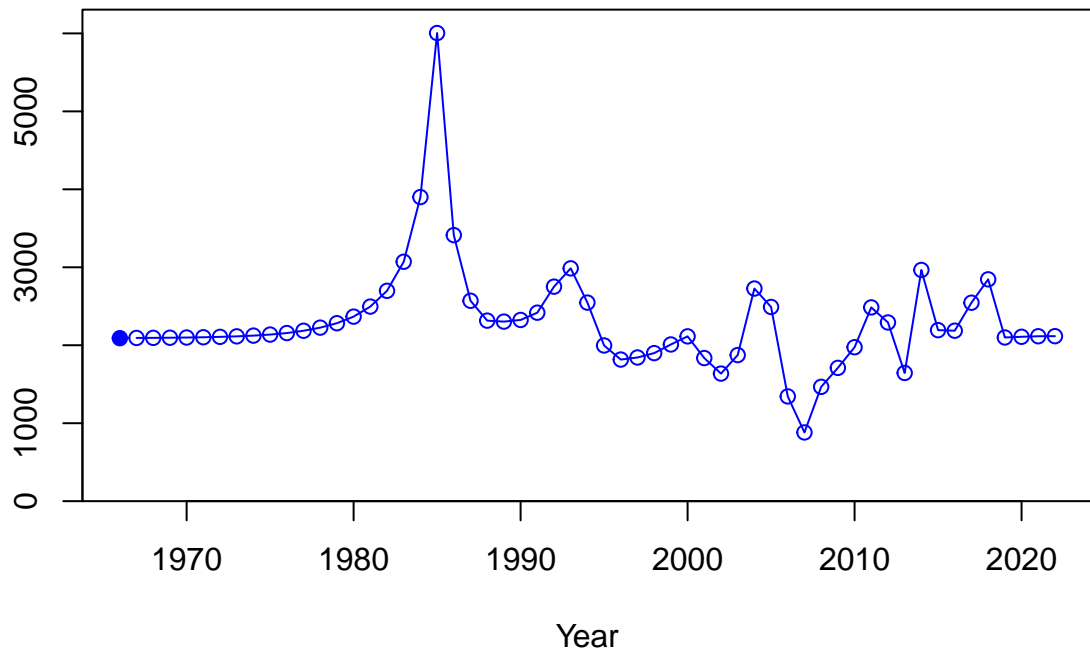




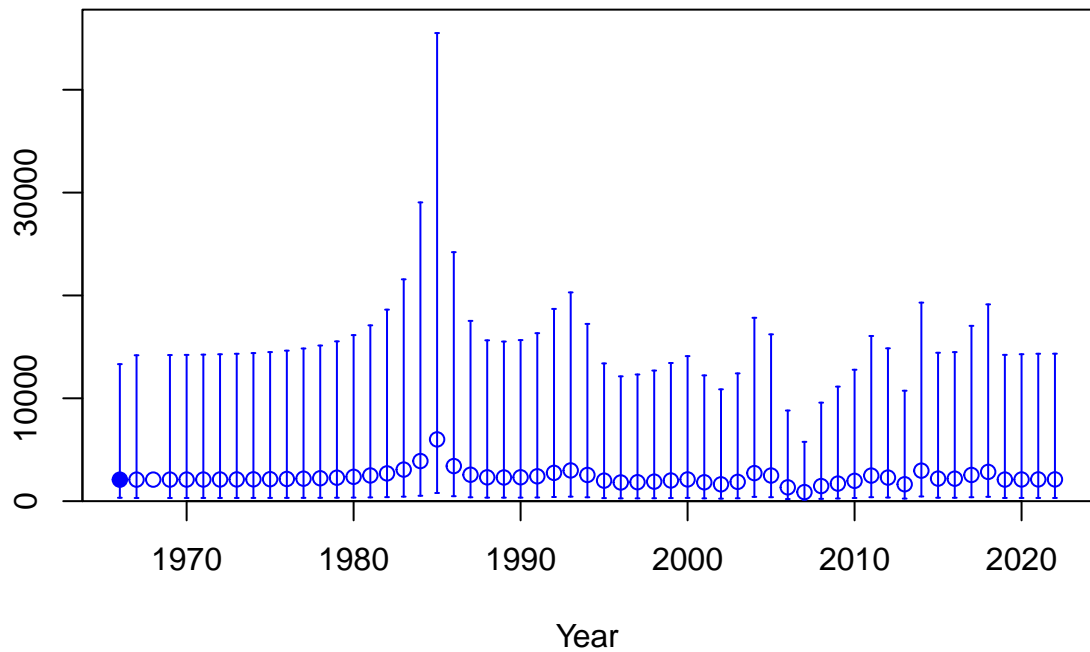




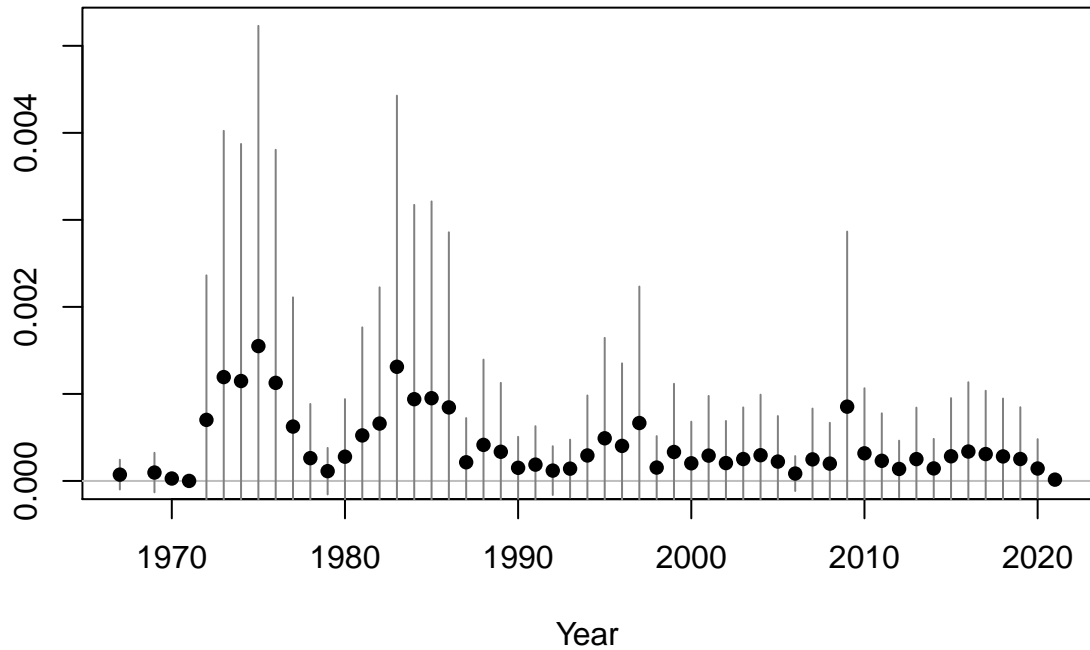
Age-0 recruits (1,000s)

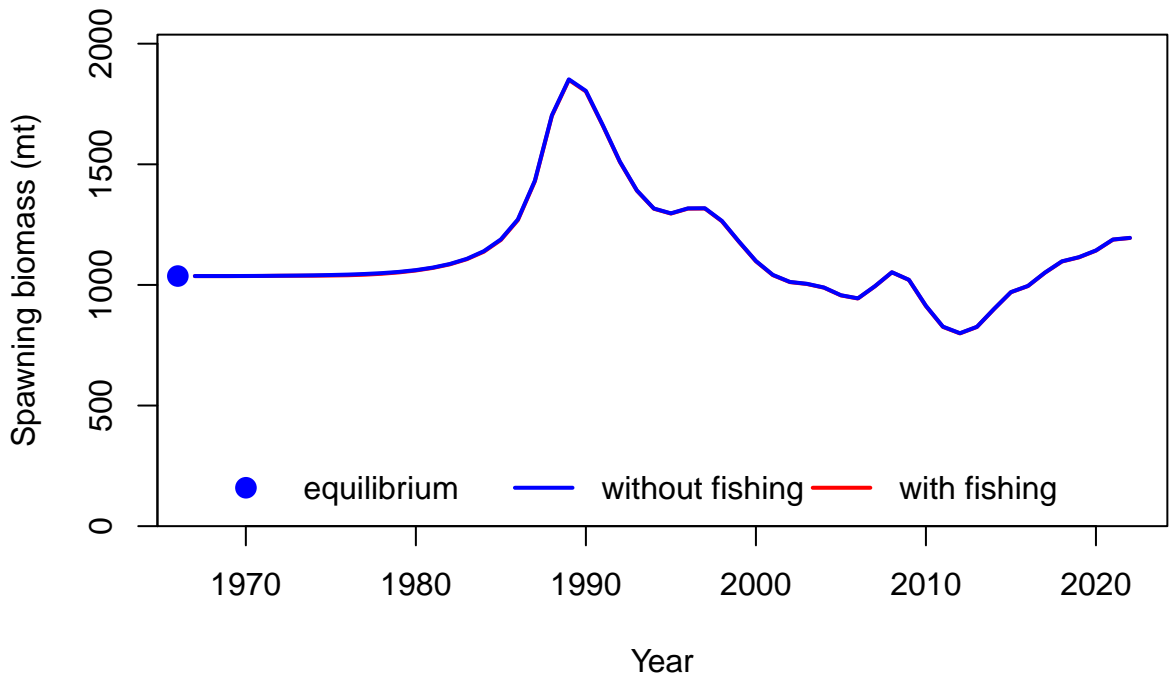


Age-0 recruits (1,000s)

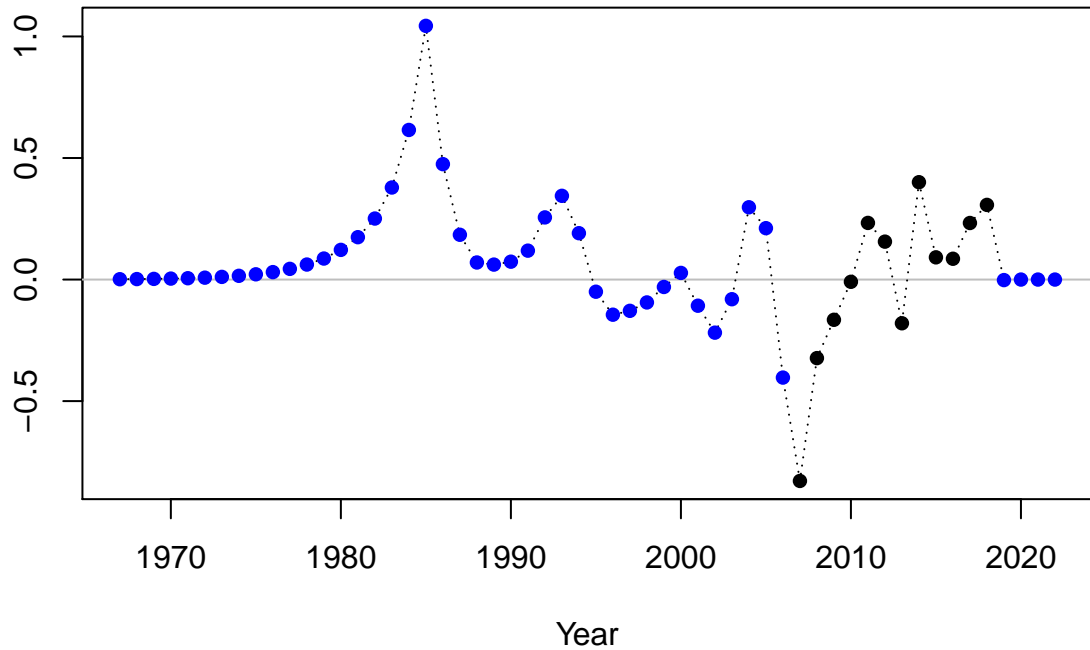


Summary Fishing Mortality





Log recruitment deviation



Log recruitment deviation

2  
1  
0  
-1

1970

1980

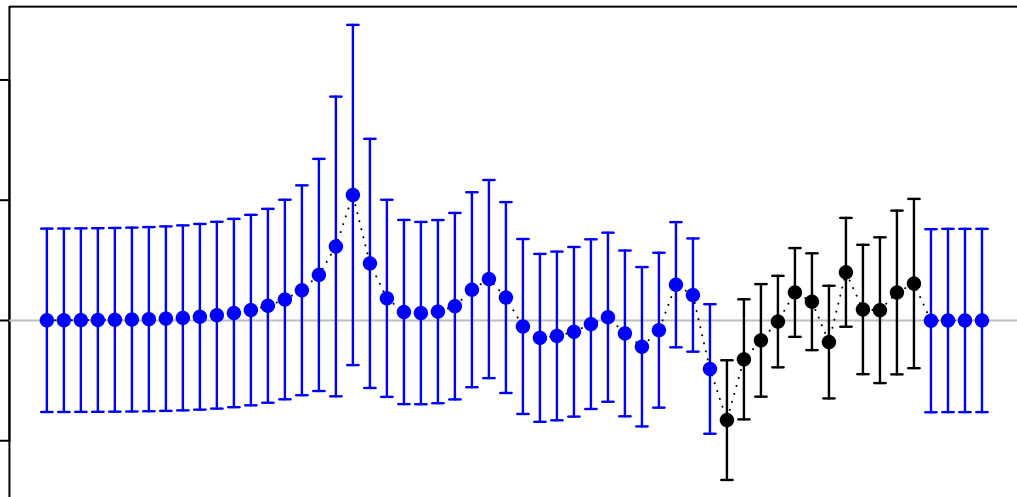
1990

2000

2010

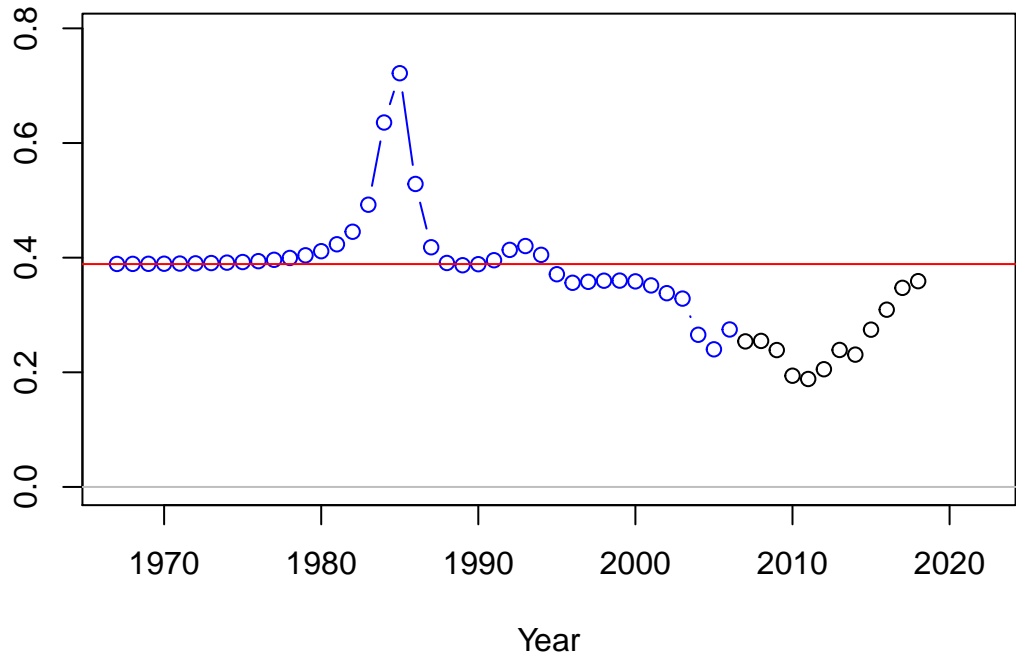
2020

Year

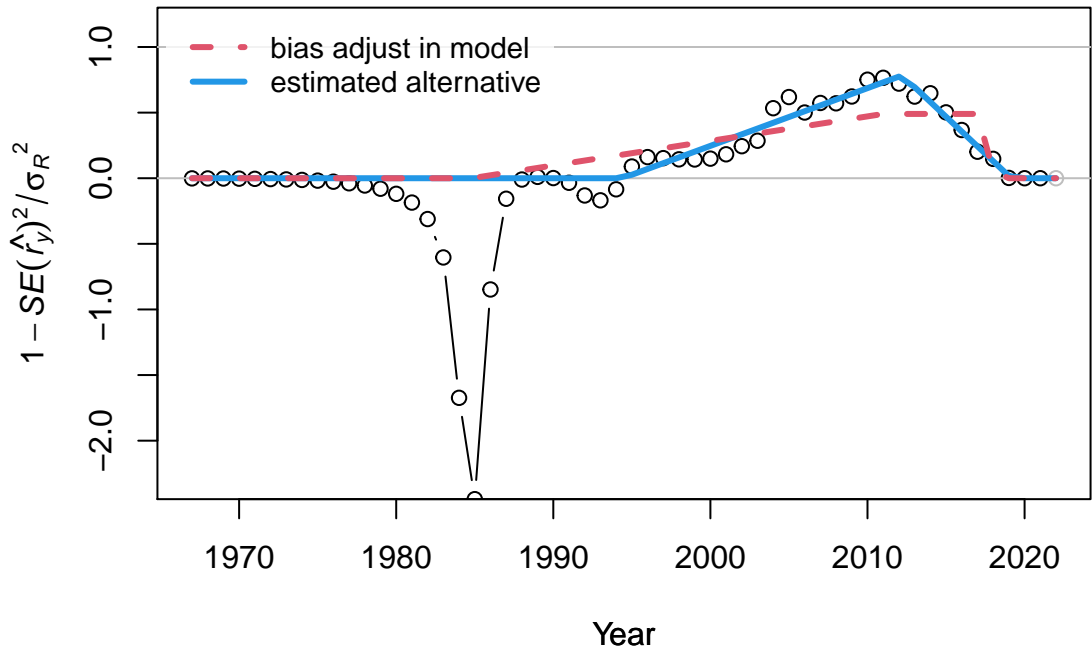


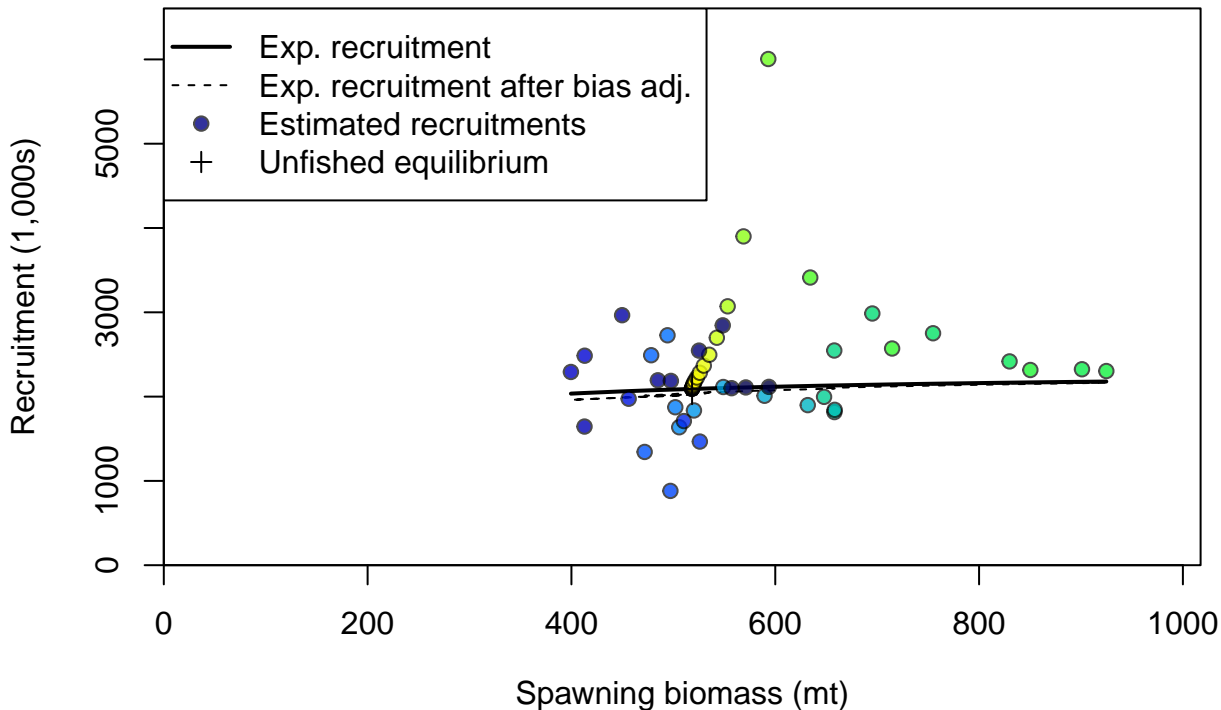
## Recruitment deviation variance

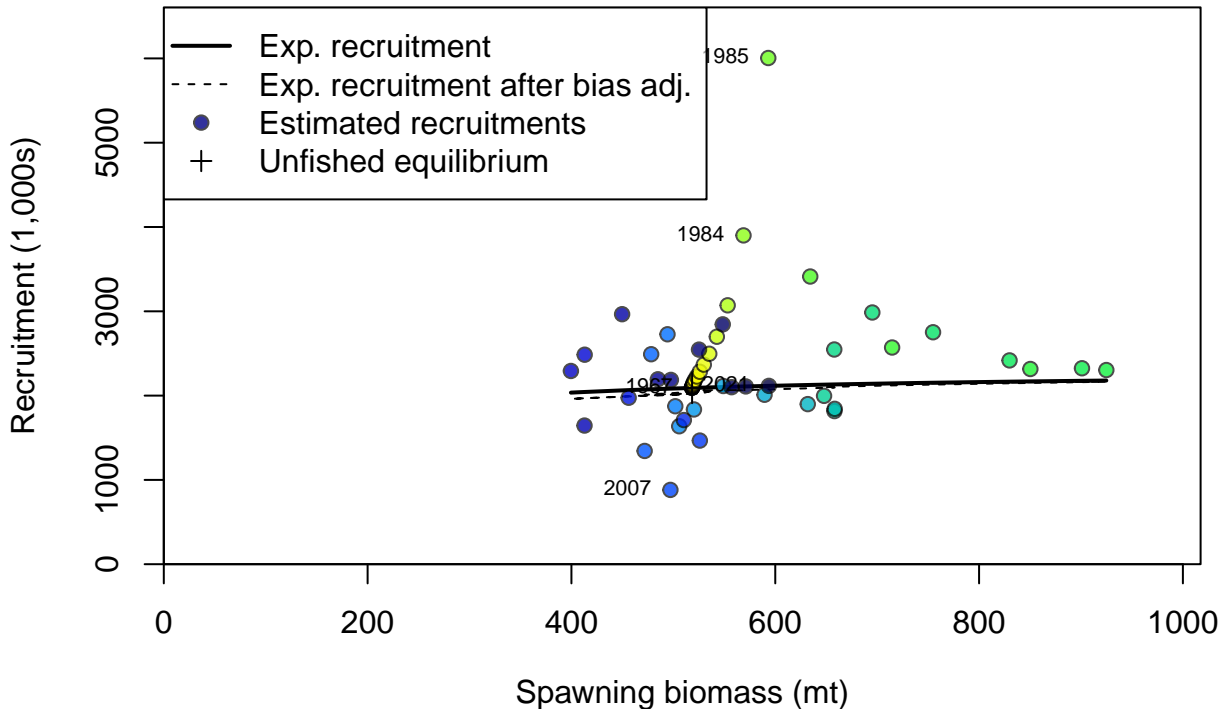
Asymptotic standard error estimate



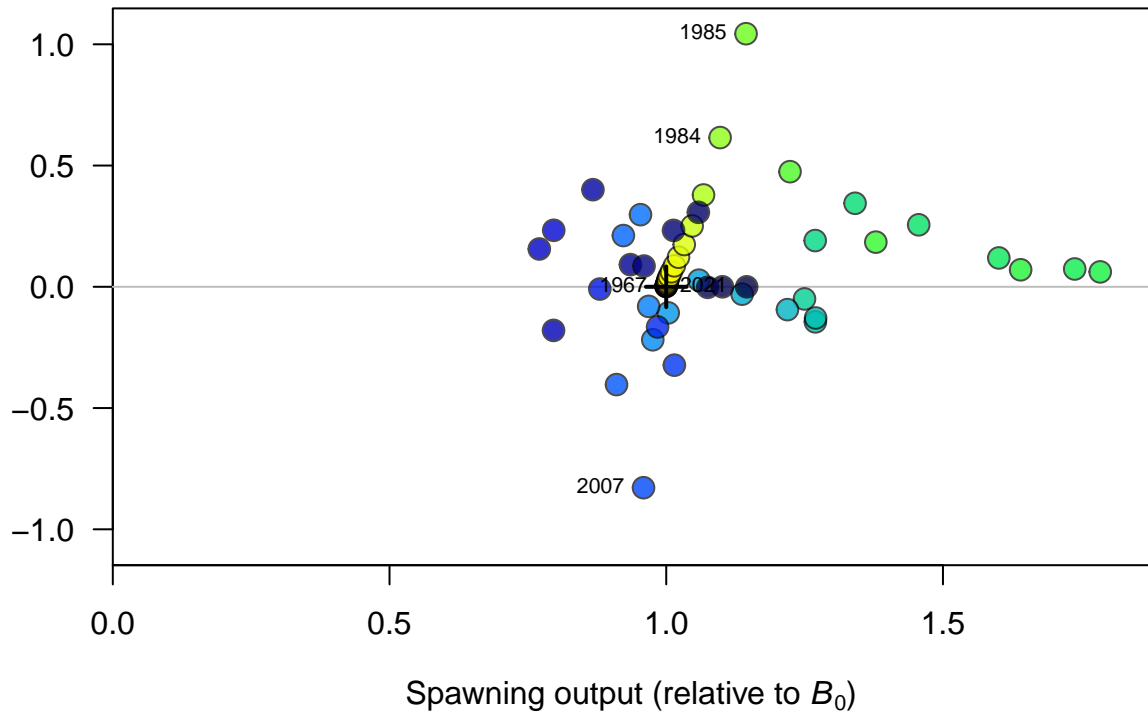


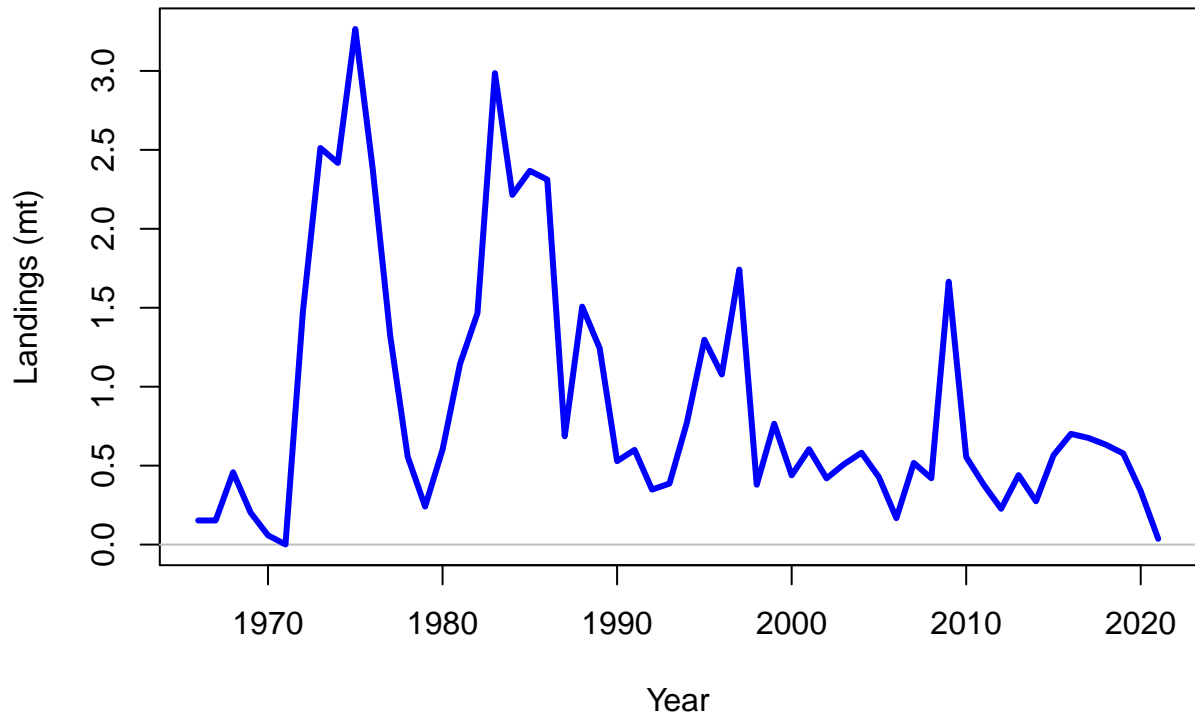


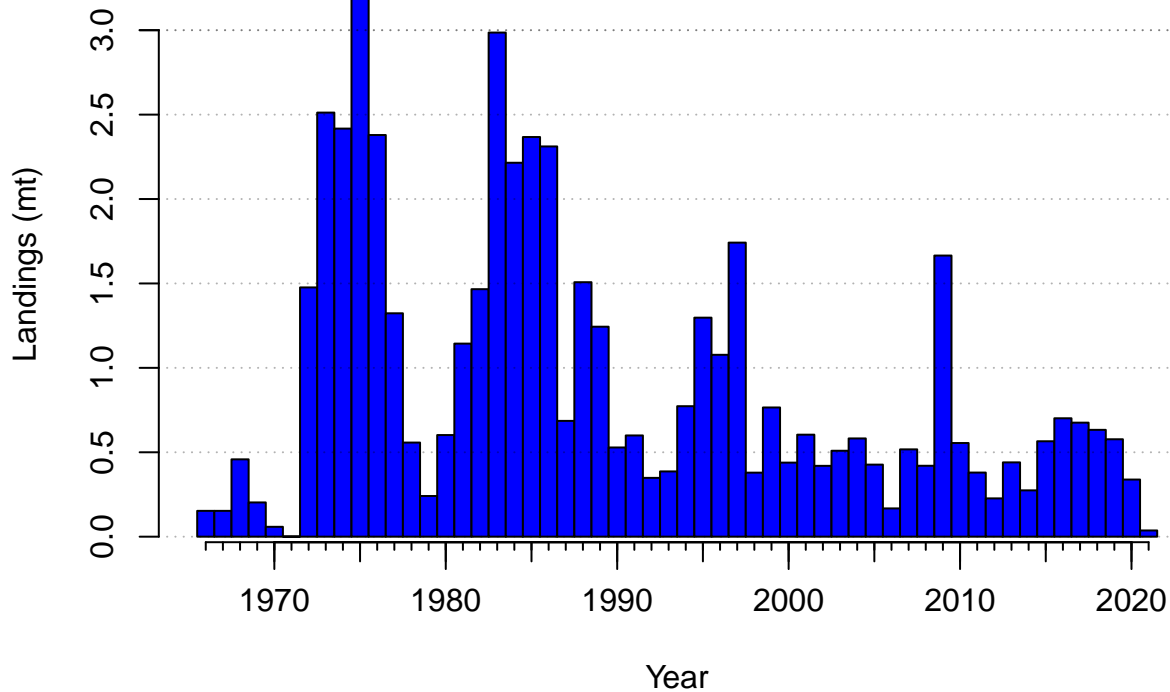




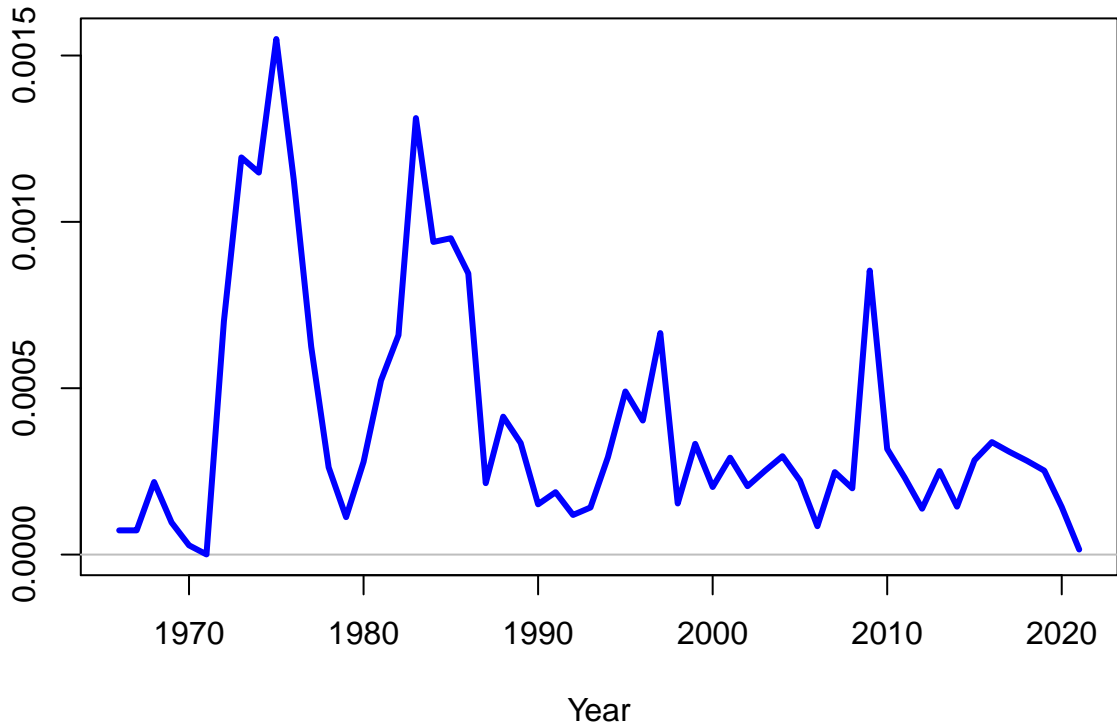
Log recruitment deviation



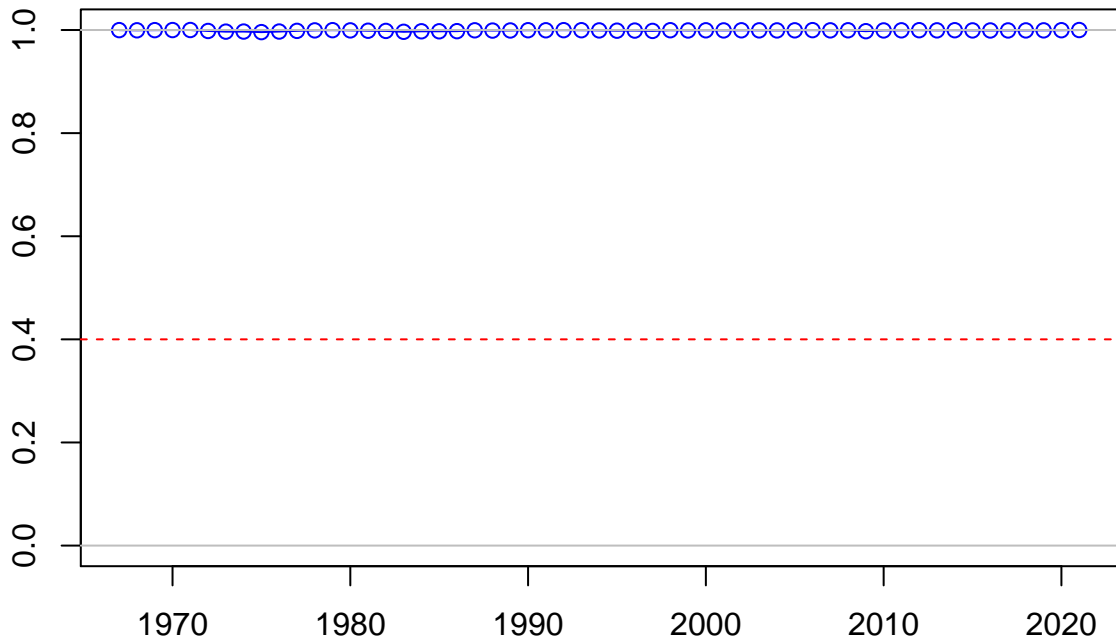




Continuous F



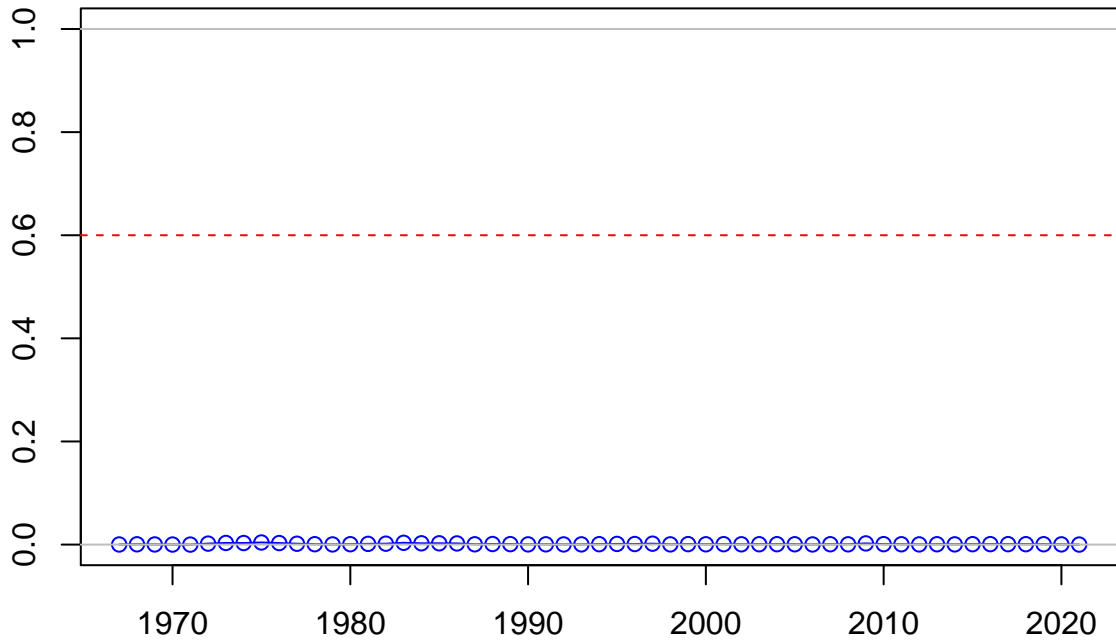
SPR



Year

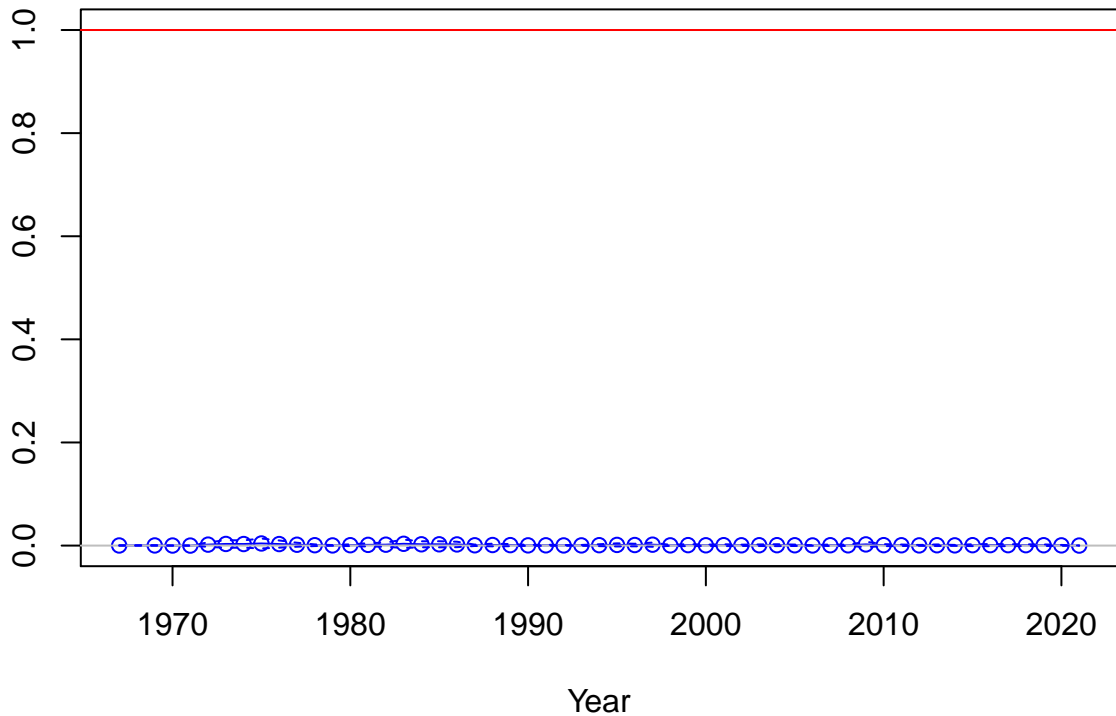


1-SPR

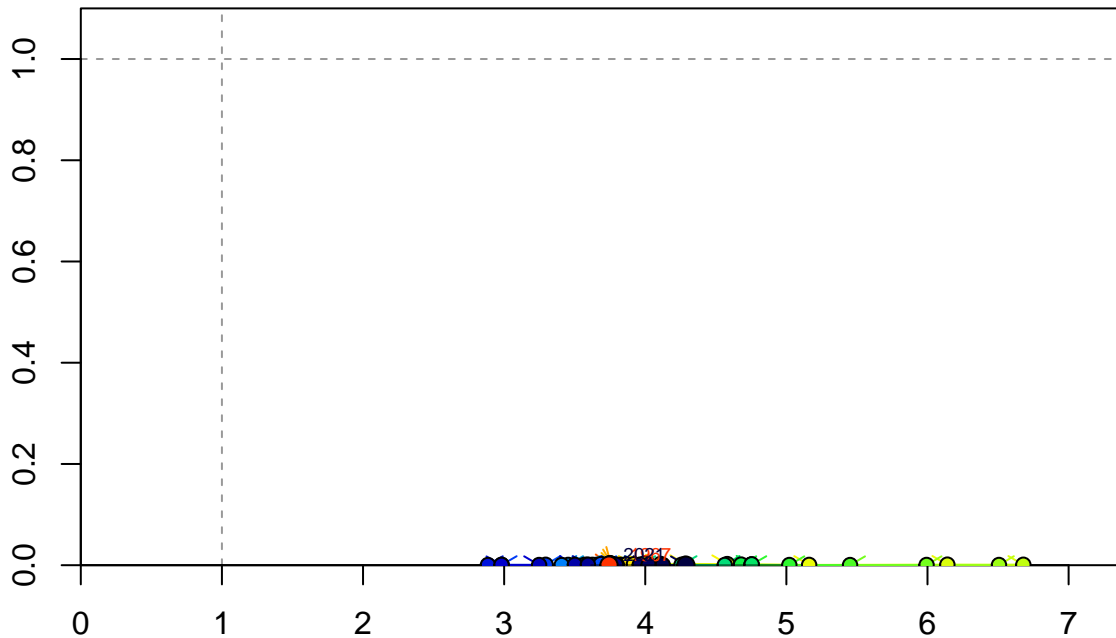


Year

Fishing intensity: 1-SPR

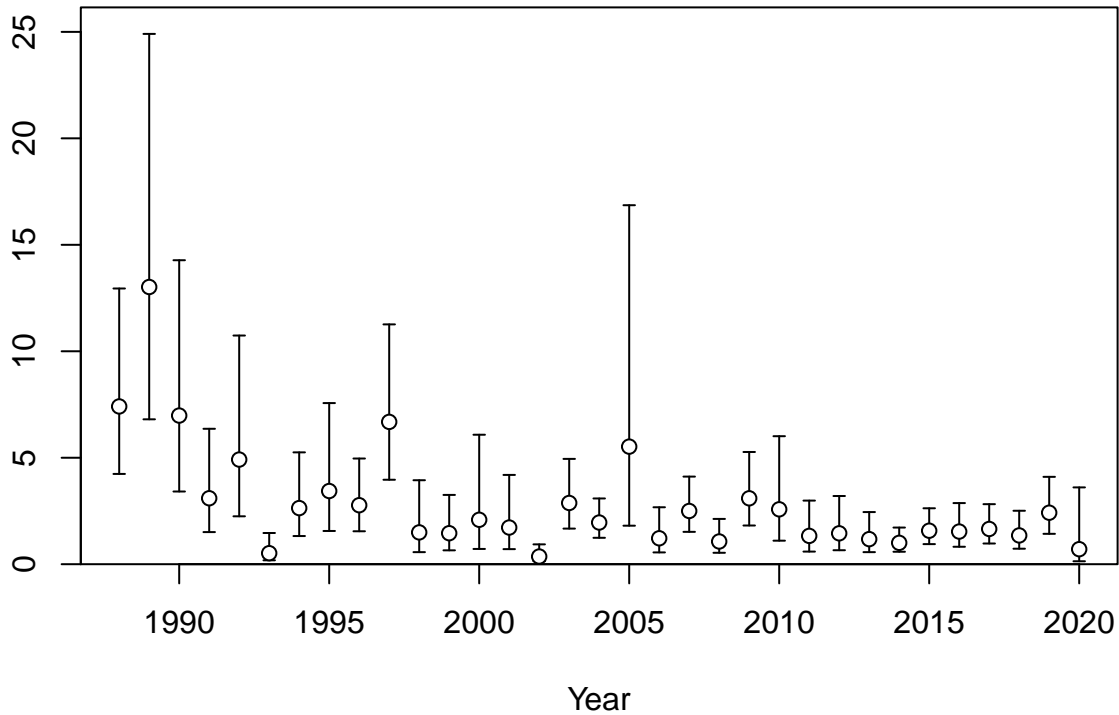


Fishing intensity: 1-SPR

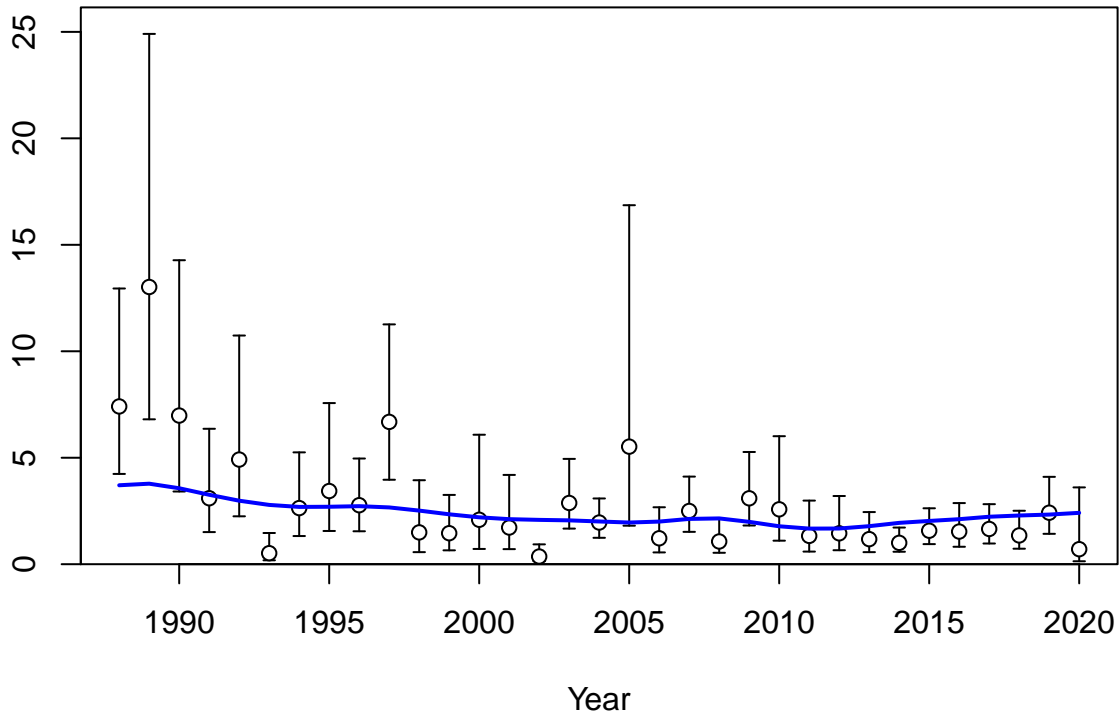


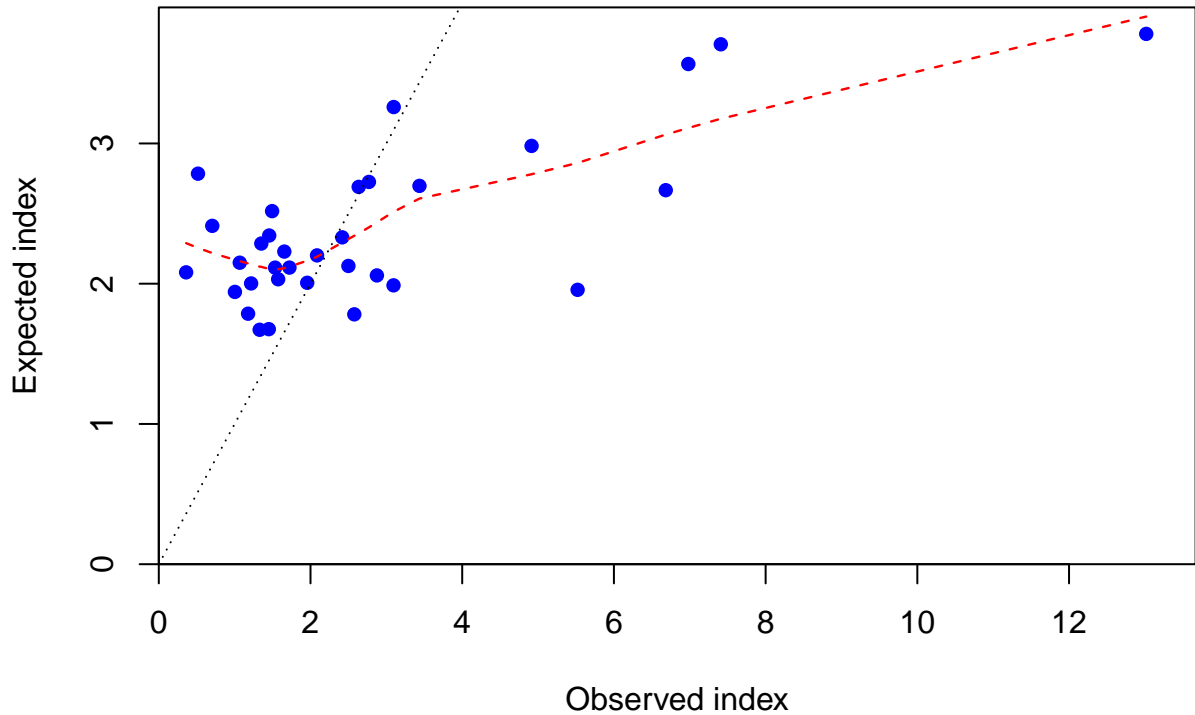
Relative spawning output:  $B/B_{MSY}$

Index

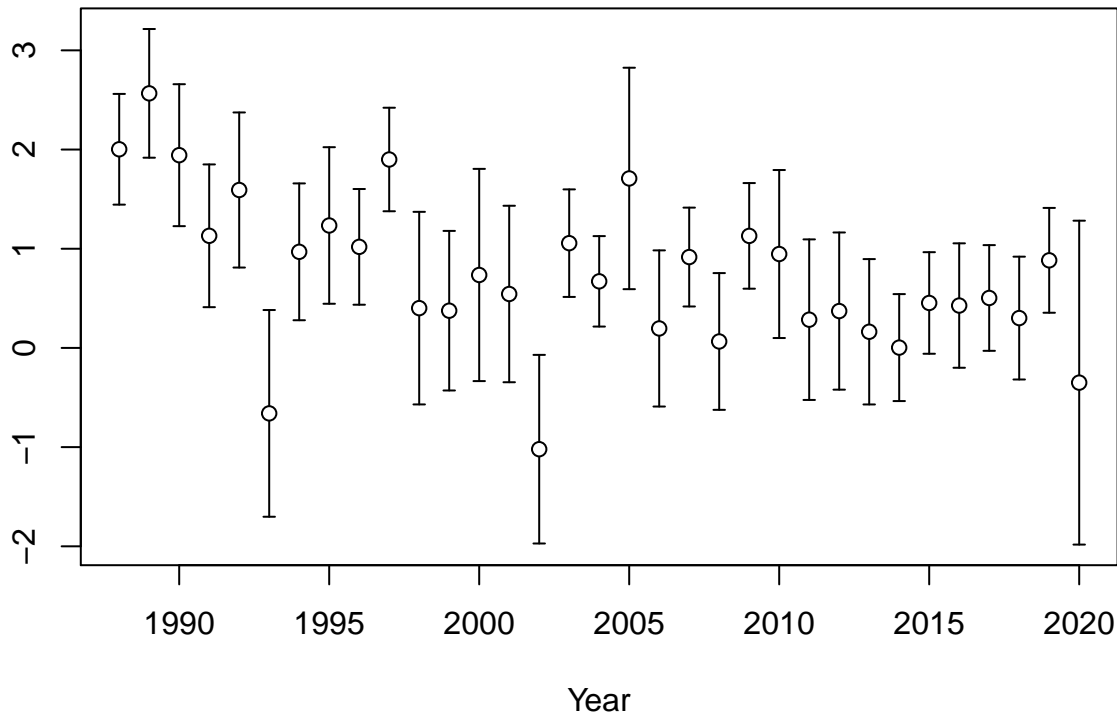


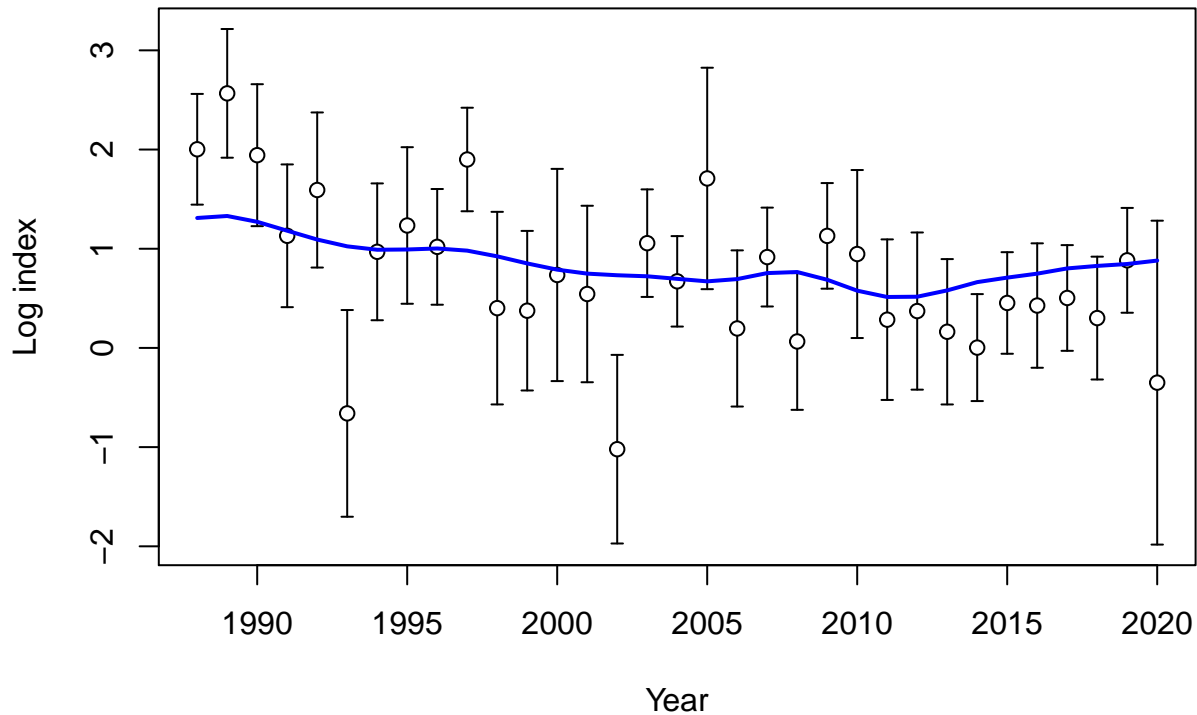
Index



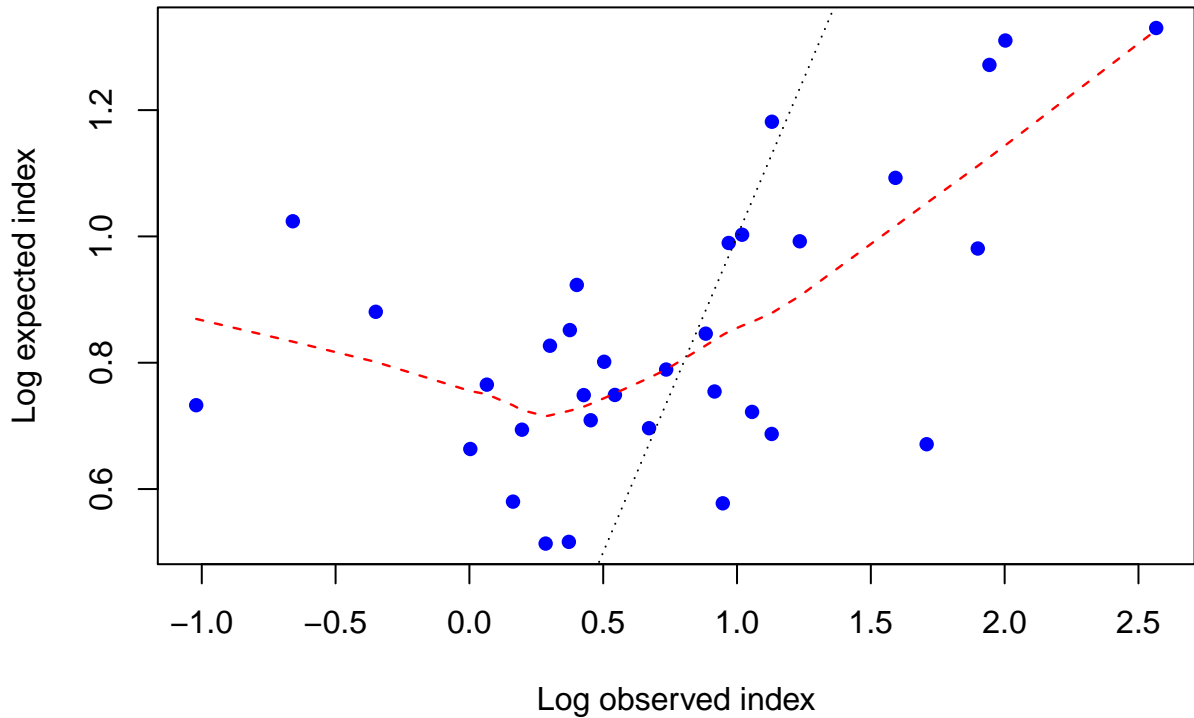


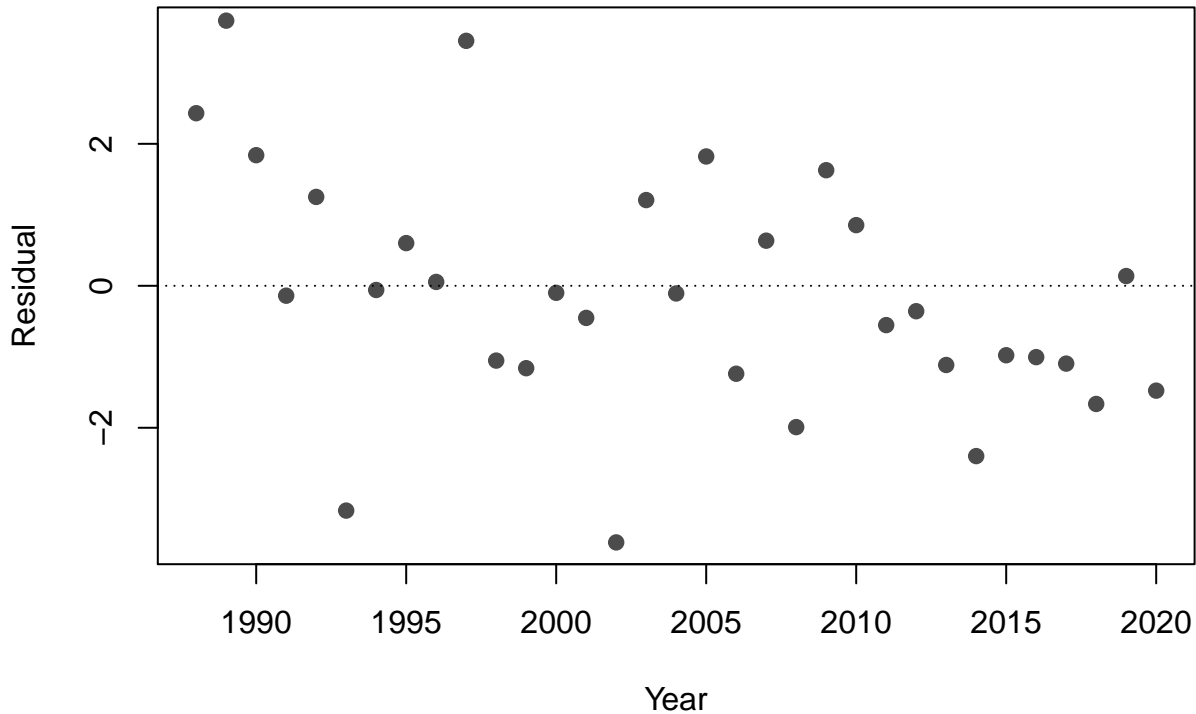
Log index

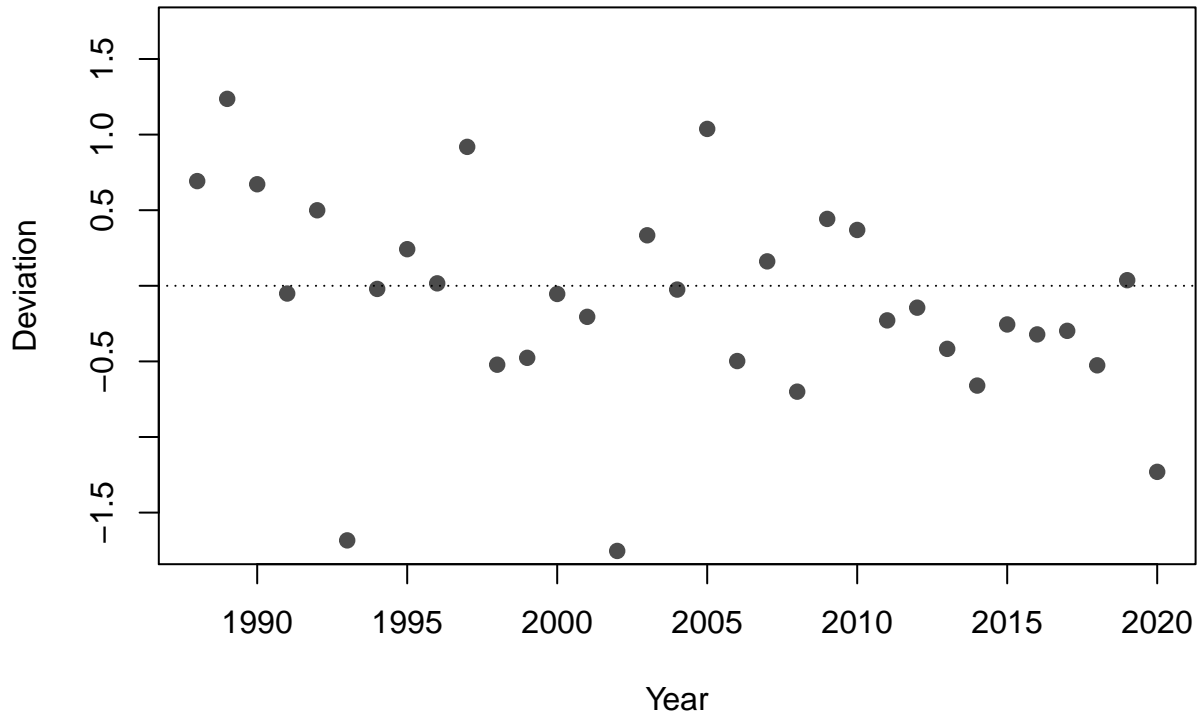


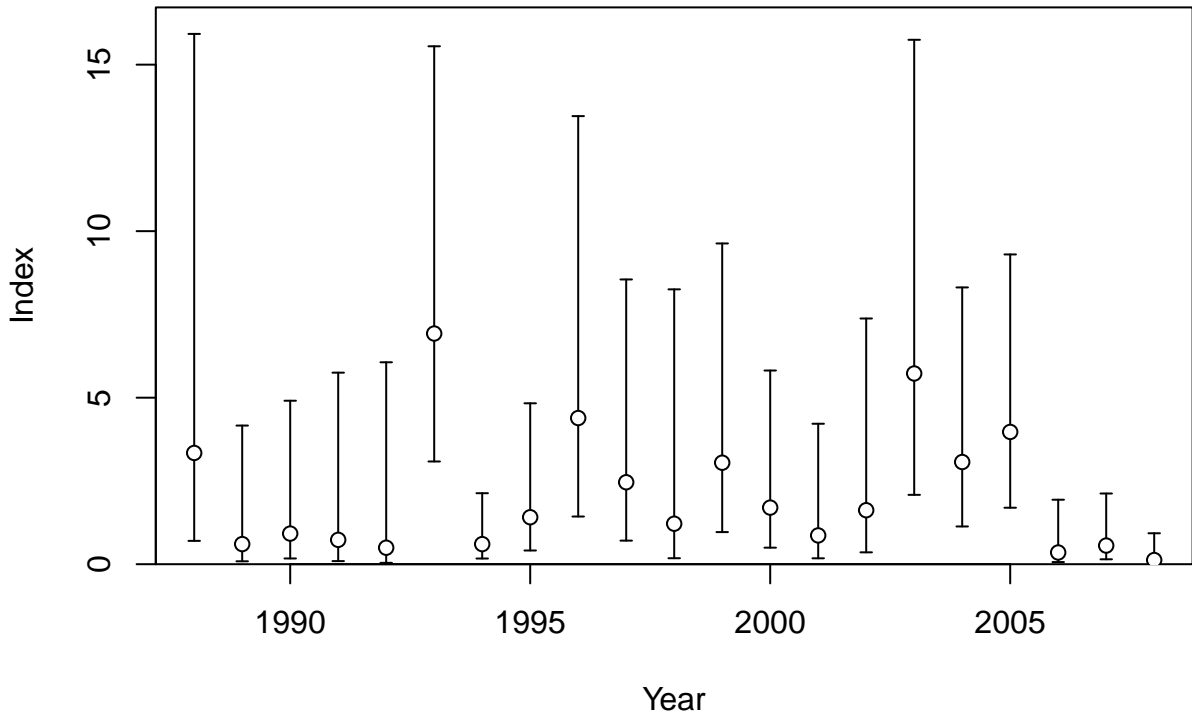


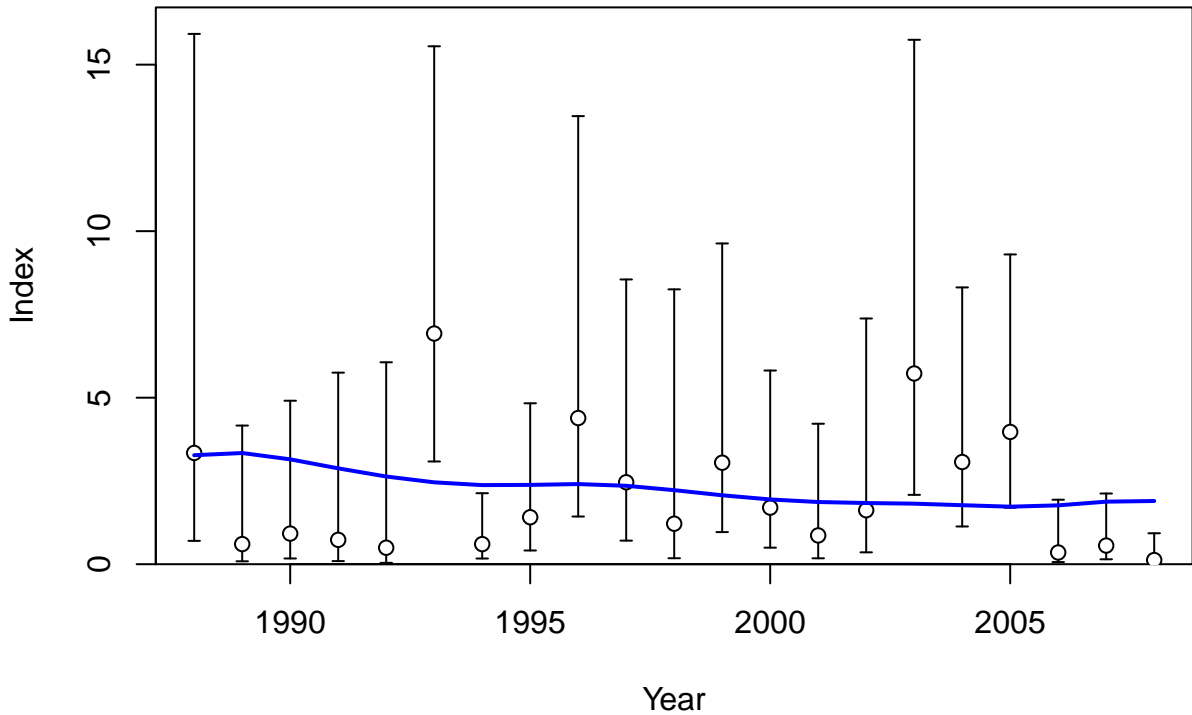


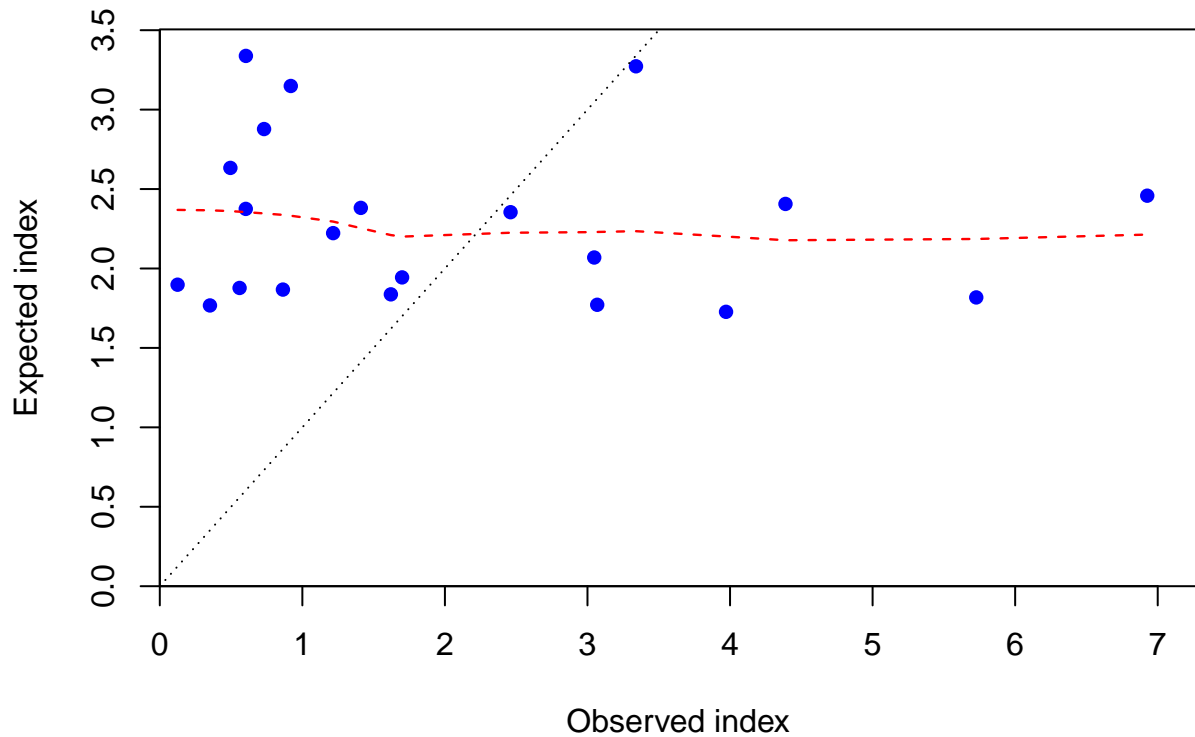




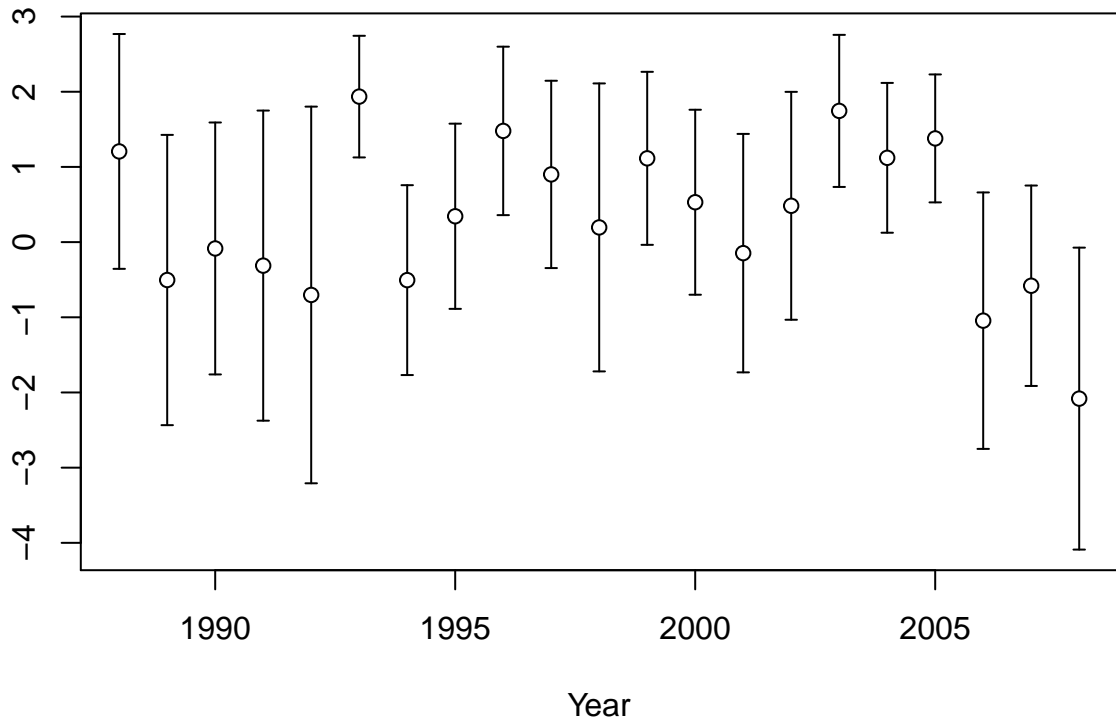




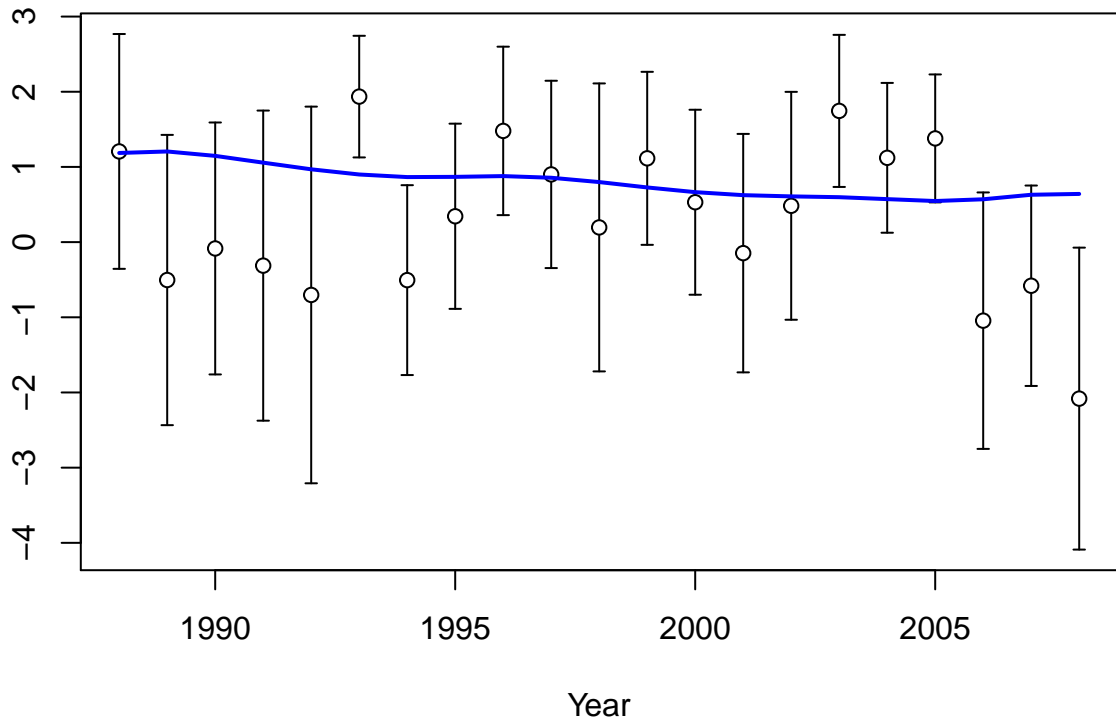




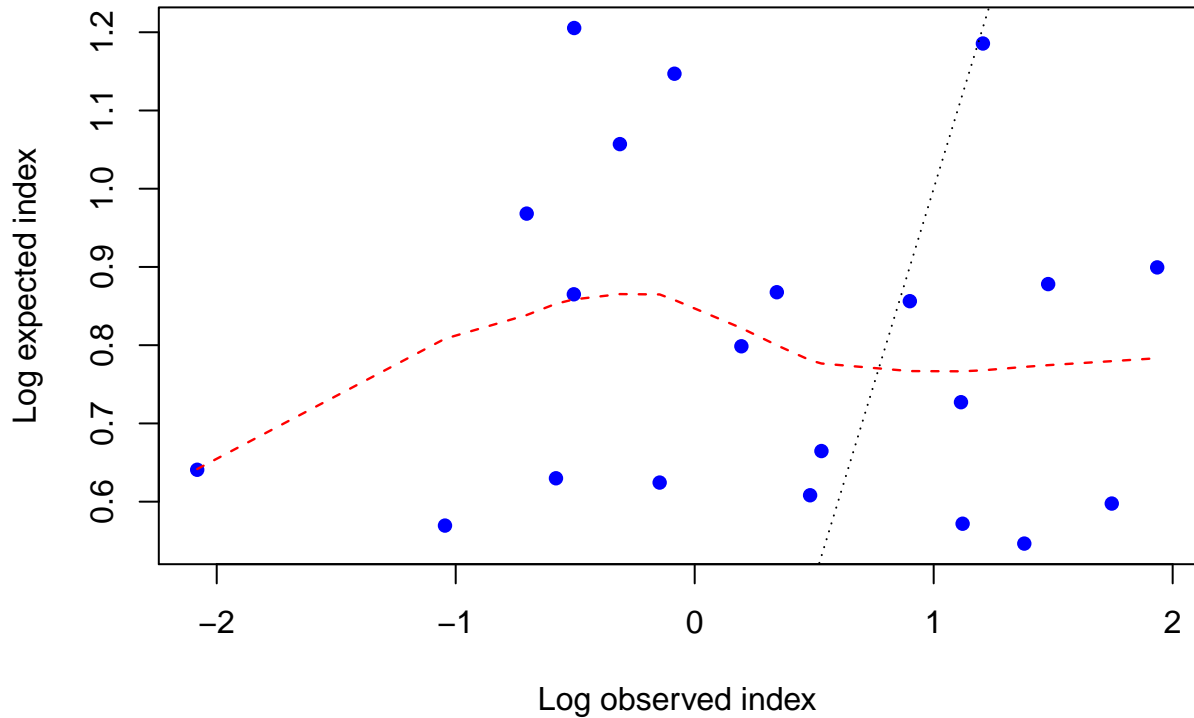
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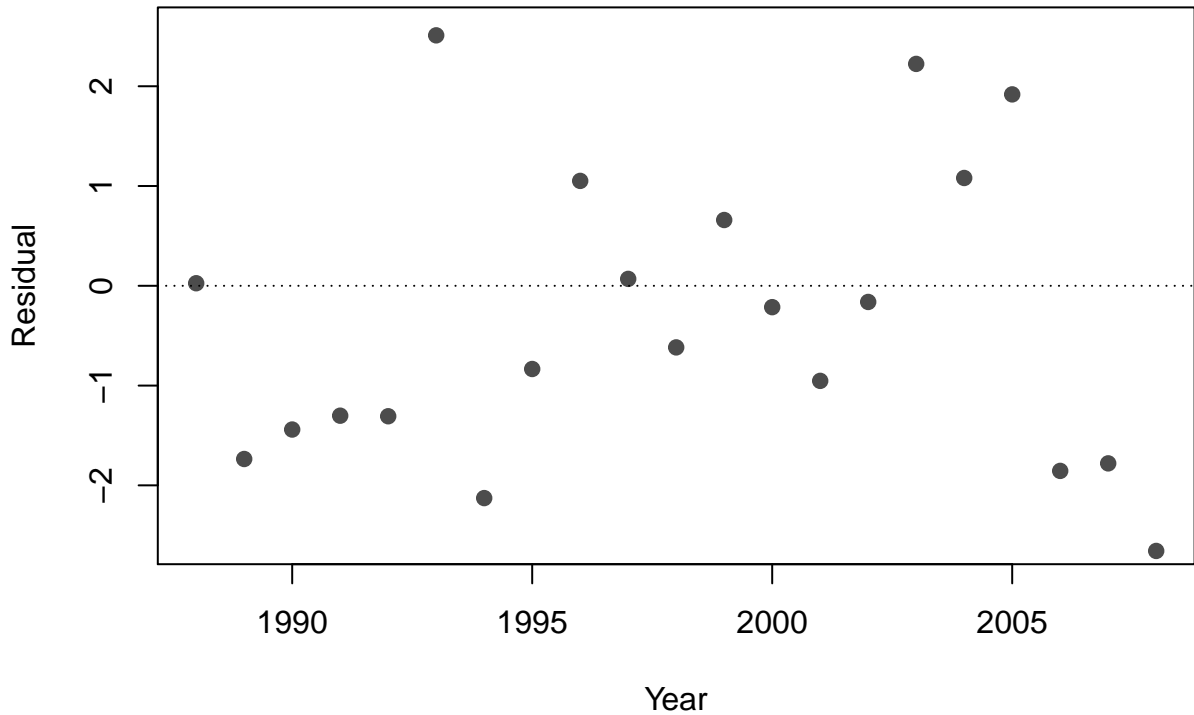


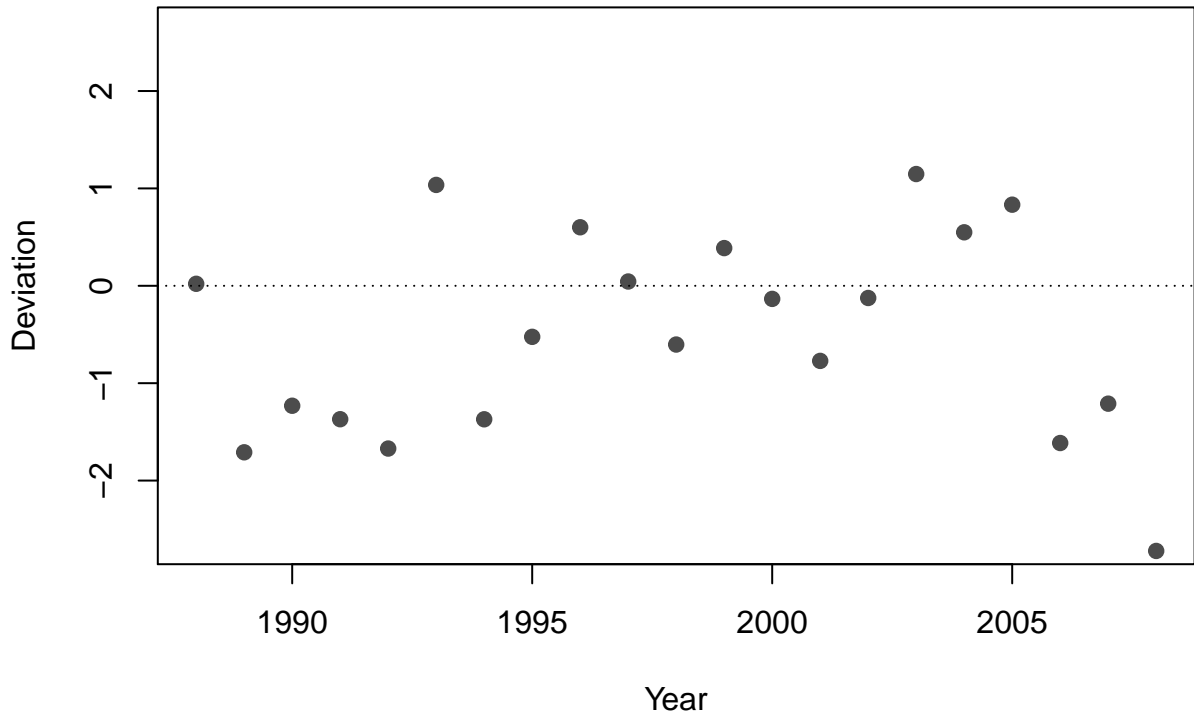
Log index

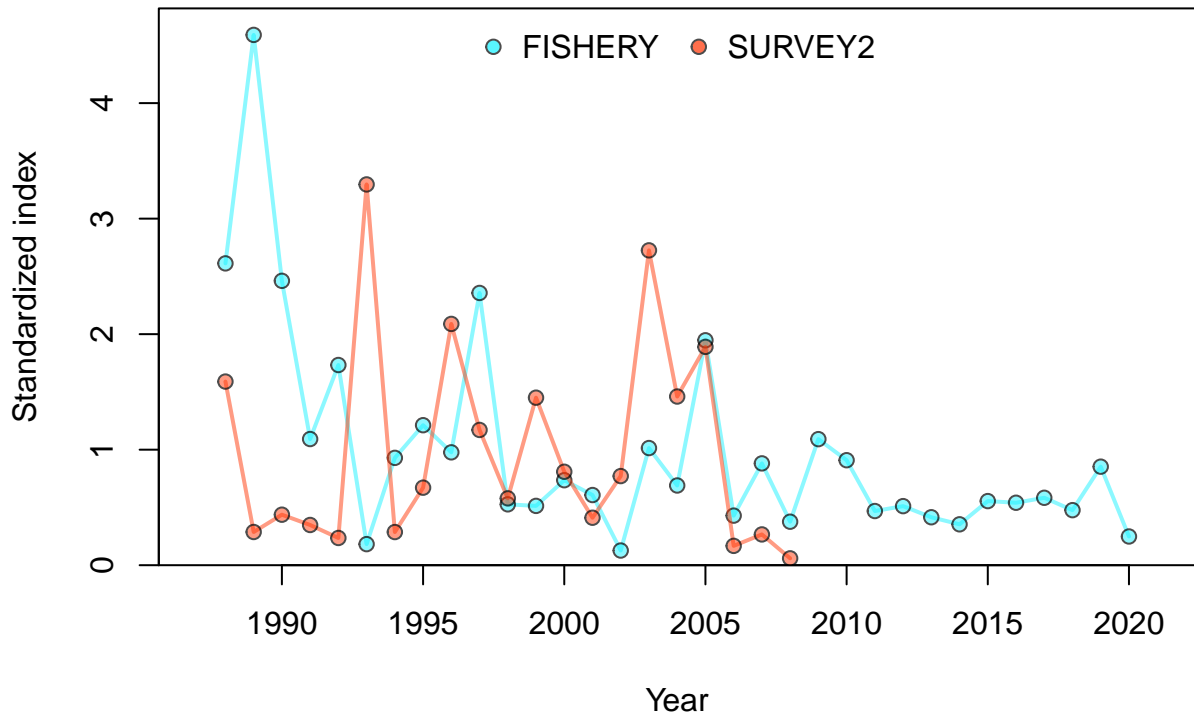




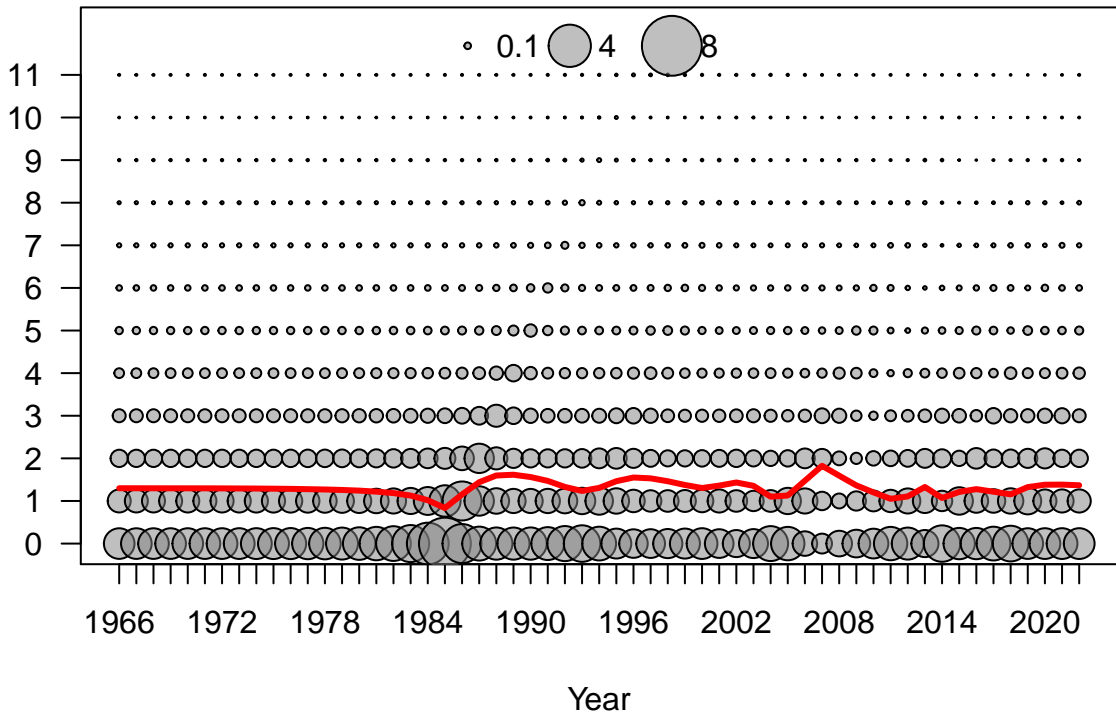




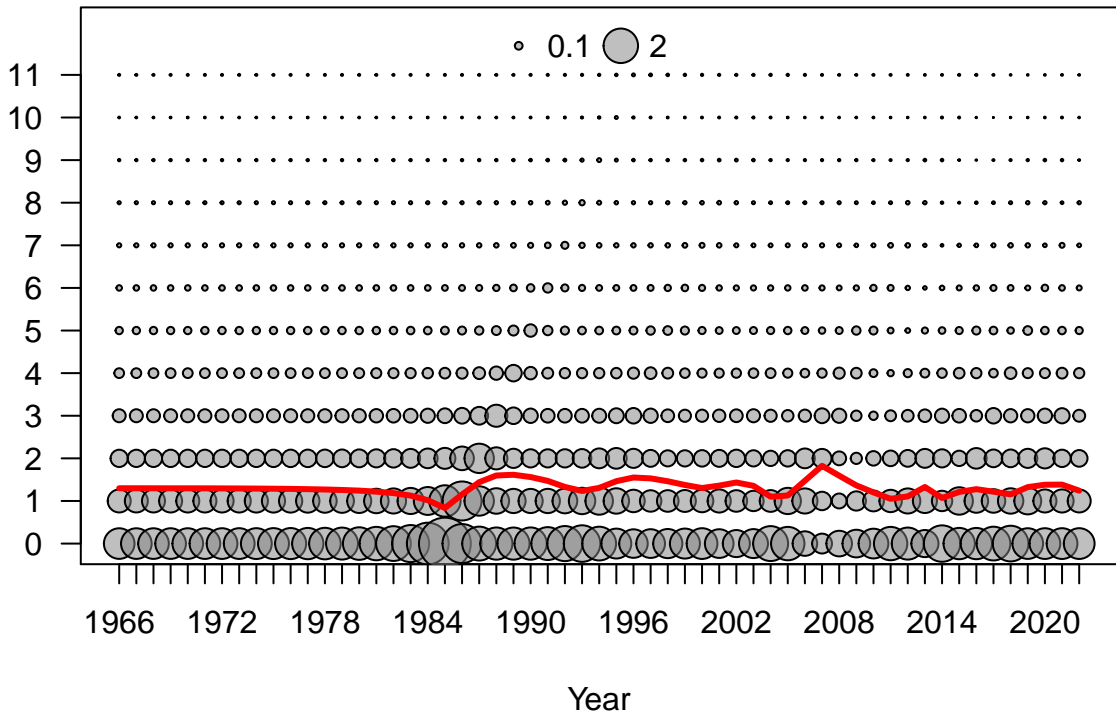


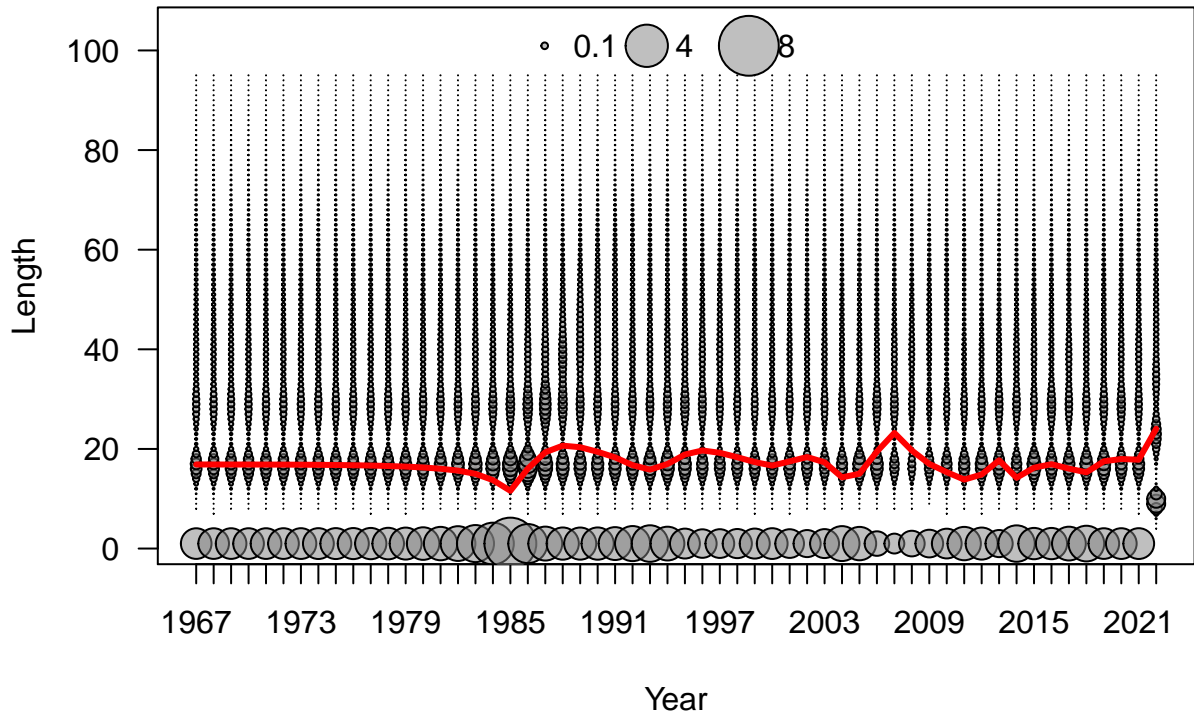


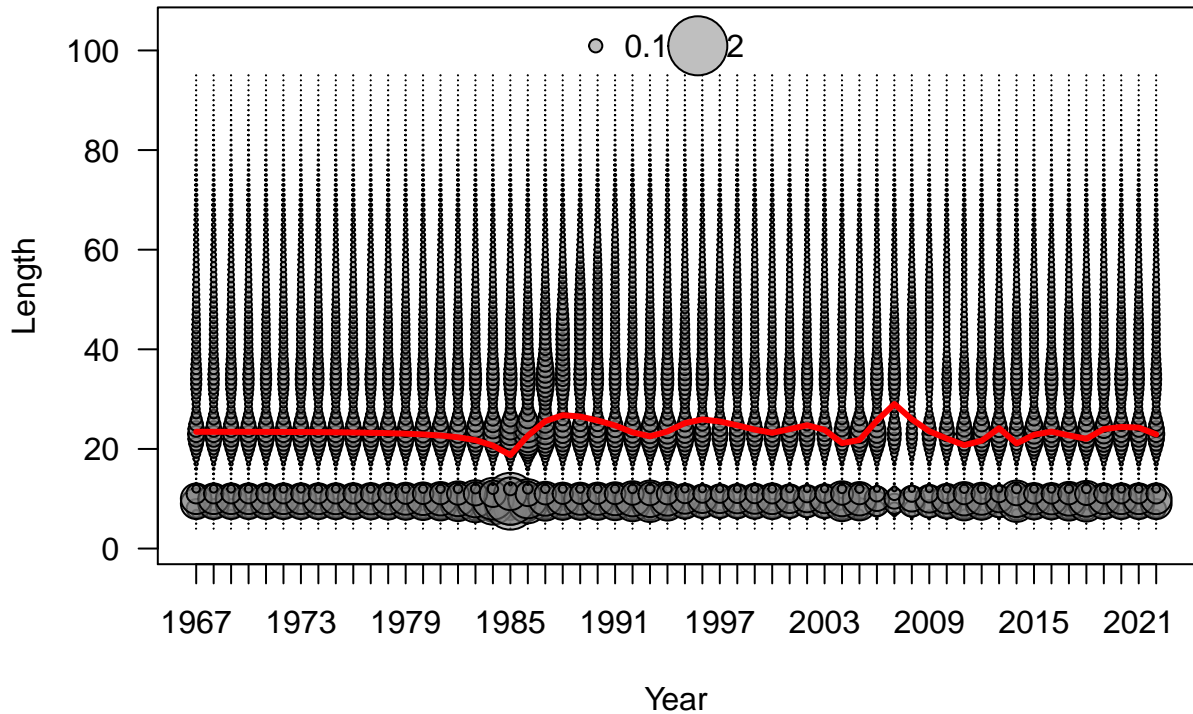
Age



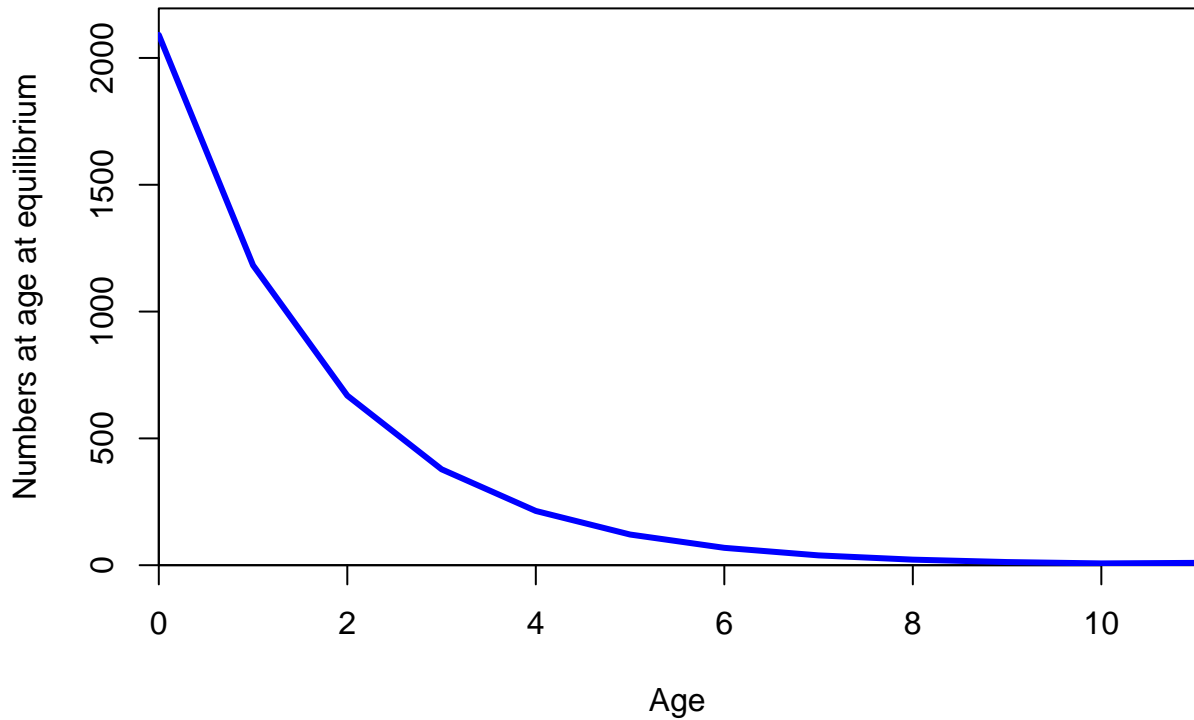
Age





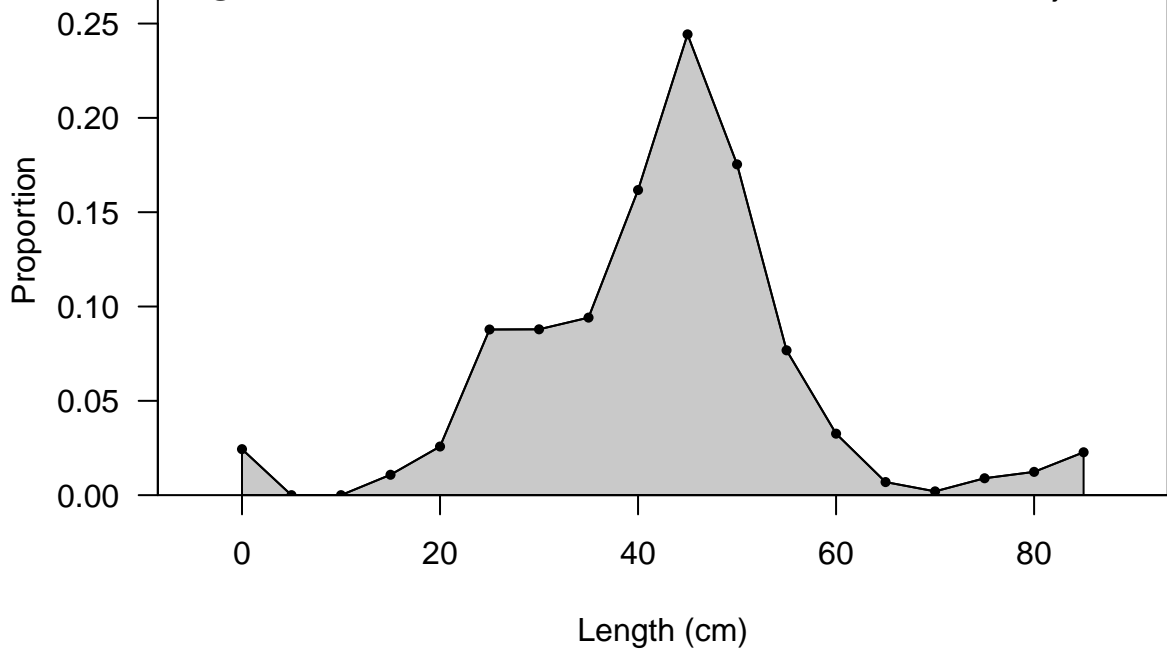


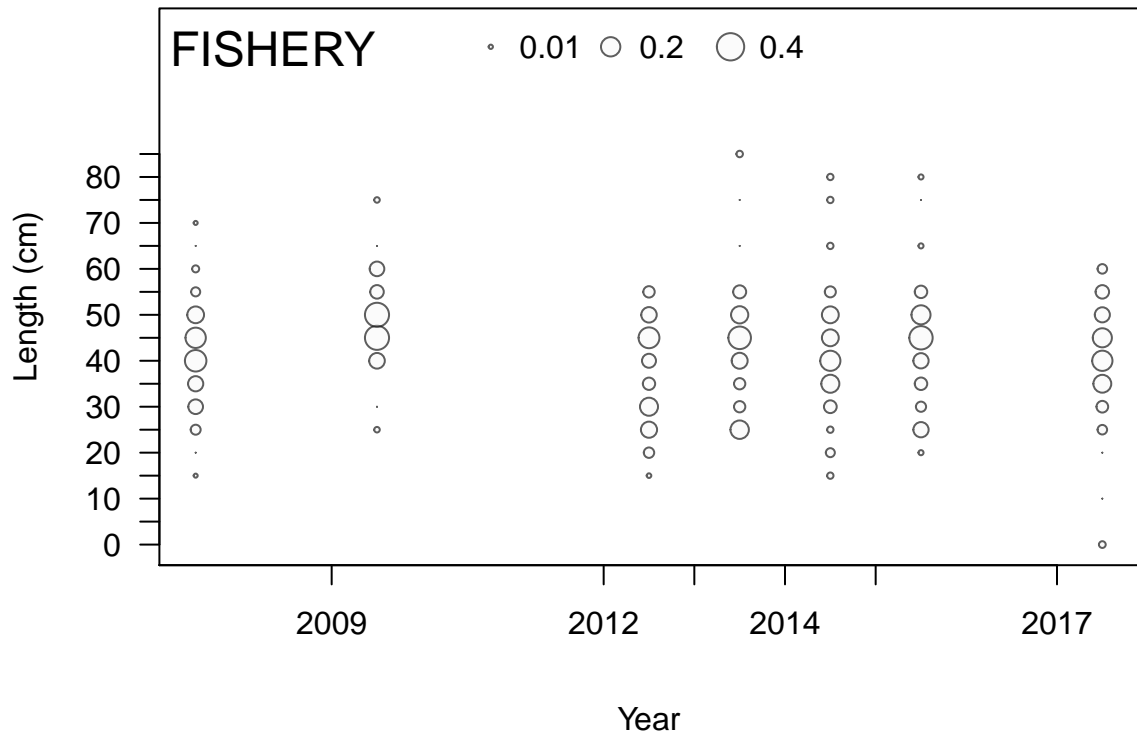




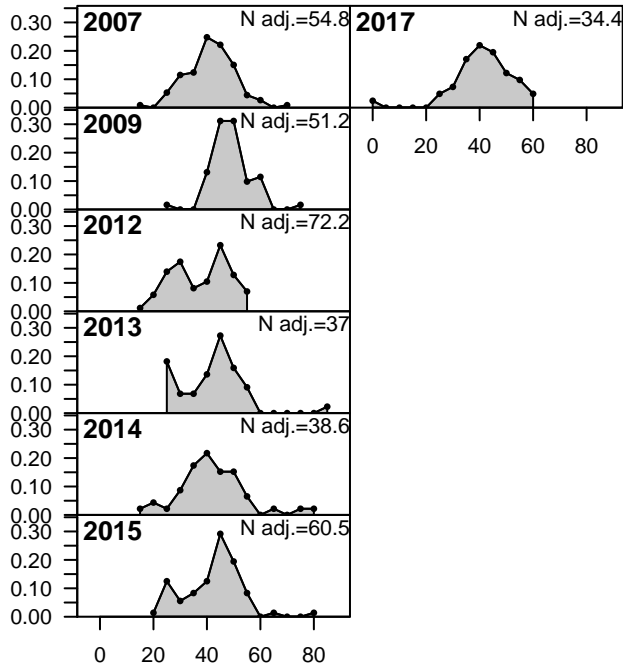
# FISHERY

Sum of N adj.=348.8

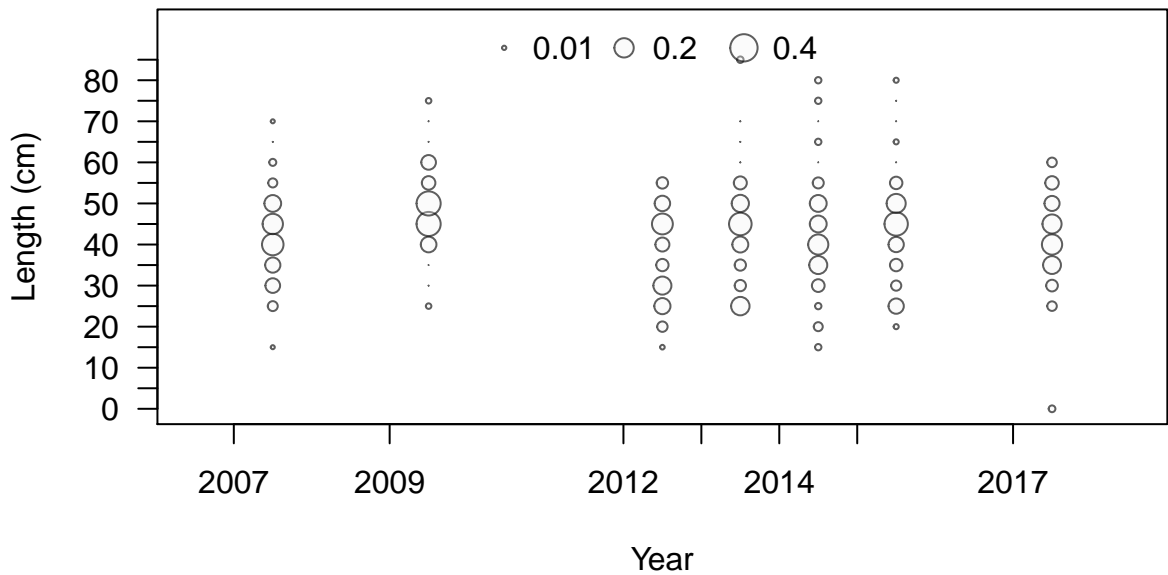




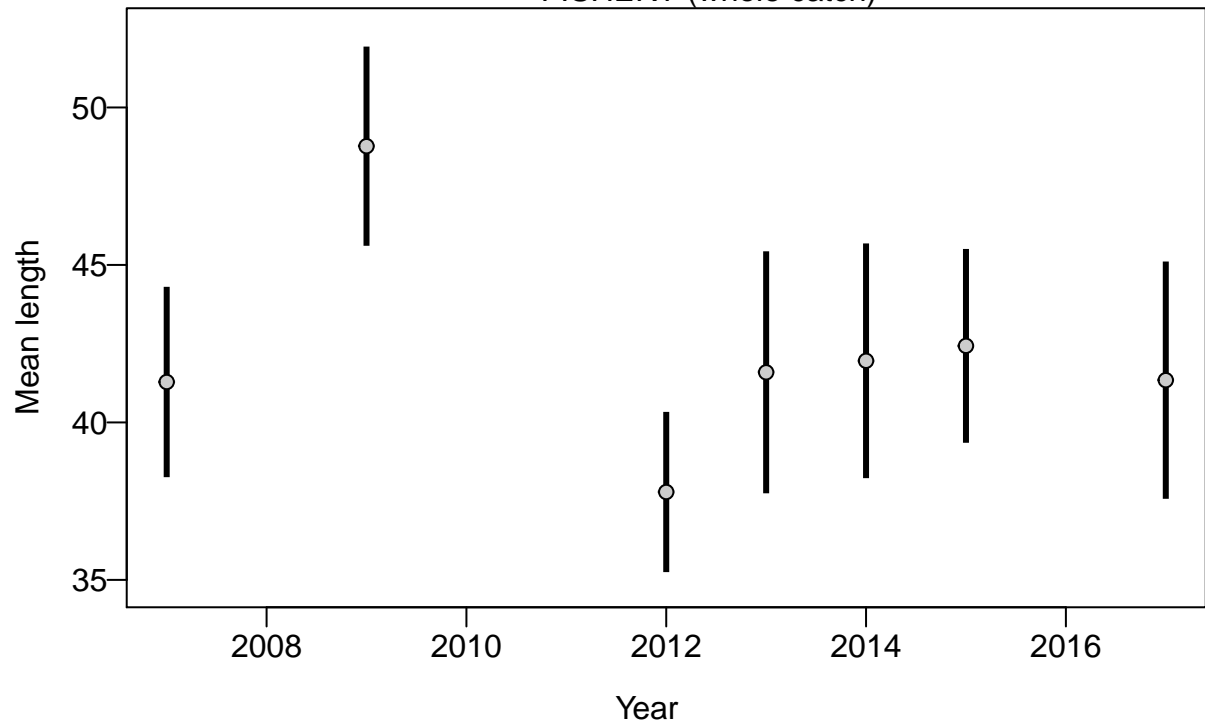
Proportion



Length (cm)

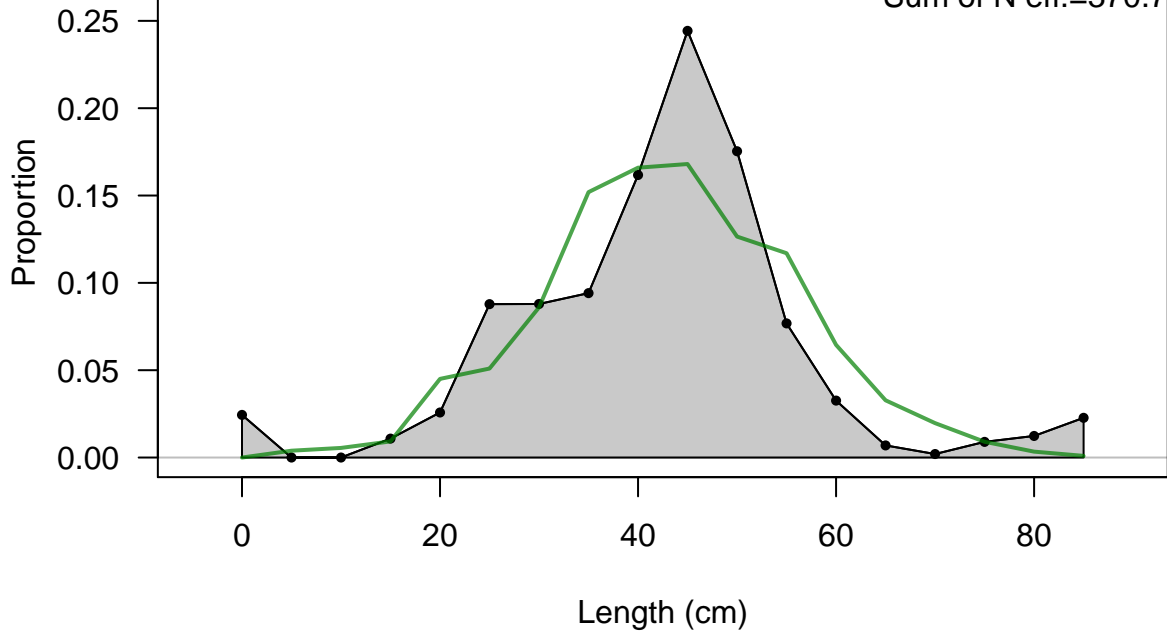


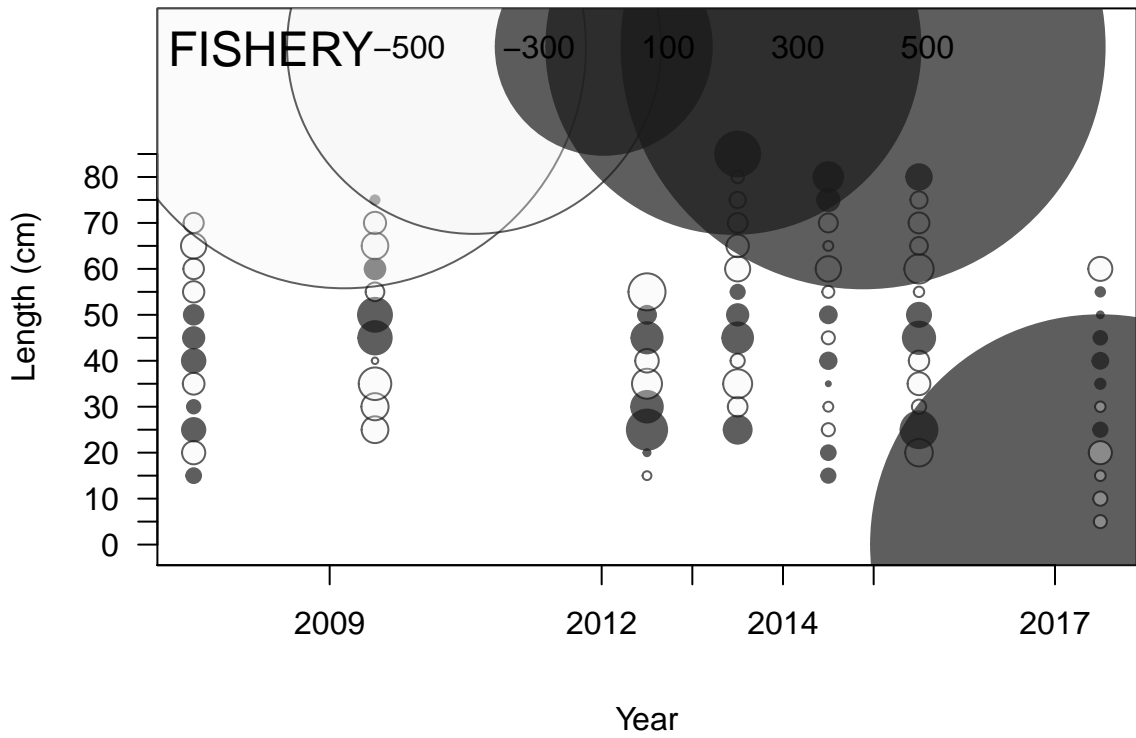
FISHERY (whole catch)



# FISHERY

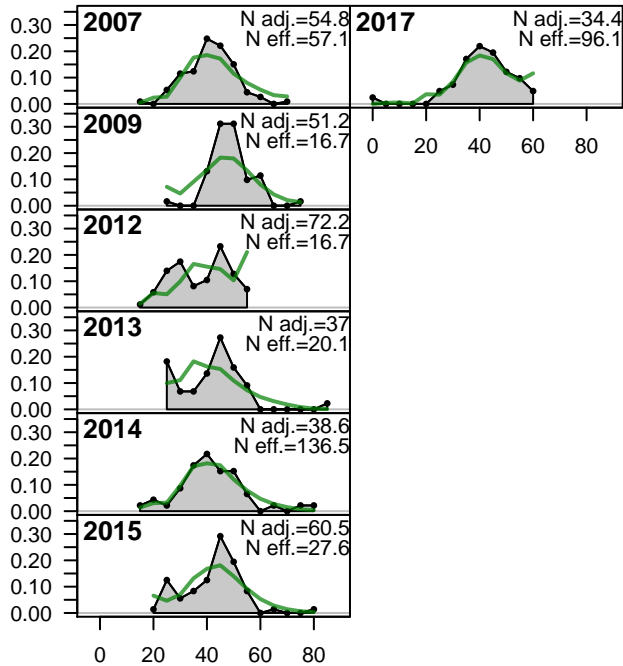
Sum of N adj.=348.8  
Sum of N eff.=370.7



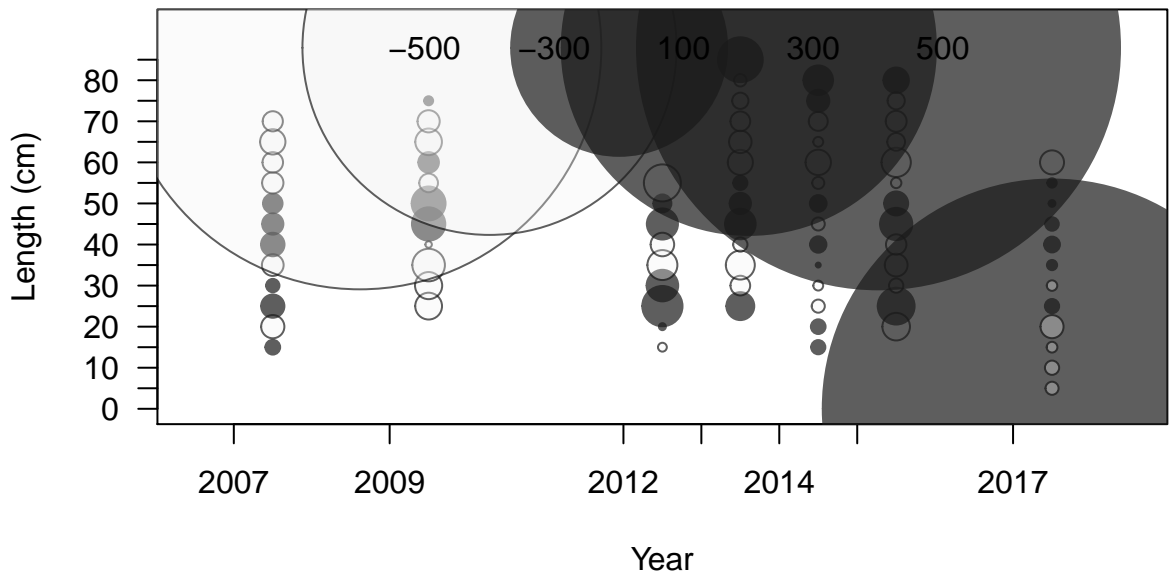


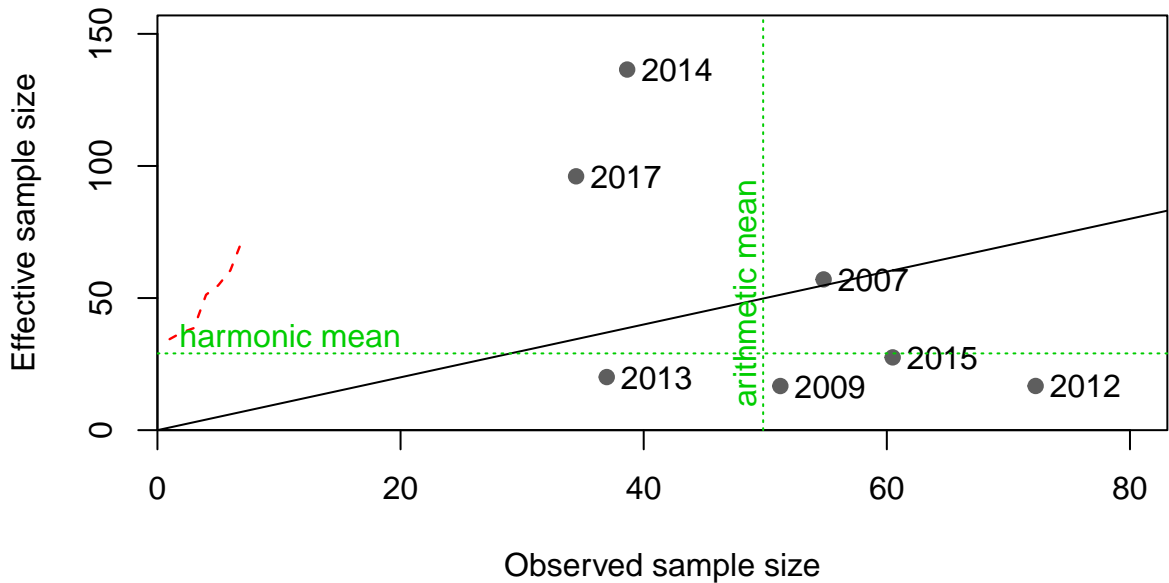


Proportion

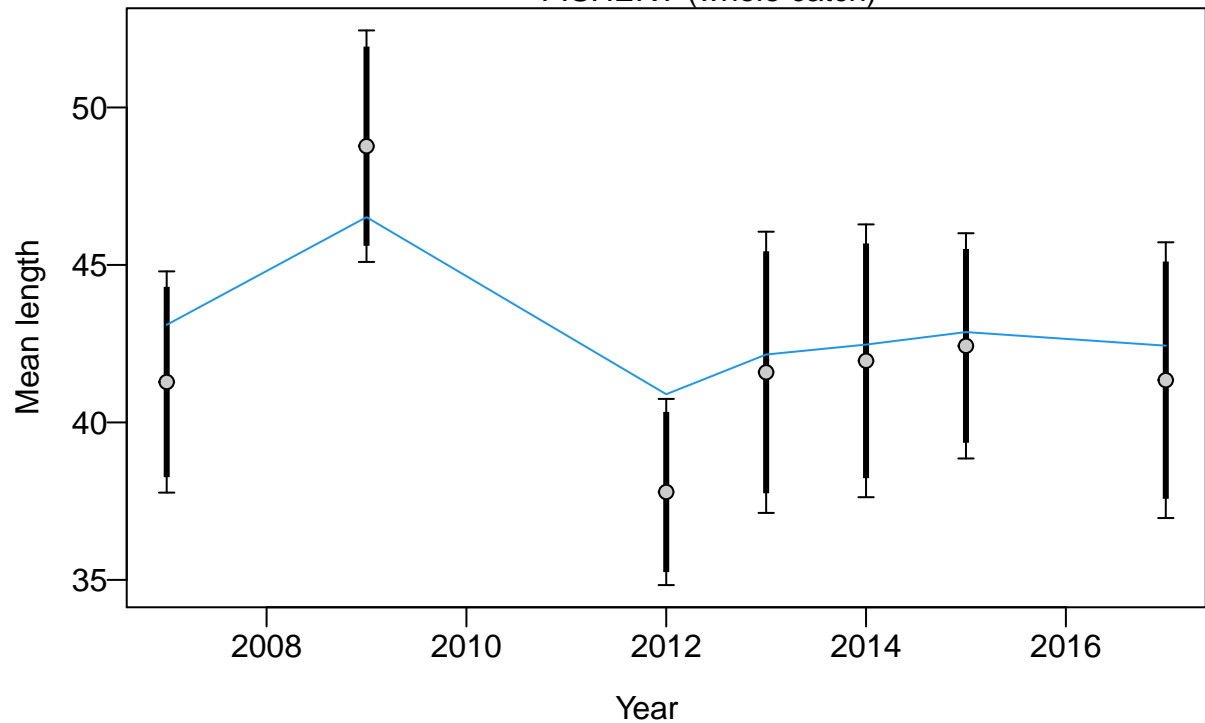


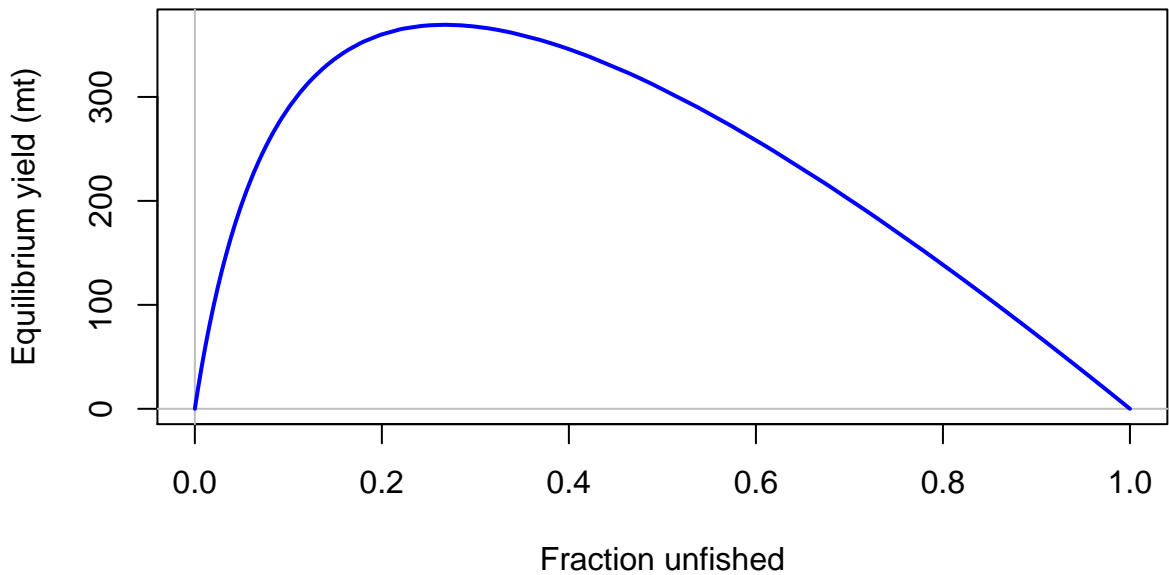
Length (cm)

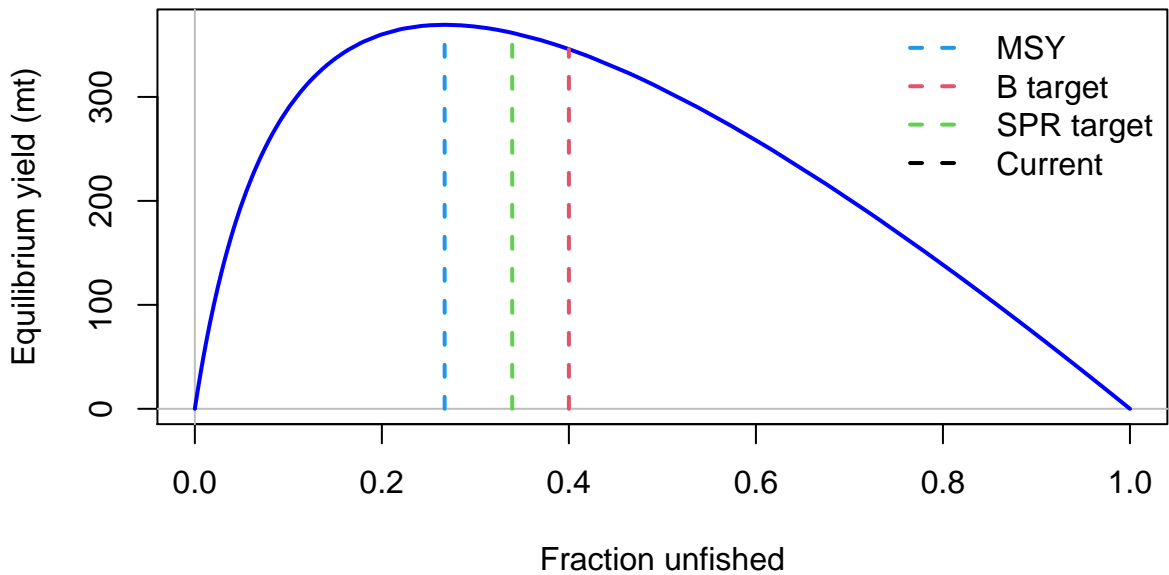


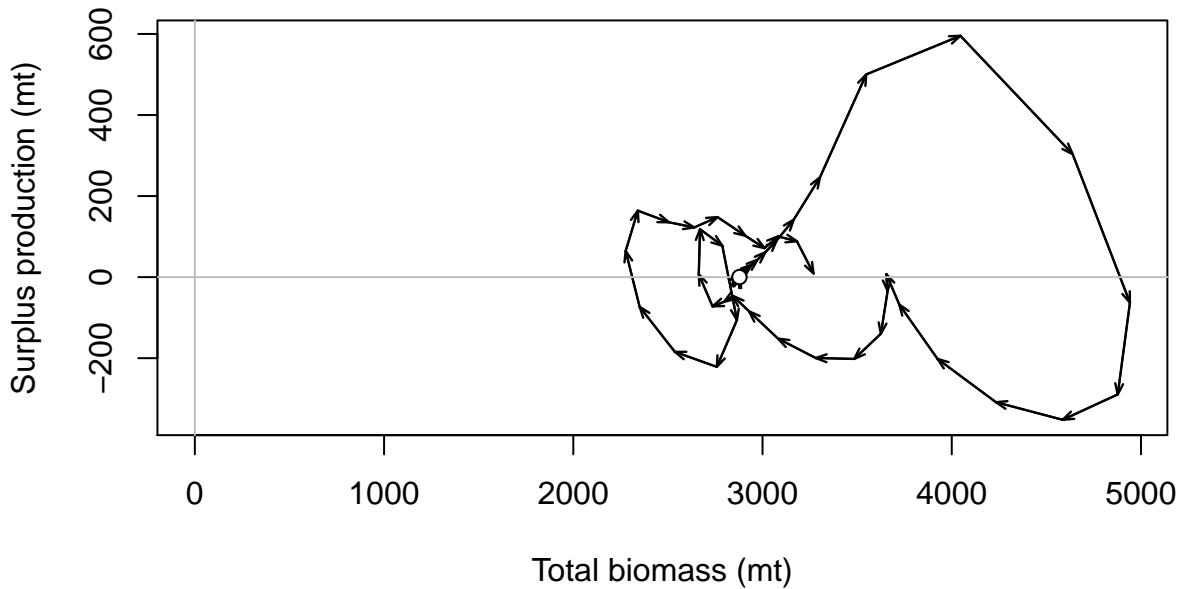


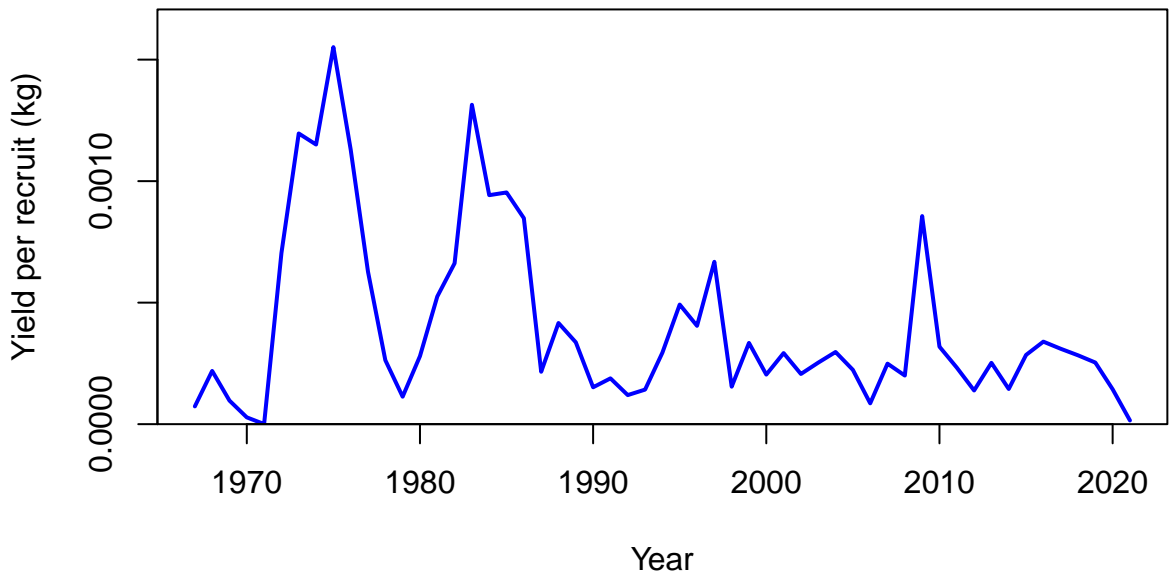
FISHERY (whole catch)



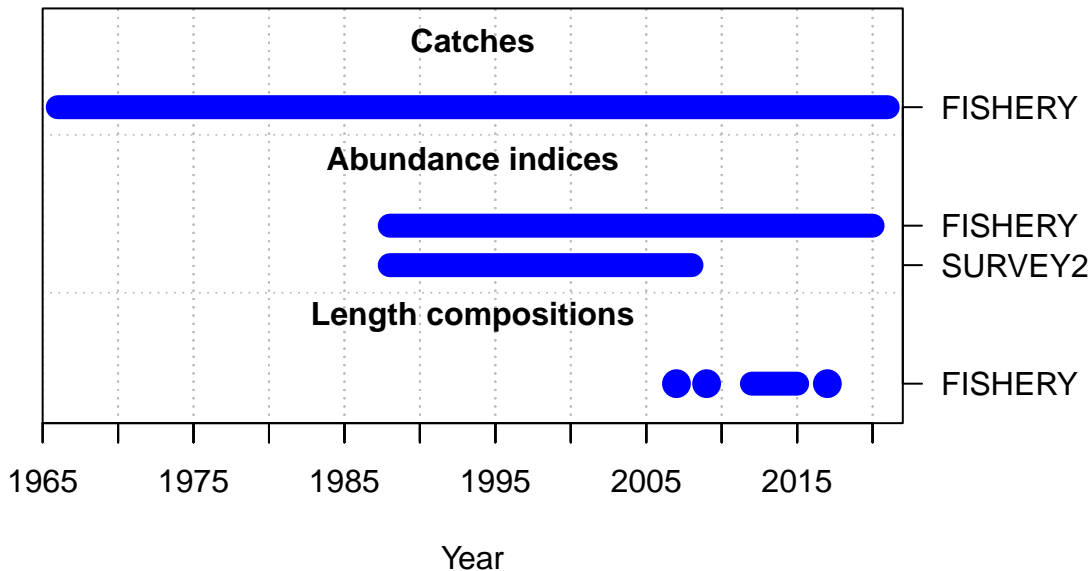


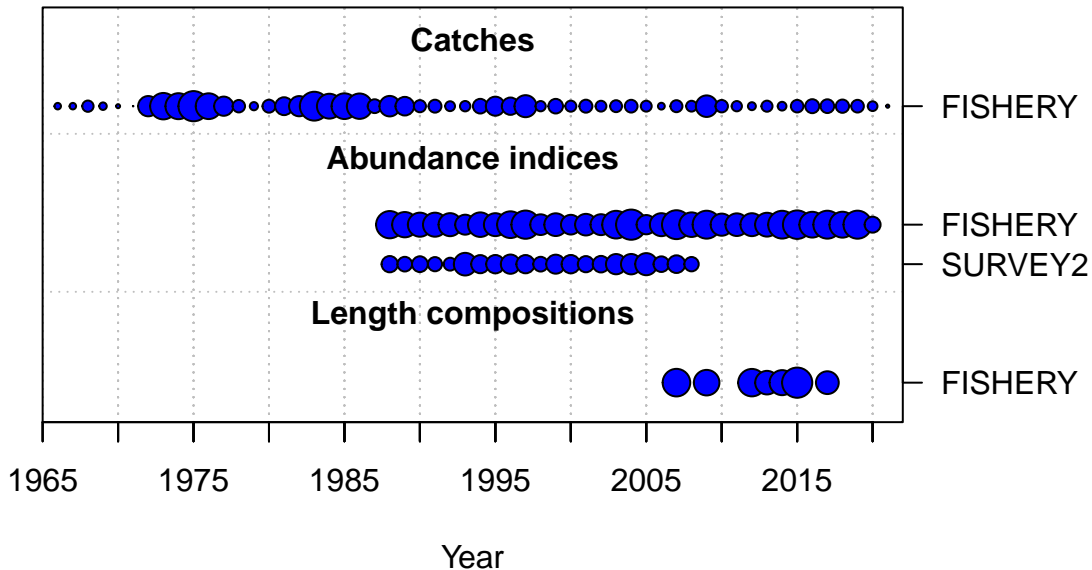




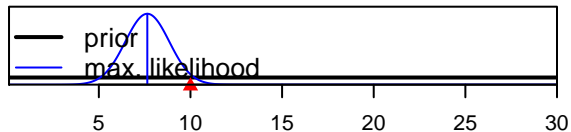




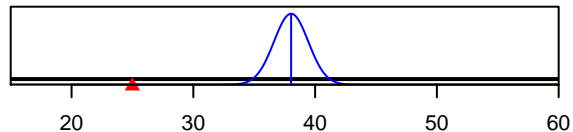




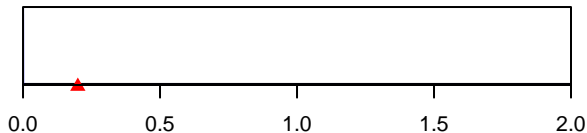
SR\_LN(R0)



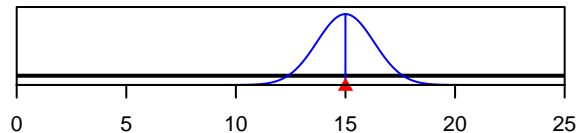
Size\_inflection\_FISHERY(1)



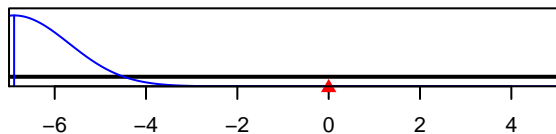
InitF\_seas\_1\_flt\_1FISHERY



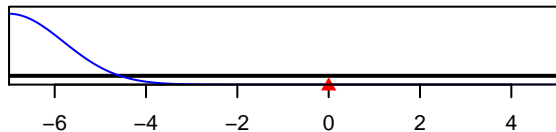
Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



LnQ\_base\_SURVEY2(2)



Parameter value