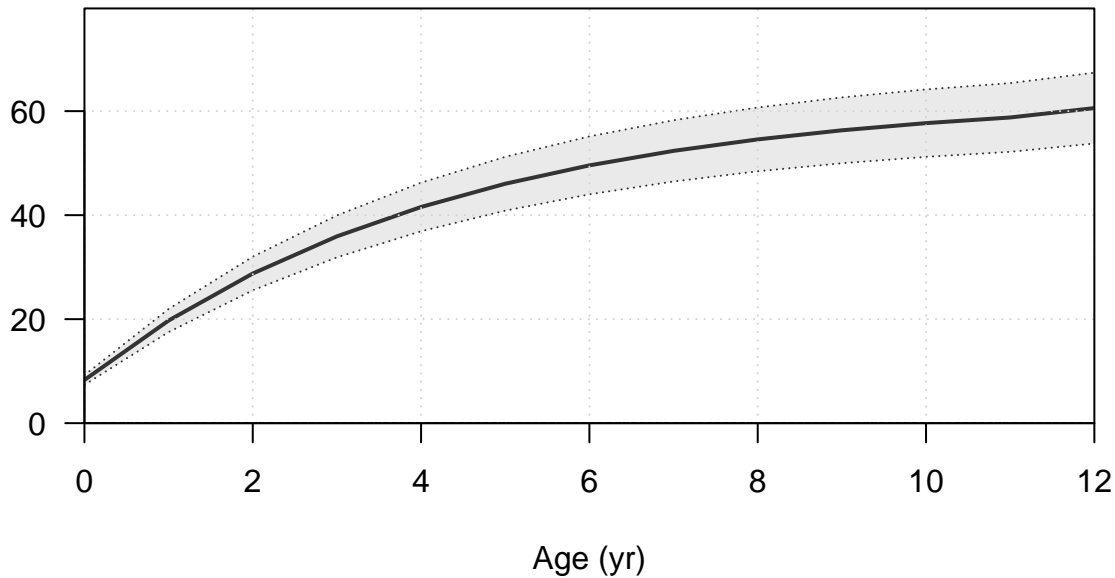
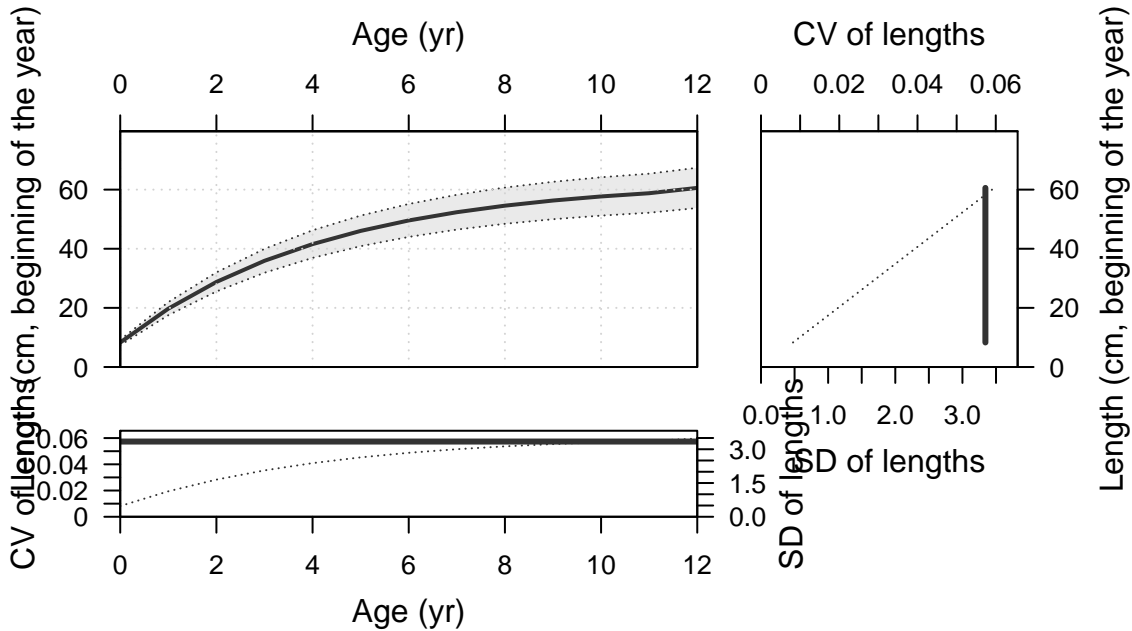
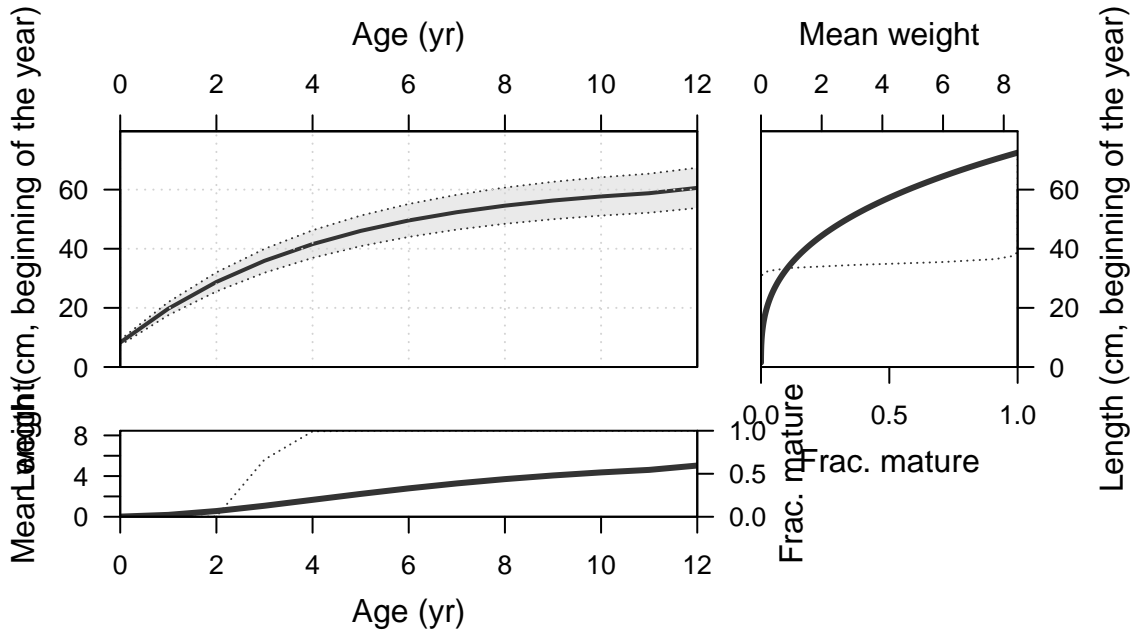


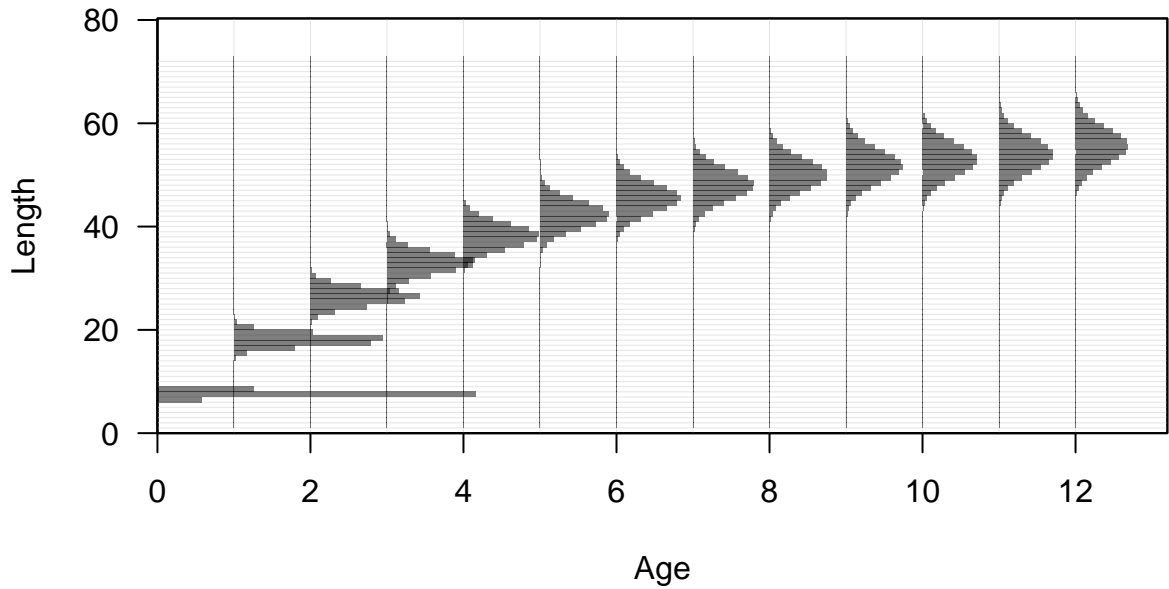
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Thu Aug 11 10:37:52 2022  
Data\_File: data.ss  
Control\_File: control.ss

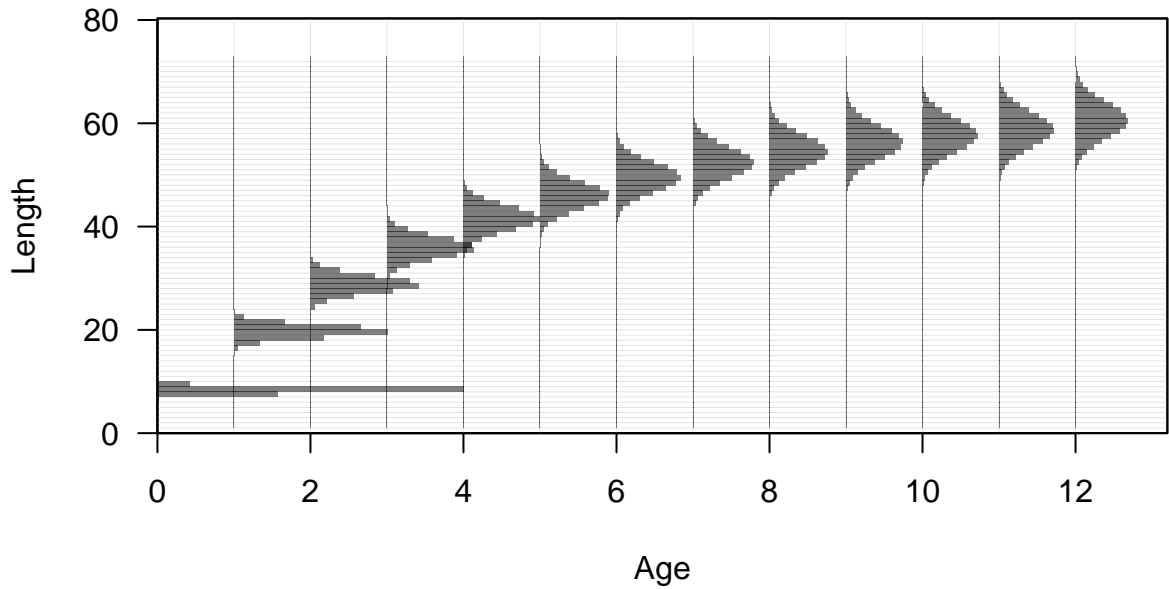
Length (cm, beginning of the year)

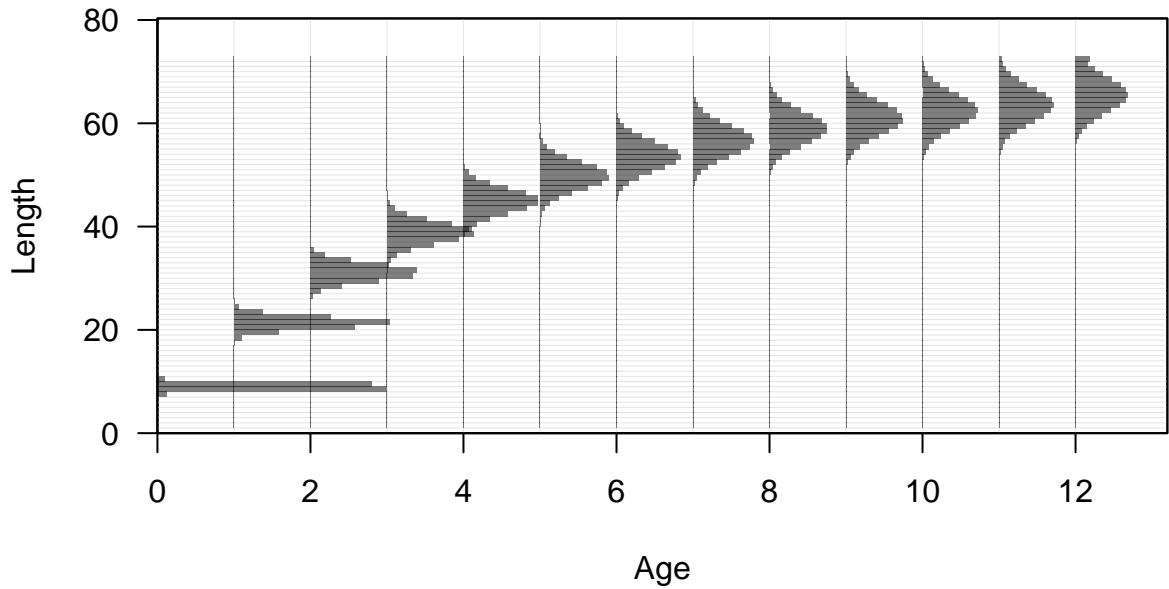


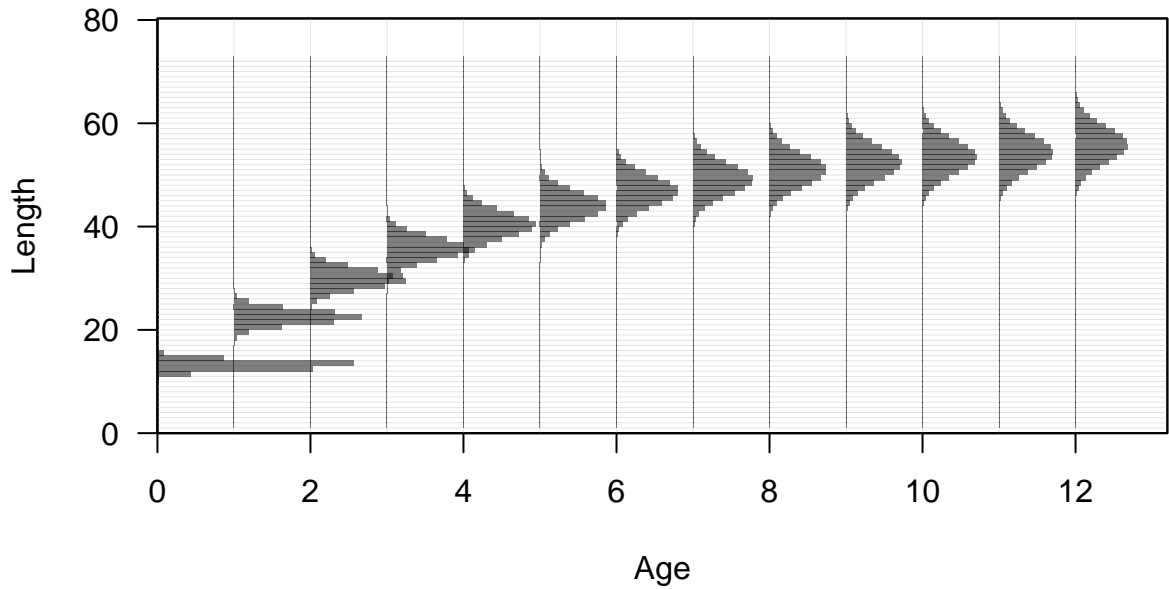




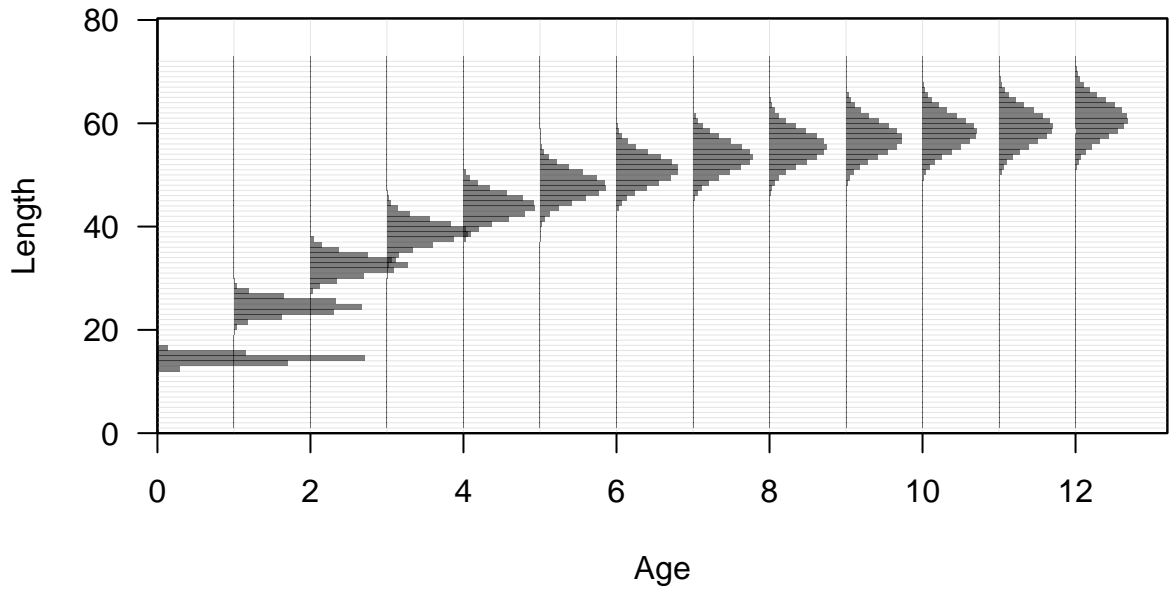


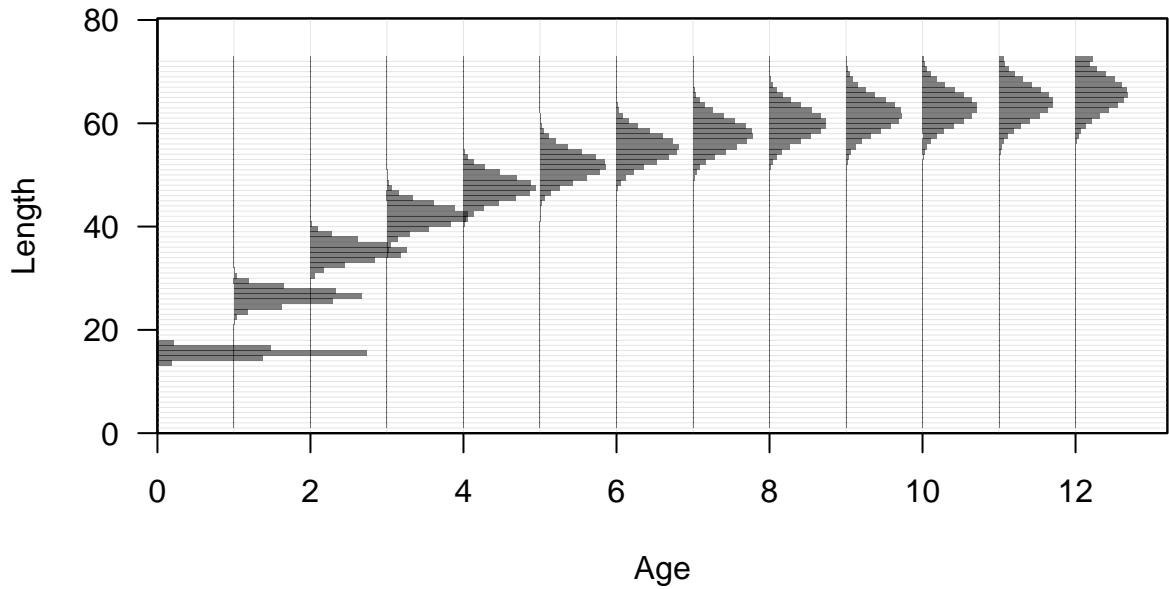




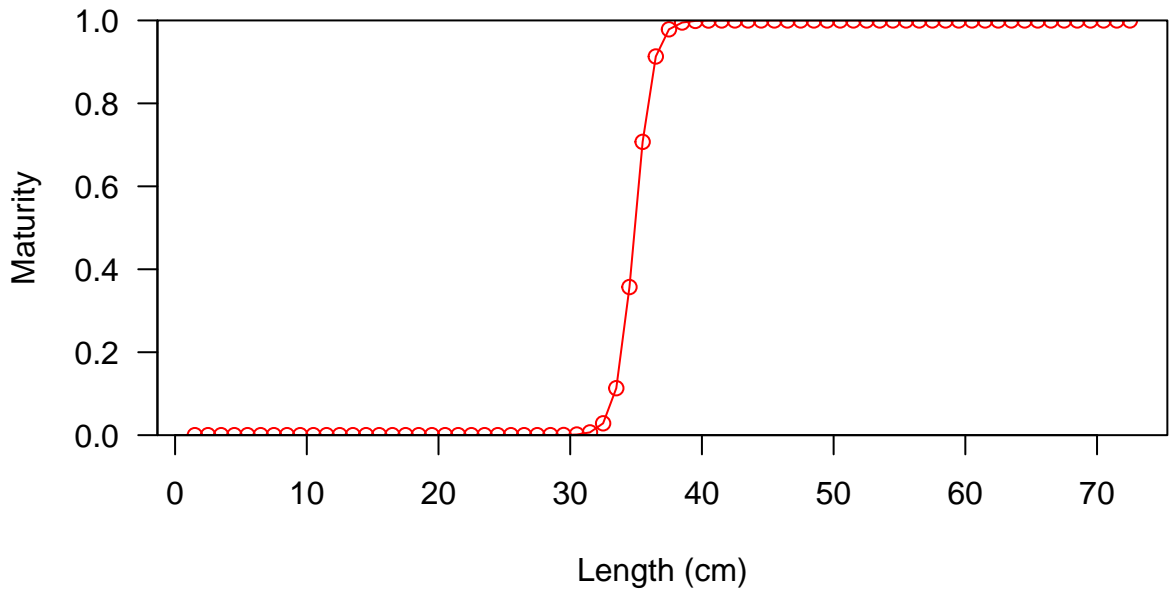






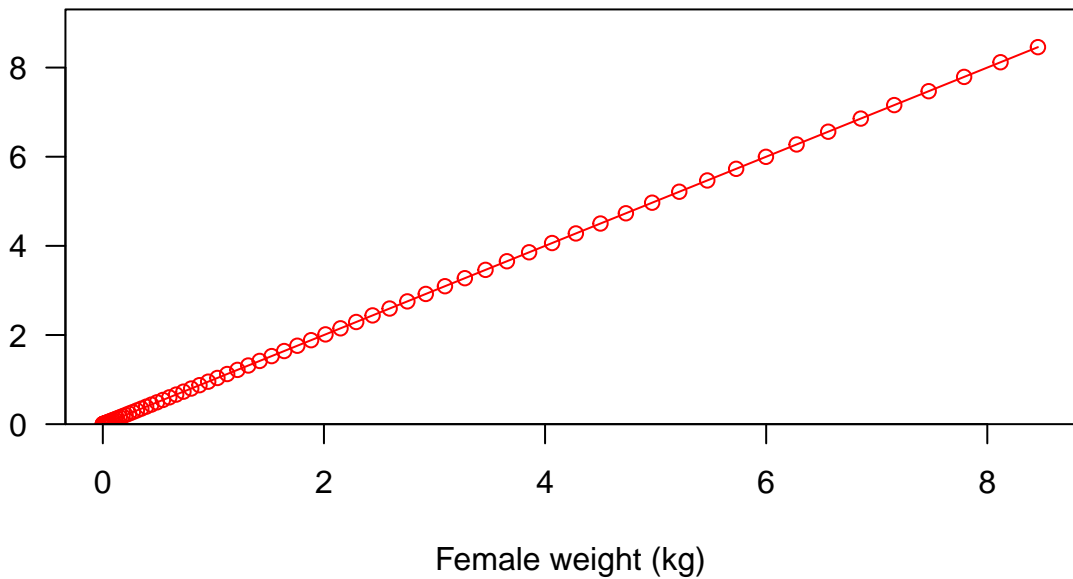








Fecundity



Fecundity

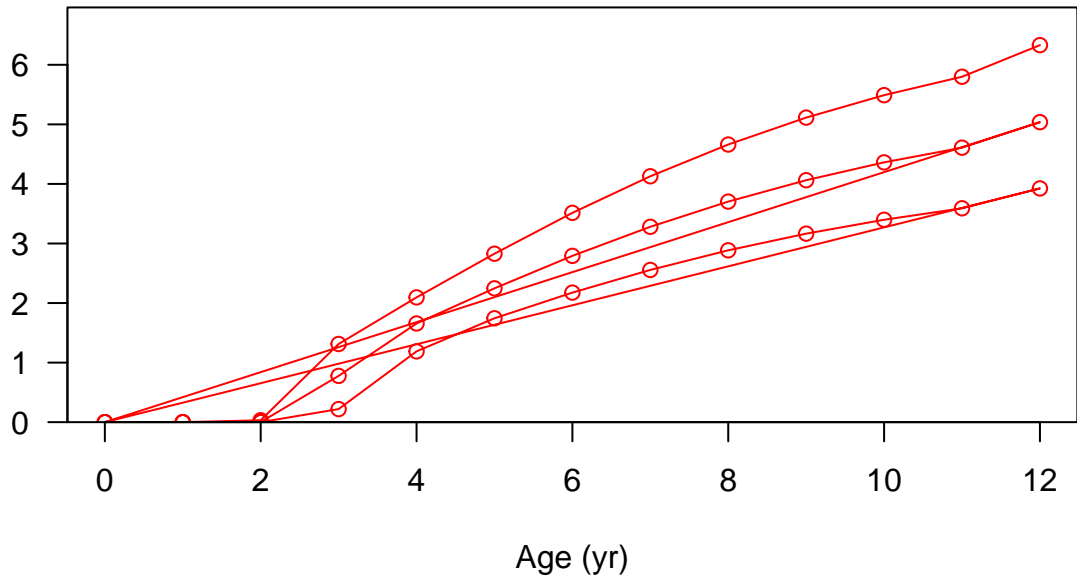


Spawning output

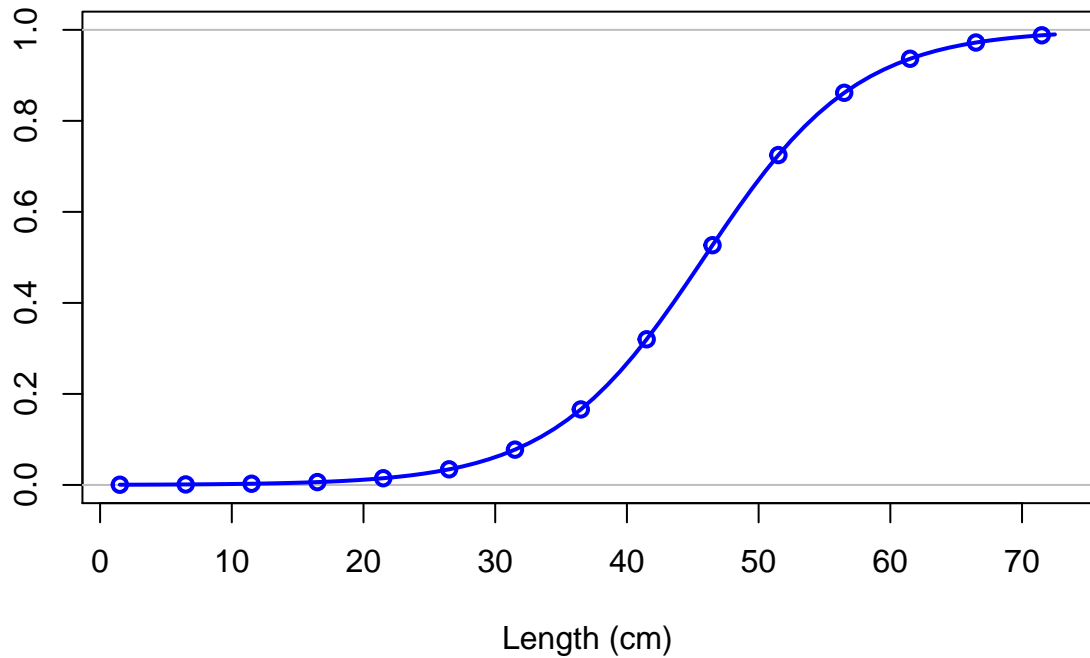




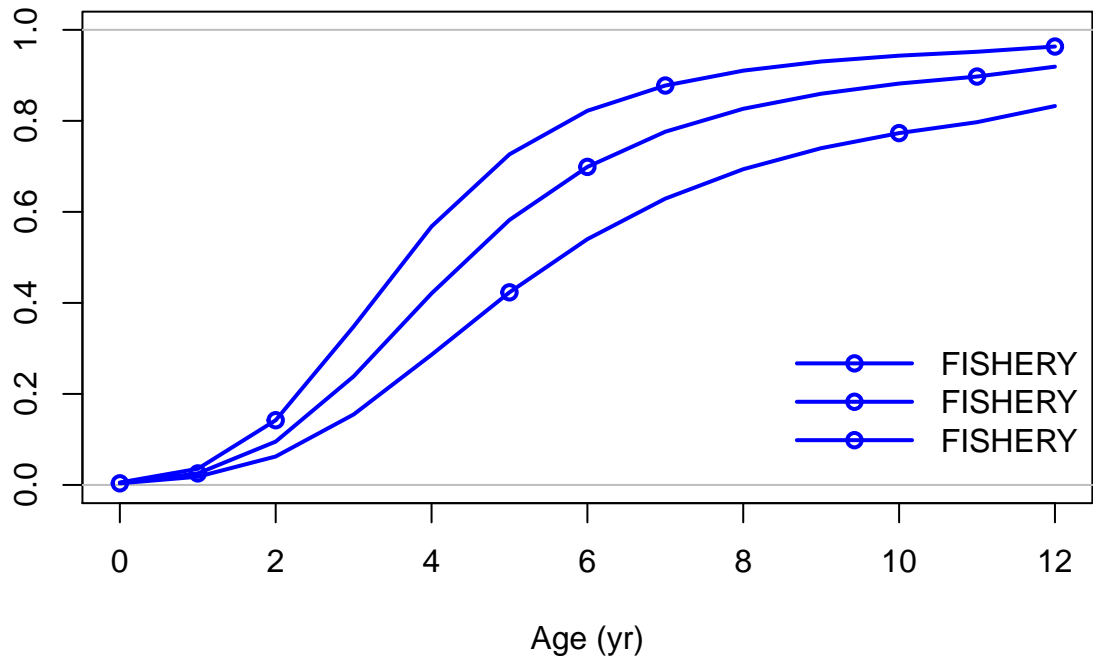
Spawning output



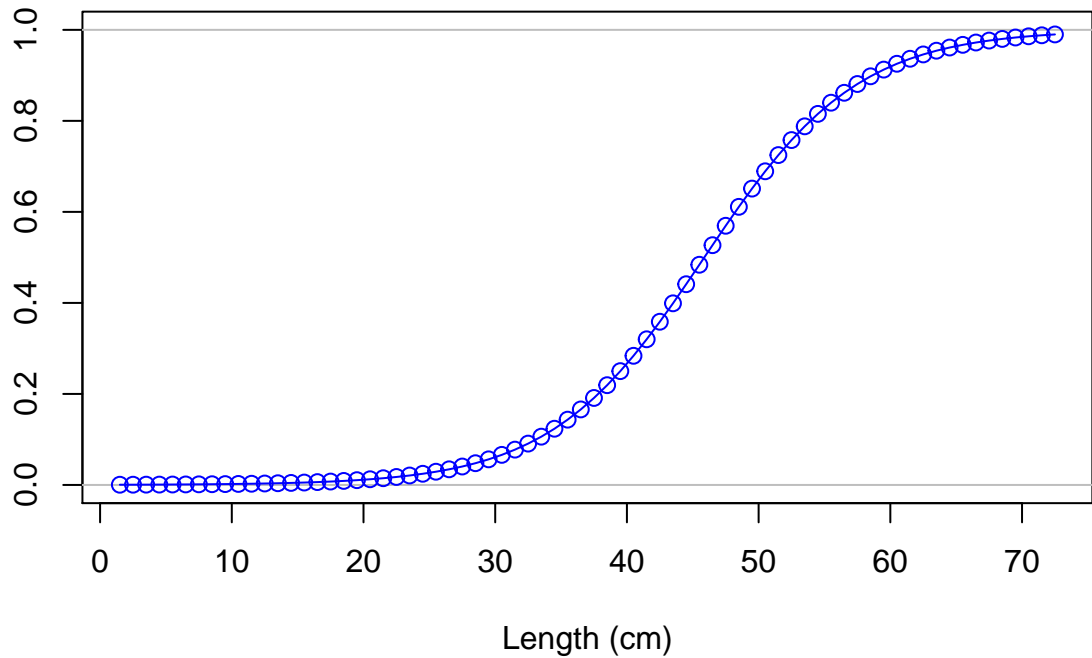
Selectivity

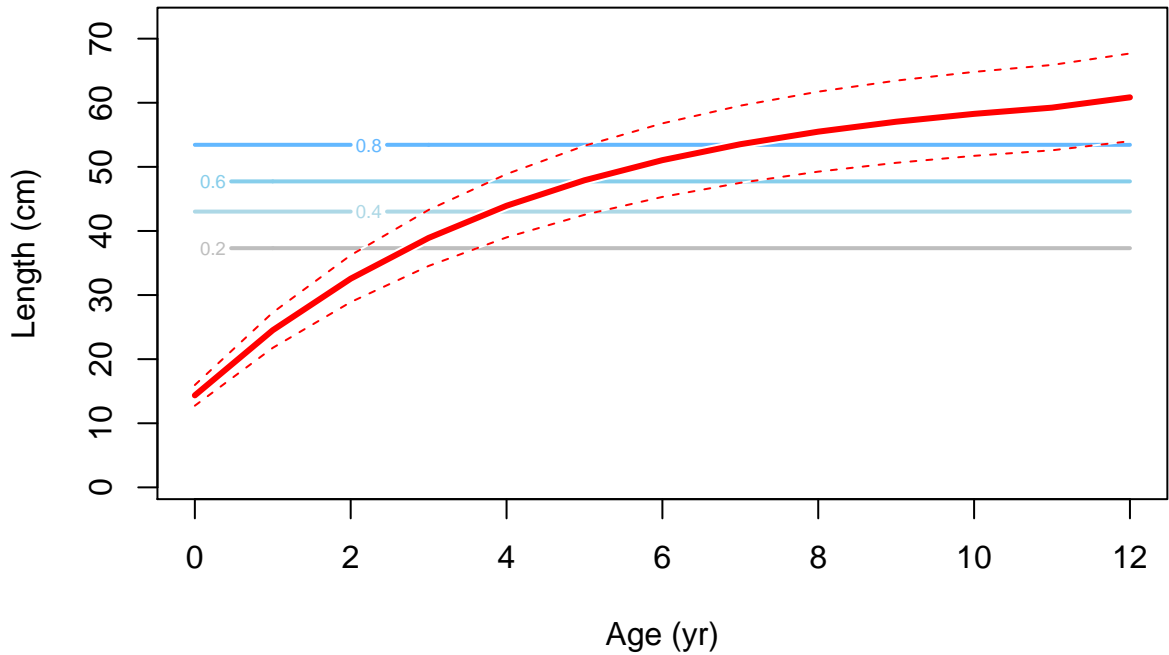


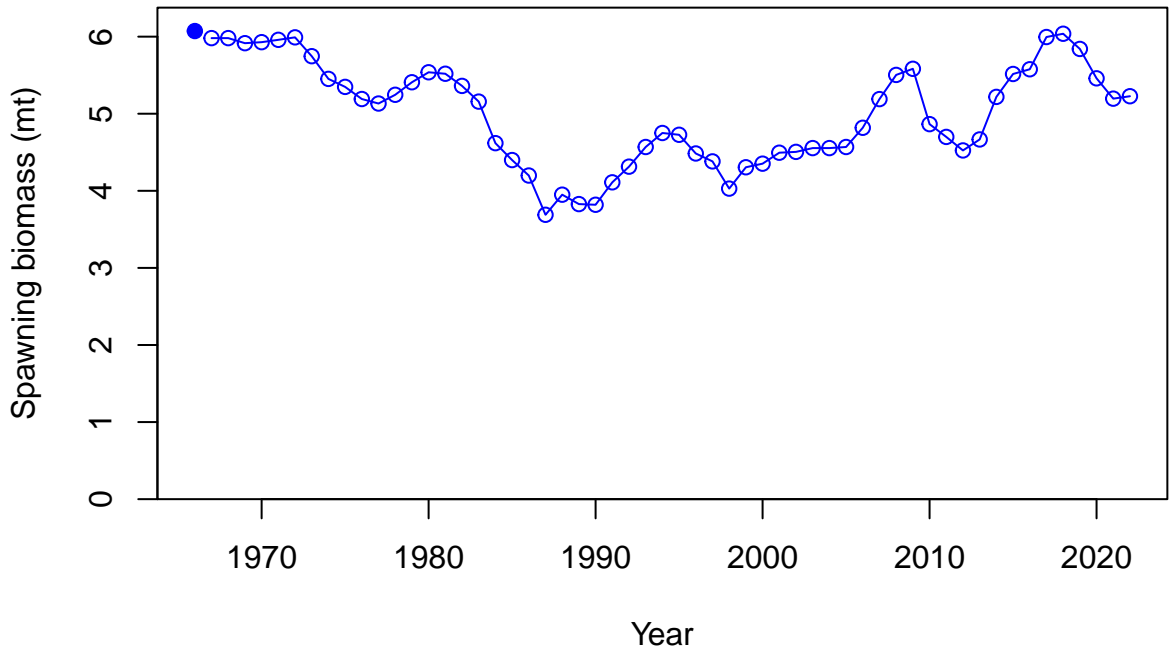
Selectivity



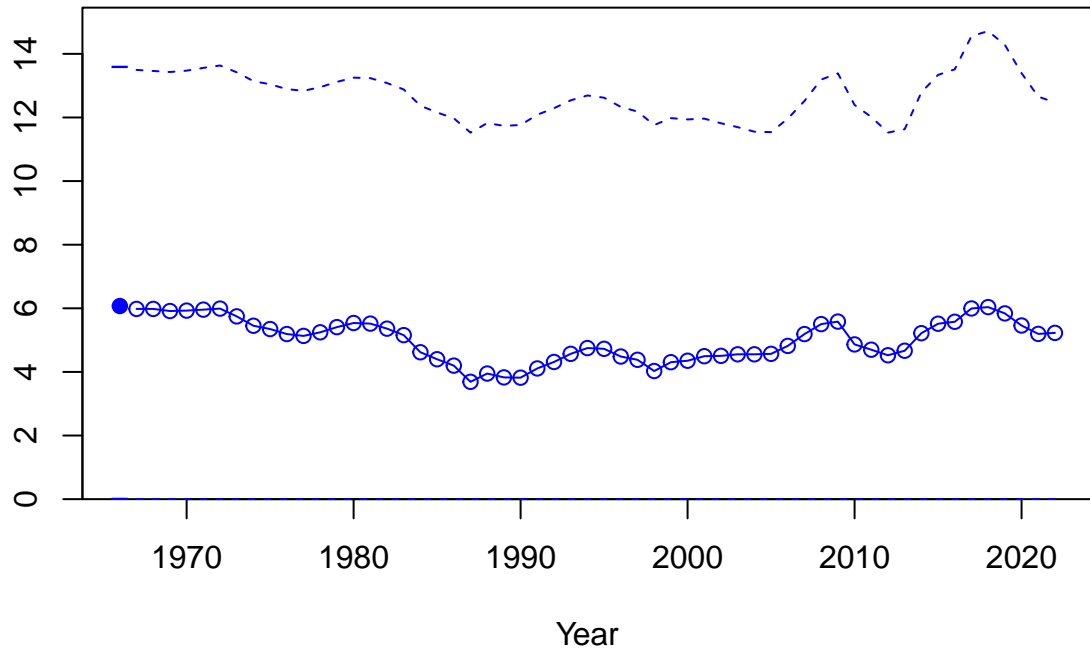
Selectivity



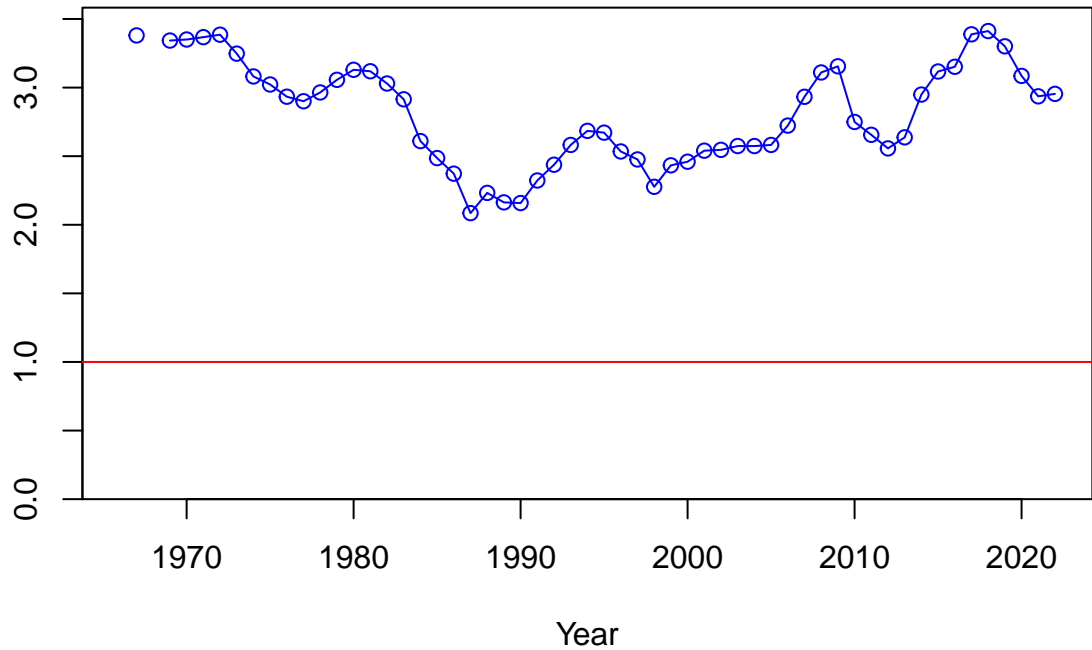




Spawning biomass (mt)

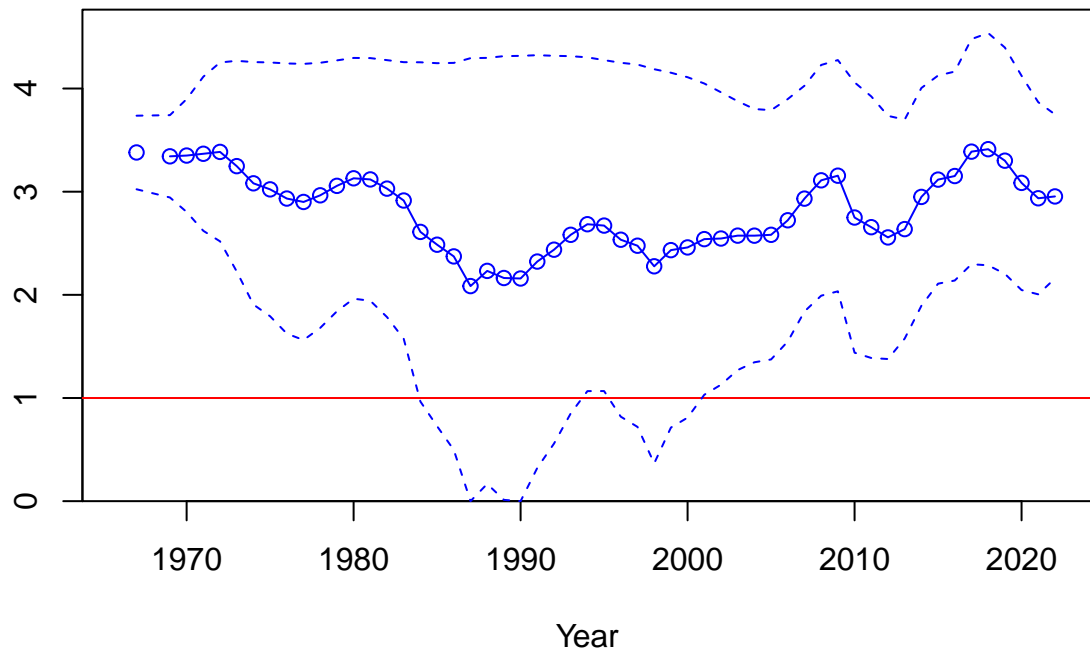


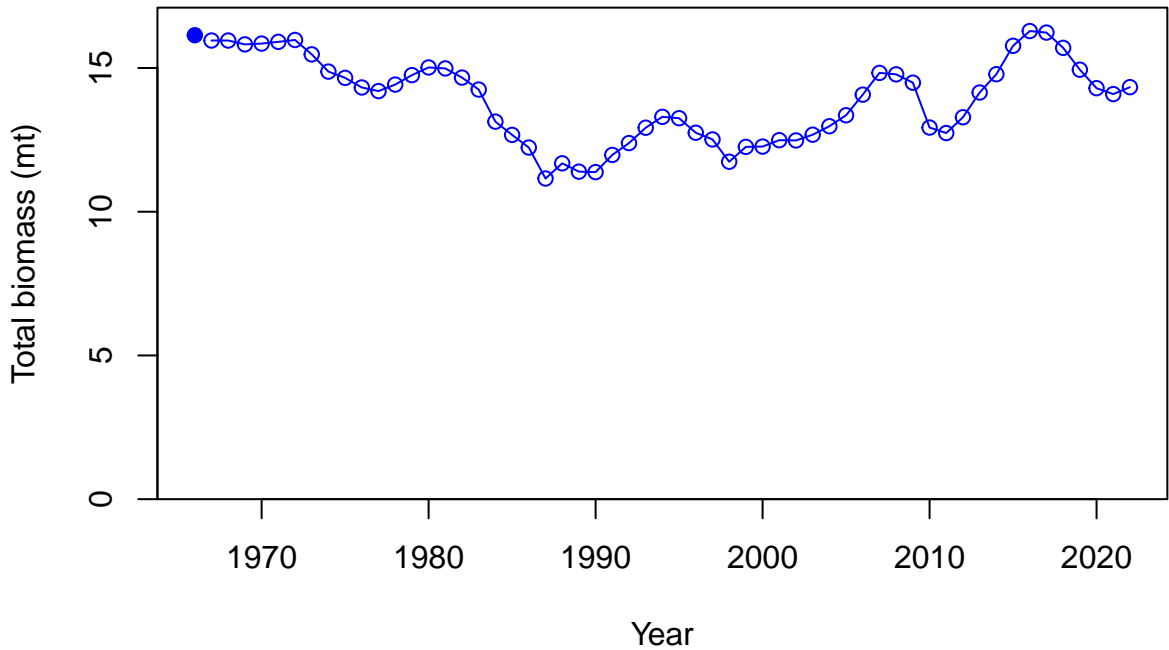
Relative spawning biomass:  $B/B_{MSY}$



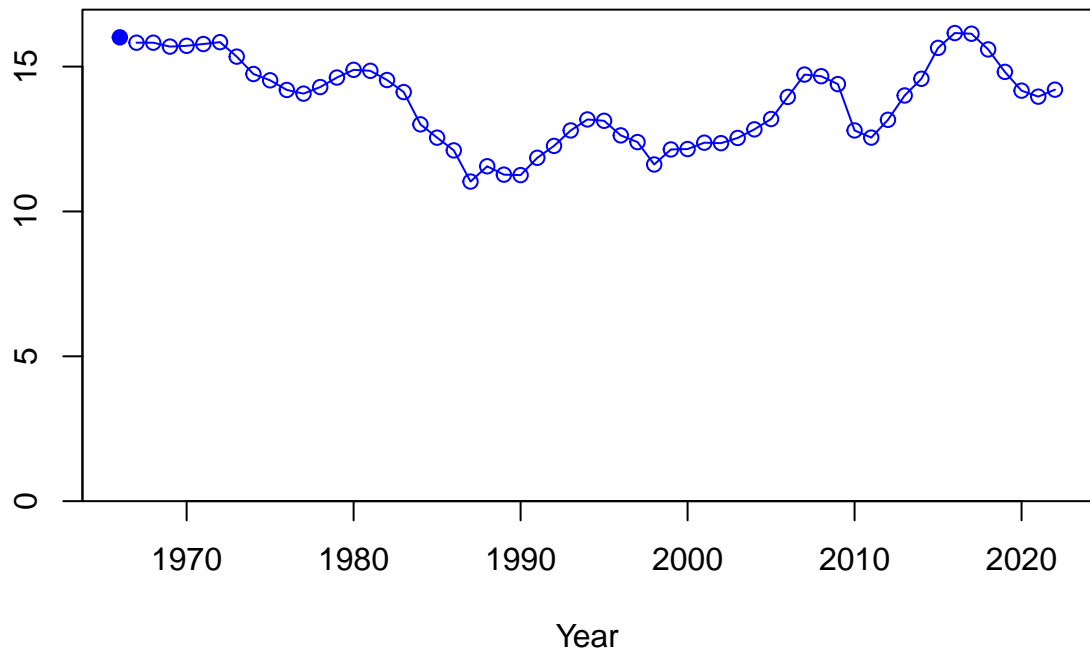


Relative spawning biomass:  $B/B_{MSY}$

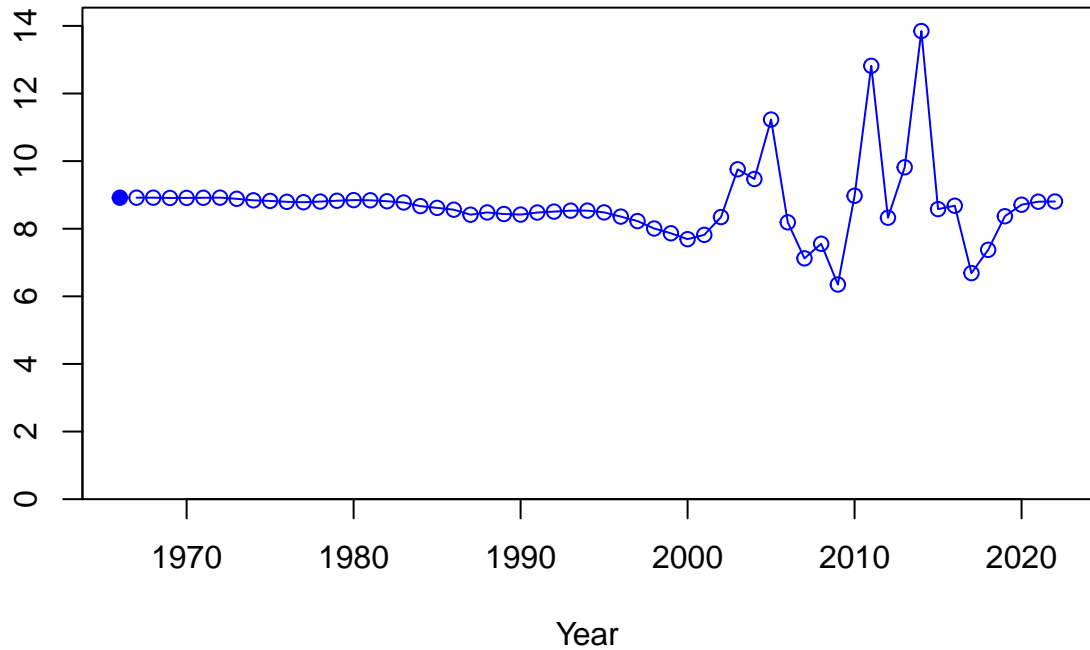




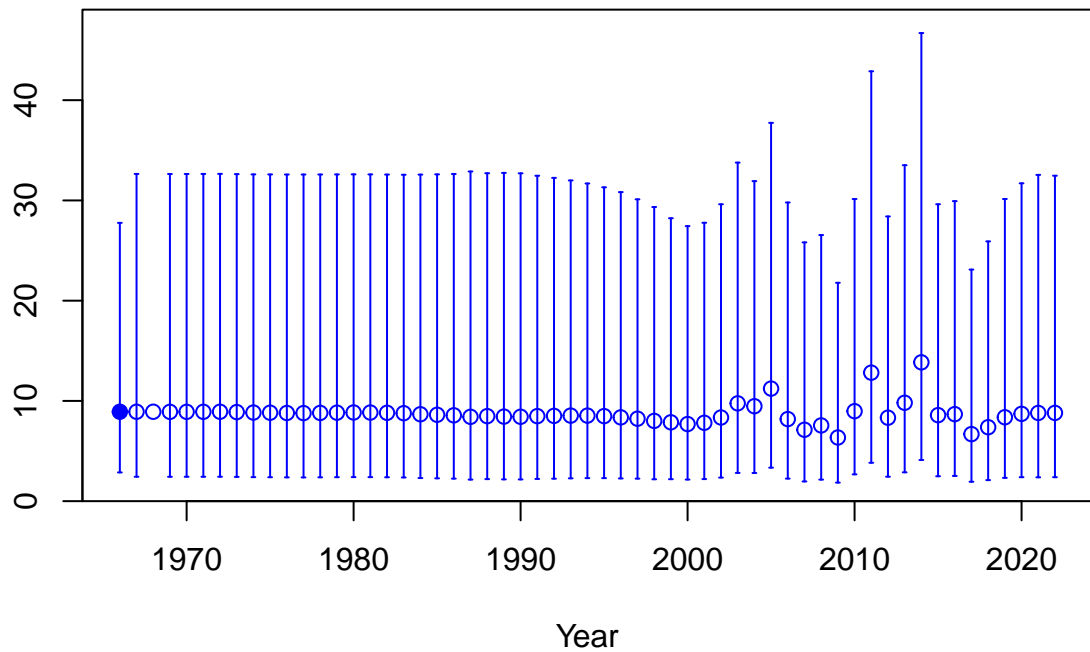
Summary biomass (mt)



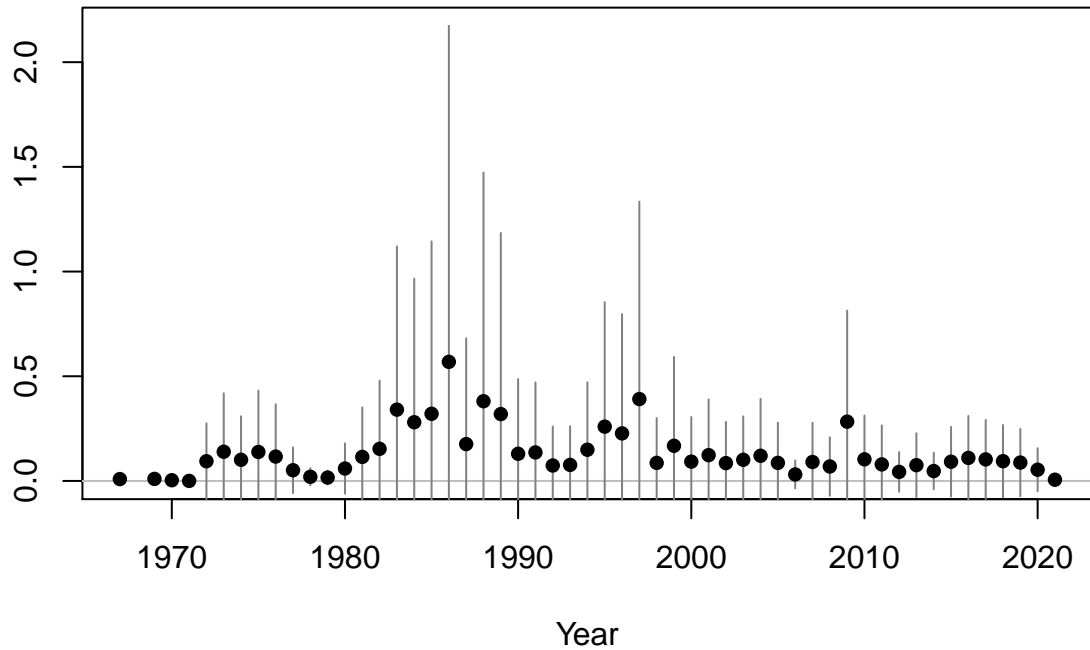
Age-0 recruits (1,000s)

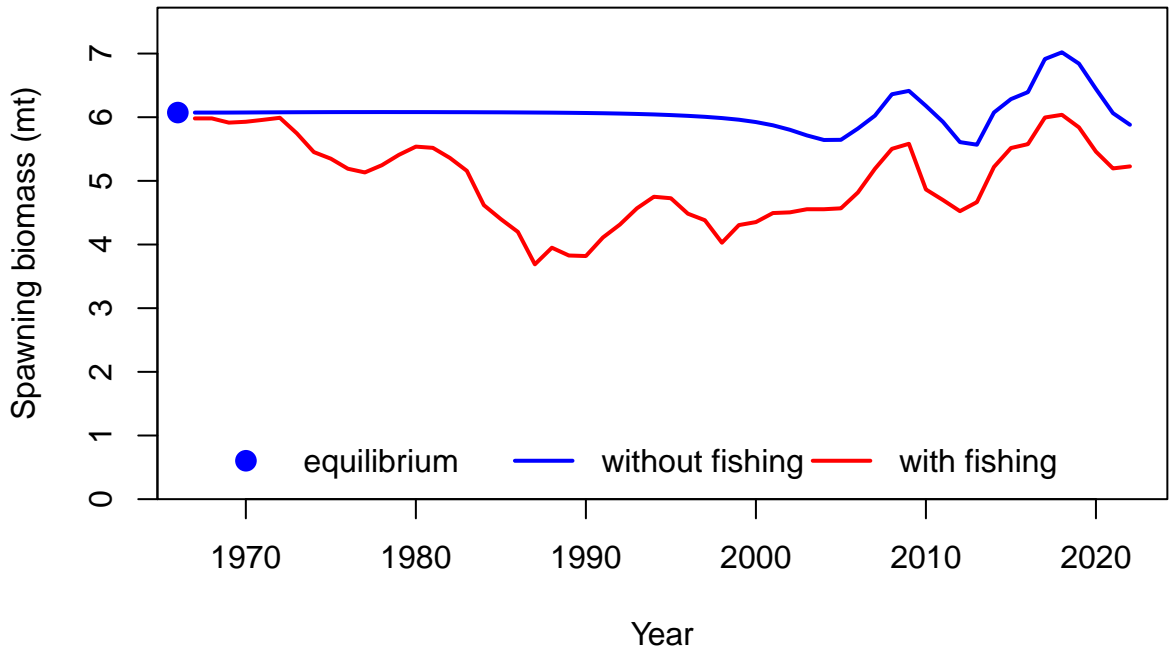


Age-0 recruits (1,000s)



Summary Fishing Mortality





Log recruitment deviation

0.4  
0.2  
0.0  
-0.2

1970

1980

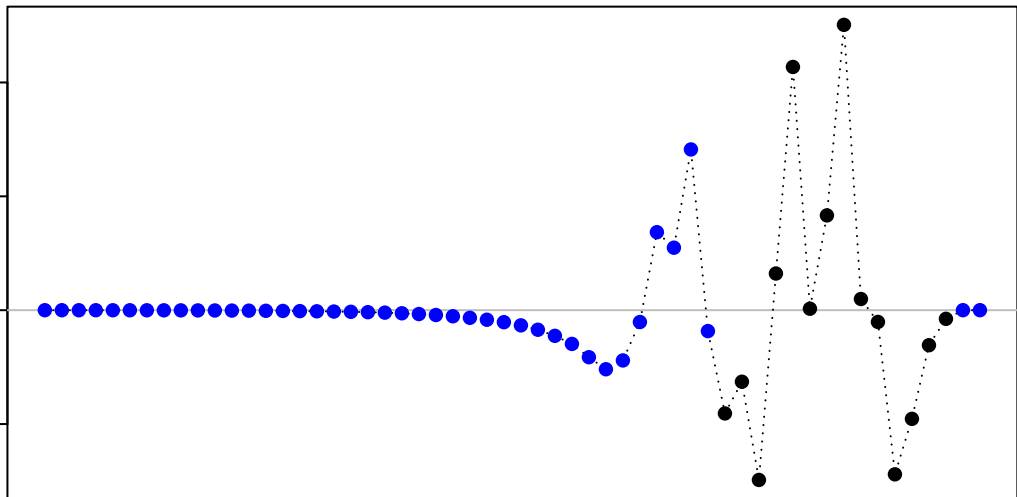
1990

2000

2010

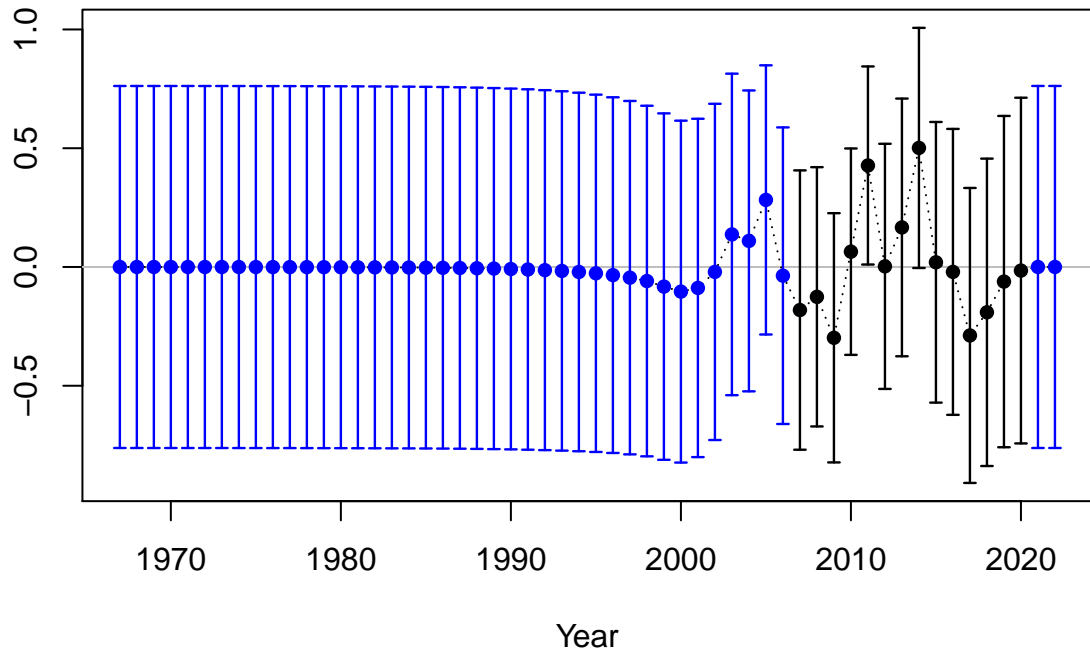
2020

Year



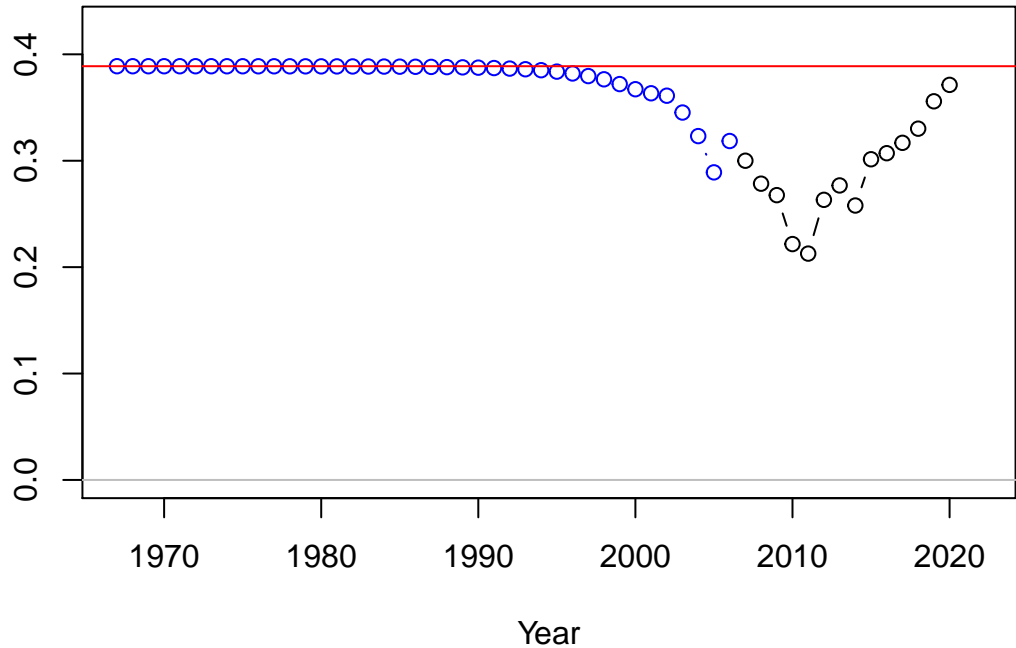


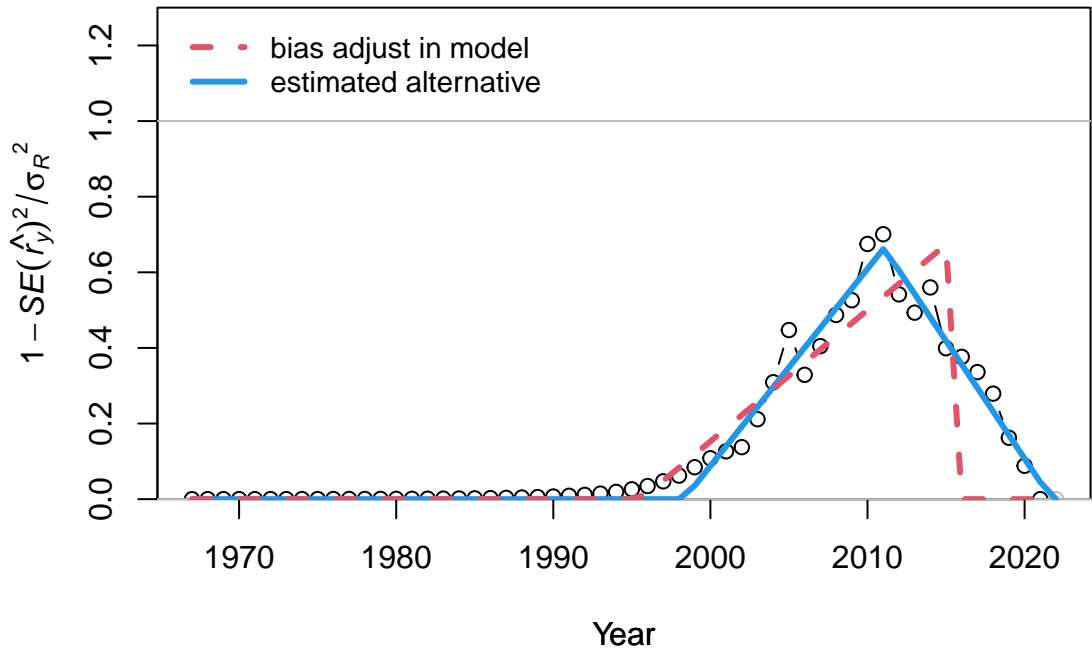
Log recruitment deviation

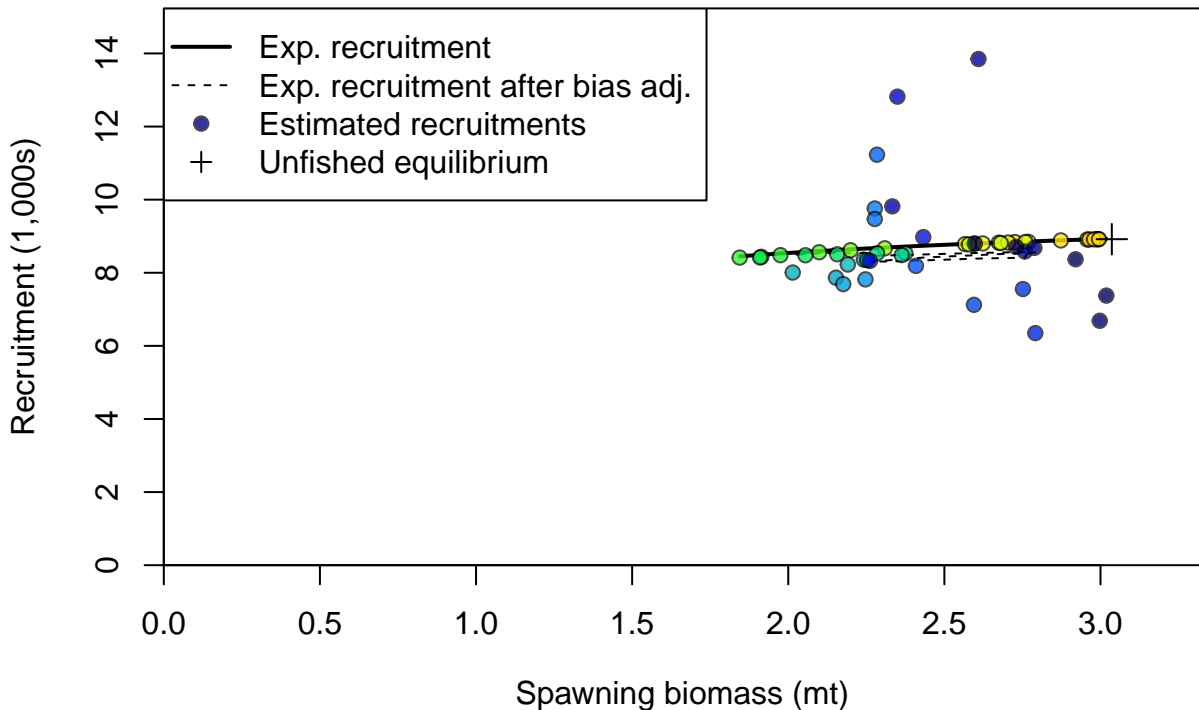


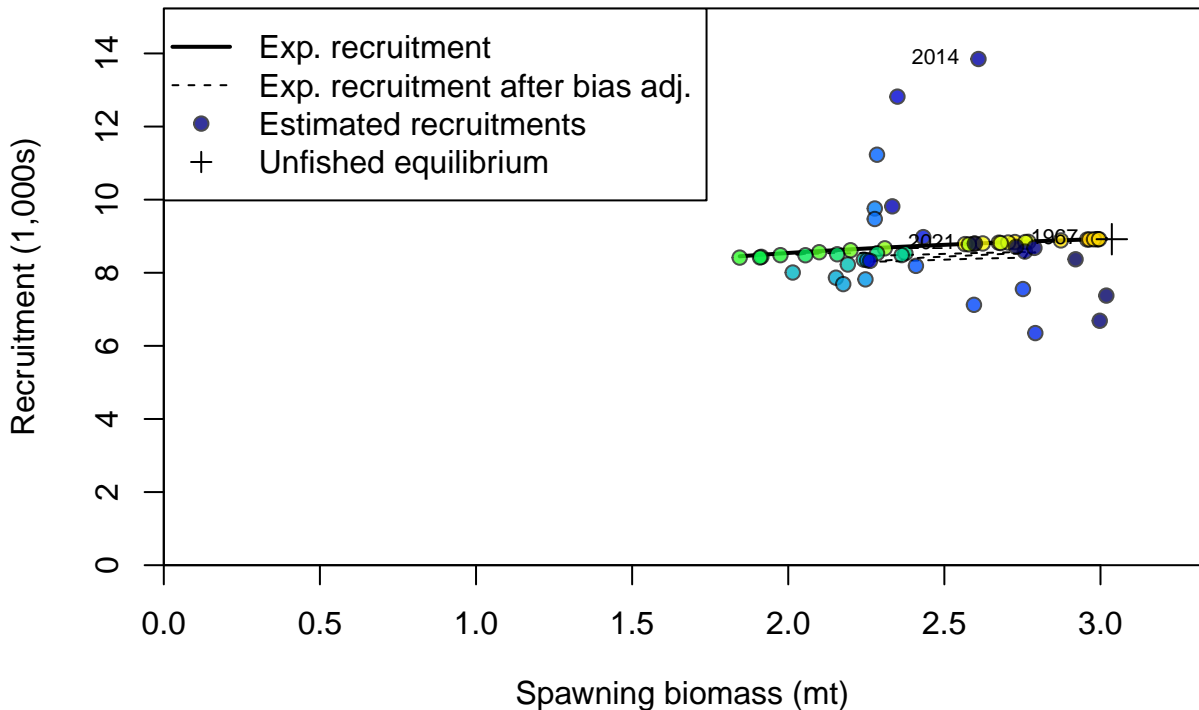
## Recruitment deviation variance

Asymptotic standard error estimate

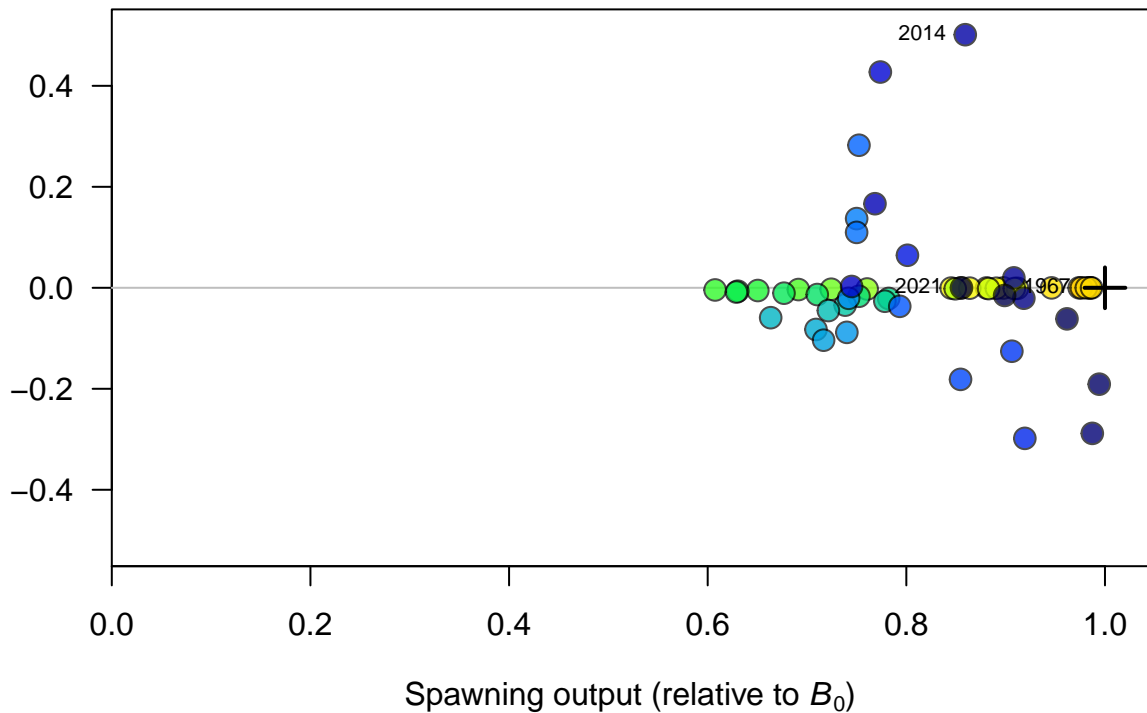


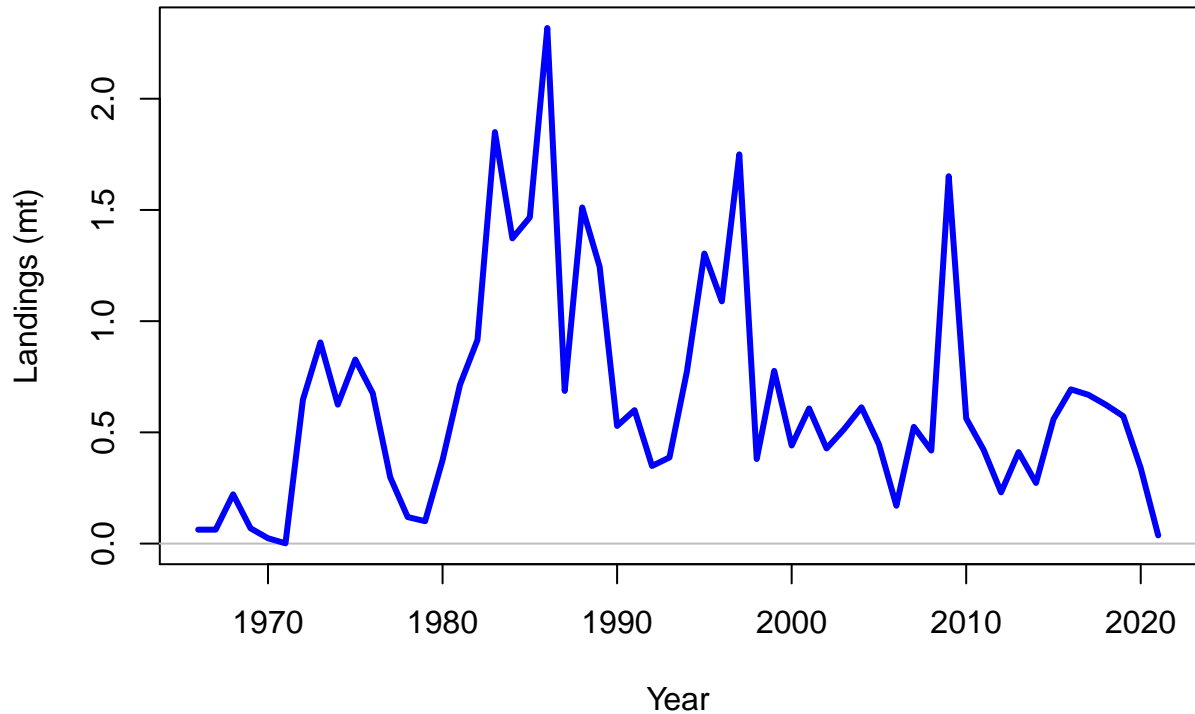


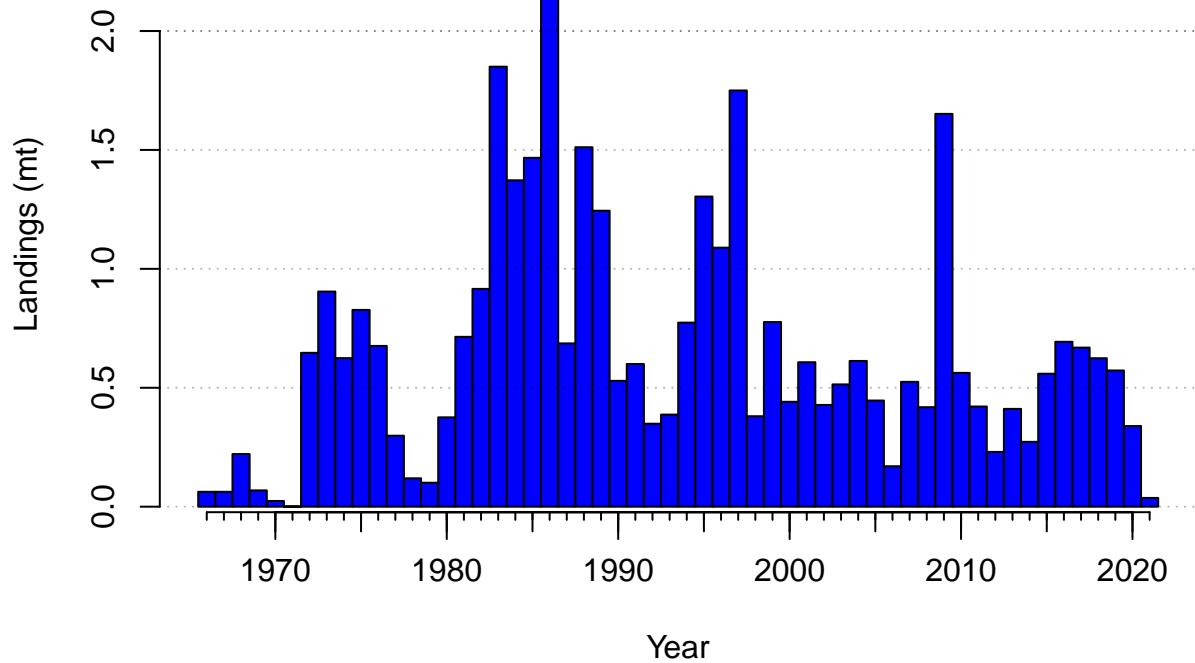




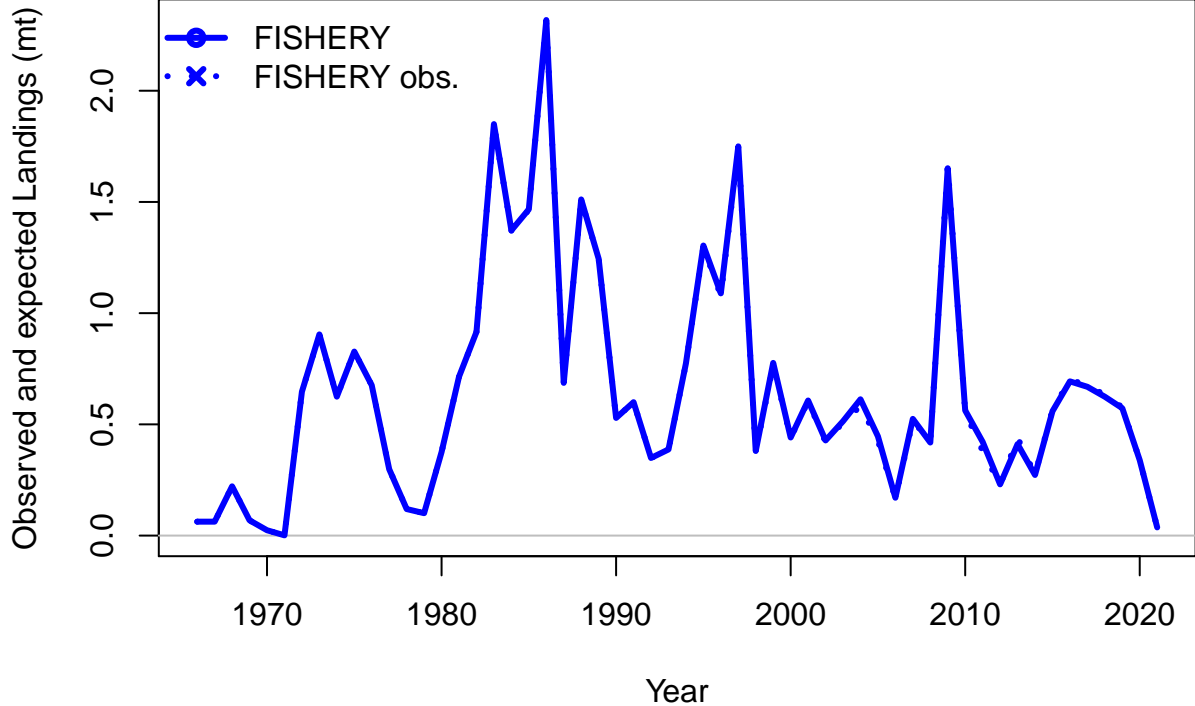
Log recruitment deviation

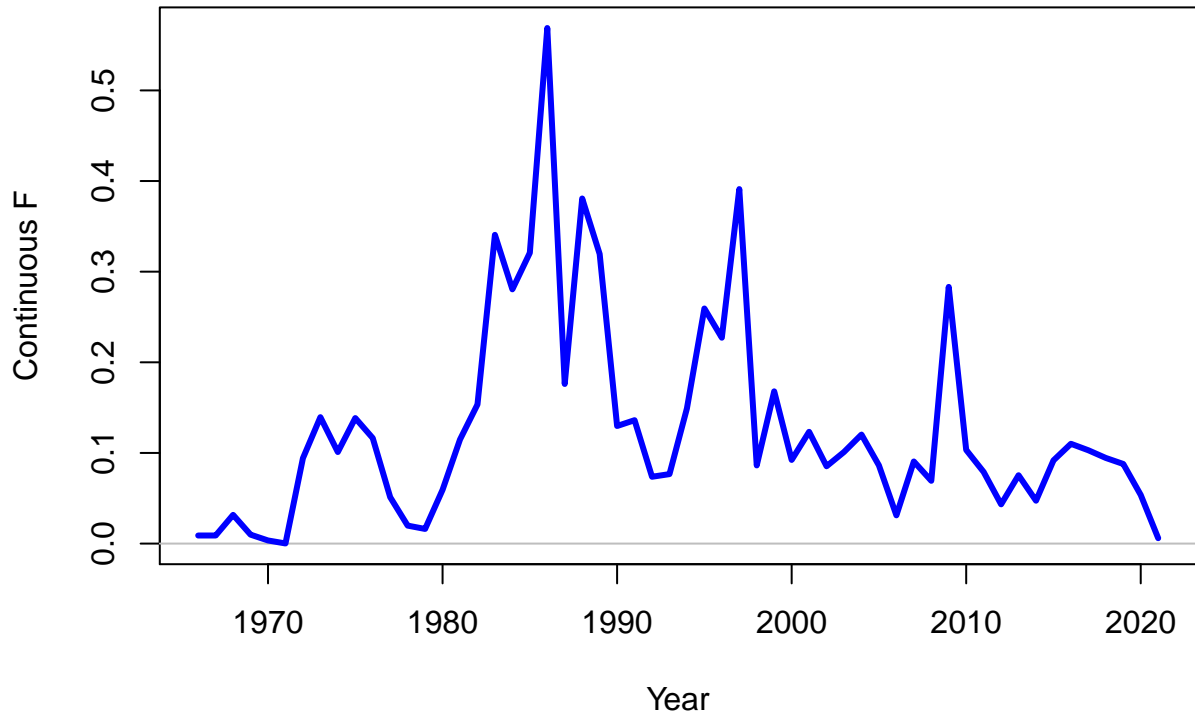




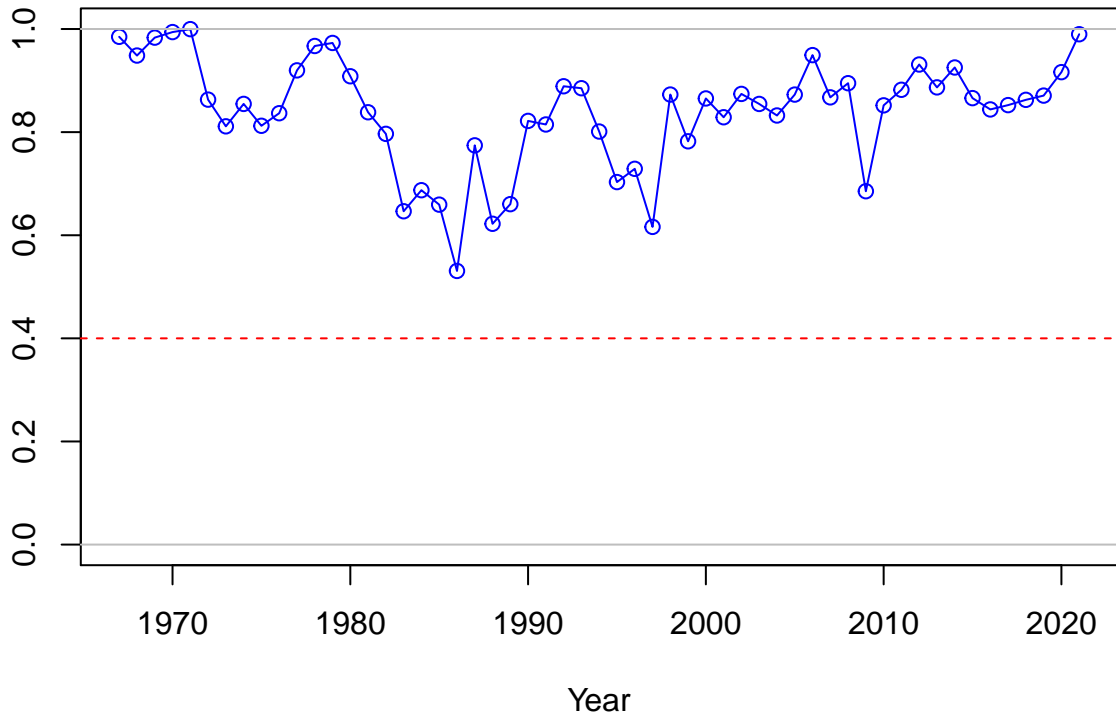




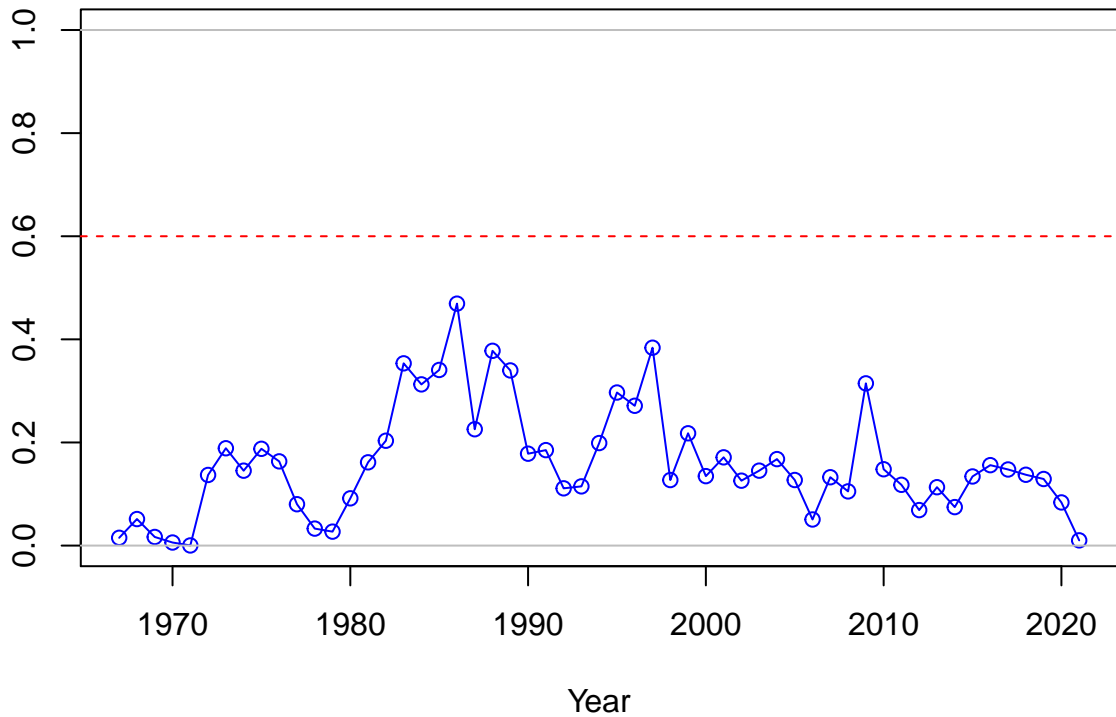




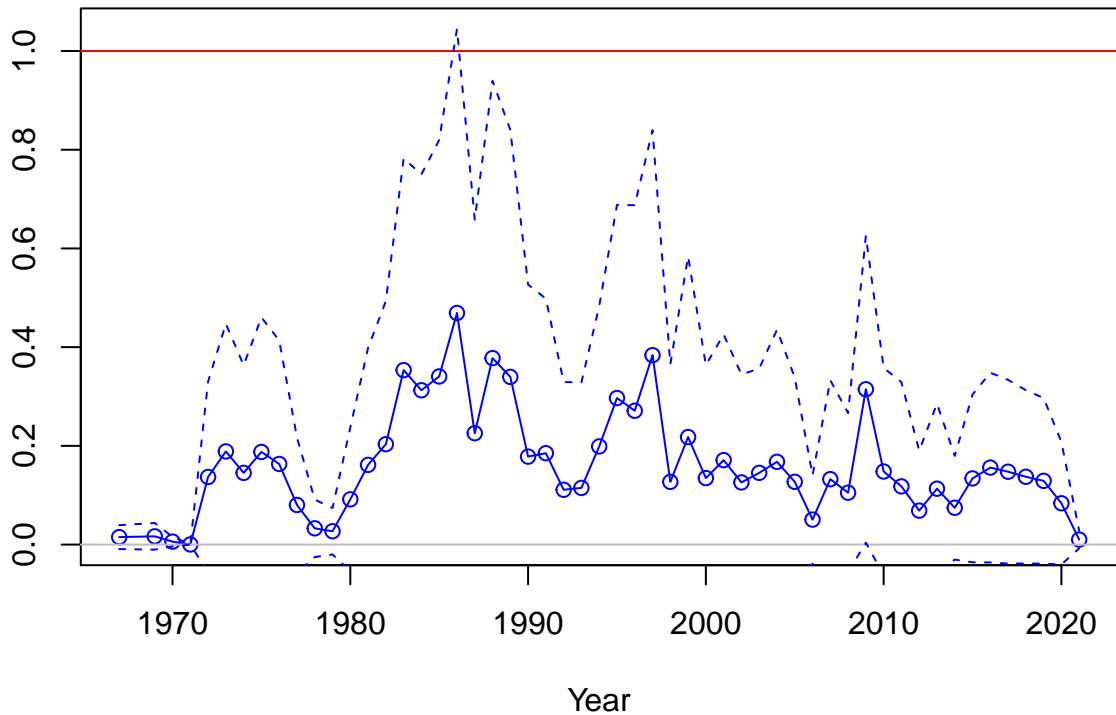
SPR



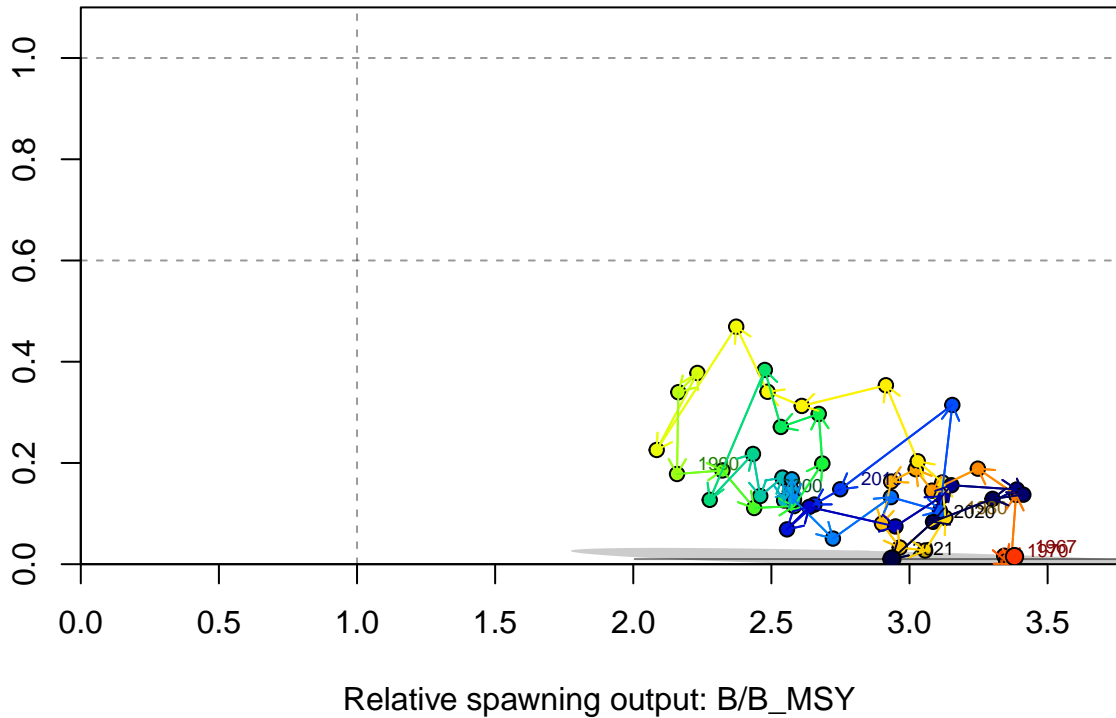
1-SPR



Fishing intensity: 1-SPR



Fishing intensity: 1-SPR



Index

5  
4  
3  
2  
1  
0

2016

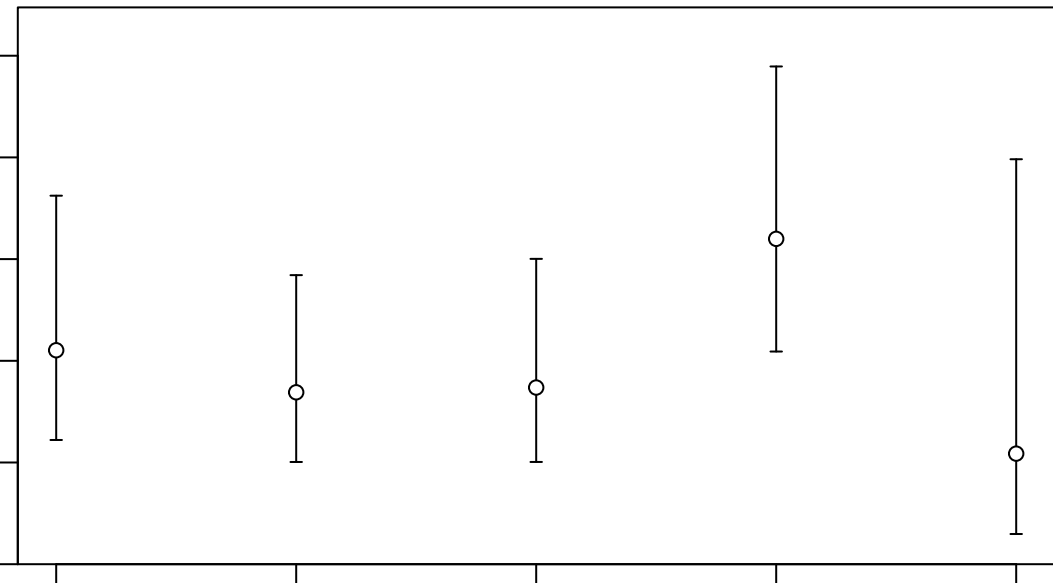
2017

2018

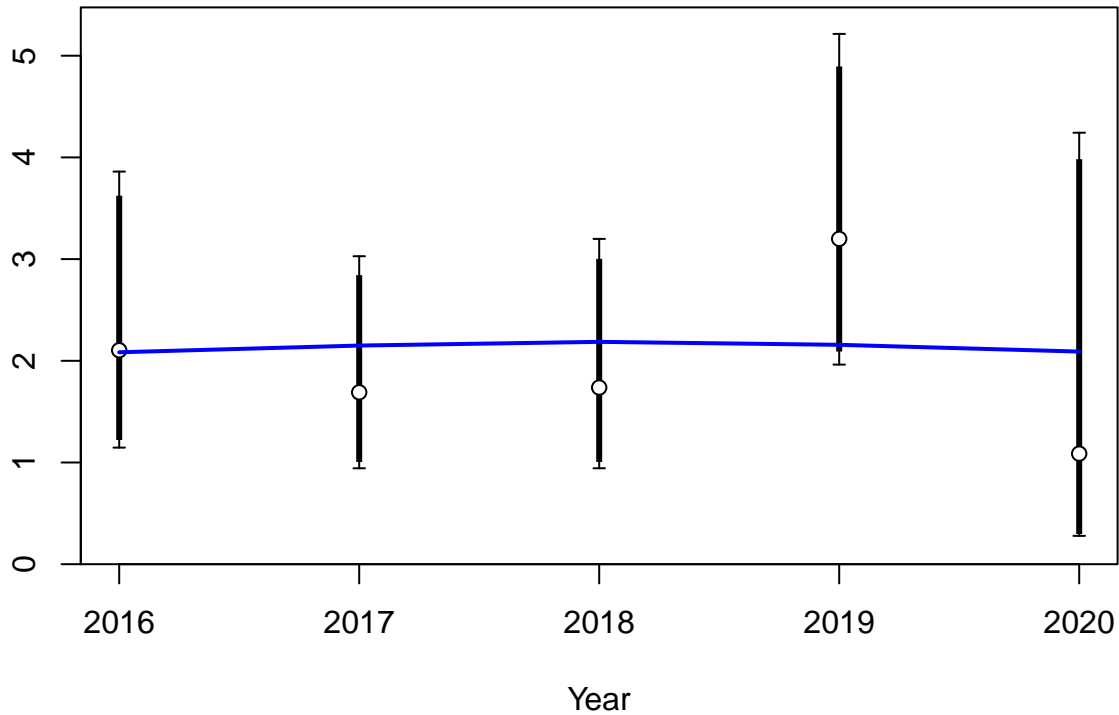
2019

2020

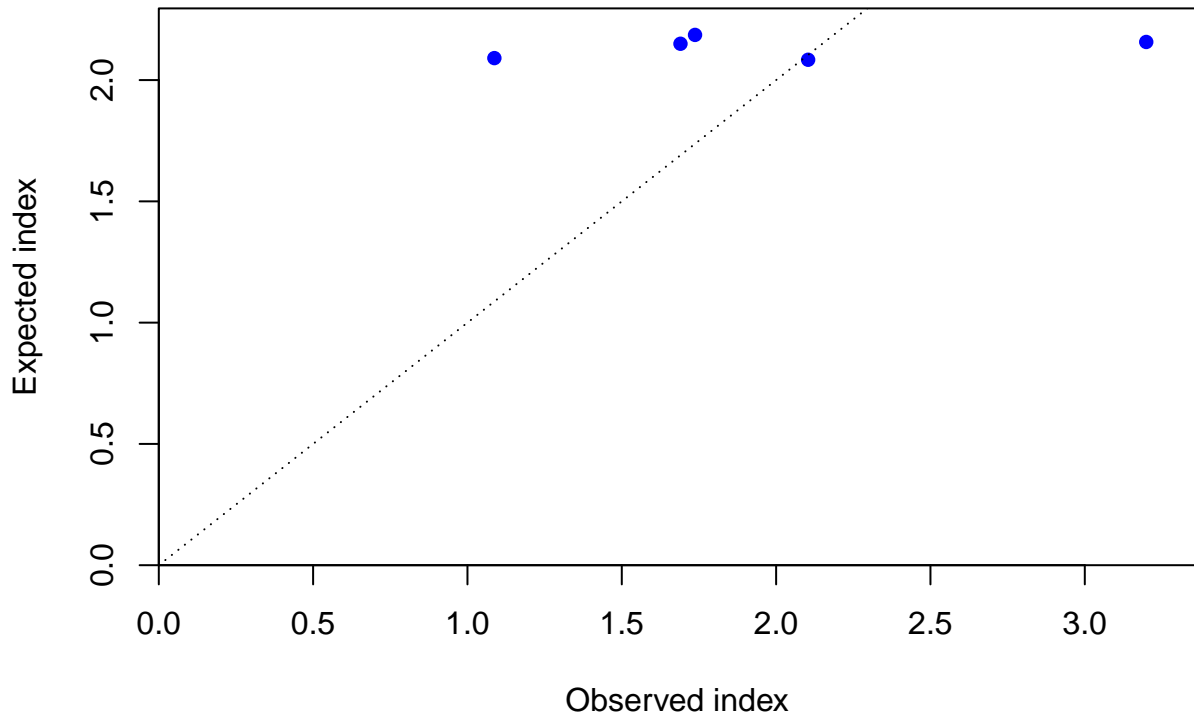
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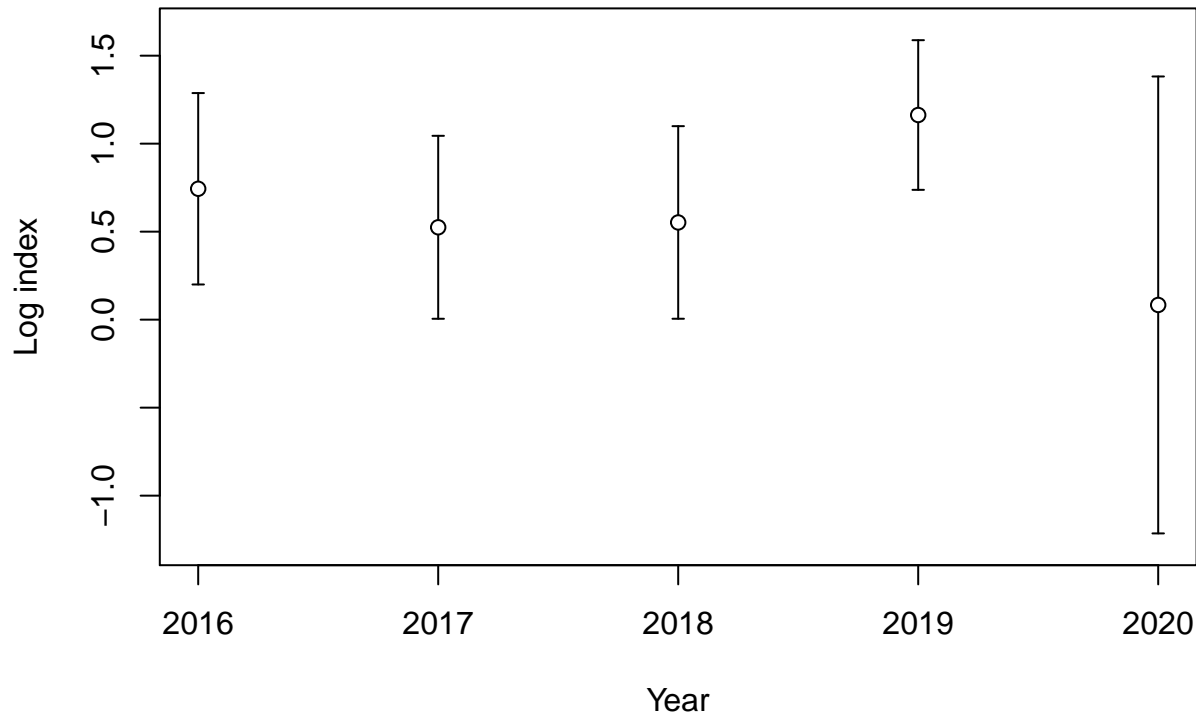


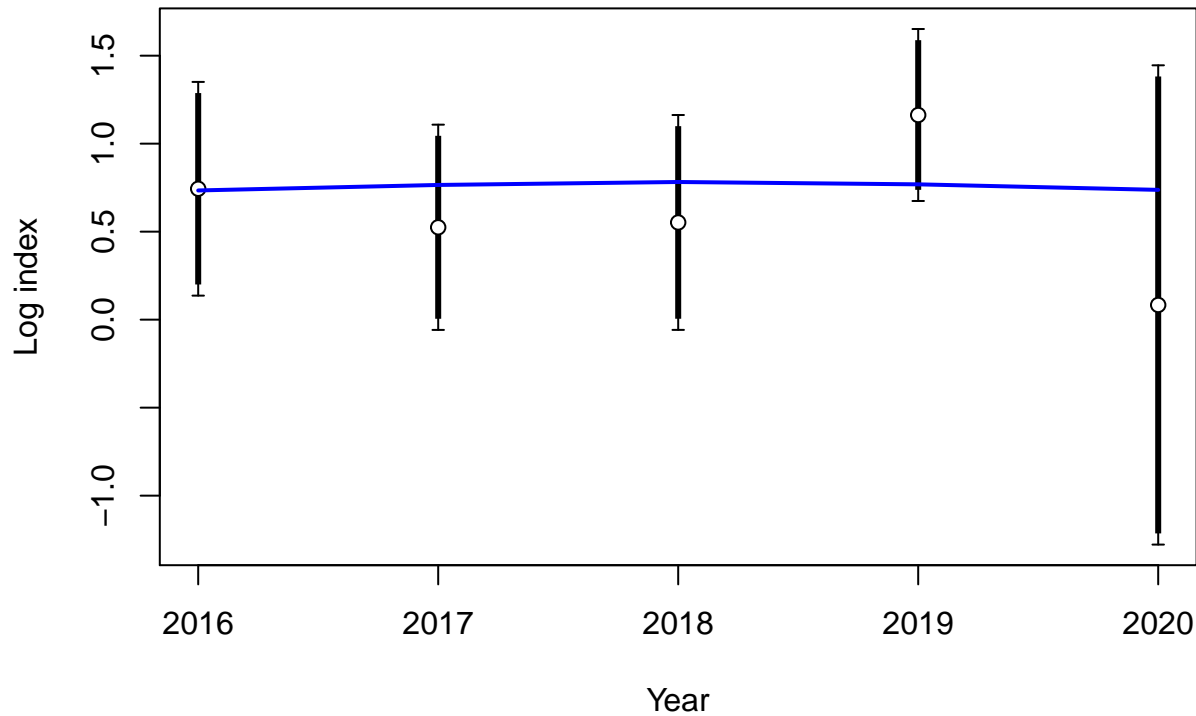
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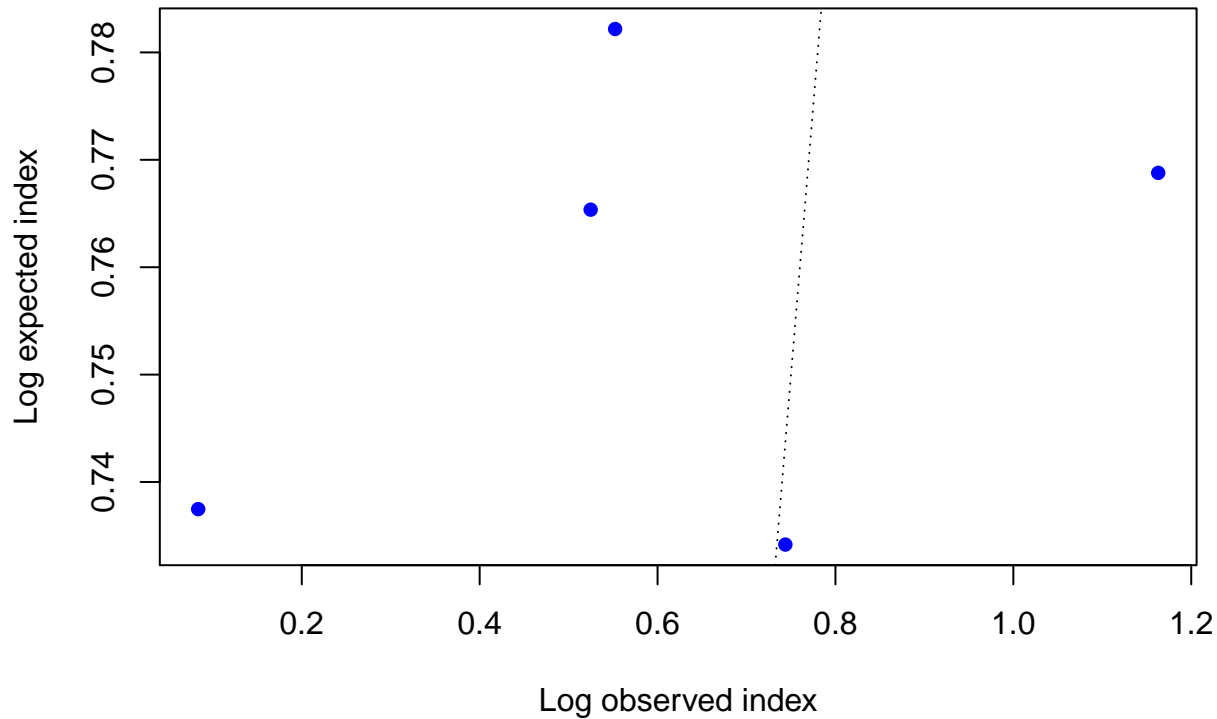




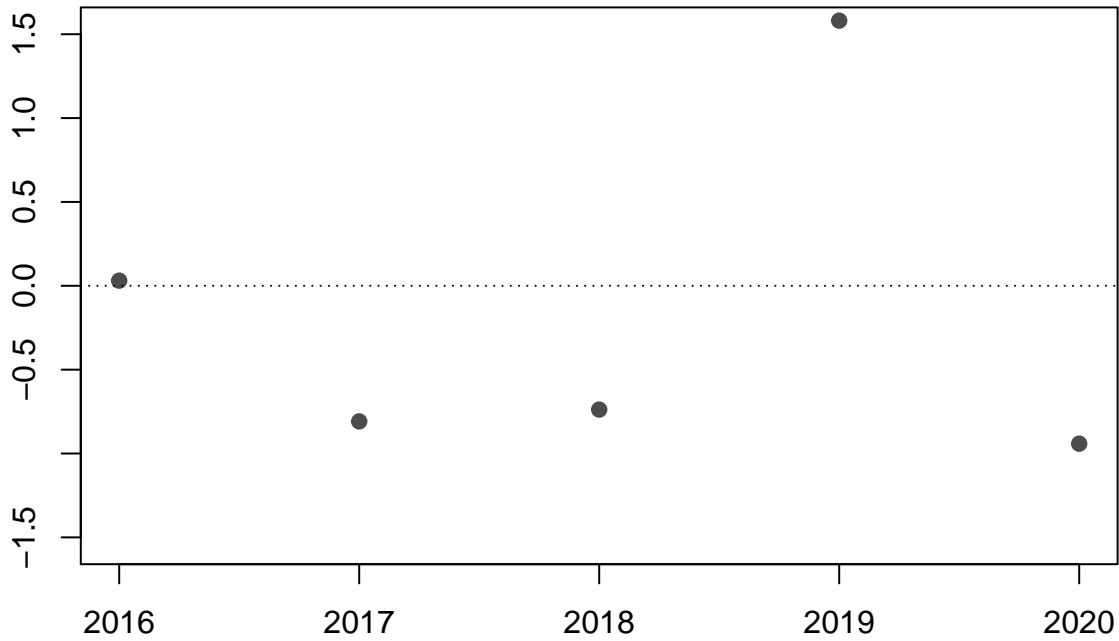






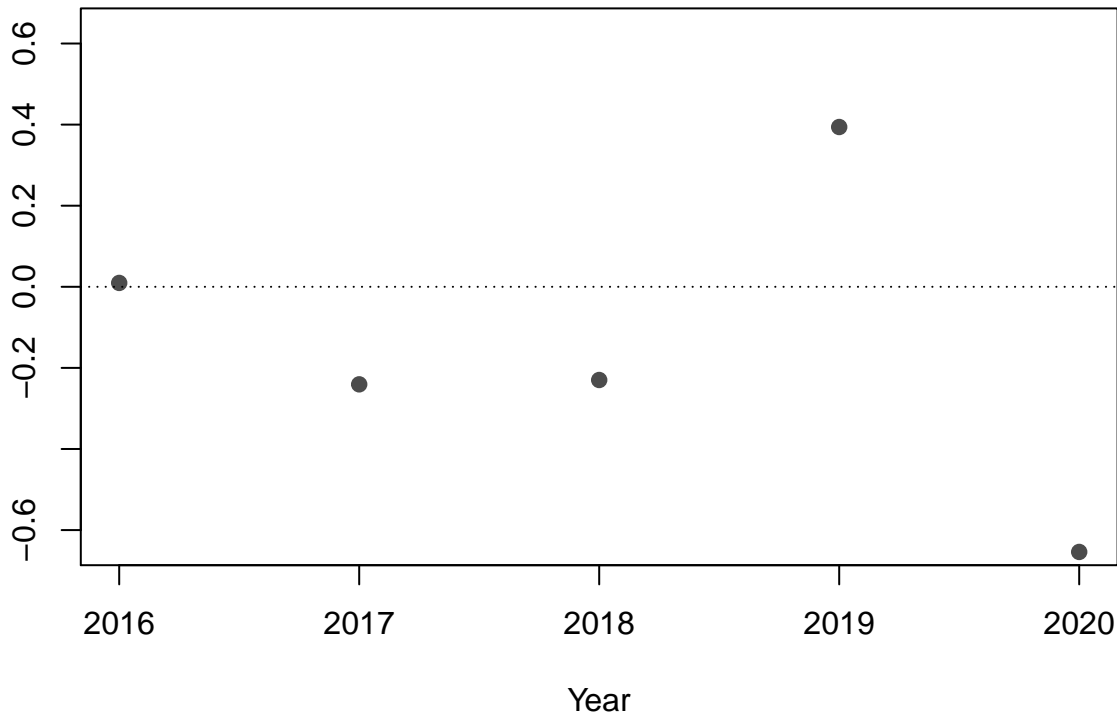


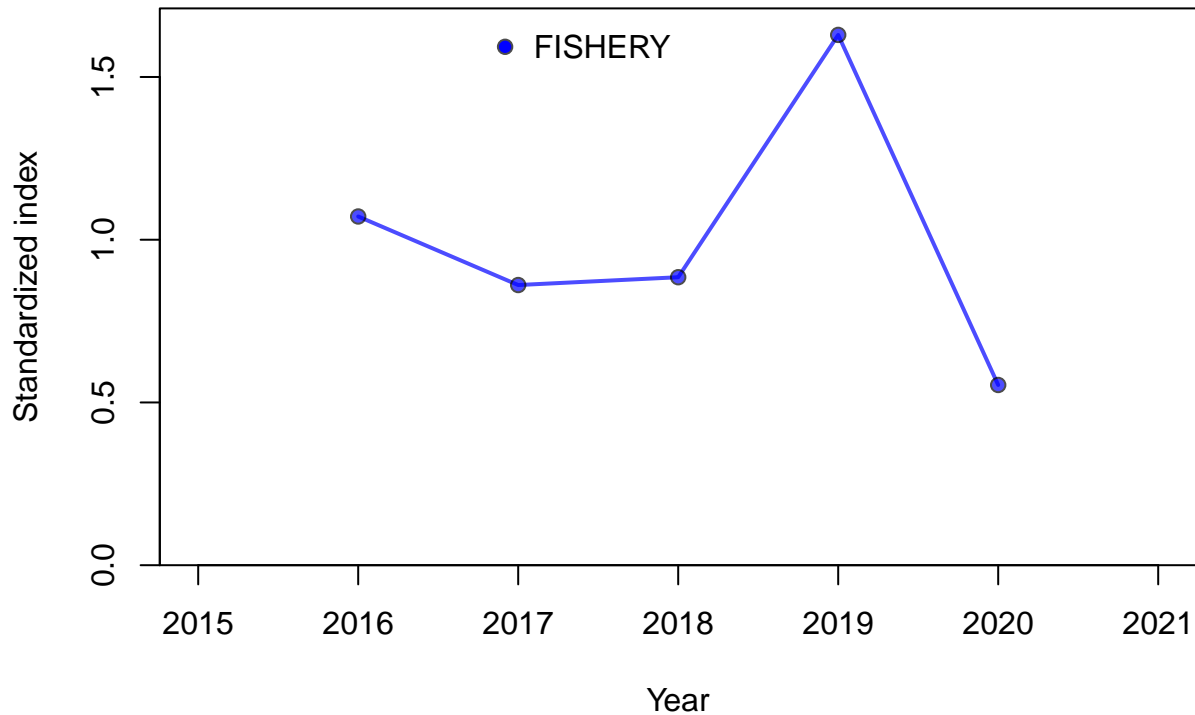
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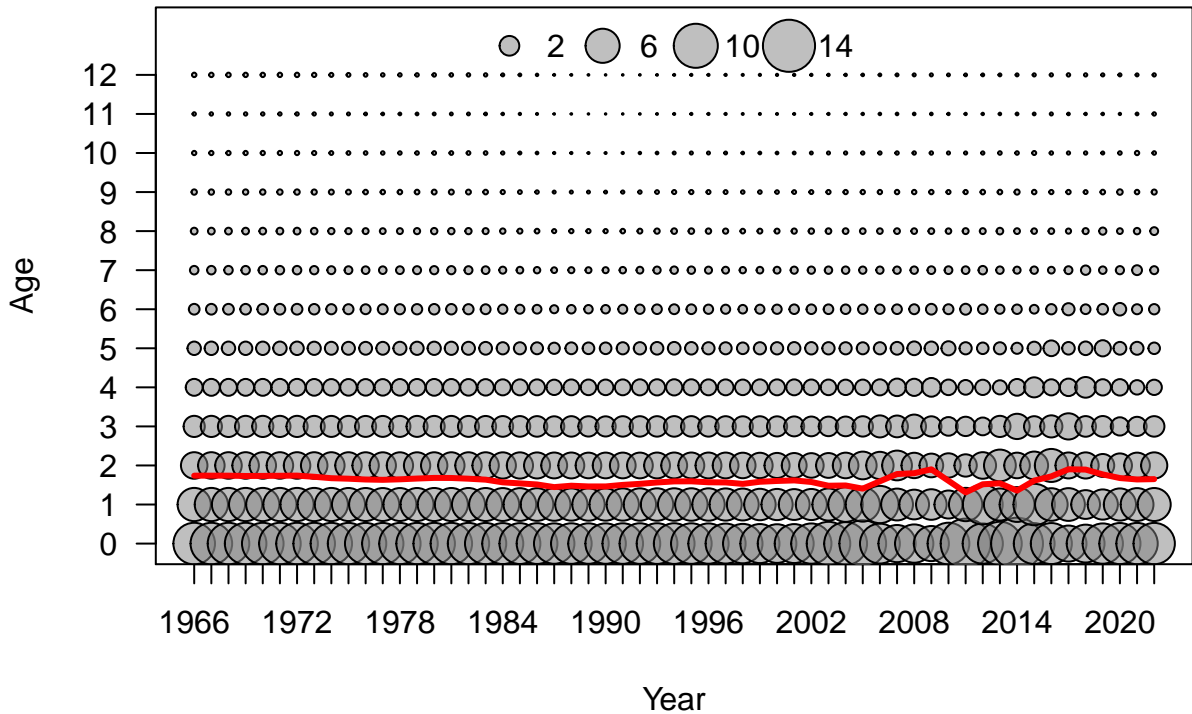


Year

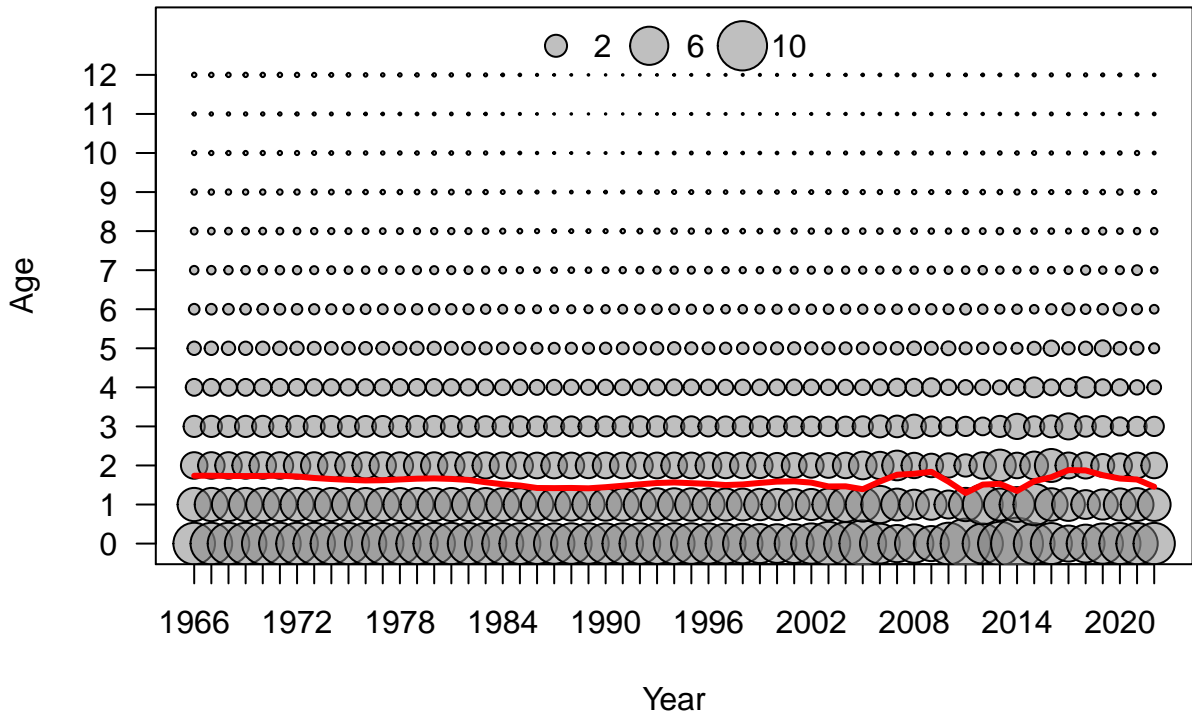
Deviation

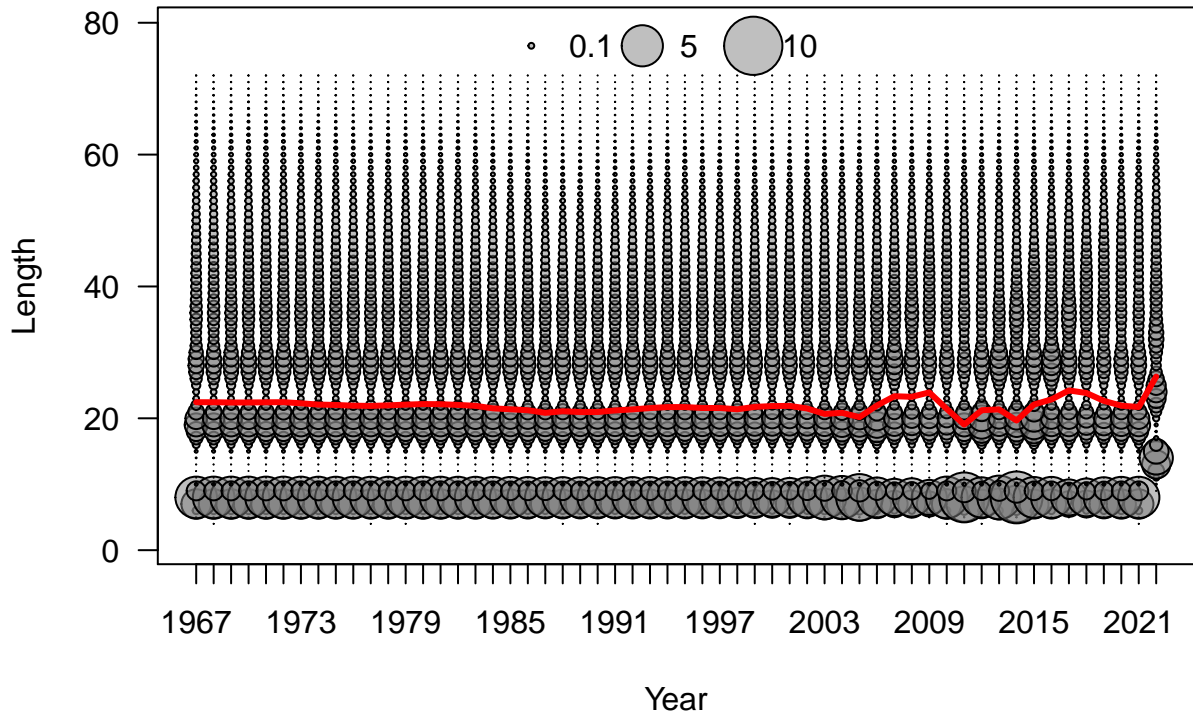


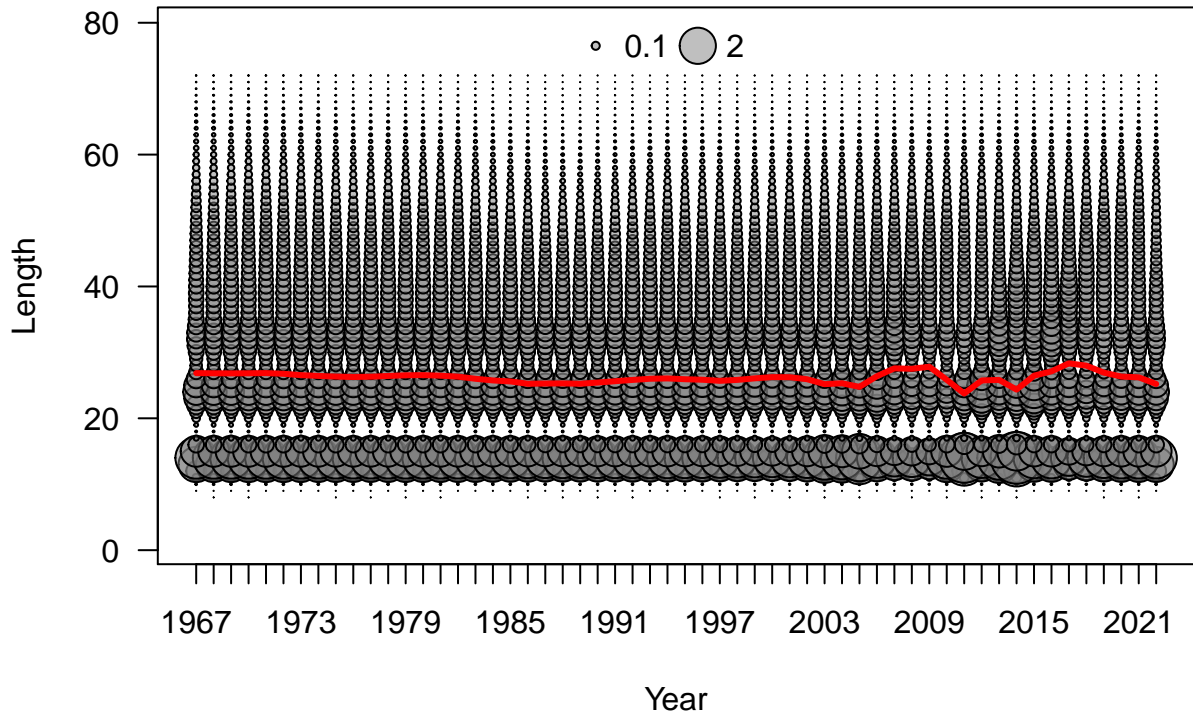


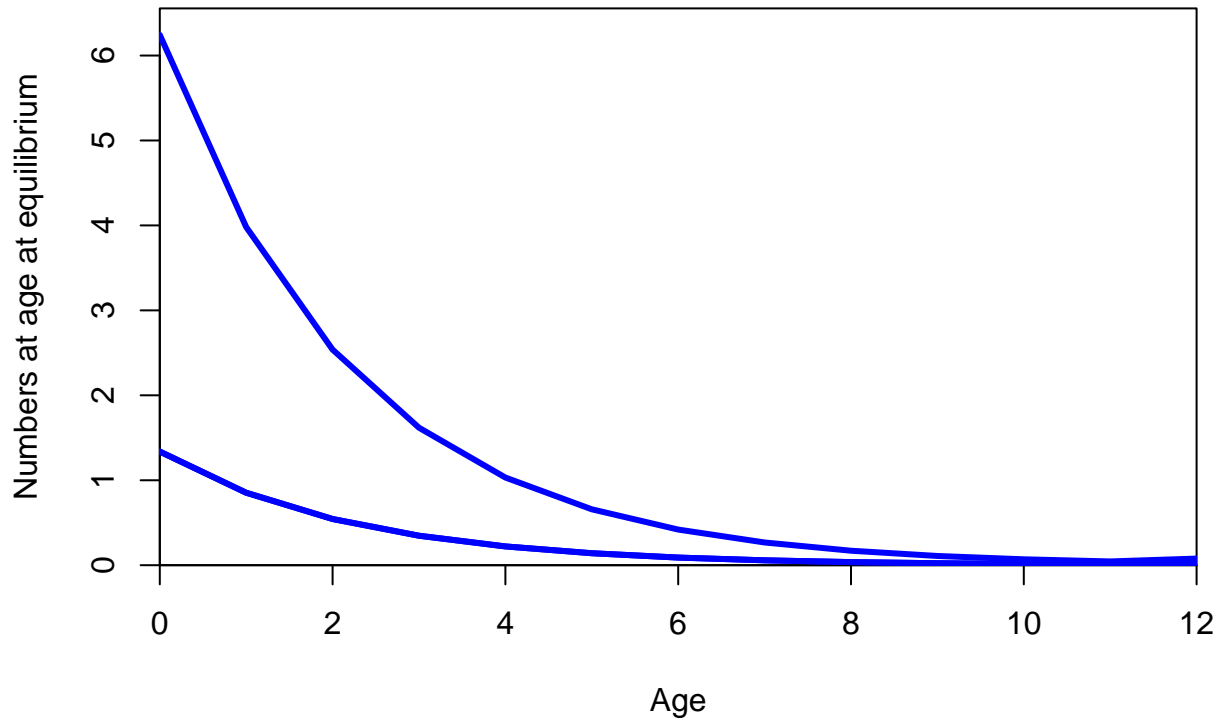


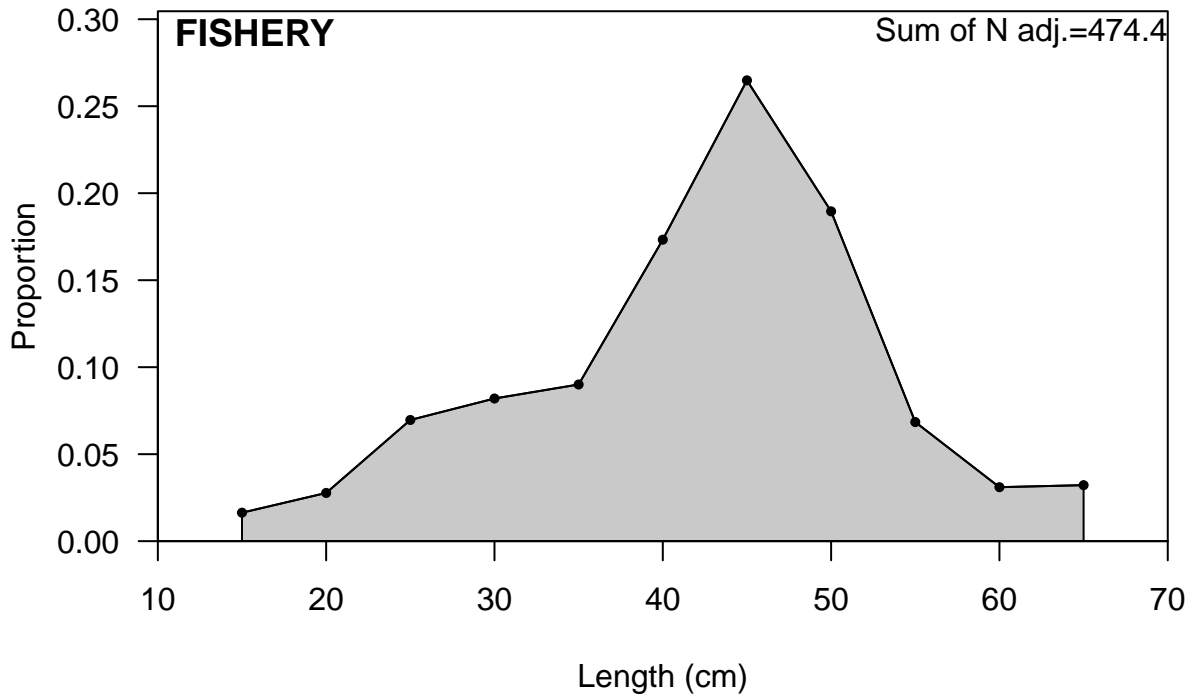






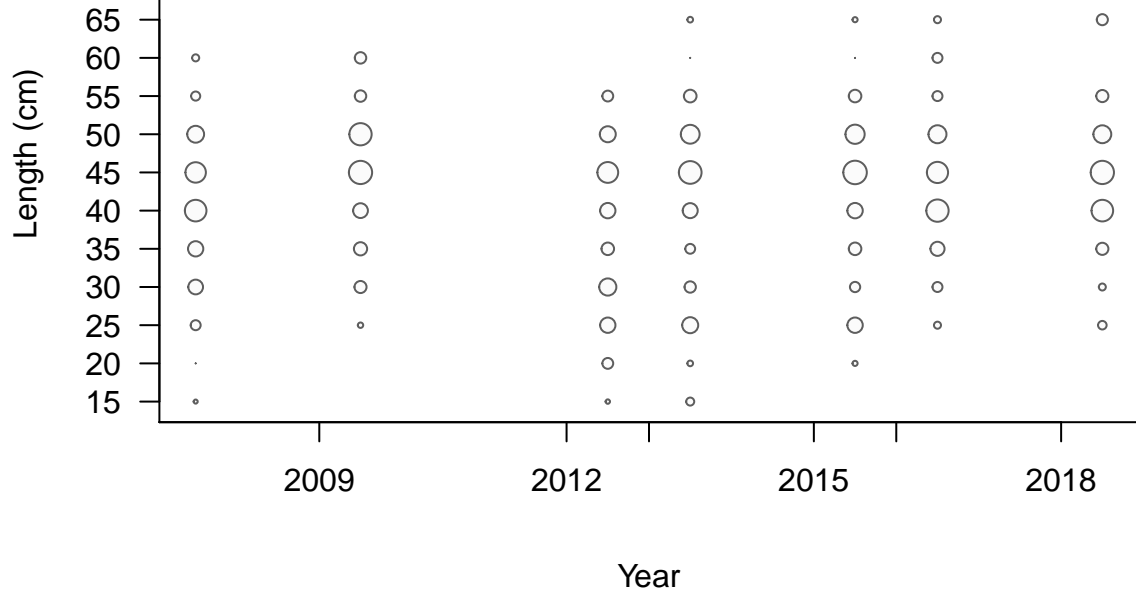




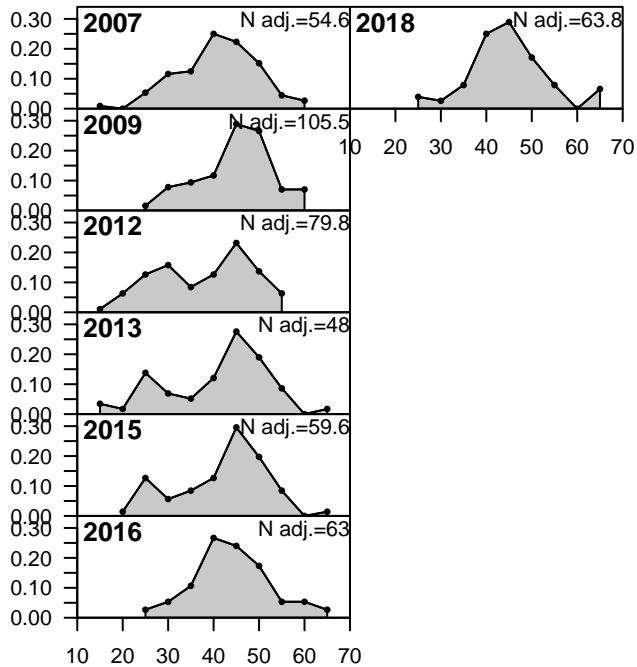


# FISHERY

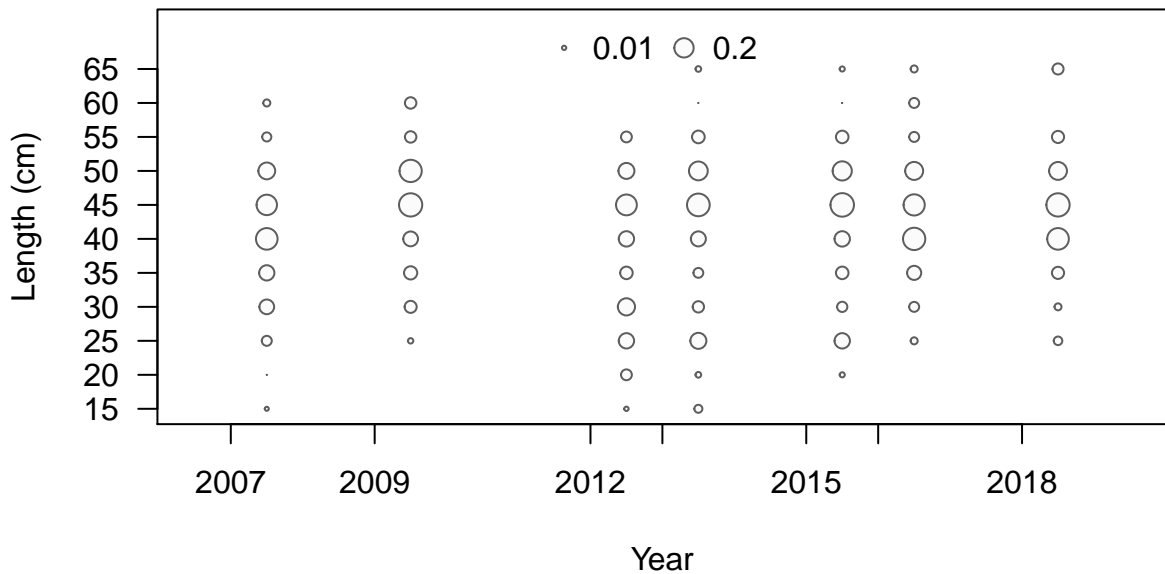
• 0.01 ○ 0.2



Proportion

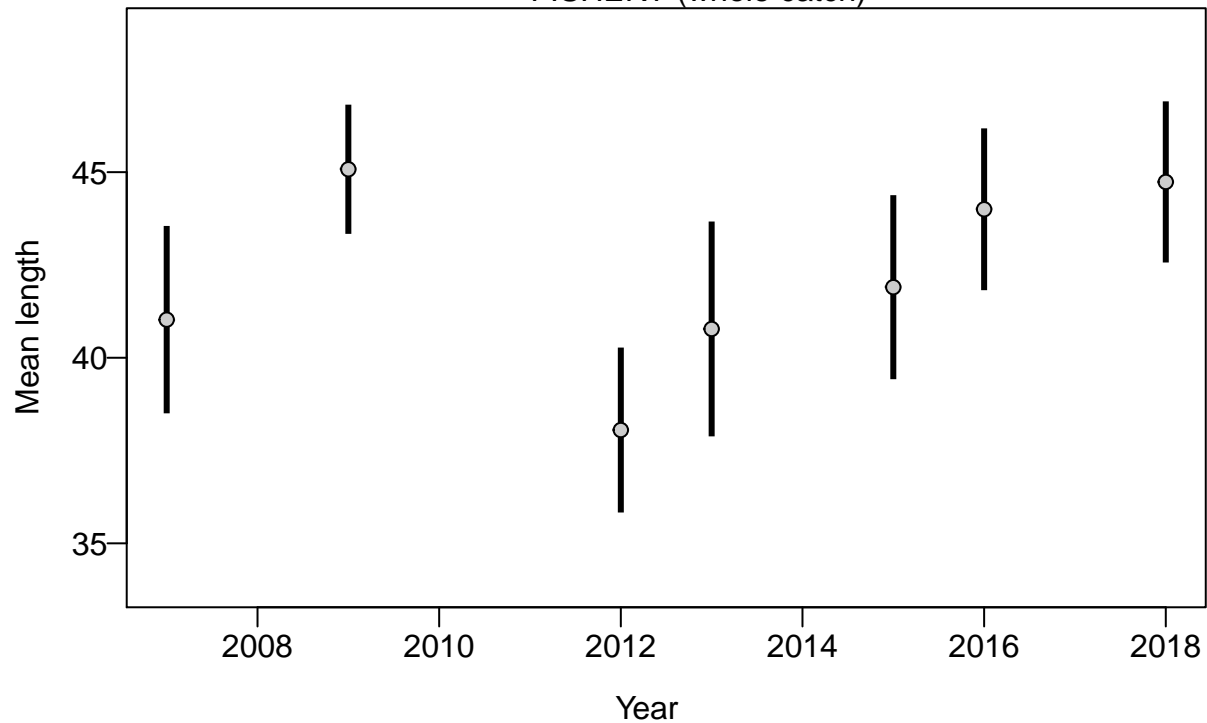


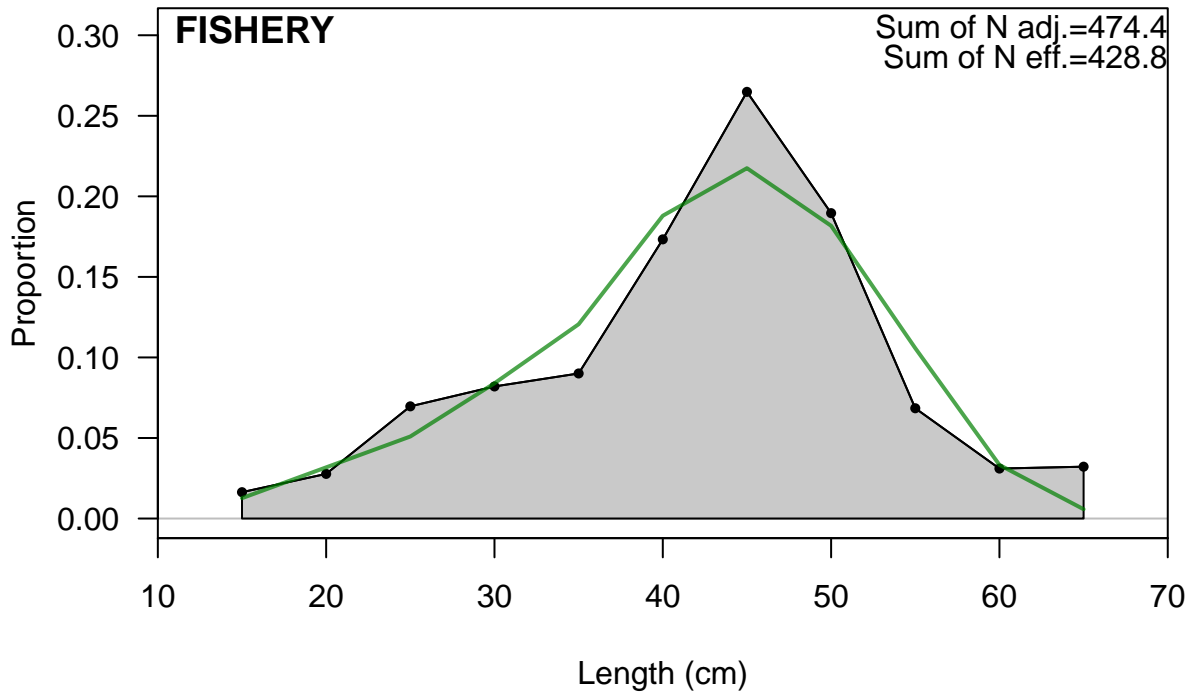
Length (cm)





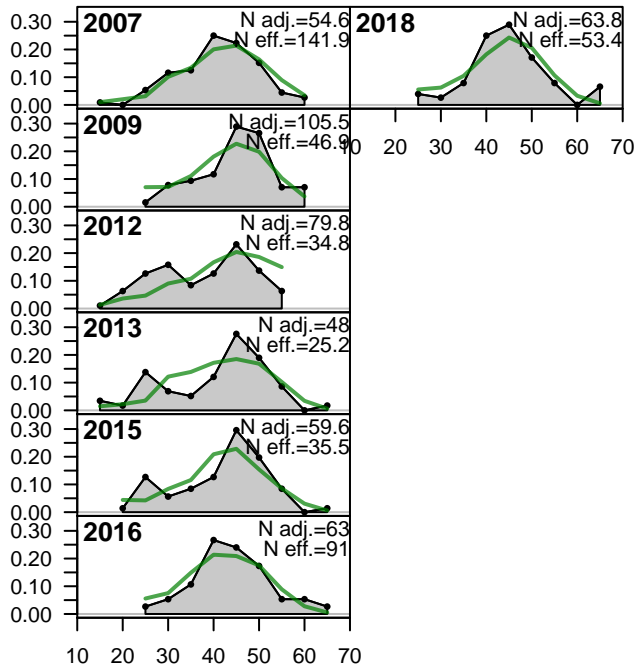
# FISHERY (whole catch)



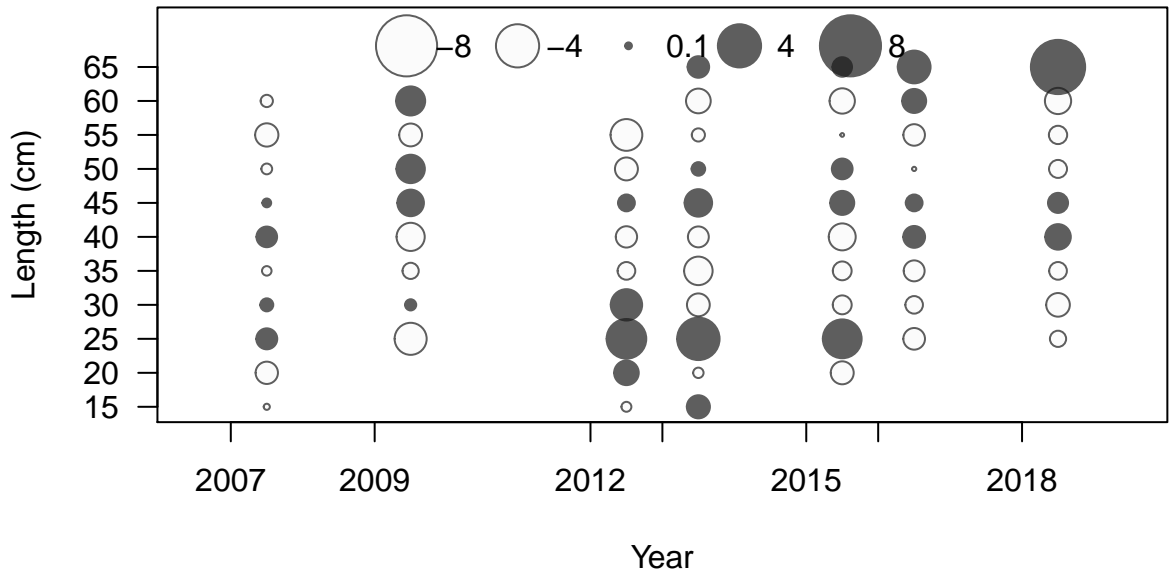




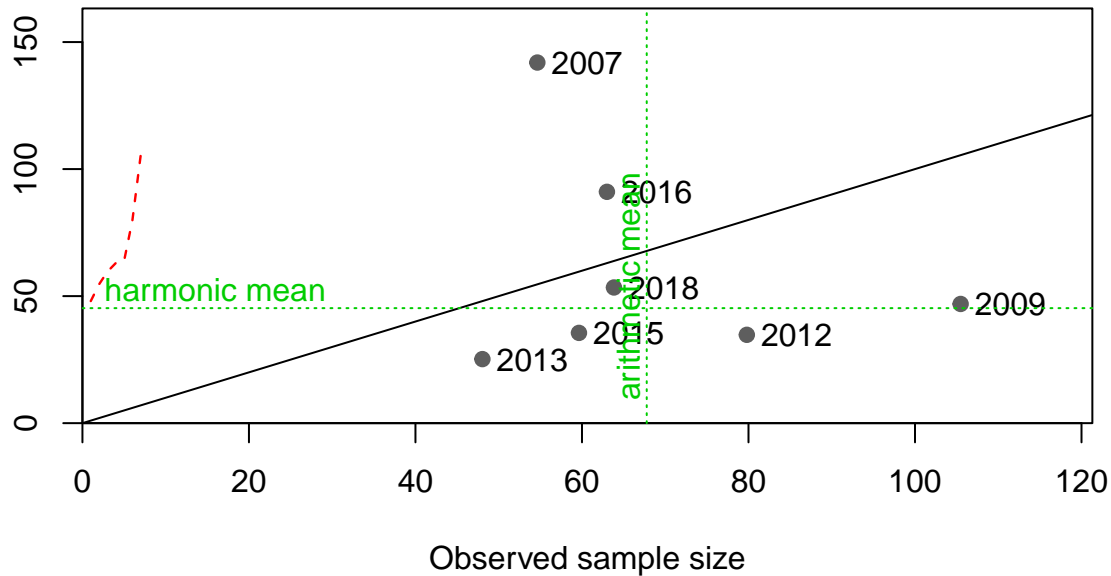
Proportion



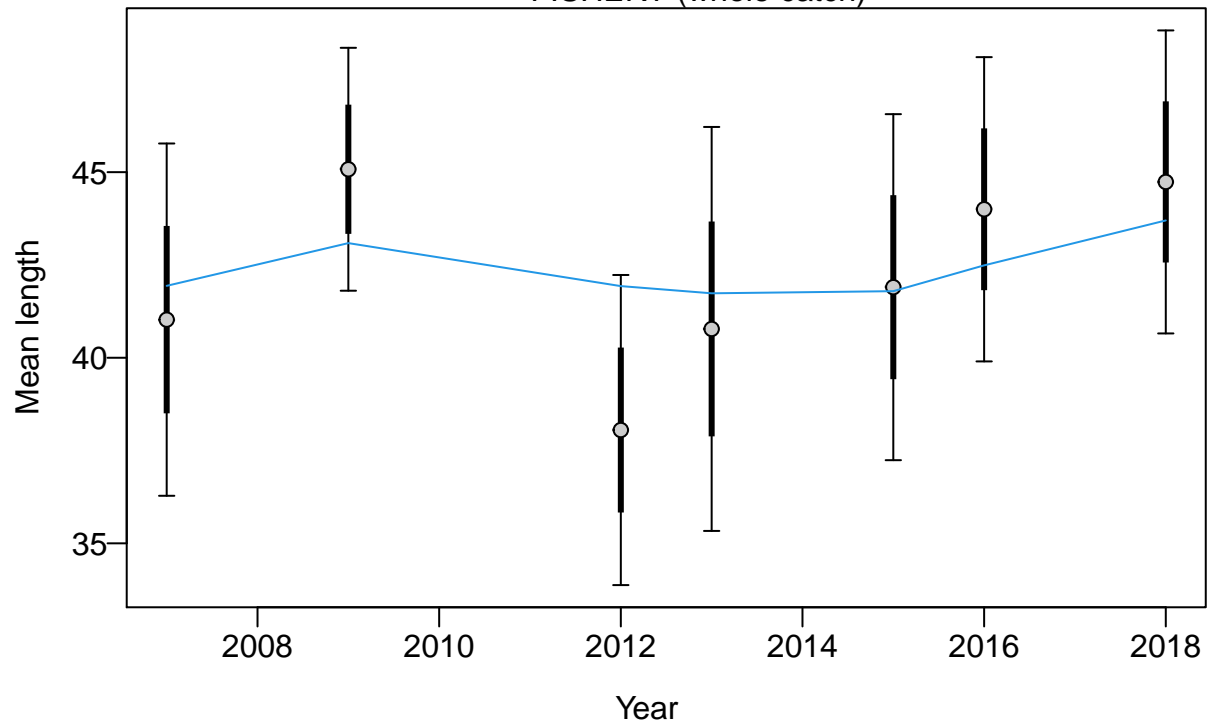
Length (cm)

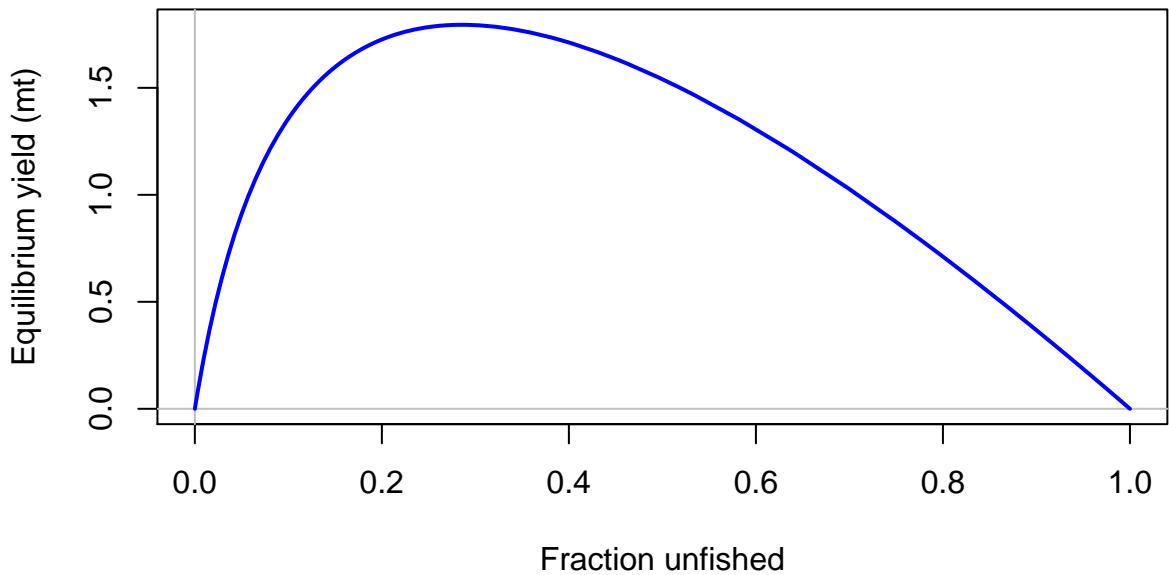


Effective sample size

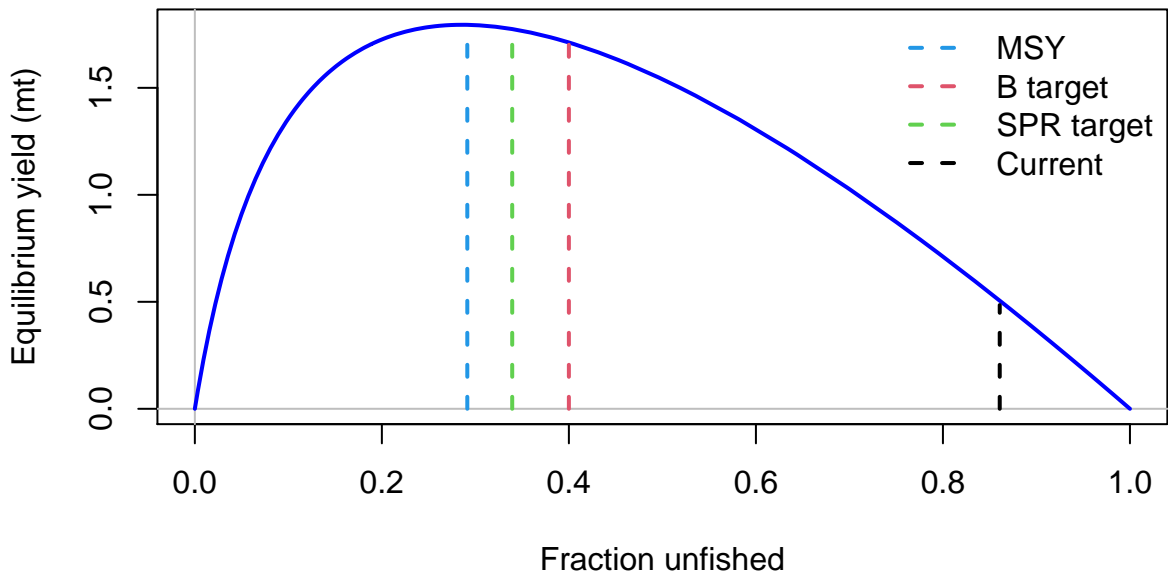


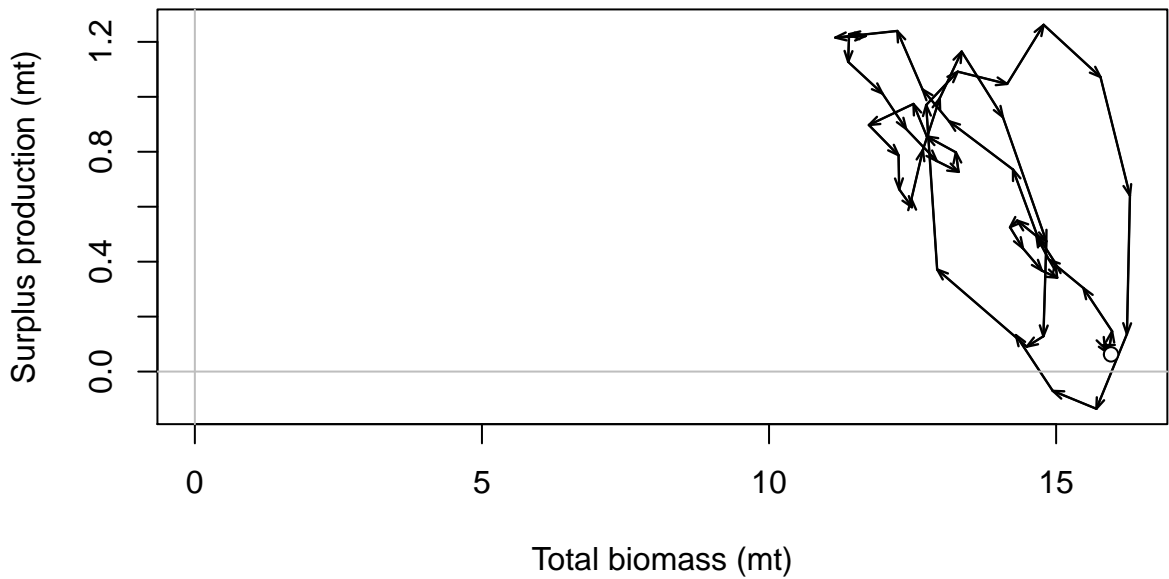
## FISHERY (whole catch)

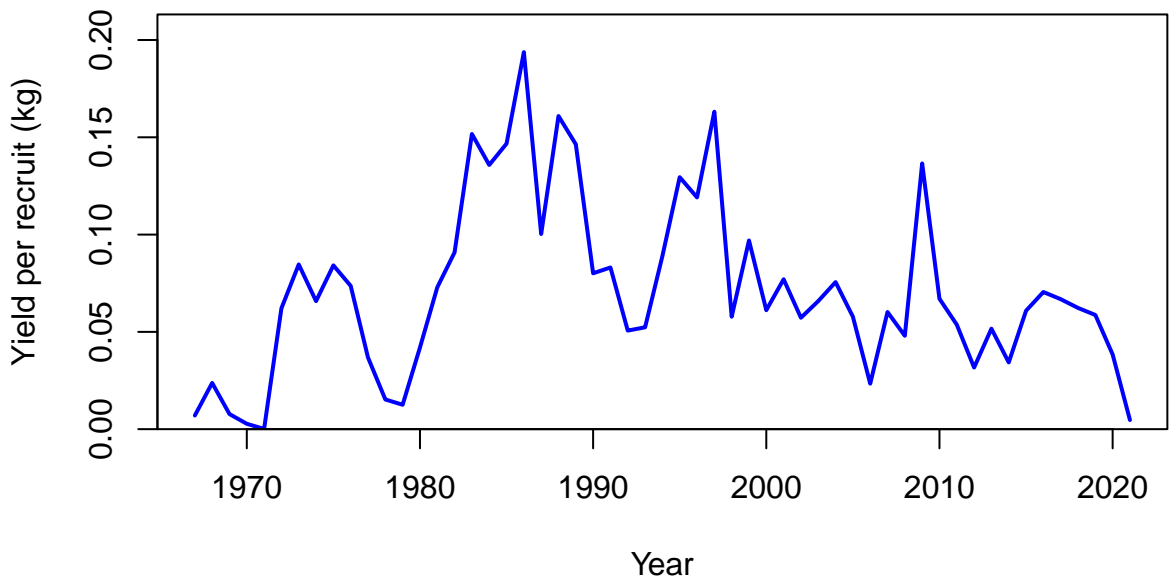


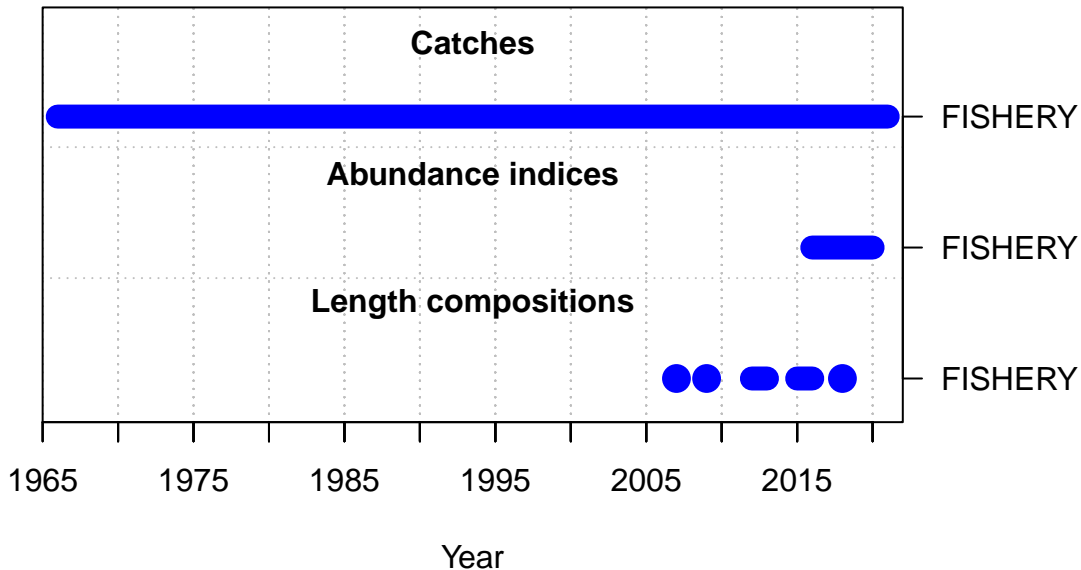


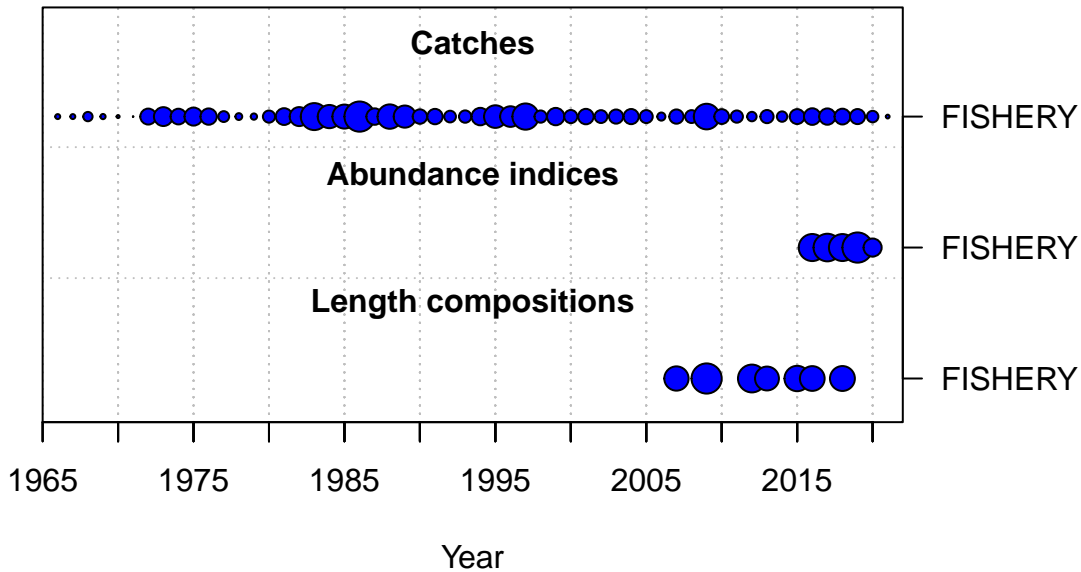




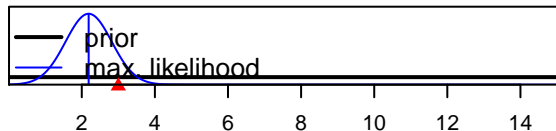




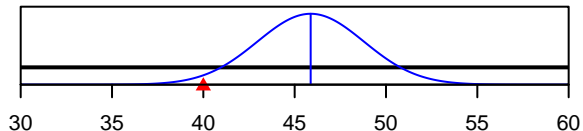




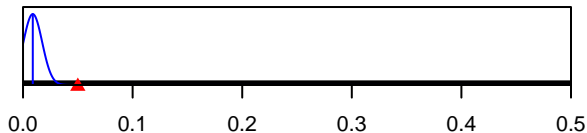
SR\_LN(R0)



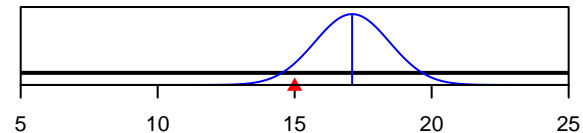
Size\_inflection\_FISHERY(1)



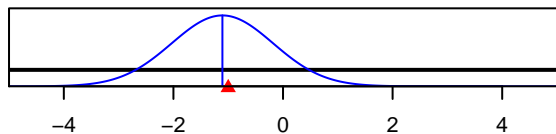
InitF\_seas\_1\_flt\_1FISHERY



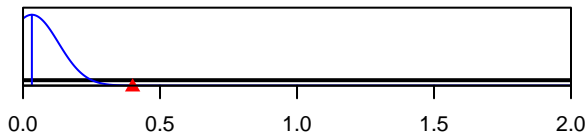
Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



Q\_extraSD\_FISHERY(1)



Parameter value