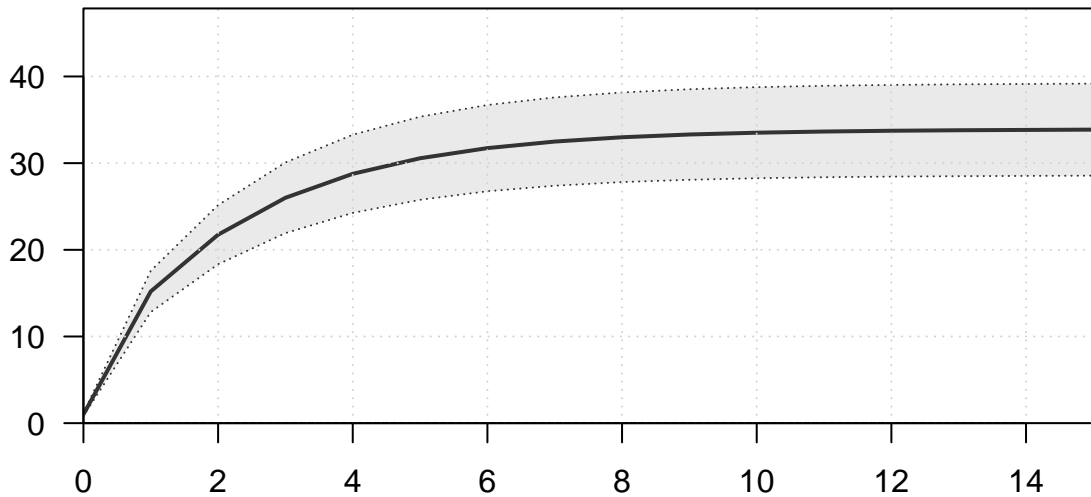
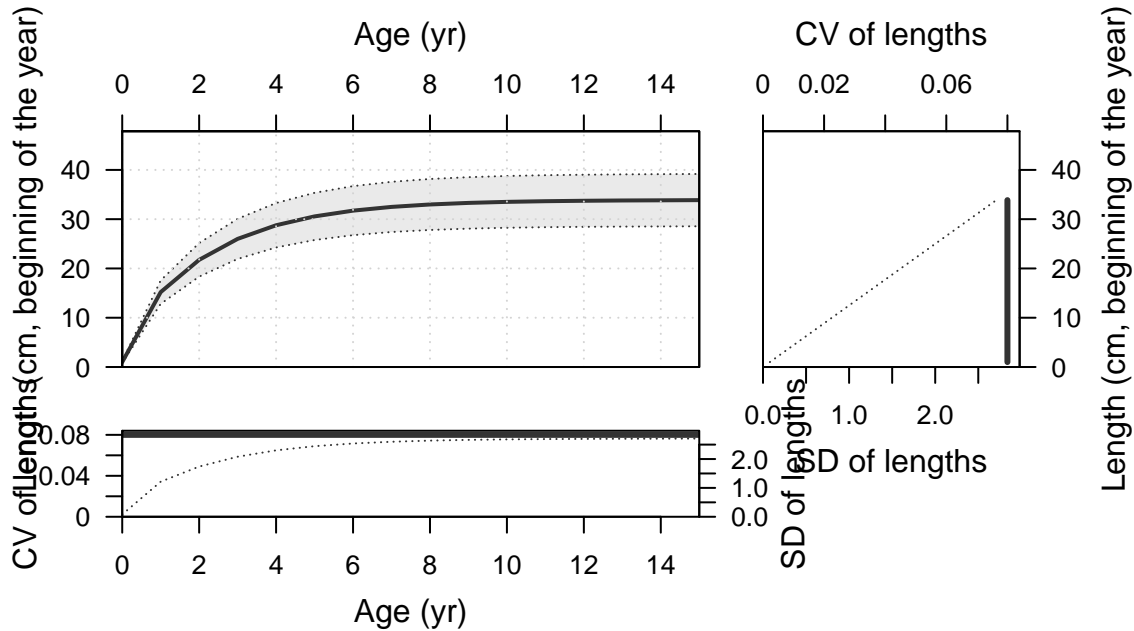


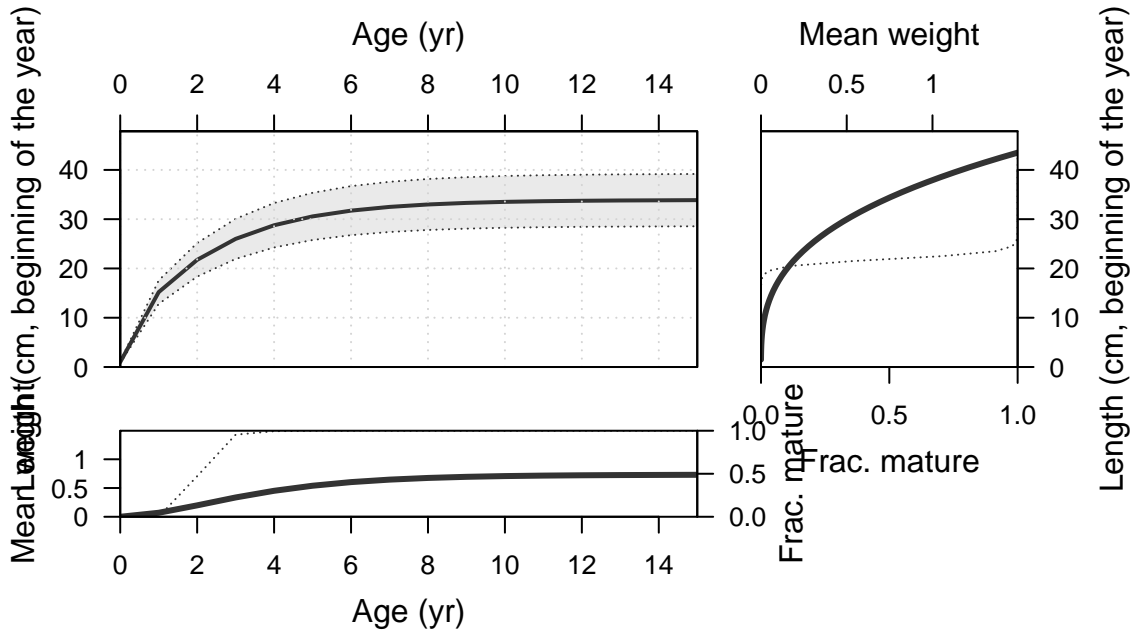
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Sat Jul 30 19:23:46 2022  
Data\_File: data.ss  
Control\_File: control.ss

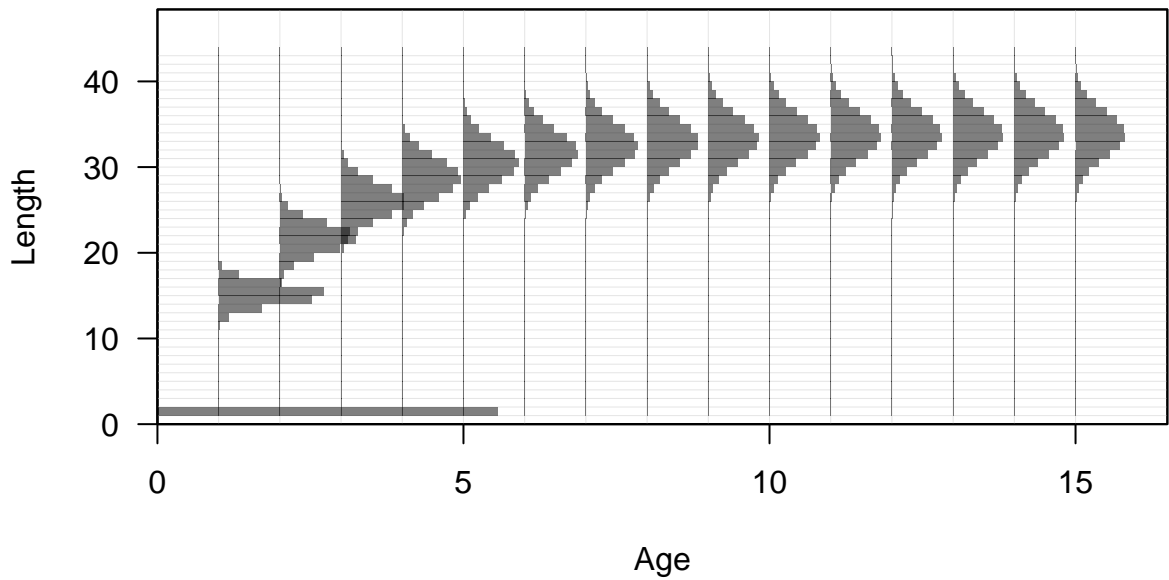
Length (cm, beginning of the year)

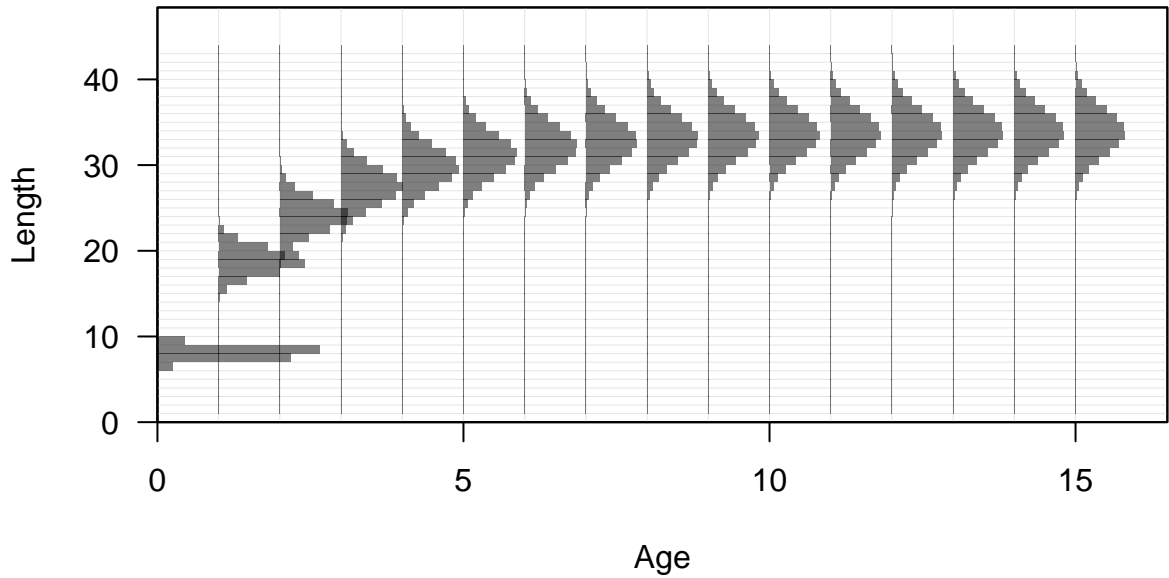


Age (yr)





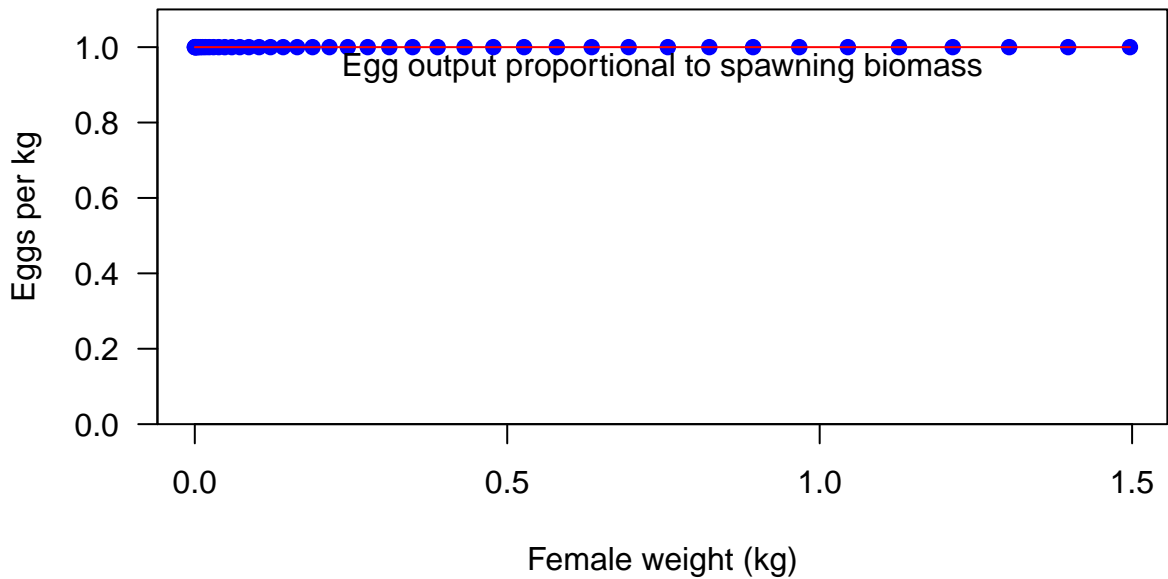








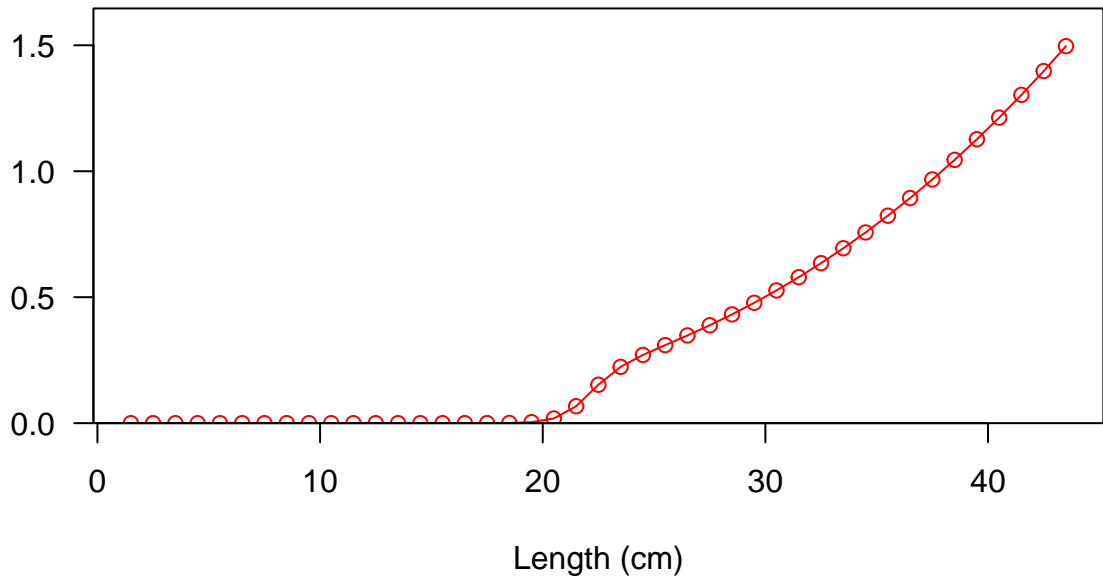


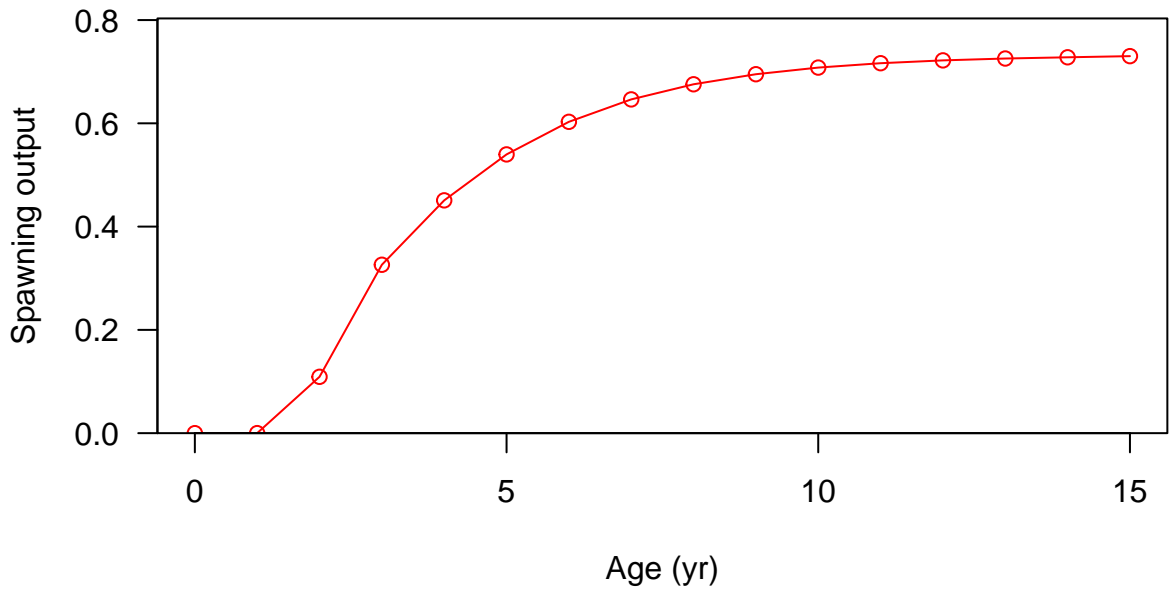






Spawning output

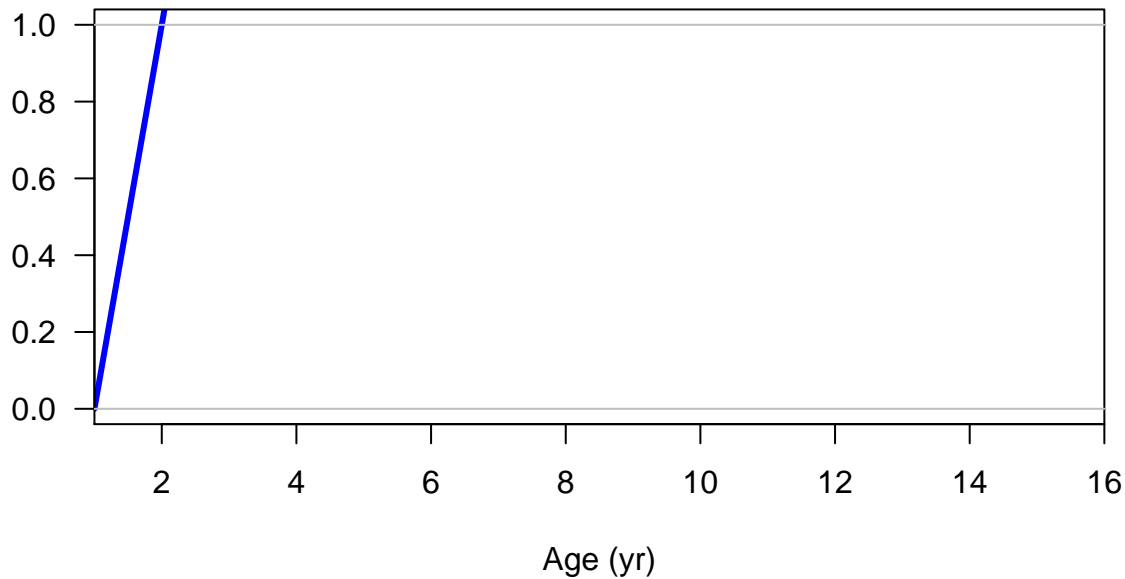




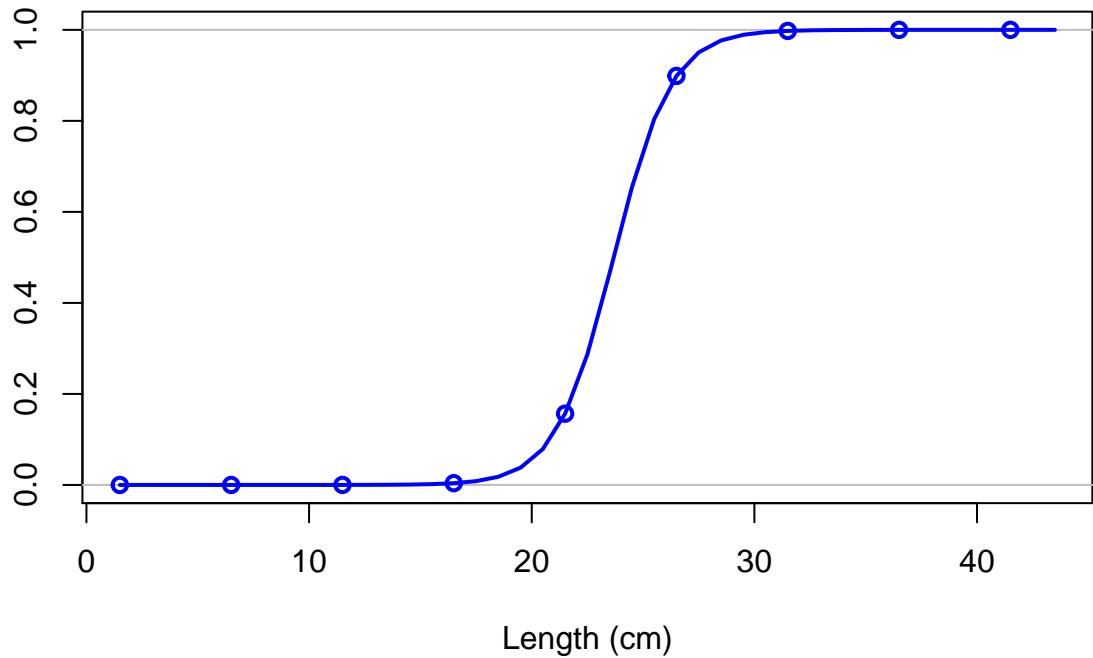
Hermaphroditism transition rate



Fraction females by age at equilibrium

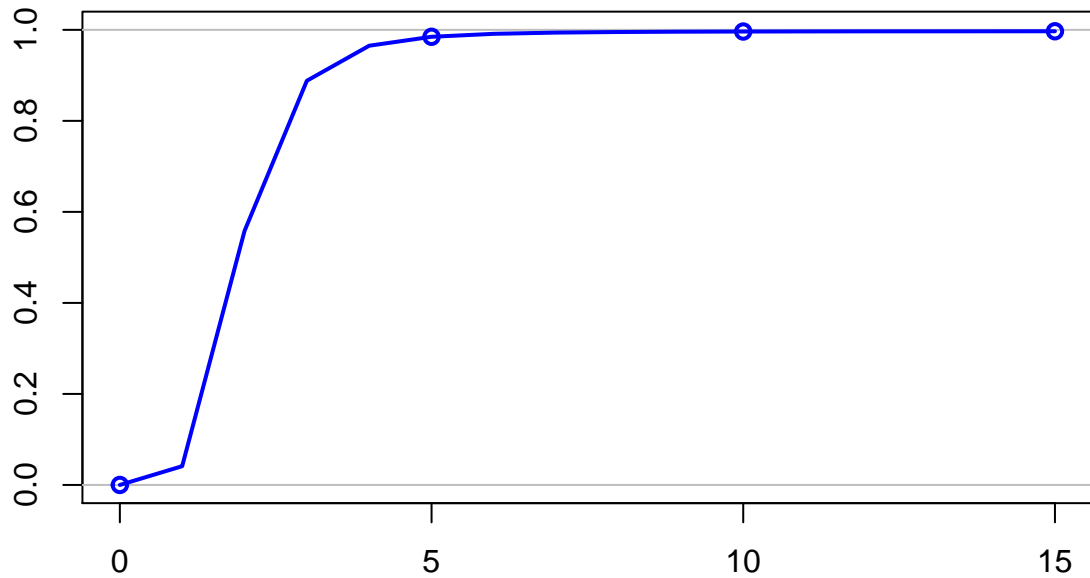


Selectivity



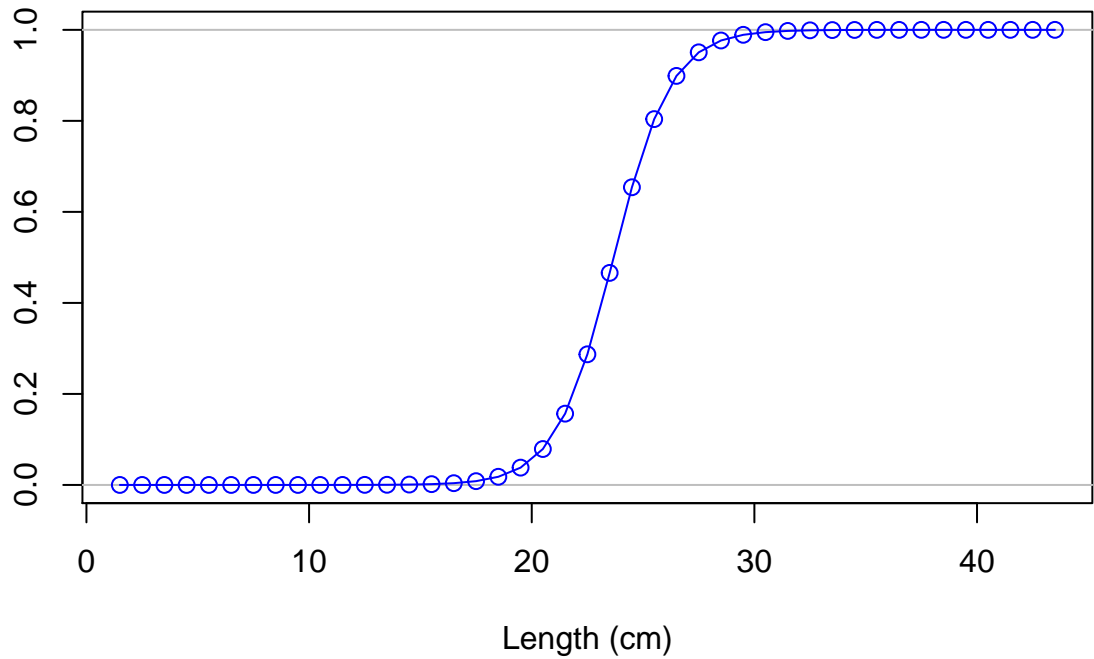


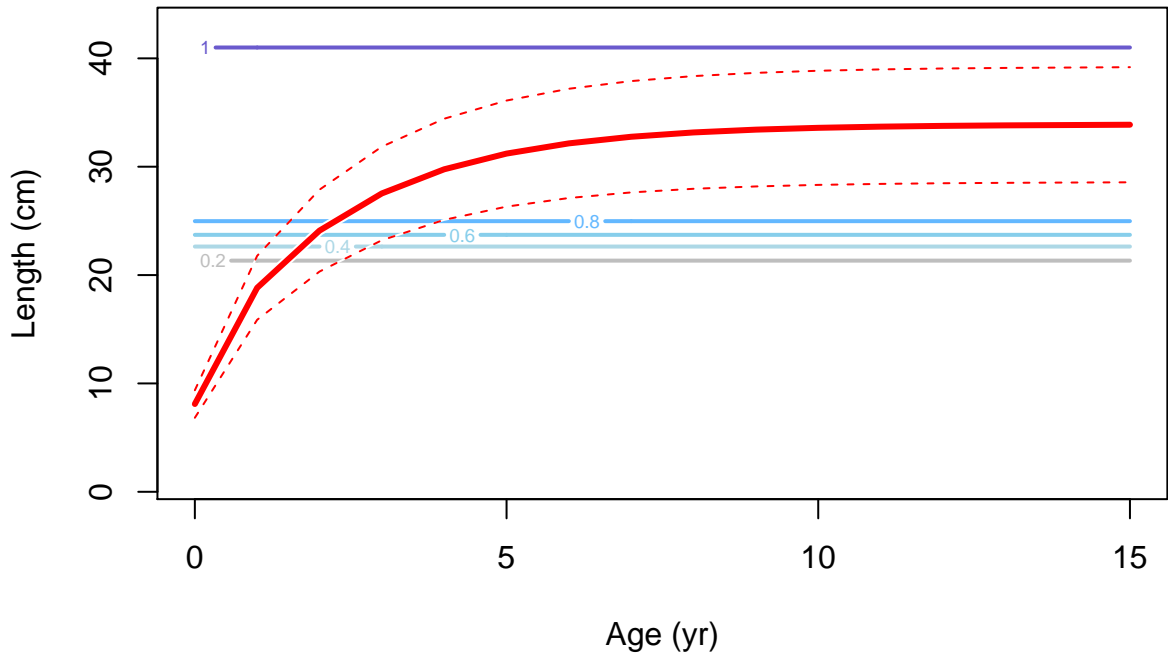
Selectivity

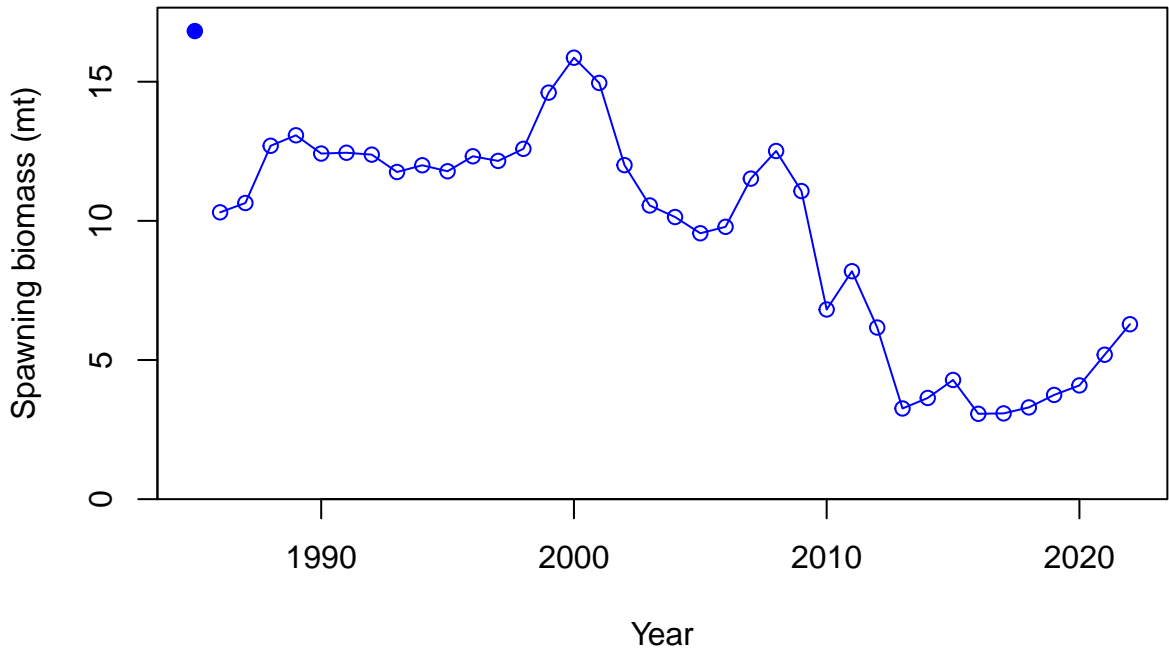


Age (yr)

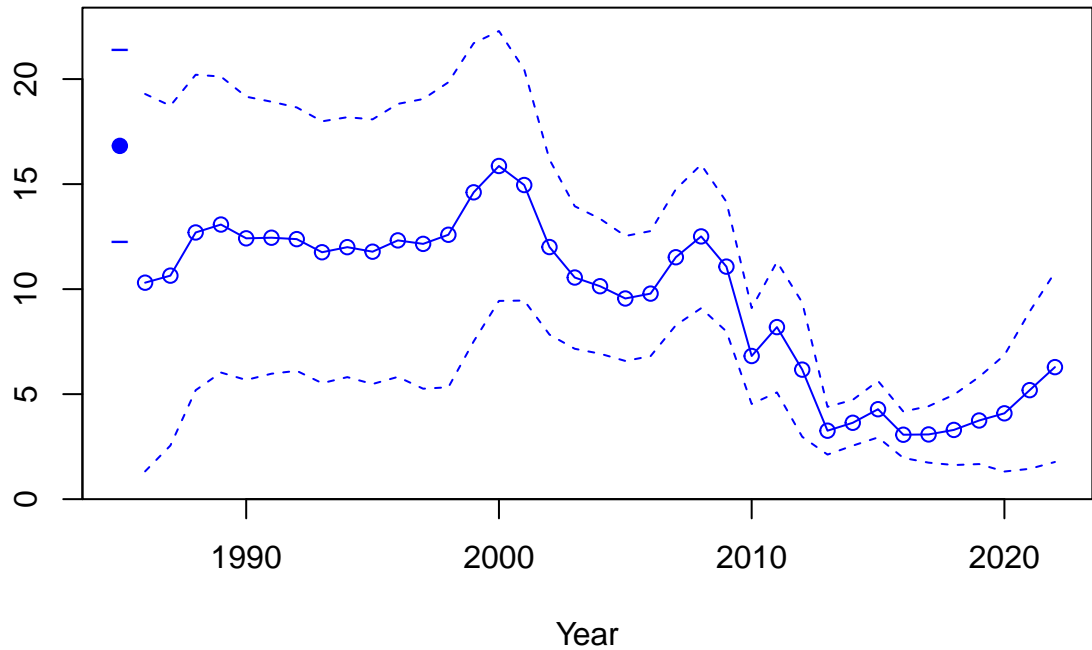
Selectivity



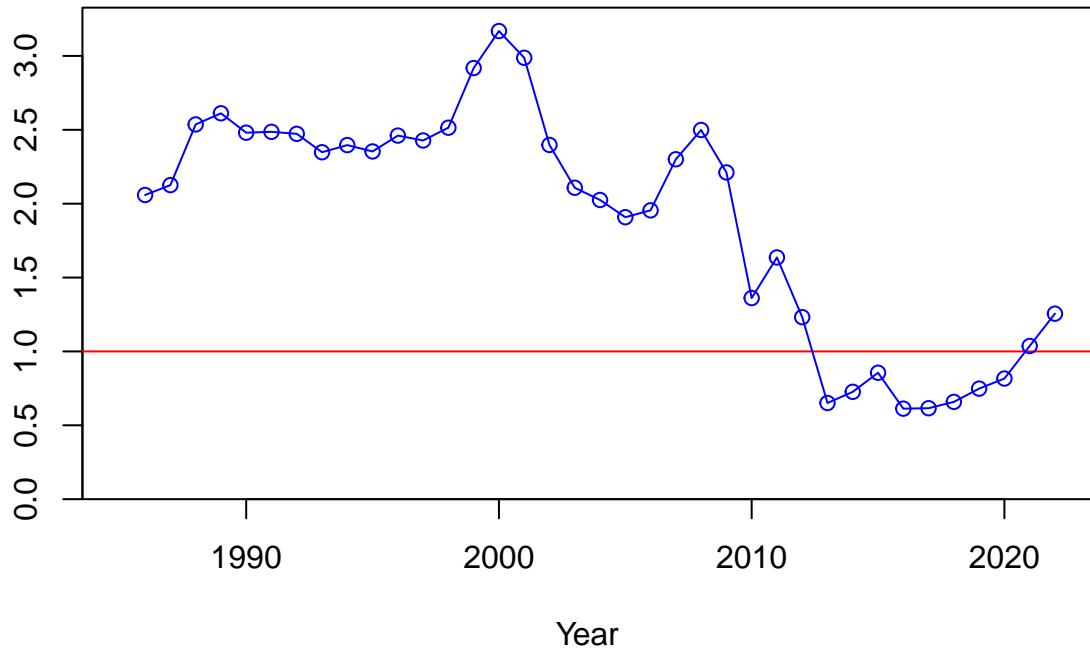




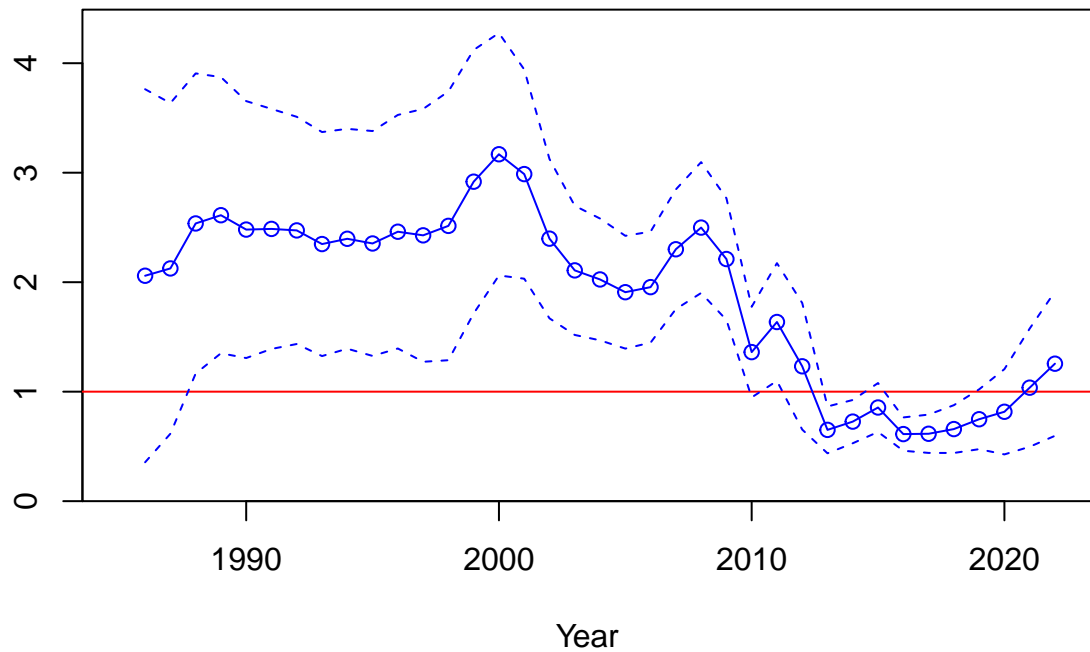
Spawning biomass (mt)

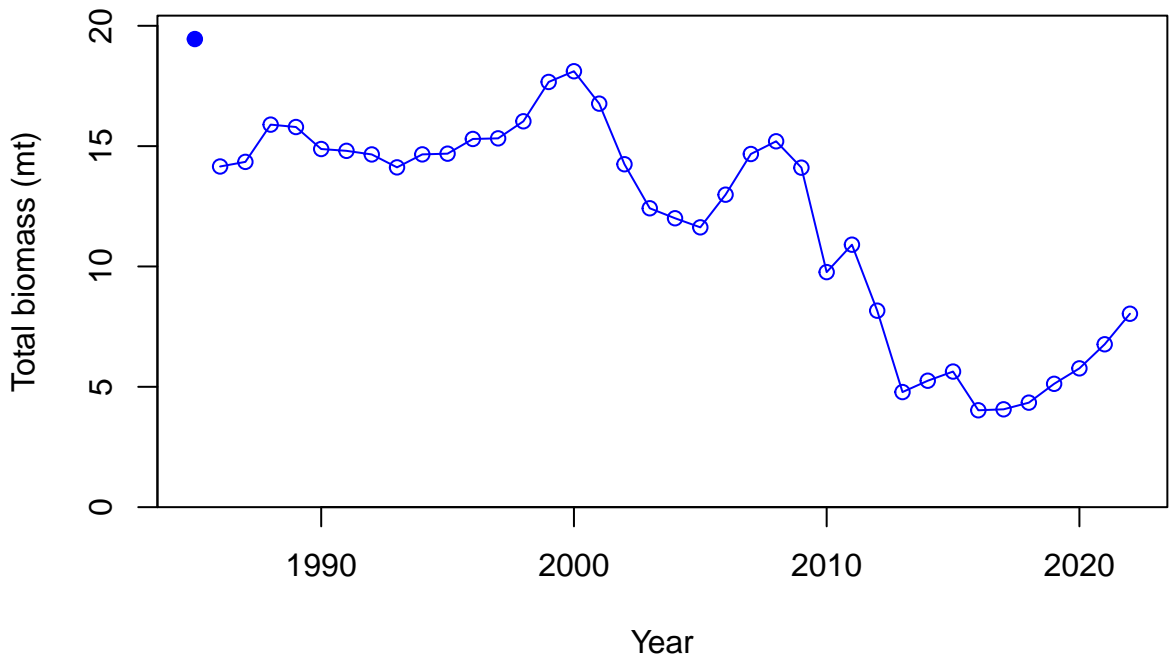


Relative spawning biomass:  $B/B_{MSY}$

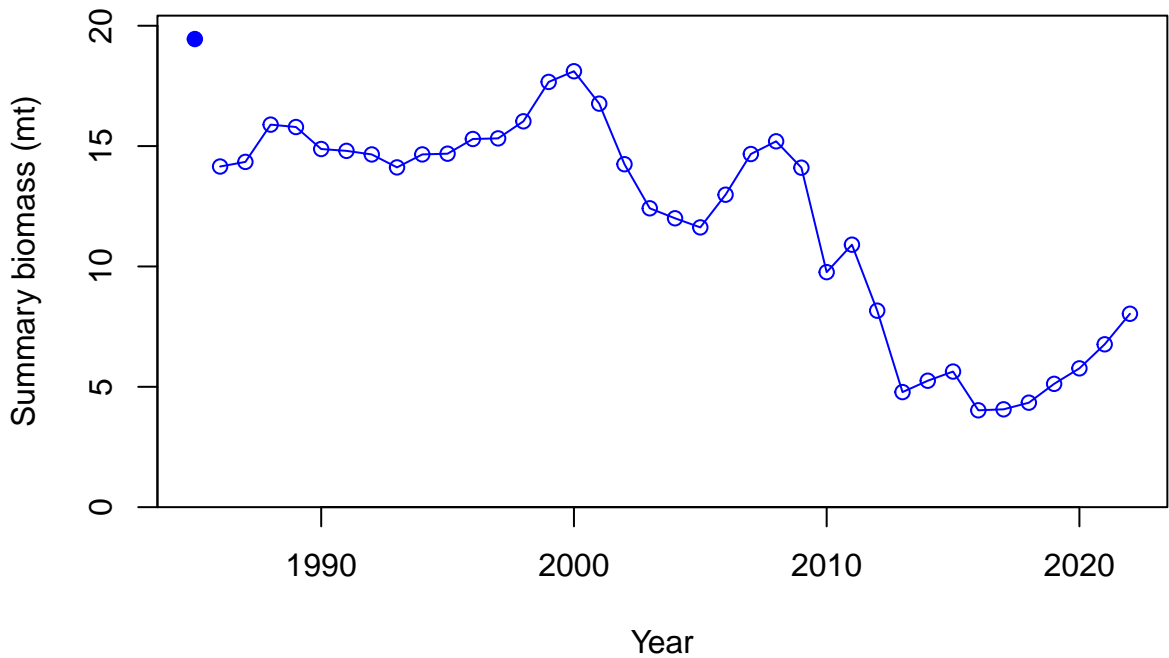


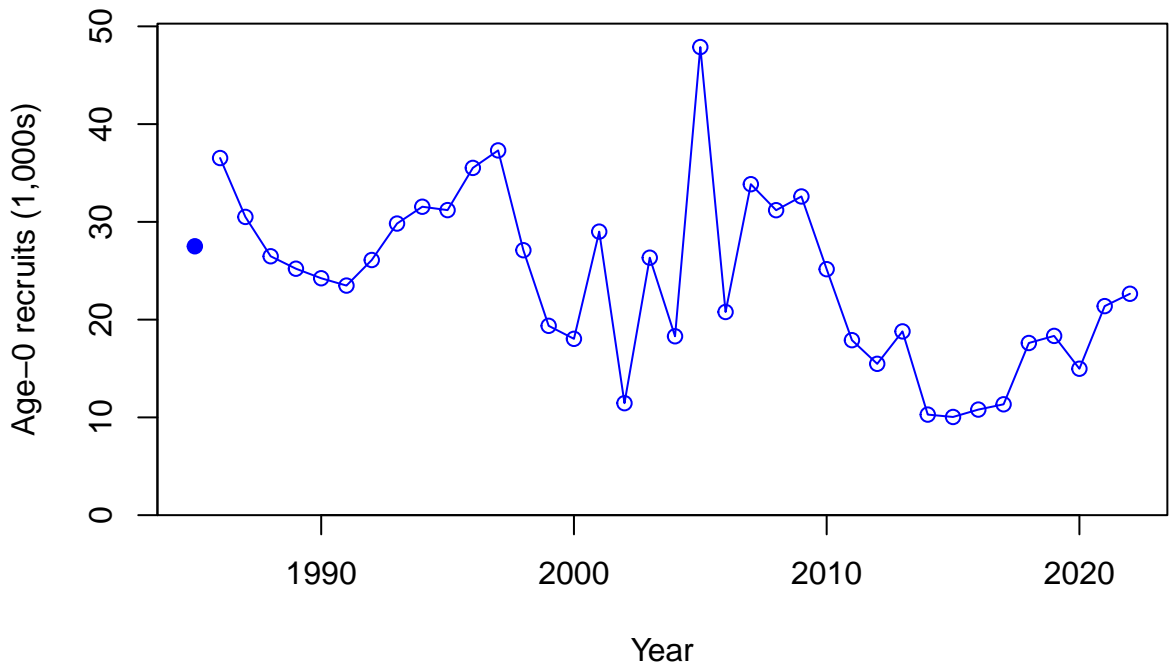
Relative spawning biomass:  $B/B_{MSY}$



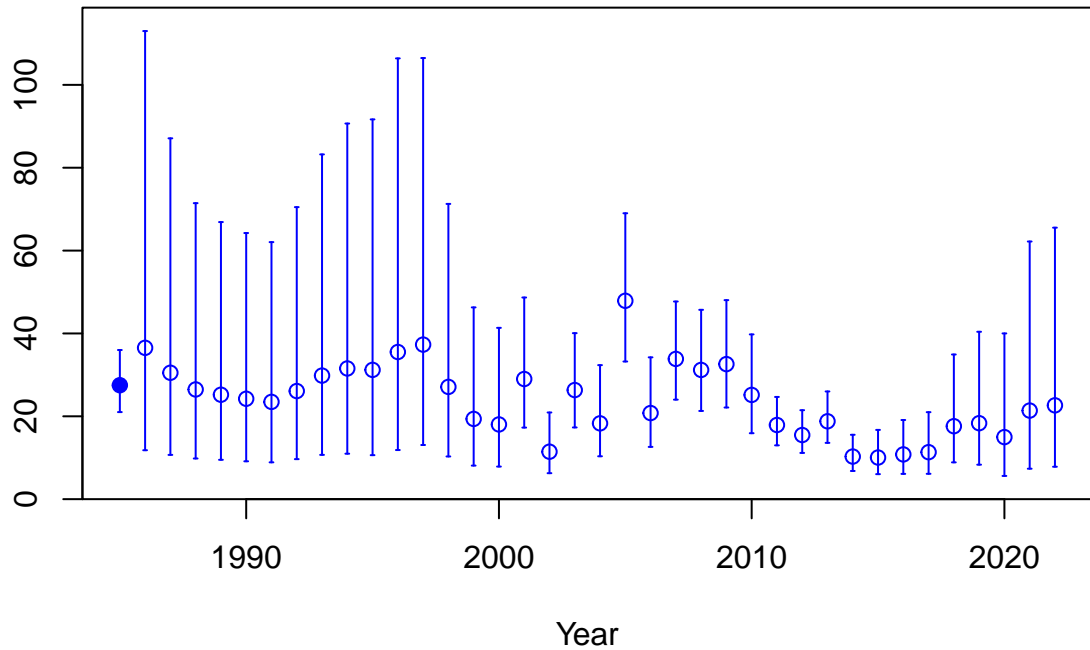




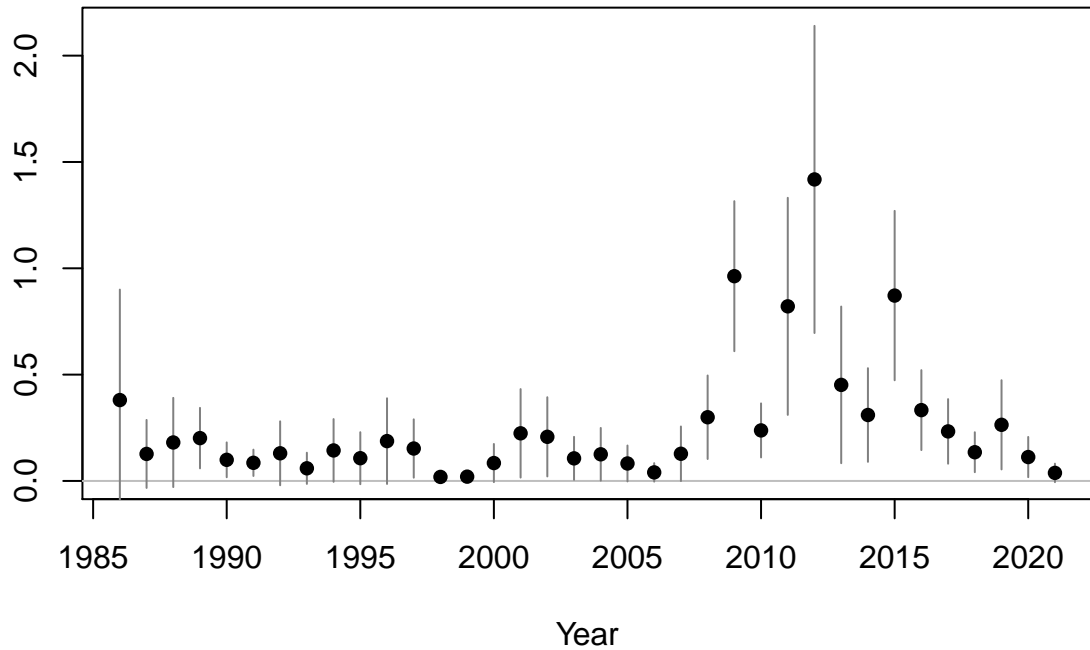


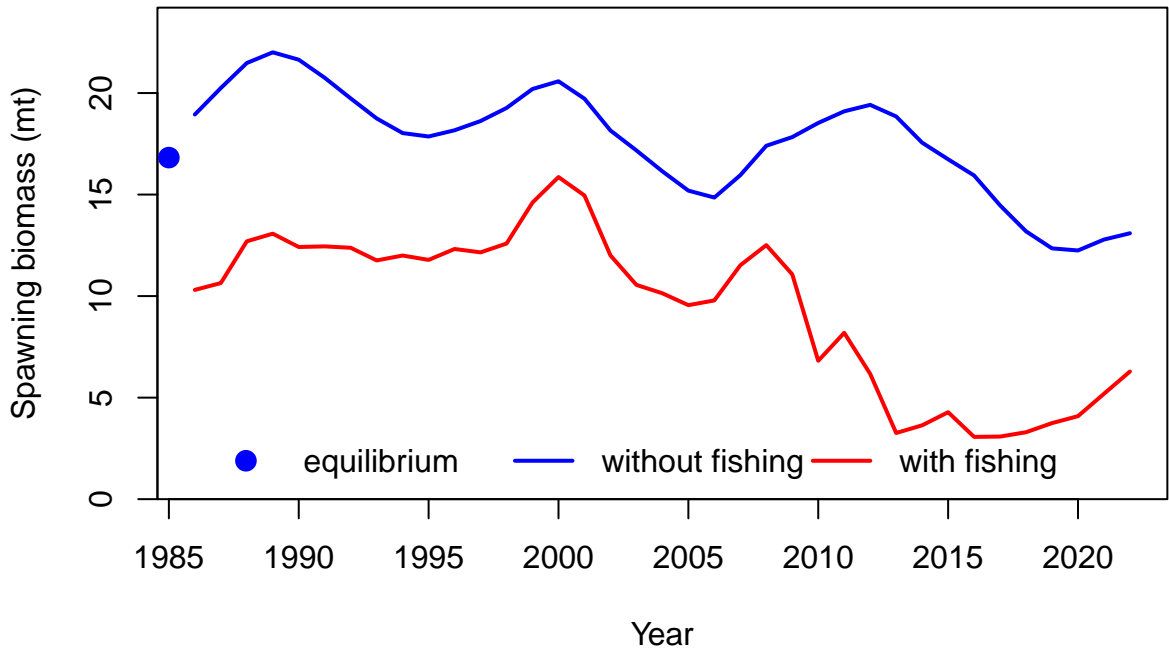


Age-0 recruits (1,000s)



Summary Fishing Mortality





Log recruitment deviation

0.5  
0.0  
-0.5

1970

1980

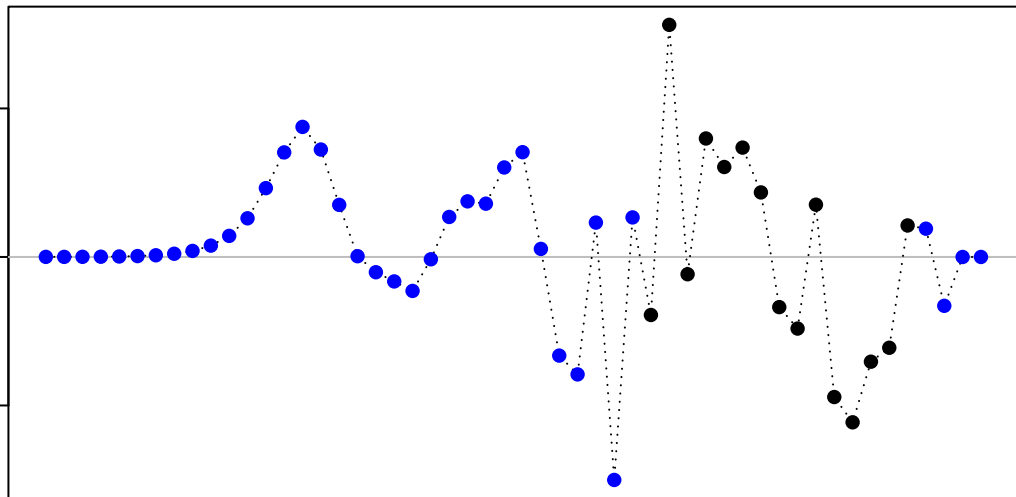
1990

2000

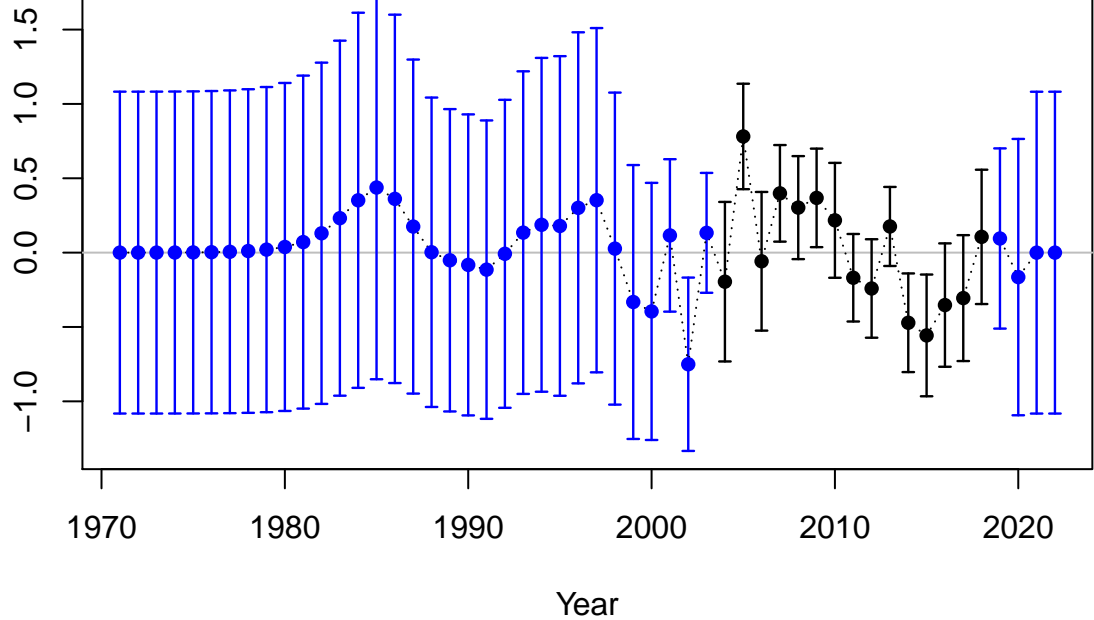
2010

2020

Year

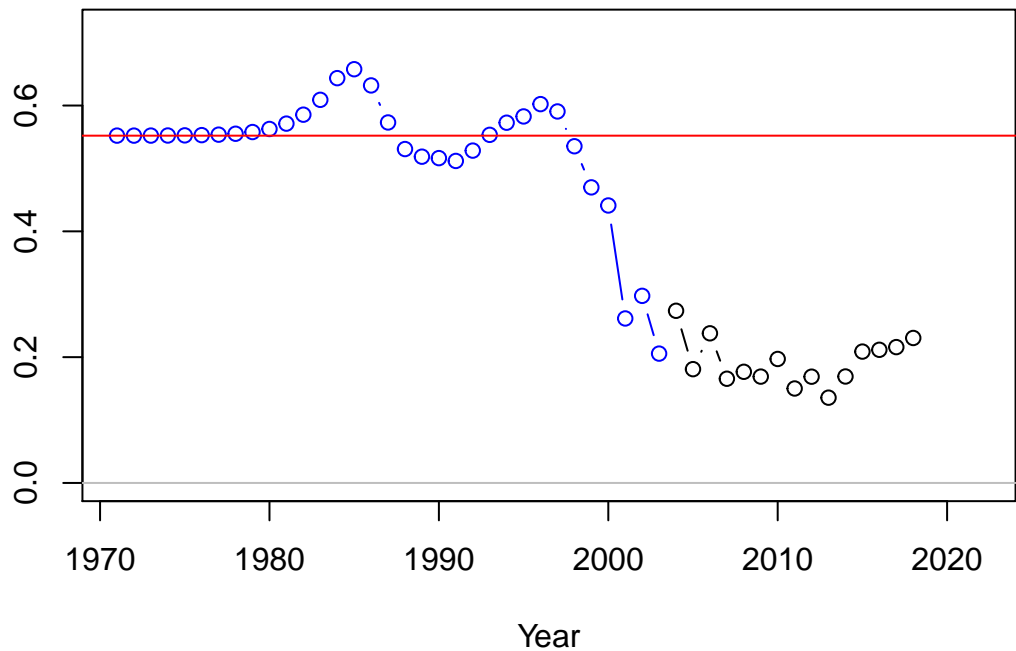


Log recruitment deviation

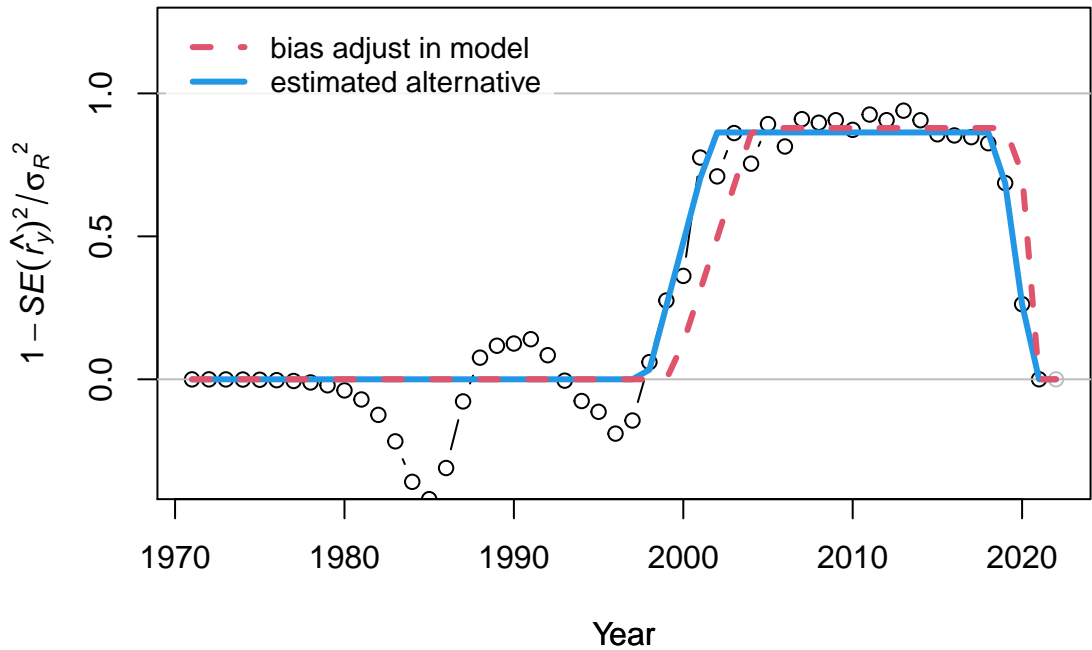


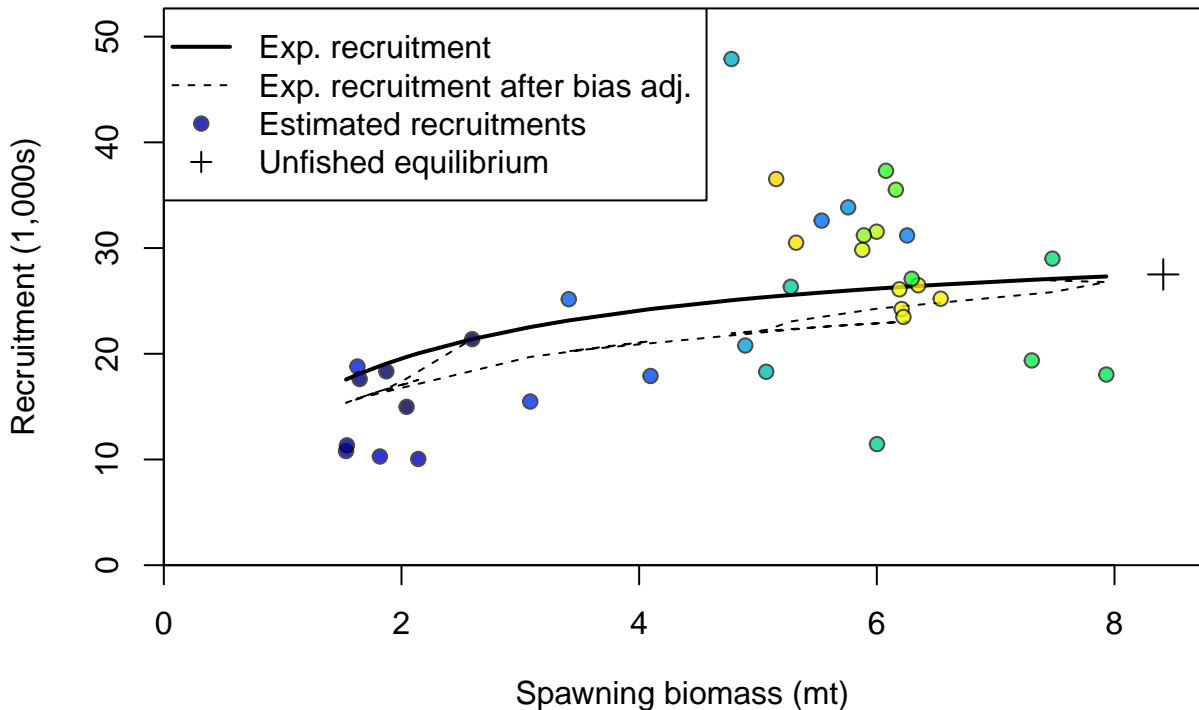
## Recruitment deviation variance

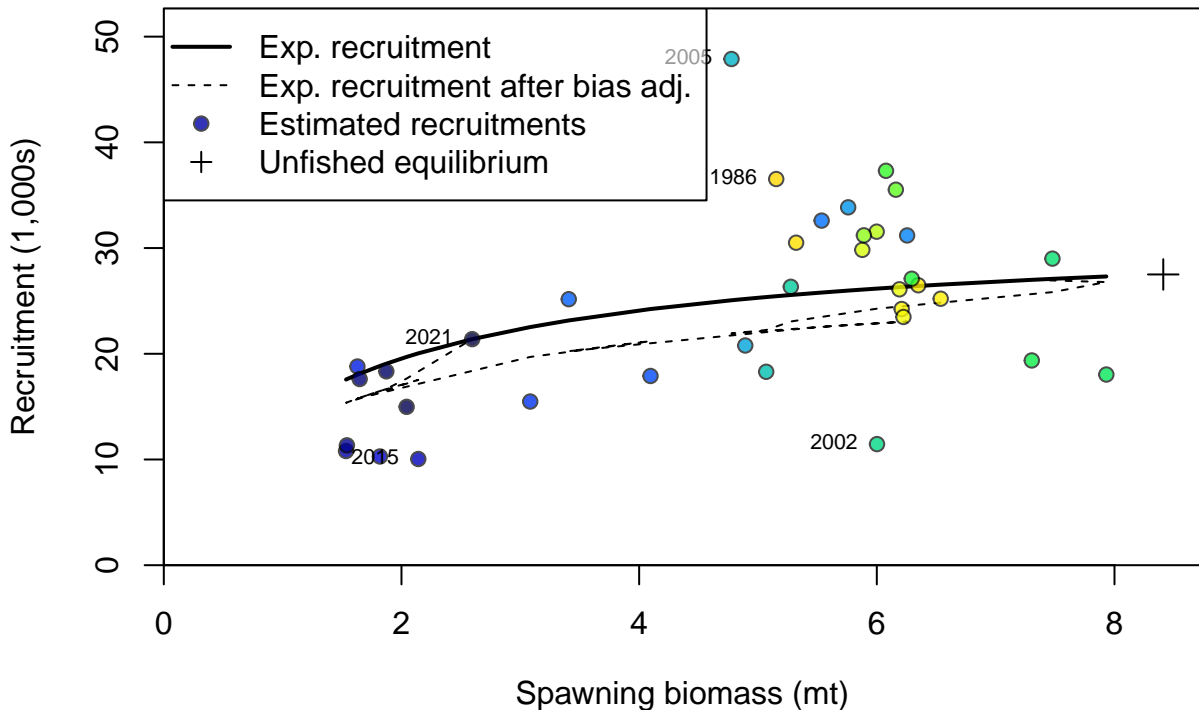
Asymptotic standard error estimate



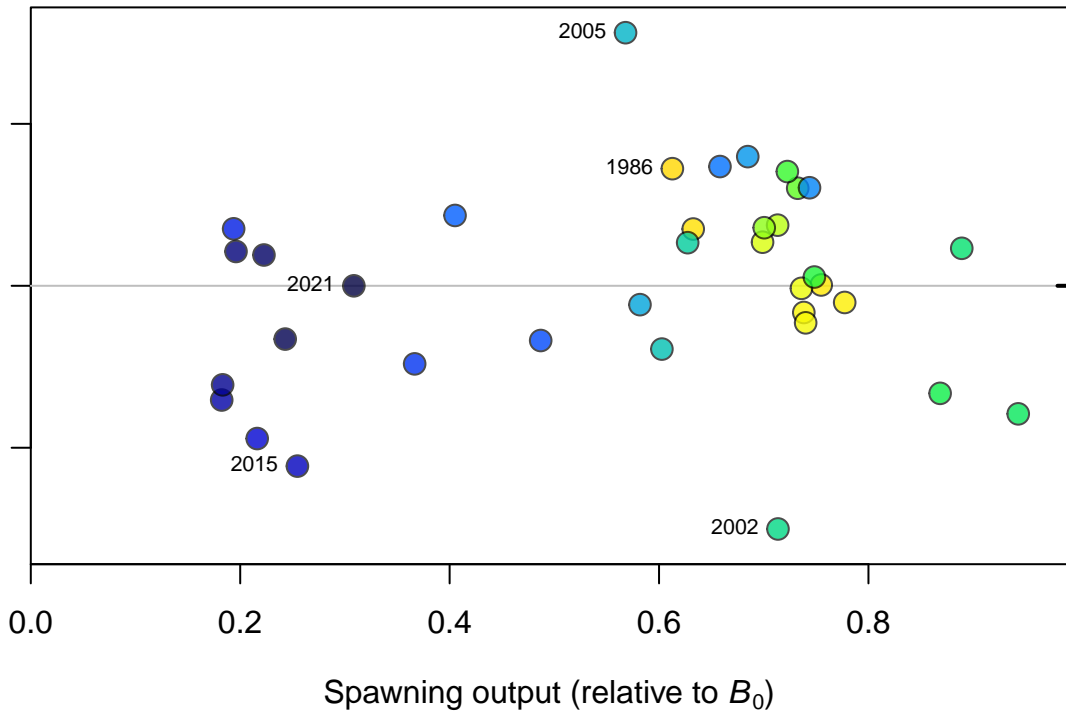


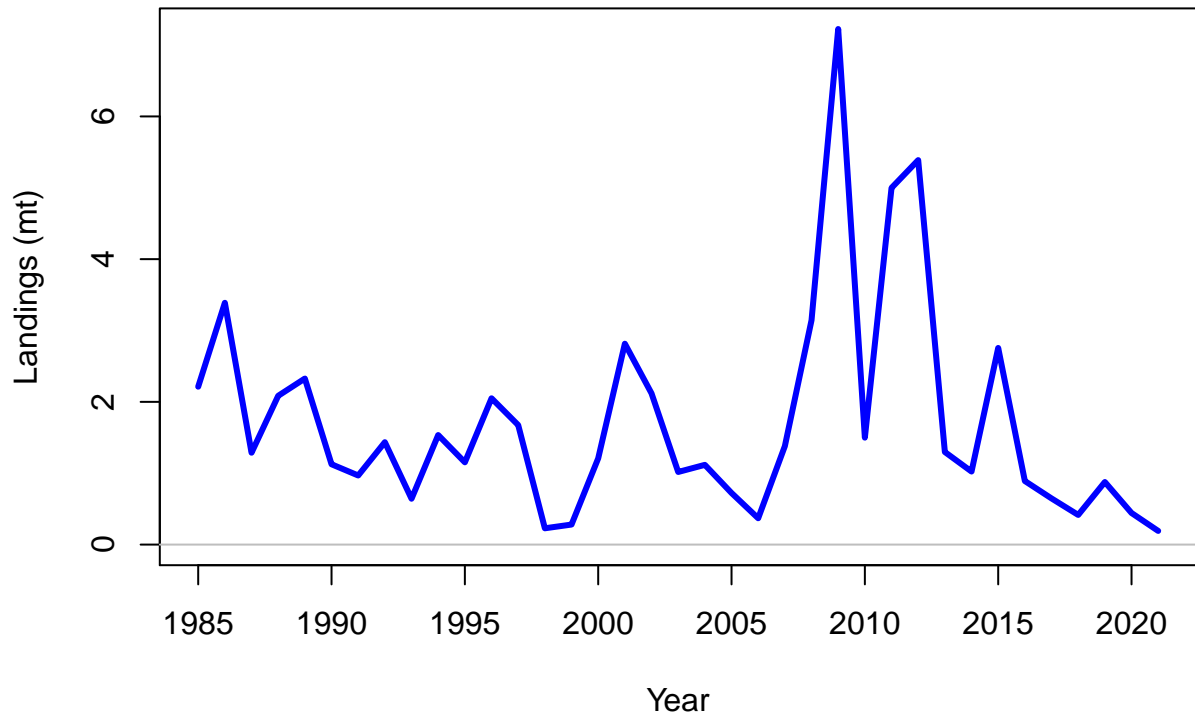


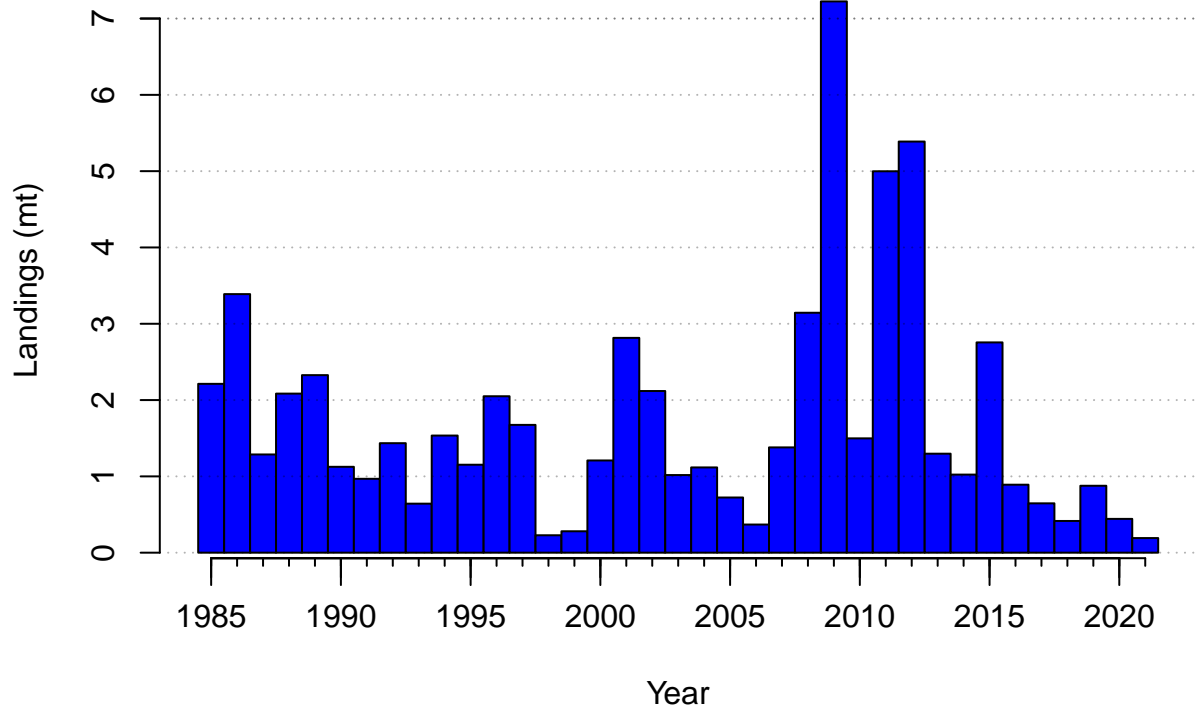




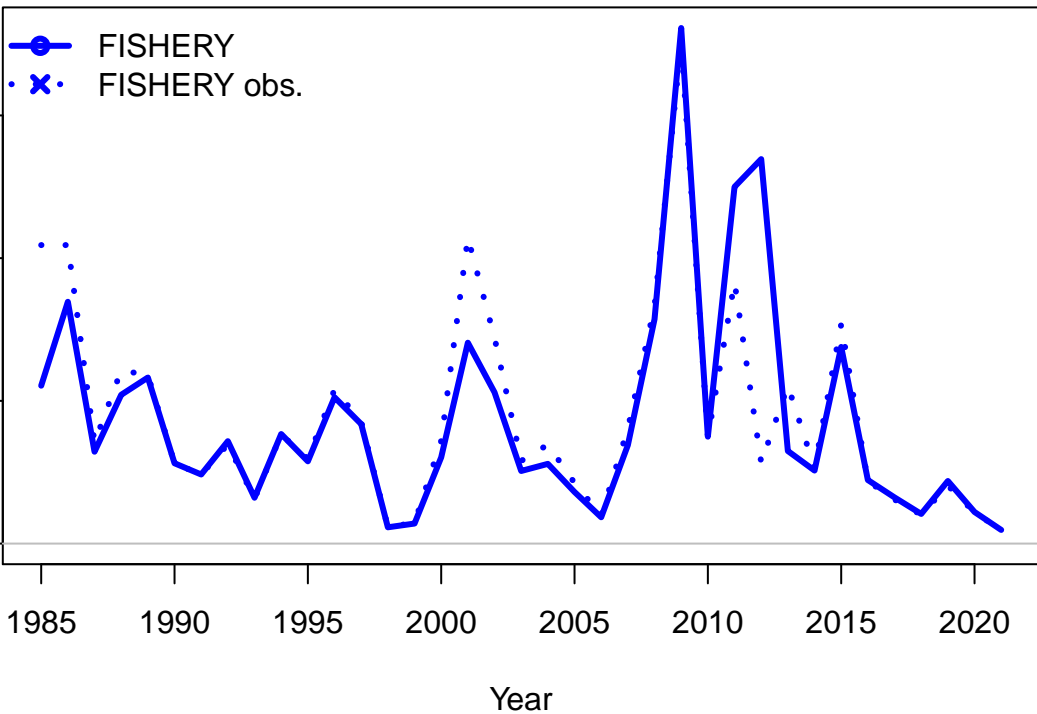
Log recruitment deviation

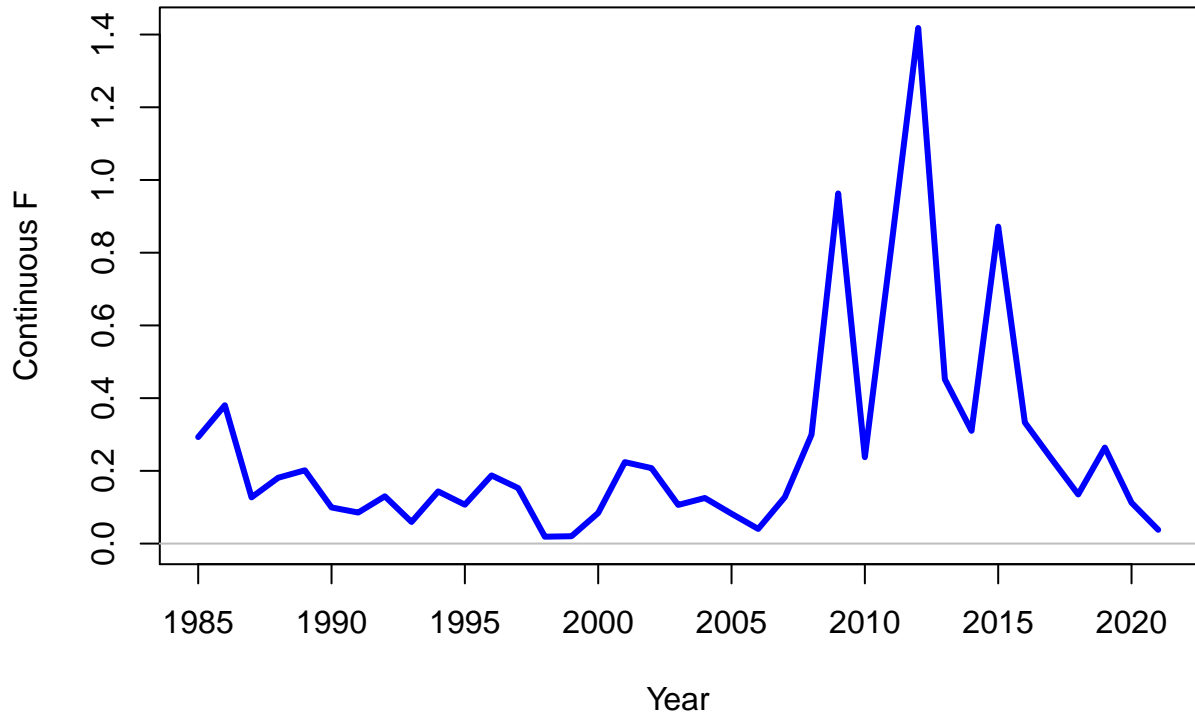






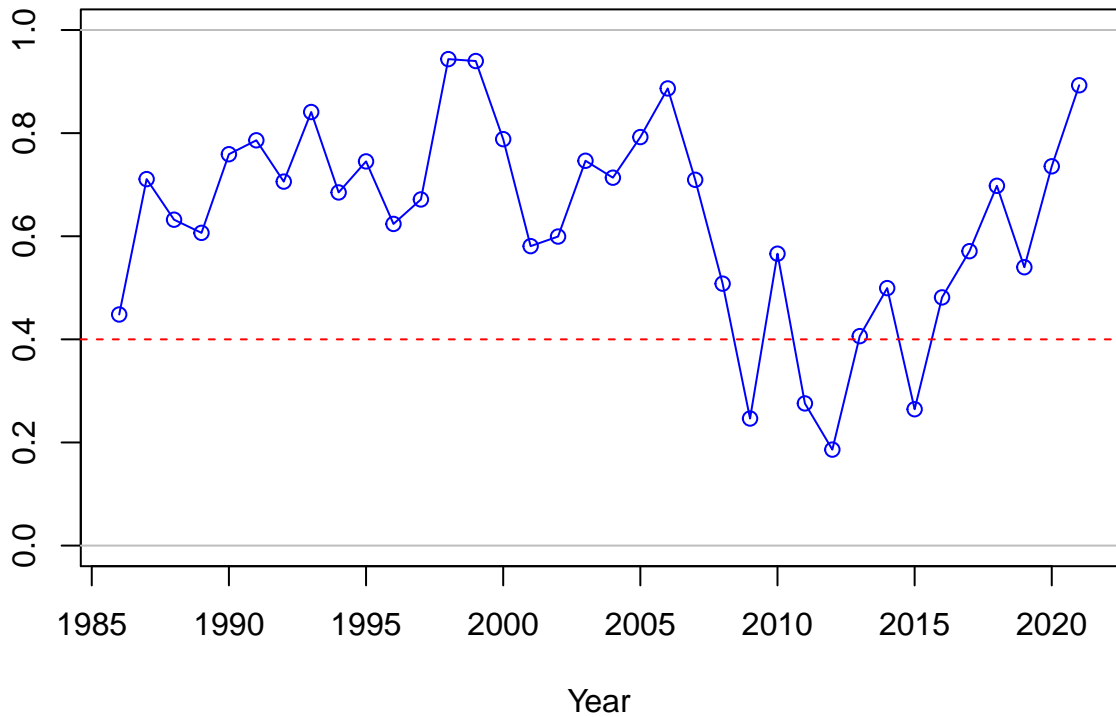
Observed and expected Landings (mt)



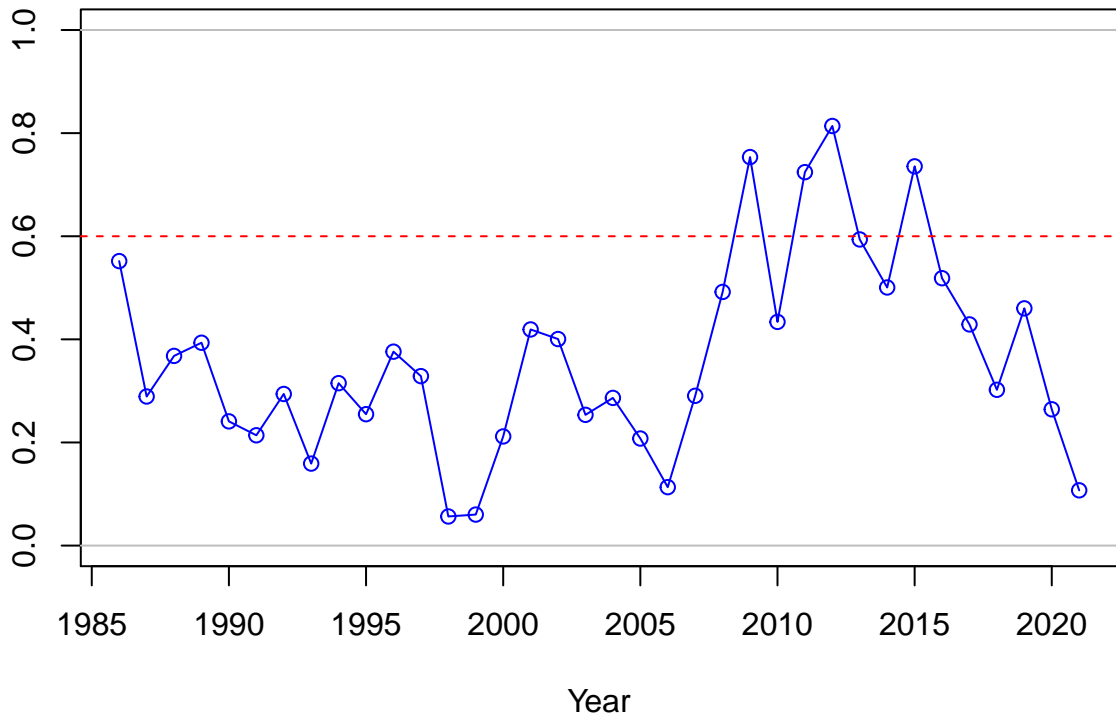




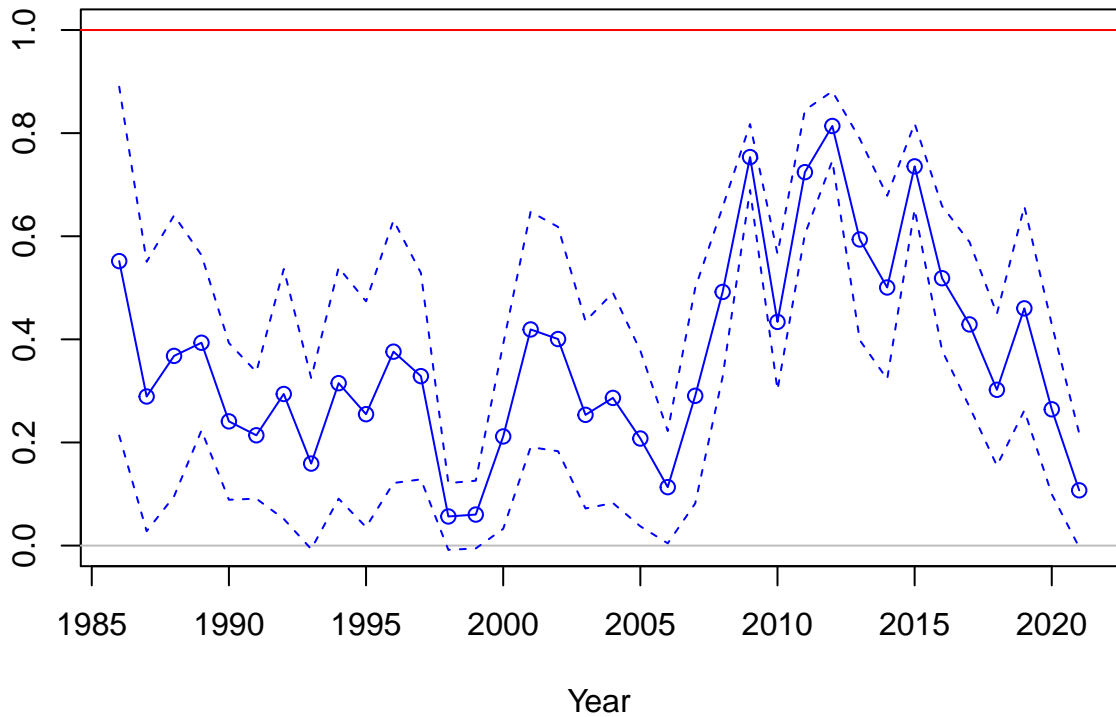
SPR



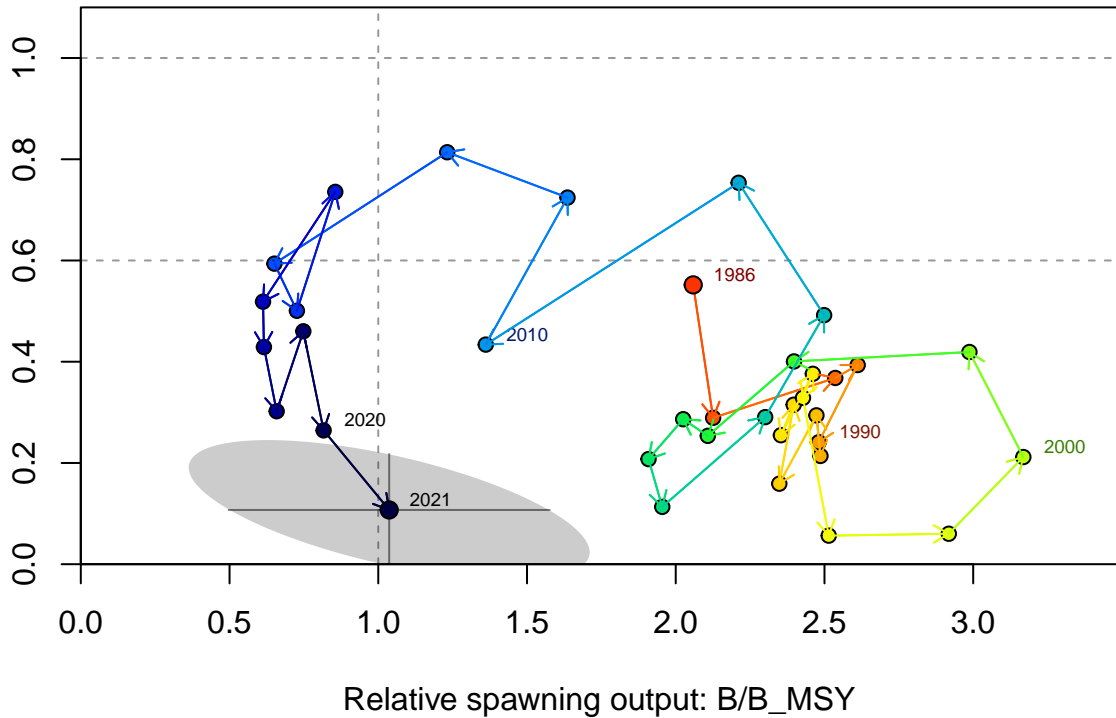
1-SPR

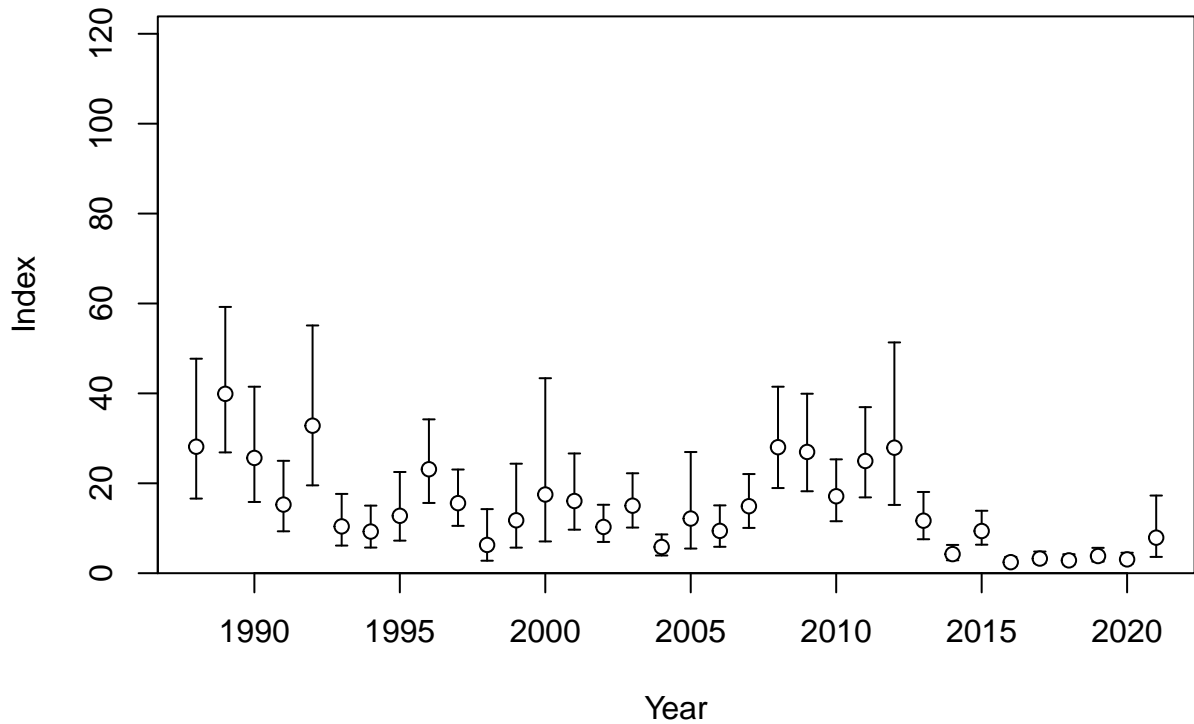


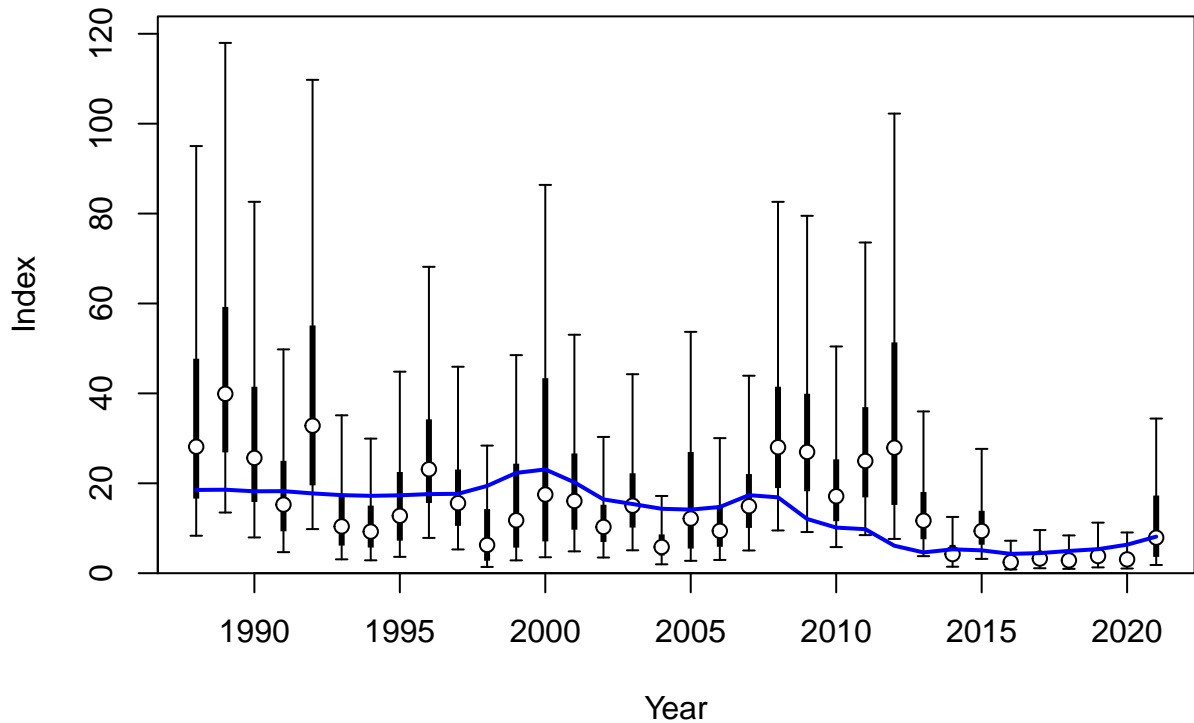
Fishing intensity: 1-SPR

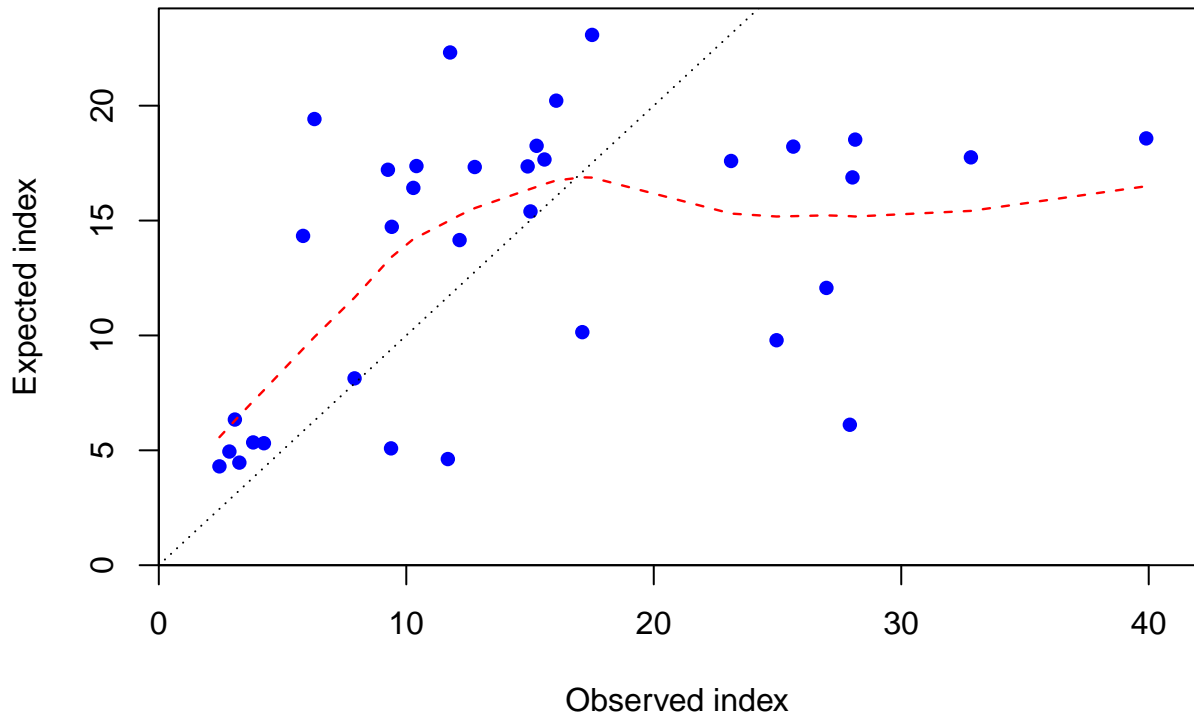


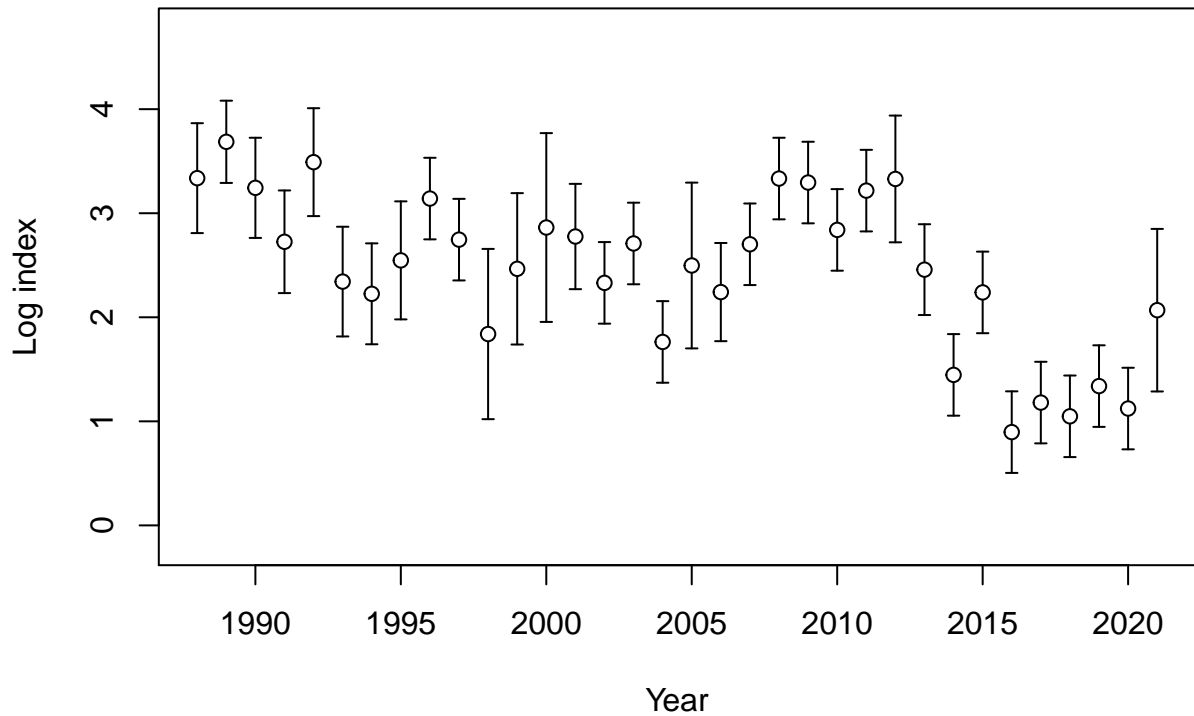
Fishing intensity: 1-SPR













Log index

4  
3  
2  
1  
0

1990

1995

2000

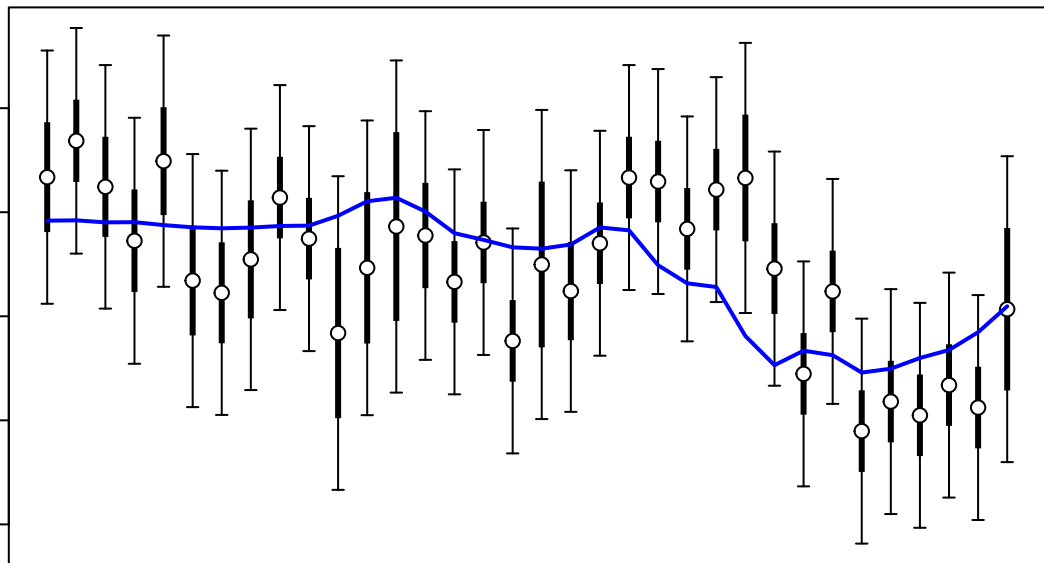
2005

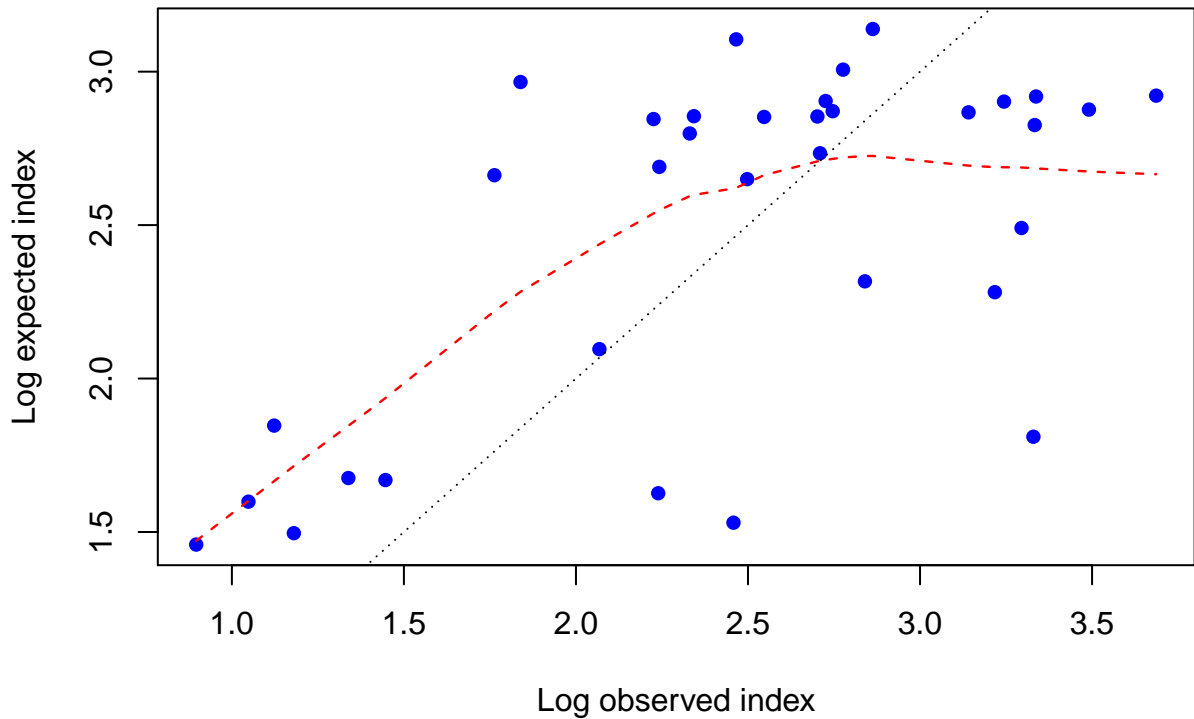
2010

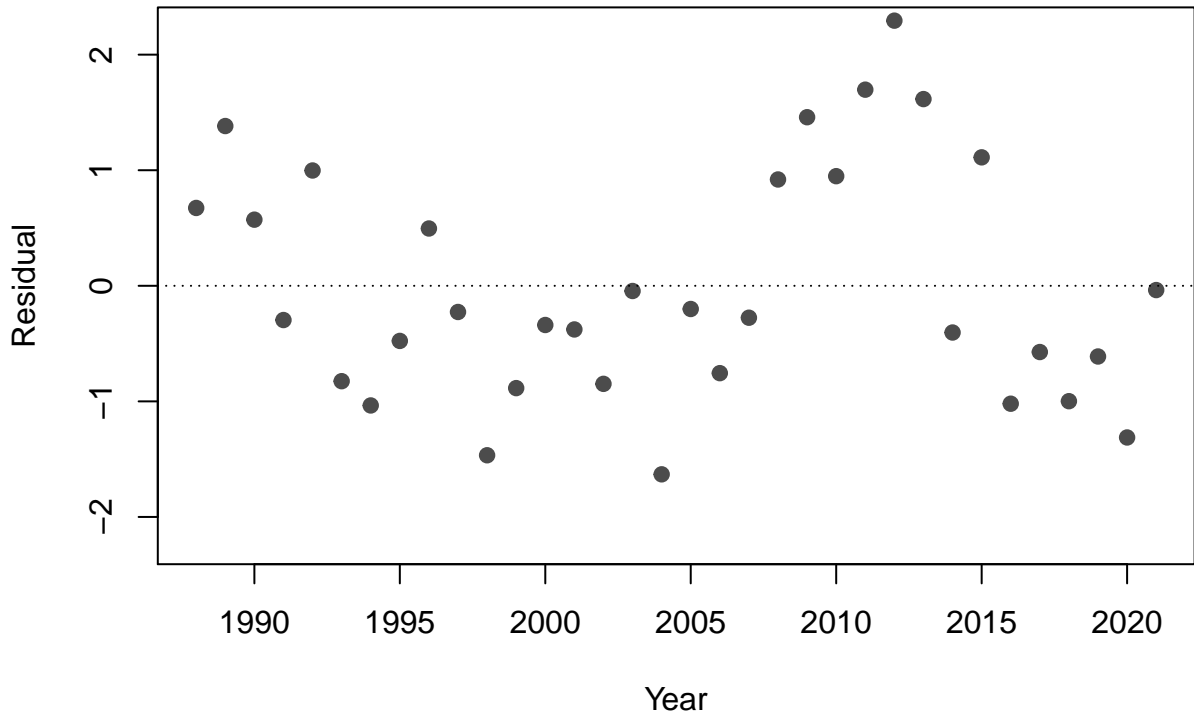
2015

2020

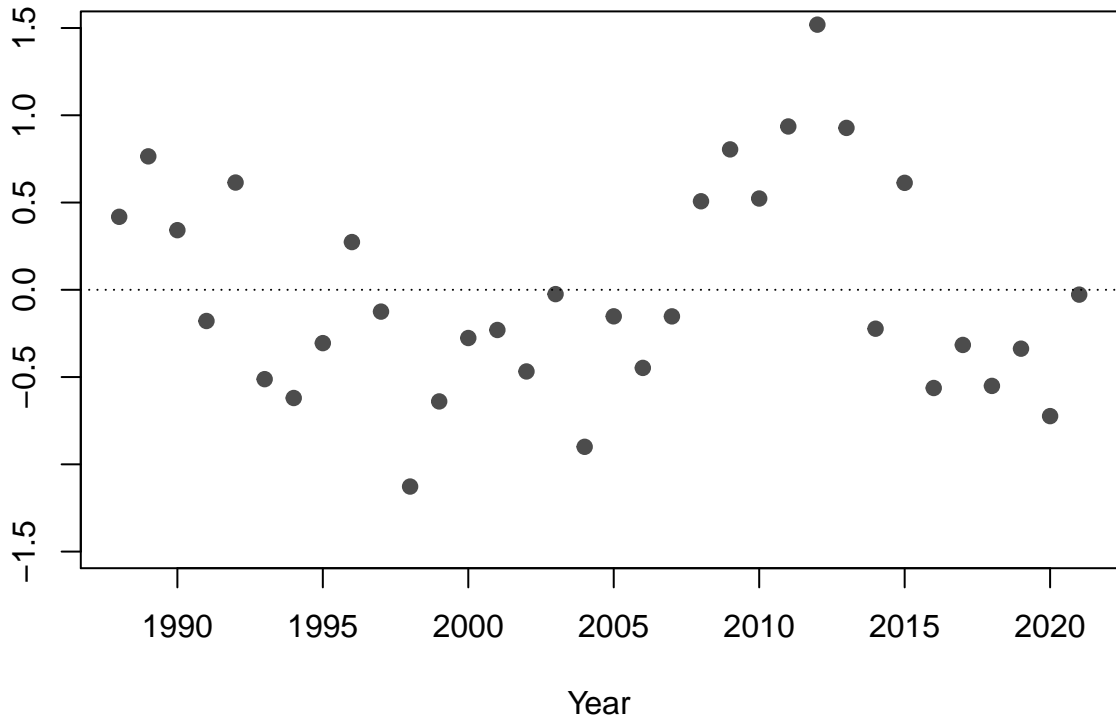
Year

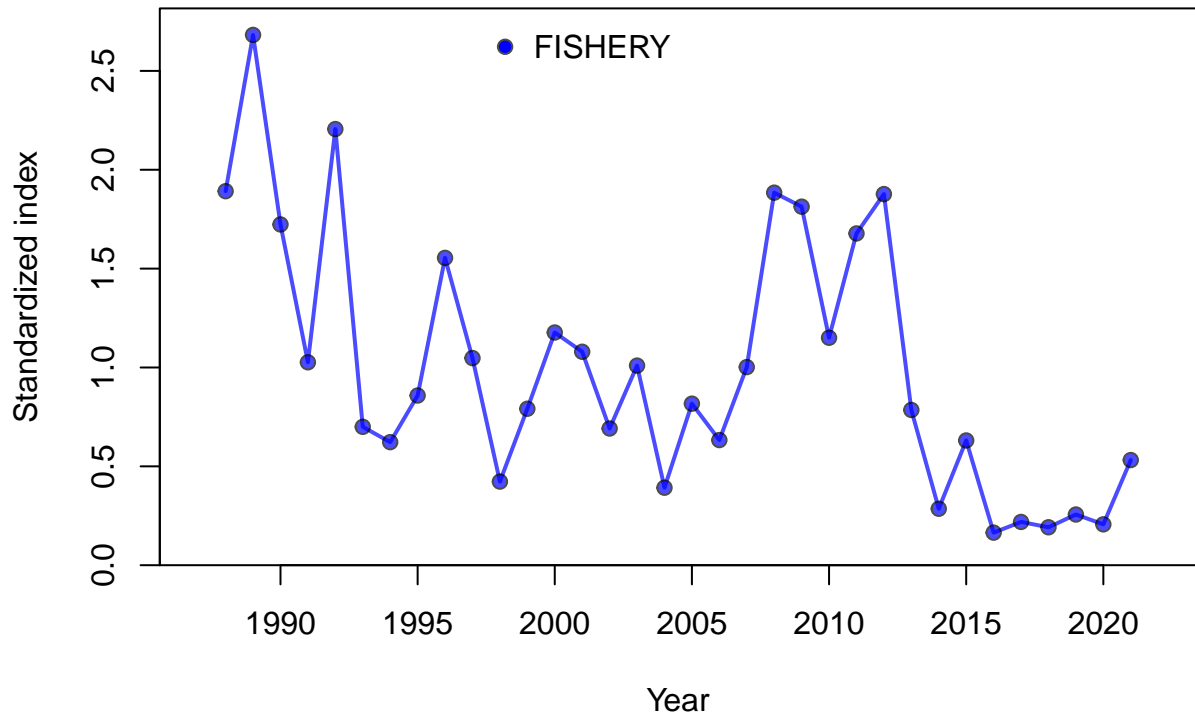




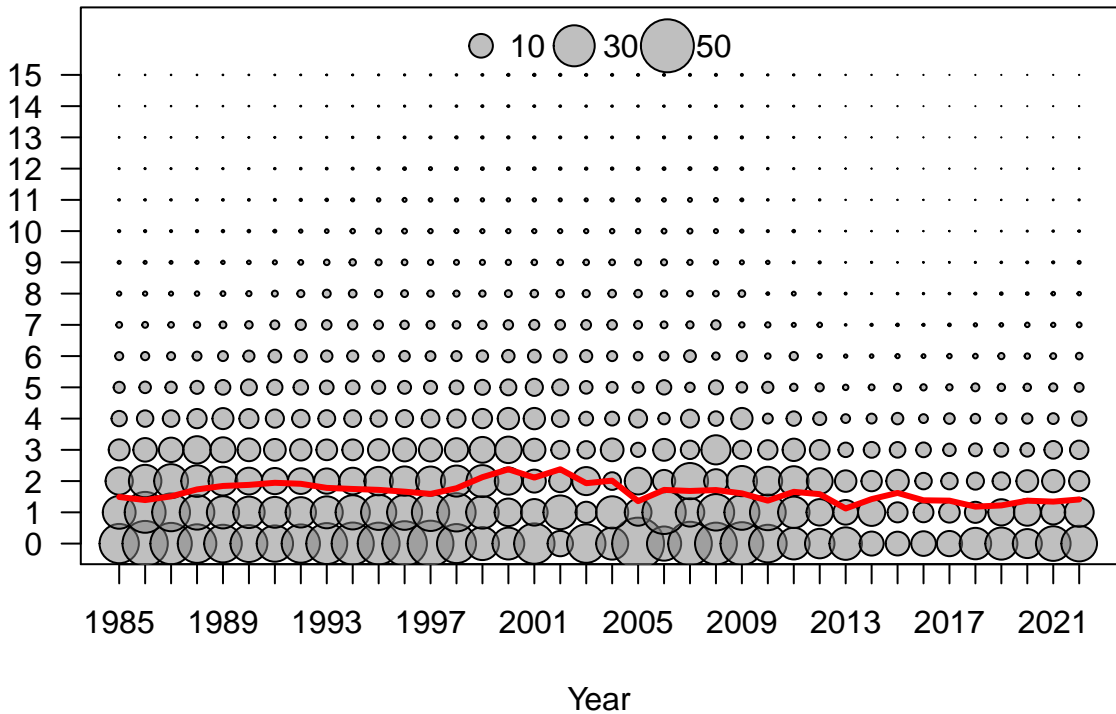


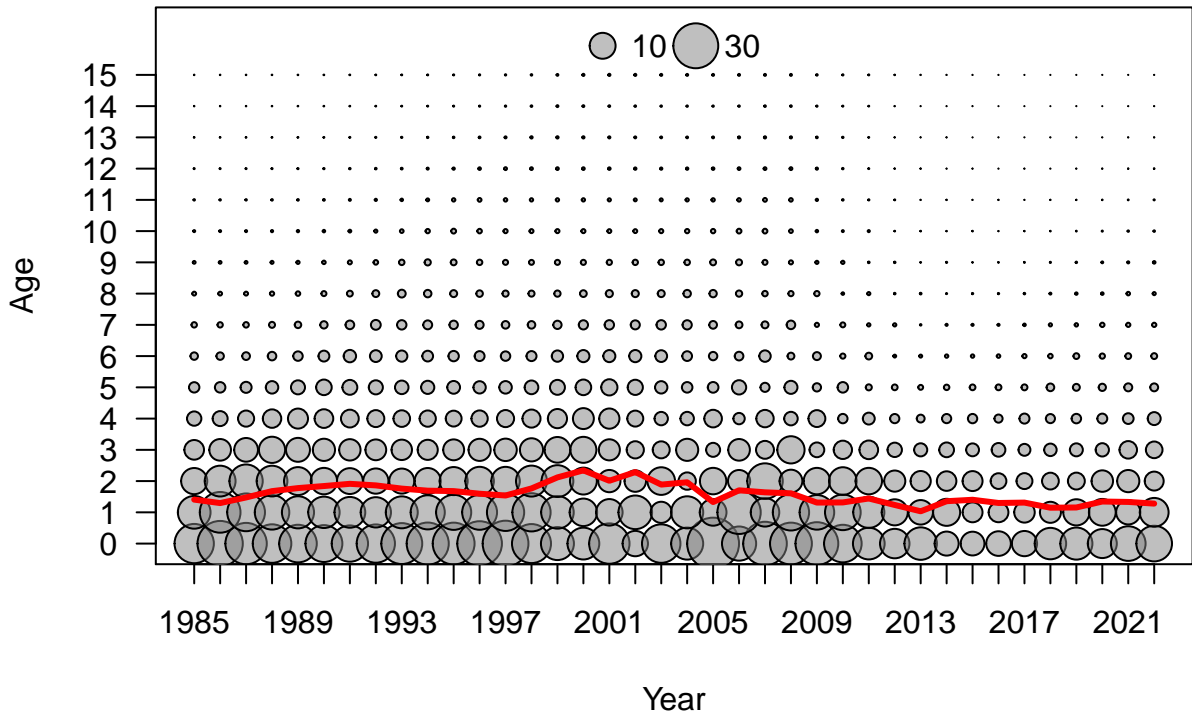
Deviation

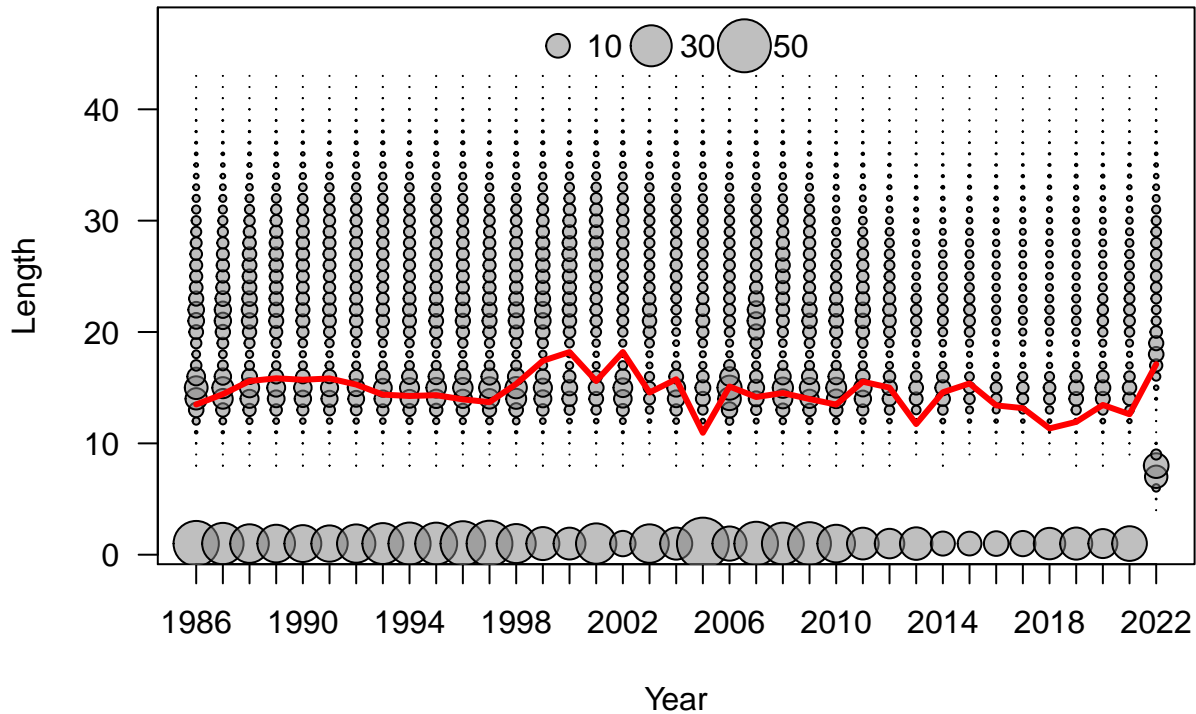




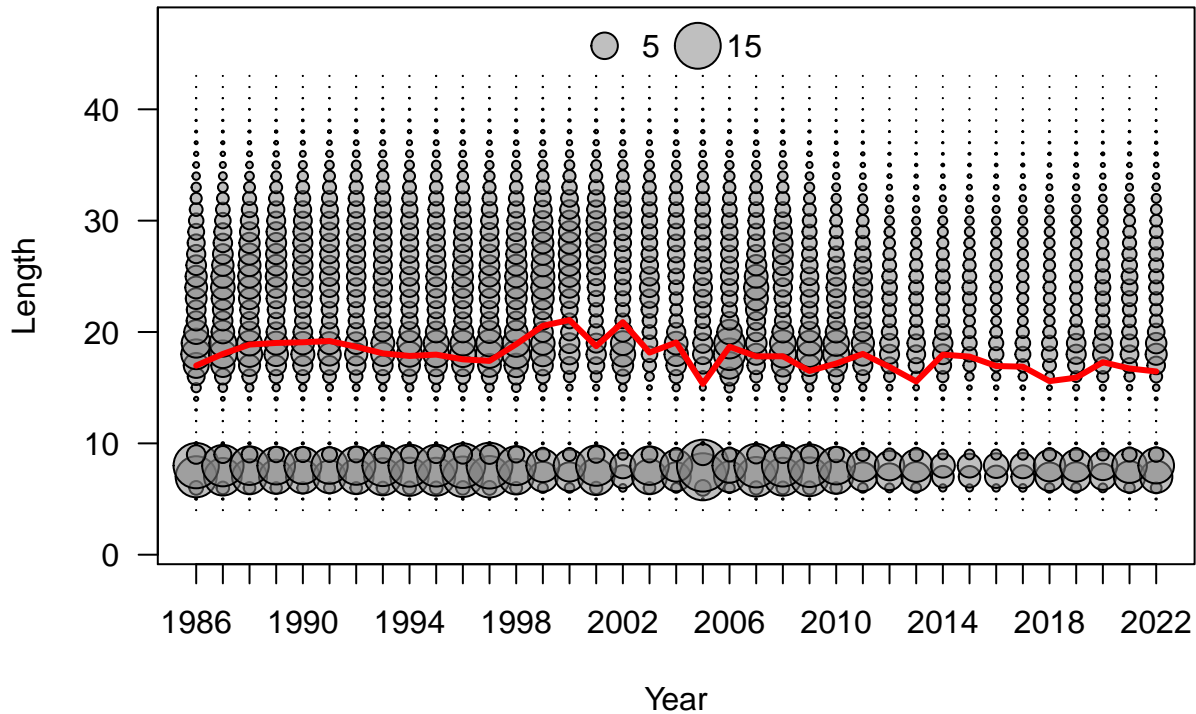
Age

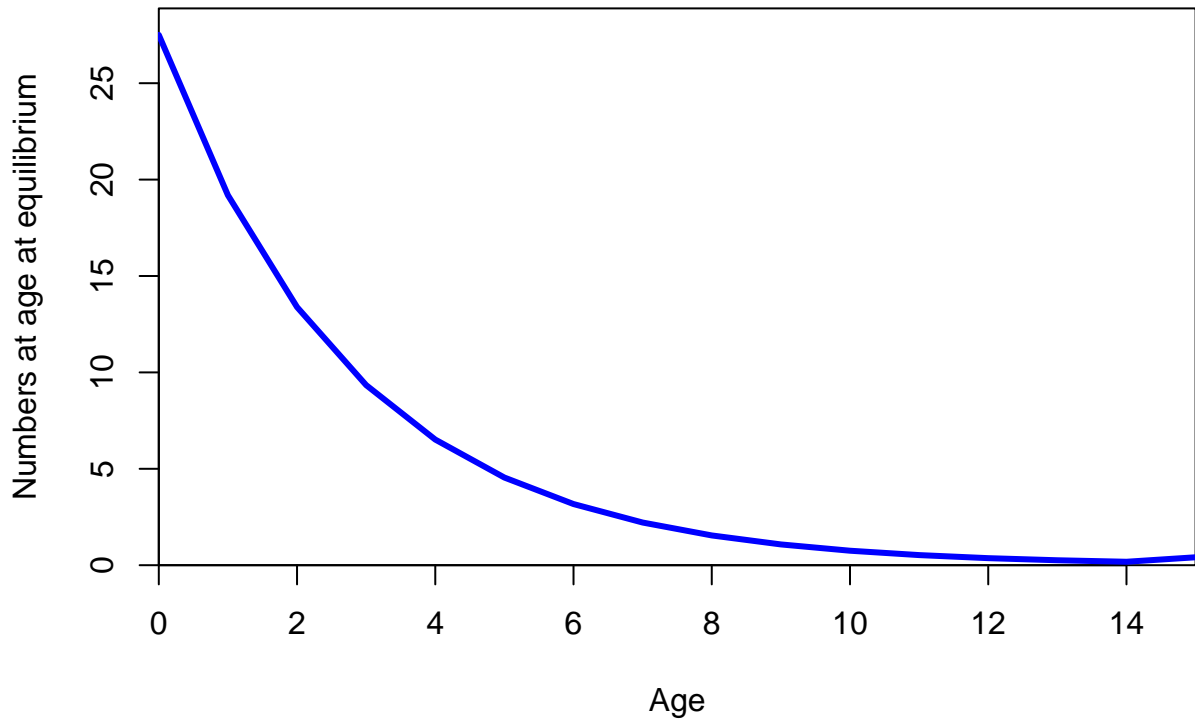






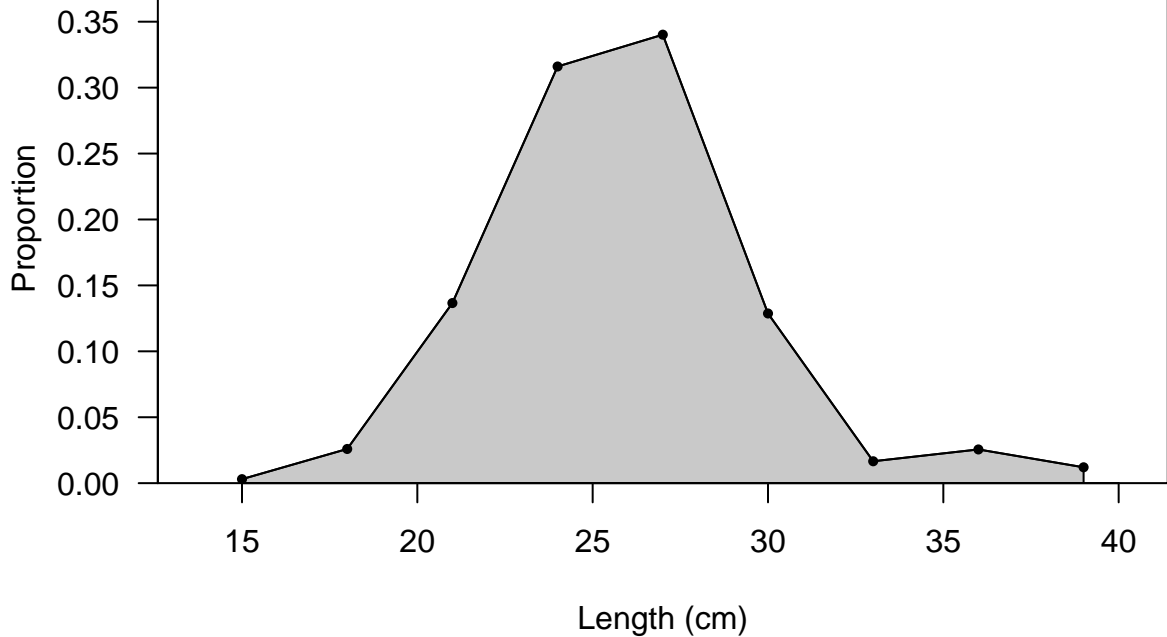






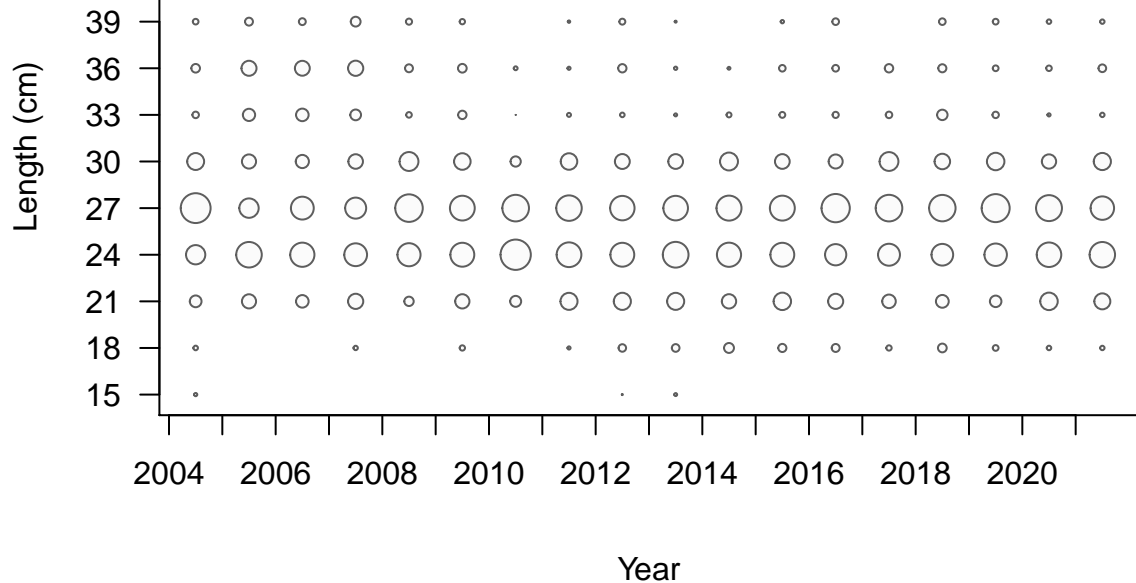
# FISHERY

Sum of N adj.=6474.7

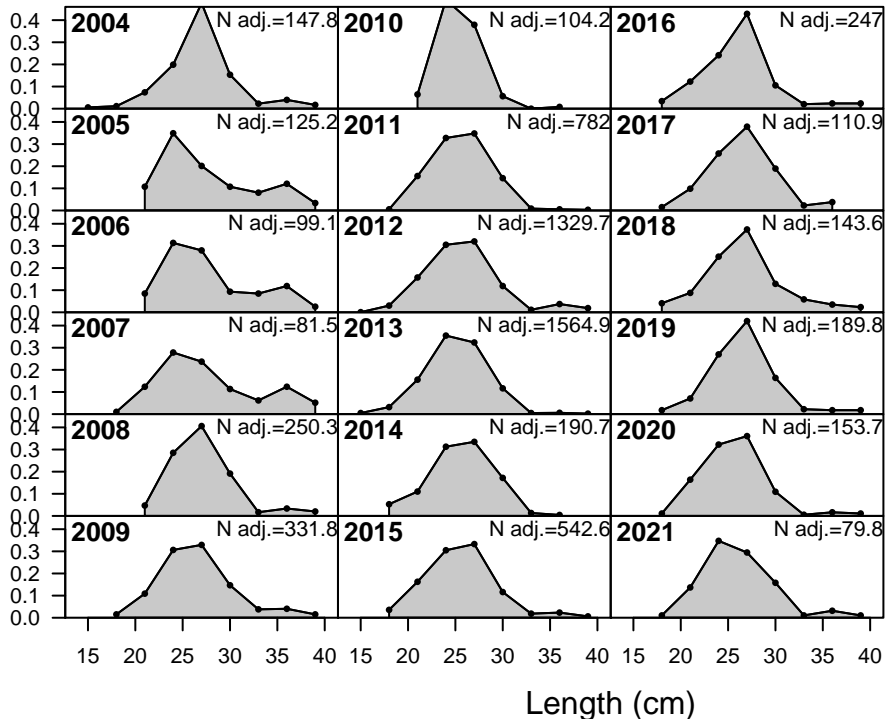


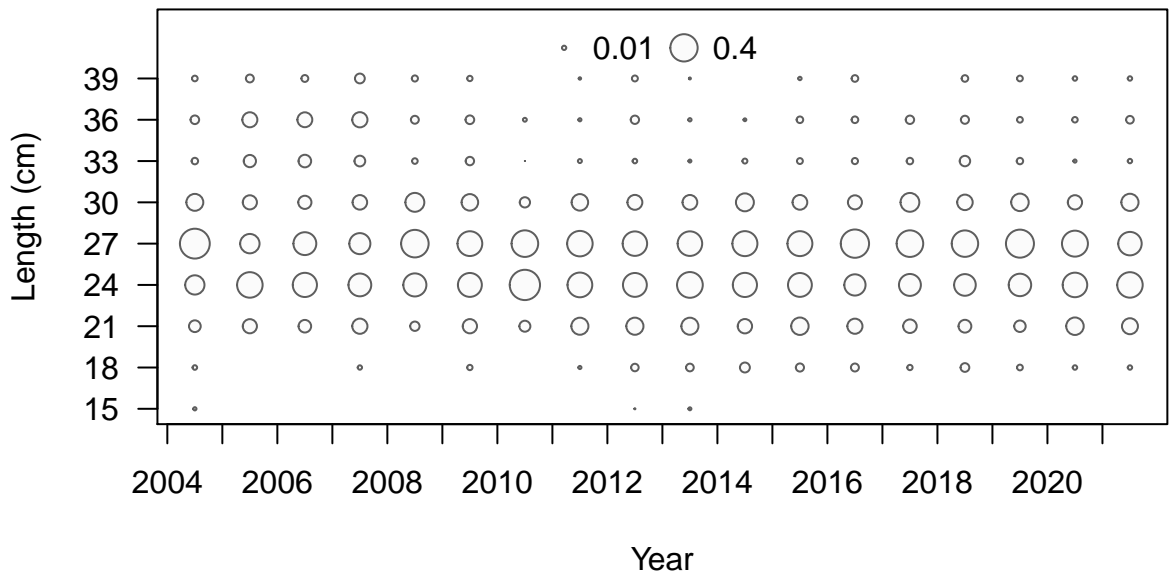
# FISHERY

◦ 0.01 ○ 0.4

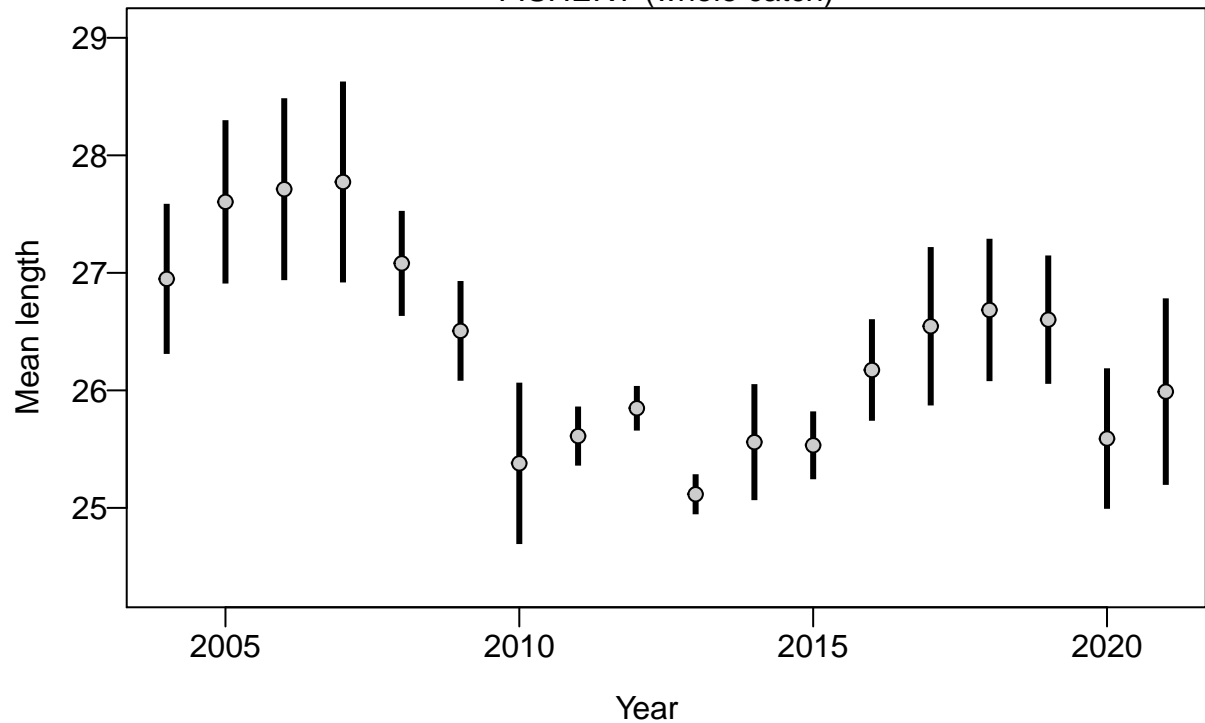


Proportion



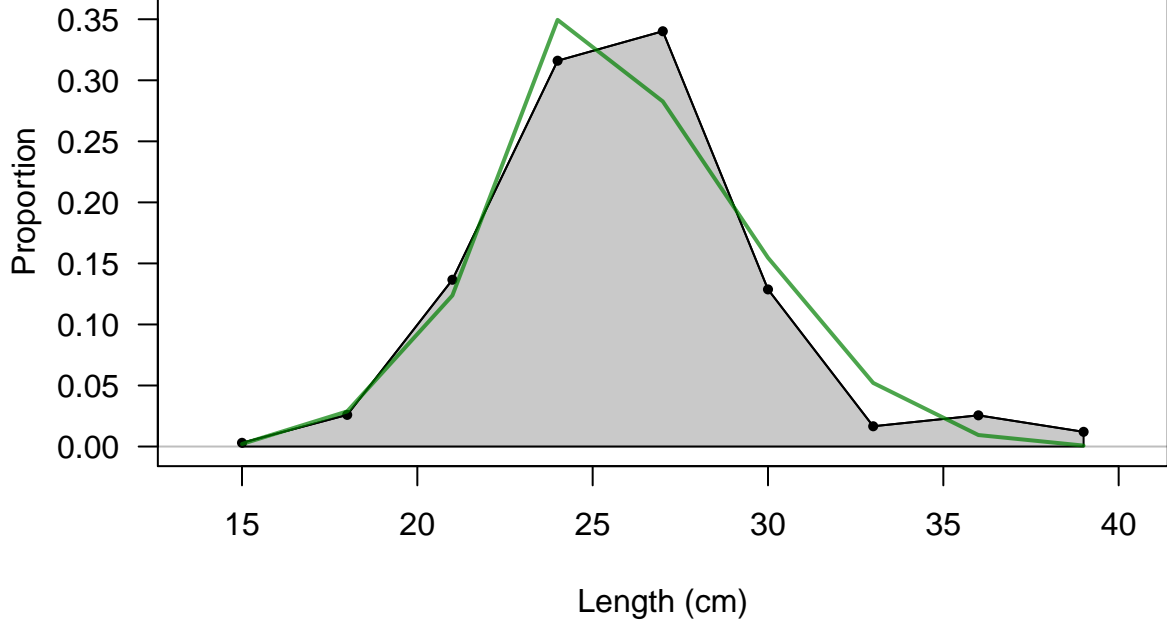


FISHERY (whole catch)

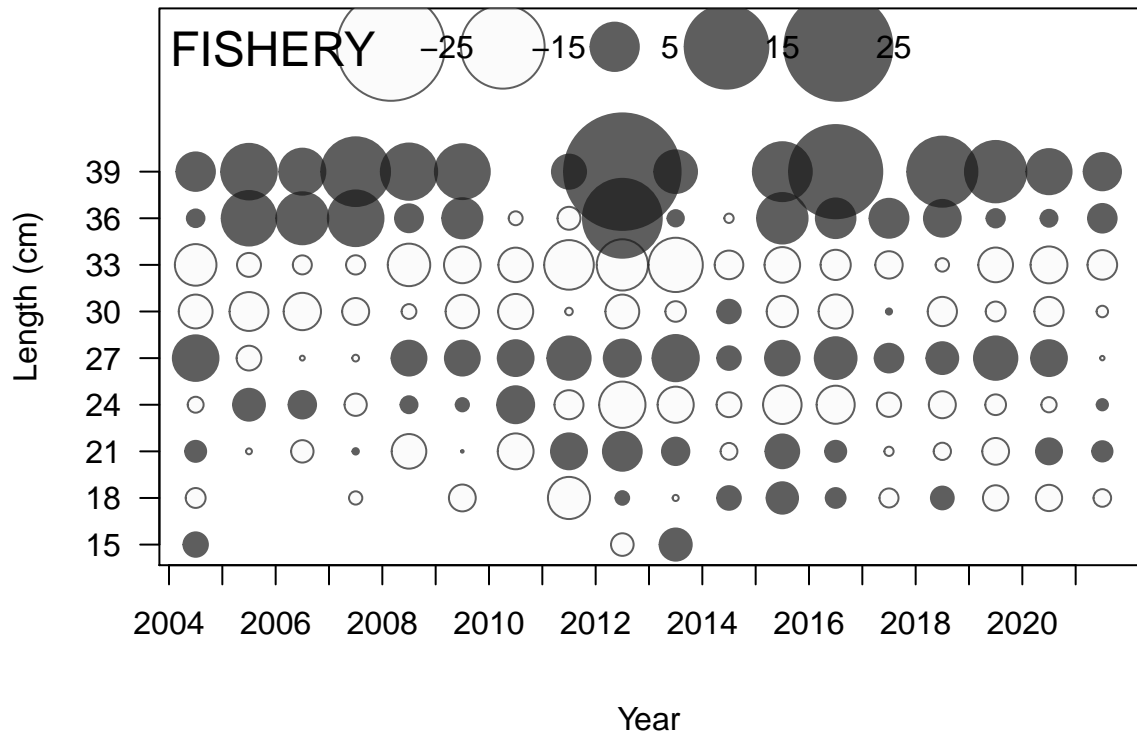


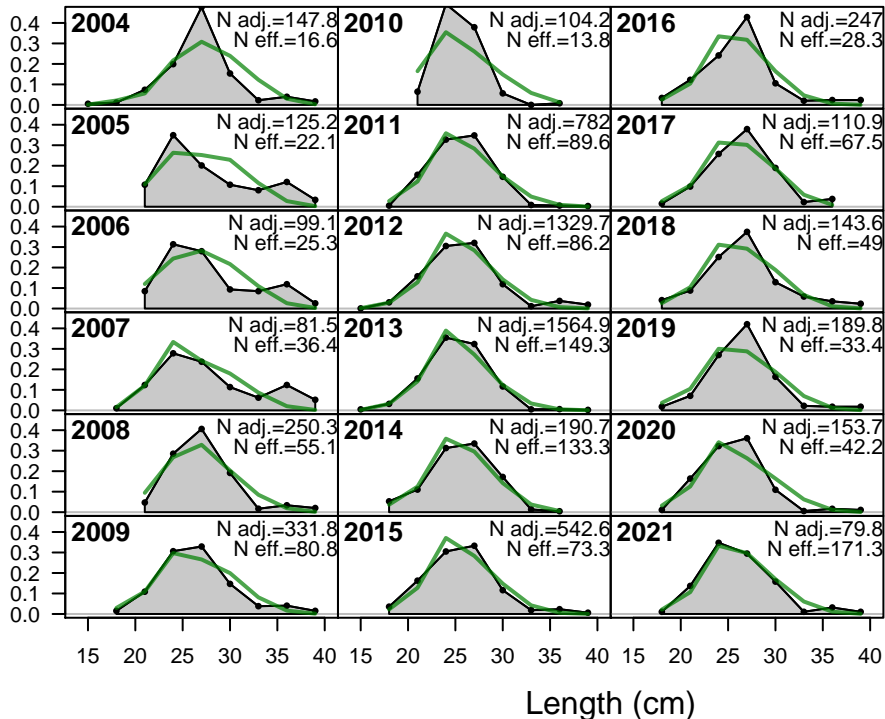
# FISHERY

Sum of N adj.=6474.7  
Sum of N eff.=1173.6

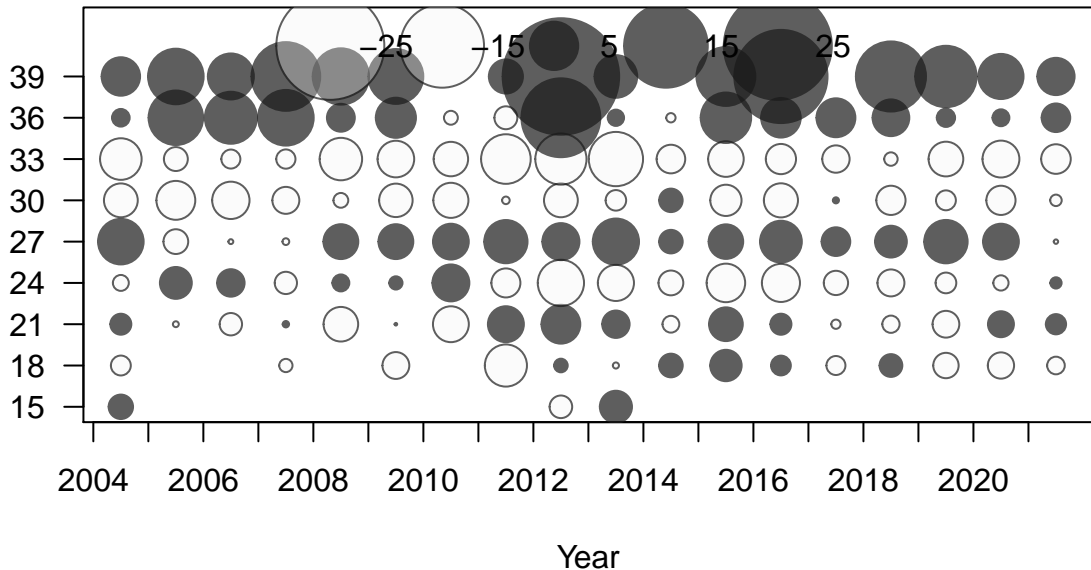




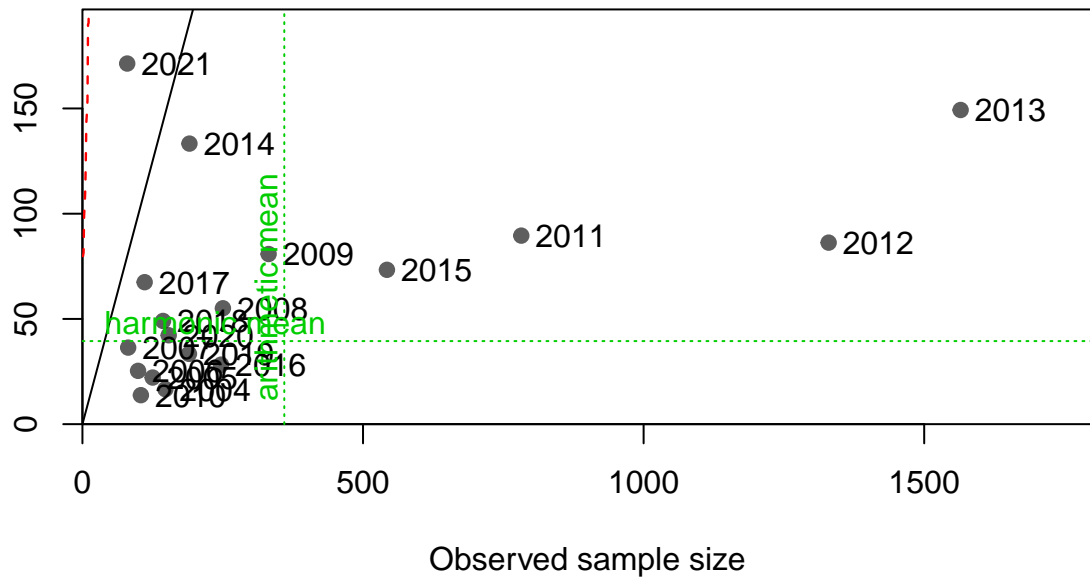




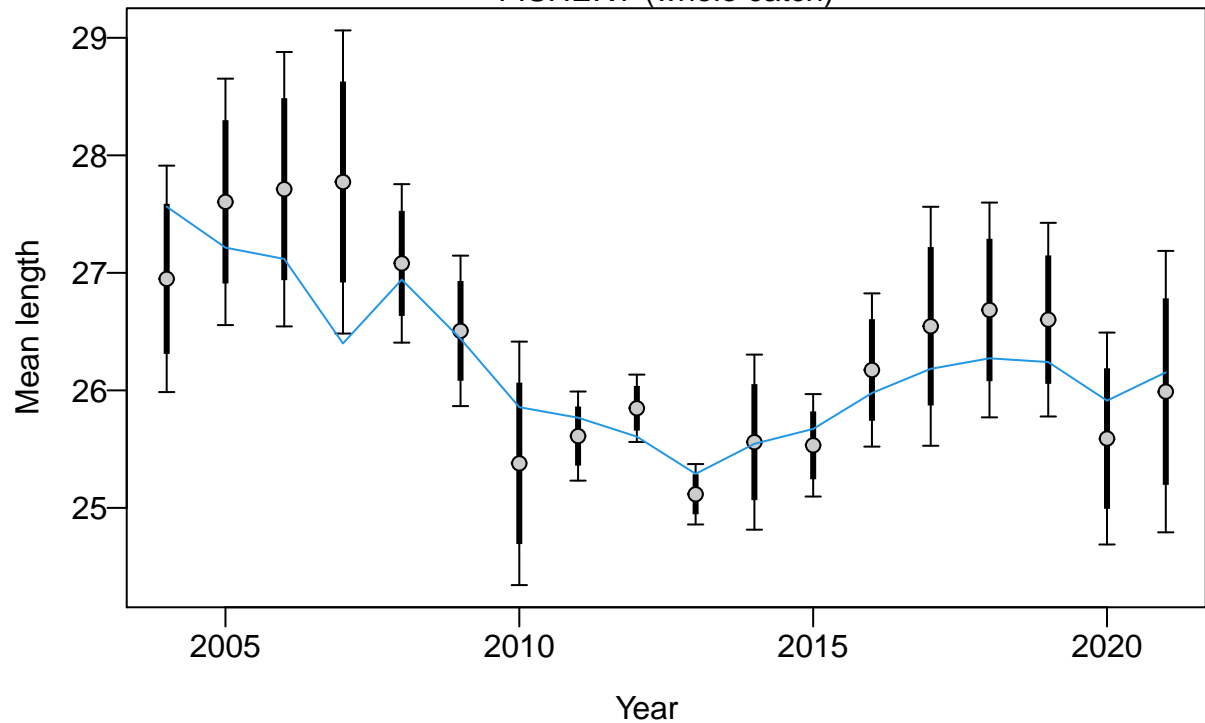
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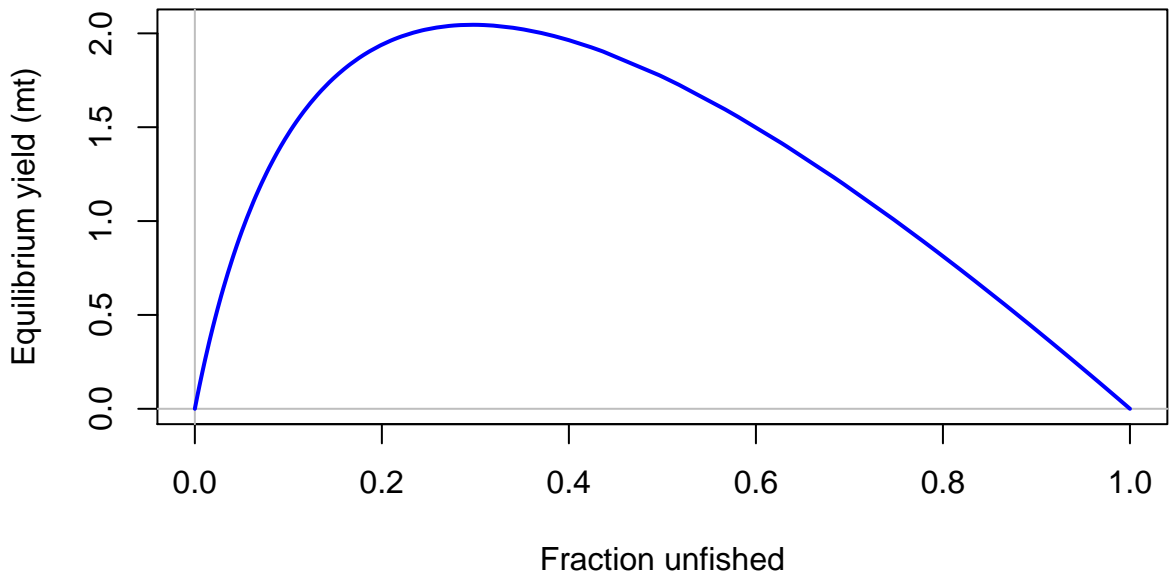


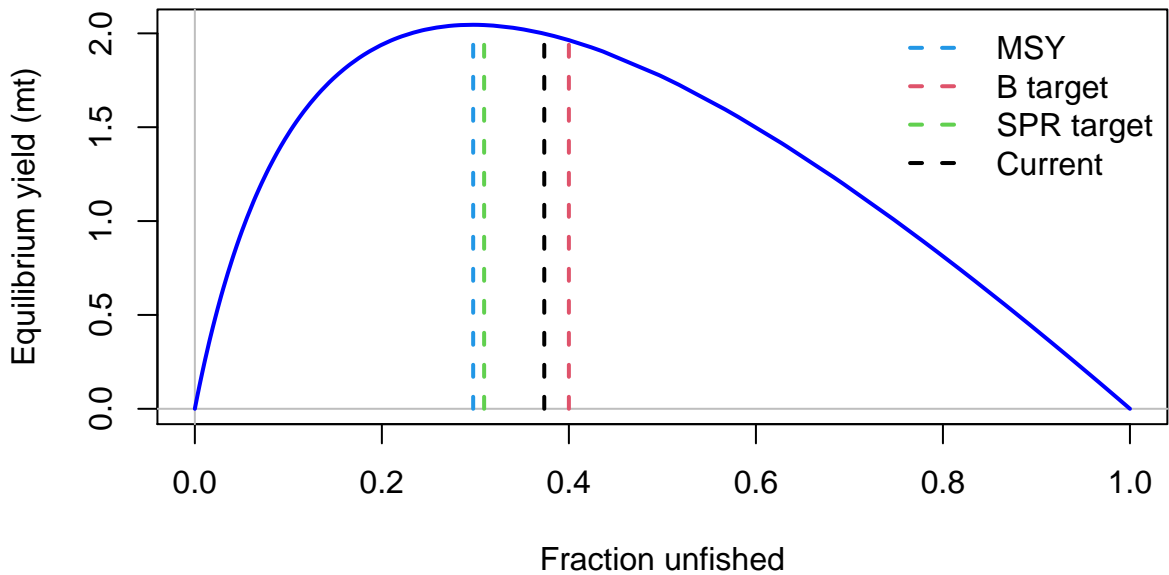
Effective sample size

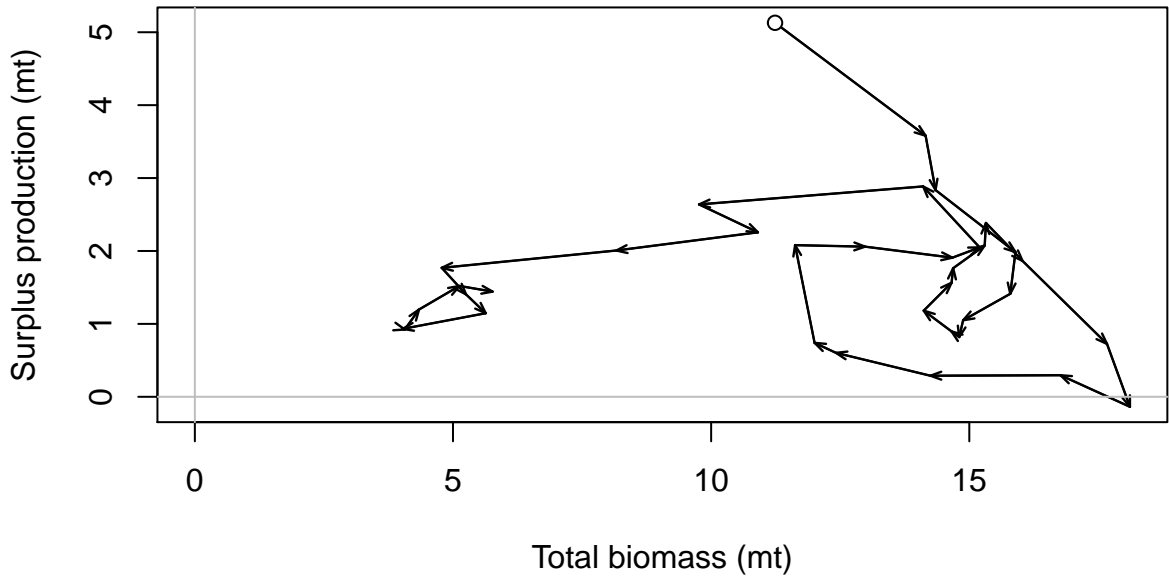


## FISHERY (whole catch)

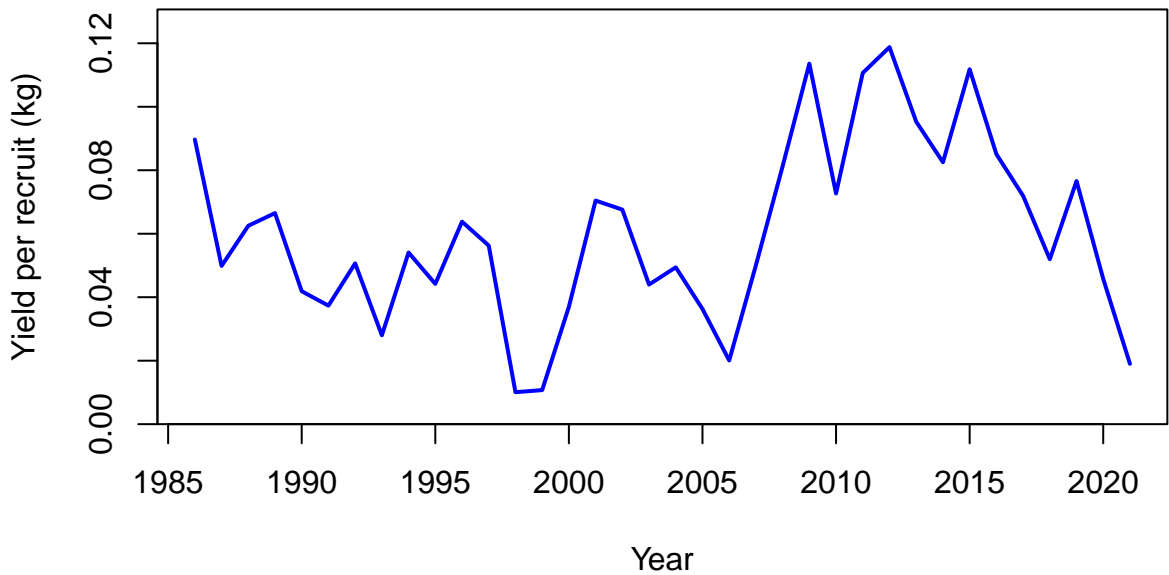


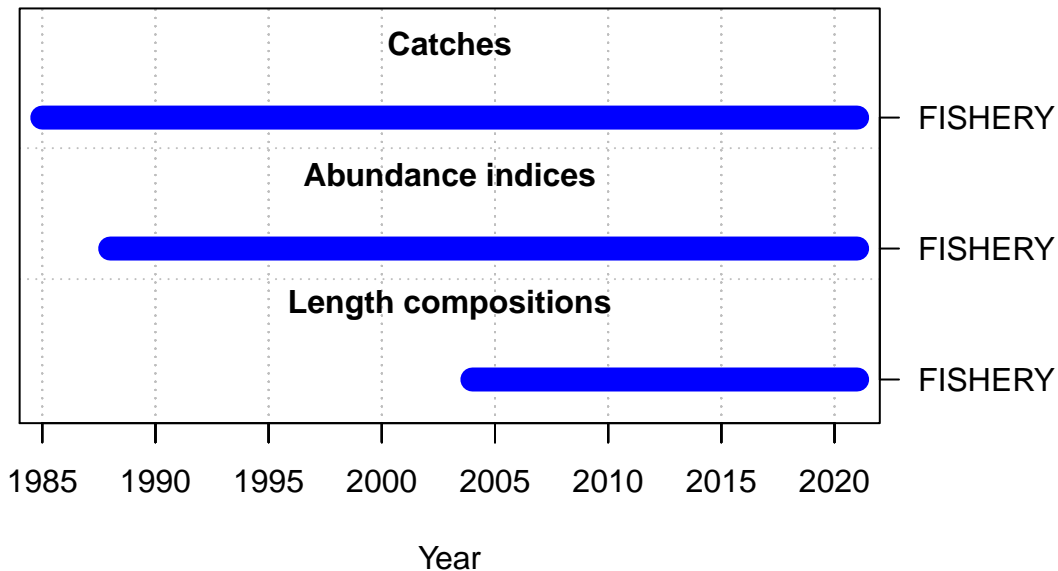


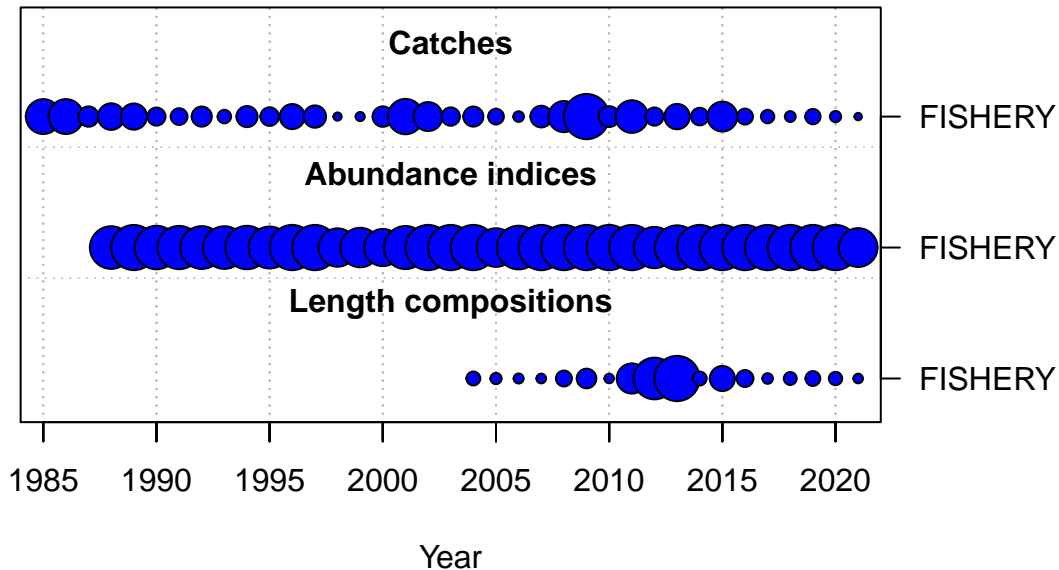




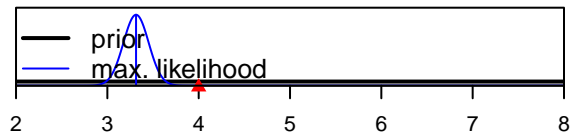








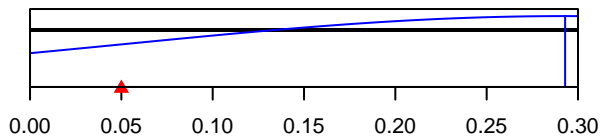
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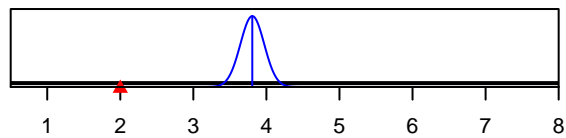
Size\_inflection\_FISHERY(1)



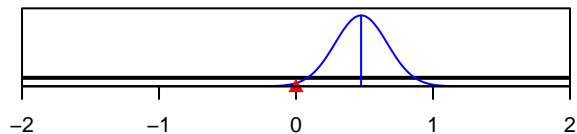
InitF\_seas\_1\_flt\_1FISHERY



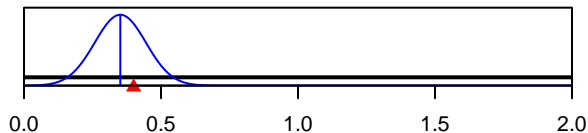
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LnQ\_base\_FISHERY(1)



Q\_extraSD\_FISHERY(1)



Parameter value