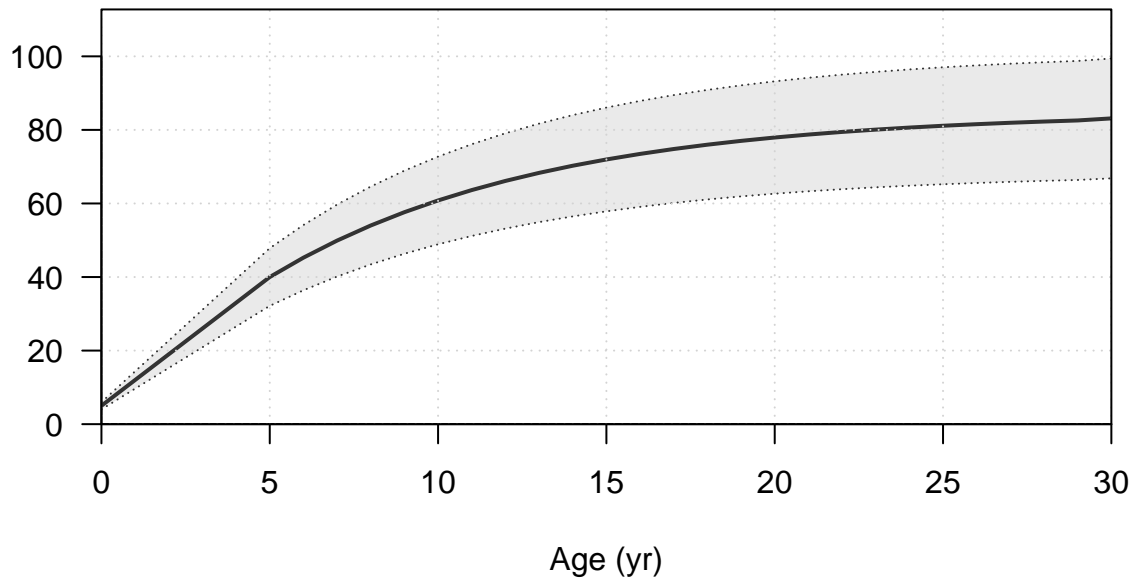
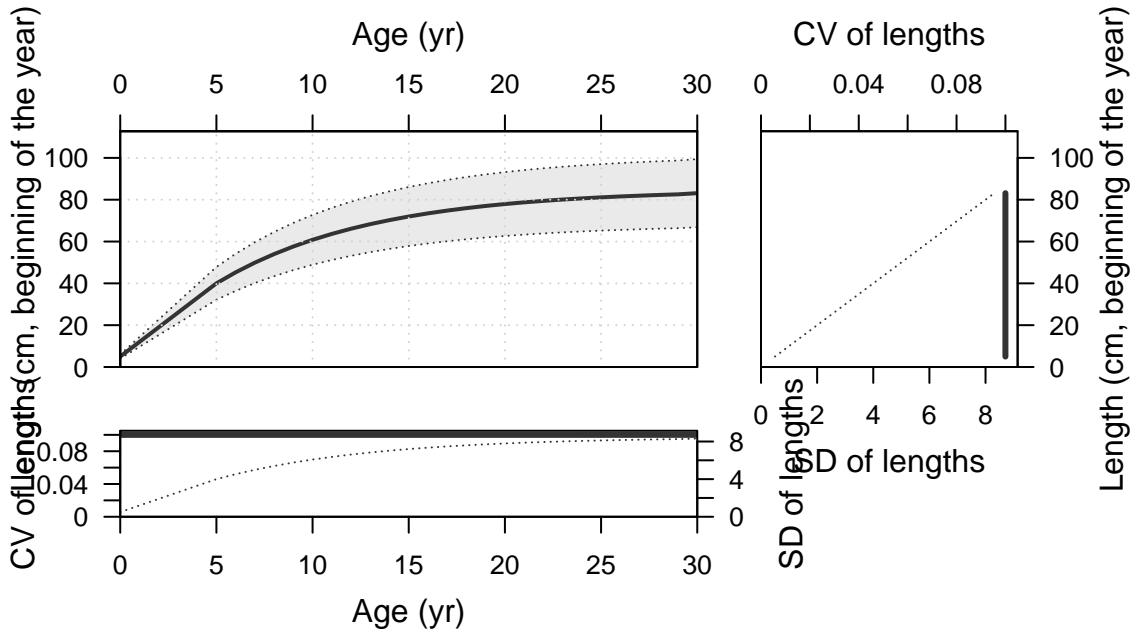
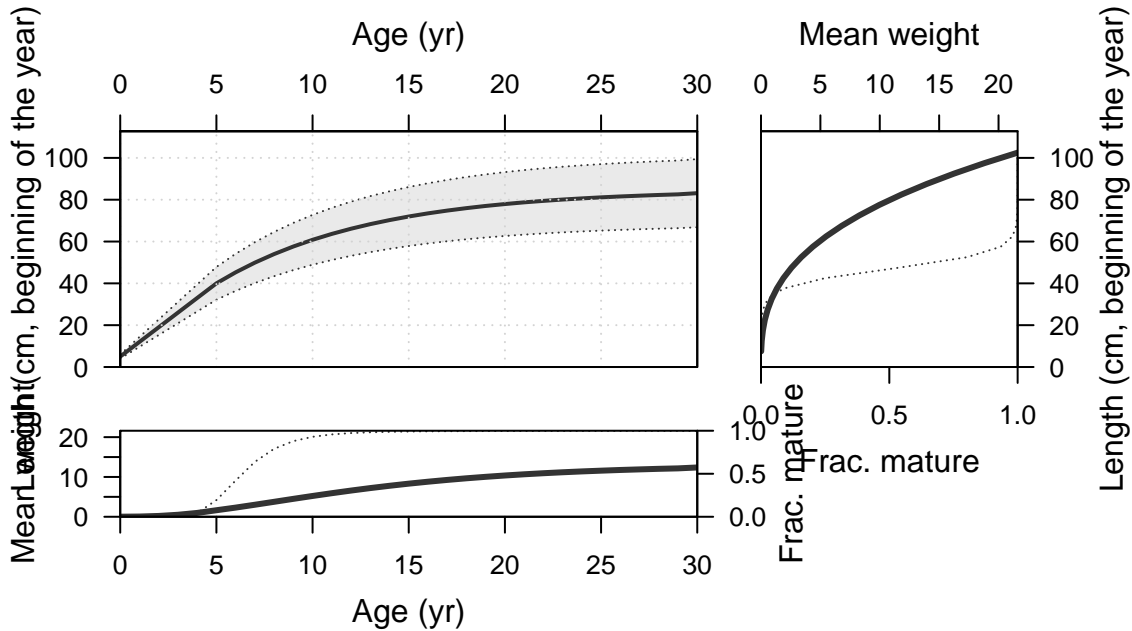


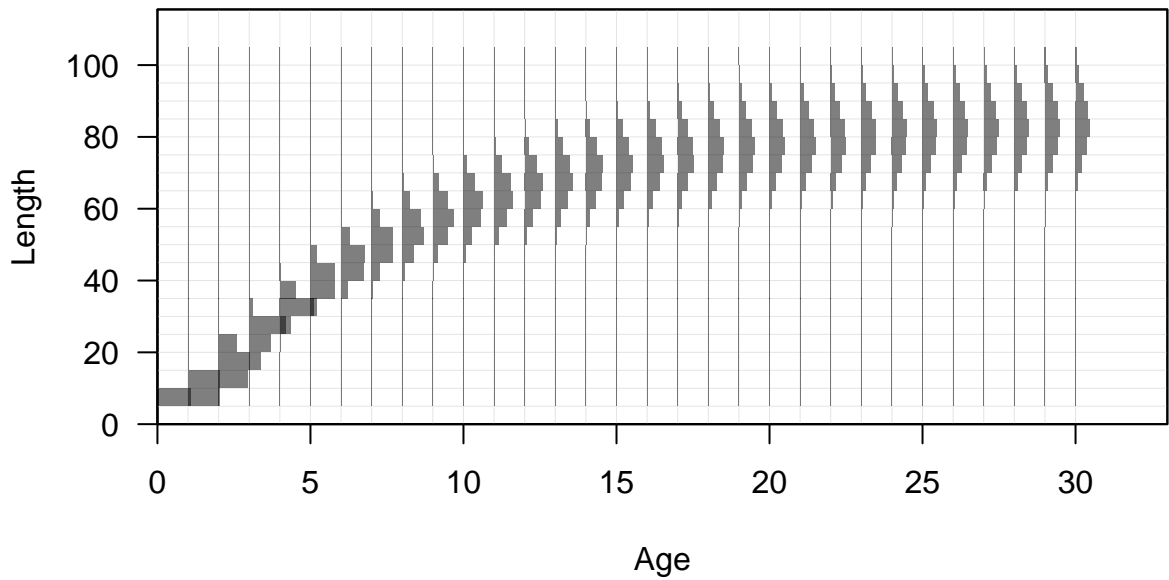
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Stock Synthesis version: 3.30.19.0  
StartTime: Thu Jun 16 09:46:59 2022  
Data\_File: data.ss  
Control\_File: control.ss

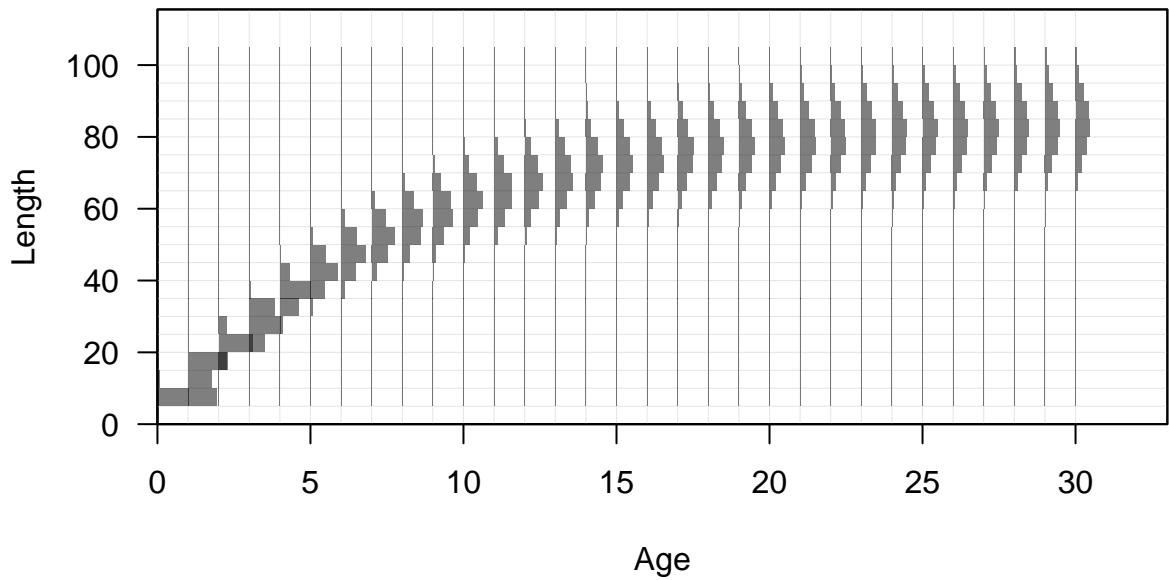
Length (cm, beginning of the year)

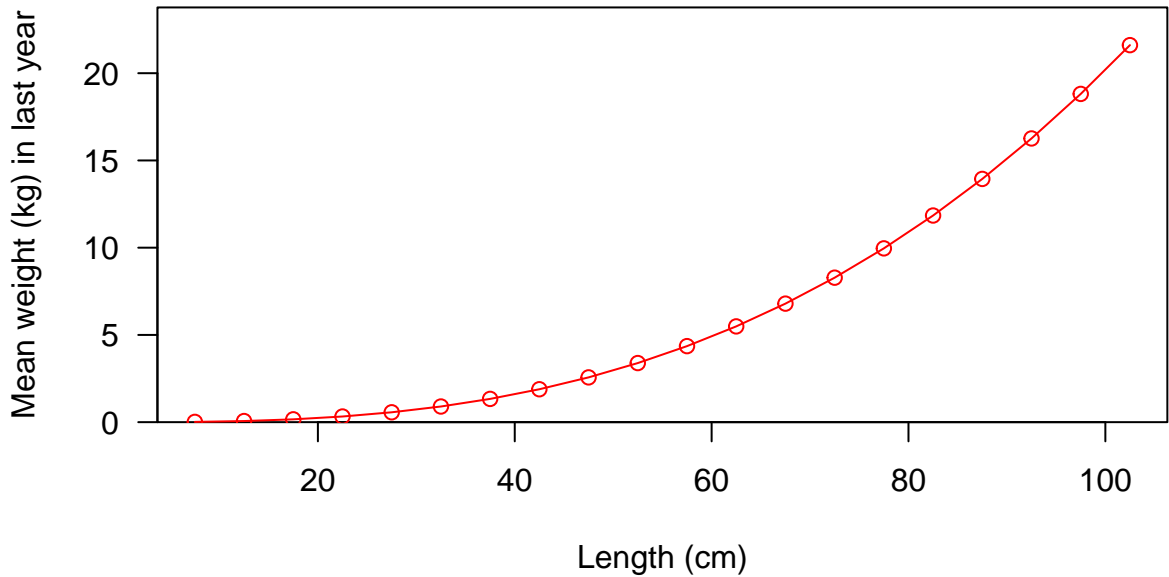


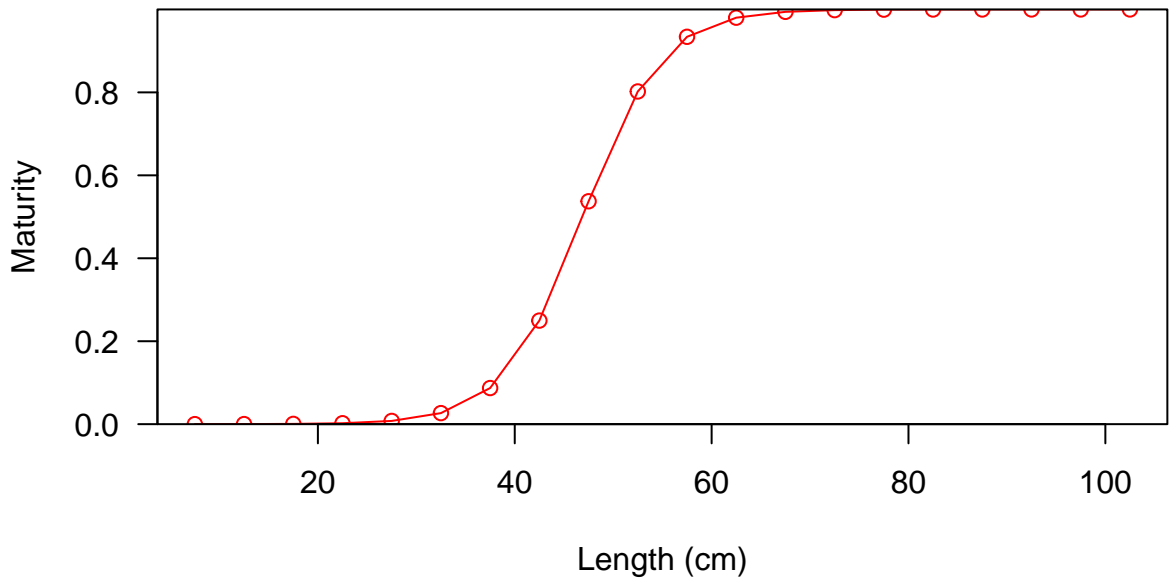




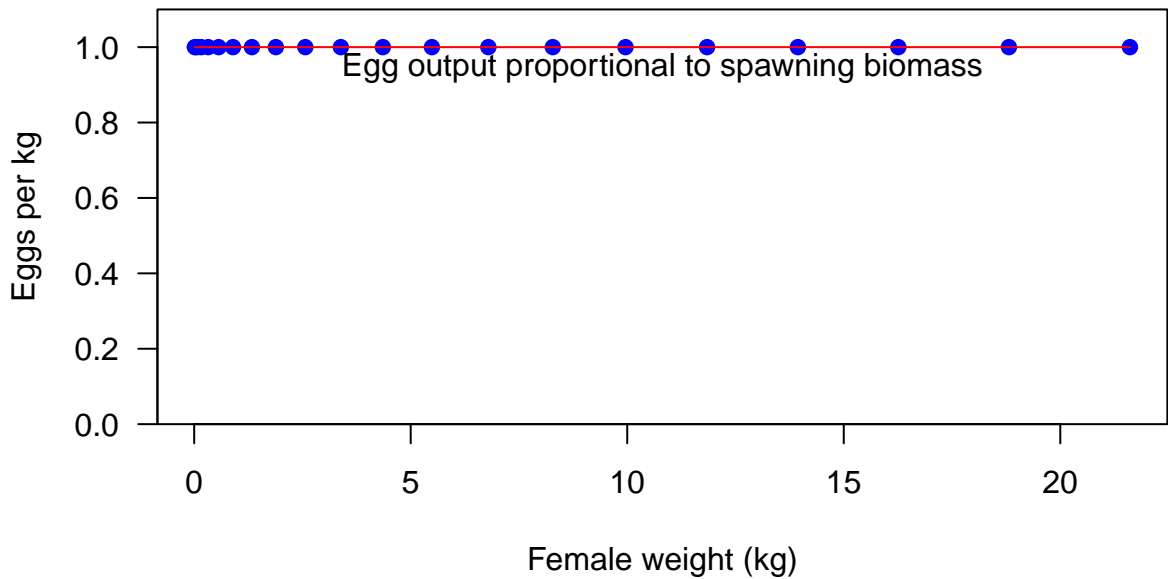




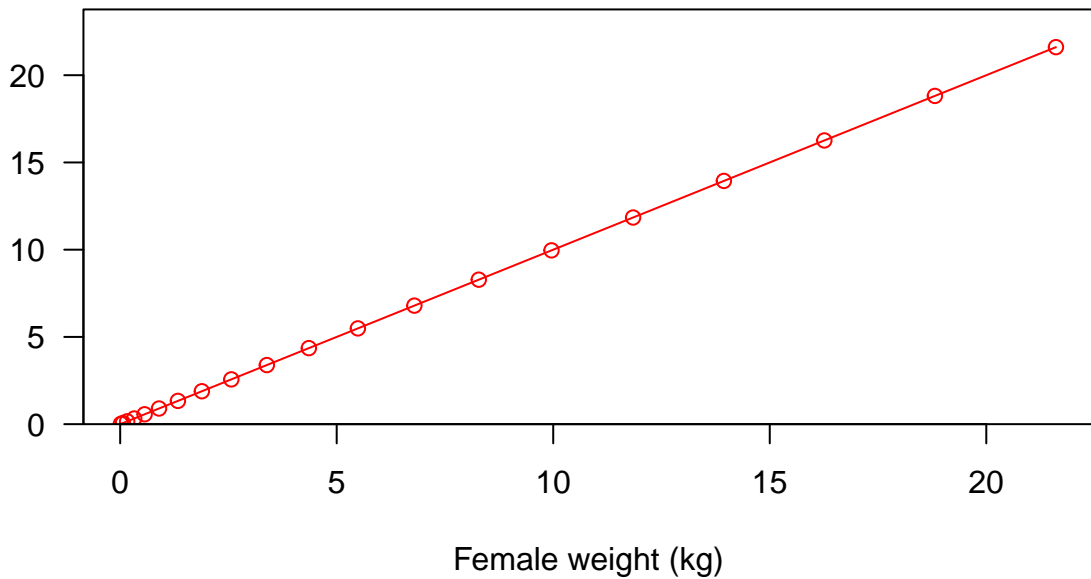




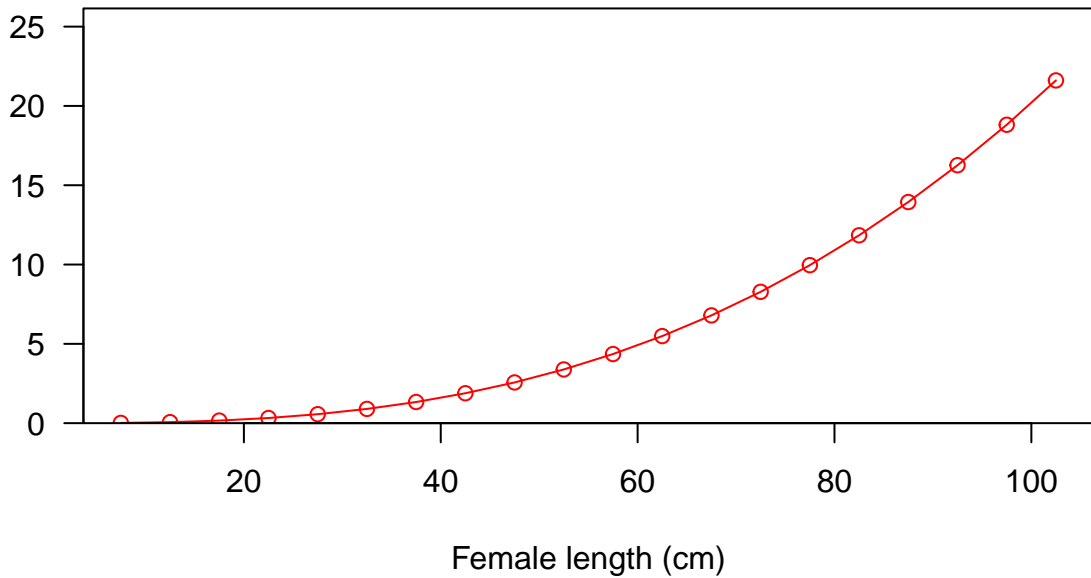




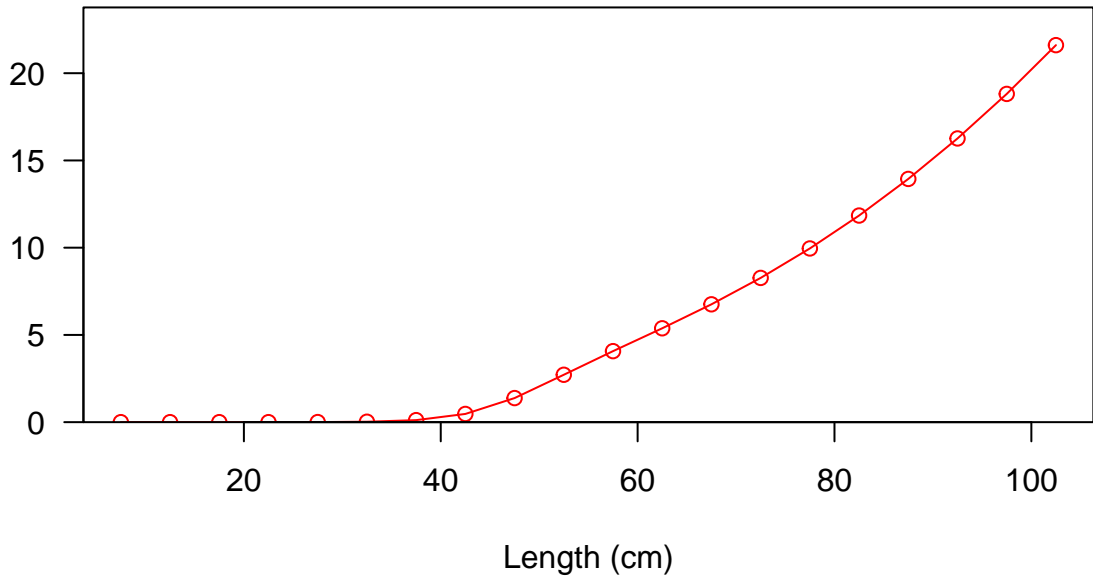
Fecundity



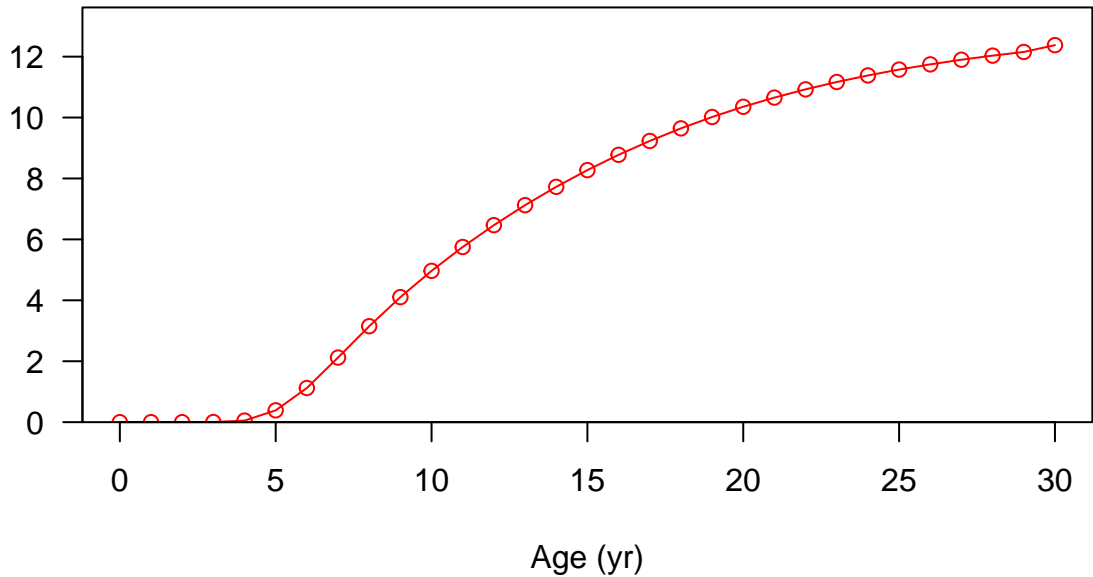
Fecundity



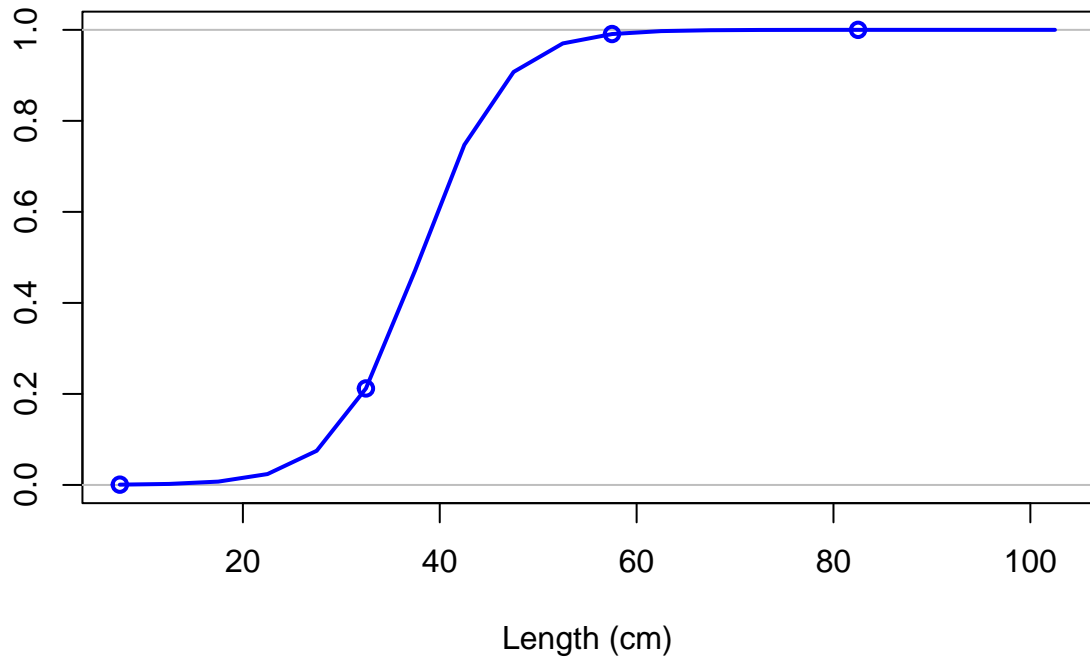
Spawning output



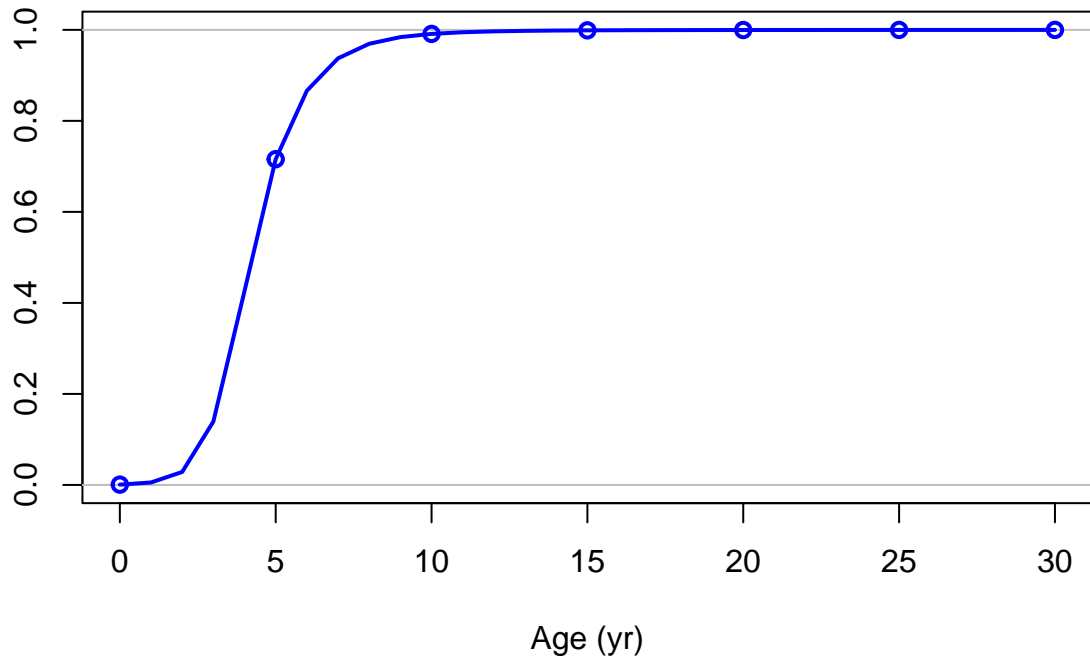
Spawning output



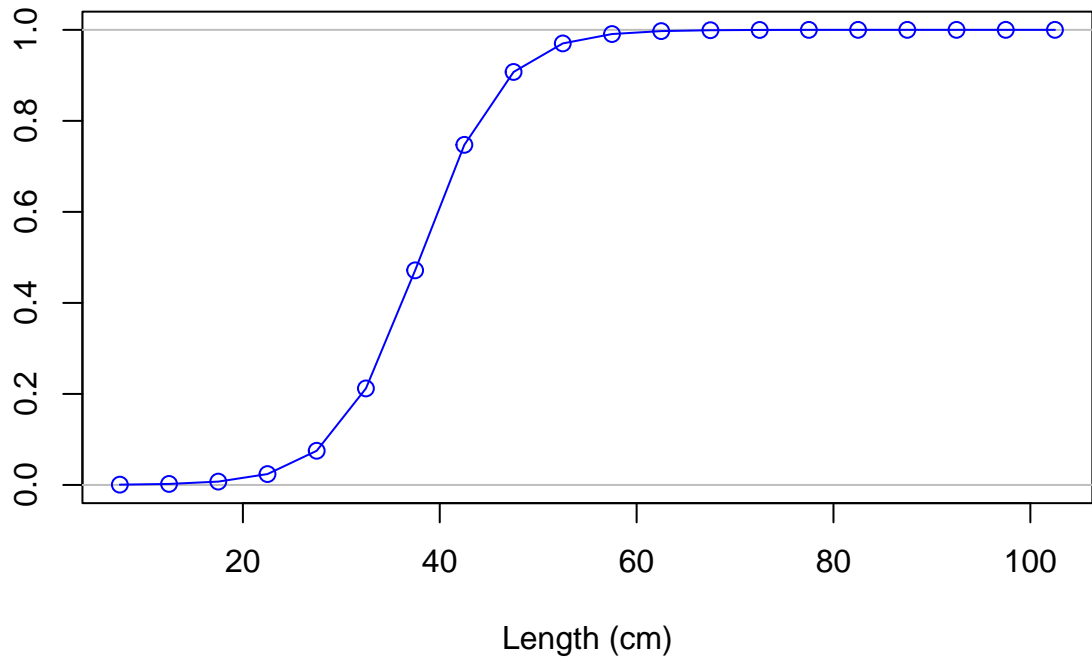
Selectivity



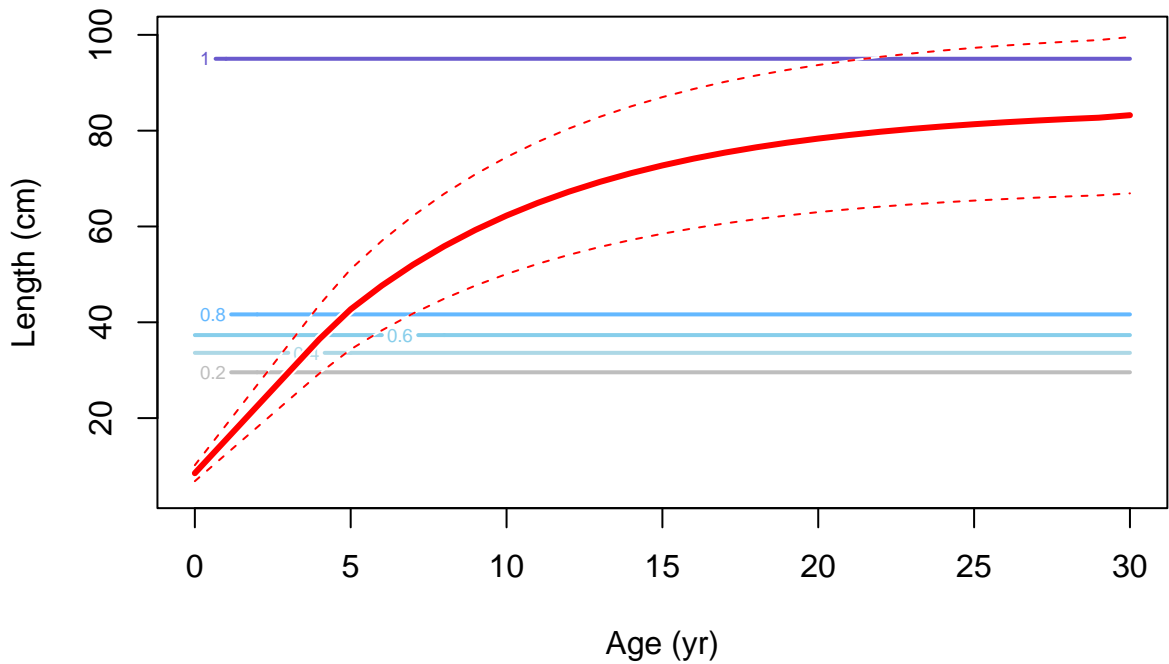
Selectivity

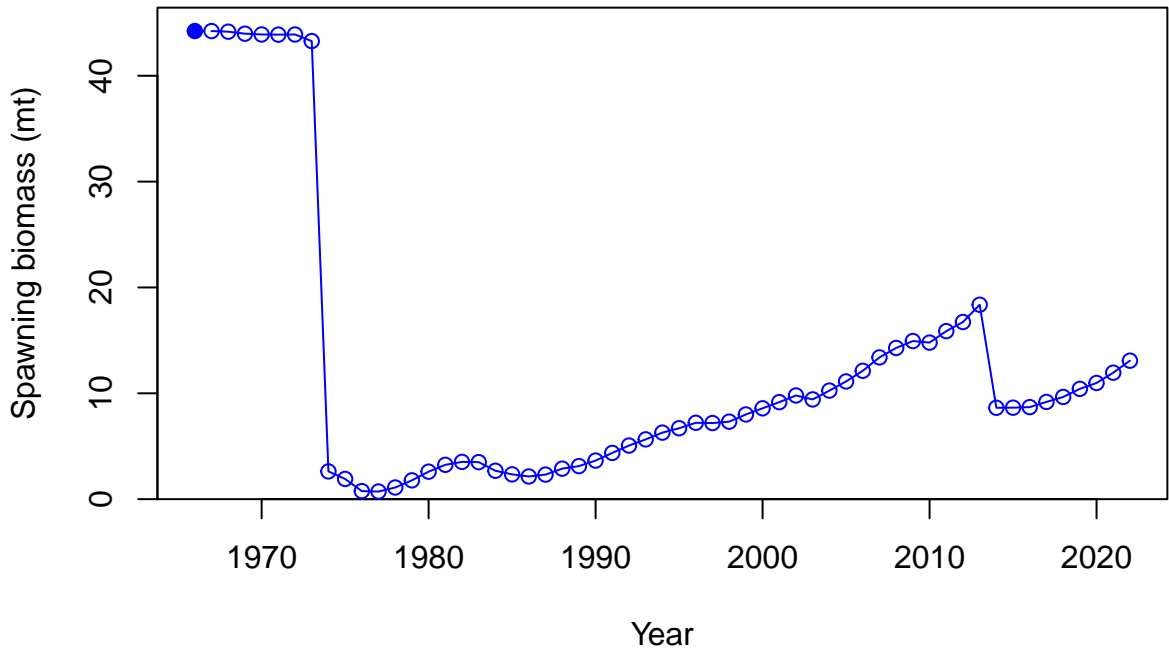


Selectivity

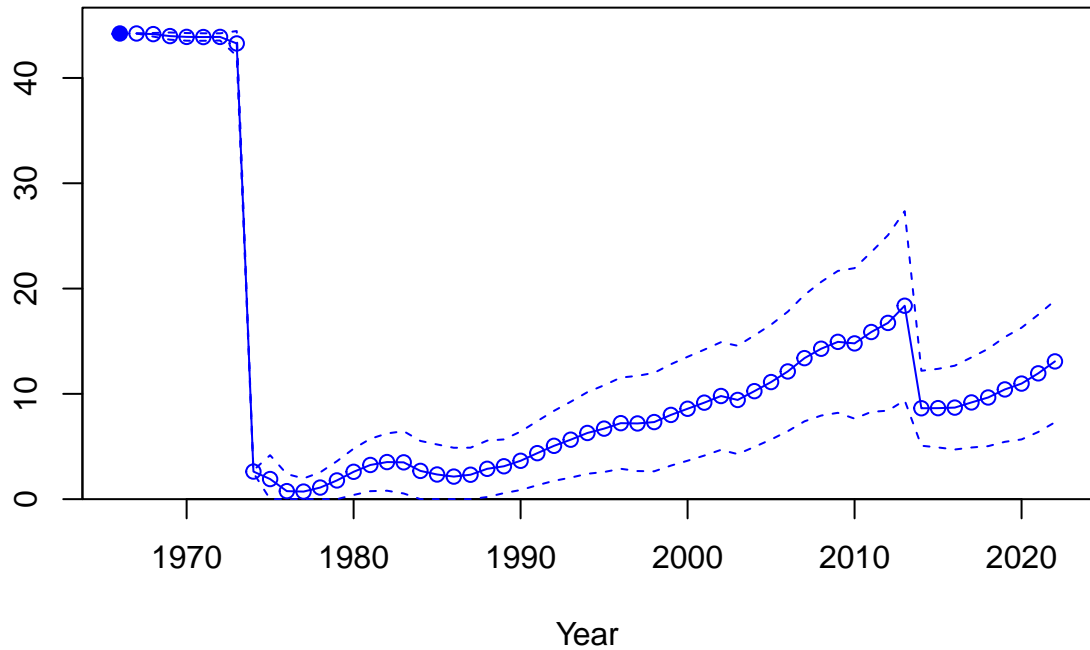




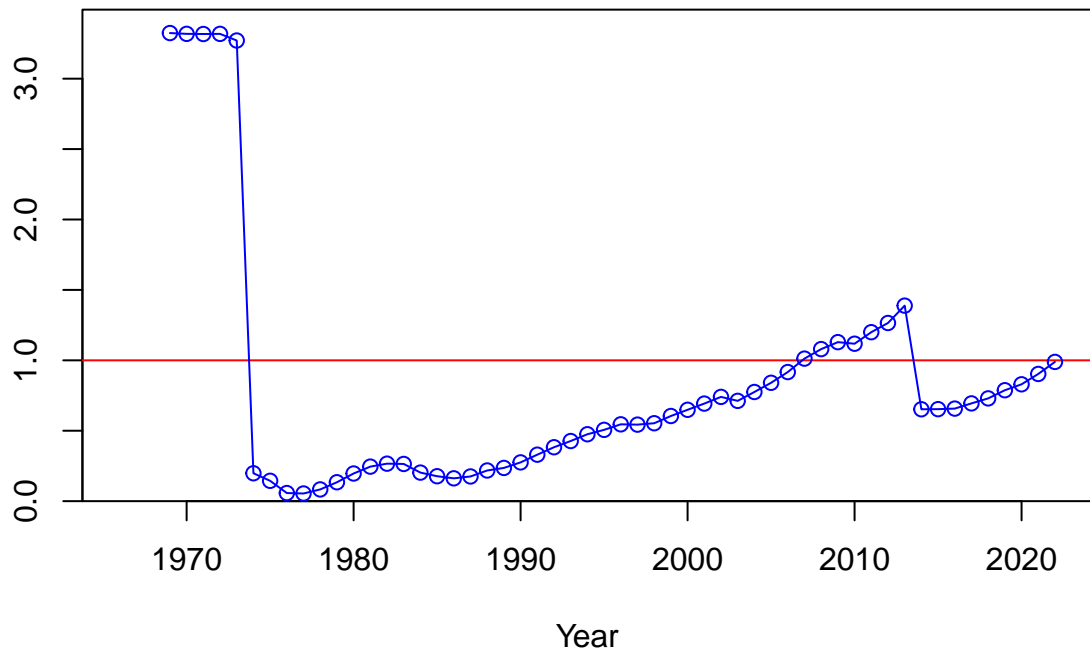




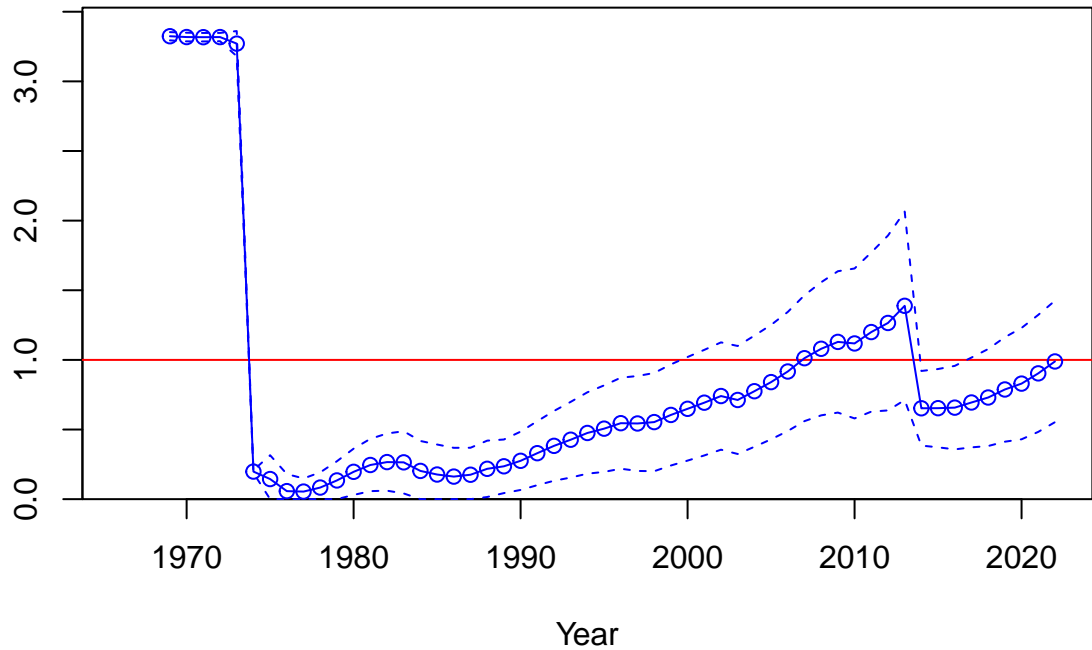
Spawning biomass (mt)

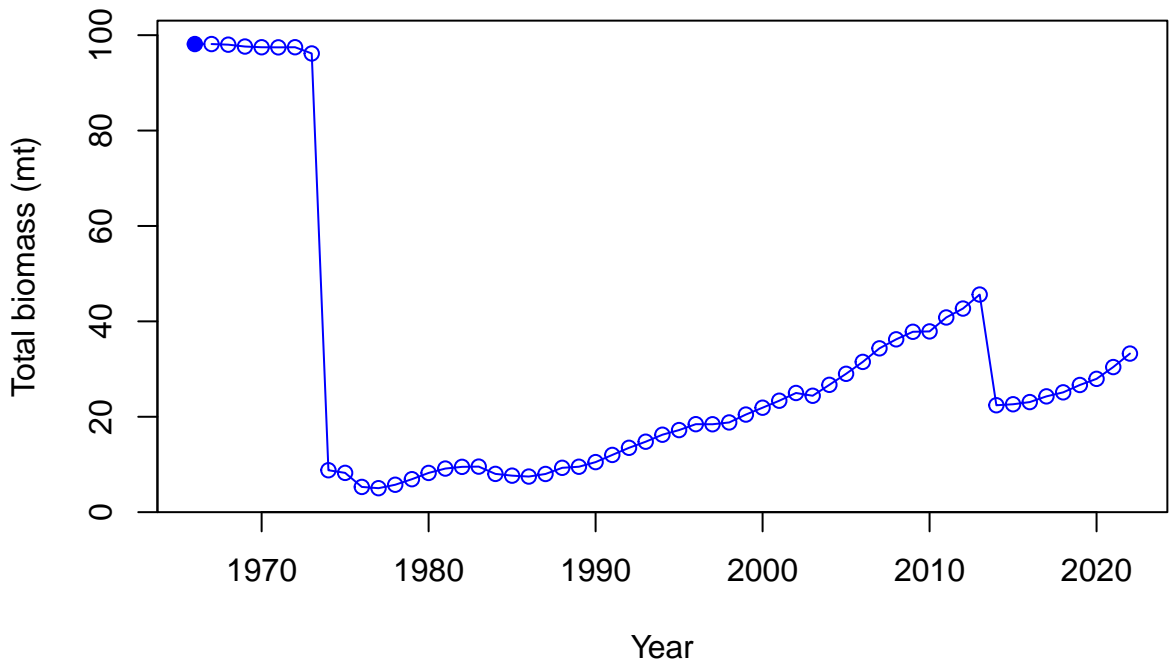


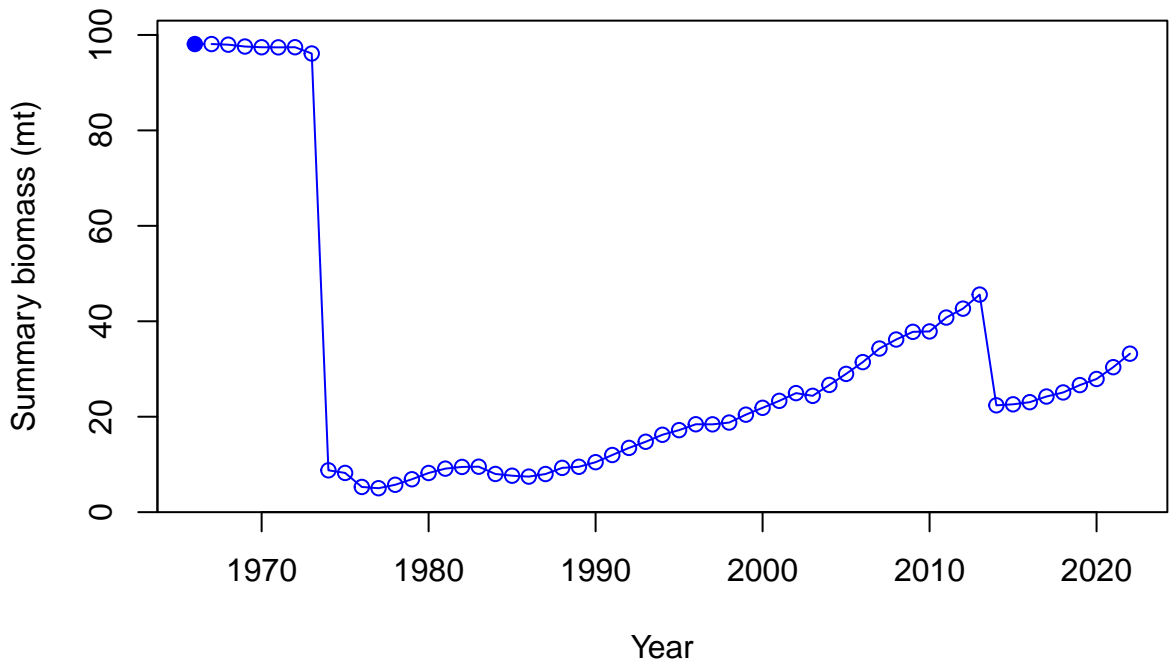
Relative spawning biomass:  $B/B_{MSY}$



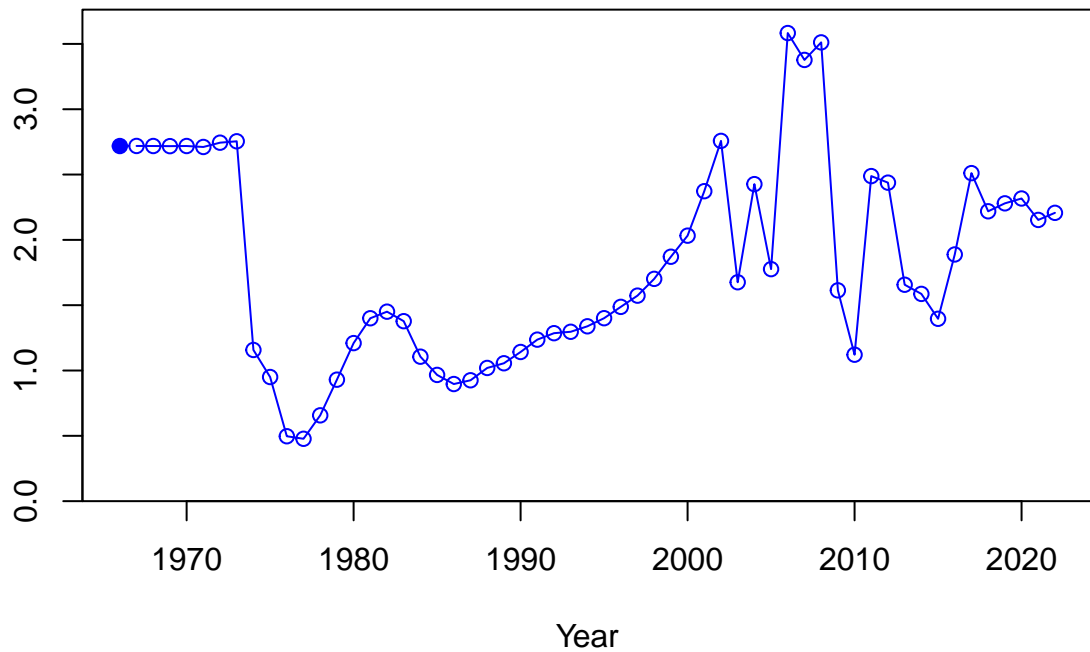
Relative spawning biomass:  $B/B_{MSY}$







Age-0 recruits (1,000s)





Age-0 recruits (1,000s)

7  
6  
5  
4  
3  
2  
1  
0

1970

1980

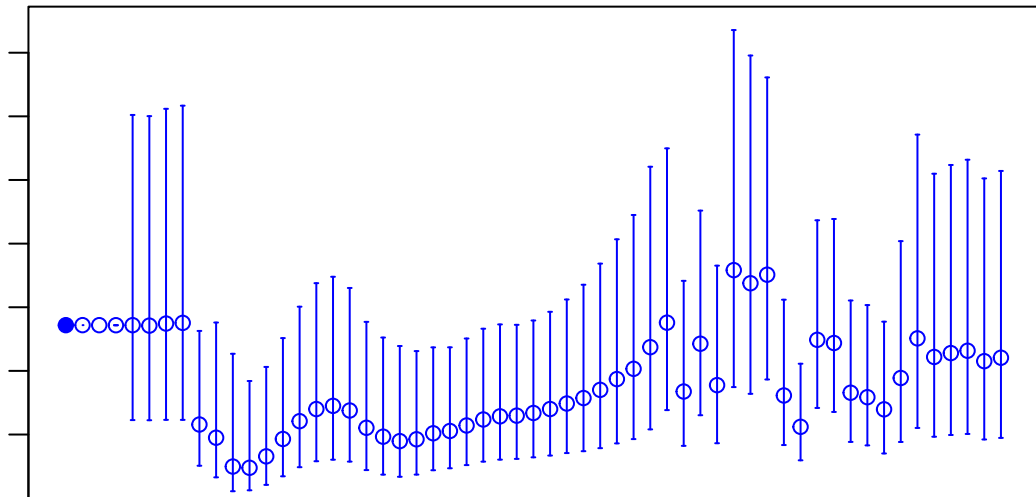
1990

2000

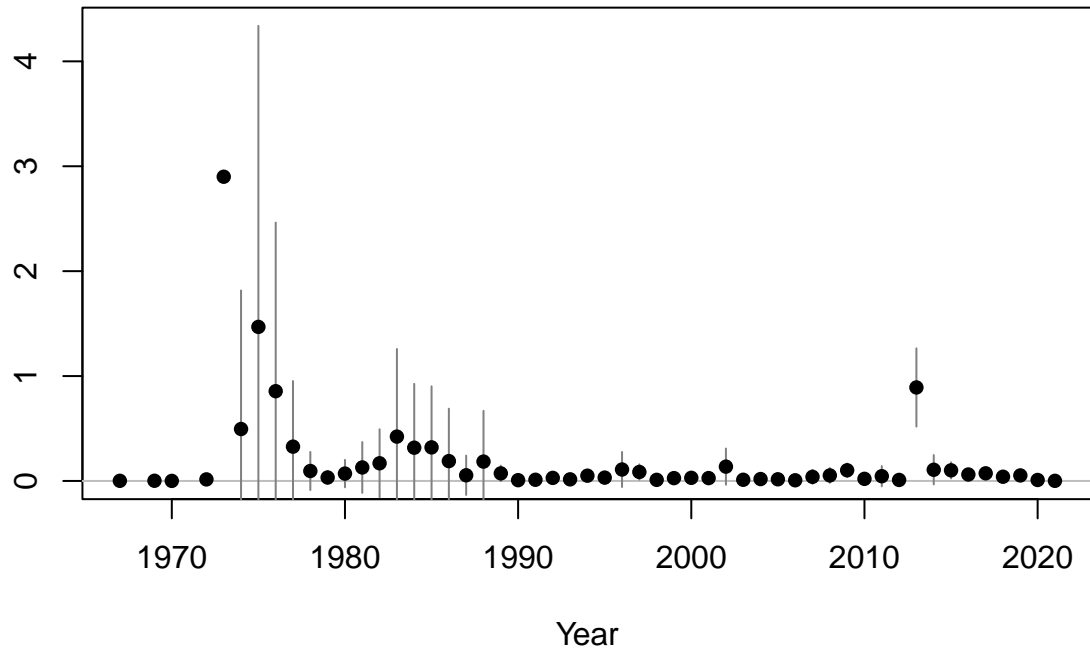
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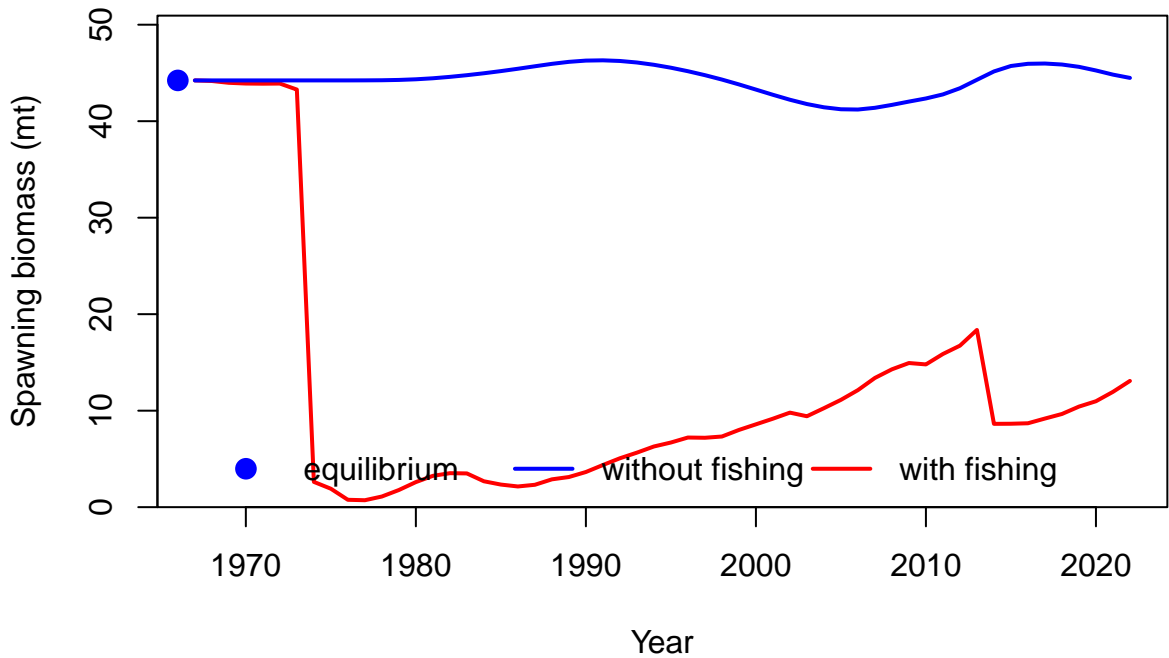
2020

Year

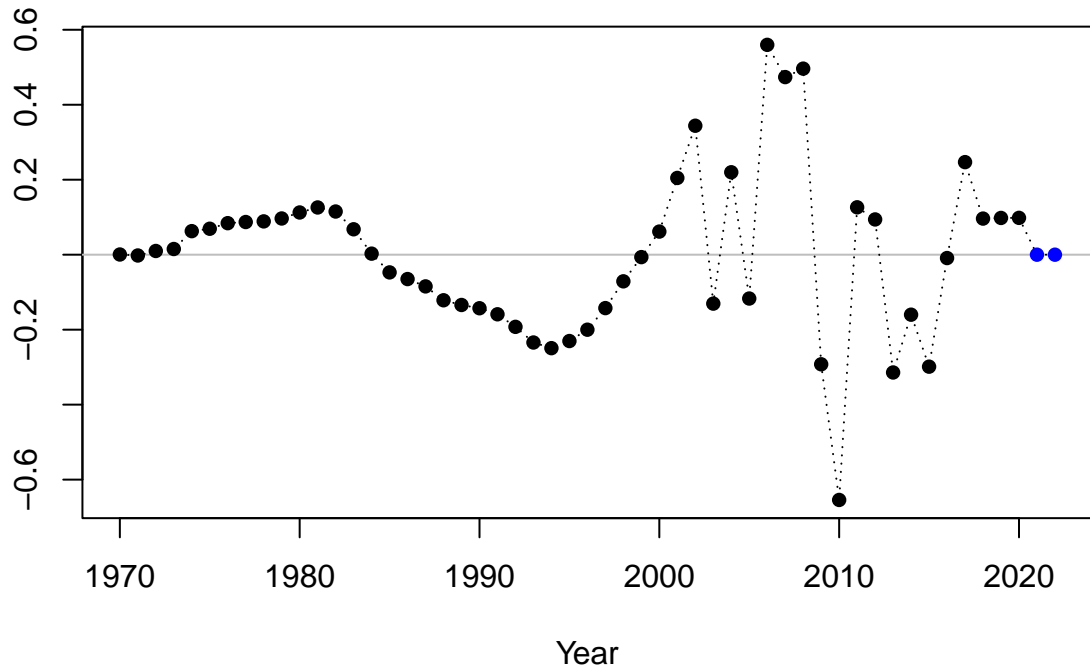


Summary Fishing Mortality





Log recruitment deviation



Log recruitment deviation

1.0  
0.5  
0.0  
-0.5  
-1.0

1970

1980

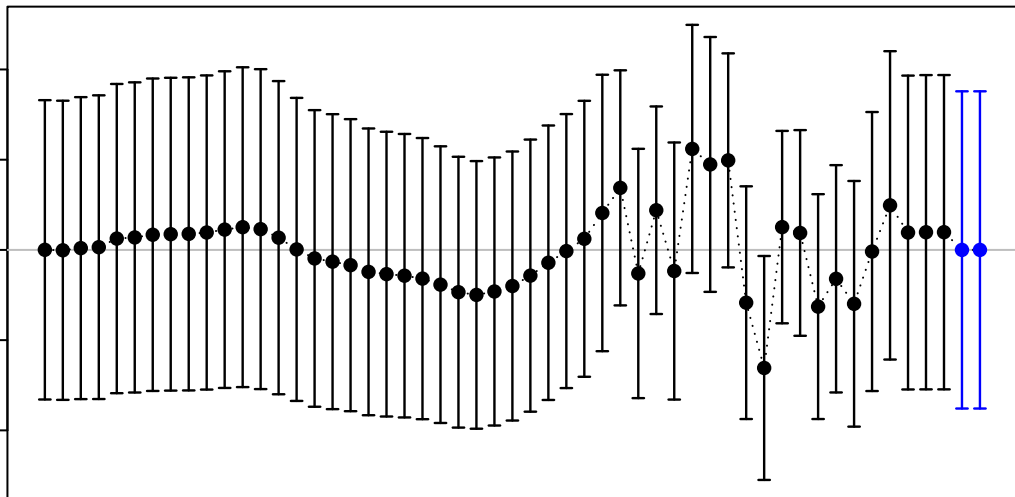
1990

2000

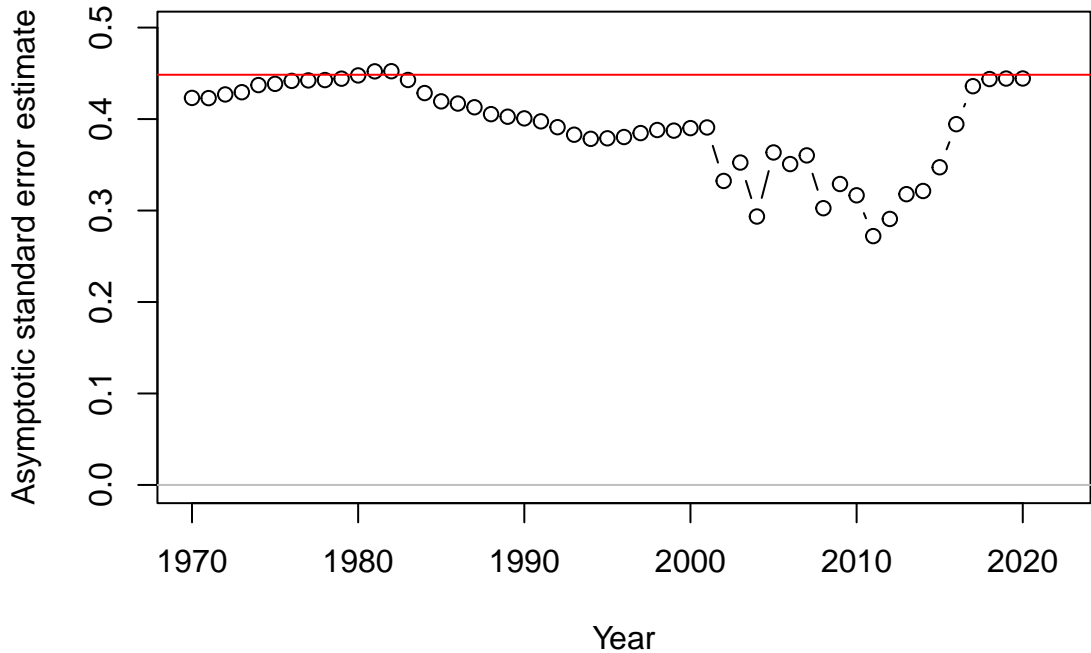
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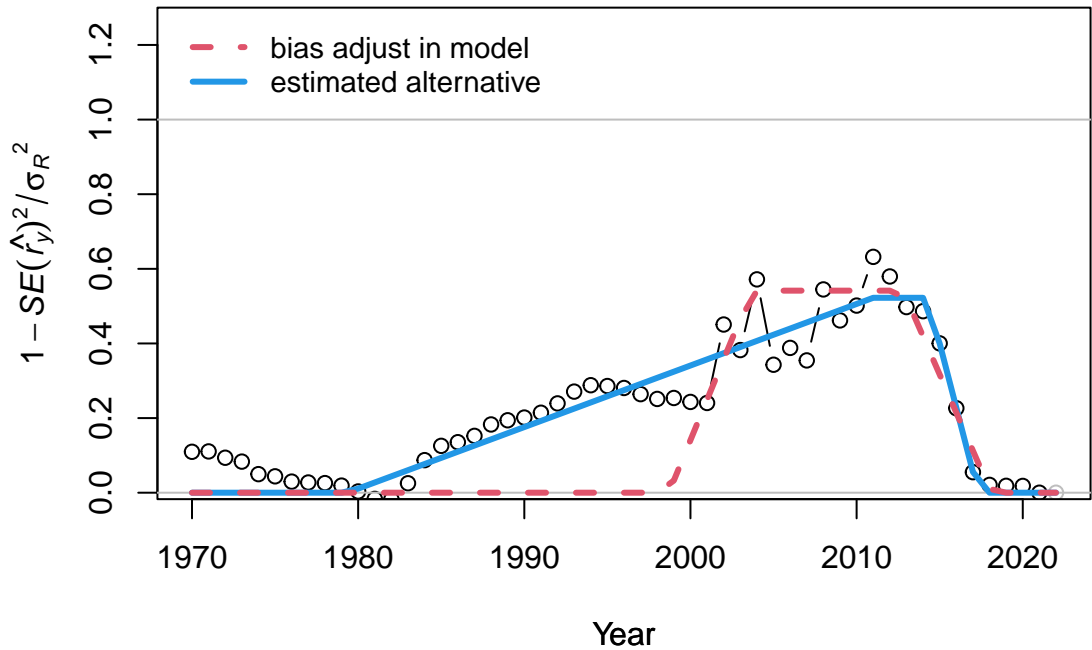
2020

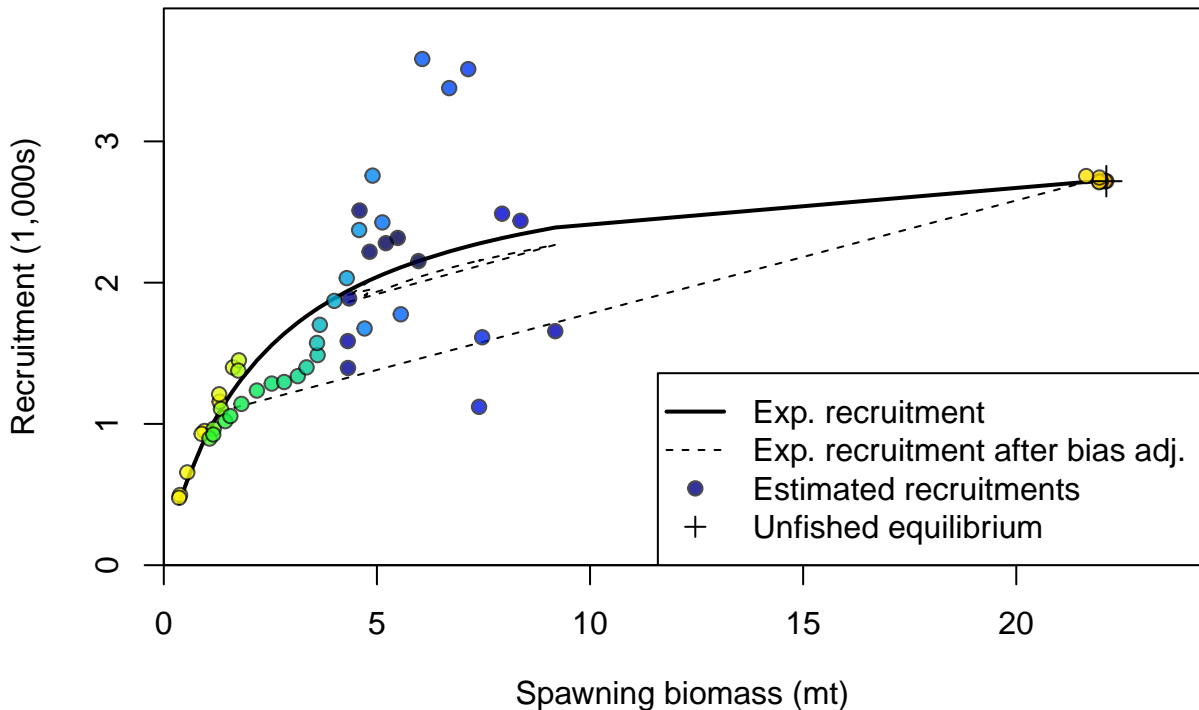
Year



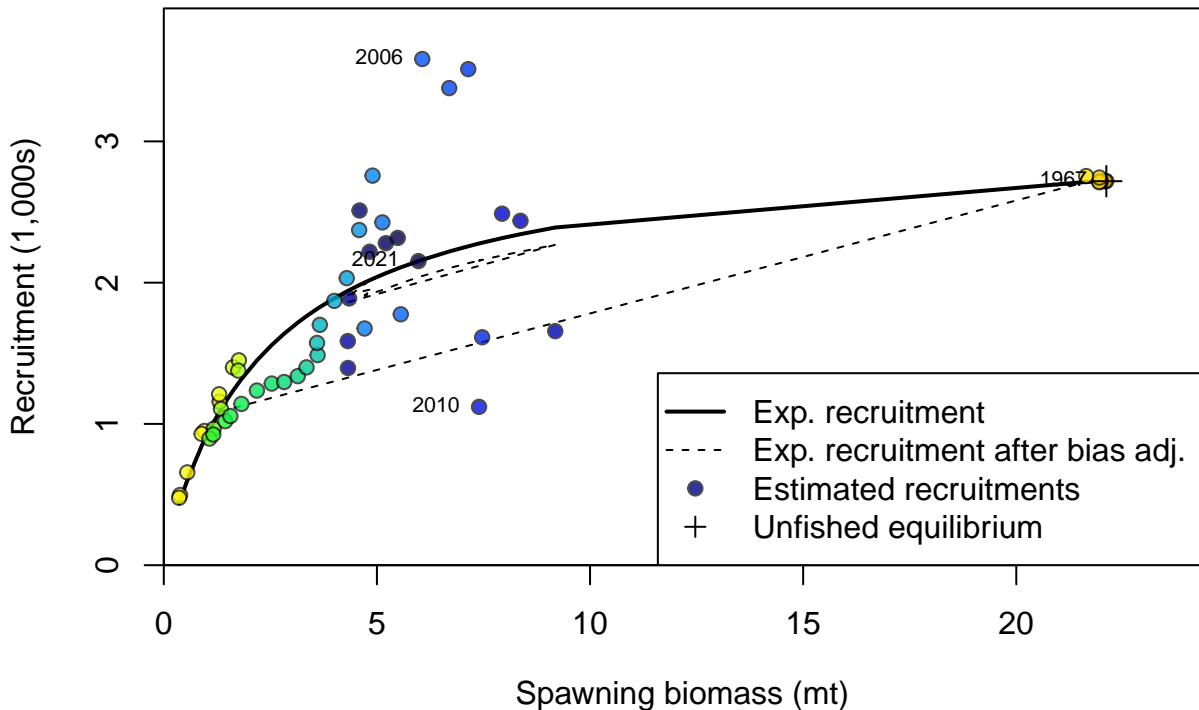
## Recruitment deviation variance



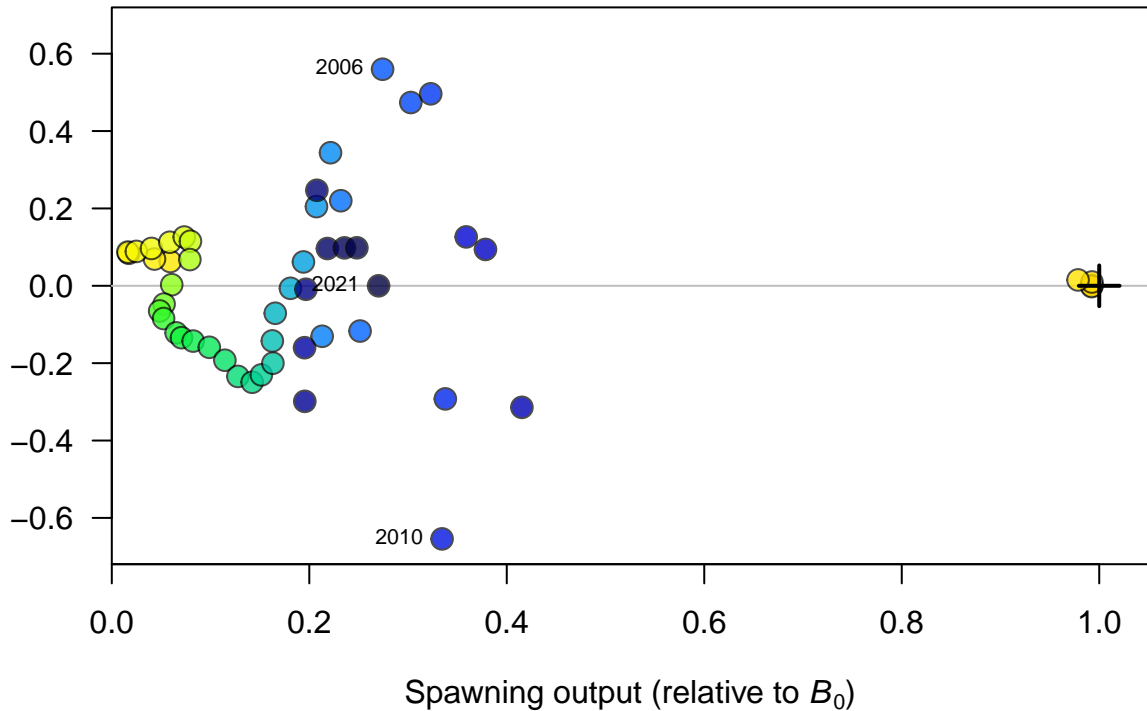


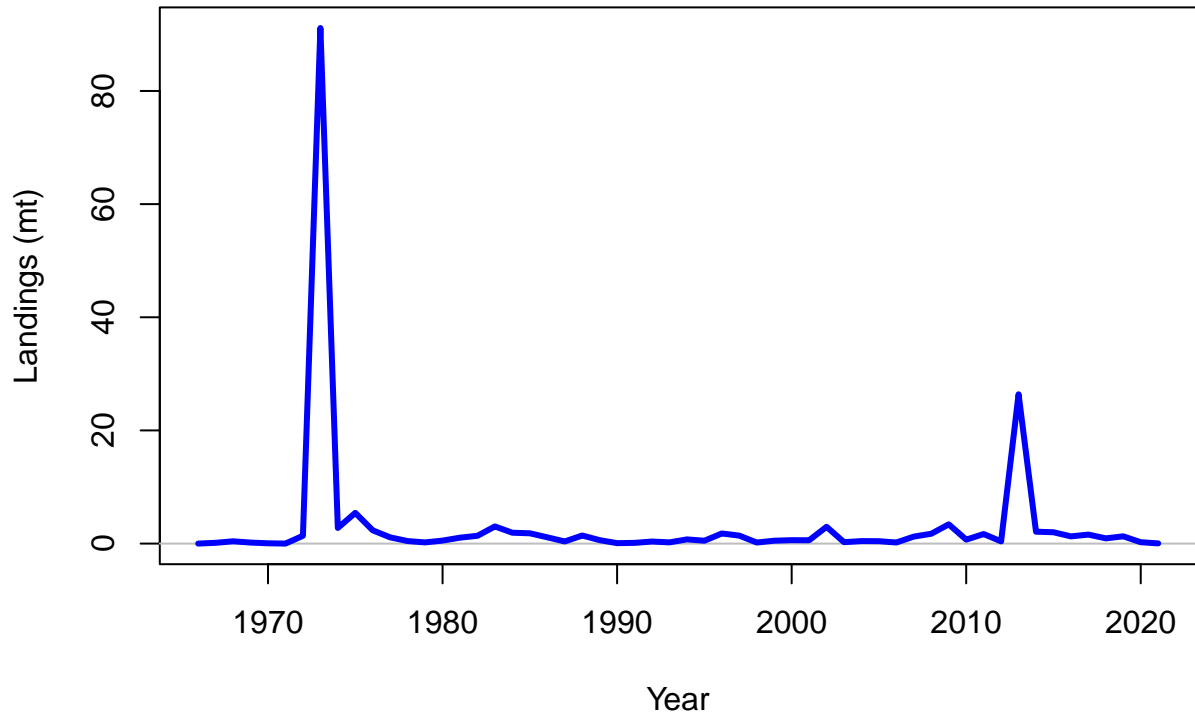


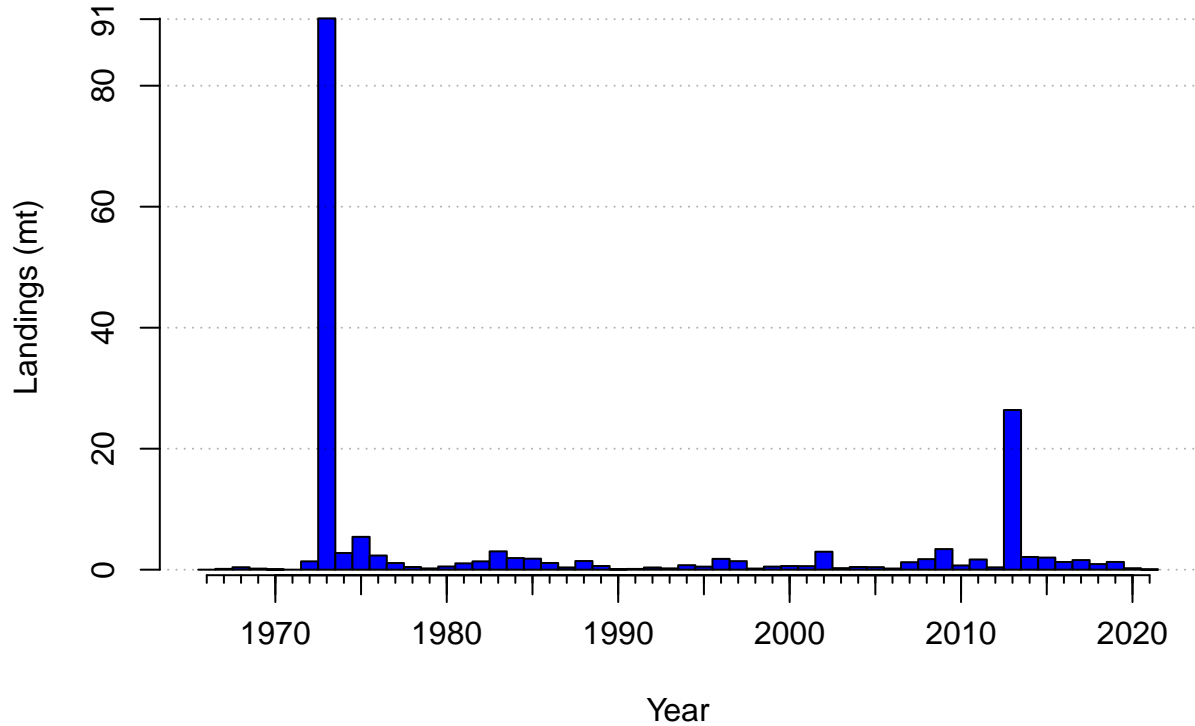


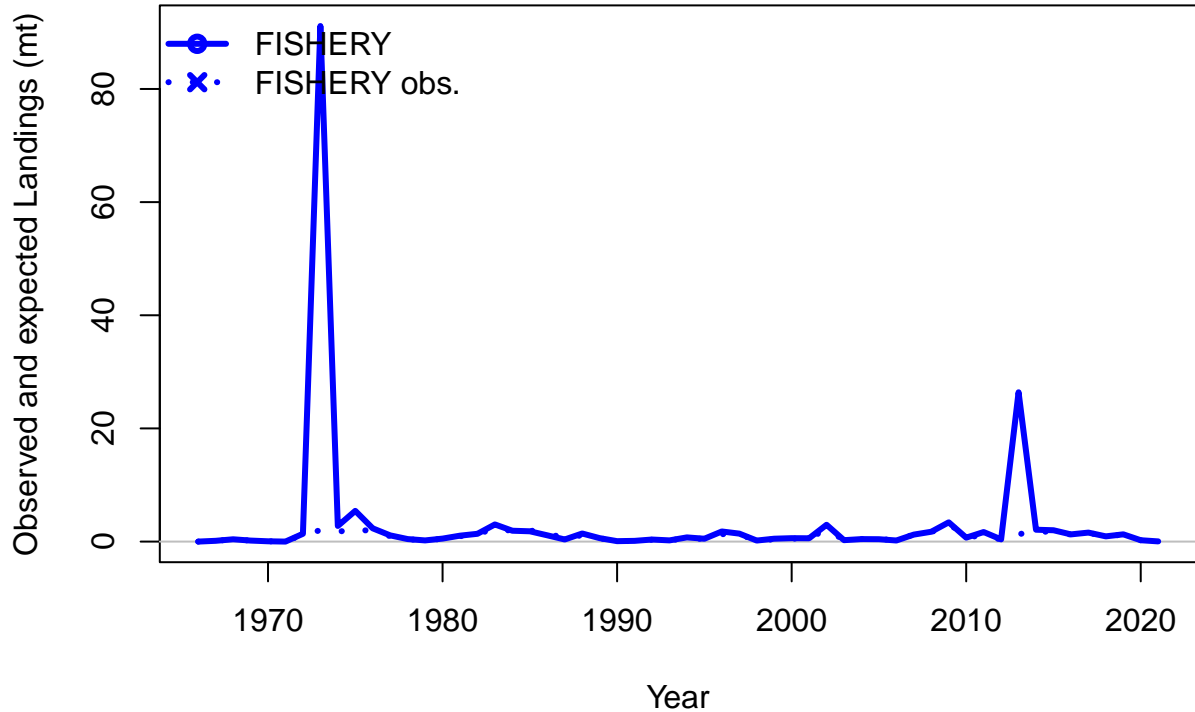


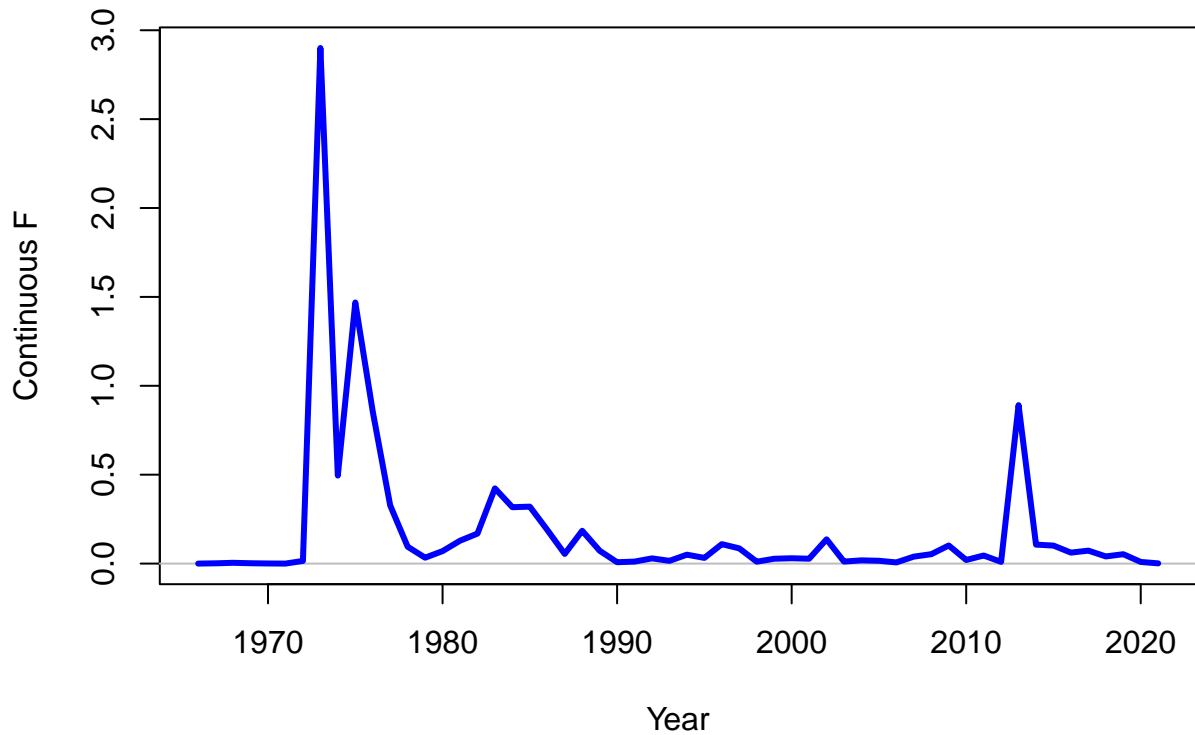
Log recruitment deviation



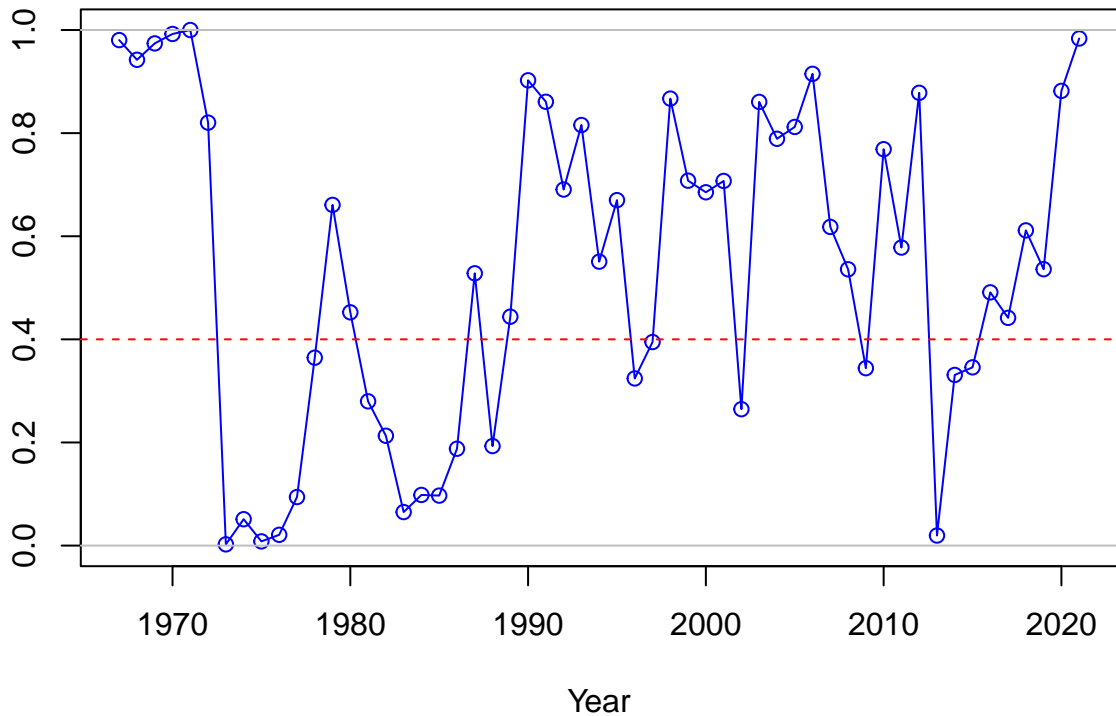




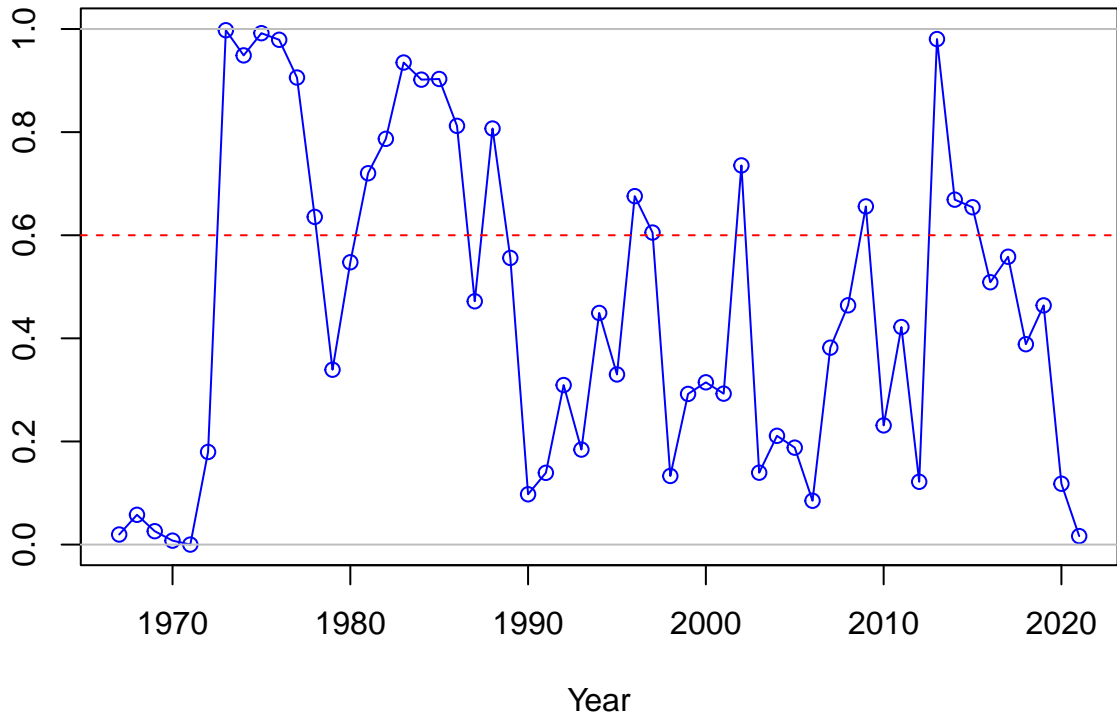




SPR

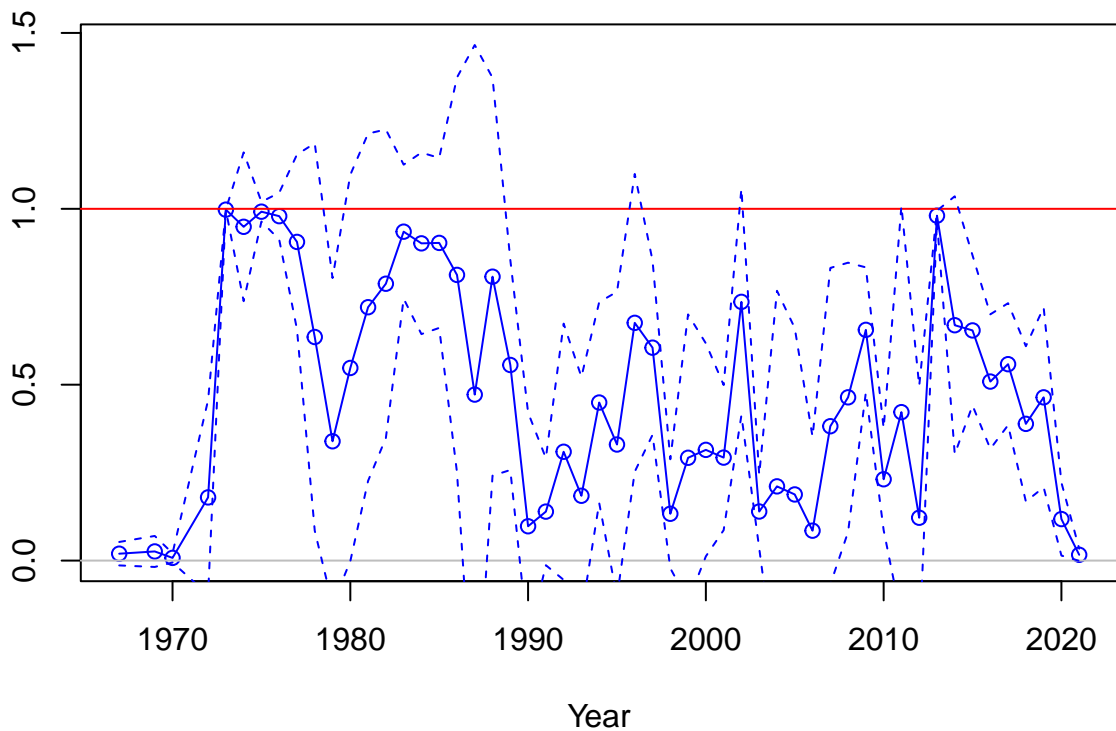


1-SPR

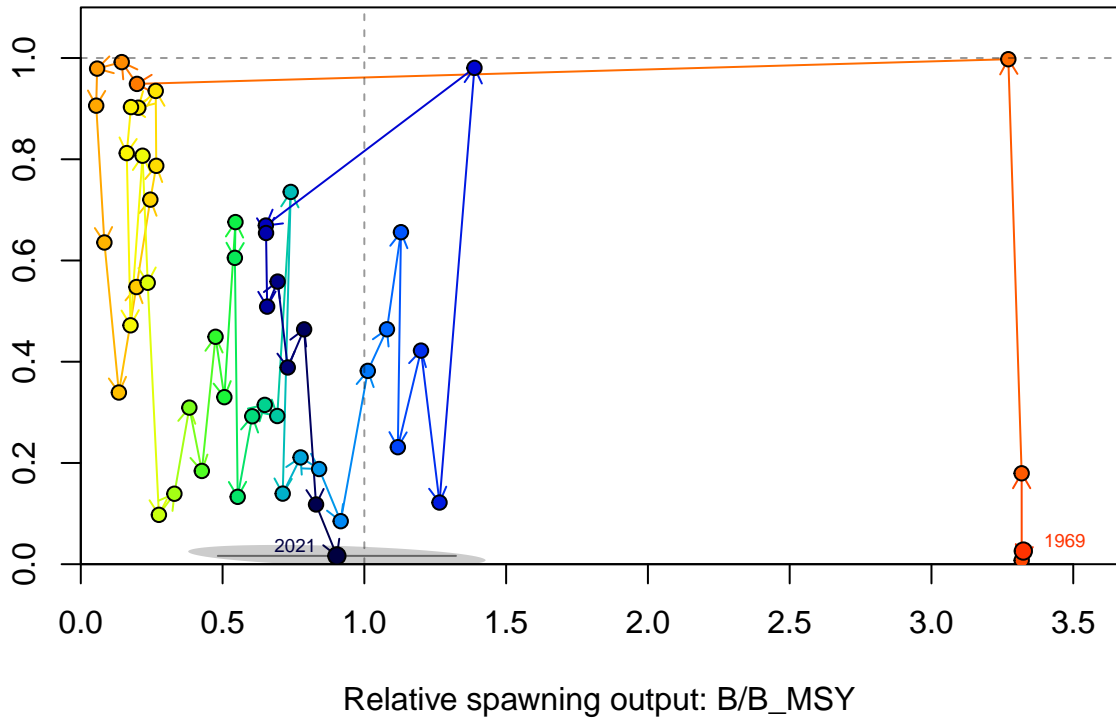




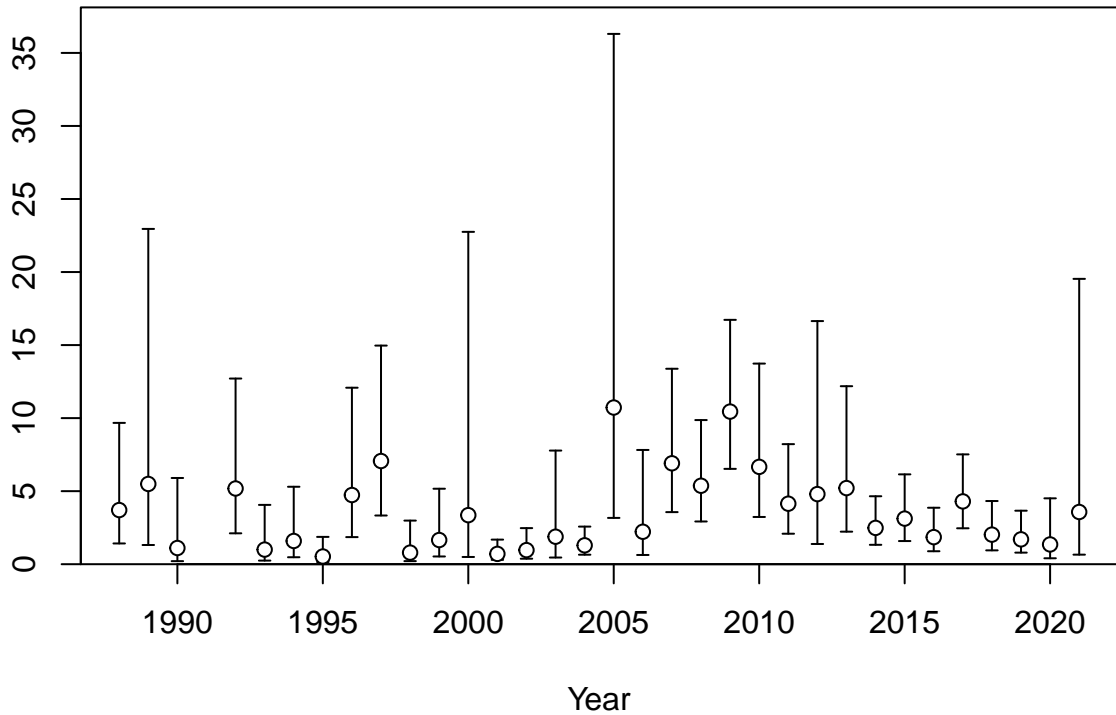
Fishing intensity: 1-SPR



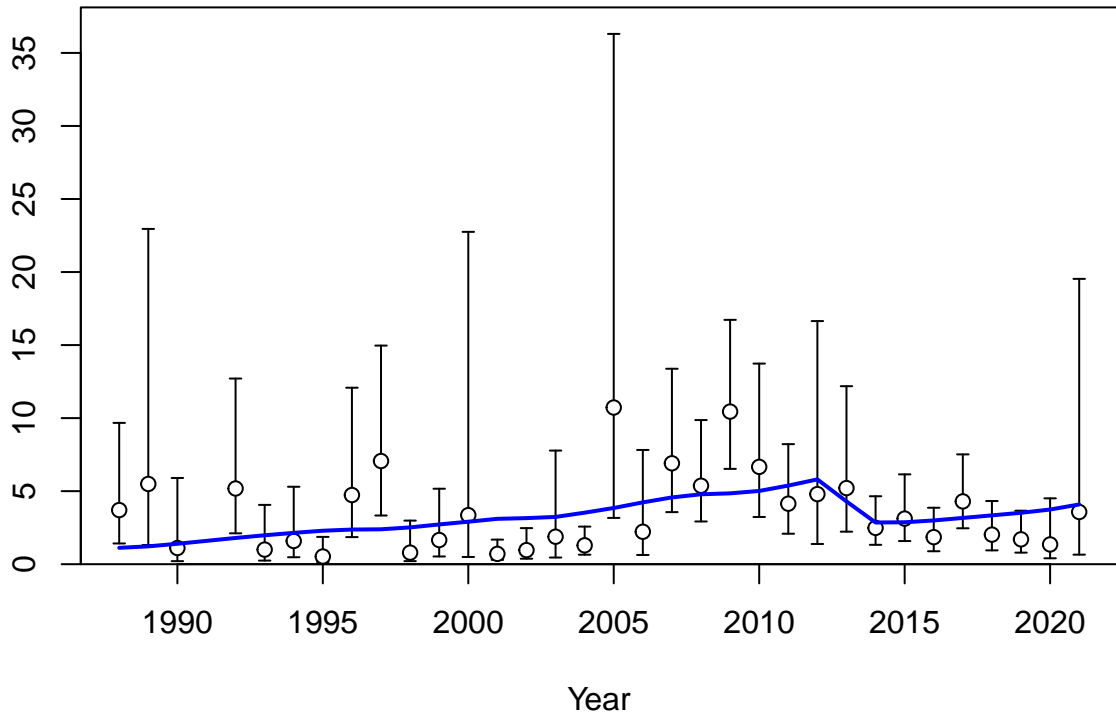
Fishing intensity: 1-SPR

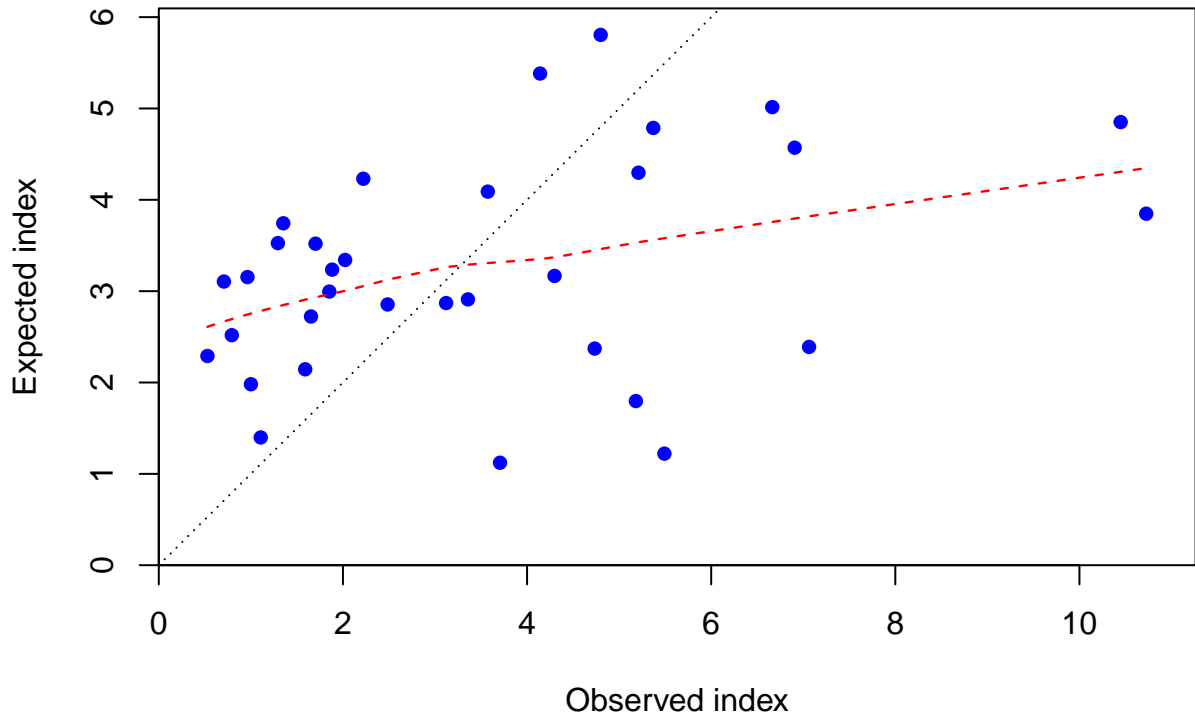


Index



Index





Log index

3  
2  
1  
0  
-1  
-2

1990

1995

2000

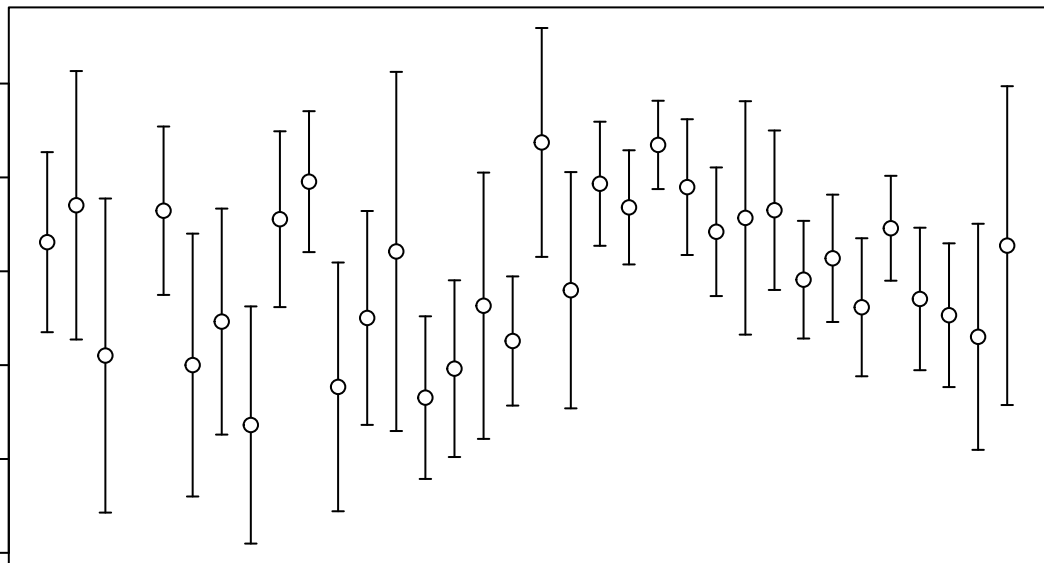
2005

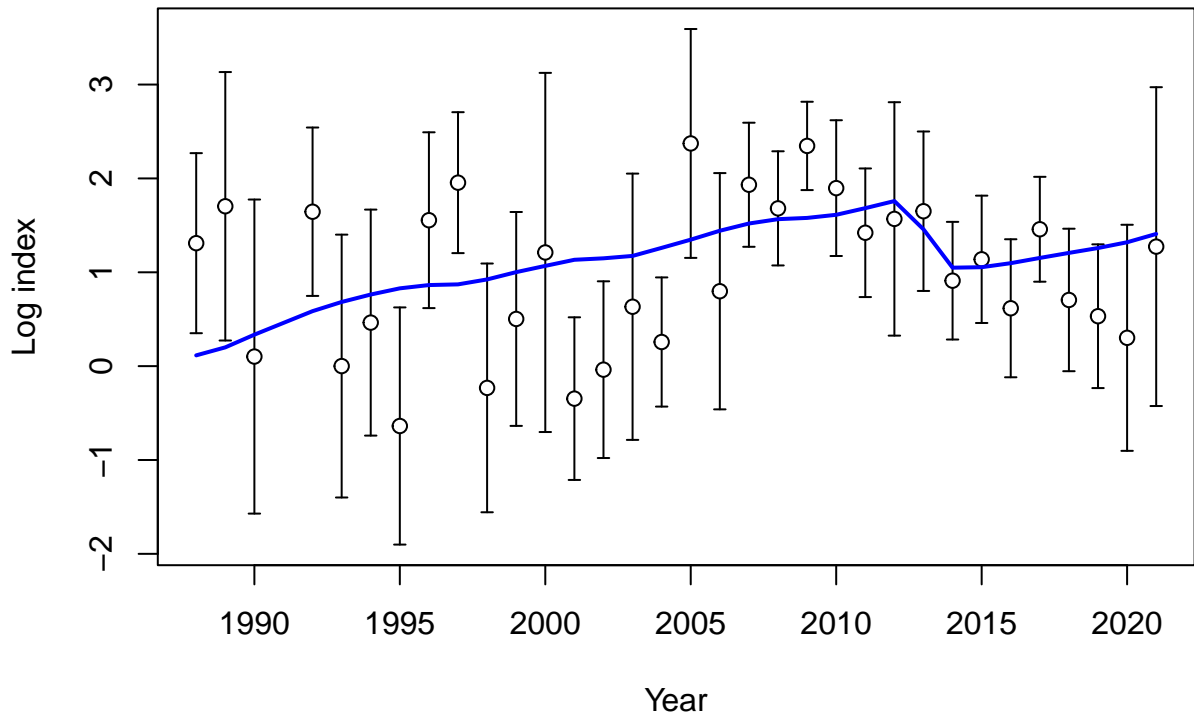
2010

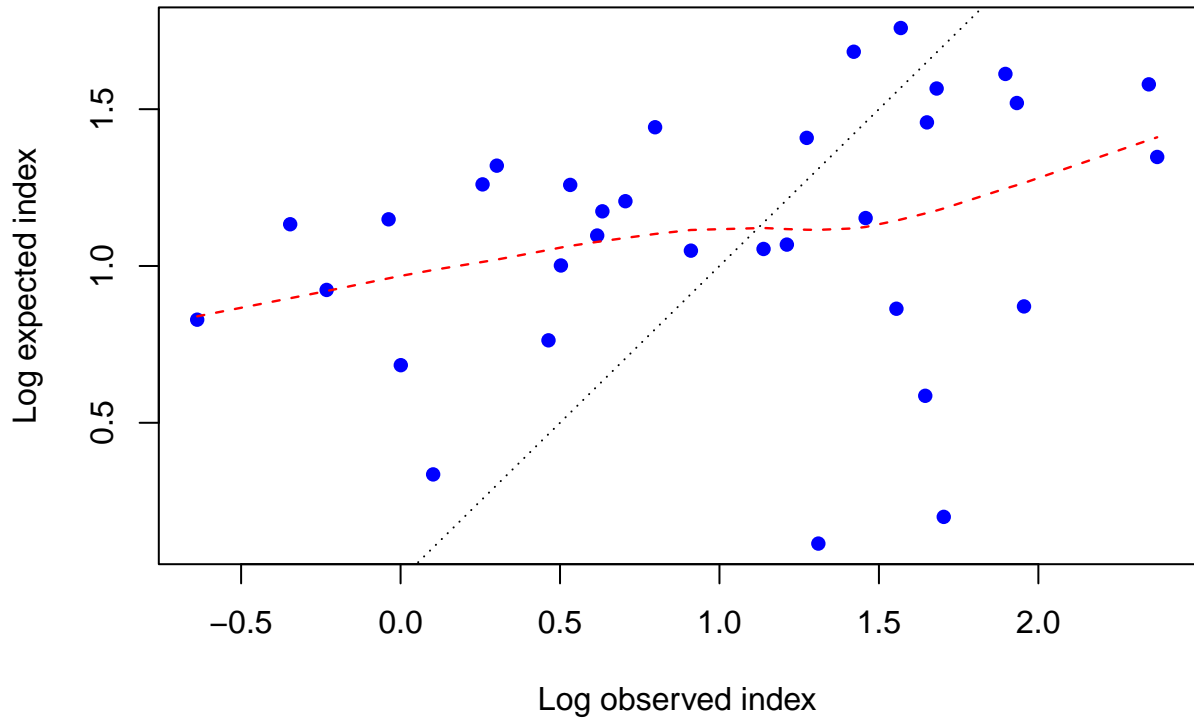
2015

2020

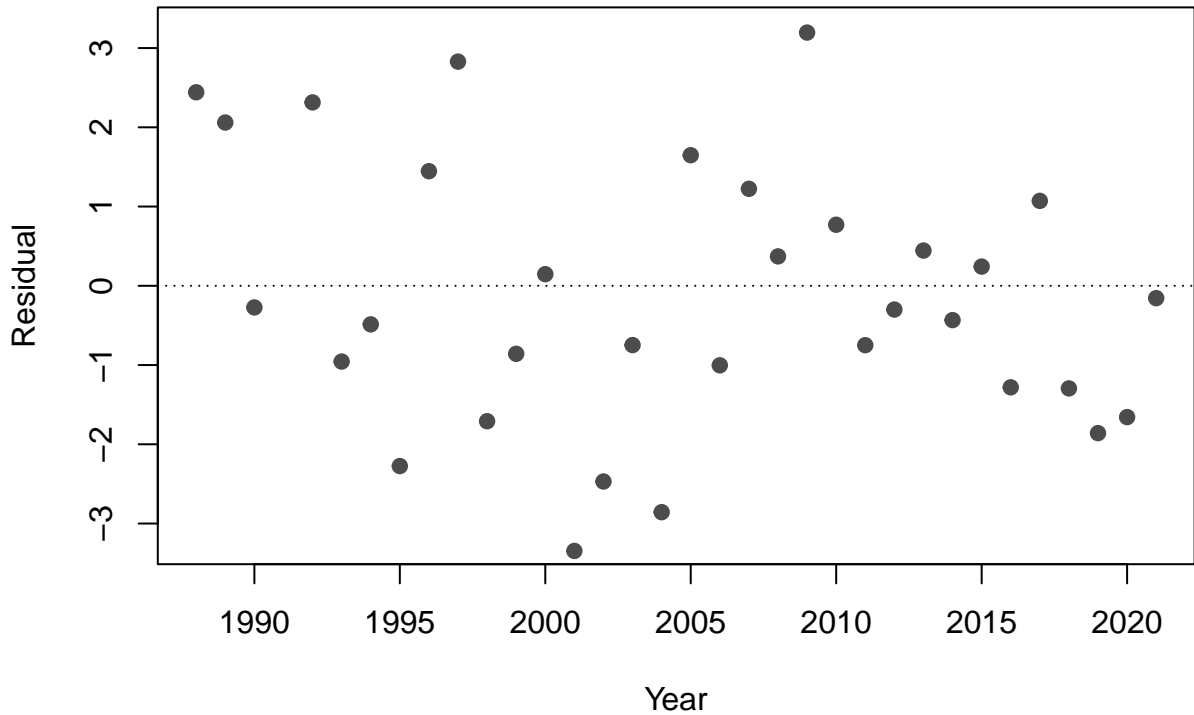
Year



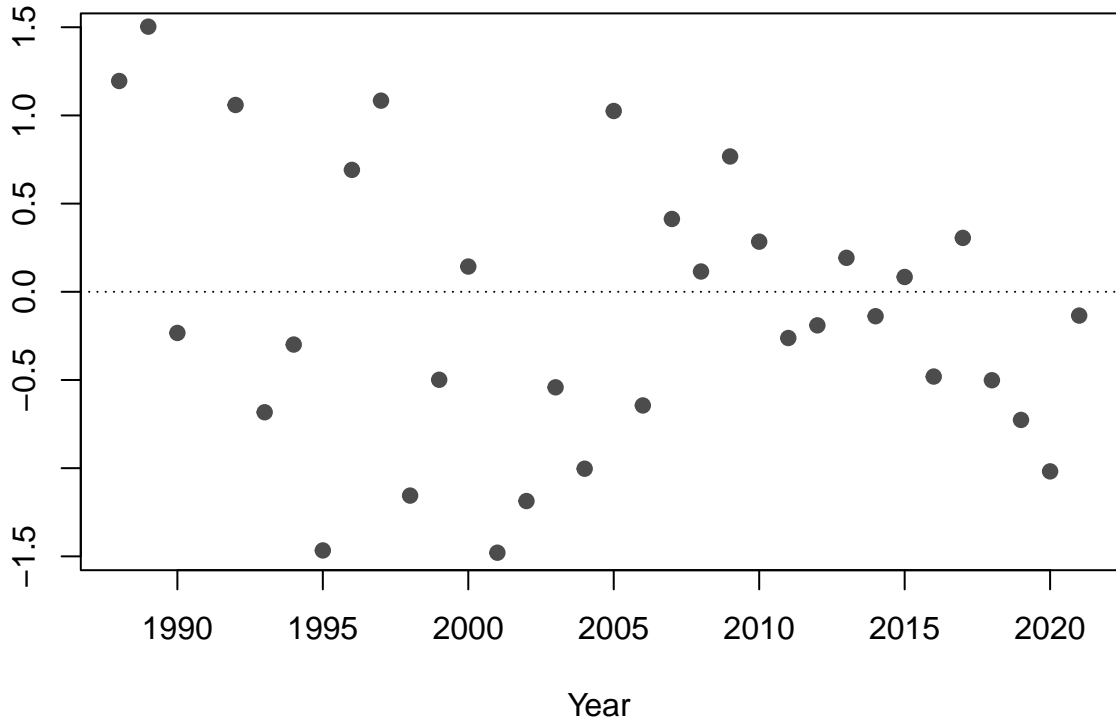


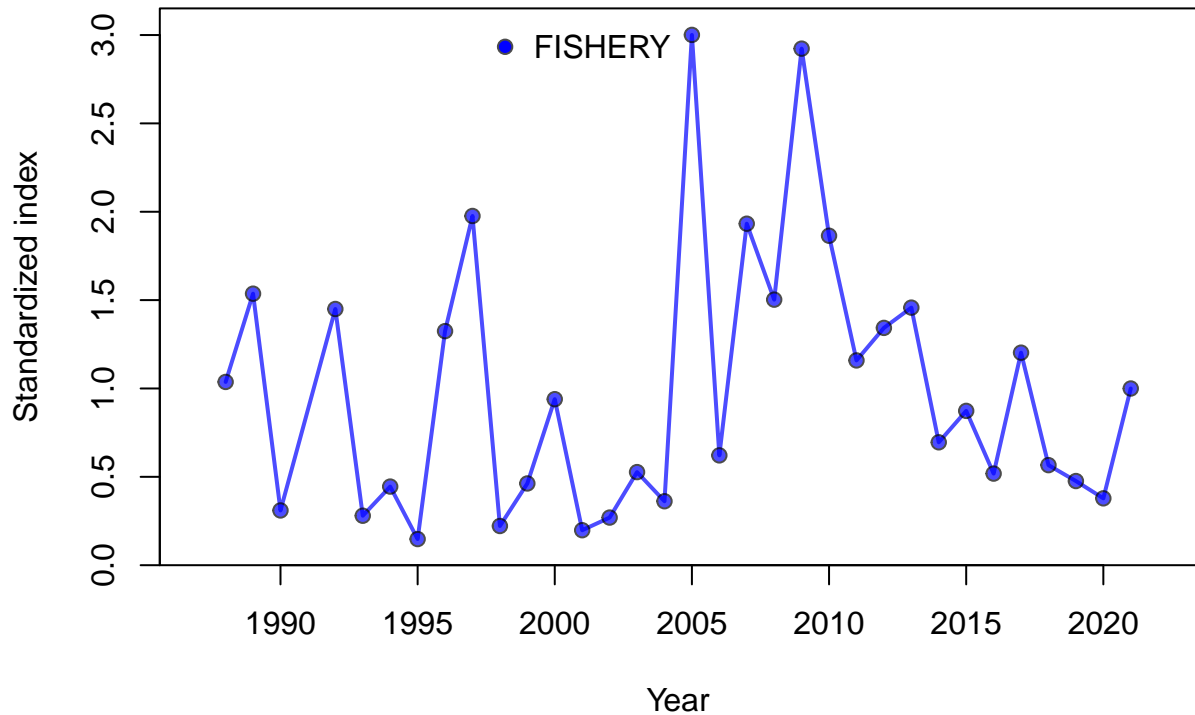


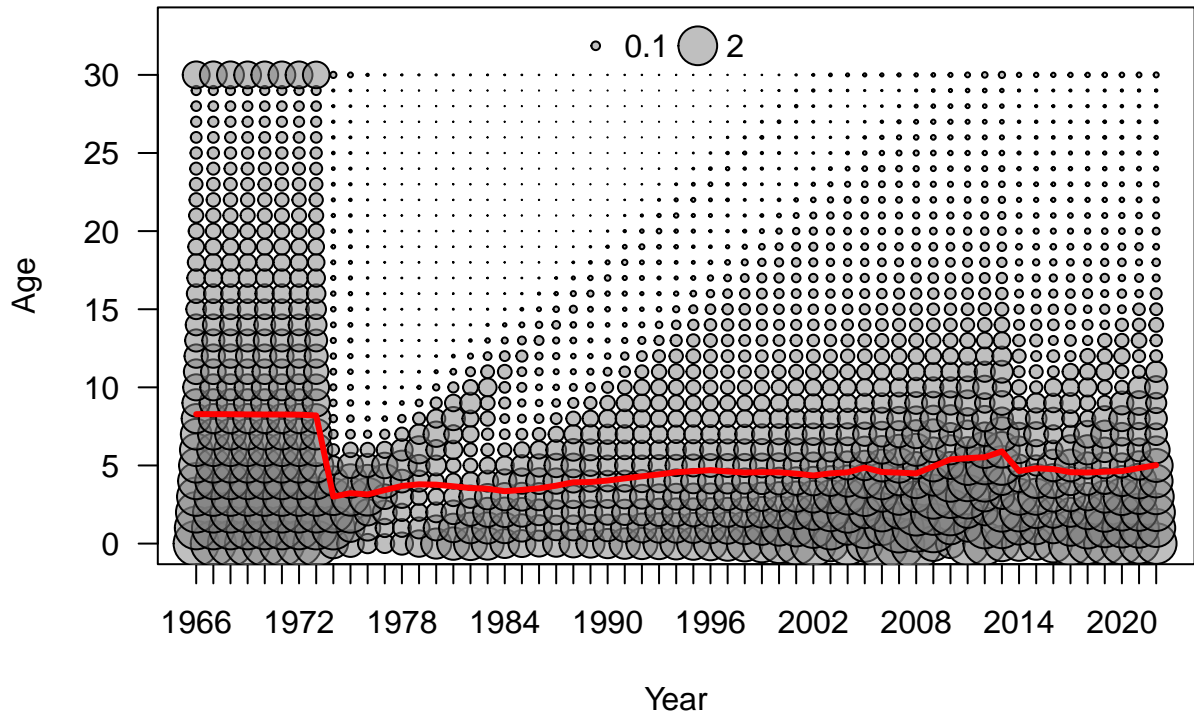


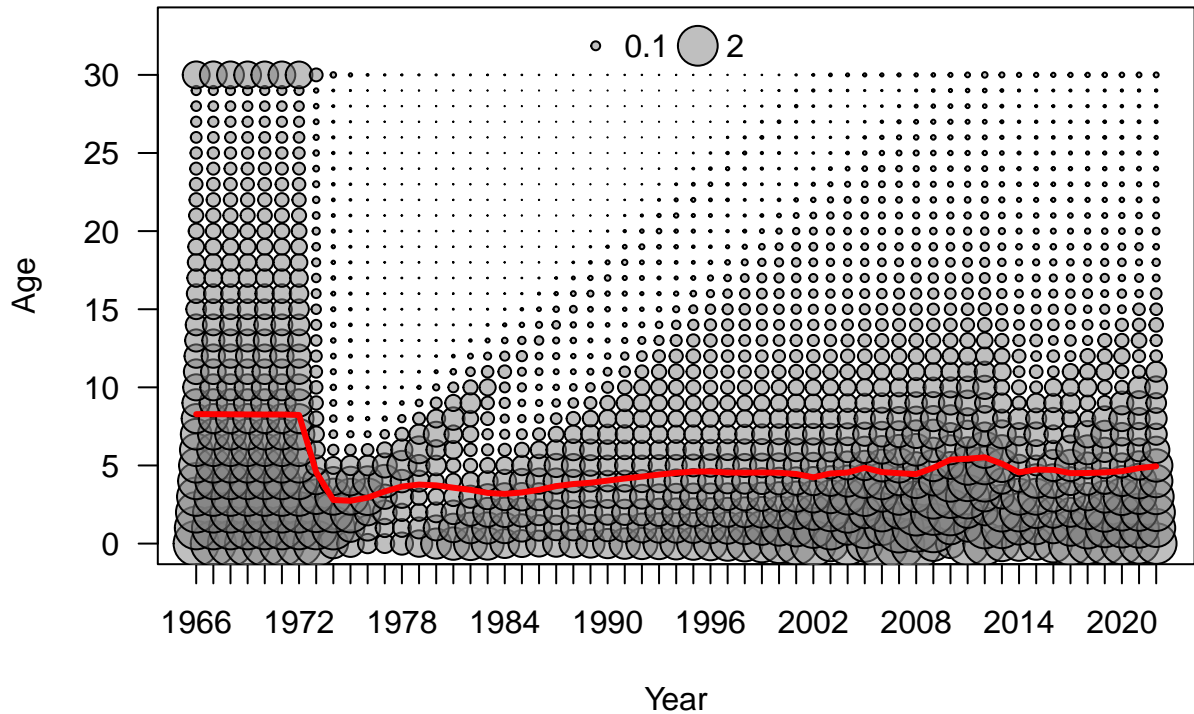


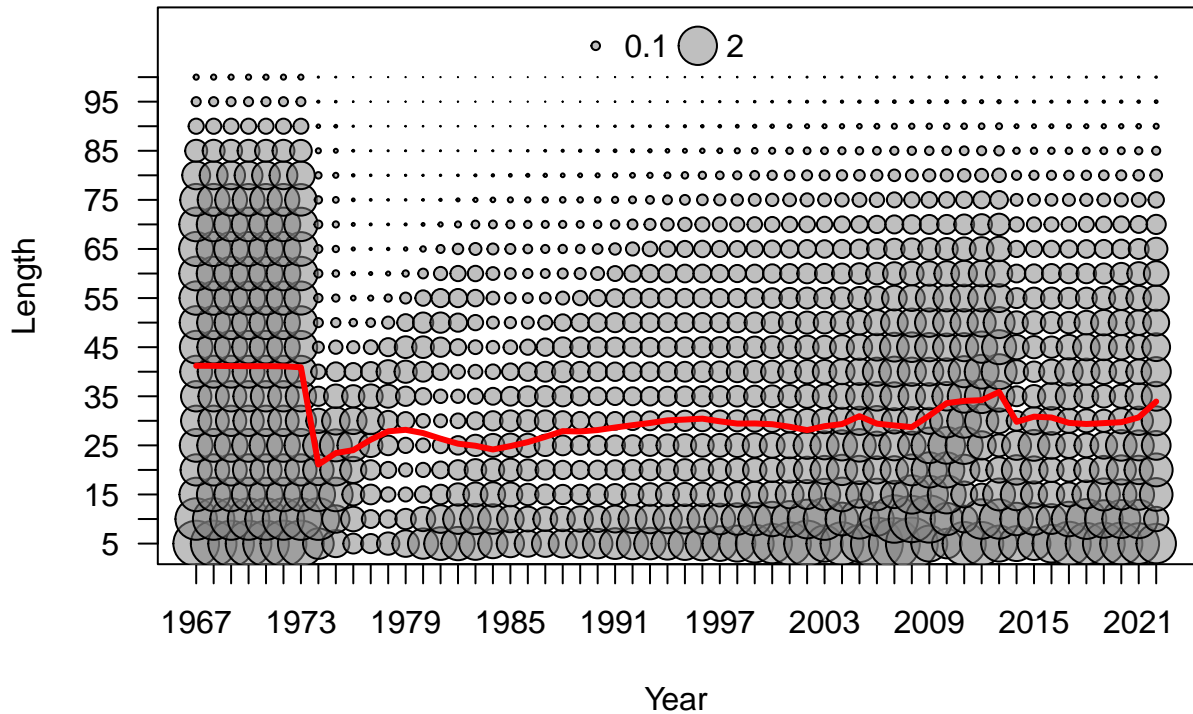
Deviation

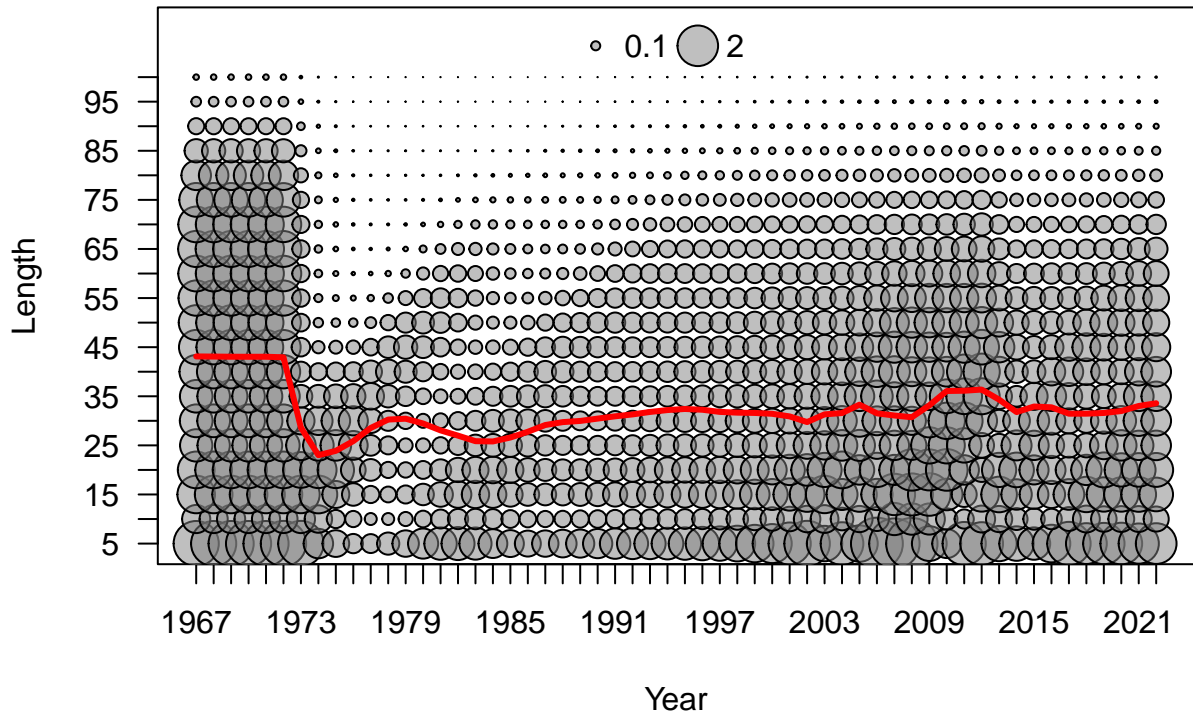


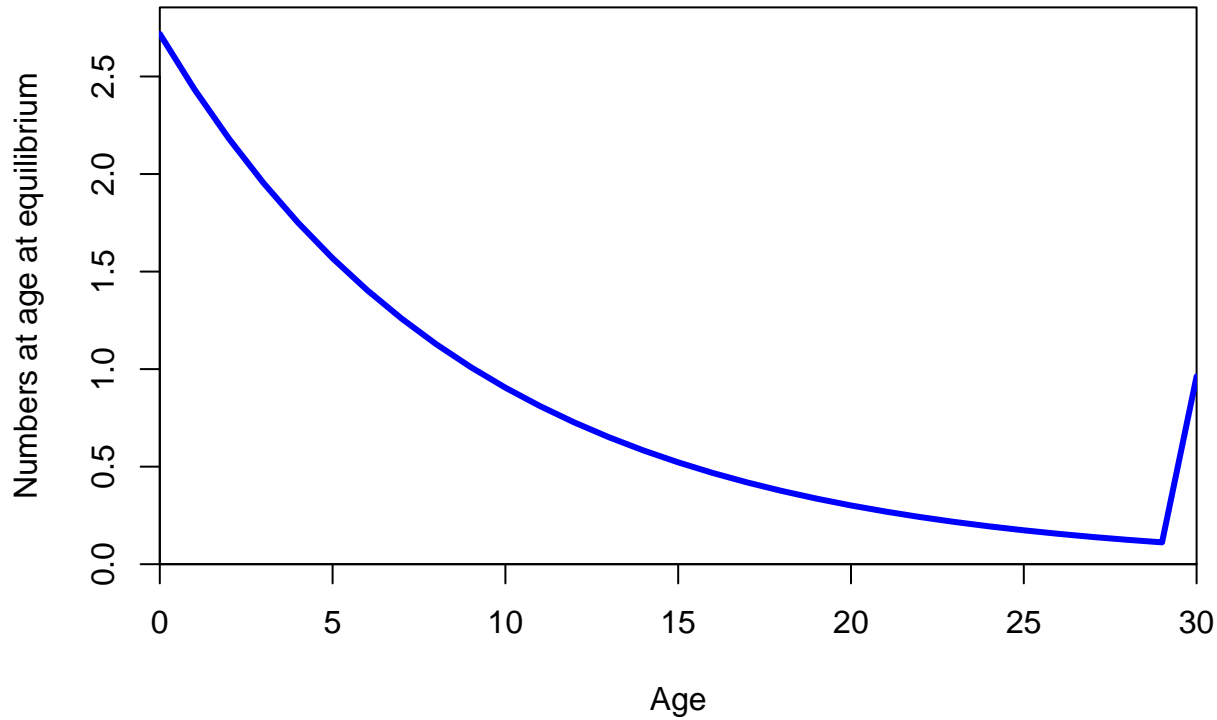








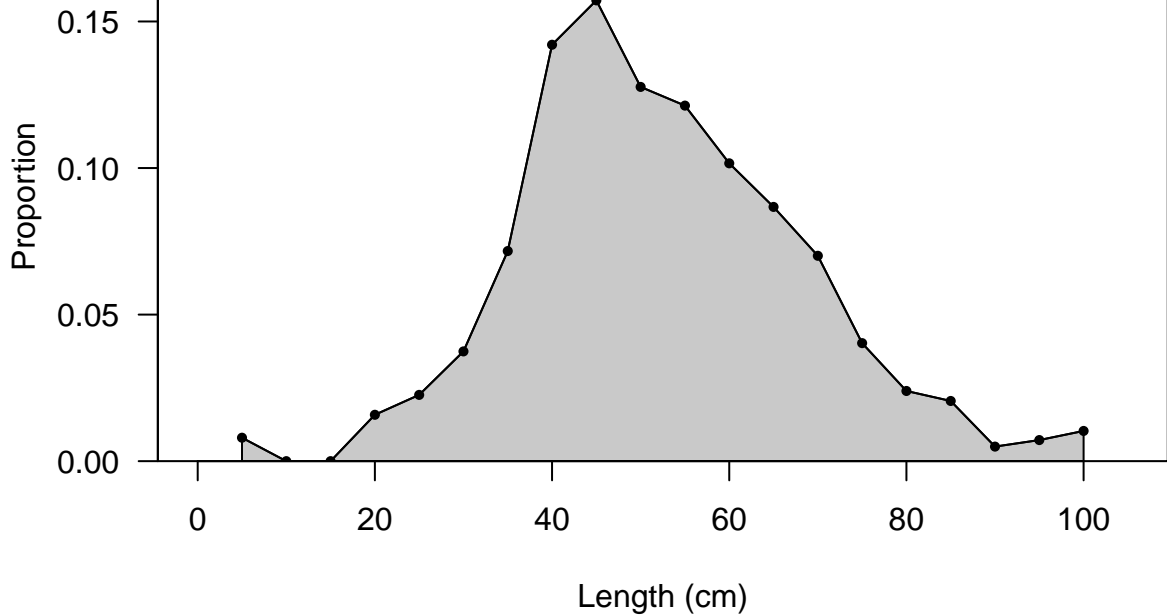


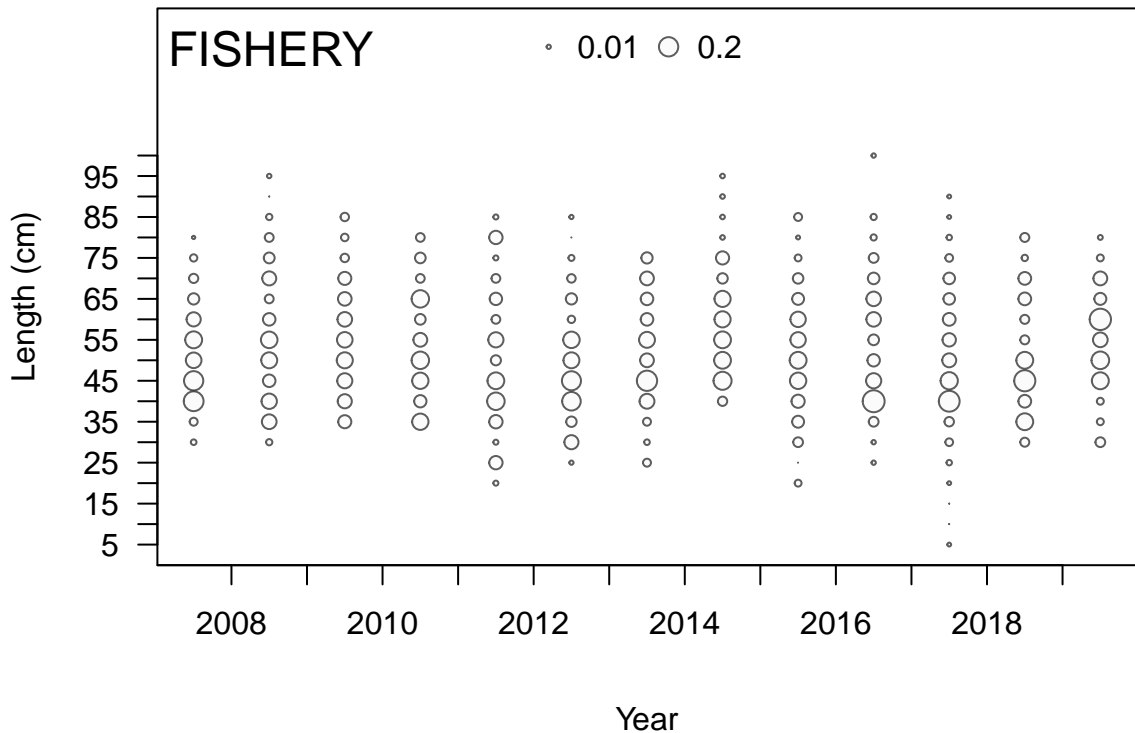




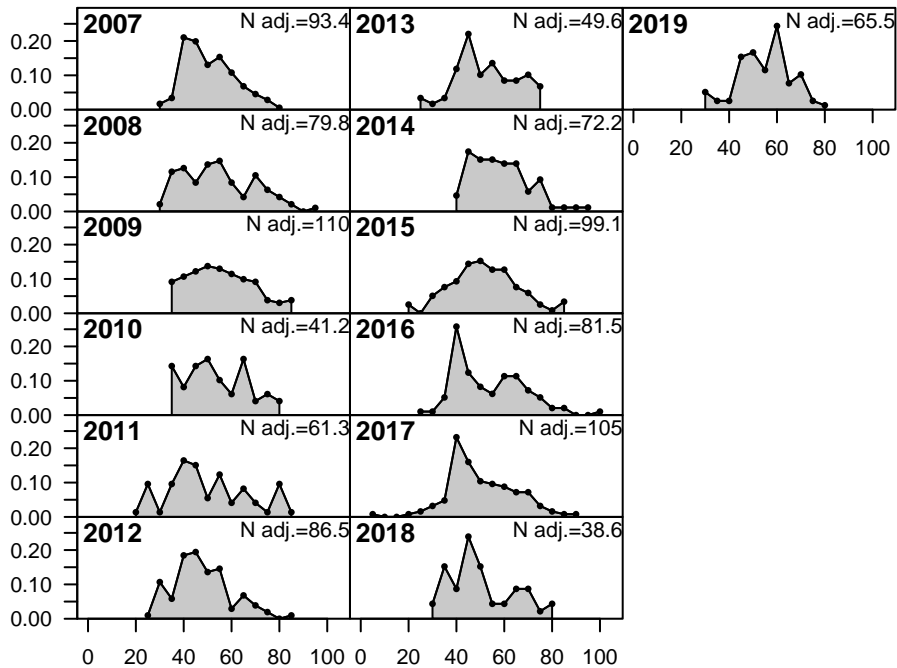
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Sum of N adj.=983.8

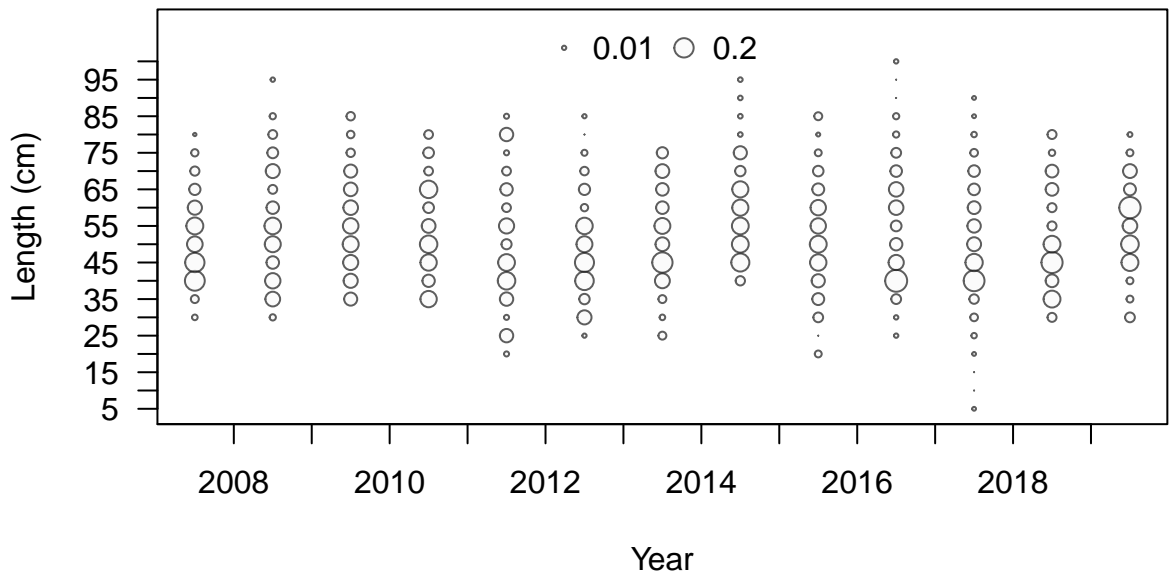




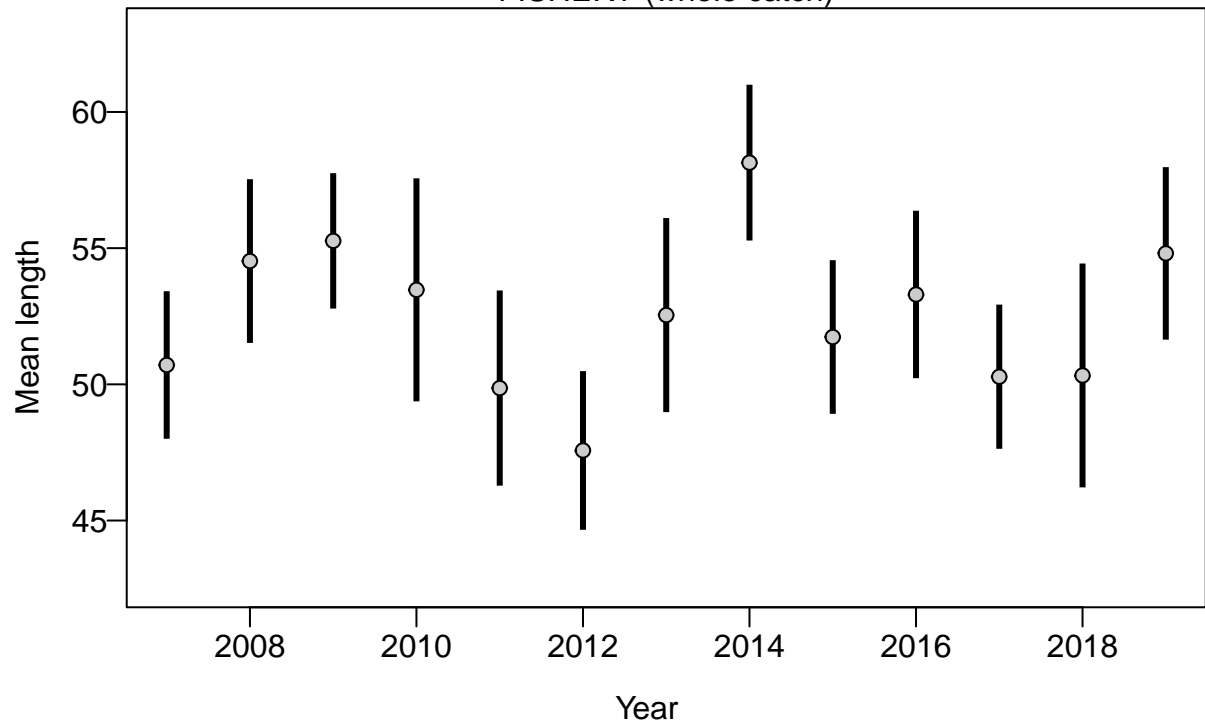
Proportion



Length (cm)

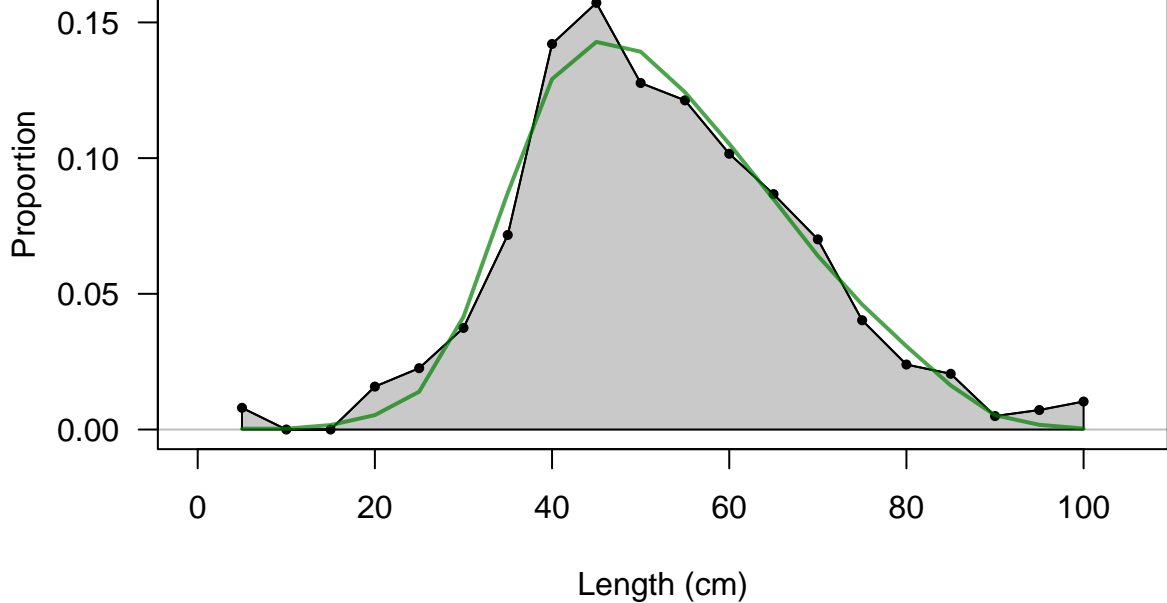


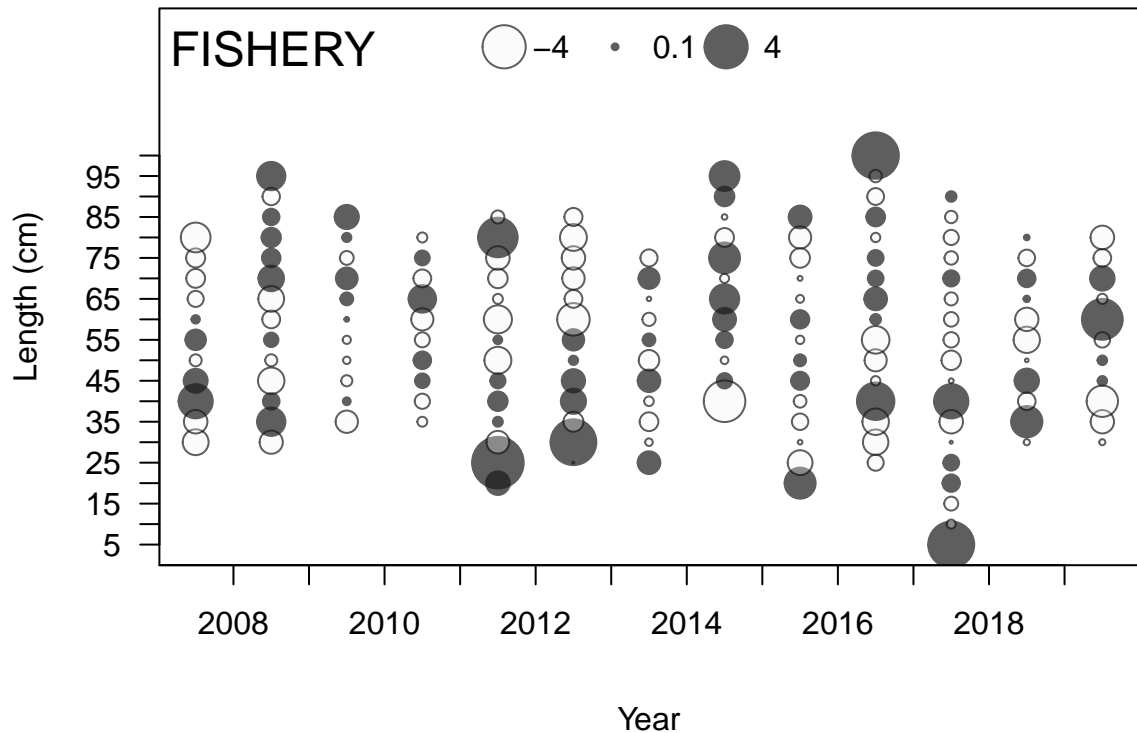
FISHERY (whole catch)



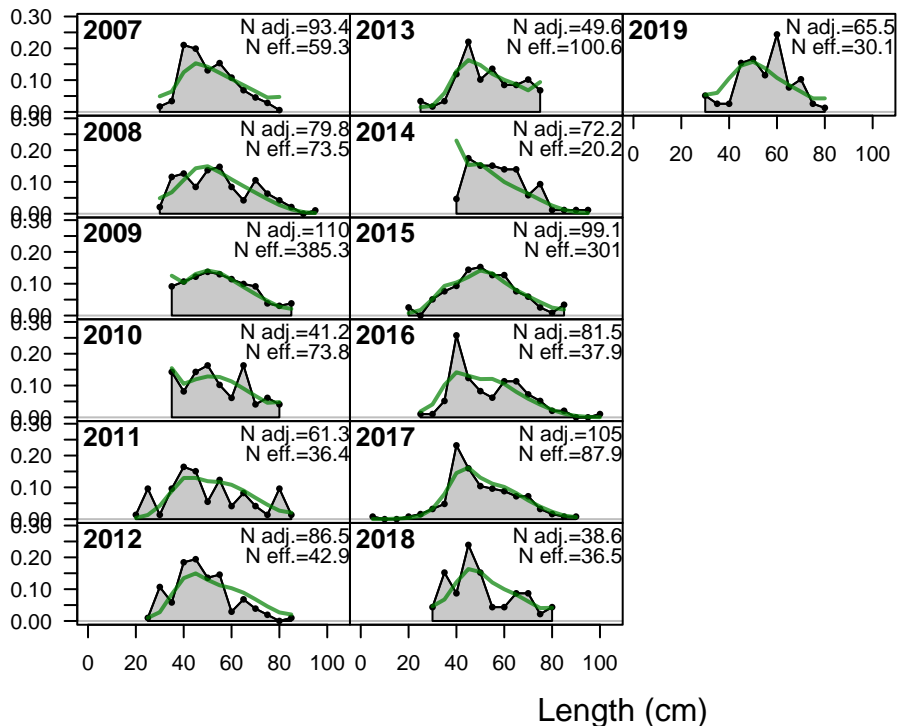
# FISHERY

Sum of N adj.=983.8  
Sum of N eff.=1285.4

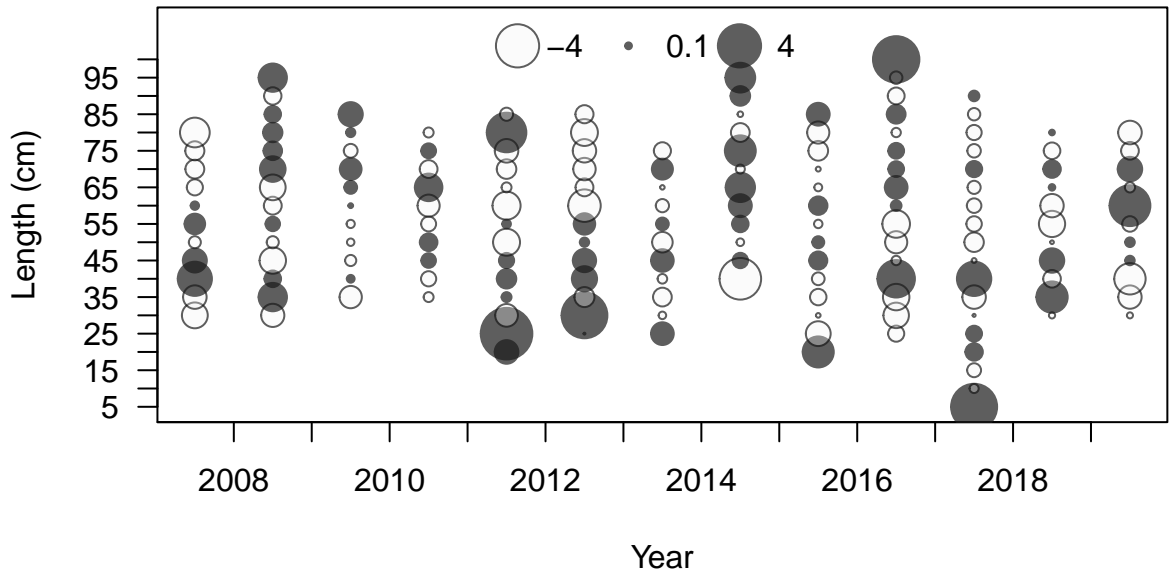




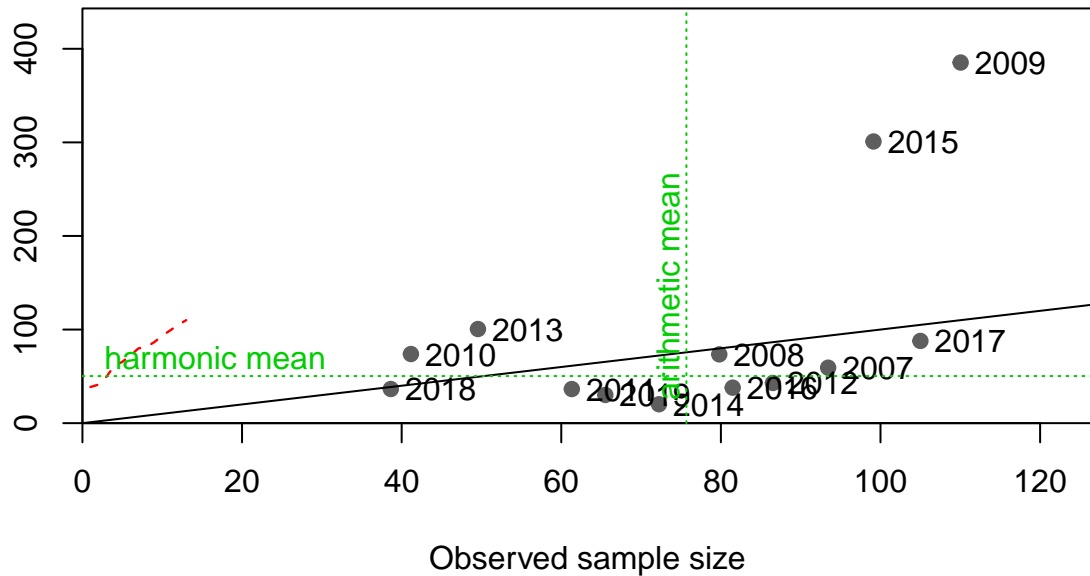
Proportion



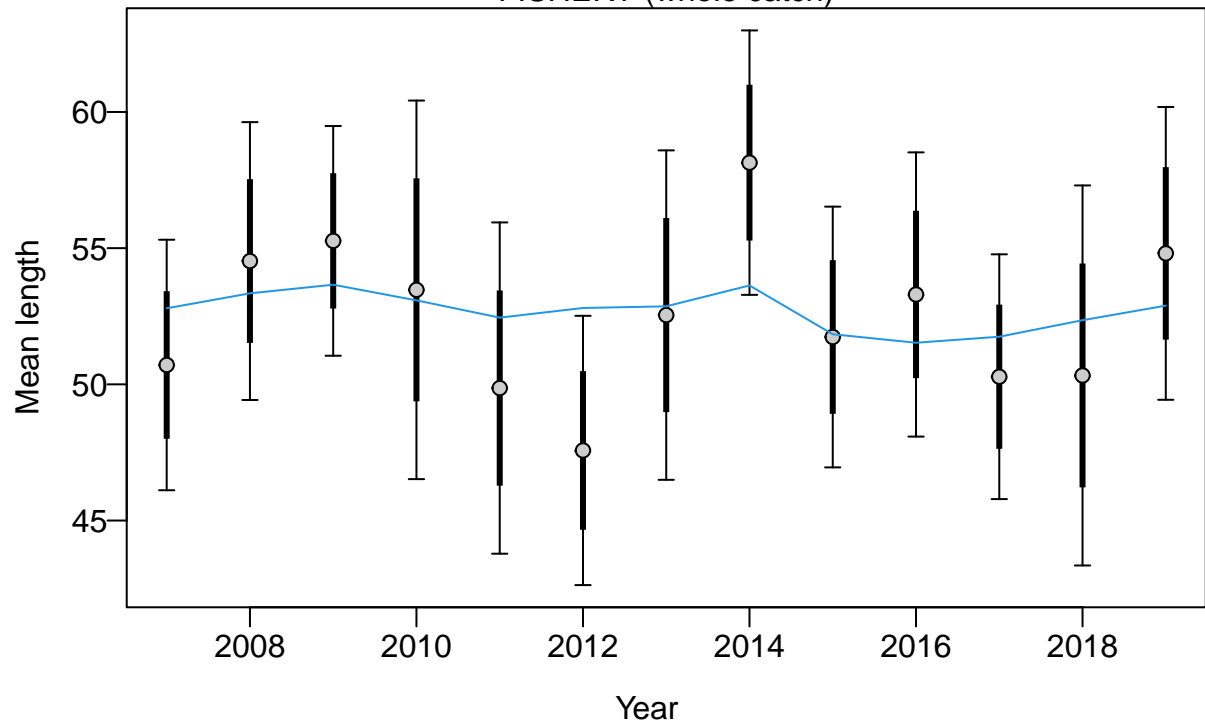


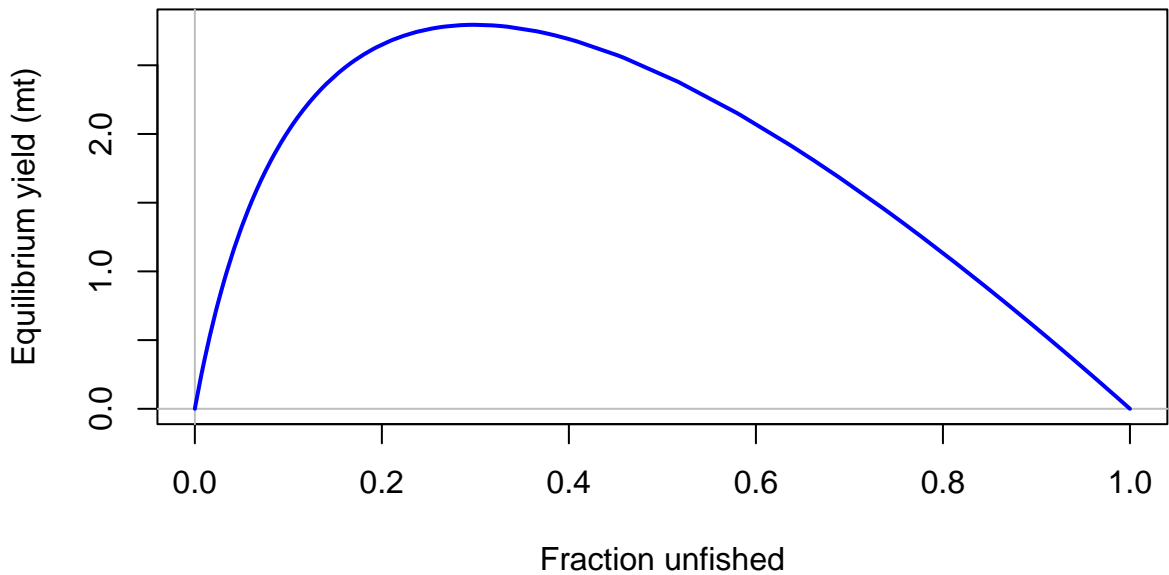


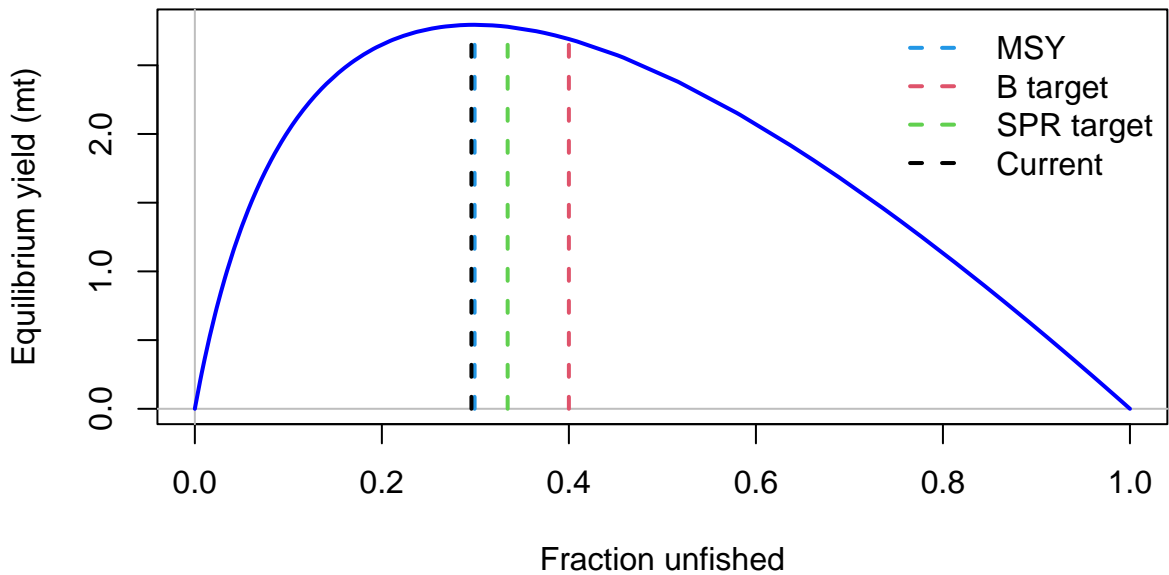
Effective sample size



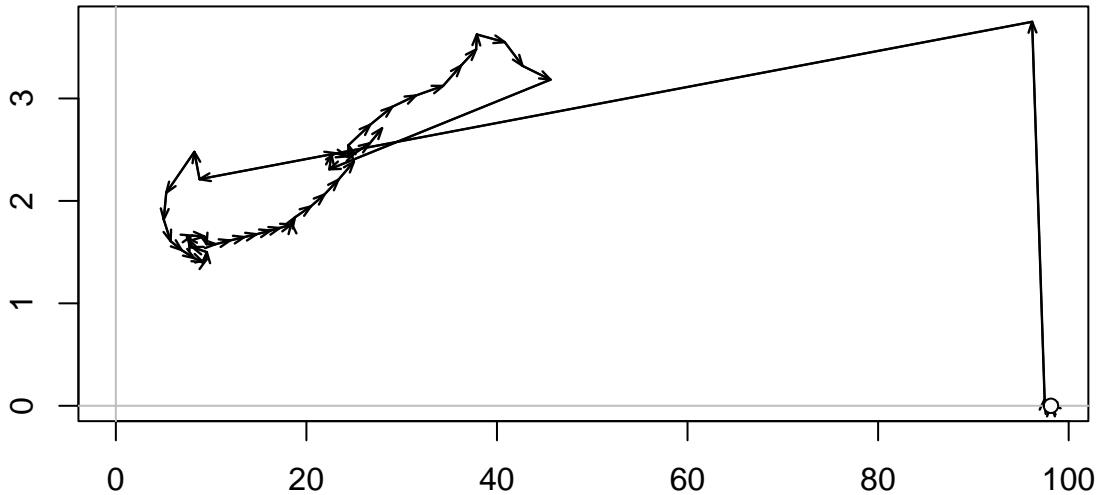
FISHERY (whole catch)



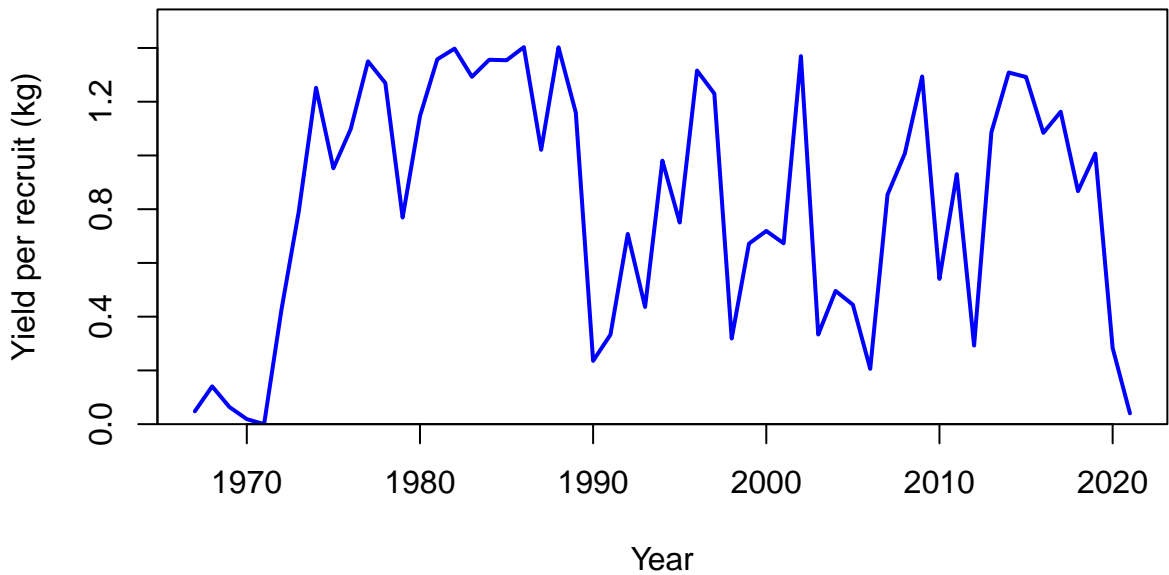


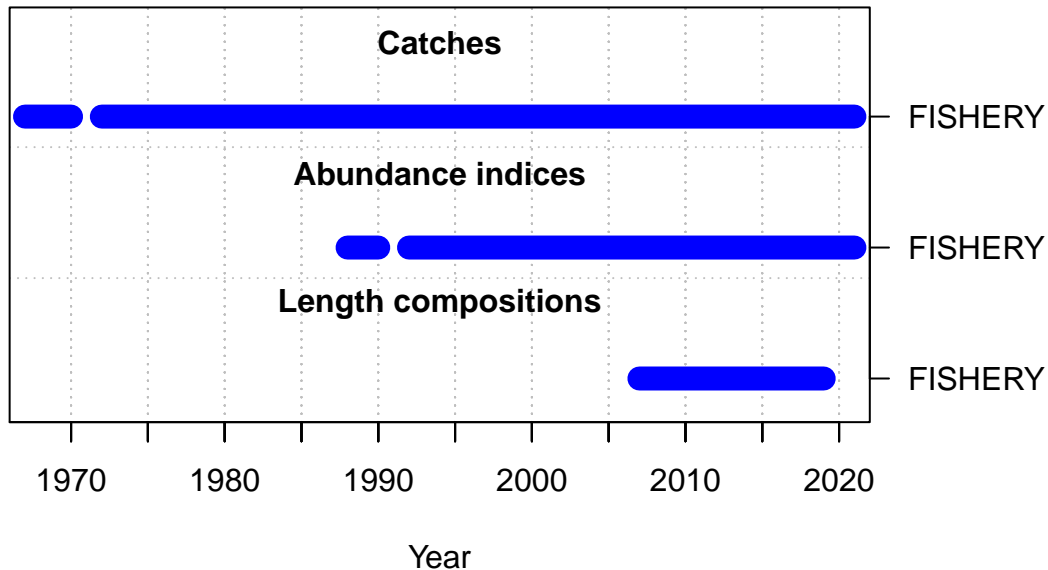


Surplus production (mt)

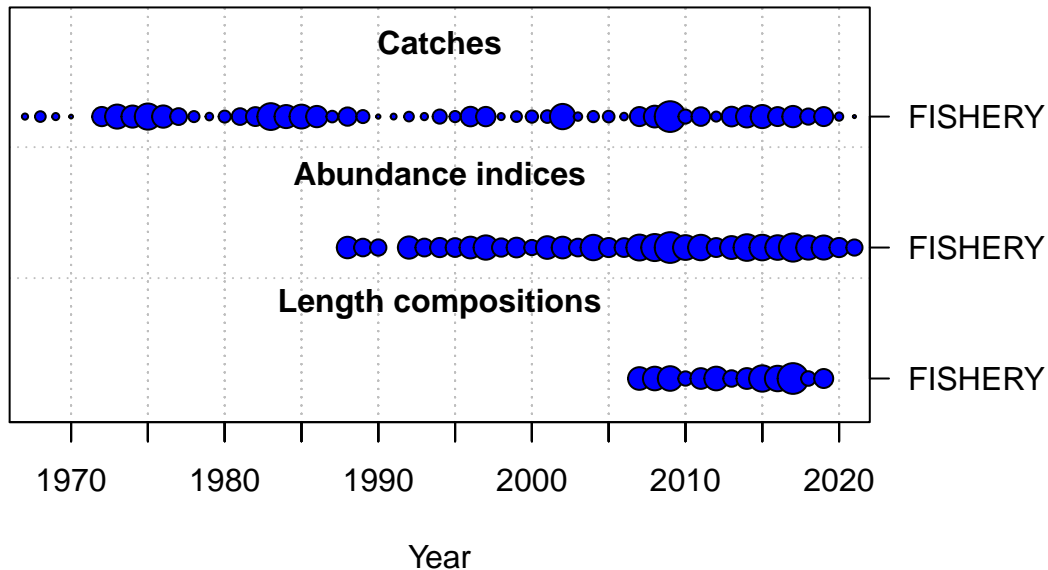


Total biomass (mt)



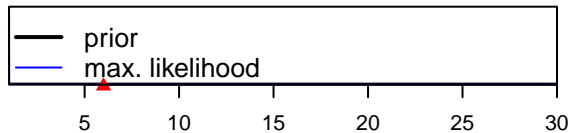




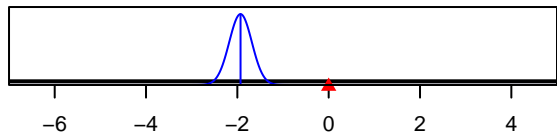


Density

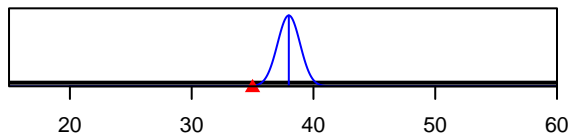
SR\_LN(R0)



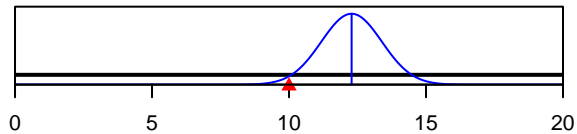
LnQ\_base\_FISHERY(1)



Size\_inflection\_FISHERY(1)



Size\_95%width\_FISHERY(1)



Parameter value