

Plots created using the 'r4ss' package in R

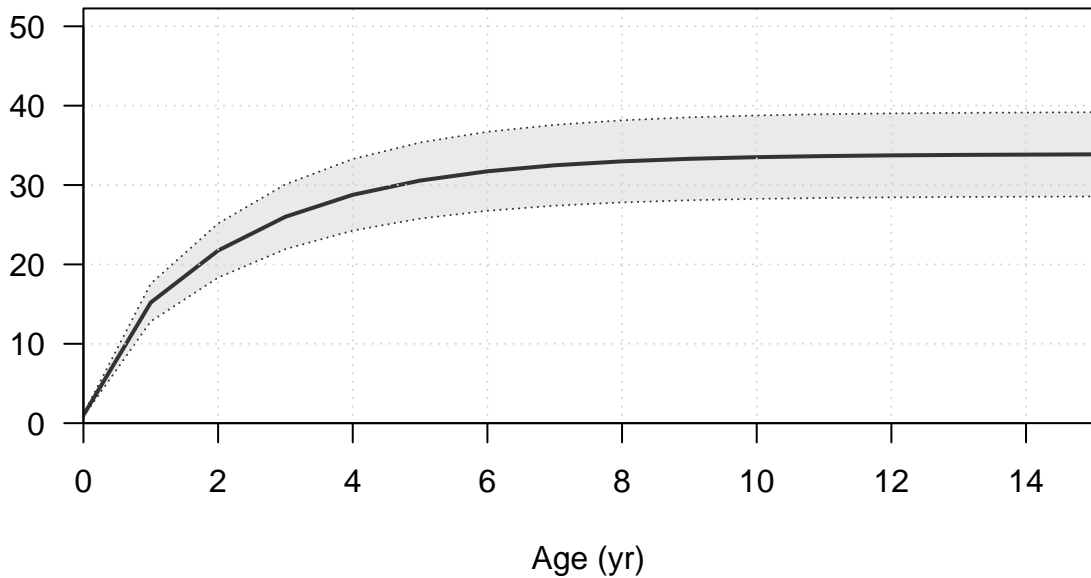
Stock Synthesis version: 3.30.19.0

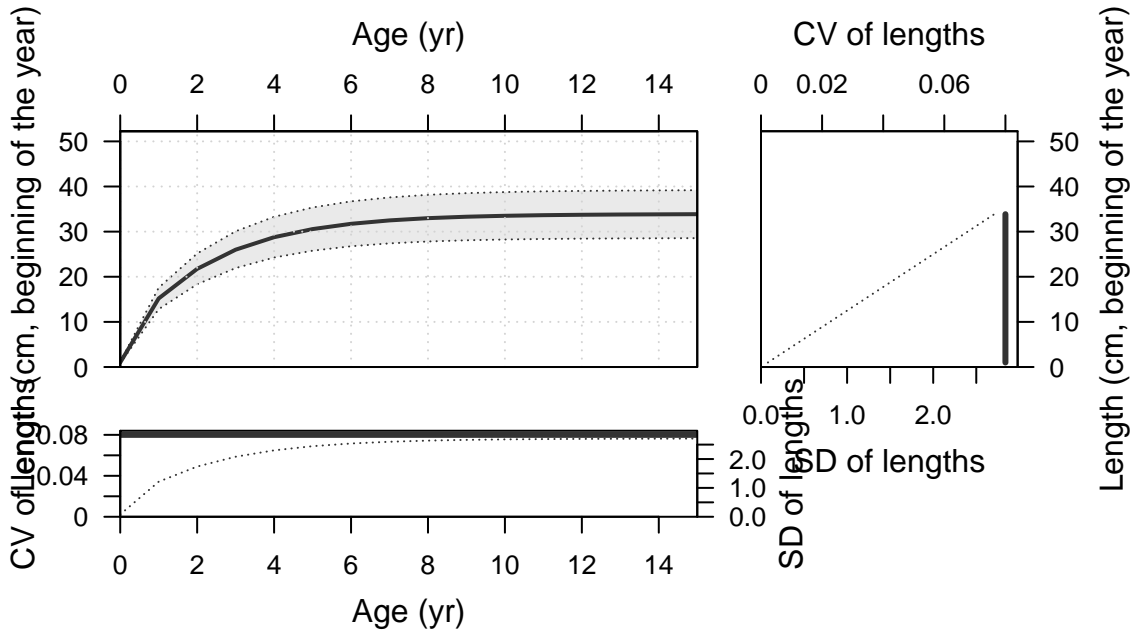
StartTime: Fri Jul 29 14:37:07 2022

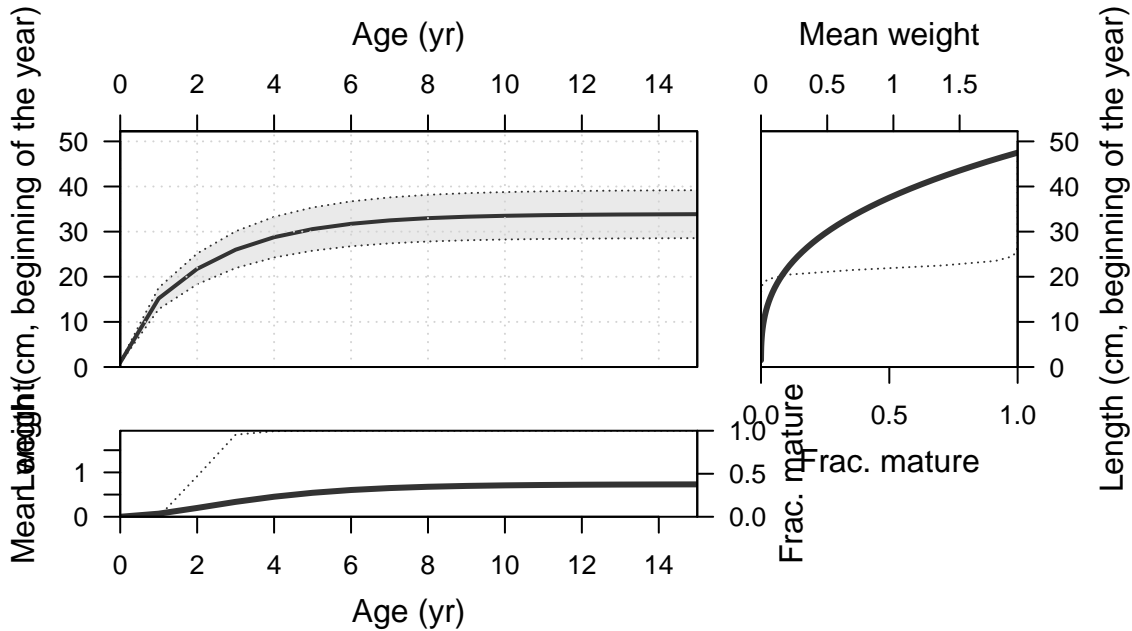
Data\_File: data.ss

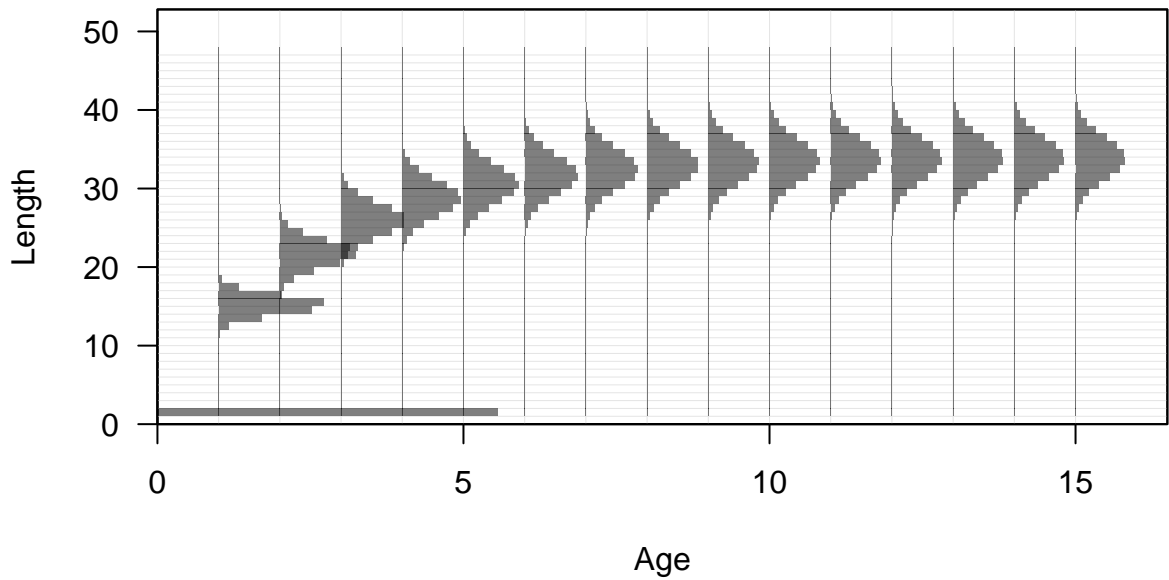
Control\_File: control.ss

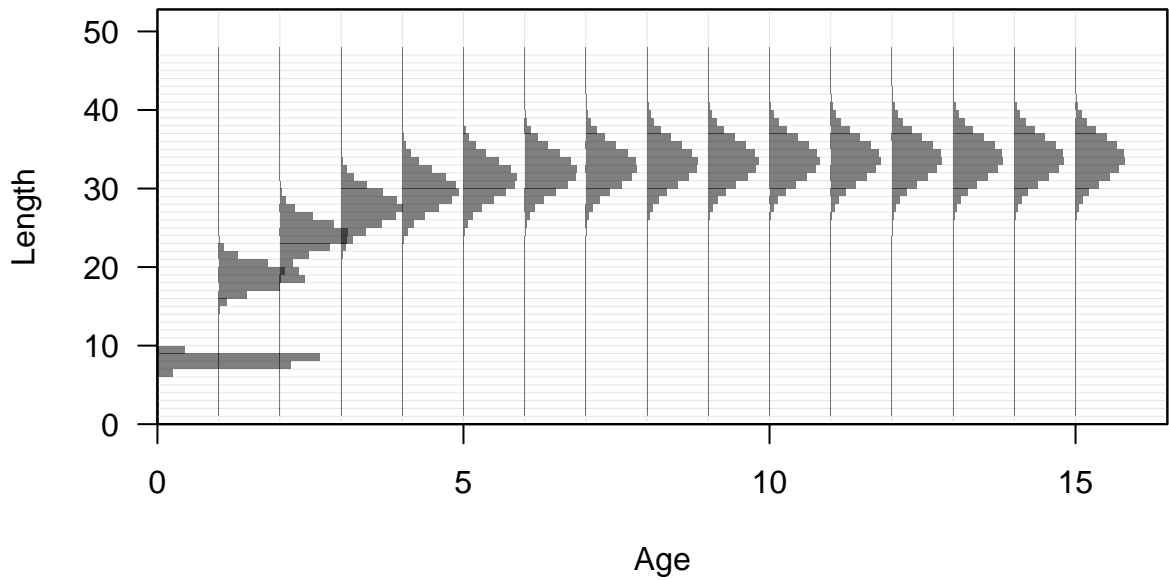
Length (cm, beginning of the year)

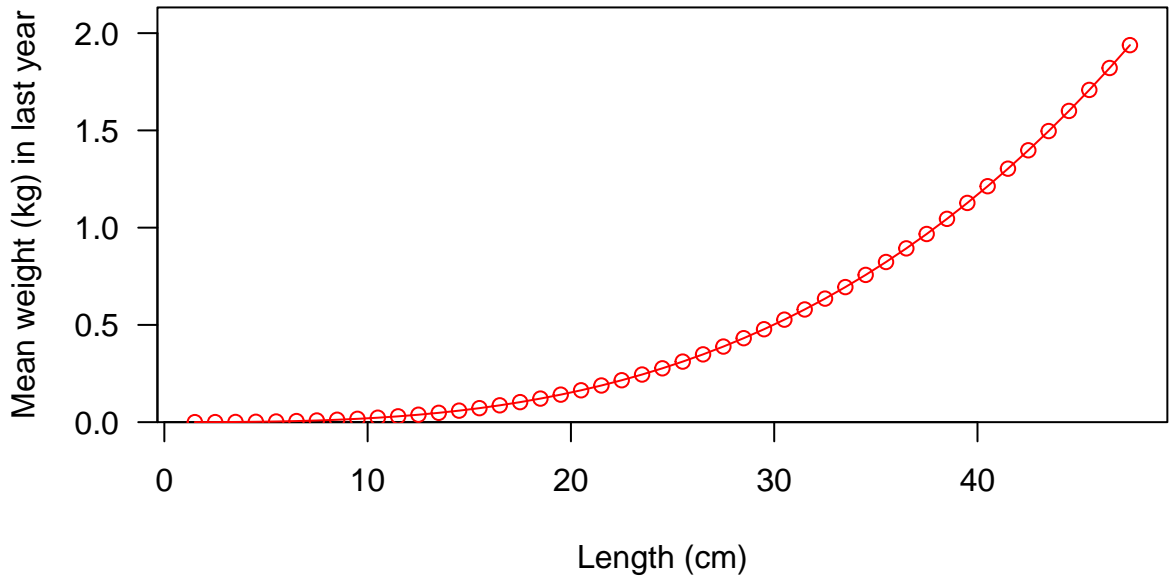


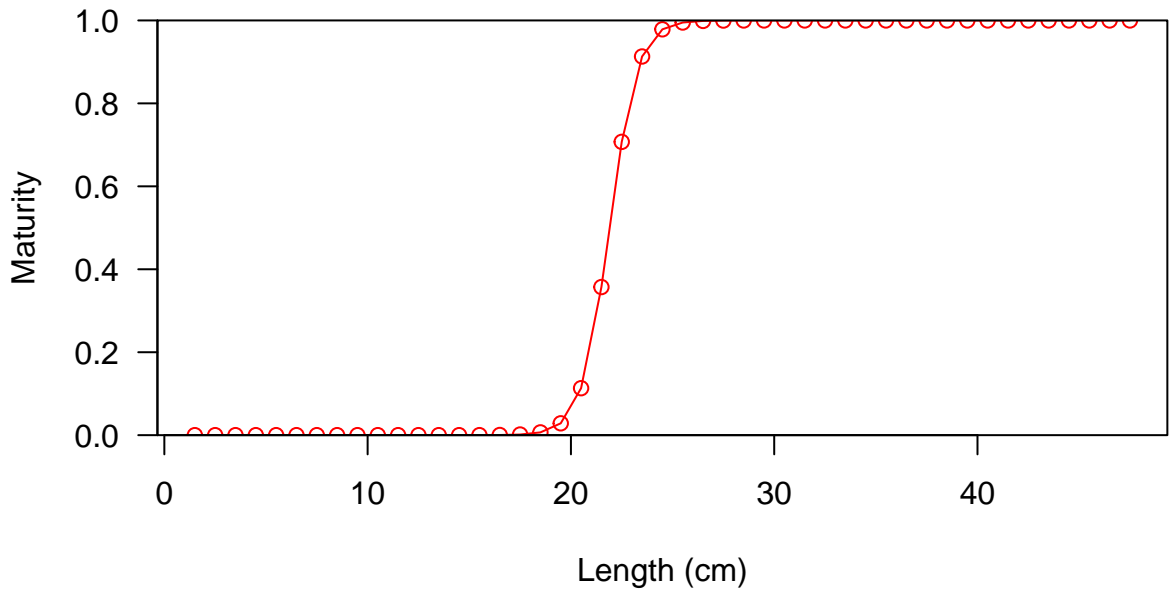




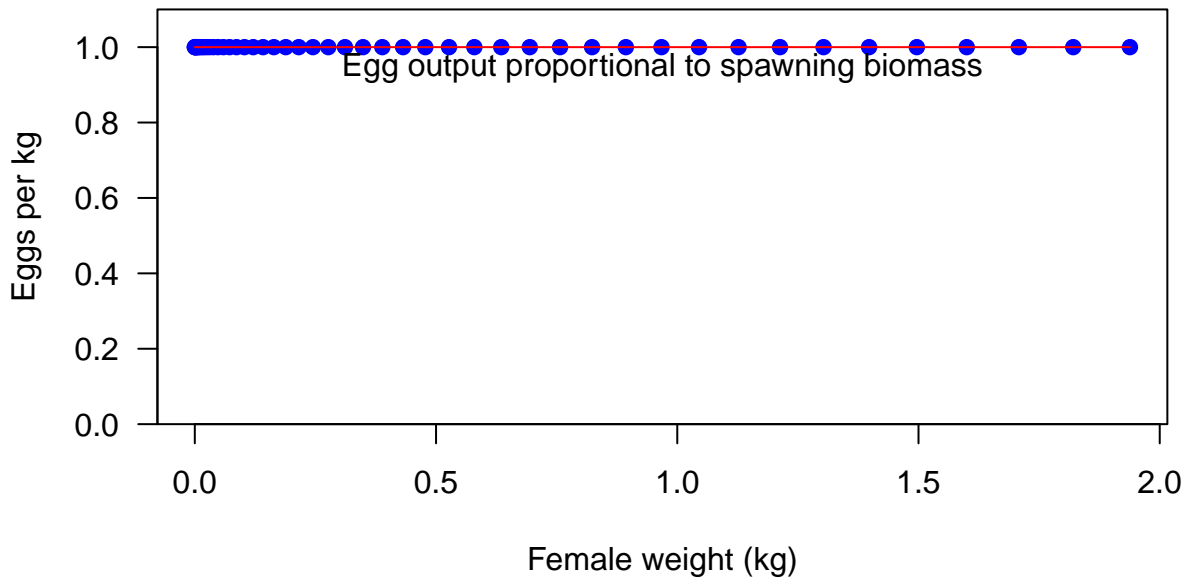


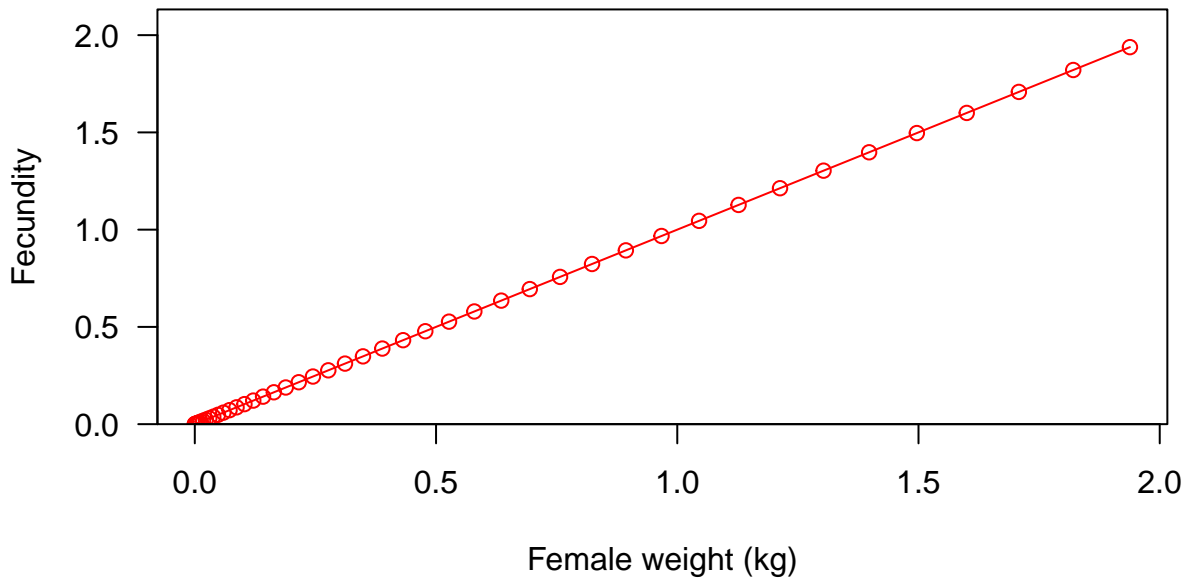


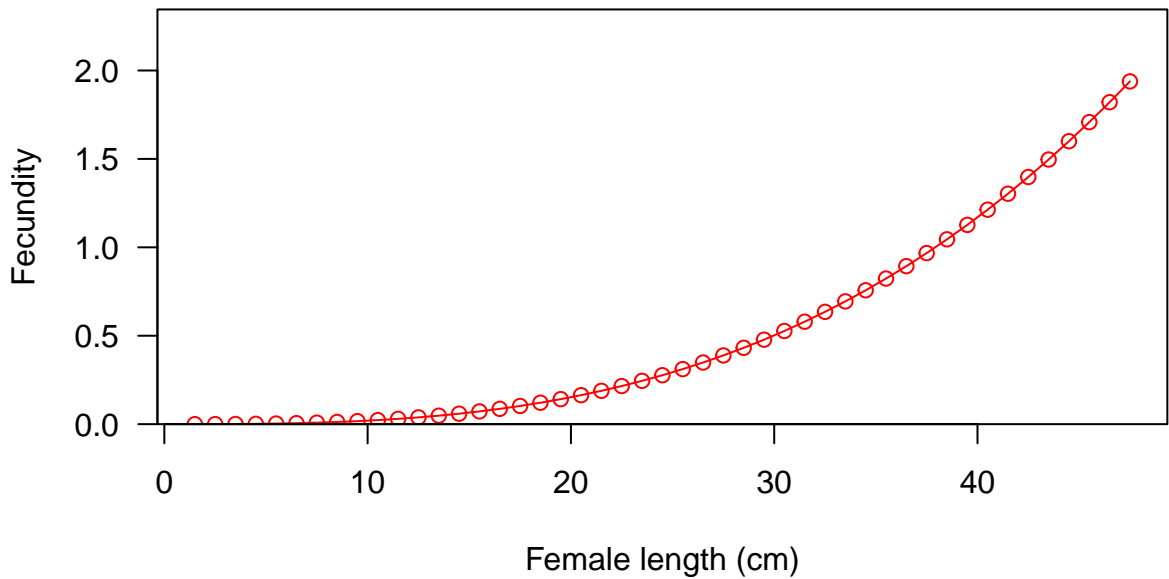


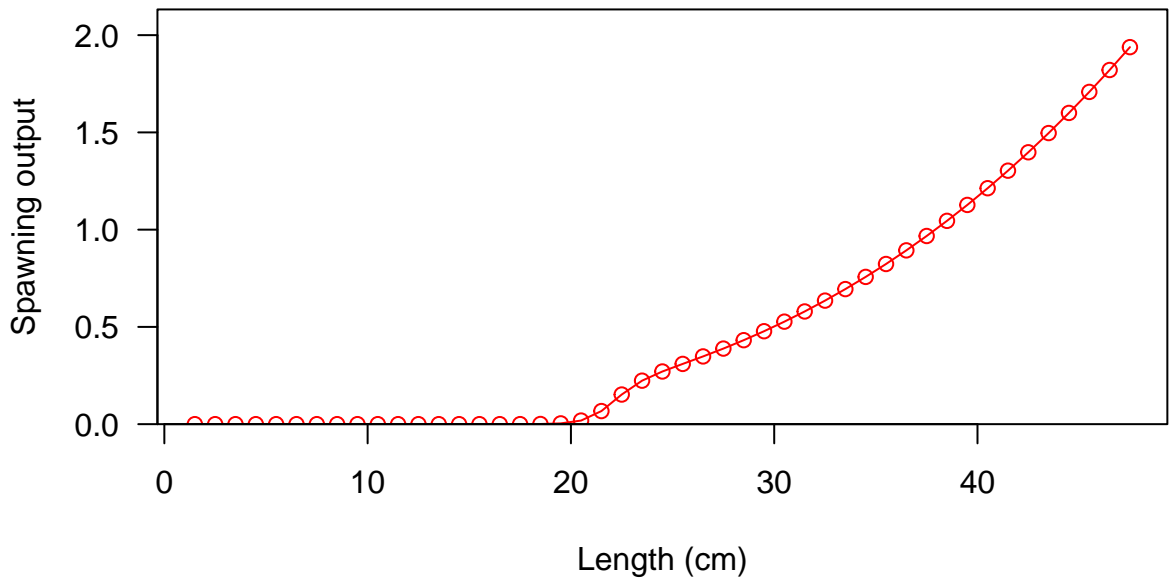


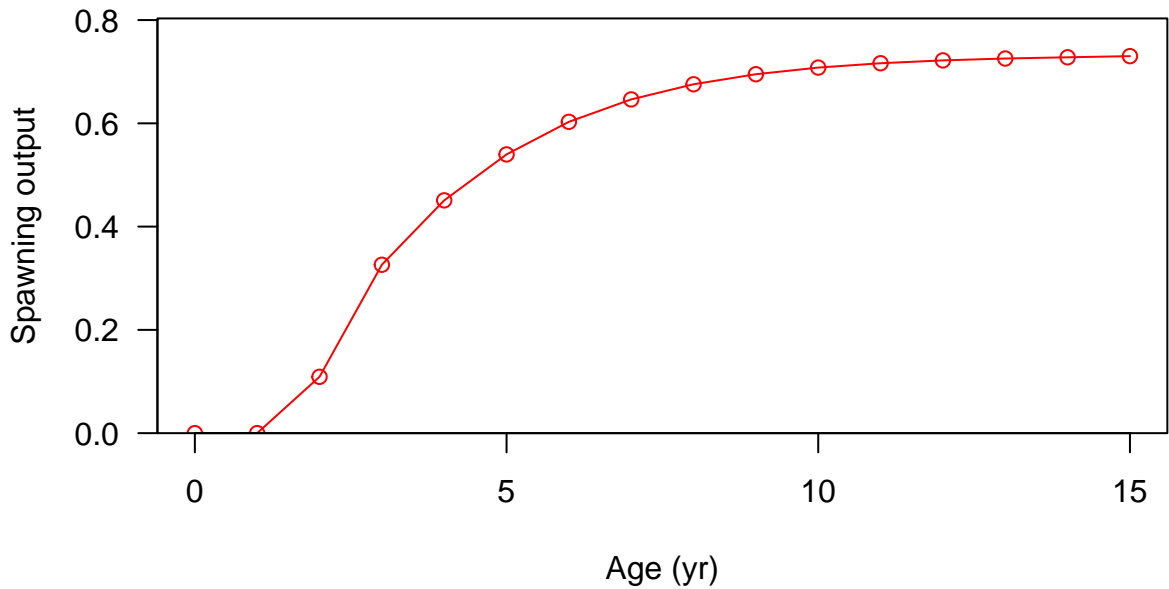




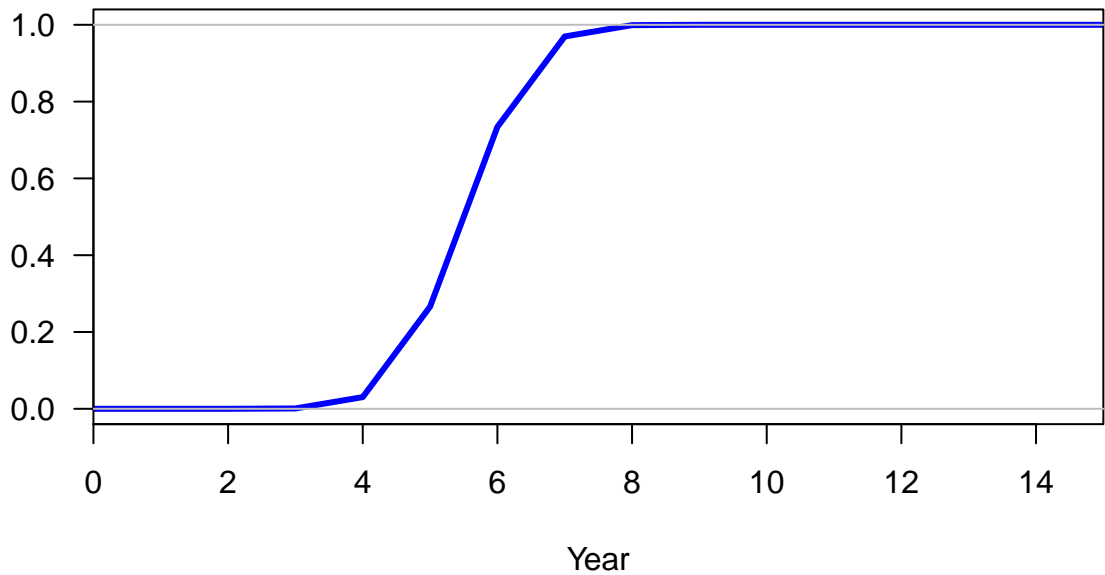




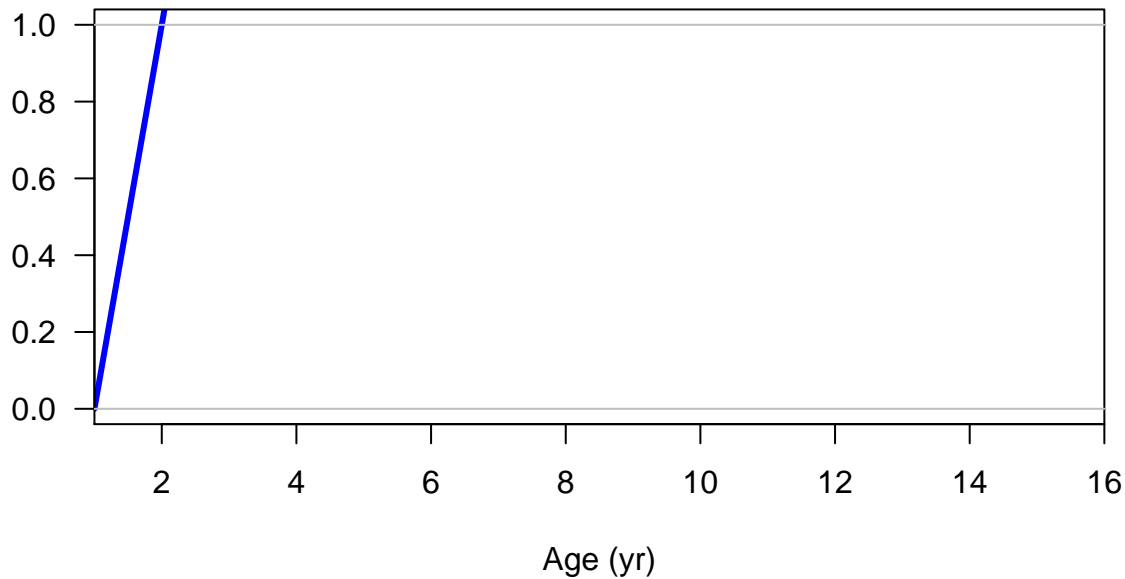




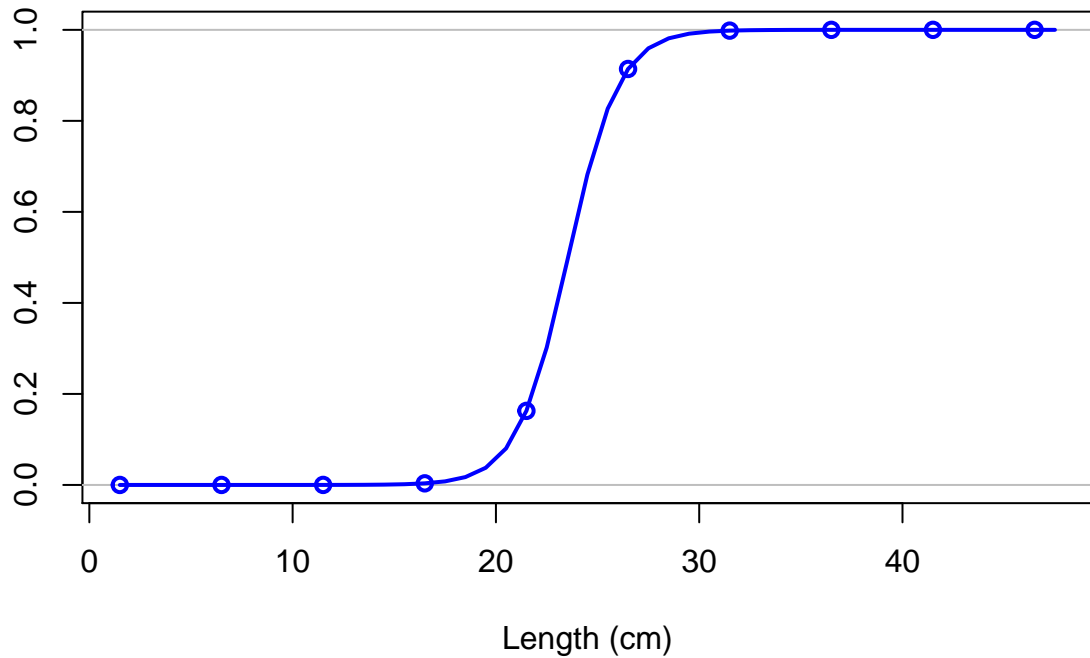
Hermaphroditism transition rate



Fraction females by age at equilibrium

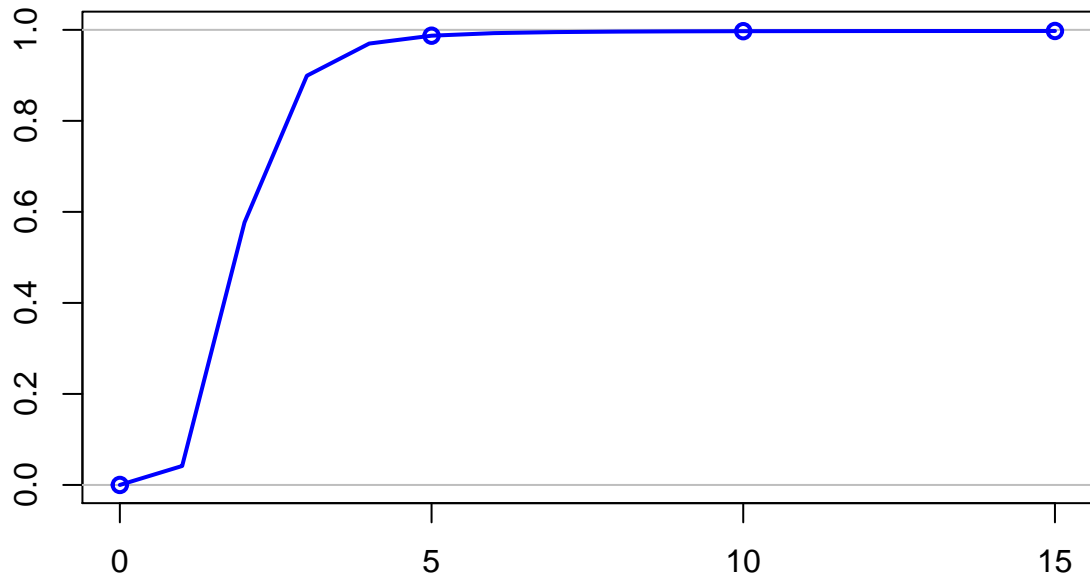


Selectivity



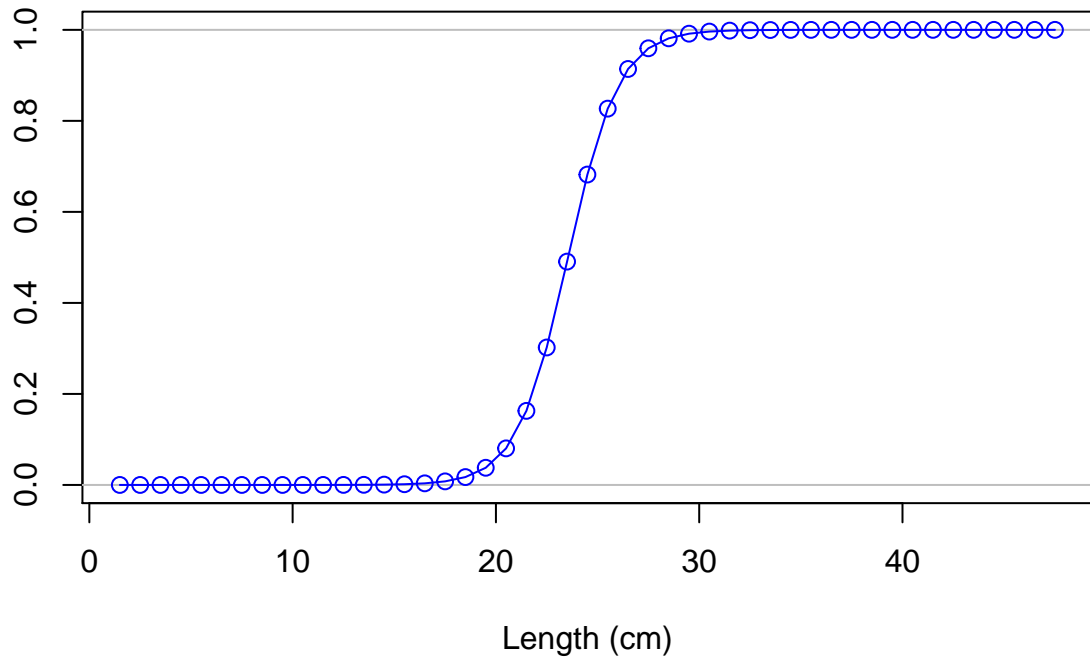


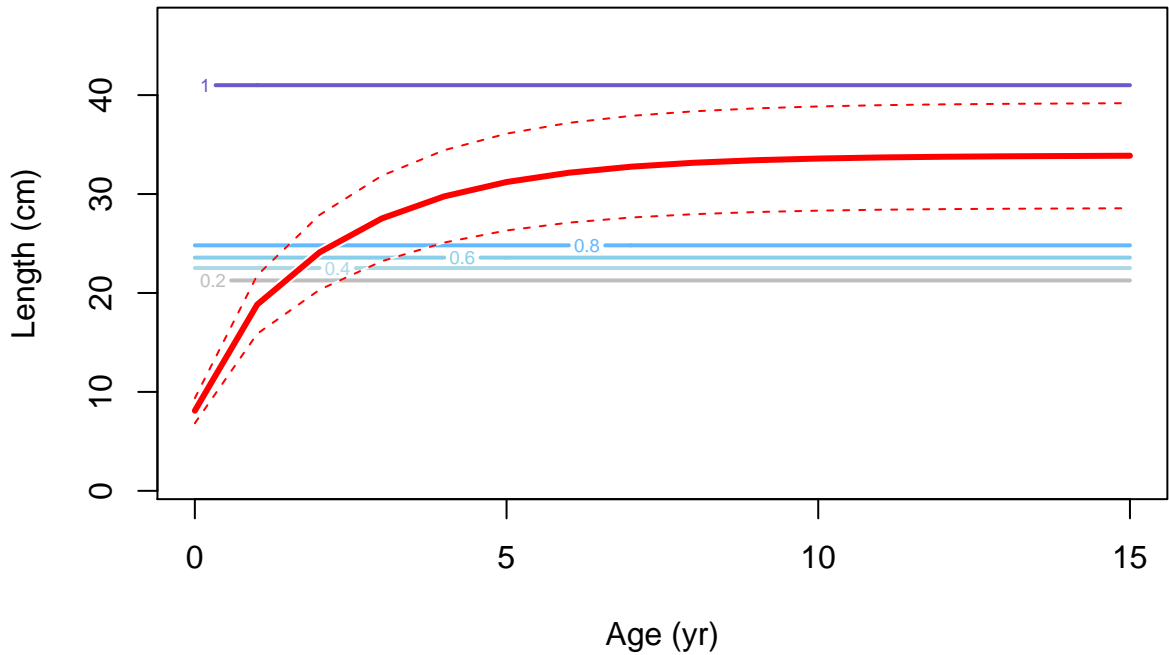
Selectivity

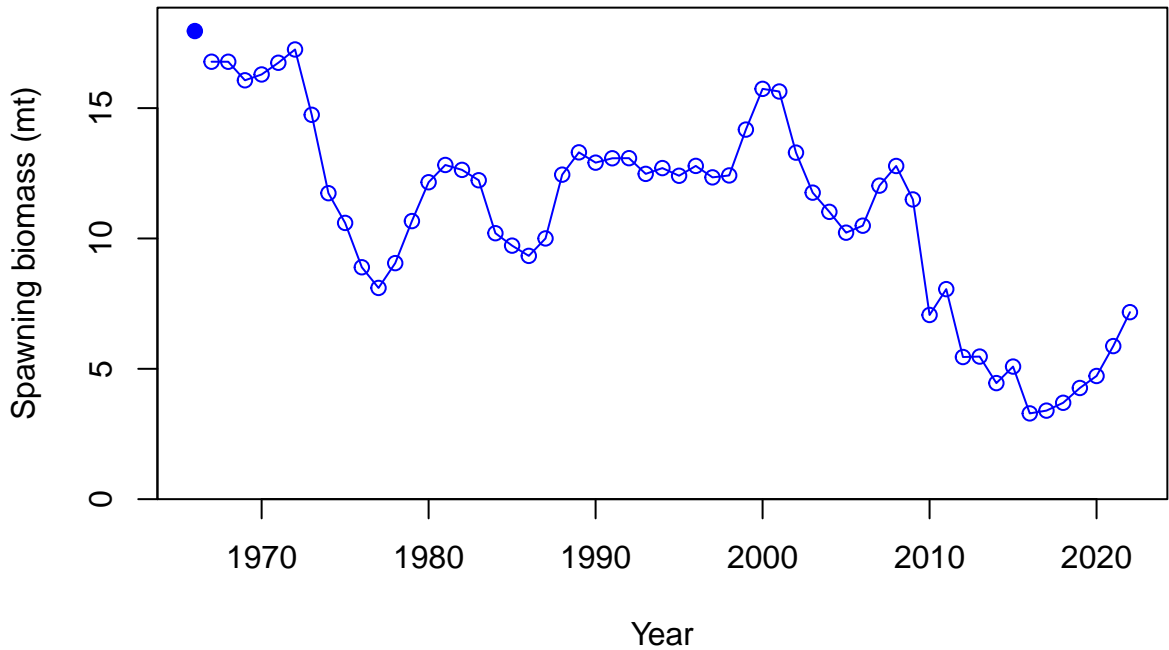


Age (yr)

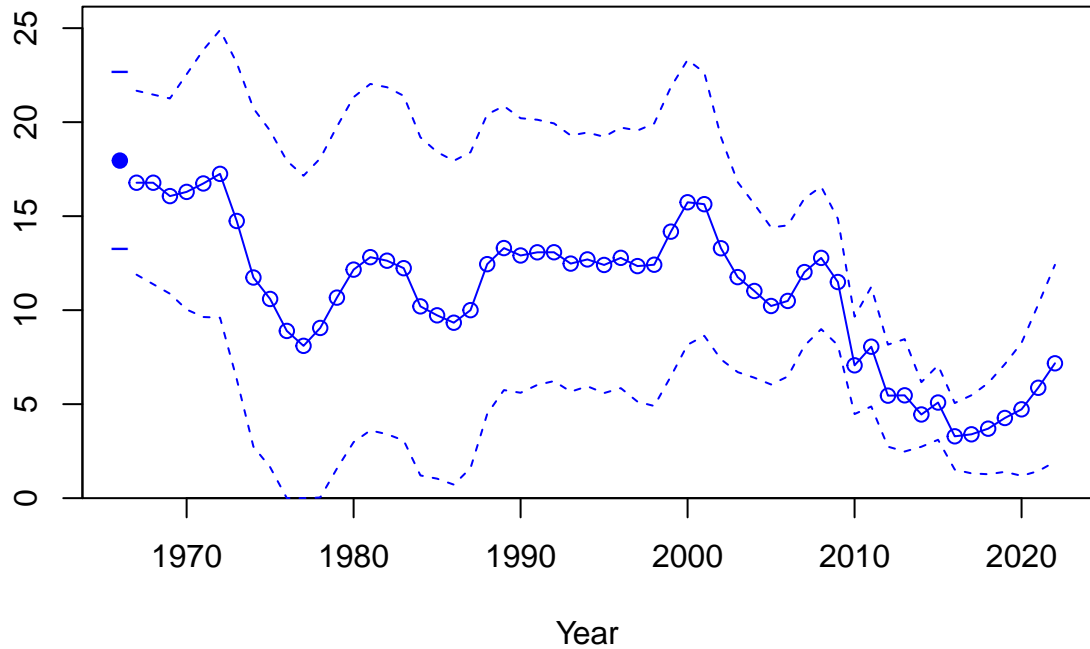
Selectivity



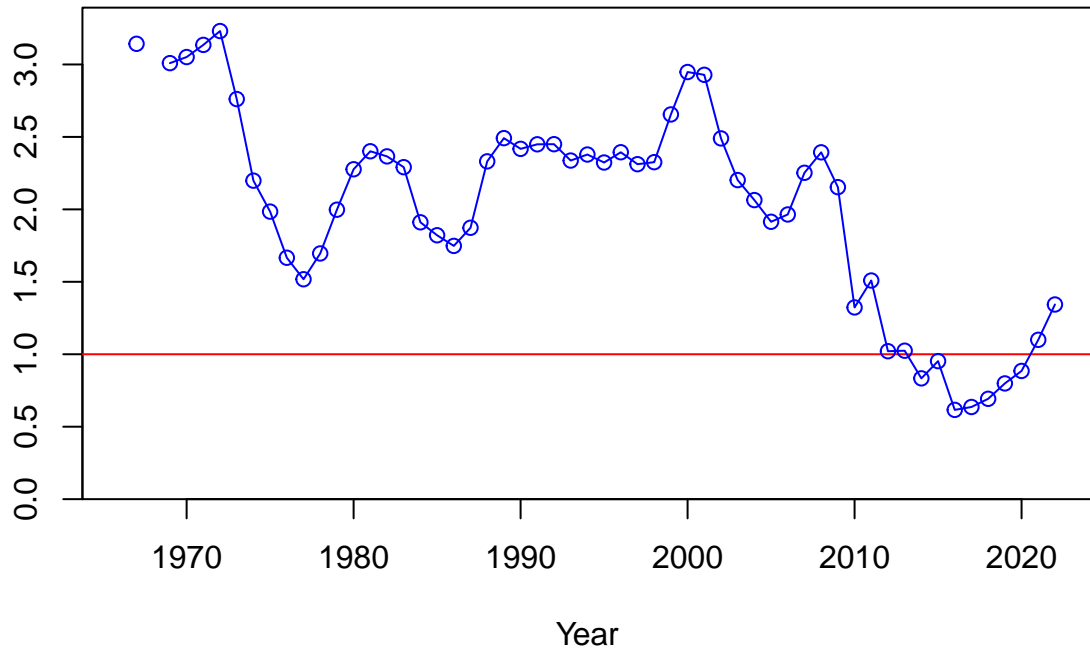




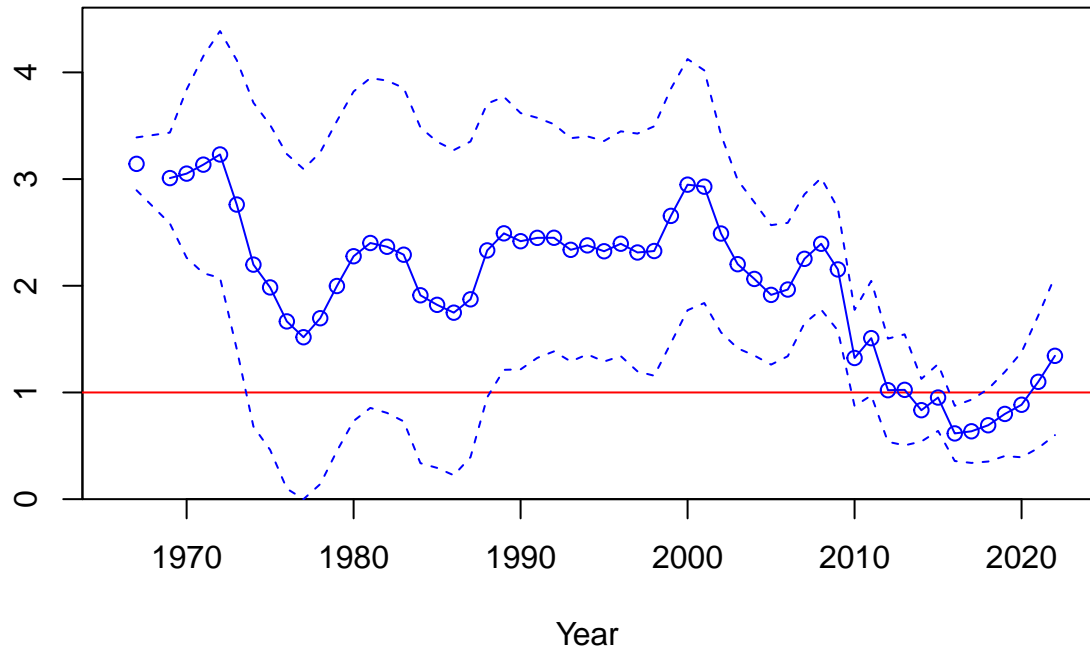
Spawning biomass (mt)

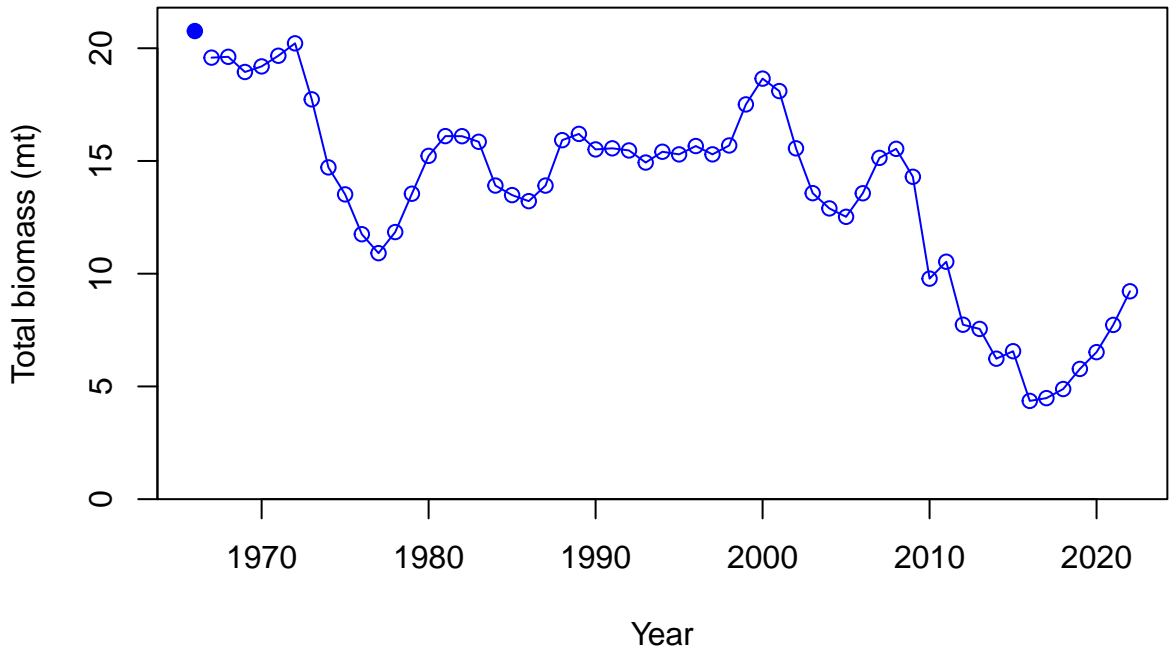


Relative spawning biomass:  $B/B_{MSY}$

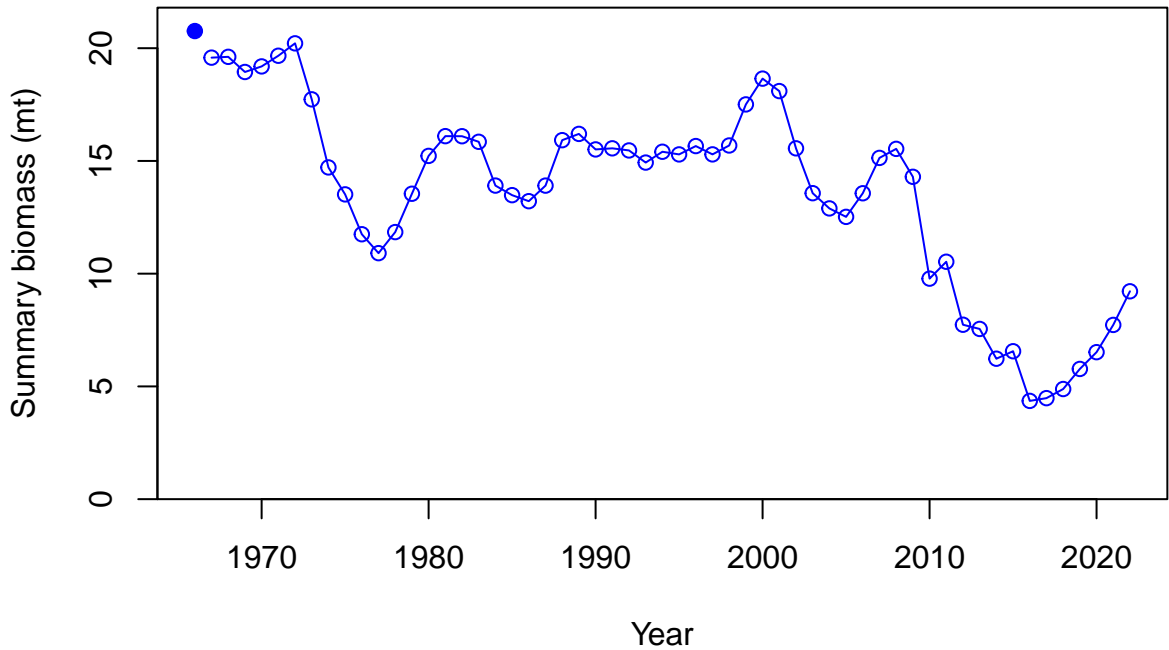


Relative spawning biomass:  $B/B_{MSY}$

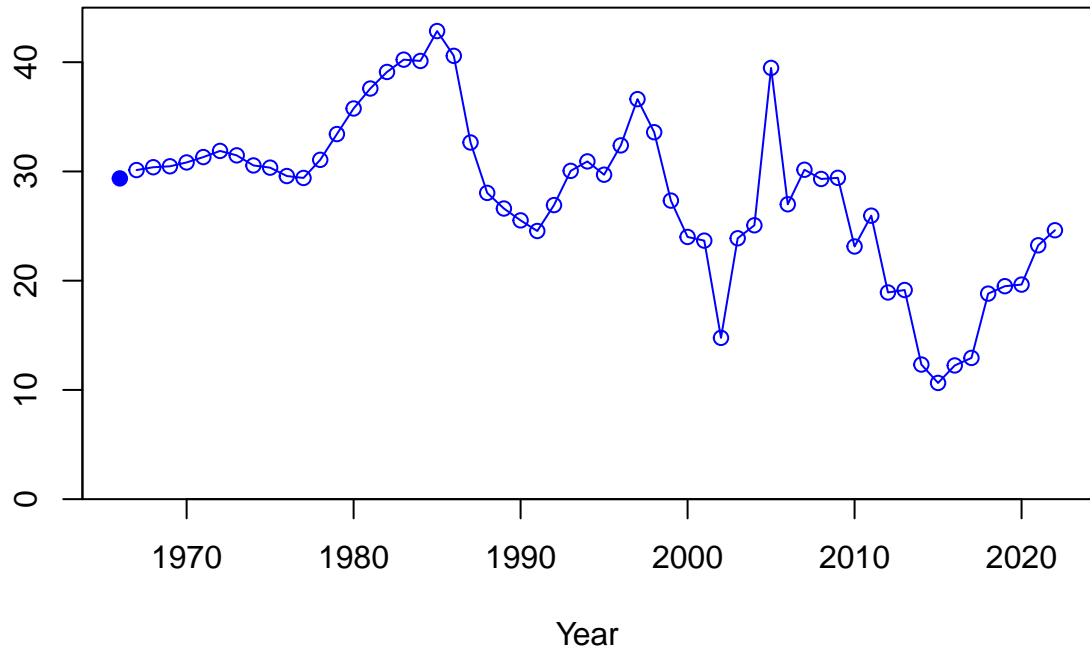




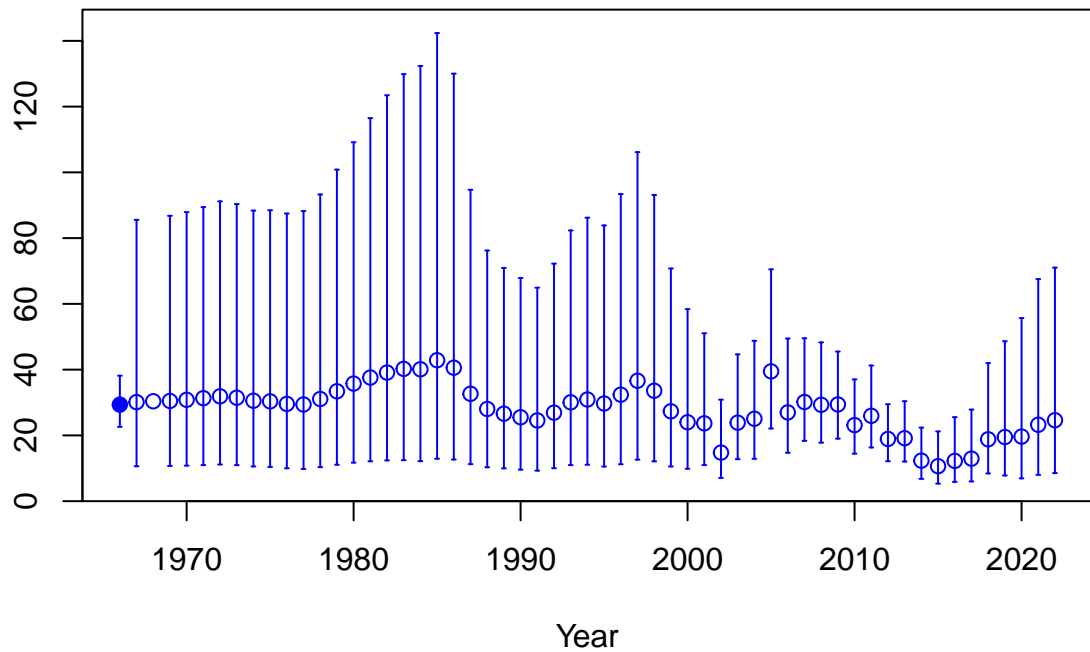




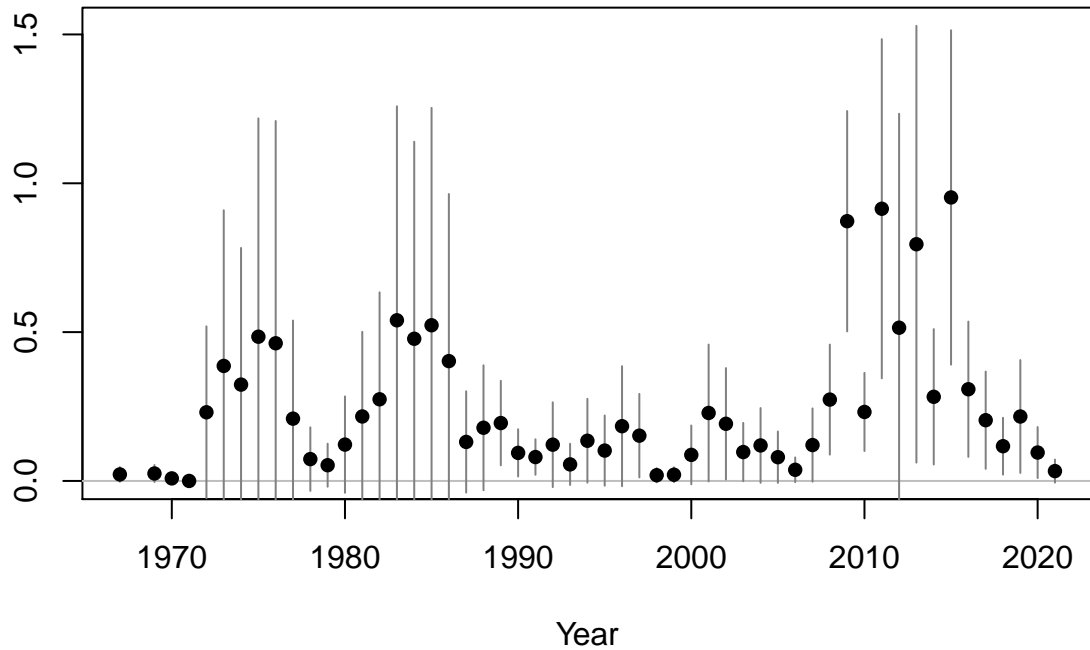
Age-0 recruits (1,000s)

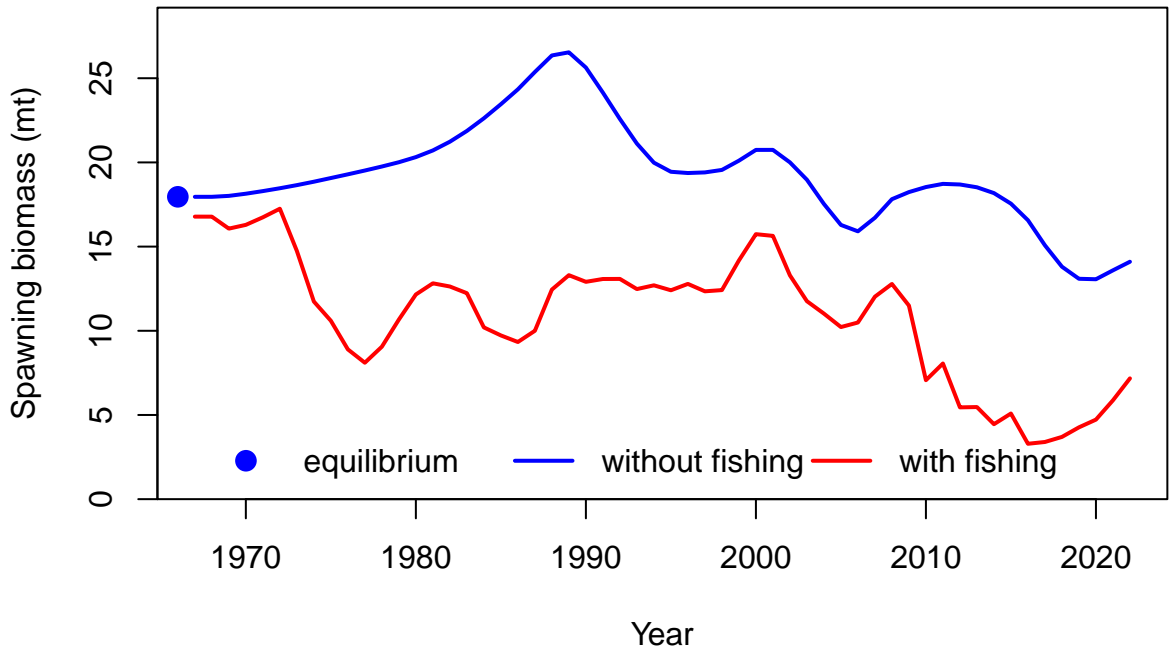


Age-0 recruits (1,000s)

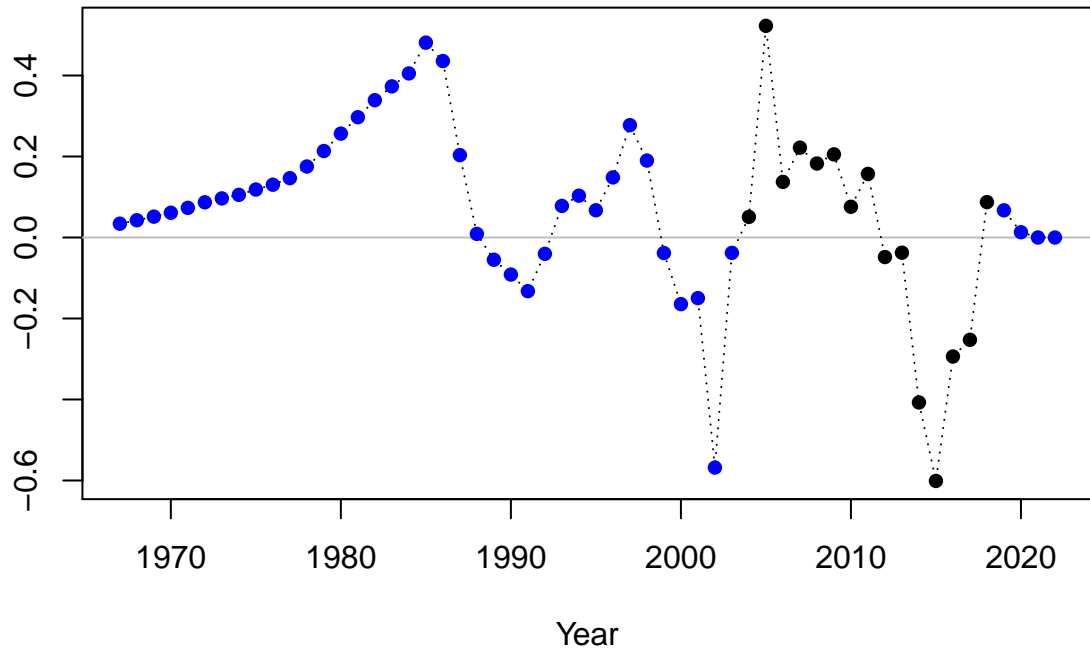


Summary Fishing Mortality





Log recruitment deviation



Log recruitment deviation

-1.0  
-0.5  
0.0  
0.5  
1.0  
1.5

1970

1980

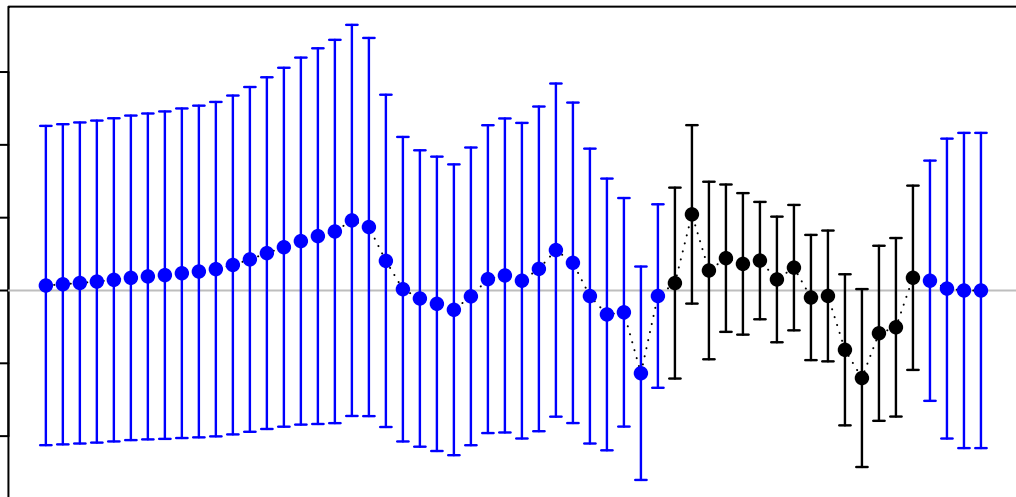
1990

2000

2010

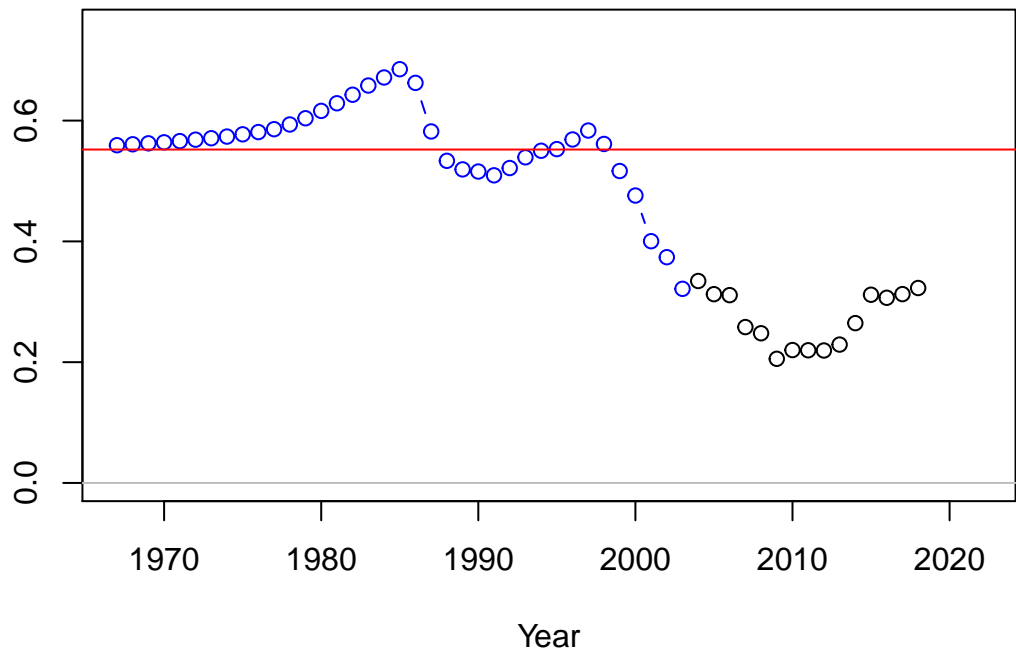
2020

Year

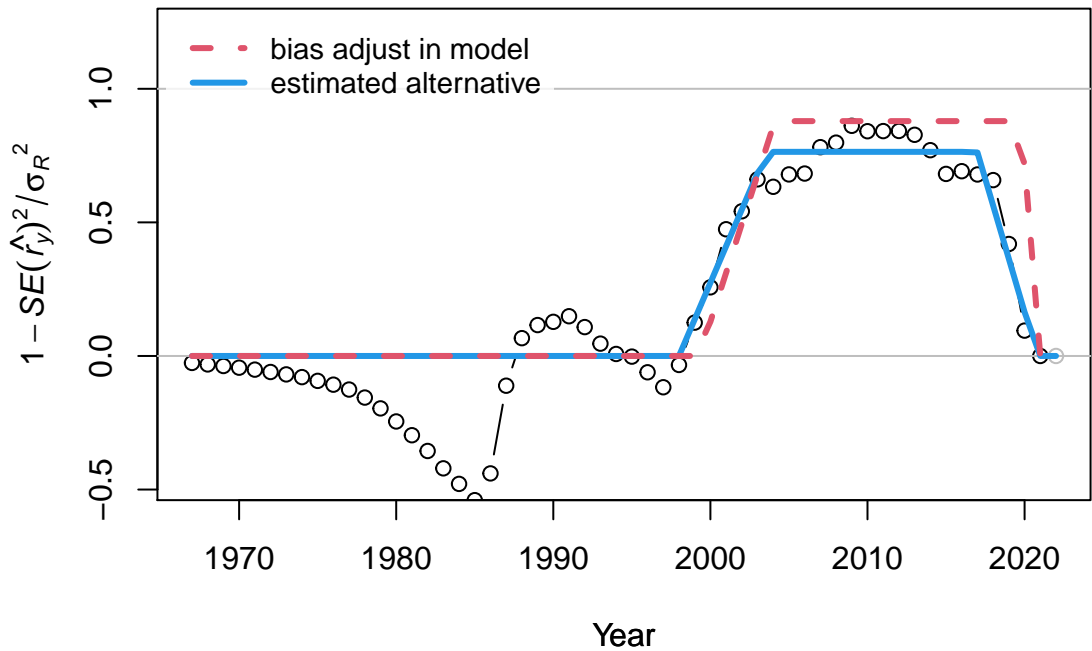


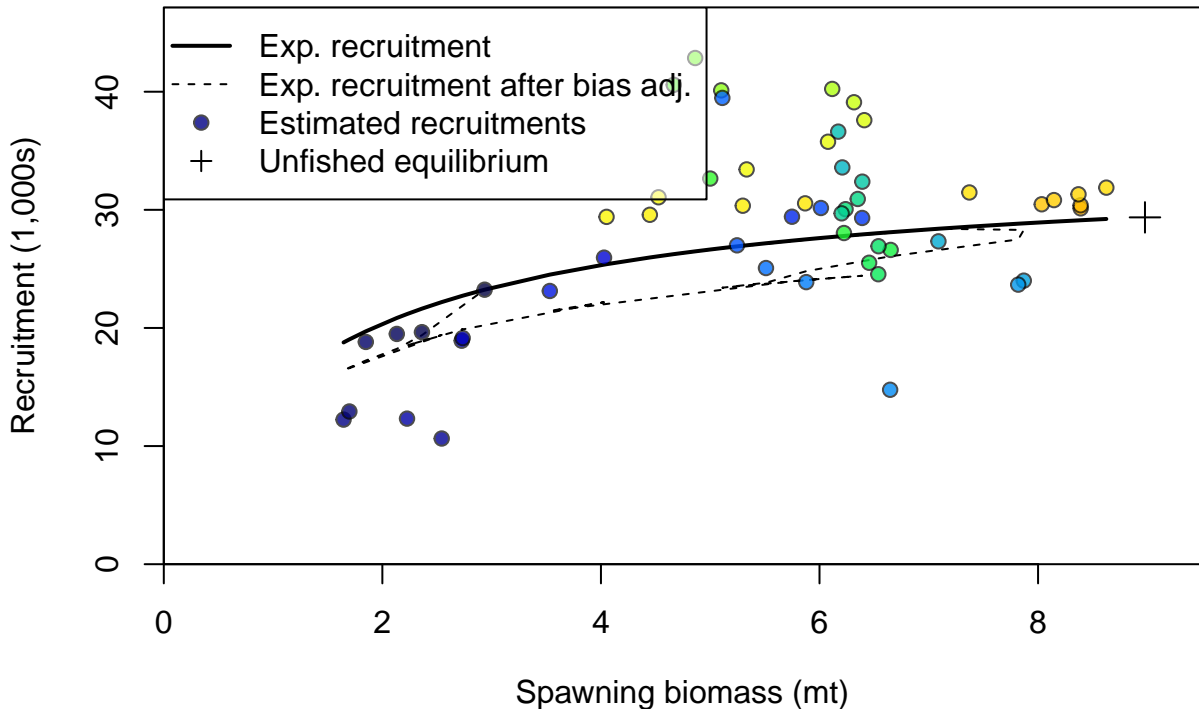
## Recruitment deviation variance

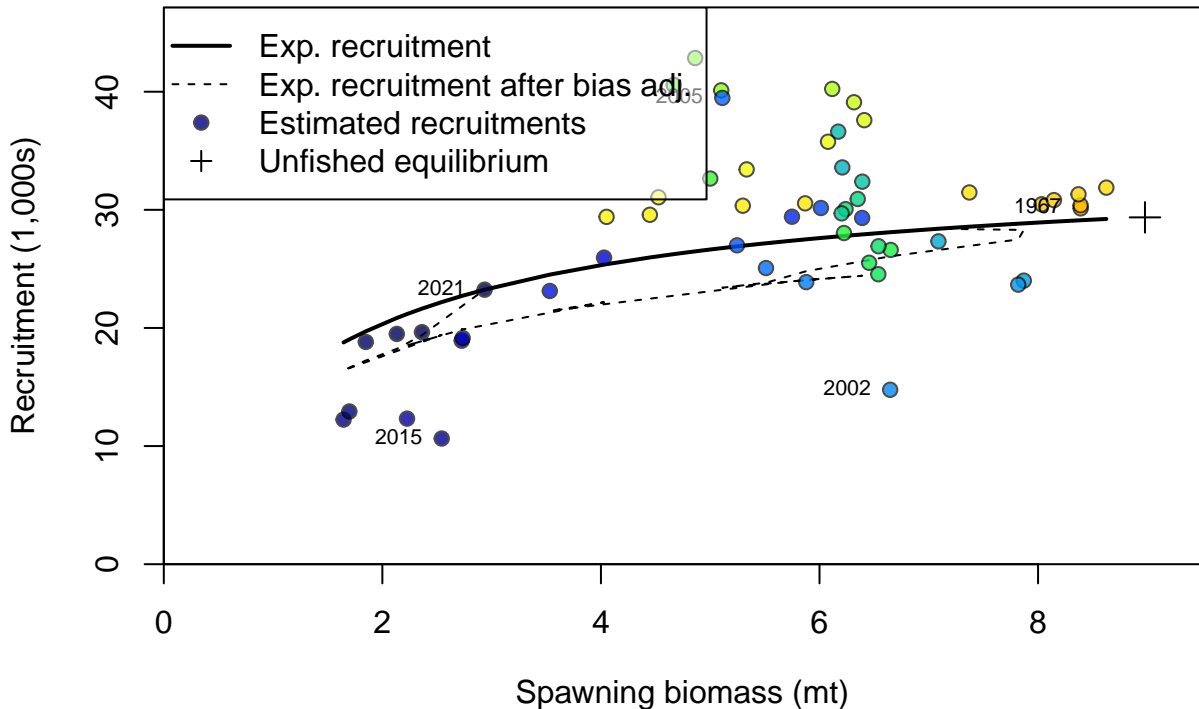
Asymptotic standard error estimate

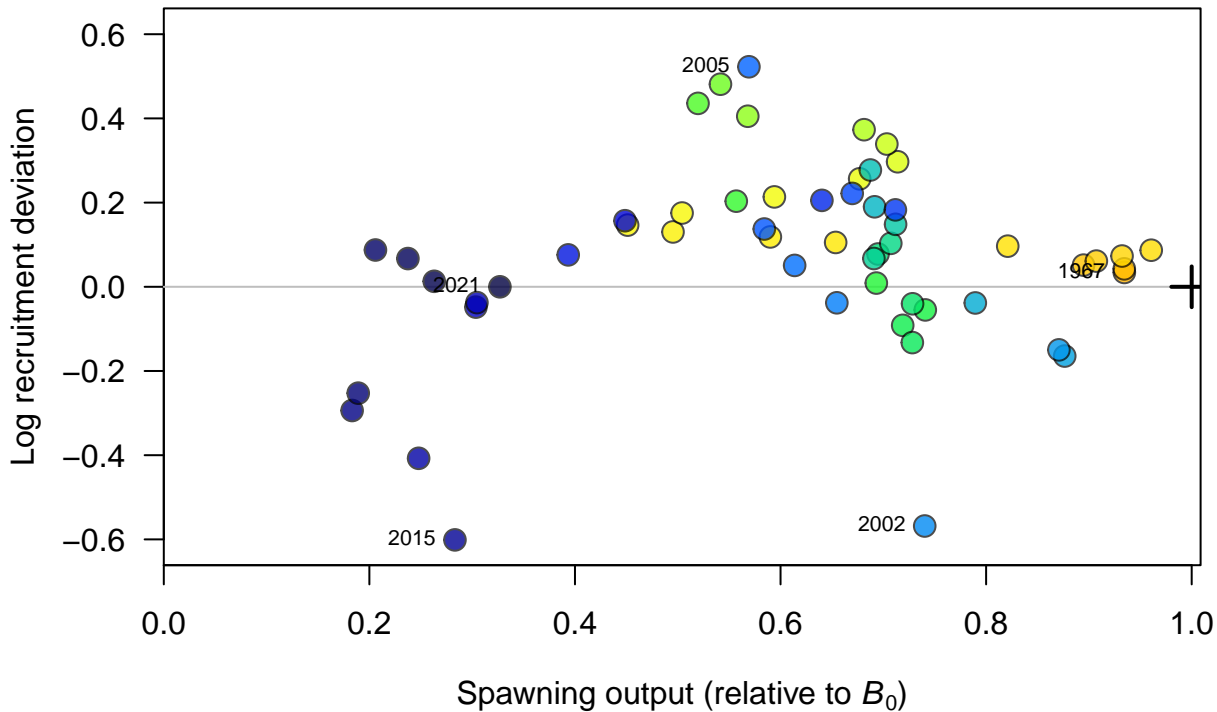


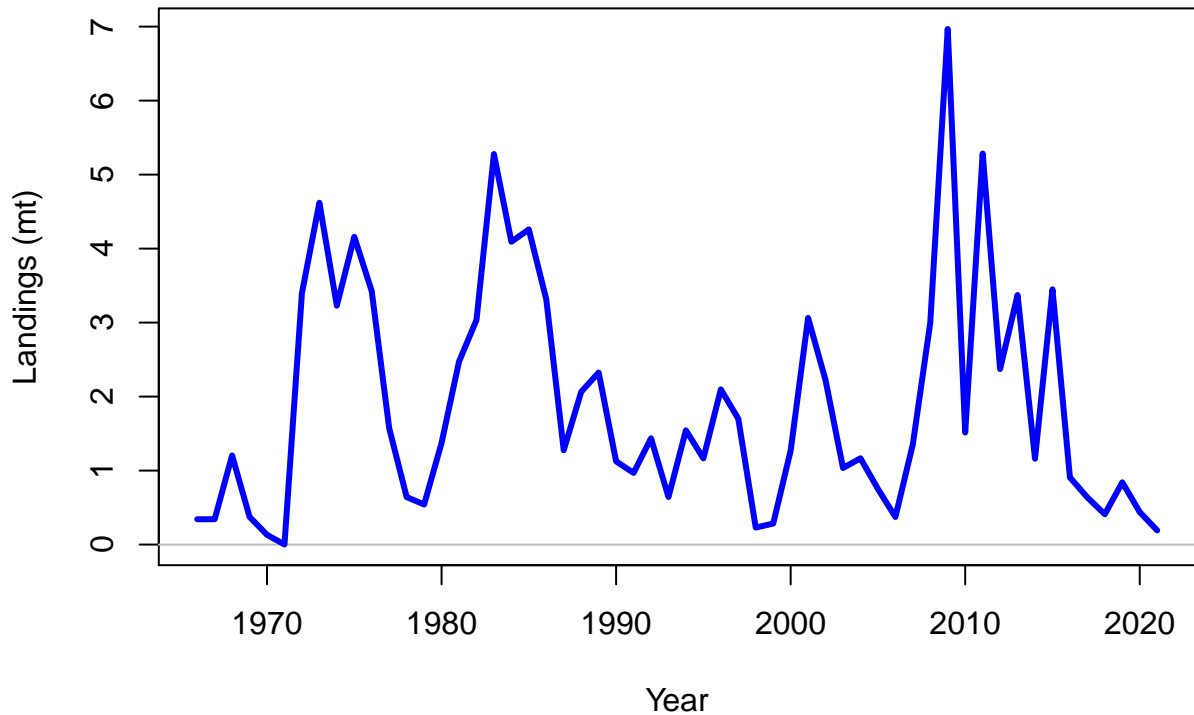


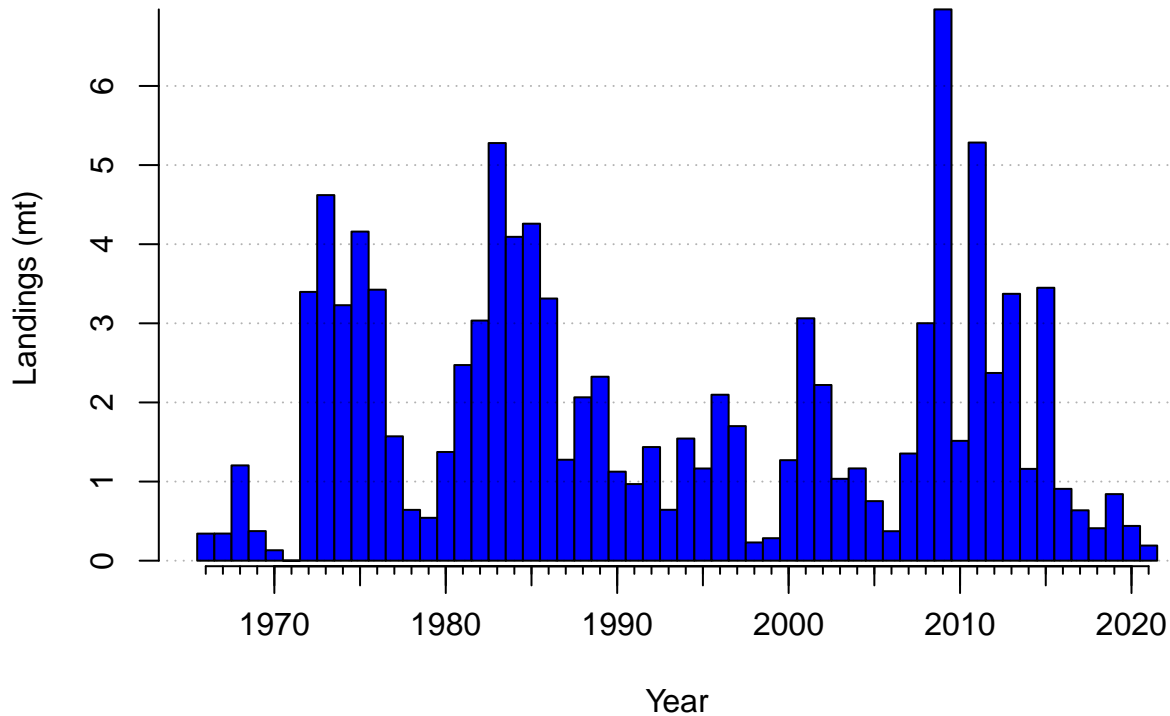




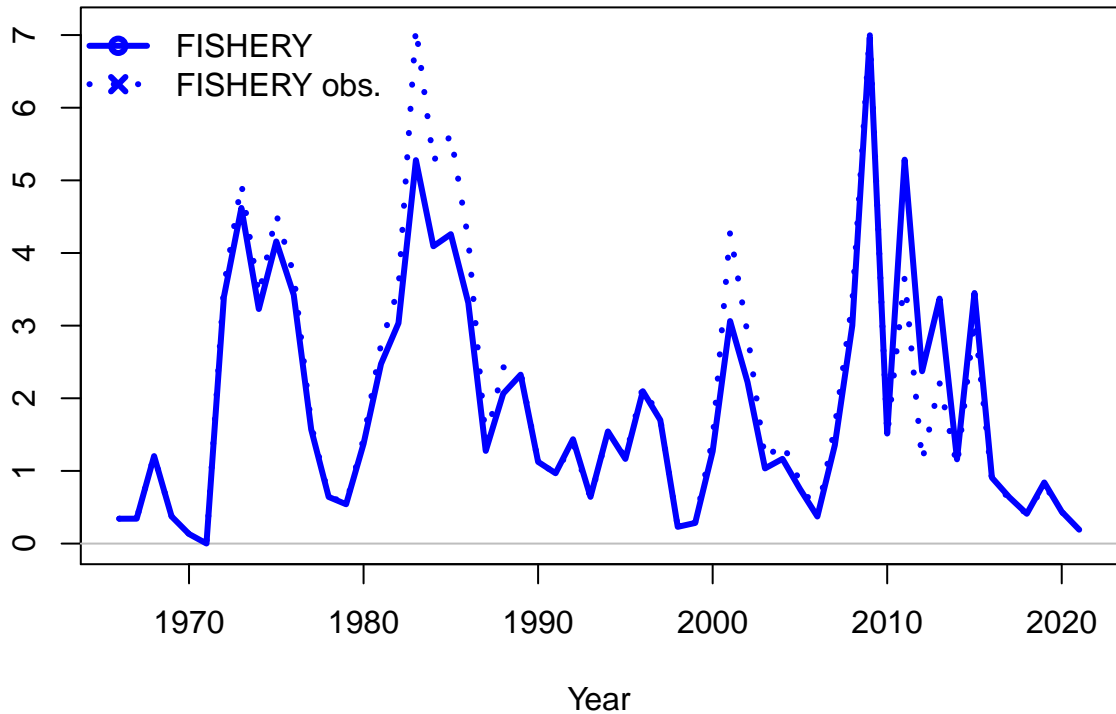


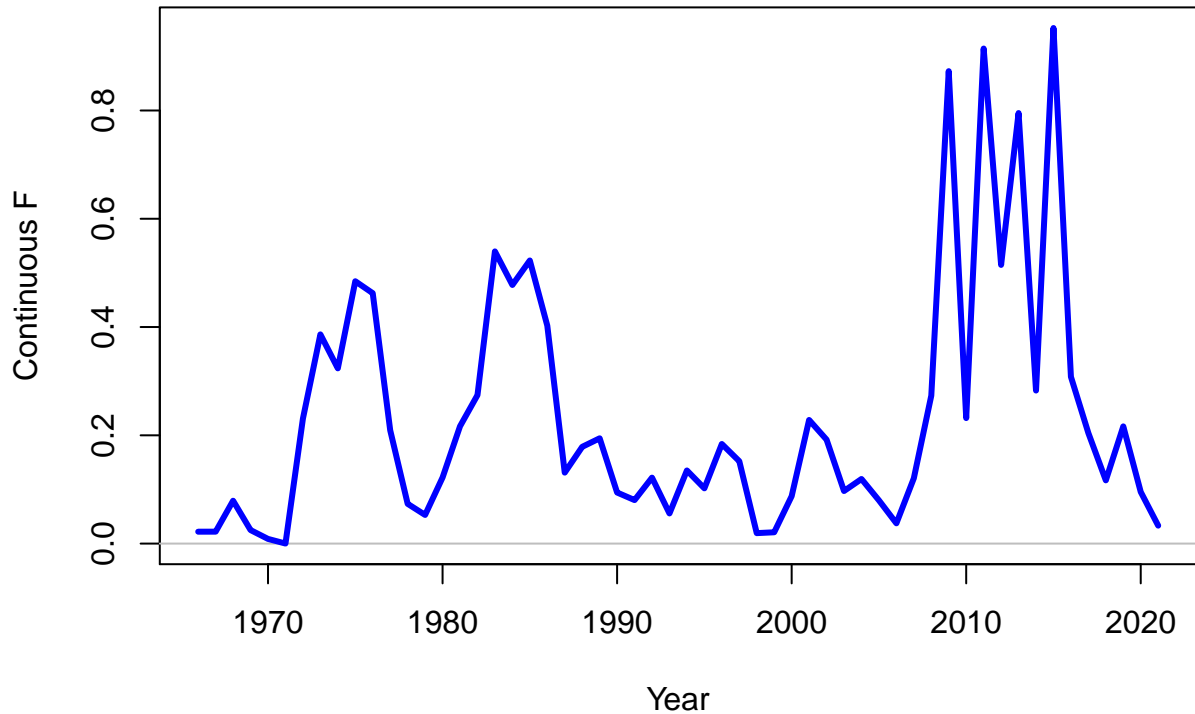






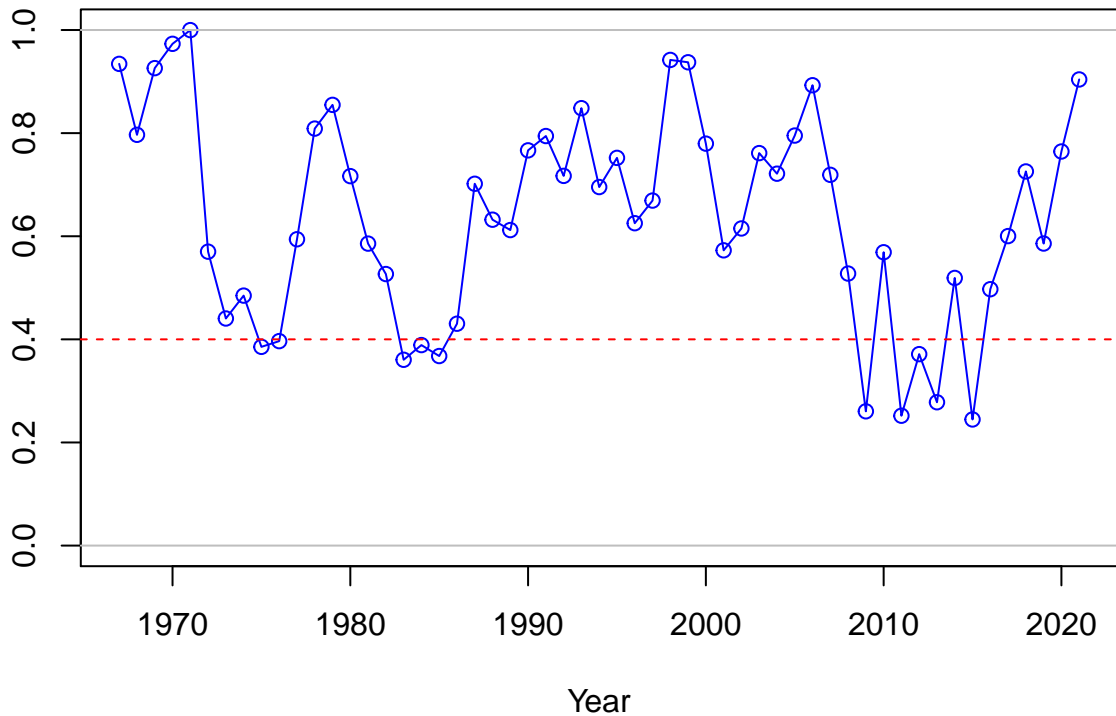
Observed and expected Landings (mt)



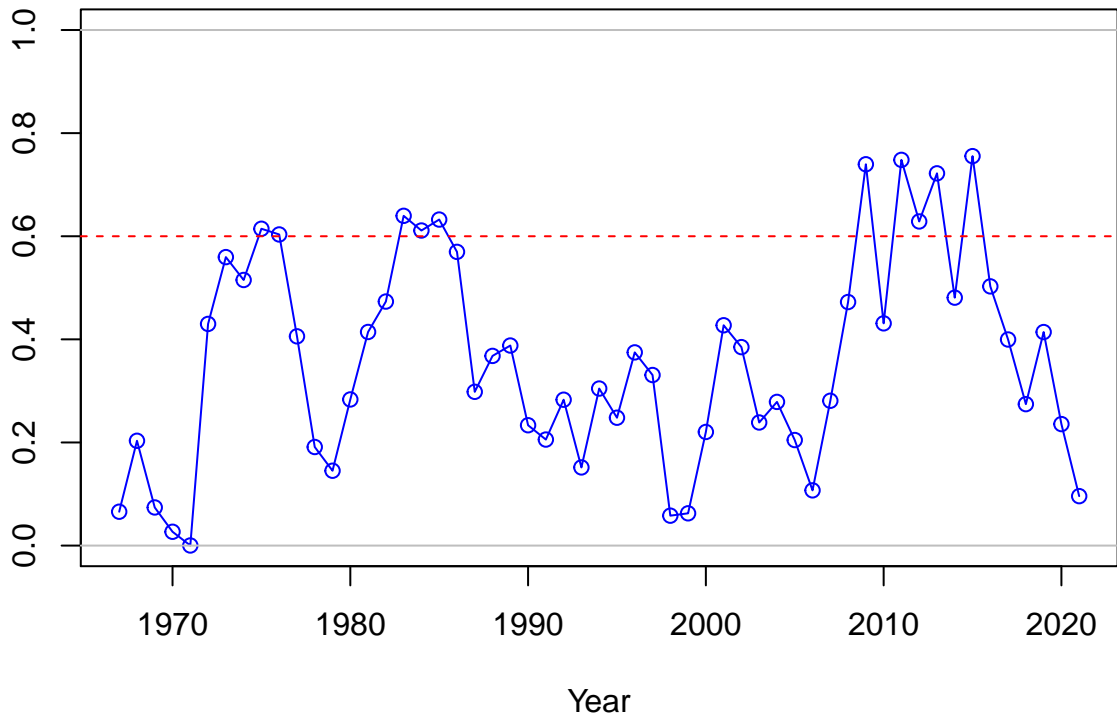




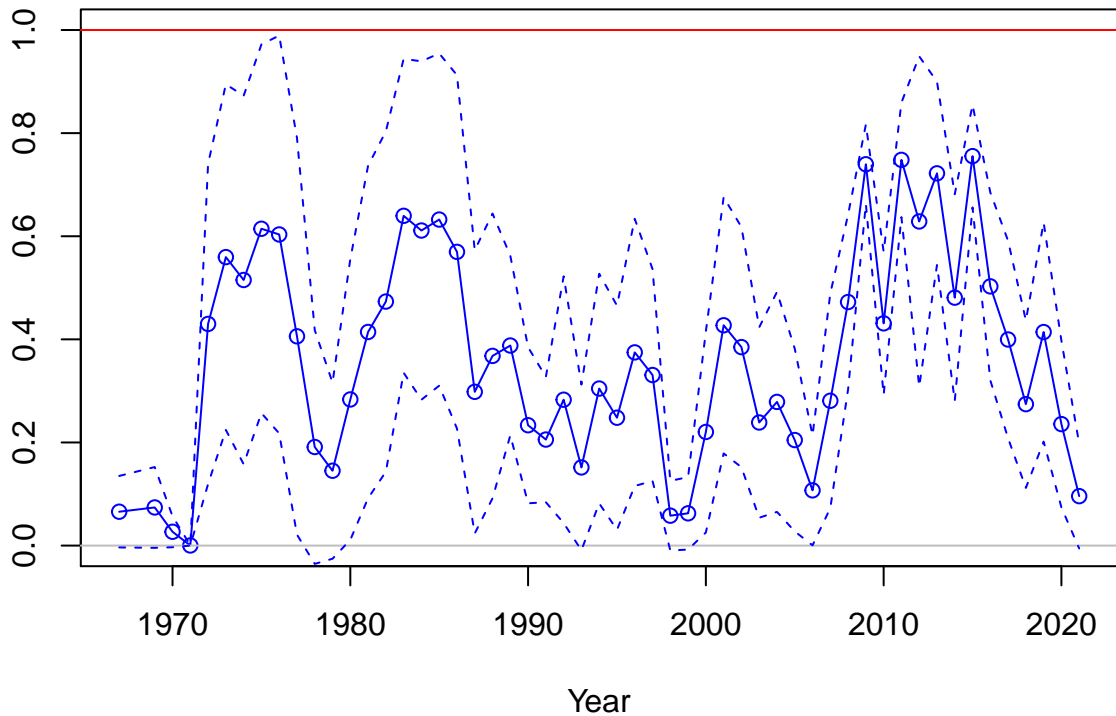
SPR

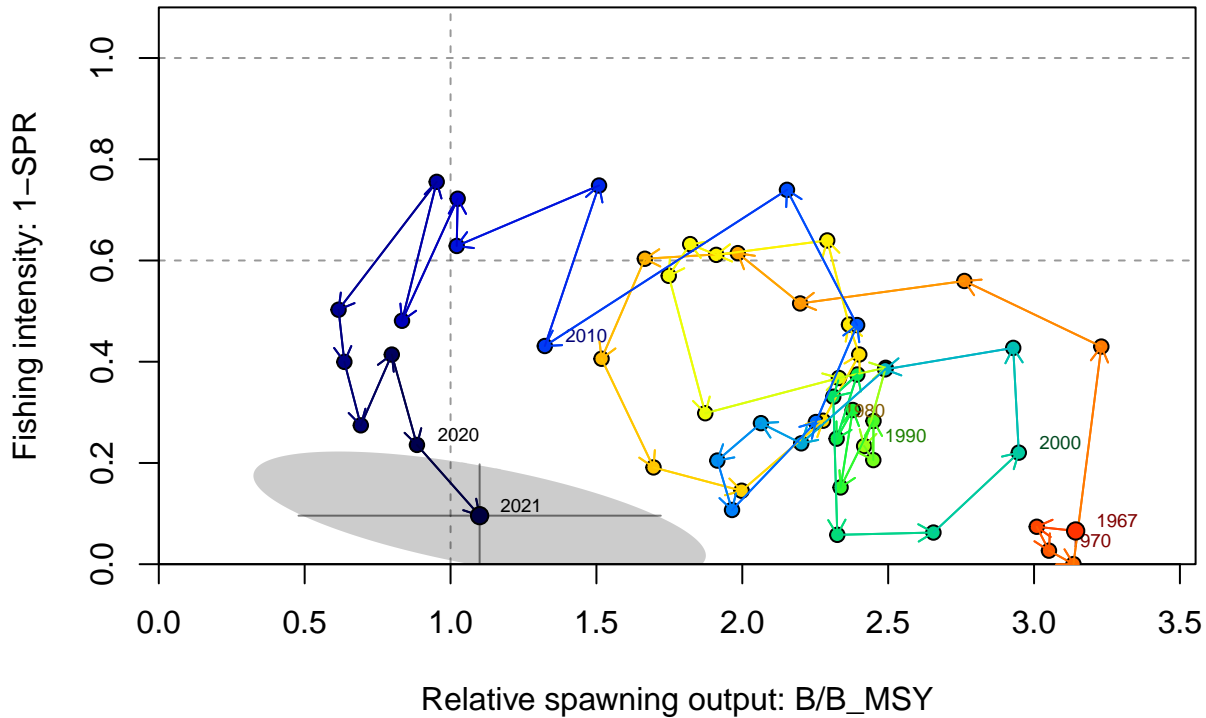


1-SPR

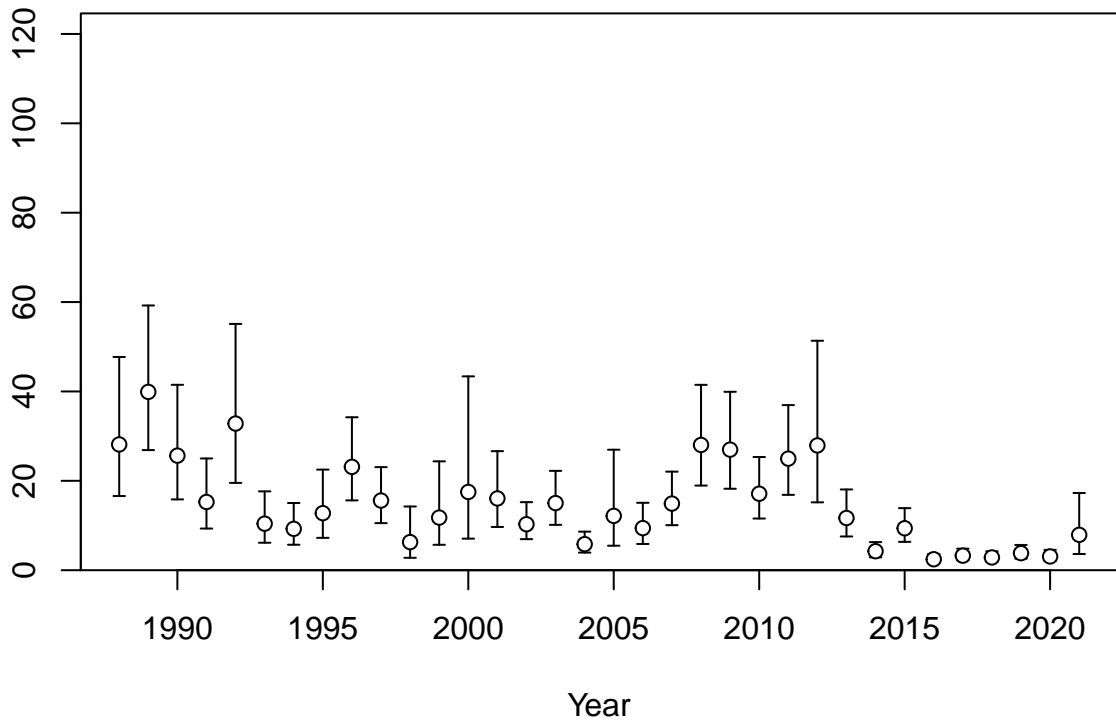


Fishing intensity: 1-SPR

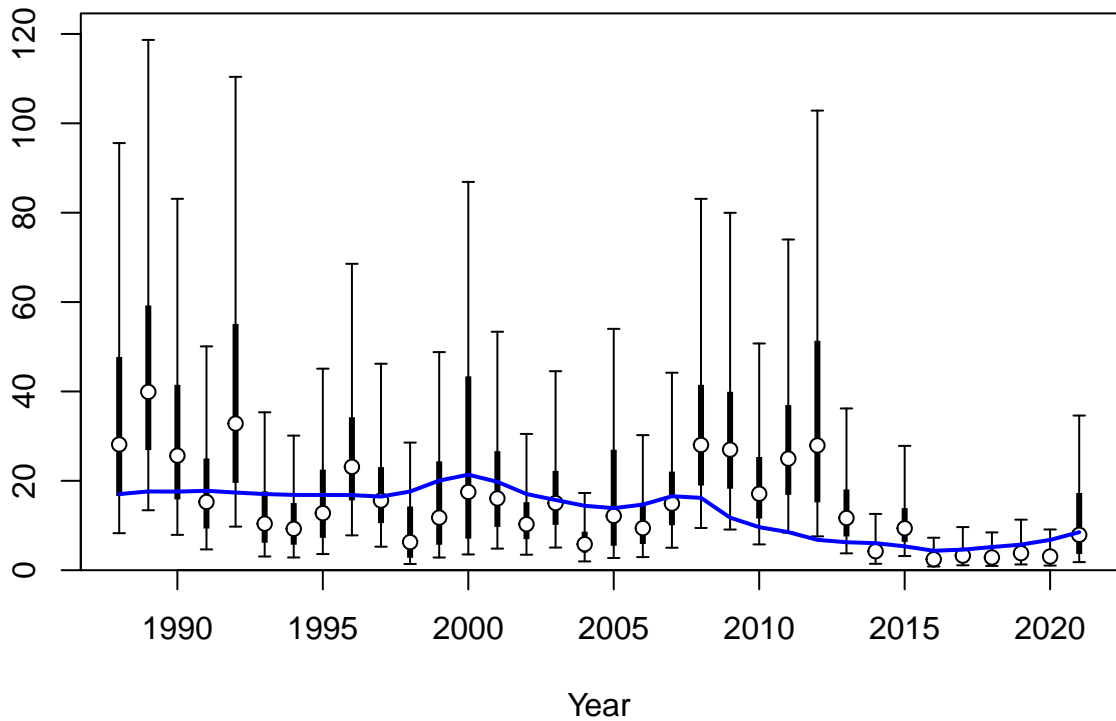


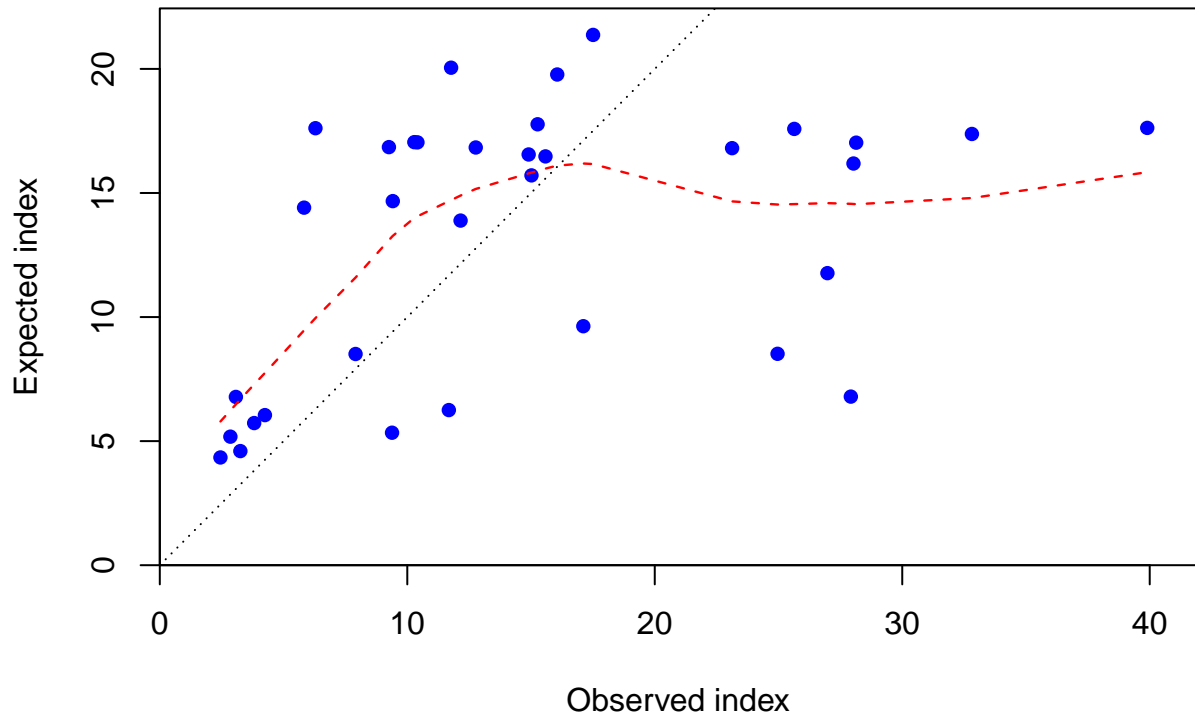


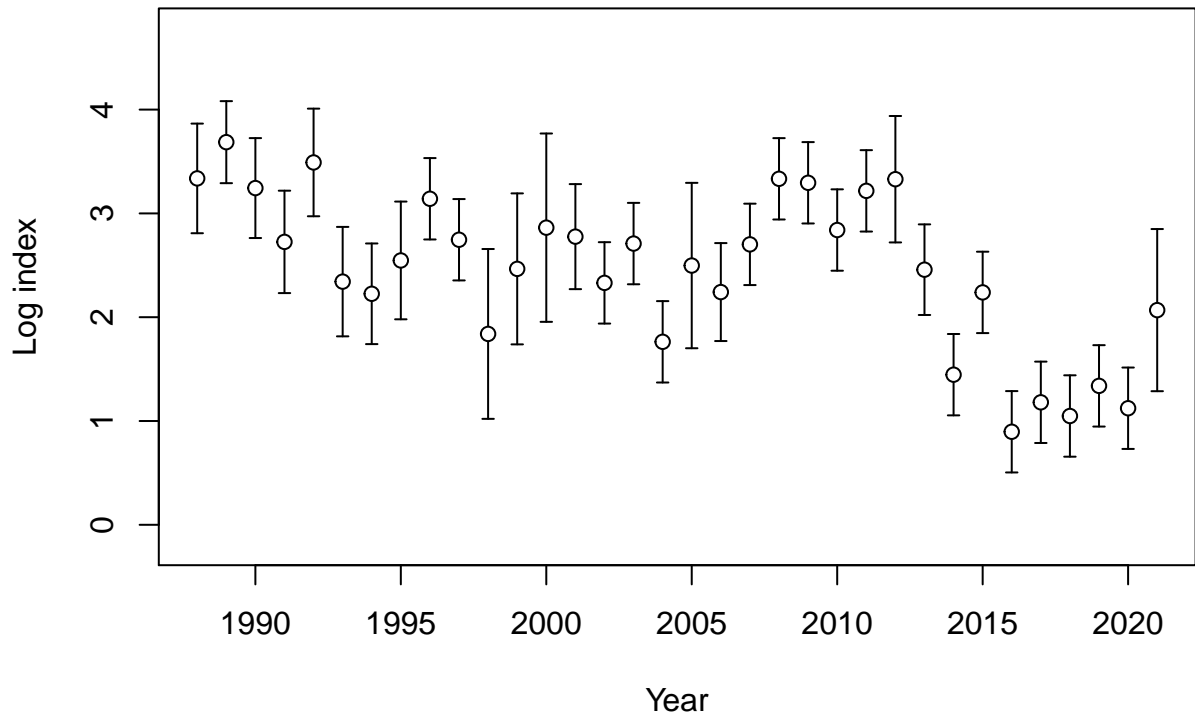
Index



Index









Log index

4  
3  
2  
1  
0

1990

1995

2000

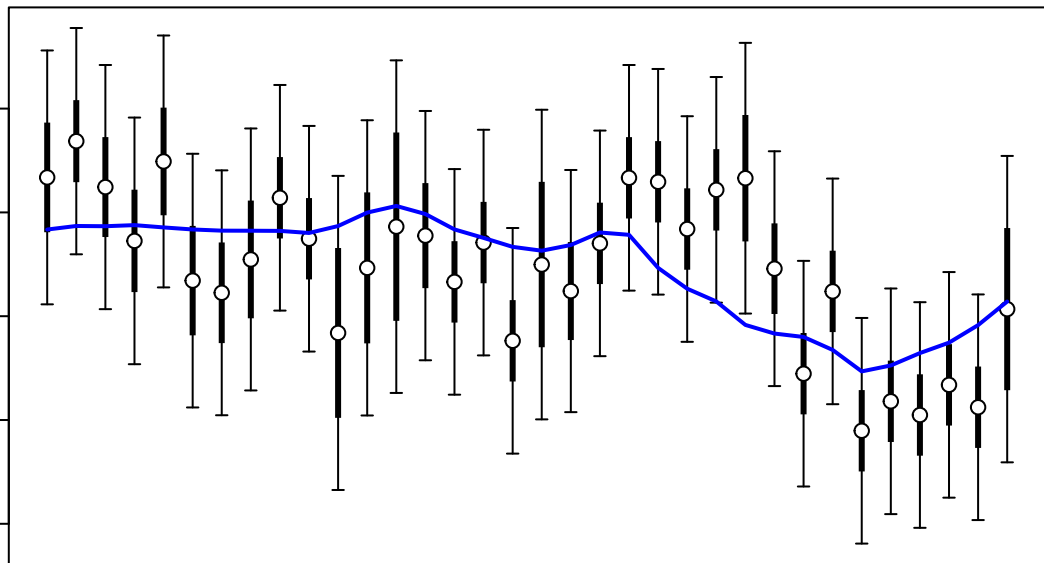
2005

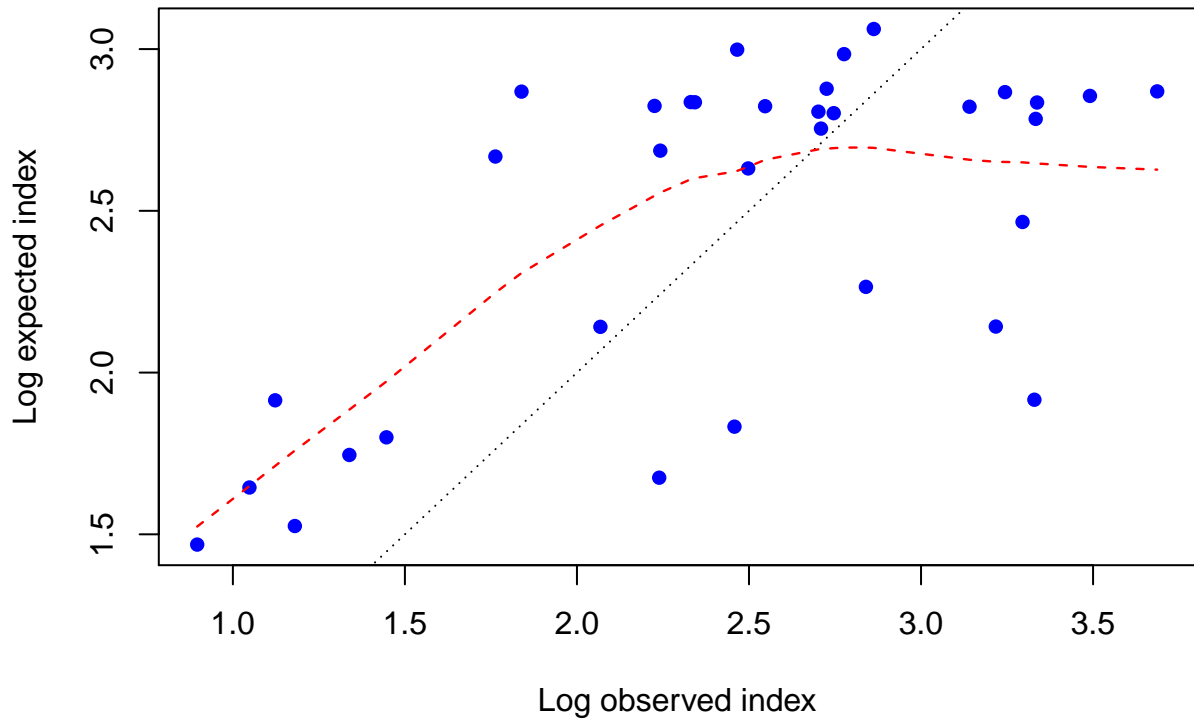
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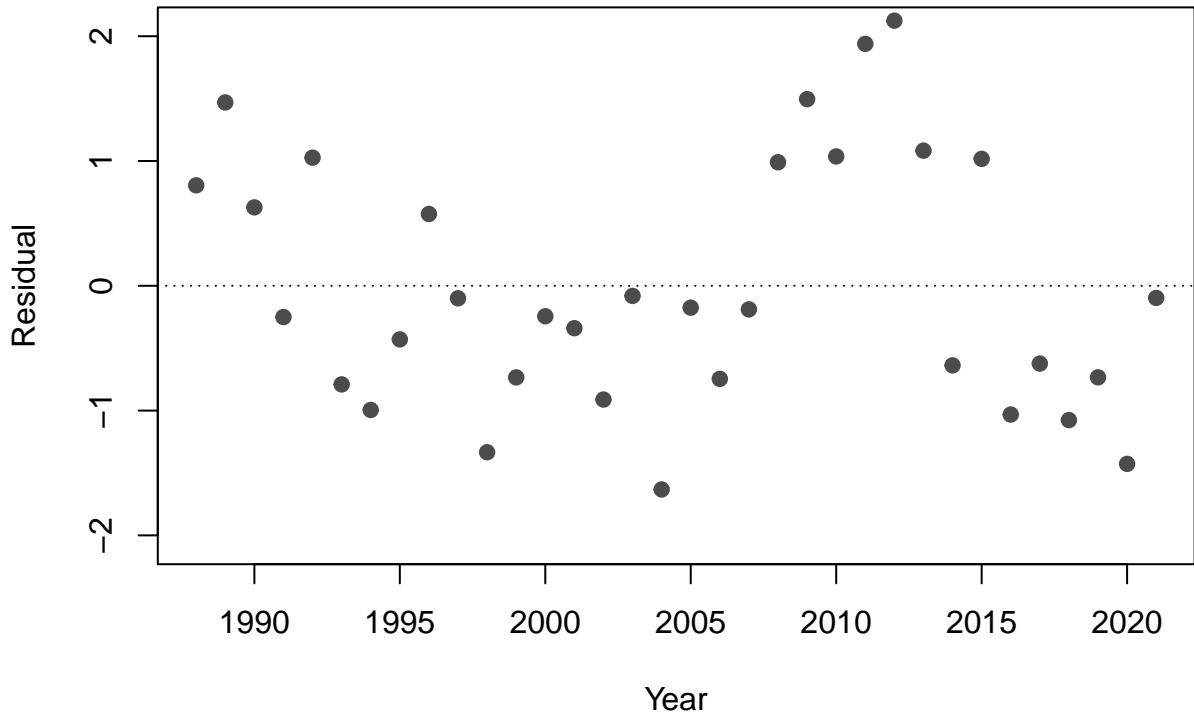
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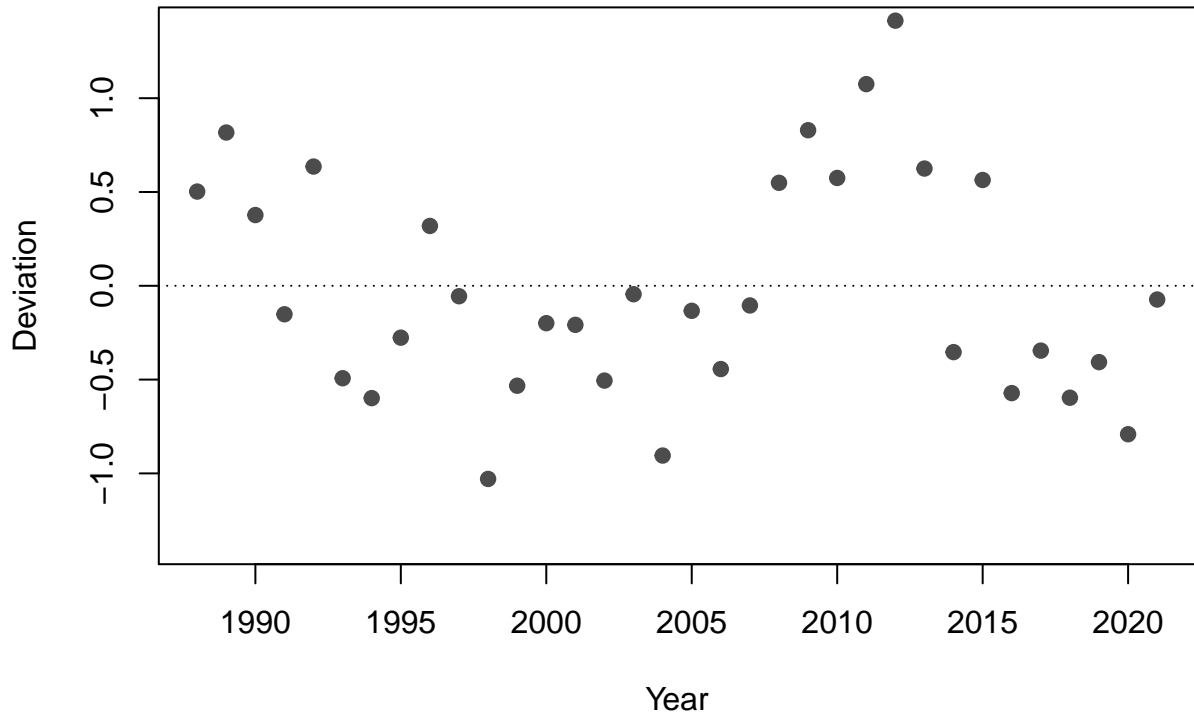
2020

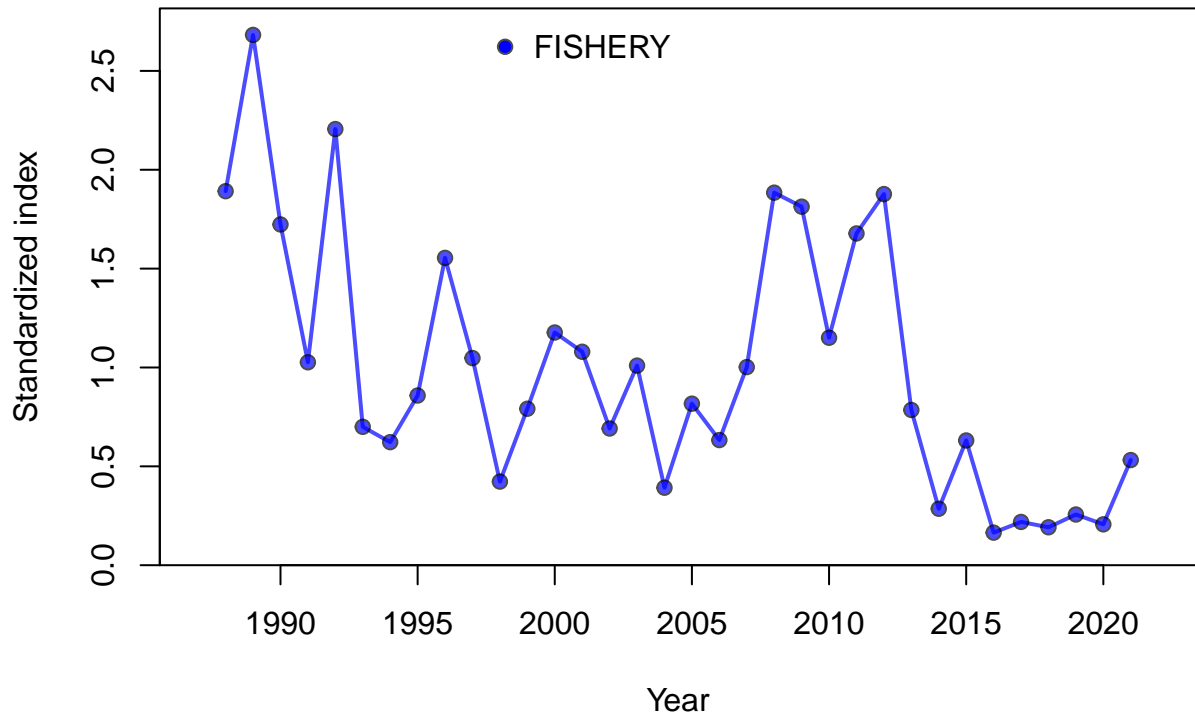
Year



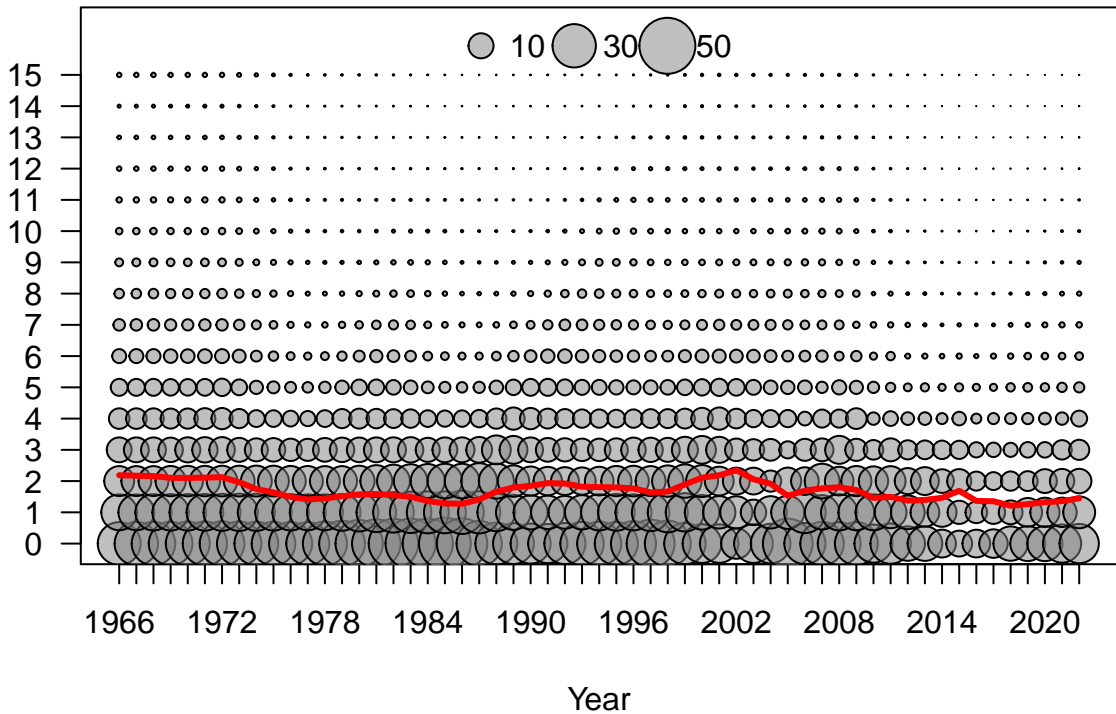


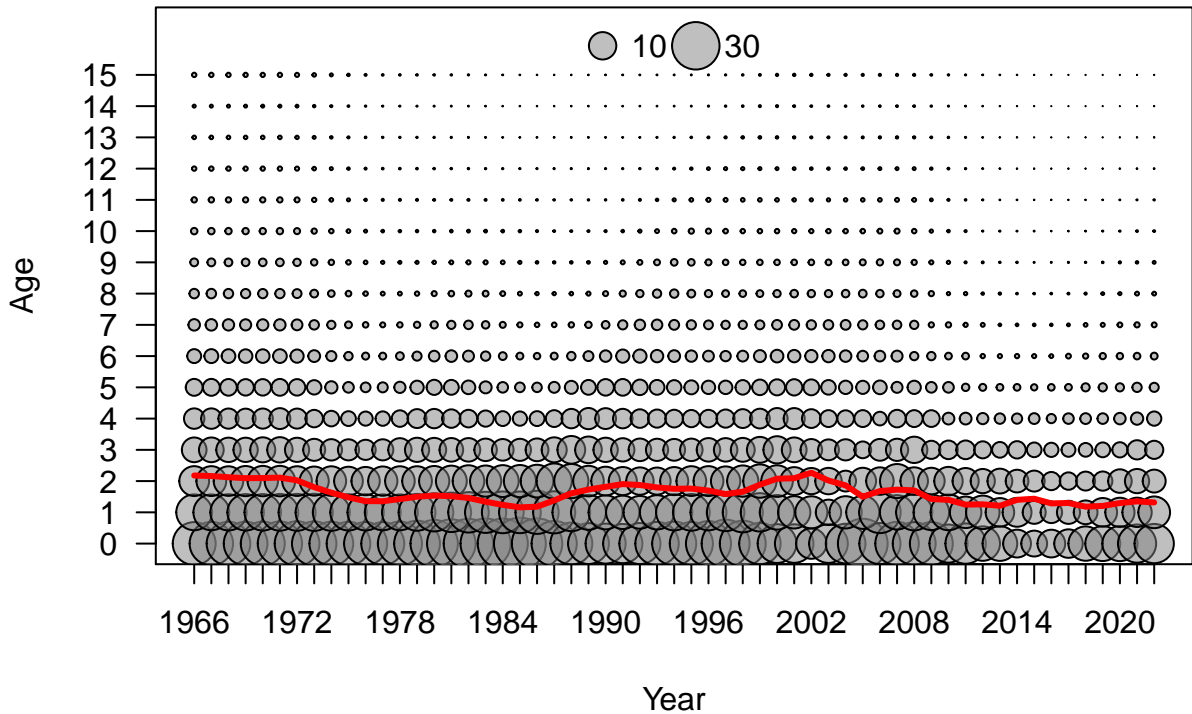


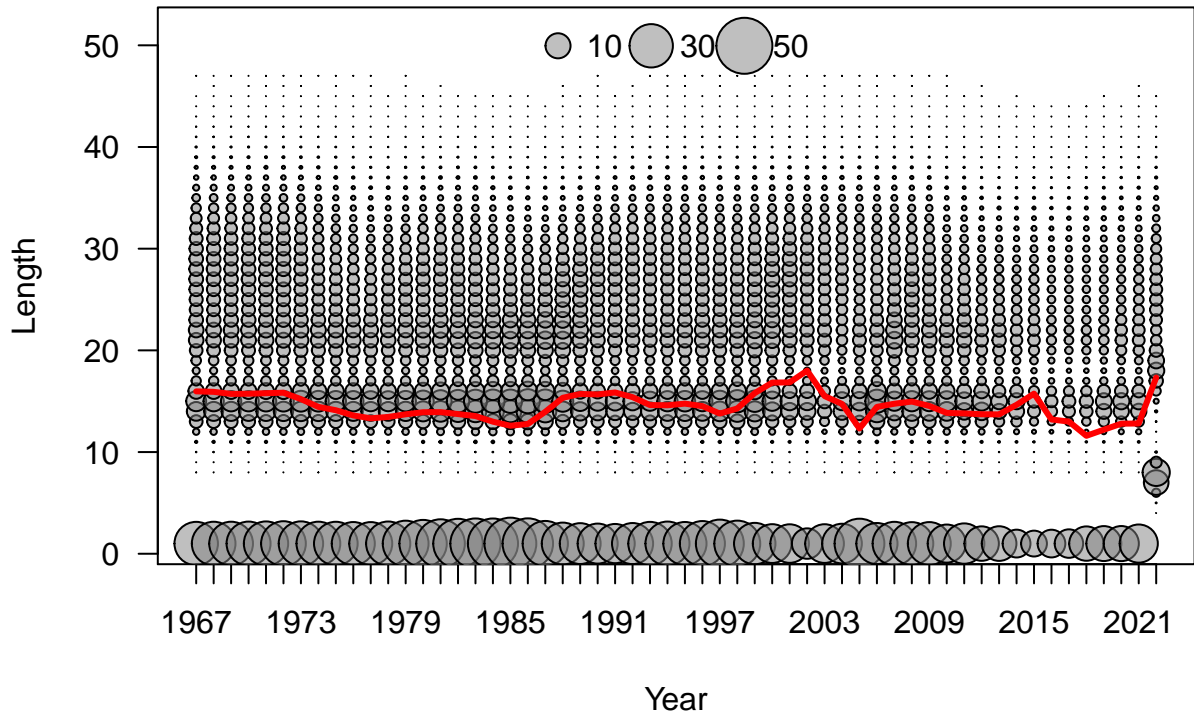




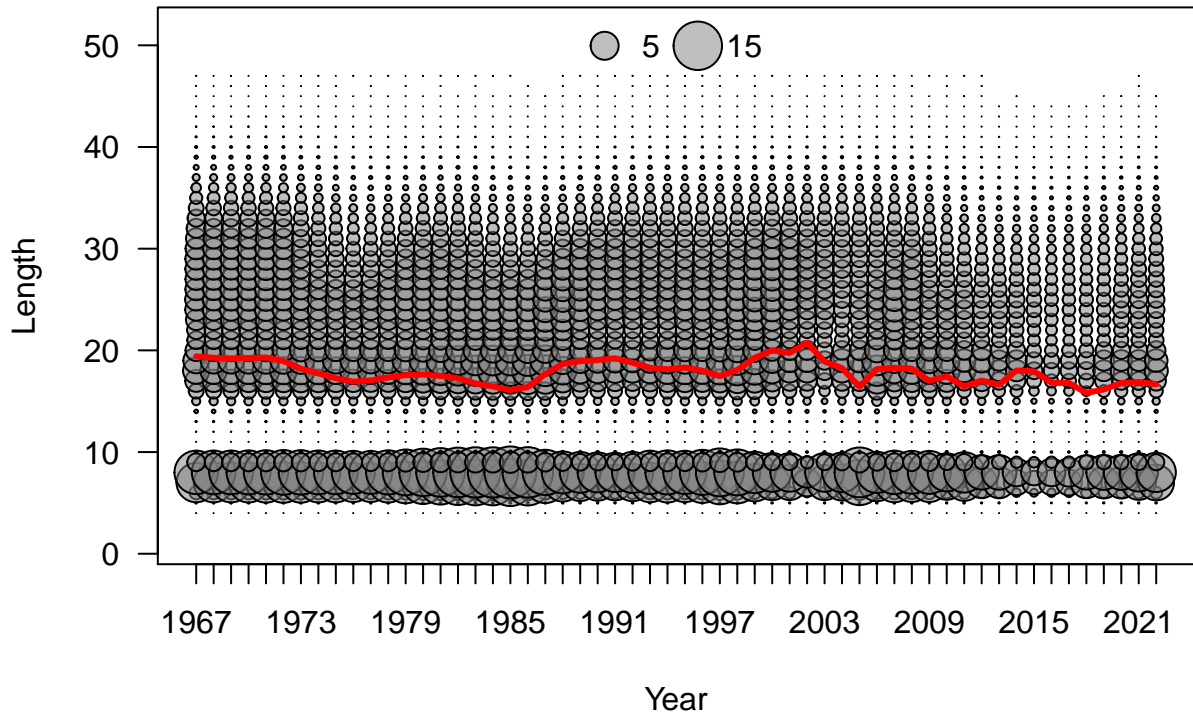
Age

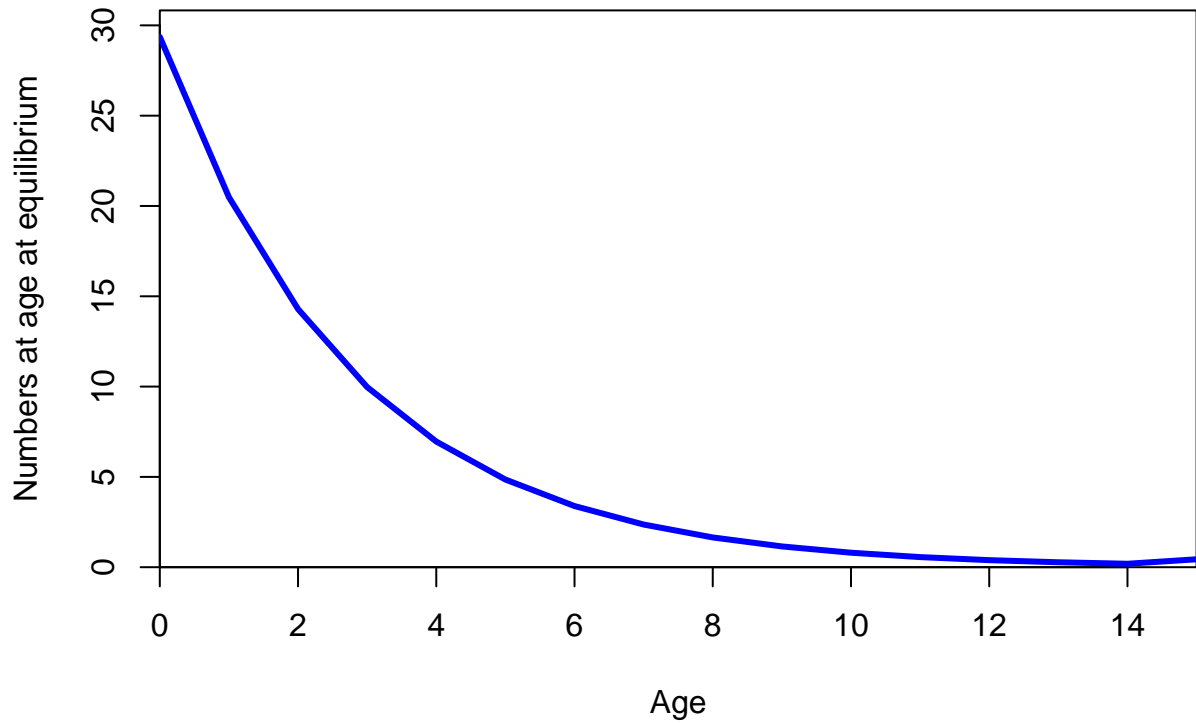






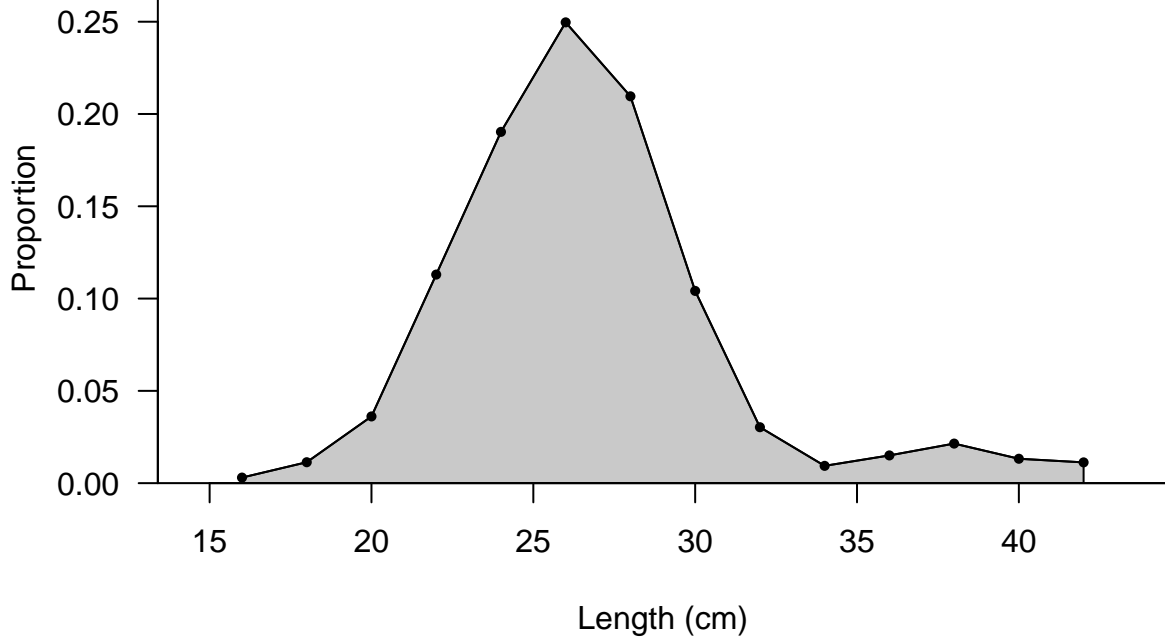


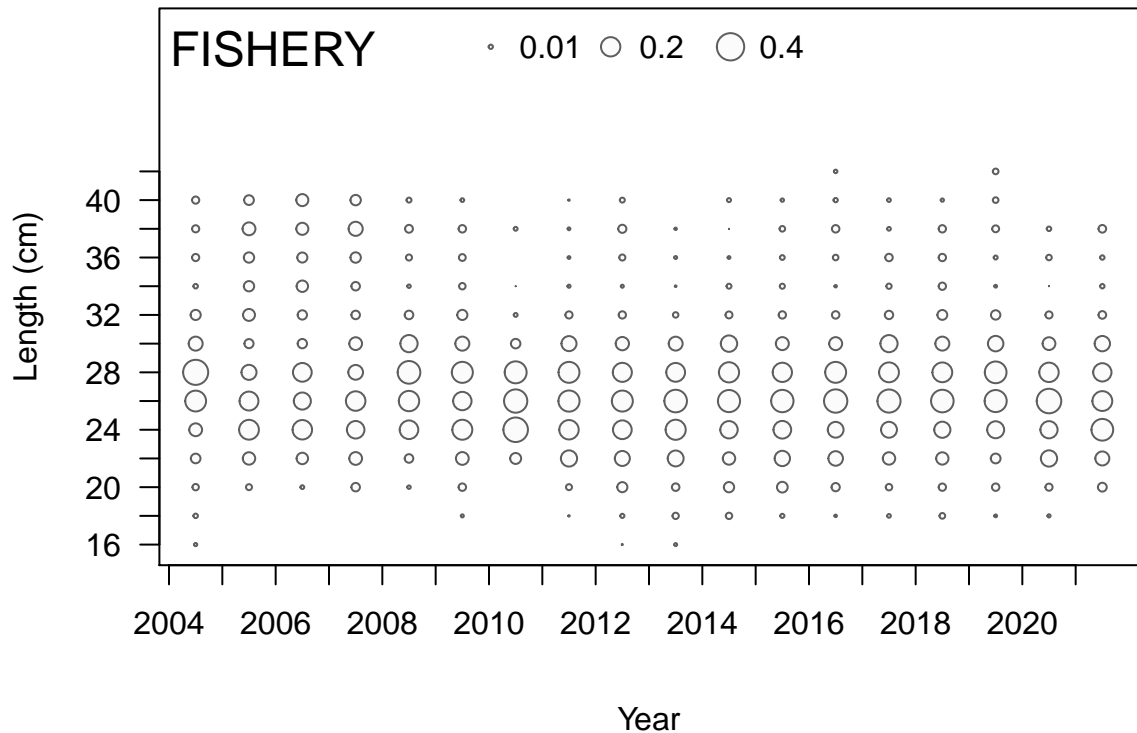


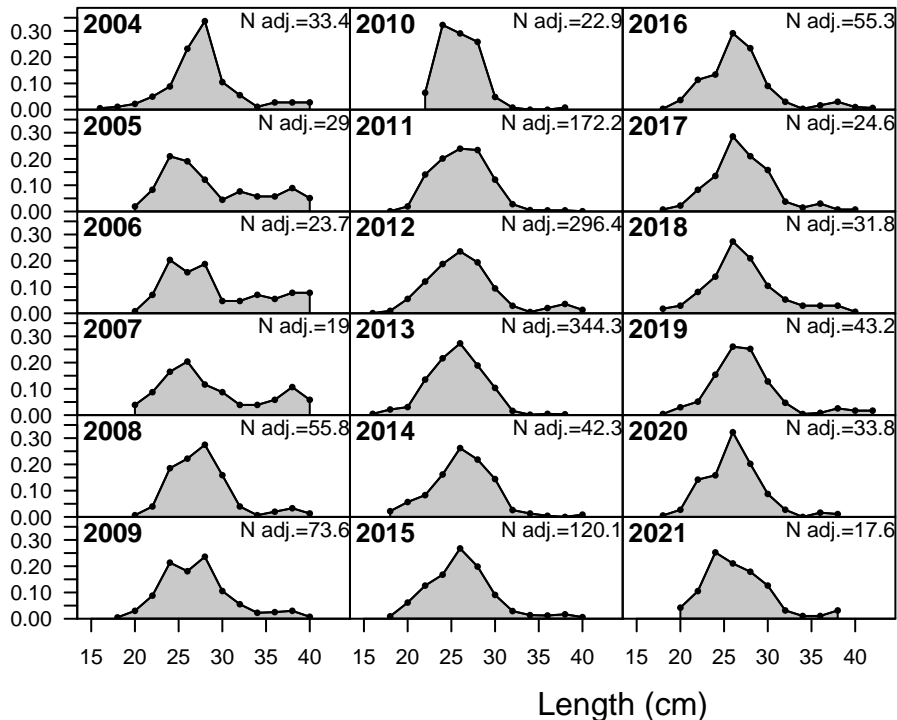


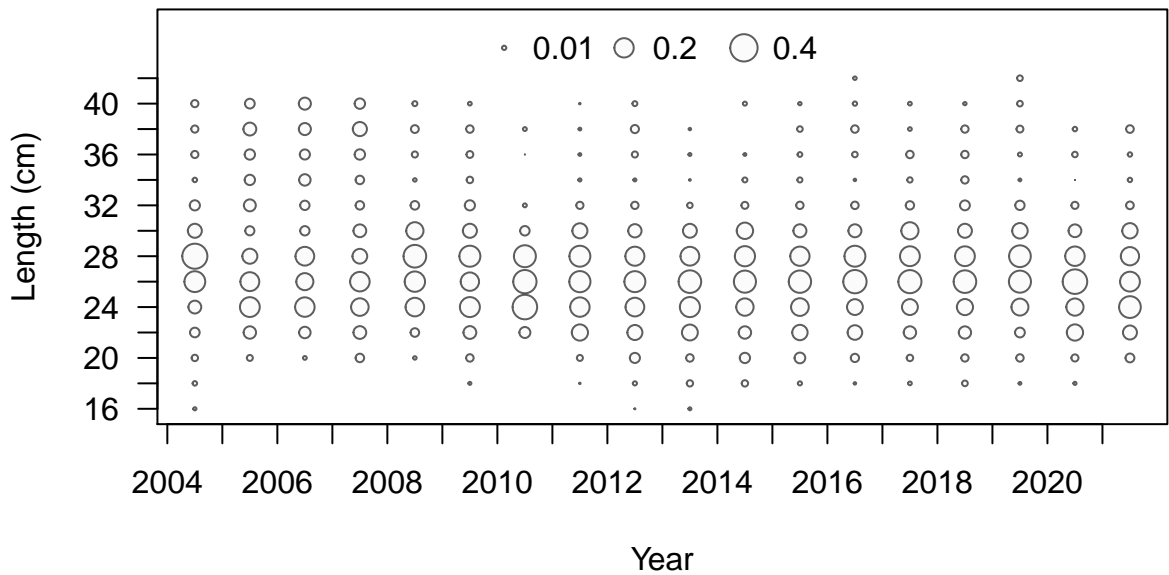
# FISHERY

Sum of N adj.=1439

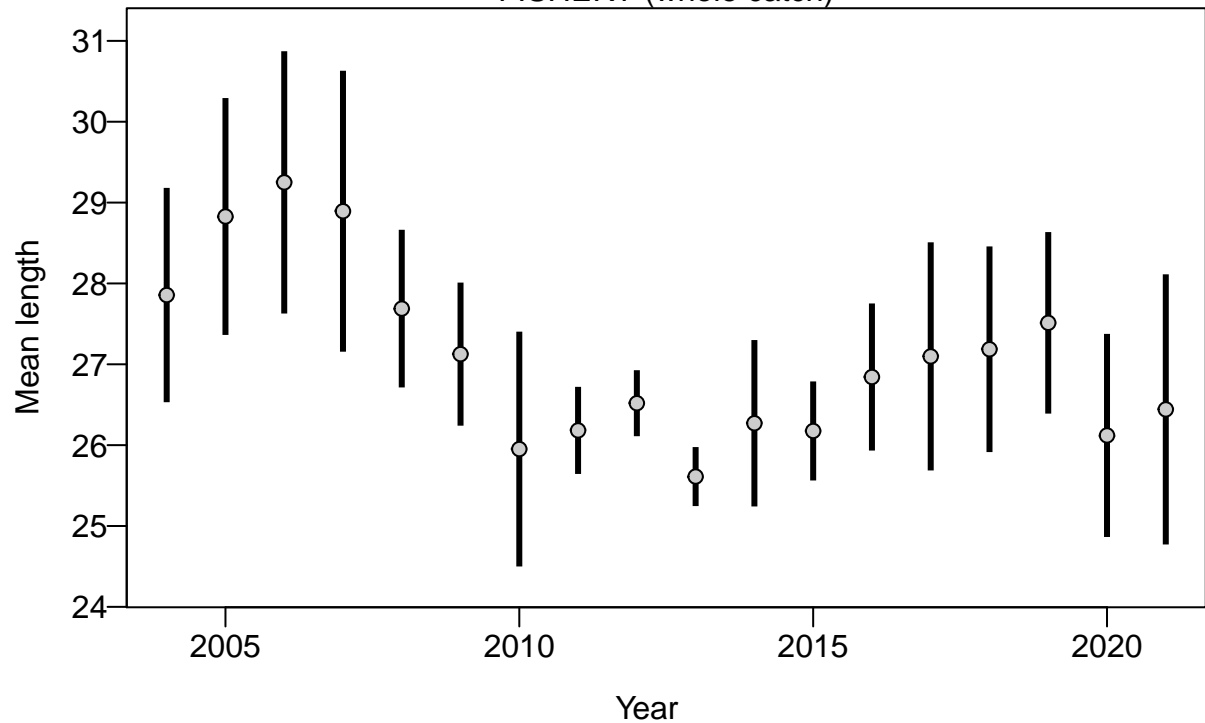






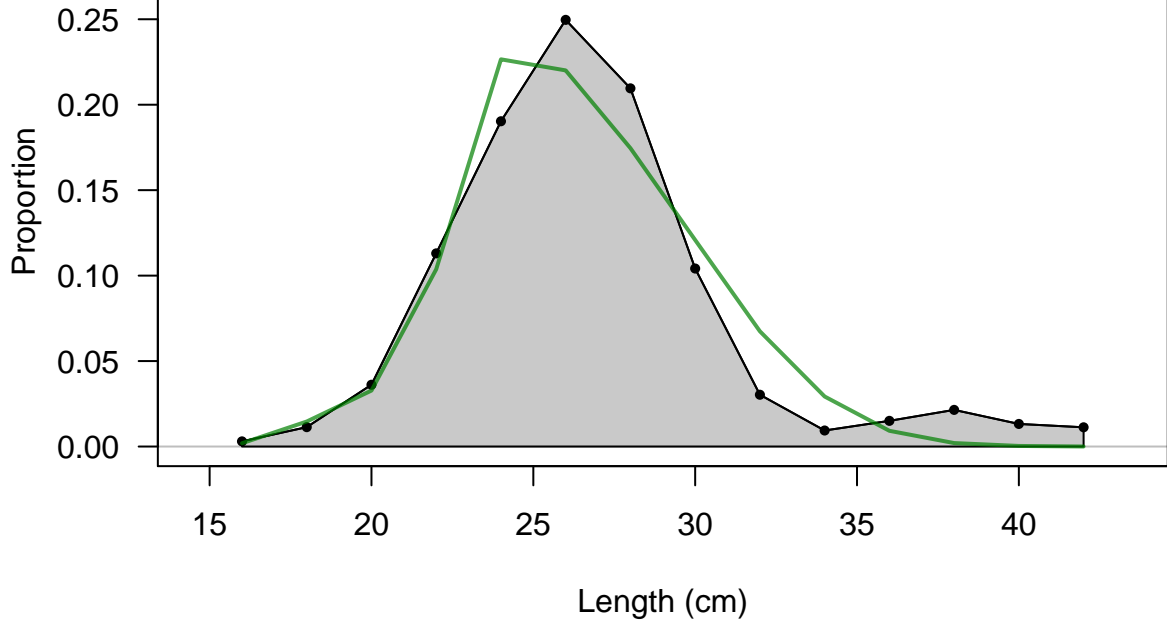


## FISHERY (whole catch)

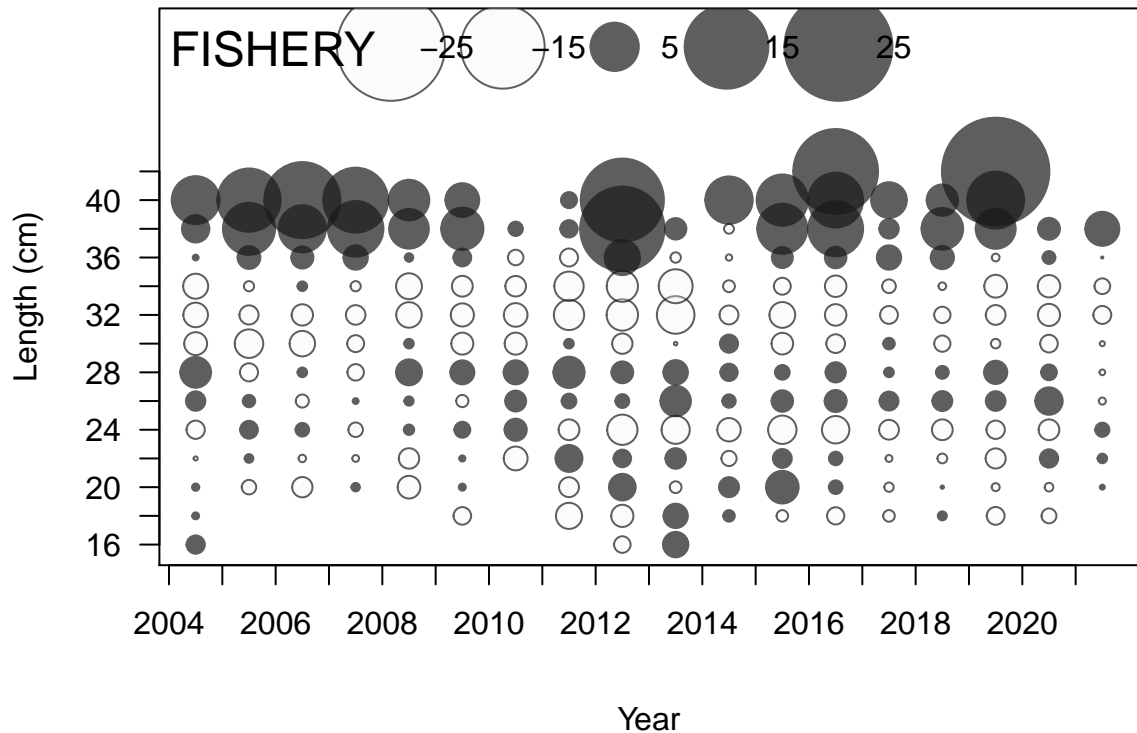


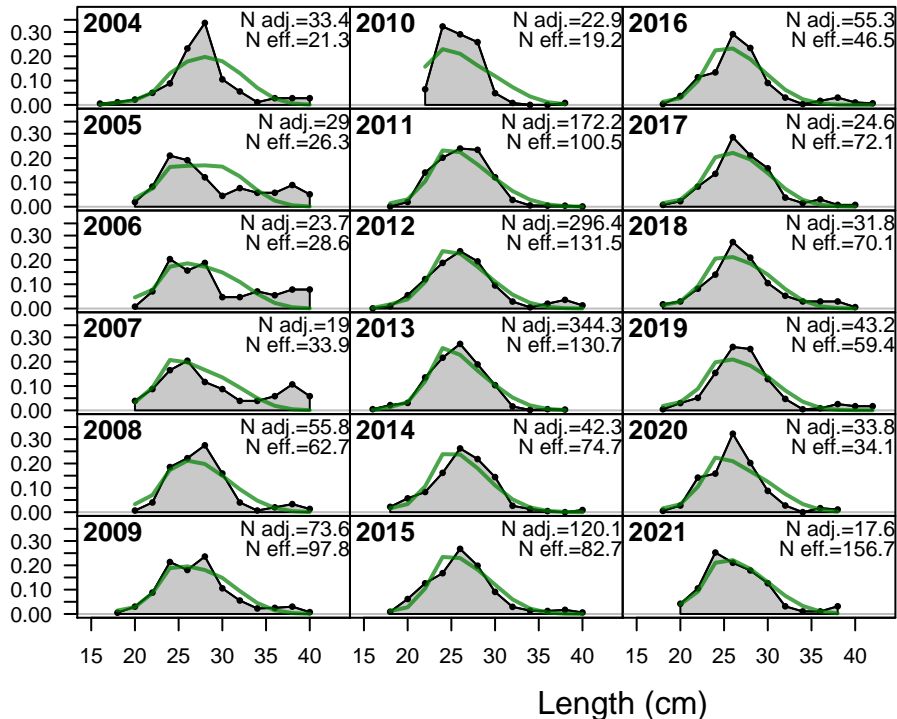
# FISHERY

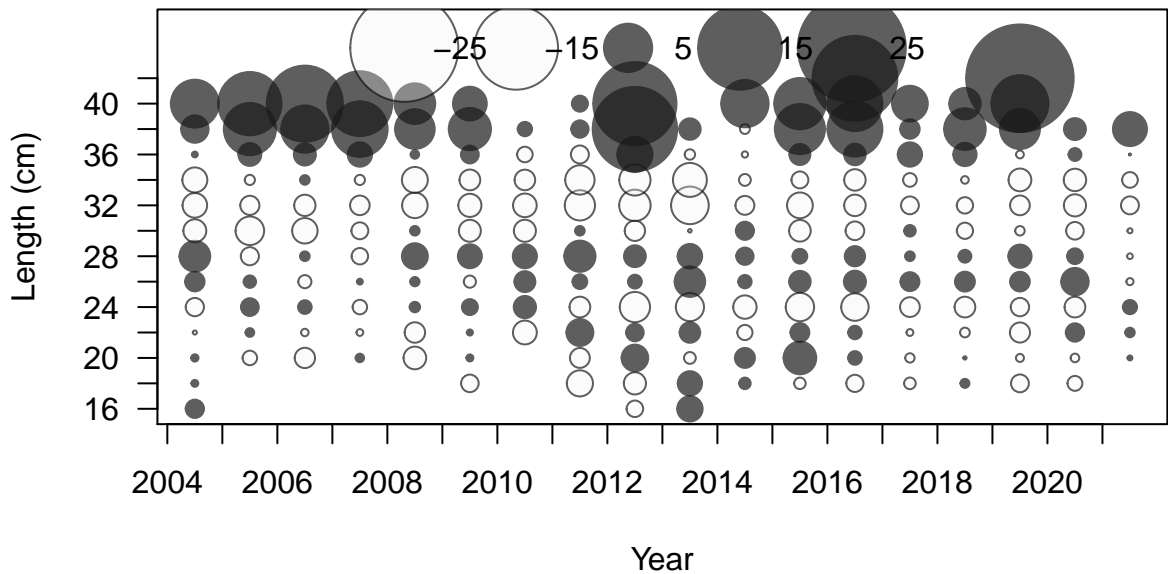
Sum of N adj.=1439  
Sum of N eff.=1248.6



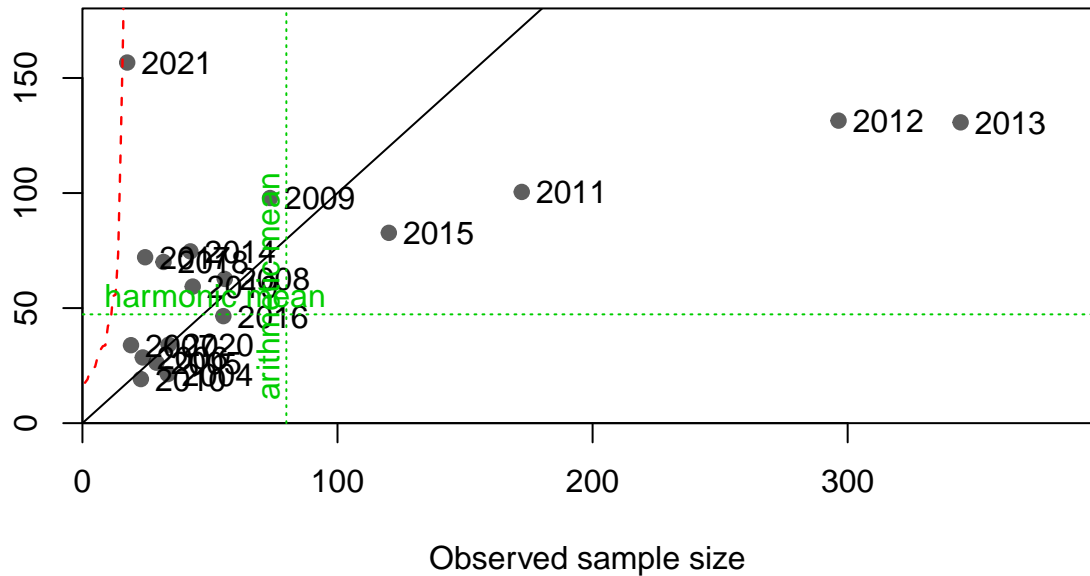




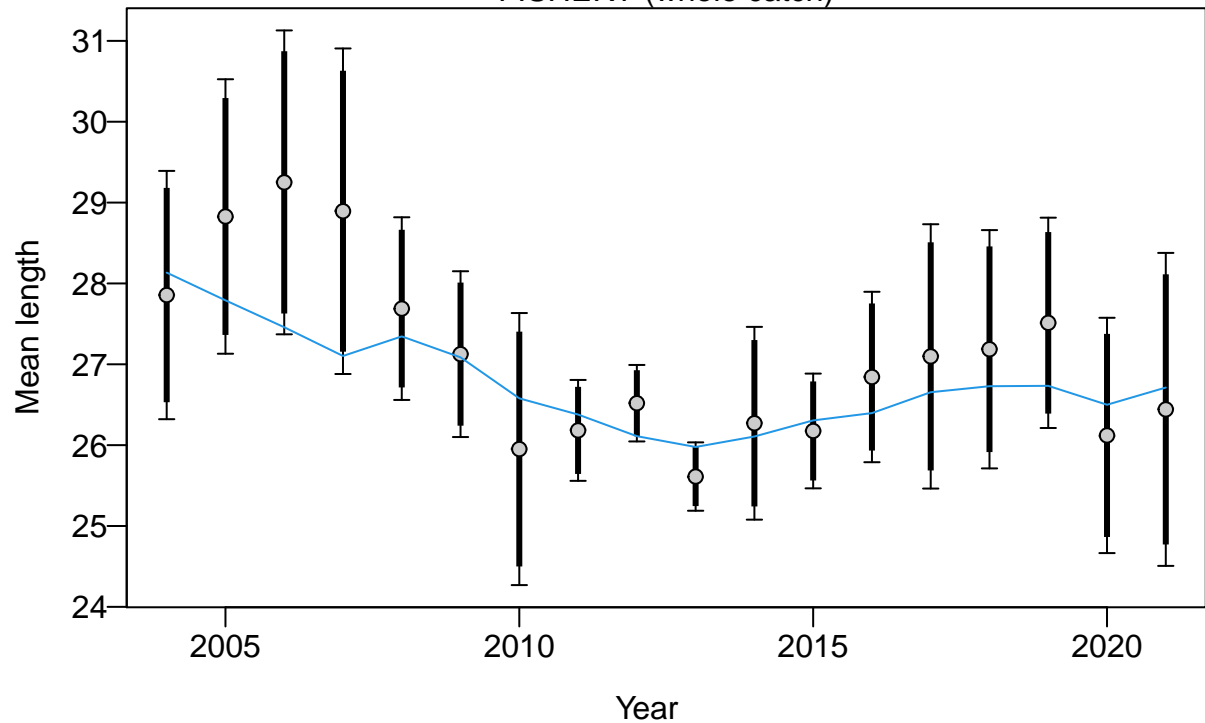


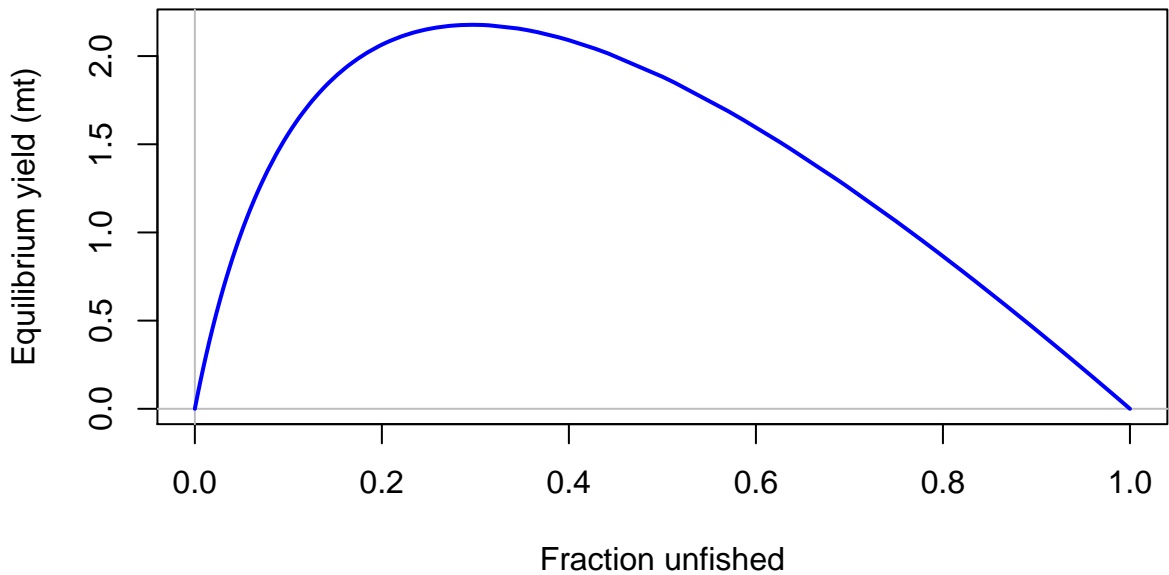


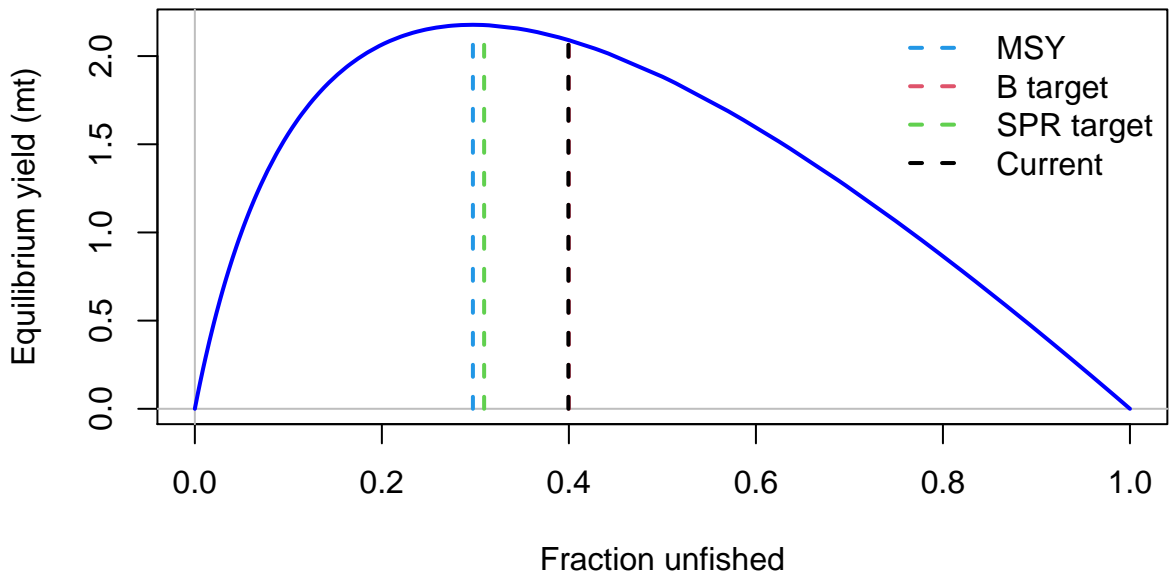
Effective sample size

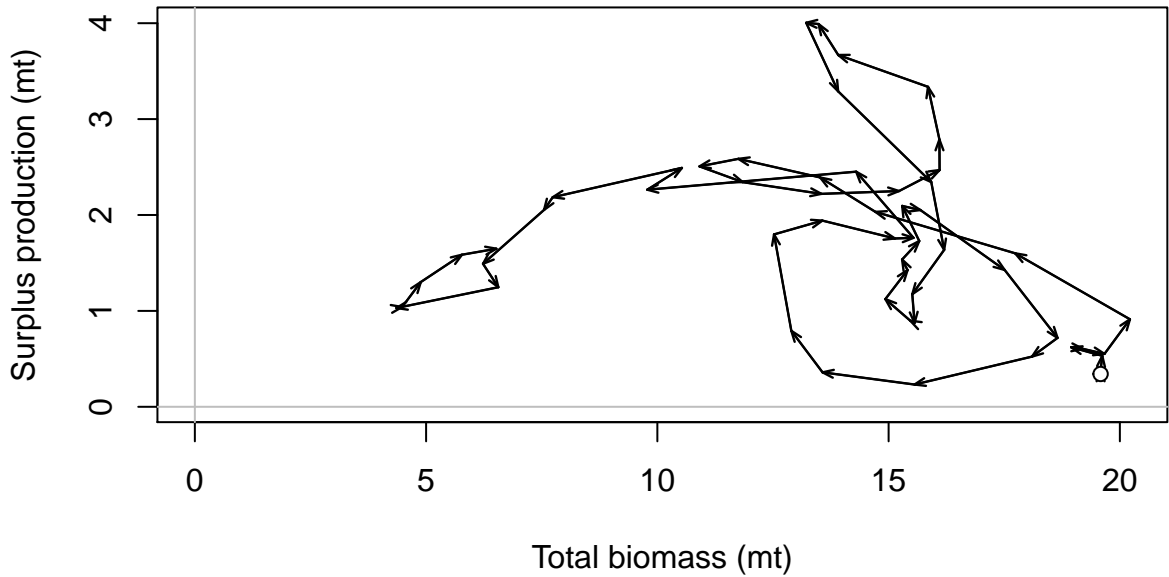


FISHERY (whole catch)

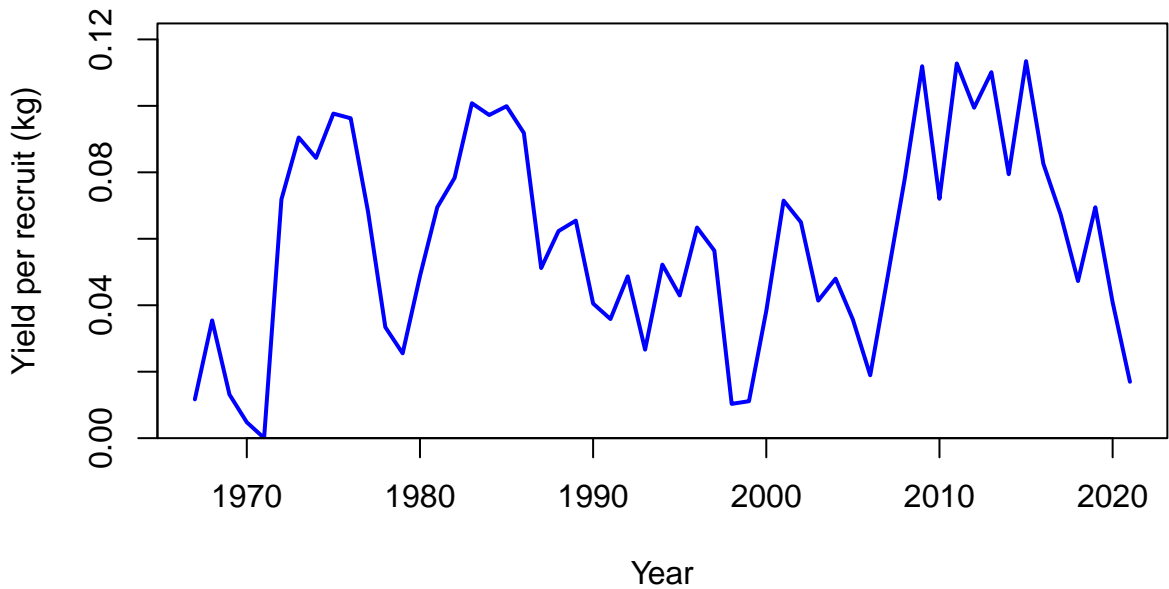


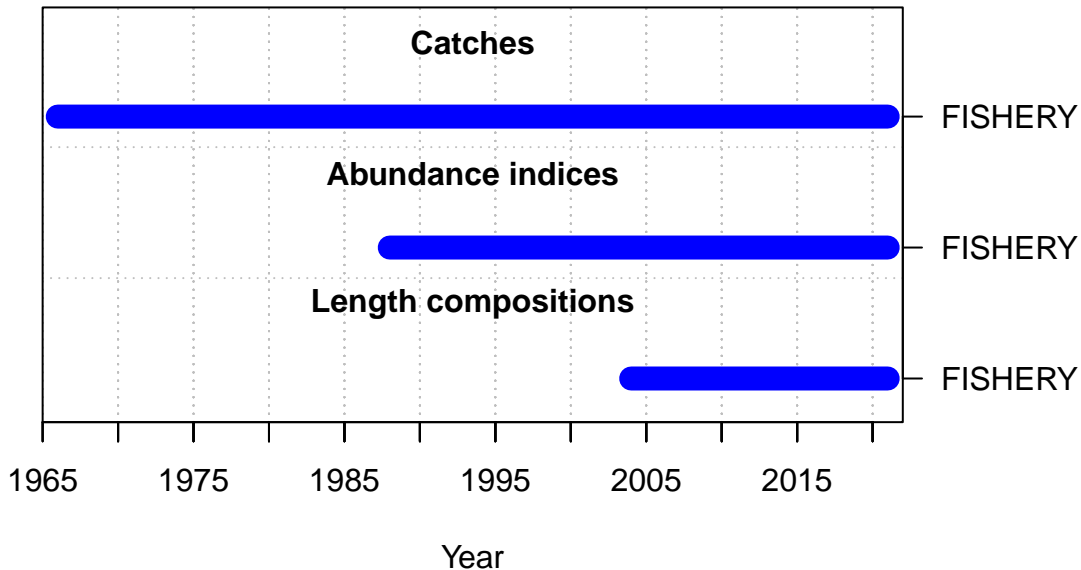


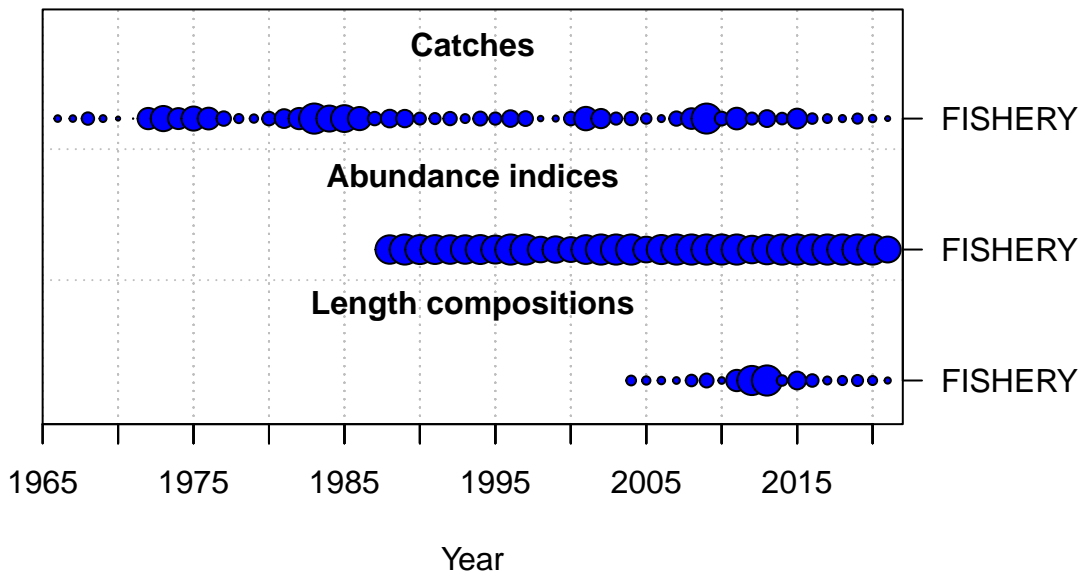




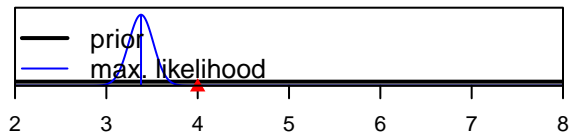




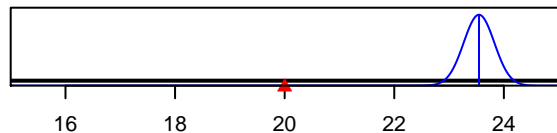




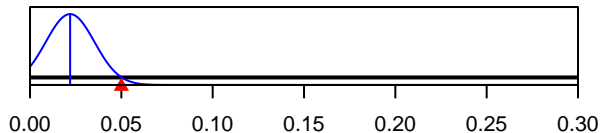
SR\_LN(R0)



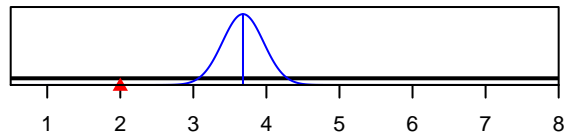
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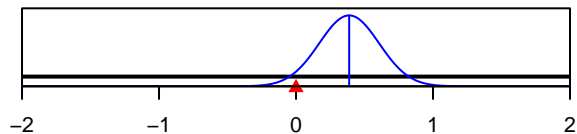
InitF\_seas\_1\_flt\_1FISHERY



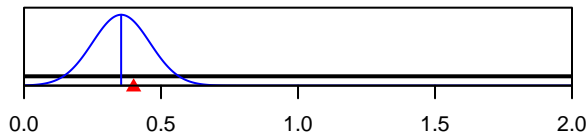
Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



Q\_extraSD\_FISHERY(1)



Parameter value