

Plots created using the 'r4ss' package in R  
Stock Synthesis version: 3.30.19.0  
StartTime: Mon Jun 27 12:33:53 2022  
Data\_File: data.ss  
Control\_File: control.ss

Length (cm, beginning of the year)

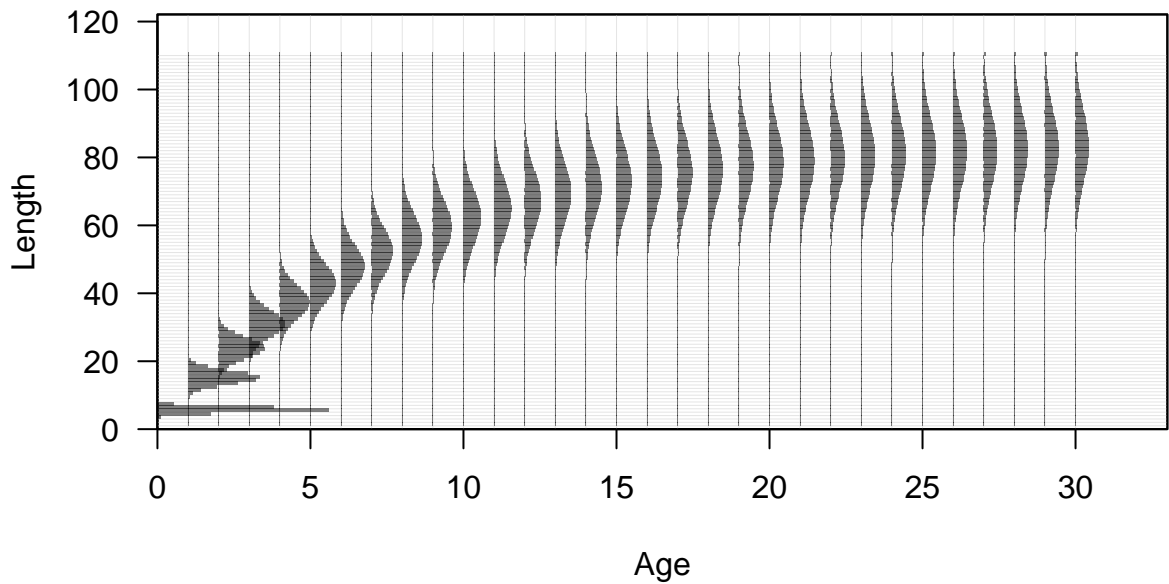


Age (yr)

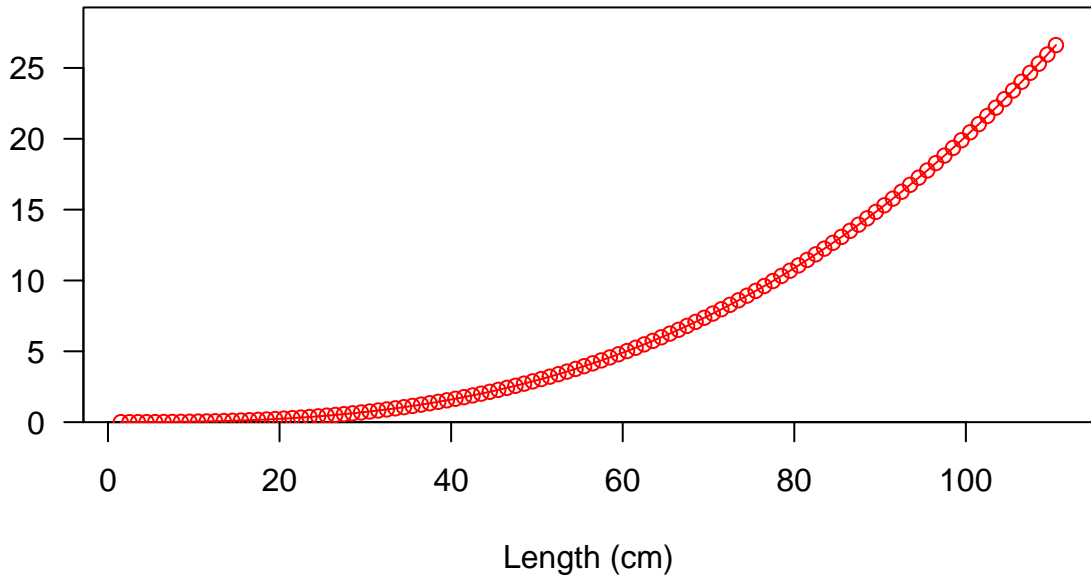








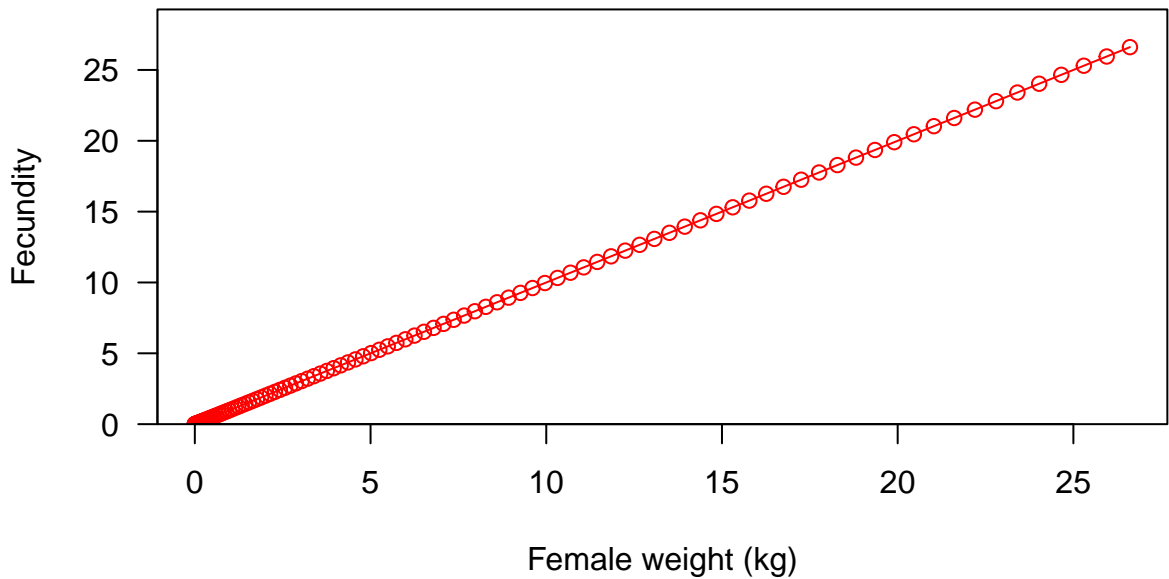
Mean weight (kg) in last year



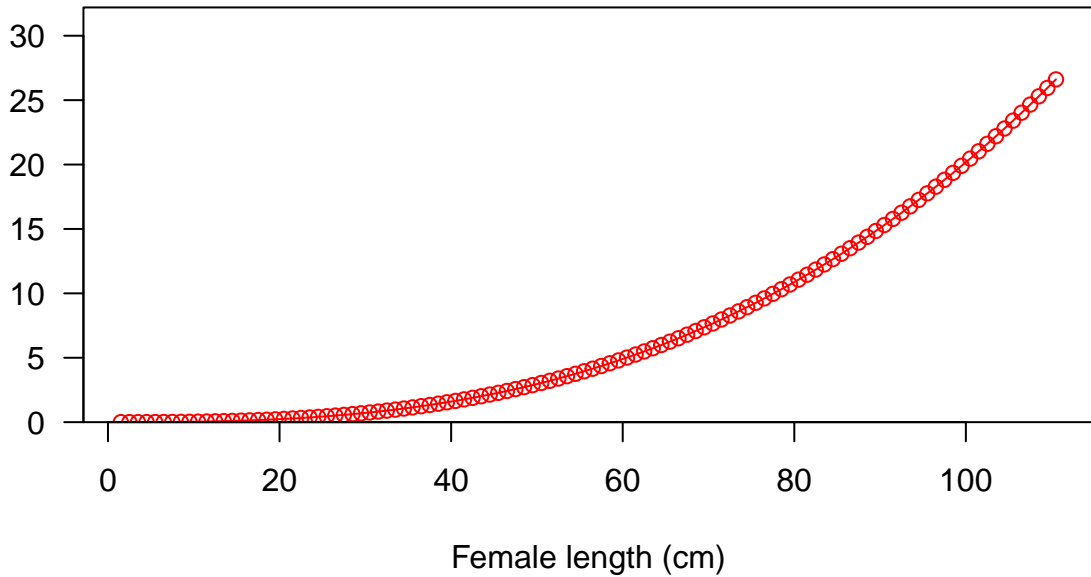








Fecundity



Spawning output

25  
20  
15  
10  
5  
0

0

20

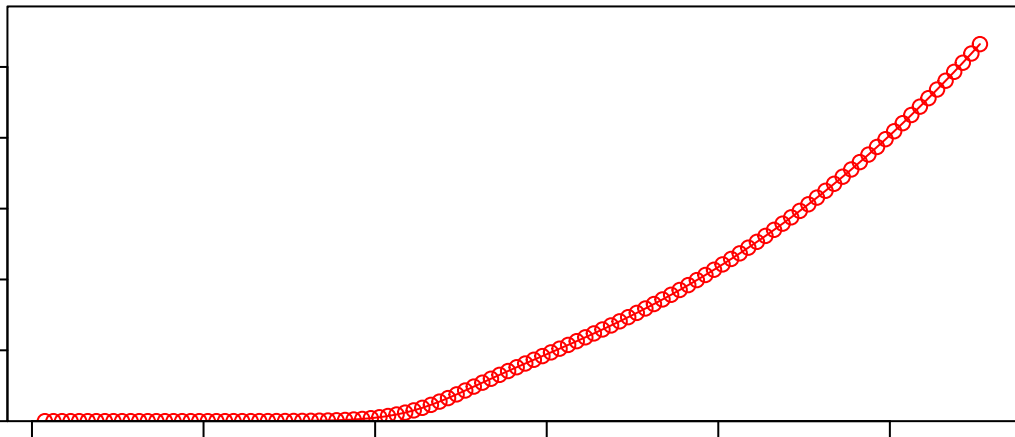
40

60

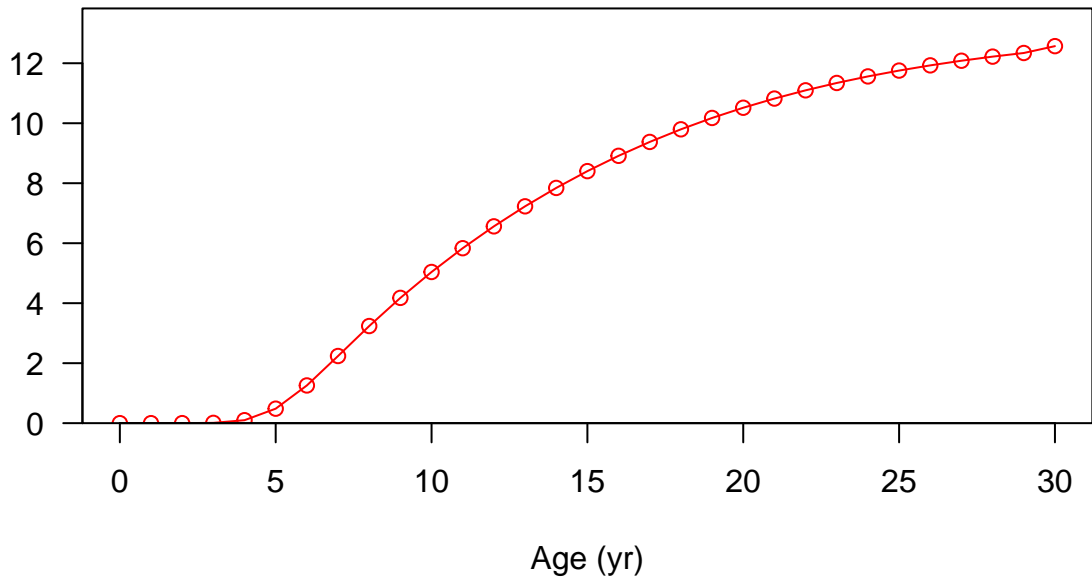
80

100

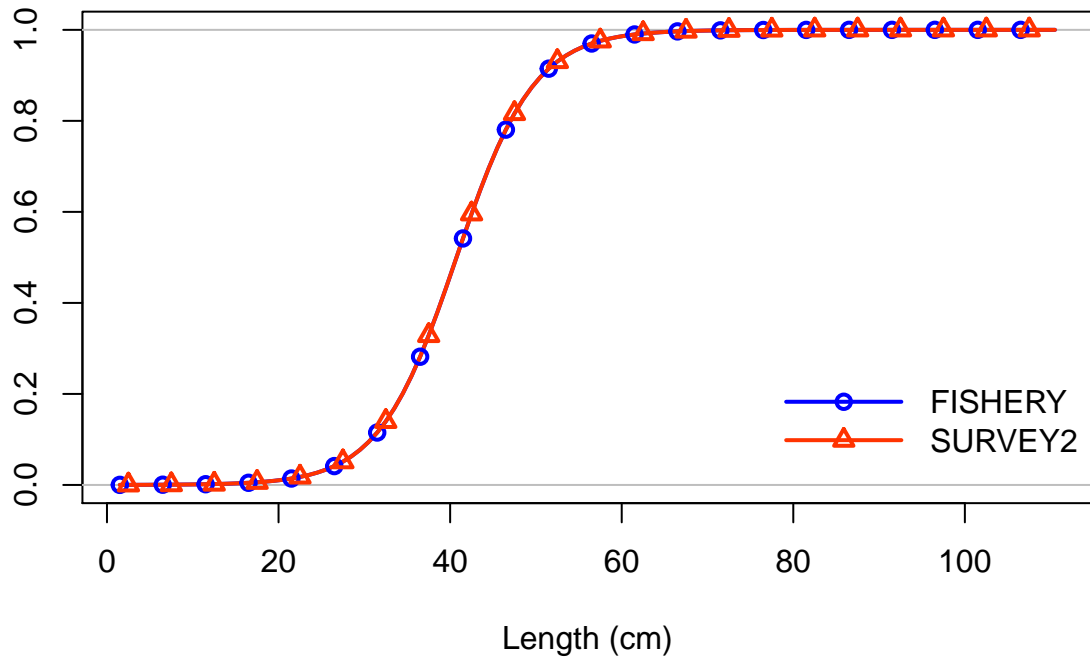
Length (cm)



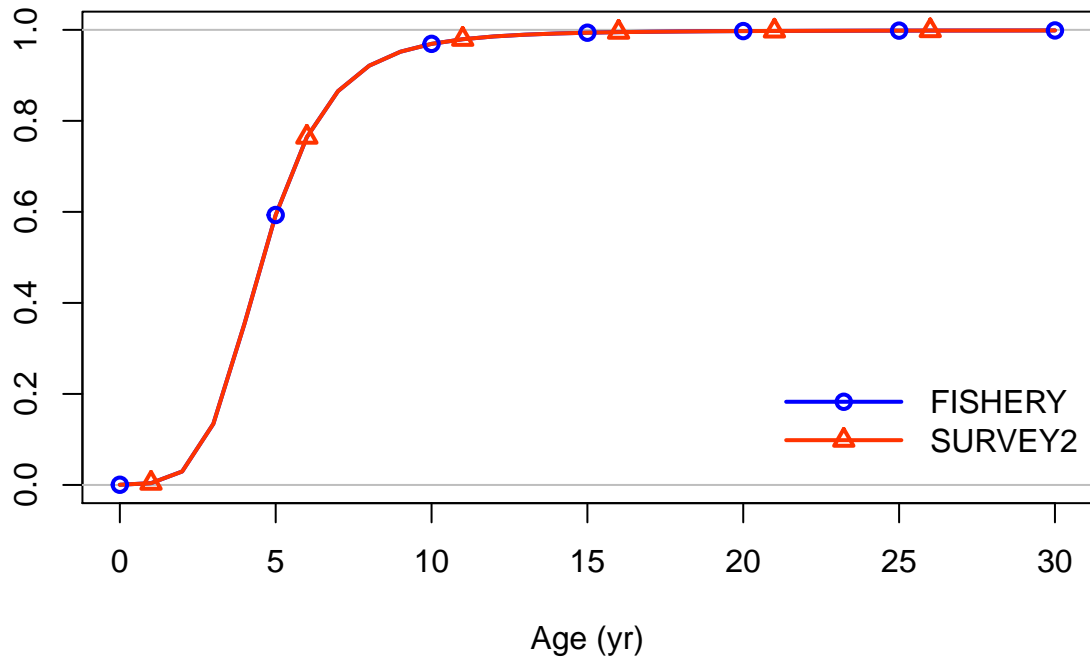
Spawning output



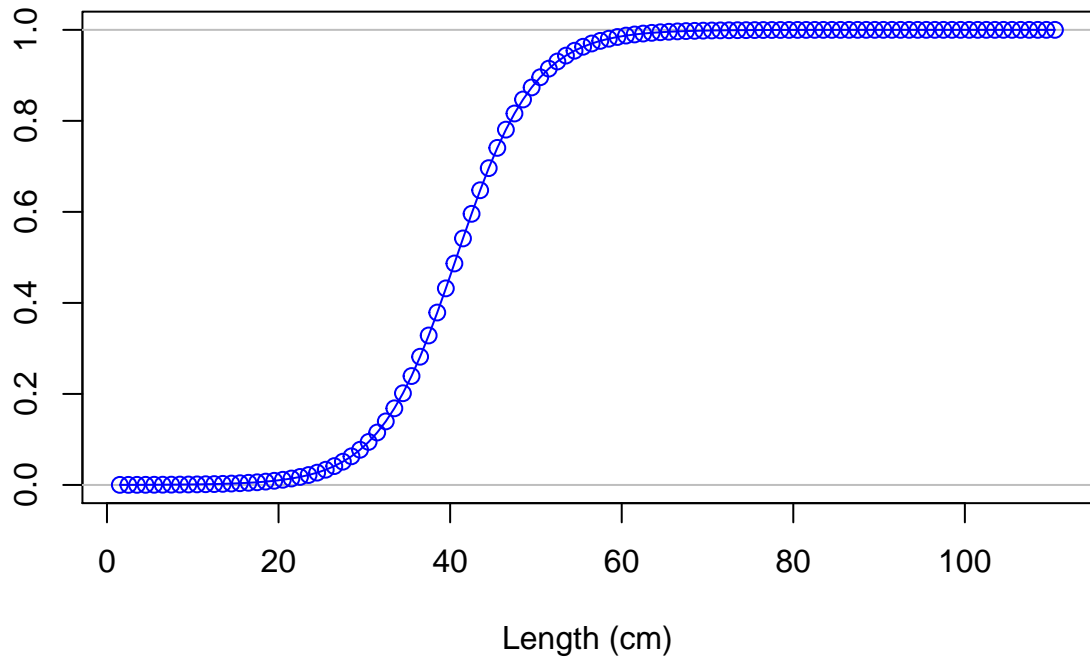
Selectivity



Selectivity

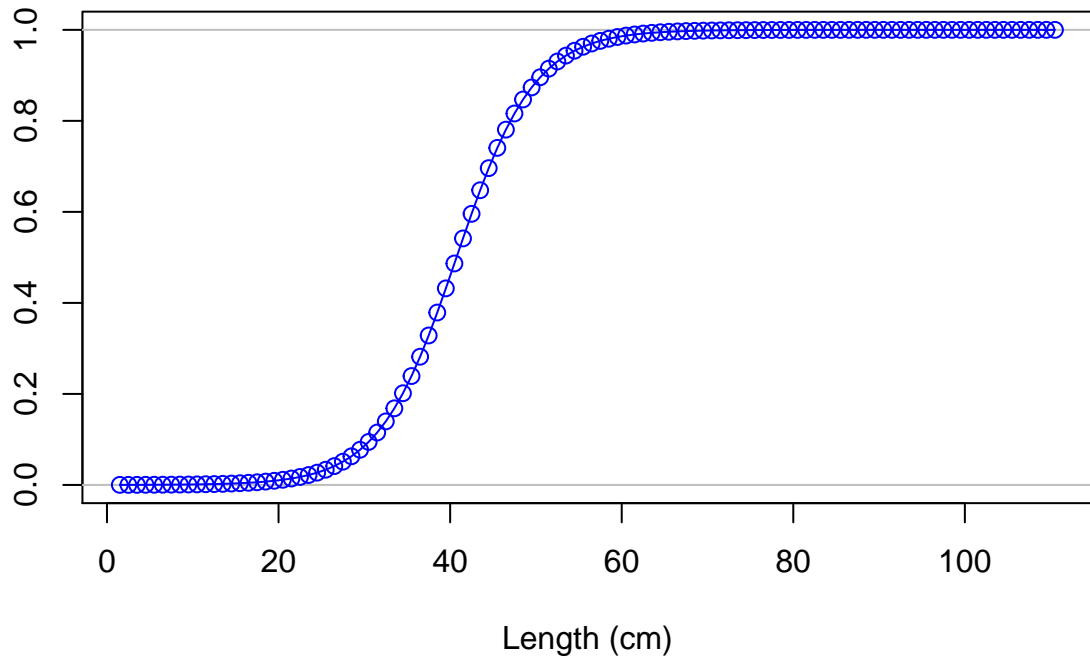


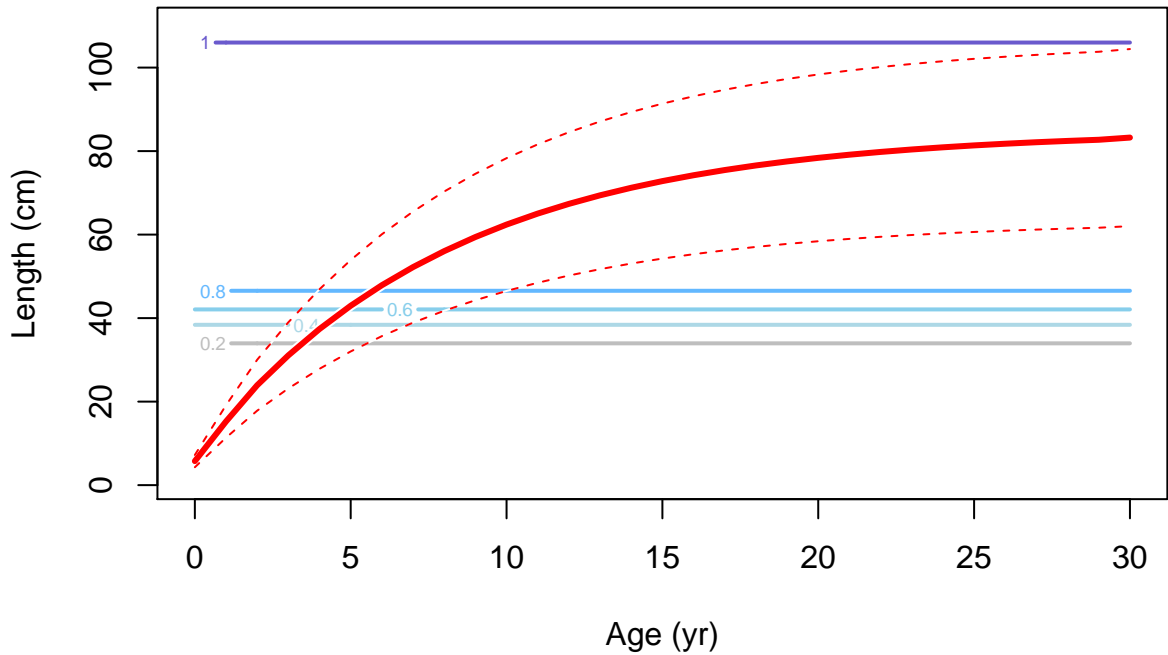
Selectivity

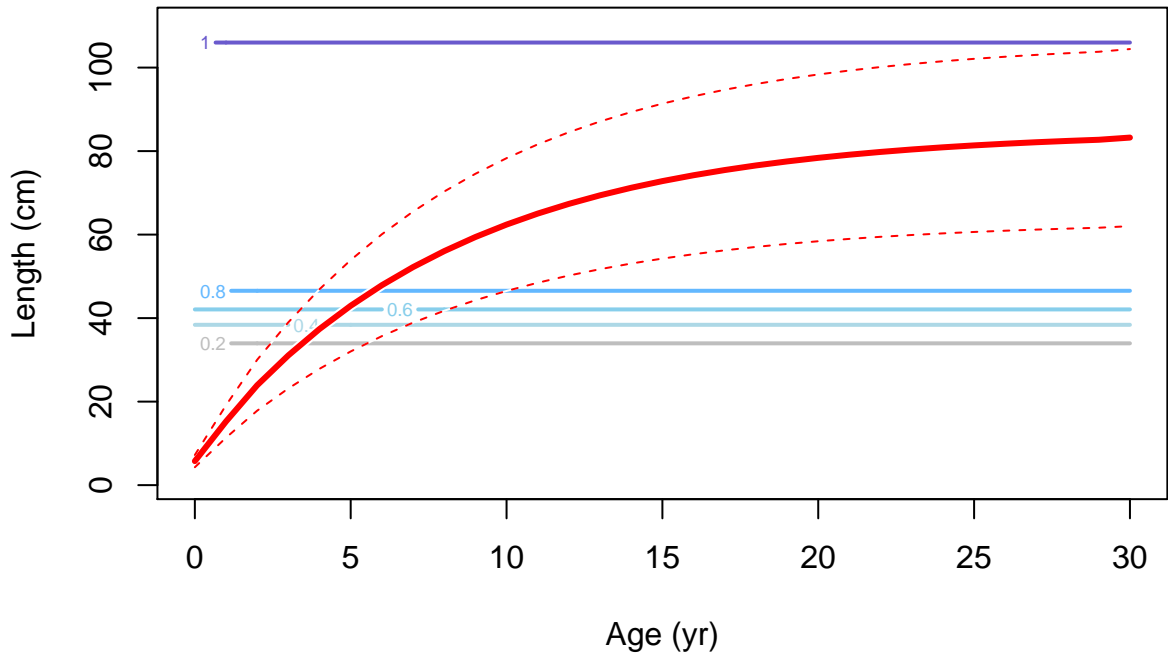


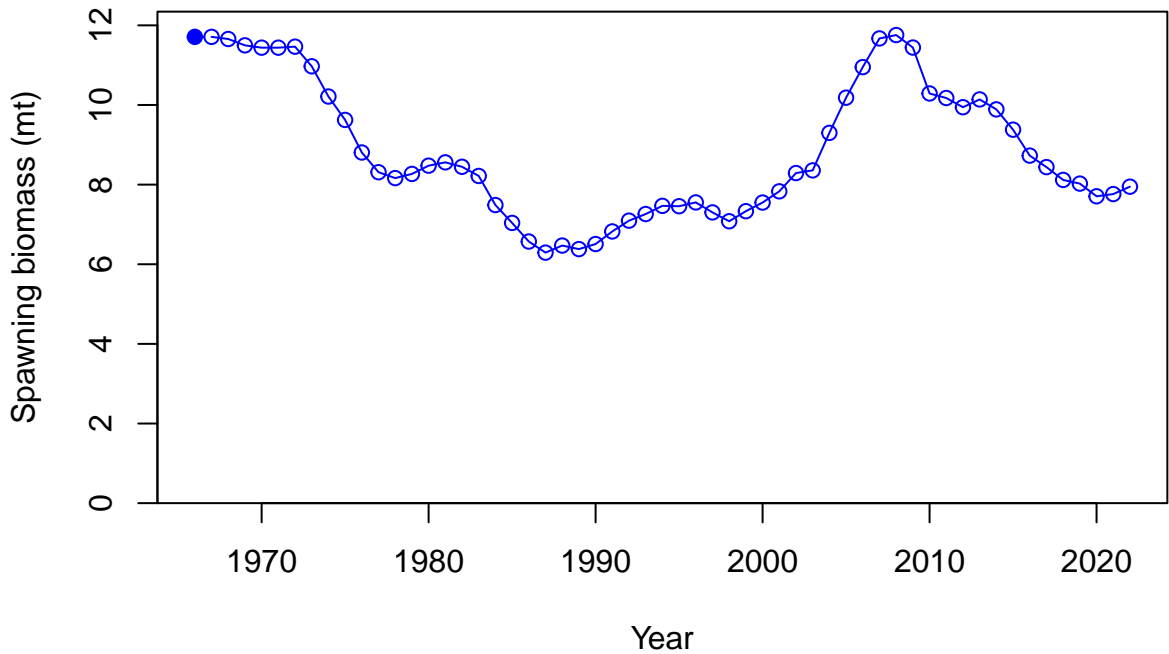


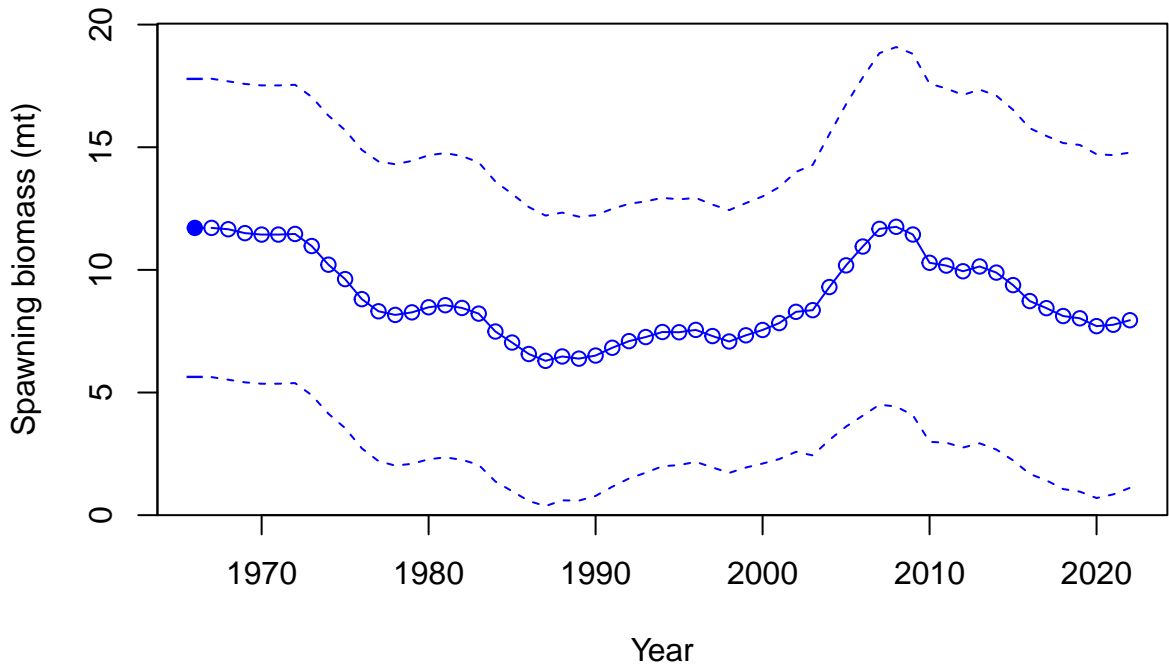
Selectivity



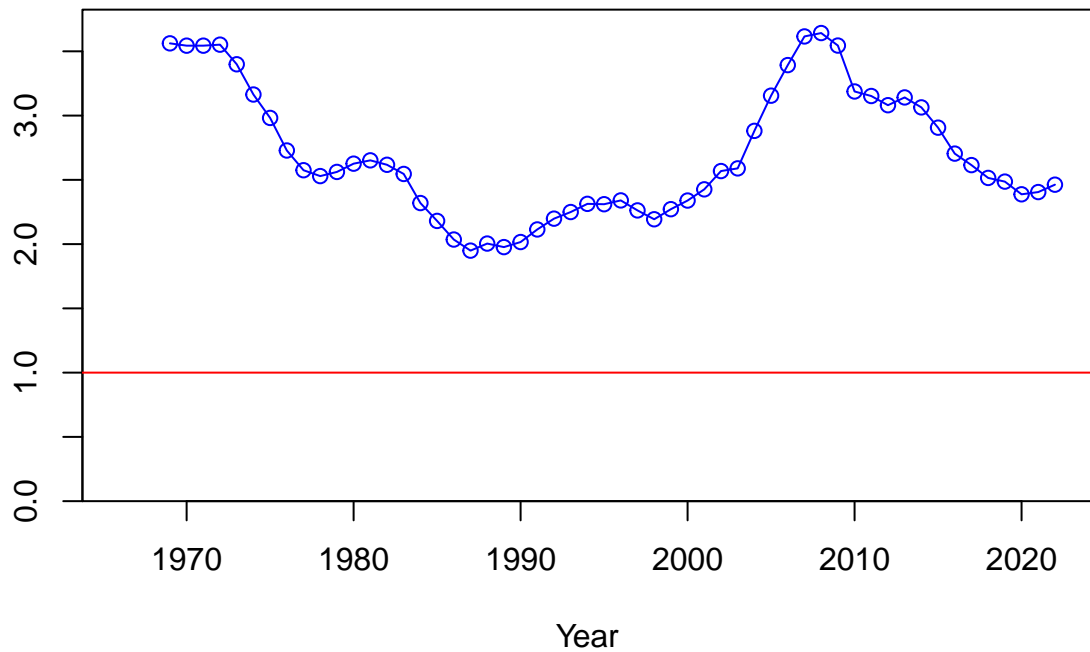




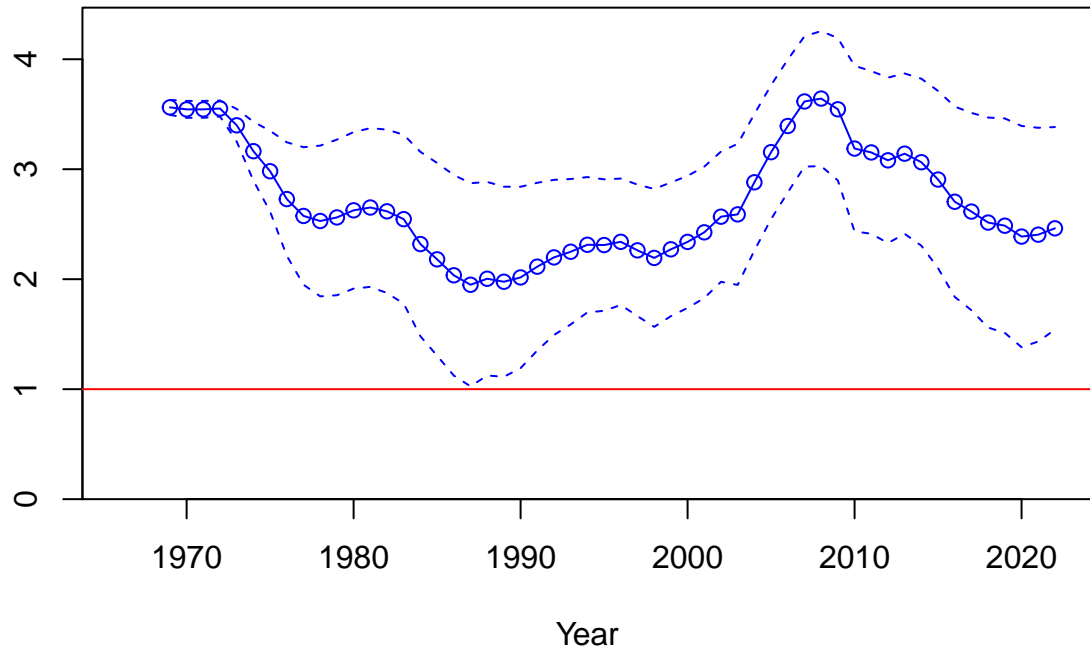


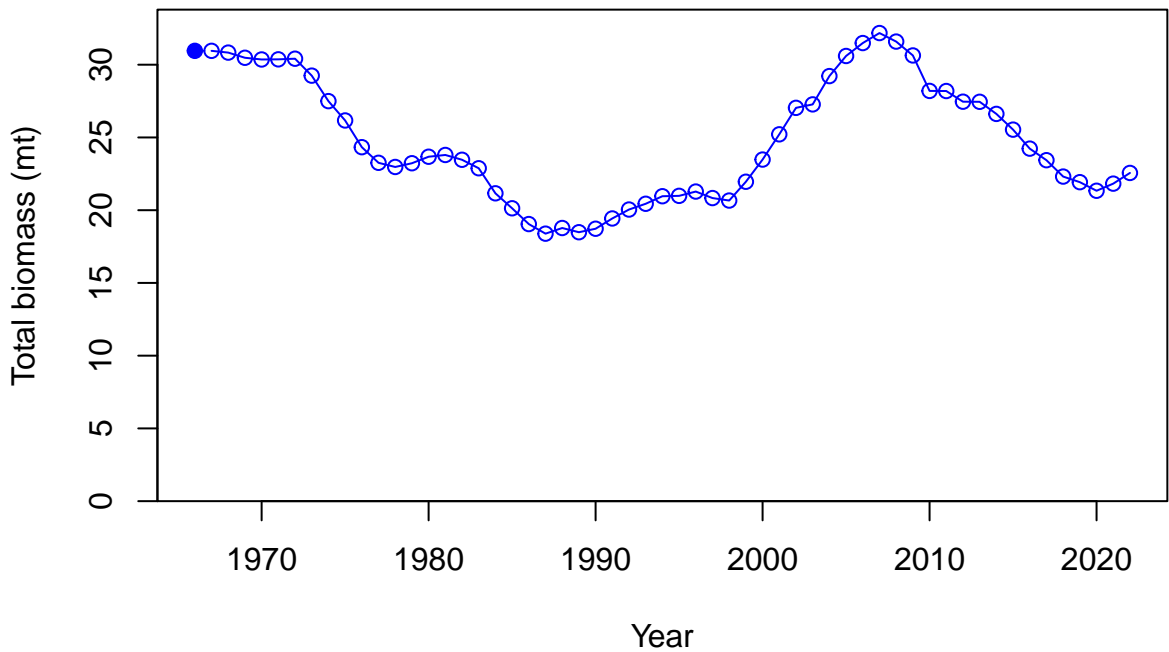


Relative spawning biomass:  $B/B_{MSY}$



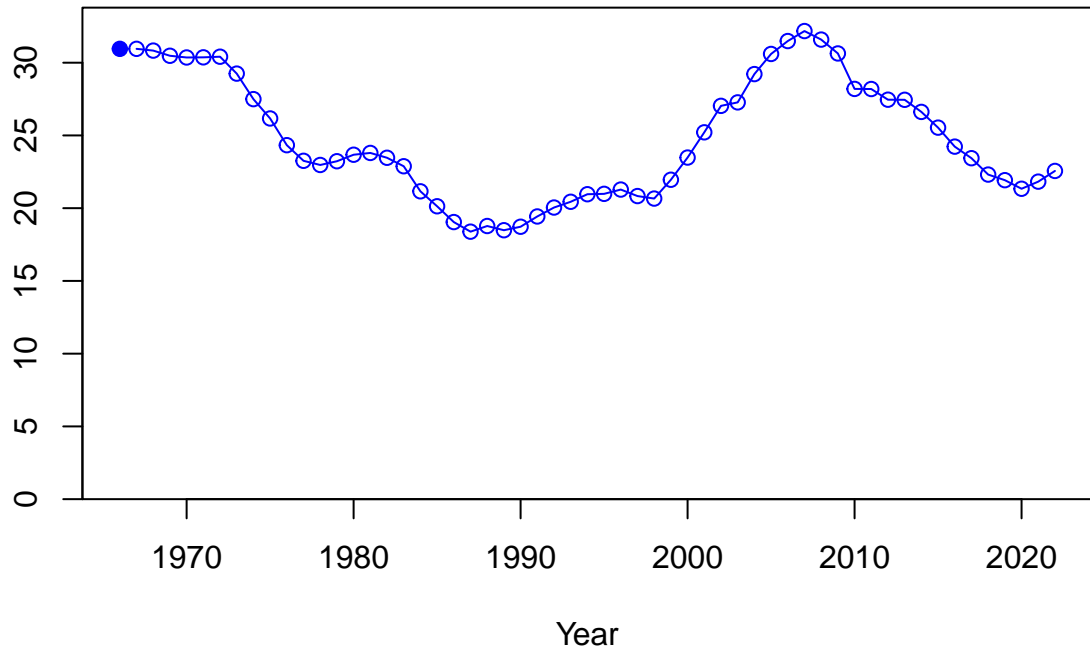
Relative spawning biomass:  $B/B_{MSY}$



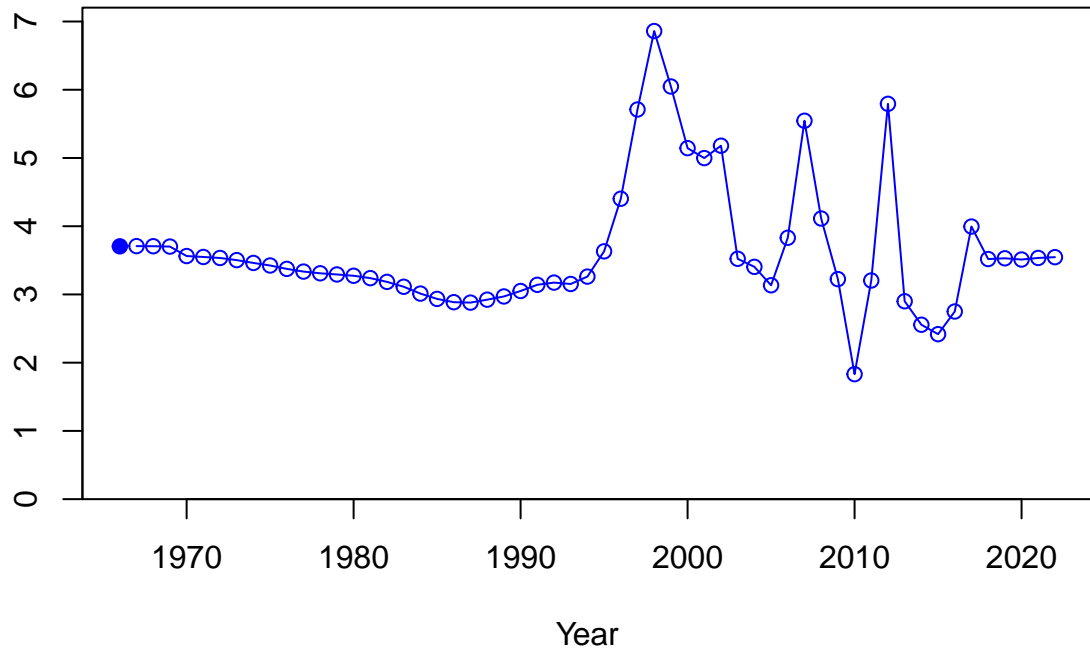




Summary biomass (mt)



Age-0 recruits (1,000s)



Age-0 recruits (1,000s)

20  
15  
10  
5  
0

1970

1980

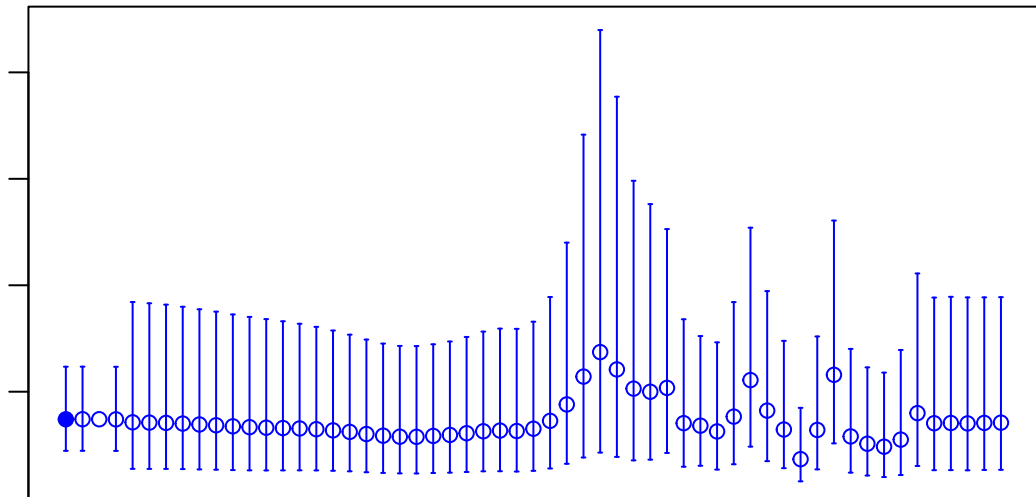
1990

2000

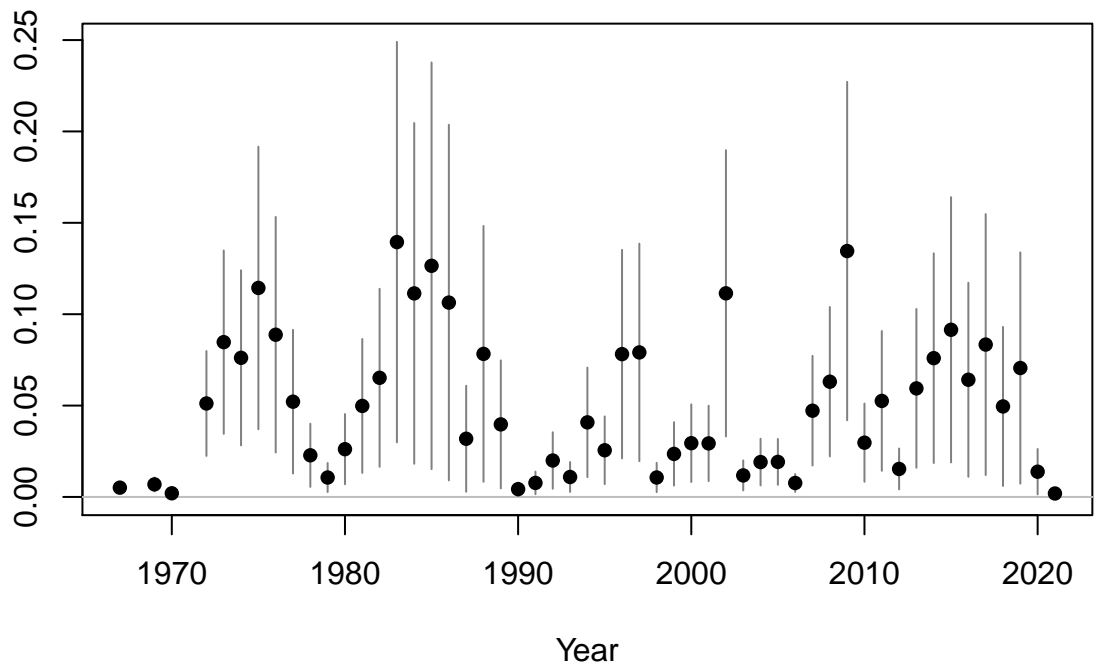
2010

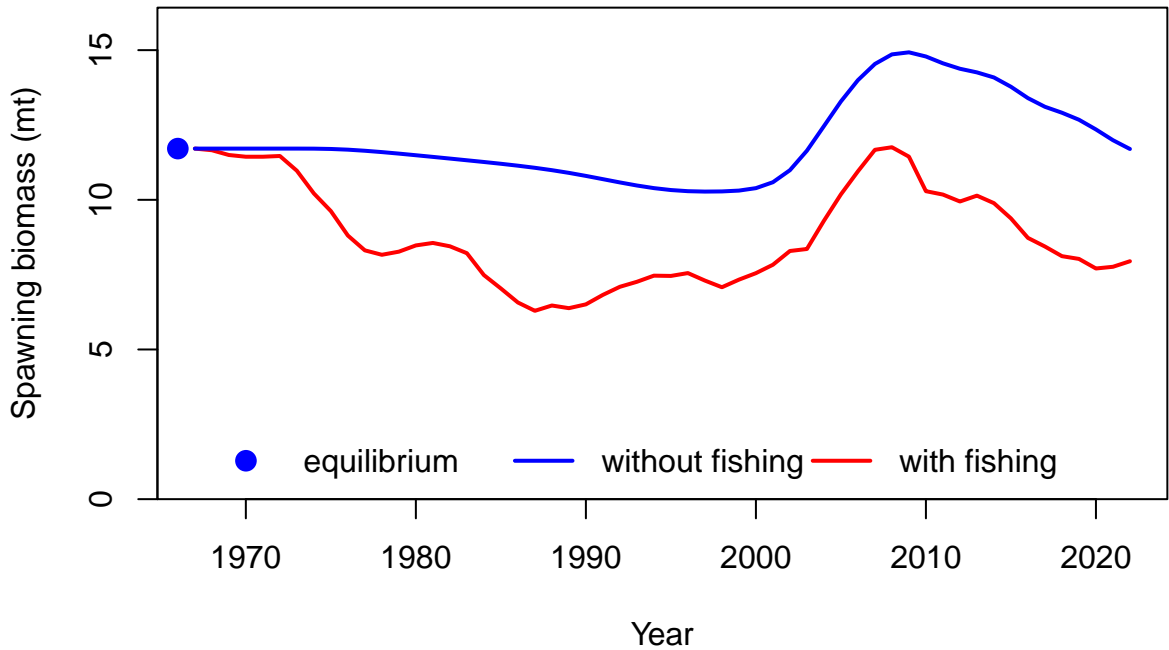
2020

Year

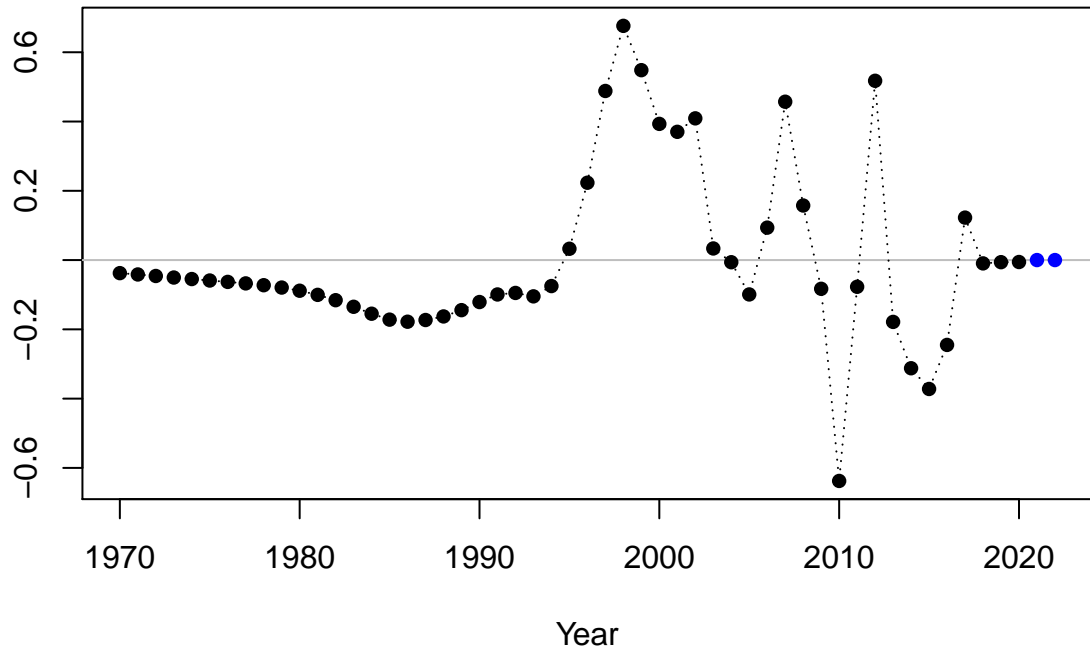


Summary Fishing Mortality

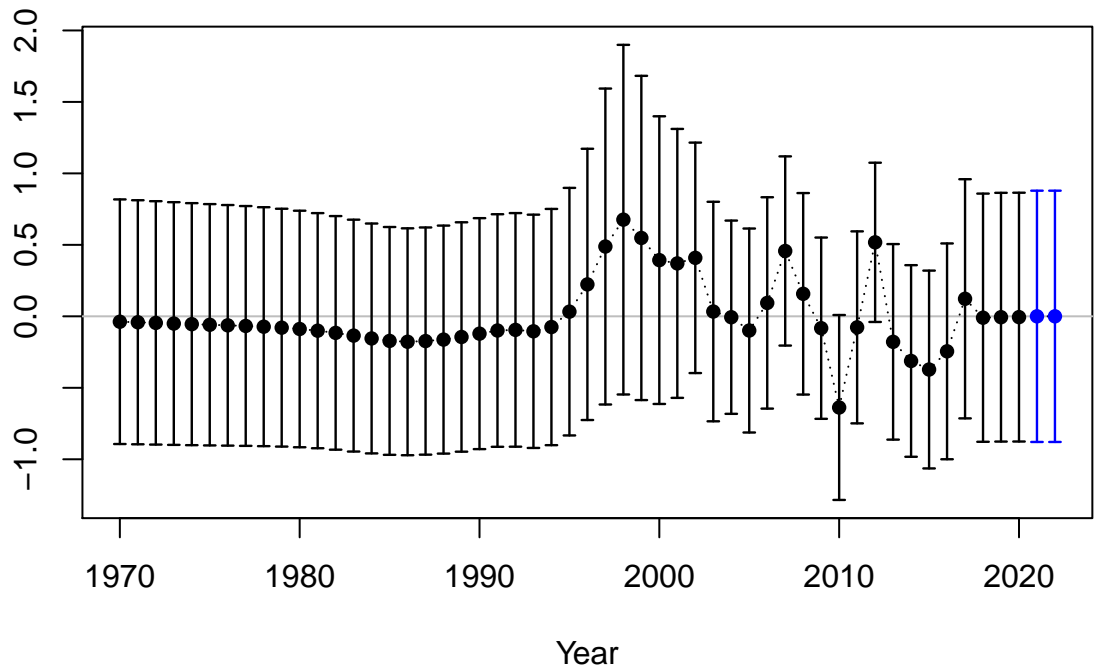




Log recruitment deviation

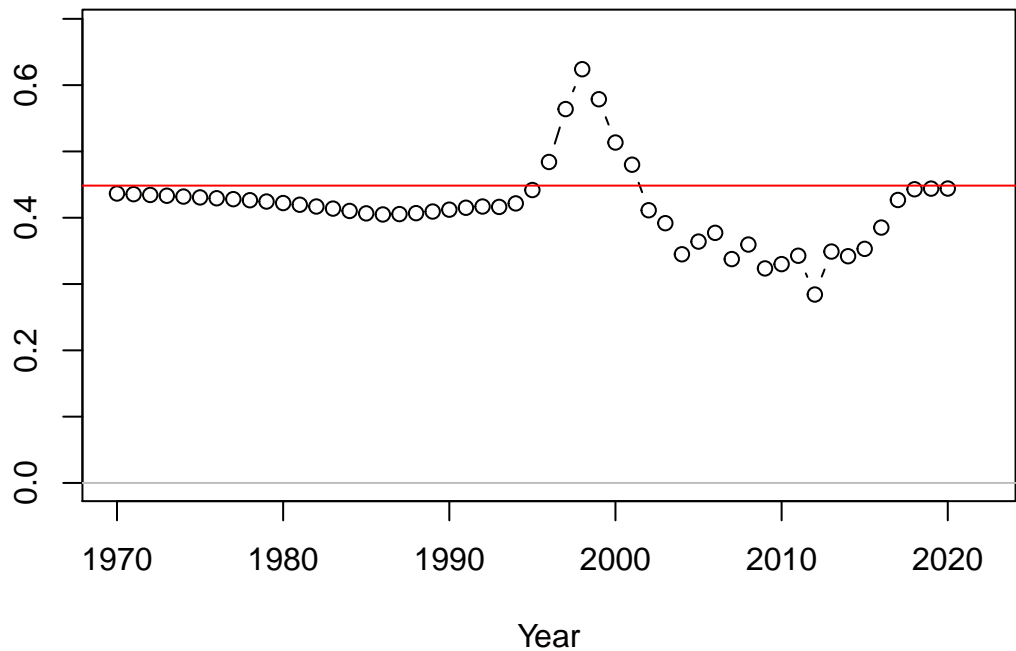


Log recruitment deviation

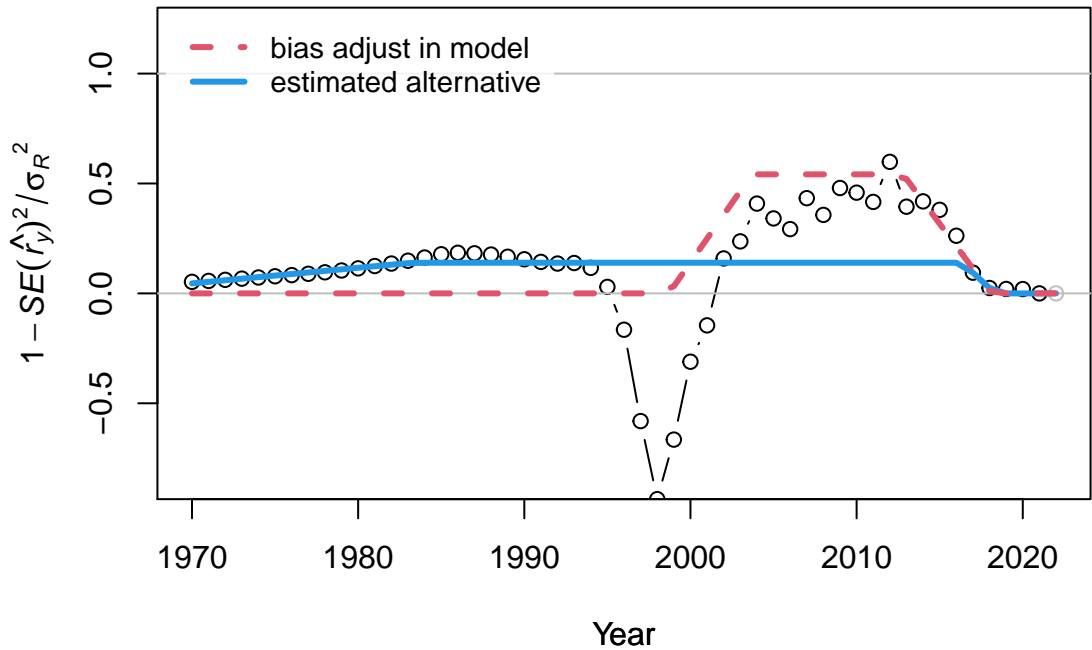


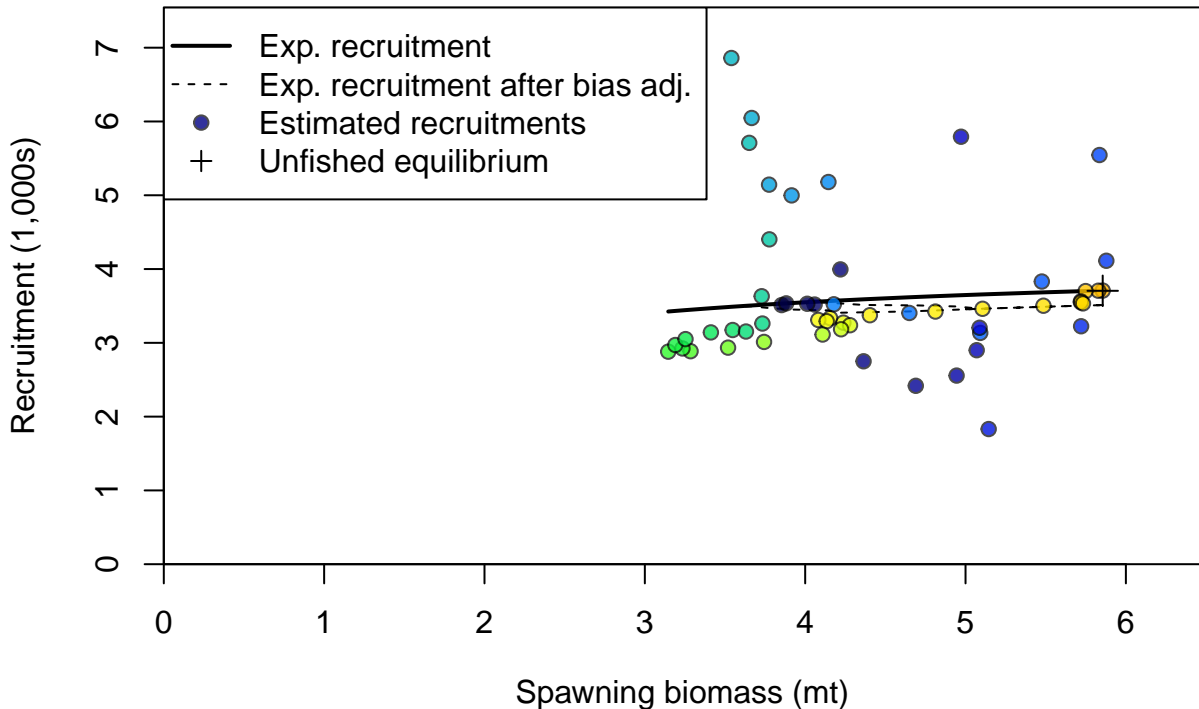
## Recruitment deviation variance

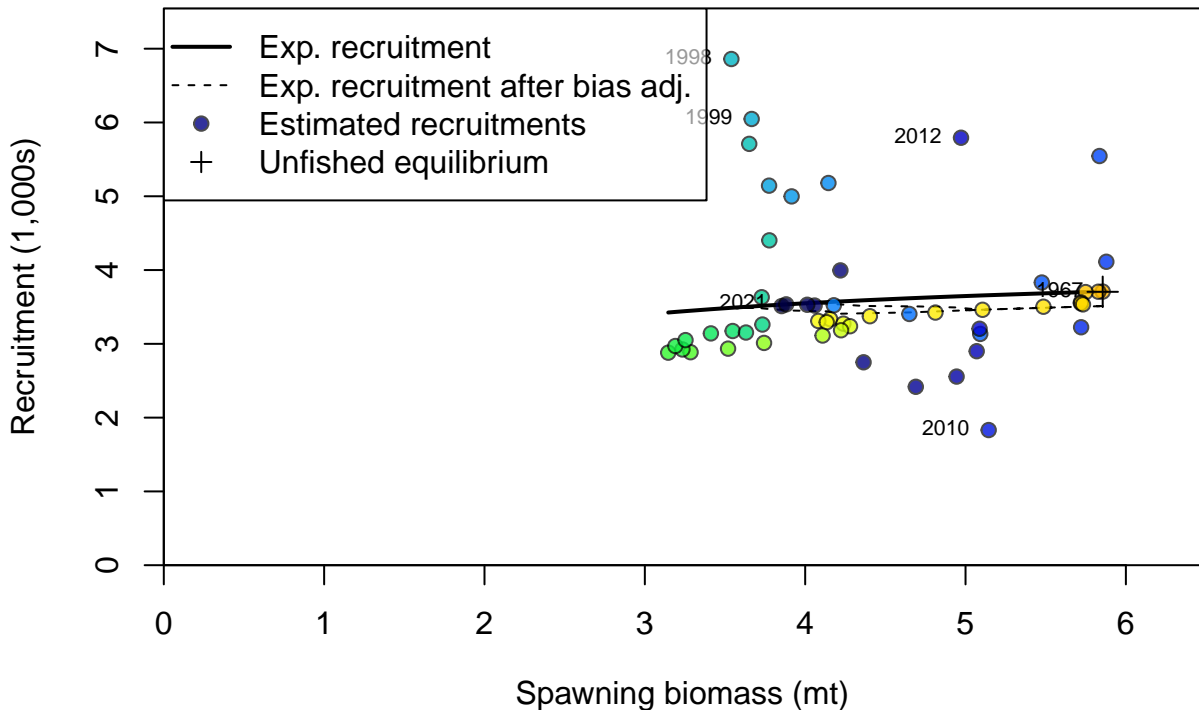
Asymptotic standard error estimate

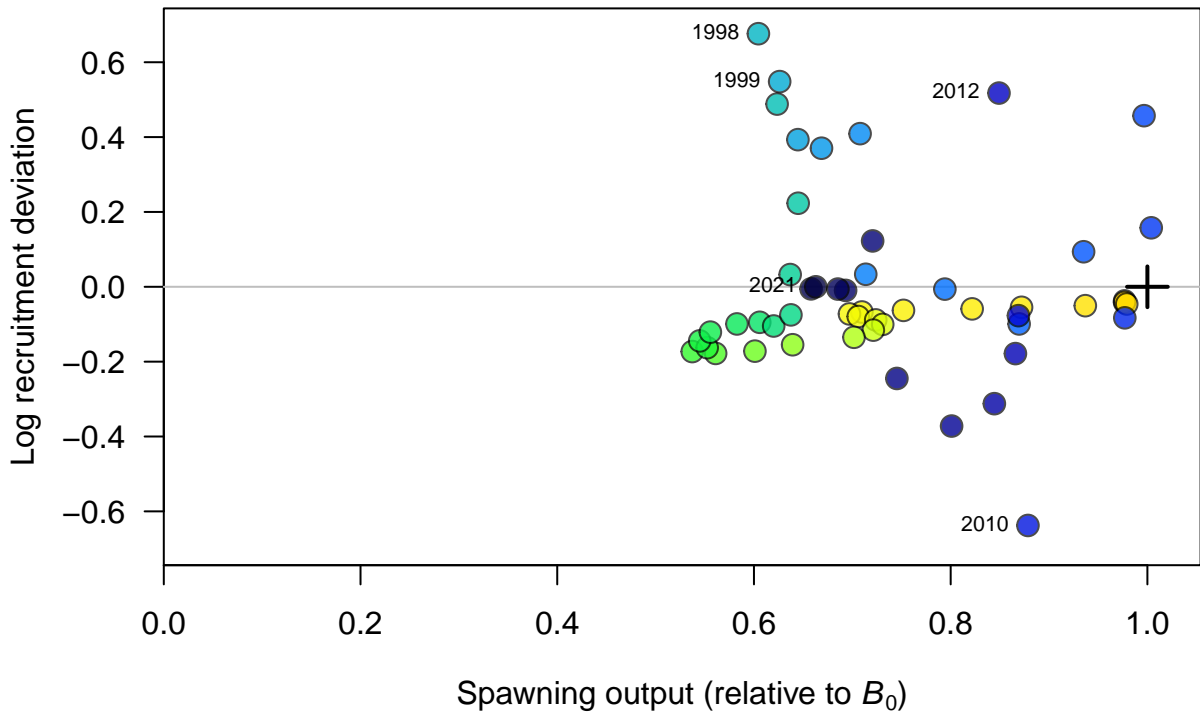


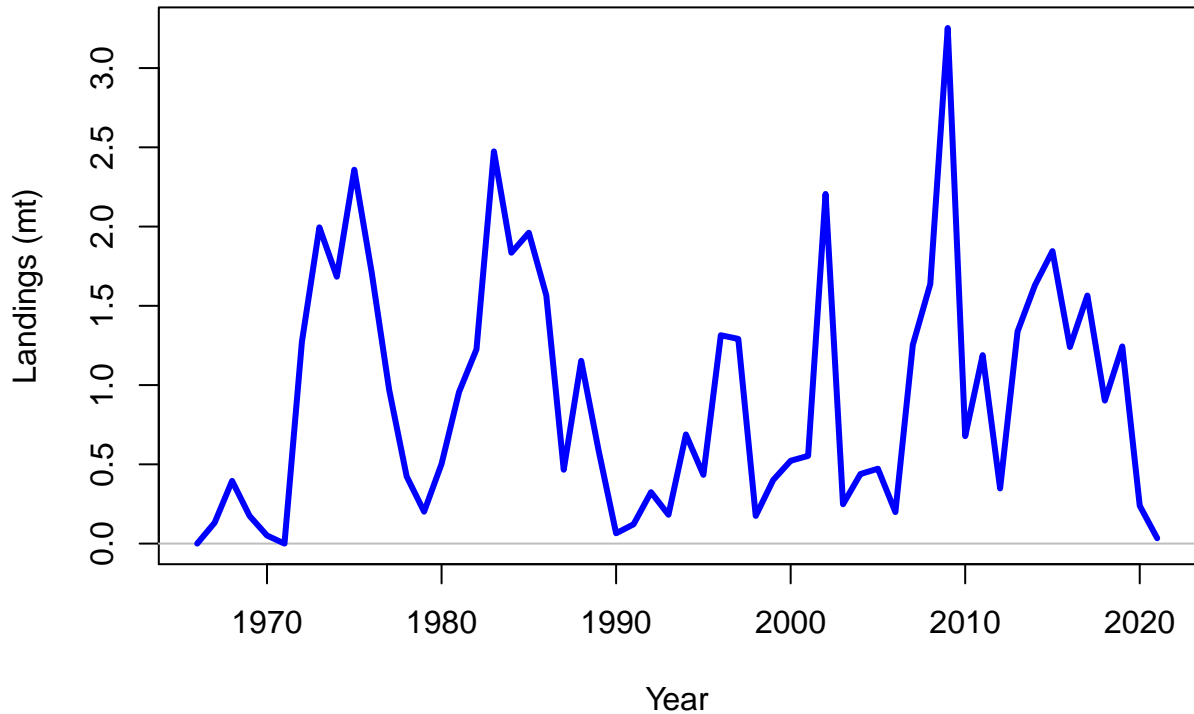


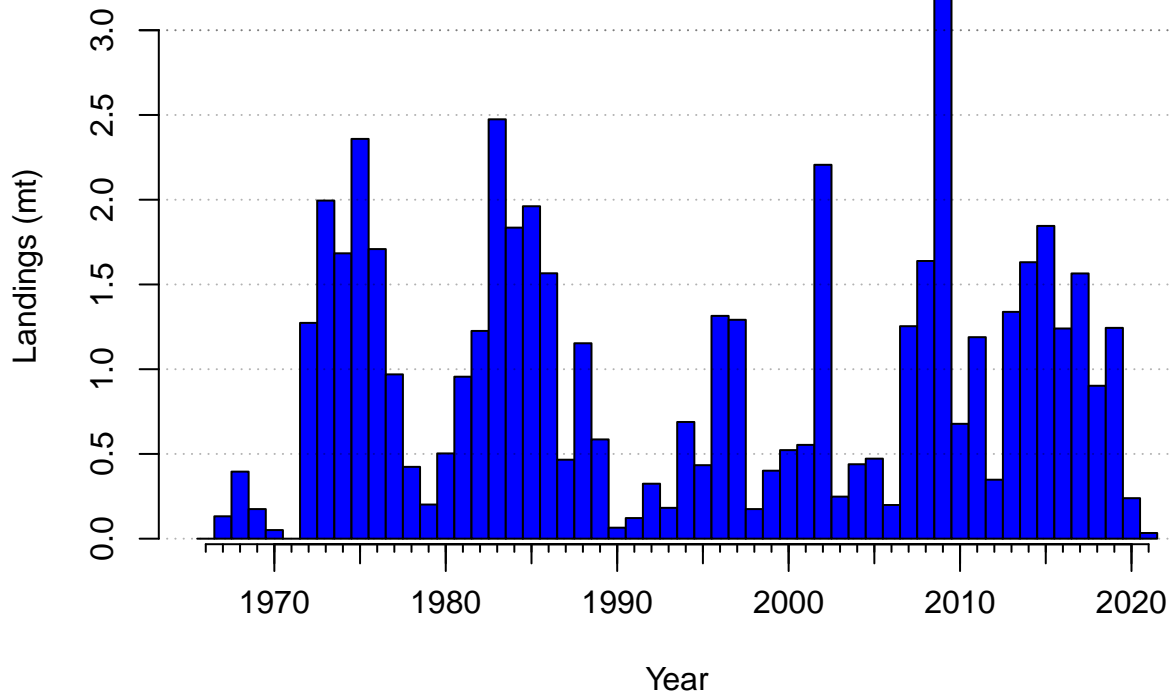


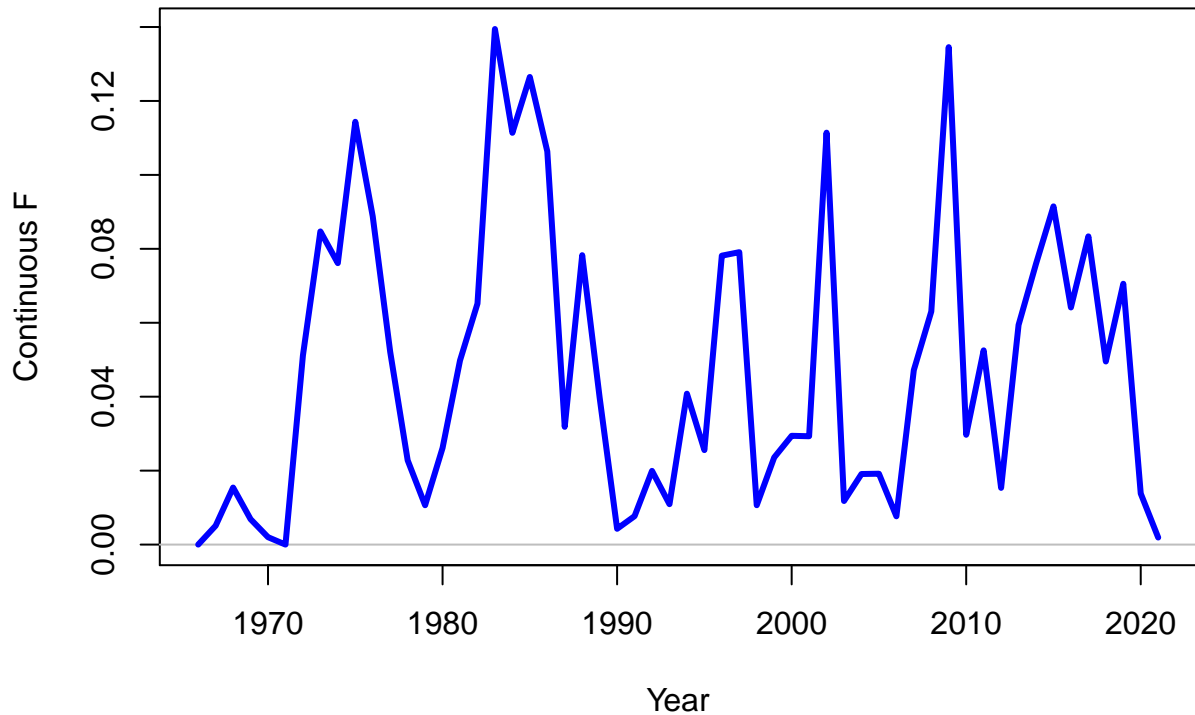




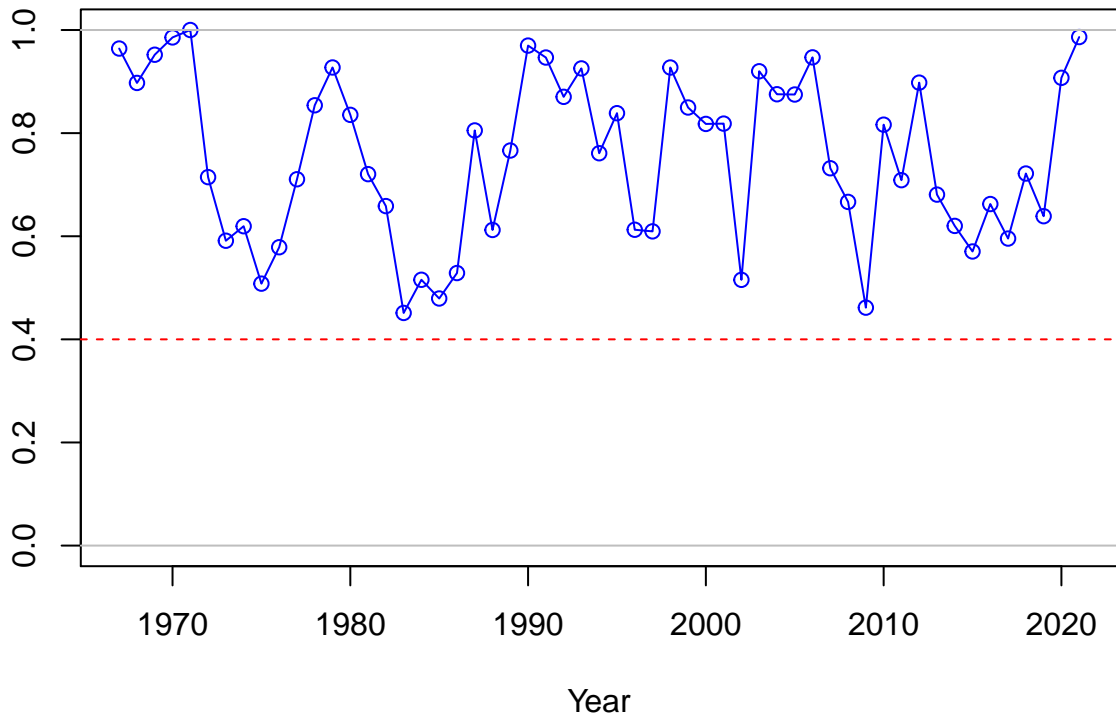






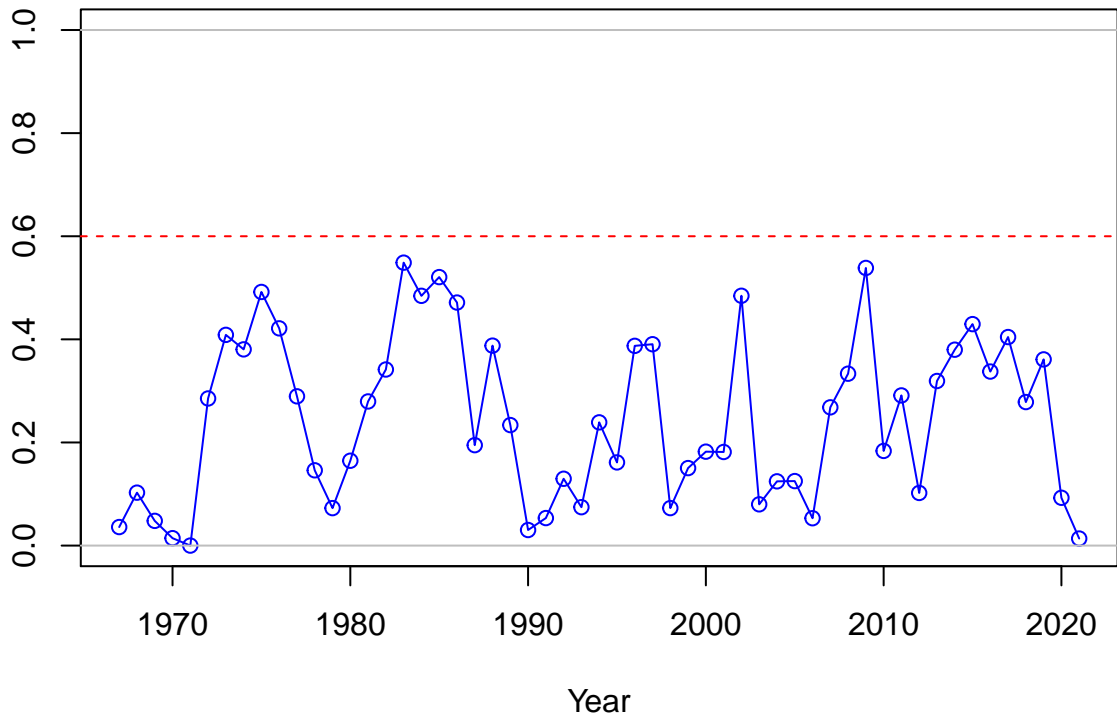


SPR

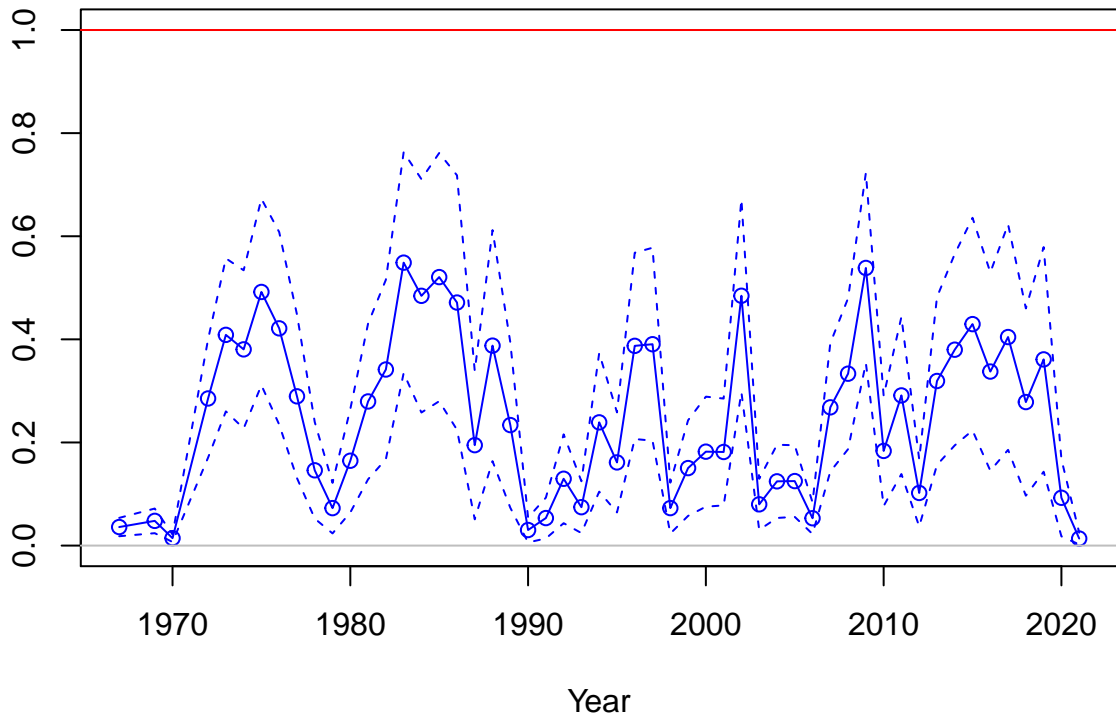




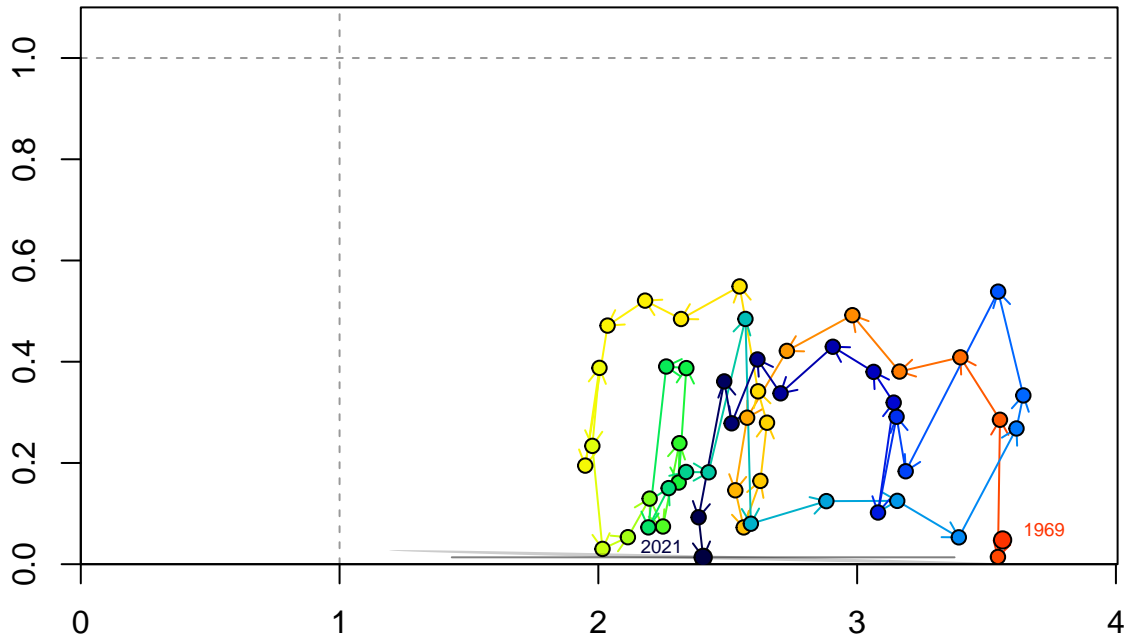
1-SPR



Fishing intensity: 1-SPR

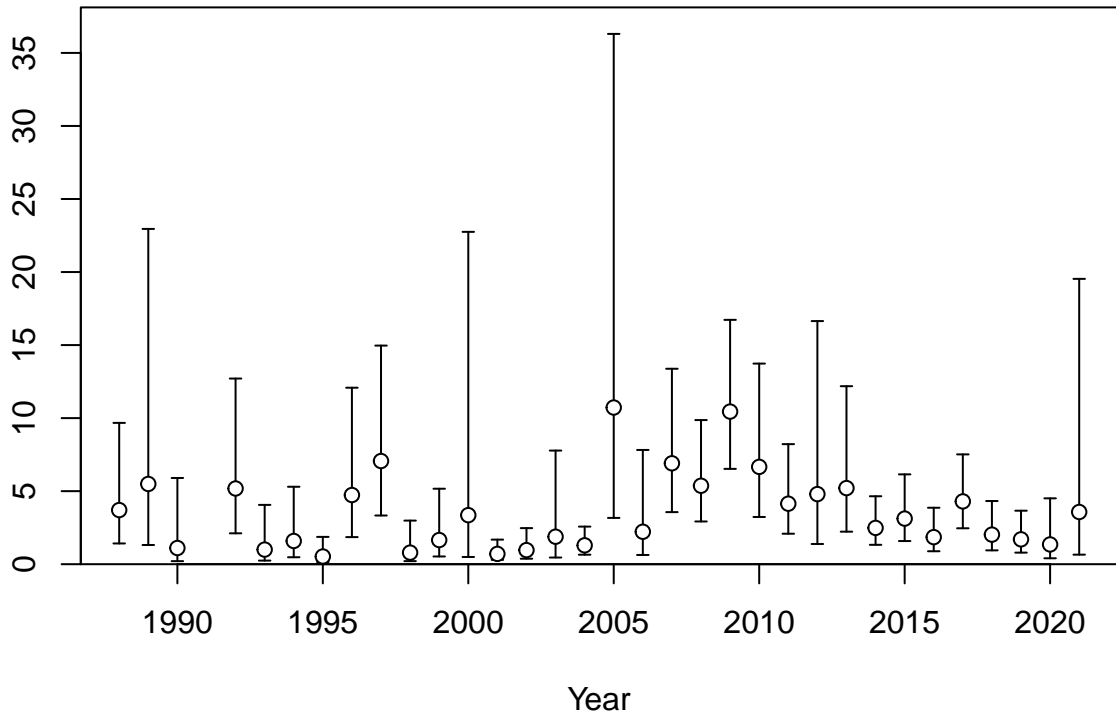


Fishing intensity: 1-SPR

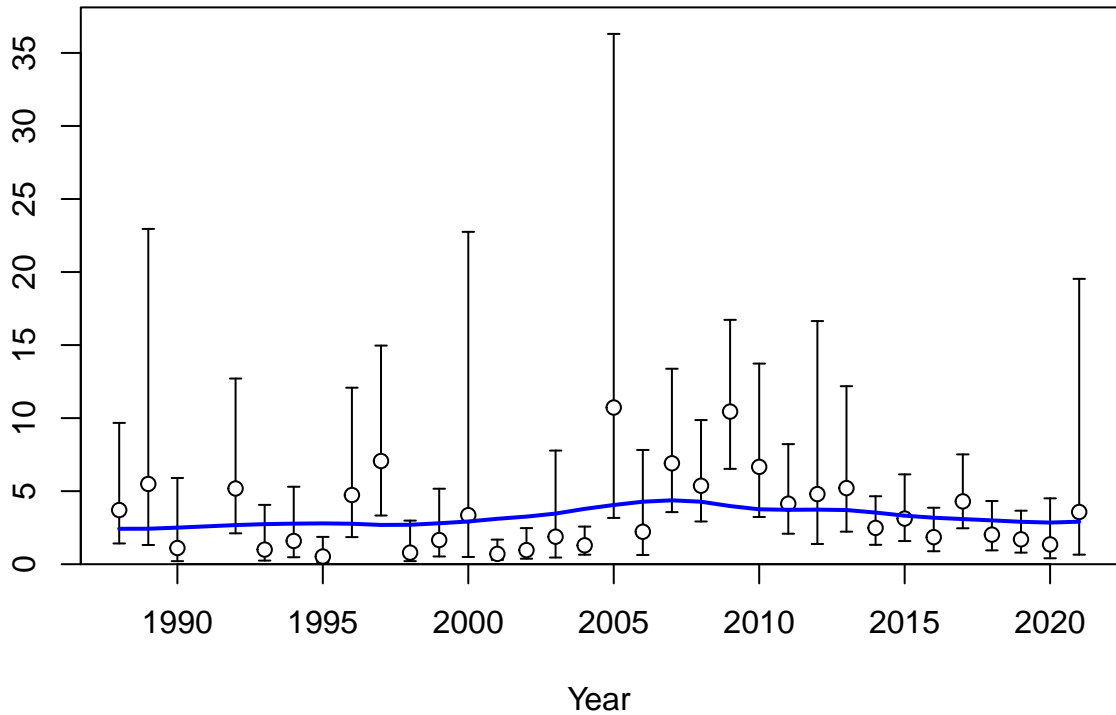


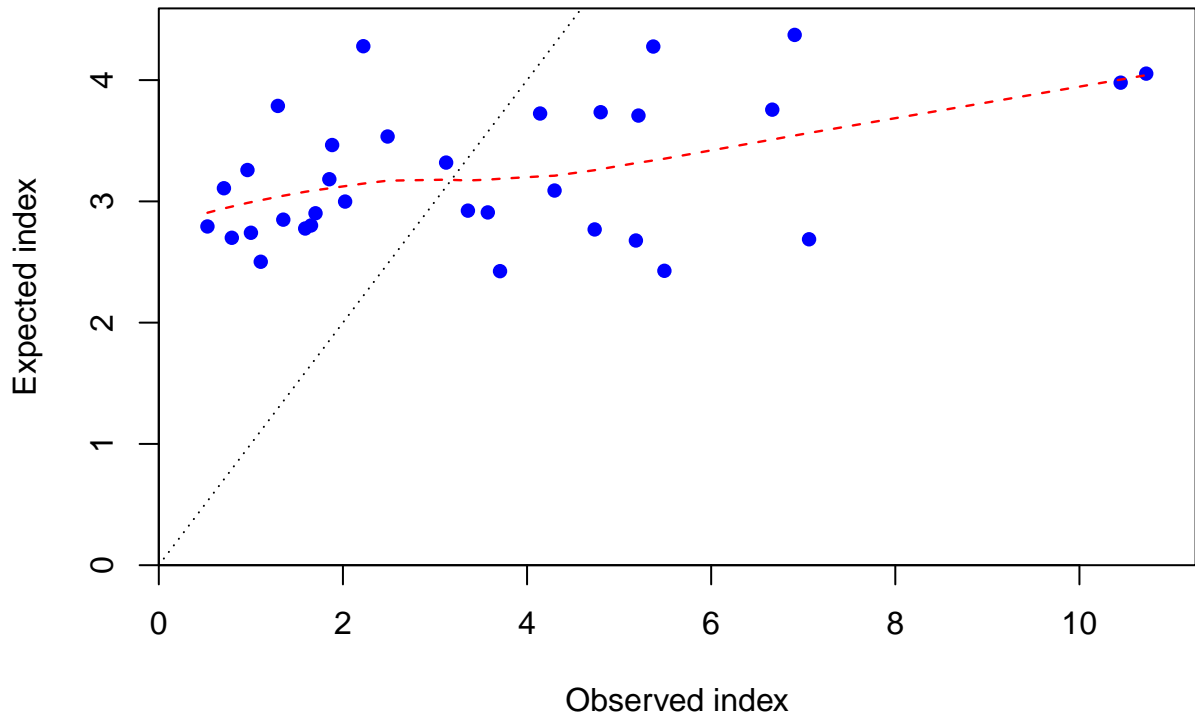
Relative spawning output: B/B\_MSY

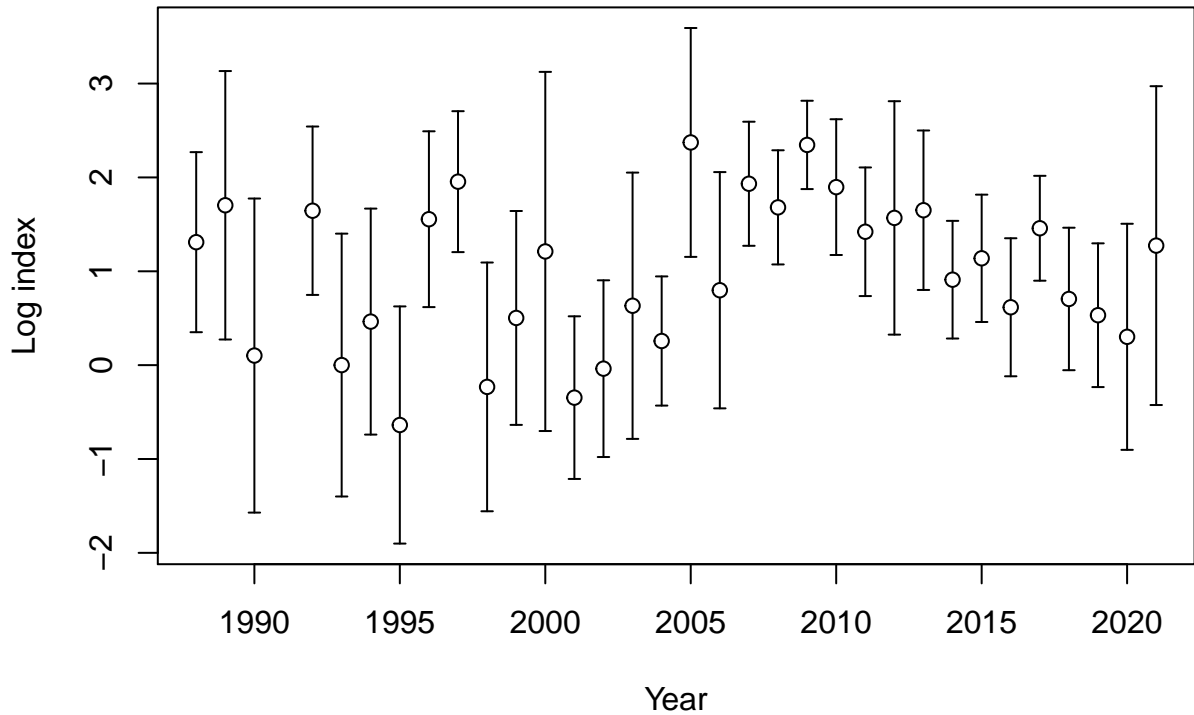
Index

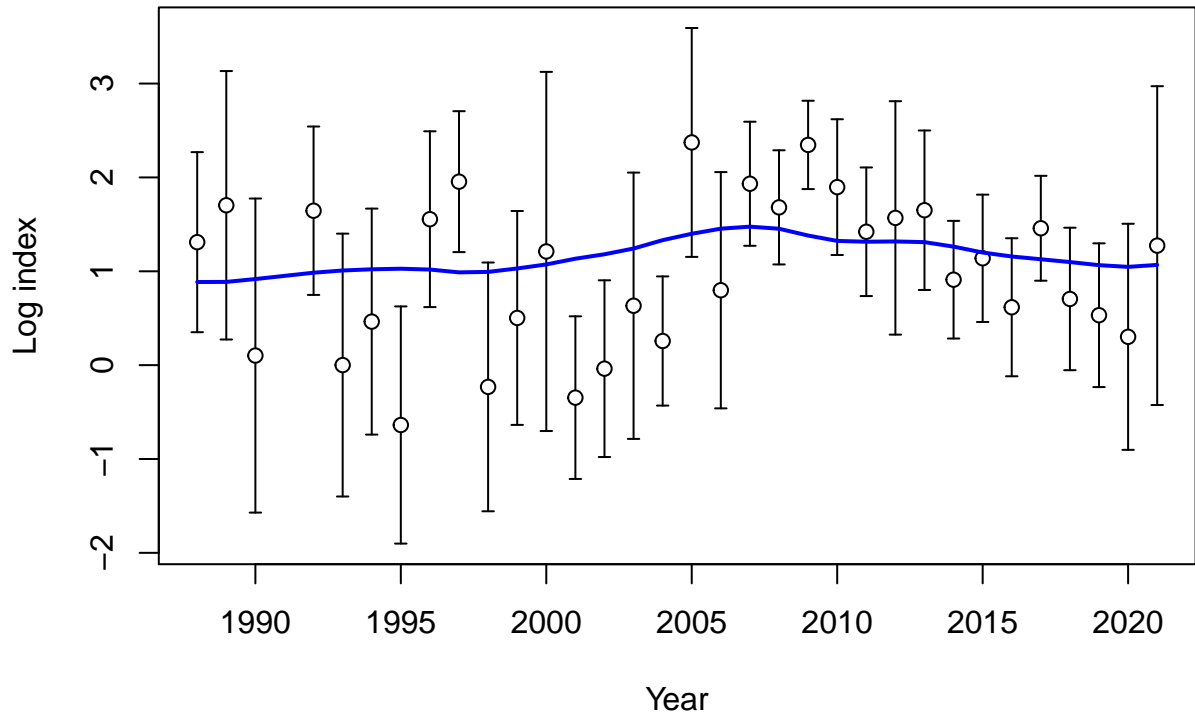


Index

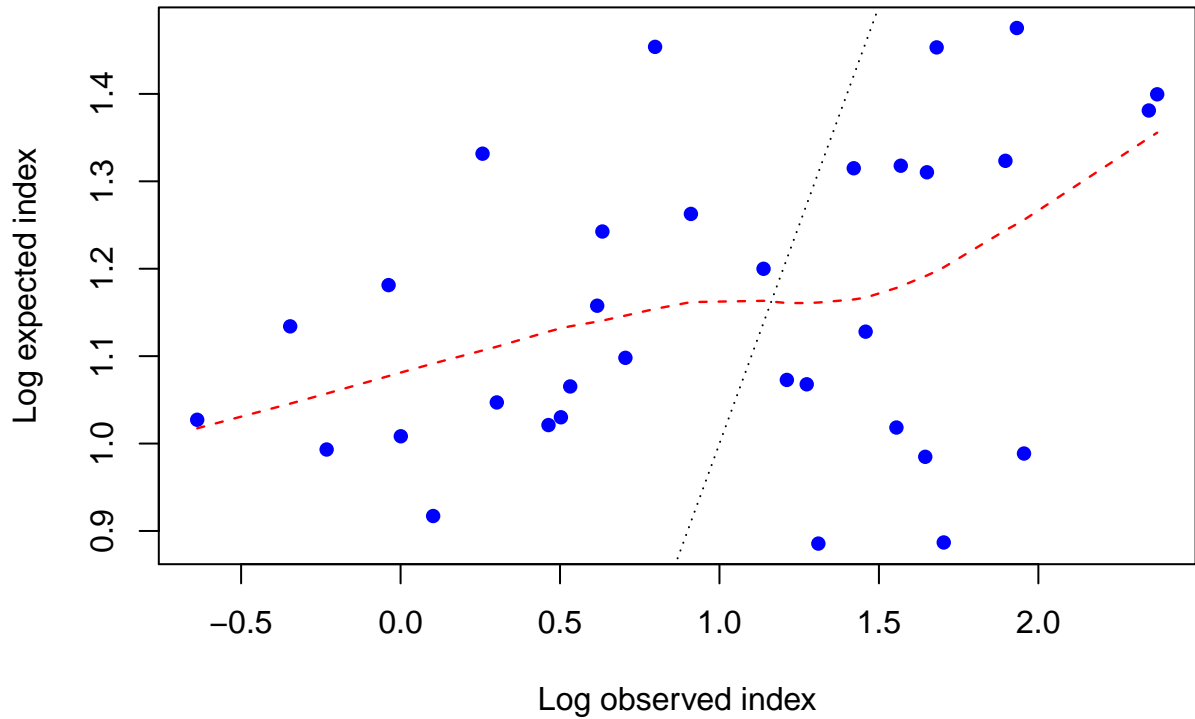


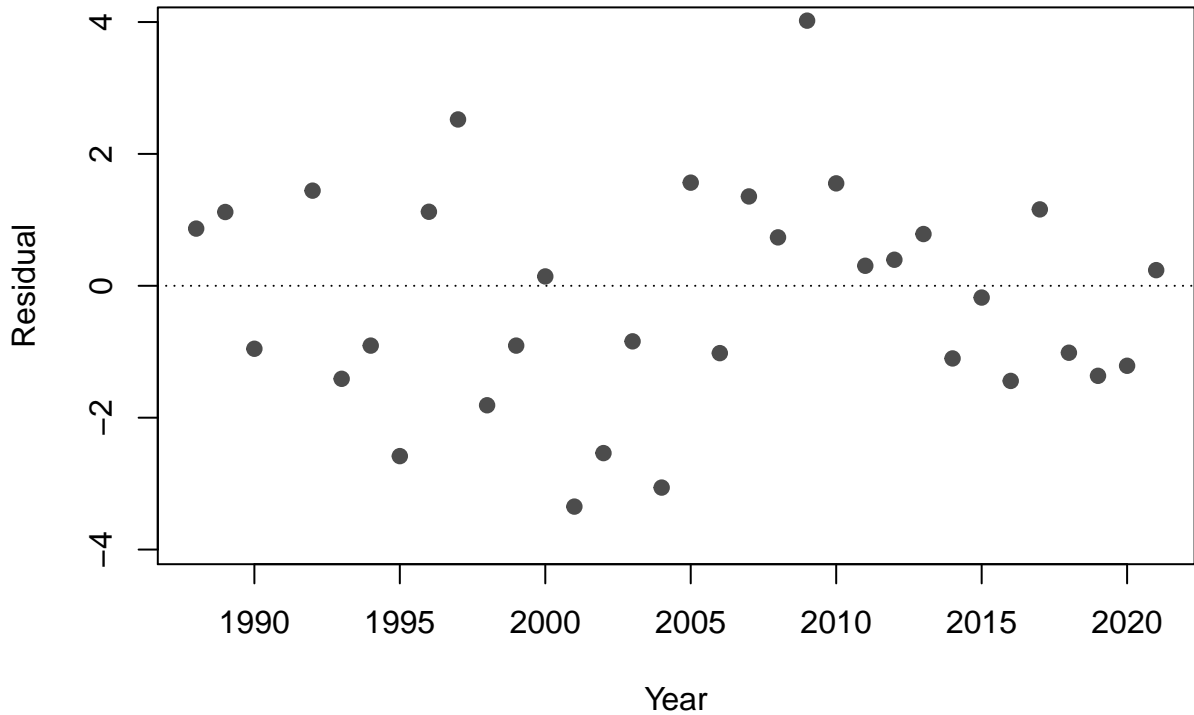


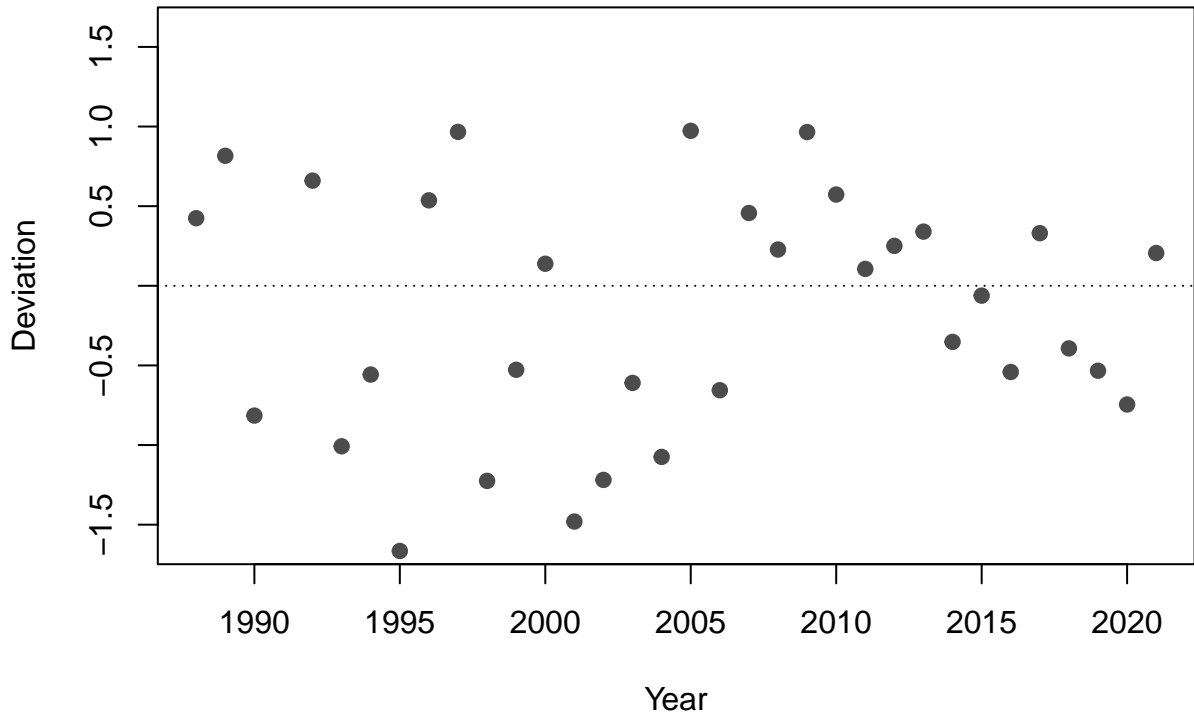


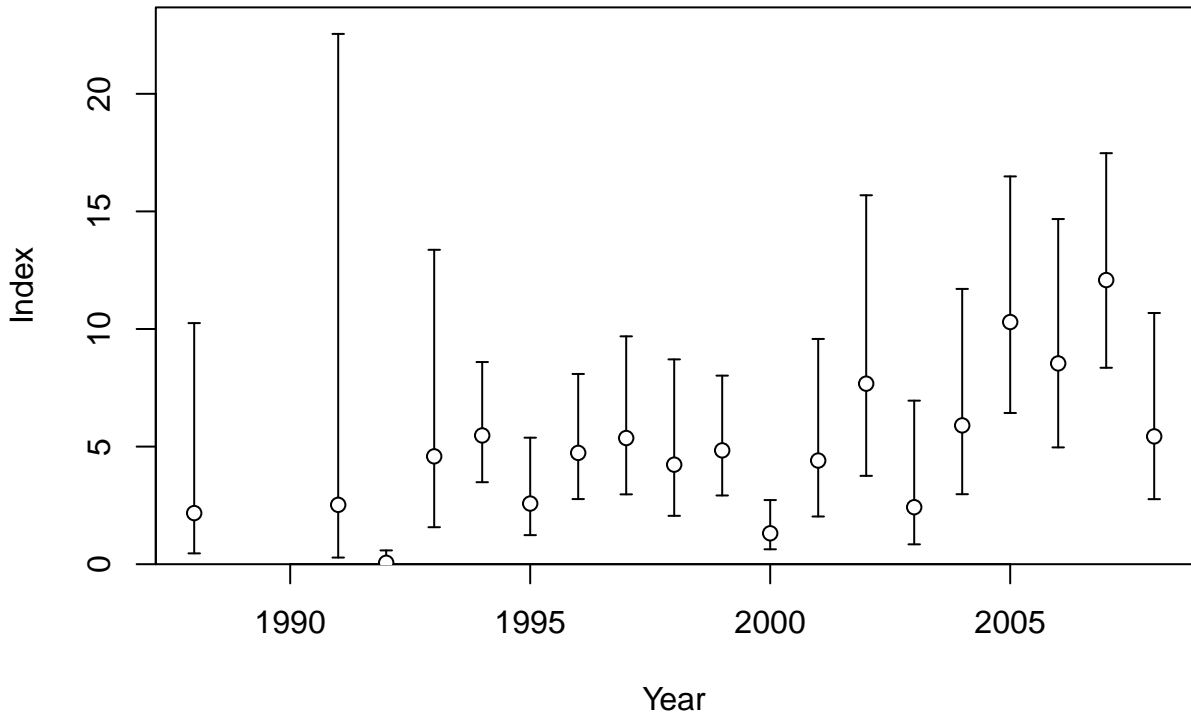


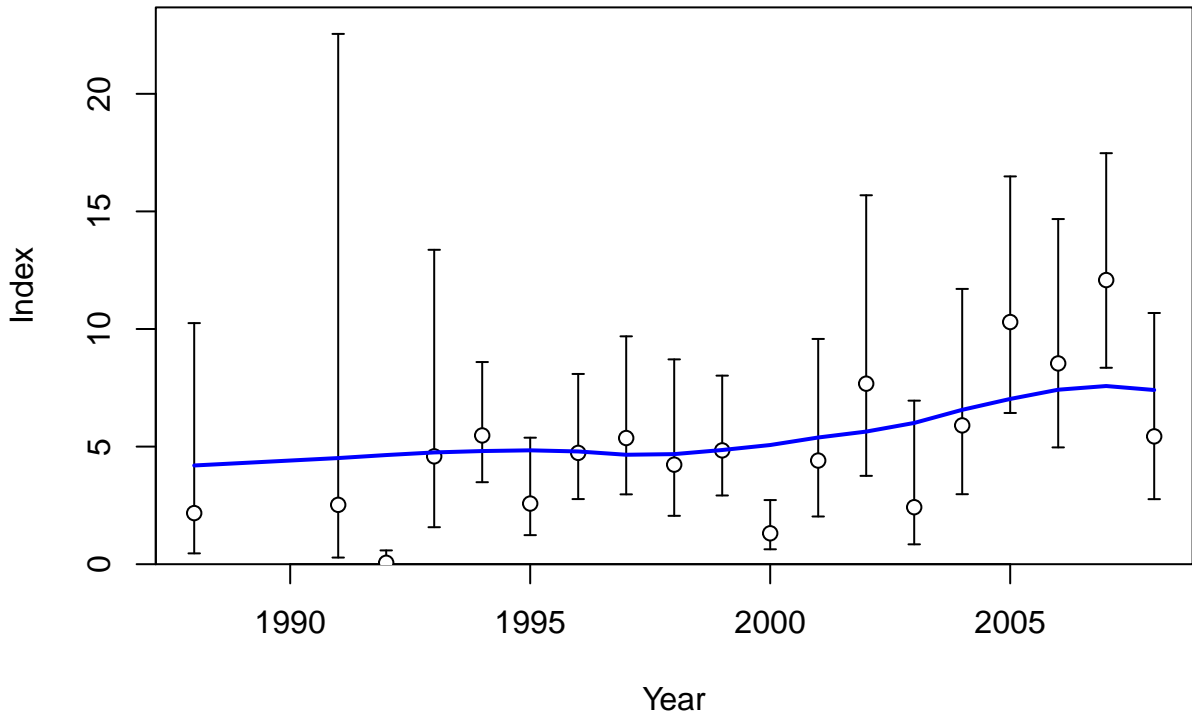


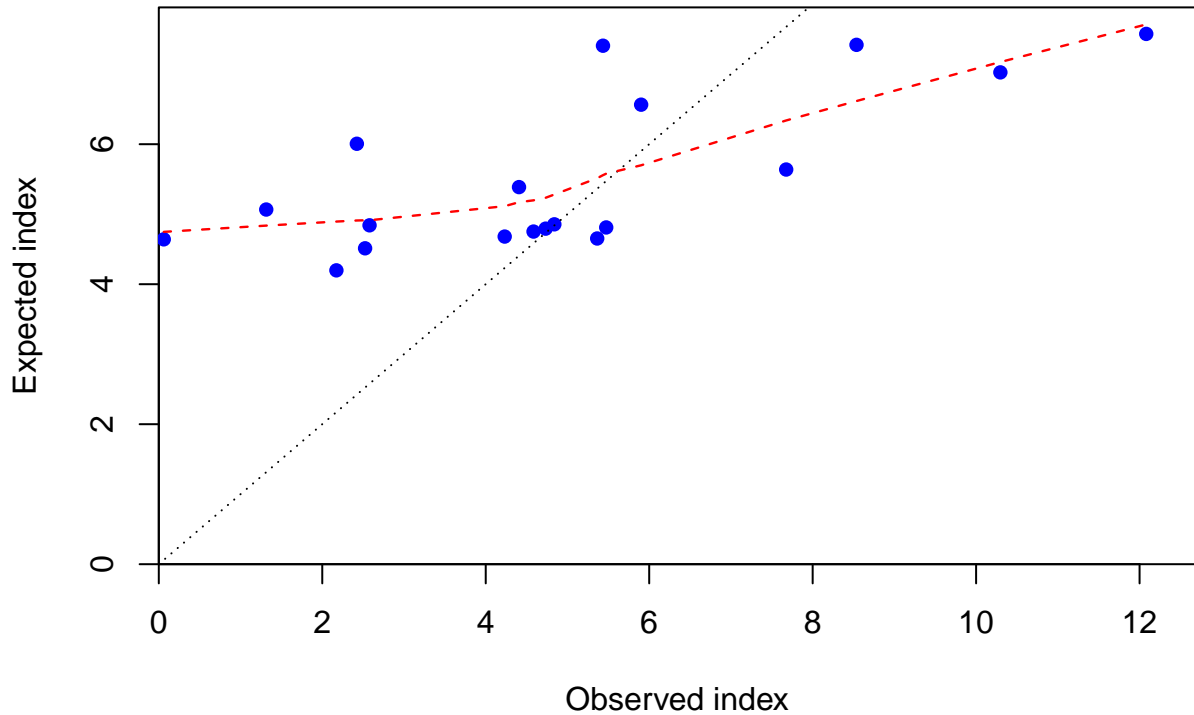


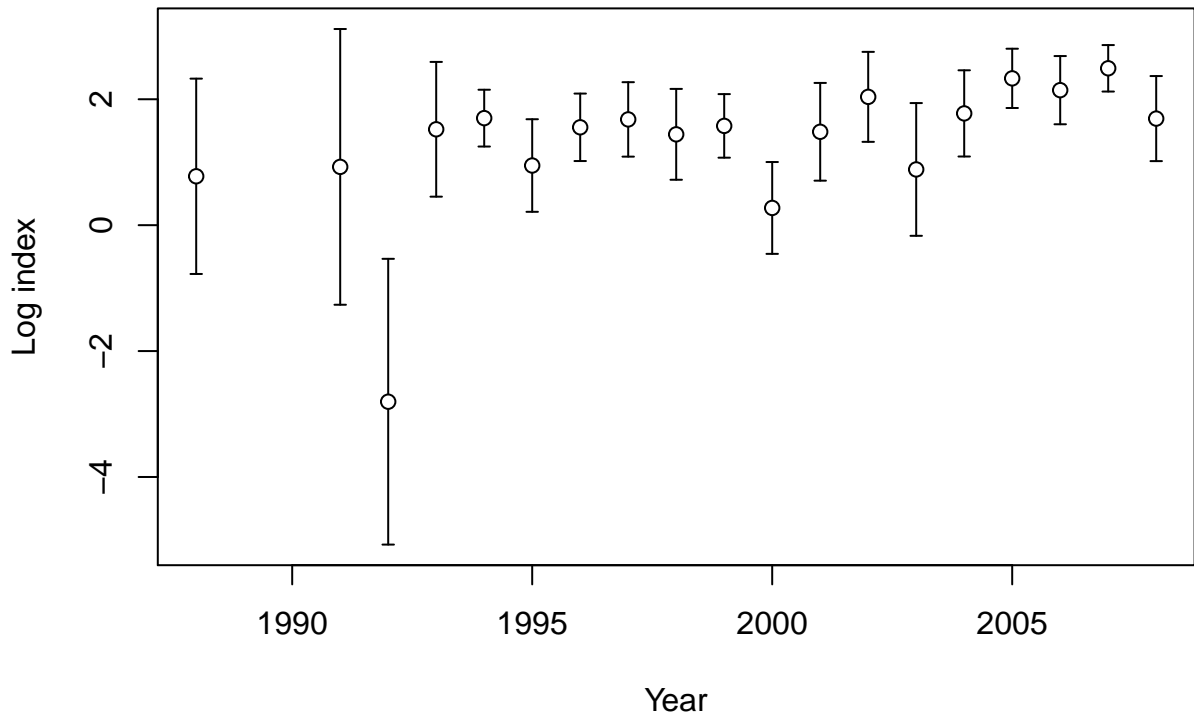


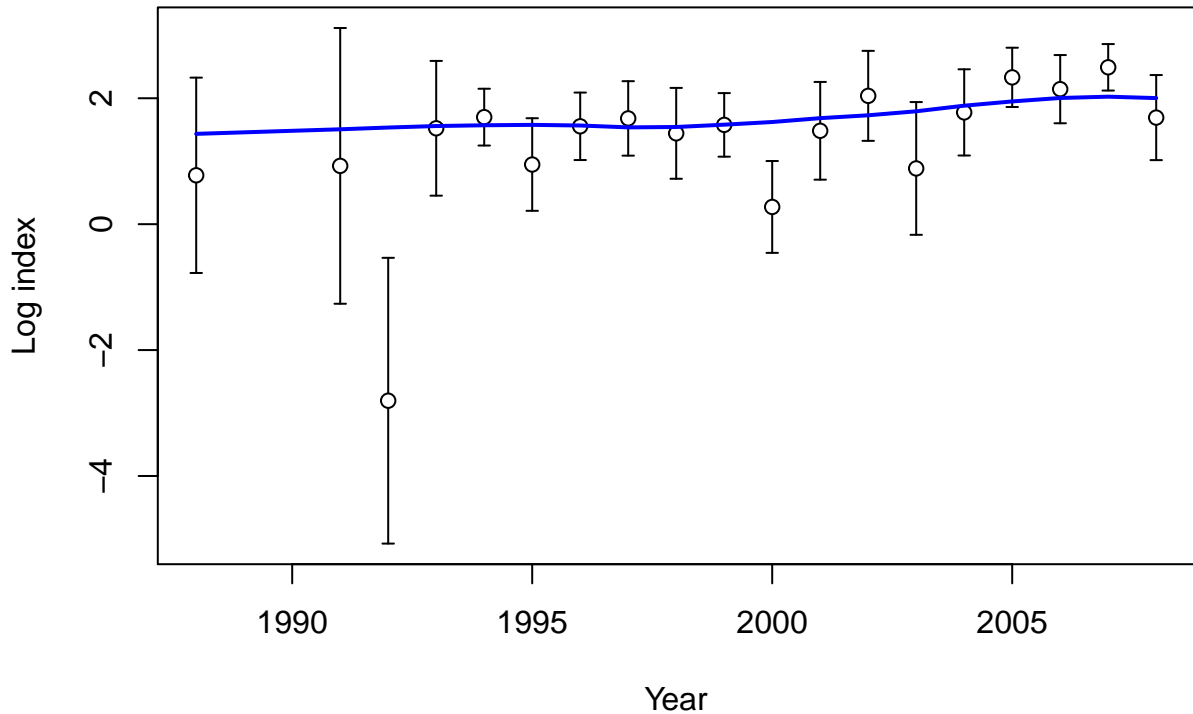




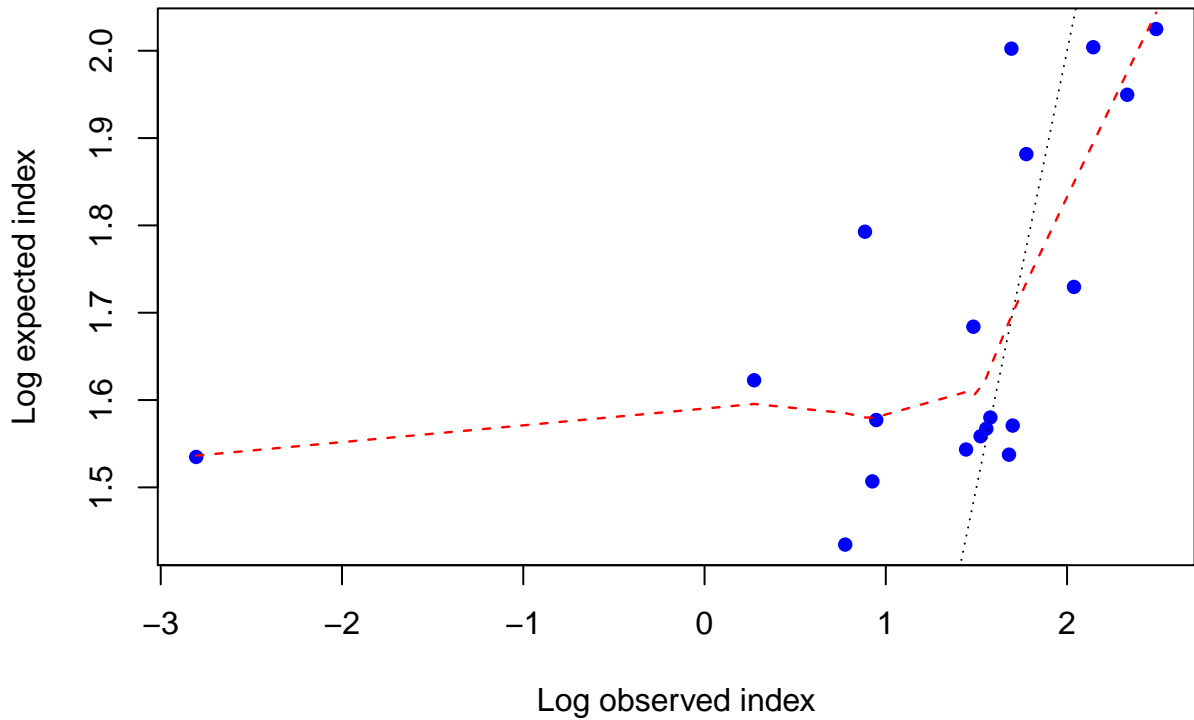


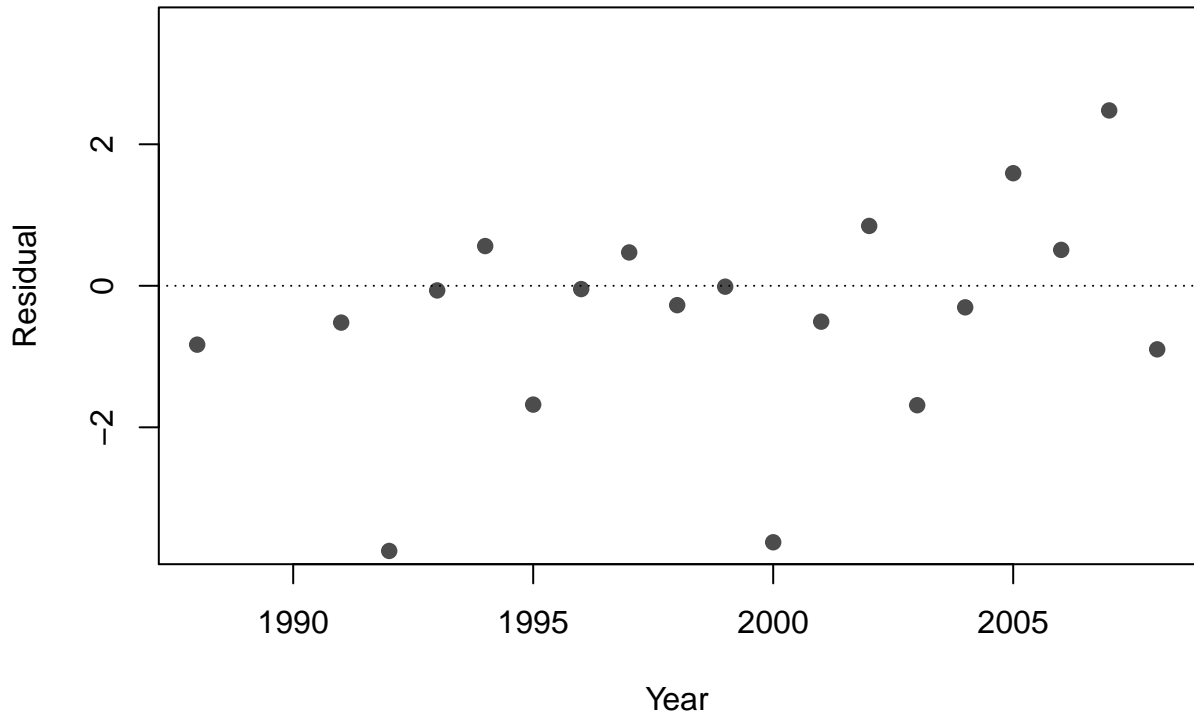


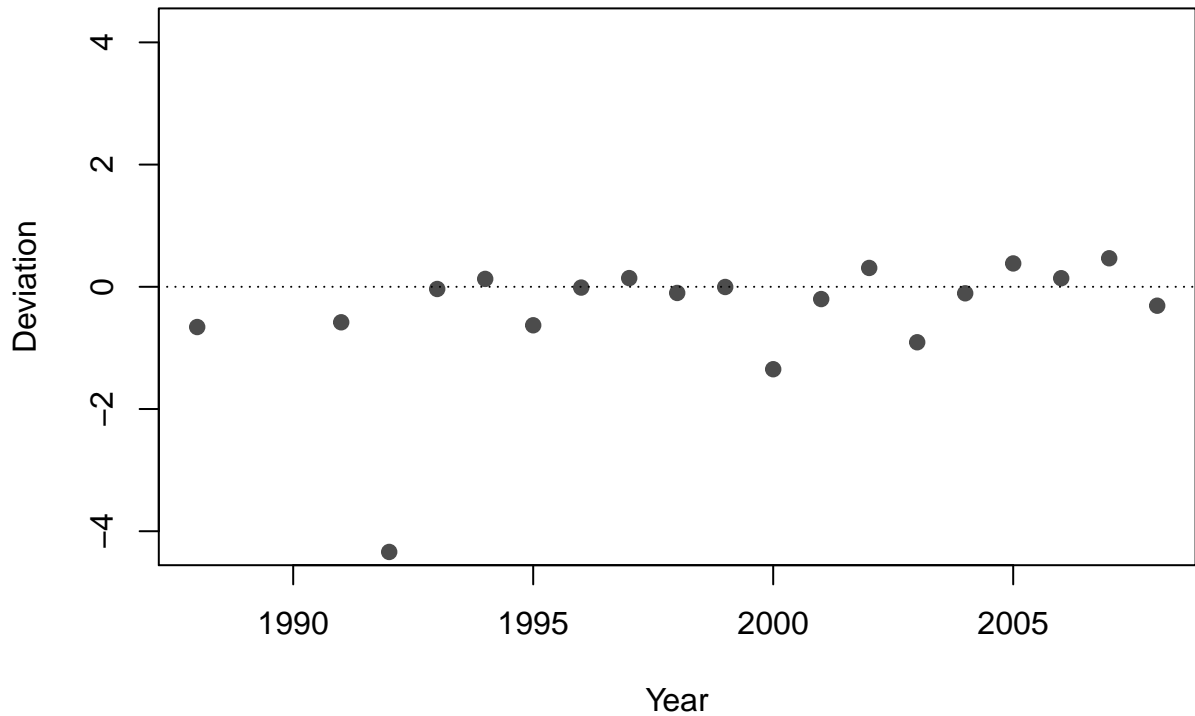




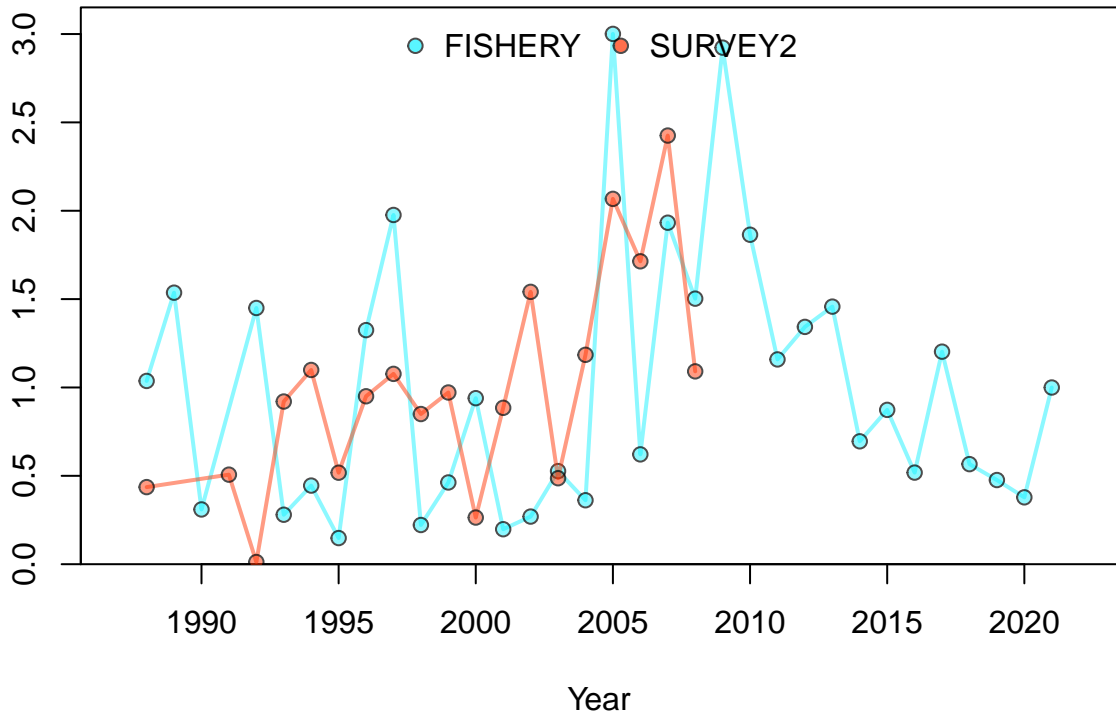


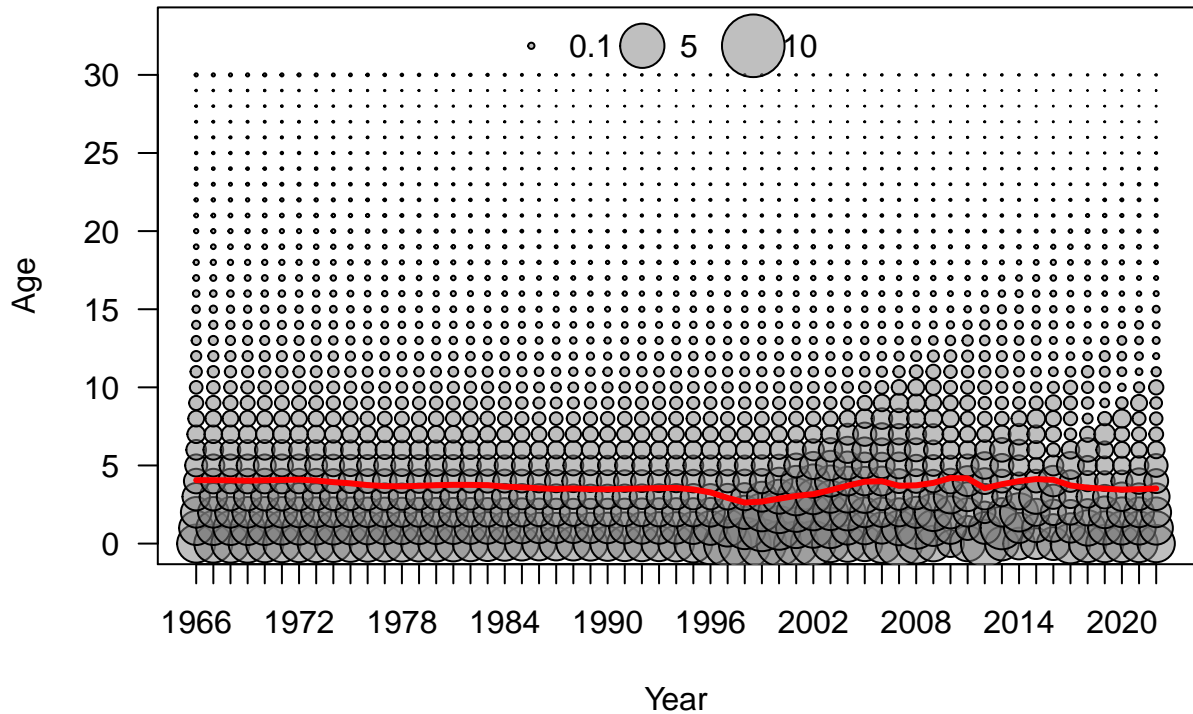


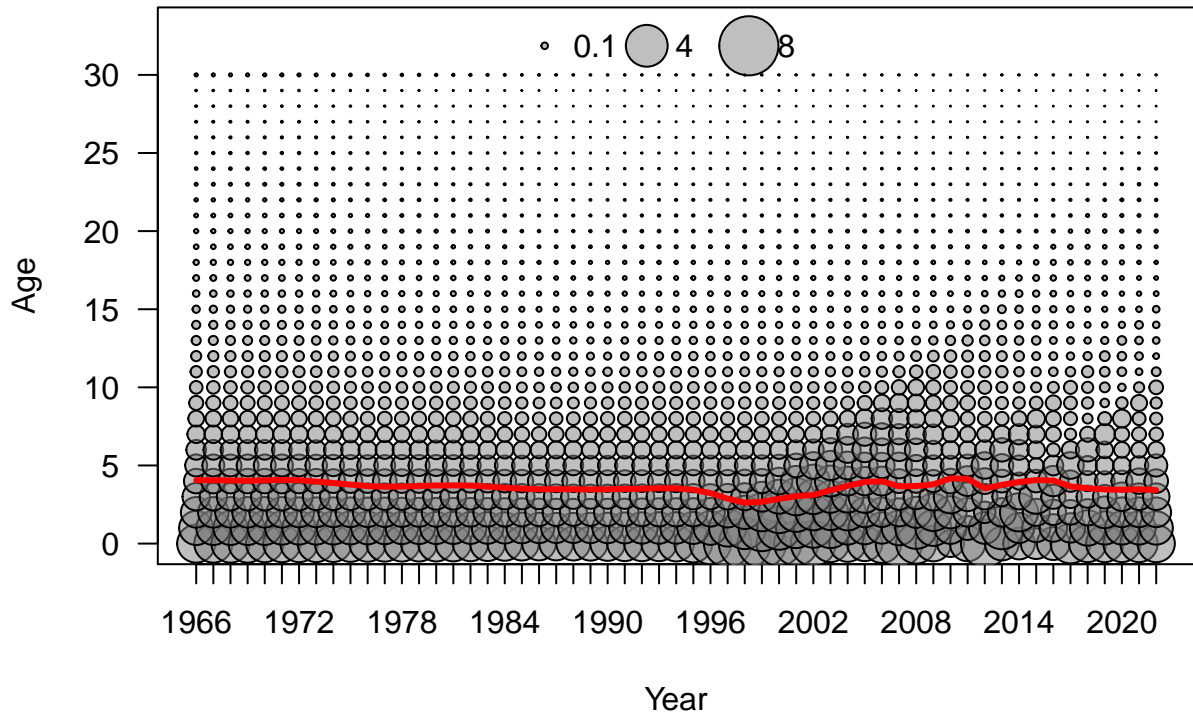




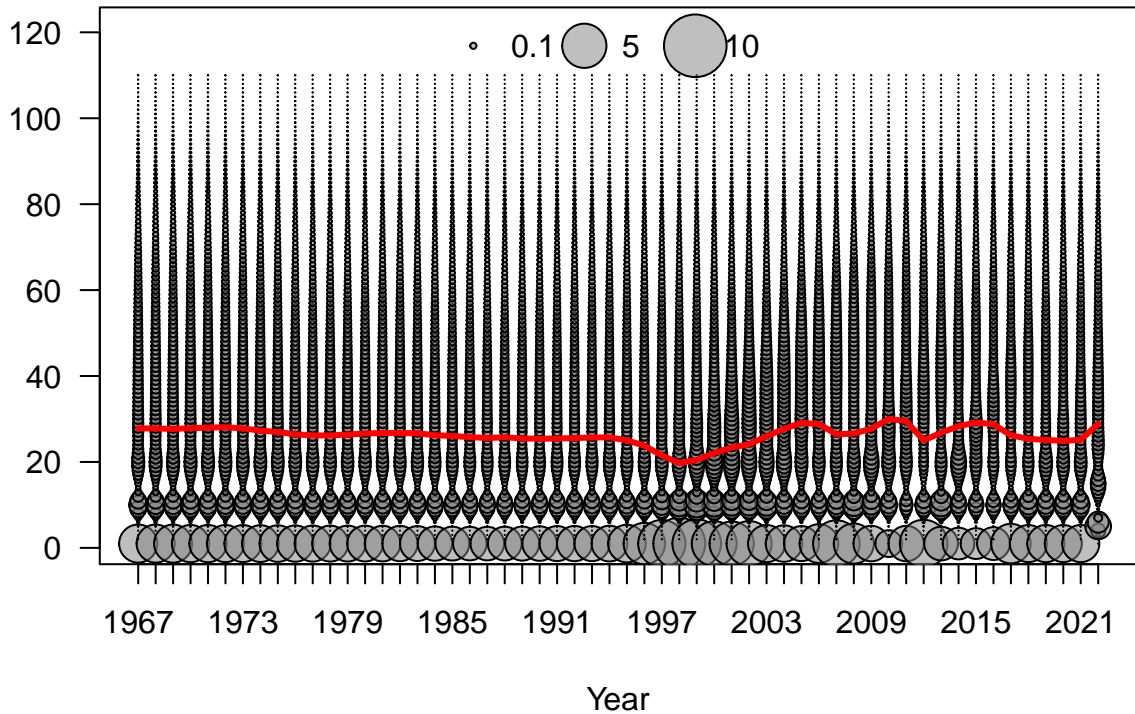
Standardized index

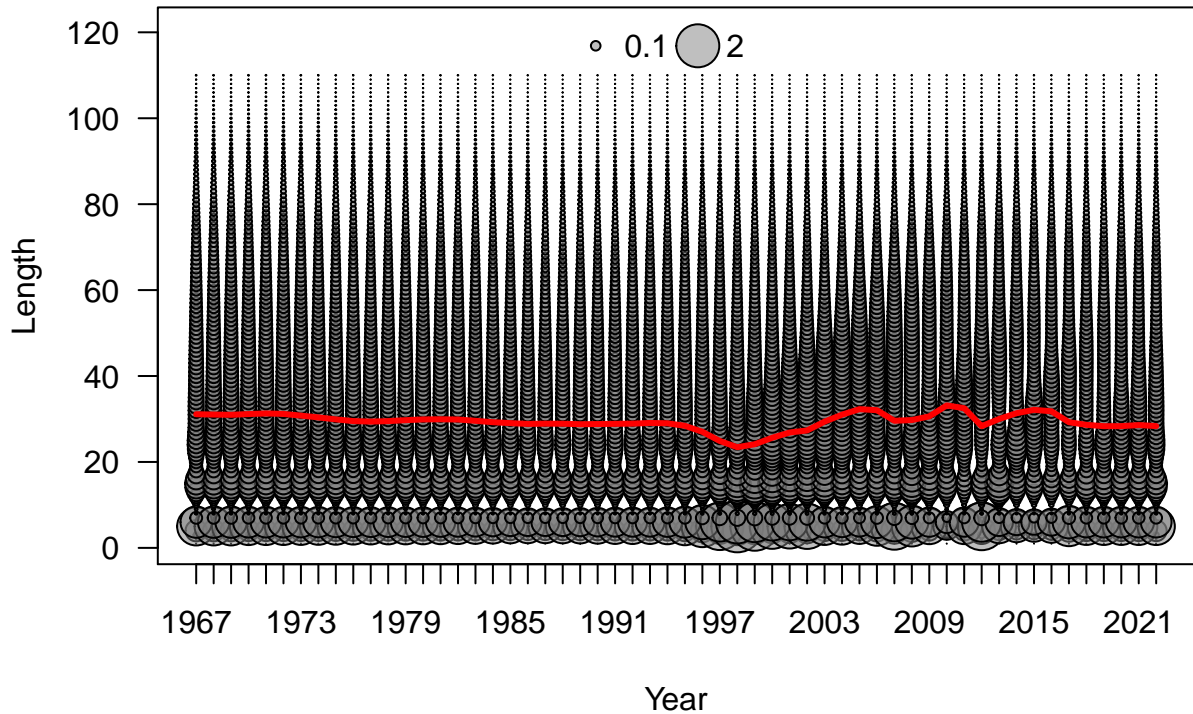




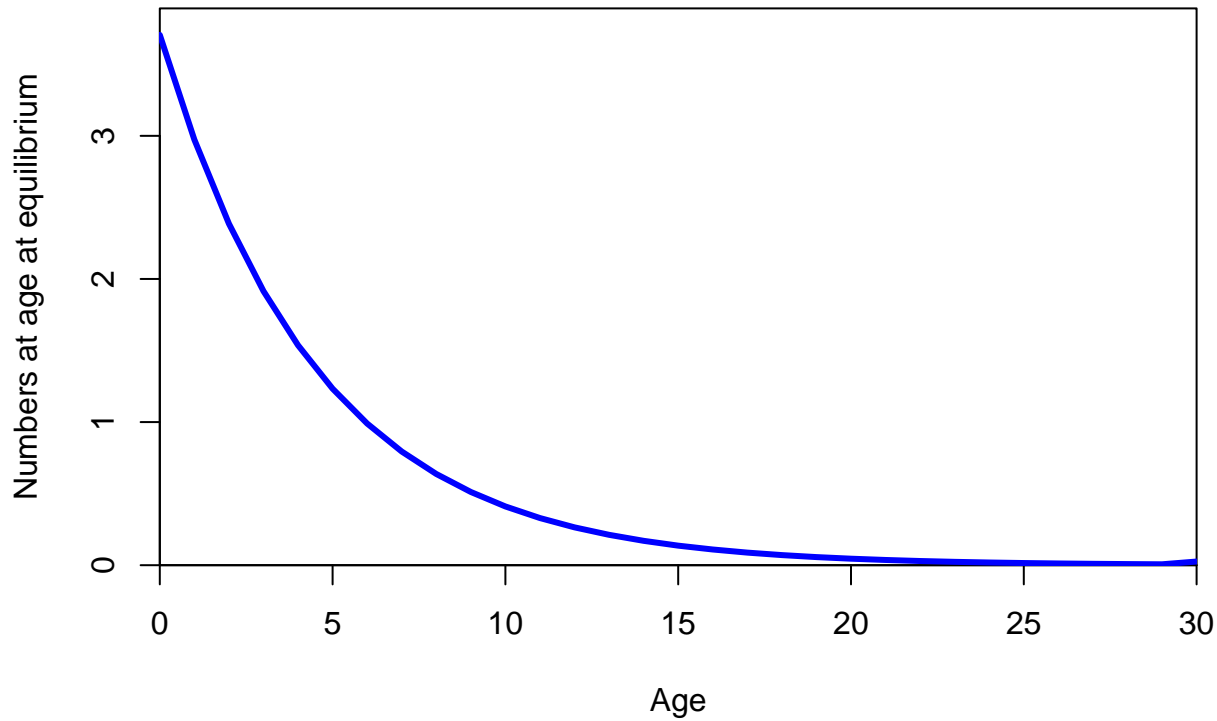


Length



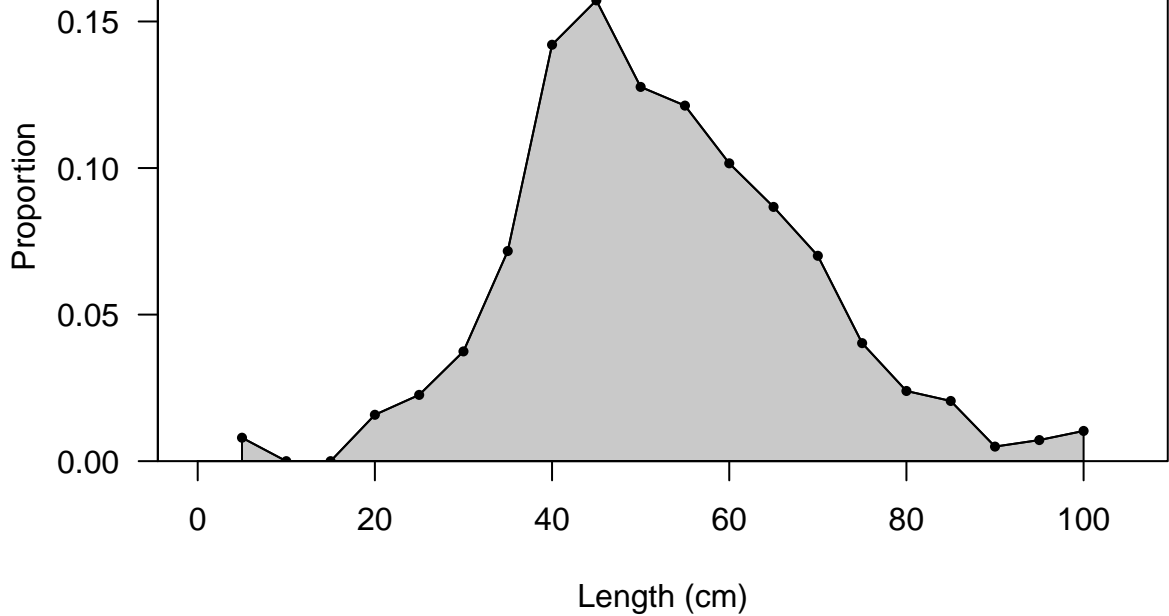


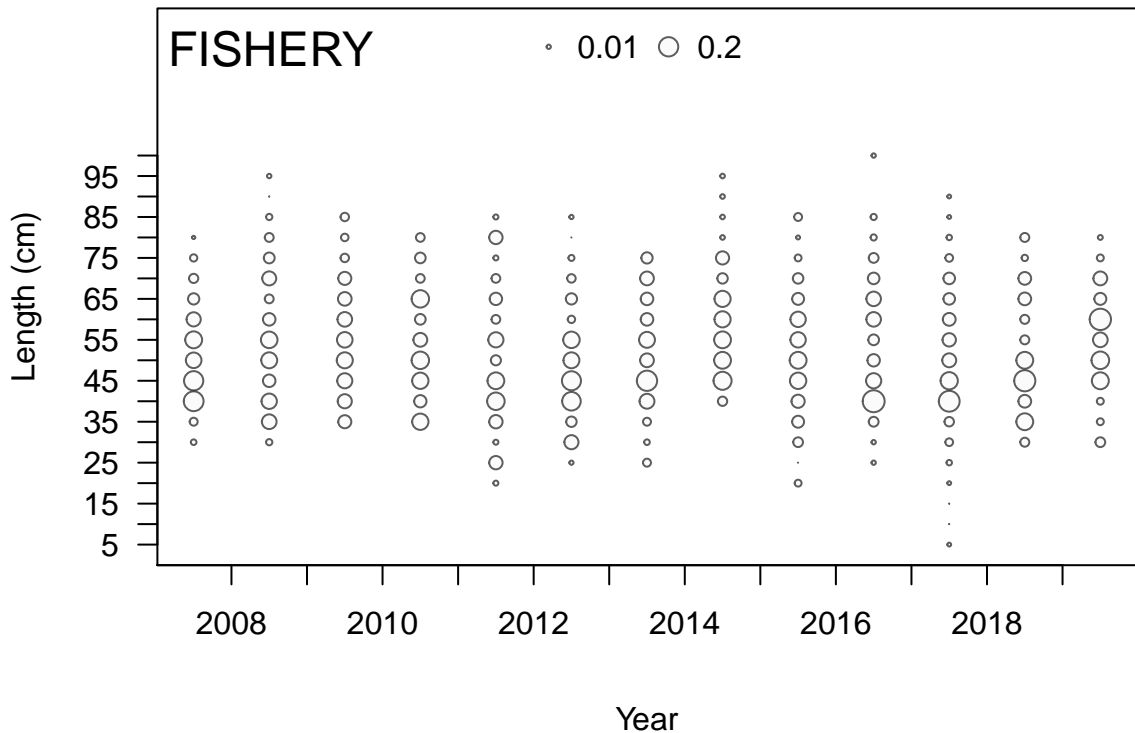




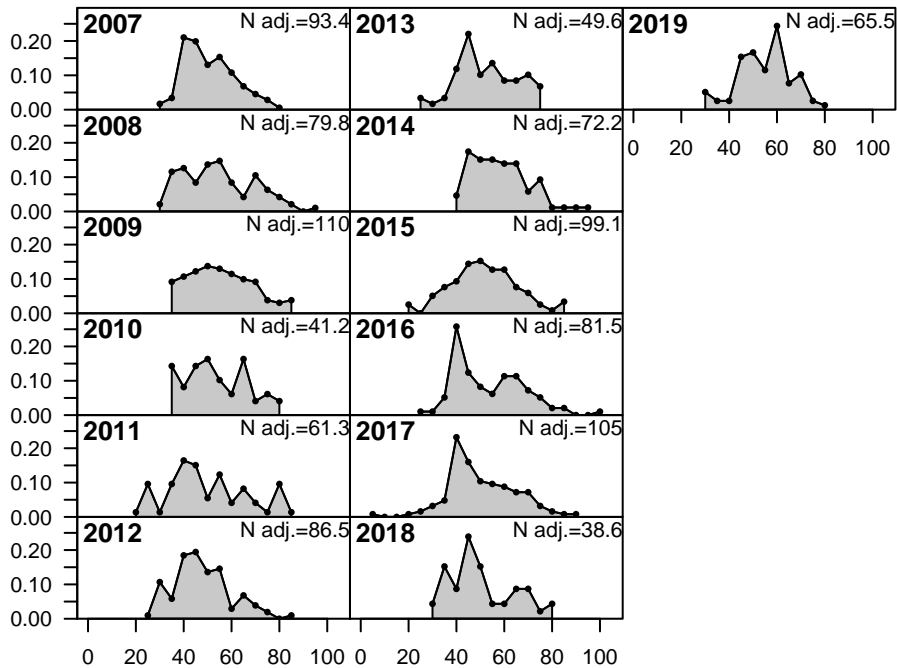
**FISHERY**

Sum of N adj.=983.8

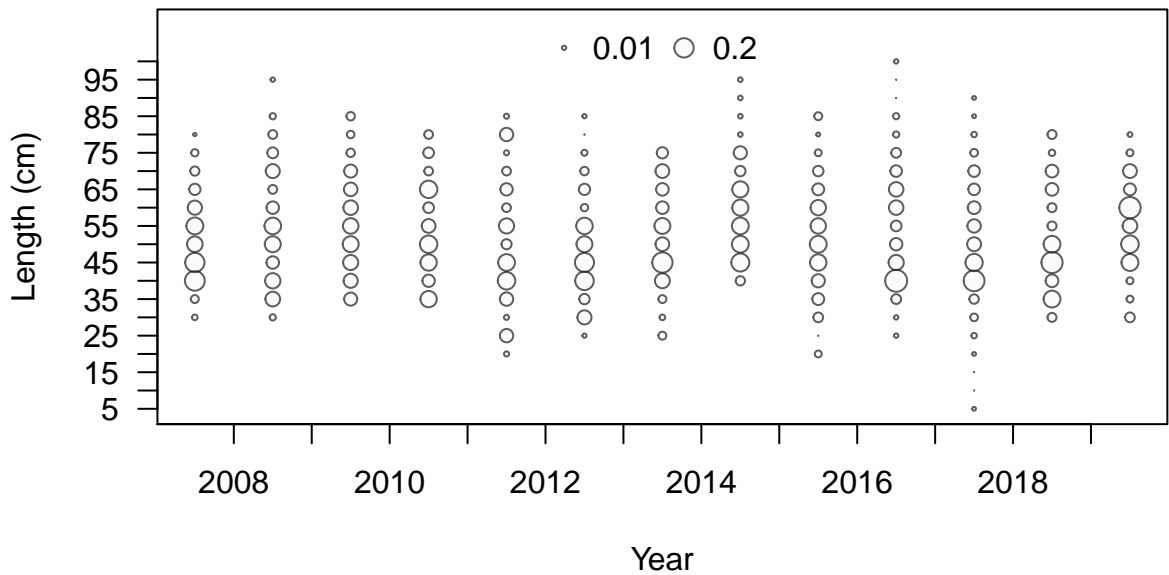




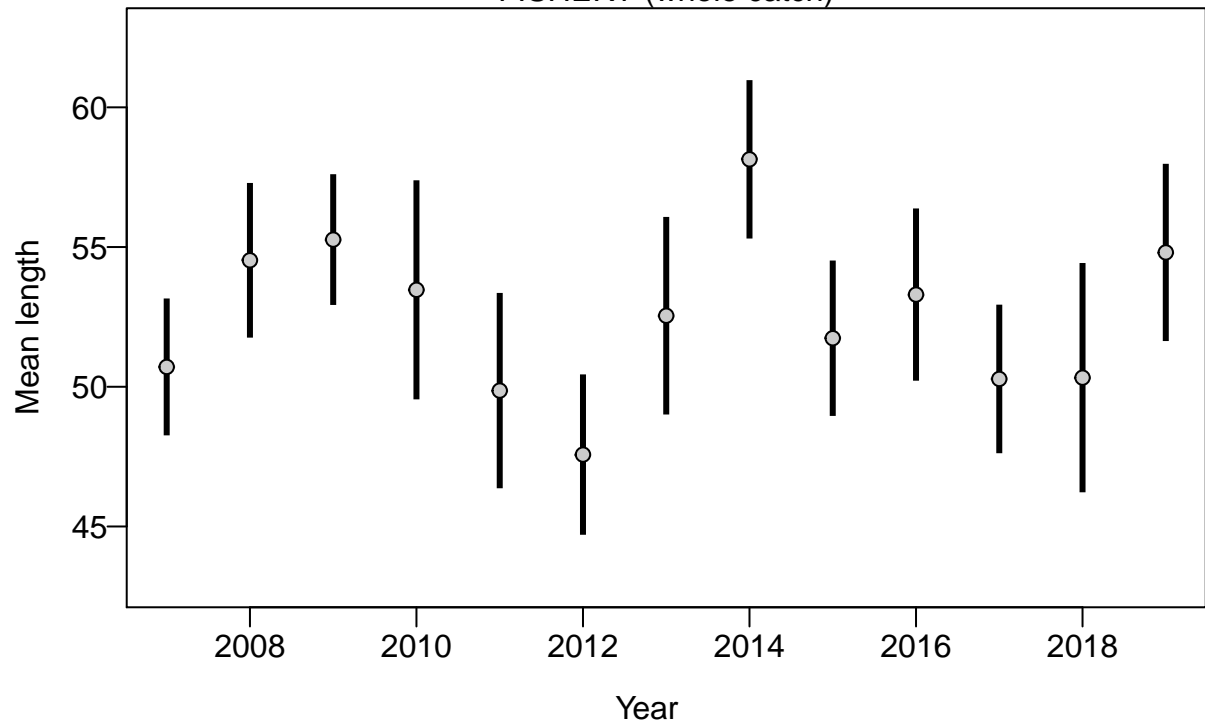
Proportion



Length (cm)

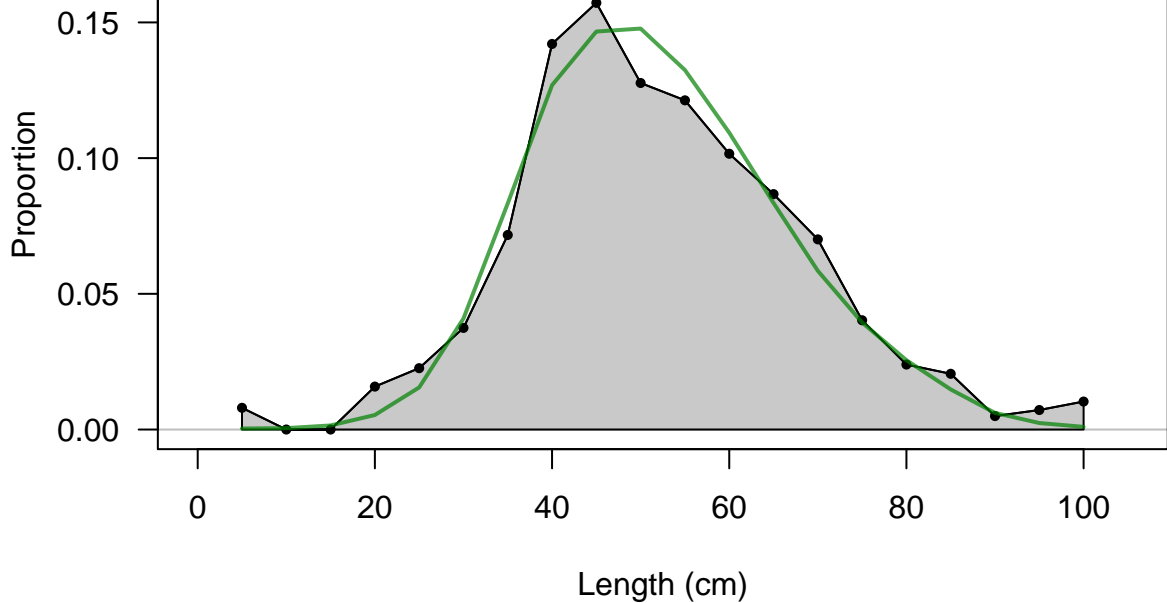


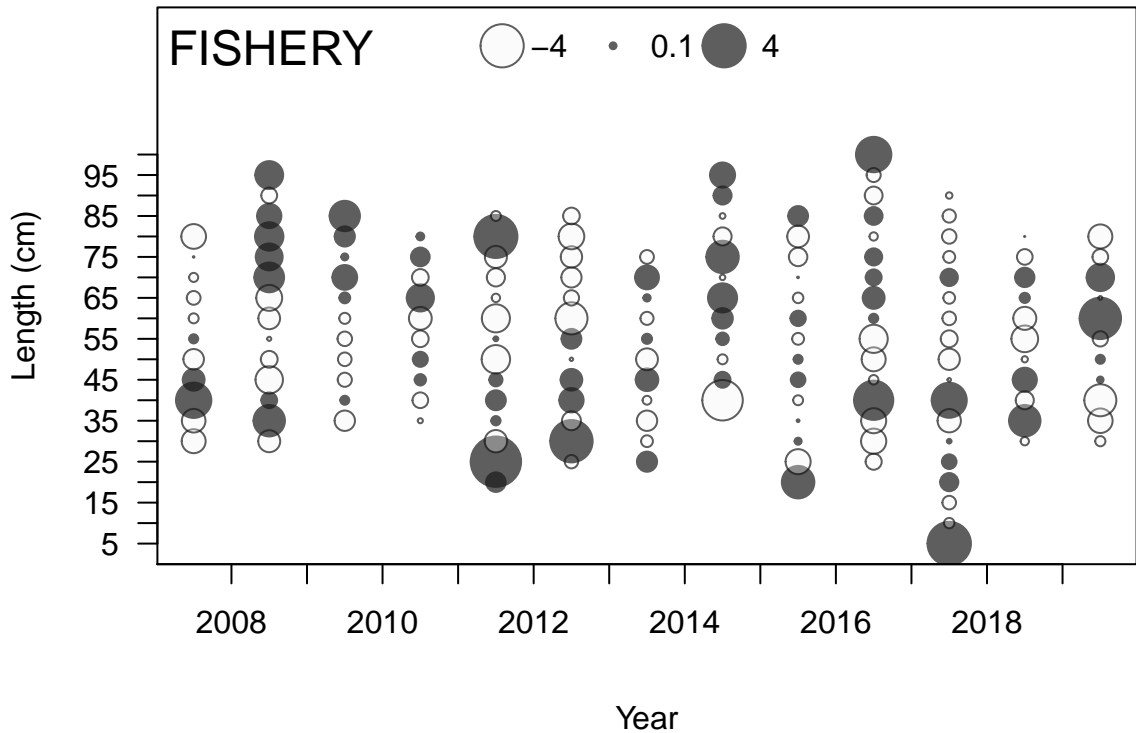
FISHERY (whole catch)



# FISHERY

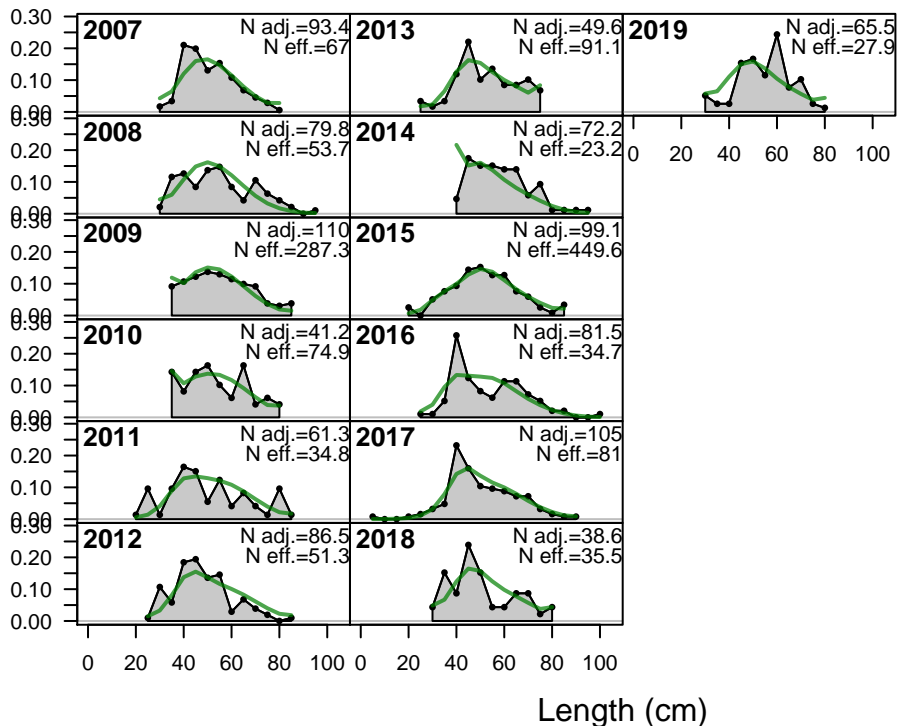
Sum of N adj.=983.8  
Sum of N eff.=1311.9

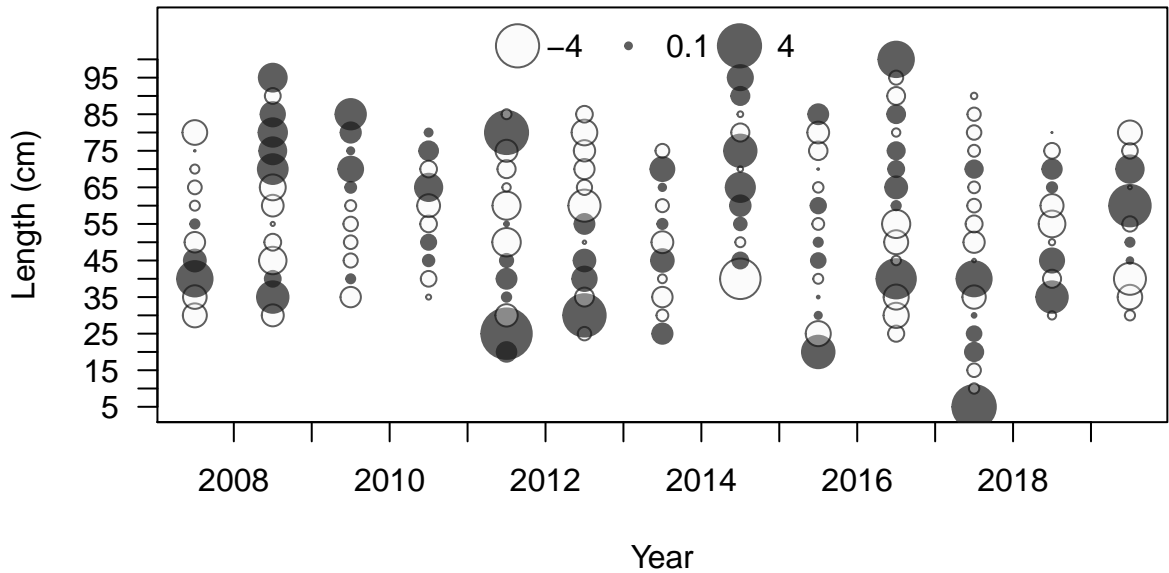


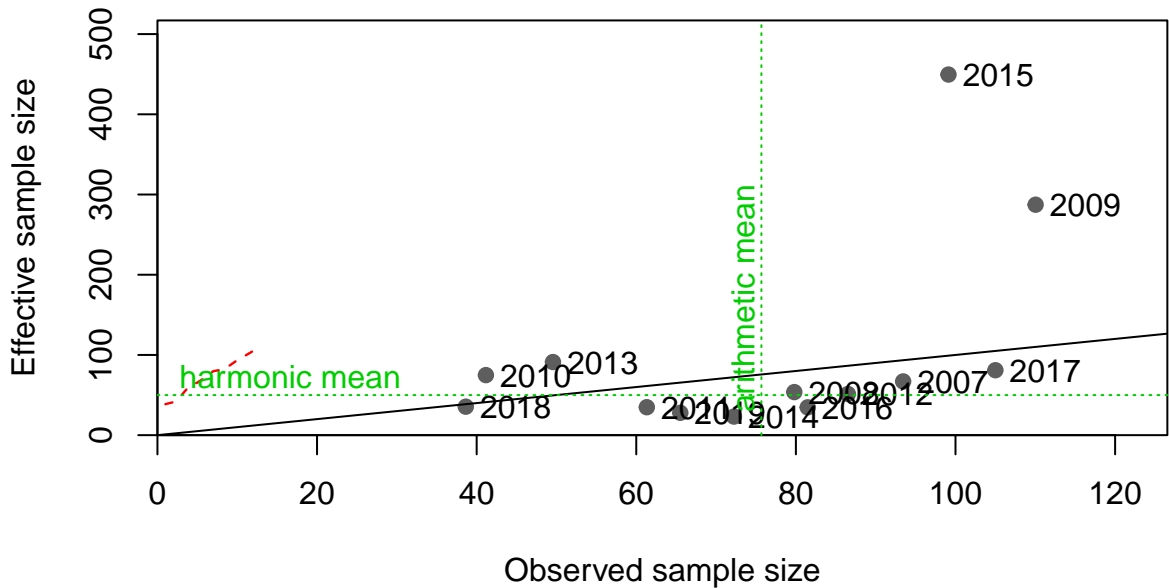




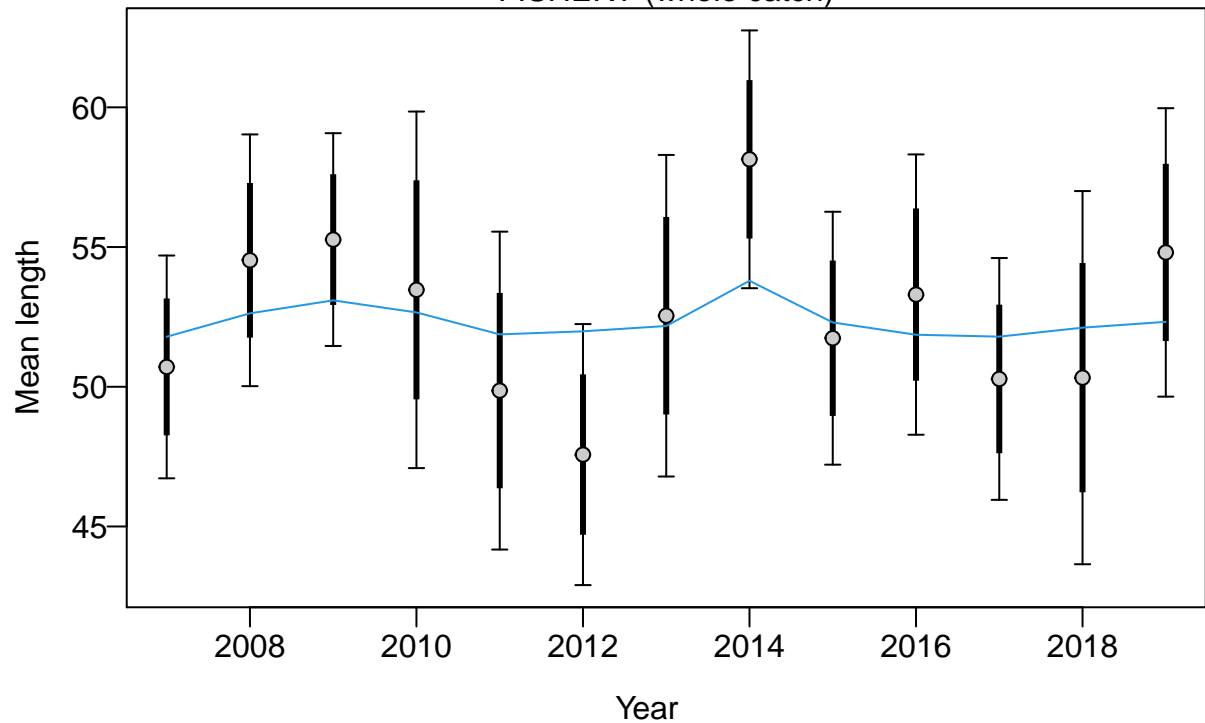
Proportion

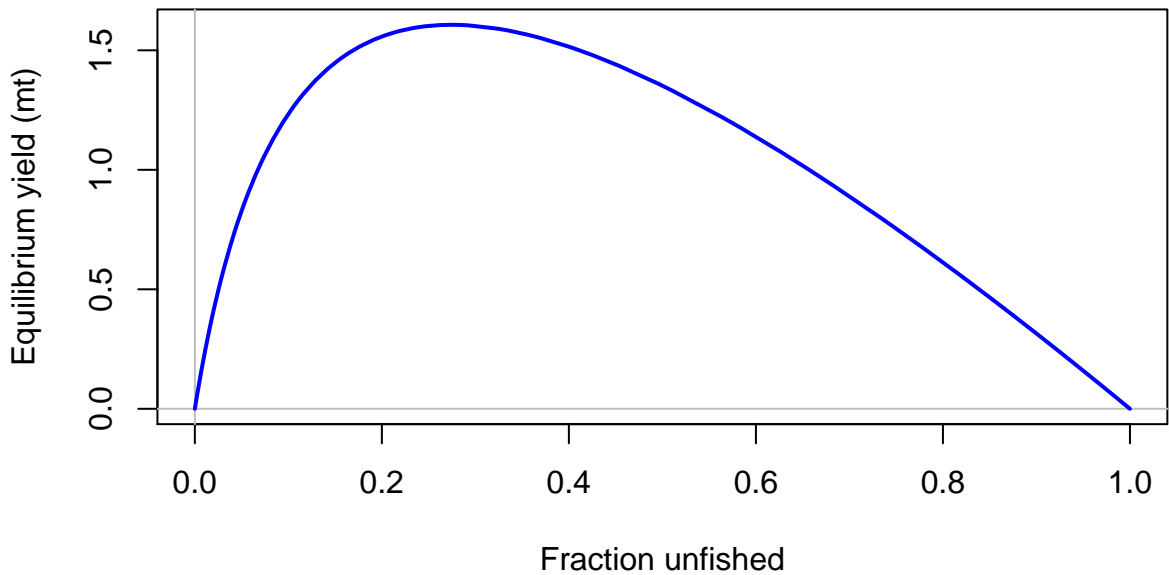


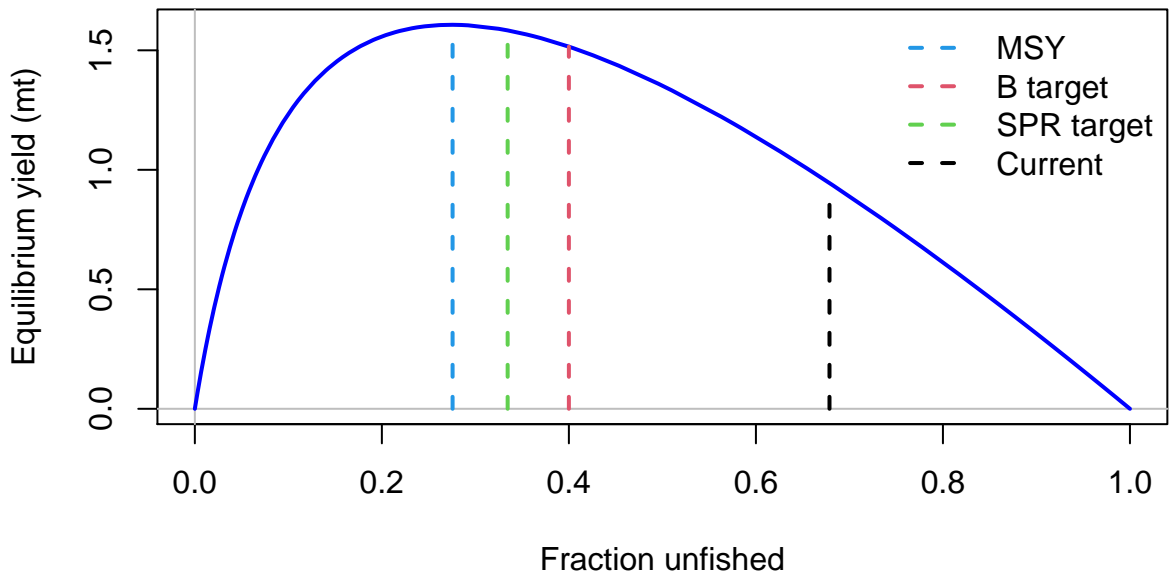


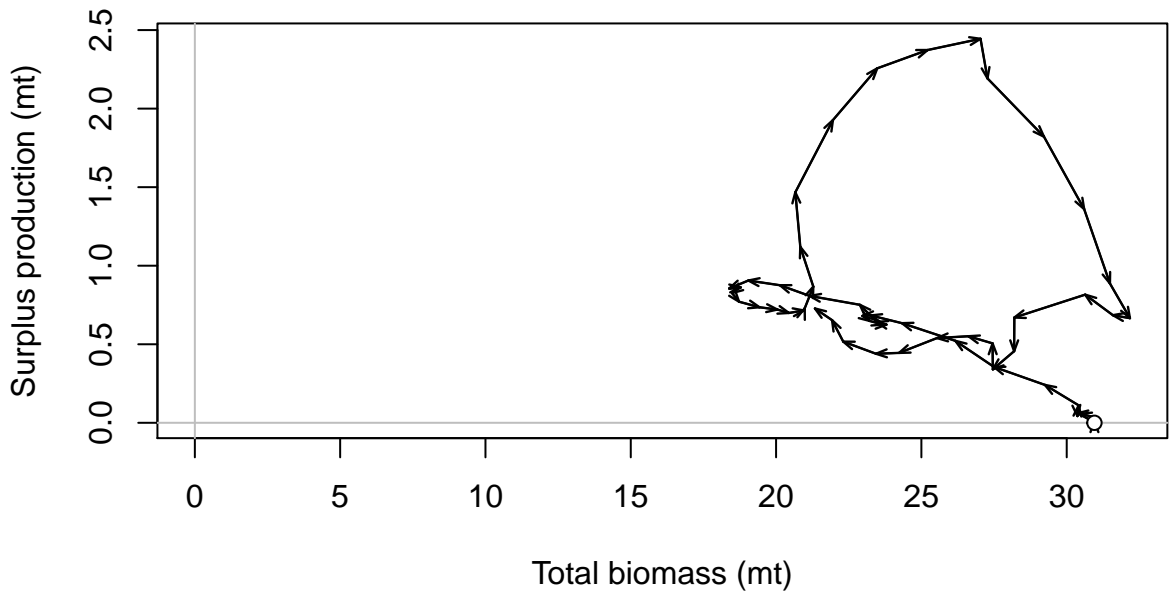


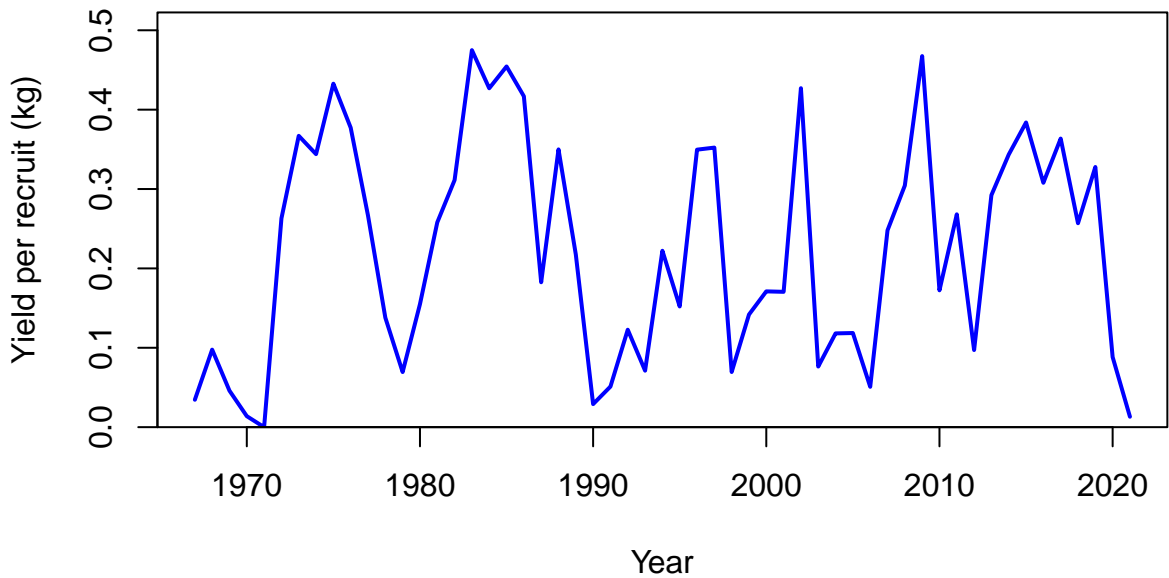
FISHERY (whole catch)



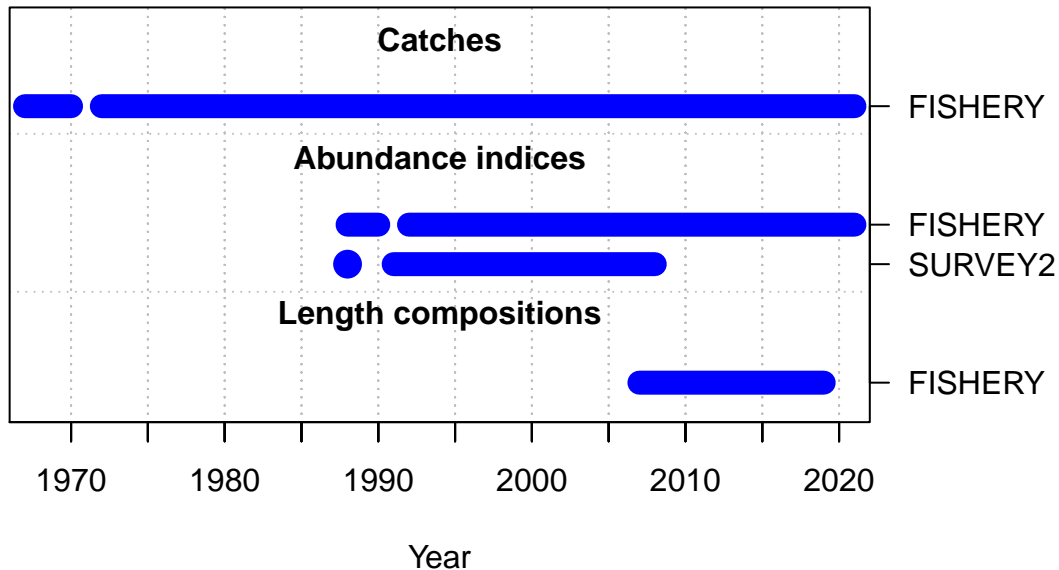


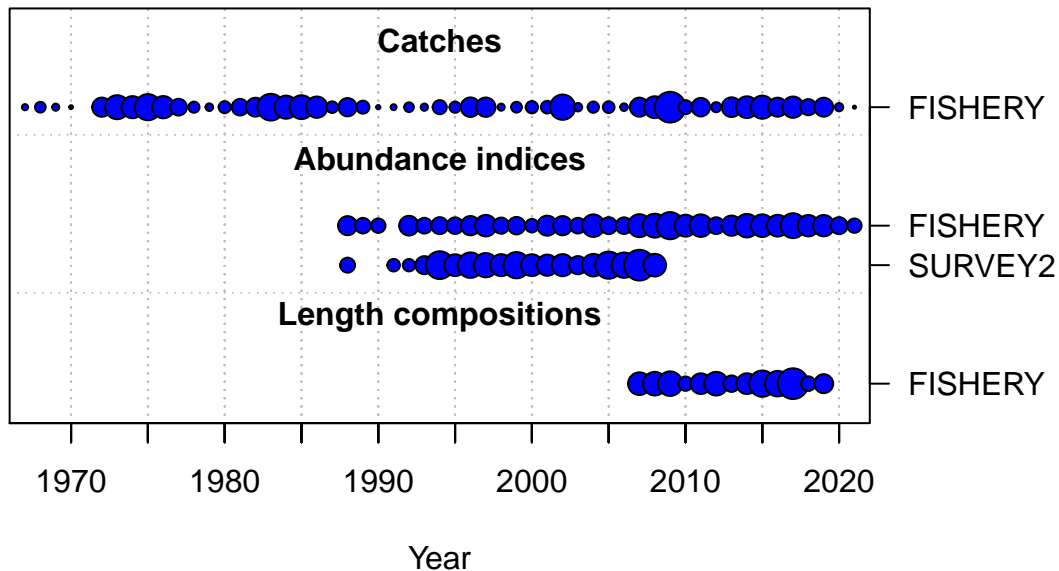




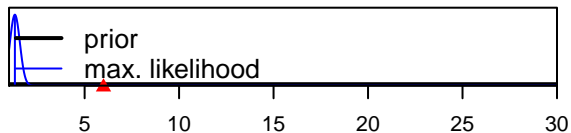




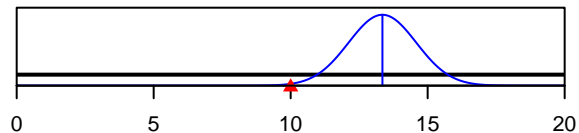




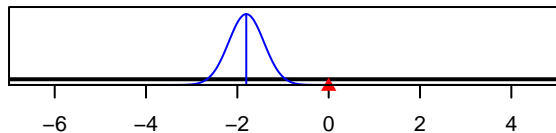
SR\_LN(R0)



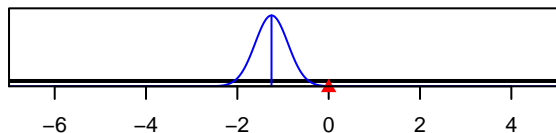
Size\_95%width\_FISHERY(1)



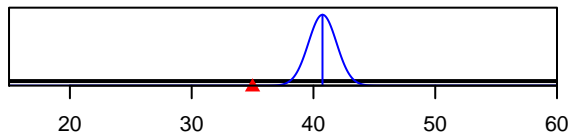
LnQ\_base\_FISHERY(1)



LnQ\_base\_SURVEY2(2)



Size\_inflection\_FISHERY(1)



Parameter value