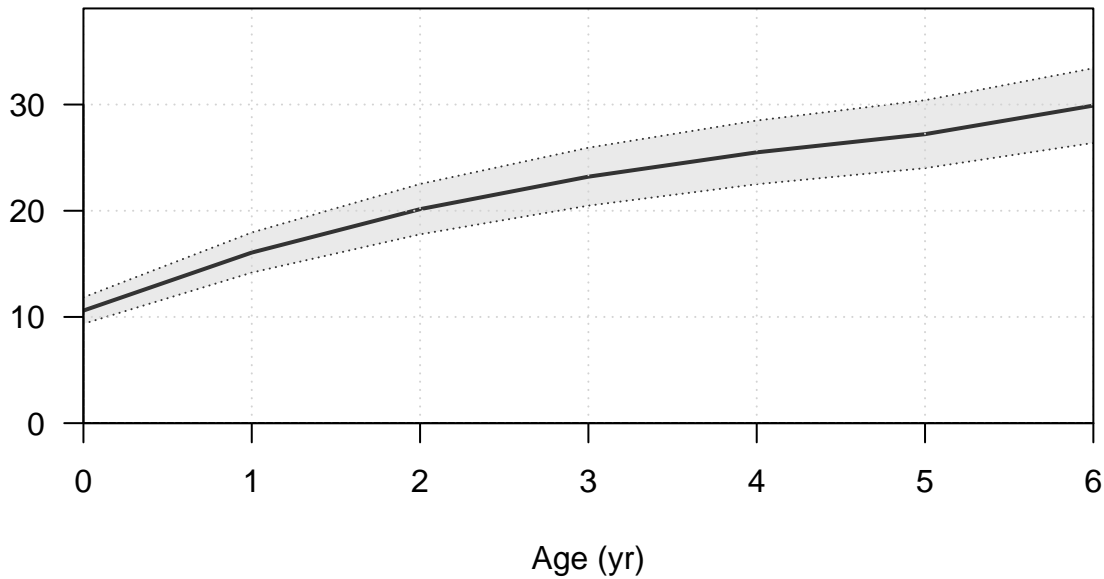
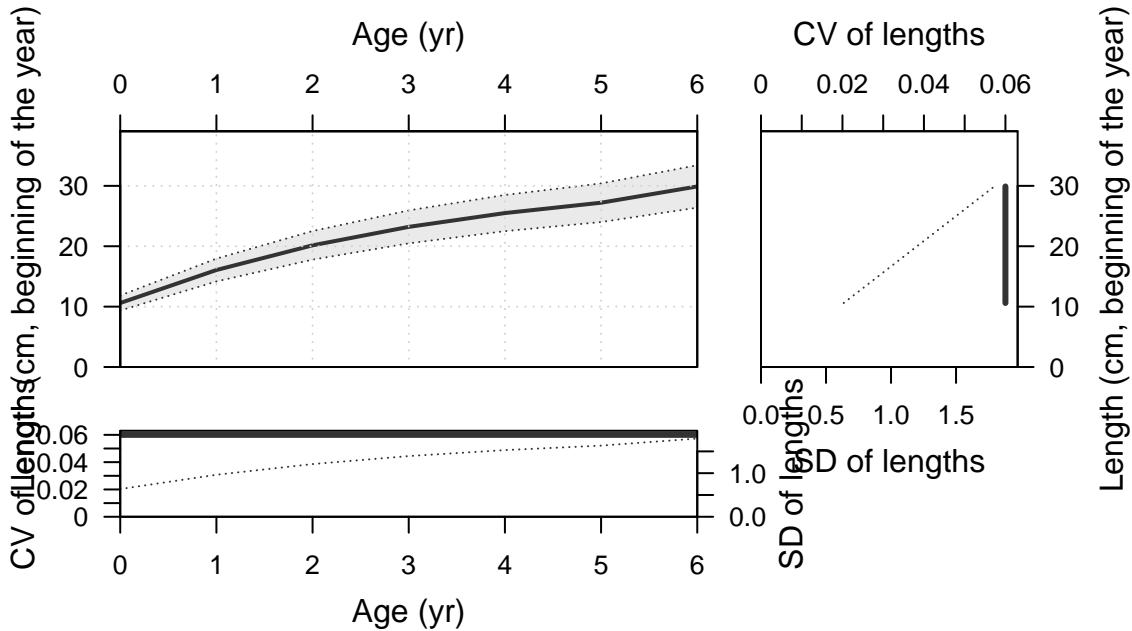
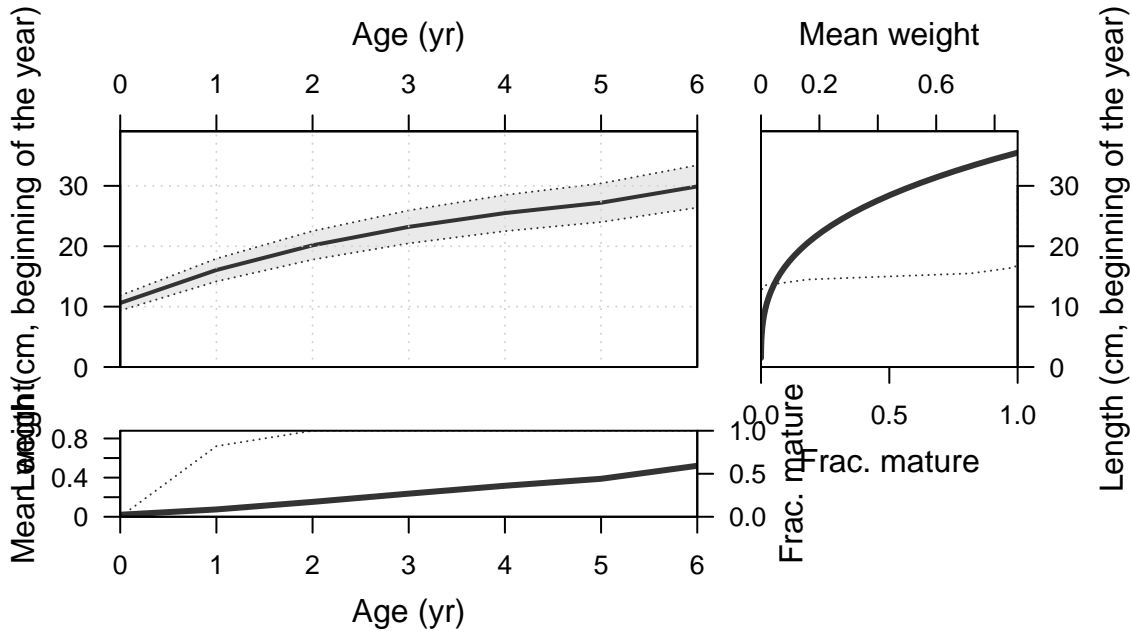


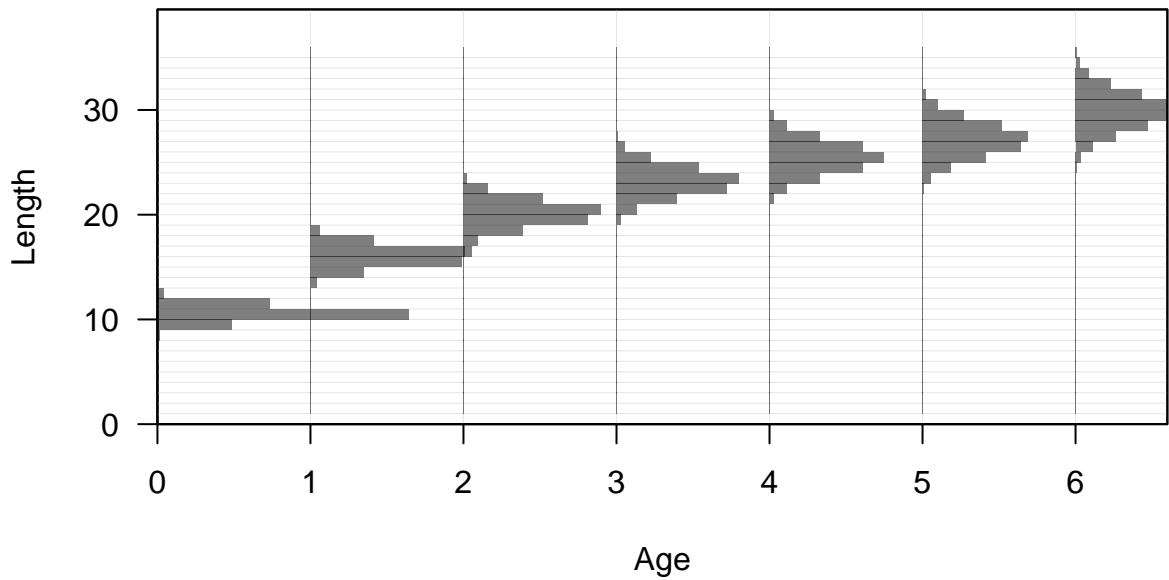
Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Thu Jul 14 17:18:50 2022  
Data\_File: data.ss  
Control\_File: control.ss

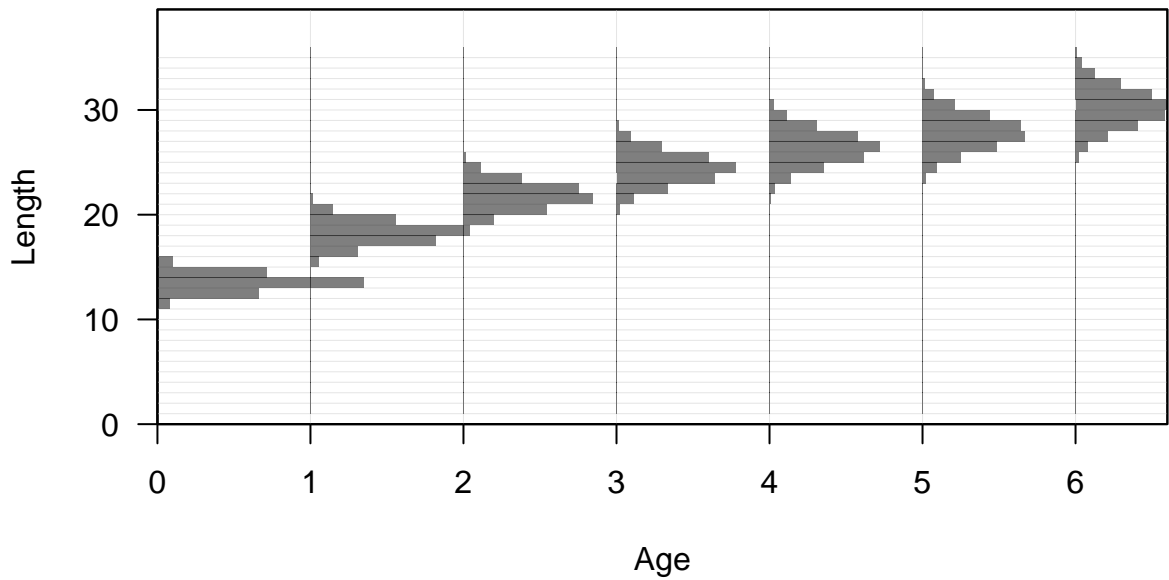
Length (cm, beginning of the year)

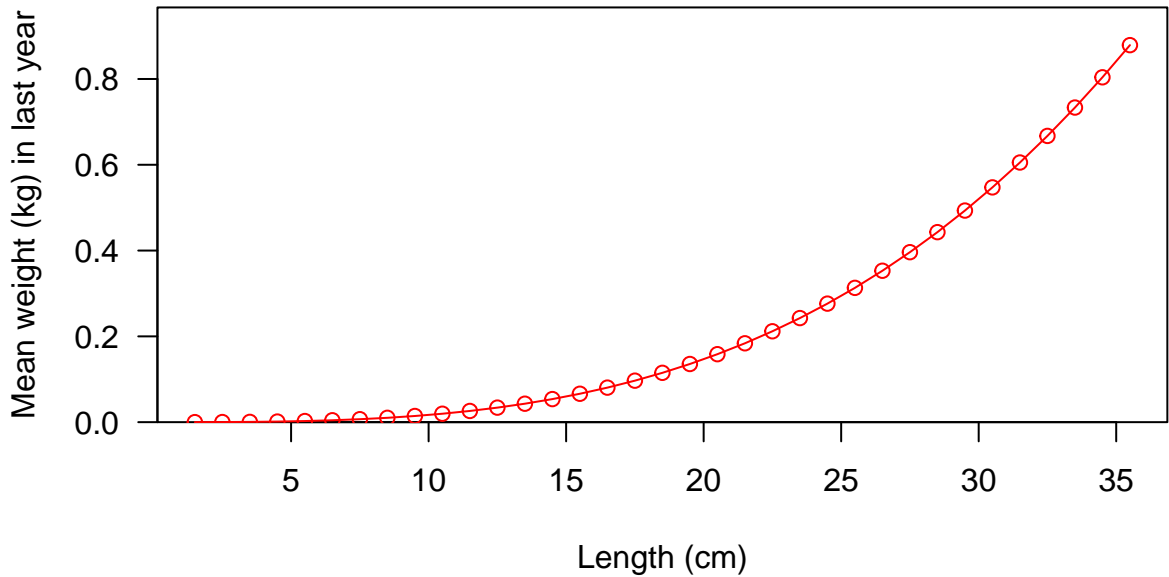


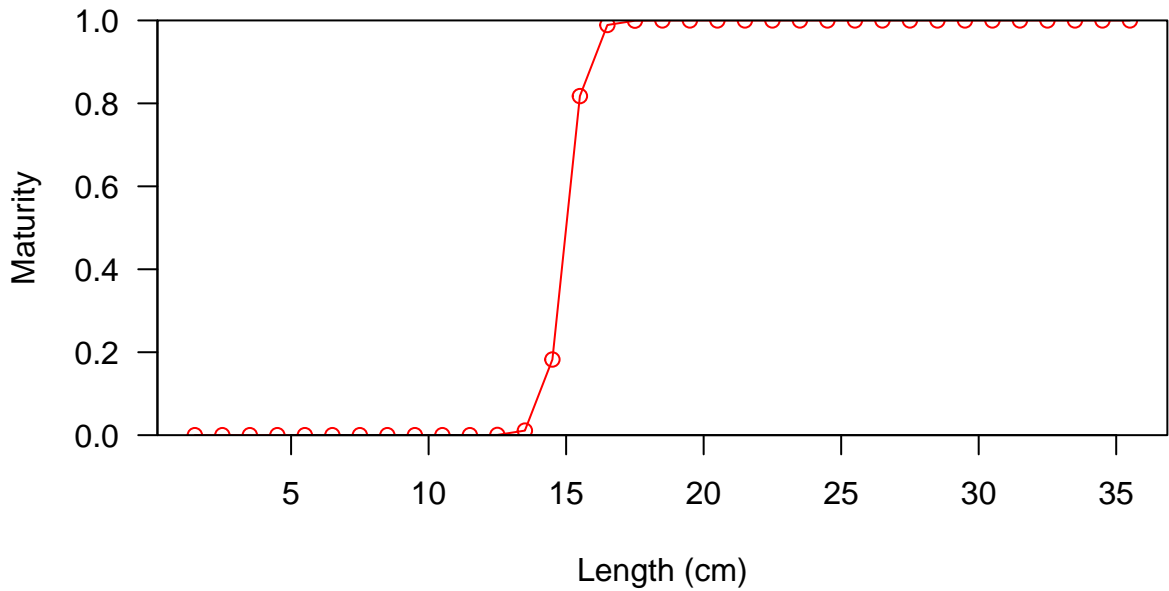




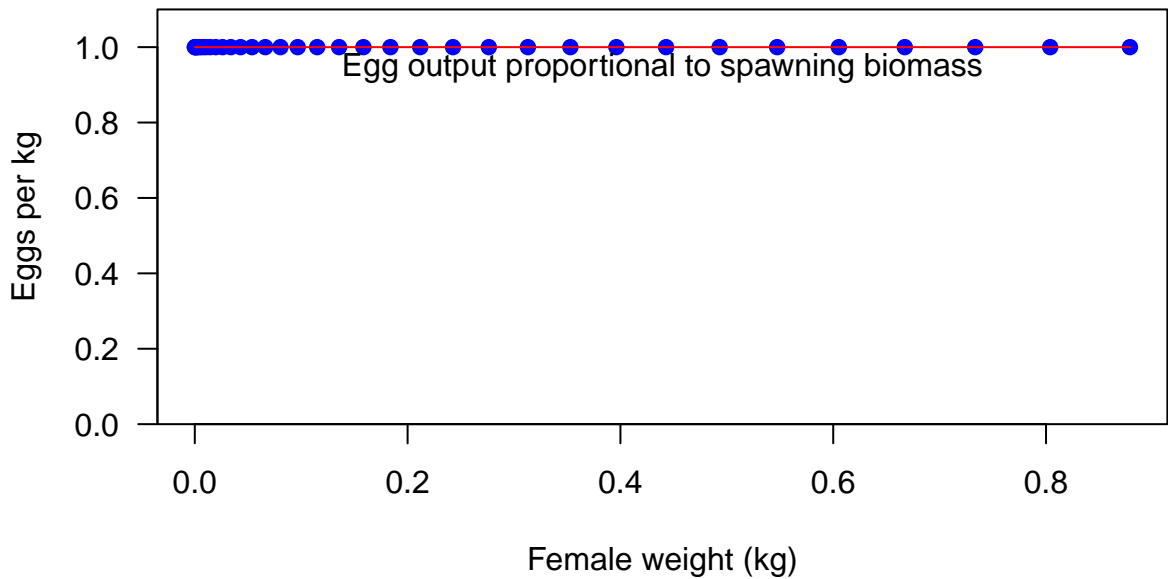


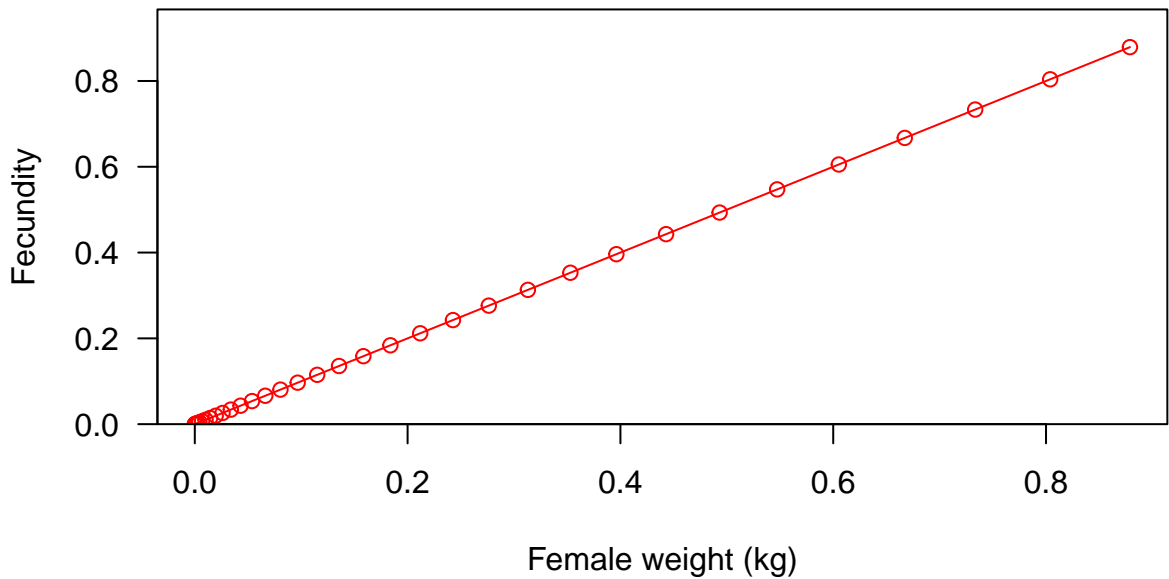


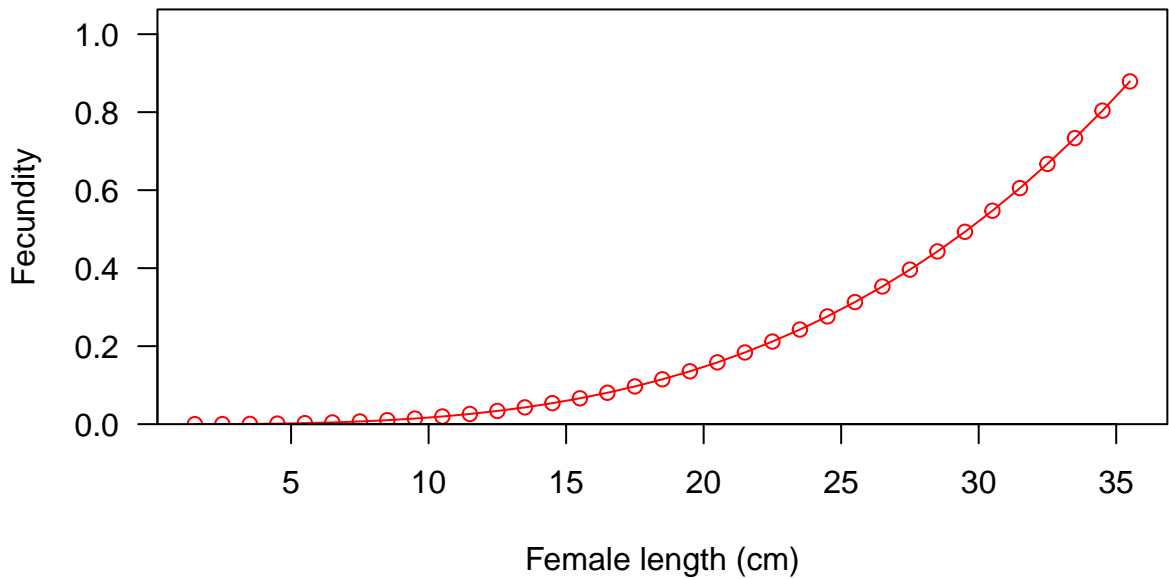


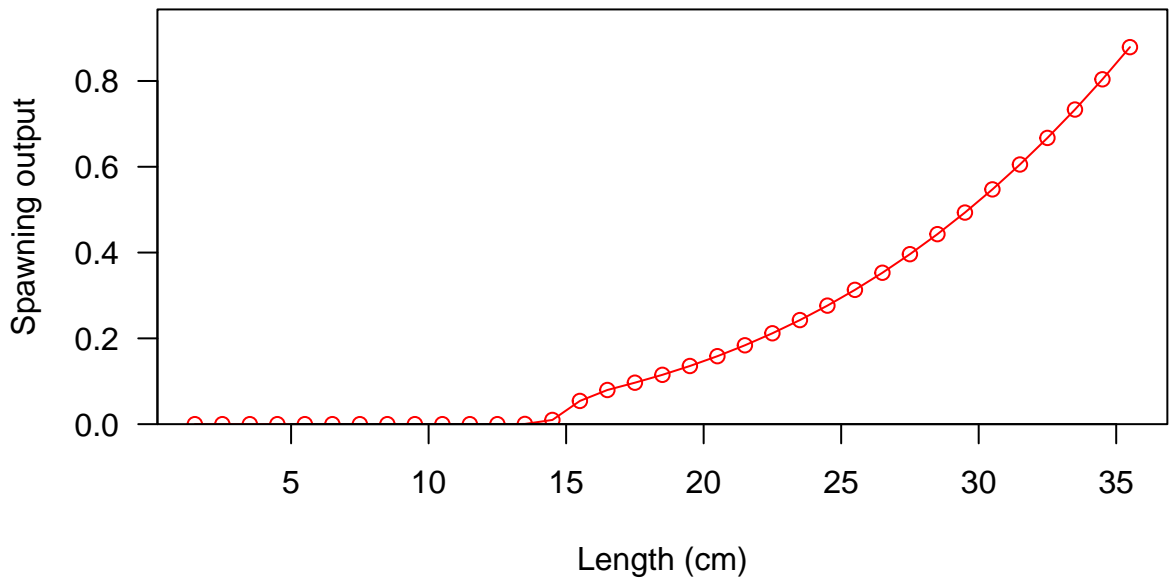


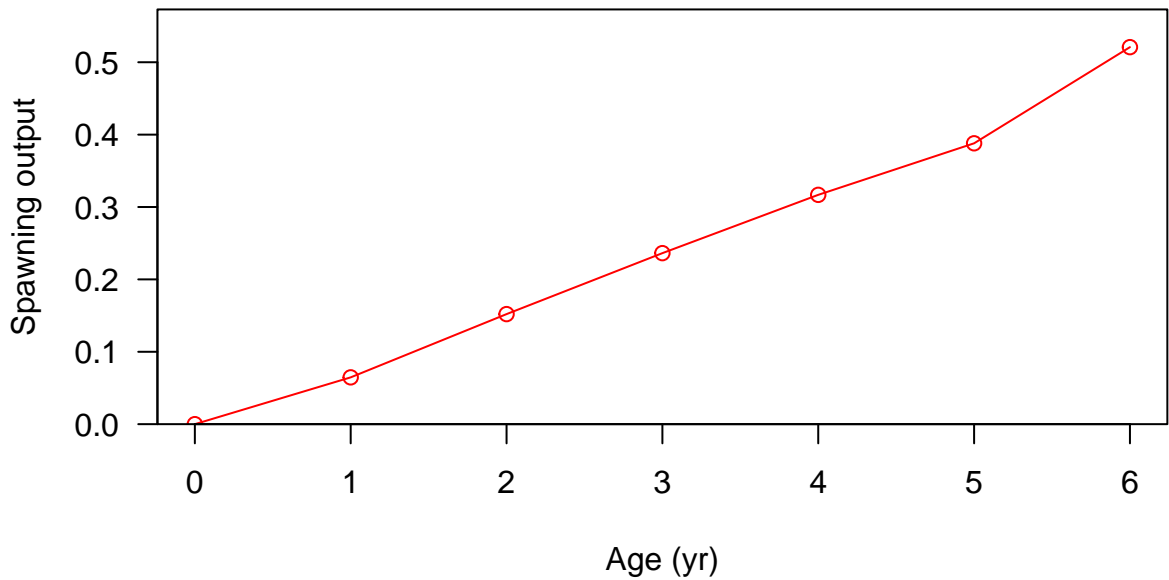




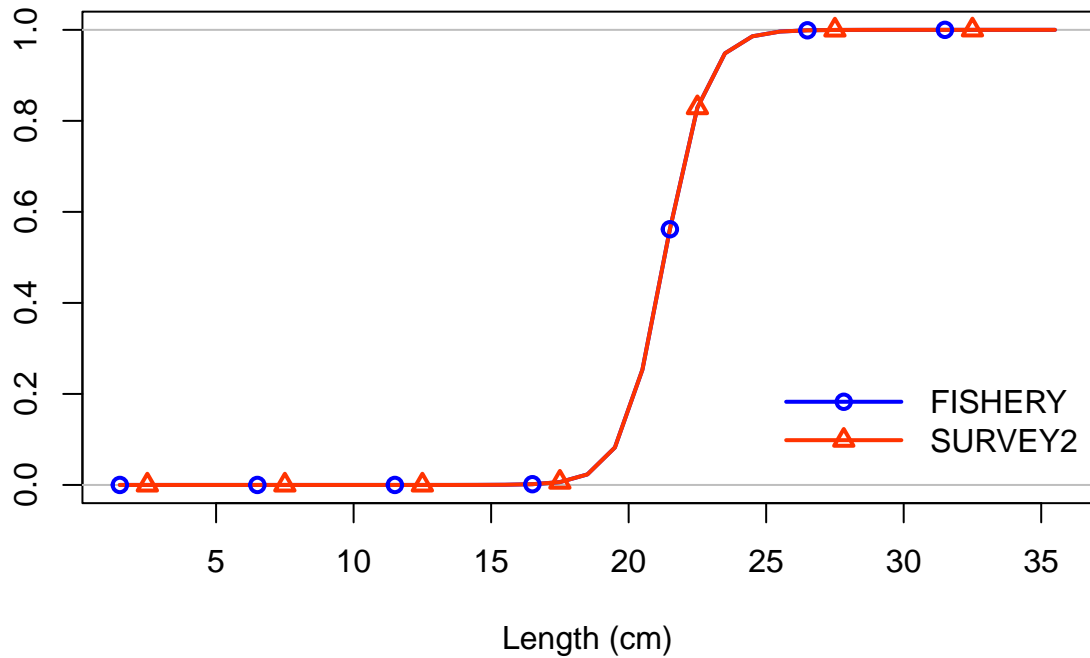




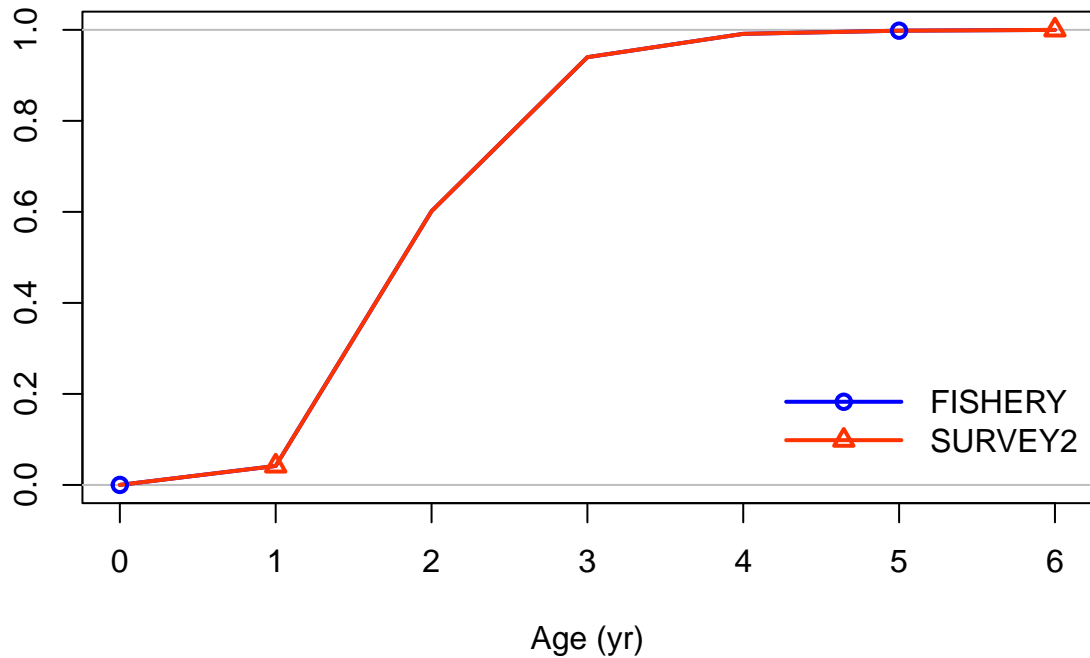




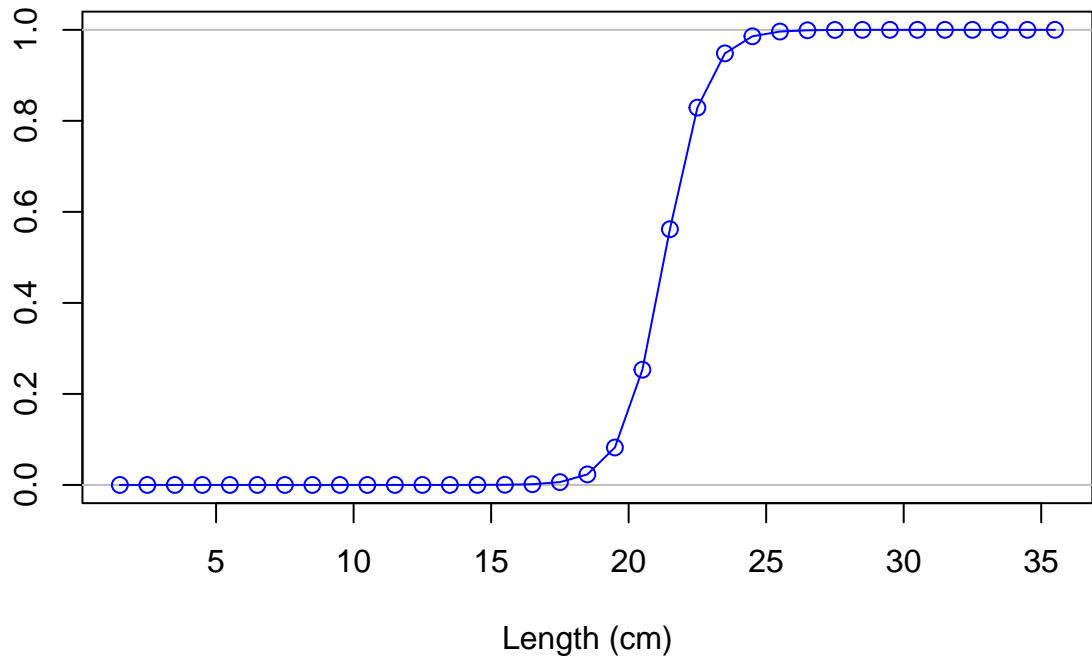
Selectivity



Selectivity

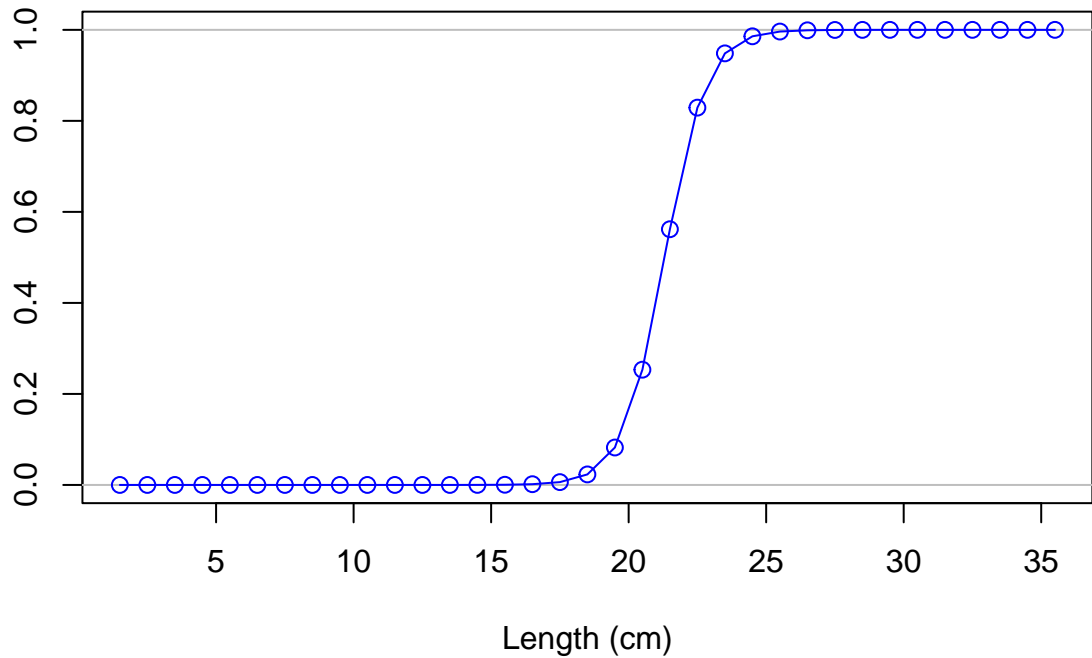


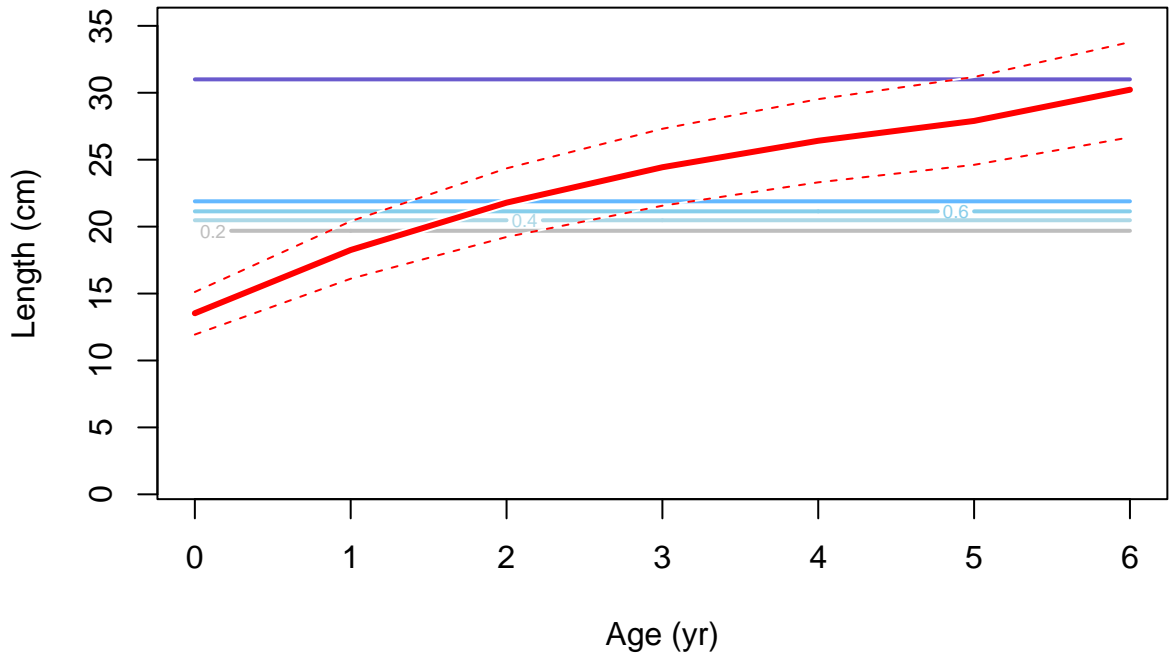
Selectivity

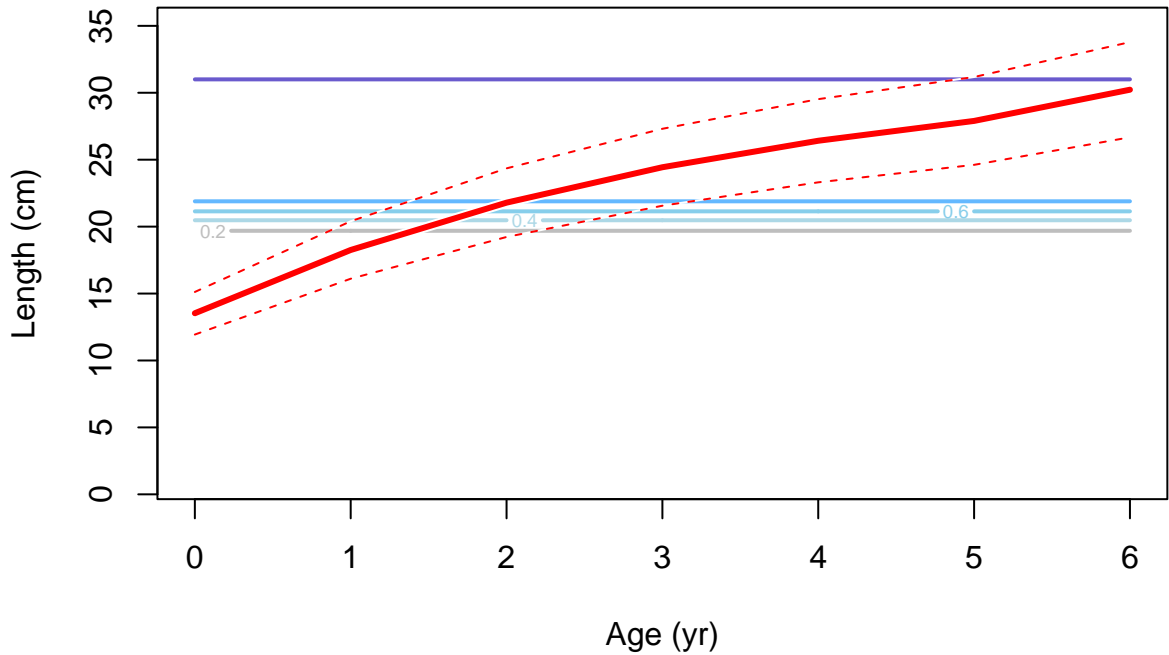




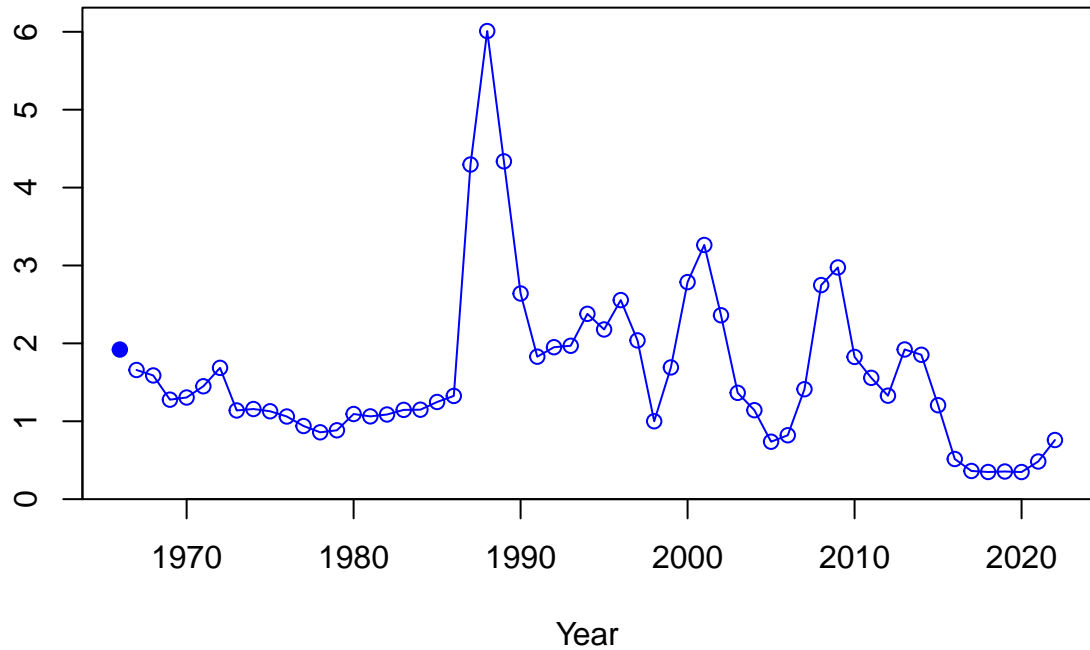
Selectivity







Spawning biomass (mt)



Spawning biomass (mt)

7  
6  
5  
4  
3  
2  
1  
0

1970

1980

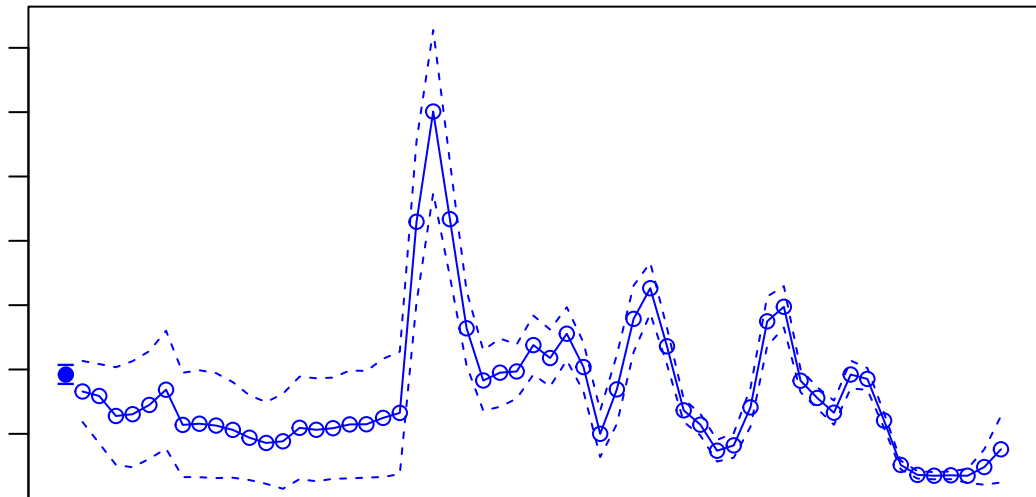
1990

2000

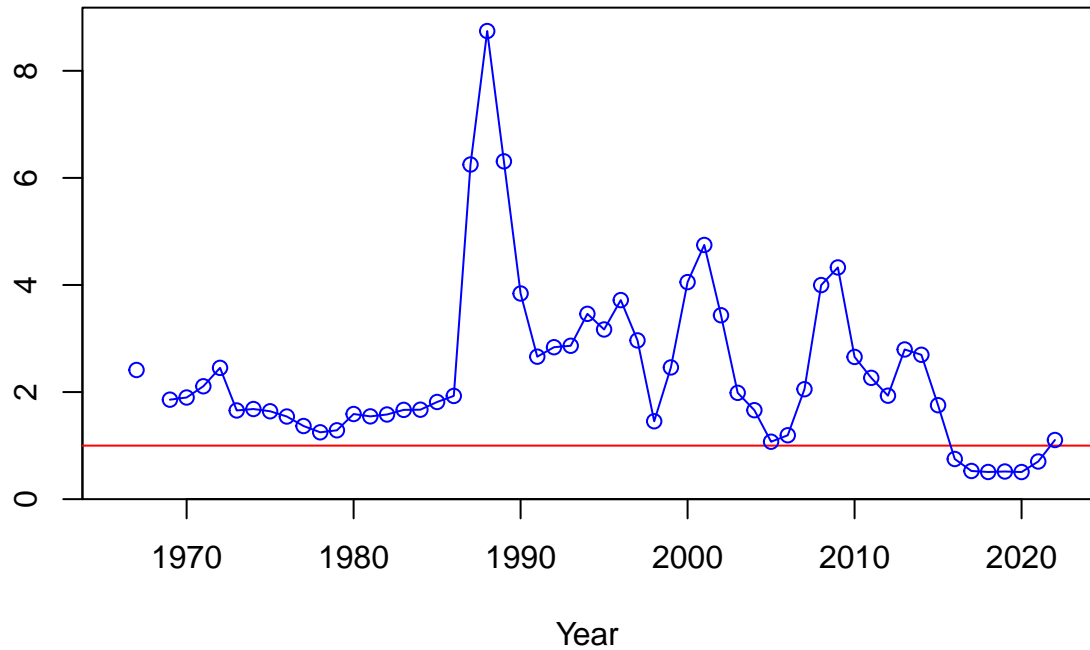
2010

2020

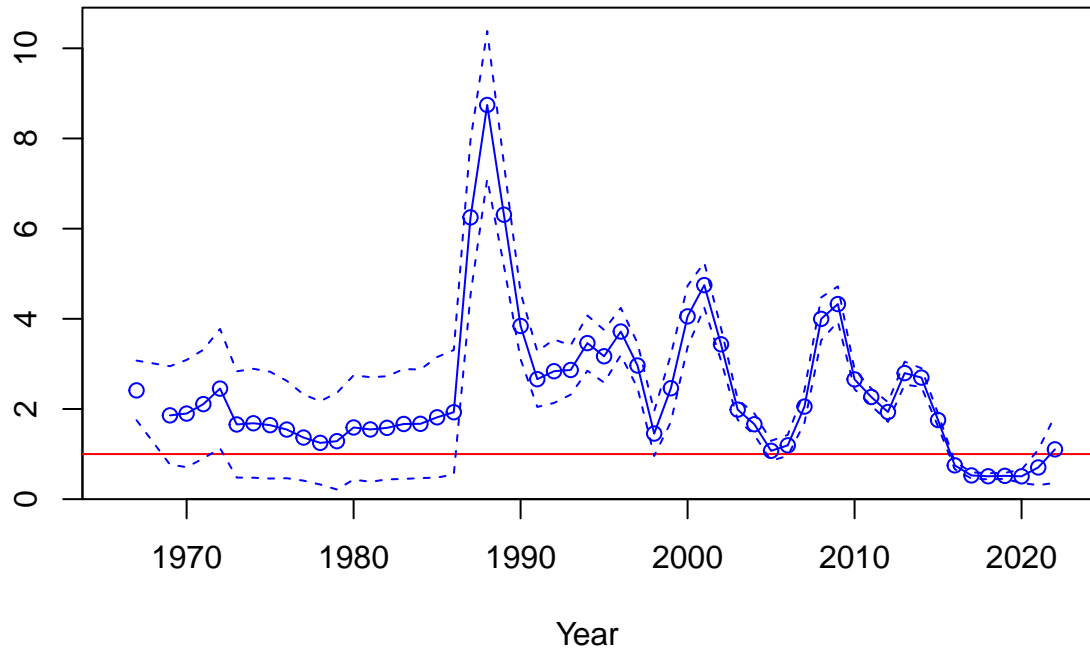
Year

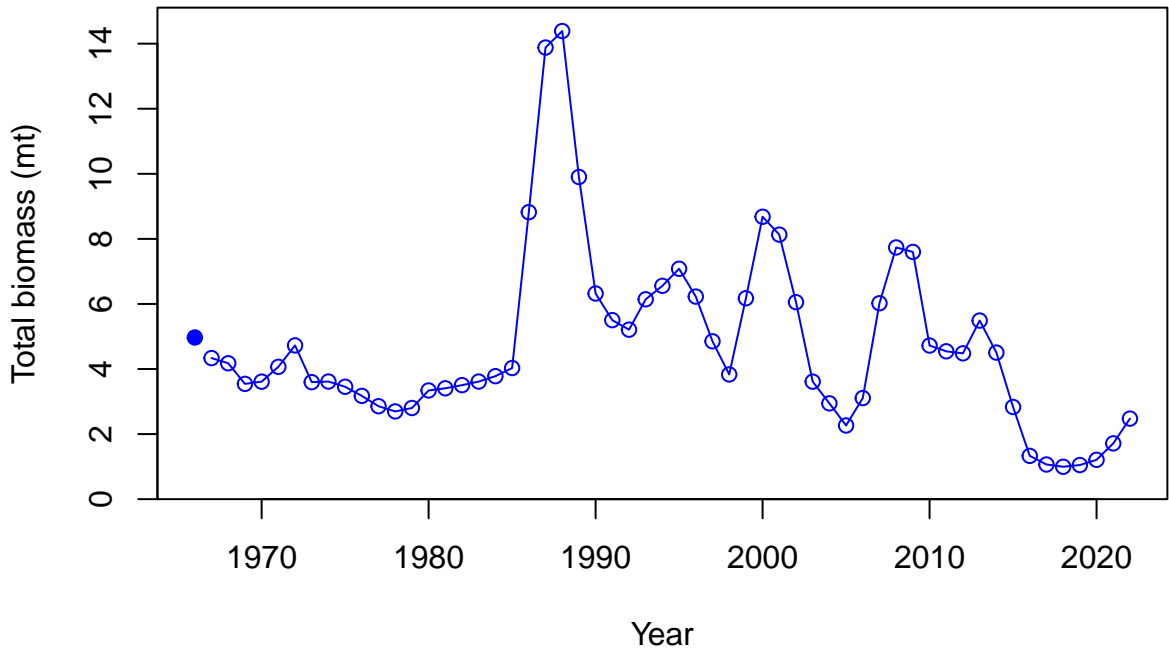


Relative spawning biomass:  $B/B_{MSY}$



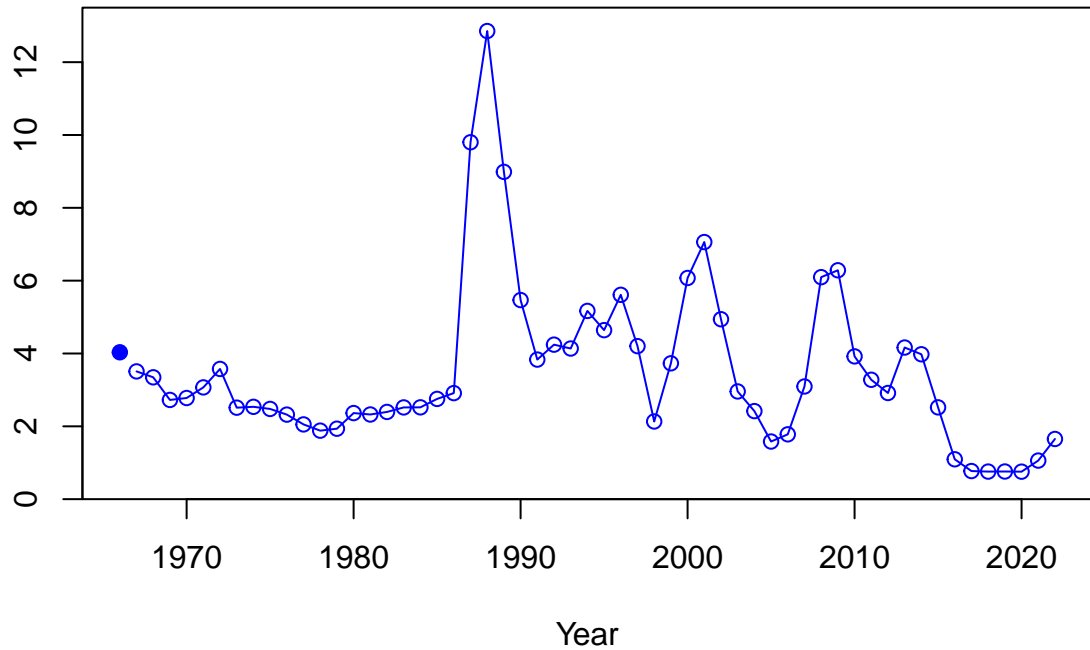
Relative spawning biomass:  $B/B_{MSY}$

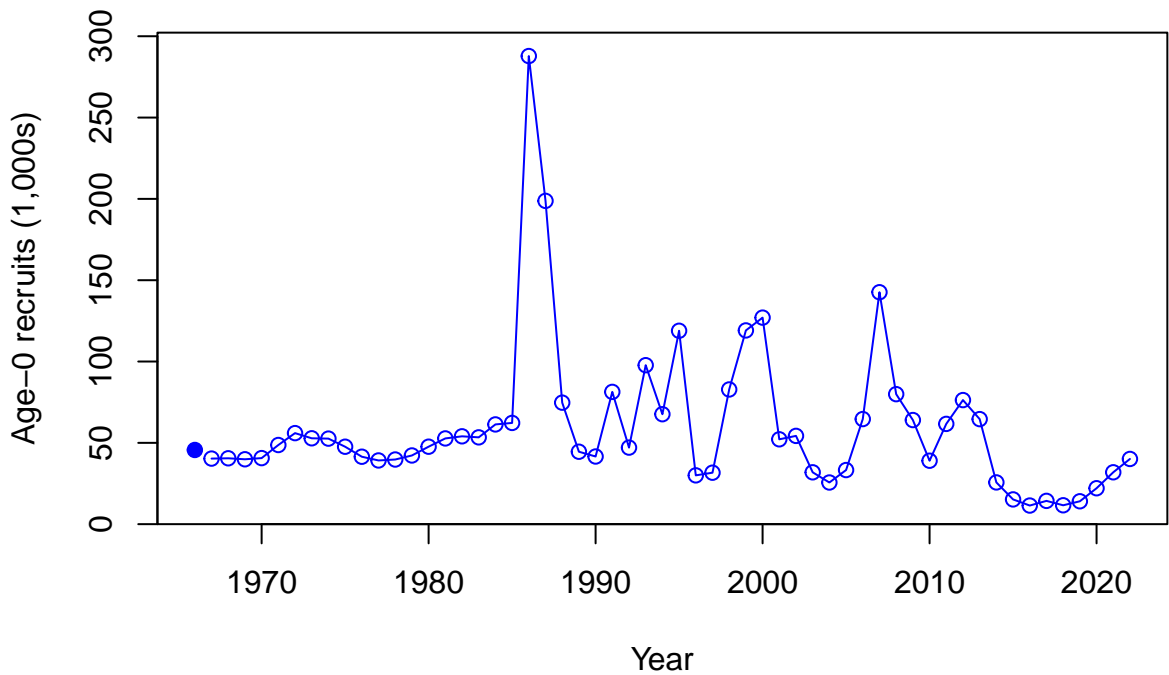




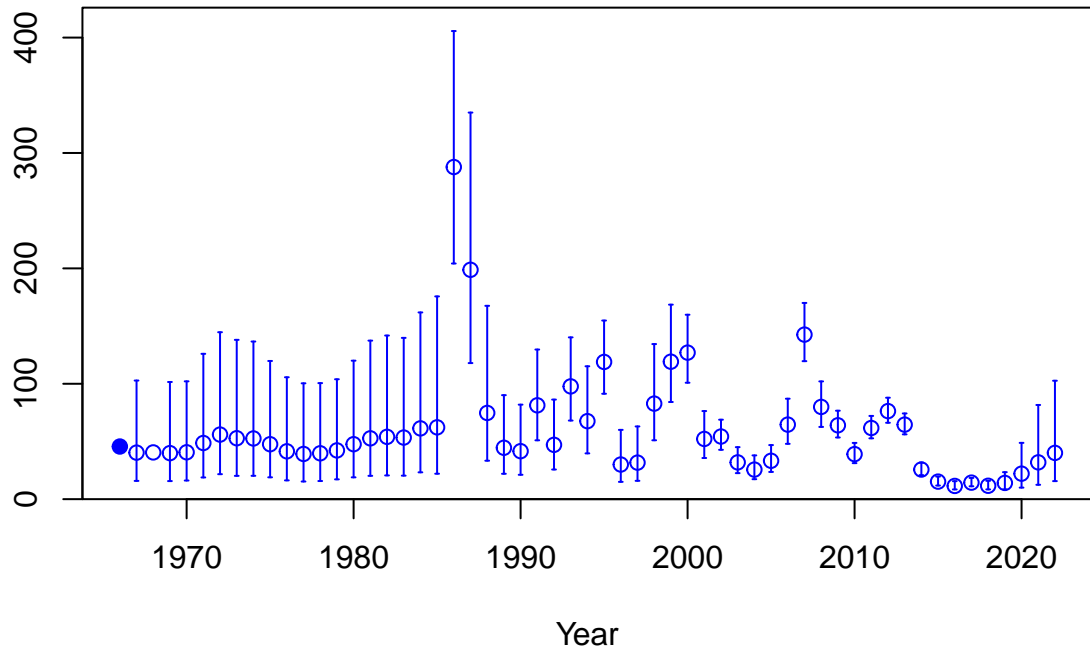


Summary biomass (mt)

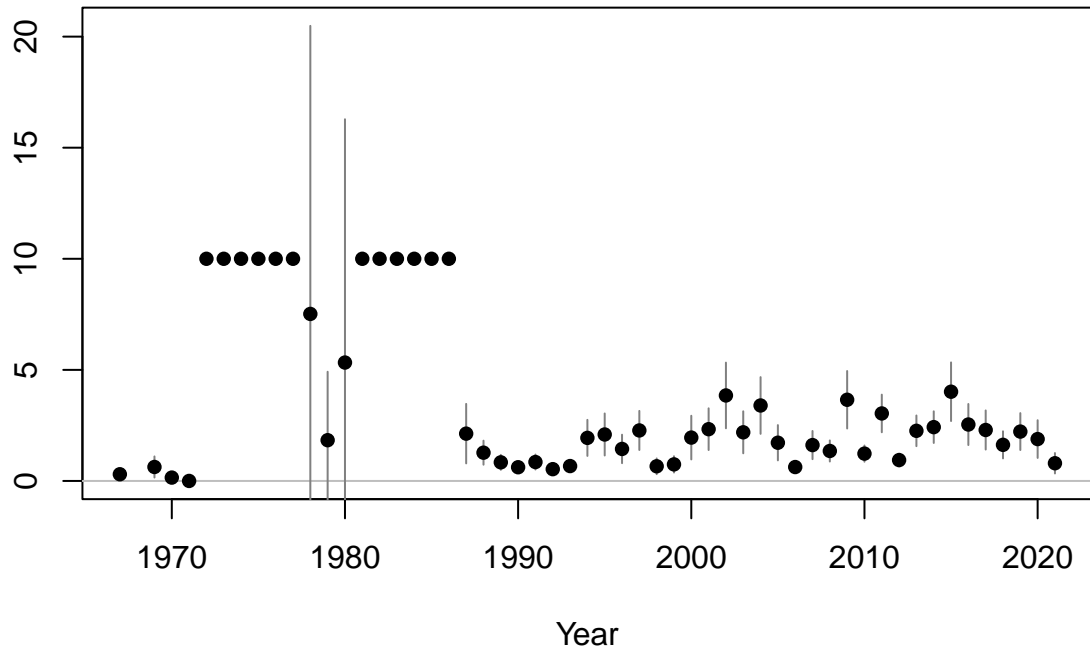


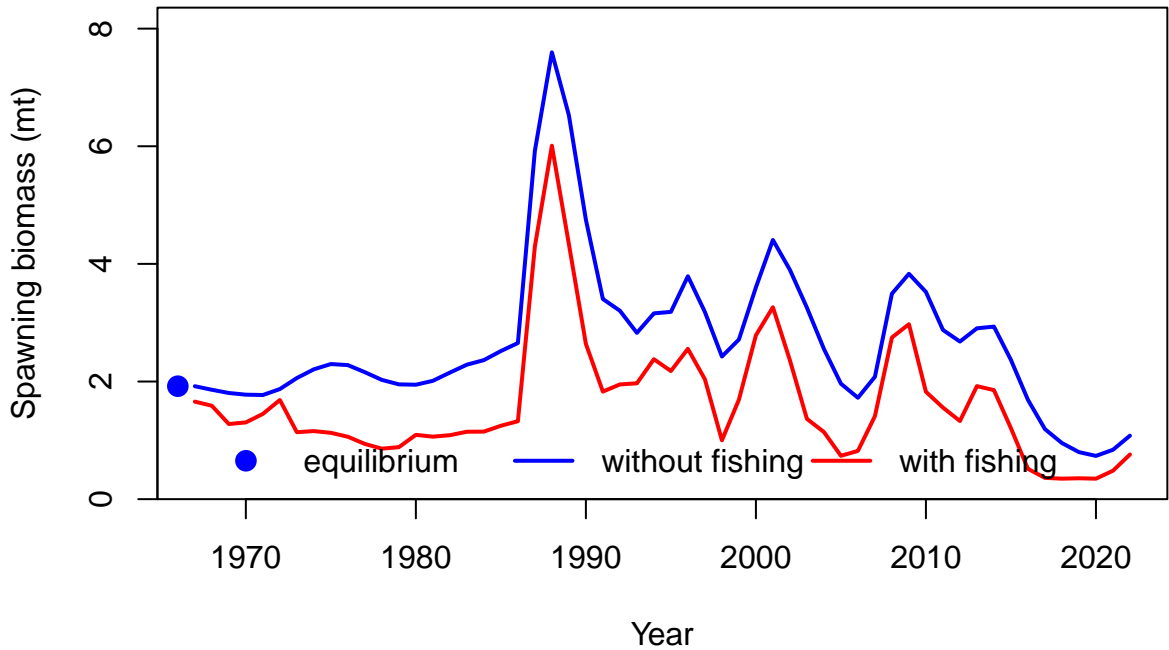


Age-0 recruits (1,000s)

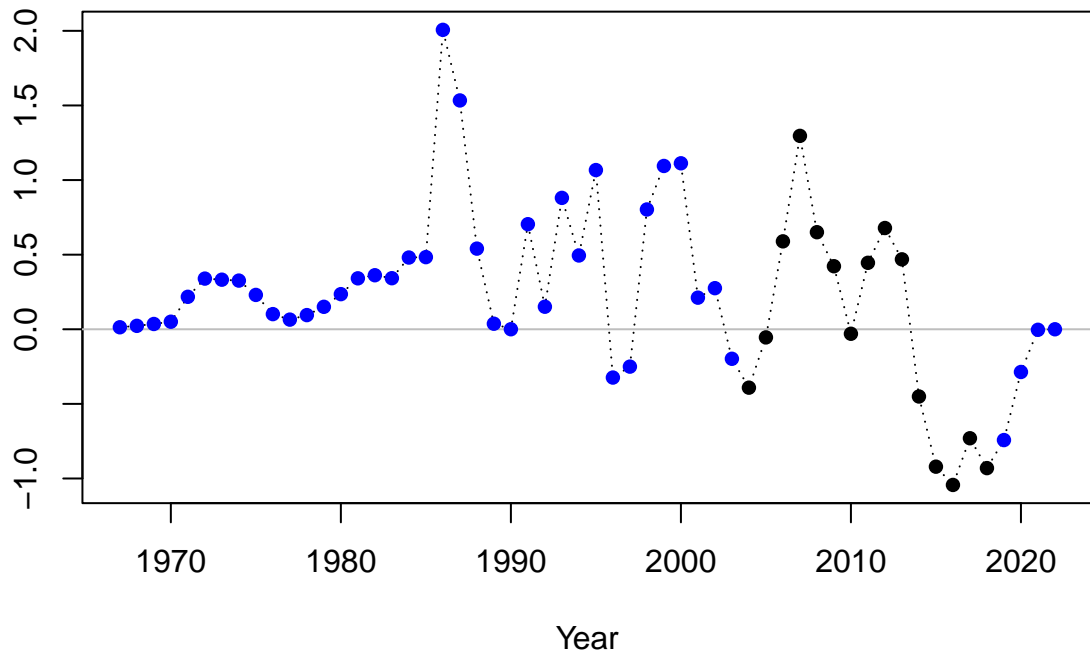


Summary Fishing Mortality





Log recruitment deviation



Log recruitment deviation

2  
1  
0  
-1

1970

1980

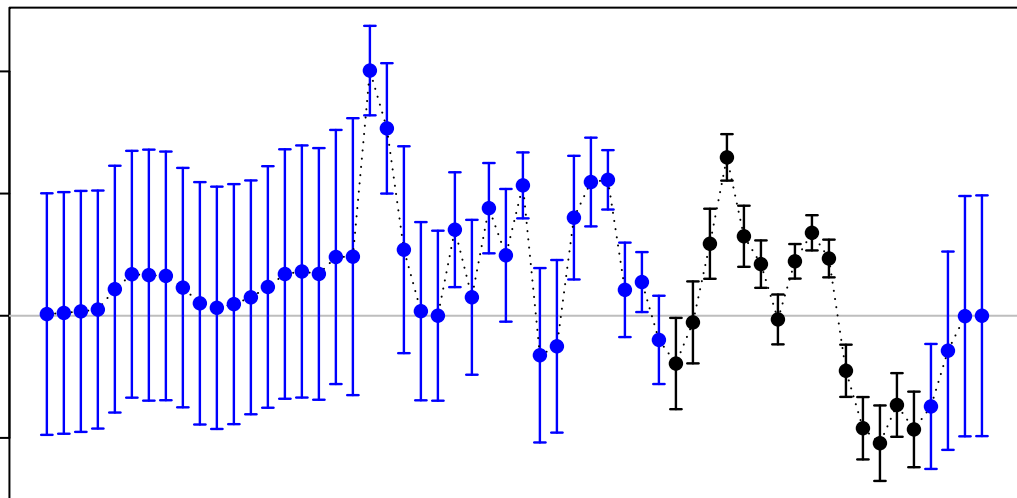
1990

2000

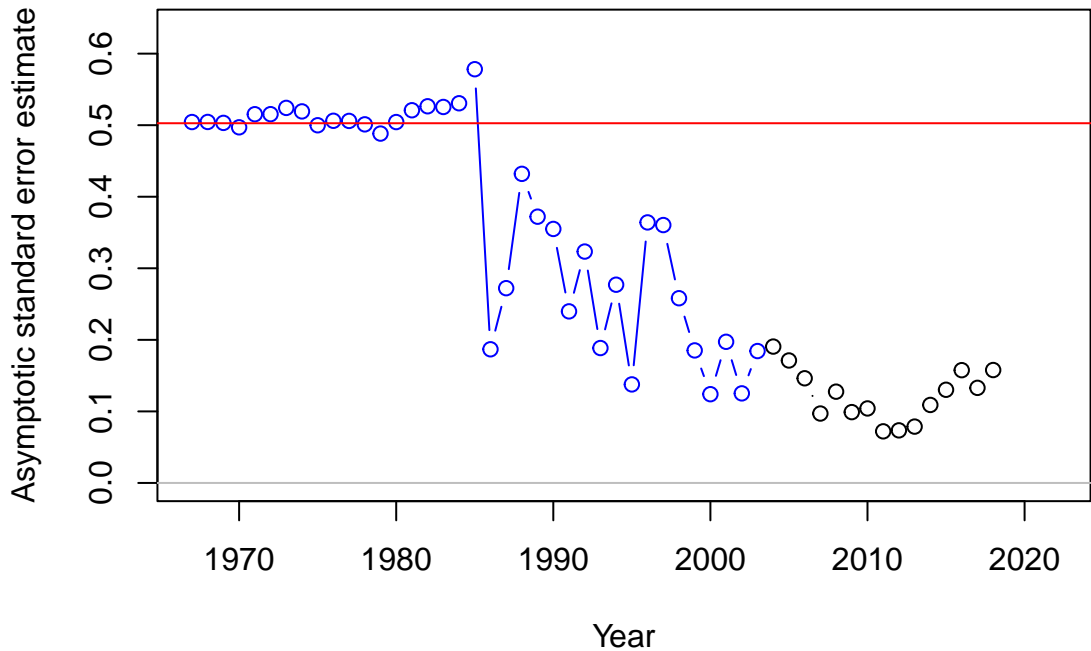
2010

2020

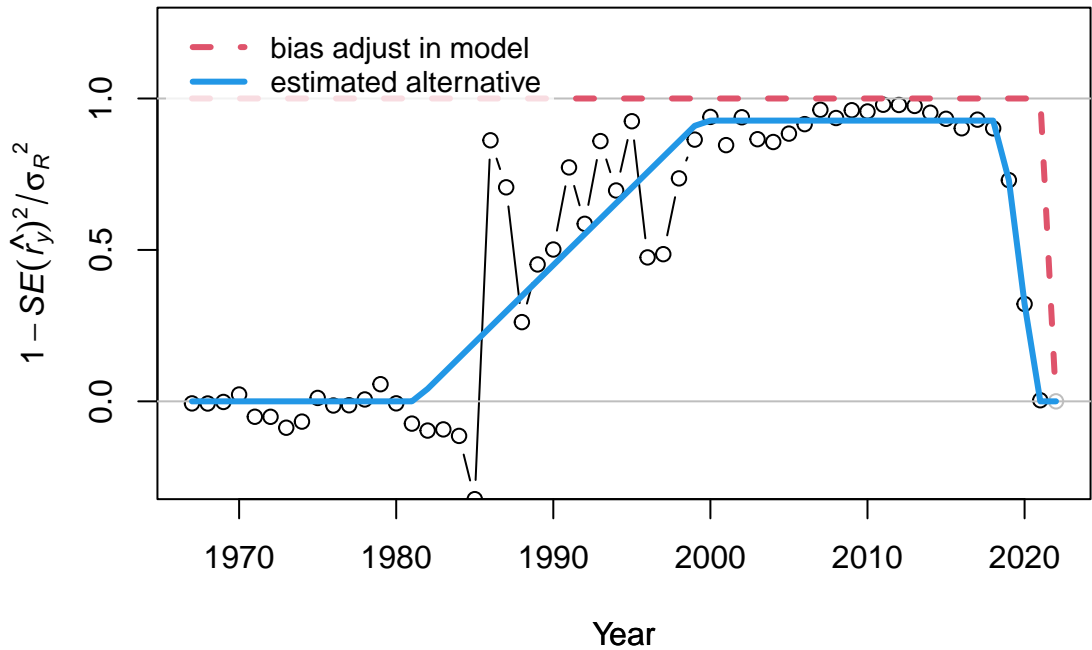
Year

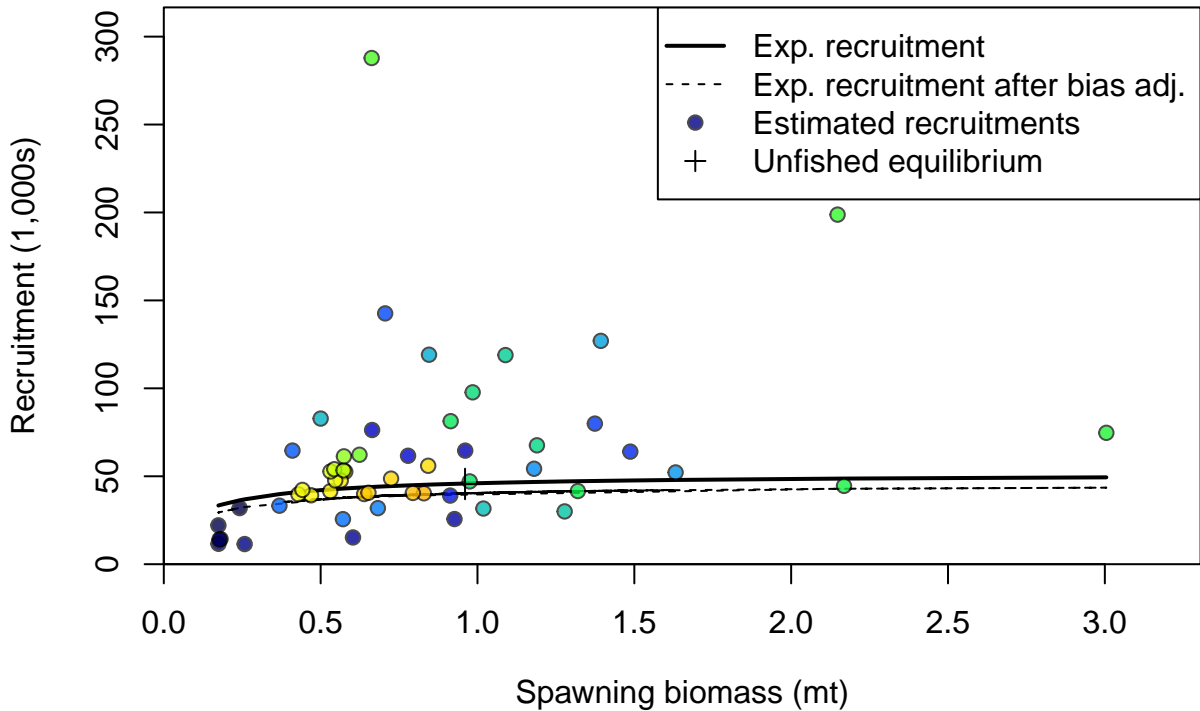


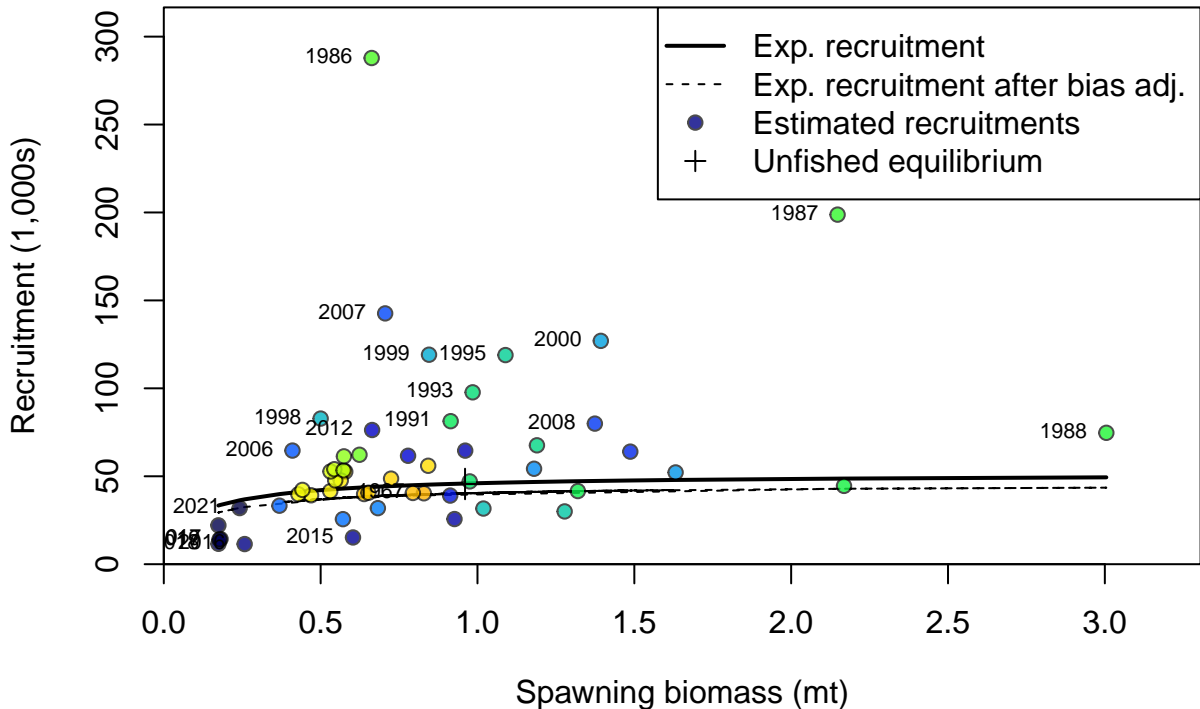
## Recruitment deviation variance



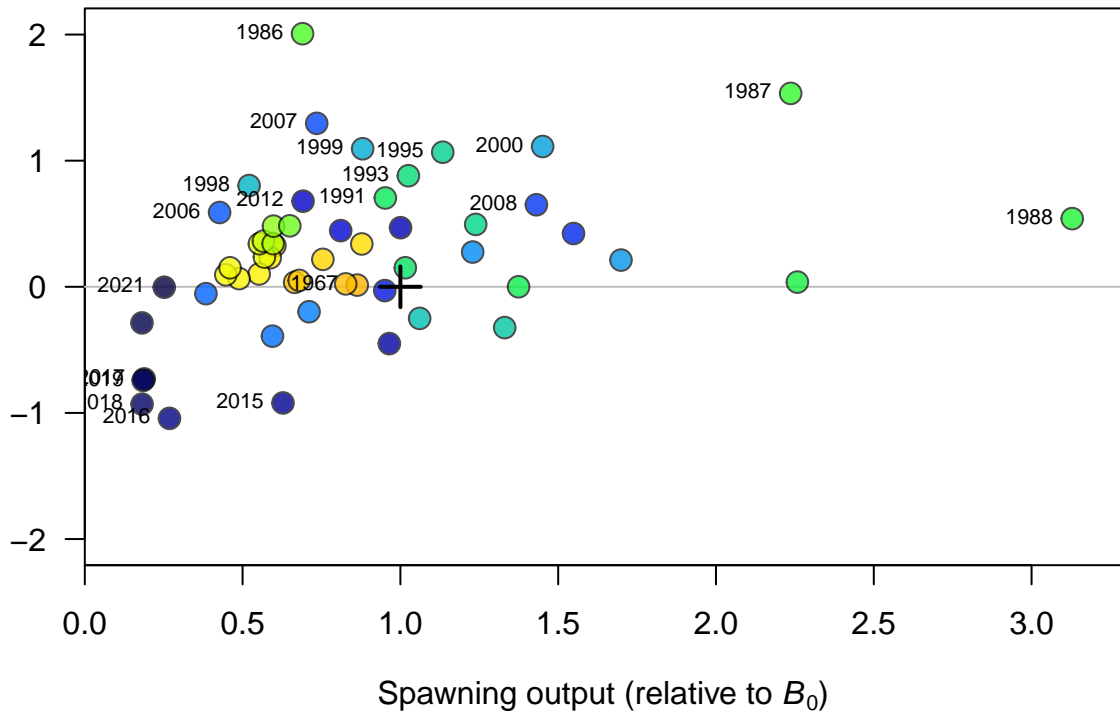


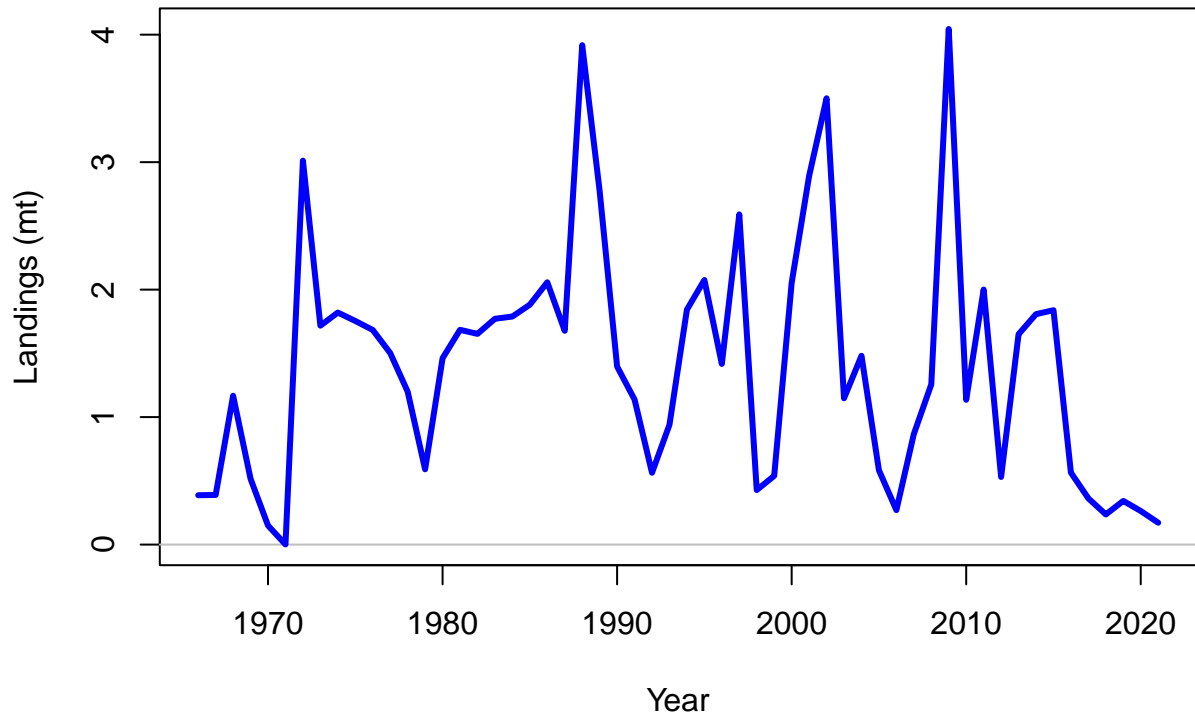


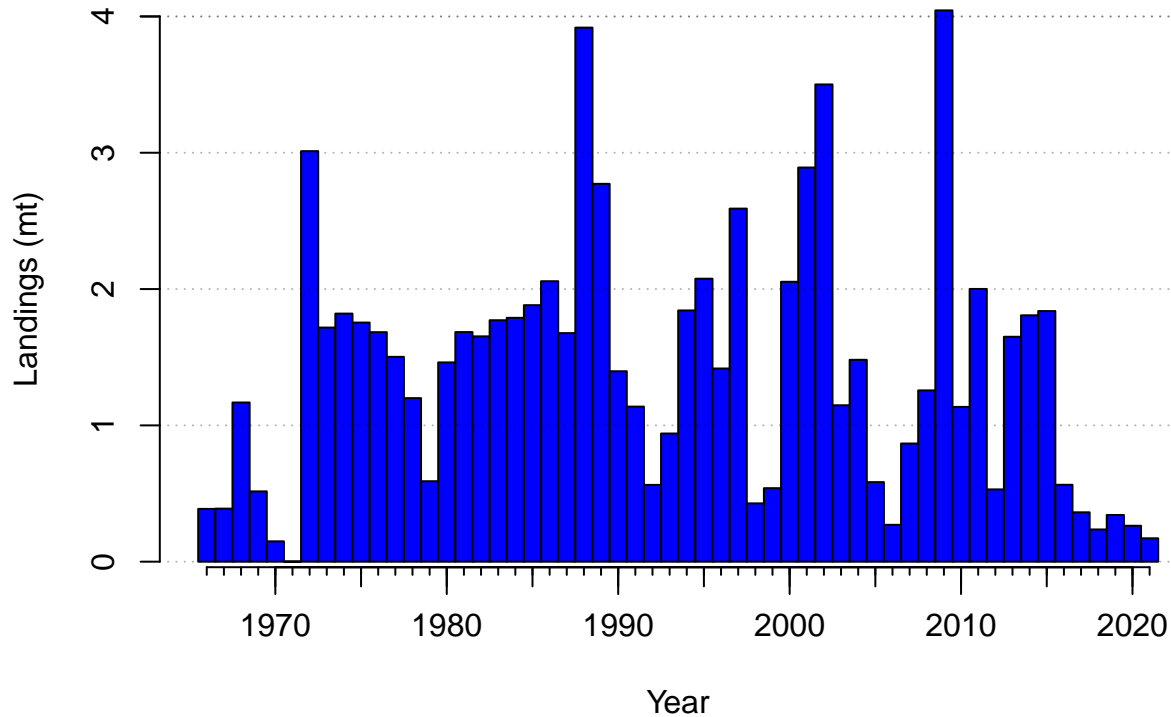




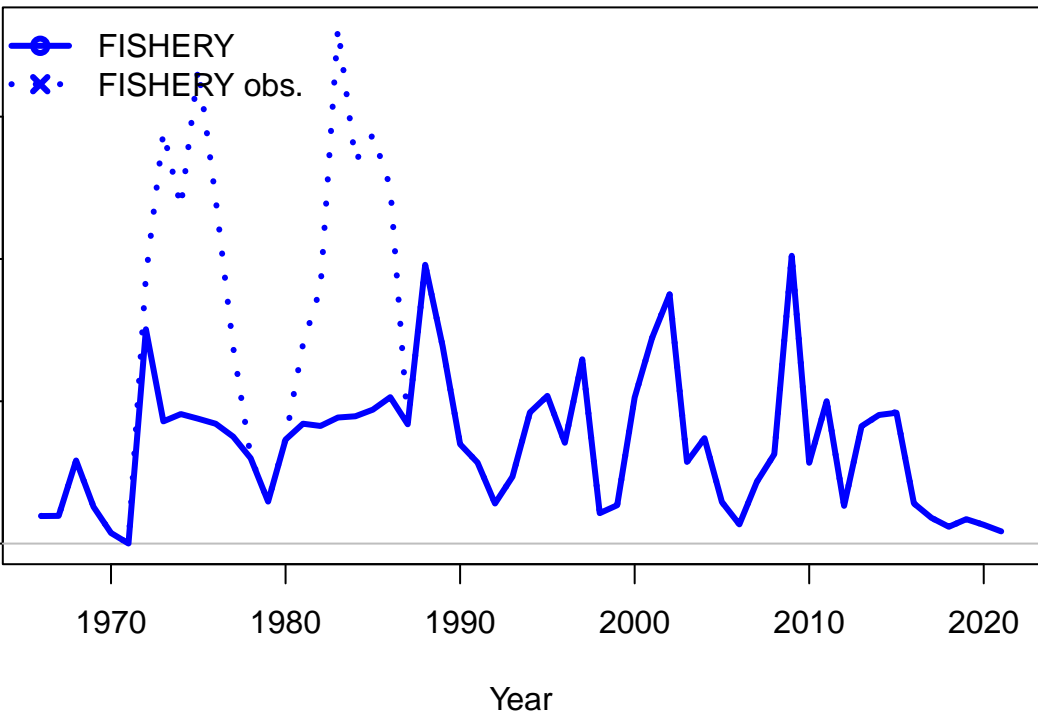
Log recruitment deviation

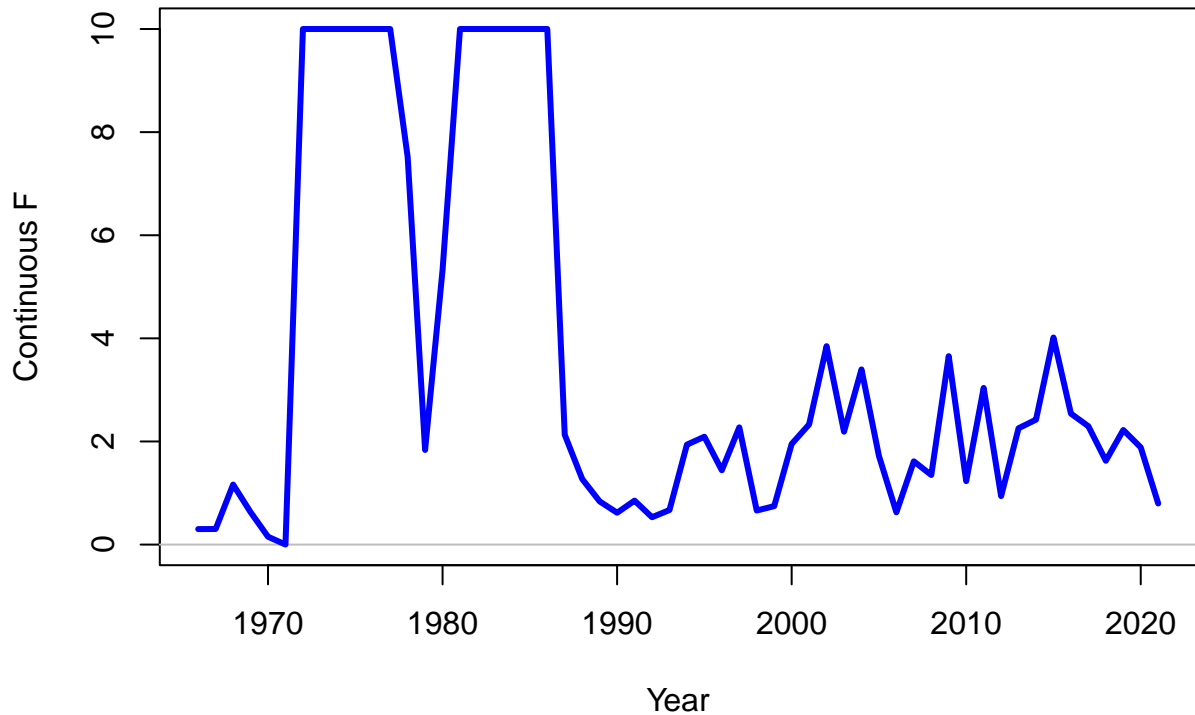






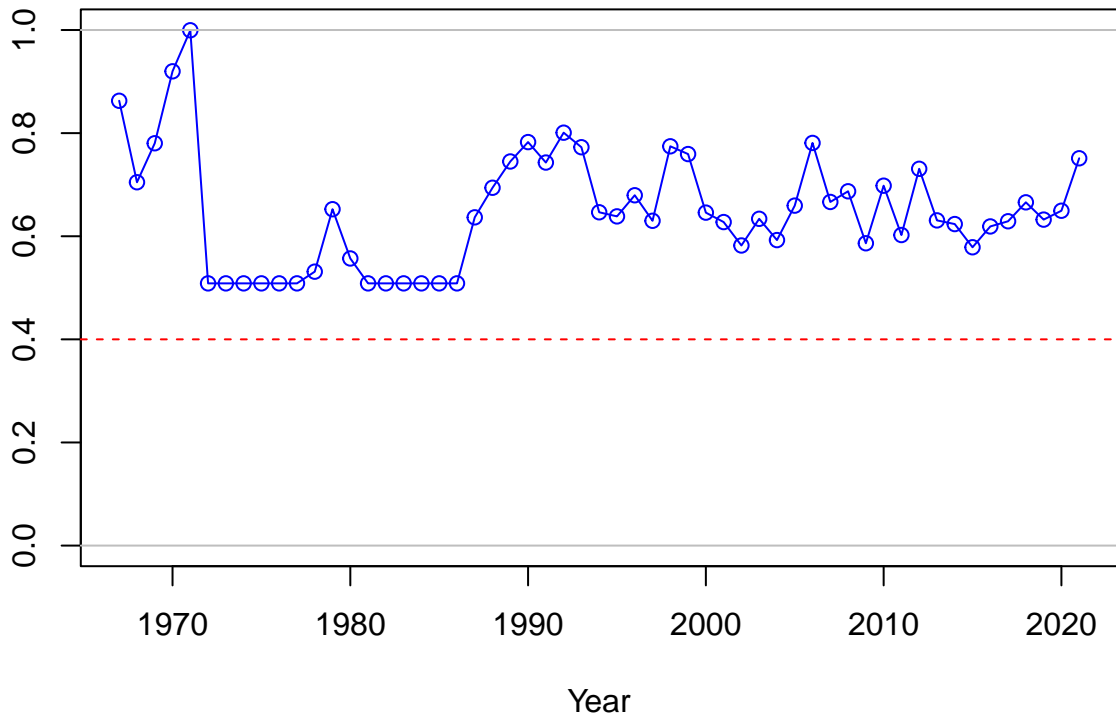
Observed and expected Landings (mt)

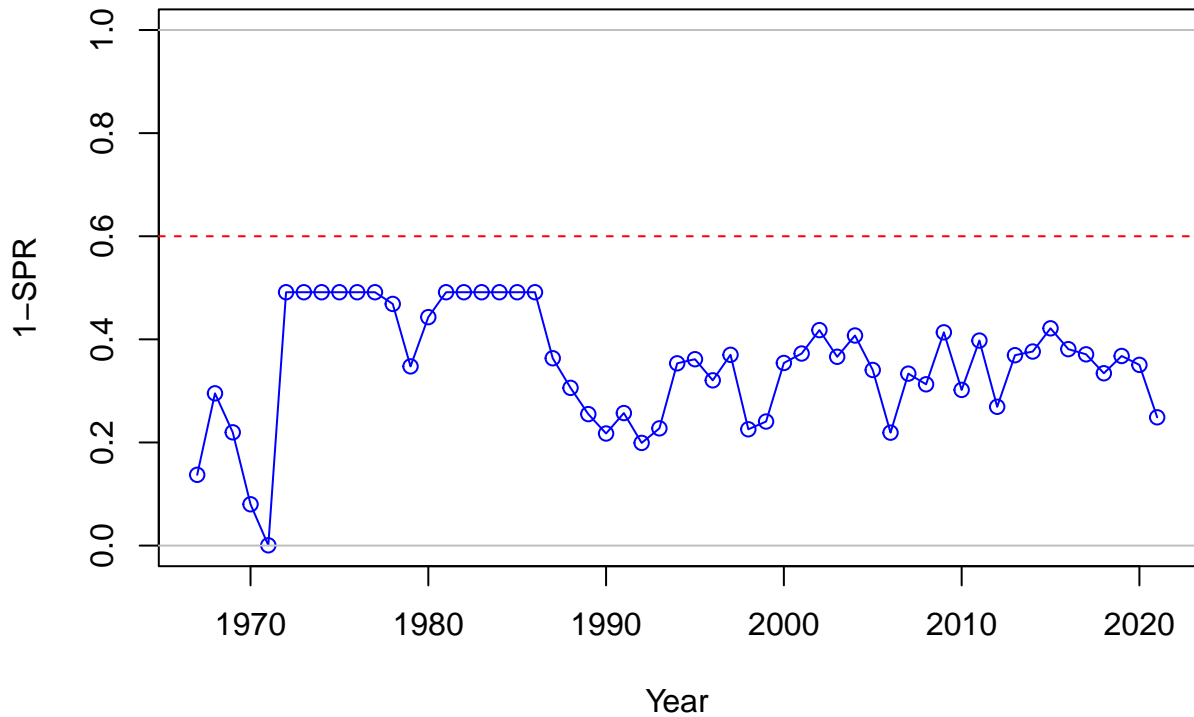




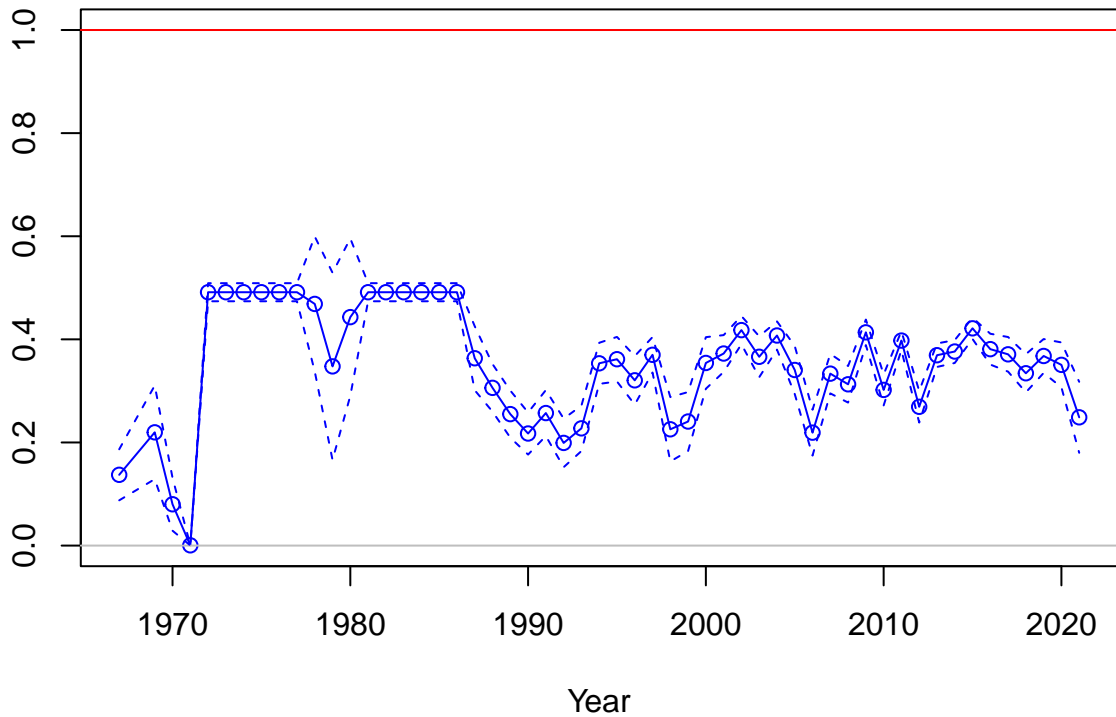


SPR

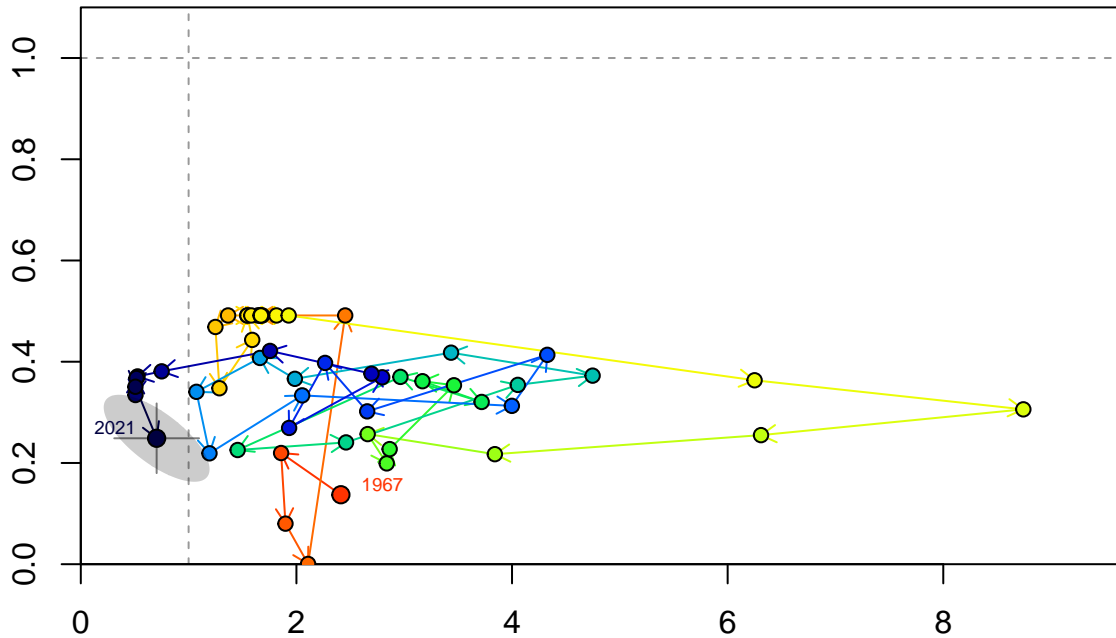




Fishing intensity: 1-SPR

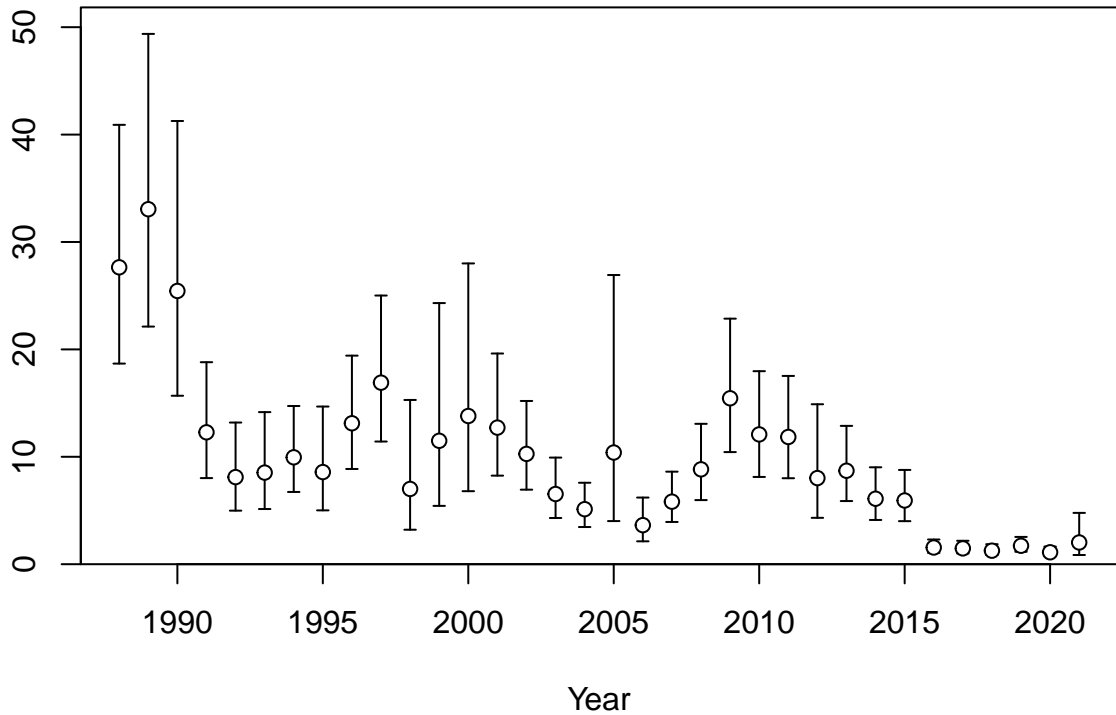


Fishing intensity: 1-SPR

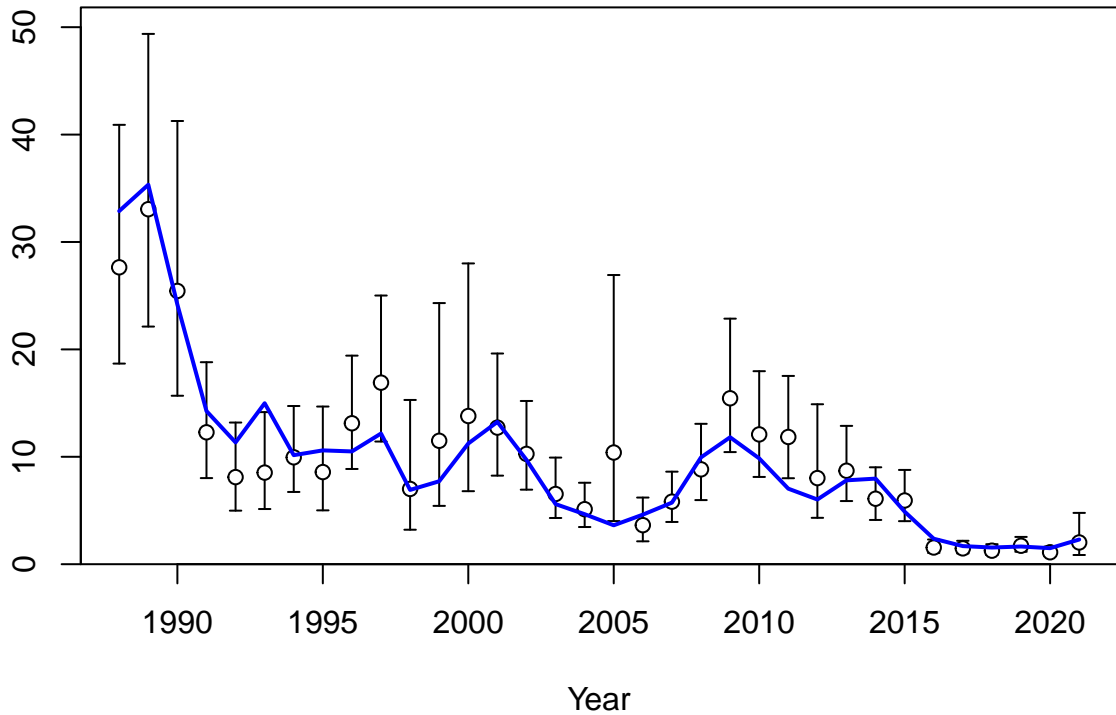


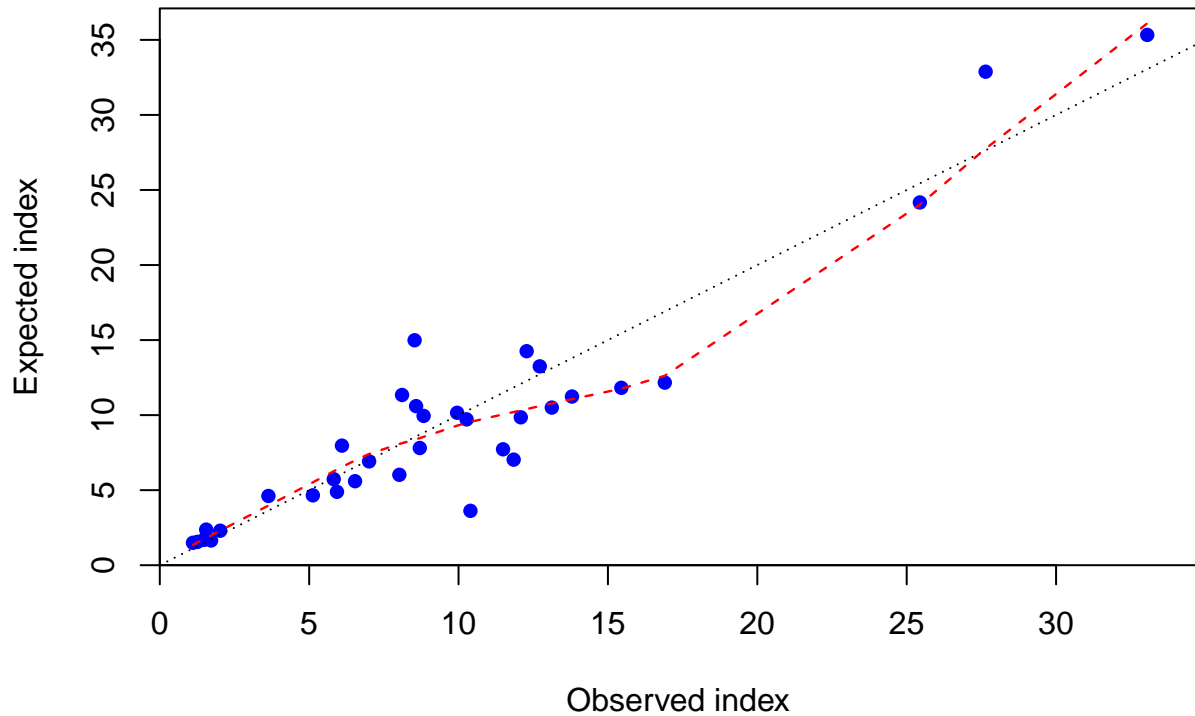
Relative spawning output: B/B\_MSY

Index

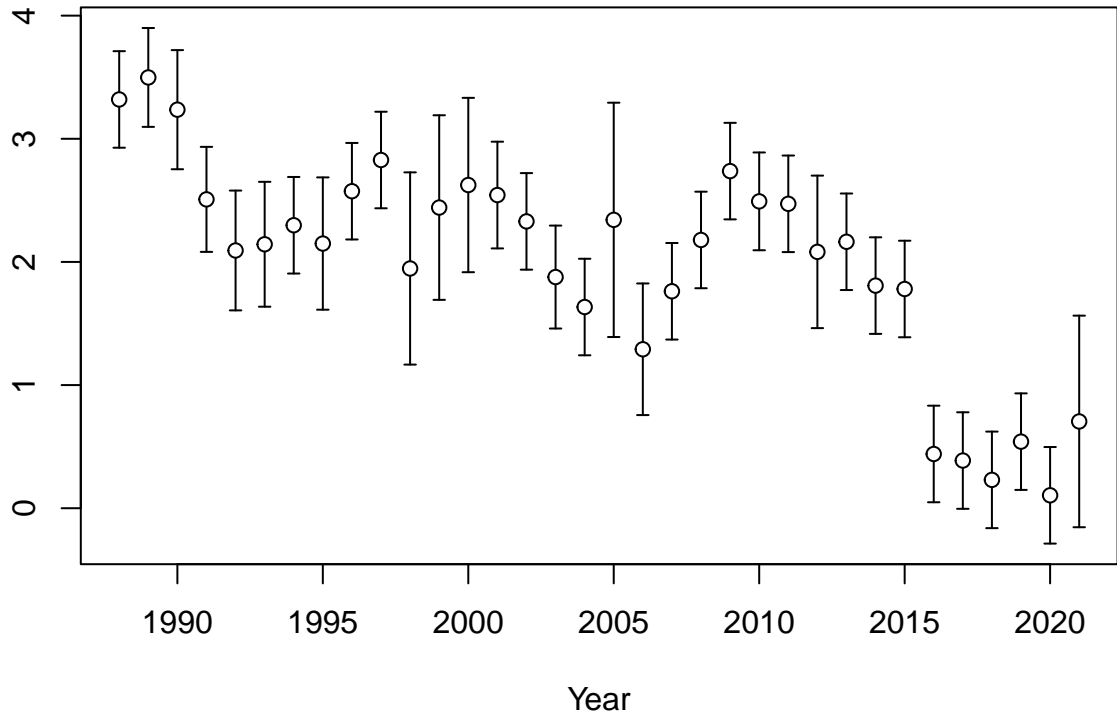


Index



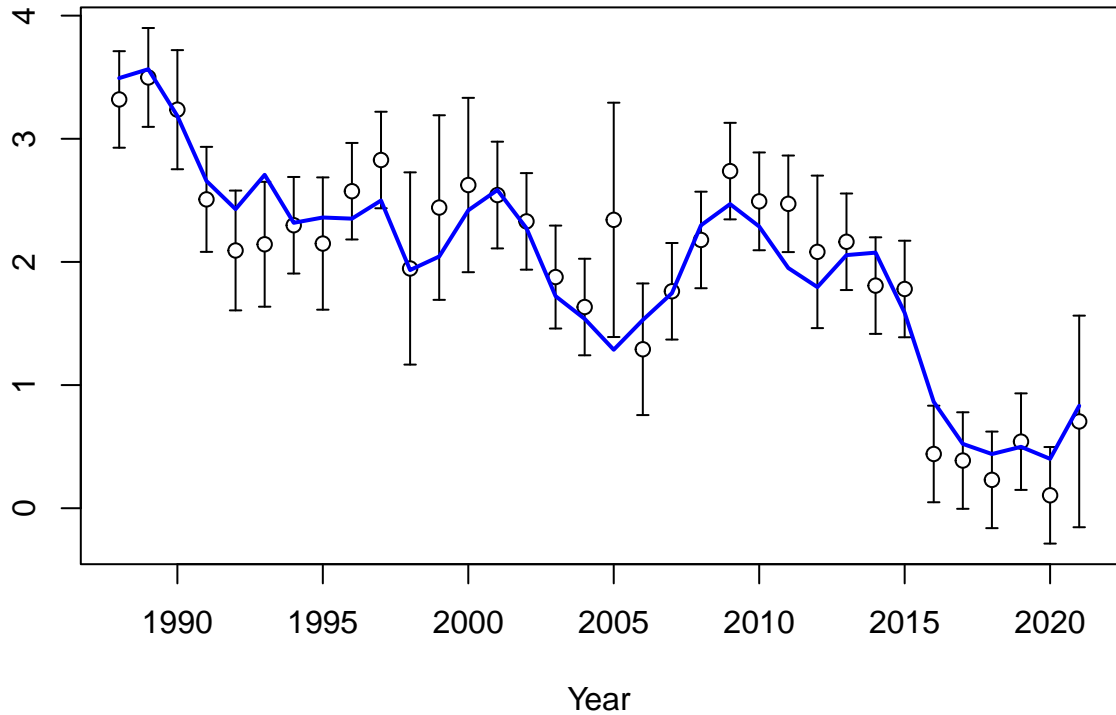


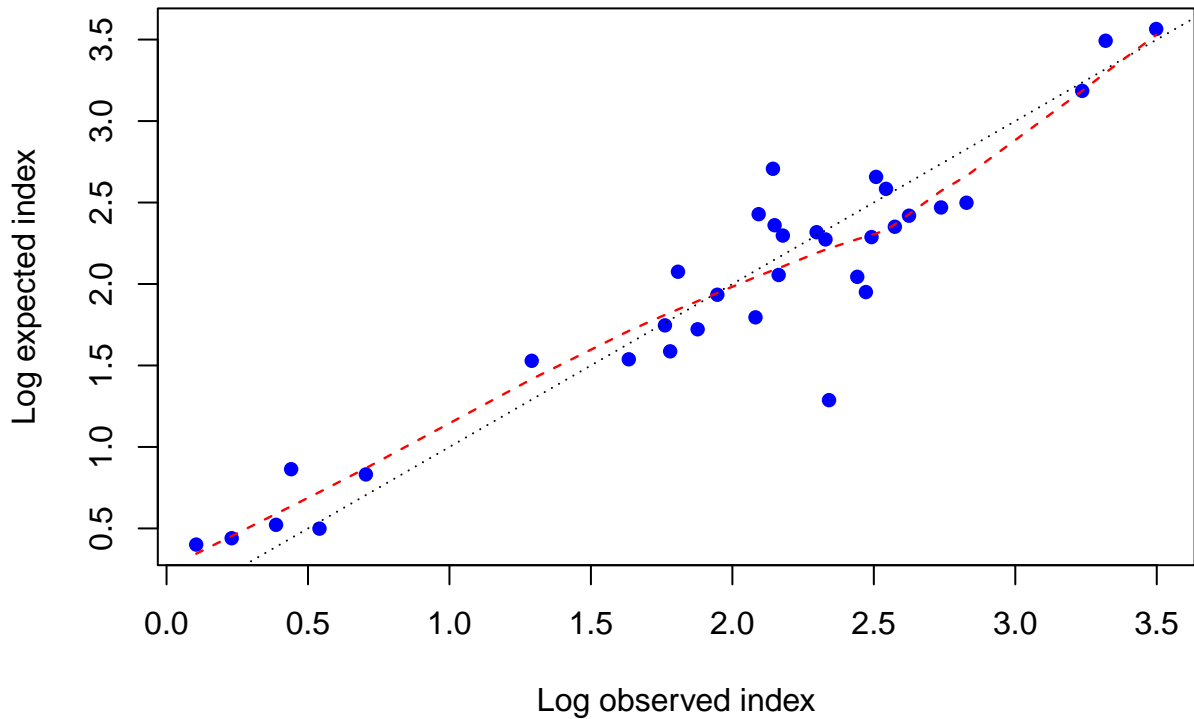
Log index

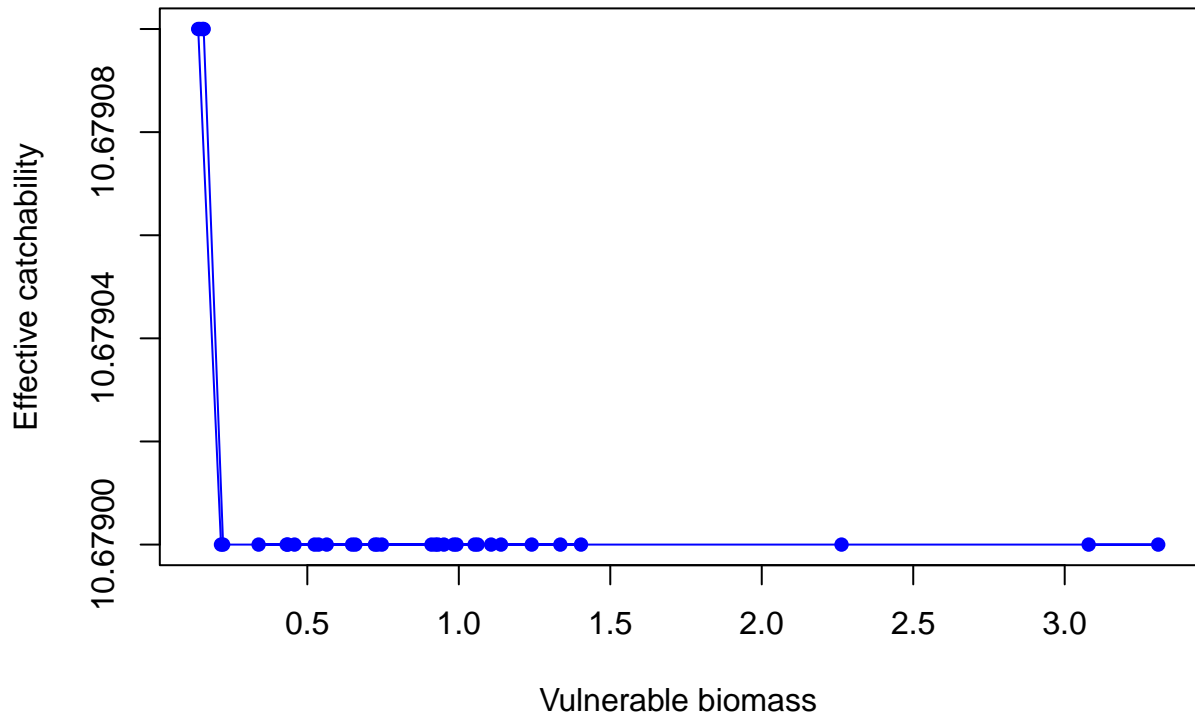


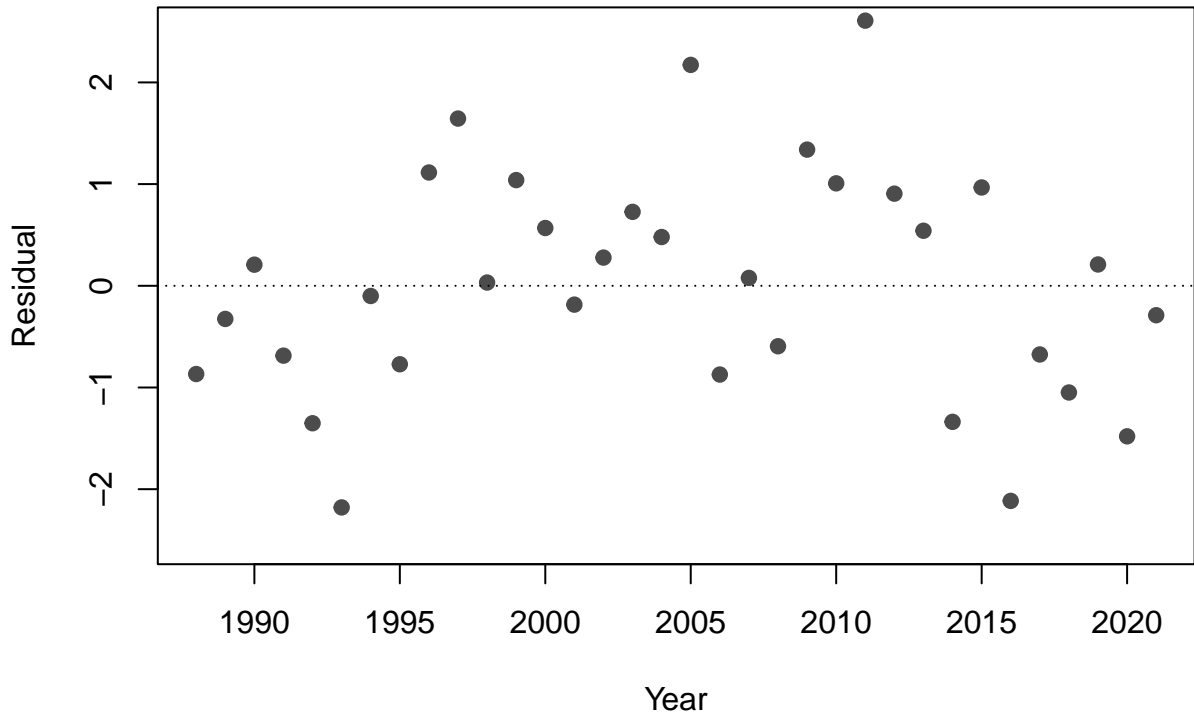


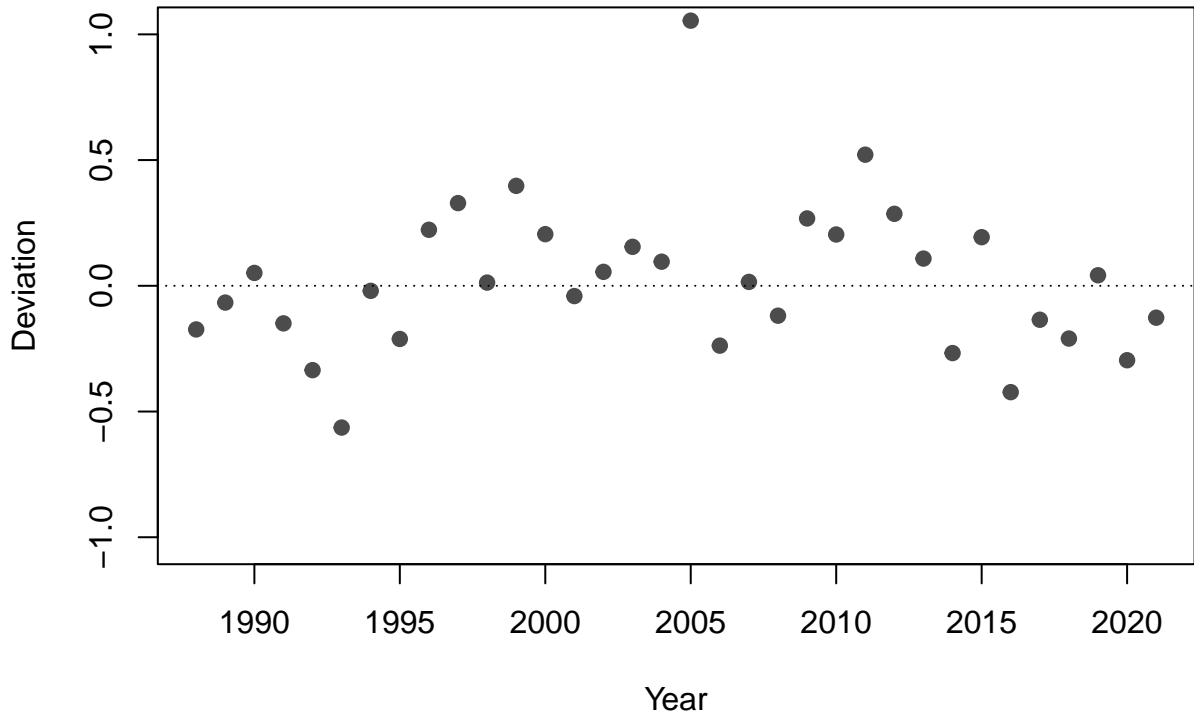
Log index

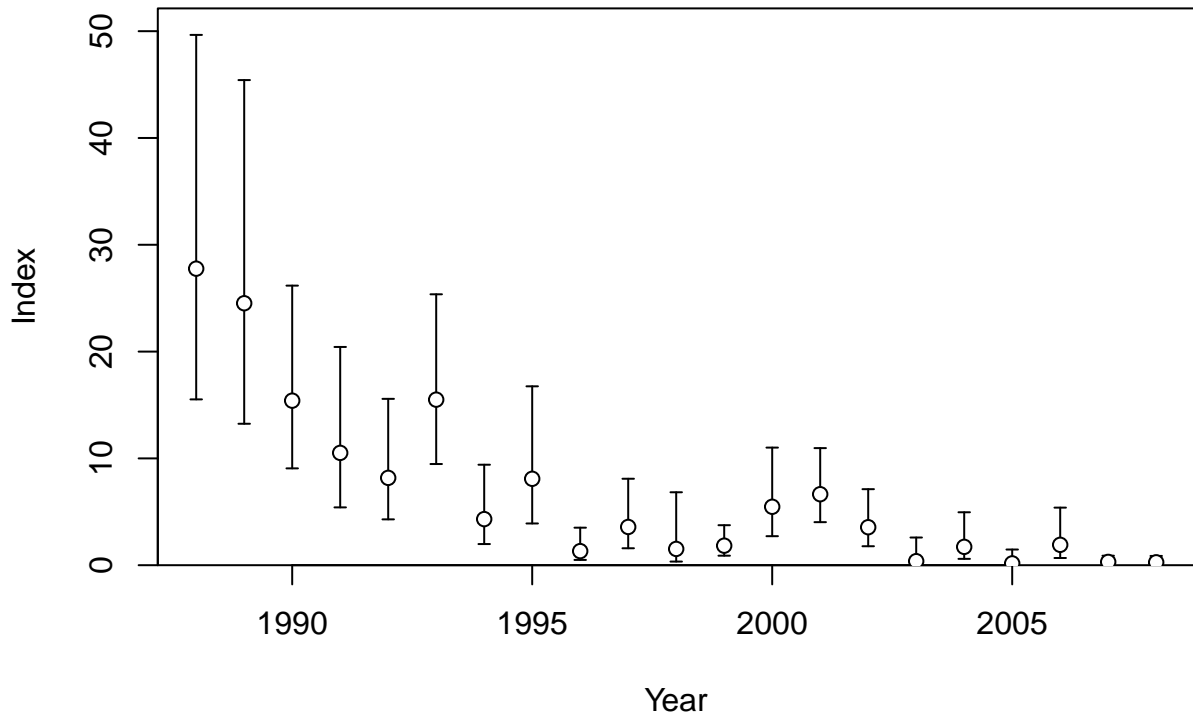


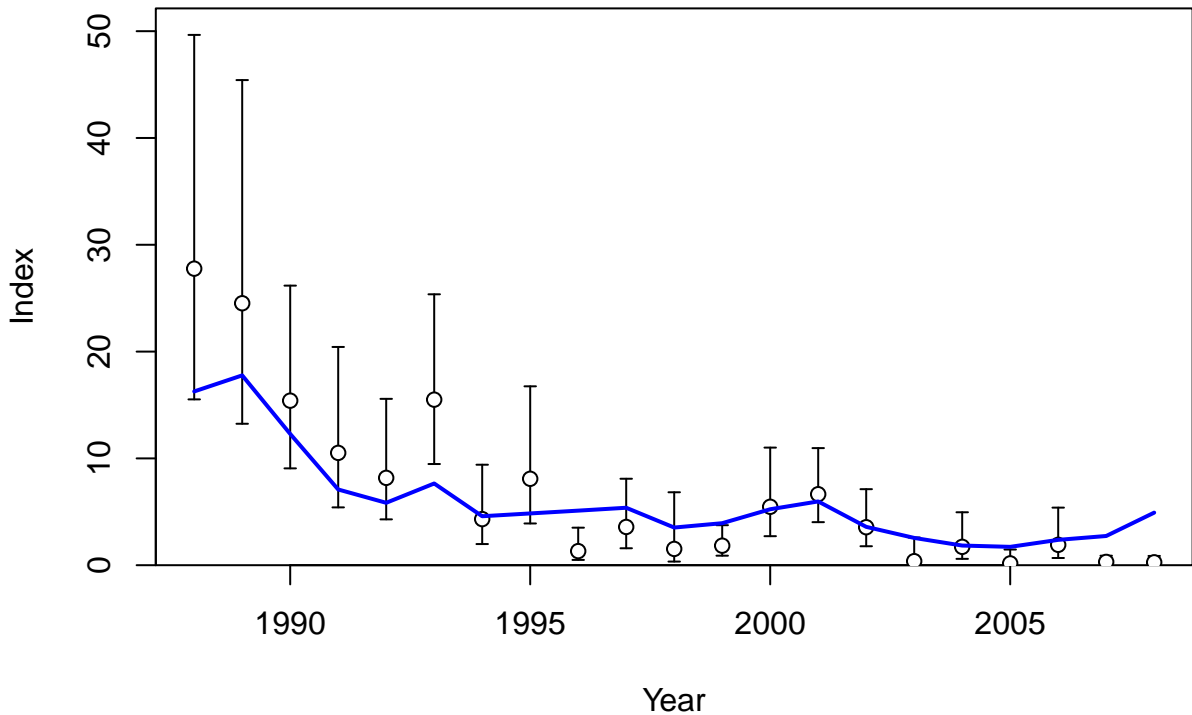


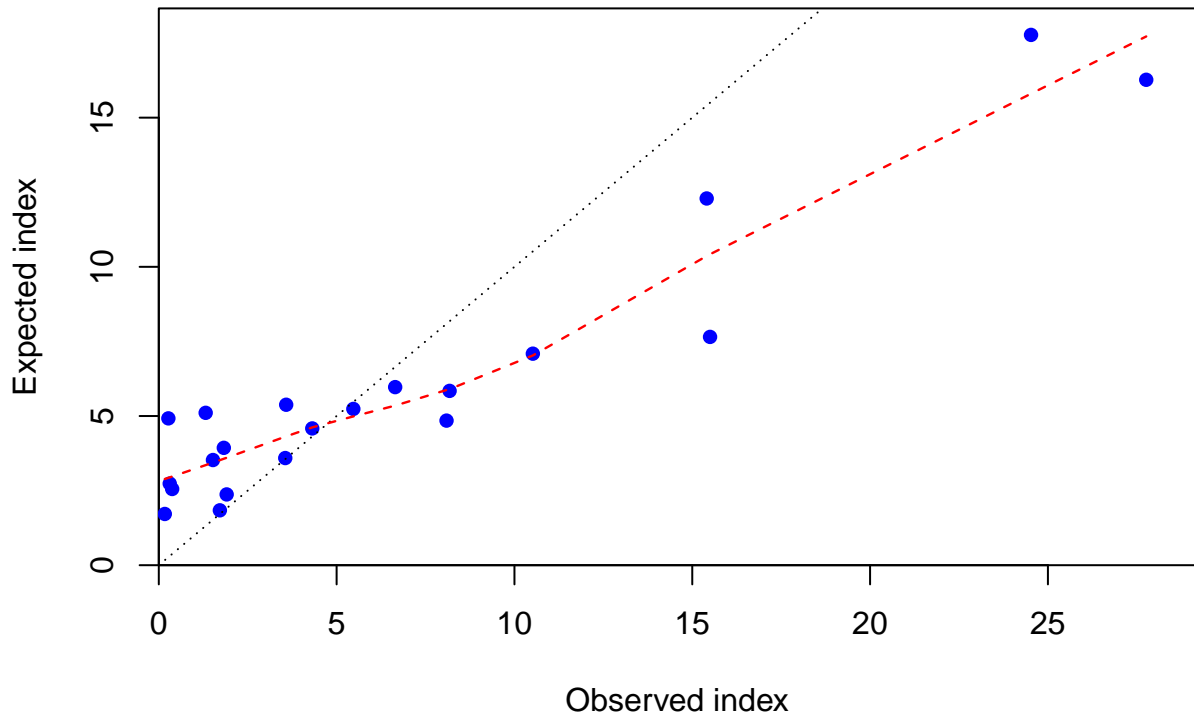




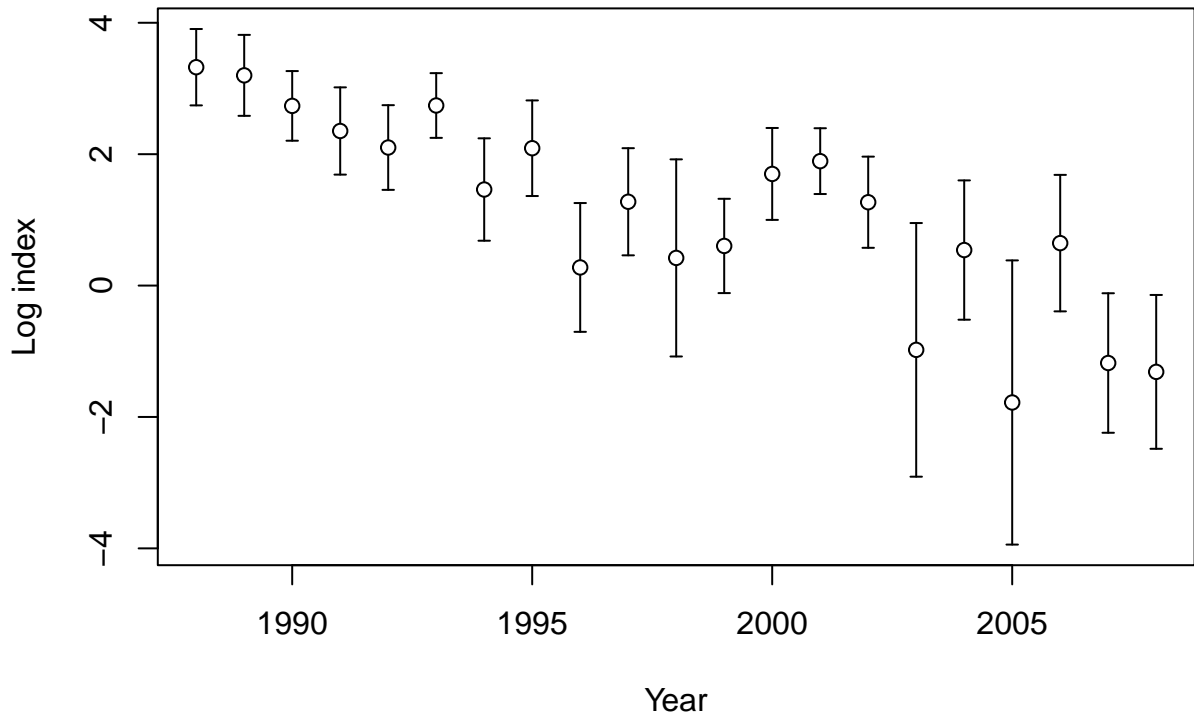


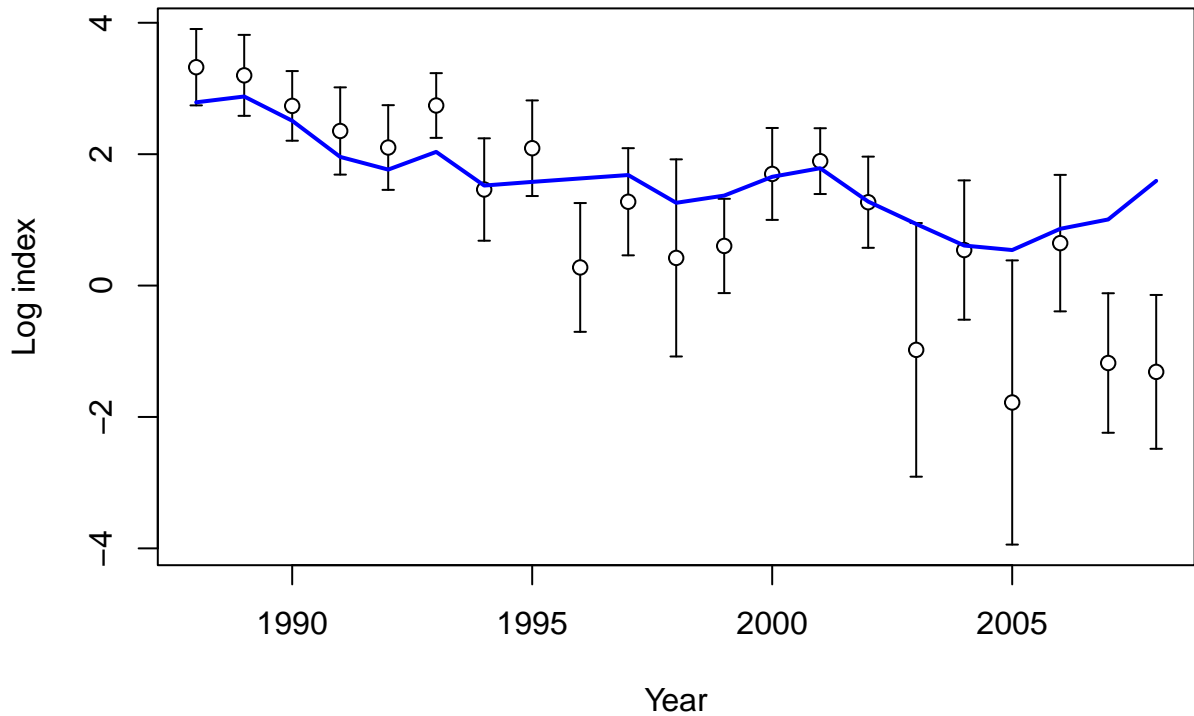


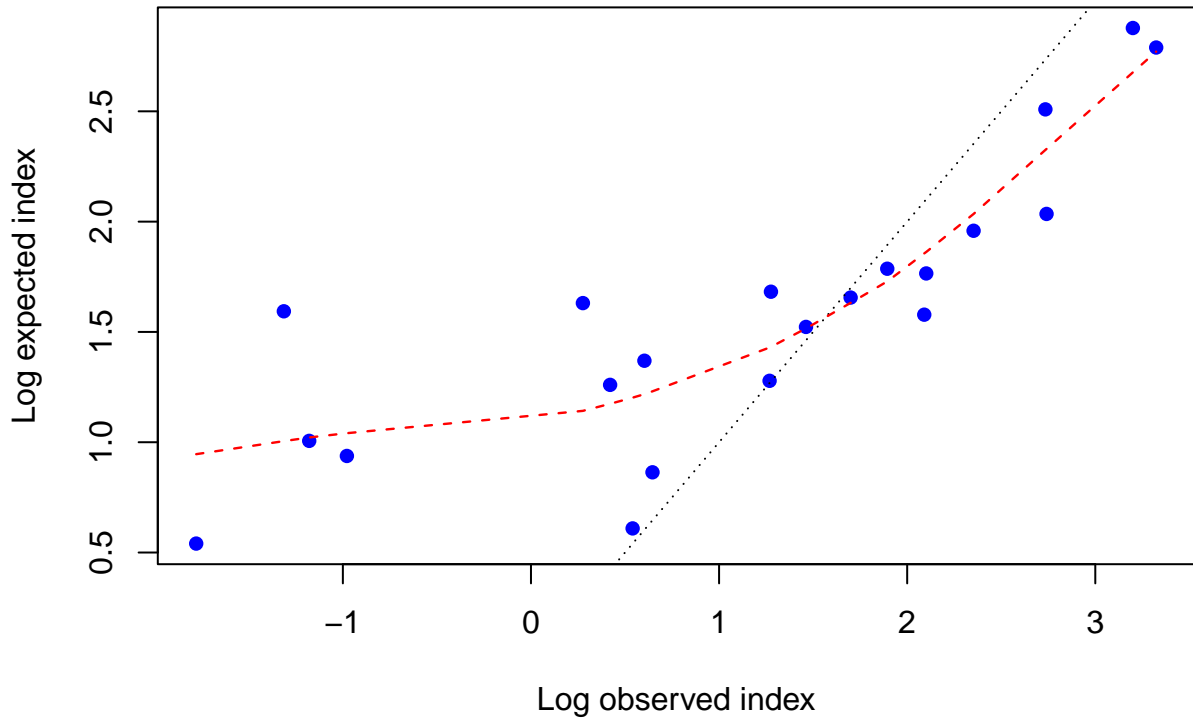




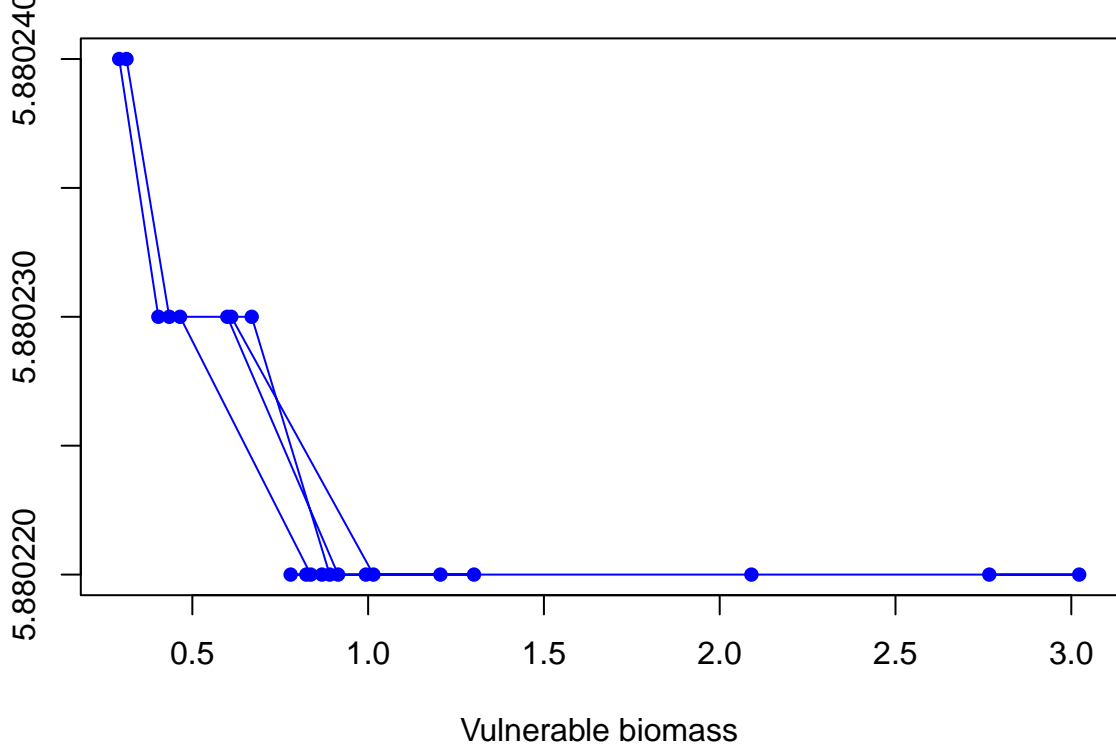


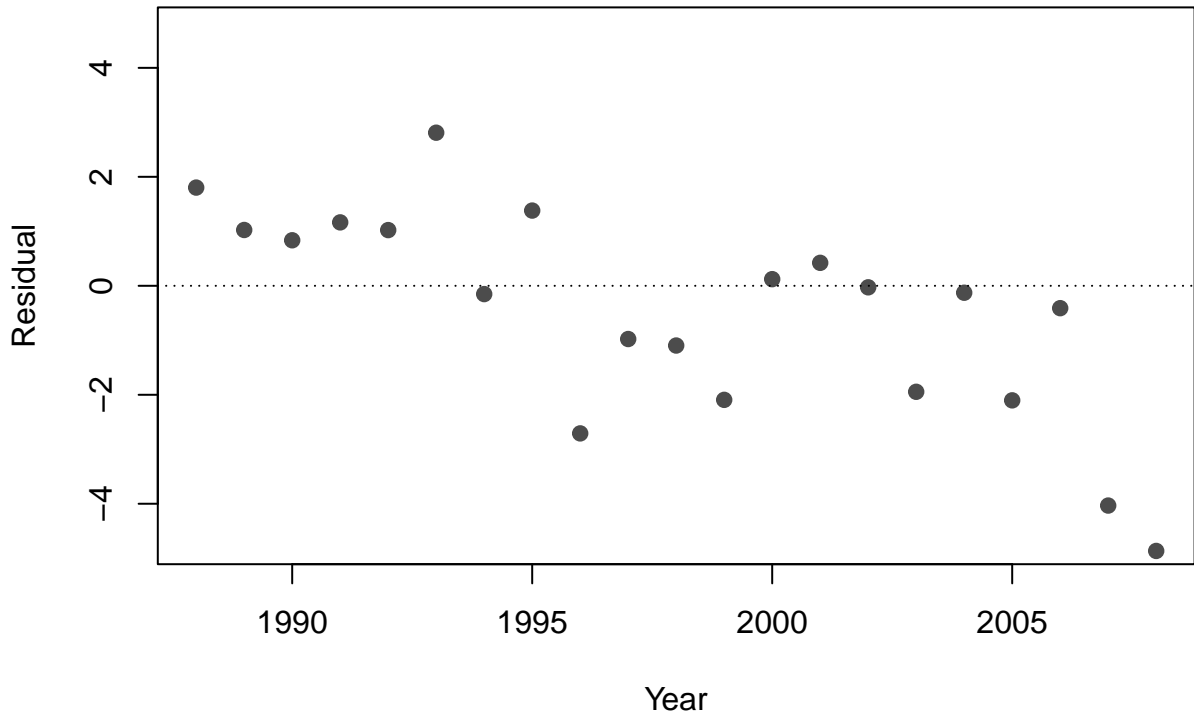




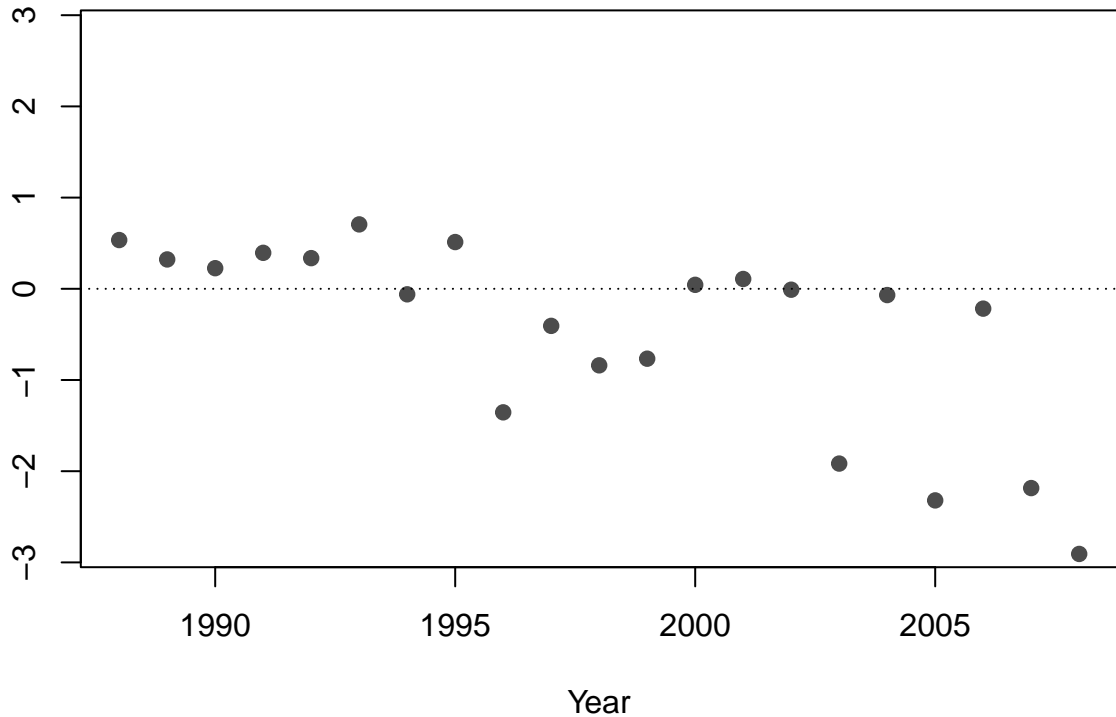


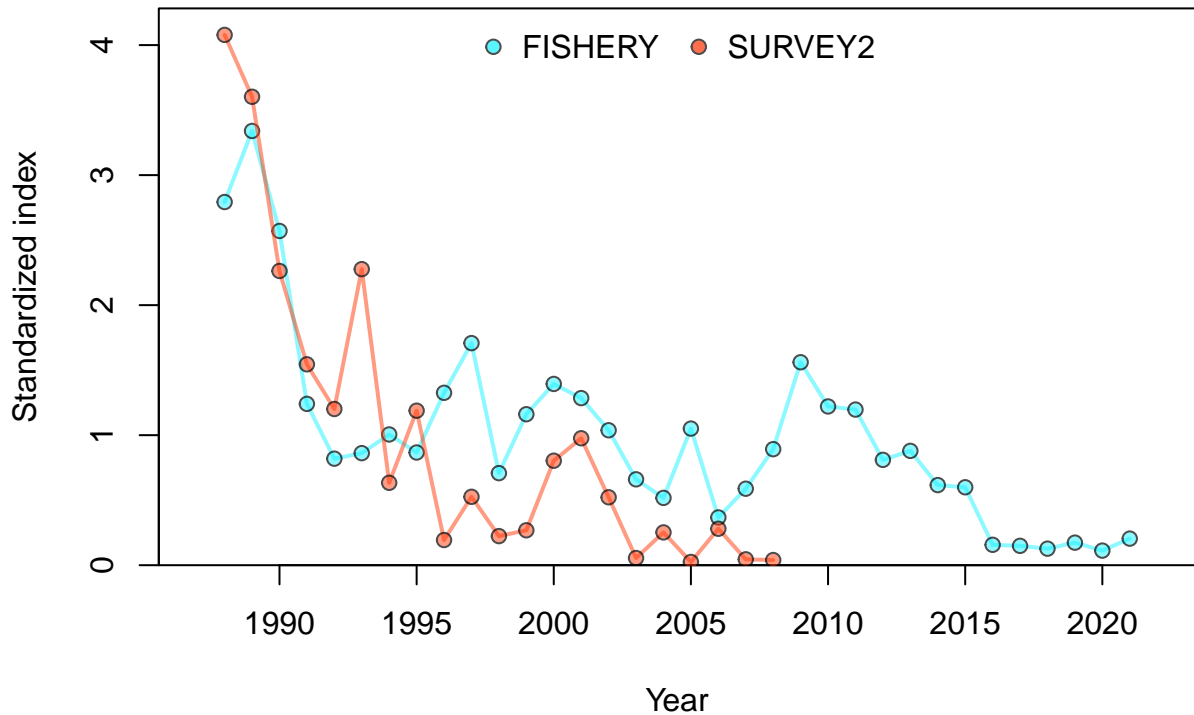
Effective catchability



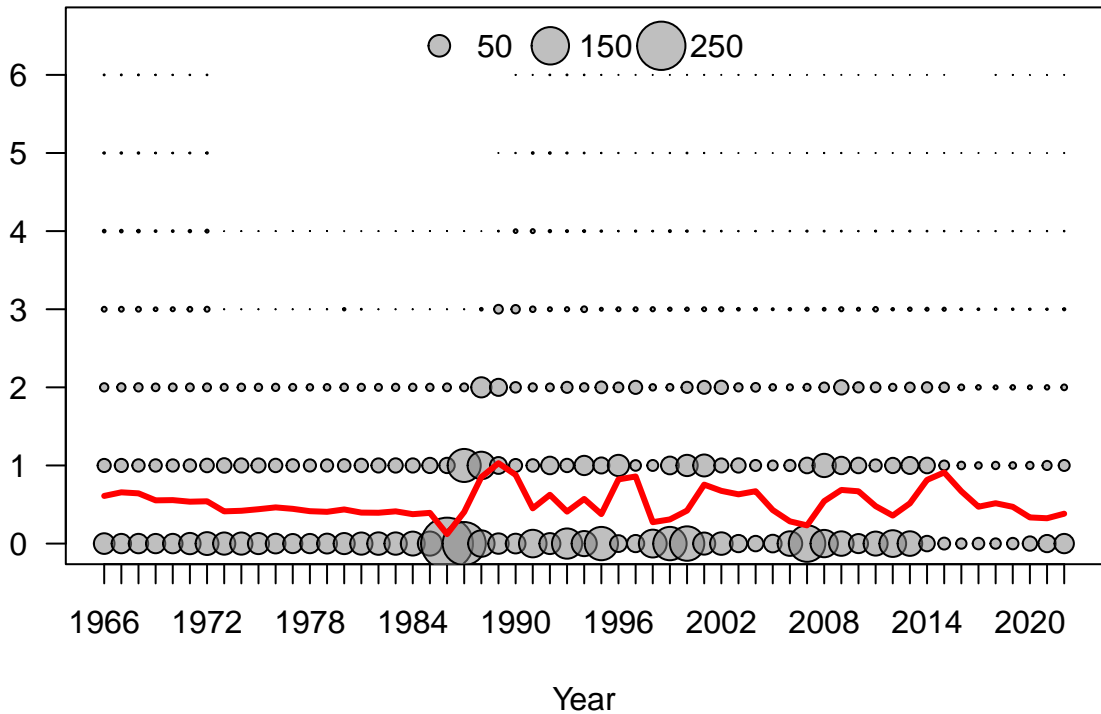


Deviation



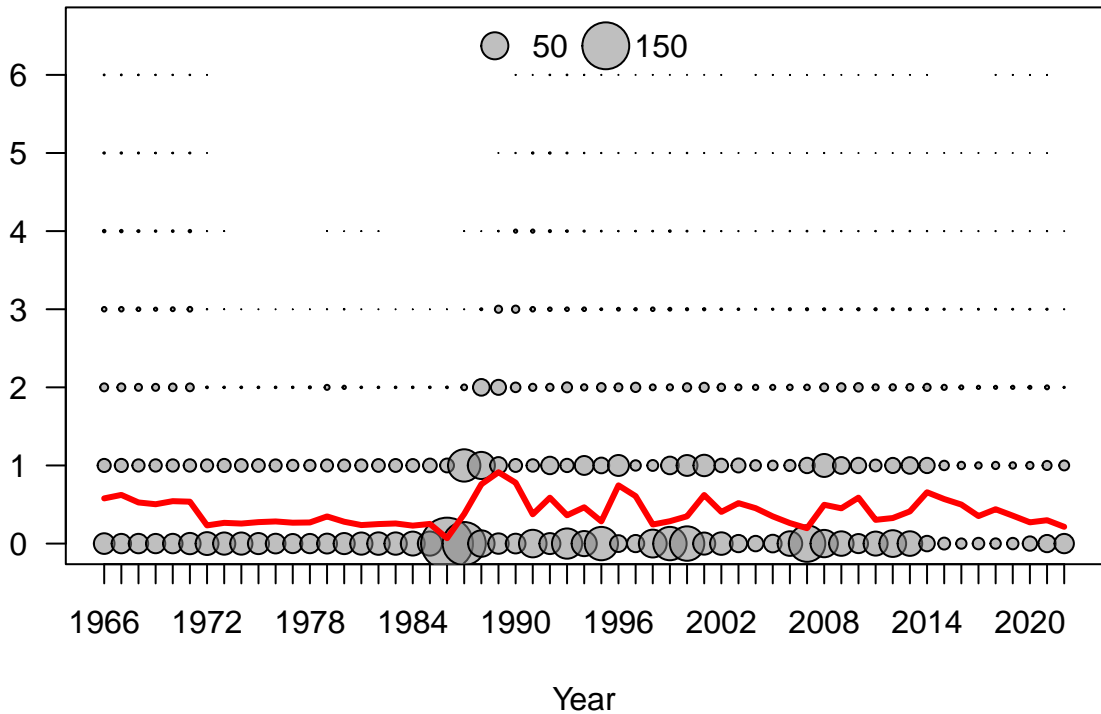


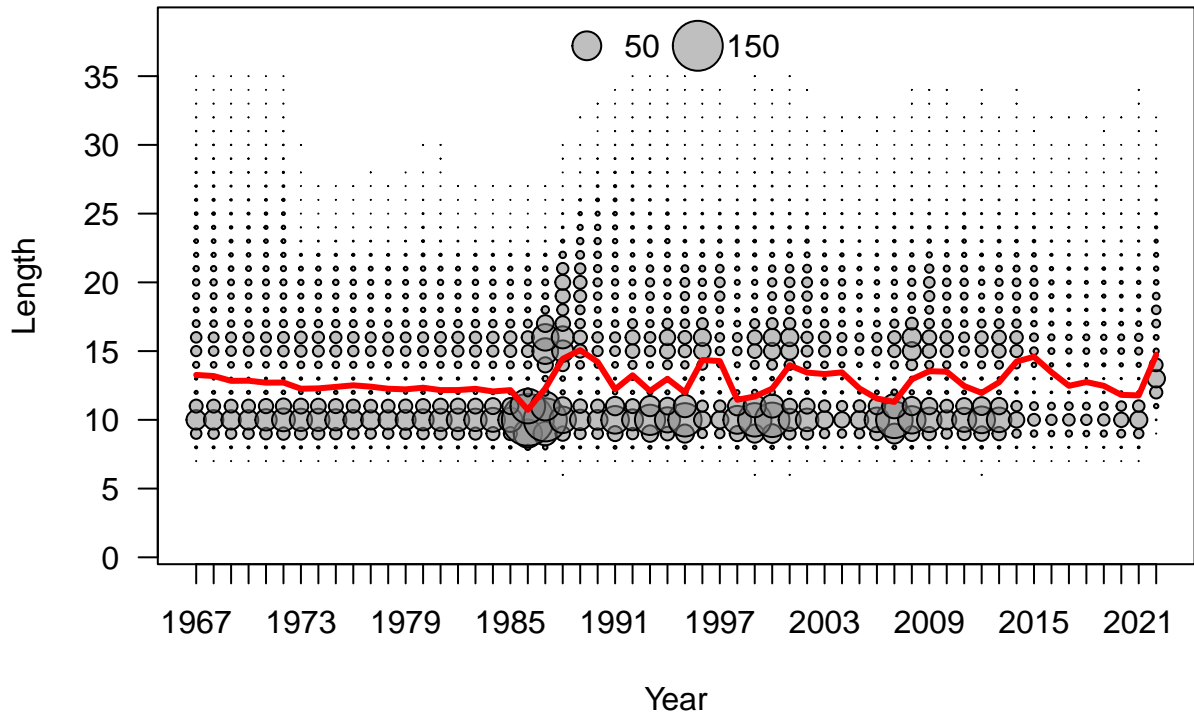
Age

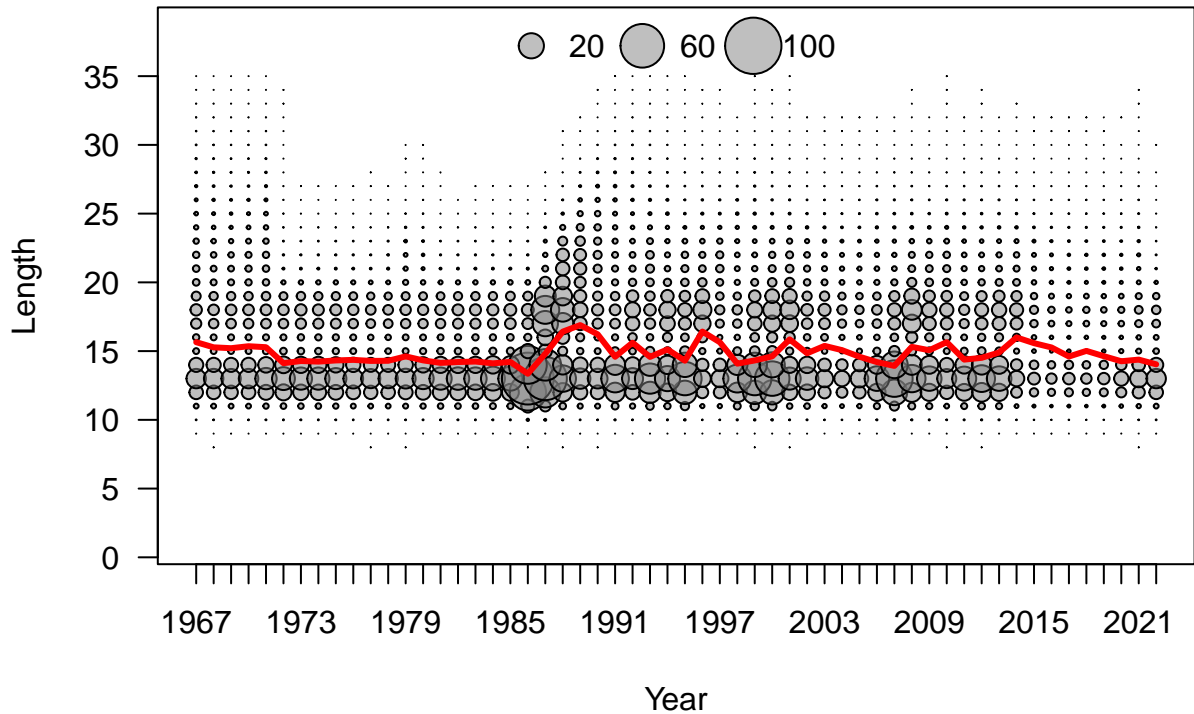


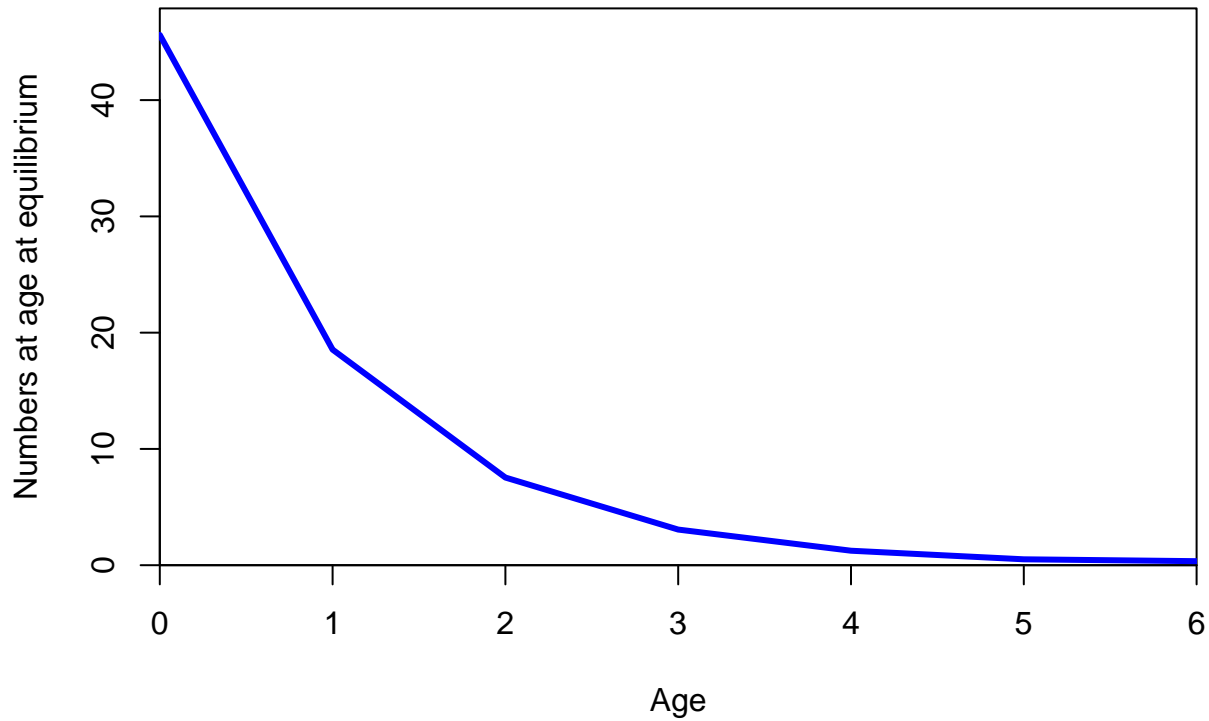


Age



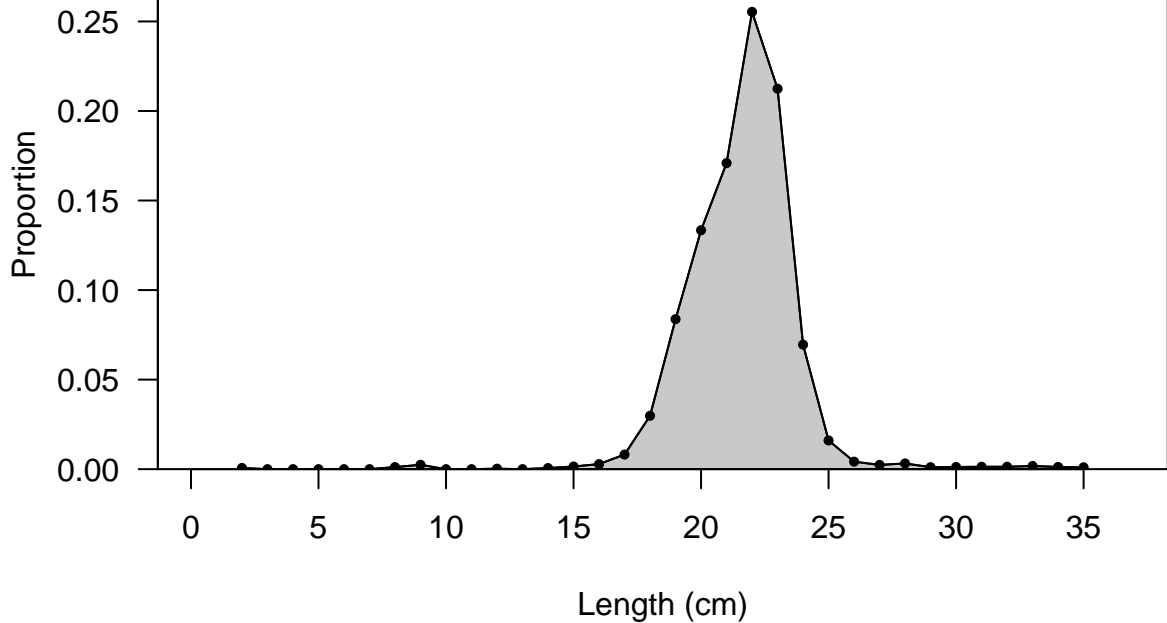


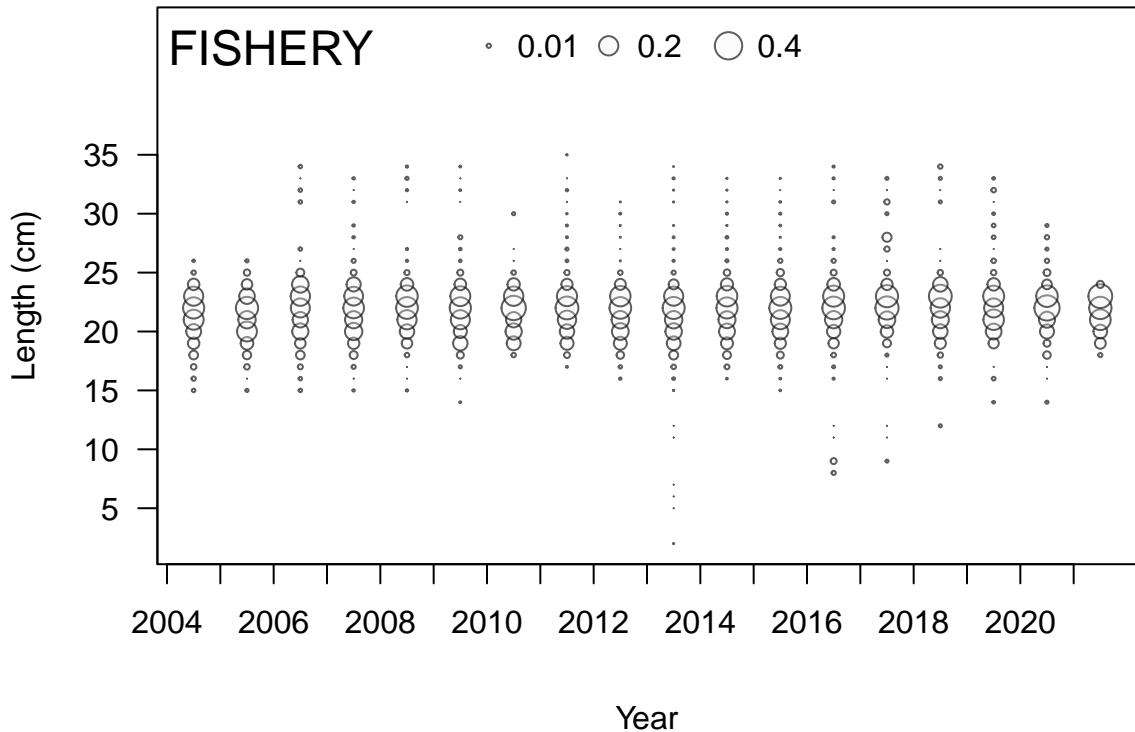


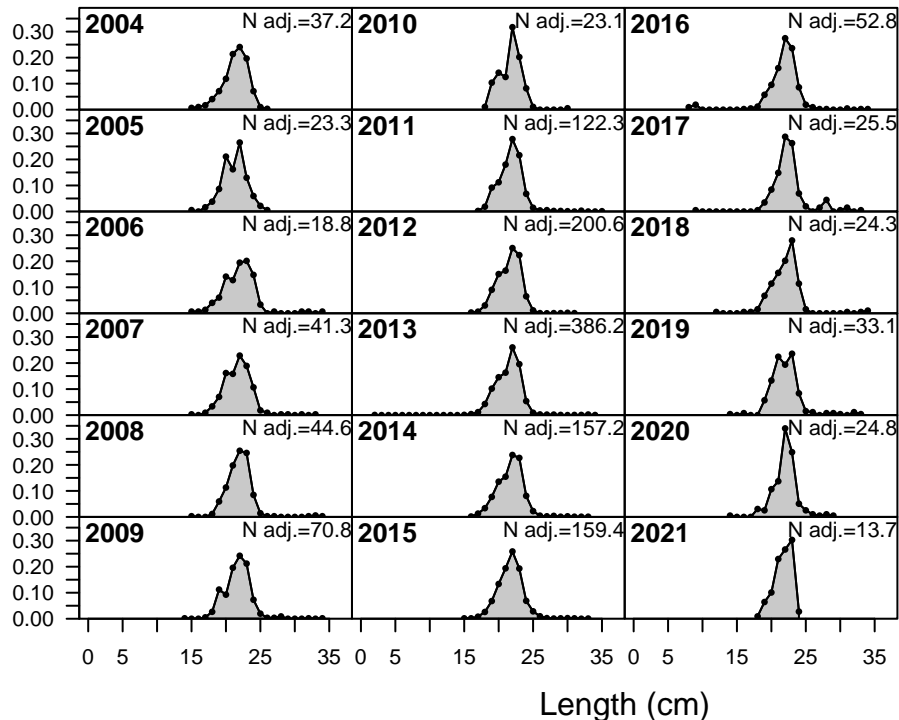


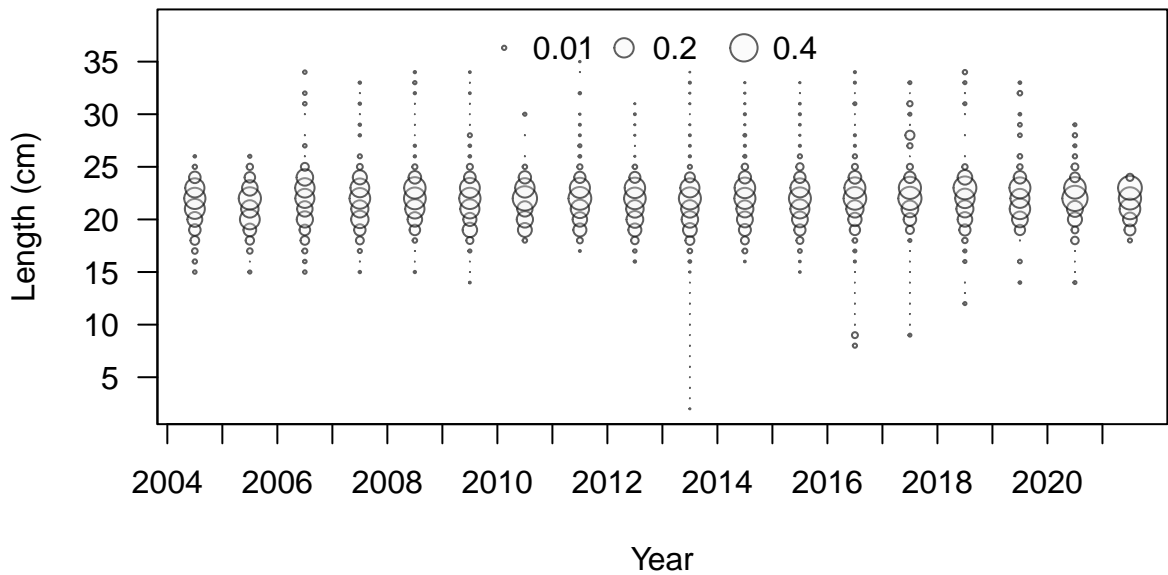
# FISHERY

Sum of N adj.=1459.1



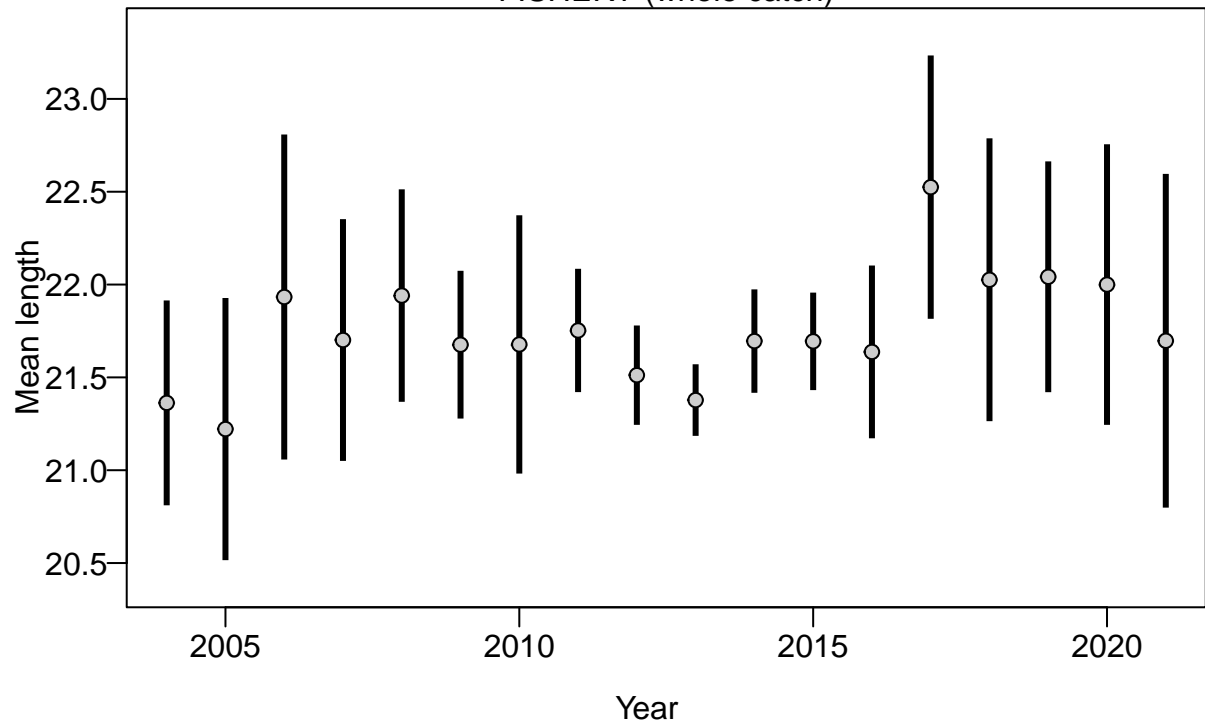


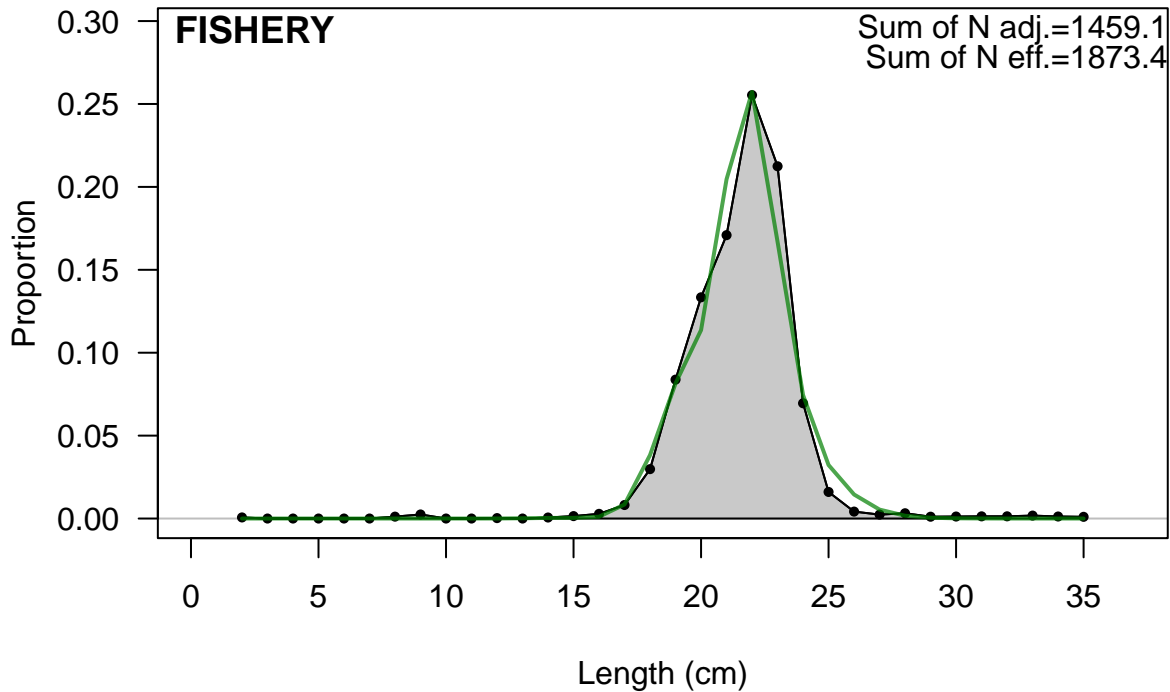


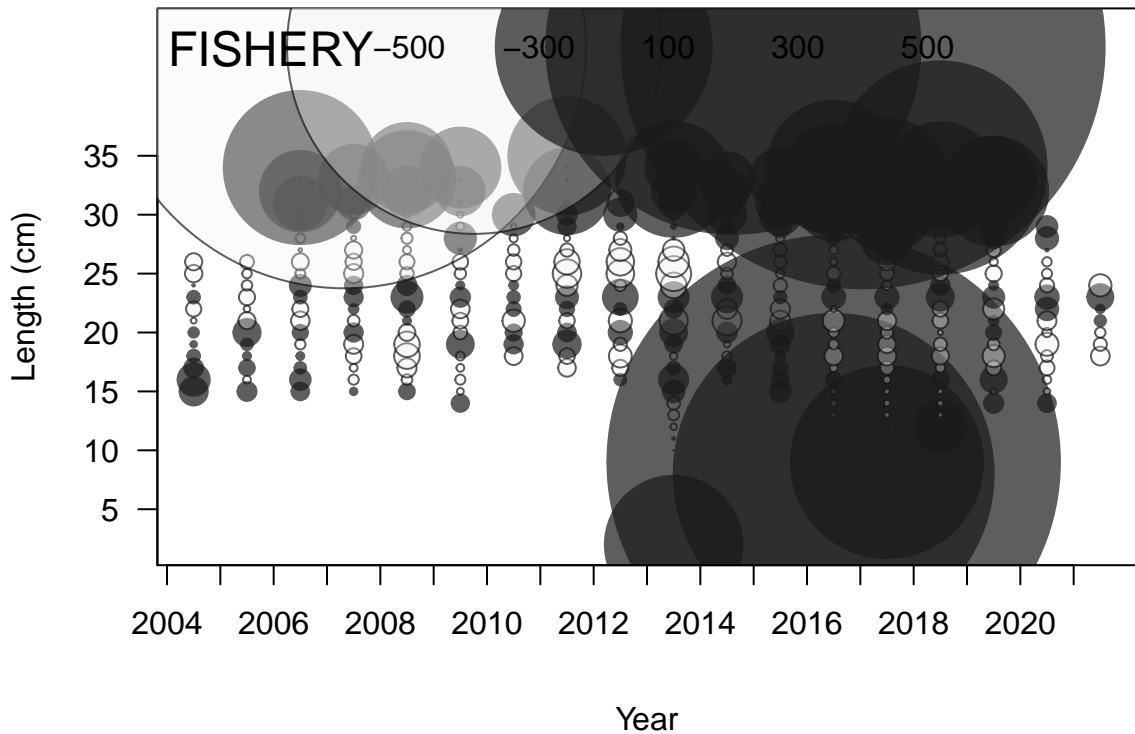


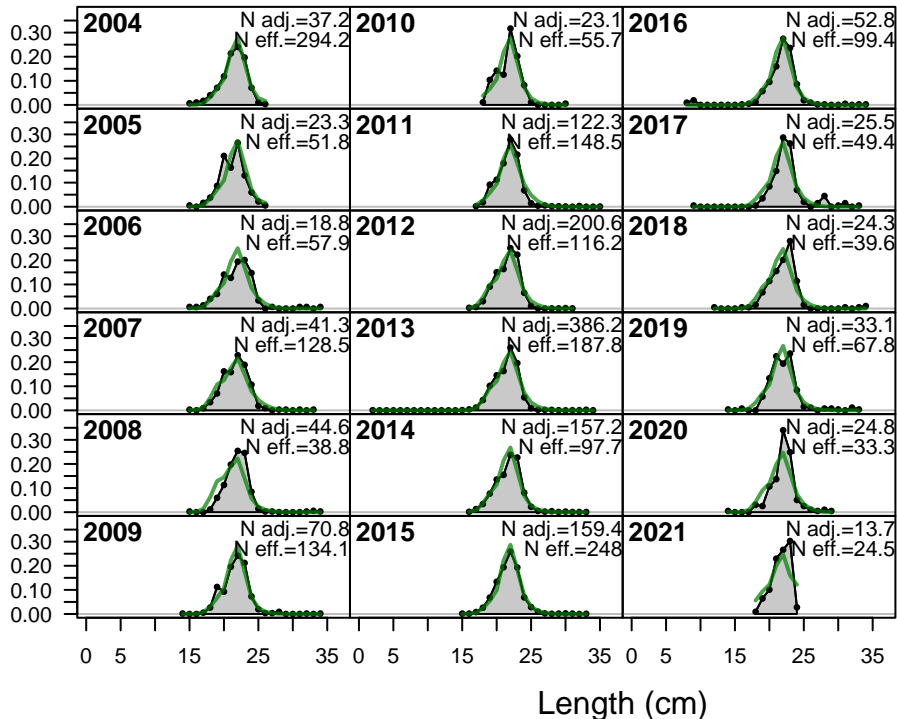


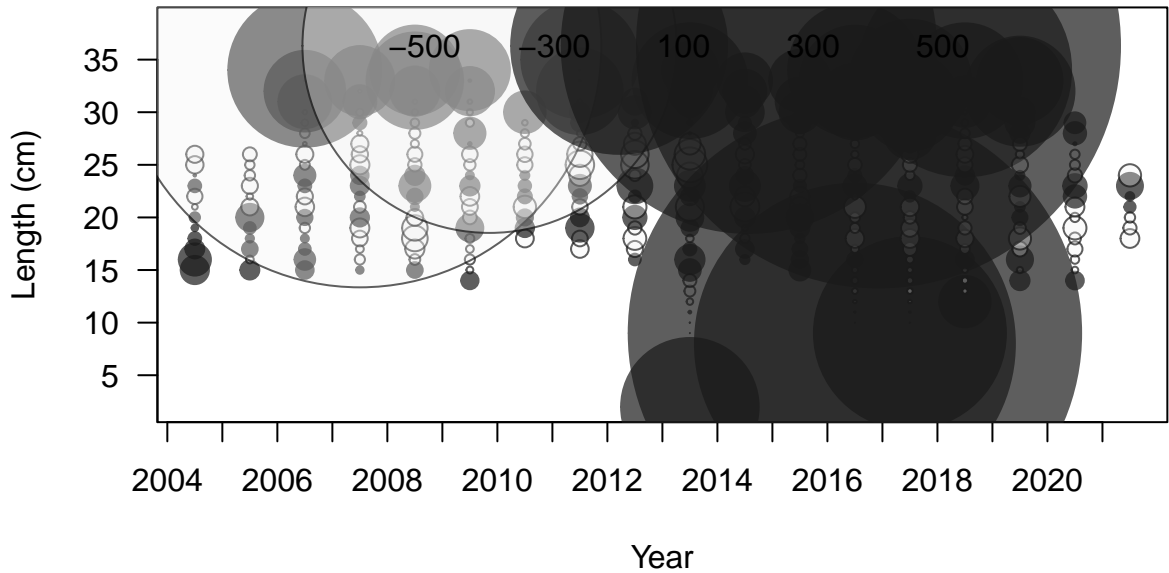
FISHERY (whole catch)



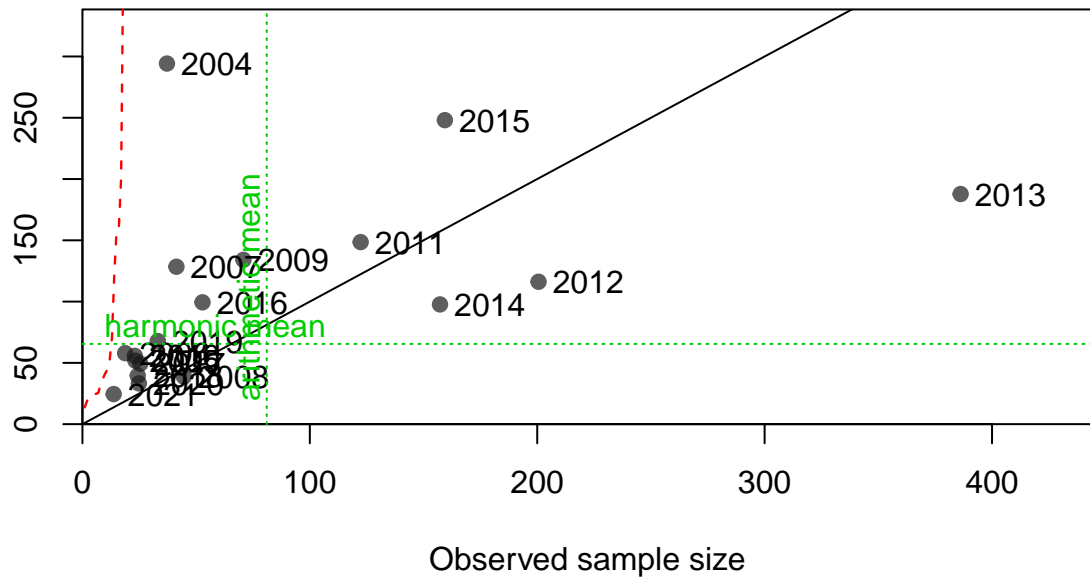




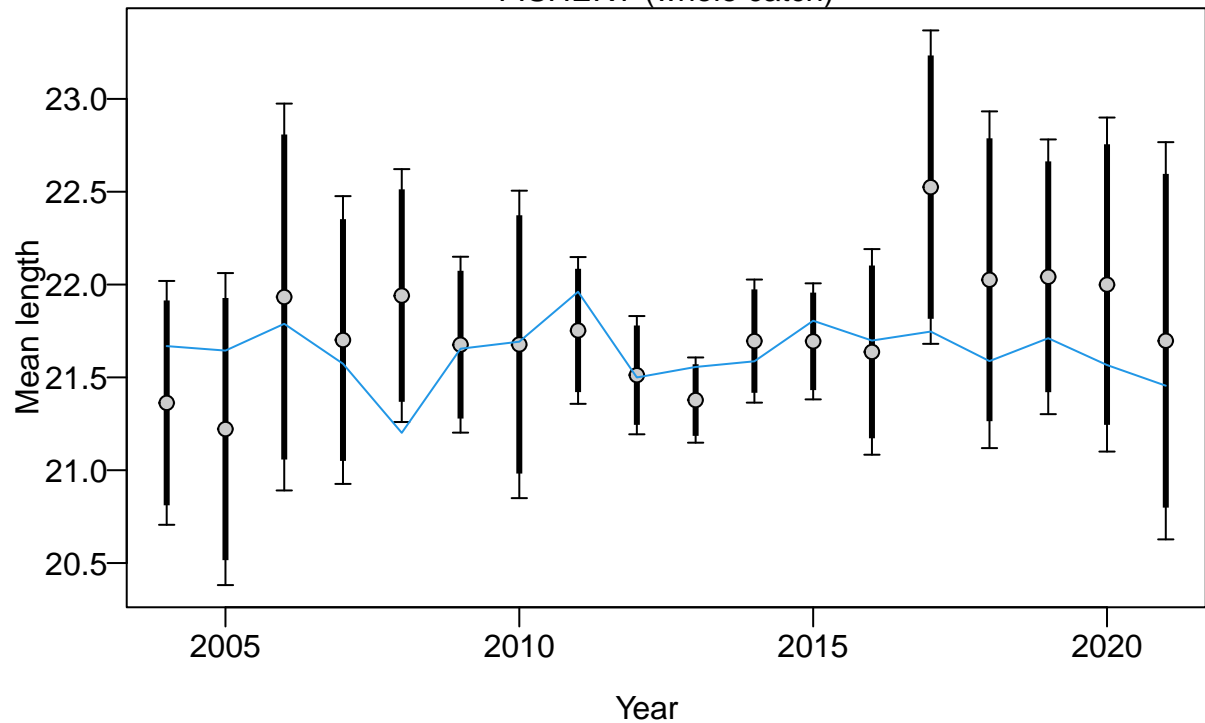


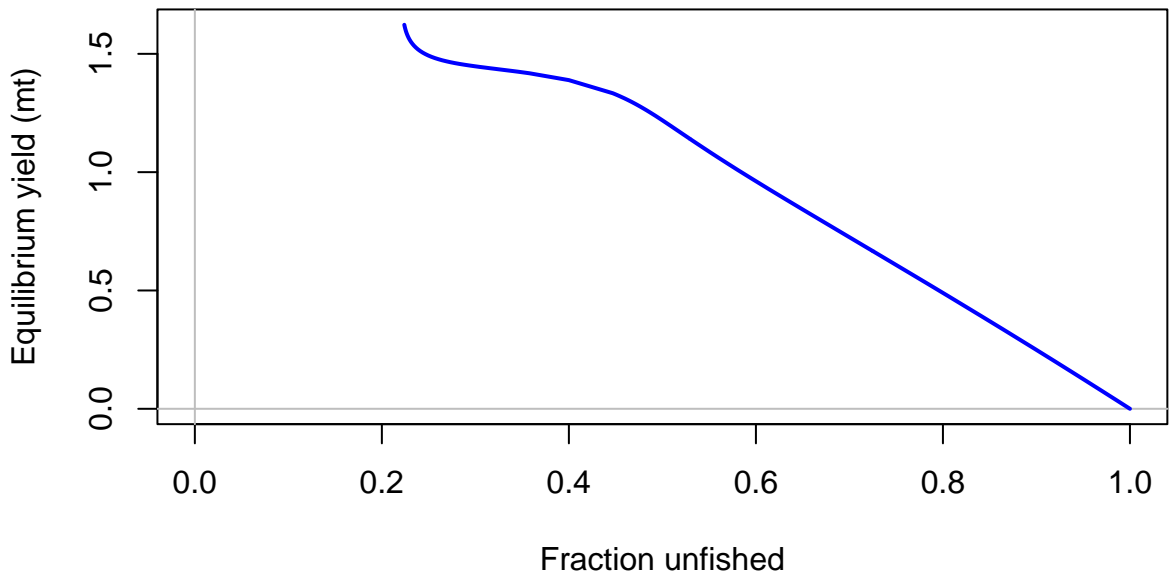


Effective sample size

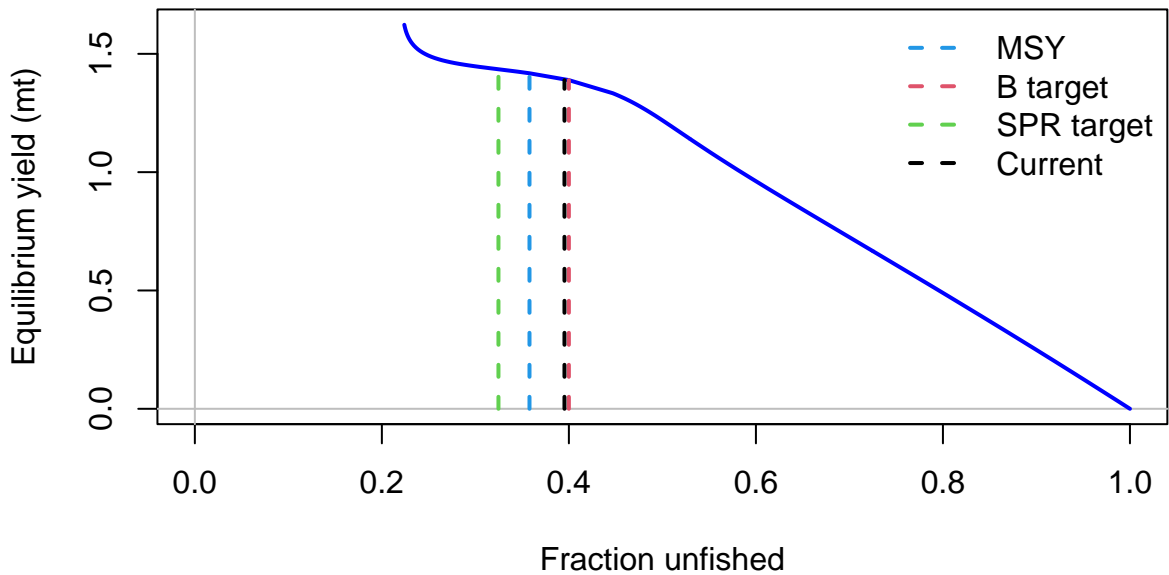


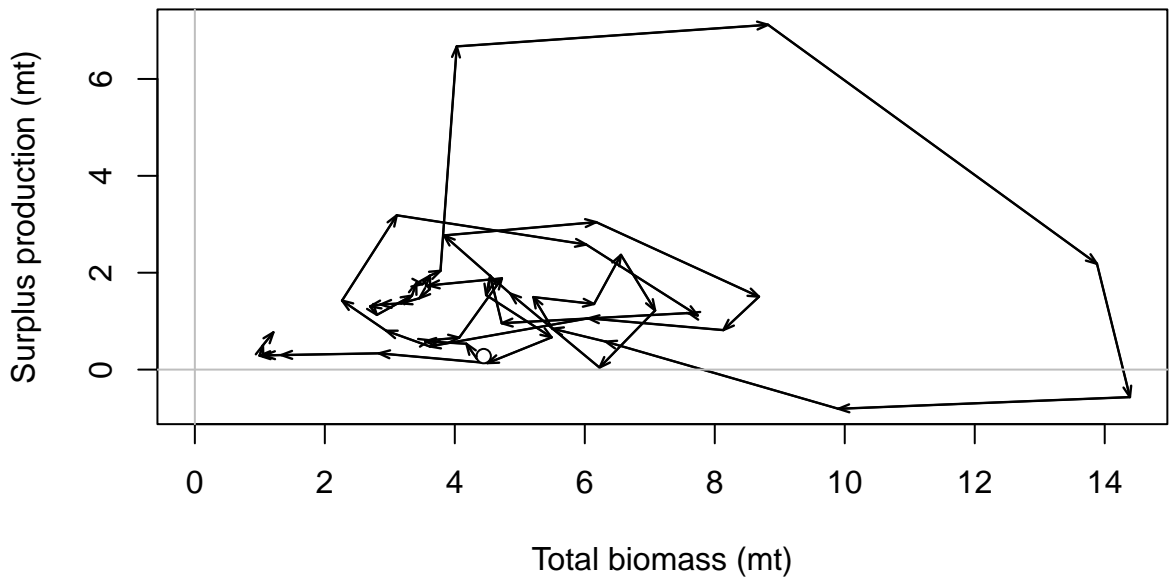
## FISHERY (whole catch)

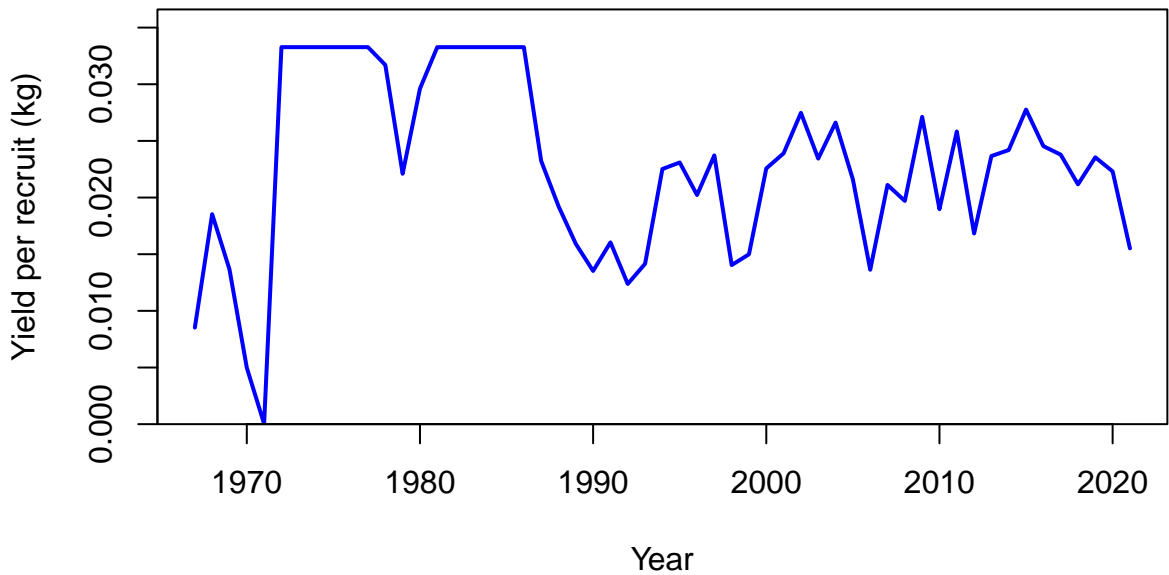


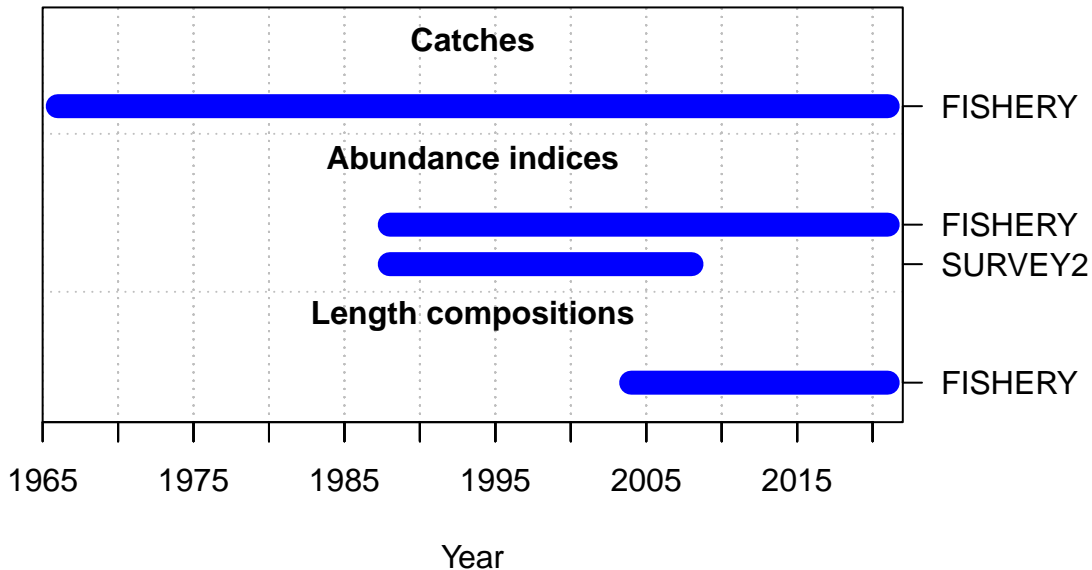


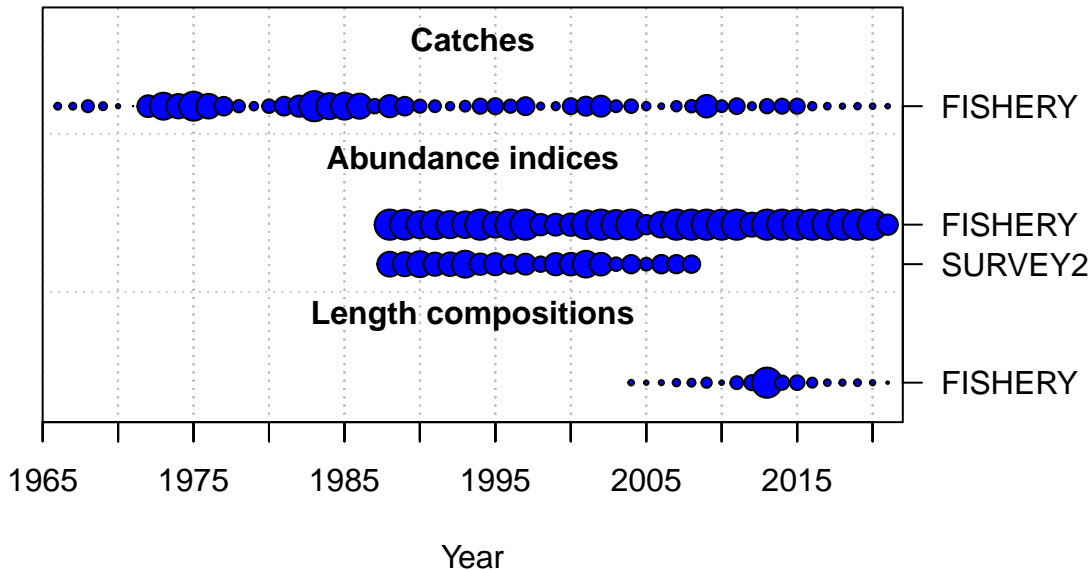




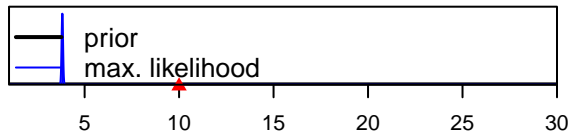




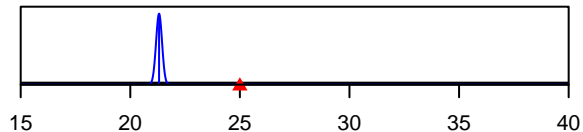




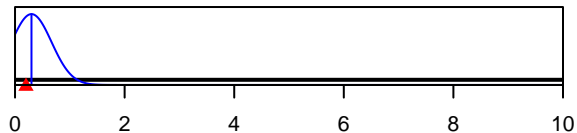
SR\_LN(R0)



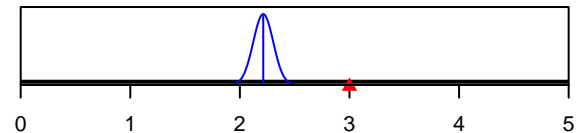
Size\_inflection\_FISHERY(1)



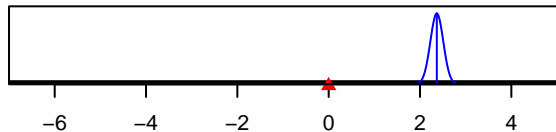
InitF\_seas\_1\_flt\_1FISHERY



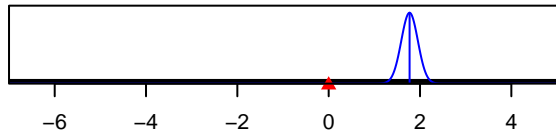
Size\_95%width\_FISHERY(1)



LnQ\_base\_FISHERY(1)



LnQ\_base\_SURVEY2(2)



Parameter value