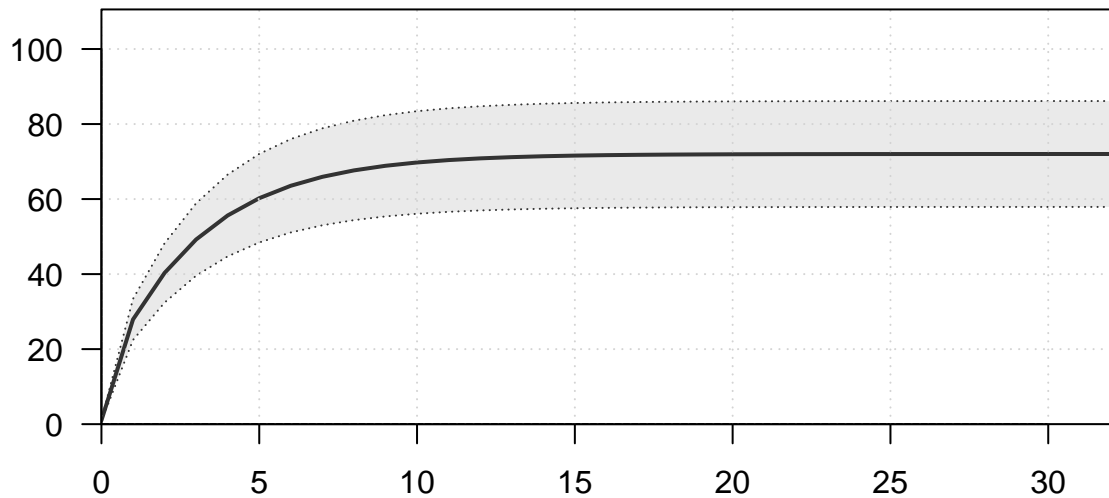


Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Tue Jul 12 10:05:27 2022  
Data\_File: data.ss  
Control\_File: control.ss

Length (cm, beginning of the year)



Age (yr)

















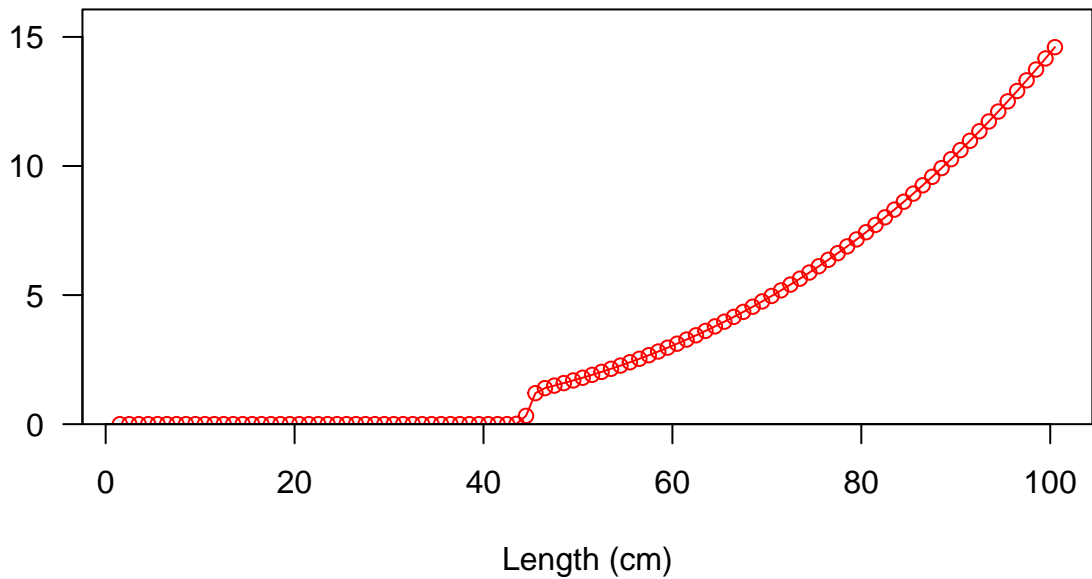
Fecundity



Fecundity

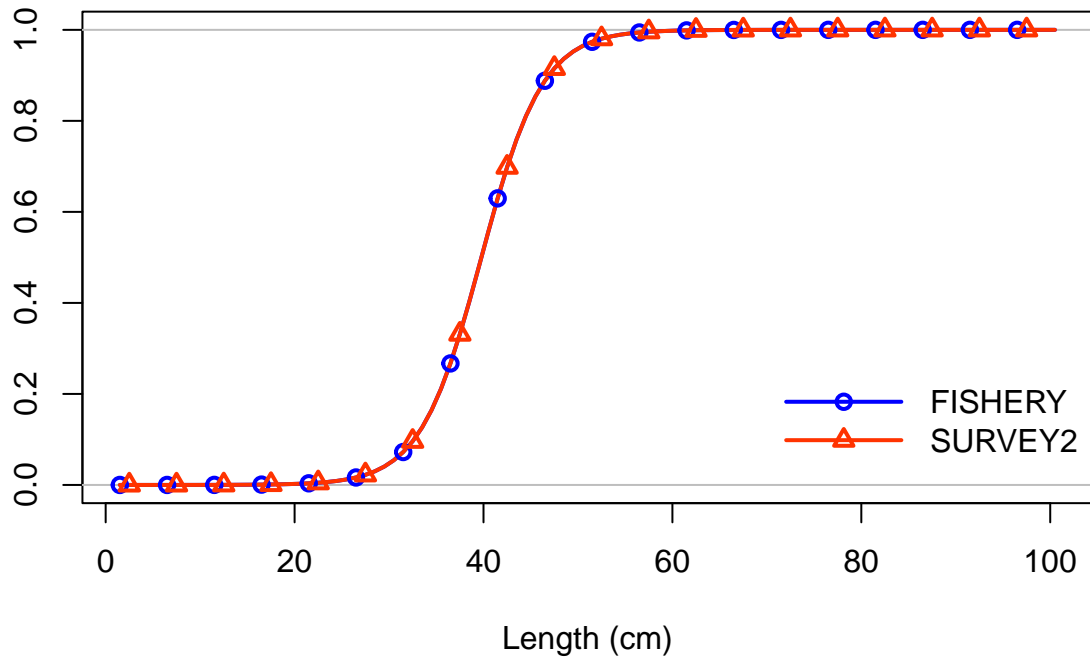


Spawning output

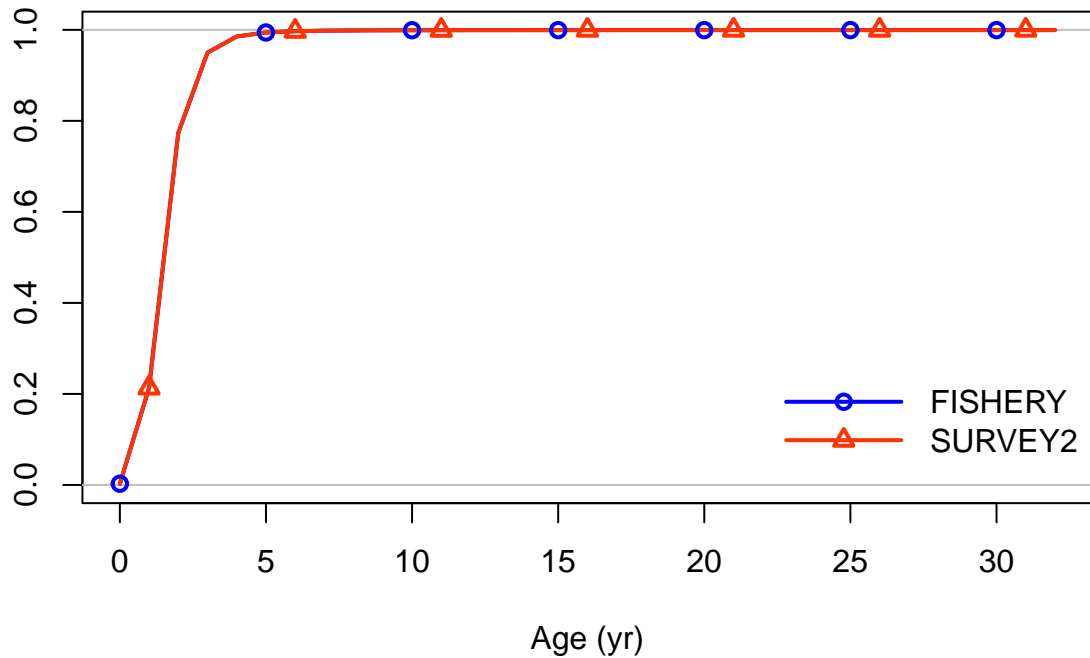




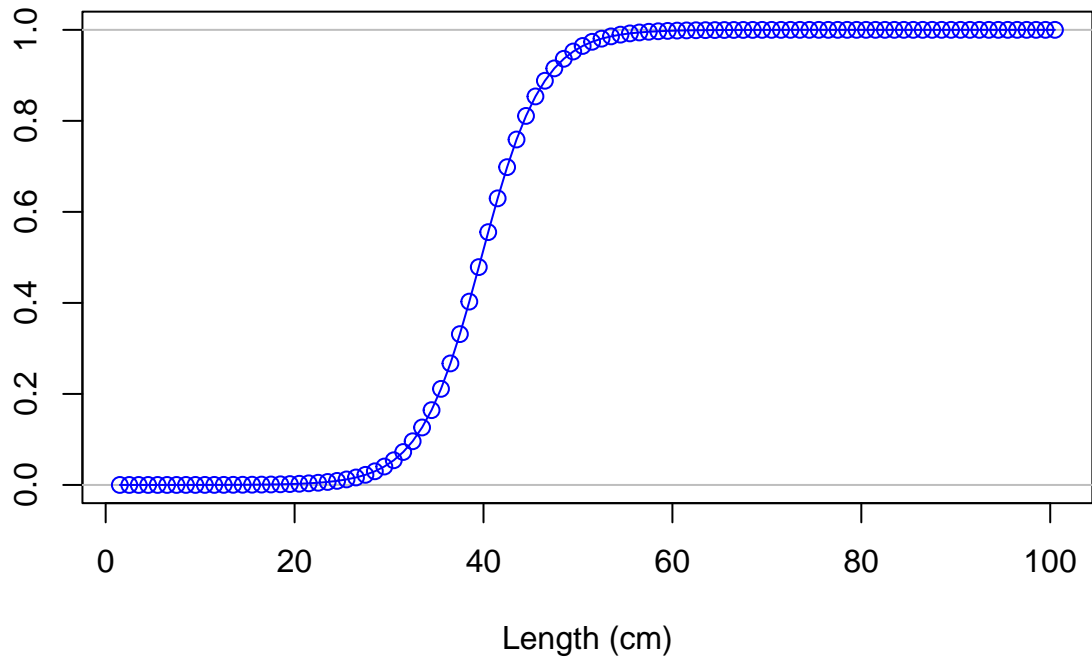
Selectivity



Selectivity

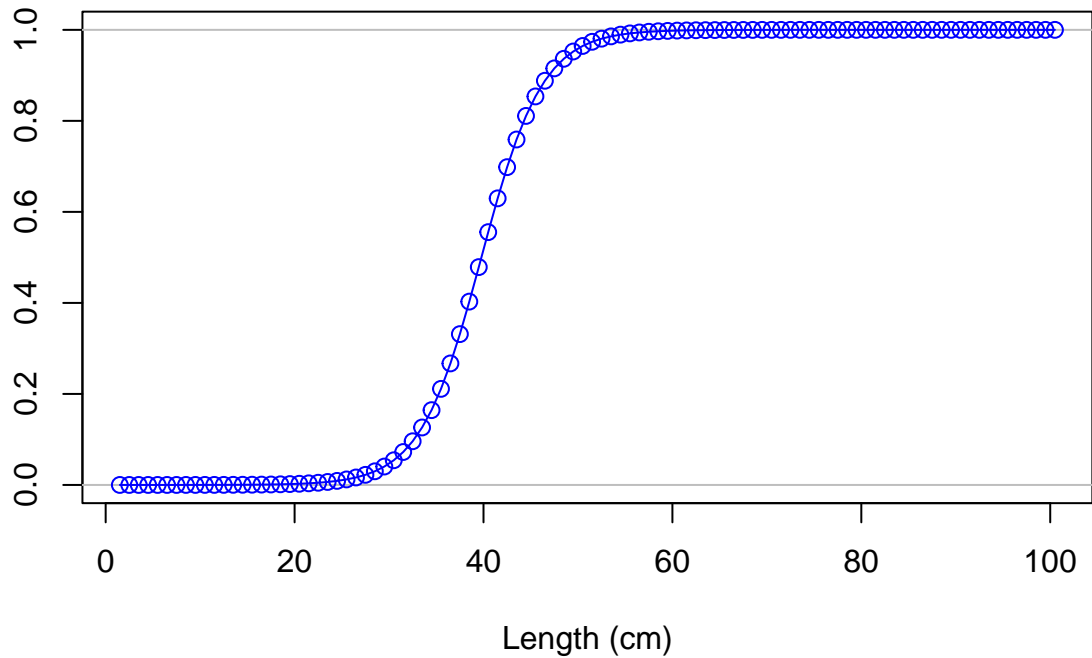


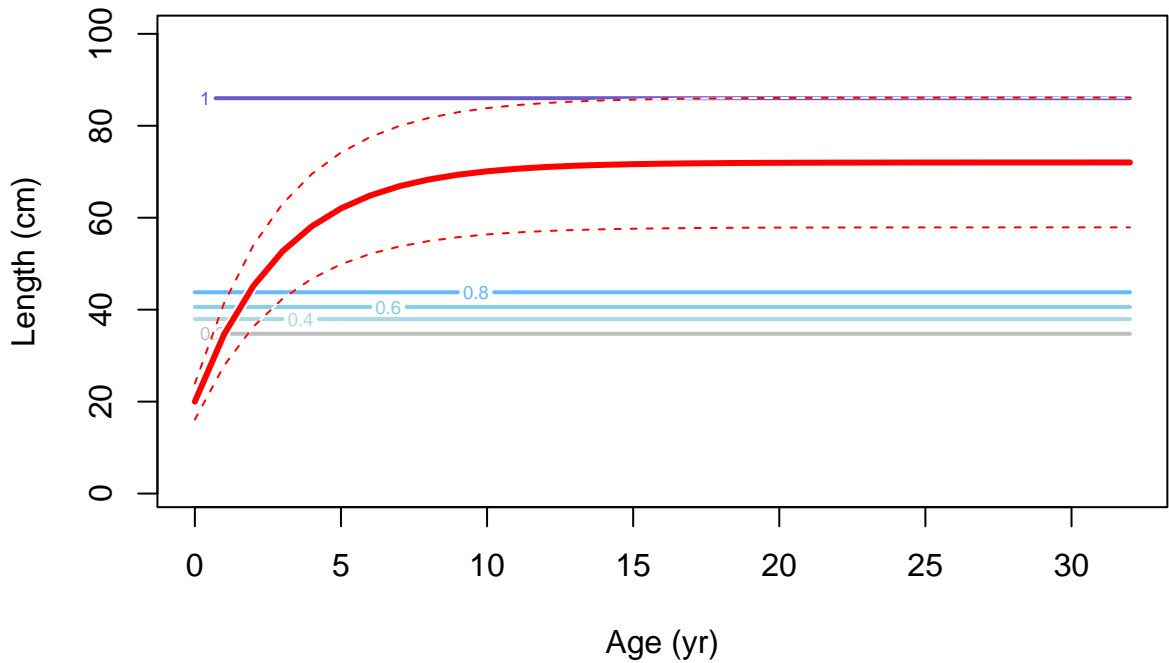
Selectivity

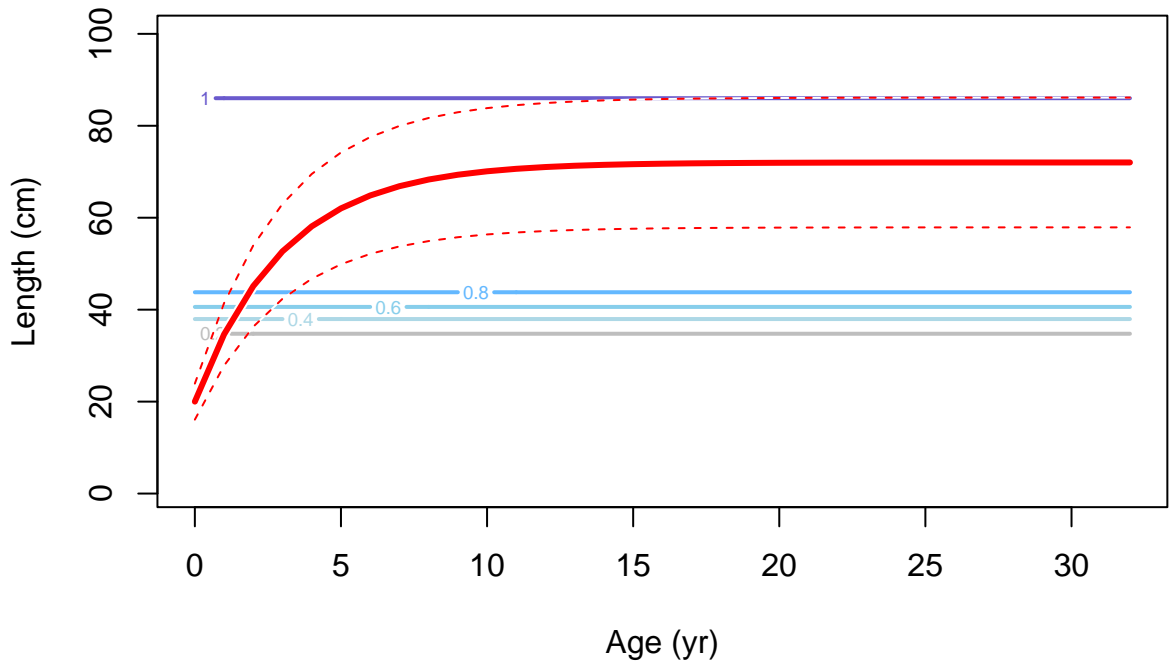


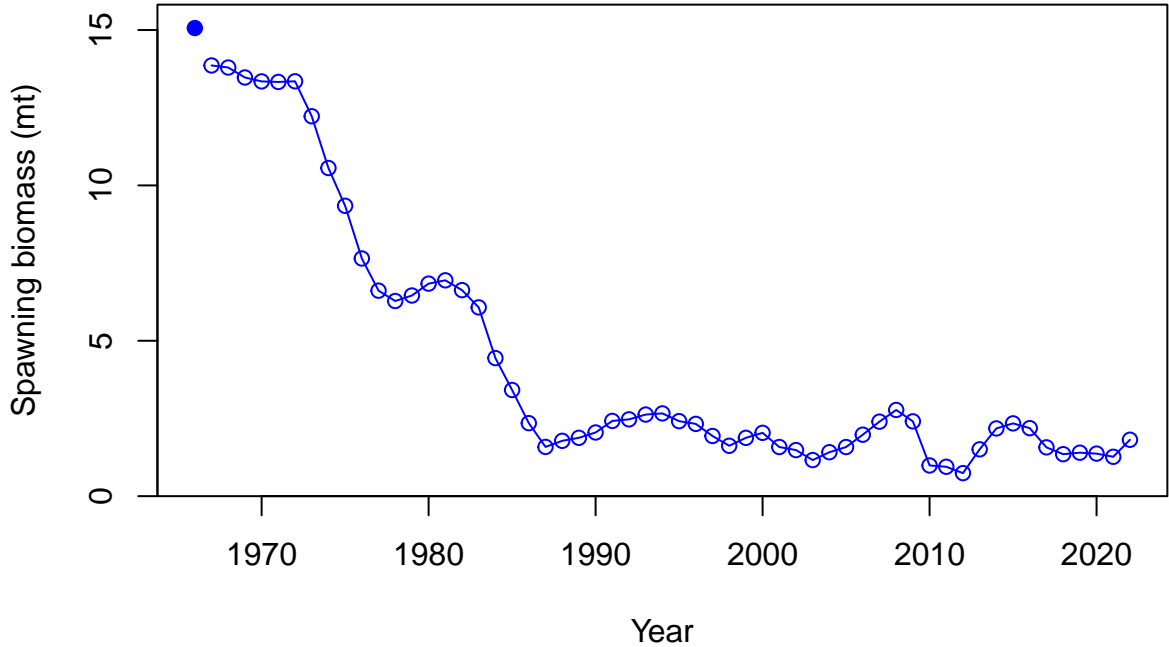


Selectivity

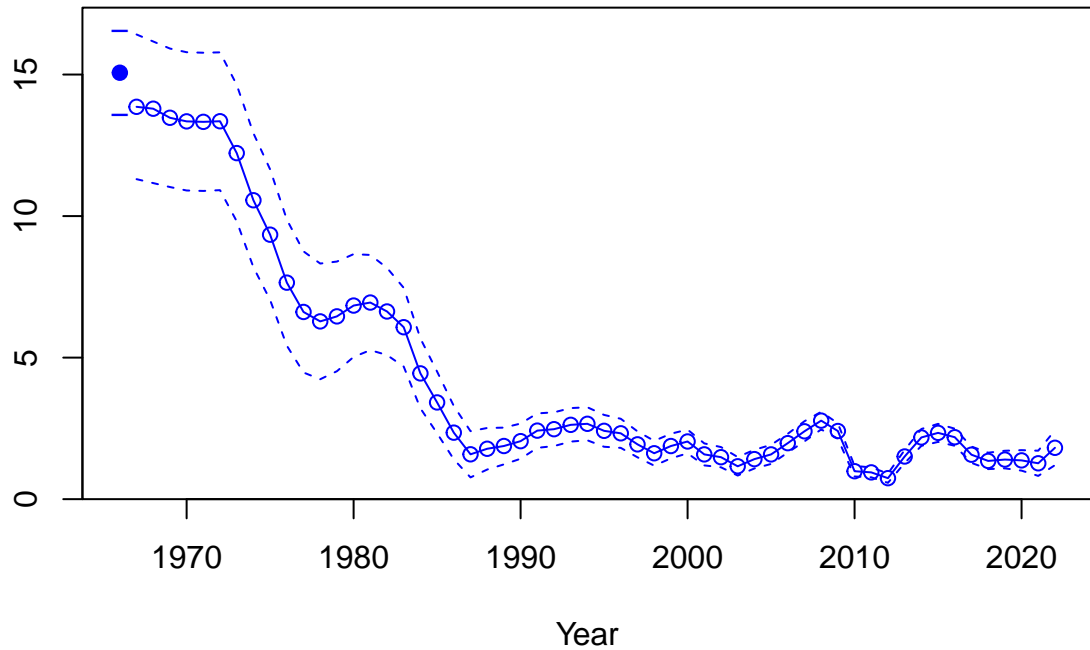




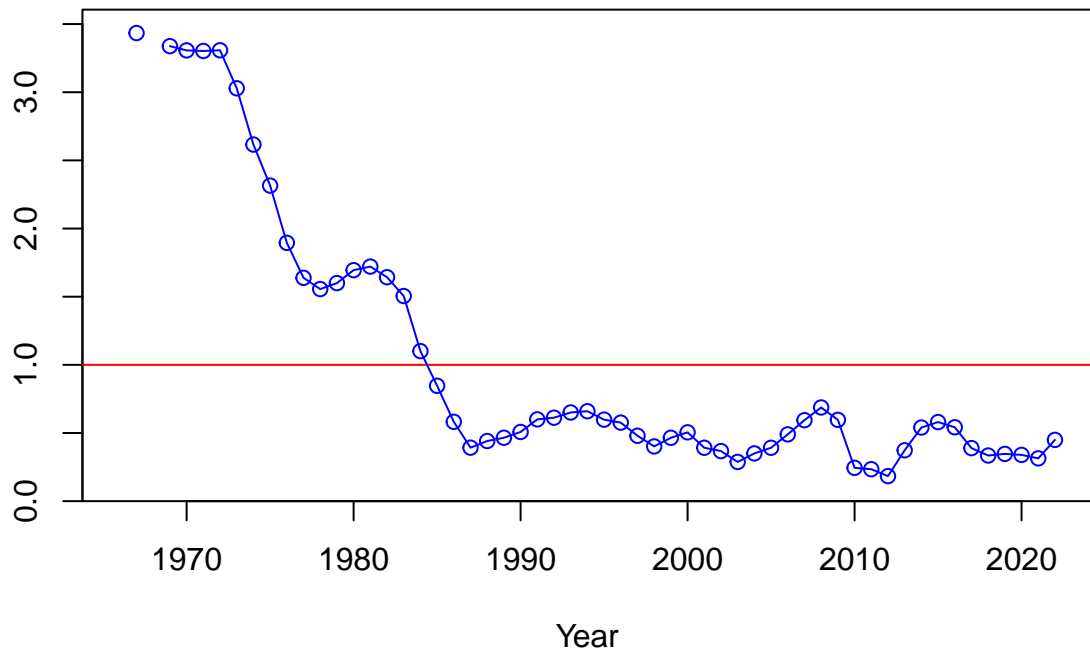




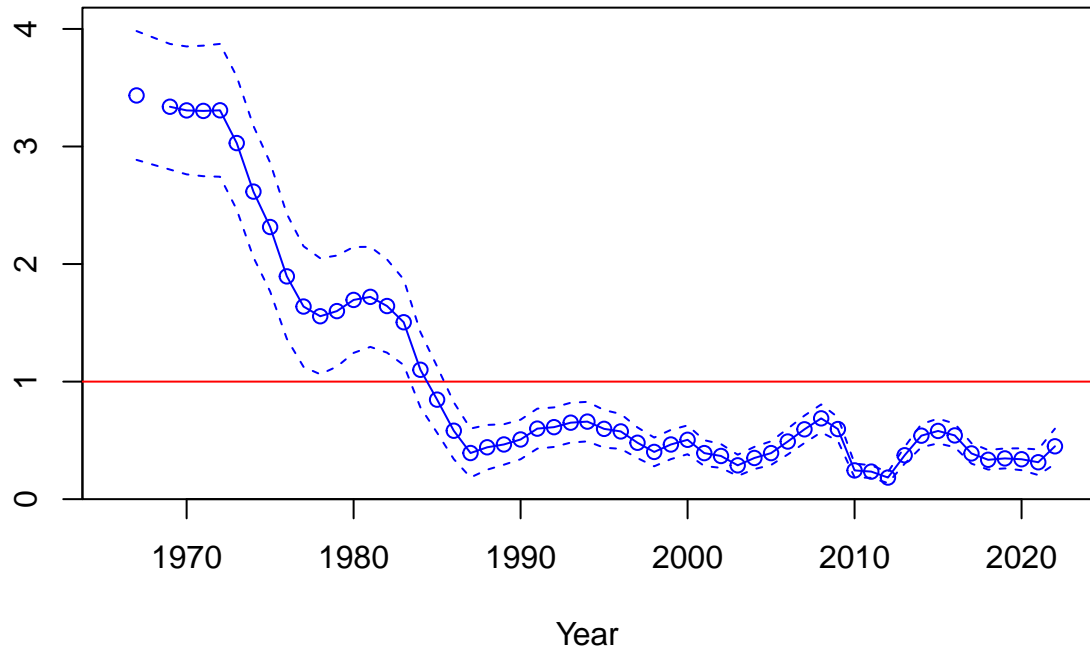
Spawning biomass (mt)

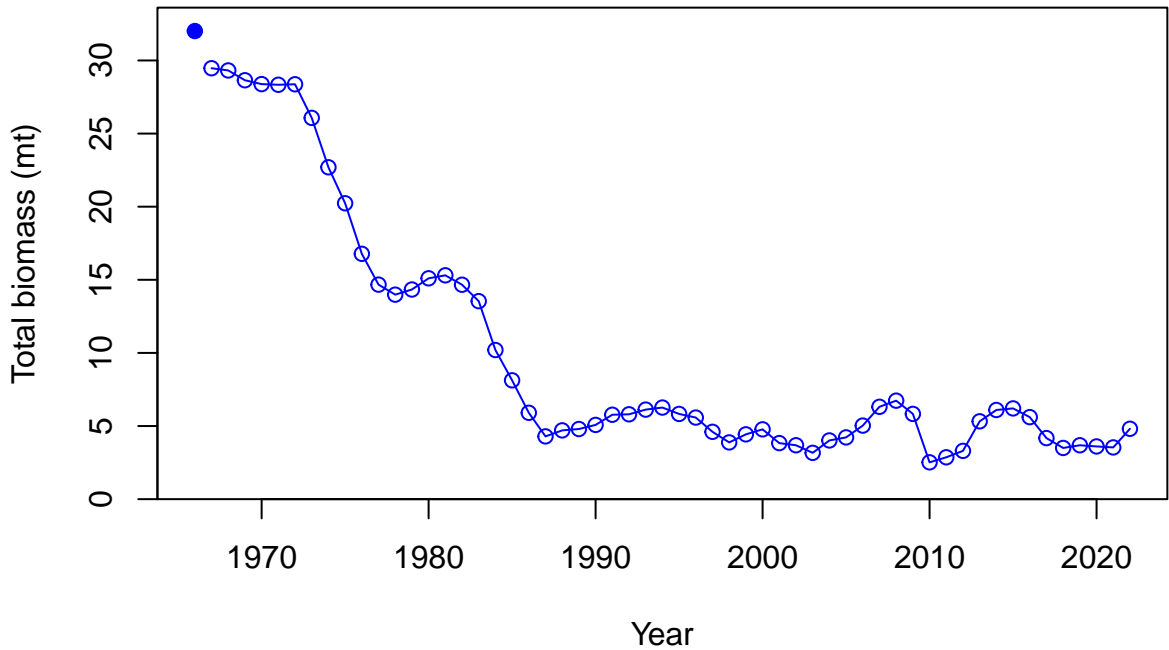


Relative spawning biomass:  $B/B_{MSY}$

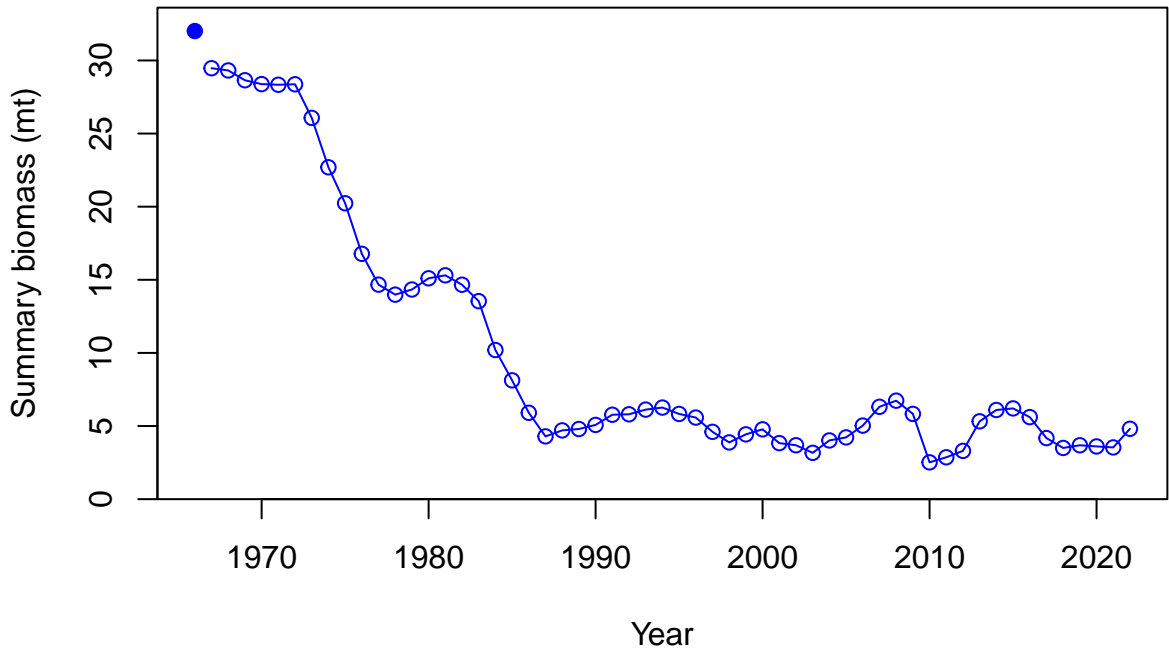


Relative spawning biomass:  $B/B_{MSY}$

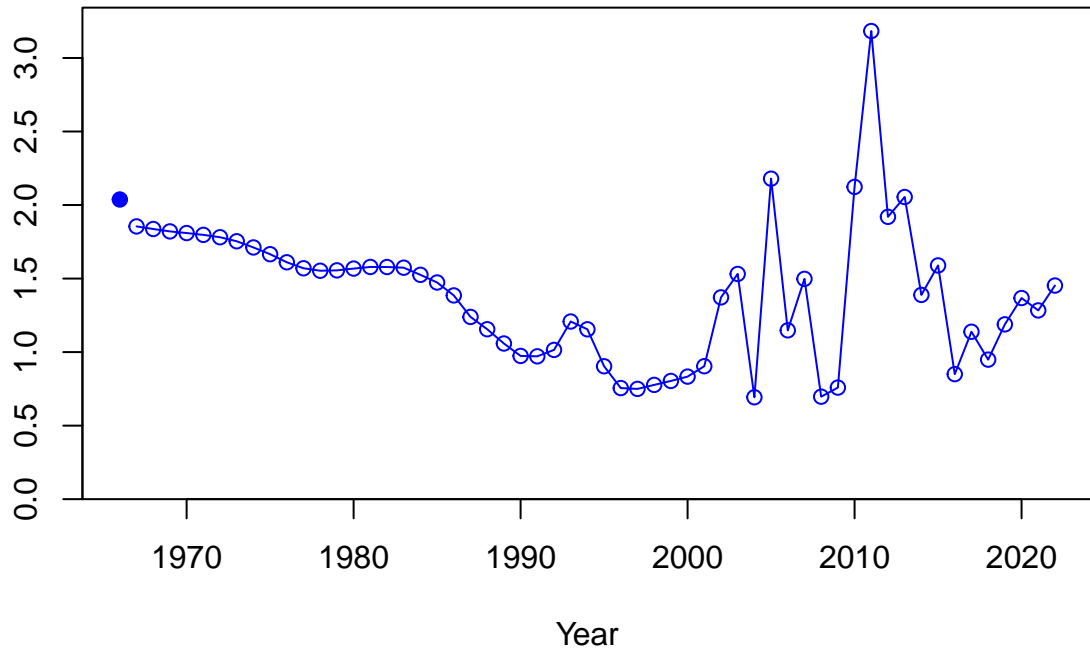




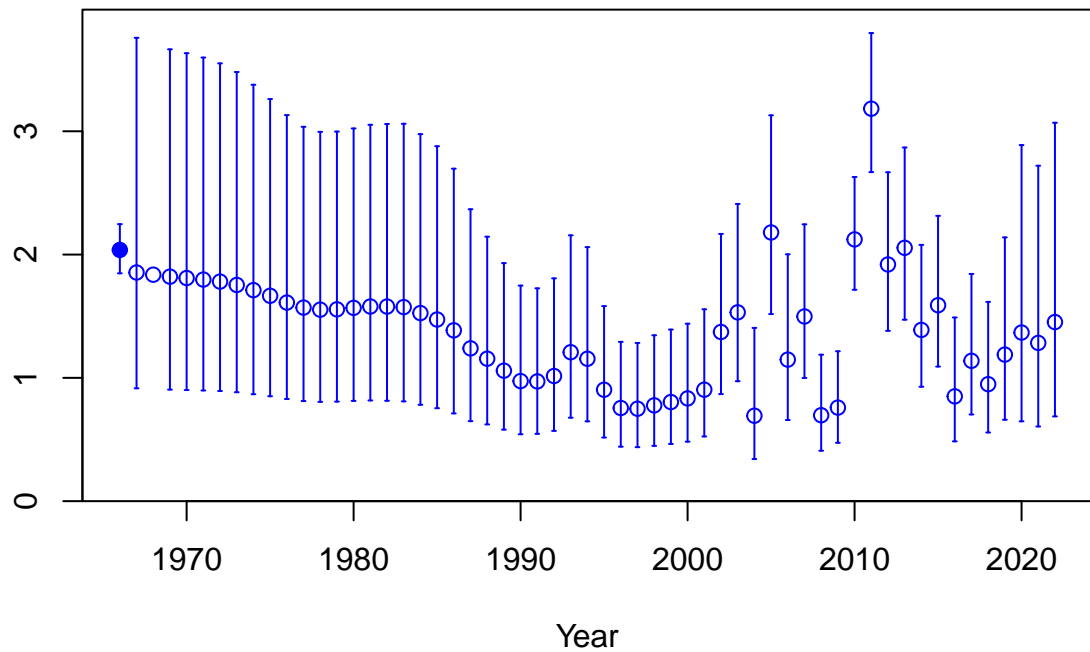




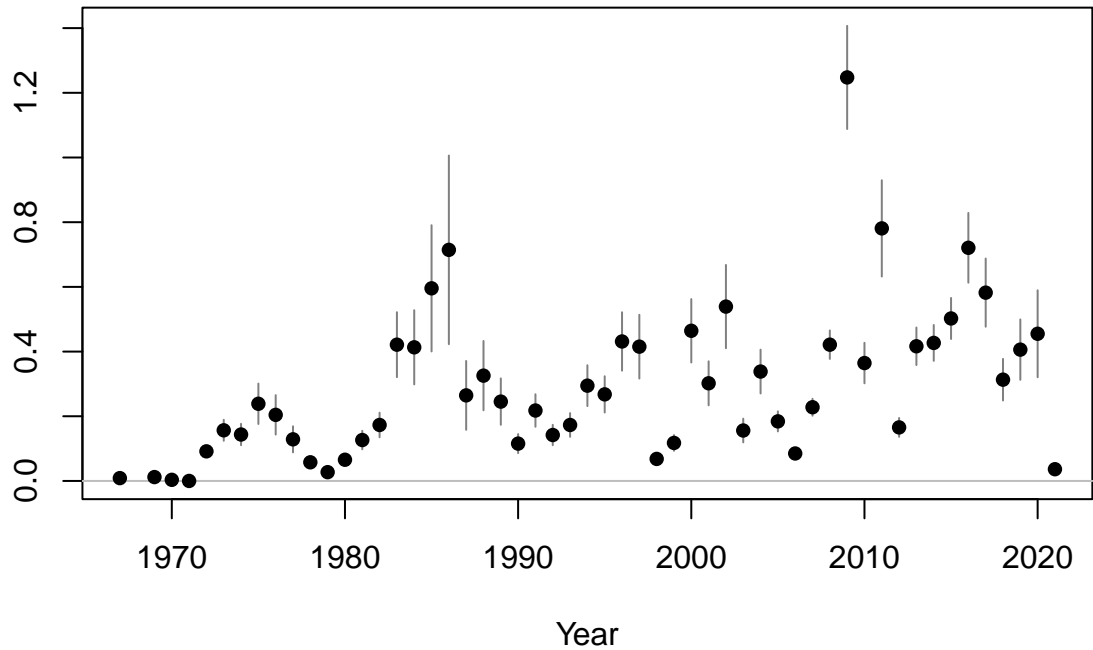
Age-0 recruits (1,000s)

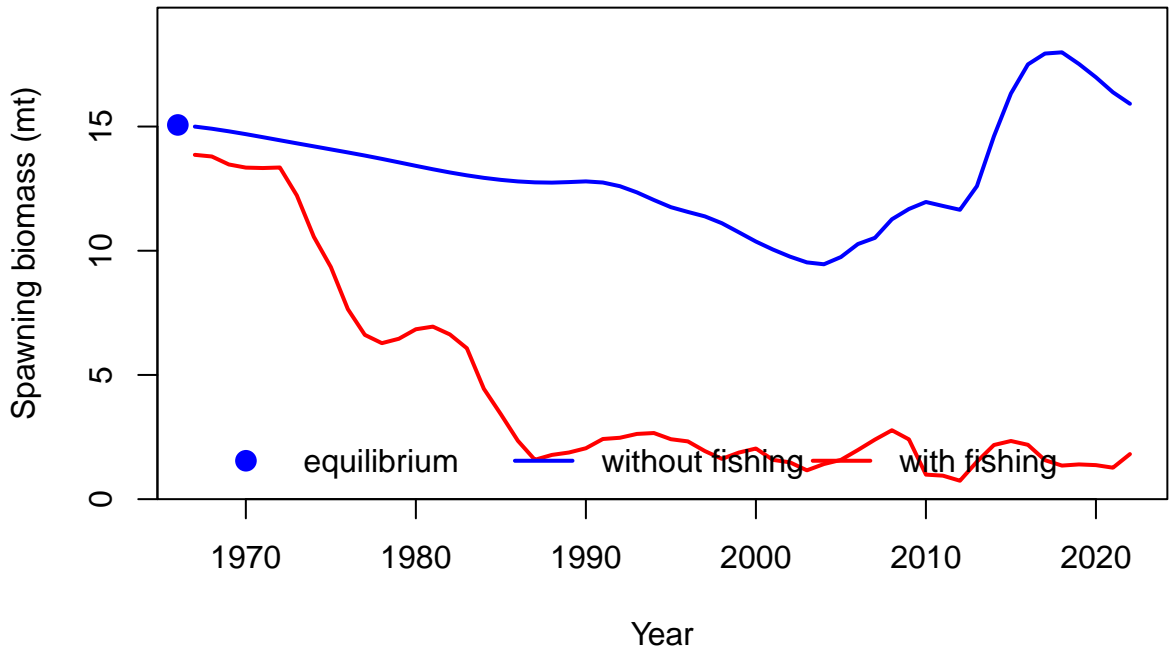


Age-0 recruits (1,000s)

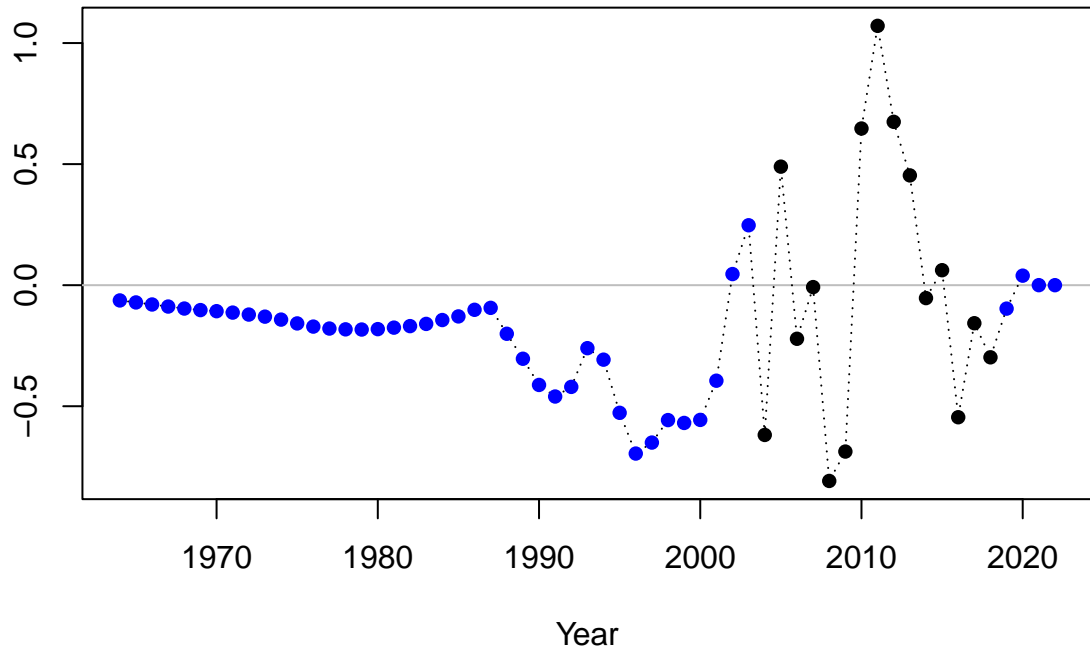


Summary Fishing Mortality





Log recruitment deviation



Log recruitment deviation

1.0  
0.5  
0.0  
-0.5  
-1.0

1970

1980

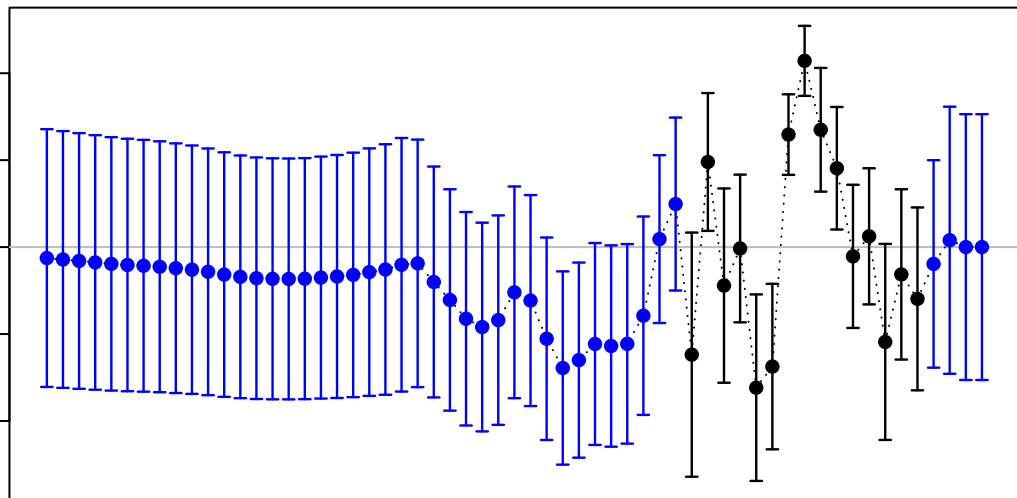
1990

2000

2010

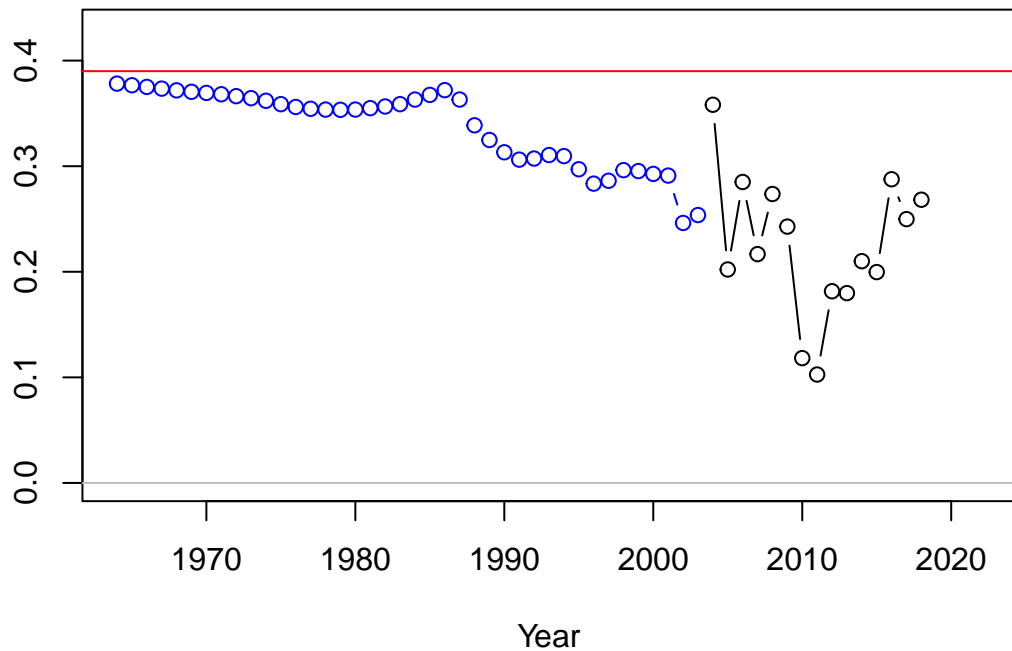
2020

Year

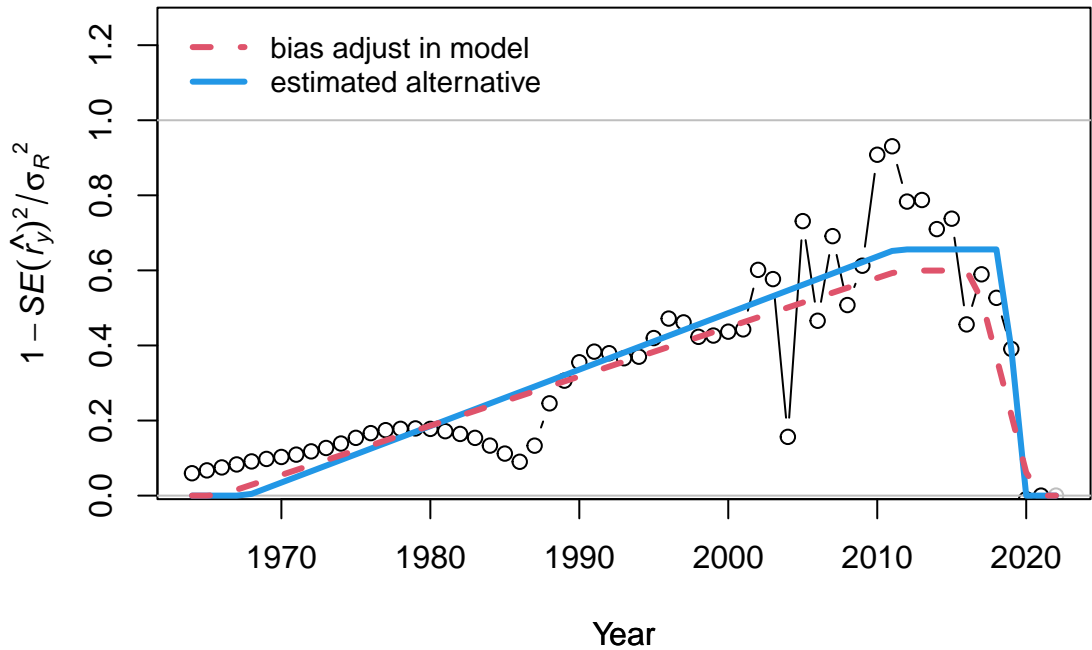


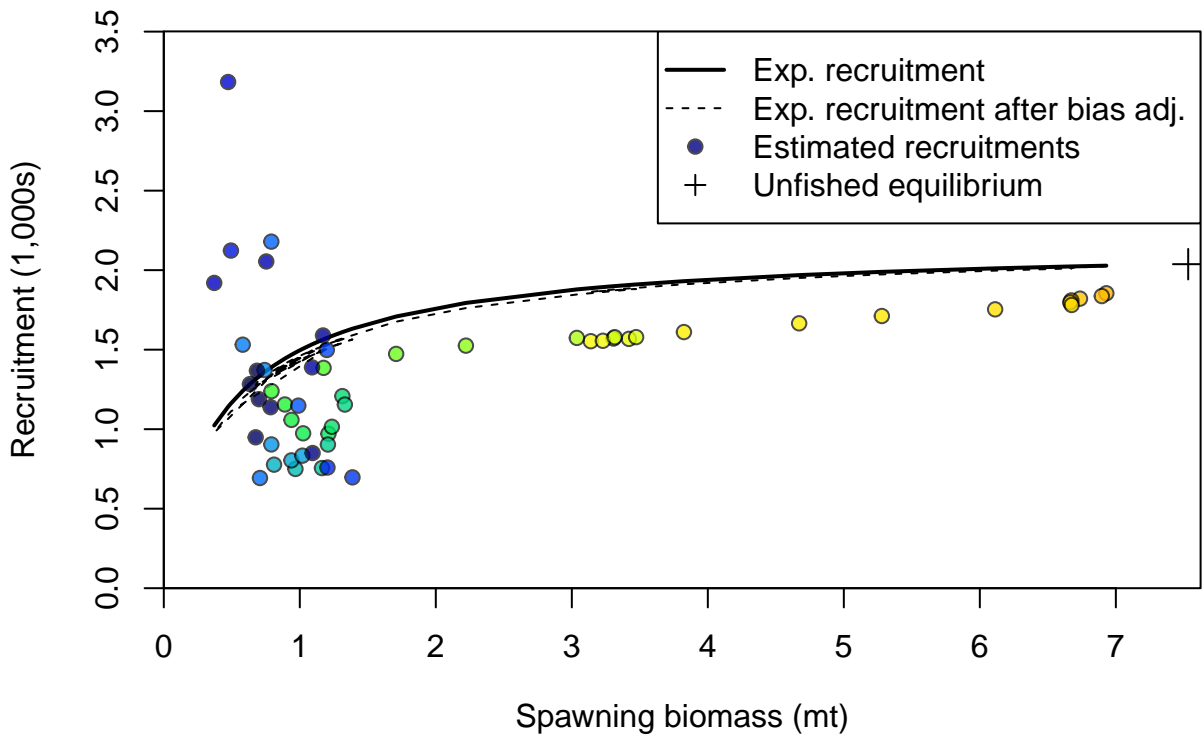
## Recruitment deviation variance

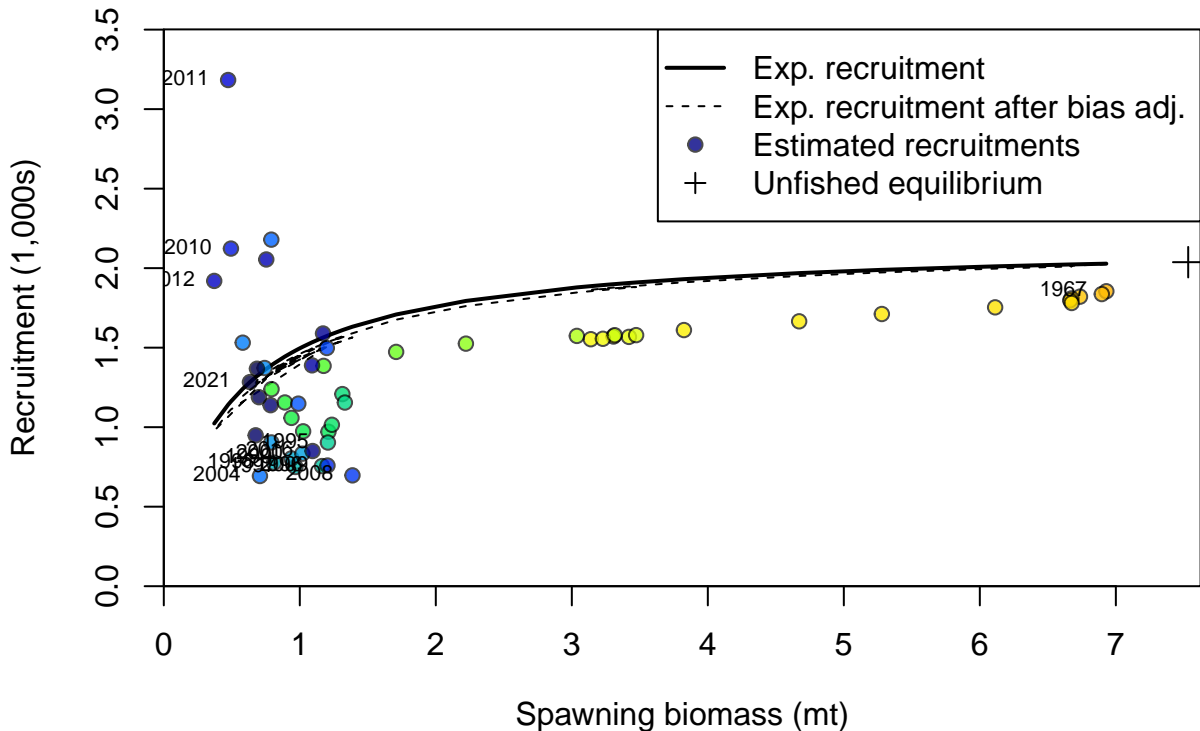
Asymptotic standard error estimate

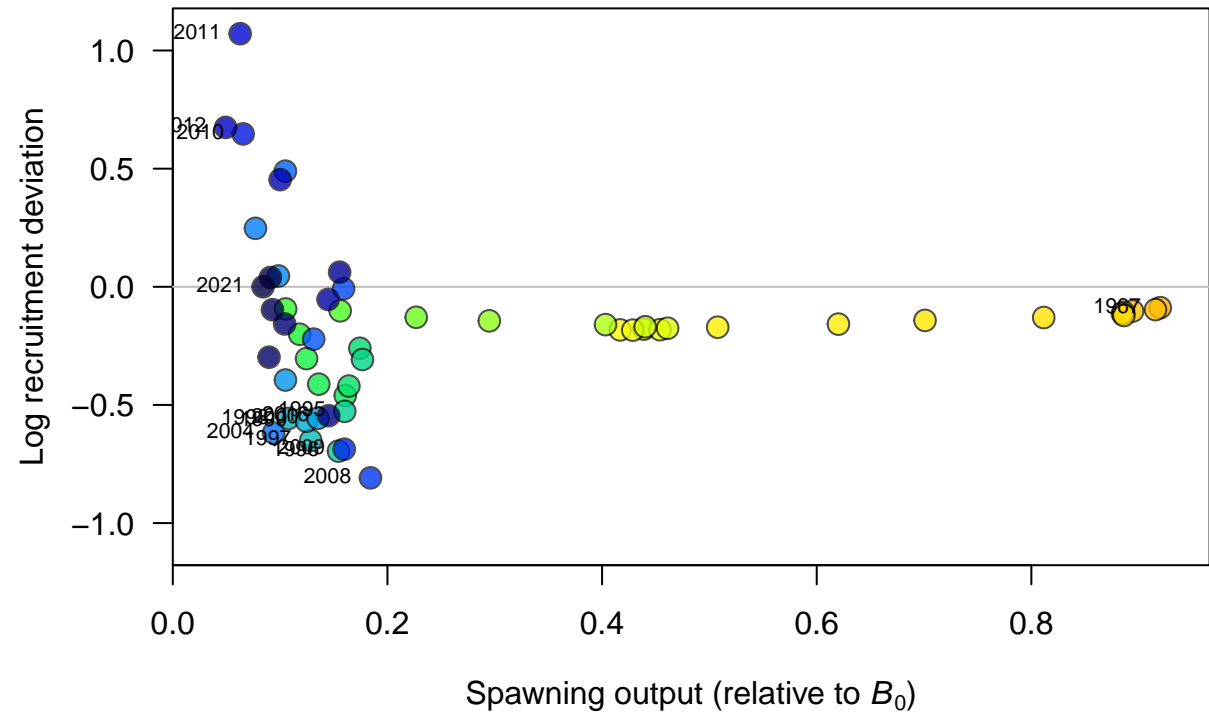


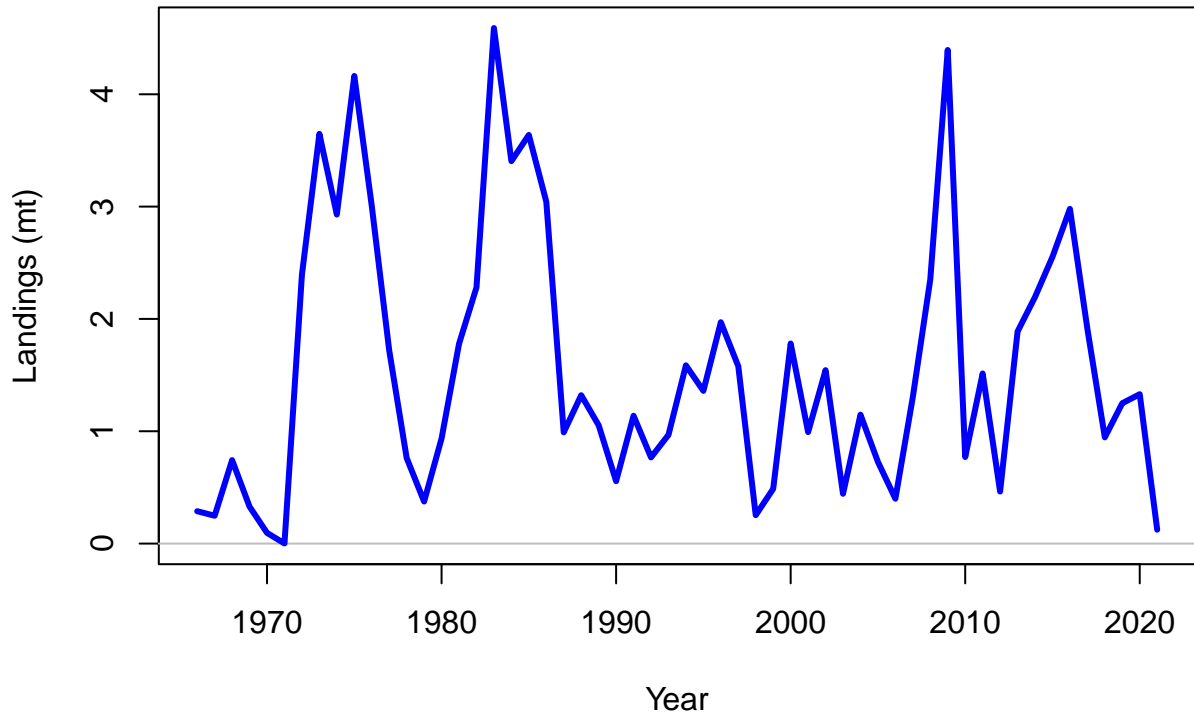


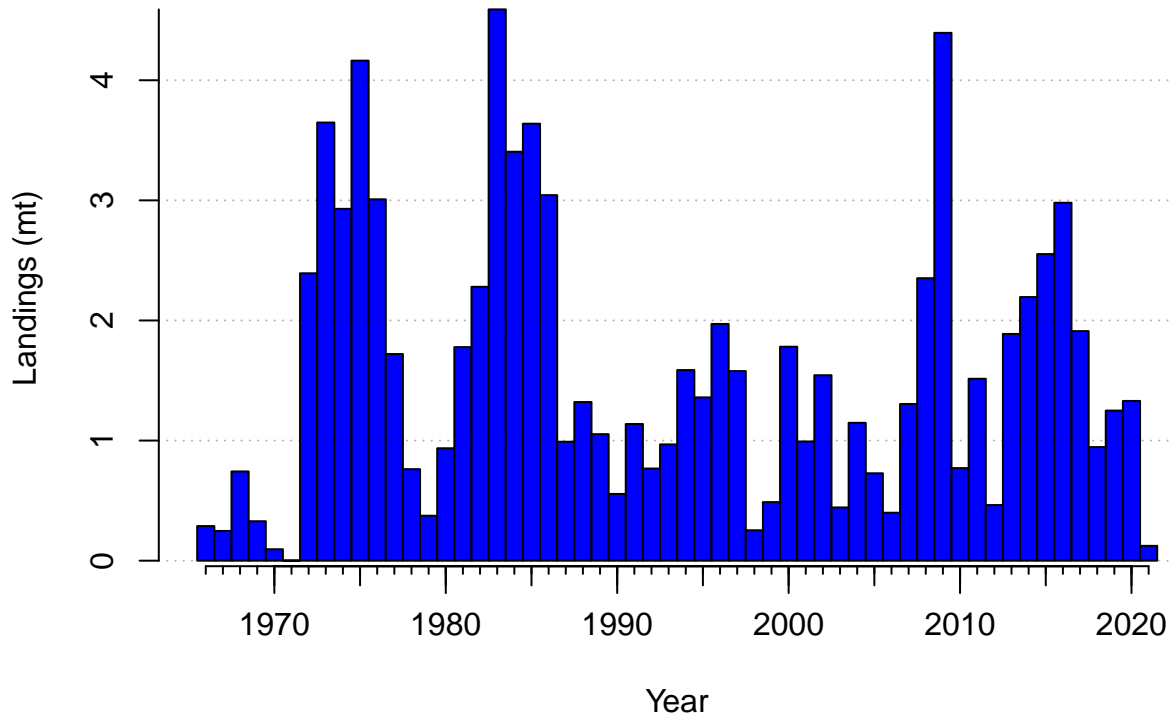












Observed and expected Landings (mt)

FISHERY  
FISHERY obs.

4  
3  
2  
1  
0

1970

1980

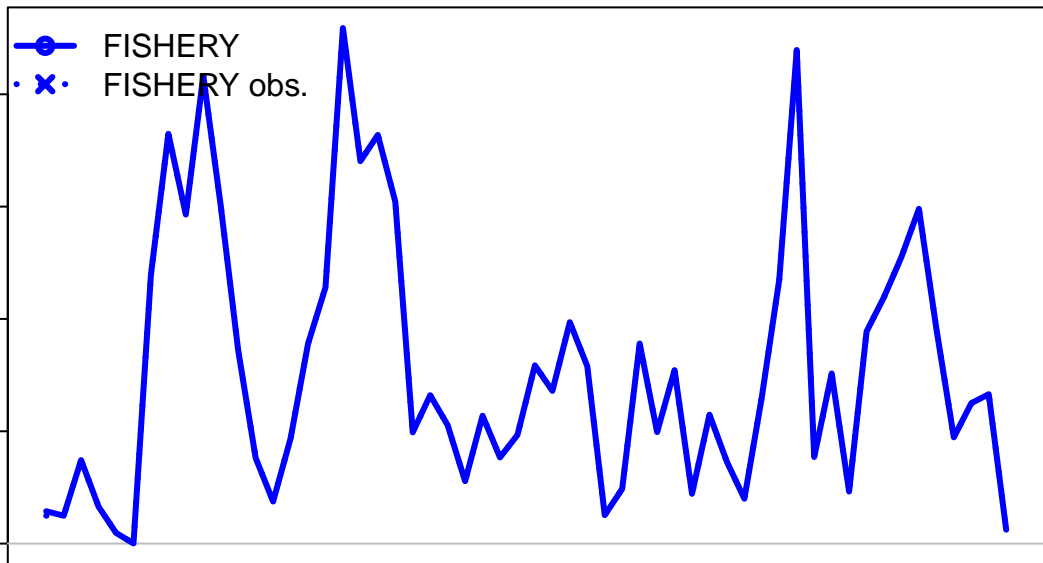
1990

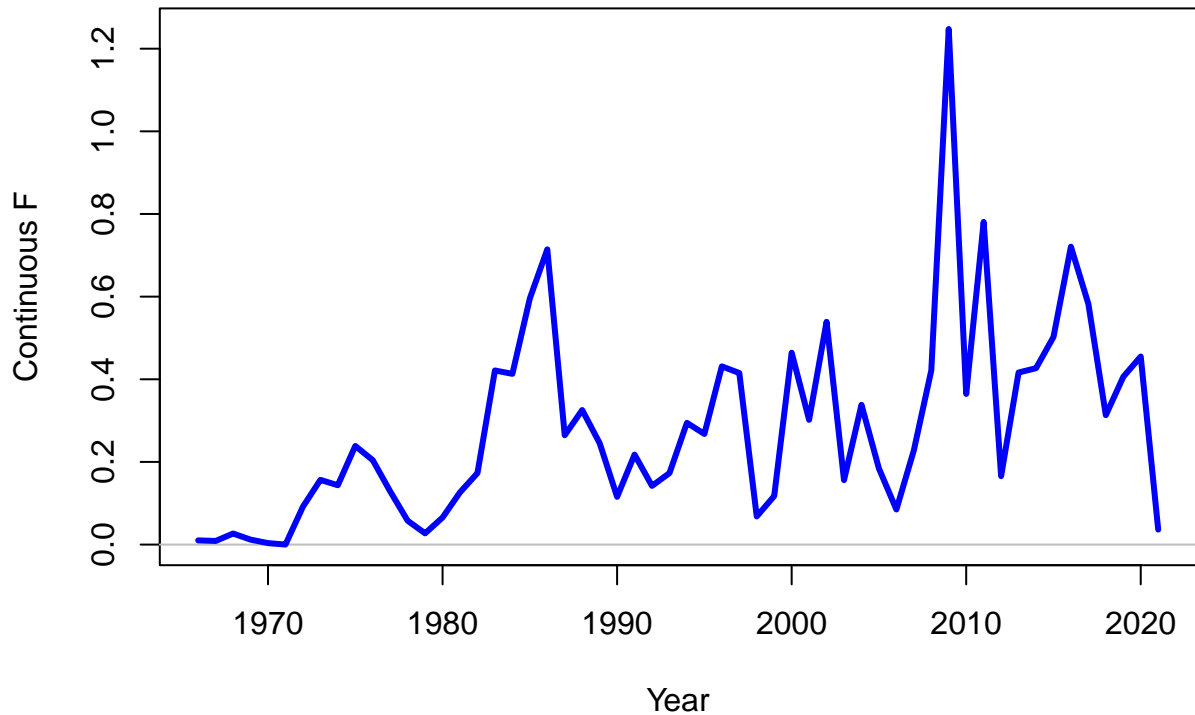
2000

2010

2020

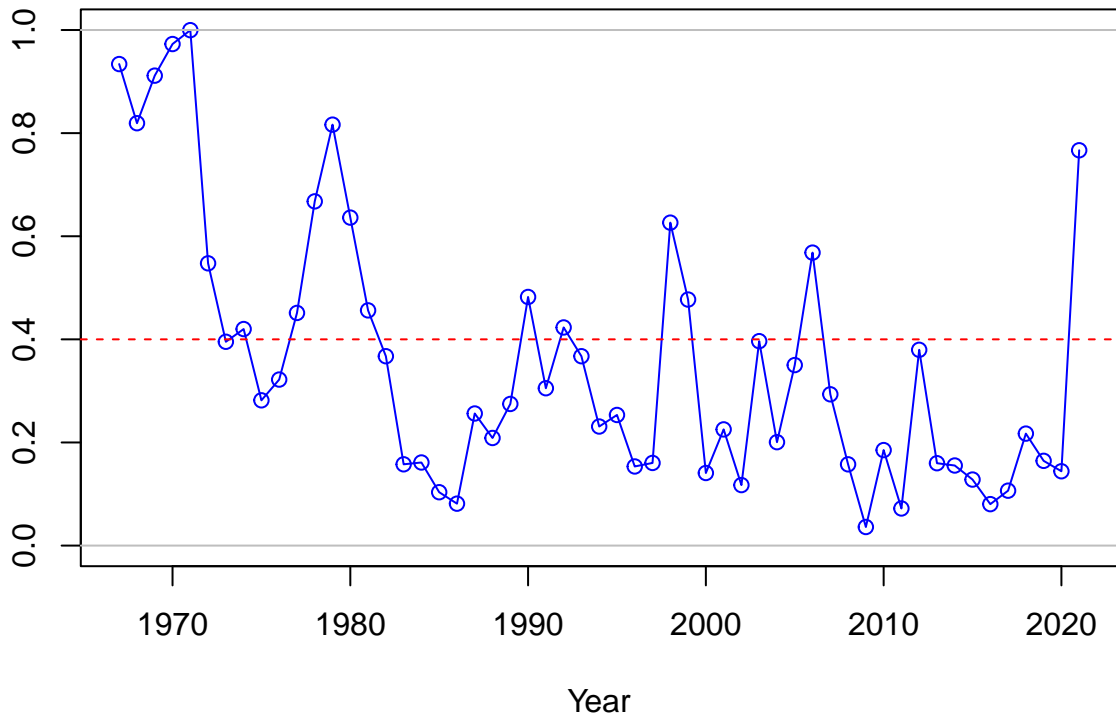
Year

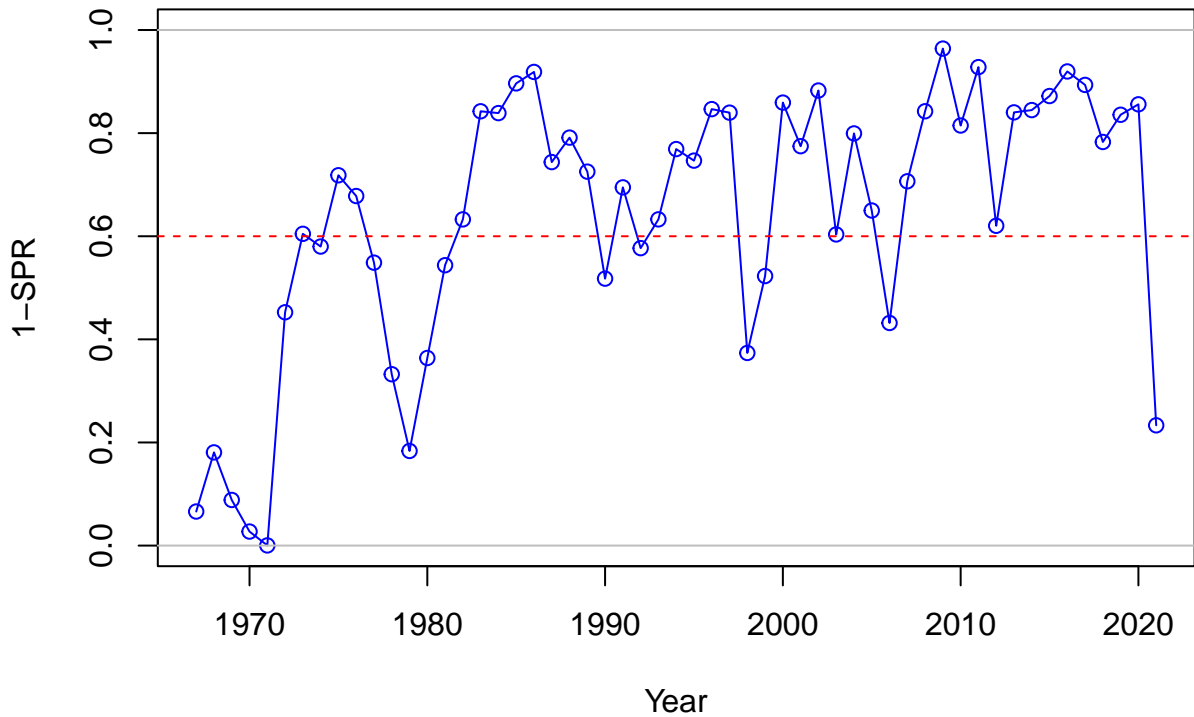




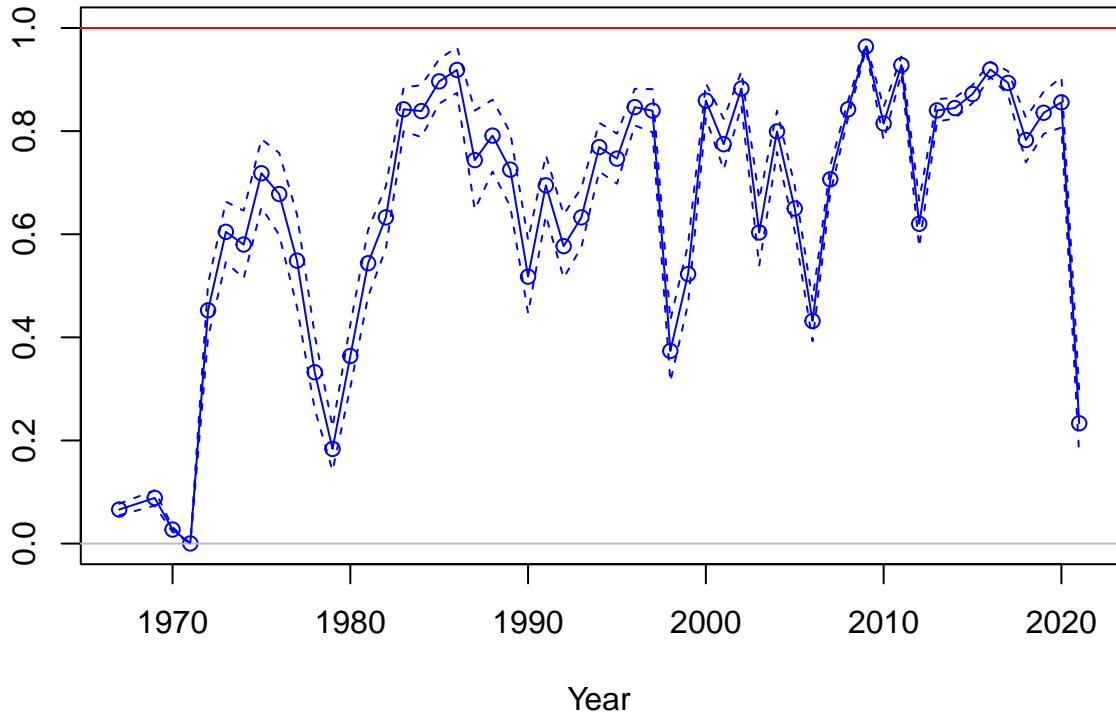


SPR

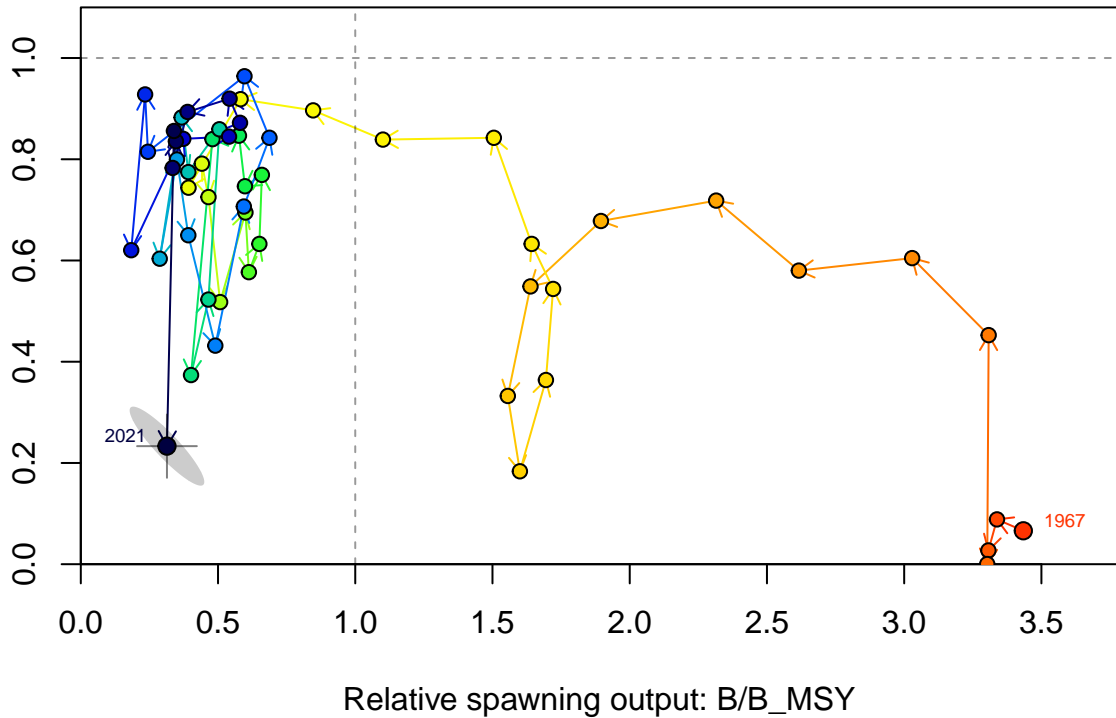




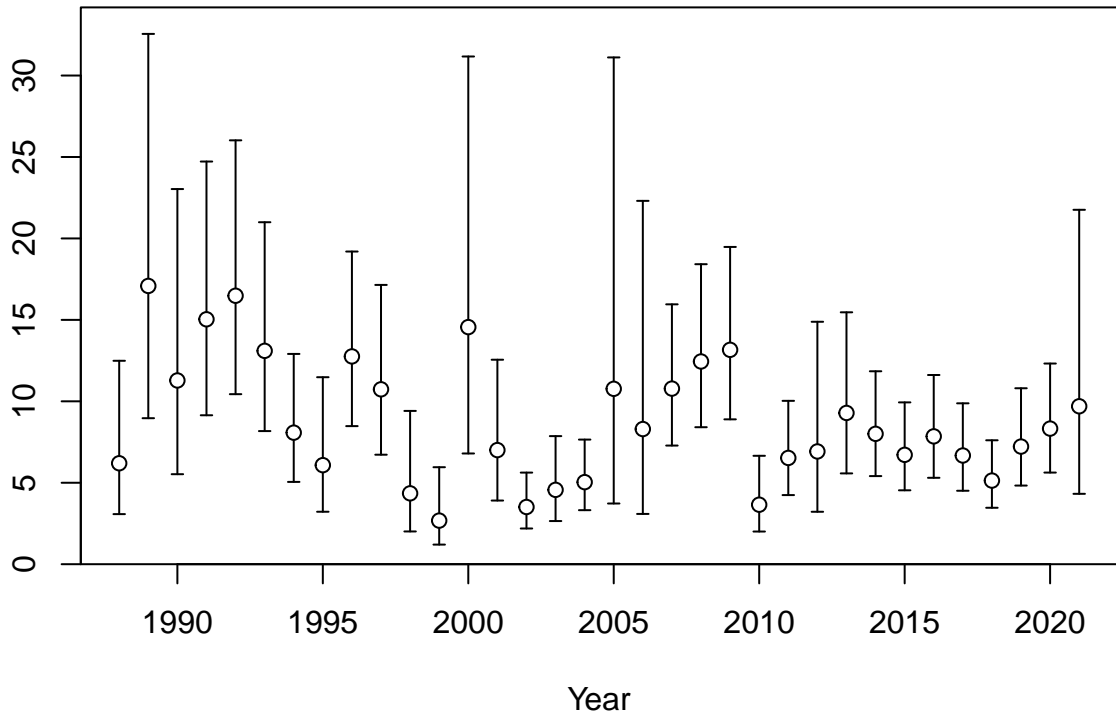
Fishing intensity: 1-SPR



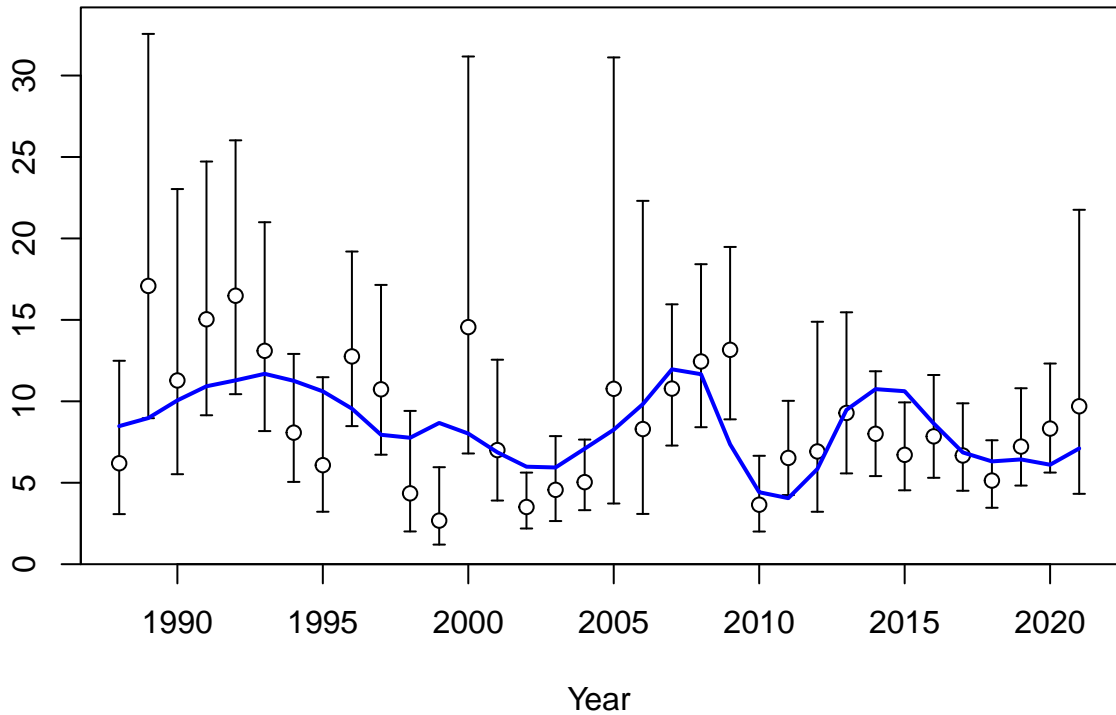
Fishing intensity: 1-SPR

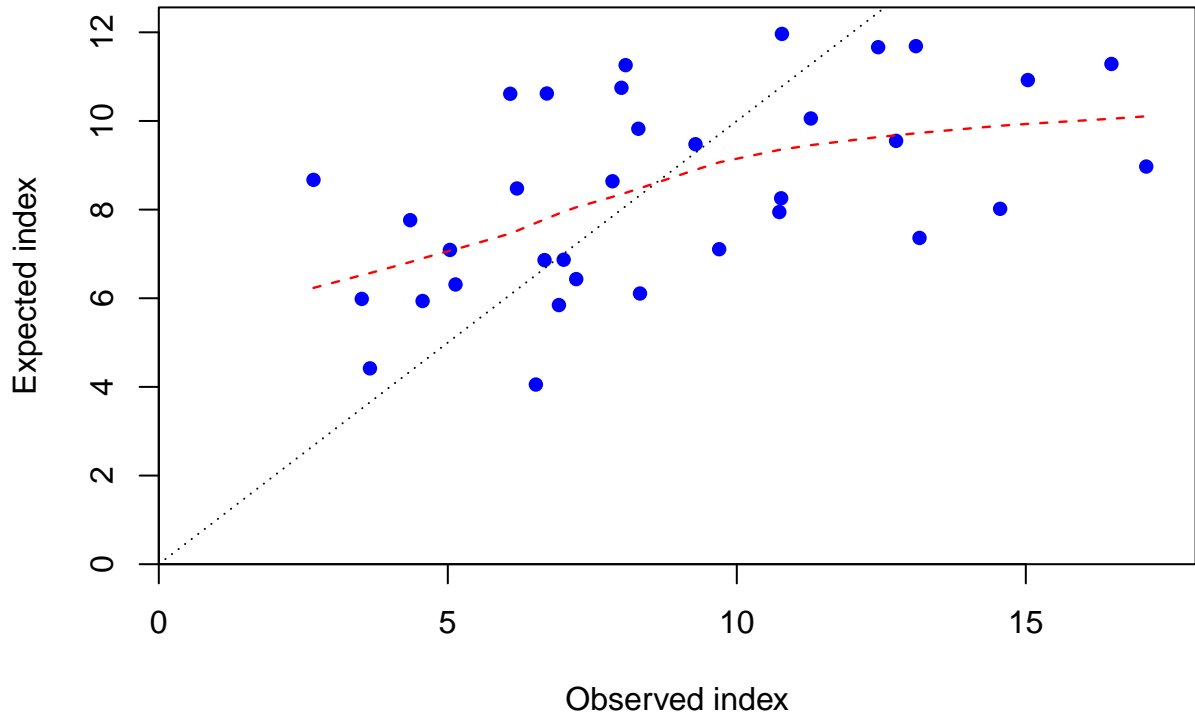


Index

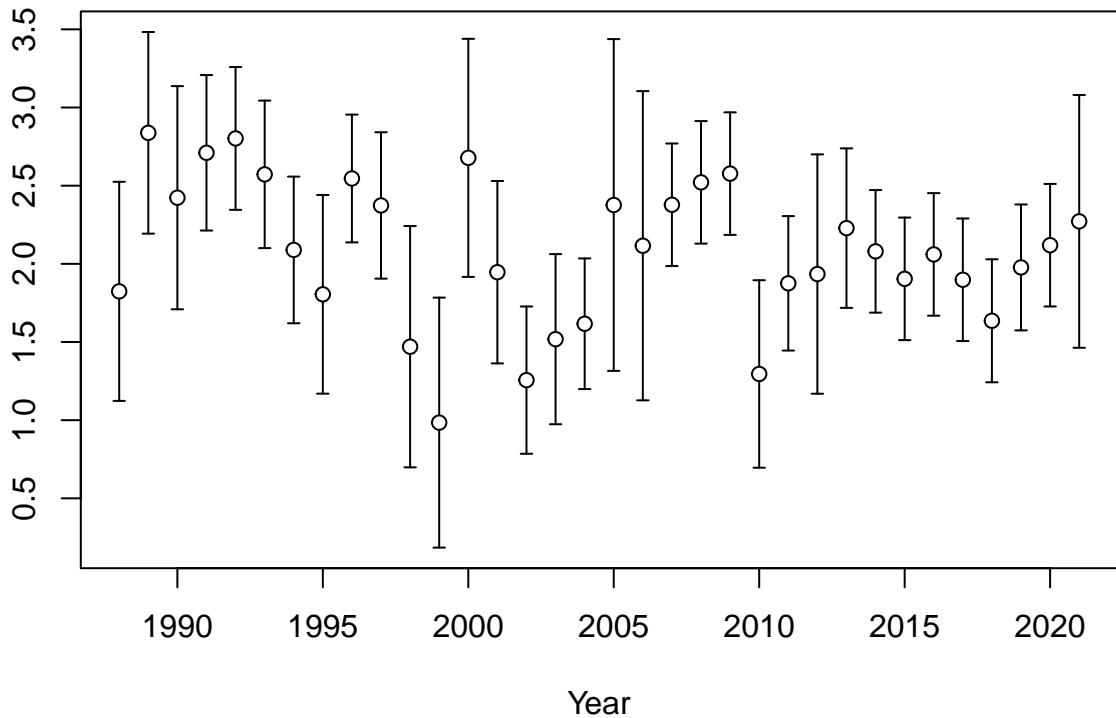


Index



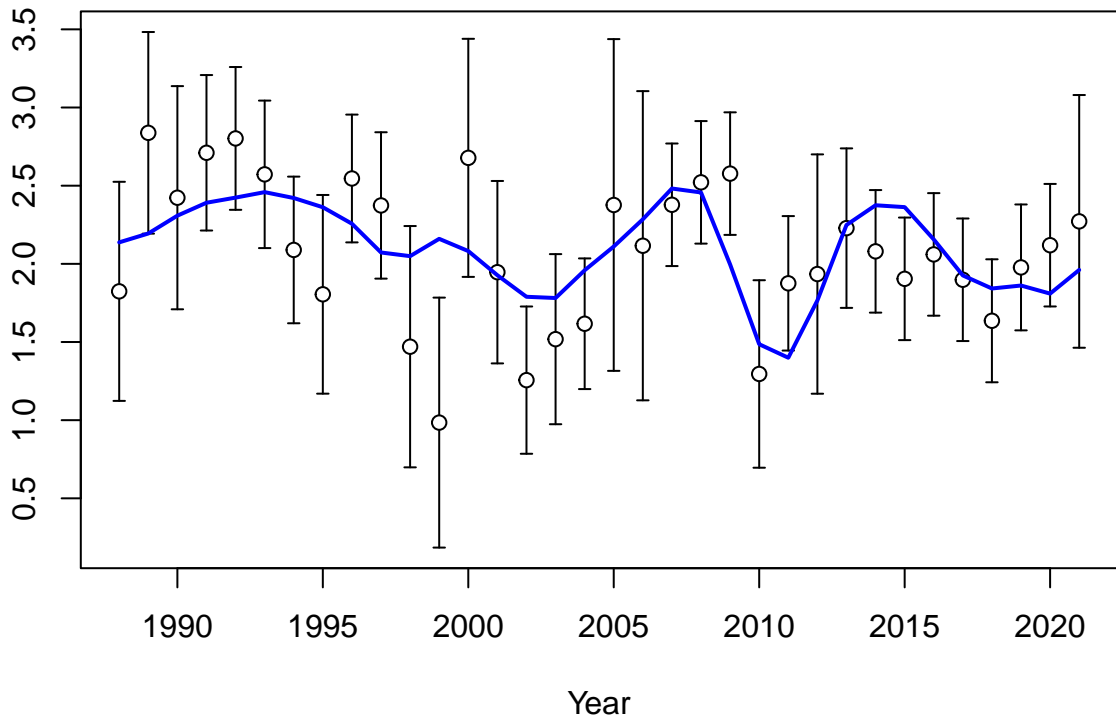


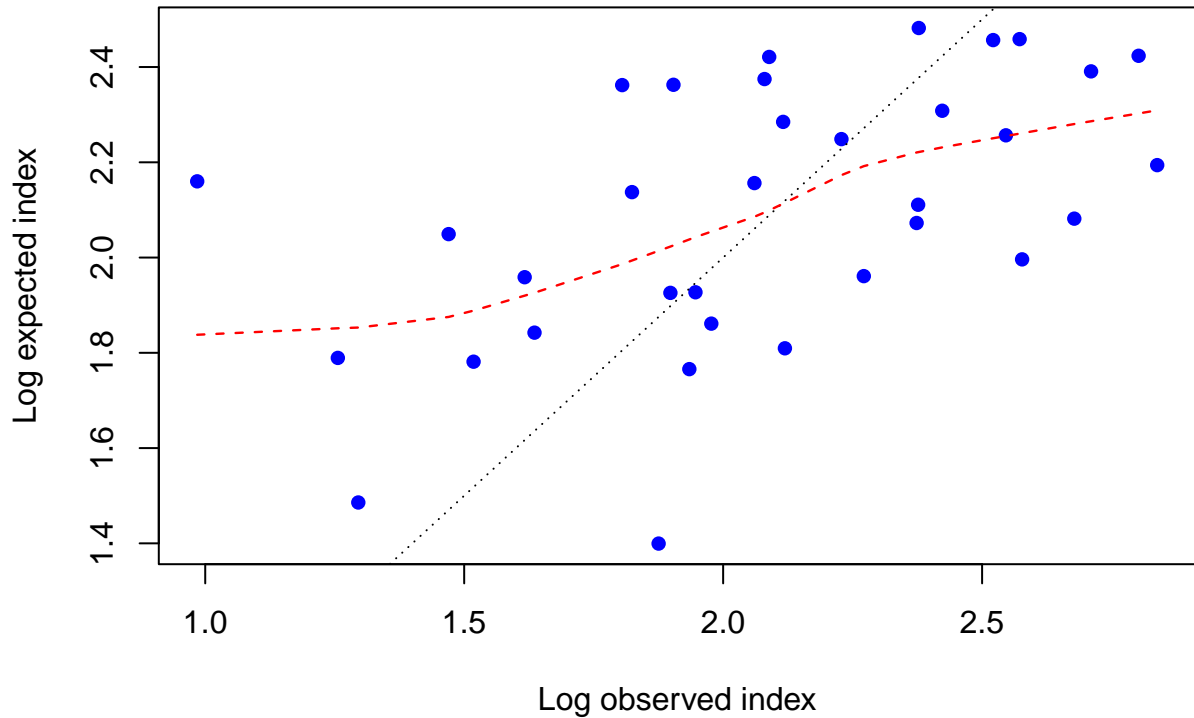
Log index





Log index





Effective catchability

2.089838  
2.089834  
2.089830

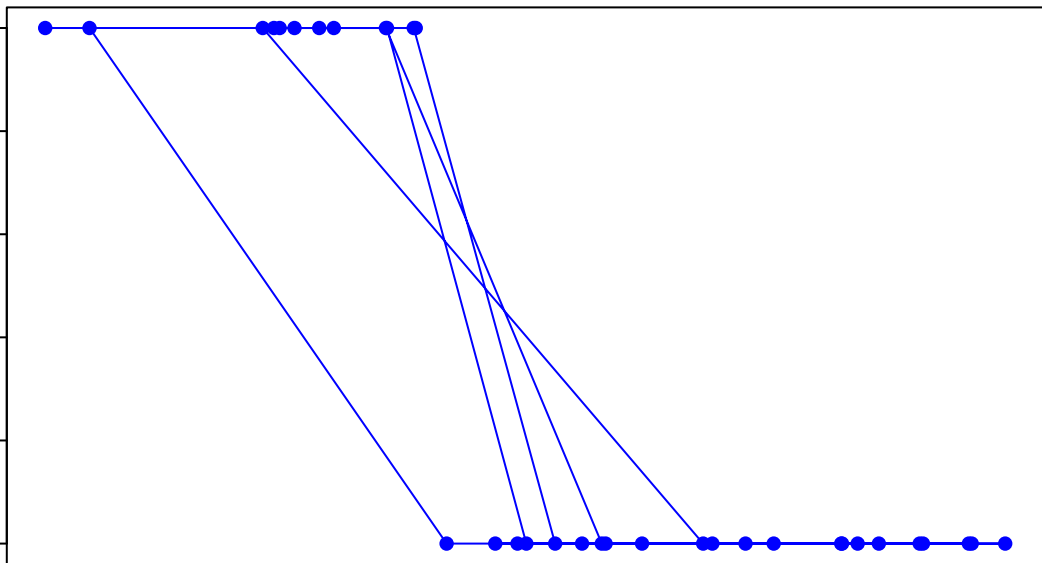
2

3

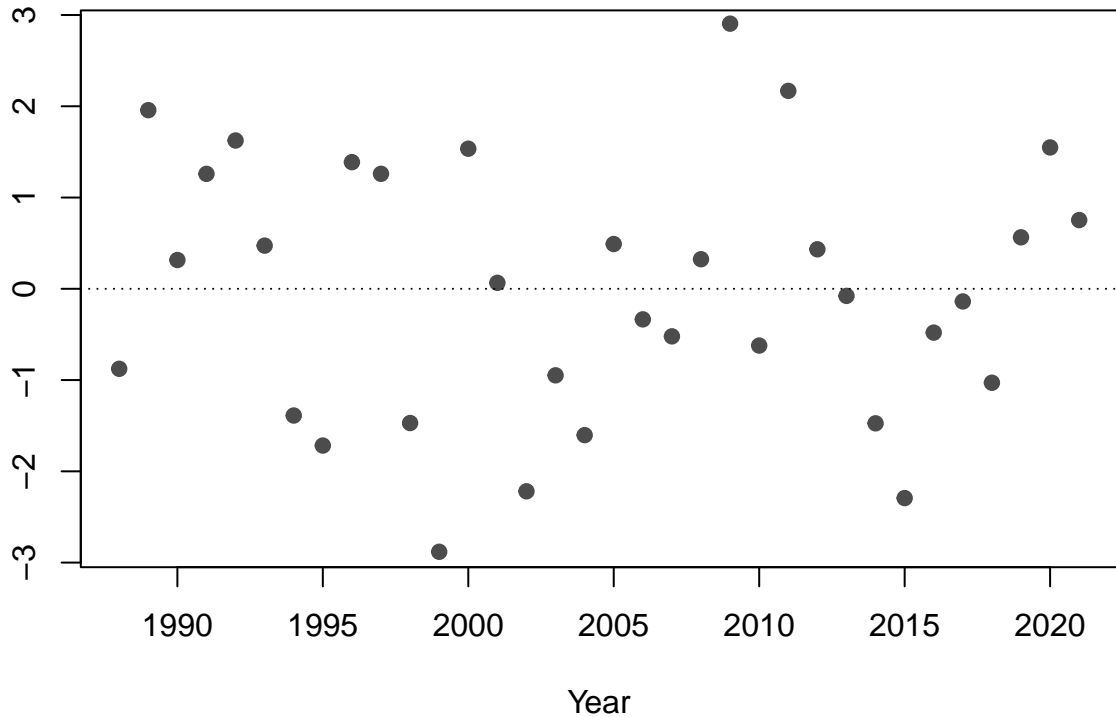
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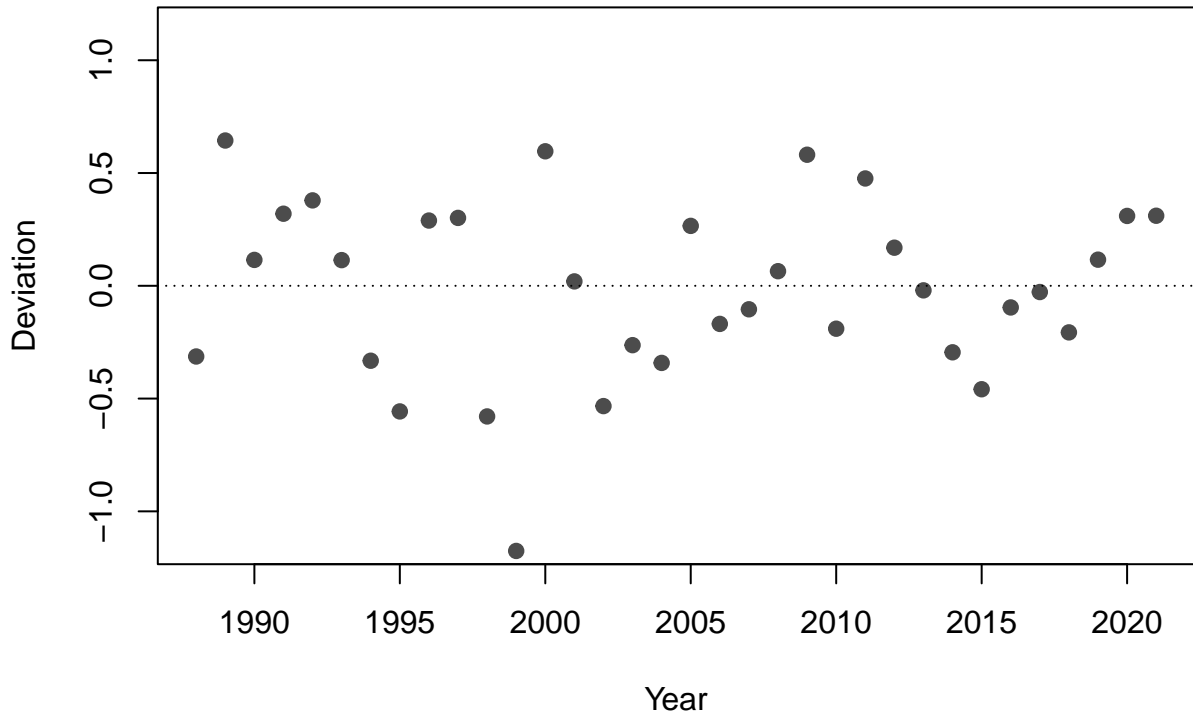
5

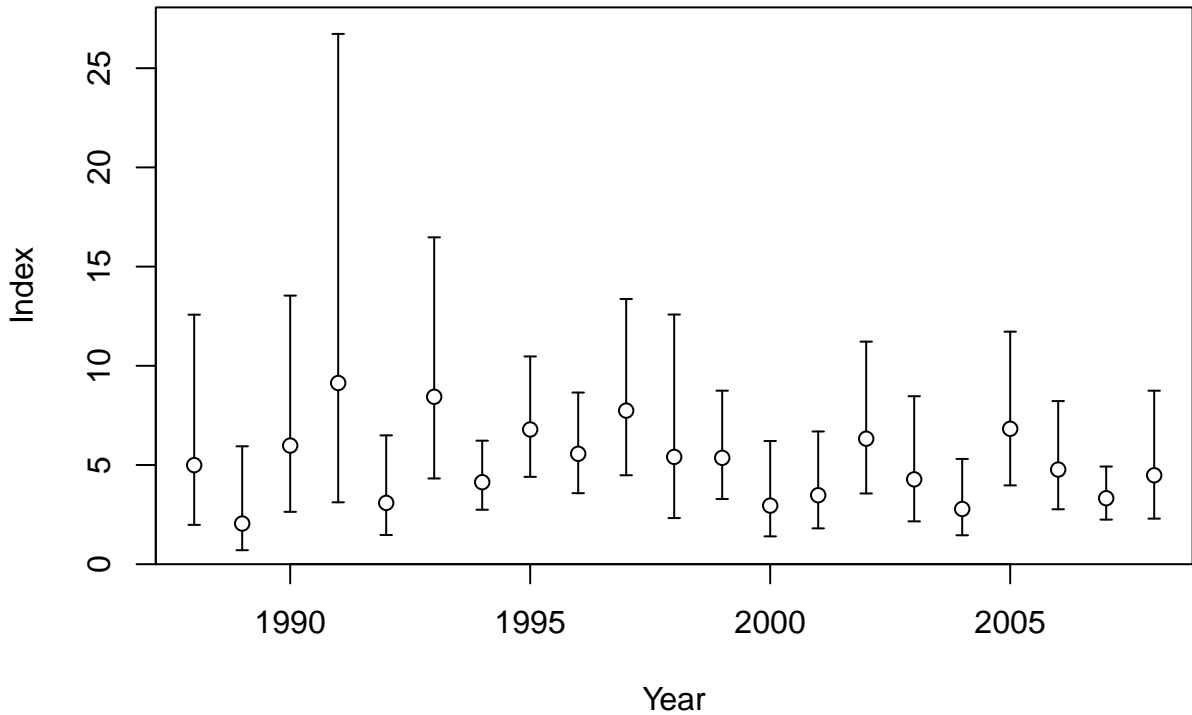
Vulnerable biomass

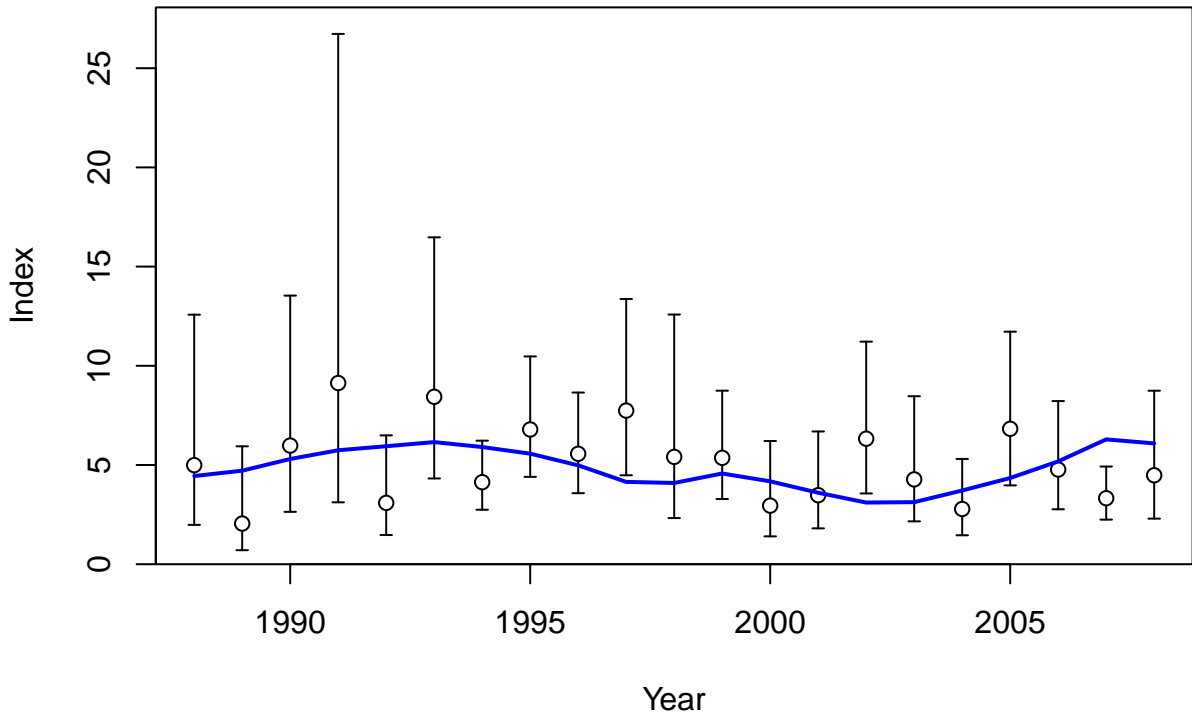


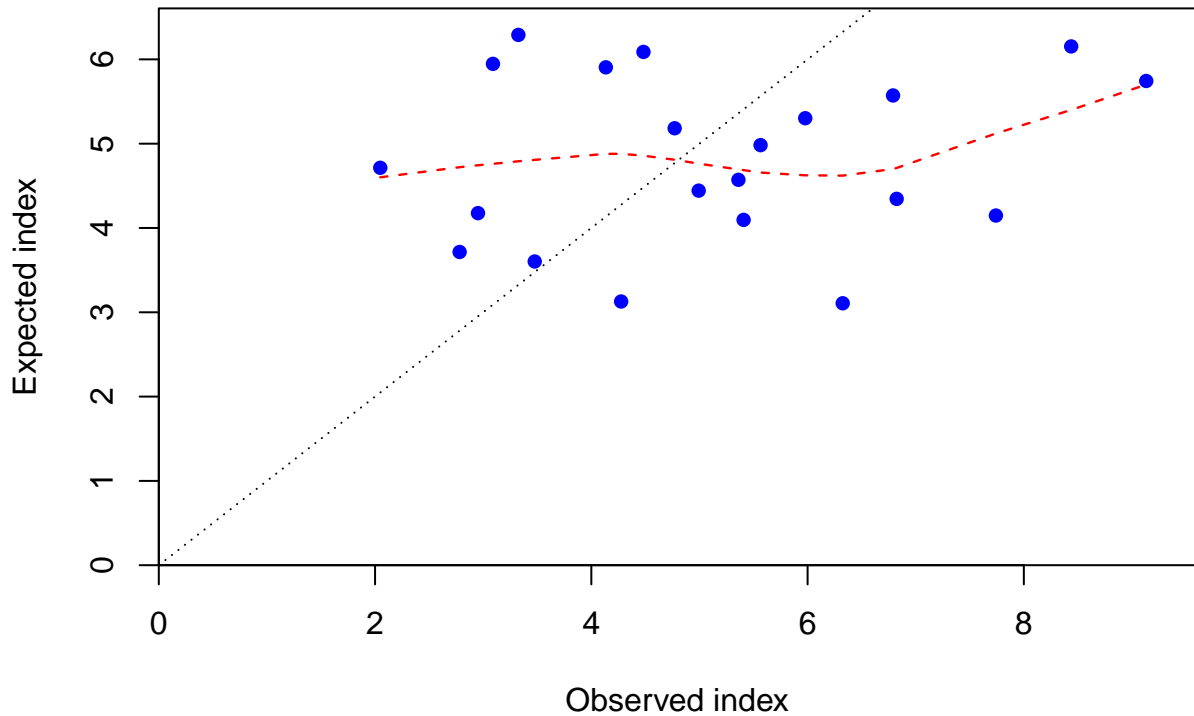
Residual



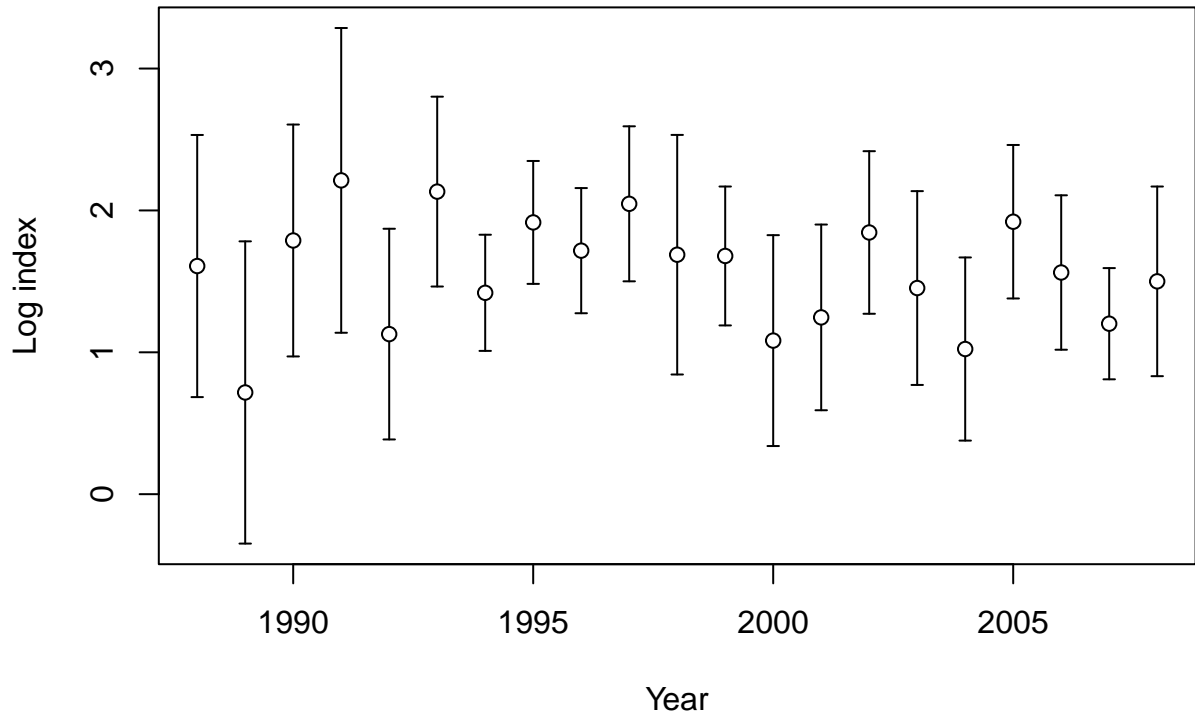


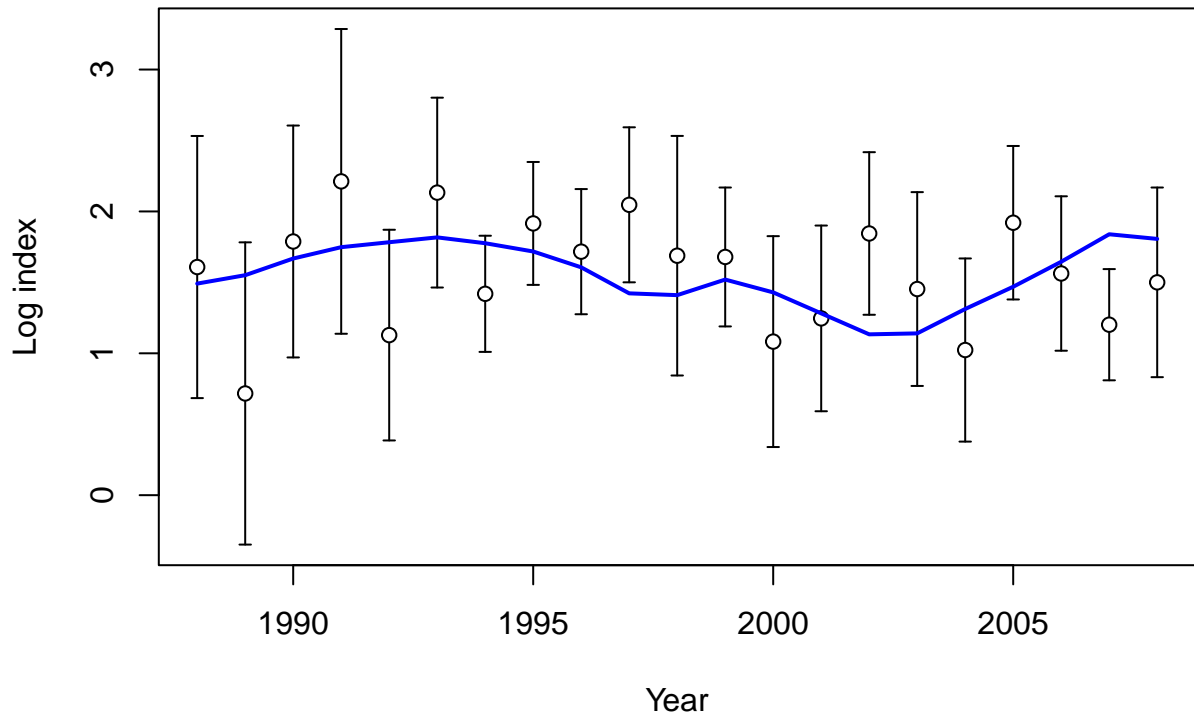


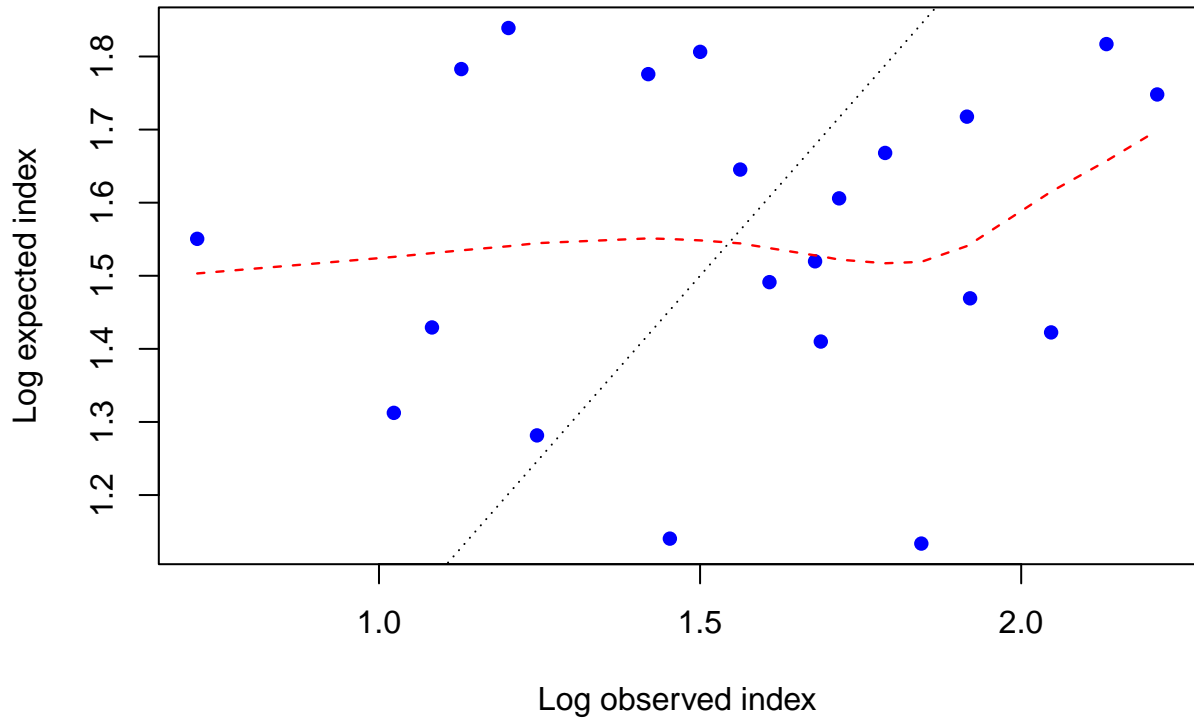


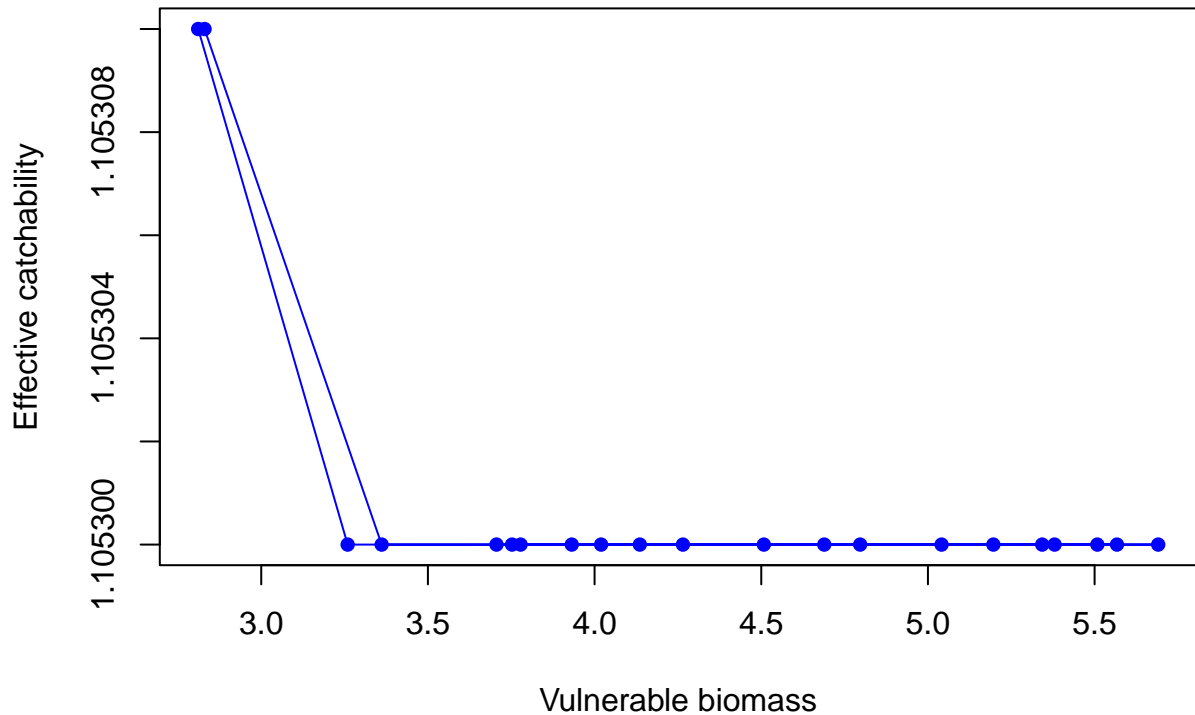


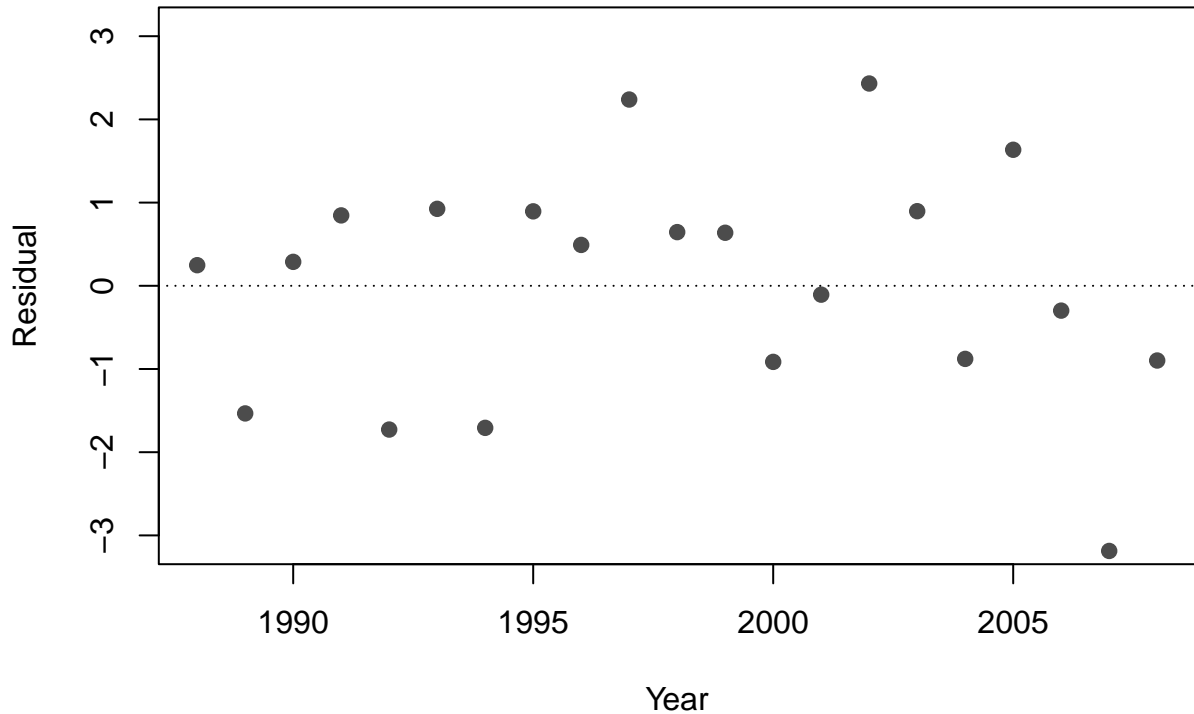


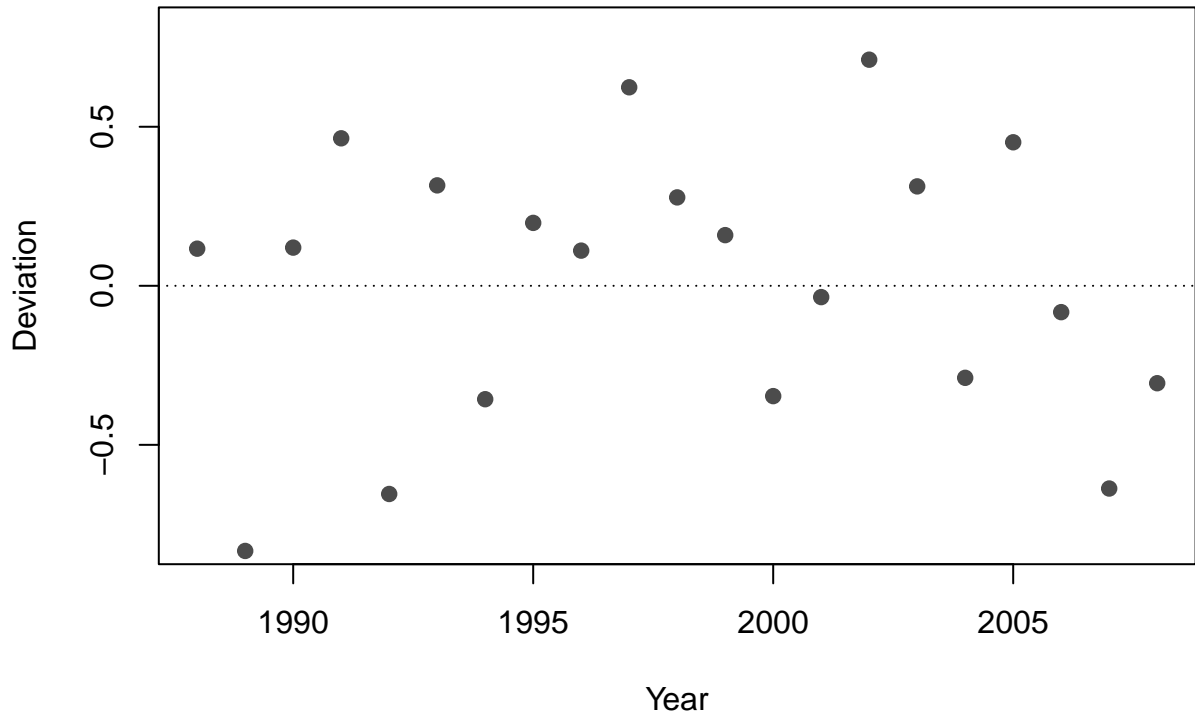




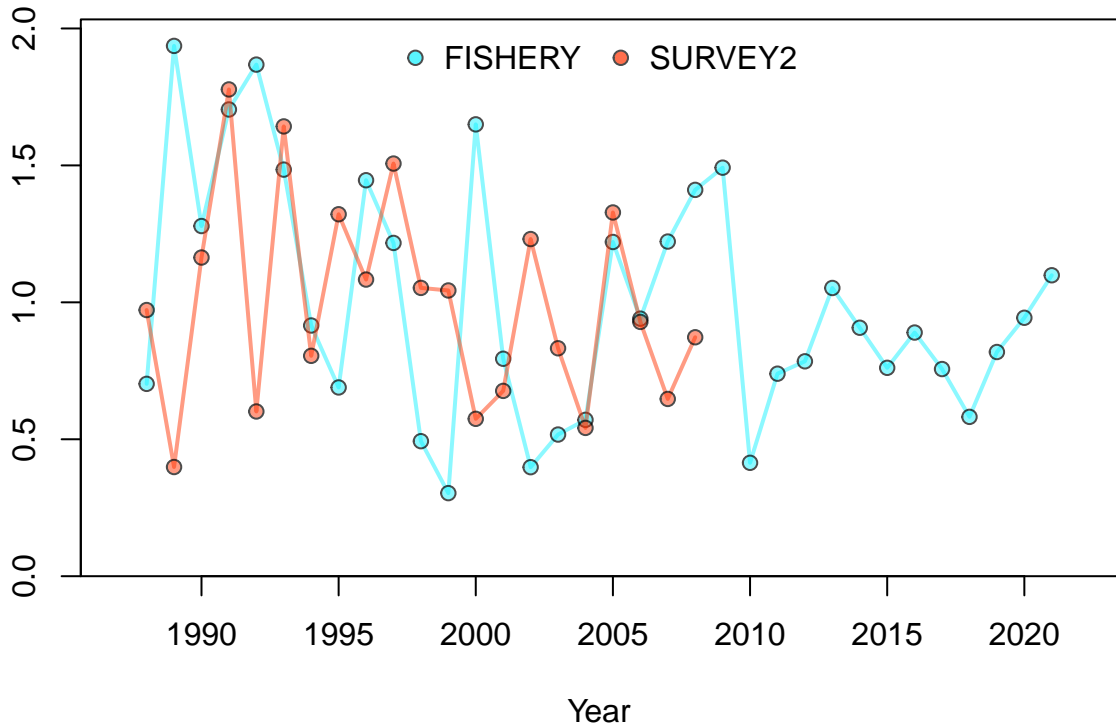


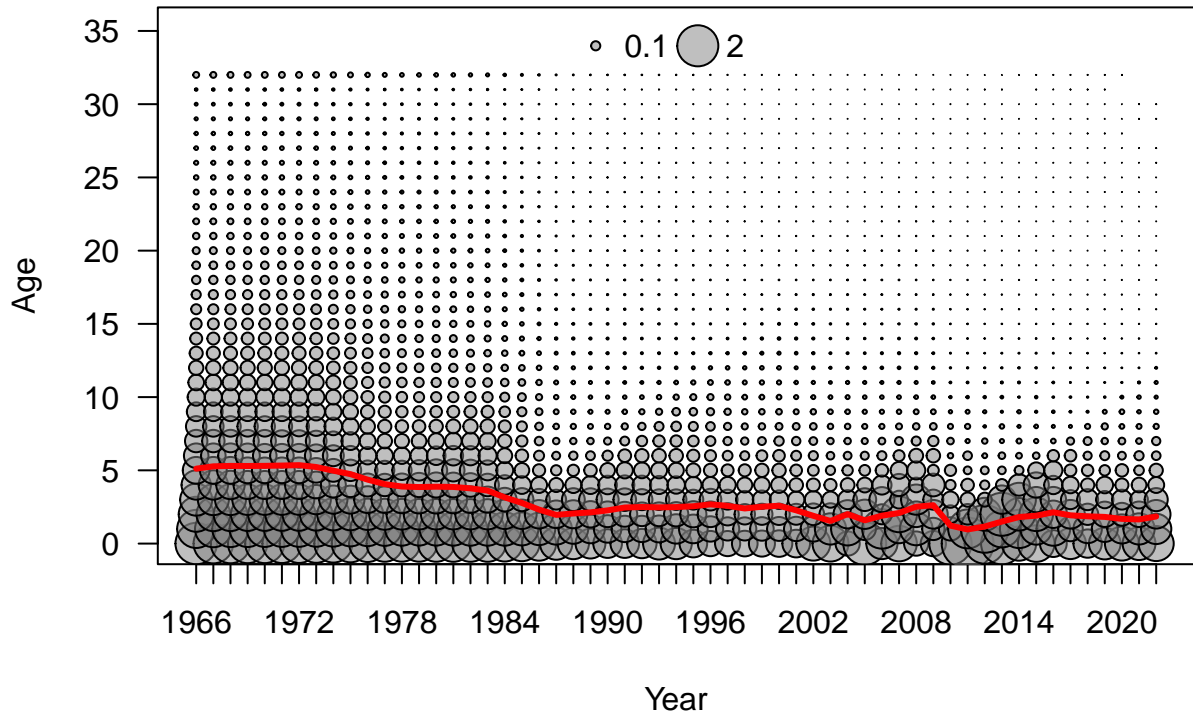




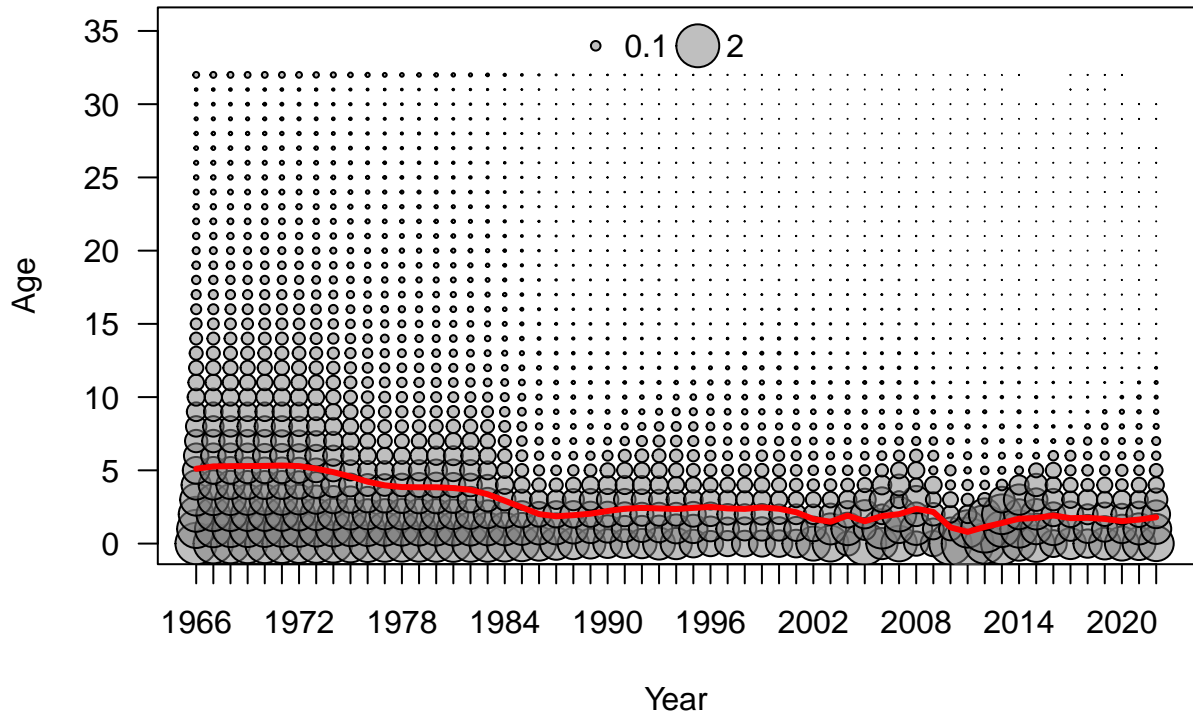


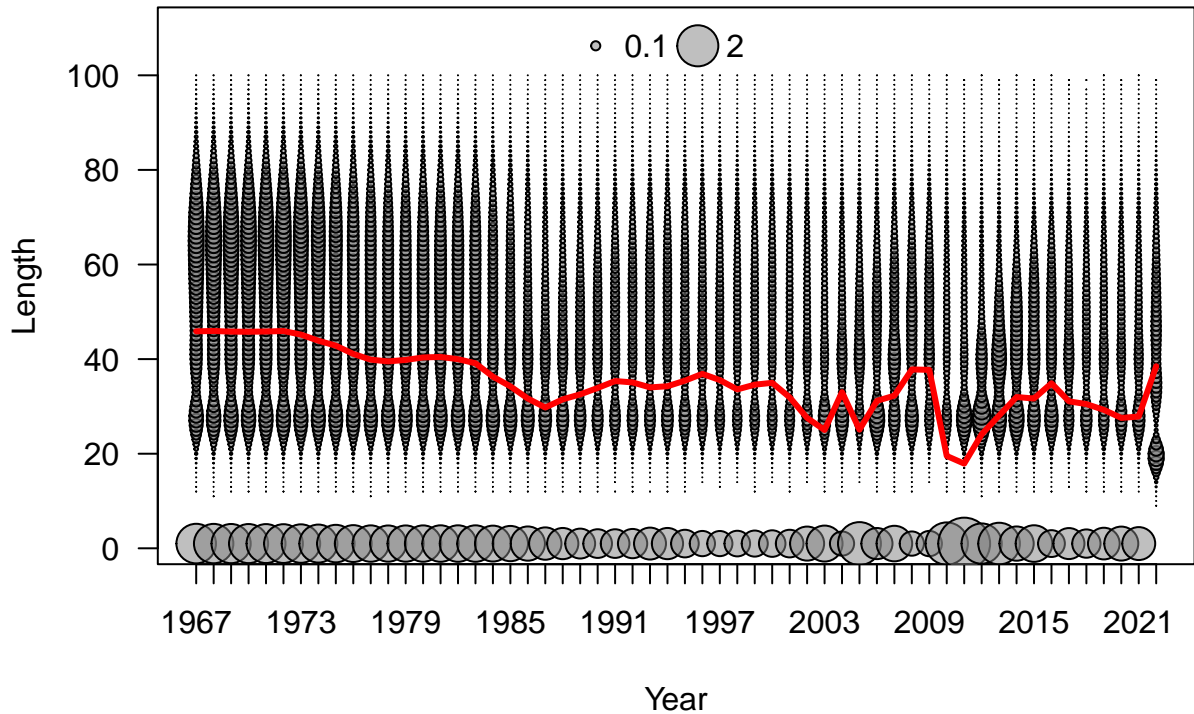
Standardized index

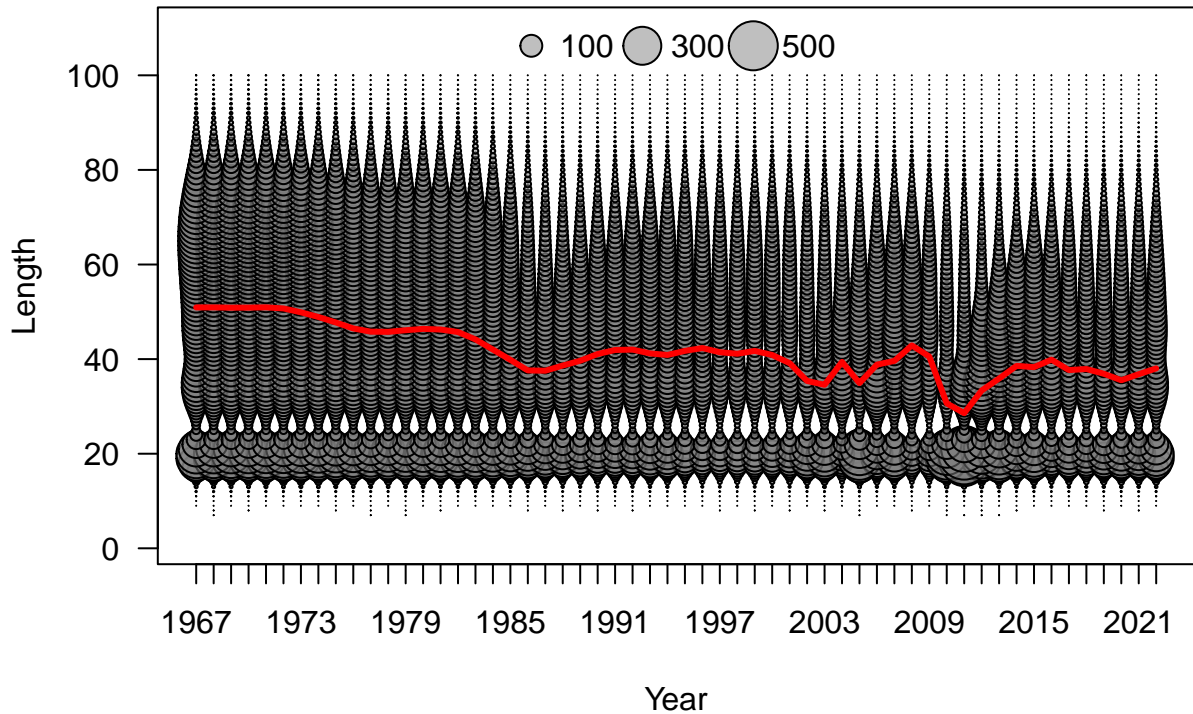


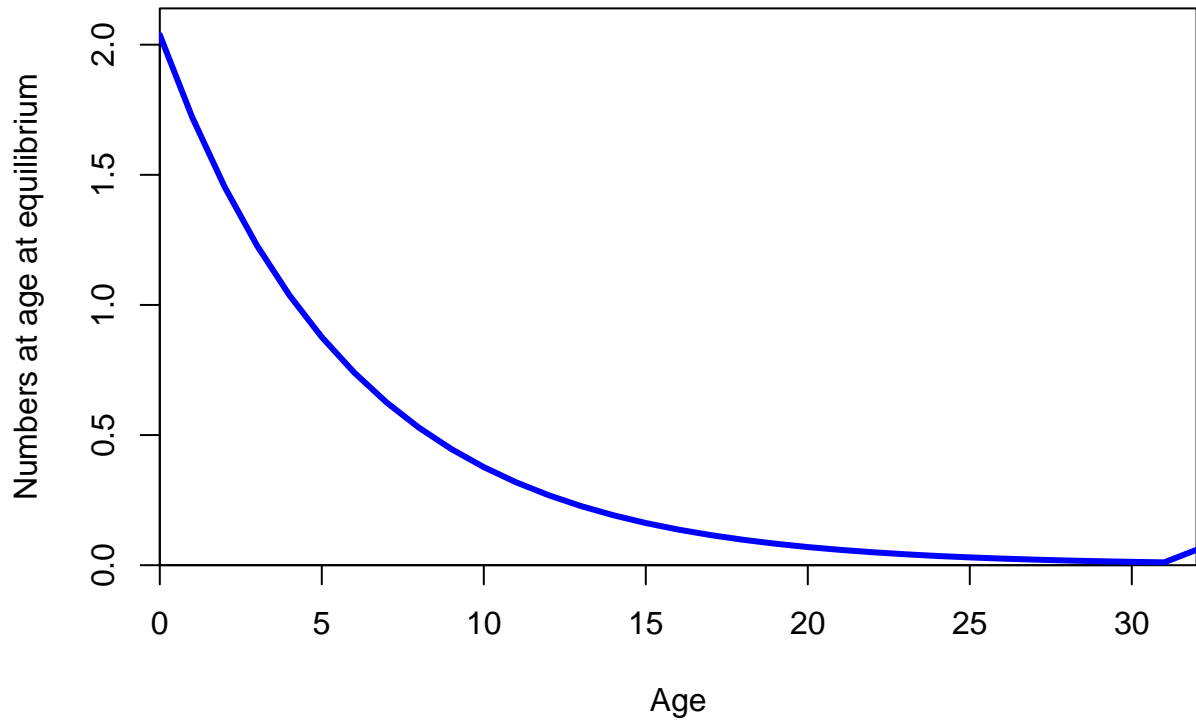


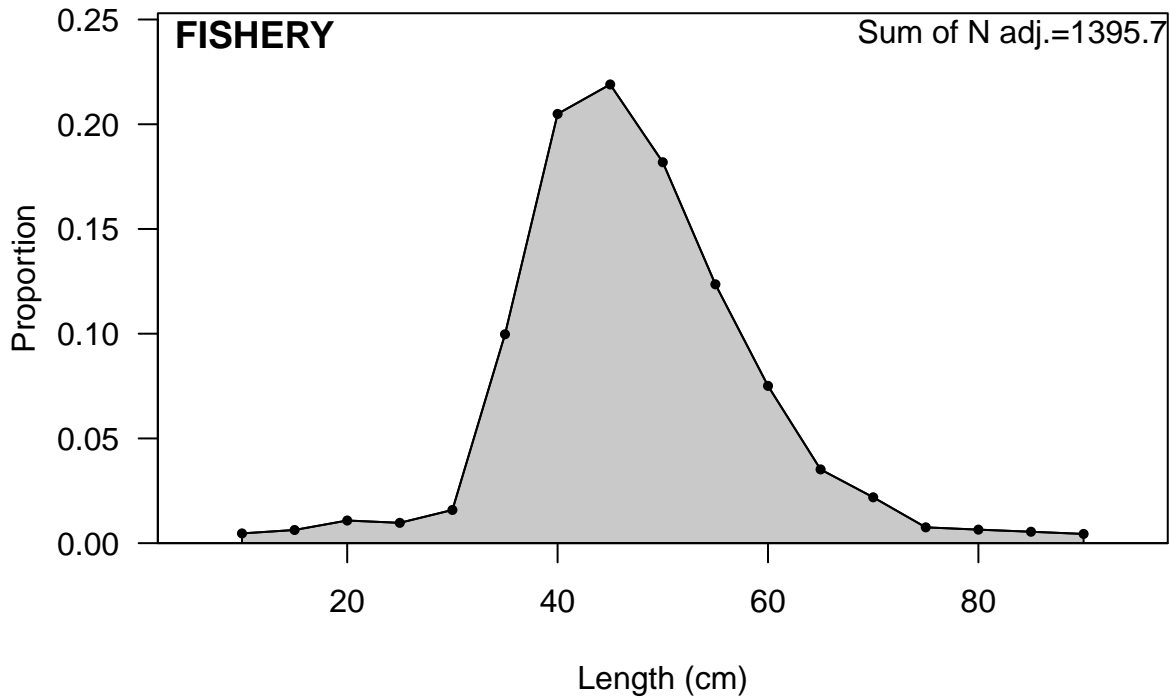






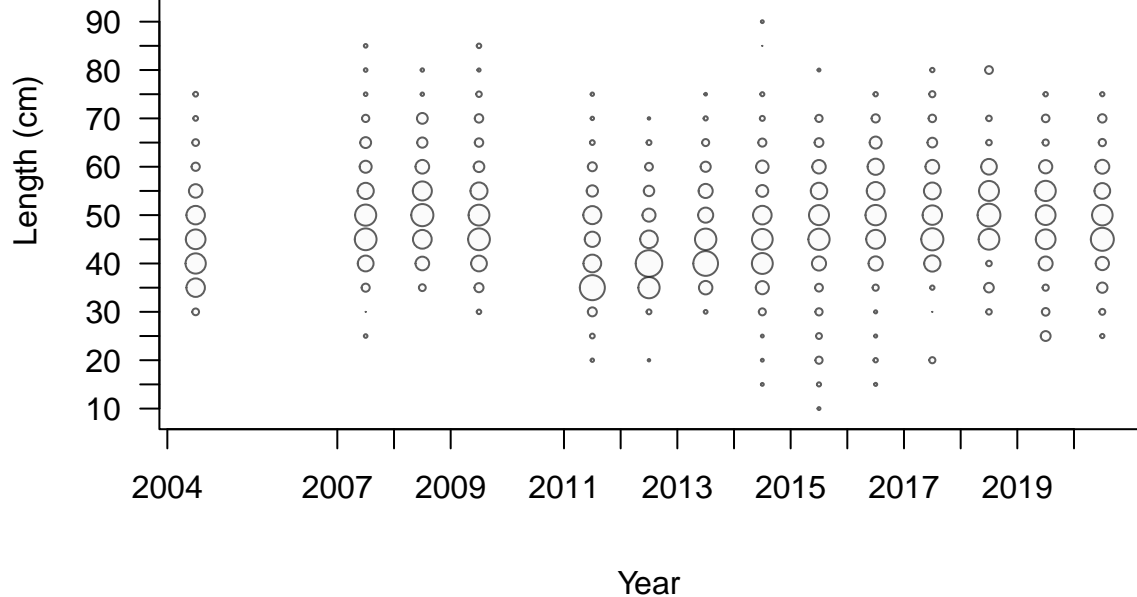




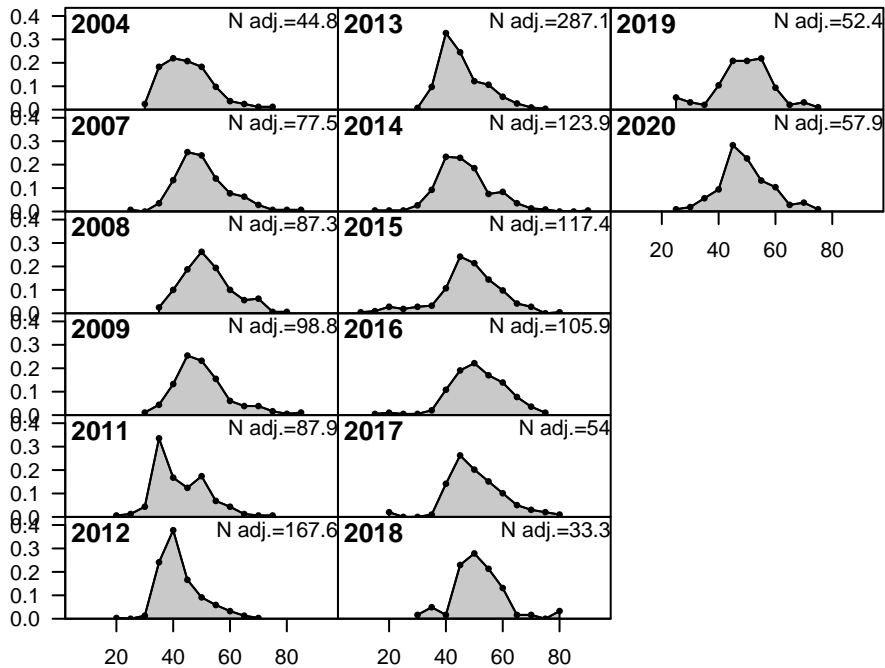


# FISHERY

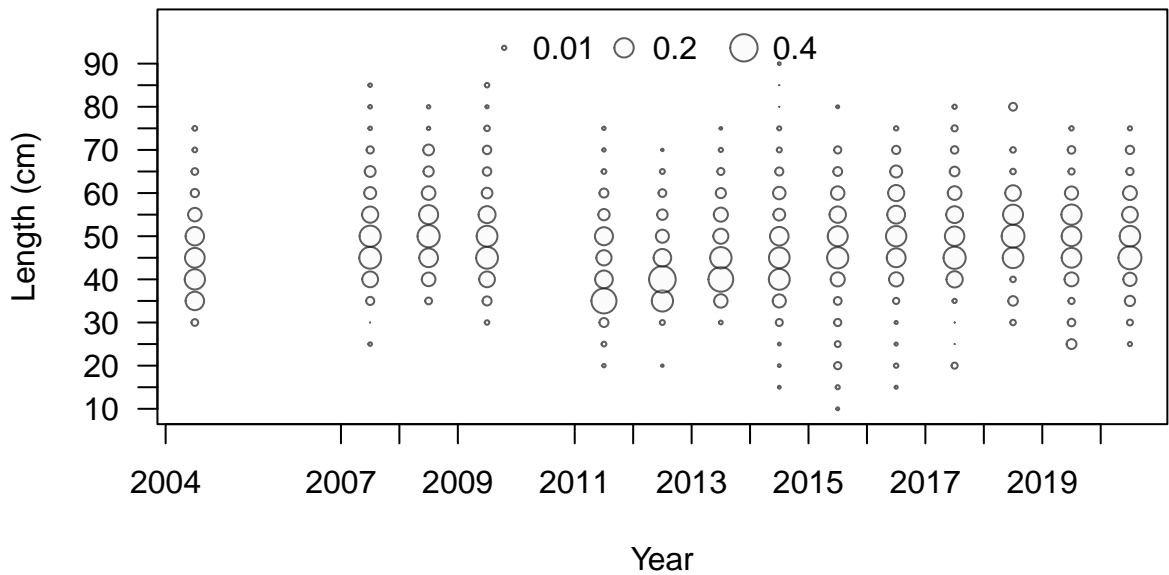
• 0.01 ○ 0.2 ○ 0.4



Proportion

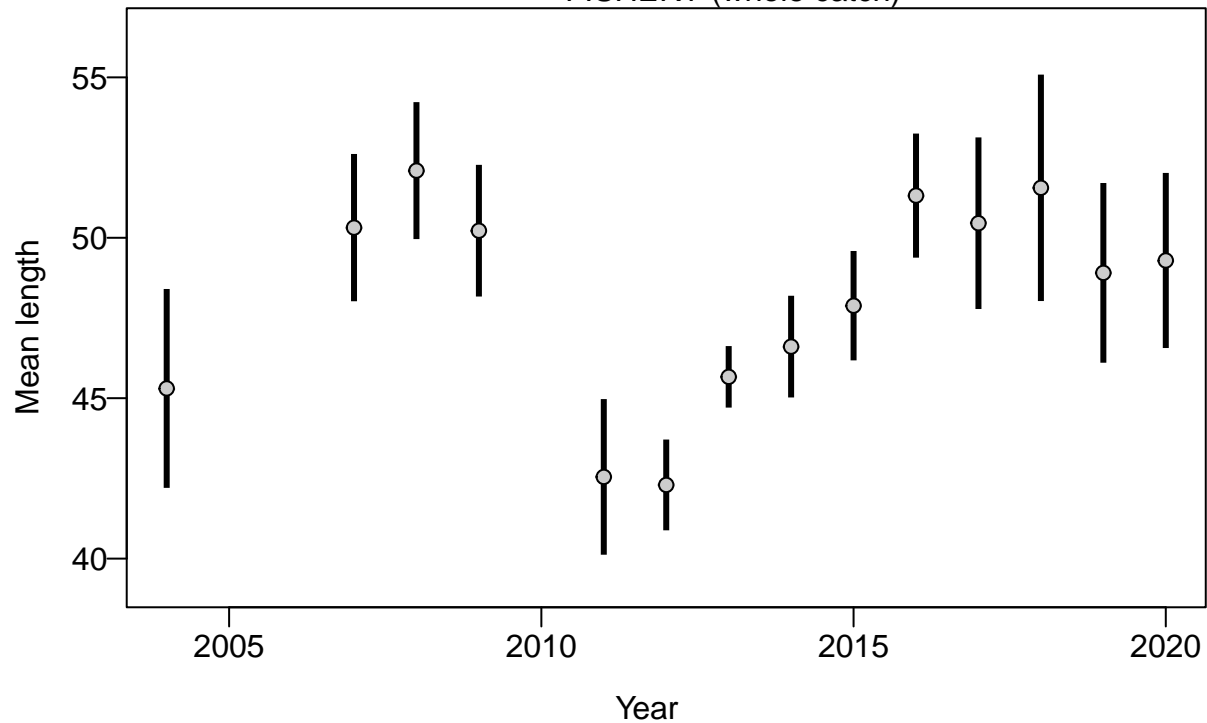


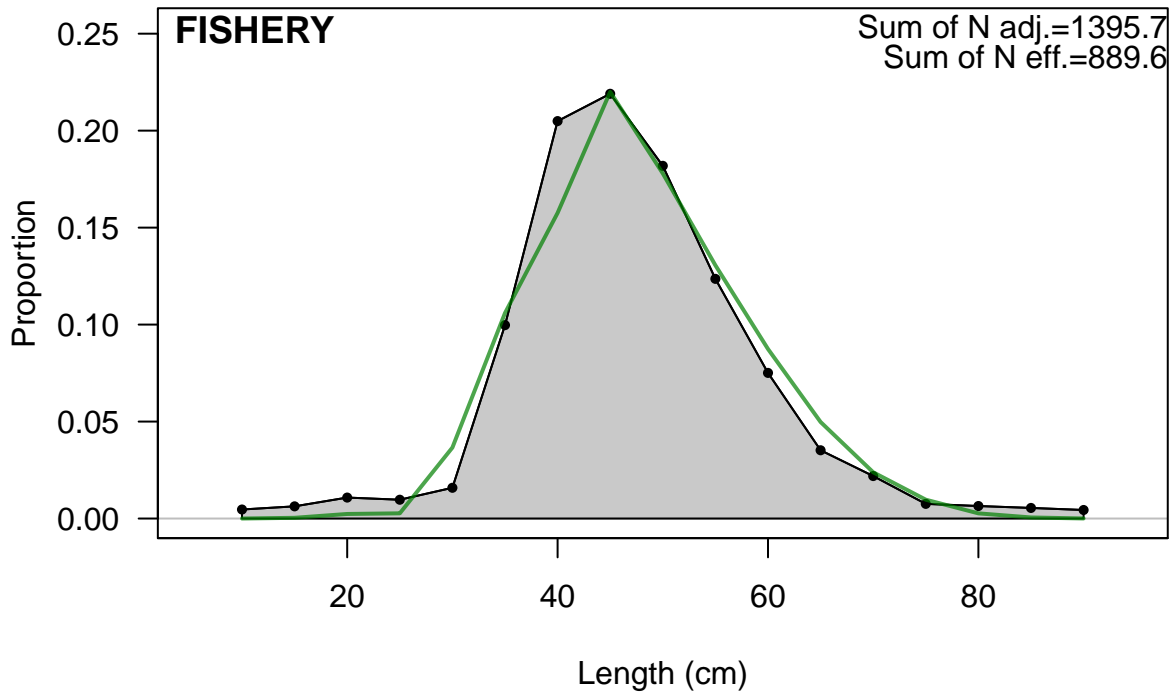
Length (cm)

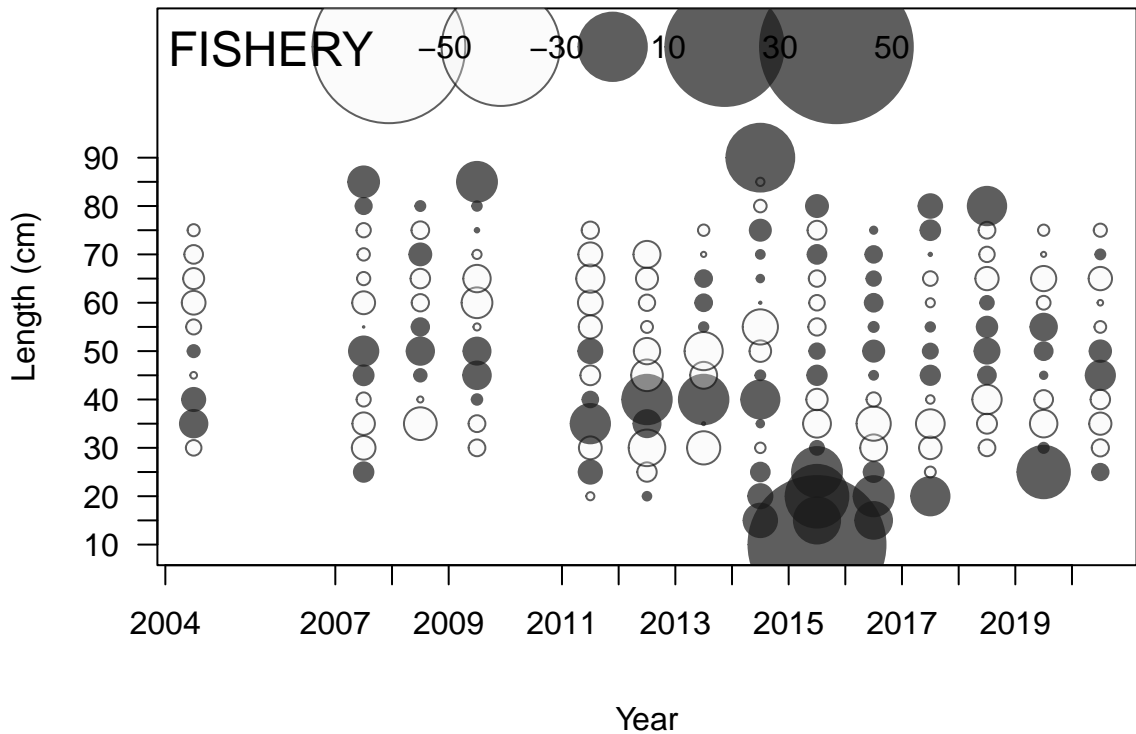




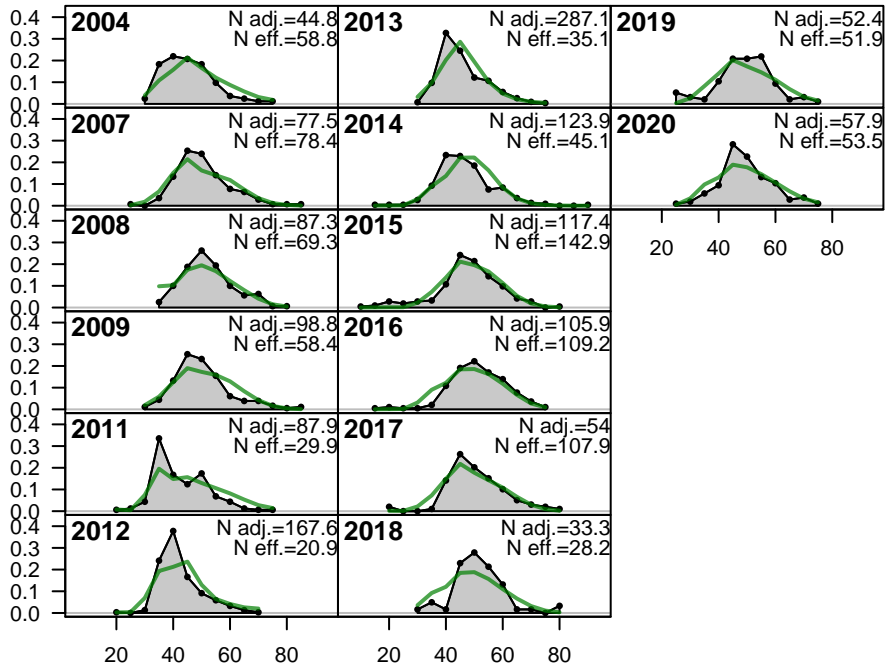
FISHERY (whole catch)



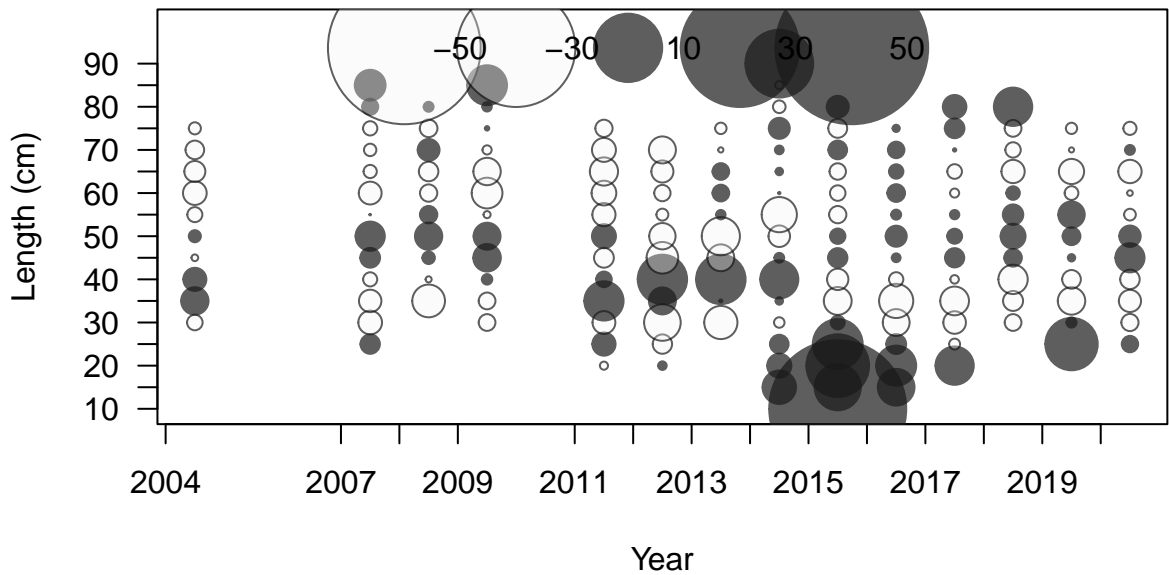




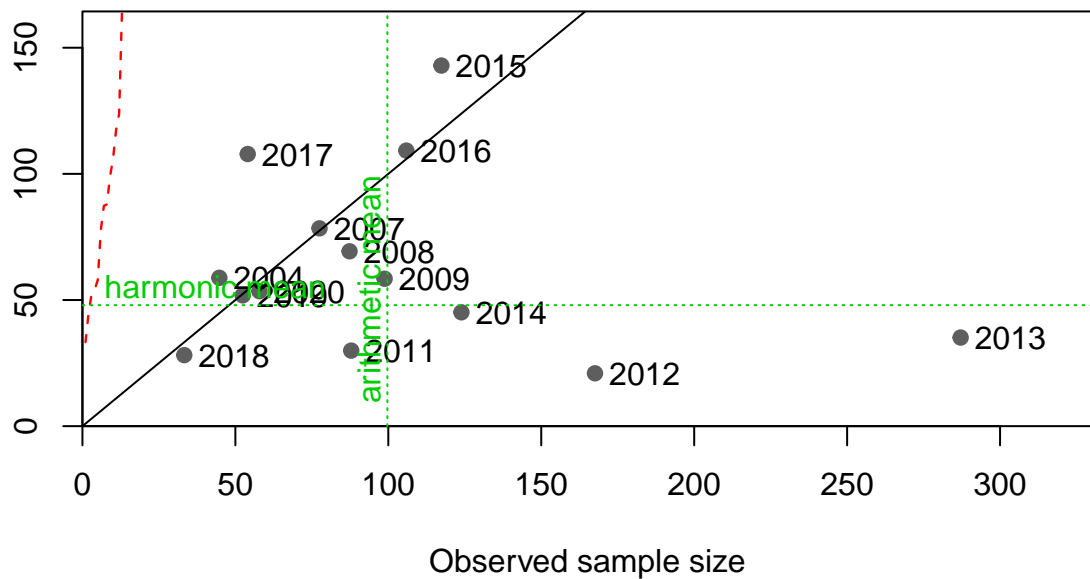
Proportion



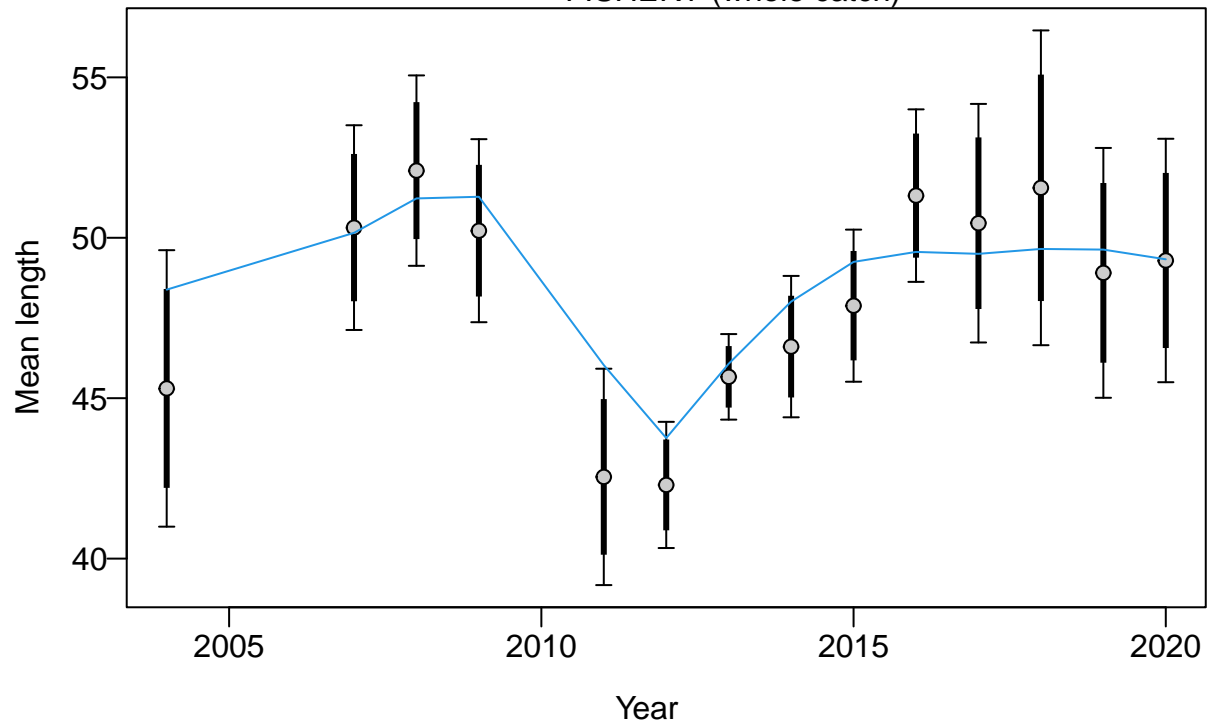
Length (cm)

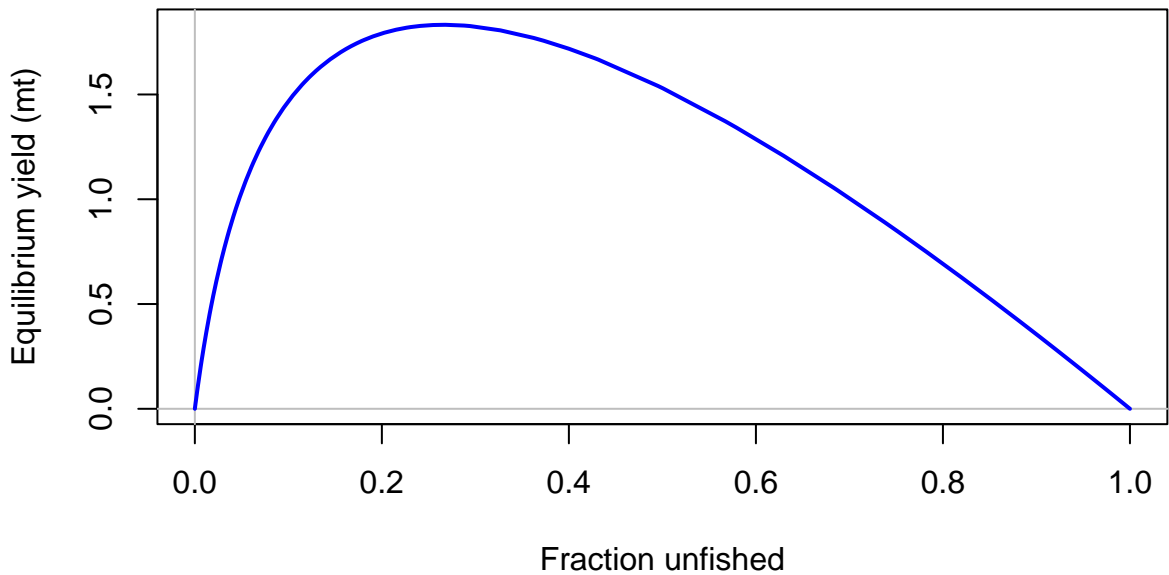


Effective sample size

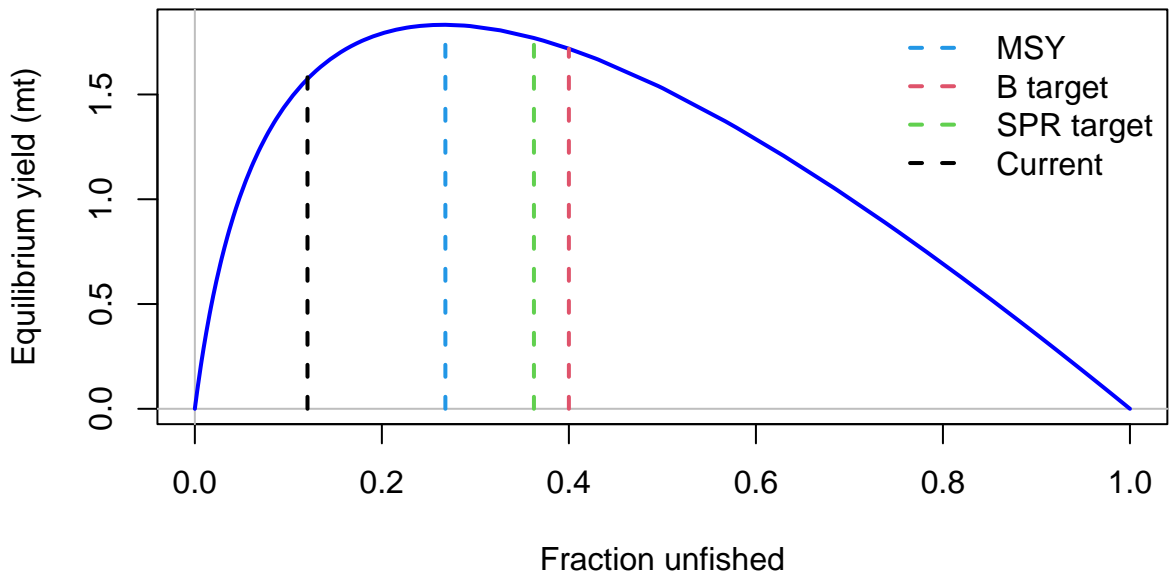


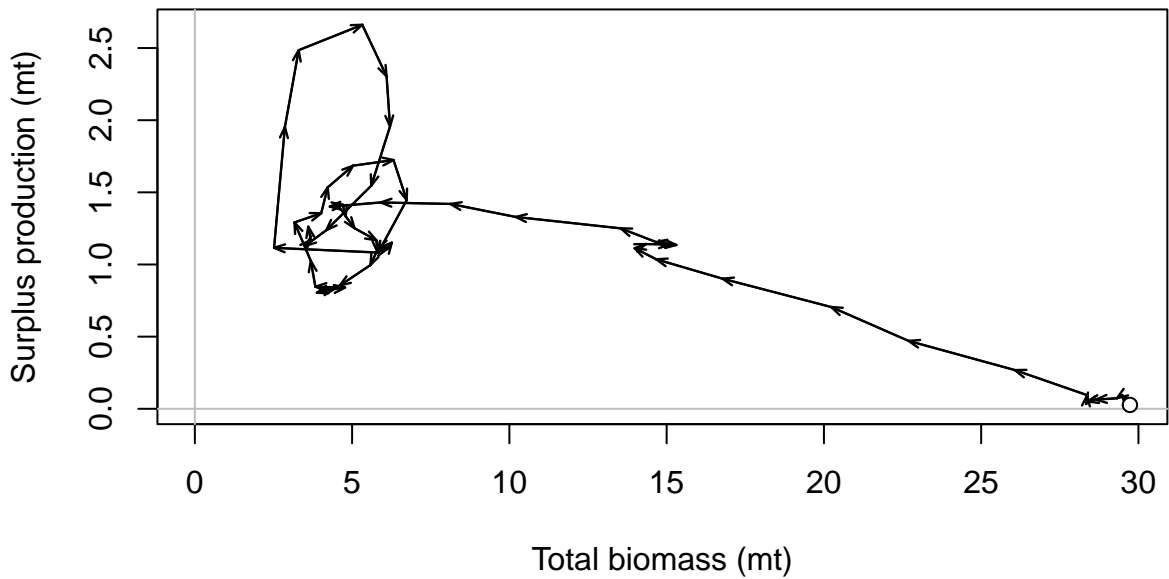
## FISHERY (whole catch)

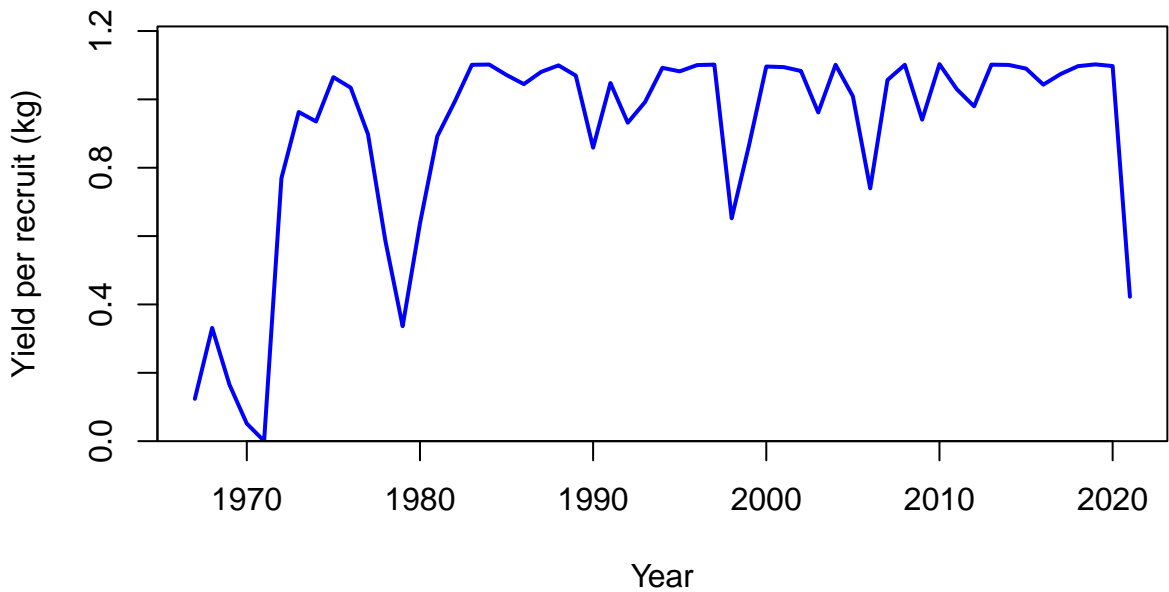


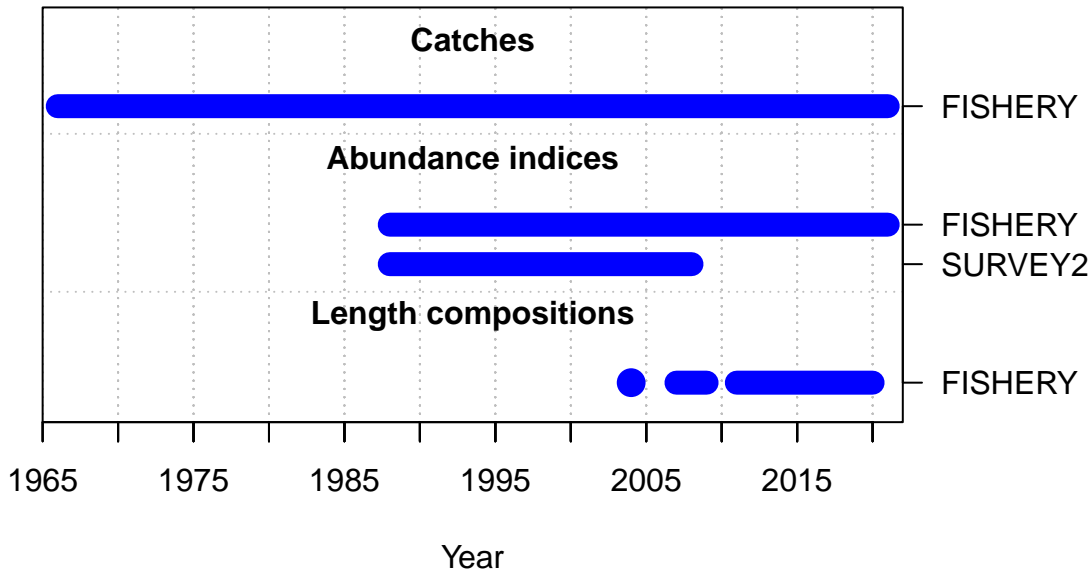


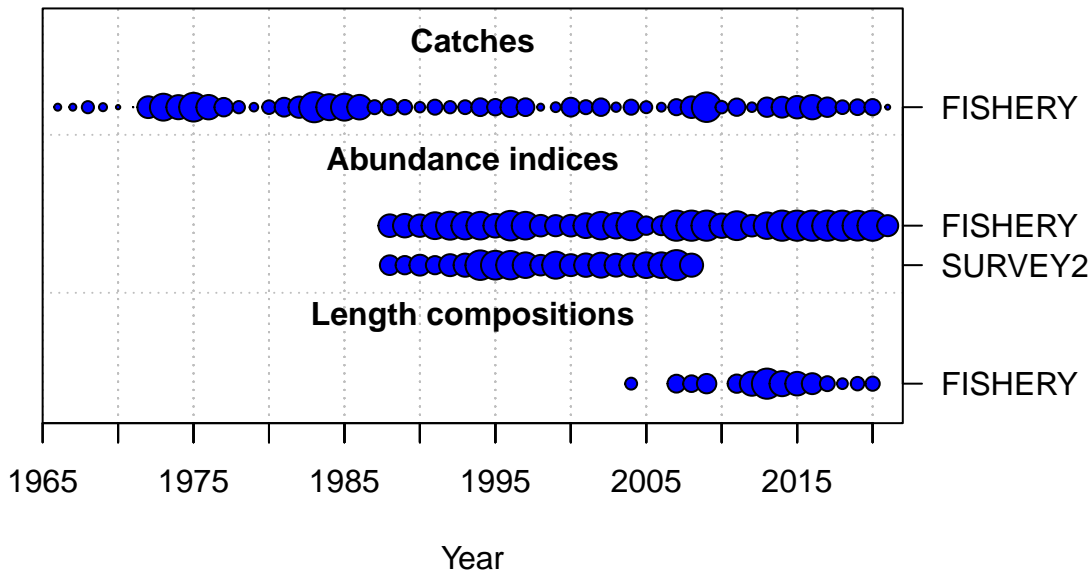




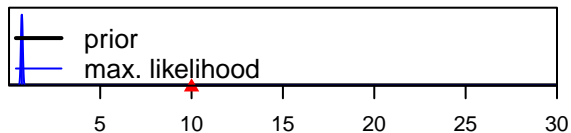




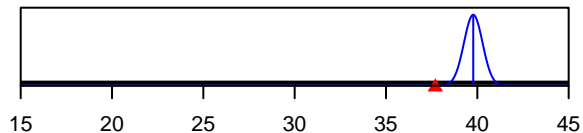




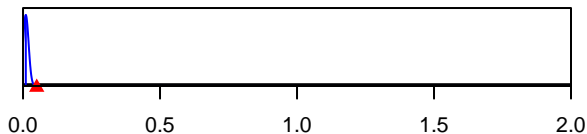
SR\_LN(R0)



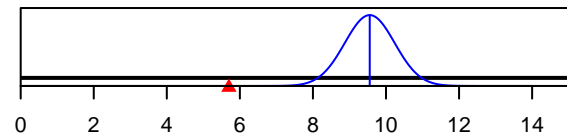
Size\_inflection\_FISHERY(1)



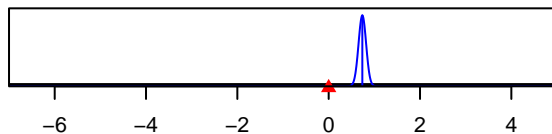
InitF\_seas\_1\_flt\_1FISHERY



Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



LnQ\_base\_SURVEY2(2)

